

Open Science for Early Career Researchers

- **Giulia Malaguarnera**
Eurodoc Advisory Board Member & Former President
- **Oleksandr Berezko,**
Eurodoc General Board Member



The European Council of Doctoral
Candidates and Junior Researchers

board@eurodoc.net
<http://www.eurodoc.net>



Eurodoc = early-career researchers



- non-profit organisation
- based in Brussels (2002)
- 28 national associations
- funded by member fees
- supported by volunteers
- develops & informs policy
- runs workgroups & events



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The European Council of Doctoral
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Eurodoc Members

International federation of
28 national organisations
from 26 countries of the EU
and the Council of Europe





The European Council of Doctoral
Candidates and Junior Researchers

- **Eurodoc Vision**

“A fair and sustainable research culture where early career researchers are treated with respect and have access to long-term and stable career pathways.”

- **Eurodoc Mission**

“To advocate for positive change in the policies, culture and environment that affect the quality of training, well-being and employment conditions of early career researchers.”



Statutory Aims

- (1) **Represent** ECRs on matters of education, research, & career development in Europe
- (2) **Advance** the quality of doctoral programmes & standards of research activity in Europe
- (3) **Share** information, **organise** events, **join** debates, & shape policies for ECRs in Europe
- (4) **Establish & promote** cooperation between national associations for ECRs in Europe



The European Council of Doctoral
Candidates and Junior Researchers

<http://www.eurodoc.net>



Governance

- General Meeting
- [Administrative Board](#)
- [Secretariat](#)
- [Advisory Board](#)

Eurodoc is governed by the [National Associations](#) delegates and, through these, by early-career researchers (ECRs)



The European Council of Doctoral
Candidates and Junior Researchers



Governance

Annual General Meeting (AGM)

- the highest decision-making body
- 2 votes for each member country
(NA is represented by up to 2 delegates)



Working Groups

- Democracy&Sustainability
- Doctoral Training
- Employment&Career Development
- Equality
- Interdisciplinarity
- Mental health
- Mobility
- Open Science
- Research Integrity &Assessment



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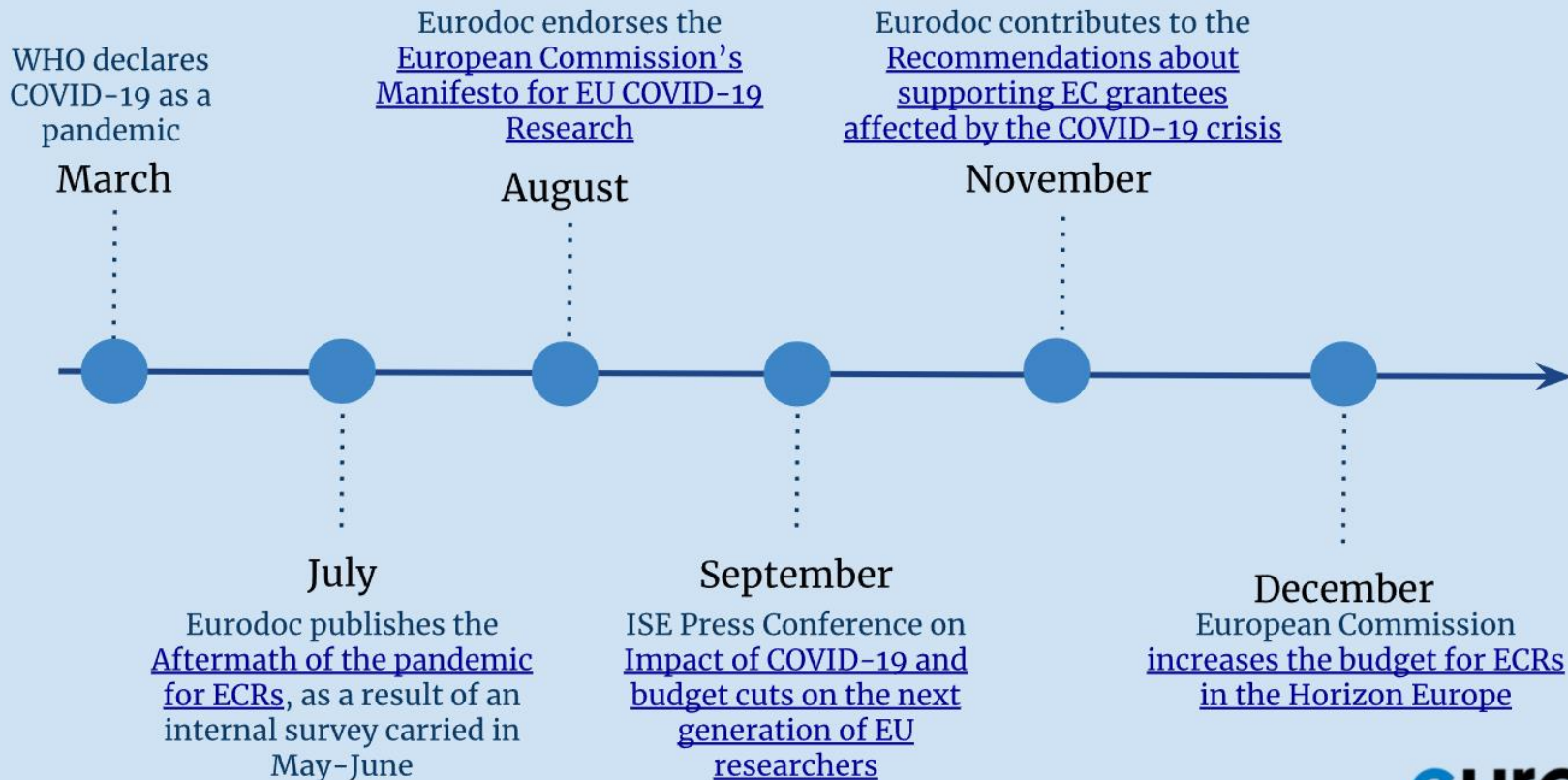
<http://www.eurodoc.net>

Officers

- Communication
- Newsletter
- Council of Europe
- Language
- Webmaster
- Skills
- BFUG
- EOSC



2020: Eurodoc Timeline during the COVID-19 Pandemic



Eurodoc Commitment to Open Science



info@eurodoc.net
<http://www.eurodoc.net>
Rue d'Egmont 11, Brussels

Joint Statement on Implementation Guidance for Plan S

Plan S is an initiative by cOAlition S to achieve full and immediate Open Access to scientific publications after 01 January 2020 in Europe. At the heart of the plan are 10 principles currently being developed into a set of implementation guidelines. We, representatives of early-career and senior researchers across Europe, have already commented on Plan S and hereby reaffirm our general support and offer our views on the implementation guidance.

We commend cOAlition S for addressing initial concerns and for the open consultation on the guidance. There are now three clear routes to compliance via either author-accepted manuscripts or versions of record of publications. It is crucial, however, that cOAlition S ensures that these routes are viable through appropriate regulations, funding, and support. We reiterate three key concerns from our first statement on Plan S: disruption for doctoral dissertations should be minimised; venues with no author-facing fees and societies as well as open infrastructures should be supported; institutions and funders should modernise their researcher evaluation and implement the Declaration on Research Assessment (DORA).

(1) We agree that copyright on publications should stay with the original copyright holder and not be transferred to publishers. The copyright holder is typically the author and/or institution, which can depend on legal requirements, but is often not explicitly stated. We encourage cOAlition S to recommend the author as copyright holder where legally possible.

(2) We agree that the licence on publications should by default be Creative Commons (CC) Attribution (BY), to maximise benefits of research for society via the right to reuse, modify, and redistribute. We also agree that Non-Commercial (NC) licences are not justifiable for publicly funded works. While Non-Derivative (ND) licences can restrict text-and-data mining (TDM) and Open Education, we disagree that they should not be allowed, because of concerns over misrepresentation and translations in the Humanities and Social Sciences. We encourage cOAlition S to allow researchers to opt out of CC BY for a CC BY-ND licence.

Eurodoc input on UNESCO Open Science Recommendation

1. Context of the current commentary by Eurodoc

Following the electronic consultation on Open Science (OS) by UNESCO in the form of an online survey (February to July 2020) towards a global consensus regarding the transition to Open Science, the European Council of Doctoral Candidates and Junior Researchers (Eurodoc) answered with a series of proposals regarding key aspects to be included and obstacles to be addressed from the point of view of Early Career Researchers (ECRs). Eurodoc considers Open Science a main pillar in the career development and evaluation of ECRs and has a Working Group fully devoted to this topic. This group activity focuses on awareness, training, and policy research advocacy on promoting Open Science.

2. Summary of key points on the previous Eurodoc proposal

2.1. Key aspects pointed by Eurodoc

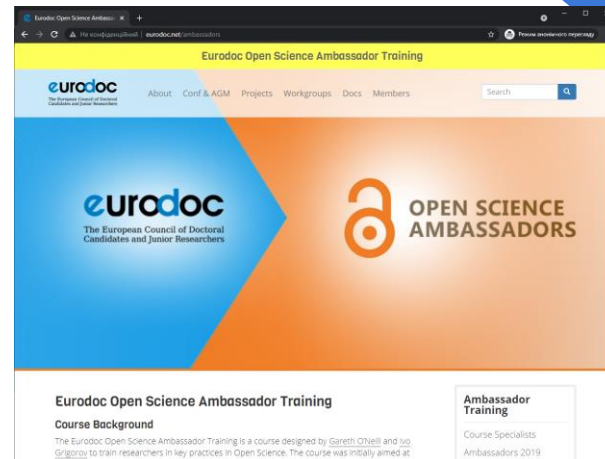
In the previous proposal, Eurodoc suggested (question 28 of the UNESCO survey) the following key objectives in the transition to Open Science to be considered in the UNESCO Global Open Science Recommendation:

General:

- To cover all aspects of OS, and to identify globally agreed norms
- To valorise OS practices in the research assessment as a common standard across different disciplines
- To create a standard-setting instrument for OS practices assessment

Specific:

