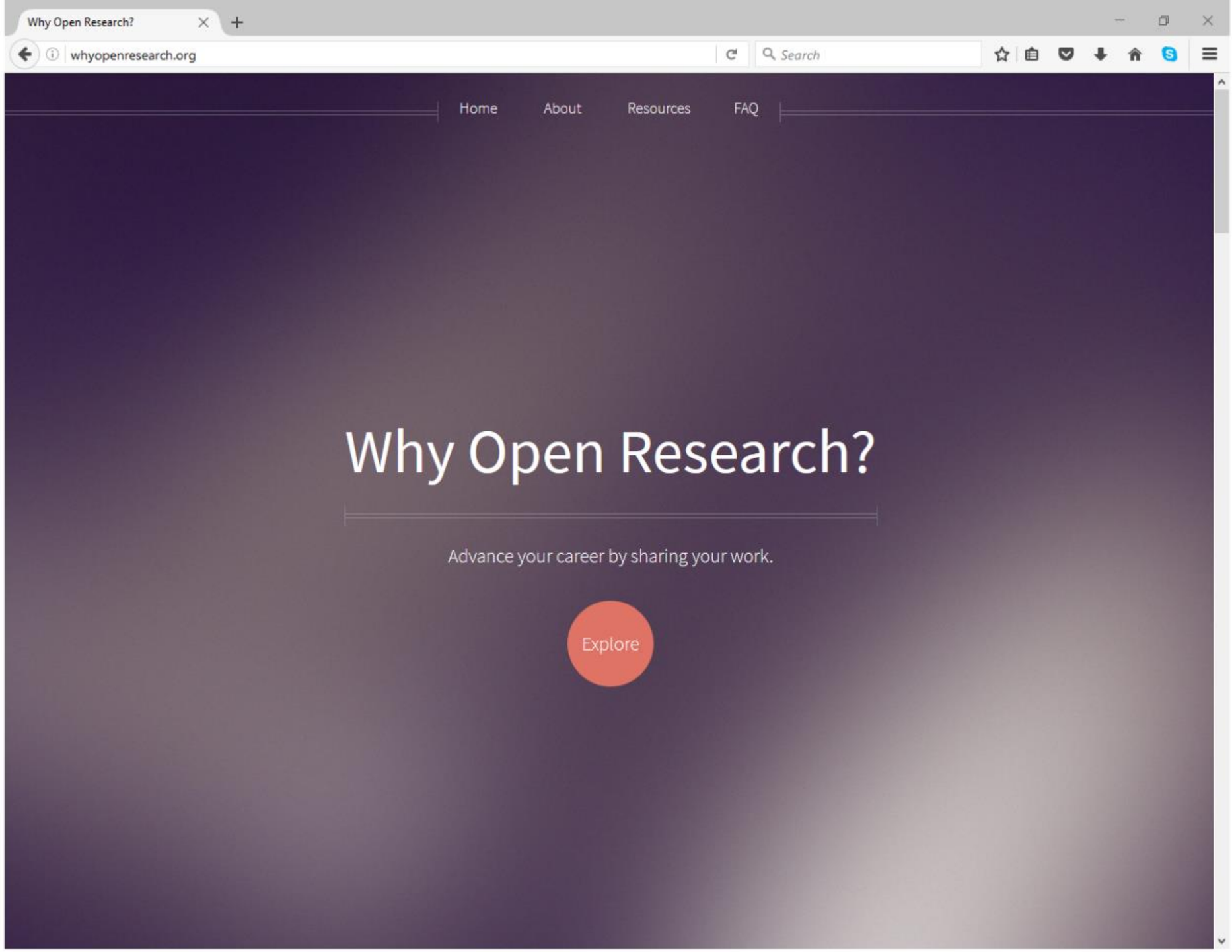
**Iryna Kuchma**
EIFL

**@irynakuchma**
**@openaire_eu**

# Research Data Management and Open Science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Increase your visibility

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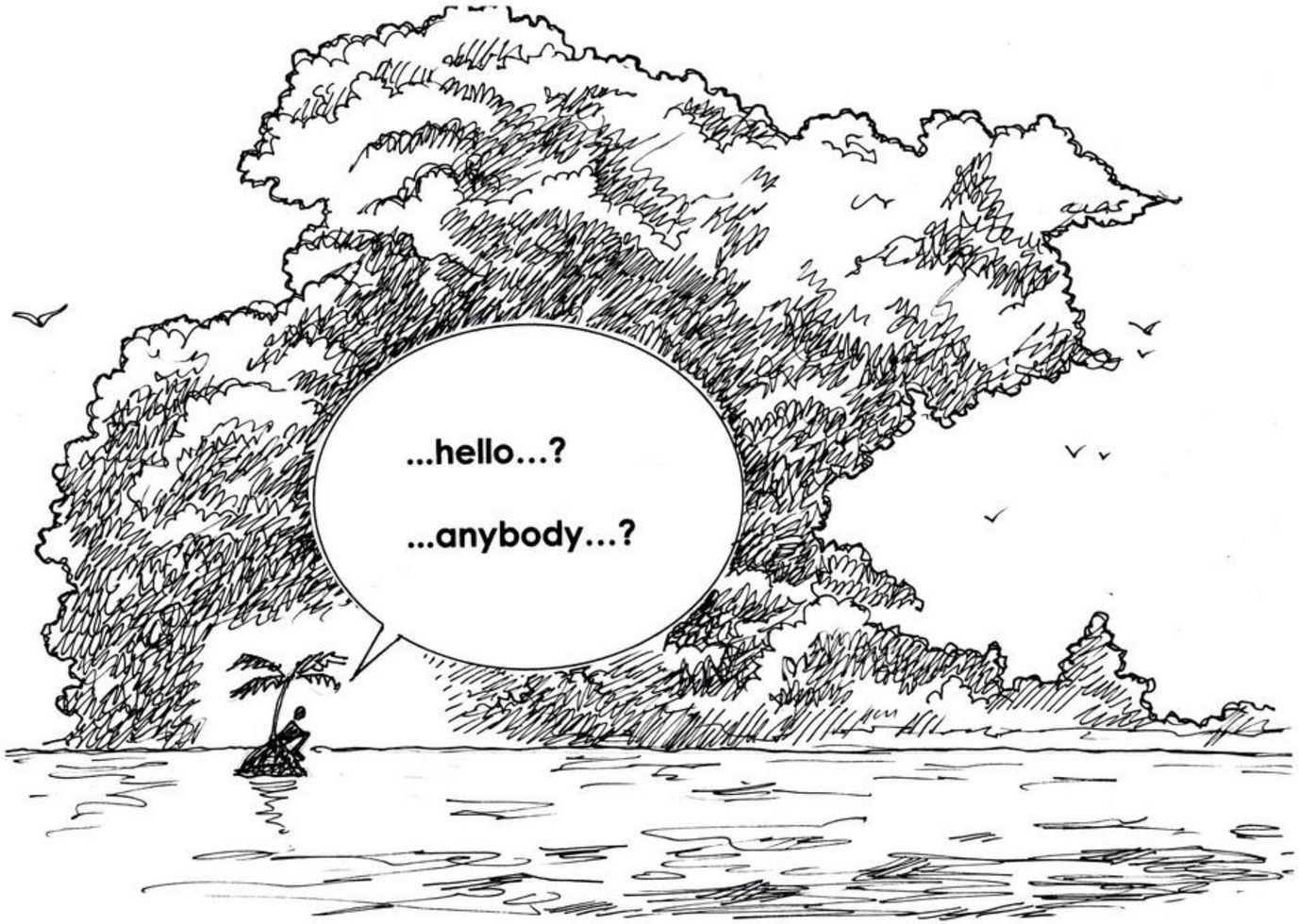
Search

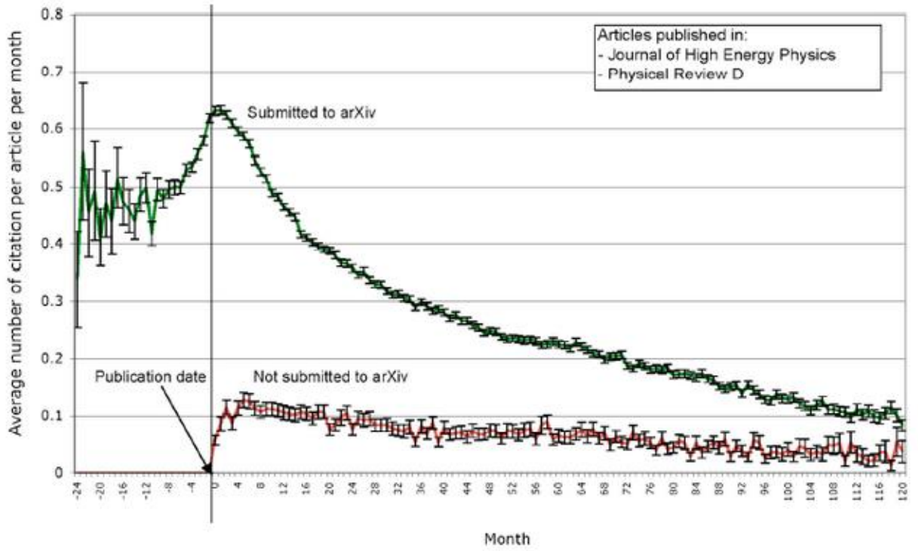
# Increase your visibility

Be open and get more citations, page views, downloads, and media attention for your research.

