### **Tony Ross-Hellauer**

State and University Library, University of Göttingen



# OpenAIRE elnfrastructure for Open Science







# 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)







# **OpenAIRE:** From Open Access to Open Science Science. Set free.

Now in our third project phase ...

**OpenAIRE** 

Dec. 2009 - Nov. 2012

**OpenAIREplus** 

Dec. 2011 - Dec. 2014

OpenAIRE2020

Jan. 2015 – Jun. 2018

OpenAIRE Slovenia National Workshop, 17th November 2016



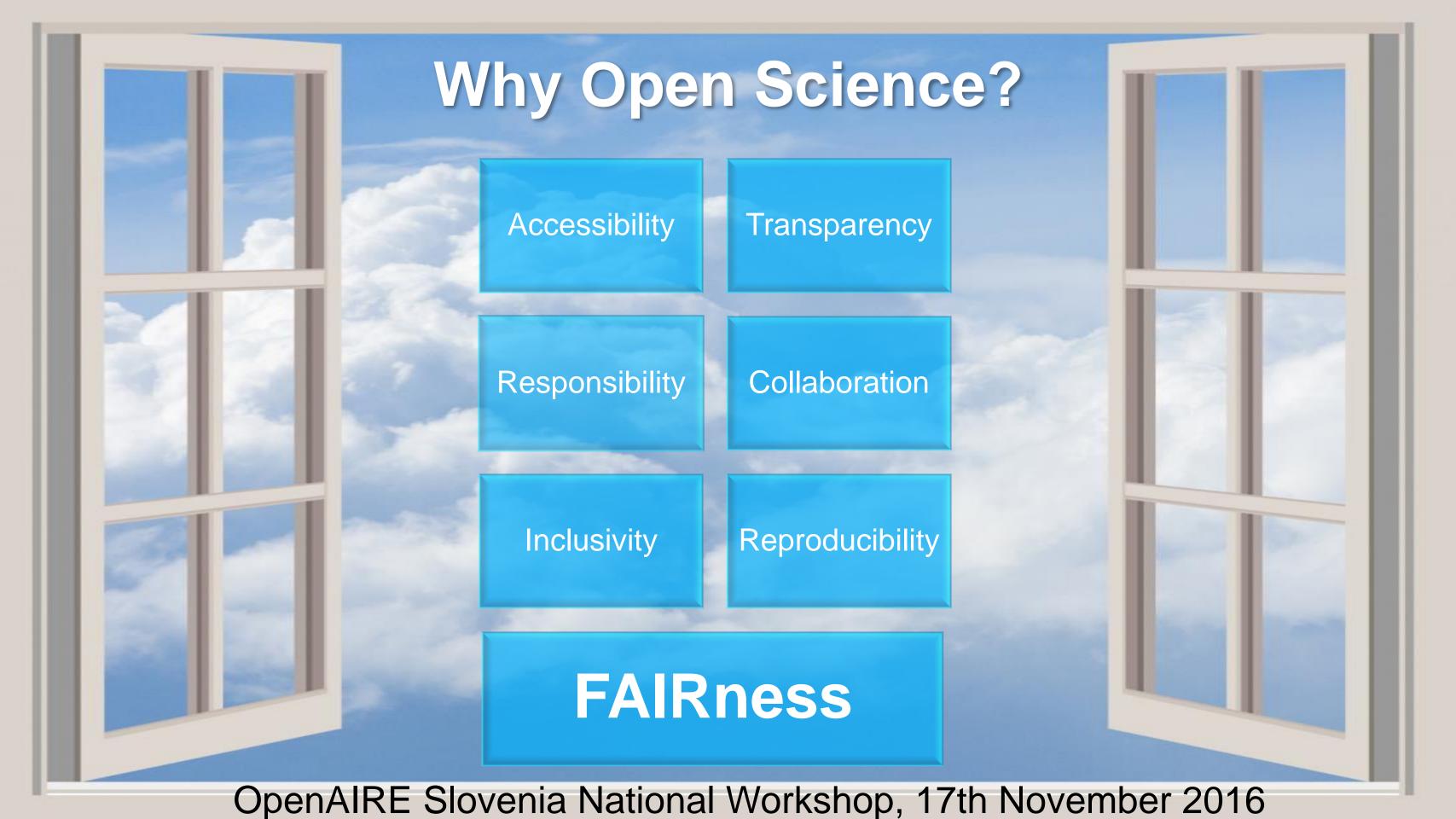
## What is Open Science?

