

A background network diagram consisting of numerous nodes (circles) of varying sizes and colors (light beige, dark brown, and orange) connected by thin, light brown lines. The nodes are distributed across the entire frame, with a higher density on the right side.

PROMPTING AN EOSC IN PRACTICE

Linda Strick
Fraunhofer FOKUS

EOSC Summit - Rules of Participation Workshop, Brussels 11th June 2018

EOSC Business Models, Data Management Policies, Data Security & Legal Issues

16:30 – 17:16

Room 0B

Panelists:

Matthew Scott, Geant

Bob Jones, Cern

Stephan Kuster, Science Europe

Stephane Berghmans, Elsevier

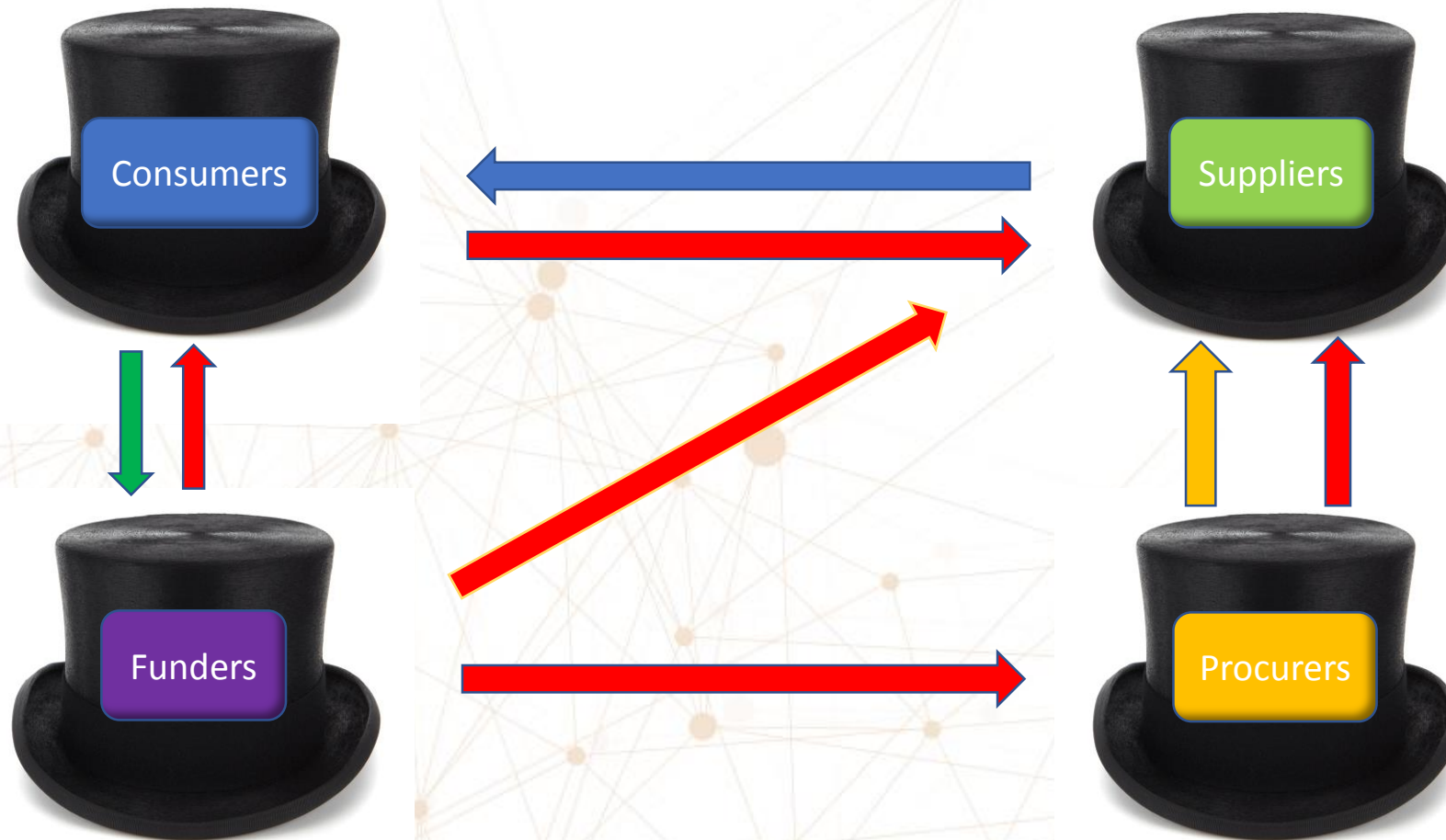
A background network diagram consisting of numerous nodes (circles) of varying sizes and colors (light beige, dark brown, and white) connected by thin, light brown lines. The nodes are distributed across the frame, with a higher density on the right side. The overall effect is a complex, interconnected web of relationships.

PROMPTING AN EOSC IN PRACTICE

Matthew Scott
GÉANT

EOSC Summit - Rules of Participation Workshop, Brussels 11th June 2018

Identify the functions in the EOSC transactions



- » Procurer procures services on behalf of consumers
- » Suppliers supplies consumers
- » Funders funds consumers/procurers to pay suppliers or pays them directly
- » More than one role per stakeholder is possible

Incentivise a sustainable Business Model

- Identify and maximise the motivations of the stakeholders
 - Eg Funding, ease of use for consumer
- Identify and minimise the barriers for the stakeholders
 - Eg Transaction time / overhead/ procurement regulations
- Find balance between opposing incentives
 - Suppliers should be Compensated v's free at point of use?

Drivers/Incentives must be greater than Barriers!