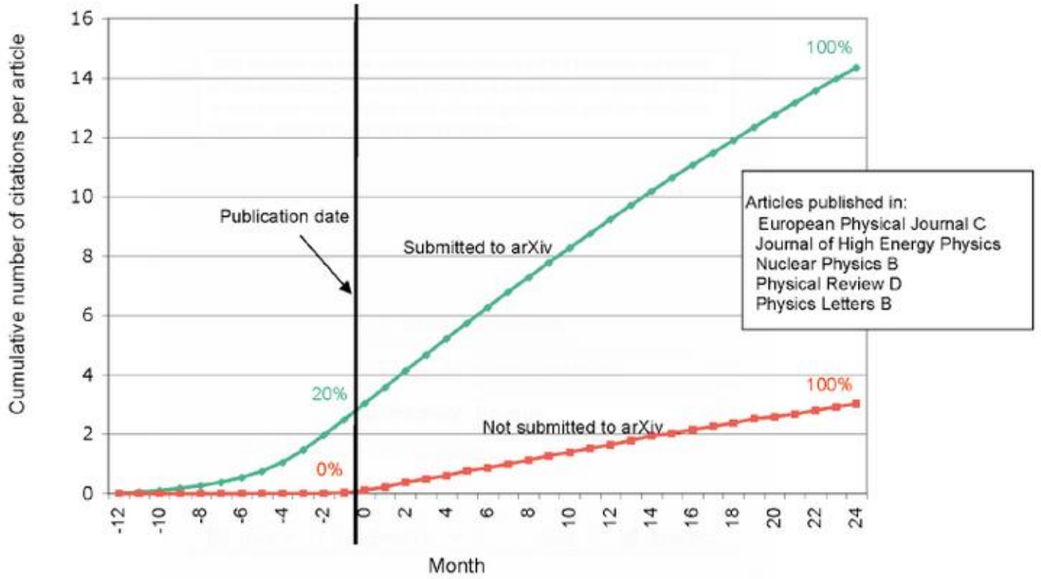


Increase your visibility

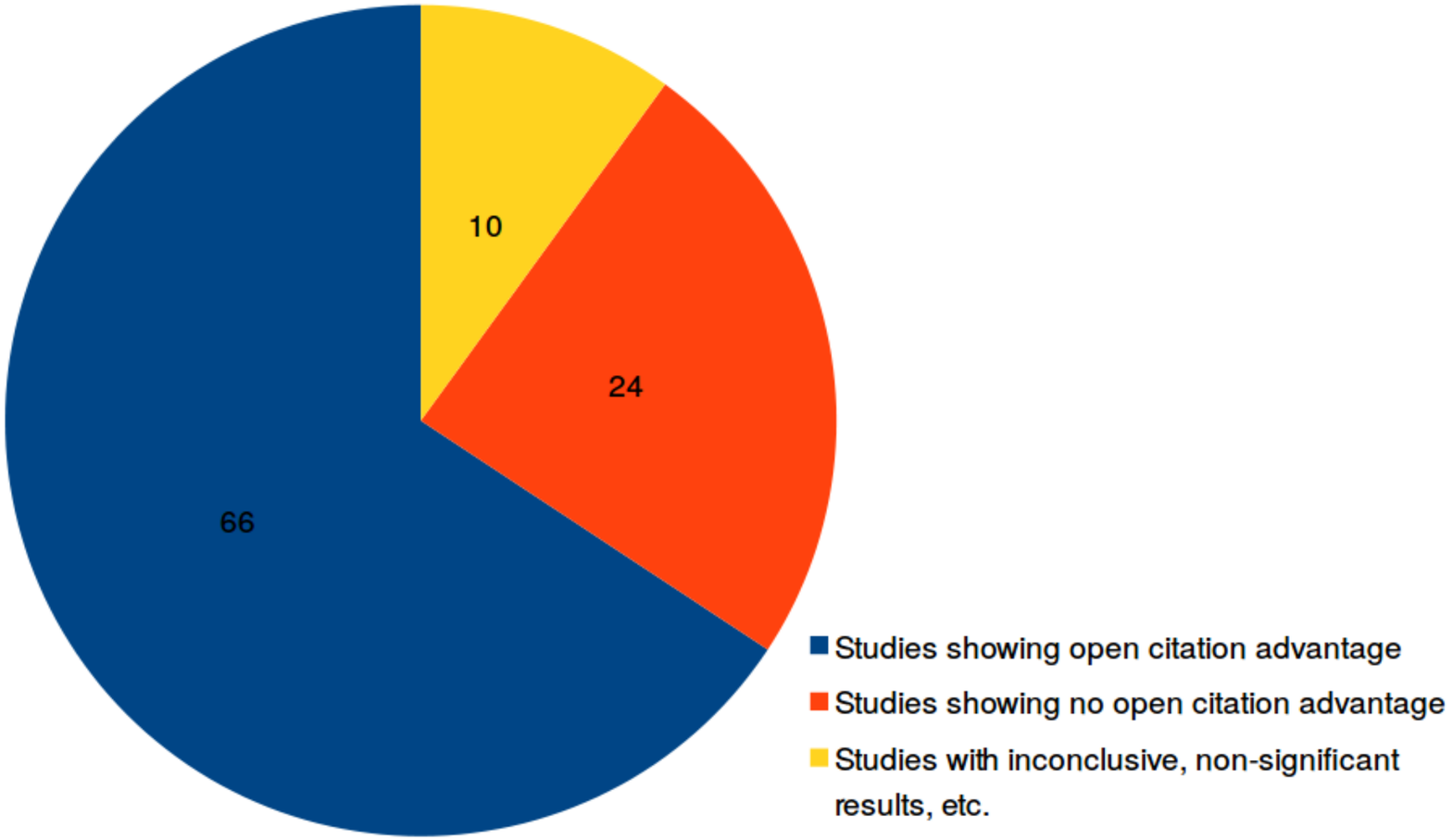
whyopenresearch.org/visibility.html



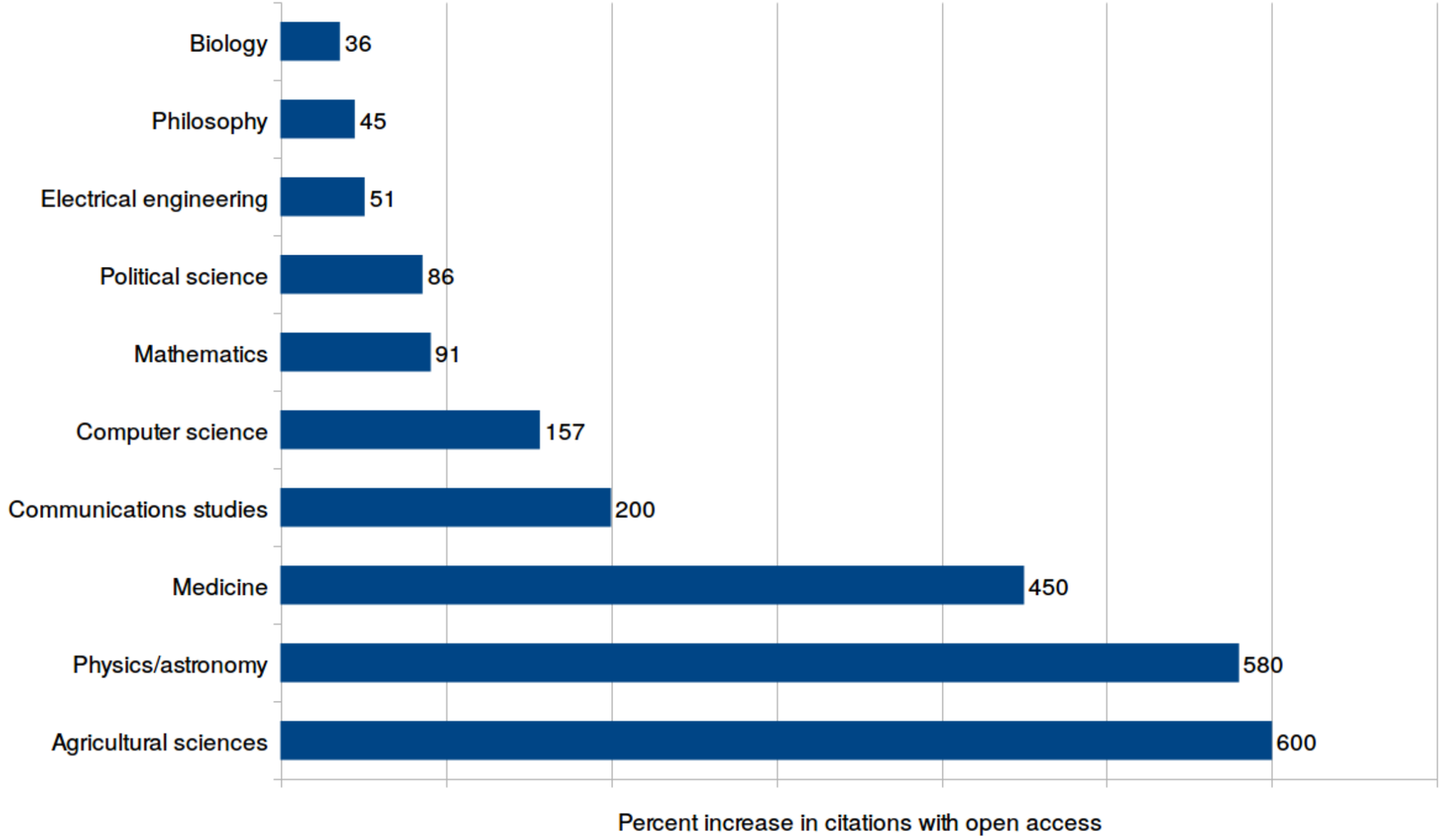

*Source: Anne Gentil-Beccot, Salvatore Mele, and Travis Brooks. 2009. arXiv:0906.5418v2.*



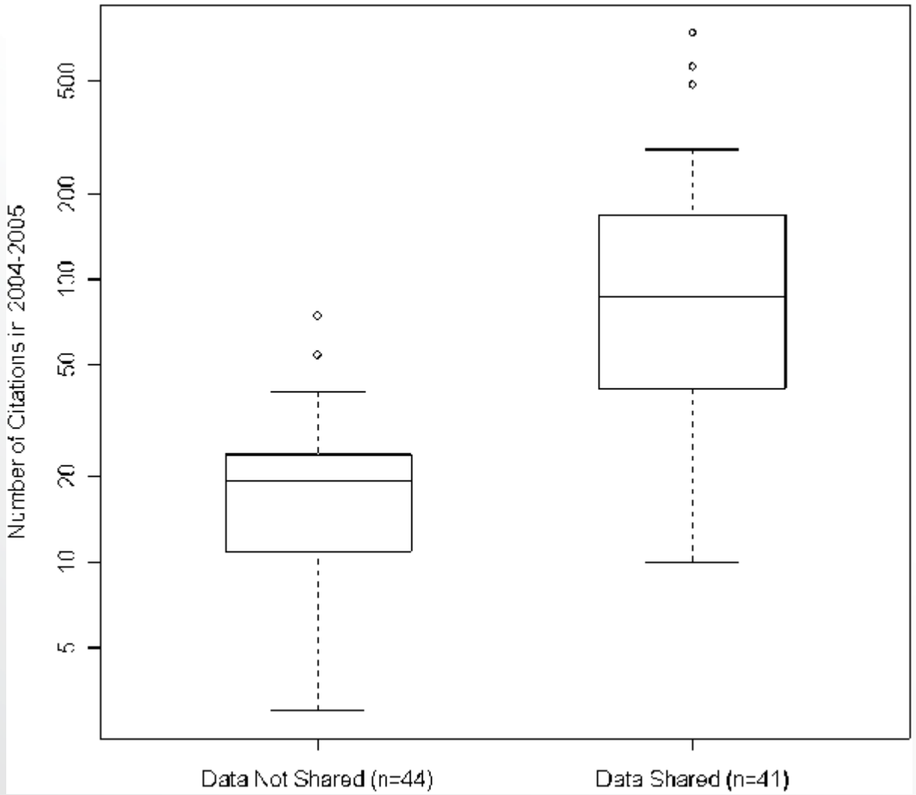
# Source: Data from The Open Access Citation Advantage Service, SPARC Europe. Figure produced by E.C. McKiernan



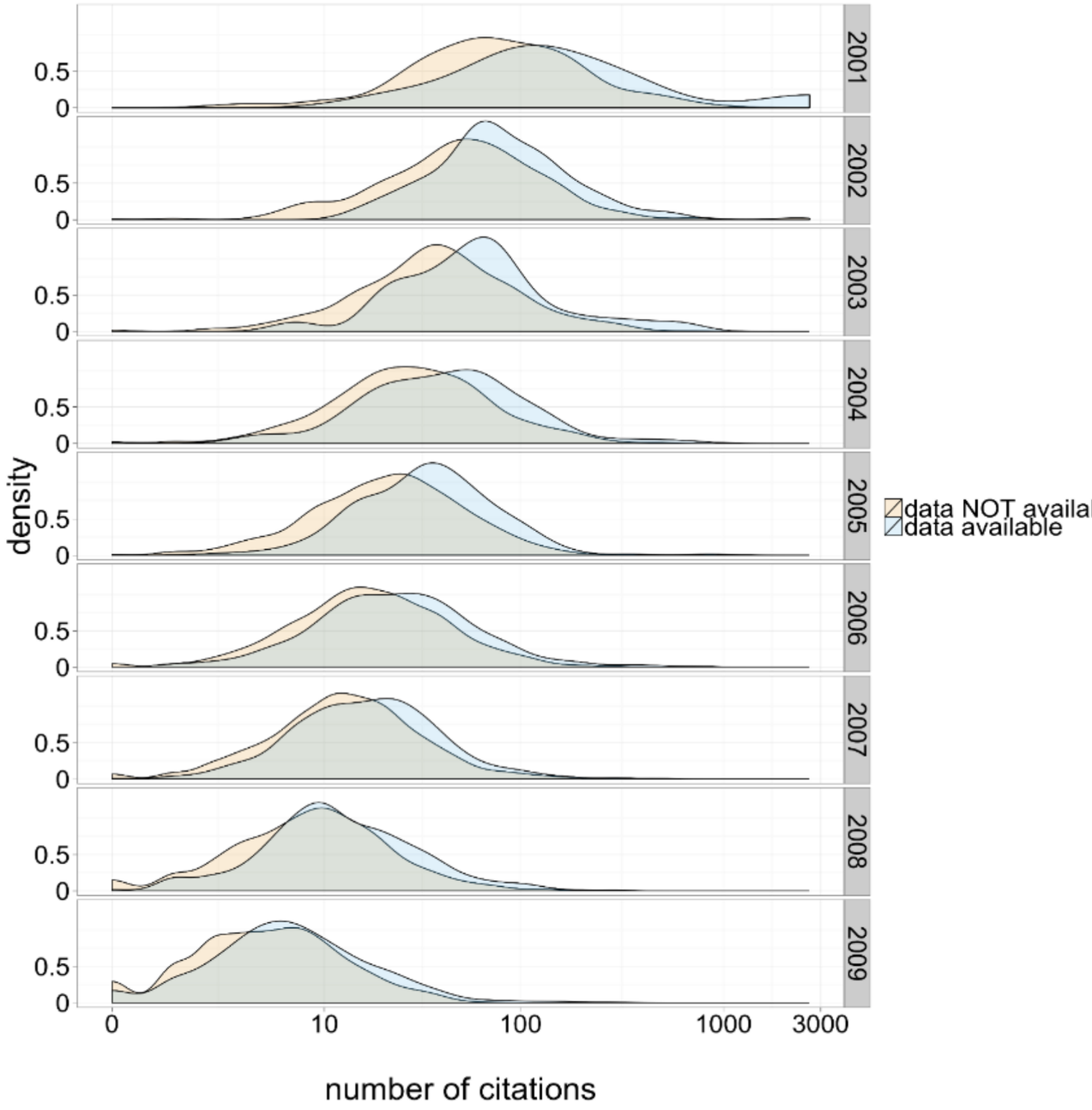
# Source: Data from Alma Swan, 2010. Figure produced by E.C. McKiernan



Source: Heather A. Piwowar, Roger S. Day, and Douglas B. Fridsma. 2007. PLOS ONE, doi:10.1371/journal.pone.0000308