Aim: To open up scientific products and processes 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, open metrics)



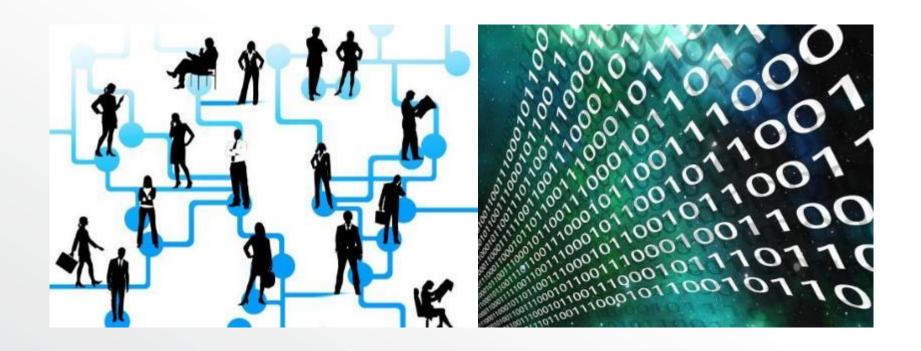






## ... fosters the social and technical links that enable Open Science in Europe and beyond

Human Network



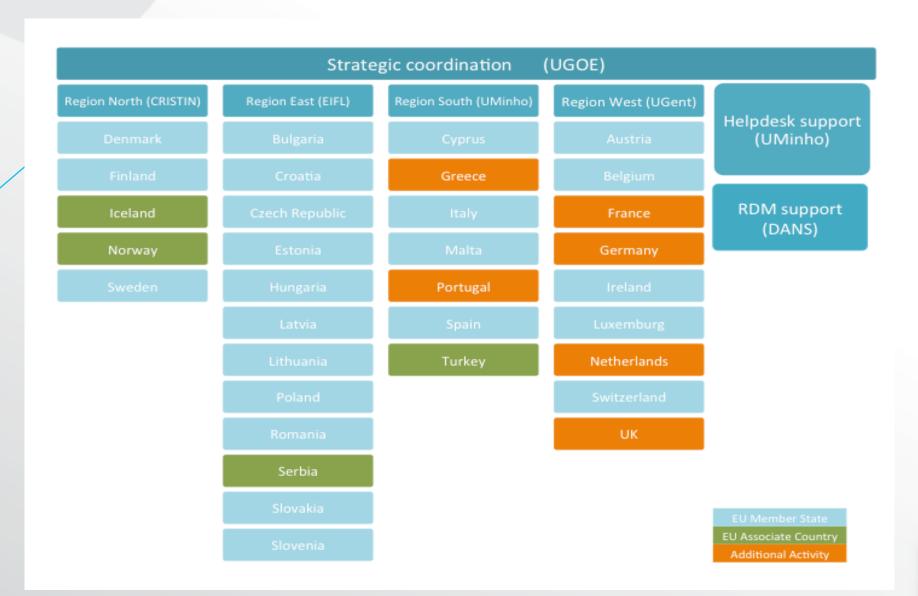
Digital Network

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



### Human Infrastructure

Local support for Europe's diverse research landscape



### **Human support network**

- 33 expert nodes all over
   Europe to help with:
  - OA training and support
  - OA policy development
  - Technical assistance
- World-wide synergies







**WORLD DATA SYSTEM** 









### Training, support and dissemination

OpenAIRE helpdesk – direct point of contact for all H2020 and Open Science questions

- SHARE RESEARCH. SHAPE A BETTER FUTURE.
- Open Access to research results benefits everyone.