GEANT's experience and lessons learned

- Cost sharing model for GEANT's core services
 - Distributed 'Inverted pyramid' model: **Institutes ↔ NRENs ↔ GEANT ↔ NRENs ↔ Institutes**
 - Combines EC and National funding
 - Inter stakeholder relationship and governance has to be considered
 - Community decision and control over procuring agent important for procurement compliance
 - Simple predictable billing (annual commitment/fixed quarterly fees)
- IaaS
 - Procuring on behalf of a stakeholder group
 - Pre-existing relationship between procuring 'agent' and consumer
 - Works for commercial service providers and consumers (aggregating demand=discounted prices)
 - Usage based billing between commercial provider and institute or NREN

A successful business model must facilitate and encourage consumption and supply and should:

- Understand the transaction flows of funding and consumption
 - Who is using/providing the resources
 - Where the money comes in and goes out
- Have clear framework/rules
 - Lightweight as possible, avoiding bureaucracy but
 - legally compliant across multiple jurisdictions
- Be simple to operate within
 - easily adoptable,
 - trusted/reliable
 - financially robust and adaptable to different requirements
 - flexible funding models

A complex network diagram with numerous nodes of varying sizes and colors (orange, brown, grey) connected by thin lines, creating a dense web of connections. The nodes are scattered across the slide, with a higher concentration on the right side.

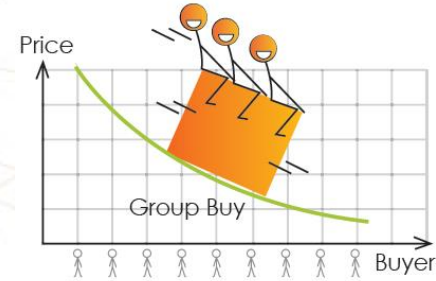
PROMPTING AN EOSC IN PRACTICE

Bob Jones
CERN

EOSC Summit - Rules of Participation Workshop, Brussels 11th June 2018



Business models

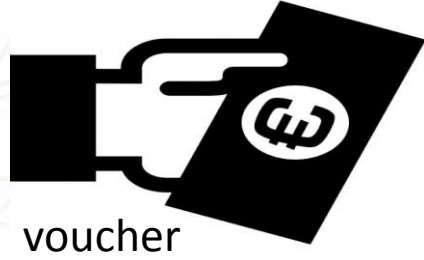


Pay-as-You-Go

- Pay only for services consumed
Adjusts to business requirements
No commitment
- Higher price
Expenses can be unpredictable

Term Subscription

- Discounted pricing/improved ROI
Predictable expense
- Payment upfront
Committed to a specific term
Properly scope and forecast requirements



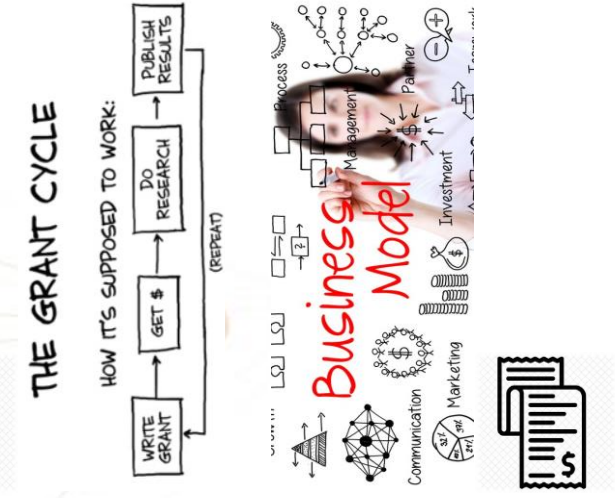
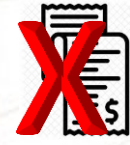
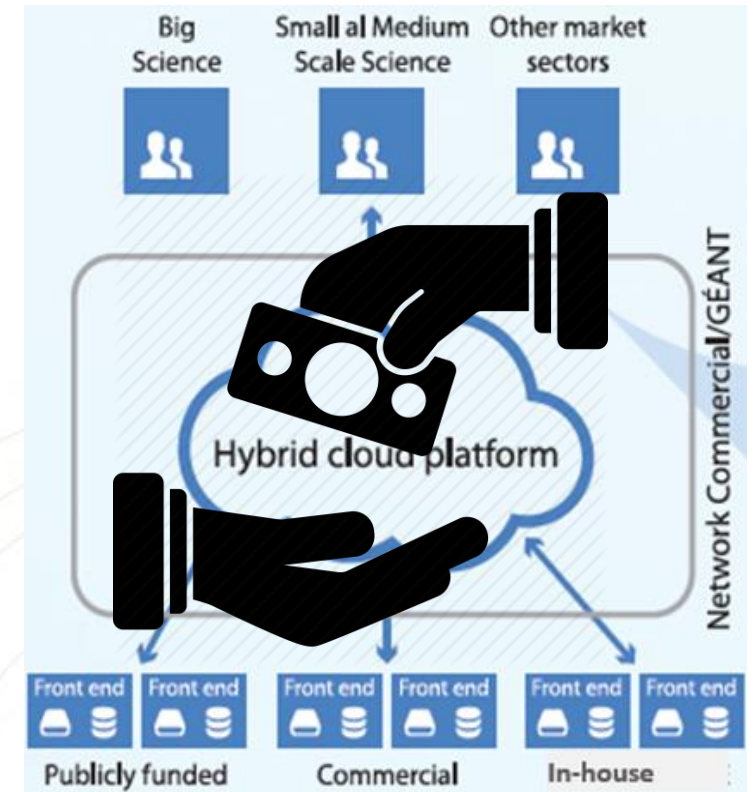
For long tail of science,
new & exploratory usage,
SLA breach compensation