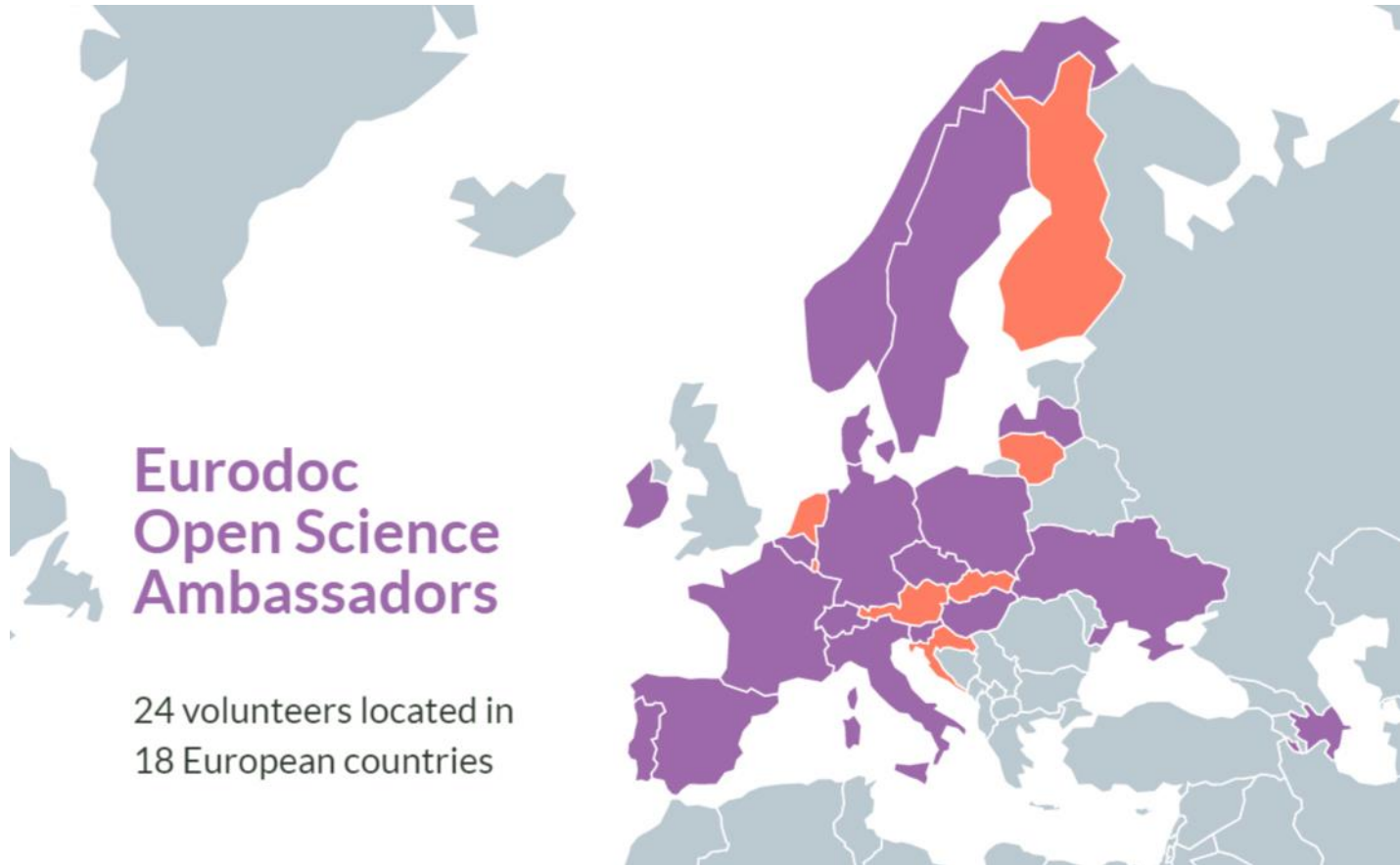
- Coherent policy on OS at local, institutional, national and international levels
- Comprehensive awareness raising on OS
- Training and support on OS practices and skills, and also clarification on who is responsible for this training (mainly the responsibility of academic institutions in their



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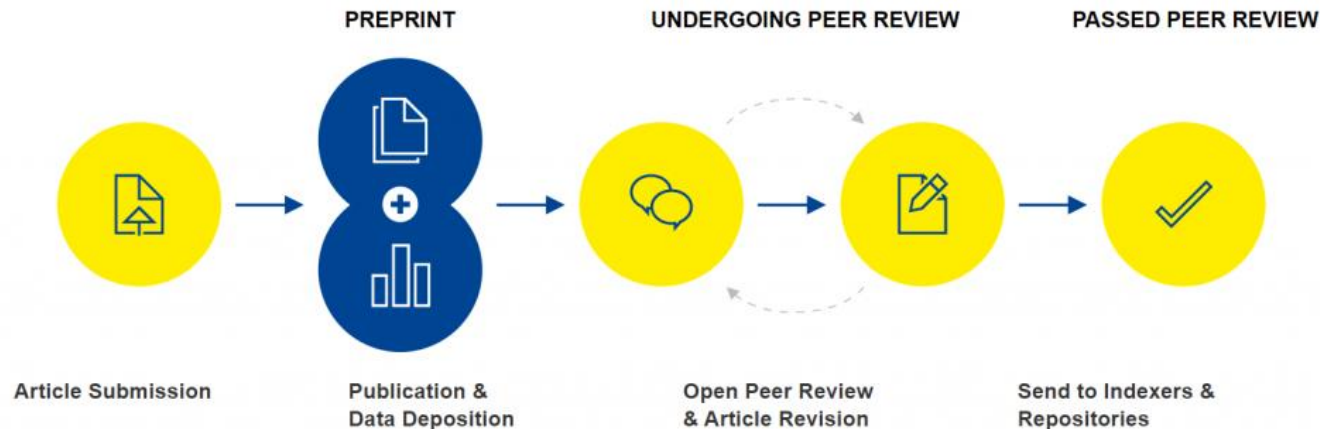
Eurodoc Open Science Ambassadors





Open Research Europe

<https://open-research-europe.ec.europa.eu/>





Co-funded by the
Erasmus+ Programme
of the European Union



Open Practices, Transparency and Integrity for Modern Academia (OPTIMA) -

<https://lpnu.ua/optima>

The main goal of the OPTIMA project is implementing Open Science practices in Ukraine to improve the quality of National higher education services. OPTIMA's priorities include engaging disadvantaged academic communities of displaced Ukrainian universities and focusing on climate change.



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МІНІСТЕРСТВО
ОСВІТИ І НАУКИ
УКРАЇНИ



November 25-27, 2021
Lviv Polytechnic National University
<https://nauka.international/lea-2021>



What would you like to do ?

- Choose the topic you like
- Contact your National Association (NA)
- Participate in your NA's contribution to Eurodoc
- Participate in the WG as representative:
actively or passively
- Help bringing Eurodoc context to your country
e.g. translation of the docs, dissemination
- Join the next Eurodoc OS Ambassadors Program

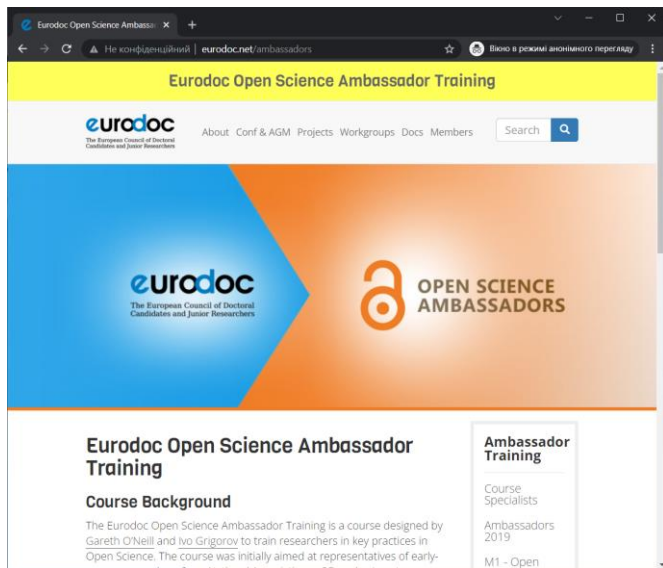


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Eurodoc Open Science Ambassadors



<https://bit.ly/3ib8sKX>



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In 2016, the European Commission (EC) presented a renewed vision for European research and innovation policy centred around the three O's: 'open innovation, open science and open to the world', which has been continuously implemented*

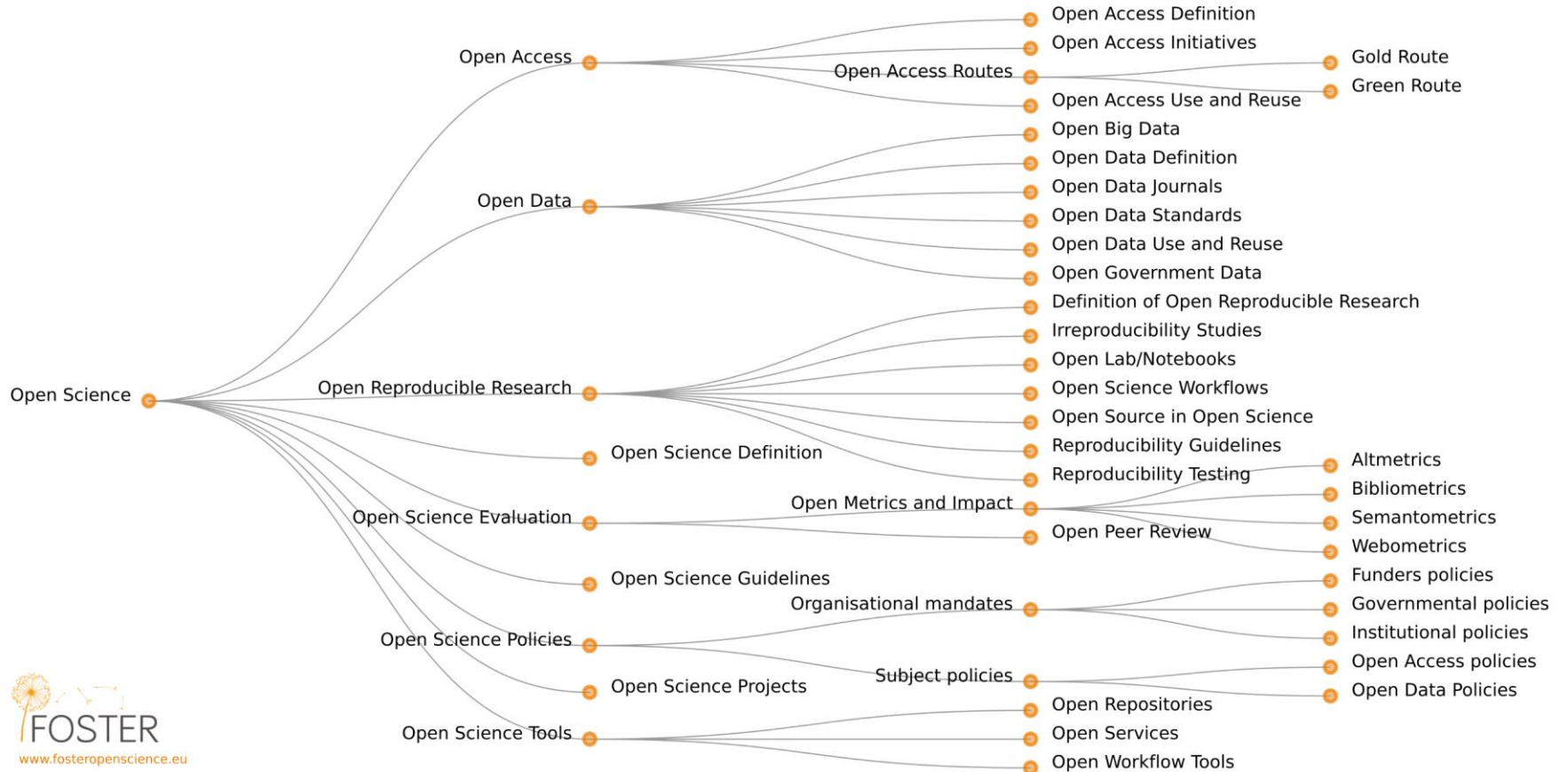
** Moedas C., Open Innovation, Open Science and Open to the World – A Vision for Europe, Luxembourg: Publications Office of the European Union; 2016.*