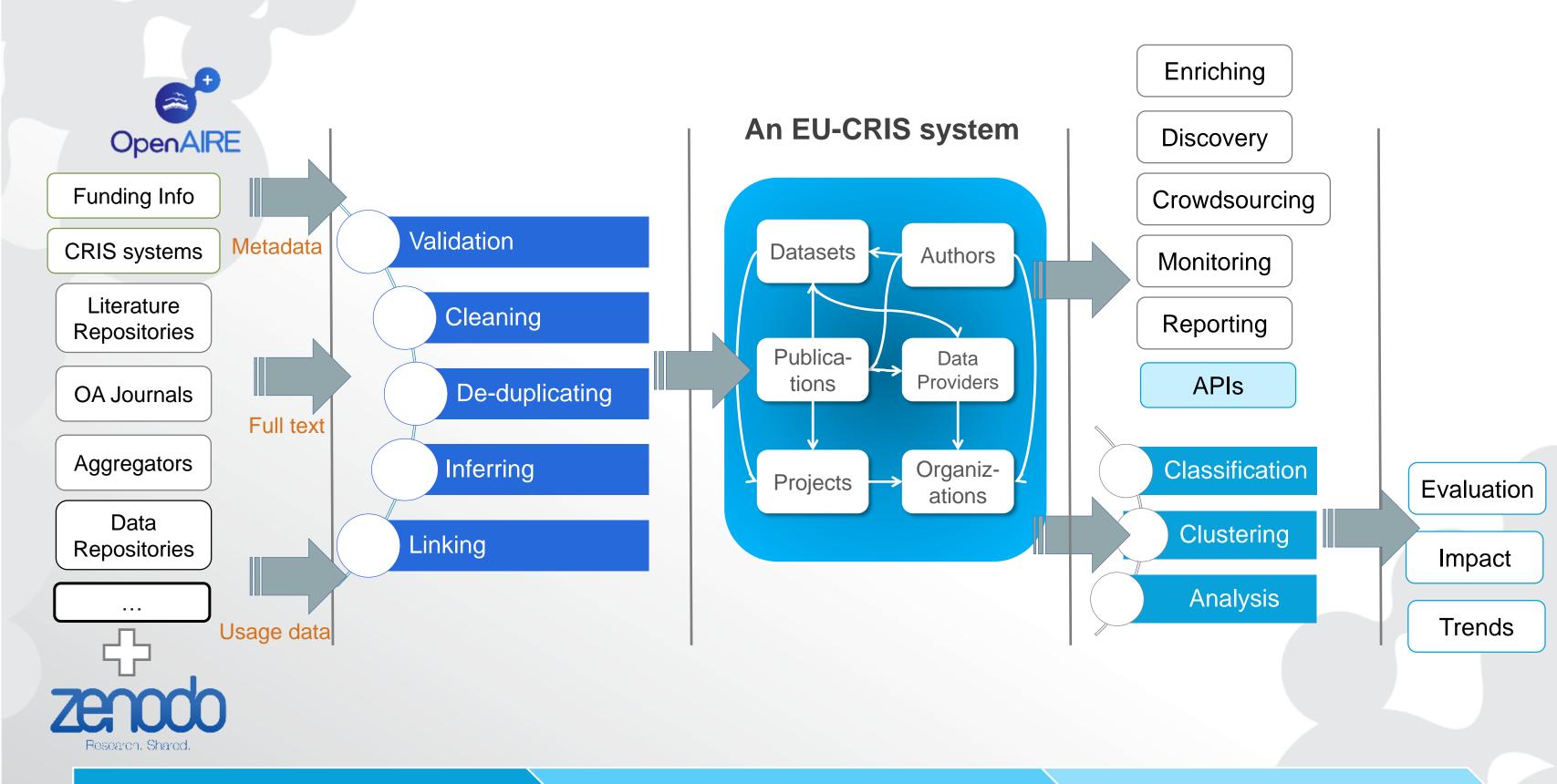
OpenAIRE www.openaire.eu

- ✓ Regular webinars on meeting H2020 Open Science requirements and other key Open Science topics
- ✓ Workshops (~workshops in OpenAIRE2020) on open access, open data, Open Peer Review, measuring OA impact, etc.
- ✓ Factsheets, briefing papers & FAQs for researchers, research administrators, project coordinators & data providers
- ✓ Updates on Open Science via monthly newsletter and blog:
  - https://www.openaire.eu/newsletter/view
  - https://blogs.openaire.eu/
- OpenAIRE Slovenia National Workshop, 17th November 2016



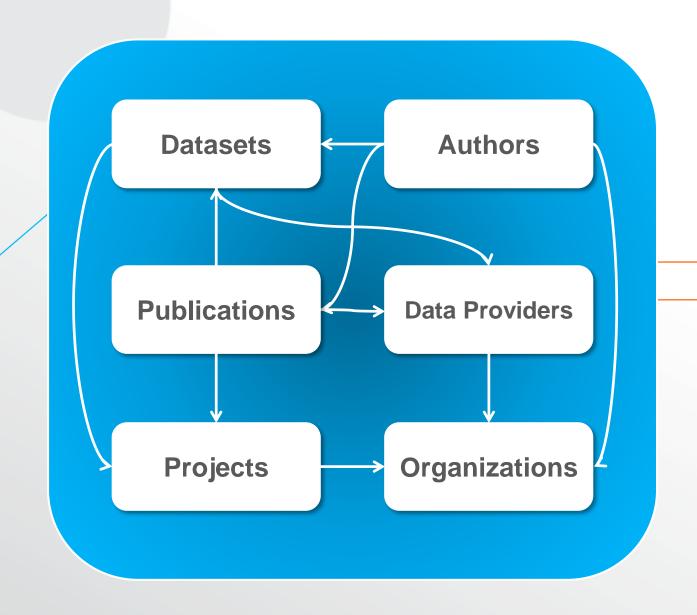








### **Integrated Scientific Information System**



#### Access to

17 mi unique publications

25 K datasets linked to publications

750 validated data providers

370K publications linked to projects from

6 funders

3.5K links to software repositories







PARTICIPATE

SEARCH MONITOR SUPPORT

OPEN ACCESS



Title Open Access Infrastructure for Research in Europe

Funding EC | FP7 | SP4 | INFRA

Call FP7-INFRASTRUCTURES-2009-1

Contract (GA) number 246686 Start Date 2009/12/01 End Date 2012/11/30

Open Access mandate yes Special Clause 39

Organizations CERN, MSDEC, UMINHO, EIFL, UTARTU, UGOE-SUB, CSIC, UCY, UniNott, UNIBI, EKT/NHRF, DTU, OFFICE OF