Data Controller vs.
Data Processor



Need to repatriate data



Live webcast



Helix Nebula Science Cloud
Procurer Hosted event

Hands-on experience with HNSciCloud cloud services

Public session
14 June 2018 @ 9:00 CEST

CERN,
Geneva, Switzerland

www.hnscicloud.eu



www.hnscicloud.eu



Science Europe

Voluntary Alignment of Research Data Management Policies in Europe

EOSC Summit 2018
Brussels, 11 June

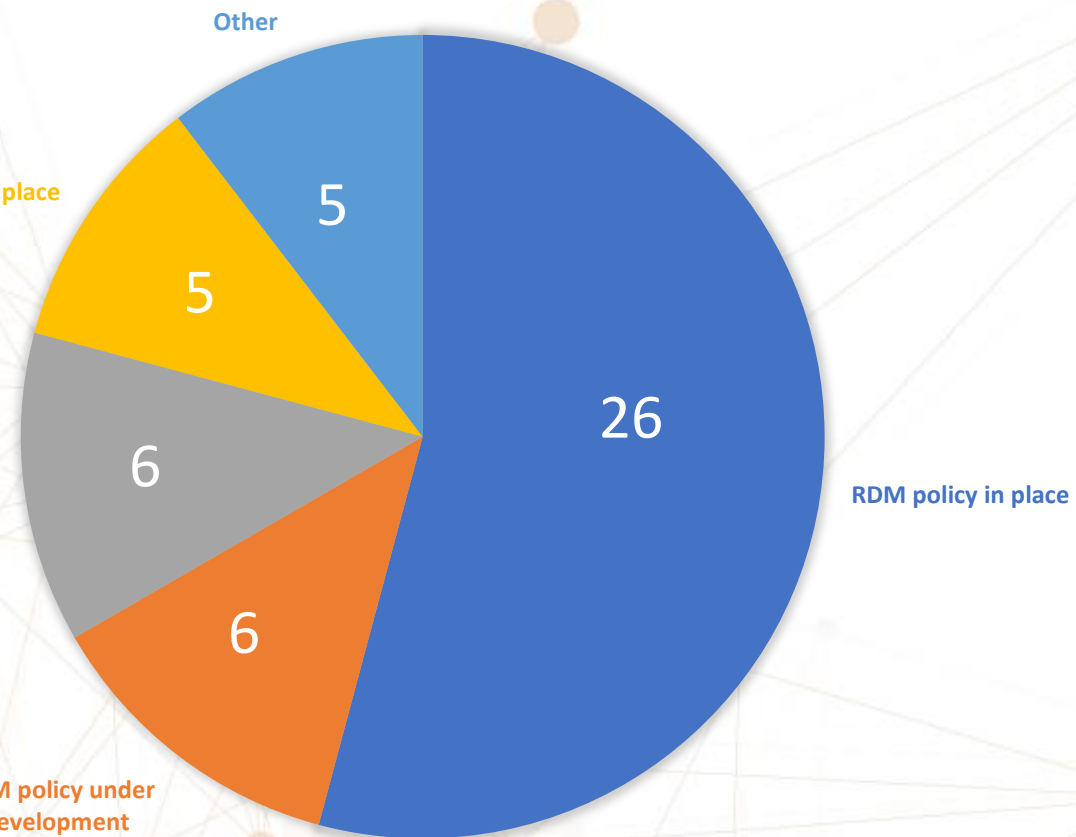
Stephan Kuster
Secretary General, Science Europe

- **Data description and collection or reuse of existing data**
 - What is the type, format and volume of data?
 - How will data be collected, created or reused?
- **Documentation and data quality**
 - What metadata and documentation will accompany data?
 - Will you make sure unique and persistent identifier is in use (e.g. DOI)?
 - What data quality control measures do you use?
- **Storage and backup**
 - How will data be stored and backed up during the research?
 - How will you take care of data security and personal data protection during the research?
- **Ethical and legal compliance, codes of conduct**
 - How will you manage ethical issues and codes of conduct?
 - How will you manage IPR, copyright, ownership and other legal issues?
- **Data sharing and long-term preservation**
 - How and when will you share data (consider licences, data security / protection, possible embargo reasons)?
 - How do you select data for preservation and where data will be preserved long-term (e.g. data repository or archive)?
 - What methods or software tools are needed to access data?
 - Who will be responsible of data management (i.e. data steward)?
 - What are the costs and time needed for data management and making data FAIR?

PROMPTING AN EOSC IN PRACTICE

- **Provision of a persistent and unique identifier (PID)**
 - Identify the dataset
 - Ensure dataset persistence
 - Enable searching and retrieval of datasets
 - Maintain a repository-managed URI associated with each of those PIDs
 - Keep permanent IDs as “tombstones” even if the data have been retracted
- **Metadata**
 - Ensure dataset persistence
 - Enable finding of datasets
 - Provide publicly available and maintained information even for retracted datasets
- **Data access & Usage licenses**
 - Enable access to the dataset under well-specified conditions
 - Ensure dataset stability
 - Enable retrieval of datasets
 - Provide information about licensing and permissions
- **Machine Accessibility**
 - Enable searching (and preferably retrieval) of datasets by automated processes
 - Ensure that at least intrinsic metadata is accessible in a structured and machine- readable form
- **Long-term Preservation**
 - Ensure persistence of metadata and datasets
 - Explain the long-term preservation policies and plans
 - Guarantee the sustainability of a repository

PROMPTING AN EOSC IN PRACTICE

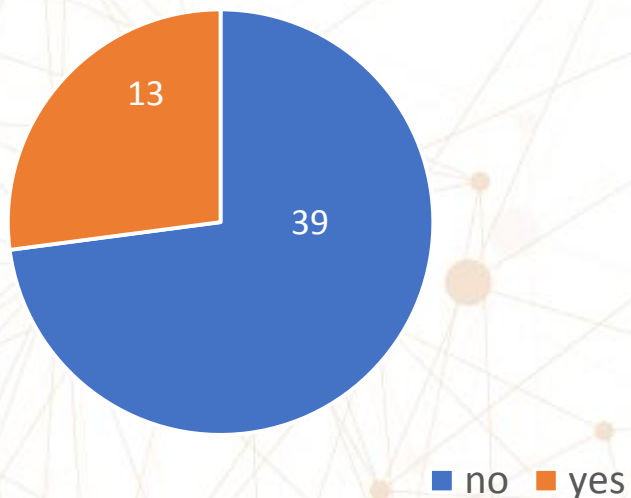


N = 48

PROMPTING AN EOSC IN PRACTICE

Aspects that could

Are there aspects that would seriously refrain your organisation from adopting these requirements?