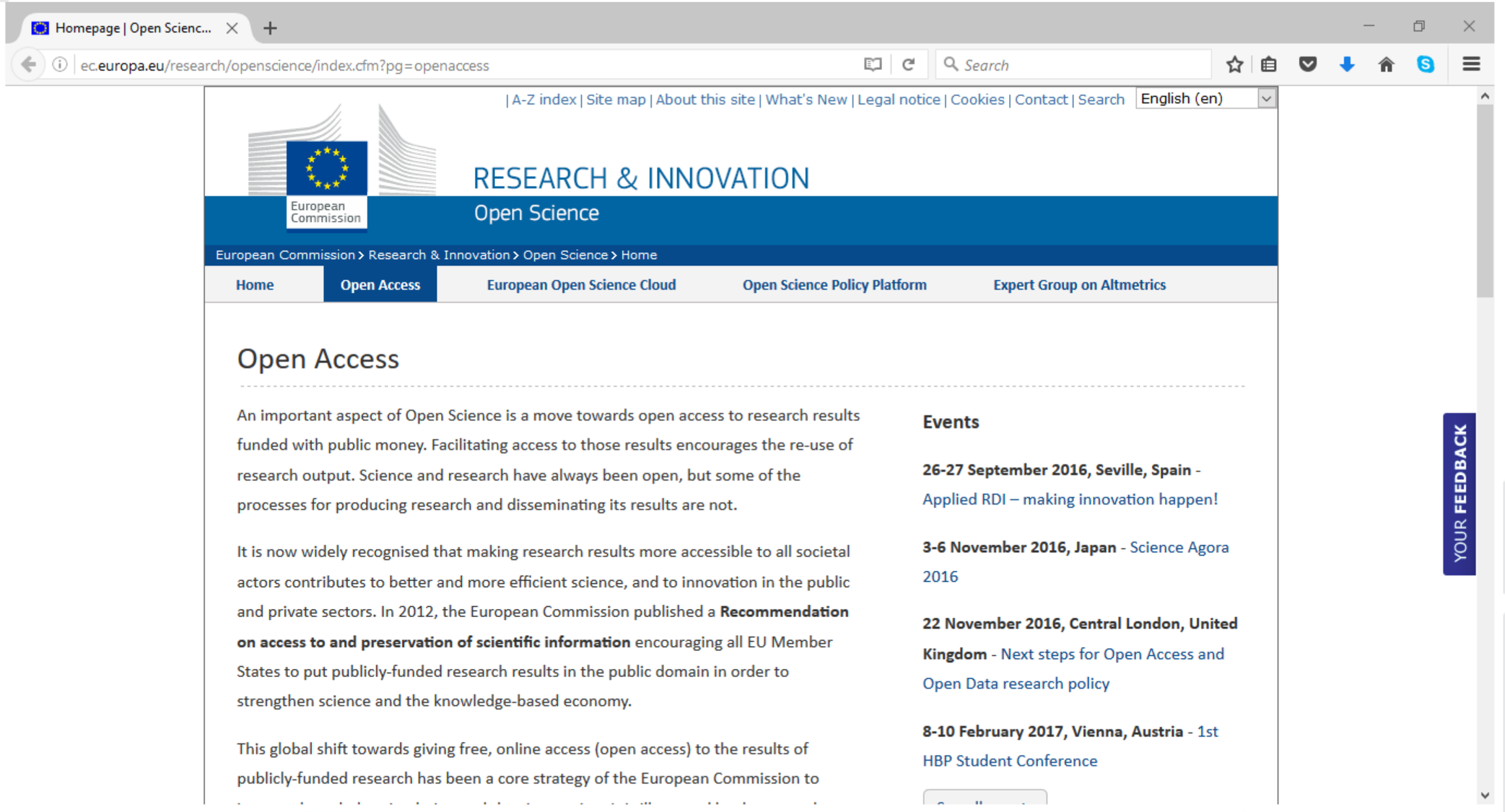


Source: Heather A. Piwowar and Todd J. Vision. 2013. PeerJ, doi:10.7717/peerj.17



# Get more funding

Meet funder requirements and qualify for special scholarships and grants.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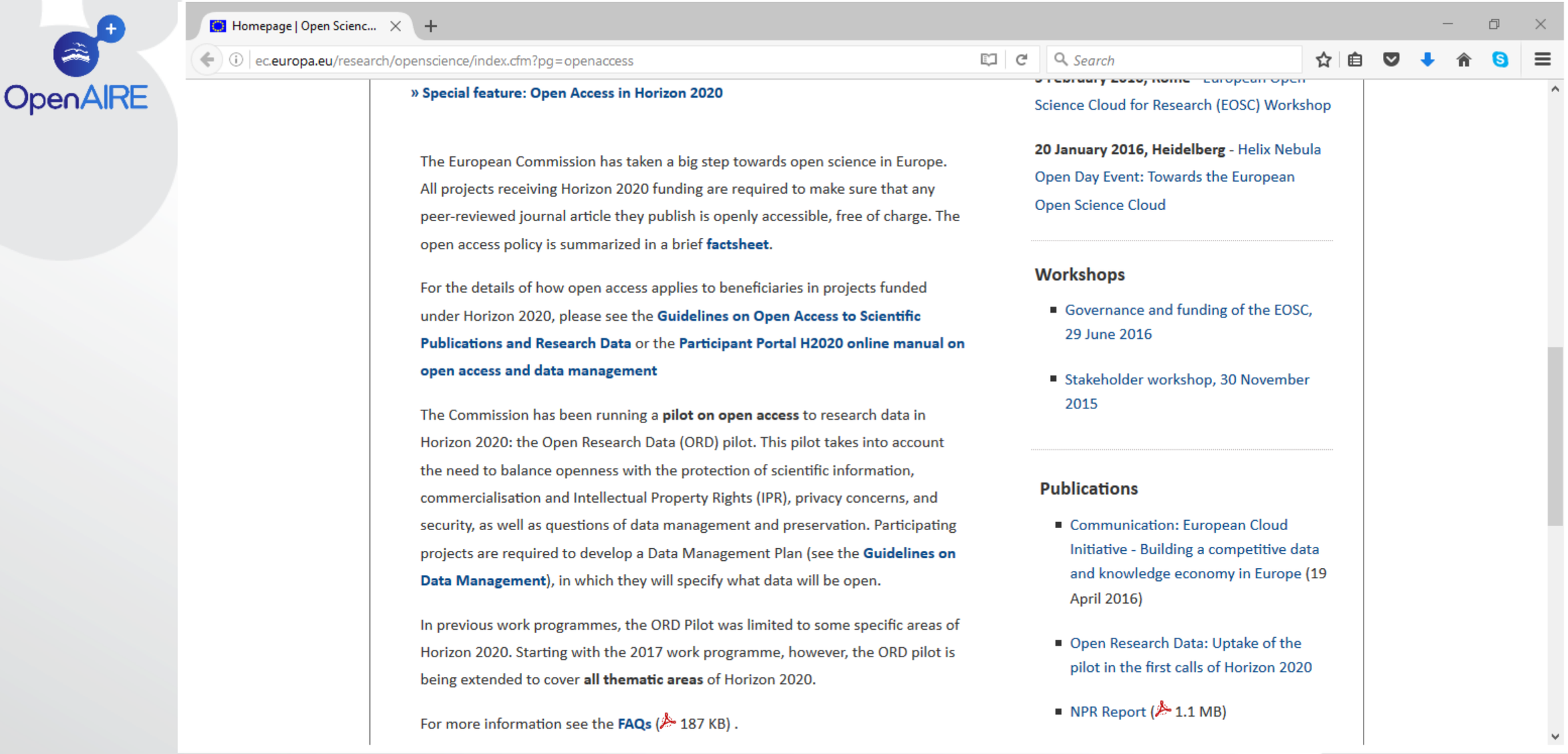
Open Access
An important aspect of Open Science is a move towards open access to research results funded with public money. Facilitating access to those results encourages the re-use of research output. Science and research have always been open, but some of the processes for producing research and disseminating its results are not.
It is now widely recognised that making research results more accessible to all societal actors contributes to better and more efficient science, and to innovation in the public and private sectors. In 2012, the European Commission published a Recommendation on access to and preservation of scientific information encouraging all EU Member States to put publicly-funded research results in the public domain in order to strengthen science and the knowledge-based economy.
This global shift towards giving free, online access (open access) to the results of publicly-funded research has been a core strategy of the European Commission to
Events
26-27 September 2016, Seville, Spain - Applied RDI – making innovation happen!
3-6 November 2016, Japan - Science Agora 2016
22 November 2016, Central London, United Kingdom - Next steps for Open Access and Open Data research policy
8-10 February 2017, Vienna, Austria - 1st HBP Student Conference
YOUR FEEDBACK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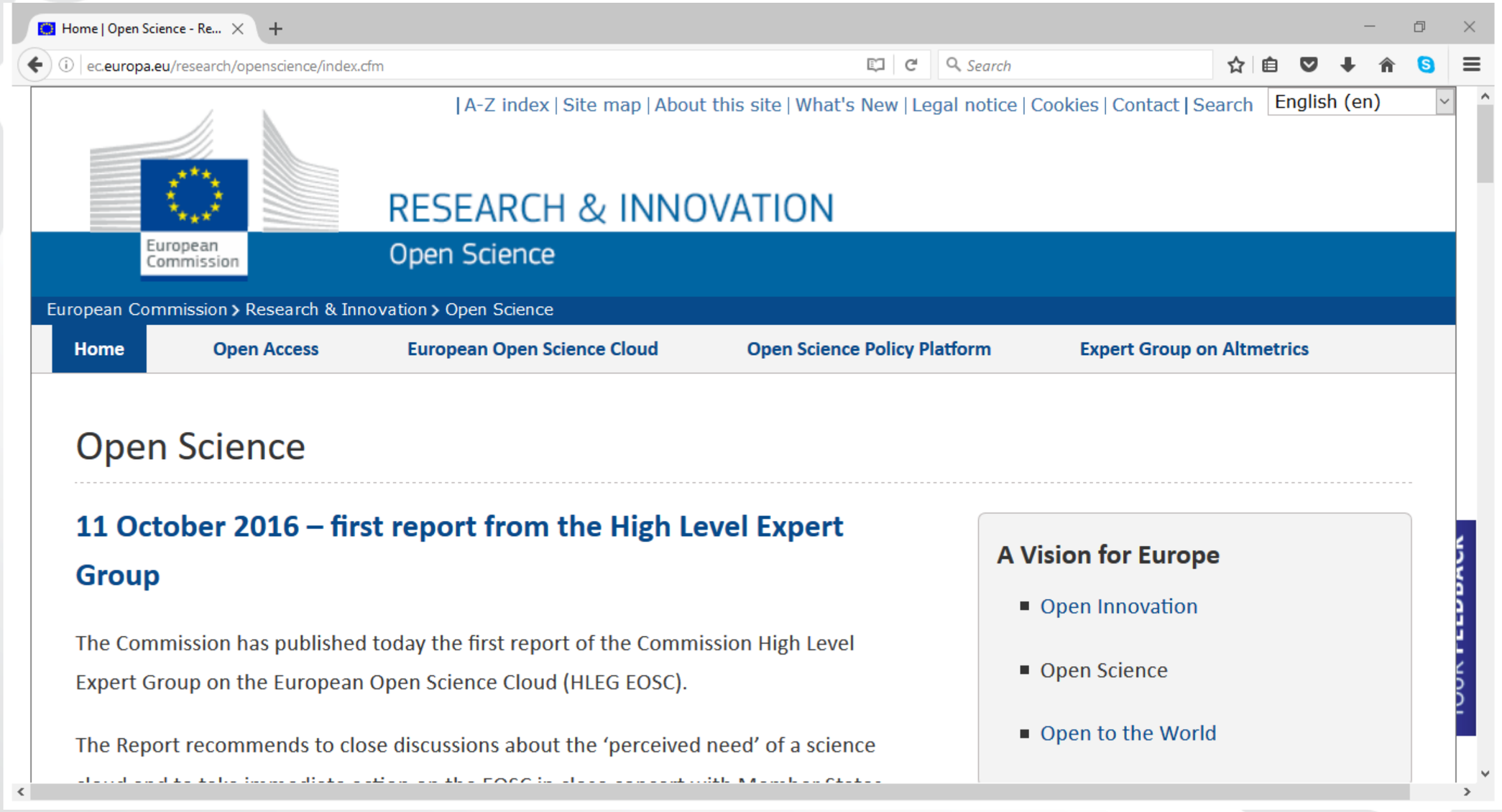
» Special feature: Open Access in Horizon 2020
The European Commission has taken a big step towards open science in Europe. All projects receiving Horizon 2020 funding are required to make sure that any peer-reviewed journal article they publish is openly accessible, free of charge. The open access policy is summarized in a brief factsheet.
For the details of how open access applies to beneficiaries in projects funded under Horizon 2020, please see the Guidelines on Open Access to Scientific Publications and Research Data or the Participant Portal H2020 online manual on open access and data management
The Commission has been running a pilot on open access to research data in Horizon 2020: the Open Research Data (ORD) pilot. This pilot takes into account the need to balance openness with the protection of scientific information, commercialisation and Intellectual Property Rights (IPR), privacy concerns, and security, as well as questions of data management and preservation. Participating projects are required to develop a Data Management Plan (see the Guidelines on Data Management), in which they will specify what data will be open.
In previous work programmes, the ORD Pilot was limited to some specific areas of Horizon 2020. Starting with the 2017 work programme, however, the ORD pilot is being extended to cover all thematic areas of Horizon 2020.
For more information see the FAQs (187 KB) .
Science Cloud for Research (EOSC) Workshop
20 January 2016, Heidelberg - Helix Nebula Open Day Event: Towards the European Open Science Cloud
Workshops
Governance and funding of the EOSC, 29 June 2016
Stakeholder workshop, 30 November 2015
Publications
Communication: European Cloud Initiative - Building a competitive data and knowledge economy in Europe (19 April 2016)
Open Research Data: Uptake of the pilot in the first calls of Horizon 2020
NPR Report (1.1 MB)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11 October 2016 – first report from the High Level Expert Group
The Commission has published today the first report of the Commission High Level Expert Group on the European Open Science Cloud (HLEG EOSC).
The Report recommends to close discussions about the 'perceived need' of a science
A Vision for Europe
Open Innovation
Open Science
Open to the World

European Commission

# Realising the European Open Science Cloud

First report and recommendations
of the Commission High Level Expert Group
on the European Open Science Cloud

# The European Open Science Cloud (EOSC)

**EOSC aims to accelerate and support the current transition to more effective Open  Science and Open Innovation in the Digital Single Market.**

**It should enable trusted access to services, systems and the re-use of shared scientific data across disciplinary, social and geographical borders.**

# Challenges & Observations

**The majority of the challenges to reach a functional EOSC are social rather than technical.**

**The major technical challenge is the complexity of the data and analytics procedures across disciplines rather than the size of the data per se.**

# Challenges & Observations

**There is an alarming shortage of data experts both globally and in the European Union.**

**This is partly based on an archaic reward and funding system for science and innovation, sustaining the article culture and preventing effective data publishing and re-use.**

# Open Science?

**Mostly due to current methods capture and data malpractice, approximately 50% of all research data and experiments is considered not reproducible, and the vast majority (likely over 80%) of data never makes it to a trusted and sustainable repository.**

# The importance of sharing data

## The error that could subvert George Osborne's austerity programme

The theories on which the chancellor based his cuts policies have been shown to be based on an embarrassing mistake

**Charles Arthur** and **Phillip Inman**
The Guardian, Thursday 18 April 2013 21.10 BST

George Osborne says that Ken Rogoff, the man whose economic error has been uncovered, has strongly influenced his thinking. Photograph: Stefan Wermuth/PA

A mistake in a spreadsheet led to dramatically different results from those published.

These results were cited by the International Monetary Fund and the UK Treasury to justify austerity programmes.

Had the data been shared, this could have been picked up earlier.

# Open Science

**Scholarly communication, which has been dominated by narrative and verbal means of delivery for centuries, should be moving rapidly towards communication and re-use formats that also better suit our main research assistants: the data generating machines and data processing machines.**

# Open Science

**Cross-disciplinary collaboration is critically needed, as scientists increasingly use raw and curated data resources and analytics tools from disciplines other than their own.**

# Open Science

**Frame the EOSC as the EU contribution to an Internet of FAIR Data and Services underpinned with open protocols.**

**Make adequate data stewardship mandatory for all research proposals.**

# OPEN RESEARCH DATA IN HORIZON 2020

**Jean-François Dechamp**
**& Daniel Spichtinger**

European Commission
Directorate-General for Research & Innovation

Research and Innovation

# CHALLENGE

Wider access to scientific facts and knowledge helps researchers, innovators and the public find and re-use data, and check research results:

offers better value for EU research funds

a public benefit

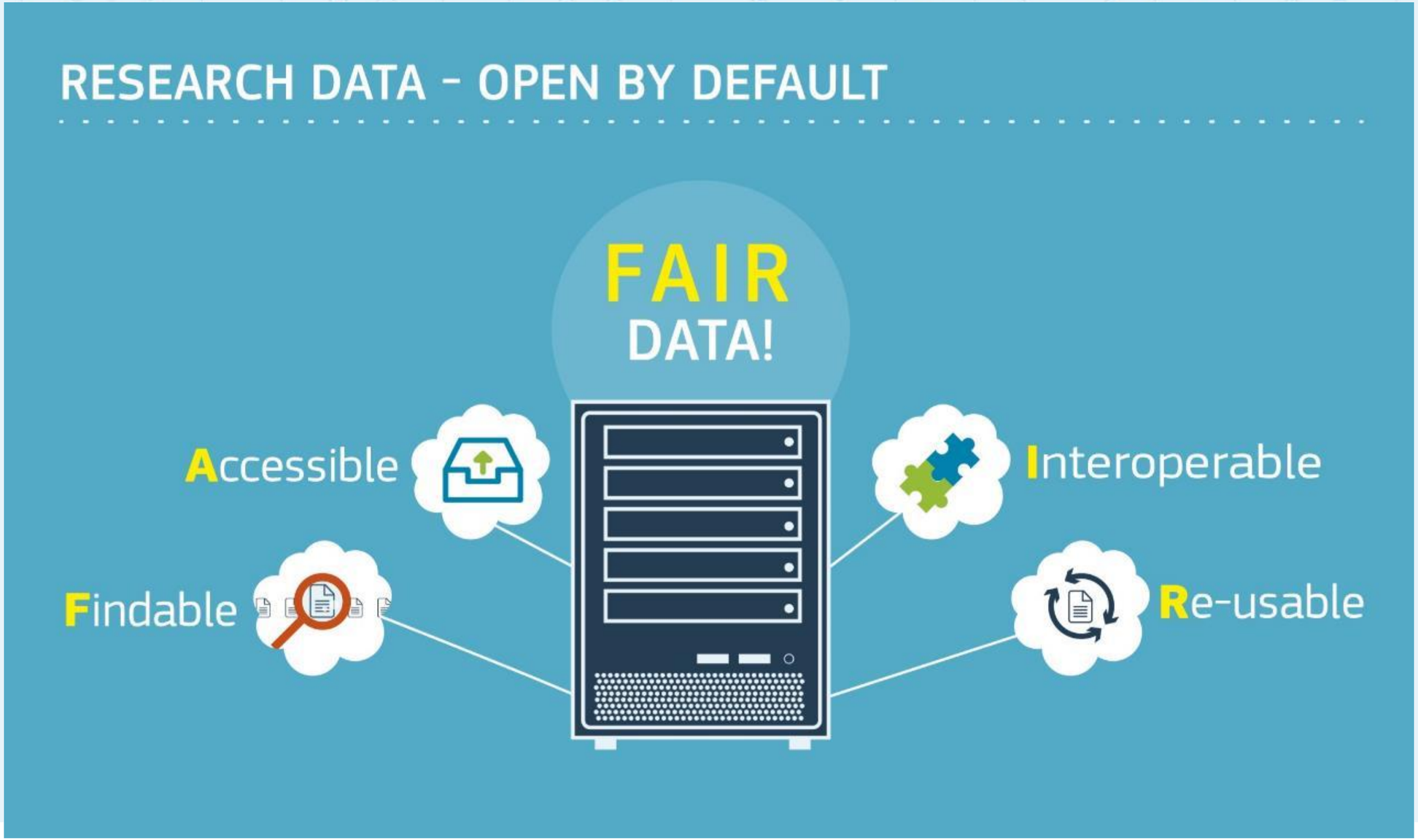
encourages research across scientific fields

essential for solving today's complex societal challenges

# SOLUTION

Horizon 2020 already mandates open access to **all scientific publications**

From 2017,
**research data** is **open by default,**
with possibilities to **opt out**