> THE PRIME MINISTER, KTU, Sarminfo, UU, IMI BAS, CINECA CONSORZIO INTERUNIVERSITARIO, UKON, SURF, COUPERIN, UL, UR, UIT, DKRZ, CNR, IPGRI, UNIVERZITNA KNIZNICA V BRATISLAVE, UoA, VSB, TRINITY

COLLEGE DUBLIN, NATIONAL LIBRARY OF SWEDEN, UNIVERSITY OF DEBRECEN DE, UNIVIE, UHEL, EMBL,

UW, UGent, FECYT

 □ Detailed project information (CORDIS) More information

Statistics C Publications (53) Research Data (1)

#### Infrastructure-based research digital libraries

Candela, Leonardo; Castelli, Donatella; Manghi, Paolo (CNR-ISTI); Pagano, Pasquale (2013) Projects: EC | OPENAIRE (246686)

Digital Libraries have evolved from a digital counterpart of traditional libraries to highly dynamic environments conceived to provide a community with the data and services needed to accomplish its tasks. This trend is particularly frequent in the context of scientific research communities, whose members are scattered among multiple organizations across the world, with requirements that are very large, multidisciplinary, and evolving with innovation. The realization of such Research Digital ...

#### PlosOpenR - Exploring FP7 funded PLOS publications

Jahn, Najko; Fenner, Martin; Schirrwagen, Jochen (2013)

Projects: EC | OPENAIRE (246686)

SHARE - BOOKMARK















Q Publication details



Dynamically incorporate publications in your site (HTML)



View EC progress report (HTML)



Download EC progress report (CSV)

LINK RESEARCH RESULTS

**DEPOSIT PUBLICATIONS** 

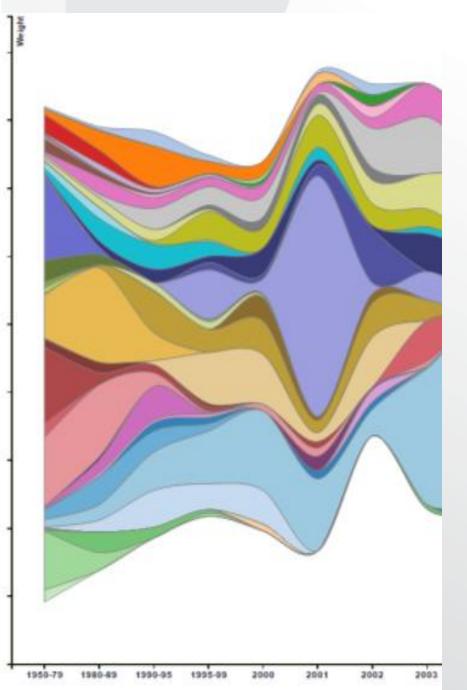
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openaire.eu



### OpenAIRE funder services

#### Using the OpenAIRE portal, funders can



- Filter publications/data by funder and browse by specific funding streams
- Search via project title, acronym or grant agreement and view specific statistics of the project: publications/data over time, OA status, where they were published/deposited, etc.
- View overall funder/funding stream statistics (facets over time, data source, institution, etc.)
- Correlate author/institution output with funding information
- Visualize clusters of publications/data or funding based on their interlinking (national or ERA-wide level)



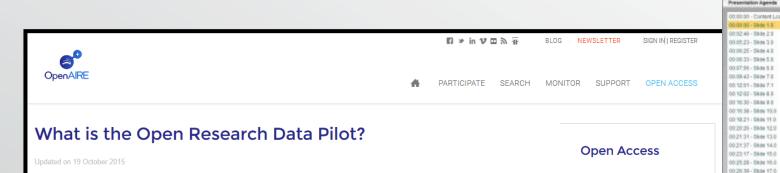
### Results from text and data mining

Funder	Country	Status	# of projects	# of related publications
FCT	PT	Production	10,688	11,637
Australian Research Council	AUS	Production	21,786	6,552
National Health and Medical Research Council	AUS	Production	23,209	4,425
National Science Foundation	USA	BETA	80,912	48,947
Science Foundation	IR	BETA	4,130	1 <b>,</b> 91 <i>7</i>
Ministry of Science Education and Sport	HR	In queue for BETA	(MSES) 2,120 (CSF) 234	346
Netherlands Organisation for Scientific Research (NWO)	NL	Under testing with initial sets of projects	8,000	700
Deutsche Forschungsgemeinschaft (DFG)	DE	No official DFG funding list. Preliminary tests with fulltetxts from Fraunhofer.	-	-
National Institutes of Health (NIH)	USA	Preliminary work started.	<u>-</u>	_