Reasons:

- Level of detail
- Balance / weighting of requirements not right
- Lack of universal access to repositories
- Lack of human and/or financing sources and/or infrastructures
- Time and effort considerations to create and maintain these requirements
- Overhead of activity needed in the process of the research work to manage these aspects
- Lack of common policies at country level



Open Science Monitor

Tracking trends for open access, collaborative and transparent research across countries and disciplines

Discipline: Engineering, COM, PhD

EOSC Summit, 11 June 2018



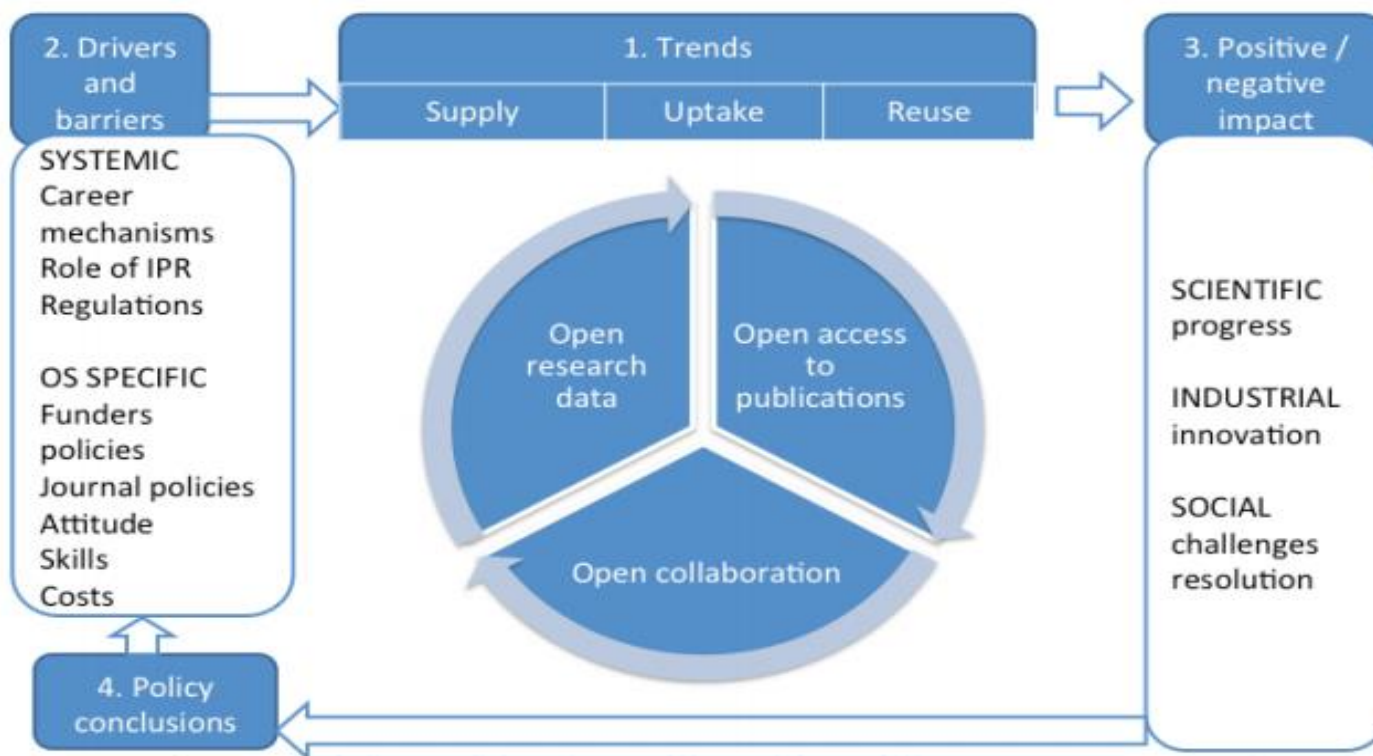
The Open Science Monitor aims to:

- provide data and insight to understand the development of open science in Europe
- gather the most relevant and timely indicators on the development of open science in Europe and other global partner countries

It will also support European Commission initiatives such as the Open Science Policy Platform and the Open Science Cloud.

Objectives

- 1 - **Metrics** on the open science **trends** and their development.
- 2 - **Assessment of the drivers** (and barriers) to open science adoption.
- 3 - **Impacts** (both positive and negative) of open science
- 4 - **Policy conclusions**



Scope

Trends

Categories	Trends
Open access to publications	Green and gold open access adoption (bibliometrics)
	Open access policies (funders and journals)
Open research data	Open data policies (funders and journals)
	Open data repositories
	Open data adoption and researchers' attitudes.

- Entire cycle of the scientific process;
- All research disciplines;
- Geographic coverage: 28 MS and G8 countries;
- Data presented at country level;
- Different types of stakeholders.

