



Nauka otwarta

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Dlaczego nauka otwarta?

‘Open science is a better science’



Jest definiowana jako dzielenie się wiedzą, danymi, metodami i narzędziami na jak najwszeńszym etapie tworzenia. Proces dzielenia się dotyczy nie tylko naukowców i dziedzin nauki, ale także całego społeczeństwa.



Nauka otwarta ma potencjał aby podnieść:

Jakość i efektywność nauki. Jeśli wszystkie wszystkie uzyskane rezultaty naukowe będą udostępniane, w formie nadającej się do ponownego wykorzystania, a ich powtarzalność ulegnie poprawie.

Kreatywność – poprzez wykorzystanie zbiorowej inteligencji oraz poprzez badania interdyscyplinarne

Przejrzystość i zaufanie do systemu nauki, poprzez zaangażowanie wszystkich zainteresowanych stron, w tym także społeczeństwa obywatelskiego

Główne wyzwania

- Poprawienie dostępności publikacji naukowych;
- Wczesne publikowanie, dzielenie się na wczesnych etapach tworzenia wiedzy;
- FAIR data (dane, które są dostępne, łatwe do znalezienia i zidentyfikowania oraz nadają się do wielokrotnego użytku;)
- Odtwarzalność rezultatów;
- Odpowiedzialność i zaangażowanie społeczne;

Czynniki wspierające

- System nagród i promocji zachęcający do stosowania praktyk nauki otwartej (włączając alternatywny system wskaźników i macierzy);
- Odpowiednie szkolenia, promujące wysokie standardy etyczne w nauce;
- Open Research Infrastructures
European Open Science Cloud (EOSC)

Odtwarzalność rezultatów naukowych (reproducibility)

- Close to €300 billion/year for Health R&I (worldwide) – zoom on Health sector
- A large share of the research investment may be wasted: potentially as much as 85%, according to Chalmers & Glasziou 2009, Lancet; Macleod 2014, Lancet

Różnego rodzaju braki; raporty nie do użycia, opis metody, program, kody niedostępne. Informacje niekompletne itd.

Niewłaściwie postawione pytanie badawcze. Brak świadomości, że istnieją już dane, badania lub brak zapotrzebowania ze strony lekarzy i pacjentów.

Błędy systematyczne w rezultatach – selektywny dobór wyników, pomyłki grupy, dane niewłaściwie porównane, konflikt interesów, oszustwo, manipulowanie danymi.

Błędy w metodologii, doświadczeniu i analizie. Niewystarczająca powtarzalność, słabe rezultaty, słaby wyszkolenie, brak wsparcia mentorskiego.

Brak pełnego dostępu do rezultatów. Rezultaty uznane za nieciekawe czy rozczarowujące nie doczekują publikacji (rezultaty negatywne). Próby kliniczne nie zarejestrowane itd.

Czy pandemia coś zmieniła w temacie nauki otwartej?