# Supporting the Open Data Pilot: Training & Support Materials

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









The *open* repository for *all* research objects zenodo.org





# FP7 Post-Grant Open Access Pilot

- Pilot runs for two years (i.e. until Apr 30th, 2017)
- Provides funding to cover the OA publishing fees for publications arising from completed FP7 projects
- 4 million euros are made available by the EC to fund the OA "post-grant" publications of over 8,000 completed FP7 projects
- No hybrid journals; 2000 EUR cap on APCs; max 3 pubs per project

https://postgrantoapilot.openaire.eu/





## New in OpenAIRE2020

## Research and development into new trends in scholarly communication

- Linked Open Data
- Legal issues in OpenData
- Data Citation

- Literature-DataIntegration
- OA Metrics







## Why Open Peer Review?

### Problems with traditional peer review ...



- Time
- Accountability
- Bias
- Incentive
- Wasted effort

Image CC BY AC McCann



## "Open Peer Review" encompasses diverse constellations of many distinct aspects

\*\* 122 definitions collected and analysed \*\*

Primary aspects

Secondary aspects

- Open identities
- Open reports
- Open participation
- Open interaction
- Open pre-review manuscripts
- Open final-version commenting
- Open platforms



Image CC BY AC McCann, w/ amendments





n=	Open identities	Open reports	Open participation	Open interaction	Open pre-review manuscripts	Open final-version commenting	Open platforms
41							
29							
9							
6							
6							
5							
5							
4							
2							
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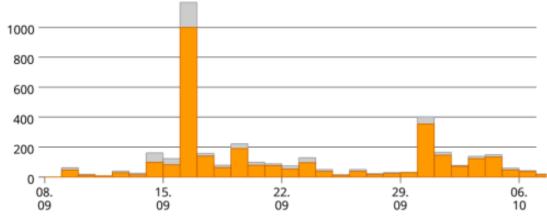


## Survey: Attitudes to OPR

- Online survey, 8 September 7 October 2016
- Disseminated via mailing lists, publishers' newsletters and contacts

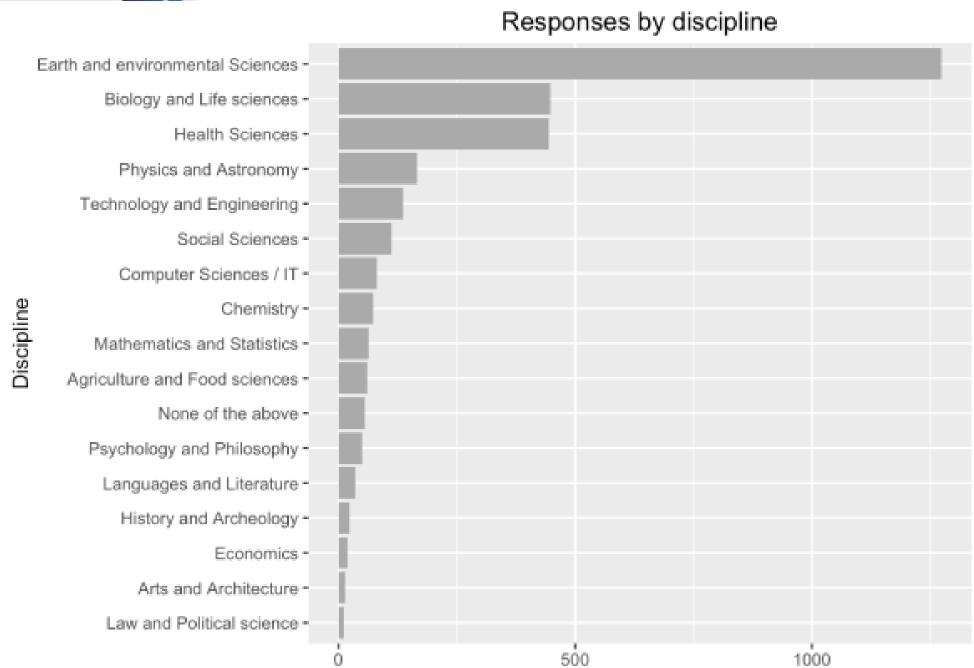


- Exploration of author attitudes towards peer review, openness in various facets
- Views on terminology/definition
- Experiences with different aspects of openness
- Over 3,000 responses received, primarily from STM research areas
- High number of respondents with experiences in open peer review
  - ... as editor 19.4% (594 of 3062)
  - ... as author 63% (1930)
  - ... as publisher 2.2% (68)
  - ... as reviewer 59.1% (1808)









