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# OpenAIRE: e-Infrastructure and policies for Open Science and facilitating Open Science training for European Union Research



International Conference “Academic Libraries and Open Science”, Kaunas University of Technology, December 6, 2016





# Who we are

- **An EU project**
- **In 24x7 operation since Dec 2010**
  - OpenAIRE (**Dec. 2009 – Nov. 2012**)
  - OpenAIREplus (**Dec. 2011 – Dec. 2014**)
  - OpenAIRE2020 (**Jan. 2015 – Jun. 2018**)
  - actually started in 2006 with DRIVER and DRIVER II
- **Consortium of 50 partners**

## Open Access experts

- Institutional, national and international perspectives on OA policies & e-Infrastructures

## Information & Computer Science experts

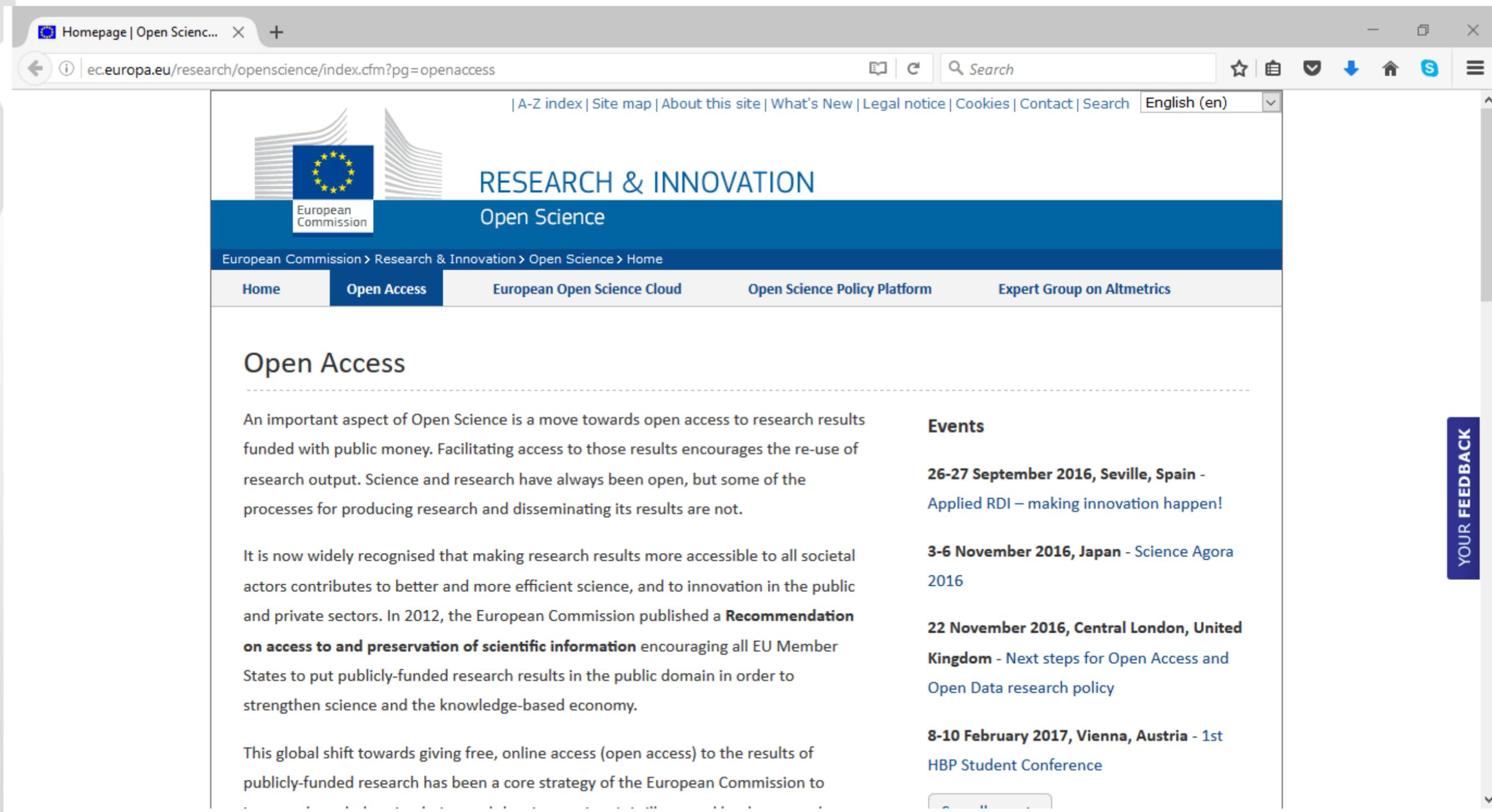
- Building efficient e-Infra technologies
- State of the art technologies (big data, linked data)

## Legal experts

- Legal & policy recommendations

## Data communities

- Best practices for data
- Linking to data infrastructures



The screenshot shows a web browser window displaying the European Commission's Open Science page. The browser's address bar shows the URL `ec.europa.eu/research/openscience/index.cfm?pg=openaccess`. The page header includes the European Commission logo and the text "RESEARCH & INNOVATION Open Science". A navigation menu contains links for "Home", "Open Access", "European Open Science Cloud", "Open Science Policy Platform", and "Expert Group on Altmetrics". The main content area is titled "Open Access" and contains two paragraphs of text. The first paragraph discusses the importance of open access to research results funded with public money. The second paragraph mentions a 2012 recommendation on access to and preservation of scientific information. To the right, there is an "Events" section listing three upcoming events: "26-27 September 2016, Seville, Spain - Applied RDI – making innovation happen!", "3-6 November 2016, Japan - Science Agora 2016", and "22 November 2016, Central London, United Kingdom - Next steps for Open Access and Open Data research policy". A fourth event, "8-10 February 2017, Vienna, Austria - 1st HBP Student Conference", is partially visible at the bottom. A vertical "YOUR FEEDBACK" button is located on the right side of the page.

Homepage | Open Scienc... X +

ec.europa.eu/research/openscience/index.cfm?pg=openaccess

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European Commission

RESEARCH & INNOVATION  
Open Science

European Commission > Research & Innovation > Open Science > Home

Home Open Access European Open Science Cloud Open Science Policy Platform Expert Group on Altmetrics

## 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

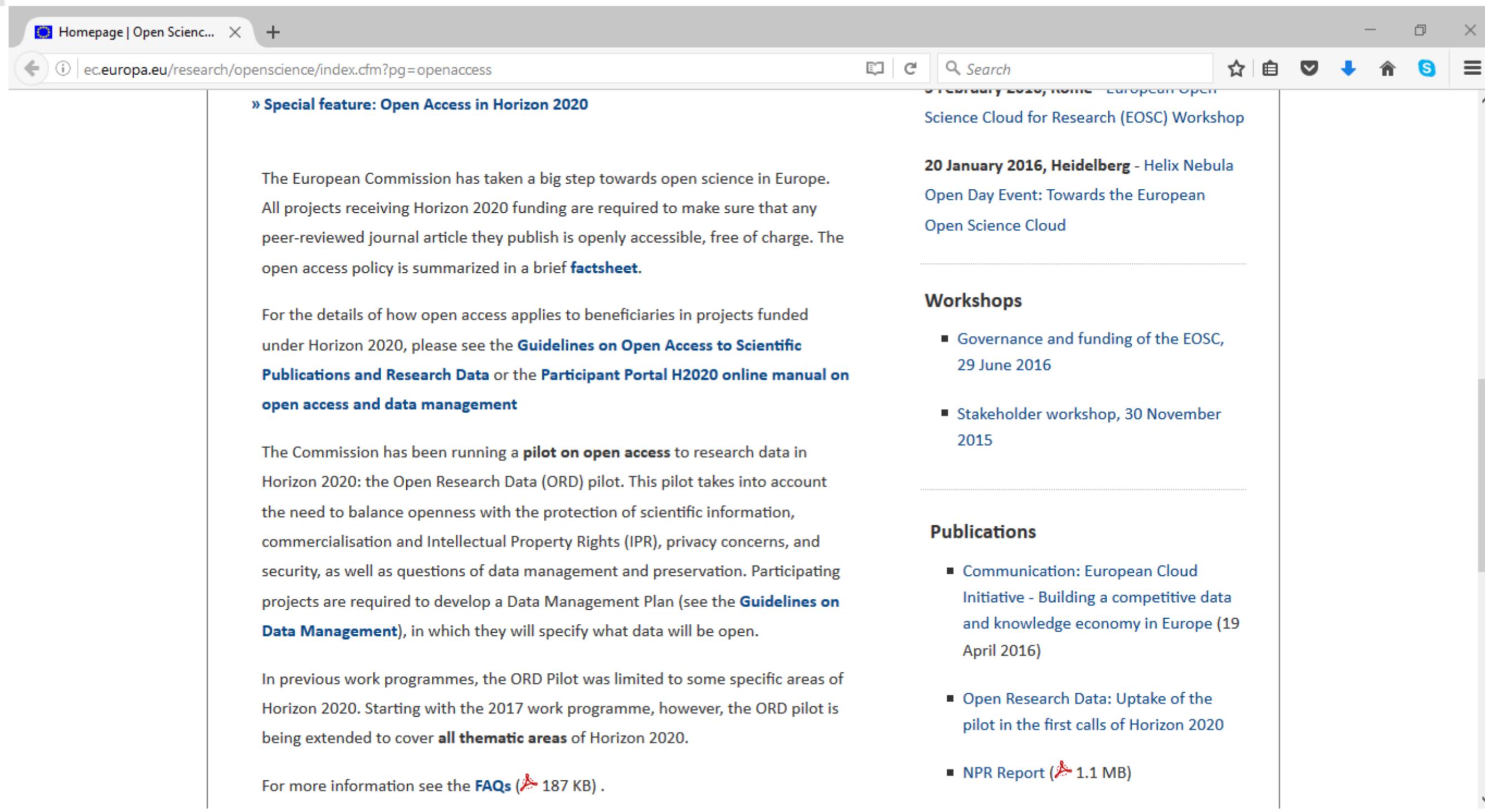
**26-27 September 2016, Seville, Spain - Applied RDI – making innovation happen!**

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**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



Homepage | Open Scienc... X +

ec.europa.eu/research/openscience/index.cfm?pg=openaccess

Search

» **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) .

February 2016, Rome - European Open Science Cloud for Research (EOSC) Workshop

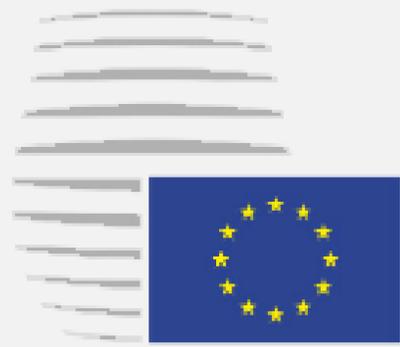
**20 January 2016, Heidelberg - Helix Nebula Open Day Event: Towards the European Open Science Cloud**

**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)



Council of the  
European Union

“

**ACKNOWLEDGES** that Open Science has the potential to increase the quality, impact and benefits of science and to **accelerate advancement of knowledge** by making it more reliable, more efficient and accurate,

better **understandable by society** and **responsive to societal challenges**, and has the potential to **enable growth and innovation** through reuse of scientific results by all stakeholders at all levels of society, and ultimately contribute to growth and competitiveness of Europe.