RESEARCH DATA - OPEN BY DEFAULT
FAIR
DATA!
Accessible
Interoperable
Findable
Re-usable

# FAIR data

- **F**indable
  - *assign persistent IDs, provide rich metadata, register in a searchable resource…*
- **A**ccessible
  - *Retrievable by their ID using a standard protocol, metadata remain accessible even if data aren't…*
- **I**nteroperable
  - *Use formal, broadly applicable languages, use standard vocabularies, qualified references…*
- **R**eusable
  - *Rich, accurate metadata, clear licences, provenance, use of community standards…*

www.force11.org/group/fairgroup/fairprinciples

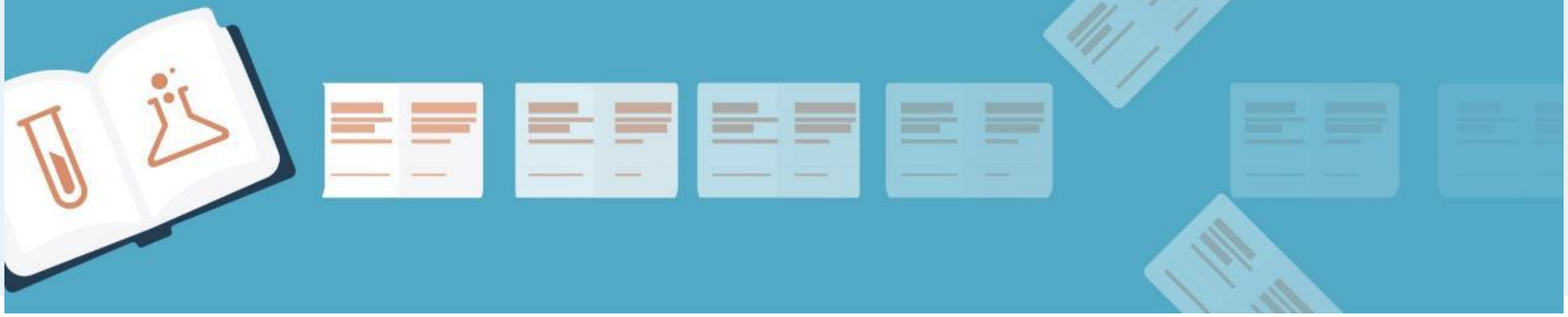
# RESEARCH DATA - OPEN BY DEFAULT

Horizon 2020 grantees are required

take measures to ensure open access to the **data underlying their scientific publications**

provide open access to **any other research data of their choice**

Horizon 2020 grantees are **encouraged to also share datasets** beyond publication



# RESEARCH DATA - OPEN BY DEFAULT

Projects must have

Provides information on:

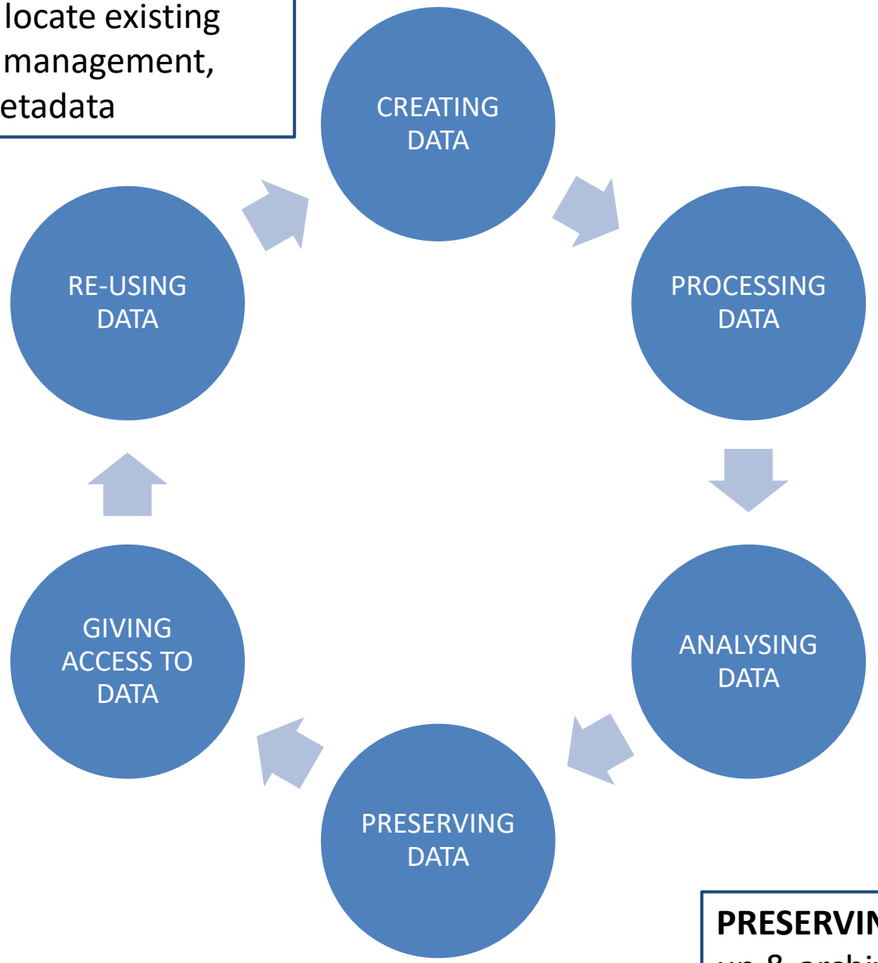
the data the research will generate

how to ensure its curation, preservation and sustainability

what parts of that data will be open (and how)

# Research data lifecycle

**CREATING DATA**: designing research, DMPs, planning consent, locate existing data, data collection and management, capturing and creating metadata




**PROCESSING DATA**: entering, transcribing, checking, validating and cleaning data, anonymising data, describing data, manage and store data

**RE-USING DATA**: follow-up research, new research, undertake research reviews, scrutinising findings, teaching & learning

**ANALYSING DATA**: interpreting, & deriving data, producing outputs, authoring publications, preparing for sharing

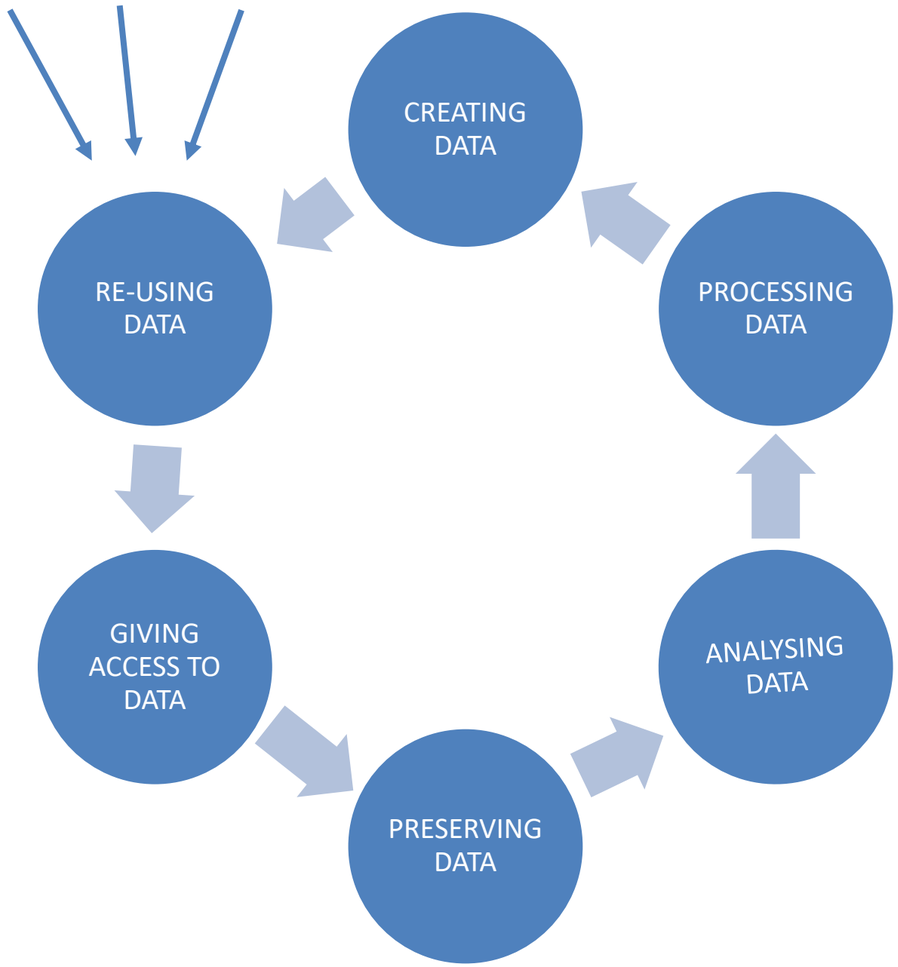
**ACCESS TO DATA**: distributing data, sharing data, controlling access, establishing copyright, promoting data

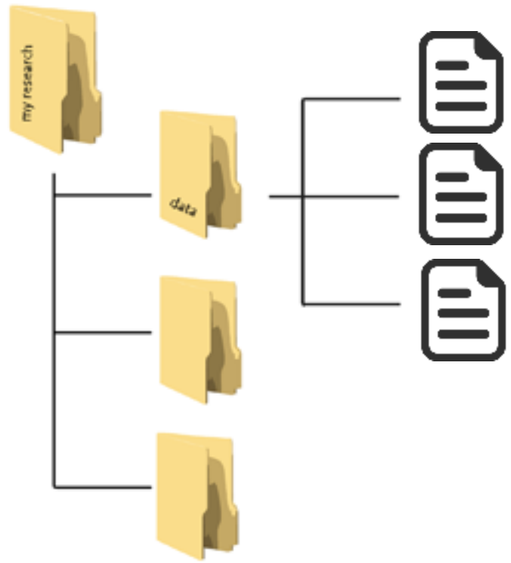
**PRESERVING DATA**: data storage, back-up & archiving, migrating to best format & medium, creating metadata and documentation

Ref: UK Data Archive: http://www.data-archive.ac.uk/create-manage/life-cycle

# Planning trick 1: think backwards

What data organisation would a re-user like?