Indicators and data sources

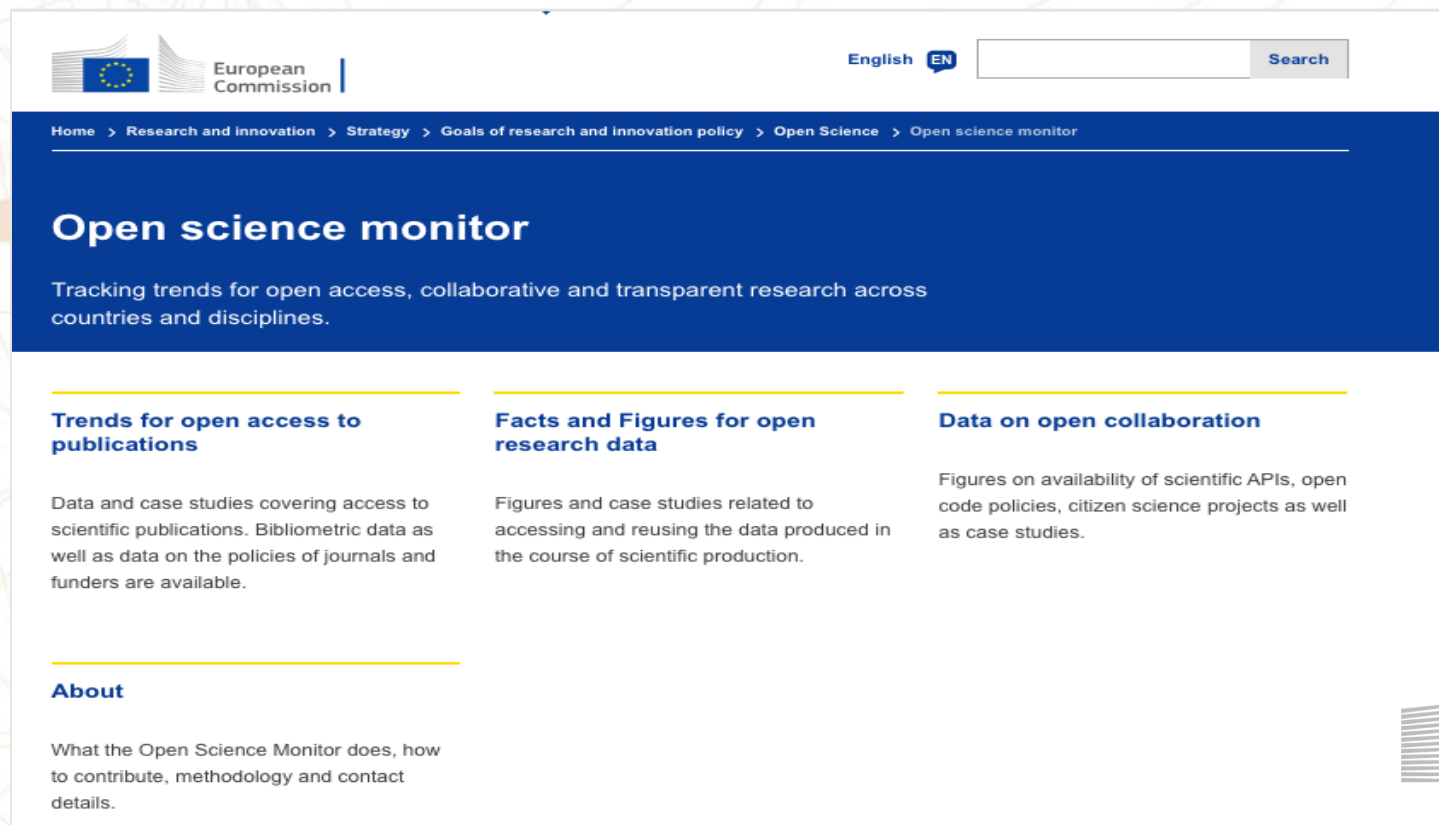
Wide variety of data sources used:

- **Bibliometrics:** for instance, open access to publications indicators, and partially for open data and altmetrics;
- **Online repositories;**
- **Surveys;**
- **Ad hoc analysis in scientific articles or reports;**
- **Data from specific services:** open science services often offer data on their uptake, as for Sci-starter or Mendeley.

Open Science Monitor

Updated indicators published on the EC website:

https://ec.europa.eu/info/research-and-innovation/strategy/goals-research-and-innovation-policy/open-science/open-science-monitor_en



The screenshot shows the top section of the Open Science Monitor website. At the top left is the European Commission logo. To its right is a language selector set to 'English EN' and a search bar. Below this is a breadcrumb trail: 'Home > Research and innovation > Strategy > Goals of research and innovation policy > Open Science > Open science monitor'. The main heading is 'Open science monitor' in white text on a dark blue background, followed by the subtitle 'Tracking trends for open access, collaborative and transparent research across countries and disciplines.' Below this are three columns of content, each with a yellow horizontal line above the heading. The first column is 'Trends for open access to publications', the second is 'Facts and Figures for open research data', and the third is 'Data on open collaboration'. At the bottom left is an 'About' section. The European Commission logo is also present in the bottom right corner of the page.

European Commission

English EN Search

Home > Research and innovation > Strategy > Goals of research and innovation policy > Open Science > Open science monitor

Open science monitor

Tracking trends for open access, collaborative and transparent research across countries and disciplines.

Trends for open access to publications

Data and case studies covering access to scientific publications. Bibliometric data as well as data on the policies of journals and funders are available.

Facts and Figures for open research data

Figures and case studies related to accessing and reusing the data produced in the course of scientific production.

Data on open collaboration

Figures on availability of scientific APIs, open code policies, citizen science projects as well as case studies.

About

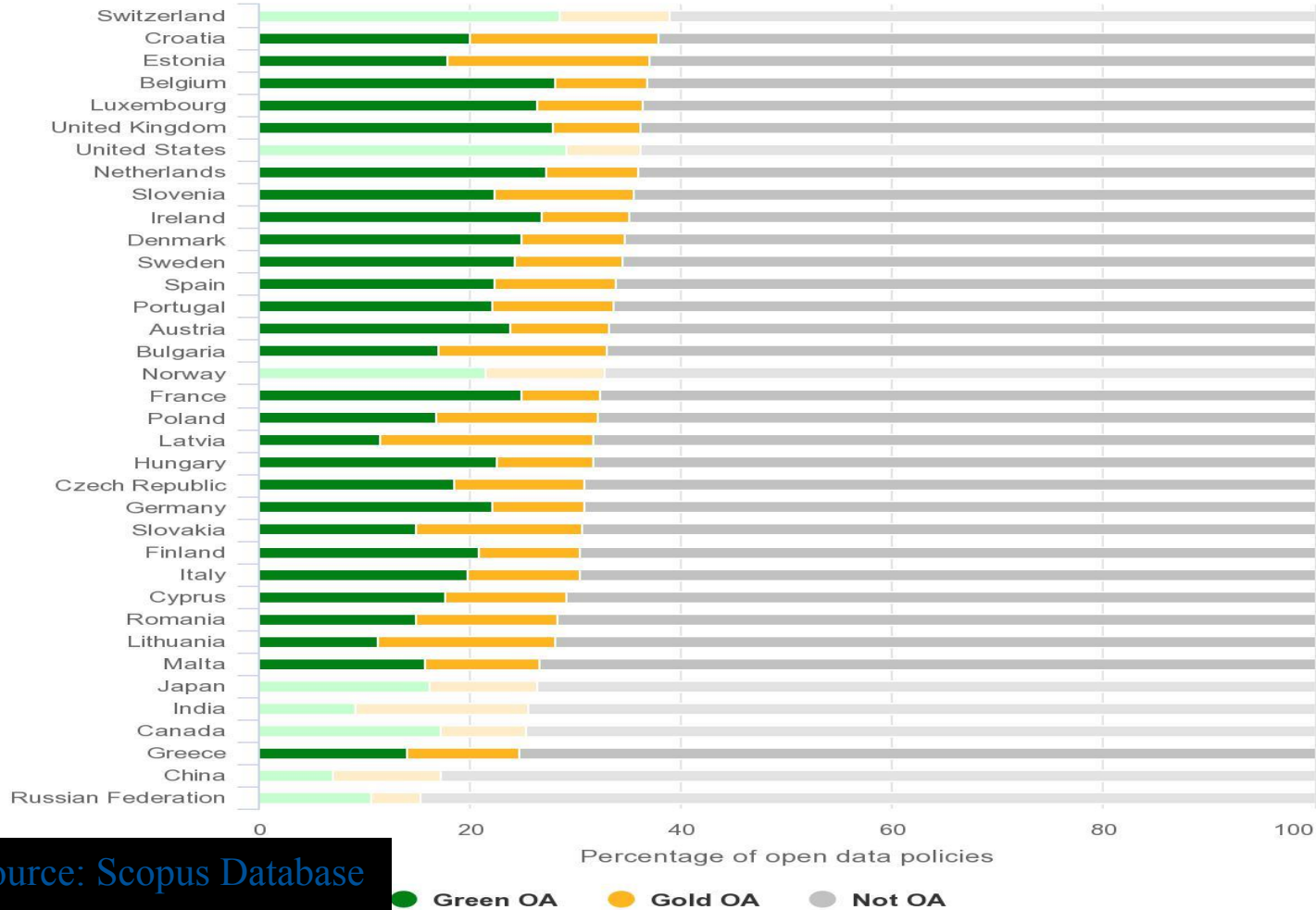
What the Open Science Monitor does, how to contribute, methodology and contact details.