*Brussels 27 May 2016*



# DIGITAL SINGLE MARKET

## Digital Economy & Society

European Commission > Open Science



The strategy

Economy

Society

Access & connectivity

Research & innovation

DG CONNECT

Research & innovation

Innovation

Digital Infrastructures

Emerging Technologies

Components & Systems

Open Science

Open Access

Citizen science

Global Systems Science

ICT & Art

EU Funded Projects

## Open Science

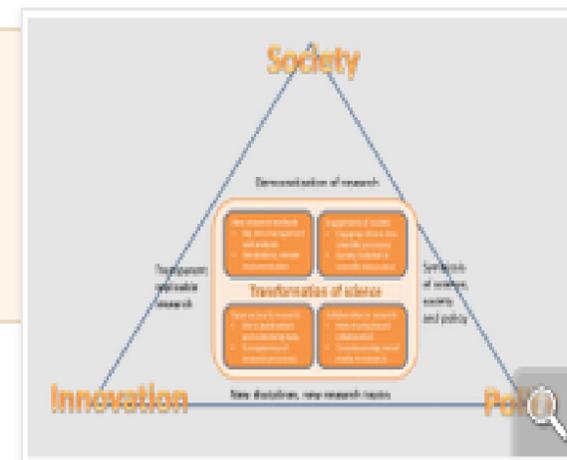
Article

Latest

Blogs

Open Science aims at transforming science through ICT tools, networks and media, to make research more open, global, collaborative, creative and closer to society.

Open science is about the way research is carried out, disseminated, deployed and transformed by digital tools, networks and media. It relies on the combined effects of technological development and cultural change towards collaboration and openness in research.



Share

Events



Funding



Newsletters



Consultations



Blog



Discussions



@ICTscienceEU

# Society

Democratization of research

## New research methods

- Big data management and analysis
- Simulations, remote instrumentation

## Engagement of society

- Engaging citizens into scientific processes
- Society included in scientific discussions

## Transformation of science

### Open access to research

- OA to publications and underlying data
- Transparency of research processes

### Collaboration in research

- Data sharing based collaboration
- Crowdsourcing, social media in research

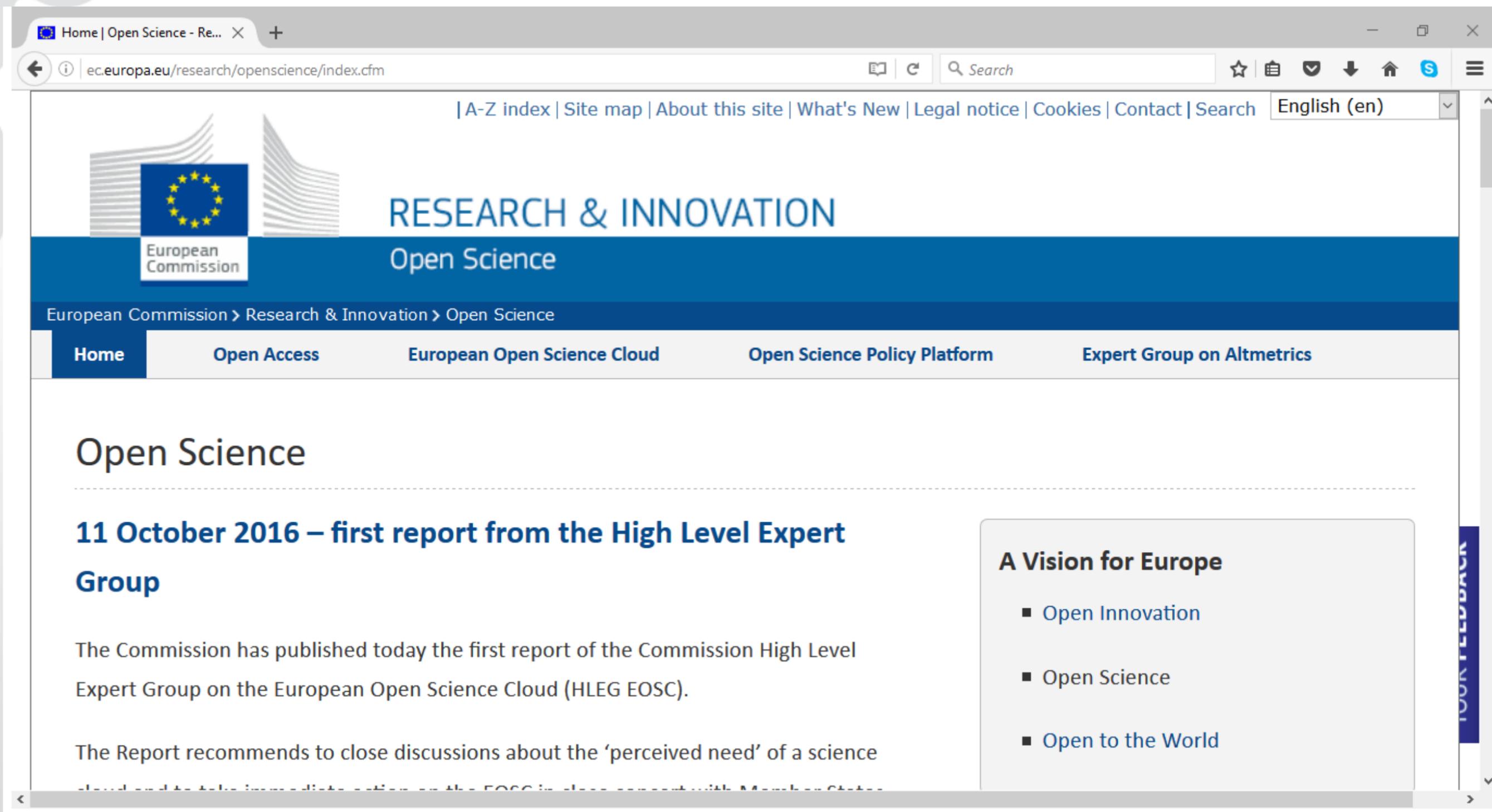
Symbiosis of science, society and policy

Transparent replicable research

New disciplines, new research topics

# Innovation

# Policy



Home | Open Science - Re... X +

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RESEARCH & INNOVATION  
Open Science

European Commission

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## Open Science

### 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 cloud and to take immediate action on the EOSC in close concert with Member States

#### A Vision for Europe

- Open Innovation
- Open Science
- Open to the World

YOUR FEEDBACK

# 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 (2)

**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 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

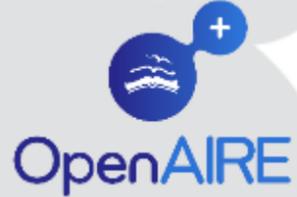


George Osborne says that Ken Rogoff, the man whose economic error has been uncovered, has strongly influenced his thinking. Photograph: Stefan Wermuth/PA

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 (2)

**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 (3)

**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

# 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

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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



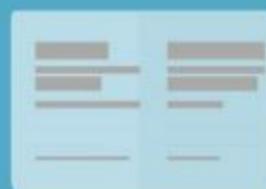
# RESEARCH DATA - OPEN BY DEFAULT

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



DATA  
MANAGEMENT  
PLAN  
(DMP)

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 - OPEN BY DEFAULT

Data management costs are fully eligible for funding



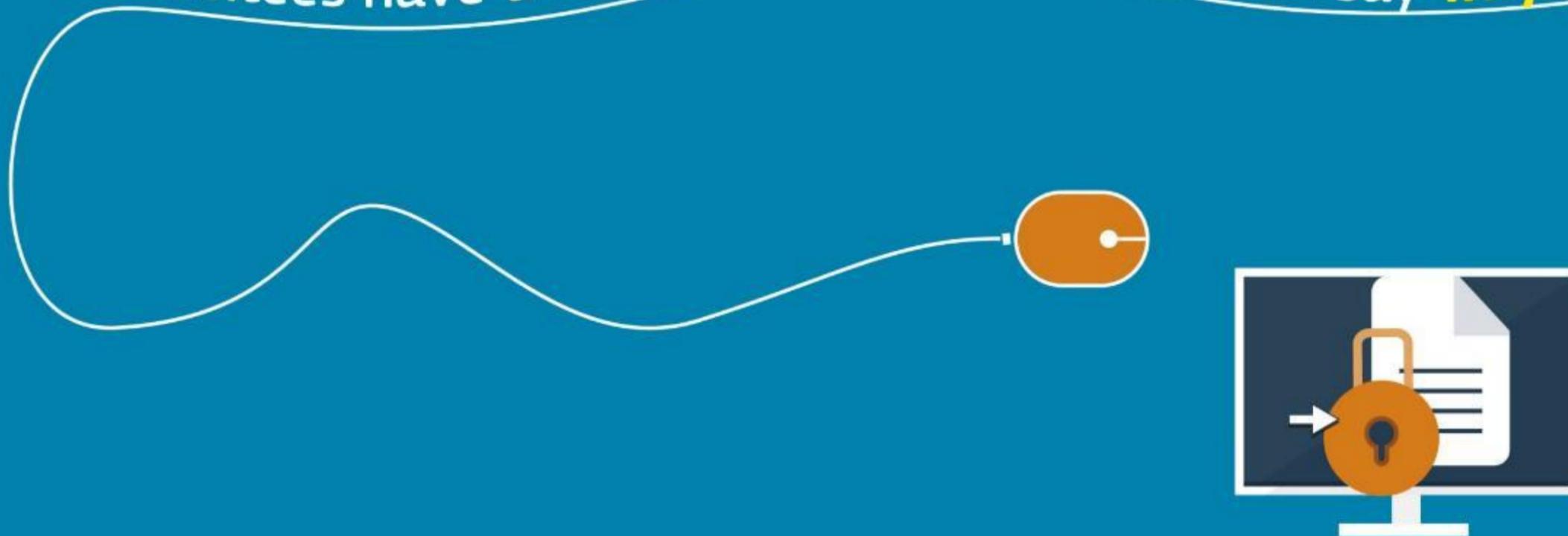
No repository imposed: deposit data where you want



# AS OPEN AS POSSIBLE, AS CLOSED AS NECESSARY

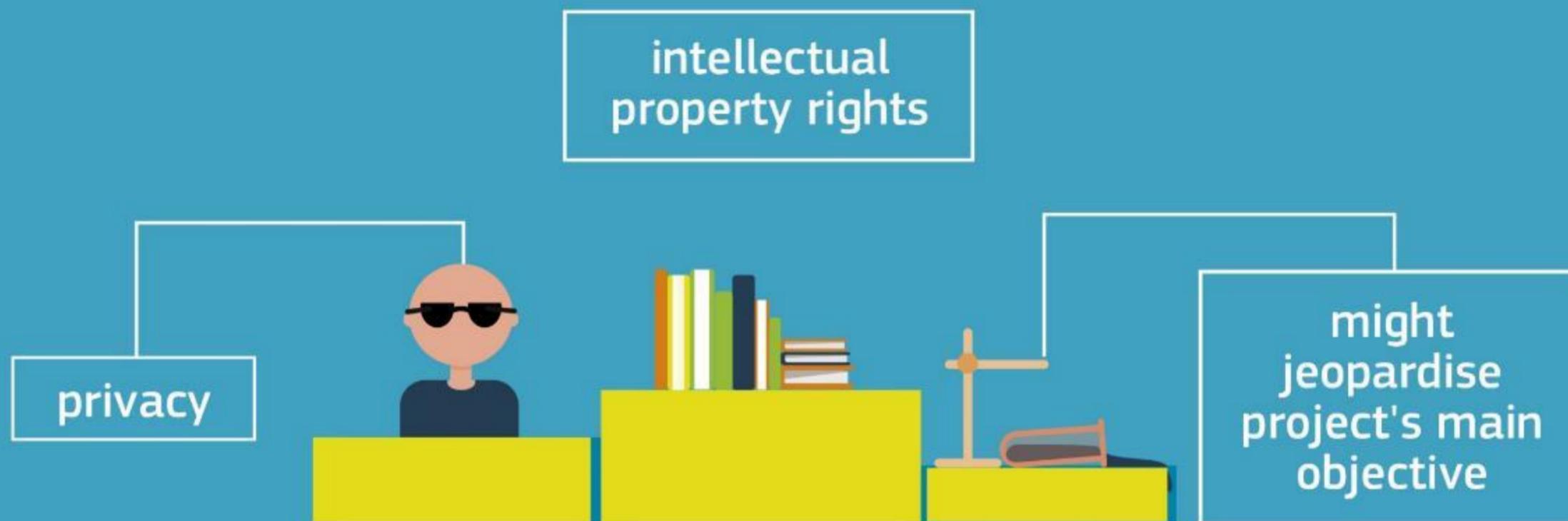
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Grantees have the right to **opt-out**, but need to say **why**