Open Science (OS) generally means transparent and accessible knowledge that is shared and developed through collaborative networks*

** Vicente-Sáez R; Martínez-Fuentes C., Open science now: A systematic literature review for an integrated definition. Journal of business research, vol. 88, 2018.*

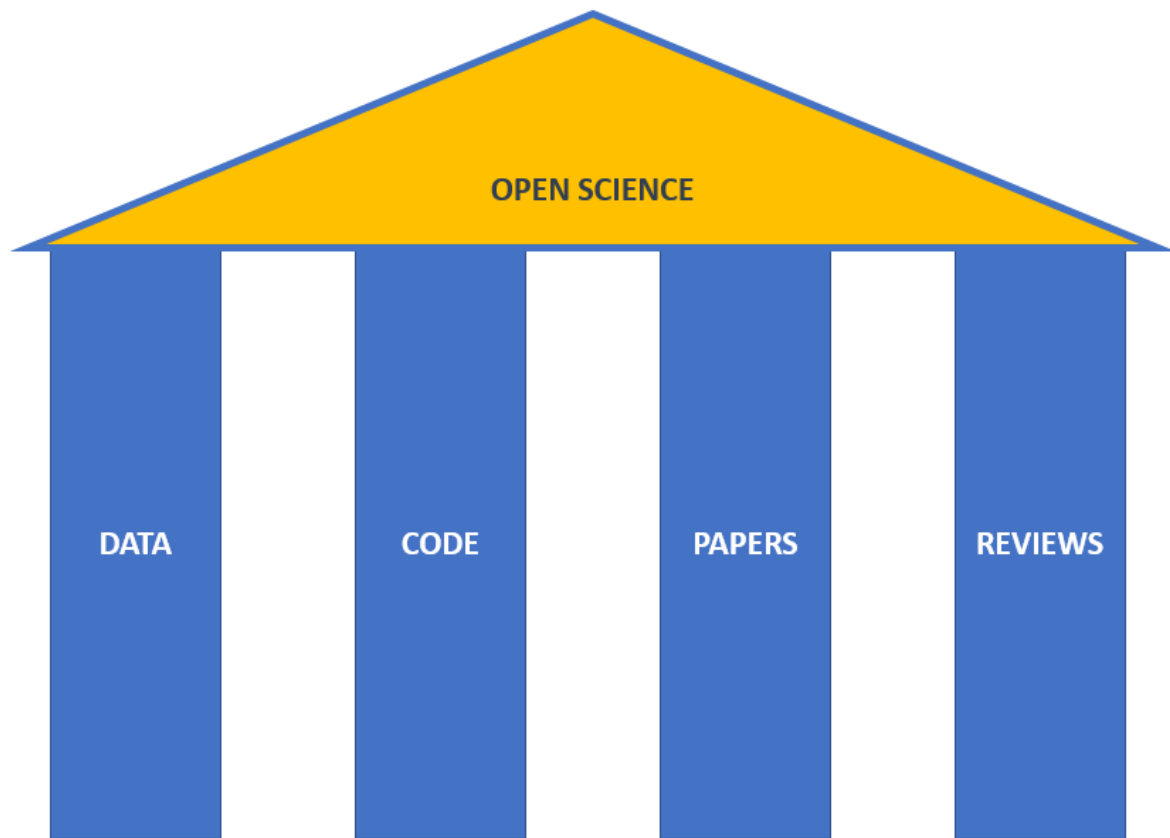
Open Science Taxonomy



Open Science:

- supports validation and reproducibility of research;
- reduces cases of academic misconduct;
- helps to maximize the impact of research and provides the foundations for others to build upon.



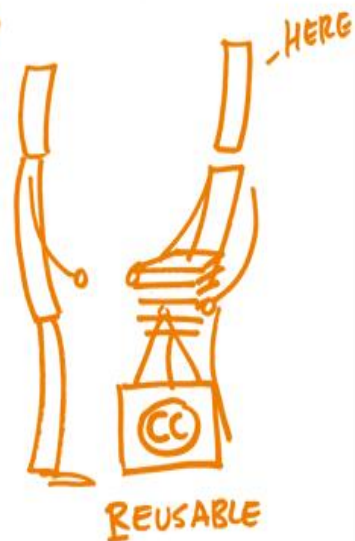
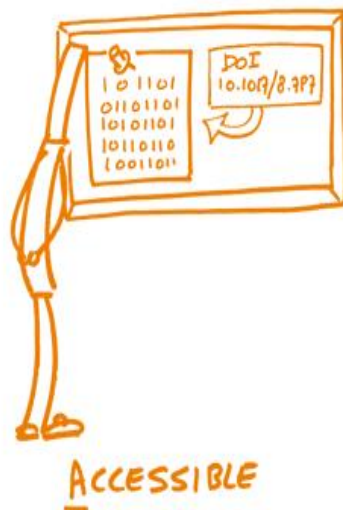




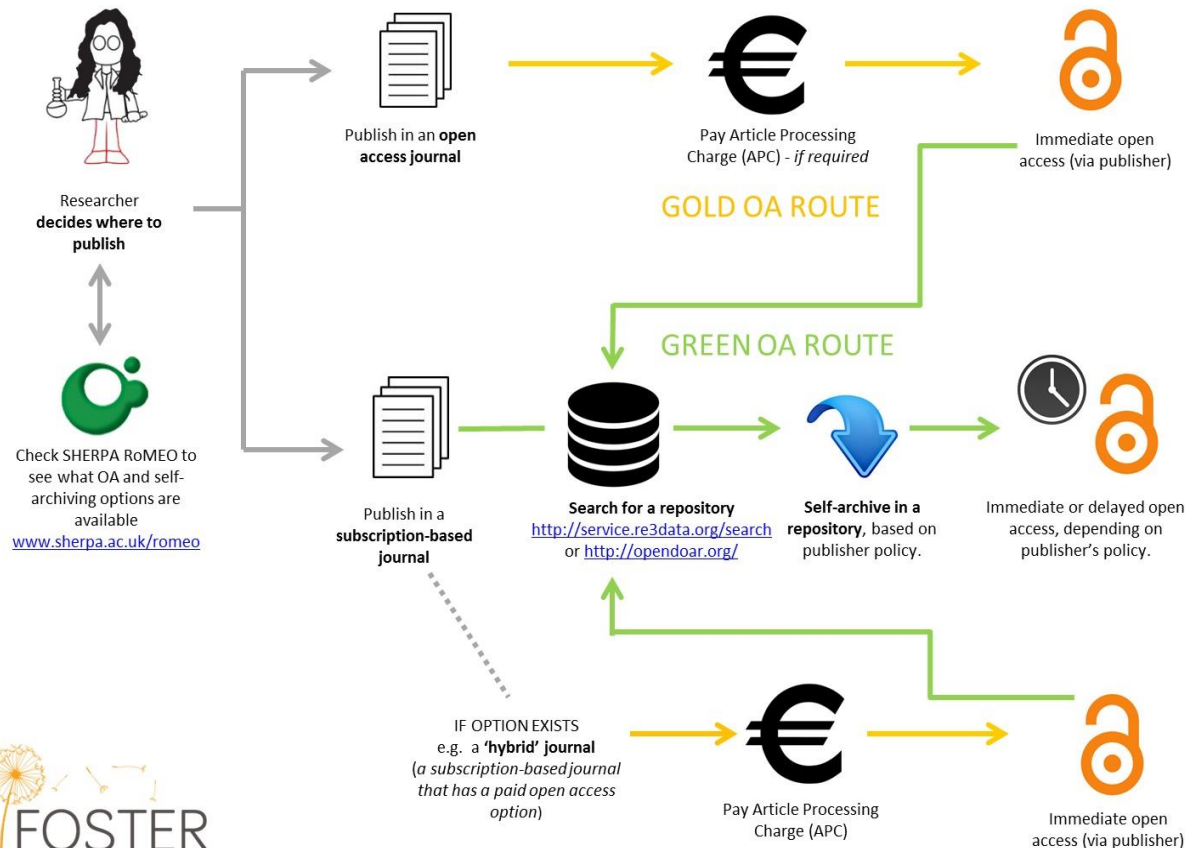
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FAIR DATA PRINCIPLES



OPEN ACCESS



Zenodo - Research. Shared.

https://zenodo.org

Режим анонічного перегляду (2)

zenodo

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Scheduled intervention: May 16th 05:30 UTC, 10 minutes downtime due to emergency intervention on virtual machine hypervisors.

Recent uploads

July 2, 2018 (v2019-05-09)

Dataset

Open Access

Gene Ontology Data Archive

Carbon, Seth

Mungall, Chris

Archival bundle of GO data release.

Uploaded on May 10, 2019

12 more version(s) exist for this record

View

May 8, 2019 (v1.0.2)

Software

Open Access

OpenFairViewer: a FAIR, ISO and OGC (meta)data compliant GIS data viewer for browsing, accessing and sharing geo-referenced statistics

Blondel, Emmanuel

<https://github.com/ebondel/OpenFairViewer/releases/tag/1.0.2>

Uploaded on May 8, 2019

2 more version(s) exist for this record

View

January 9, 2019 (v2)

Dataset

Open Access

Supplementary File S2: Plasmids for independently tunable, low-noise gene expression

Silva, João P. N.

Lopes, Soraia Vidigal

Grilo, Diogo J.

Hensel, Zach


Supplementary File S2 README 2019-April-26 "Plasmids for independently tunable, low-noise gene expression" (Version 2) João P. N. Silva, Soraia Vidigal Lopes, Diogo J. Grilo, Zach Hensel This file describes the contents of the supplementary file for this manuscript. Python scripts were run in a...

Uploaded on May 7, 2019

View


Zenodo now supports usage statistics!

Read more about it, in our newest blog post.



Using GitHub?

Just Log in with your GitHub account and click here to start preserving your repositories.