	rreq	Perc
Earth and environmental Sciences	1274	41.61
Biology and Life sciences	447	14.60
Health Sciences	444	14.50
Physics and Astronomy	165	5.39
Technology and Engineering	137	4.47
Social Sciences	112	3.66
Computer Sciences / IT	80	2.61
Chemistry	73	2.38
Mathematics and Statistics	63	2.06
Agriculture and Food sciences	60	1.96
None of the above	56	1.83
Psychology and Philosophy	50	1.63
Languages and Literature	35	1.14
History and Archeology	23	0.75
Economics	18	0.59
Arts and Architecture	14	0.46
Law and Political science	11	0.36

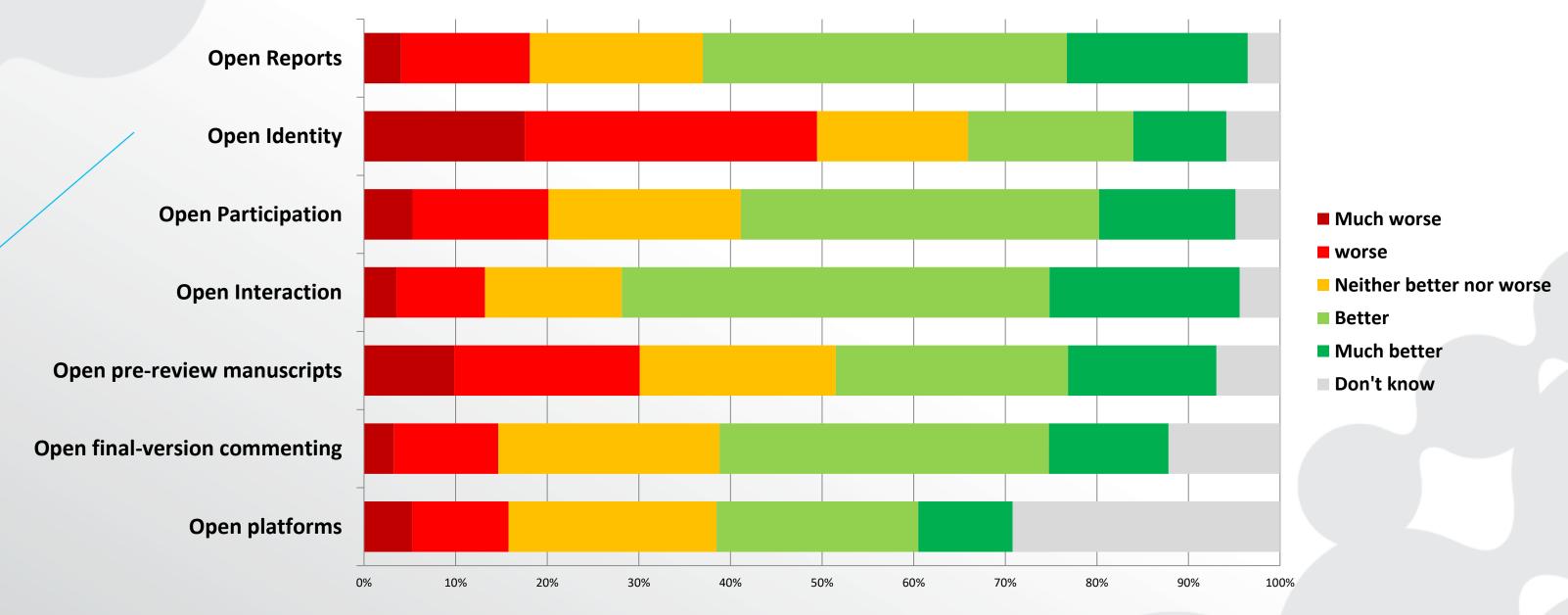
Freg Perc



Responses



## Do you think X will make peer review better, worse, or have no effect?





#### Attitudes towards open identities

Reviewers should be allowed to choose whether or not to make their identities open.