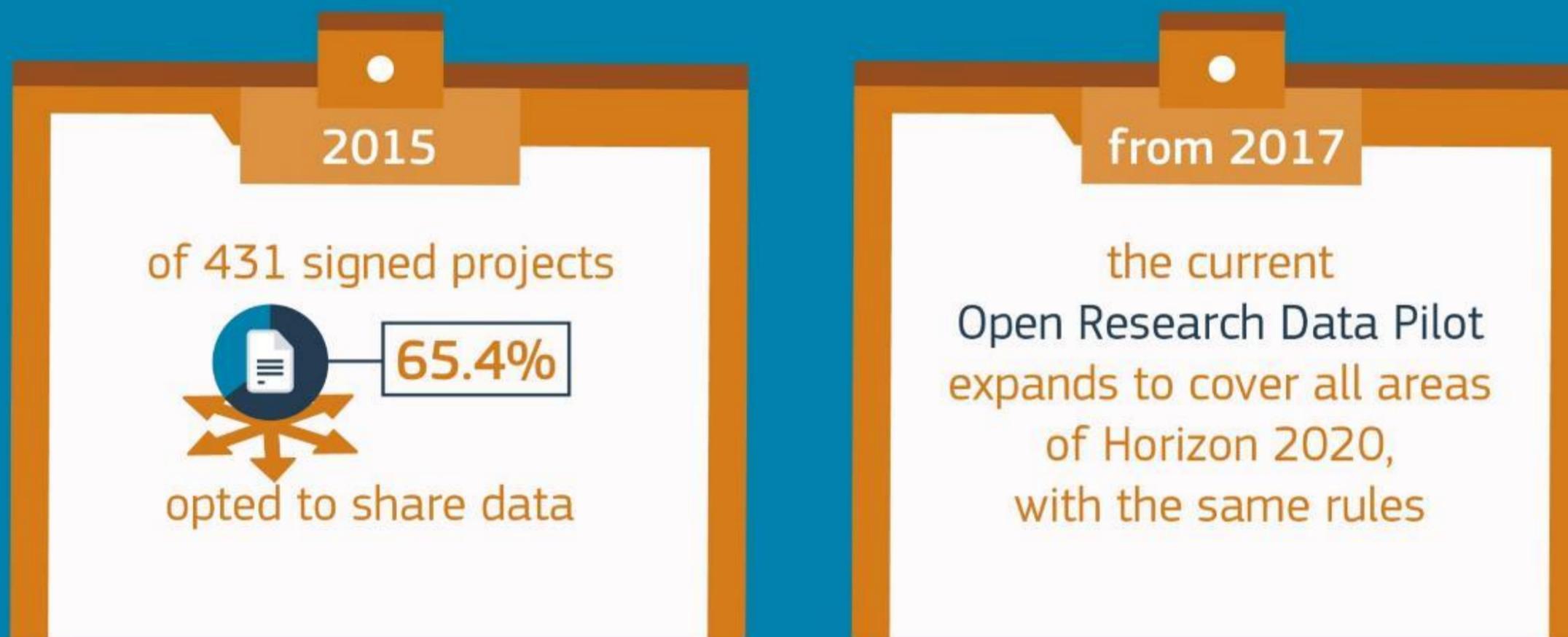
# AS OPEN AS POSSIBLE, AS CLOSED AS NECESSARY

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

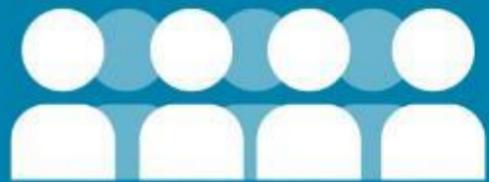


# AS OPEN AS POSSIBLE, AS CLOSED AS NECESSARY

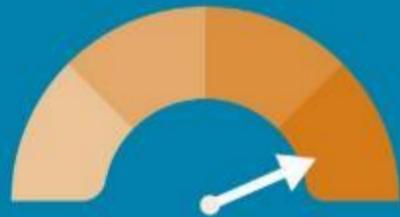
The approach has been tested during a Horizon 2020 pilot action



# 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

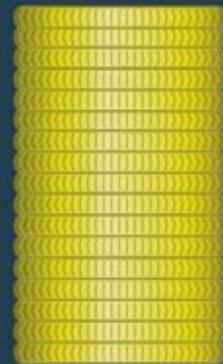
# BE PART OF THE NEW ERA OF OPEN SCIENCE

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

... 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



Open Access representatives and liaisons in all EU member states.

 AUSTRIA GERDA MCNEILL <a href="#">MORE</a>	 BELGIUM INGE VAN NIEUWERBURGH <a href="#">MORE</a>	 BULGARIA PETER STANCHEV <a href="#">MORE</a>	 BULGARIA GEORGI SIMEONOV <a href="#">MORE</a>
 CROATIA JADRANKA STOJANOVSKI <a href="#">MORE</a>	 CYPRUS SYLVIA KOUKOUNIDOU <a href="#">MORE</a>	 CZECH REPUBLIC DANIELA TKACIKOVA <a href="#">MORE</a>	 DENMARK ASGER VAERING LARSEN <a href="#">MORE</a>
 DENMARK ANNE THORST MELBYE <a href="#">MORE</a>	 ESTONIA ANNELI SEPP <a href="#">MORE</a>	 FINLAND PAULI ASSINEN <a href="#">MORE</a>	 FRANCE ANDRE DAZY <a href="#">MORE</a>
 GERMANY ANJA OBERLAENDER <a href="#">MORE</a>	 GREECE MARINA ANGELAKI <a href="#">MORE</a>	 HUNGARY GYONGYI KARACSONY <a href="#">MORE</a>	 ICELAND SOLVEIG THORSTEINSDOTTIR <a href="#">MORE</a>
 IRELAND NIAMH BRENNAN <a href="#">MORE</a>	 ITALY PAOLA GARGIULO <a href="#">MORE</a>	 LATVIA GITA ROZENBERGA <a href="#">MORE</a>	 LITHUANIA CINTARE TAUTKEVICIENE <a href="#">MORE</a>

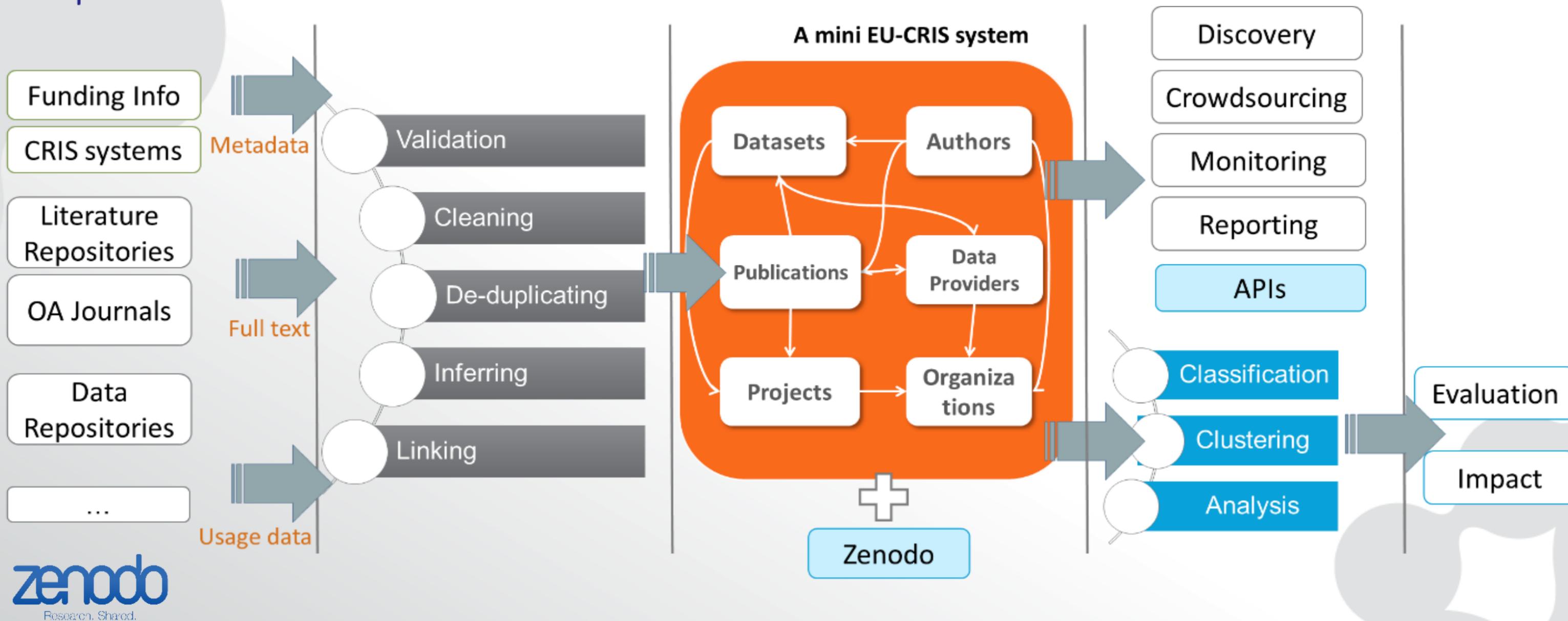


 LUXEMBURG BETH PARK <a href="#">MORE</a>	 MALTA KEVIN ELLUL <a href="#">MORE</a>	 NORWAY JENS AASHEIM <a href="#">MORE</a>	 POLAND MARTA HOFFMAN-SOMMER <a href="#">MORE</a>
 PORTUGAL PEDRO PRINCIPE <a href="#">MORE</a>	 ROMANIA NICOLAI E CONSTANTINESCU <a href="#">MORE</a>	 SERBIA BILJANA KOSANOVIC <a href="#">MORE</a>	 SLOVAKIA LUBOMIR BILSKY <a href="#">MORE</a>
 MOJCA KOTAR <a href="#">MORE</a>	 PILAR RICO CASTRO <a href="#">MORE</a>	 BEATE EELLEND <a href="#">MORE</a>	 ANDRE HOFFMANN <a href="#">MORE</a>
 THE NETHERLANDS JUST DE LEEUWE <a href="#">MORE</a>	 THE NETHERLANDS ELLY DIJK <a href="#">MORE</a>	 TURKEY GULTEKIN GURDAL <a href="#">MORE</a>	 UNITED KINDOM FRANK MANISTA <a href="#">MORE</a>

OpenAIRE PARTICIPATE SEARCH MONITOR

[www.openaire.eu/contact-noads](http://www.openaire.eu/contact-noads)