European Commission

Example: Open Access to Publications

Percentage of open access publications (gold and green) by country

Source: Consortium's own analysis of Scopus database - Reference date: April 30th 2018

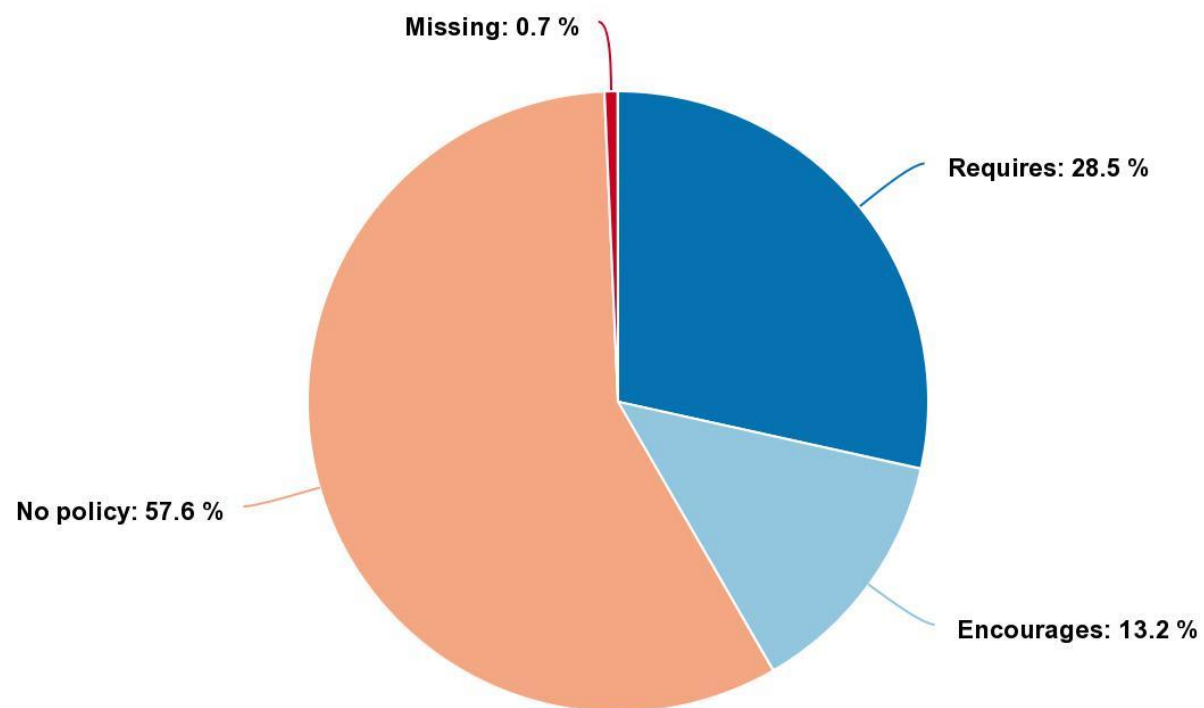


Source: Scopus Database

Example: Open Research Data

Number of open data policies, by type of mandate

Source: Sherpa-Juliet - Reference date: April 15th 2018

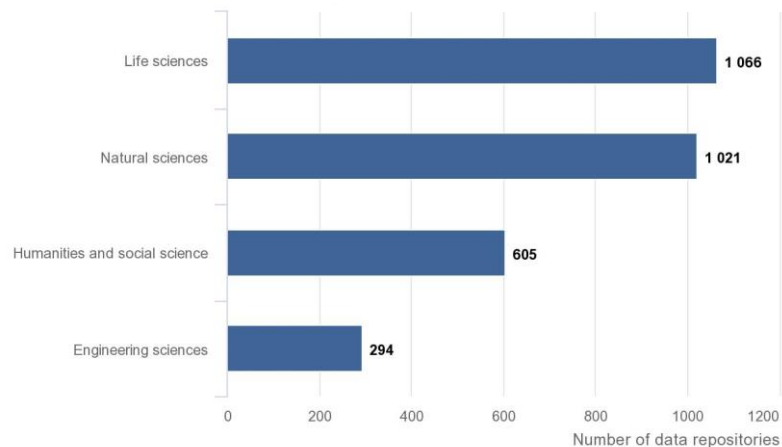