Zenodo in a nutshell

- Research. Shared.** — all research outputs from across all fields of research are welcome! Sciences and Humanities, really!
- Citeable. Discoverable.** — uploads gets a Digital Object Identifier (DOI) to make them easily and uniquely citeable.
- Communities** — create and curate your own community for a workshop, project, department, journal, into which you can accept or reject uploads. Your own complete digital repository!
- Funding** — identify grants, integrated in reporting lines for research funded by the European Commission via OpenAIRE.
- Flexible licensing** — because not everything

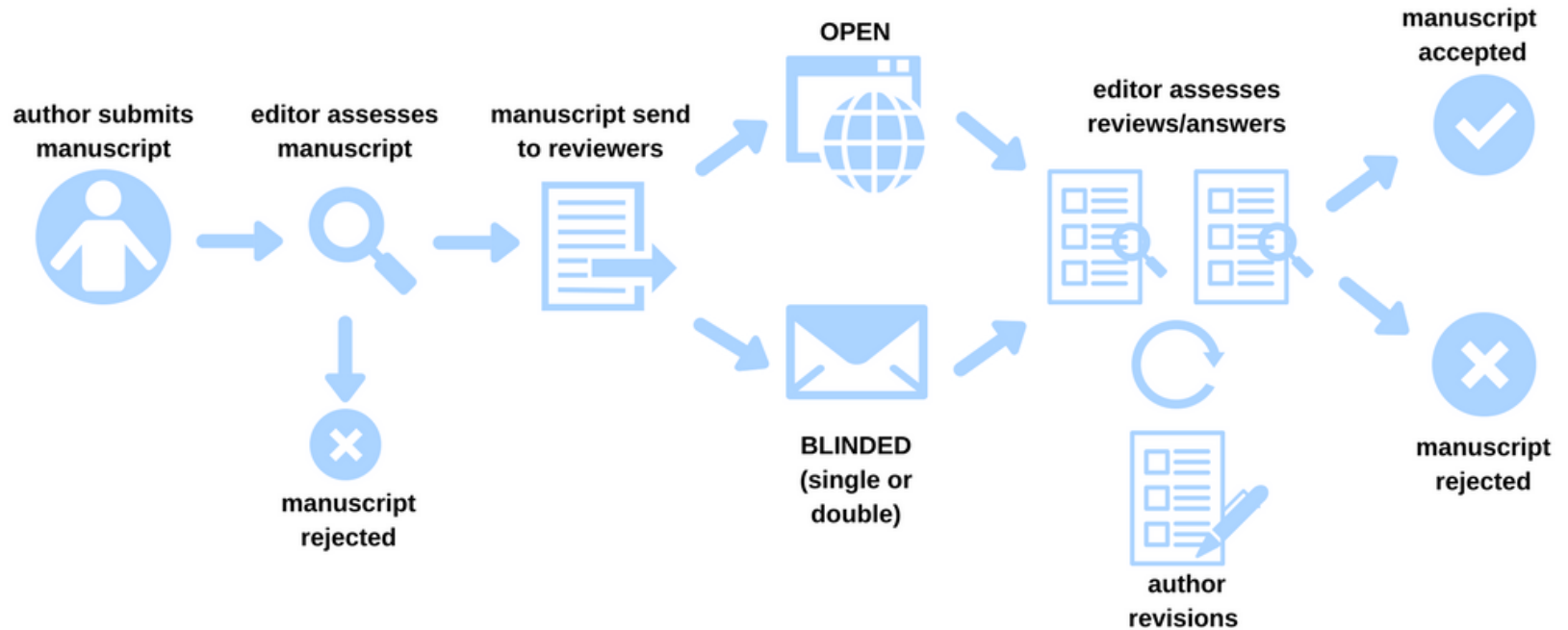
ResearchGate

ACADEMIA



	Open access repositories	Academia.edu	ResearchGate
Supports export or harvesting	Yes	No	No
Long-term preservation	Yes	No	No
Business model	Nonprofit (usually)	Commercial. Sells job posting services, hopes to sell data	Commercial. Sells ads, job posting services
Sends you lots of emails (by default)	No	Yes	Yes
Wants your address book	No	Yes	Yes
Fulfills requirements of UC's OA policies	Yes	No	No

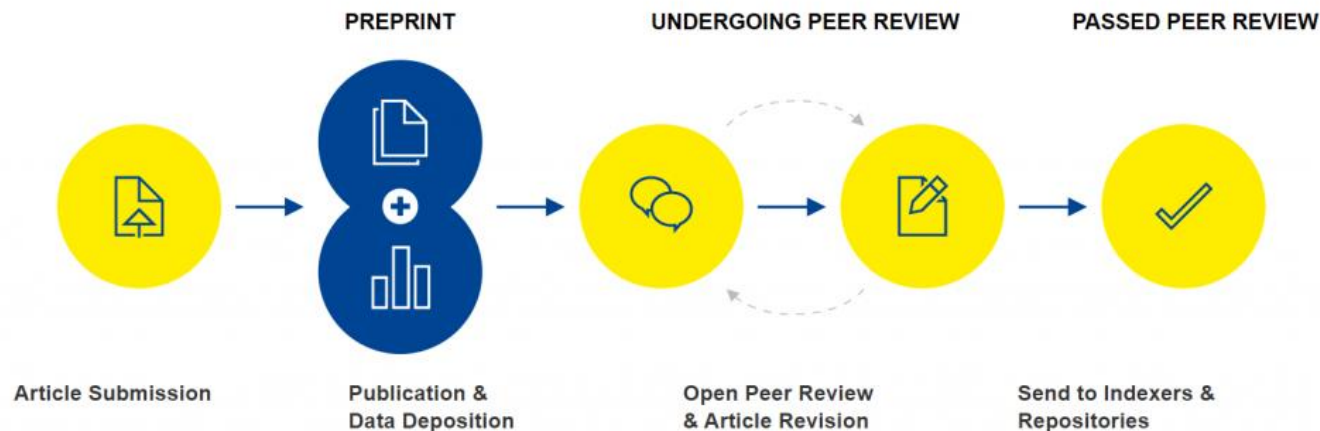
Concept of open and blinded Peer Review





Open Research Europe

<https://open-research-europe.ec.europa.eu/>



CREATIVE COMMONS LICENSES



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& PUBLISH



ATTRIBUTION
REQUIRED



COMMERCIAL
USE



MODIFY
& ADAPT



CHANGE
LICENSE



PUBLIC DOMAIN



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communicate, etc.)



You have to attribute
the original work



You can use the work
commercially



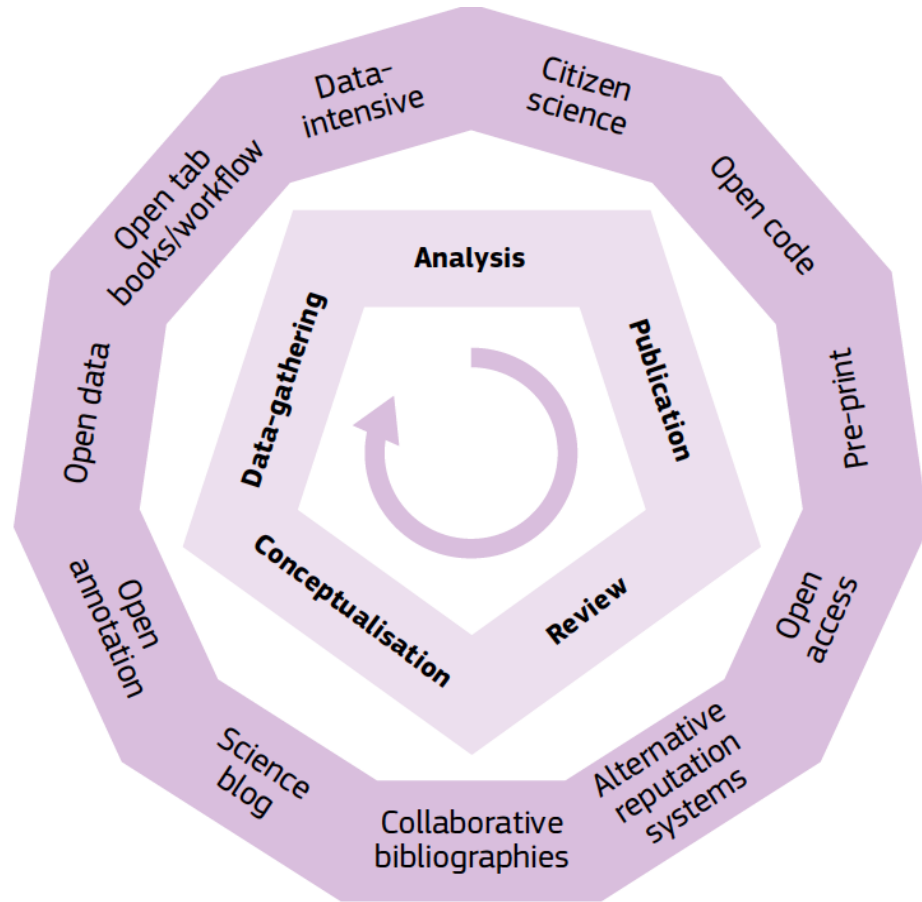
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adapt the original work



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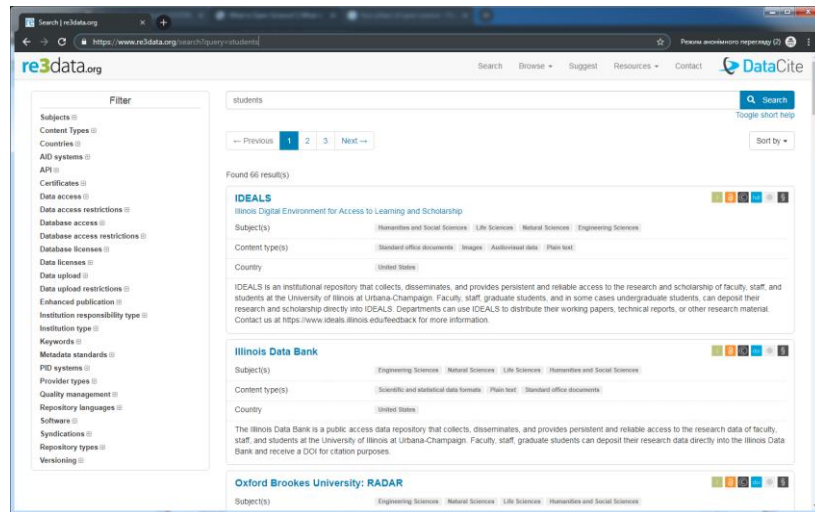