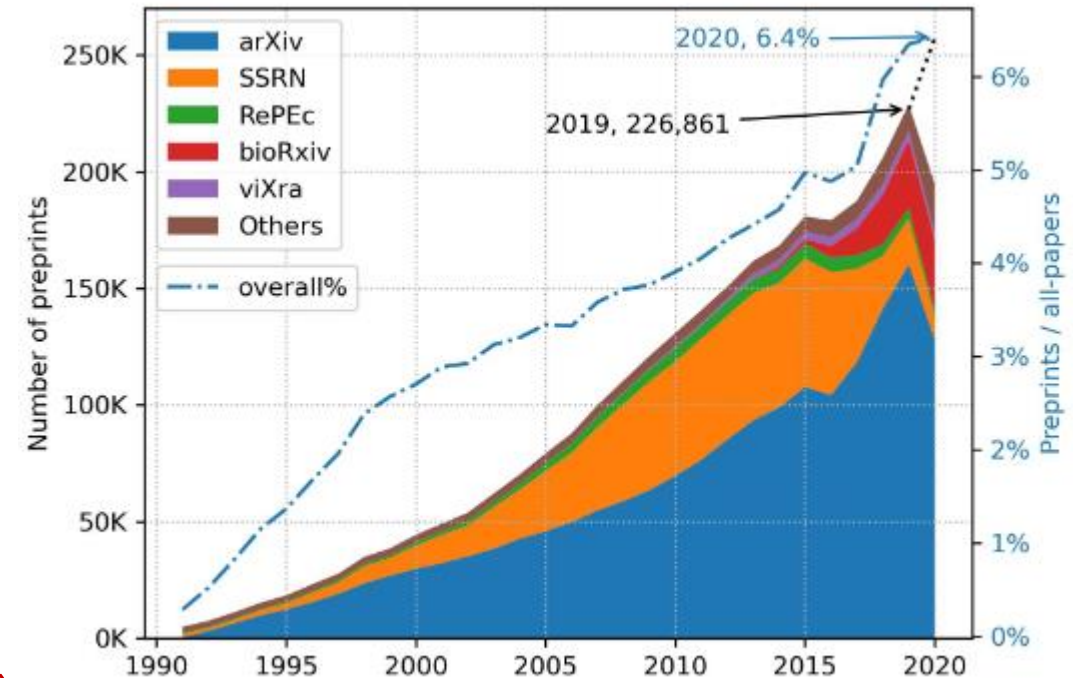
Trendy pozytywne:

- + Wczesne i szybkie publikowanie rezultatów w formie 'preprints' staje się coraz popularniejsze;
- + Wydawcy czasowo udostępnili artykuły związane z Covid-19 (z naciskiem na czasowo);

Wyzwania:

- Większość artykułów nie udostępnia danych;
- Dane, jeśli nawet udostępnione bez żadnych restrykcji nie nadają się do użycia, nie są zstandaryzowane, ani interoperacyjne; (FAIR ≠ OPEN)

Annual number of preprints/all-papers rate growth



Source: [arXiv:2102.09066v1](https://arxiv.org/abs/2102.09066v1)

ERA



European Commission

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The new European Research Area

Translating ideas into solutions

#ResearchImpactEU #EUResearchArea

ERA Communication: A New ERA for R&I

Communication on a new European Research Area for Research and Innovation
(September 2020)

Deepening the ERA

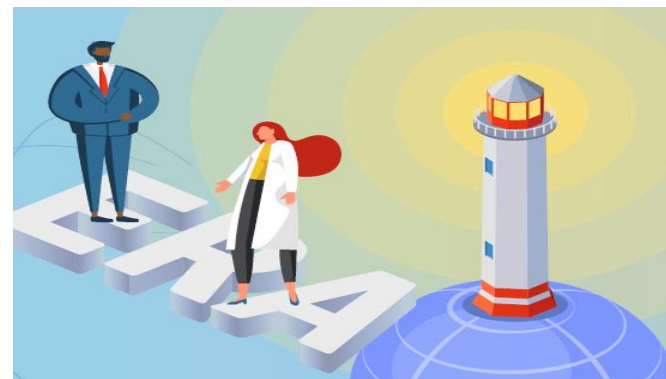
The Commission will: (Action 9)

- Launch, via the Horizon Europe Programme, a **platform of peer-reviewed open access publishing**;
- **analyse authors' rights** to enable sharing of publicly funded peer-reviewed articles without restriction;
- ensure a **European Open Science Cloud** that is offering findable, accessible, interoperable and reusable research data and services (Web of FAIR); and
- incentivise open science practices by improving the **research assessment system**.

Citizen Engagement

The Commission will: (Action 13)

- Organise with Member States and stakeholders Europe-wide **citizen science campaigns** to raise awareness and networking, crowdsourcing platforms and pan-European hackathons, in particular in the context of Horizon Europe Missions. The Commission will develop with Member States best practices to open up science and innovation to citizens and youth.



Open Research Europe (ORE)

The open access publishing platform for Horizon 2020 and Horizon Europe beneficiaries

Why Open Research Europe?