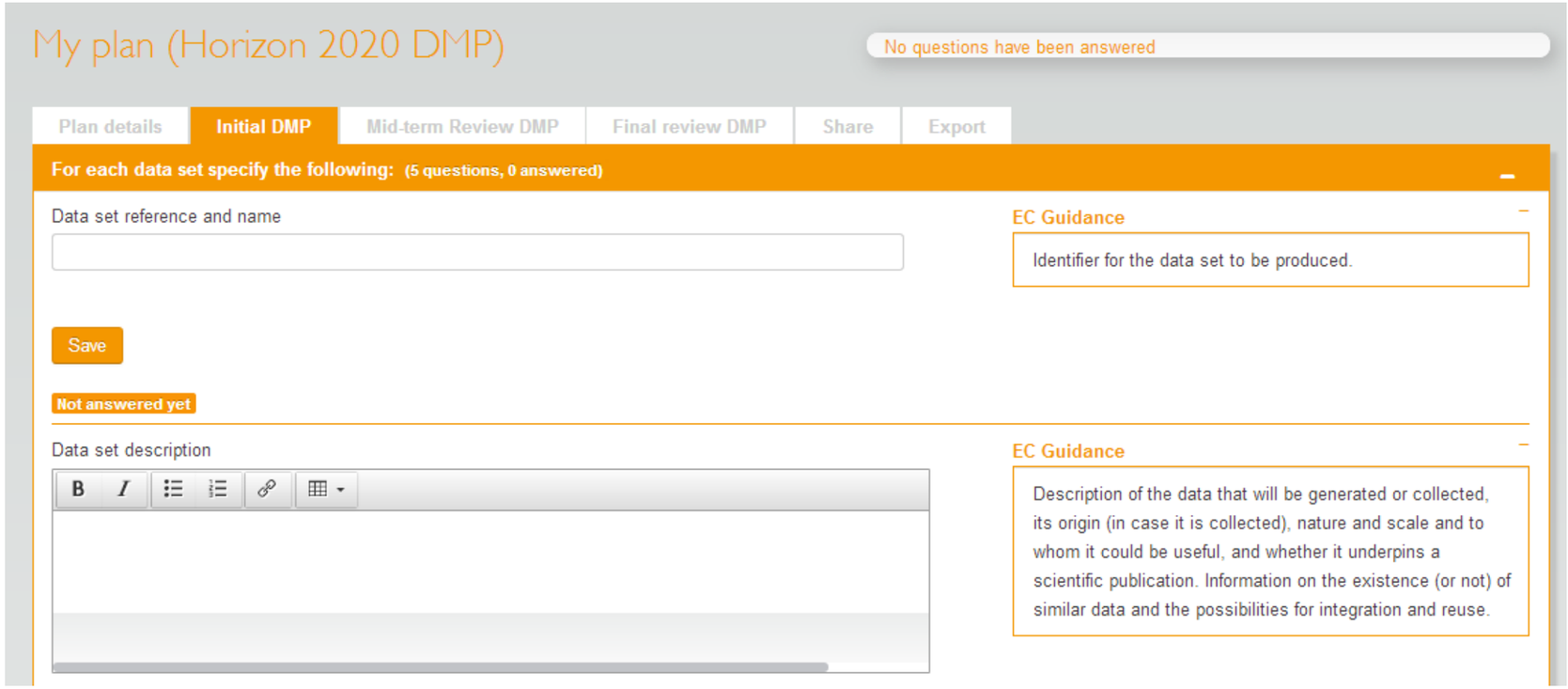



# DMPonline

A web-based tool to help researchers write DMPs

Includes a template for Horizon 2020

Guidance from EUDAT and OpenAIRE being added



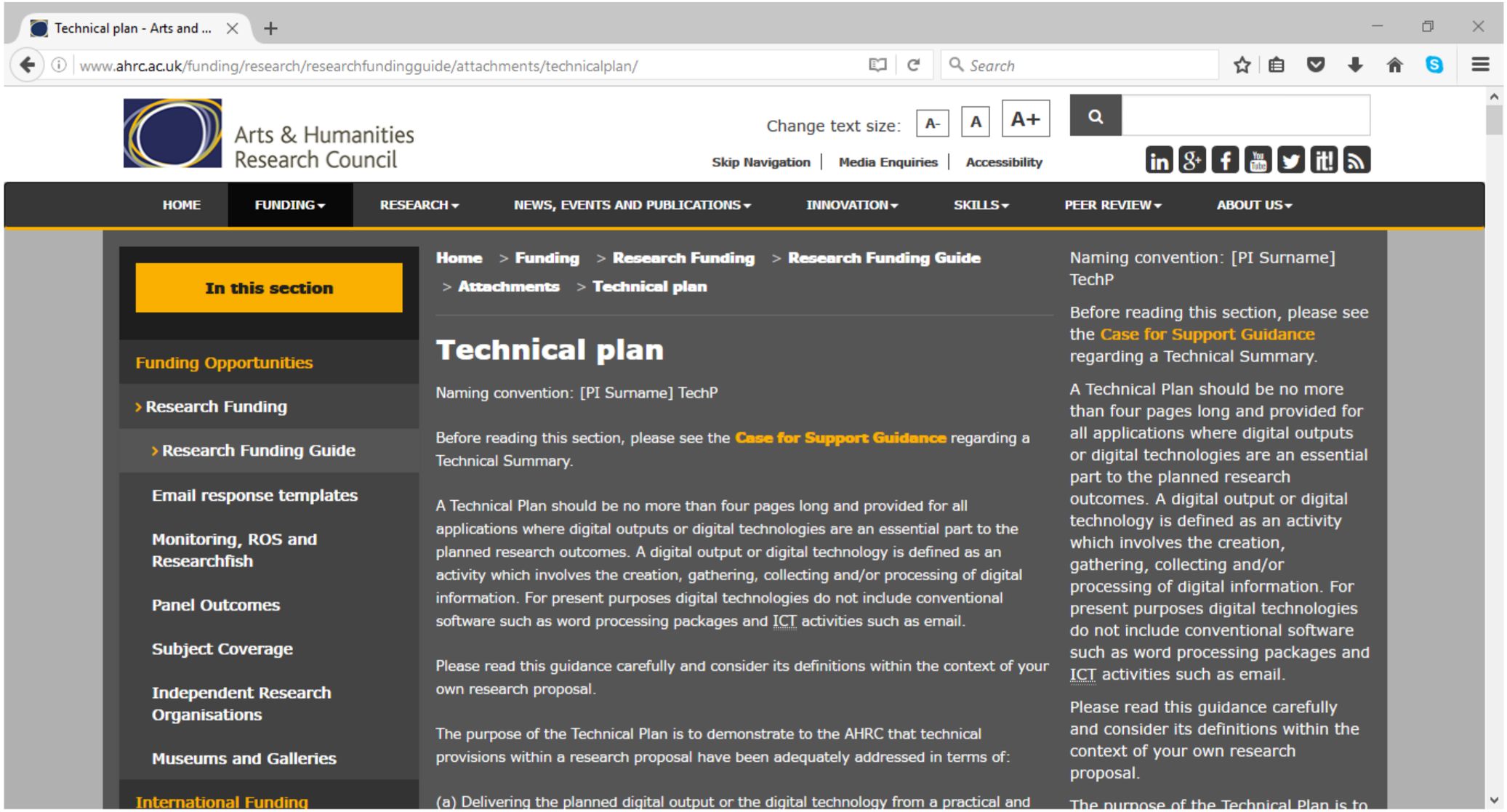

https://dmponline.dcc.ac.uk

# Some funders that require DMPs

National Science Foundation
WHERE DISCOVERIES BEGIN

GenomeCanada

ACADEMY OF FINLAND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Home > Funding > Research Funding > Research Funding Guide > Attachments > Technical plan
Technical plan
Naming convention: [PI Surname] TechP
Before reading this section, please see the Case for Support Guidance regarding a Technical Summary.
A Technical Plan should be no more than four pages long and provided for all applications where digital outputs or digital technologies are an essential part to the planned research outcomes. A digital output or digital technology is defined as an activity which involves the creation, gathering, collecting and/or processing of digital information. For present purposes digital technologies do not include conventional software such as word processing packages and ICT activities such as email.
Please read this guidance carefully and consider its definitions within the context of your own research proposal.
The purpose of the Technical Plan is to demonstrate to the AHRC that technical provisions within a research proposal have been adequately addressed in terms of:
(a) Delivering the planned digital output or the digital technology from a practical and
Naming convention: [PI Surname] TechP
Before reading this section, please see the Case for Support Guidance regarding a Technical Summary.
A Technical Plan should be no more than four pages long and provided for all applications where digital outputs or digital technologies are an essential part to the planned research outcomes. A digital output or digital technology is defined as an activity which involves the creation, gathering, collecting and/or processing of digital information. For present purposes digital technologies do not include conventional software such as word processing packages and ICT activities such as email.
Please read this guidance carefully and consider its definitions within the context of your own research proposal.
The purpose of the Technical Plan is to

# Common themes in DMPs

1. Description of data to be collected / created
   (i.e. content, type, format, volume...)

2. Standards / methodologies for data collection & management

3. Ethics and Intellectual Property
   (highlight restrictions on data sharing e.g. embargoes, confidentiality)

4. Plans for data sharing and access
   (i.e. how, when, to whom)

5. Strategy for long-term preservation

**Start planning and communicating early**

# Why manage data?

**NON PECUNIAE INVESTIGATIONIS CURATORE**

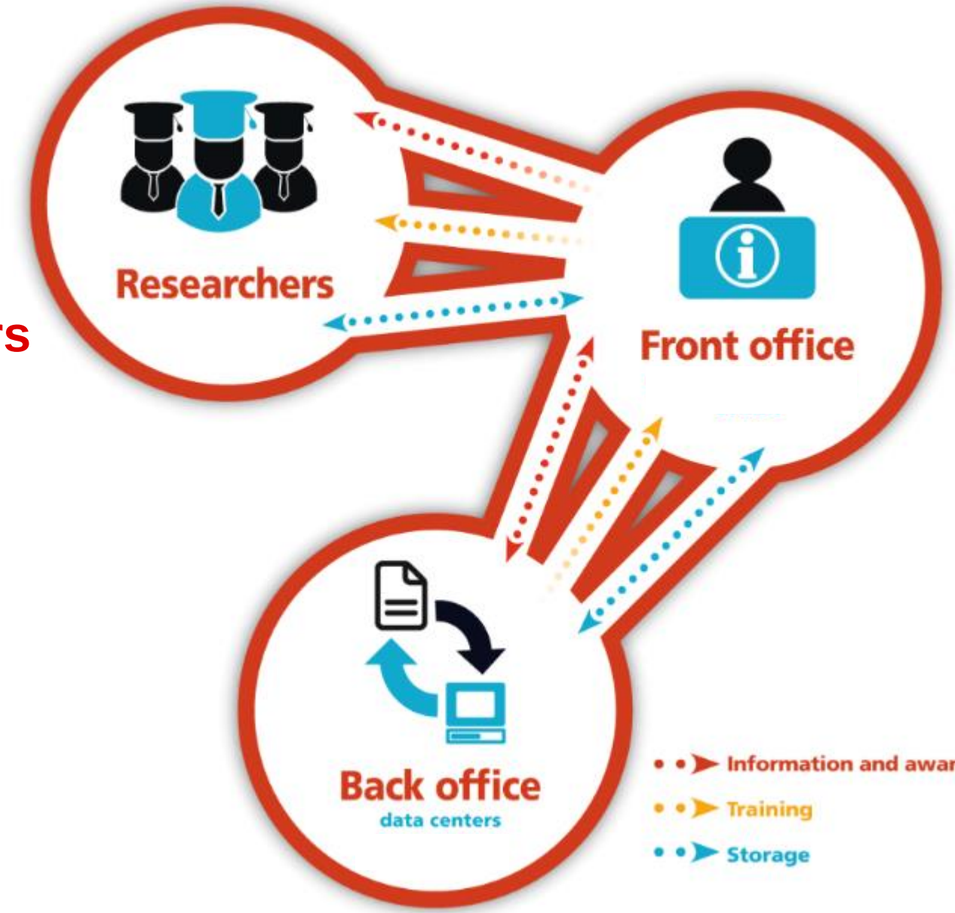
**SED VITAE FACIMUS PROGRAMMAS DATORUM PROCURATIONIS**

(Not for the research funder, but for life we make data management plans)

- Make your research easier
- Stop yourself drowning in irrelevant stuff
- Save data for later
- Avoid accusations of fraud or bad science
- Write a data paper
- Share your data for re-use
- Get credit for it

# Planning trick 2: include RDM stakeholders

**Commercial partners**



**Institution**

RDM policy

Facilities

**Publishers**

Data Availability policy

**Research funders**

https://www.openaire.eu/briefpaper-rdm-infonoads

# Responsibilities in RDM

- The principal investigator – ultimately responsible for the data and for data management
- Researchers, research assistants and/or data managers – involved in day-to-day data management
- The institution's management – draft and enforce data policies; raise data awareness
- The institution's research office consisting of library, IT and legal services – provide external data, tools, secure storage and access; expertise on rights management and ethics, data citation, metadata, access and licenses, funder requirements; raise data awareness
- Research funders – encourage good data practices; invest in data infrastructure; raise data awareness
- Project partners in academic and other research institutions as well as commercial partners
- Academic publishers – impose requirements on the availability of data underlying submitted and/or published papers; provide identifiers to cite papers and link to related data
- Research data repositories – preserve data long term; provide persistent identifiers and data discovery service

https://www.openaire.eu/briefpaper-rdm-infonoads

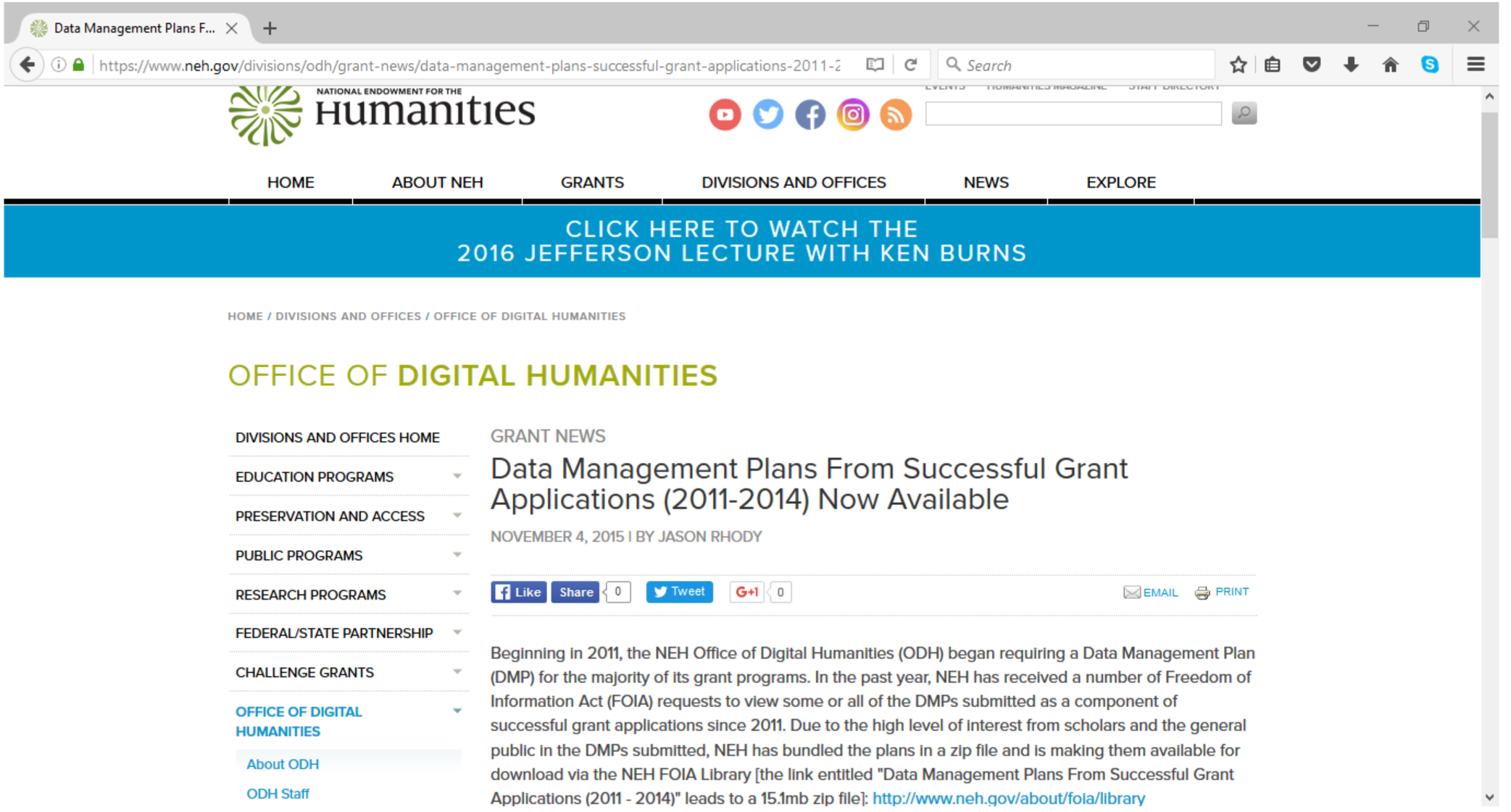
# Example plans

- 108 DMPs from the National Endowment for the Humanities
  www.neh.gov/divisions/odh/grant-news/data-management-plans-successful-grant-applications-2011-2014-now-available

- 20+ scientific DMPs submitted to the NSF (USA) provided by UCSD
  http://libraries.ucsd.edu/services/data-curation/data-management/dmp-samples.html

- Example DMP collection from Leeds University
  https://library.leeds.ac.uk/research-data-tools

- Further examples:
  www.dcc.ac.uk/resources/data-management-plans/guidance-examples


Data Management Plans F...
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FEDERAL/STATE PARTNERSHIP
CHALLENGE GRANTS
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GRANT NEWS
Data Management Plans From Successful Grant Applications (2011-2014) Now Available
NOVEMBER 4, 2015 | BY JASON RHODY
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Beginning in 2011, the NEH Office of Digital Humanities (ODH) began requiring a Data Management Plan (DMP) for the majority of its grant programs. In the past year, NEH has received a number of Freedom of Information Act (FOIA) requests to view some or all of the DMPs submitted as a component of successful grant applications since 2011. Due to the high level of interest from scholars and the general public in the DMPs submitted, NEH has bundled the plans in a zip file and is making them available for download via the NEH FOIA Library [the link entitled "Data Management Plans From Successful Grant Applications (2011 - 2014)" leads to a 15.1mb zip file]: http://www.neh.gov/about/foia/library