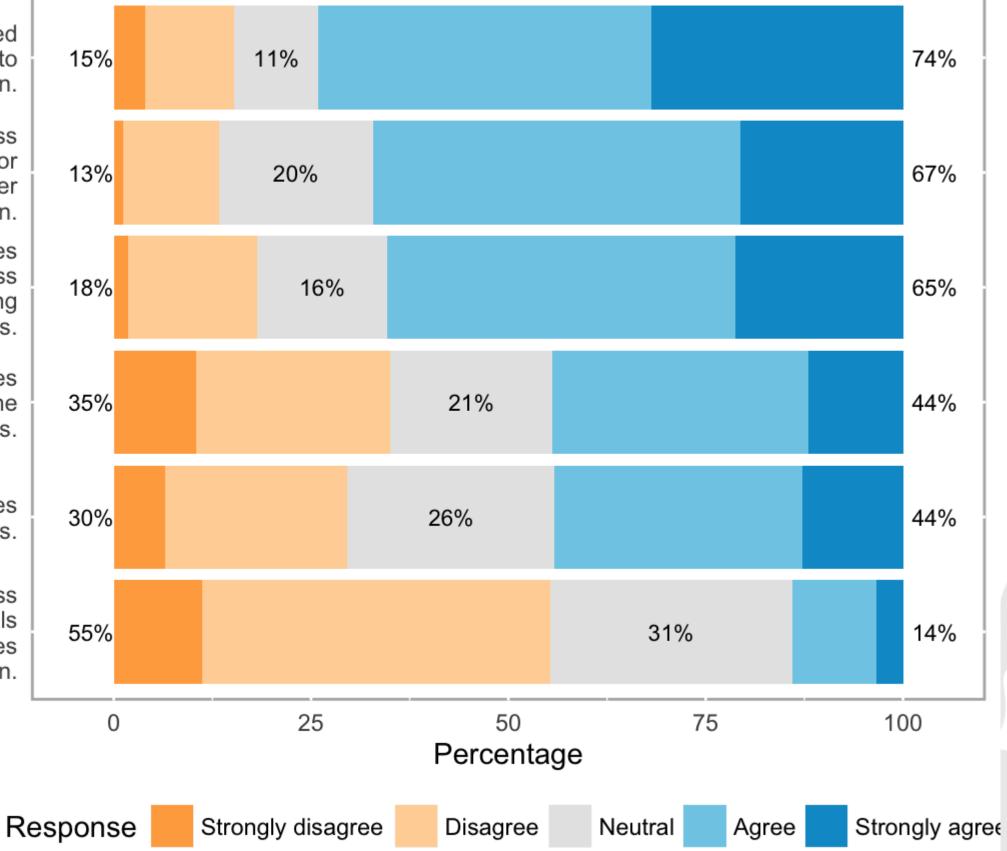
Potential reviewers are less likely to agree to review for journals that make reviewer identities open.

Making reviewer identities open will make reviewers less likely to make strong criticisms.

Making reviewer identities open will increase the quality of reviews.