- **Support our open access policy** and beneficiary capacity to adhere to it and also enables **publishing post-grant**
 - ✓ Comply to our policy by publishing in the platform
- Leading by example in operationalising **open science principles** within scientific publishing and **enabling the European Research Area**
 - ✓ E.g. open access publishing, open peer-review, early sharing of research through pre-prints, broad range of indicators etc.
- Contribute to **transparency** and **cost-effectiveness** and explore **sustainable** open access publishing business models
 - ✓ Transparent procurement procedure and article costs, institutional publishing, collaborative publishing with other funders in the future etc.

What is Open Research Europe?

High-quality, reliable and efficient publishing venue for EU-funded research

High scientific **standards**, and **swift** and **transparent** processes

Expert Scientific Advisory Board

No cost to **authors/beneficiaries** i.e. non-APC platform (publication fees are directly paid by the Commission)

Venue where grantees respect their **open access** obligations and can also **publish post-grant** the results of their work

Fully **optional** – there is absolutely **no obligation** to use it.

Powered by [F1000 Research](#)

Open Research Europe – a growing interest



Submitted articles	Published articles	Passed peer review
125	46	5

Polish researchers involved in the first article having passed peer review



RESEARCH ARTICLE 

‘Baltic catacombs.’ Translating *corpisanti* catacomb relic-sculptures between Rome, Polish Livonia, and the Lithuanian Grand Duchy circa 1750-1800 [version 1; peer review: 3 approved]

Radosław Budzyński , Dzianis Filipchuk, Melchior Jakubowski, Dzmitry Marozau, Ruth Sargent Noyes , Vika Veličkaitė

This article is included in [Excellent Science gateway](#)



<https://doi.org/10.12688/openreseurope.13259.1>

Research Assessment

Policy context for changes to research assessment

- **Commission Recommendation** of 25 April 2018 on “Access to and preservation of scientific information”
 - Recommends that Member States and research institutions adjust the assessment of research, researchers and institutions to reward a culture of sharing of knowledge and data
- **Open Science Policy Platform** final report submitted to the Competitiveness Council in 2020
 - Identifies the reform of the system used for assessing research, researchers and institutions towards a system that incentivises the practice of open science, as a priority
- **Commission Communication** of 30 September 2020 on “A new ERA for R&I”
 - Includes action 9 to “(...) incentivise open science practices by improving the research assessment system”

Changing the research assessment system

- The Commission **is currently consulting** research funders, research performers, policy makers, and other stakeholders, **on how to advance with reforming the research assessment system.**
- A proposed way forward is to **reach an agreement by 2022** (such as an MoU) **between those willing to reform the current research assessment system**, which would be signed by an increasing number of funders and research performing organisations.
 - Agreement setting ambitions, specifying broad lines of action, and committing signatories to act;
 - For a more qualitative assessment of research, researchers and institutions, that considers the value and impact of a diversity of outputs and research cultures, and that incentivizes open collaboration and knowledge and data sharing.

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Universiteit Utrecht

Impact factor abandoned by Dutch university in hiring and promotion decisions (nature.com)