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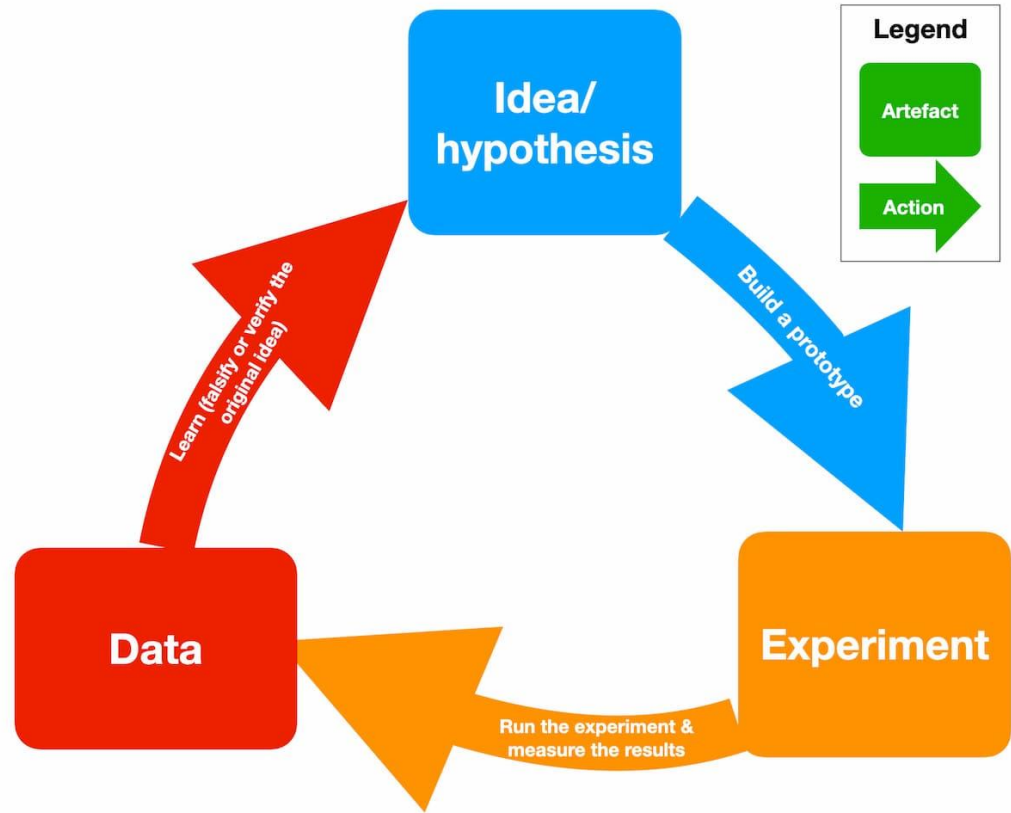
Open science **during the planning stage:**

- **share ideas** in a blog to get early feedback;
- **involve stakeholders** (e.g. industrial partners);
- **check for existing datasets** for reuse.



www.re3data.org

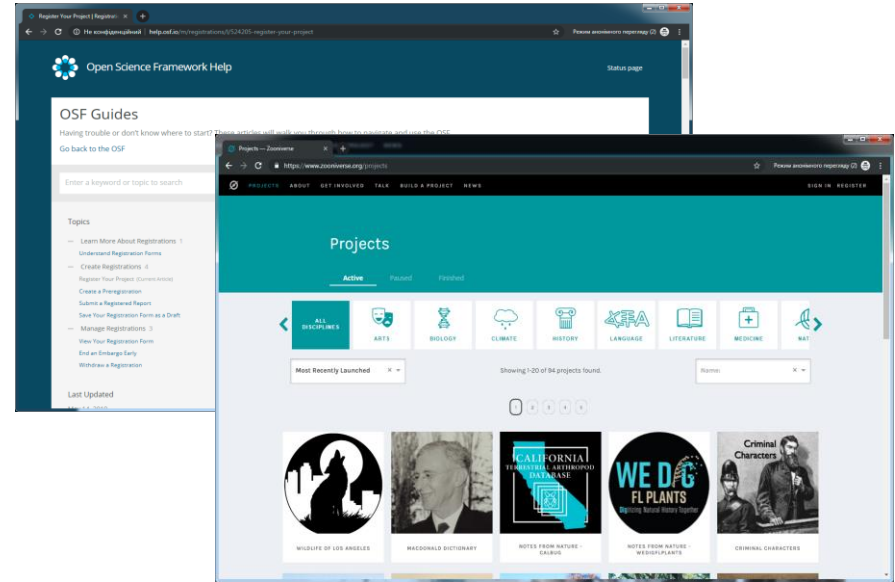
Lean startup methodology



Open Science during the active stage:

- **preprints** allow sharing methodology and early findings and get peer feedback ASAP;
- **pre-register your ideas** to avoid being scooped;
- **involve citizen science** in analyzing results.

www.osf.io

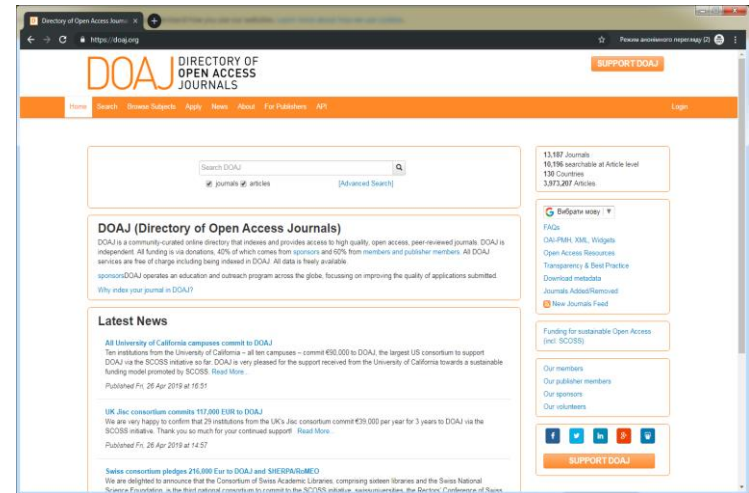


www.zooniverse.org

Open Science **towards the end of research:**

- publish your paper in Open Access and/or send your data to OA depository;
- link your papers, code and data via assignment of DOIs + link to your ORCID;
- consider writing a lay summary (for researchers from other fields & journalists).

www.doaj.org

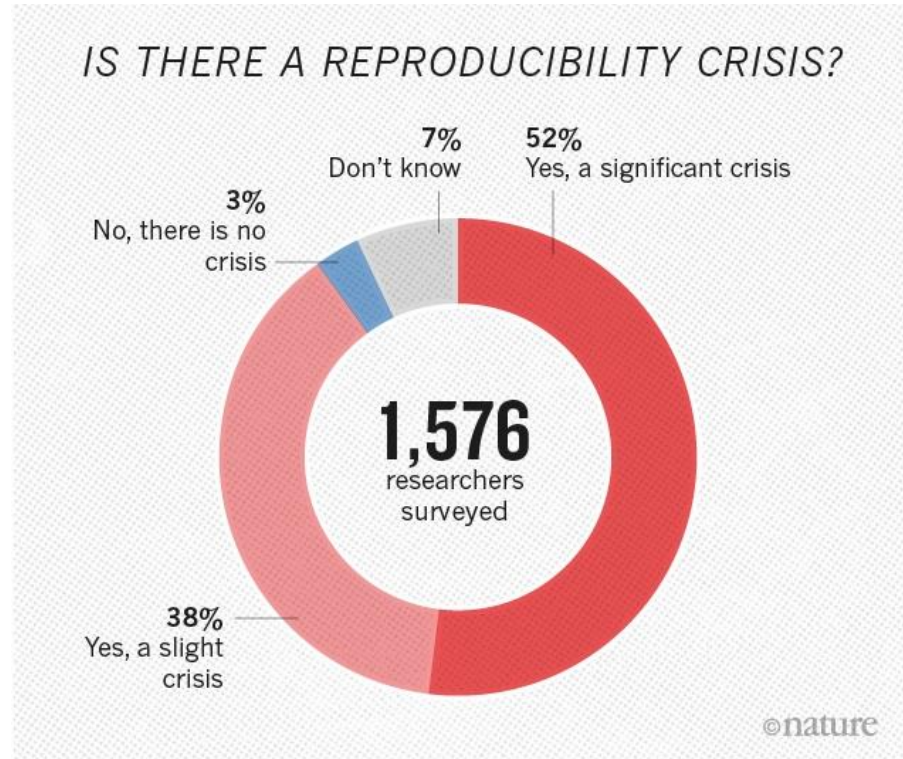
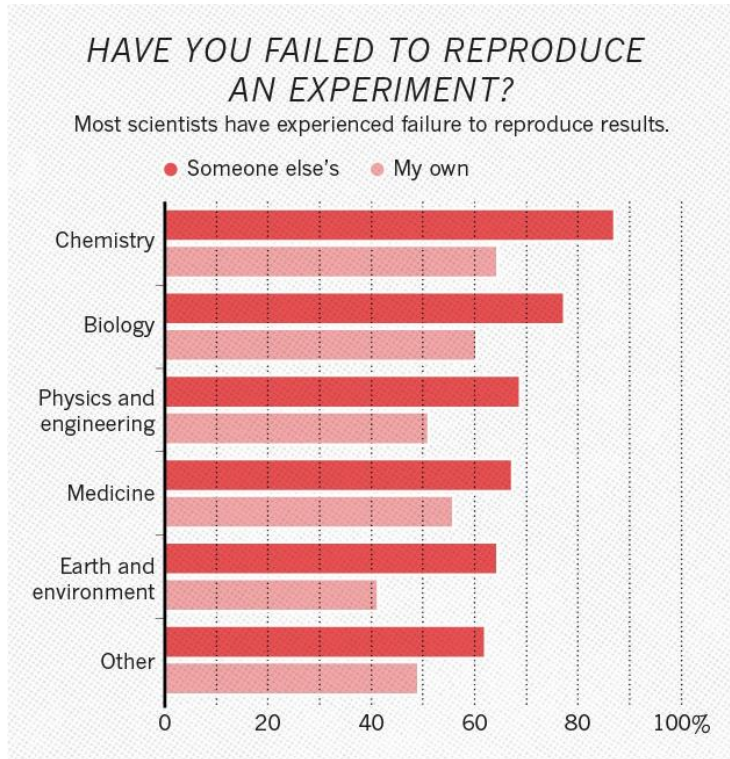


Sounds like extra work, right?