Sample AHRC Technical Plan ...
data.blogs.ilrt.org/files/2014/02/data.bris-AHRC-example-Technical-Plan.pdf
Search
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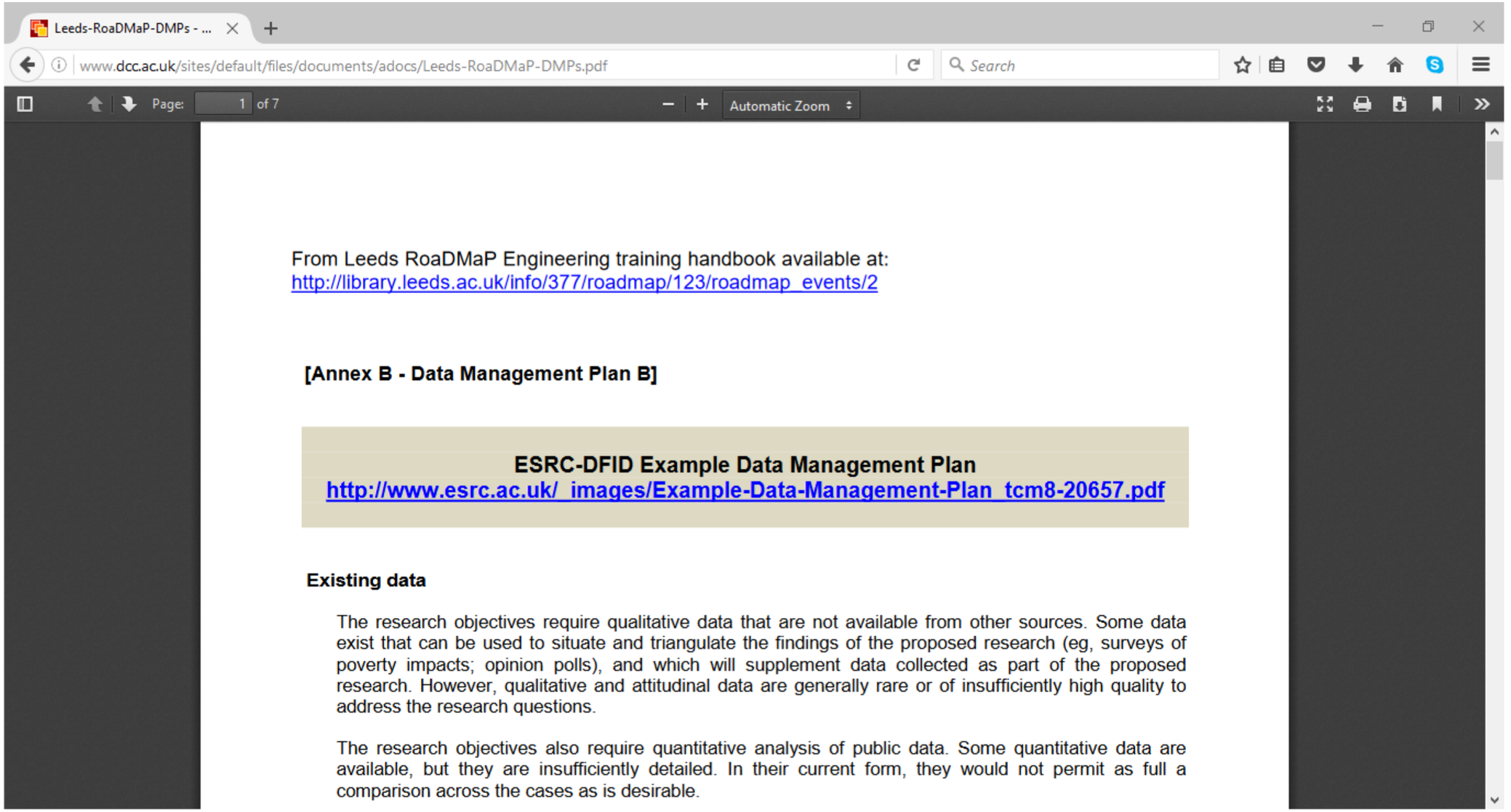
University of BRISTOL
Sample AHRC Technical Plan




From Leeds RoaDMaP Engineering training handbook available at:
http://library.leeds.ac.uk/info/377/roadmap/123/roadmap_events/2

**[Annex B - Data Management Plan B]**

**ESRC-DFID Example Data Management Plan**
**http://www.esrc.ac.uk/_images/Example-Data-Management-Plan_tcm8-20657.pdf**

**Existing data**

The research objectives require qualitative data that are not available from other sources. Some data exist that can be used to situate and triangulate the findings of the proposed research (eg, surveys of poverty impacts; opinion polls), and which will supplement data collected as part of the proposed research. However, qualitative and attitudinal data are generally rare or of insufficiently high quality to address the research questions.

The research objectives also require quantitative analysis of public data. Some quantitative data are available, but they are insufficiently detailed. In their current form, they would not permit as full a comparison across the cases as is desirable.

# RESEARCH DATA - OPEN BY DEFAULT

Data management costs are fully eligible for funding

No repository imposed: deposit data where you want

# Where to find a repository?

- More information: https://www.openaire.eu/opendatapilot-repository
- Zenodo: http://www.zenodo.org
- Re3data.org: http://www.re3data.org

# **Zenodo** (OpenAIRE/CERN repository)

## (All) Research. Shared.

**— your one stop research shop!**

All research outputs from across all fields of science are welcome! Zenodo accept any file format as well as bo positive and negative results. However, we do prom peer-reviewed openly accessible research, and we curate your upload before putting it on the front-

## Citeable. Discoverable.

**— be found!**

Zenodo assigns all publicly available uploads a Digital

## Community Collections

**— create your own repository**

Zenodo allows you to create your own collection and ccept or reject all uploads to it. Creating a space for your ext workshop or project have never been easier. Plus, everything is citeable and discoverable.

## Safe

**— more than just a drop box!**

Your research output is stored safely for the future in same cloud infrastructure as research data from CERN's Large Hadron Collider using a CERN's battle-tested repository software INVENIO used by some of the world's largest repositories such as INSPIRE HEP and CERN Document Server.

## Reporting

**— tell your funding agency!**

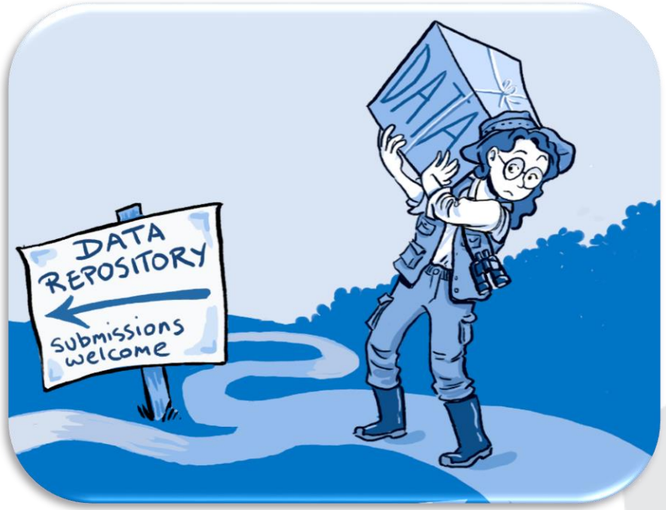
Zenodo is integrated into reporting lines for research funded by the European Commission via OpenAIRE. Just upload your research on Zenodo and we will take care of the reporting for you. We plan to extend with futher funding agencies in the future so stay tuned!

## Flexible Licensing

**— not everything is under Creative Commons**

Zenodo encourage you to share your research as openly as possible to maximize use and re-use of your research results. However, we also acknowledge that one size does not fit all, and therefore allow for uploading under a multitude of different licenses and access levels*.

* You are responsible for respecting applicable copyright and license conditions for the files you upload.



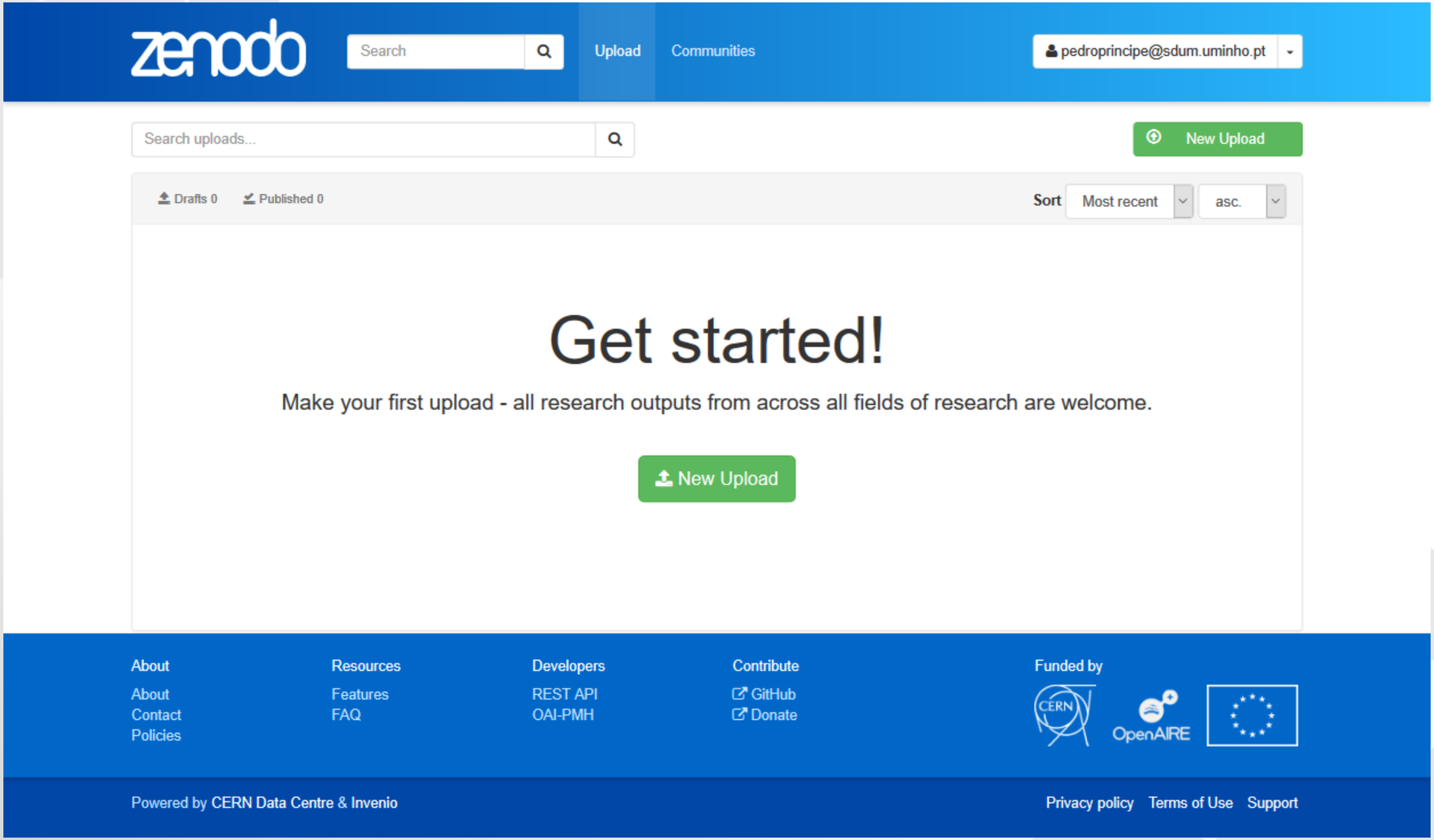

www.zenodo.org

# Zenodo Repository

## “Catch-all” repository: OpenAIRE-CERN joint effort

- **Multiple data types**
  - **Publications**
  - **Long tail of research data**
- **Citable data (DOI)**
- **Links to funding, pubs, data, software**

H2020: Option to gather, preserve and share project’s scientific output


zenodo
Search
Upload
Communities
pedroprincipe@sdum.uminho.pt
Search uploads...
New Upload
Drafts 0
Published 0
Sort
Most recent
asc.
Get started!
Make your first upload - all research outputs from across all fields of research are welcome.
New Upload
About
About
Contact
Policies
Resources
Features
FAQ
Developers
REST API
OAI-PMH
Contribute
GitHub
Donate
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OpenAIRE
Powered by CERN Data Centre & Invenio
Privacy policy
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Delete

Save Publish

# New upload

**Instructions:** (i) Upload minimum one file or fill-in required fields (marked with a red star ). (ii) Press "Save" to save your upload for editing later. (iii) When ready, press "Publish" to finalize and make your upload public.

Files

Choose files Start upload

Drag and drop files here

— or —

Choose files

(minimum 1 file required, max 50 GB per dataset - contact us for larger datasets)

Upload type

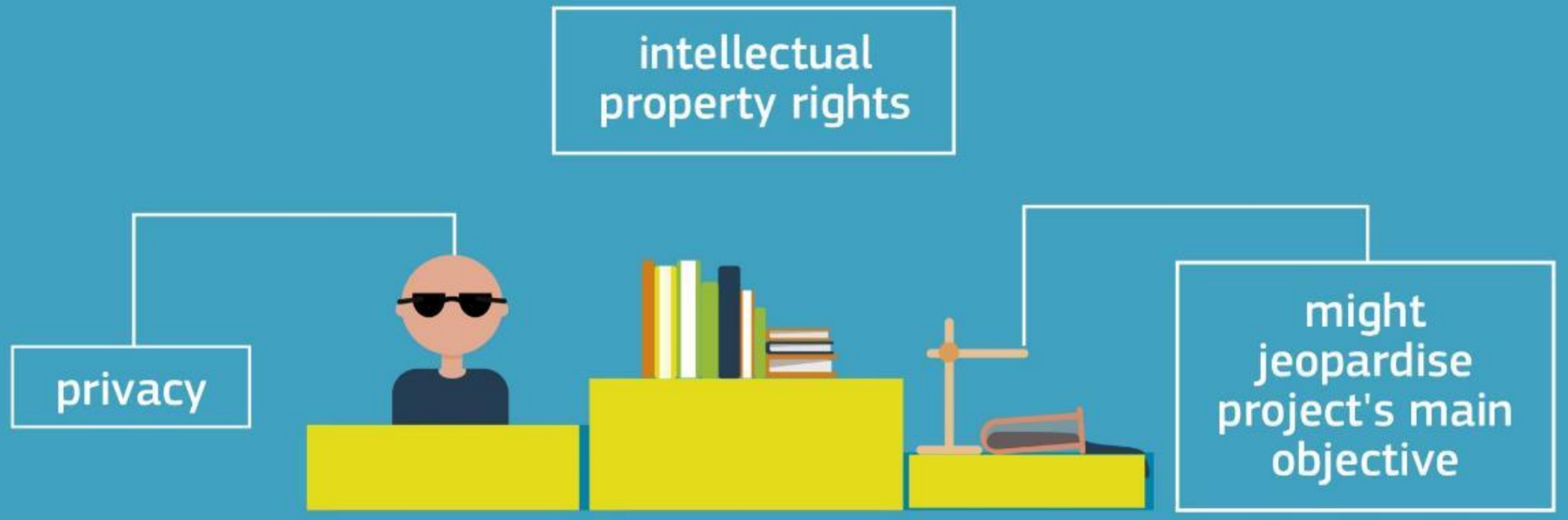
required

# AS OPEN AS POSSIBLE, AS CLOSED AS NECESSARY

Grantees have the right to **opt-out**, but need to say **why**

# AS OPEN AS POSSIBLE, AS CLOSED AS NECESSARY

Top three reasons for **opt-out**:



# AS OPEN AS POSSIBLE, AS CLOSED AS NECESSARY

The approach has been tested during a Horizon 2020 pilot action

**2015**

of 431 signed projects

opted to share data

**from 2017**

the current
Open Research Data Pilot
expands to cover all areas
of Horizon 2020,
with the same rules

# BE PART OF THE NEW ERA OF OPEN SCIENCE

reach more people, have greater impact

avoid duplication of efforts

preserve data for future researchers

simplify final Horizon 2020 reporting thanks to an up-to-date DMP

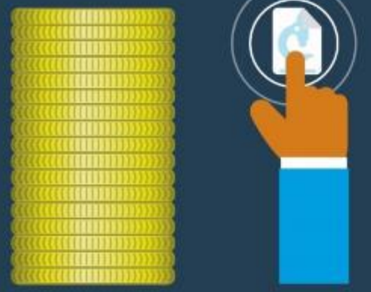
# BE PART OF THE NEW ERA OF OPEN SCIENCE

here's one example of **the gains arising from open research data**

## Bioinformatics Institute

**€1.3 billion** per year

Benefits identified by the European Bioinformatics Institute to users and their funders just by making scientific information freely available to the global life science community...



equivalent to **more than** 20 times the direct operational cost of the Institute