# OpenAIRE infrastructure overview



# The OpenAIRE e-infrastructure in a nutshell

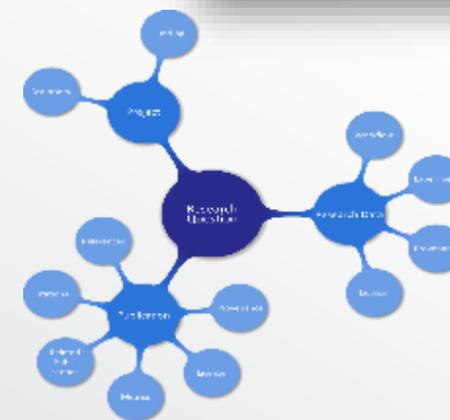
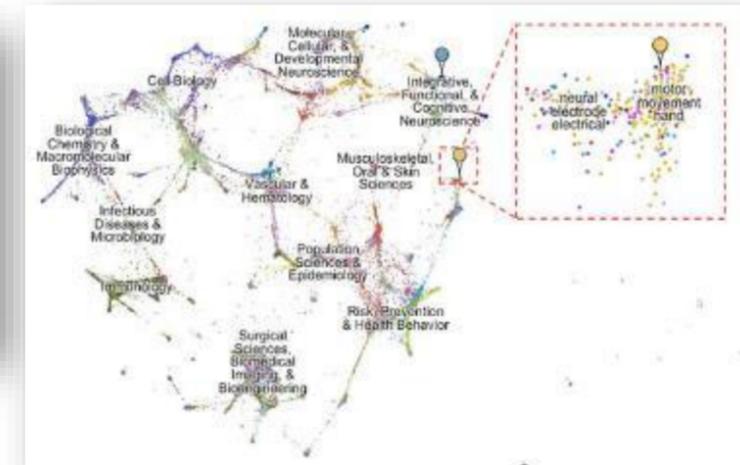
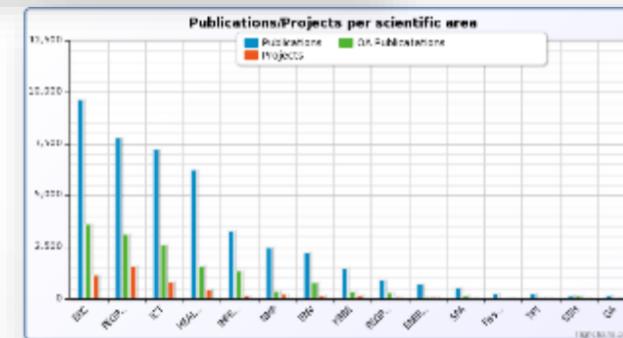
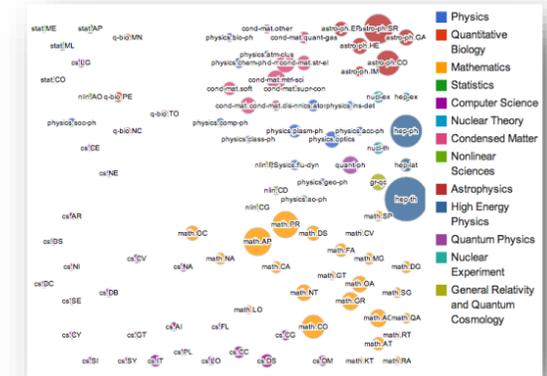
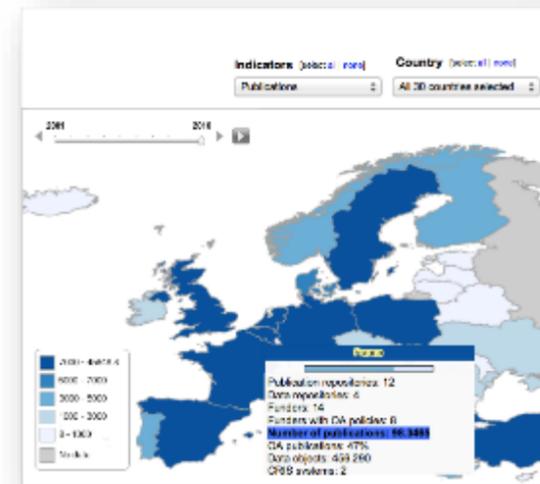
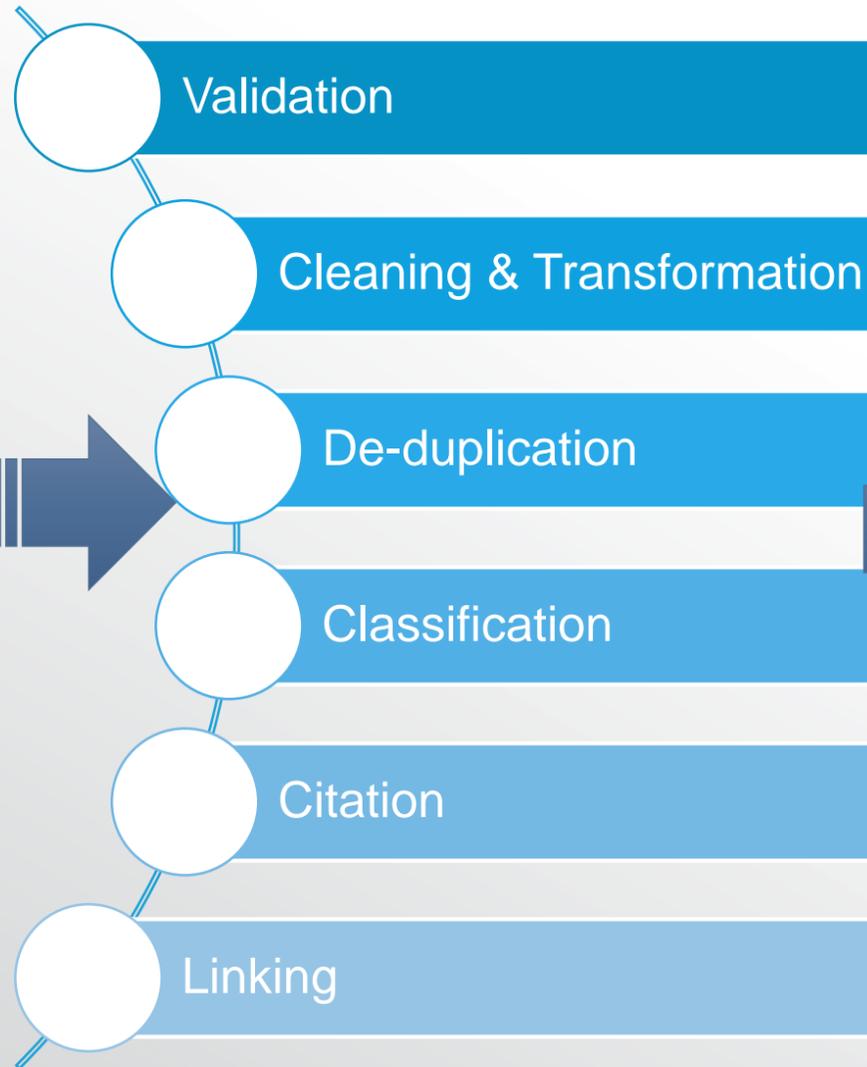
Registries

Funding information

CRIS systems

Data repositories  
Data Journals

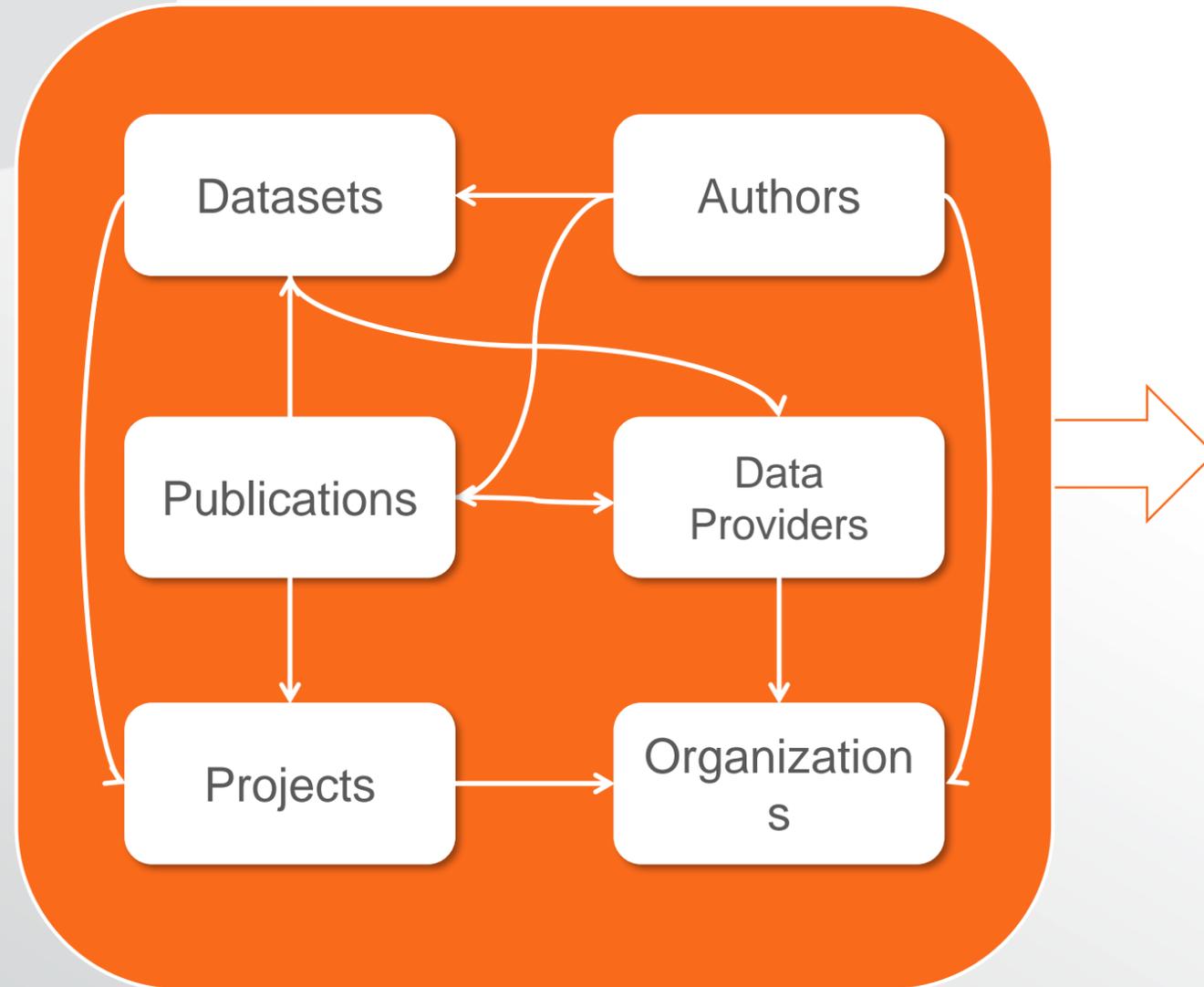
Publication repositories  
*Institutional & Thematic*  
Open Access Journals



Research output in context



# Integrated Scientific Information System



## Access to

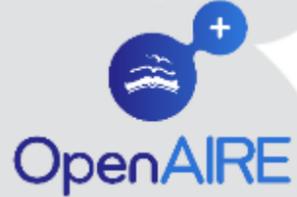
- 17 mi **unique** publications
- 25 K datasets linked to publications
- 750 **validated** data providers
- 370K publications linked to **projects** from **7 funders**
- 3.5K links to software repositories

# Building bridges: Global alignment via COAR



“bloor viaduct”, <https://www.flickr.com/photos/43021516@N06/>, CC BY-SA 2.0

# World-wide alignment & synergies



Red Mexicana  
de Repositorios  
Institucionales



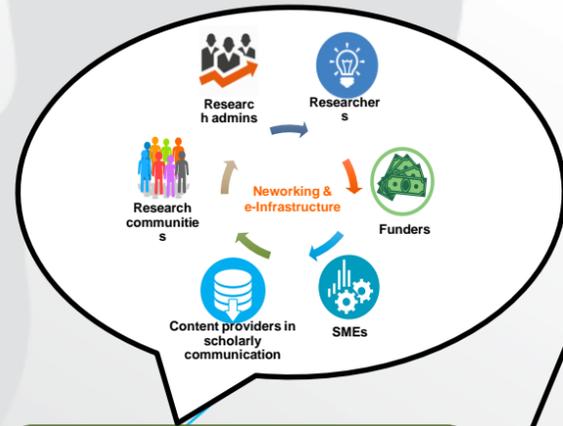
WORLD DATA SYSTEM

## Interoperability alignment, sharing technologies & services

- La Refencia: Latin America repository network
- JAIR O – Japanese Institutional Repositories Online
- REMER I – Mexican Network of Institutional Repositories
- ...