Source: Sherpa-Juliet database

Example: Open Research Data

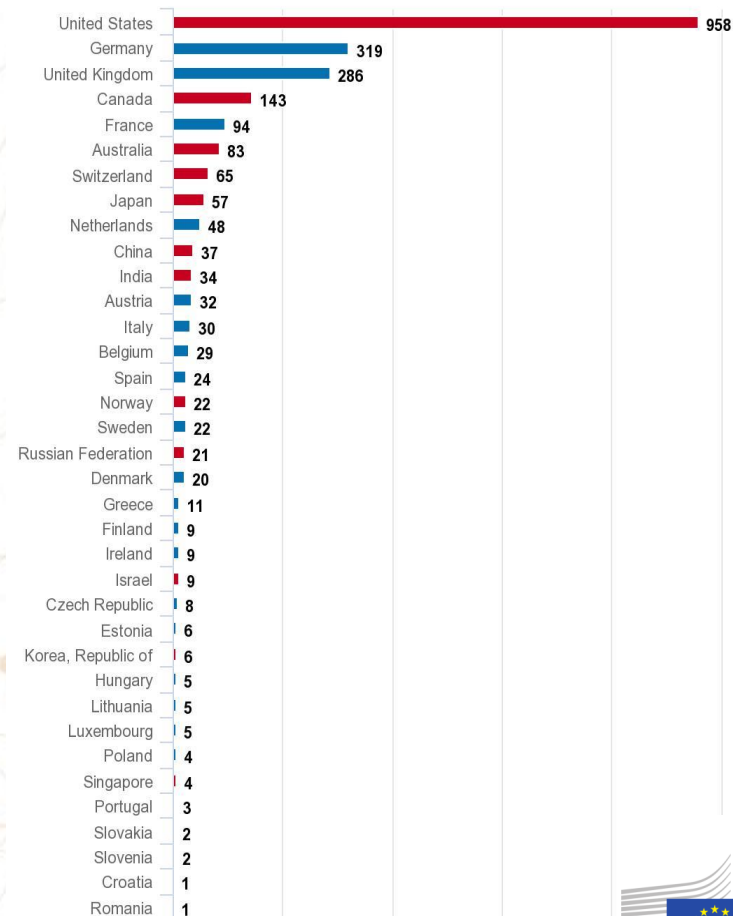
Number of data repositories, by subject

Source: re3data.org - Reference date: April 15th 2018



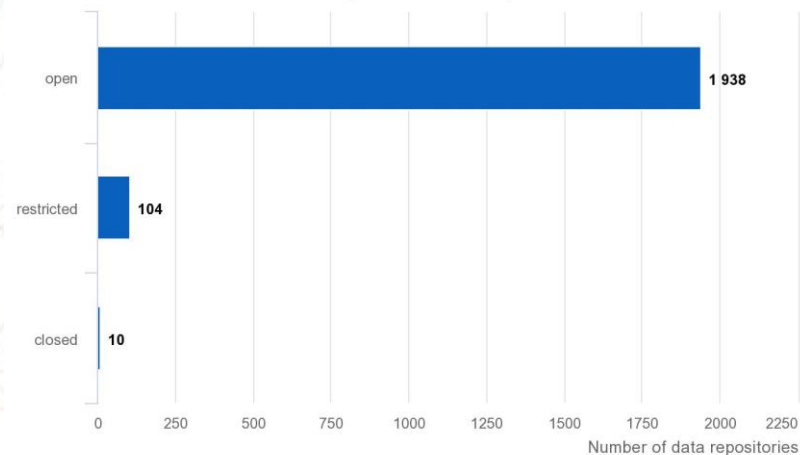
Number of data repositories, by country

Source: re3data.org - Reference date: April 15th 2018



Number of data repositories, by type of database access

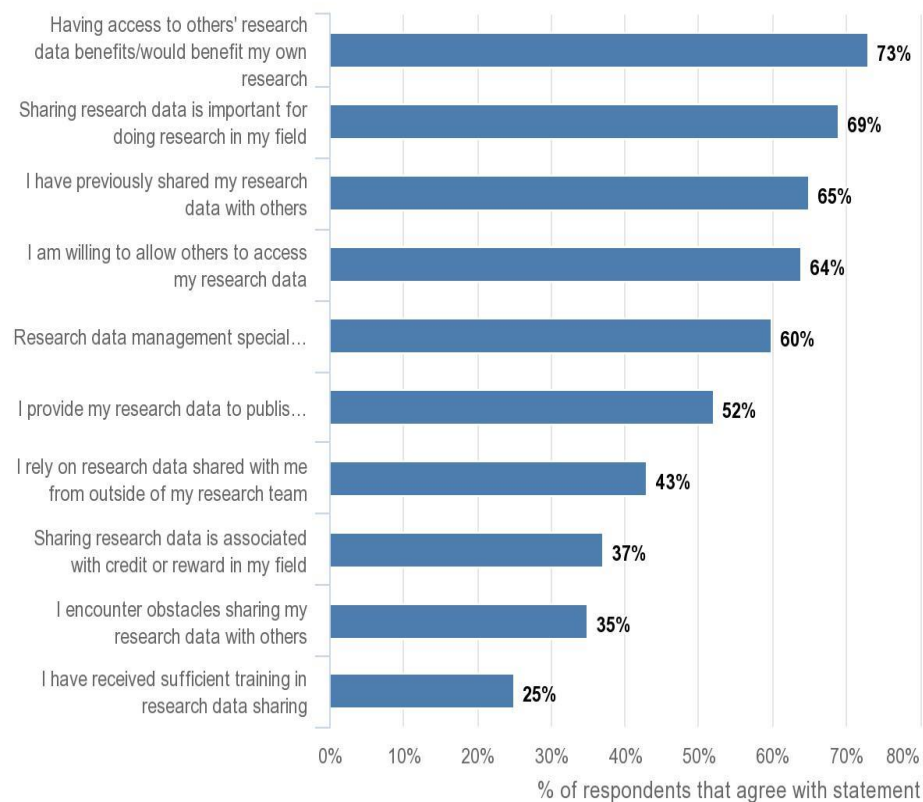
Source: re3data.org - Reference date: April 15th 2018