The reproducibility crisis



Baker, M. 1,500 scientists lift the lid on reproducibility. *Nature* 533, 452–454 (2016). <https://doi.org/10.1038/533452a>

“Open science is critical to combatting COVID-19”



“Open Science can be a true game changer in bridging the science, technology and innovation gaps between and within countries and fulfilling the human right to science”

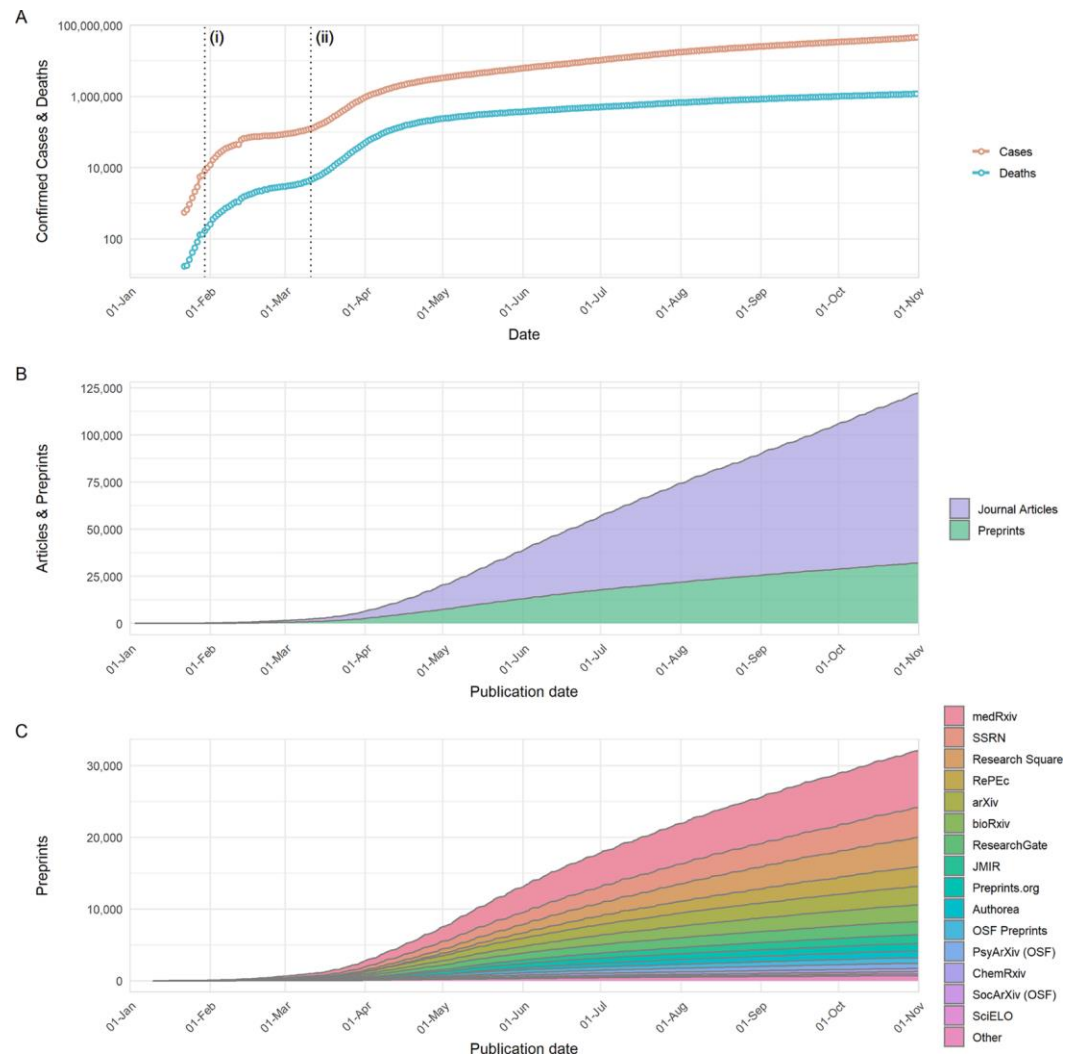


“The COVID-19 crisis has underlined just how fast and open science publishing can be — when scientists want it that way”

nature

The evolving role of preprints in the dissemination of COVID-19 research and their impact on the science communication landscape

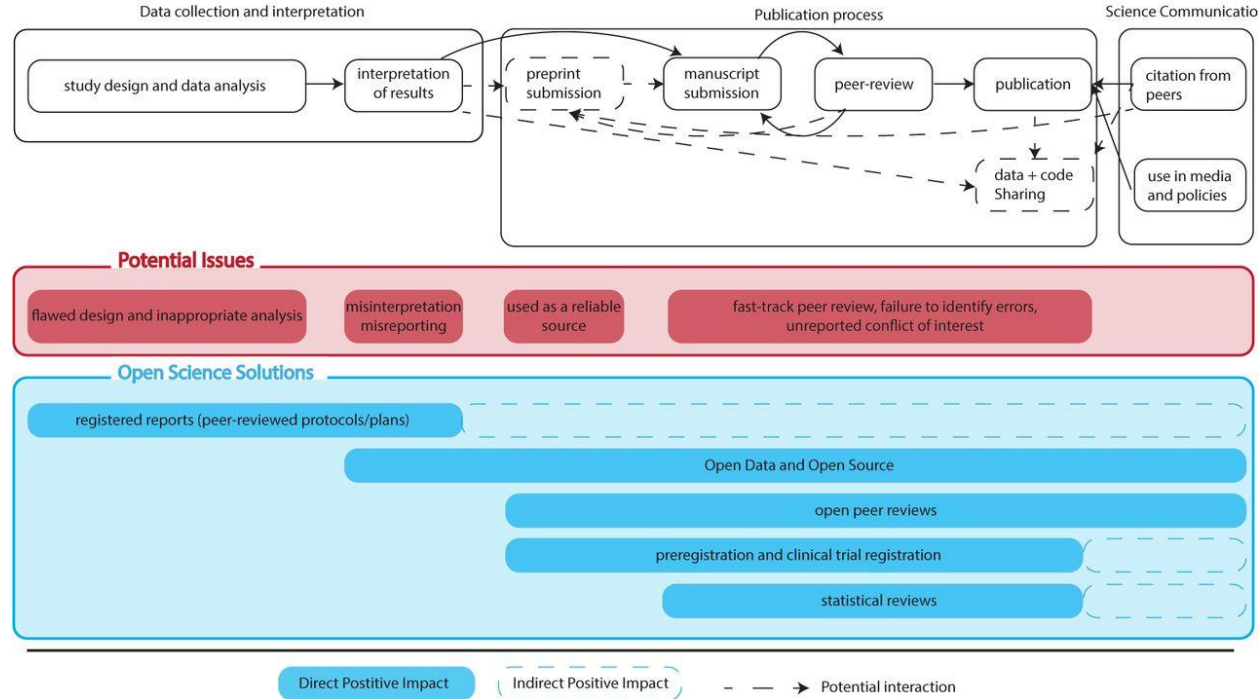
Fraser N, Brierley L, Dey G, Polka JK, Pálffy M, et al. (2021) The evolving role of preprints in the dissemination of COVID-19 research and their impact on the science communication landscape. PLOS Biology 19(4): e3000959. <https://doi.org/10.1371/journal.pbio.3000959>



Open Science Saves Lives: Lessons from the COVID-19 Pandemic

Lonni Besançon, Nathan Peiffer-Smadja, Corentin Segalas, Haiting Jiang, Paola Masuzzo, Cooper Smout, Eric Billy, Maxime Deforet, Clémence Leyrat

bioRxiv 2020.08.13.249847; doi: <https://doi.org/10.1101/2020.08.13.249847>





DORA

San Francisco Declaration on Research Assessment

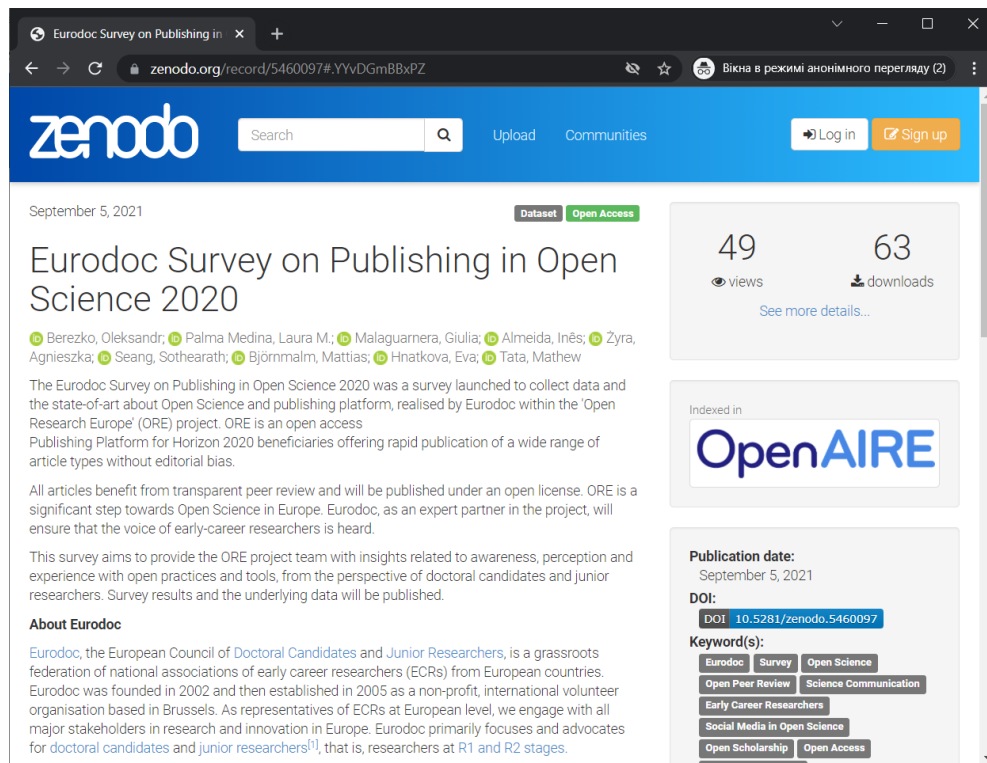
Do not use journal-based metrics, such as Journal Impact Factors, as a surrogate measure of the quality of individual research articles, to assess an individual scientist's contributions, or in hiring, promotion, or funding decisions.



Towards a new *modus operandi* for Science:

Current System (dominant)		Open Research and Scholarship	
Rewarding individual competing scientists - gaining scientific prestige		Rewarding collaboration and sharing to achieve societal impact (e.g. Covid-19)	
Publish as much and as fast as possible: (<i>publish or perish!</i>)		Share knowledge/data as early as possible in open collaboration : <i>collaborate or have no impact!</i>	
Excellence as a self-referential criterion		Relative contribution to research missions with a focus on a societal challenge: <i>collaborate with open research agenda's or have no social desirable impact!</i>	
Incentivises researchers to <i>produce specific outputs</i> (mainly publications)	Use of quantitative metrics to 'measure' quality and productivity	Incentivises researchers to <i>conduct particular research behaviour</i> : share knowledge/data, collaborate, transnational, transdisciplinary, with all knowledge actors	Relative contribution to a research mission-qualitative assessment of <i>research behaviour</i>

Eurodoc Survey on Publishing in OS 2020



The screenshot shows the Zenodo record page for the 'Eurodoc Survey on Publishing in Open Science 2020'. The page is viewed in a browser window with the URL zenodo.org/record/5460097#.YYvDGmBBxPZ. The Zenodo logo and navigation links (Search, Upload, Communities, Log in, Sign up) are at the top. The record is dated September 5, 2021, and is marked as a Dataset and Open Access. The title is 'Eurodoc Survey on Publishing in Open Science 2020'. The authors listed are Berezko, Oleksandr; Palma Medina, Laura M.; Malaguamera, Giulia; Almeida, Inês; Żyra, Agnieszka; Seang, Sotheareth; Björnmalin, Mattias; Hnatkova, Eva; and Tata, Mathew. A summary paragraph states: 'The Eurodoc Survey on Publishing in Open Science 2020 was a survey launched to collect data and the state-of-art about Open Science and publishing platform, realised by Eurodoc within the 'Open Research Europe' (ORE) project. ORE is an open access Publishing Platform for Horizon 2020 beneficiaries offering rapid publication of a wide range of article types without editorial bias.' Another paragraph mentions: 'All articles benefit from transparent peer review and will be published under an open license. ORE is a significant step towards Open Science in Europe. Eurodoc, as an expert partner in the project, will ensure that the voice of early-career researchers is heard.' A third paragraph states: 'This survey aims to provide the ORE project team with insights related to awareness, perception and experience with open practices and tools, from the perspective of doctoral candidates and junior researchers. Survey results and the underlying data will be published.' There is an 'About Eurodoc' section. On the right, statistics show 49 views and 63 downloads. It is indexed in OpenAIRE. The publication date is September 5, 2021, and the DOI is 10.5281/zenodo.5460097. A list of keywords includes Eurodoc, Survey, Open Science, Open Peer Review, Science Communication, Early Career Researchers, Social Media in Open Science, Open Scholarship, and Open Access.