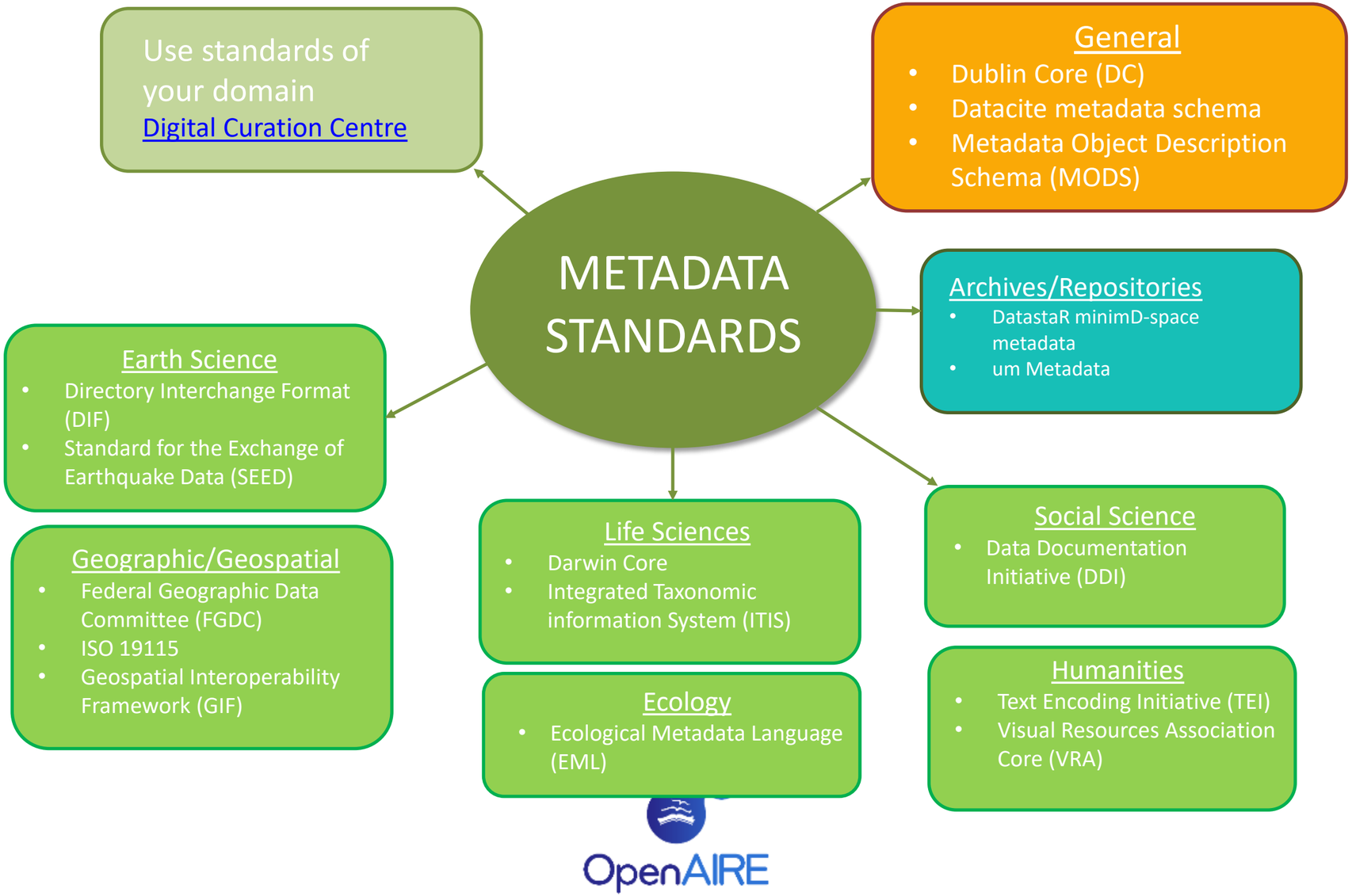
Source: Charles Beagrie Ltd. for EMBL-EBI

# Concerns about data sharing

| Concern | Solution |
| --- | --- |
| inappropriate use due to misunderstanding of research purpose or parameters | |
| security and confidentiality of sensitive data | |
| lack of acknowledgement / credit | |
| loss of advantage when competing for research funding | |

# Concerns about data sharing

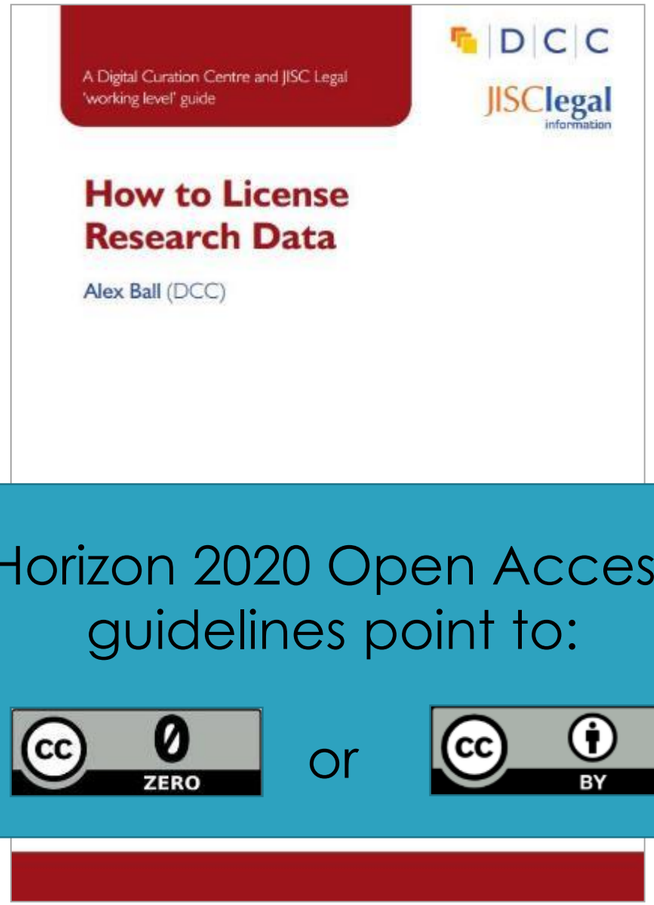
| Concern | Solution |
| --- | --- |
| inappropriate use due to misunderstanding of research purpose or parameters | metadata |
| security and confidentiality of sensitive data | metadata |
| lack of acknowledgement / credit | metadata |
| loss of advantage when competing for research funding | metadata |


Use standards of your domain
Digital Curation Centre
General
• Dublin Core (DC)
• Datacite metadata schema
• Metadata Object Description Schema (MODS)
METADATA STANDARDS
Archives/Repositories
• DatastaR minimD-space metadata
• um Metadata
Earth Science
• Directory Interchange Format (DIF)
• Standard for the Exchange of Earthquake Data (SEED)
Geographic/Geospatial
• Federal Geographic Data Committee (FGDC)
• ISO 19115
• Geospatial Interoperability Framework (GIF)
Life Sciences
• Darwin Core
• Integrated Taxonomic information System (ITIS)
Ecology
• Ecological Metadata Language (EML)
Social Science
• Data Documentation Initiative (DDI)
Humanities
• Text Encoding Initiative (TEI)
• Visual Resources Association Core (VRA)
OpenAIRE

# Concerns about data sharing

| Concern | Solution |
| --- | --- |
| inappropriate use due to misunderstanding of research purpose or parameters | provide rich *Abstract, Purpose, Use Constraints* and *Supplemental Information* where needed |
| security and confidentiality of sensitive data | • the metadata does NOT contain the data<br>• *Use Constraints* specify who may access the data and how |
| lack of acknowledgement / credit | specify a **required** data citation within the *Use Constraints* |
| loss of data insight and competitive advantage when vying for research funding | create second, public version with generalised *Data Processing Description* |

# Licensing research data




Horizon 2020 Open Access guidelines point to:

CC0 ZERO or CC BY

This DCC guide outlines the pros and cons of each approach and gives practical advice on how to implement your licence

CREATIVE COMMONS LIMITATIONS

NC Non-Commercial
What counts as commercial?

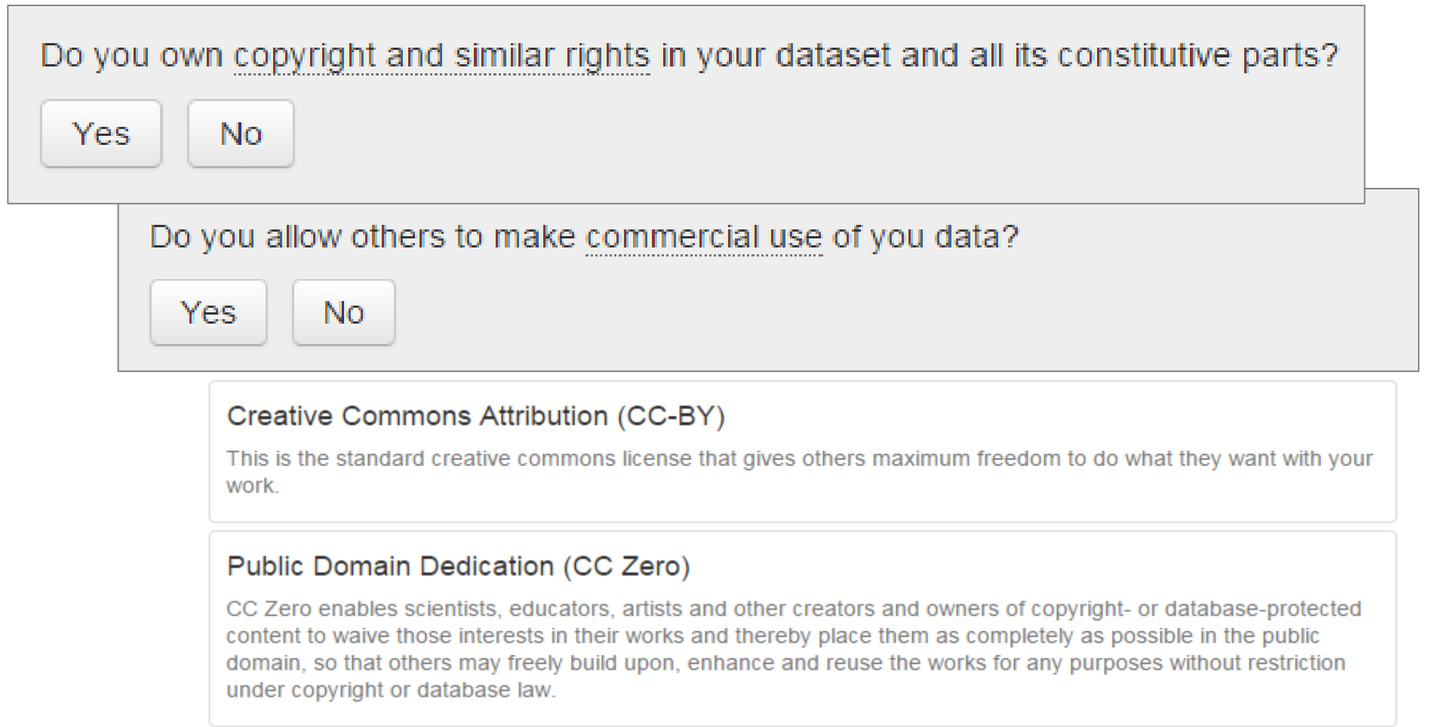
ND No Derivatives
Severely restricts use

**These clauses are not open licenses**

www.dcc.ac.uk/resources/how-guides/license-research-data

# EUDAT licensing tool

Answer questions to determine which licence(s) are appropriate to use




http://ufal.github.io/public-license-selector

# Data sharing examples

The videos will be made available via the bristol.ac.uk website (both as streaming media and downloads) HD and SD versions will be provided to accommodate those with lower bandwidth. Videos will also be made available via Vimeo, a platform that is already well used by research students at Bristol. Appropriate metadata will also be provided to the existing Vimeo standard.

All video will also be available for download and re-editing by third parties. To facilitate this Creative Commons licenses will be assigned to each item. In order to ensure this usage is possible, the required permissions will be gathered from participants (using a suitable release form) before recording commences.

From University of Bristol Kitchen Cosmology DMP

We will make the data and associated documentation available to users under a **data-sharing agreement** that provides for: (1) a commitment to using the data only for research purposes and not to identify any individual participant; (2) a commitment to securing the data using appropriate computer technology; and (3) a commitment to destroying or returning the data after analyses are completed.

From NIH data sharing statements

# What to preserve & share

It's not possible to keep everything. Select based on:

- What has to be kept e.g. data underlying publications
- What can't be recreated e.g. environmental recordings
- What is potentially useful to others
- What has scientific, cultural or historical value
- What legally must be destroyed

How to select and appraise research data:
www.dcc.ac.uk/resources/how-guides/appraise-select-research-data

# … fosters the social and technical links that enable Open Science in Europe and beyond

**Human Network**

**Digital Network**

**50 Partners from every EU country, and beyond**
**Data centers, universities, libraries, repositories, legal experts**

# Infrastructure for Open Knowledge

- **Foster** and **facilitate** the shift of scholarly communication towards making science Open and Reproducible
- **Collaborative** and **participatory** approach at European and Global level

# Integrated Scientific Information System

## Access to

- 17 mi **unique** publications
- 25 K datasets linked to publications
- 750 **validated** data providers
- 370K publications linked to **projects** from **7 funders**

- 3.5K links to software repositories

# World-wide alignment & synergies

## Interoperability alignment, sharing technologies & services

- La Refencia: Latin America repository network
- JAIRO – Japanese Institutional Repositories Online
- REMERI – Mexican Network of Institutional Repositories
- …

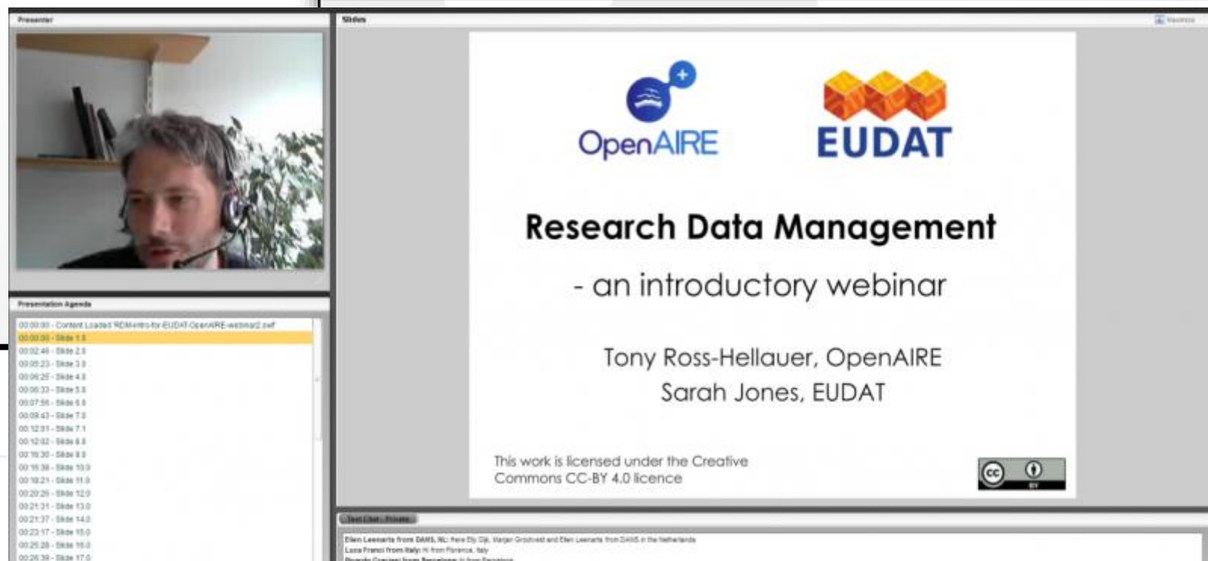
# From Open Access to *Open Science*

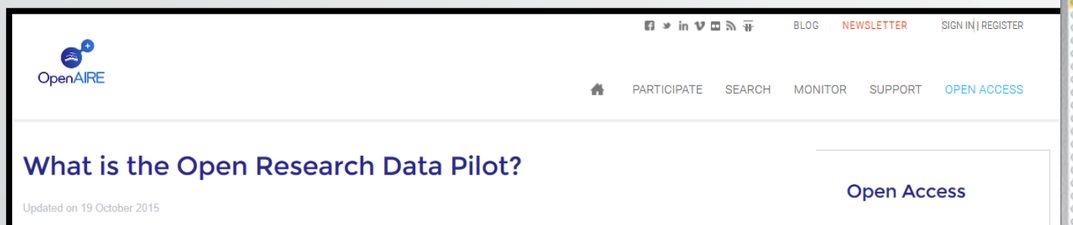
***Aim: To open up scientific processes and products from all levels to everyone …***