# No people, no infrastructure!

## *Linking people, ideas, and technologies*



Networking



International alignment

Policies and guidelines

Best practices

Technological liaisons

NOADs (EU), COAR, RDA, CASRAI, SHARE (US), La Referencia (South America), WDS

Open Access and Research Data Management

Interoperability guidelines for content providers

Data citation, data-literature inrerlinking

Alternative bibliometrics, Repository usage stats

Open Peer Review

Existing e-infrastructures to re-use their content and services

# EC Open Access Mandate Progression



## FP7 (2008)

- 20% programme areas
- Deposit in repositories
- APC payments during project
- ERC OA Guidelines

## Horizon 2020 (2014)

- 100% programme areas
- Deposit in repositories
- APCs *during* and *after* project
- Open Data Pilot (100% from 2017)



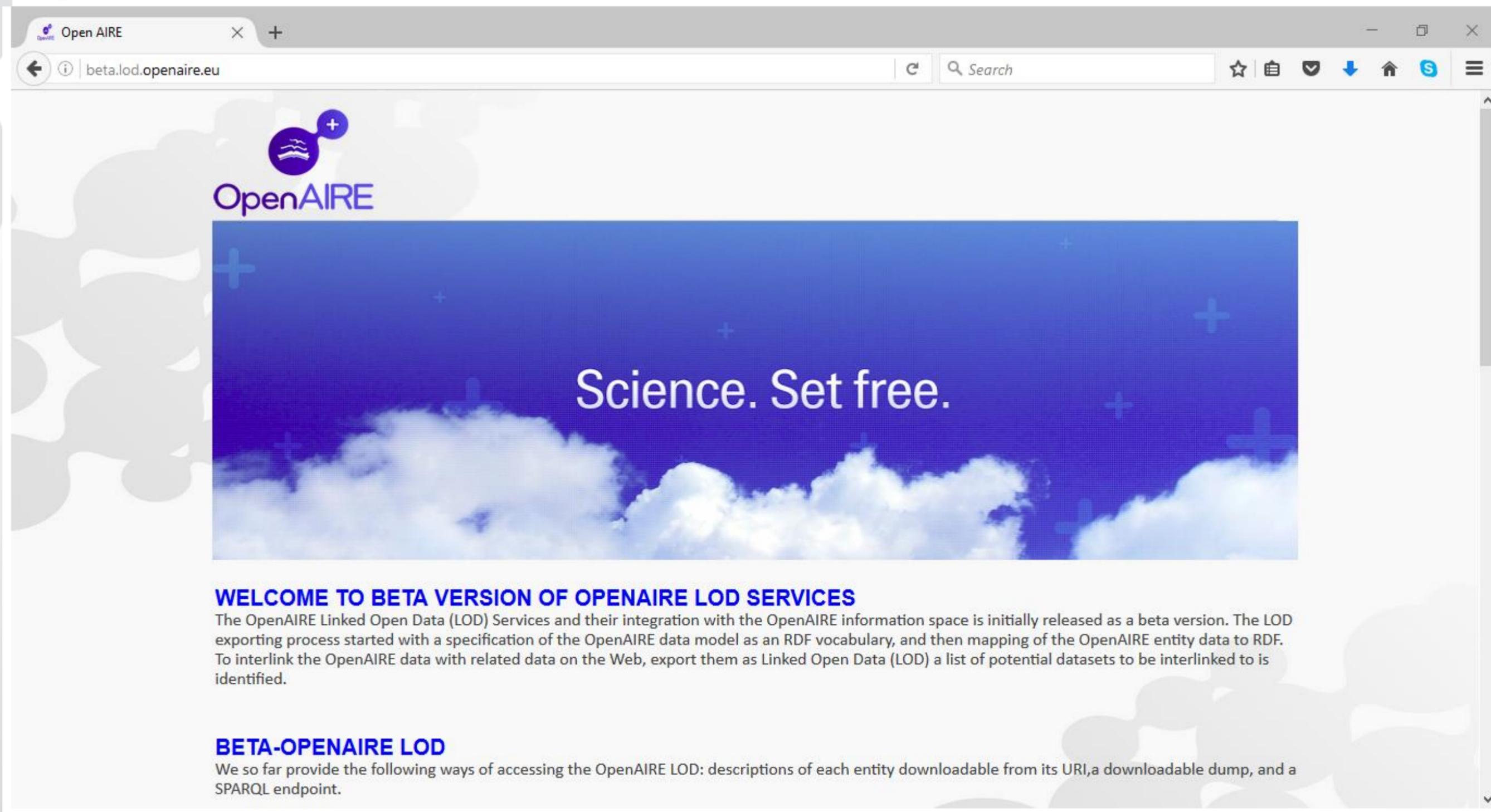
# New in OpenAIRE2020

Research and development into new trends in scholarly communication

## Linked Open Data

- Legal issues in Open Data
- Data Citation

- Literature-Data Integration
- OA Metrics
- Open Peer Review



The screenshot shows a web browser window with the address bar displaying "beta.lod.openaire.eu". The page features the OpenAIRE logo at the top left. Below the logo is a large blue banner with white clouds at the bottom and the text "Science. Set free." in white. Underneath the banner, there is a section titled "WELCOME TO BETA VERSION OF OPENAIRE LOD SERVICES" followed by a paragraph of text. Below that is another section titled "BETA-OPENAIRE LOD" followed by another paragraph of text.

## WELCOME TO BETA VERSION OF OPENAIRE LOD SERVICES

The OpenAIRE Linked Open Data (LOD) Services and their integration with the OpenAIRE information space is initially released as a beta version. The LOD exporting process started with a specification of the OpenAIRE data model as an RDF vocabulary, and then mapping of the OpenAIRE entity data to RDF. To interlink the OpenAIRE data with related data on the Web, export them as Linked Open Data (LOD) a list of potential datasets to be interlinked to is identified.

## BETA-OPENAIRE LOD

We so far provide the following ways of accessing the OpenAIRE LOD: descriptions of each entity downloadable from its URI, a downloadable dump, and a SPARQL endpoint.

# 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

# Why Open Peer Review?

Problems with traditional peer review ...



- Time
- Accountability
- Bias
- Incentive
- Wasted effort

# Open Peer Review, broadly defined ...

## Traditionally, peer review is ...

- **Anonymous**: reviewers unknown to authors, or both authors and reviewers unknown to each other
- **Selective**: reviewers selected by editors
- **Opaque**: neither the process nor the reviews are made public

## Openness in peer review can refer to ...

- Absence of anonymity (**open identity**)
- Self-selecting reviewers (**open participation**)
- Public processes and reviews (**open access**)



# Encouraging experimentation

- Use OpenAIRE infrastructure to seed experimentation
- Stakeholder survey (to come)
- Call for Tenders in 2015
  - Small grants
  - Investigate how OPR might integrate with OpenAIRE
  - Provide case studies for wider evaluation
  - Encourage technological experimentation

- Francophone environmental sciences journal
- Using the blog platform hypotheses.org for OPR
- Using hypothes.is for open commentary
- Treating OPR as a social rather than a technological problem

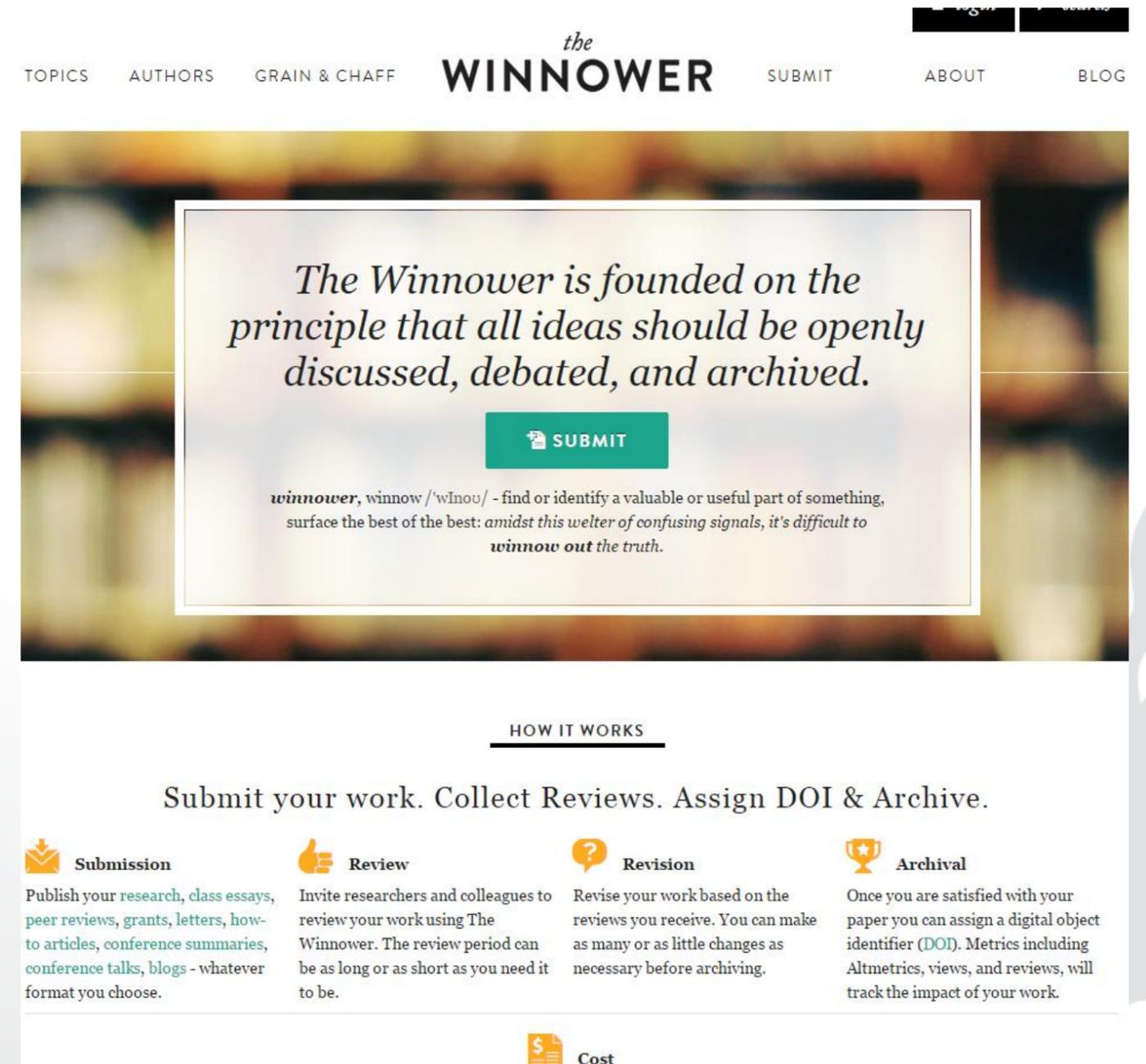
[VertigO] La revue électronique en sciences de l'environnement