September 5, 2021

Eurodoc Survey on Publishing in Open Science 2020

Berezko, Oleksandr; Palma Medina, Laura M.; Malaguamera, Giulia; Almeida, Inês; Żyra, Agnieszka; Seang, Sotheareth; Björnmalin, Mattias; Hnatkova, Eva; Tata, Mathew

The Eurodoc Survey on Publishing in Open Science 2020 was a survey launched to collect data and the state-of-art about Open Science and publishing platform, realised by Eurodoc within the 'Open Research Europe' (ORE) project. ORE is an open access Publishing Platform for Horizon 2020 beneficiaries offering rapid publication of a wide range of article types without editorial bias.

All articles benefit from transparent peer review and will be published under an open license. ORE is a significant step towards Open Science in Europe. Eurodoc, as an expert partner in the project, will ensure that the voice of early-career researchers is heard.

This survey aims to provide the ORE project team with insights related to awareness, perception and experience with open practices and tools, from the perspective of doctoral candidates and junior researchers. Survey results and the underlying data will be published.

About Eurodoc

Eurodoc, the European Council of Doctoral Candidates and Junior Researchers, is a grassroots federation of national associations of early career researchers (ECRs) from European countries. Eurodoc was founded in 2002 and then established in 2005 as a non-profit, international volunteer organisation based in Brussels. As representatives of ECRs at European level, we engage with all major stakeholders in research and innovation in Europe. Eurodoc primarily focuses and advocates for doctoral candidates and junior researchers^[1], that is, researchers at R1 and R2 stages.

49 views 63 downloads

See more details...

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Publication date:
September 5, 2021

DOI:
DOI 10.5281/zenodo.5460097

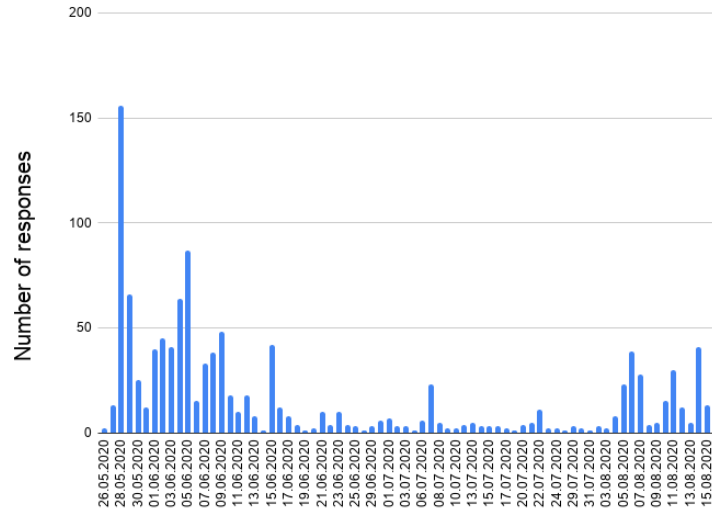
Keyword(s):
Eurodoc Survey Open Science
Open Peer Review Science Communication
Early Career Researchers
Social Media in Open Science
Open Scholarship Open Access



- Lack of comprehensive surveys on ECRs' knowledge and attitudes toward publishing in Open Science
- Previous analyses have rarely sought to address the cultural differences and the highly variable economic status of European countries
- As Eurodoc has a vast network in many European countries, an opportunity for a survey at the European level emerged



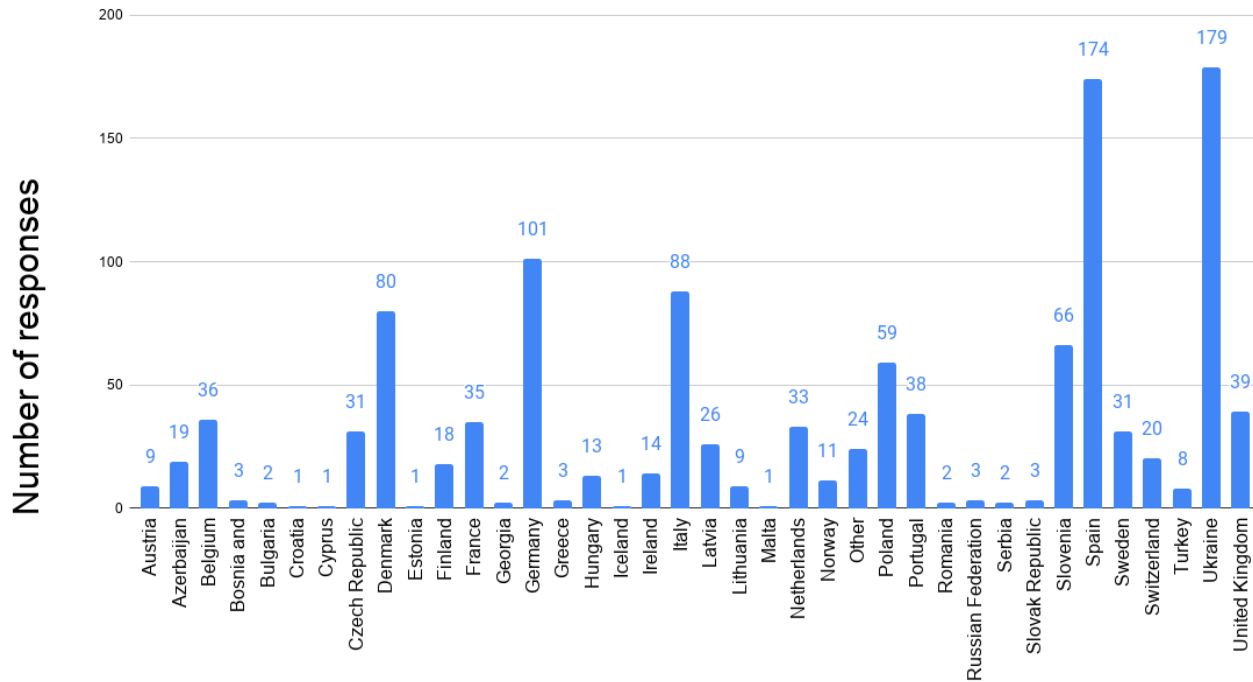
Responses to the survey over time (26th of May – 15th of August 2020)



- The survey was open between the 26th of May and the 15th of August 2020 (~12 weeks)
- The total number of valid responses was 1186 and 98% of them were located in Europe
- The average age of responders was ~33
- 77.6% of responders considered themselves ECRs
- 51.9% of responders performed peer review



Number of responses per country



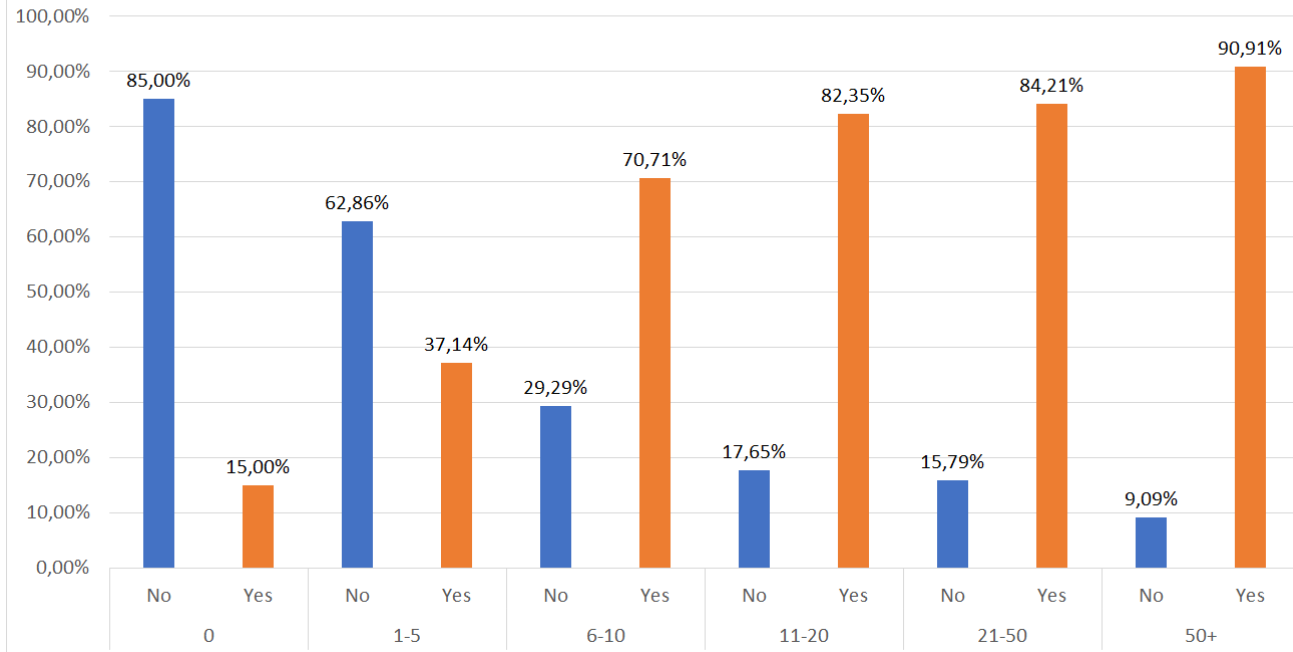


- **European region**
- GDP
- GERD in % of GDP
- Field of science
- **Career stage**