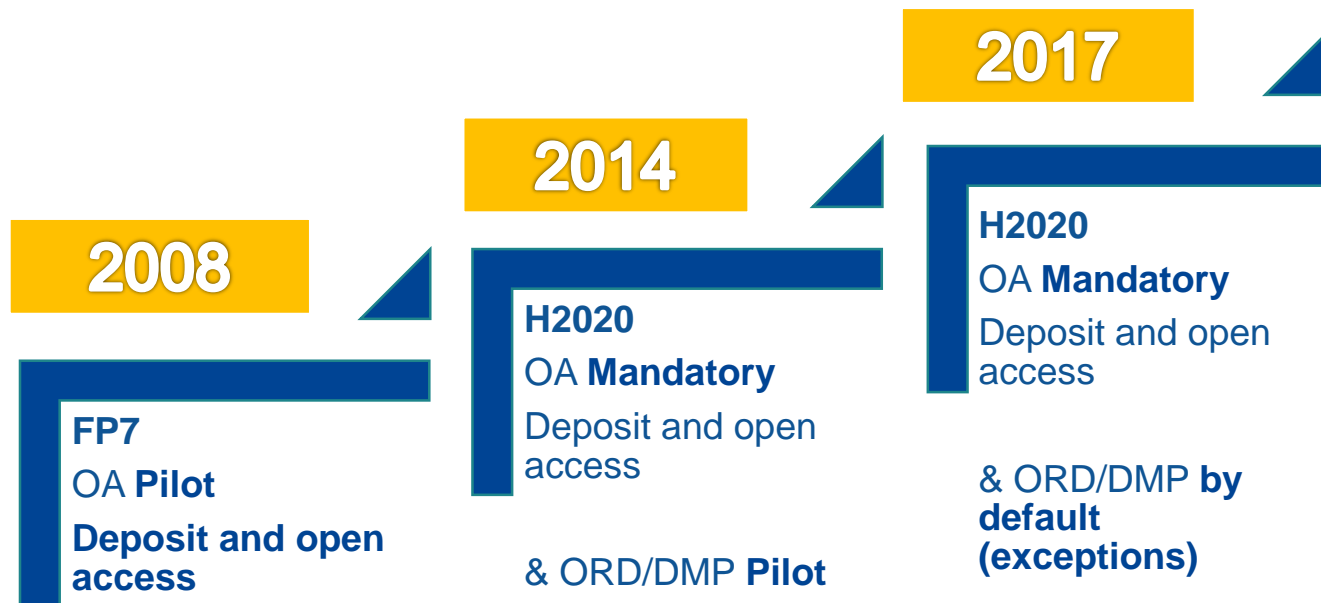
A Dutch university says it is formally abandoning the impact factor — a standard measure of scientific success — in all hiring and promotion decisions.

By early 2022, every department at Utrecht University in the Netherlands will judge its scholars by other standards, including their commitment to teamwork and their efforts to promote open science

Open Science in Horizon Europe

Open Science under Horizon Europe

Evolution of OS policies across FPs



Under Horizon Europe (2021)

- Open Science (OA, RDM, Citizen Engagement, etc.) embedded across the FP
 - **Evaluation** of proposals (excellence –methodology-, quality & efficiency of implementation)
 - **Grant Agreement, guidelines**
 - **Reporting**—during the project’s lifetime
 - **Work programmes**
- Strengthening of the obligations with respect to open access and focus on responsible RDM in line with FAIR

**Horizon
Europe**



OA to peer-reviewed publications under Horizon Europe

- Obligation to **ensure deposition** at the time of publication in a **trusted repository** and **immediate open access through repository**
- Beneficiaries/authors must **retain sufficient IPR** (to comply with OA requirements) and ensure open access under **open licences** [**CC BY** (or equivalent) for journal articles, **CC BY NC/ND** (or equivalent) allowed for long-text formats]
- Beneficiaries **publish in venues of their choosing**. Any **publication fees (APCs/BPCs) only refundable** if publishing venue is **full open access** (costs non-eligible if publishing venue is hybrid)
- **Metadata** of deposited publications/research data **open** (the latter with exceptions) **under CC0 or equivalent** in line with **FAIR principles**

Evaluation of proposals and open science

- **Quality of open science practices** evaluated under **‘Excellence’**
>methodology [both mandatory and recommended practices]
 - Up to 1 page to describe OS practices + up to 1 page to describe research data/output management
- **Capacity of participant/consortium + List of achievements** evaluated under **‘Quality and efficiency of the implementation’**
 - Explain expertise related to OS
 - List publications, software, data etc. relevant to project with qualitative assessment, PIDs; Publications expected to be open access; datasets are expected to be FAIR and ‘as open as possible, as closed as necessary’; significance of publications to be evaluated on basis of proposers’ qualitative assessment and not per JIF.

Thank you

<https://www.youtube.com/user/InnovationUnion>

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