<p>Recherche <input type="text"/></p> <p><b>INDEX</b></p> <p>Auteur Mots-clés Lieux d'étude</p> <p><b>NUMÉROS</b></p> <p>Tous les numéros Tous les hors-séries</p> <p><b>LA REVUE</b></p> <p>À propos Directives aux auteurs Comité de rédaction Comité scientifique Nos partenaires Appel aux propositions Guide - rédaction scientifique Le blogue de Vertigo</p> <p><b>RUBRIQUES ÉLECTRONIQUES</b></p> <p>Débats et Perspectives Regards / Terrain Lectures Événements scientifiques</p> <p><b>CARNET DE RECHERCHE</b></p>	<p><b>Dernier numéro en ligne</b></p> <p><b>VOLUME 15 NUMÉRO 2   septembre 2015</b></p> <p><b>Temporalités, action environnementale et mobilisations sociales</b></p> <p><b>Dossier : Temporalités, action environnementale et mobilisations sociales</b></p> <p>Sous la direction de <b>Nathalie Lewis</b> (Université du Québec à Rimouski, Canada) (Département Sociétés, territoires et développement, Université du Québec à Rimouski, Canada), <b>Didier Busca</b> (CERTOP, Université Toulouse – Le Mirail, France), <b>Louis Simard</b> (École d'études politiques, Université d'Ottawa, Canada) et <b>Bruno Villalba</b> (Ceraps, Sciences Po, Lille, France)</p> <p>Il importe de réfléchir aux modes de prise de décisions, notamment politiques, aux dynamiques d'action collective, aux processus de qualification des problèmes et des solutions... aux dynamiques d'empêchement ; en d'autres termes de réfléchir à l'impact de ces postures – leurs audiences –, sur les modes de penser et d'agir collectifs. Ce dossier de [VertigO] recueille des textes permettant de penser de façon compréhensive l'impact des marqueurs temporels dans les dynamiques d'action environnementales dans leur mode de penser et d'agir, de conception et d'action.</p> <p><a href="#">Voir le sommaire complet</a></p> <p><b>Section courante</b></p>	<p><b>Débats et Perspectives</b></p> <p>Robin Chalot <b>Écologie et urbanisme : comment les experts du vivant peuvent-ils contribuer à la conception du cadre urbain ?</b> 18 novembre 2015</p> <p>Maximin Chabrol <b>Hiérarchies urbaines et transitions énergétiques: une approche évolutive en Europe de 1800 à 2010</b> 08 novembre 2015</p> <p>Franck Raffégeau et Eric Tromeur <b>Oscillation : bioadéquation et bien-être sont-ils l'avenir d'un progrès durable pour nos enfants ?</b> 28 septembre 2015</p> <p><a href="#">Voir la rubrique</a></p> <p><b>Regards / Terrain</b></p> <p>R. Bellefontaine, Quentin Meunier, Ichaou Aboubacar et Hervé Le Bouler <b>Multiplication végétative à faible coût au profit des paysans et éleveurs des zones tropicales et méditerranéennes</b> 05 octobre 2015</p>
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# *the* WINNOWER

- Incentivizing post-publication peer reviews (with \$\$\$!)
- Capturing reviews from “journal clubs”
- Platform for reviews of Zenodo content
- Author survey



the  
**WINNOWER**

TOPICS AUTHORS GRAIN & CHAFF SUBMIT ABOUT BLOG

*The Winnower is founded on the principle that all ideas should be openly discussed, debated, and archived.*

**SUBMIT**

*winnower*, winnow /'wɪnoʊ/ - find or identify a valuable or useful part of something, surface the best of the best: amidst this welter of confusing signals, it's difficult to **winnow out** the truth.

**HOW IT WORKS**

Submit your work. Collect Reviews. Assign DOI & Archive.

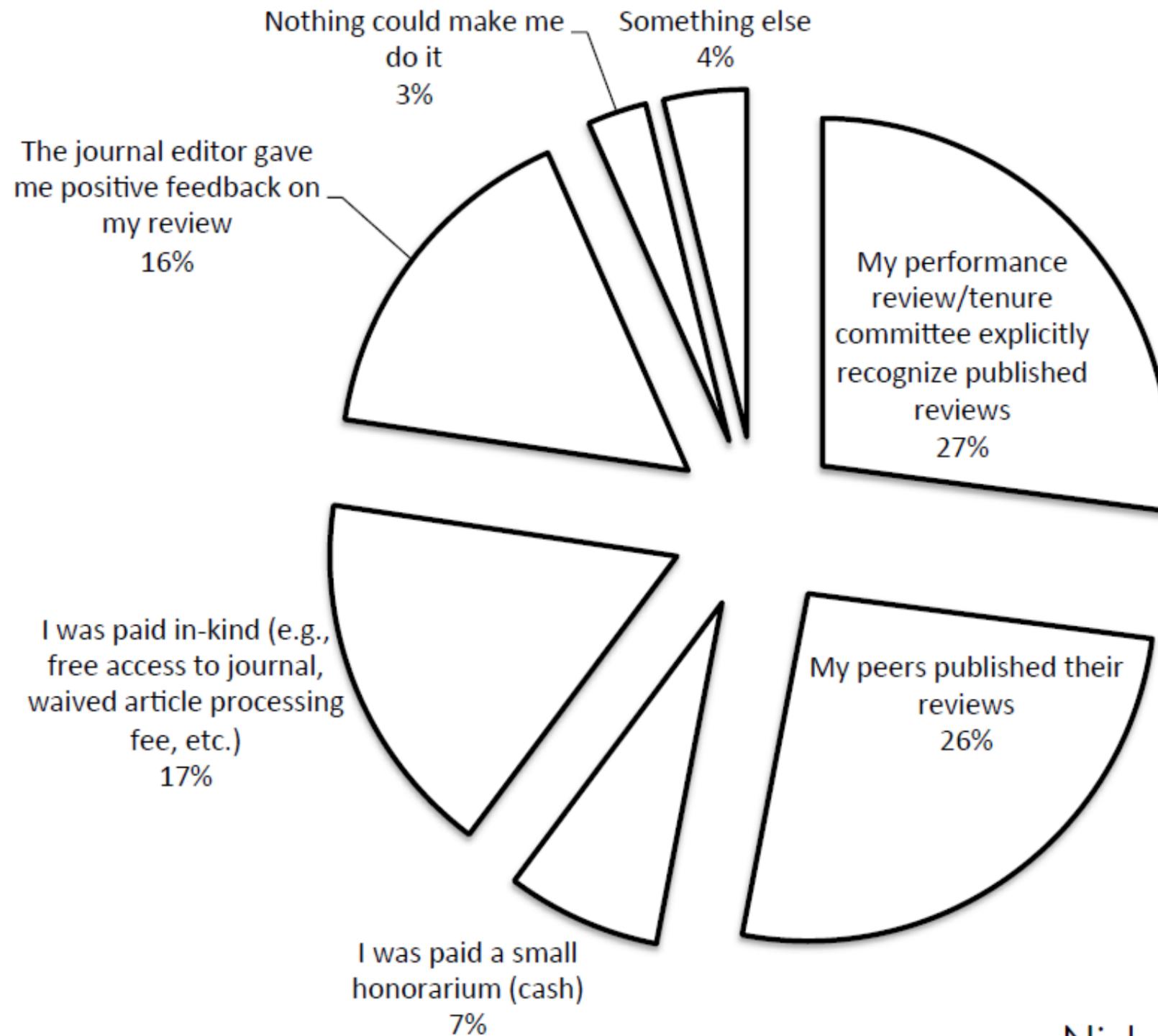
 Submission	 Review	 Revision	 Archival
Publish your <a href="#">research</a> , <a href="#">class essays</a> , <a href="#">peer reviews</a> , <a href="#">grants</a> , <a href="#">letters</a> , <a href="#">how-to articles</a> , <a href="#">conference summaries</a> , <a href="#">conference talks</a> , <a href="#">blogs</a> - whatever format you choose.	Invite researchers and colleagues to review your work using The Winnower. The review period can be as long or as short as you need it to be.	Revise your work based on the reviews you receive. You can make as many or as little changes as necessary before archiving.	Once you are satisfied with your paper you can assign a digital object identifier (DOI). Metrics including Altmetrics, views, and reviews, will track the impact of your work.

 Cost

# Reasons that would incentivize scholars to make their peer reviews publicly available.



*the*  
**WINNOWER**  
(2)



Nicholson & Alperin, *The Winnower* 2016



open scholar

# Open Peer Review Module for repositories

- OPR plug-in for (DSpace) repositories to convert them into functional evaluation platforms
- Includes published reviews, disclosed identities, reviewer reputation system
- Complete code, with full documentation, available on Github under an open license:
  - <https://github.com/arvoConsultores/Open-Peer-Review-Module>

# OPRM (2): Implementation



Repository of  
the **Spanish Institute  
of Oceanography**



Repository of  
the **Spanish National  
Research Council**

# OPRM (3): First researcher reactions

- *A long awaited service in the repository*
- *It is a great idea that merits success as currently peer review is not credited in researchers CVs at all due to its anonymity. But researchers will not have time to review and comment on other peers works as long as this activity remains outside of CVs recognition and lacks strong support from the research institutions*
- *The functionality may be also used to evaluate, accept and comment conference contributions before the event*
- *The project seems very interesting but I decline to participate right now due to lack of time and current demands [preparation of proposals for a national research call]*
- *I have contacted 3 reviewers: **one has no time available, another is against any type of peer review as reviewing is a subjective activity in such a reduced scholarly discipline and the third one has accepted to do it***
- ***The service should promote spontaneous discussion** by anybody willing to send comments*
- ***Inviting peers to an open evaluation may place people in an uncomfortable situation, the module should work 100% open***
- ***The service is great for preprints and other unpublished works but has limited applicability for works that have been already evaluated and published***
- *Moreover, the service has a difficult application for very recent publications as publishers reserve an exclusive exploitation for a period of time*
- ***How does open peer review operate in relation to “finished” pieces of work (i.e, a book)?***
- ***How will the service compete with Academia.edu open review/comments?***

# Future directions: A call for common standards

- Uncouple peer review from “publishing”
  - Repositories are more than pre-/post-print servers!
  - Federate OPR services
- We need to agree:
  - What OPR is (standardization of vocabulary)
  - How we measure its effectiveness (standardization of experimentation)
  - How we describe it for machines (standardization of metadata)

# Seven traits of OPR

- **Open identities:** Authors and reviewers are aware of each other's identity.
- **Open reports:** Review reports are published alongside the relevant article.
- **Open participation:** The wider community to able to contribute to the review process.
- **Open pre-review manuscripts:** Manuscripts are made immediately available (e.g., via pre-print servers like ArXiv) in advance of any formal peer review procedures.

<https://blogs.openaire.eu/?p=1410>

## Seven traits of OPR (2)

- **Open final-version commenting:** Review or commenting on final “version of record” publications.
- **Open interaction:** Direct reciprocal discussion between author(s) and reviewers, and/or between reviewers, is allowed and encouraged.
- **Open platforms:** Review is de-coupled from publishing in that it is facilitated by a different organizational entity than the venue of publication.

<https://blogs.openaire.eu/?p=1410>

# TENDERS

Attracting SMEs & young investigators

# Tenders on different topics

- **Different topics on innovation**
  - Exploring scholarly communication aspects
  - Enhancing repository infrastructure
  - Building value added services for researchers
- **World-wide outreach**
  1. 60K for innovative/open peer review services
  2. 80 K (upcoming) for innovative services on top of OpenAIRE data

# PASTEUR4OA

Home | The Project | News | Events | Key Nodes | Advocacy Resources | Final Conference

## PASTEUR4OA/Welcome

Welcome to the PASTEUR4OA website!

PASTEUR4OA (Open Access Policy Alignment Strategies for European Union Research) aims to support the European Commission's Recommendation to Member States of July 2012 that they develop and implement policies to ensure Open Access to all outputs from publicly-funded research.

PASTEUR4OA will help develop and/or reinforce open access strategies and policies at the national level and facilitate their coordination among all Member States. It will build a network of centres of expertise in Member States that will develop a coordinated and collaborative programme of activities in support of policymaking at the national level under the direction of project partners.