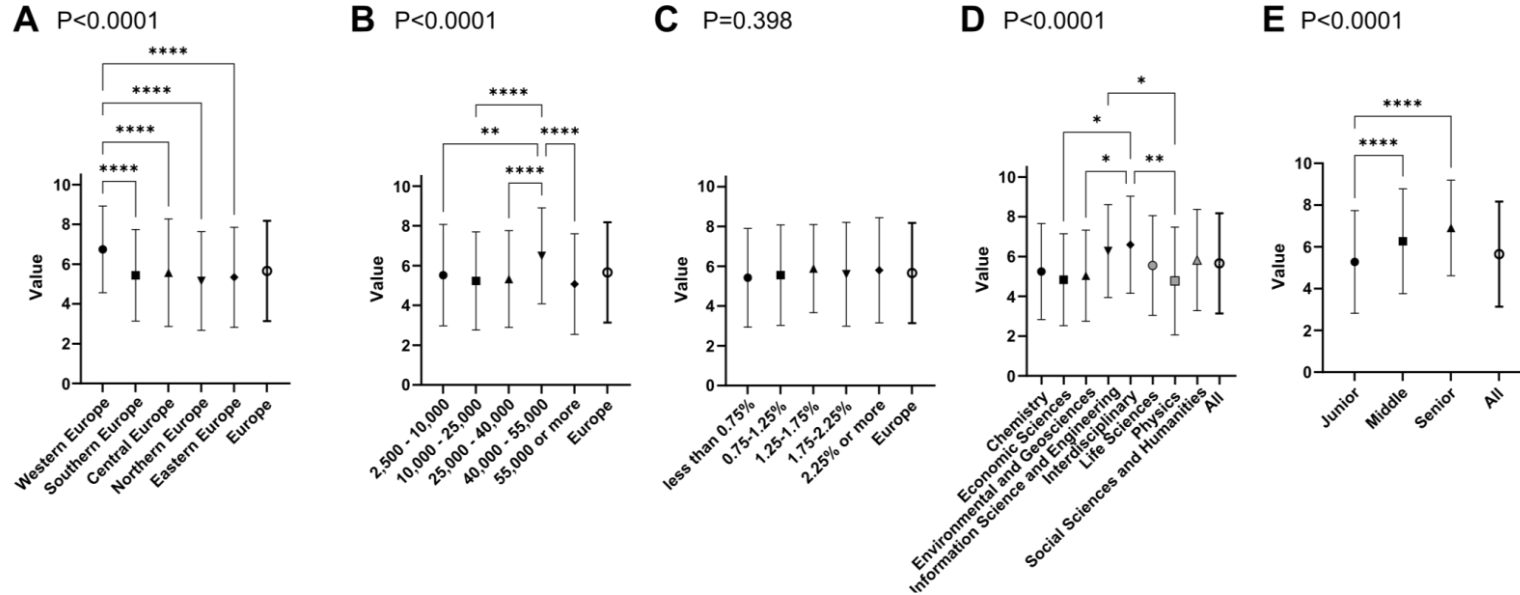
<< Jordan, P. (2005). Großgliederung Europas nach kulturräumlichen Kriterien. Europa Regional, 13.2005(4), 162-173.

Percentage of responders with (Yes) and without (No) experience of peer reviewing among groups with different number of published research papers



Self Assessment rating of knowledge on Open Science

Figure created by *Laura M. Palma Medina* (Karolinska Institute, Sweden)



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Features of Open Science considered as the most important

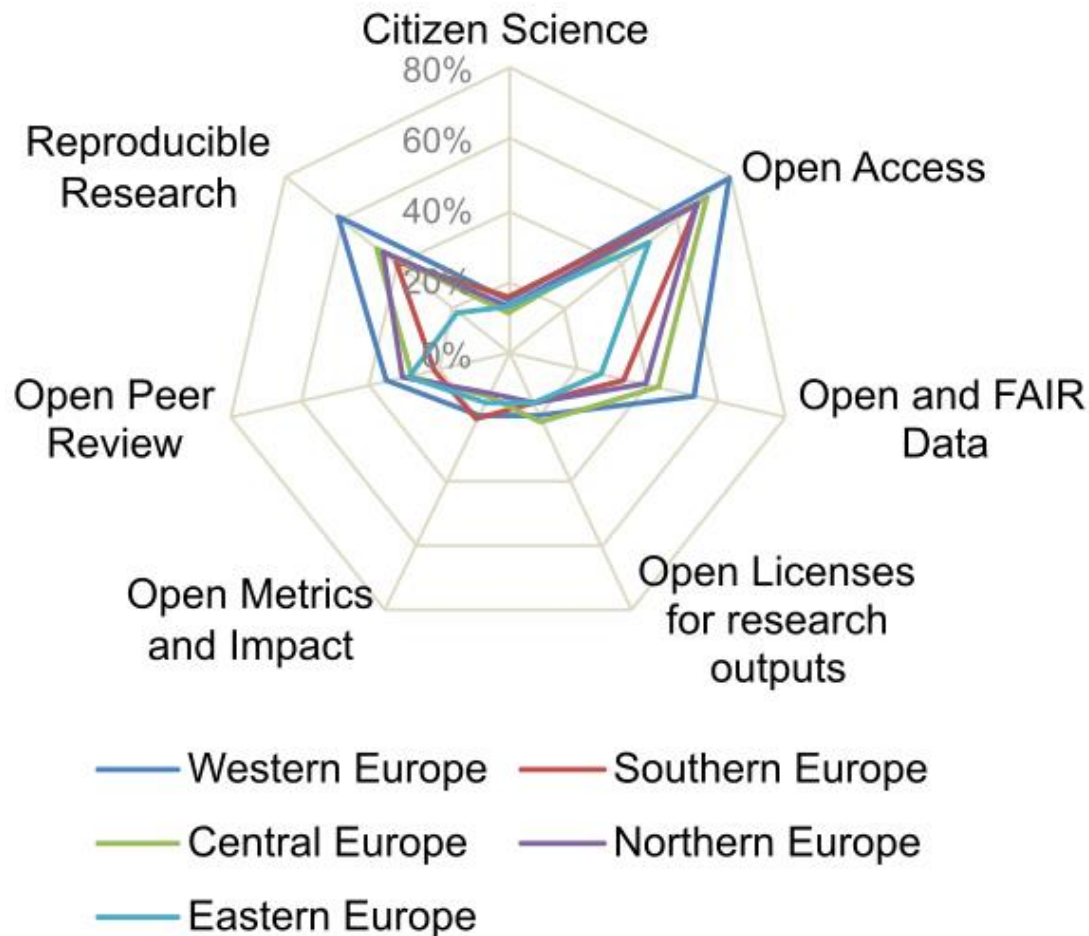


Figure created by
Laura M. Palma Medina
(Karolinska Institute,
Sweden)



Most important factors where to publish

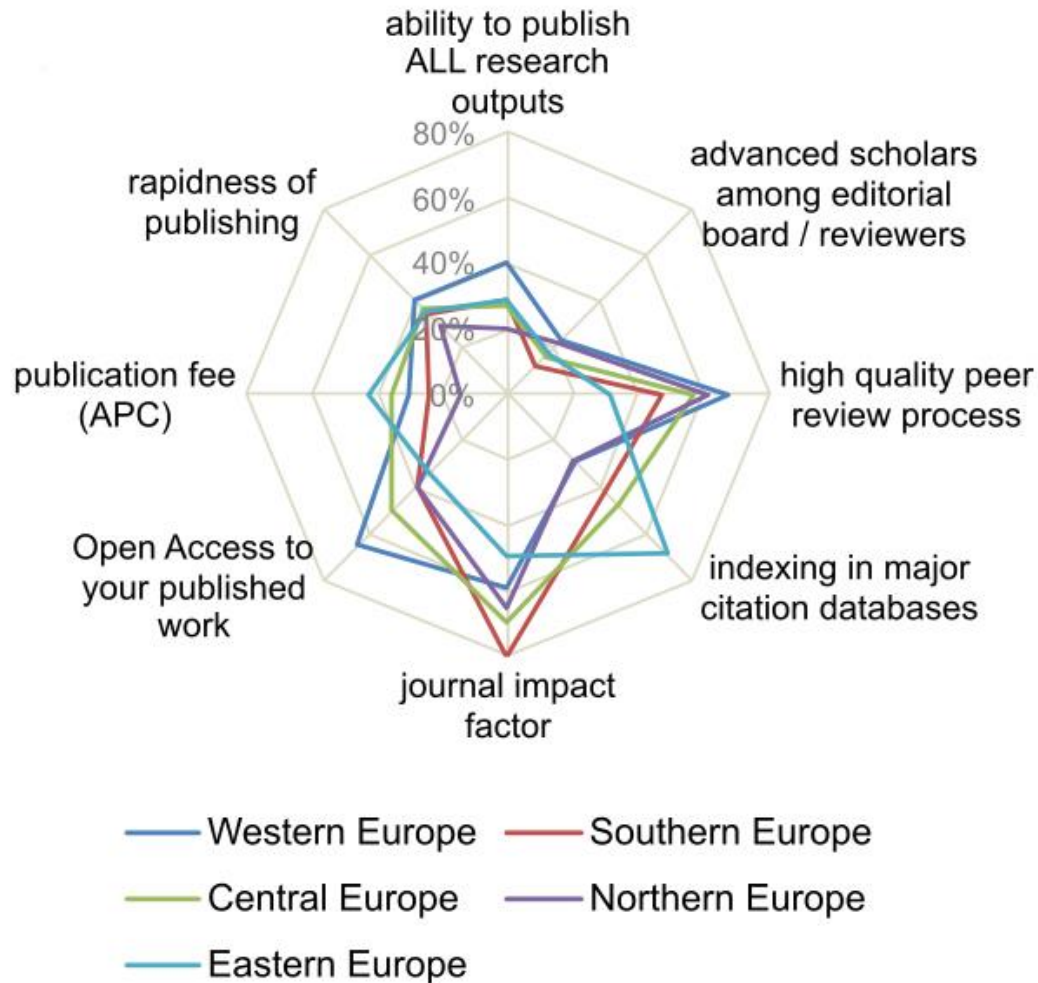


Figure created by
Laura M. Palma Medina
(Karolinska Institute,
Sweden)

	Basic level	Competitive level	Collaborative level
Main need	access to basic quality research communication infrastructure	acceptance in prestigious publishing venues	access to open, rapid, and flexible publishing infrastructure
Focus on	participation	individual excellence	collaboration
Main success indicators	quantitative bibliometric indicators (e.g., number of publication in indexed international peer-reviewed journals)	qualitative bibliometric indicators (e.g., h-index, publications in journals with high impact factor)	impact of diverse research outputs inside academia (e.g., reuse of data set by others) and outside academia (e.g., findings used to guide societal decision making)



Thanks to *Mattias Björnmalm* (CESAER, Belgium) for valuable comments

Thank you for listening!

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twitter.com/GMalaguarnera
- **Oleksandr Berezko**
oleksandr.berezko@eurodoc.net
twitter.com/berezko



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