Example: Open Research Data

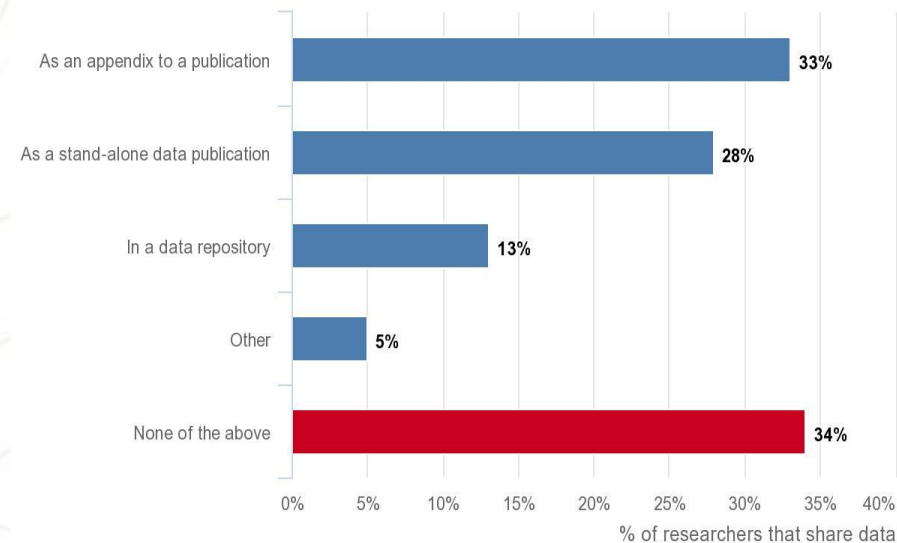
Attitudes of researchers: % of respondents that agree with statement

Reference date: 2016



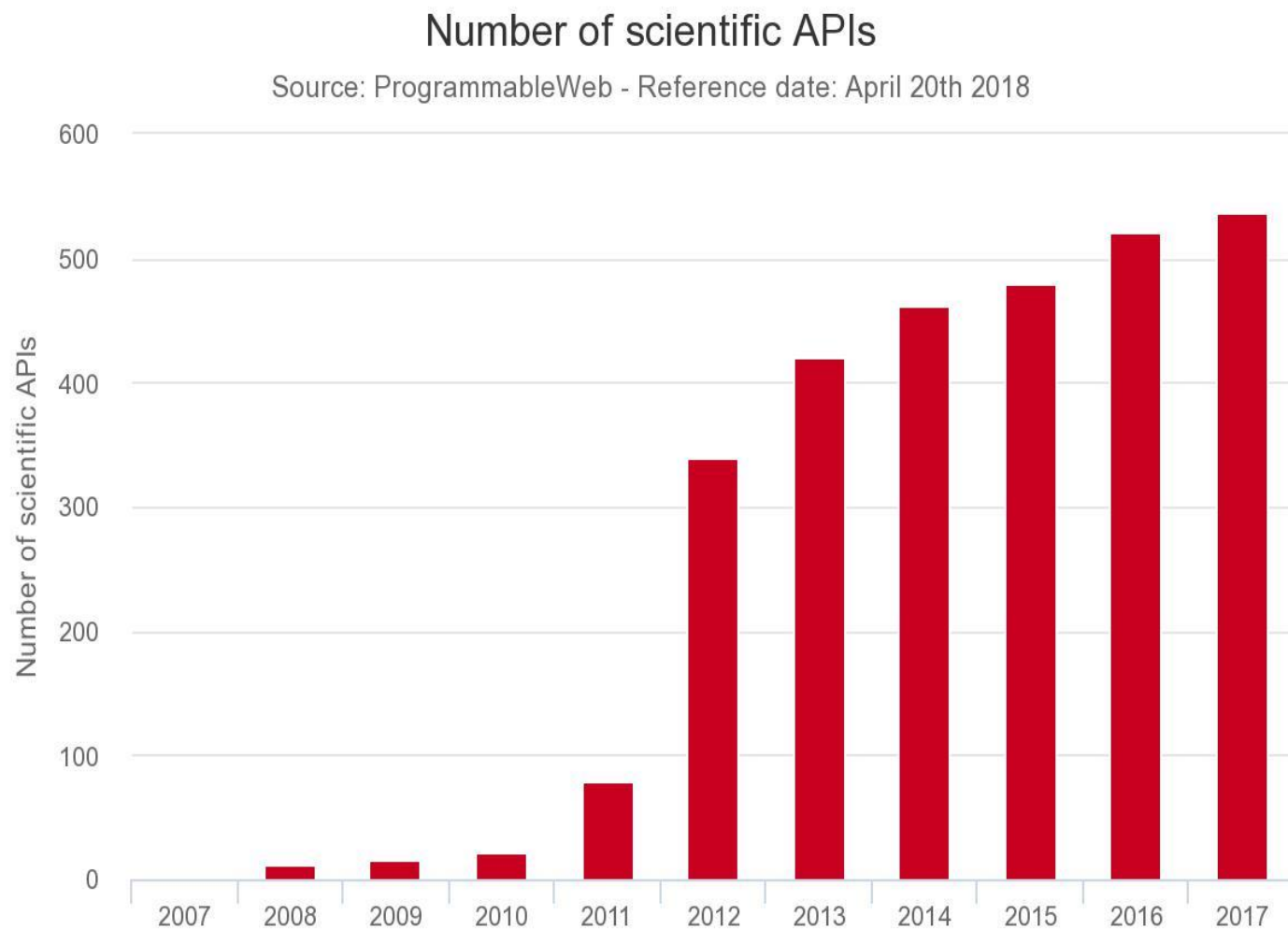
Attitudes of researchers: % of researchers that share data, by modality

Reference date: 2016



Source: Report *Open Data – The researcher perspective*

Example: Open Collaboration



Source: Scopus Database

Contact:

- Study Coordinator: katarzyna.jakimowicz@lisboncouncil.net
david.osimo@lisboncouncil.net

Contribute to improving indicators:

https://www.makingspechestalk.com/ch/Open_Science_Monitor/