### Toolkit Research Performing Organisations

Essential resources to develop  
and support Open Access policies

### Toolkit Research Funders

Essential resources to develop  
and support Open Access policies



# PASTEUR4OA

[Home](#) | [The Project](#) | [News](#) | [Events](#) | [Key Nodes](#) | [Advocacy Resources](#) | [Final Conference](#)

## PASTEUR4OA/Advocacy Resources

### All Resources

[Policy guidelines](#)

[National case studies](#)

[Institutional case studies](#)

[Funder case studies](#)

[Thematic resources](#)

[Briefing papers](#)

[Presentations](#)

[Toolkit for Research Performing Organisations](#)

[Toolkit for Research Funders](#)

[Revealing the true costs of Gold OA- Towards a public data infrastructure of scholarly publishing costs](#)

Post Date: 13.07.2016

[Briefing Paper: Infrastructures for Open Scholarly Communication](#)

Post Date: 11.07.2016

[Complete Advocacy Materials](#)

Post Date: 23.06.2016

[PASTEUR4OA's Knowledge Net](#)

Post Date: 09.05.2016

DOI:

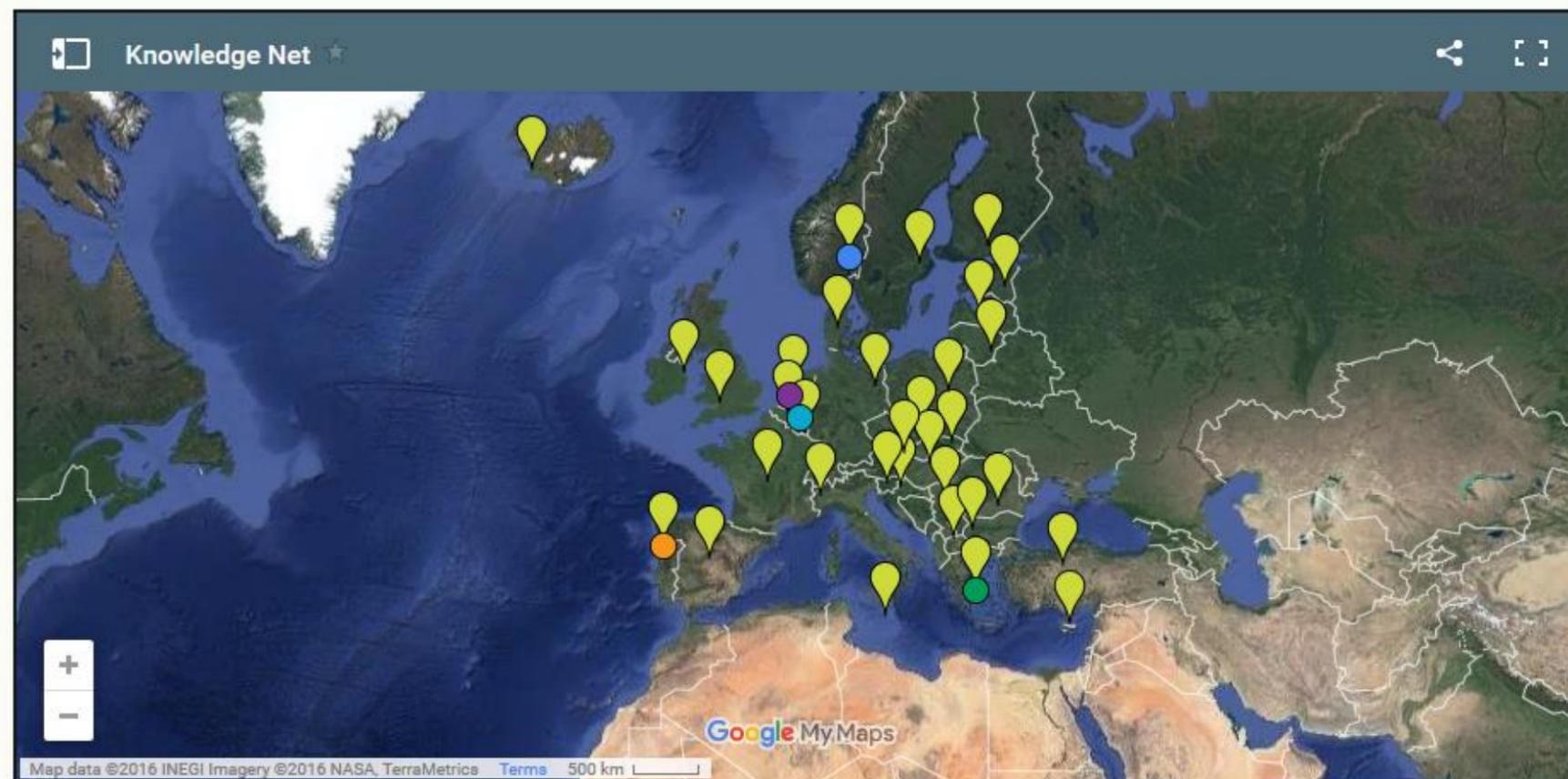
<http://dx.doi.org/10.5281/zenodo.51850>

[How Open is Your Research?](#)

Post Date: 05.05.2016

DOI:

<http://dx.doi.org/10.5281/zenodo.51852>



PASTEUR4OA aims to establish a Europe-wide network of centres of expertise on open access and scholarly communication – the project 'Key Nodes' - to collaboratively facilitate an aligned open access policy environment across the EU and in neighbouring countries.

Through collaborative work between project partners and this international coordinated Knowledge Net, the project will identify, engage and inform policymakers in a series of regional meetings for research funders and research performing organizations, as well as individual engagements, as appropriate. The project will further assist Key Nodes in this process by producing advocacy materials, such as briefing papers and evidence-based policy reports, and reference materials that provide solid arguments in favour of developing open access policies.

The European Commission's policy for Open Access in Horizon 2020 is the foundation of the PASTEUR4OA advocacy work: the implications of that policy for Member States and the recommendation of the Commission for Member States to also adopt similar policies for research funded at national level are the principle areas of focus of the project's advocacy work.

### E Europe

University of Ljubljana

Slovak Centre of Scientific and Technical Information

Executive Agency for Higher Education, Research and Innovation Funding (UEFISCDI)

Centrum Cyfrowe

LMT - Lietuvos mokslo taryba



# PASTEUR4OA's Knowledge Net to be embedded within OpenAIRE

Updated on 29 August 2016



PASTEUR4OA and OpenAIRE are delighted to announce that PASTEUR4OA's Knowledge Net activities to support the development and alignment of open access policies in Europe will continue as the Knowledge Net is integrated into the OpenAIRE infrastructure from September 2016. As the PASTEUR4OA project draws to a close, this will ensure the ongoing sustainability of its vital activities within one of Europe's major Open Science e-infrastructures.

The Knowledge Net was developed in the context of the FP7-Funded policy-support project PASTEUR4OA to facilitate knowledge transfer and support policy development across the EU. The Knowledge Net is a network of expert organizations from 33 European countries that promote the development, implementation and reinforcement of open access policies that are in alignment with the EC's 2012 Recommendation on access to and preservation of scientific information and the Horizon 2020 requirements for open access to publications and research data. To achieve this mission, Knowledge Net members have engaged with national policy makers in raising awareness about open access, sharing best practices, providing advice and support and disseminating advocacy resources.

From September 2016 these policy-related activities will be embedded within the OpenAIRE infrastructure as part of the National Open Access Desks (NOADs) activities. Continuing activities will involve – amongst others – producing and disseminating advocacy resources, organizing meetings and webinars for national policy makers, and providing support for policy implementation. OpenAIRE, the European e-infrastructure for Open Access, has already worked on supporting open access policies. This work will now acquire a more specific and systematic workflow, capitalizing on the knowledge and related workflows gained from PASTEUR4OA.



For more information on PASTEUR4OA: <http://www.pasteur4oa.eu/>





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Facilitate Open Science  
Training for European  
Research



# About FOSTER

Facilitate Open Science Training for European Research

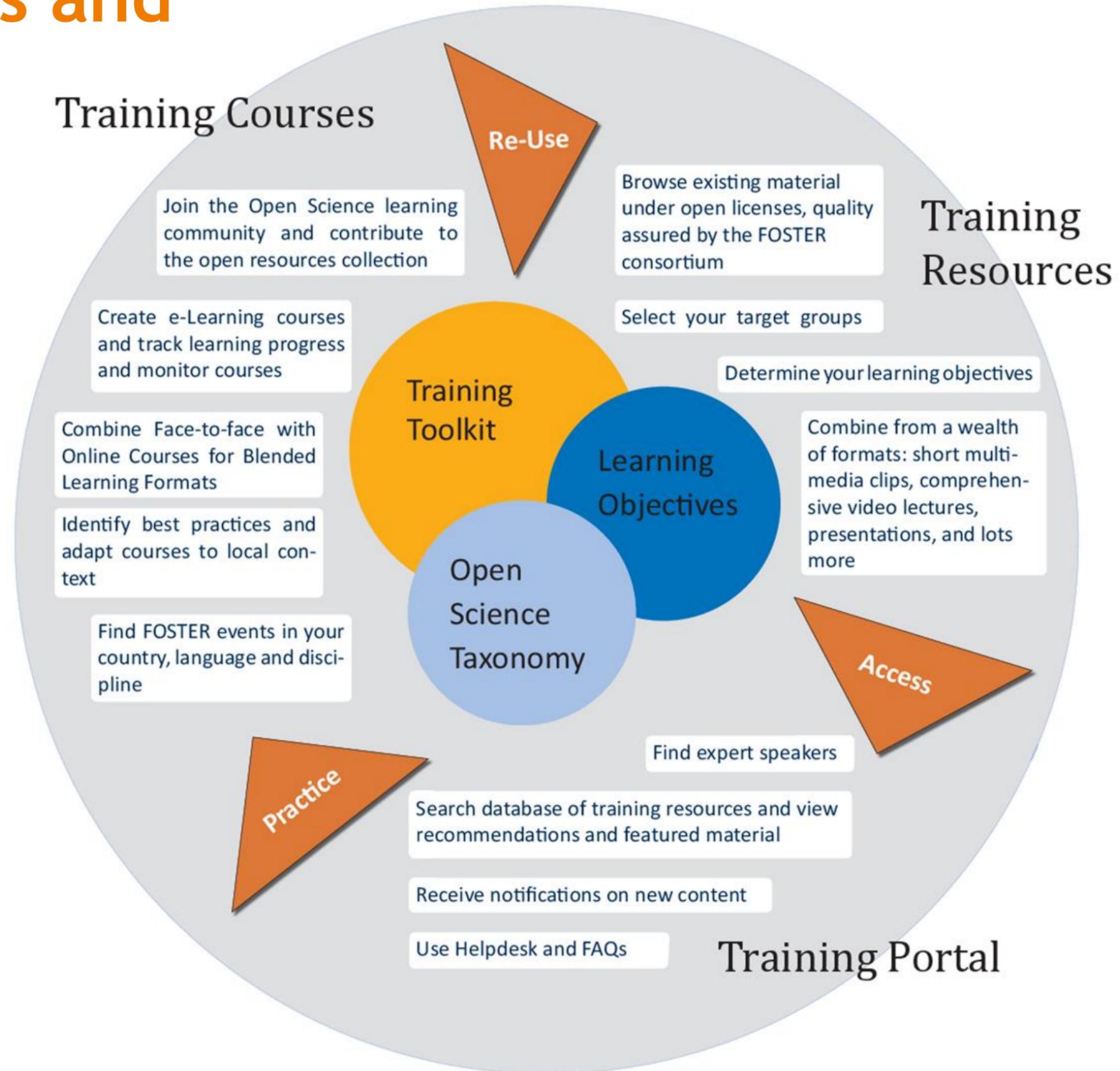
- 2,5-year EU-funded FP7 project (Feb 2014 - Jul 2016, sustainability plan for the coming years)
- 13 consortium partners (Project lead: University of Minho)
- Collaboration and support by 77 other organizations (Universities & research institutes, Graduate Schools, students and young researchers associations, scientific communities, etc.) from 24 countries