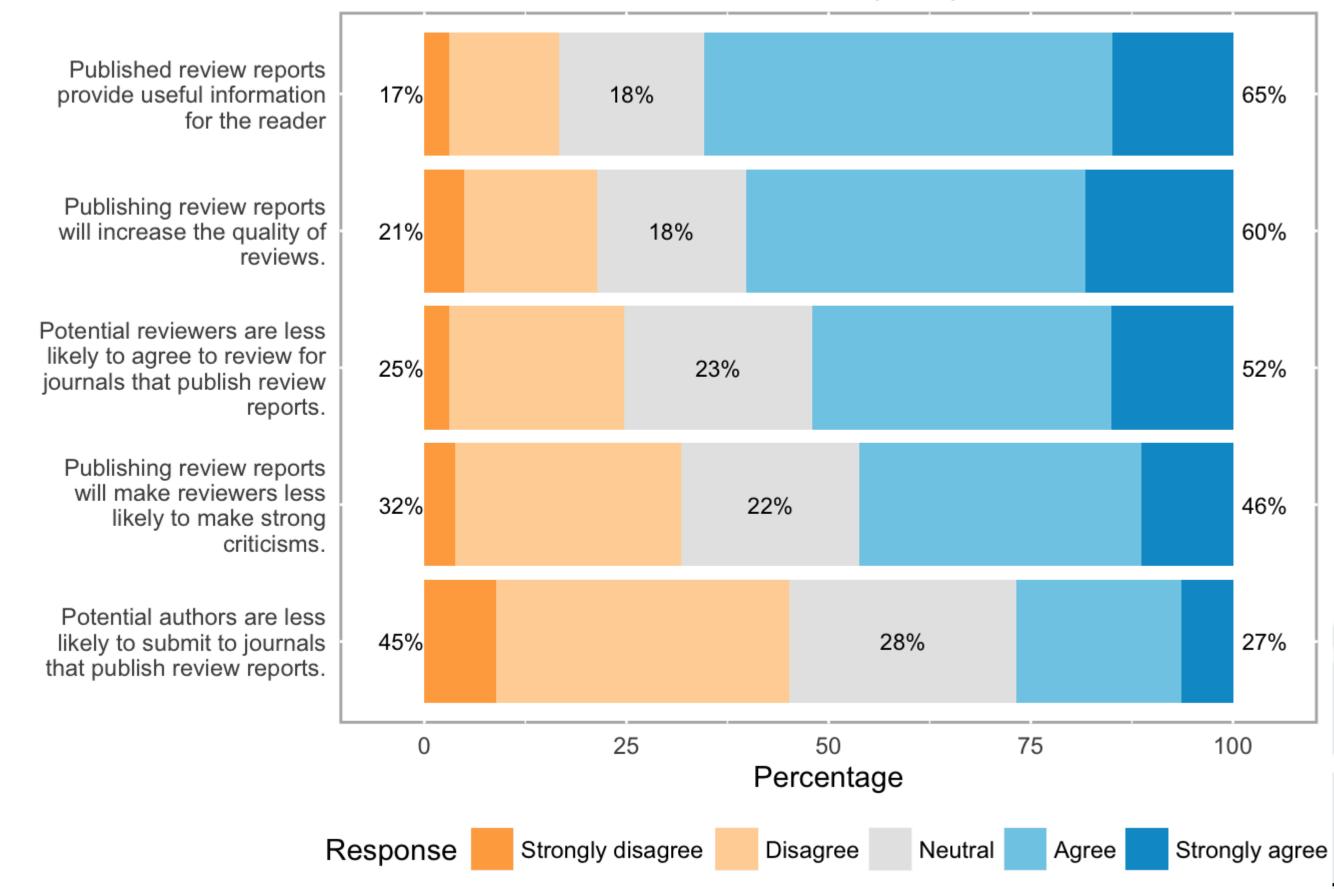
Making reviewer identities open is fairer to authors.

Potential authors are less likely to submit to journals that make reviewer identities open.

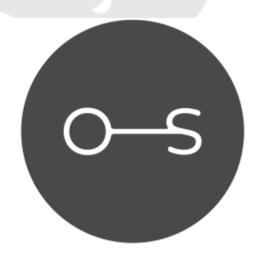








Ope



# Open Peer Review Module for repositories

### open scholar

- OPR Plug-in for Repositories (DSpace)
  - Open Reports
  - Open Identities
- Converts repositories into functional evaluation platforms
  - Includes published reviews, disclosed identities, reviewer reputation system
  - Complete code, with full documentation, available on Github under an open license: <a href="https://github.com/arvoConsultores/Open-Peer-Review-Module">https://github.com/arvoConsultores/Open-Peer-Review-Module</a>

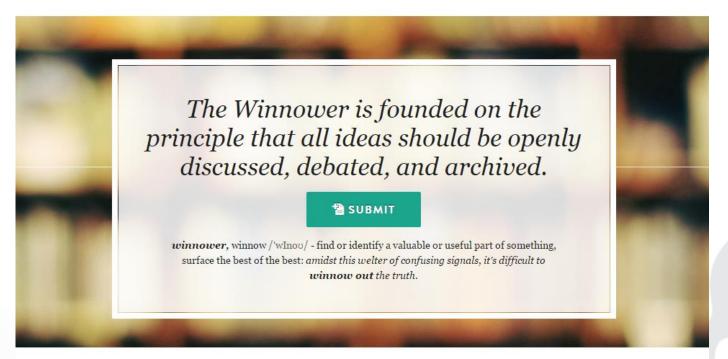




## WINNOWER

- Integration with Zenodo
- Capturing reviews from "journal clubs"
- Experiment with small financial incentives





#### **HOW IT WORKS**

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



#### Submission

Publish your research, class essays, peer reviews, grants, letters, howto articles, conference summaries, conference talks, blogs - whatever format you choose.



Invite researchers and colleagues to Revise your work based on the review your work using The Winnower. The review period can be as long or as short as you need it necessary before archiving.

reviews you receive. You can make as many or as little changes as



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.





## Outlook

- Further research and experimentation is needed, in different context (research data, conferences, books, proposals, etc.)
- Uncouple review from publishing? (federated trusted services)
- Common language and standards?
  - Disciplinary areas, publication types some commonalities, but also different needs to be taken into account
  - What kind of openness works in which context
  - How effective are the services
  - How can reviewers be rewarded (e.g. on CVs / researcher profiles)
  - Citation of review reports?





## Thank you!





- f facebook.com/groups/openaire
- in linkedin.com/groups/OpenAIRE-3893548
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