- Open Access (publications, data, software, educational resources)
- Open Methodology (open notebooks, study preregistration)
- Citizen Science
- Open Evaluation / Open Peer Review

# Research Data Management Training & Support Materials

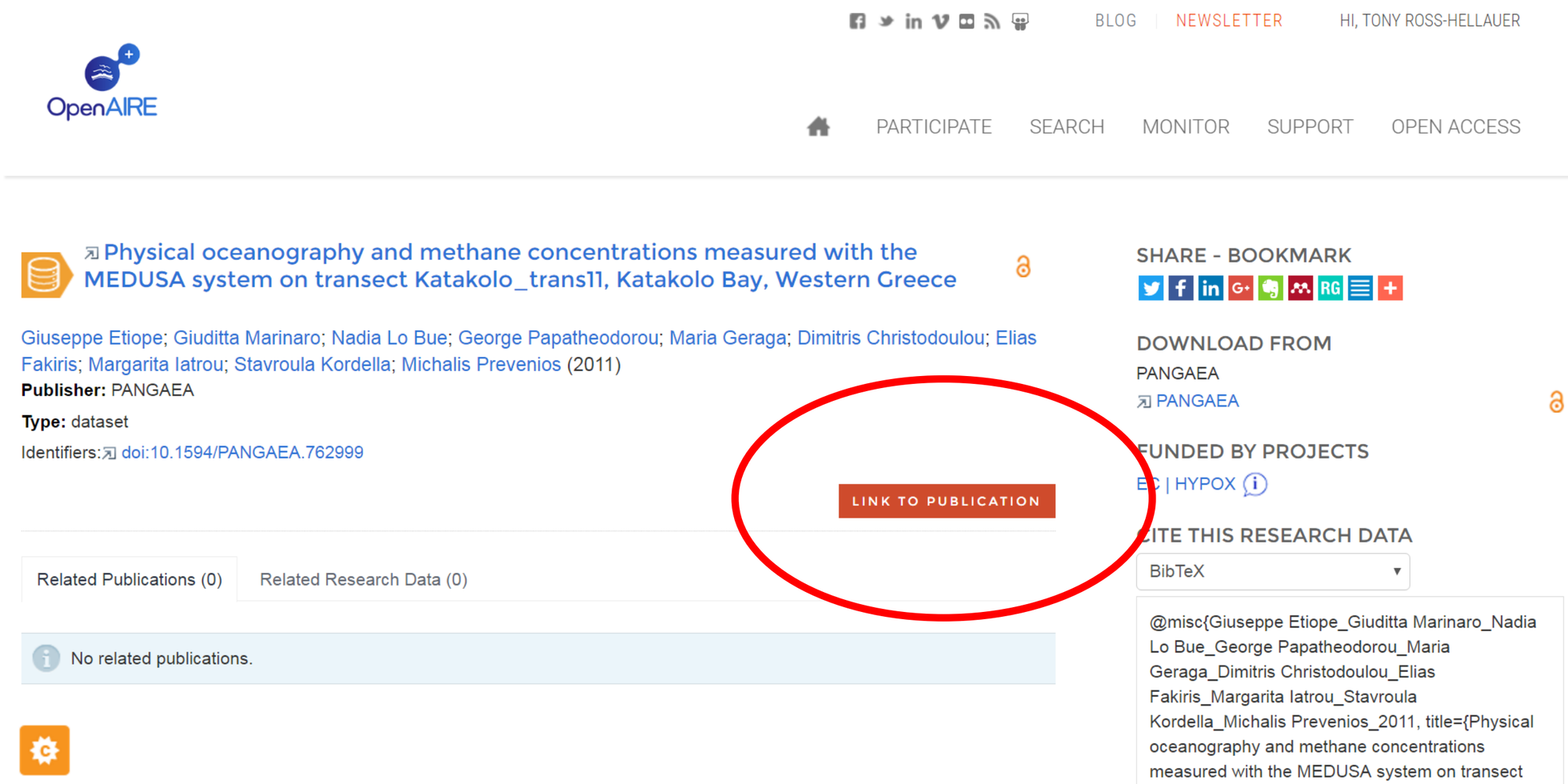
- Briefing papers, factsheets, webinars, workshops, FAQs
- Information on:
  - Open Research Data Pilot
  - Creating a Data Management Plan
  - Selecting a data repository
- https://www.openaire.eu/opendatapilot
- https://www.openaire.eu/support



# Link data to publications

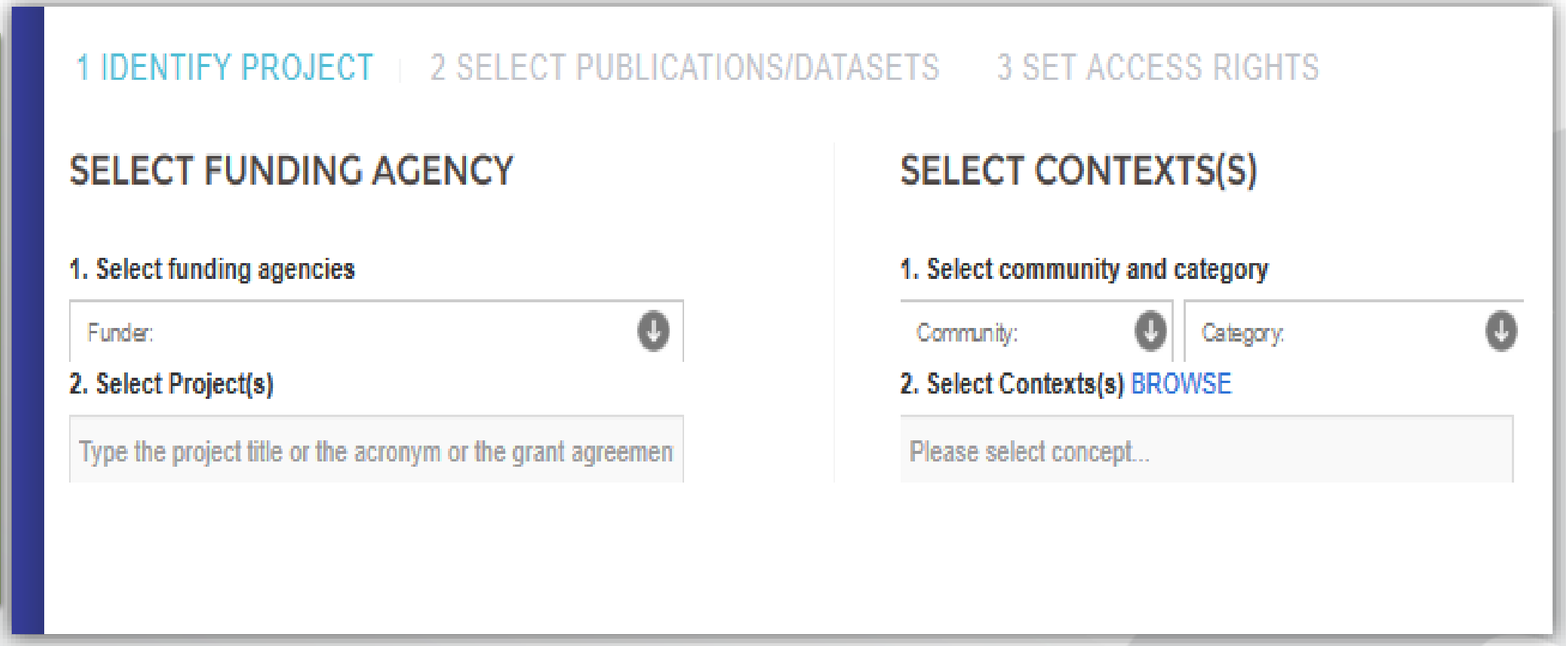
https://www.openaire.eu/search



# LINK RESEARCH RESULTS TOOL

https://www.openaire.eu/participate/claim

Link publication or datasets to projets.
Identify the project, select publications or datasets and set the access rights.



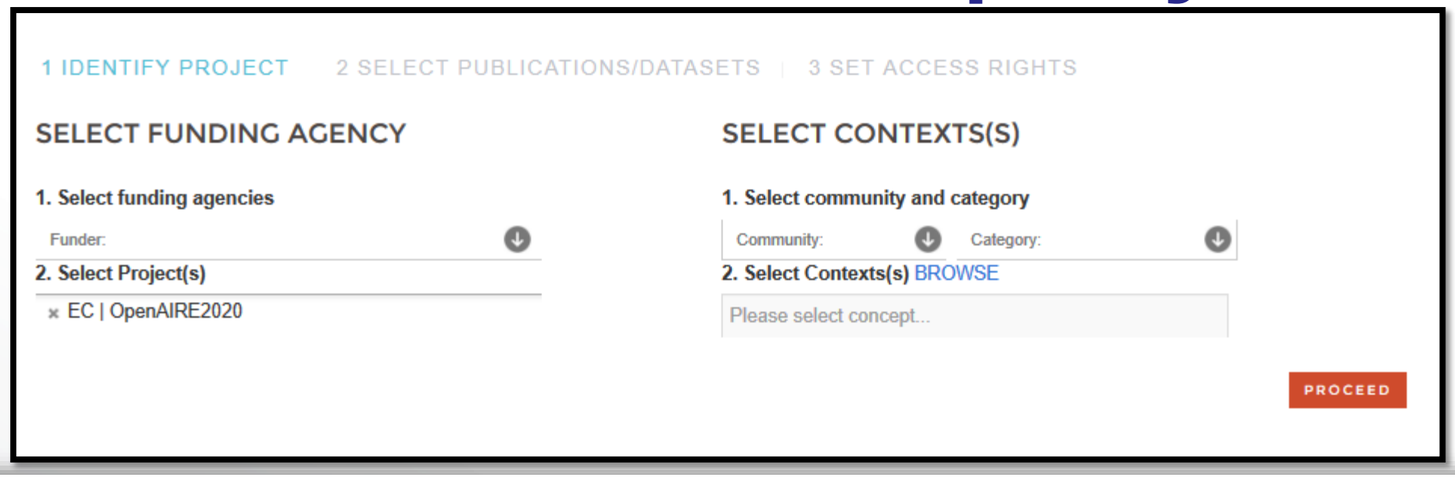
# Projects: publications and data

HERMIONE SC39

| | |
|---|---|
| Title | Hotspot Ecosystem Research and Man's Impact on European seas |
| Funding | EC \| FP7 \| SP1 \| ENV |
| Call | FP7-ENV-2008-1 |
| Contract (GA) number | 226354 |
| Start Date | 2009/04/01 |
| End Date | 2012/09/30 |
| Open Access mandate | yes |
| Special Clause 39 | yes |
| Organizations | FAU, CU, HAVFORSKNINGSINSTITUTTET, SIO, IH, National Marine Aqua, NIOZ, Acquario di Genova, THE SCOTTISH ASSOCIATION FOR MARINE SCIENCE, ArchimediX, CNR, UNIVERSITY OF THESSALY - UTH, UPM CNRS, UB, UniHB, UNEP, CSIC, AWI, MPG, UGOT, UAzores, UAVR, SOTON, JacobsUni, HCMR, MEDIAN, IFREMER, HWU, CONISMA, ULIV, UiT, ICHEC, GEOMAR, NERC, UNIABDN, KNAW, SENCKENBERG GESELLSCHAFT FUR NATURFORSCHUNG, WCMC, Tyndall-UCC, UGent |
| More information | Detailed project information (CORDIS) |

Publications (351) | Research Data (481) | Statistics

# Link datasets and projects

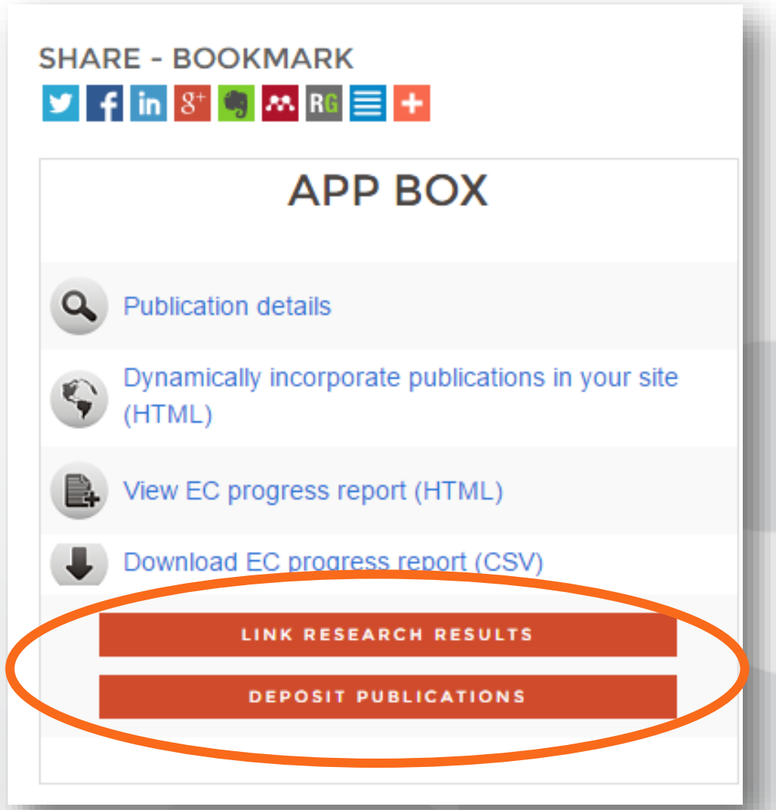


# Linking research results

## Publications and data to projects

1 IDENTIFY PROJECT | 2 SELECT PUBLICATIONS/DATASETS | 3 SET ACCESS RIGHTS

- 3 easy steps
  - Identify projects (EC +)
  - Find publications/data
  - Set access rights



# Thank you!

**Acknowledgements:**

**Thanks to DANS and DCC for reuse of slides**

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iryna.kuchma@eifl.net