**“Spread the seeds of Open Access and Open Science”**

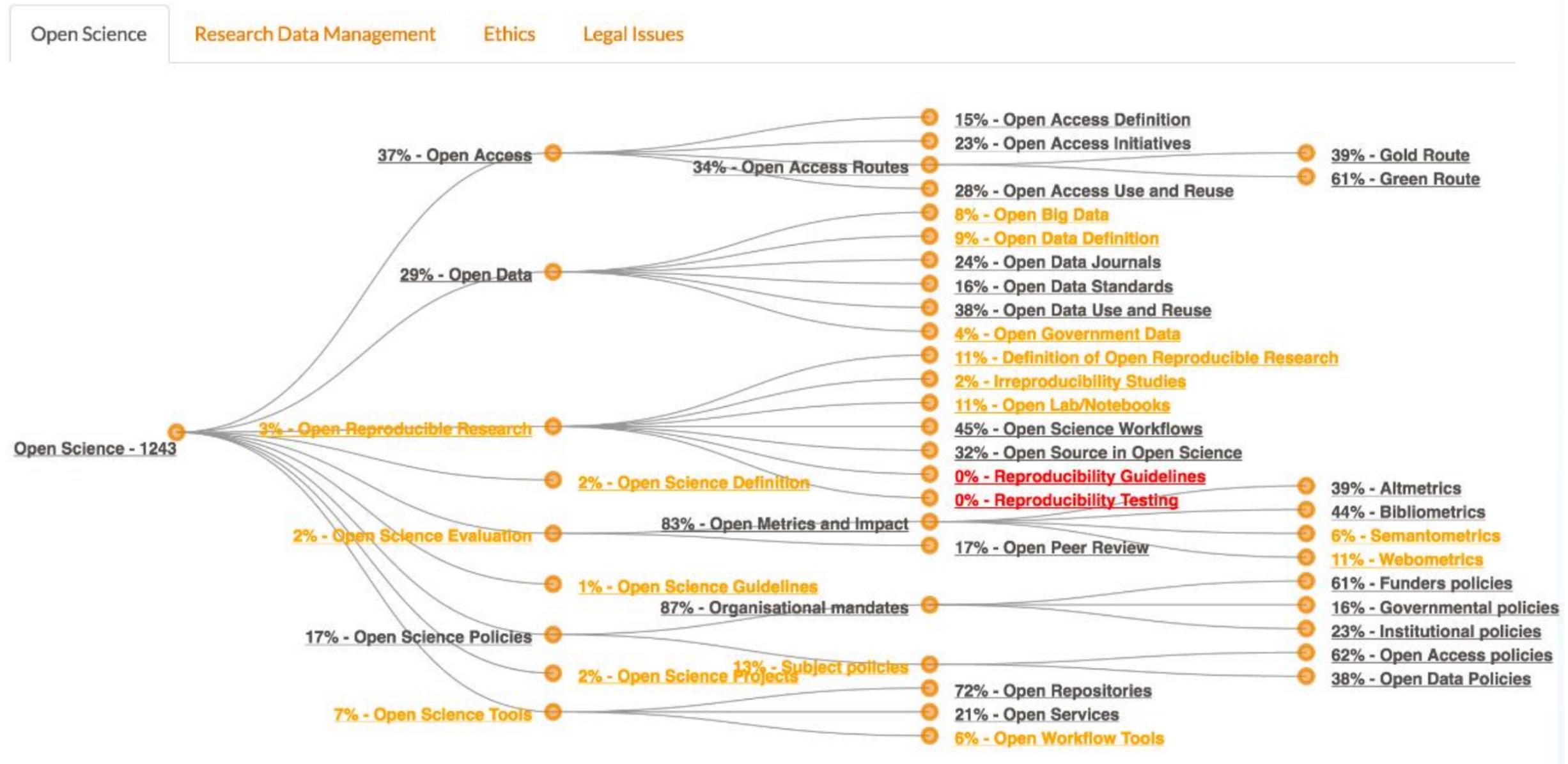


This project has received funding from the European Union’s Seventh Framework Programme for research, technological development and demonstration under grant agreement no 612425

# Methods and tools



# Open Science Taxonomy



Taxonomy (w/o dynamic %) [https://figshare.com/articles/Open\\_Science\\_Taxonomy/1508606](https://figshare.com/articles/Open_Science_Taxonomy/1508606)

# FOSTER Portal

Search



FOSTER training programme: "Open Access and Open Data in Horizon 2020"

FOSTER training programme: Training the trainers on Open Access and Open Science

More

## Featured Topics



# FOSTER Portal



Libraries have gone a long way to facilitating research workflows, and more recently on fostering open access to science and openness in a broader sense. Science is evolving: research practices, resources and tools are opening up and going beyond a publication based model, to a new open environment of research data and digital research tools, social media and collaborative platforms. There is a compelling need for libraries to encompass these changes. The challenges are not only technological but also cultural and attitudinal and require a clear effort to engage and develop the necessary skills and knowledge involved in this Open Science environment.

This introductory course is addressed to librarians at different levels and positions that are committed to supporting researchers and their research processes at their institutions, and would like to gain

#### Full details

**Level of knowledge:** Introductory: no previous knowledge is required

#### Topics



#### Audience

- Materials free to use, repurposed, recombined to suit your own training needs.
- Being compiled into courses (currently 15 courses in 4 languages).
- Create your own e-course: <https://www.fosteropenscience.eu/content/foster-course-course-creation>
- Propose courses

# FOSTER Trainings 2014 - 2016



# Credits

Winning Horizon 2020 with Open Science, Spain

Training young researchers (PhD & Graduate Students): workshops in Madrid (80 attendees) and Valencia(150 attendees) with Doctoral Schools in [Universidad Carlos III de Madrid](#) (UC3M) and [Universidad Politécnica de Valencia](#) (UPV)

UC3M: PhD students got the transversal training credit through attendance but also writing a post in the Blog. UPV: students got the credit by attendance and participation. UC3M plans a seminar about Open Science for doctoral students and young researchers on a regular basis, as transversal training for all PhD programmes using FOSTER training materials.



Winning Horizon2020 with Op... X +

www.curatore.es/foster/ Search

# Winning Horizon2020 with Open Science

Seminario FOSTER – UC3M

[Inicio - Blog](#) [Programa - PPT's y Vídeos](#) [FOSTER Training Portal](#) [Proyecto FOSTER](#) **[Preguntas frecuentes](#)** [Q](#)

## Documentos del Winning Horizon 2020 with Open Science. Foster event: Training young researchers

© 16 junio, 2015 [Todos](#) [Documentación, Horizon 2020, Investigación y Ciencia](#) [100280271](#)

A modo de recordatorio quisiera aportar al blog en vez de un comentario del evento, como

*Sobre este sitio*

En este sitio podéis publicar vuestras preguntas, resúmenes y comentarios sobre el Seminario Winning Horizon2020 with Open Science – UC3M – UPV. También podréis encontrar alguna información básica sobre Open Science.

*Entra en el sitio*

[Autenticación](#)

*Seminario*

FosterOpenScience UC3M

# #iamanopenscientistbecause

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**Eva Méndez** @evamen · 24 Jul 2015

#IamAnOpenScientistbecause there is @CienciaConFutur. And I just discovered their blog and it is great!!! #OpenScience



2



2



**Open Science** @openscience · 8 Jul 2015

"#IamAnOpenScientistBecause engaging with 'Sunday scientists' is not less important to me than with the formal research community" - @EvoMRI



5



8



**Eva Méndez** @evamen · 23 Jun 2015

Now Patient Innovation: sharing solutions to save lifes...

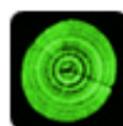
#IamAnOpenScientistbecause it save lifes!!! #ERAofInnovation



4



3



**D@niel Mietchen** @EvoMRI · 22 Jun 2015

Pinging the #iamanopenscientistbecause crowd about #ERAofInnovation and vice versa

**Eva Méndez** @evamen

What is #OpenScience? Follow live streaming of #ERAofInnovation in: [ec.europa.eu/research/confe...](http://ec.europa.eu/research/confe...) Good moment for: #IamAnOpenResearcherbecause



2



**Foster Open Science** @fosterscience · 28 May 2015

We are at the EC event "Future of the Doctorate" [future-doctorate.teamwork.fr](http://future-doctorate.teamwork.fr), and your #IamAnOpenScientistBecause input will be shown in plenary



1



1



# Train-the-trainers approach

Winning Horizon 2020 with Open Science, Spain

Workshop for academic librarians and repository managers (80 people), as a pre-conference free workshop of [FESABID2015](#), the main biannual conference for librarians at national level, organized by the federation of information professionals in Spain



# Hands on

## Software Writing Skills for Your Research, Helmholtz Centre Potsdam - GFZ German Research Centre for Geosciences, in collaboration with The Software Carpentry

4 months: September 23-25, 2015 (workshop for novices), October 21-23, 2015 (workshop for users with intermediate knowledge) and December 14-16, 2015 (workshop for proficient users) - 73 people trained

Presented results and experiences at the EGU General Assembly in 2016 in a session 'Open Science goes Geo'.



# Hands-on (2)

## Software Writing Skills for Your Research (2)

- Workshops to pass software writing skills are highly demanded by early career scientists and have to be offered on the regular basis.
- It is quite easy to structure the curriculum answering general demands. In the future demands will become more specific and advanced and curriculum will be a challenge.
- Small groups with homogeneous background knowledge work the best. In case of sophisticated software writing skills an additional day to create homogeneous background knowledge by recapitulating the required skills to build upon.
- Free workshops with free coffee create a good atmosphere; lightning talks of the participants sharing experiences.



# Findings

- **FOSTER call as a starting point**
  - Courses that we couldn't co-fund/co-organize took place anyway; those who missed our calls have been encouraged to conduct their trainings (using attention that the calls received)
  - FOSTER branding & competencies, training materials
- **1st call to build awareness for the topic & brand, 2nd call to target specific audiences & areas: topics changed from OA focus to wider Open Science and Open Data (Data Management) area**
- **Broad horizontal approach across all open science topics, specialization through co-funding of community-driven events**
- **Good coverage, diverse stakeholders and audiences**



# Feedback

- Quality of trainings between ‘good’ and ‘excellent’, especially speakers and training materials
- **Wide range of topics in majority of trainings**
  - Good for overview, but would have preferred focus on smaller amount of topics
- **No ‘one size fits all’ approach:** local trainers were able to identify and target specific subjects and audiences
- **Plus: Infrastructure for hosting events pages and training materials**
  - “Researchers, in particular those using qualitative methods, still need additional support in finding ways to share data ethically and meaningfully”.

# Lessons Learnt

“Presentation of cases and researchers’ firsthand and ‘hands on’ experiences was very instructive, the examples of good practices, the tools that were shared, the overview of different issues involved, the good mix of practice and policy, the presence of repository providers and the good communication about the event.”

For many participants the most valuable aspects of the event were operational and strategic ones such as «how to».



## Lessons Learnt (2)

“Generally people were very interested to hear the experiences of other institutions who are further down the road.”

“Attendees appreciated hearing of the practical problems that may have been encountered and how speakers adopted a realistic approach to sharing their experiences.”

“Livestreaming of the event considerably increases the audience of the event.”



## Lessons Learnt (3)

“Take-up for the events was excellent, although there were several 'no shows' and last minute cancellations to the workshops. This can often be the case for free workshops as delegates sometimes don't value their place as much as they would do if it was 'paid for'.”

“Researchers sometime prefer online trainings (less constraining in time and travel).”



# Recommendations

- Graduate schools to catch up on Open Science training
- Coordination and combination with research integrity training highly recommended
- Every data-related and e-infrastructure project or initiative should have a strong training component in cooperation with other RIs and projects like FOSTER to avoid duplication of effort, creating unnecessary differences in approaches between domains, to identify and champion good practice across disciplines, and to fill gaps.



## Recommendations (2)

- Develop into a network of training hubs
- Expand train-the-trainers approach to facilitate a network of trainers across sub-topics of open science
- Tap into students organizations



# Thank you!

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