Ireland's National Agenda for Open Research

Open Science Pathways in the Earth, Space, and Life Sciences, 9 May 2022

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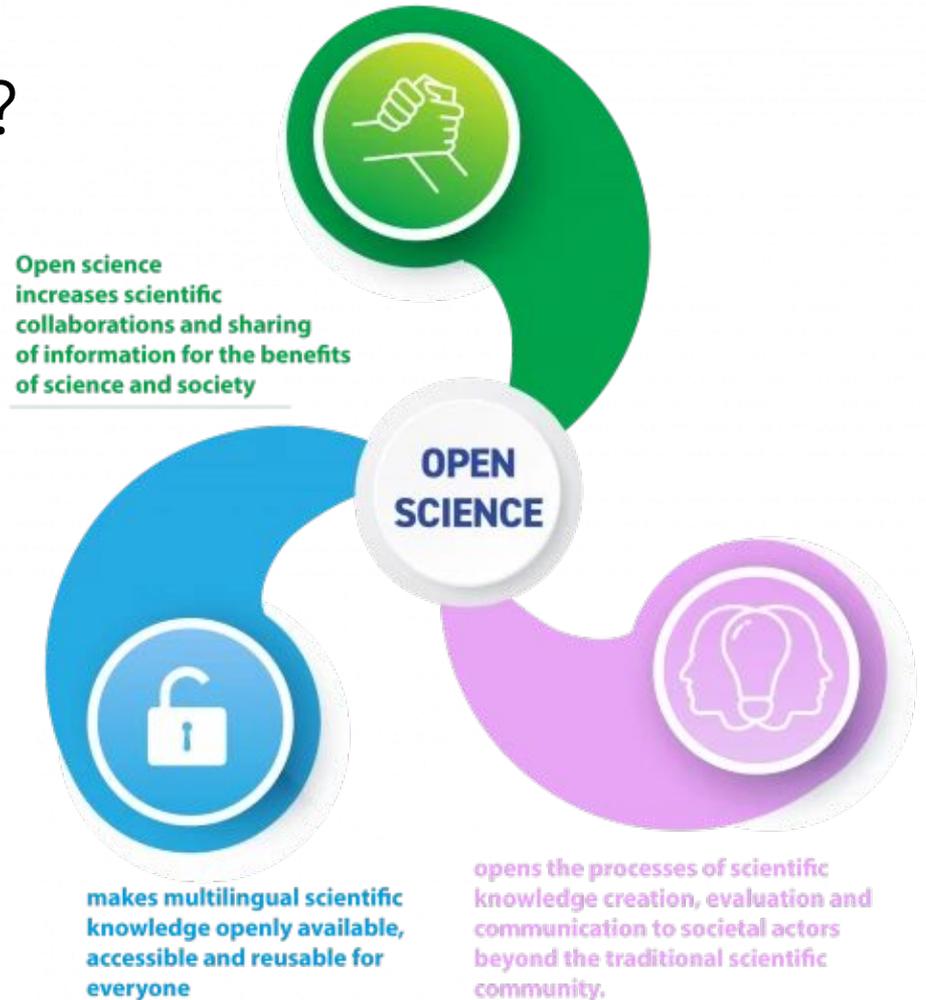
Outline

- Open Research: definitions, values and drivers

- Ireland's National Open Research Forum (NORF)

- National Action Plan for Open Research

- Discussion

What is Open Research?

*UNESCO Recommendation
on Open Science*
(November 2021)

Source: UNESCO
https://www.unesco.org/en/natural-sciences/
open-science

Open science
increases scientific
collaborations and sharing
of information for the benefits
of science and society

OPEN SCIENCE

makes multilingual scientific
knowledge openly available,
accessible and reusable for
everyone

opens the processes of scientific
knowledge creation, evaluation and
communication to societal actors
beyond the traditional scientific
community.

The EU's Open Science Policy: 8 ambitions

FAIR (Findable, Accessible, Interoperable, Reusable) and open data sharing

European Open Science Cloud (EOSC)

Indicators and next-generation metrics

Future of scholarly communication

Rewards and incentives

Research integrity and reproducibility of scientific results

Education and skills

Citizen science

Source: https://ec.europa.eu/info/research-and-innovation/strategy/strategy-2020-2024/our-digital-future/open-science_en

Open Research in Horizon Europe

In the EU's [Horizon Europe](#) Programme 2021-2027, Open Science practices include:

- Early and open sharing of research
- Research output management
- Measures to ensure reproducibility of research outputs
- Providing open access to research outputs through deposition in trusted repositories

Open Research is **mainstreamed** in Horizon Europe as an approach to the scientific process and the default way of working

- Open Research practices form part of the evaluation criterion under **Excellence** and **Quality of Implementation**
- Mandatory requirements include immediate Open Access to peer-reviewed scientific publications and Research Data Management in line with the FAIR principles

Open Research in the era of Covid-19

Rapid and transparent sharing of scientific outputs i.e., data, preprints

Temporary unlocking of paywalled publications

Open licences (e.g. Open COVID Pledge)

Platforms to facilitate data sharing and analysis

[WHO / UNESCO / UN OHCHR Joint Appeal for Open Science]():

> *Open Science can reduce inequalities, help respond to the immediate challenges of Covid-19 and accelerate progress towards the implementation of the 2030 Agenda for Sustainable Development.*

MENU ⌄   ⬛CBCNEWS

Health | SECOND OPINION

'We're opening everything': Scientists share coronavirus data in unprecedented way to contain, treat disease

The current climate of sharing data is unusual for scientists, says researcher

Kelly Crowe - CBC News

Posted: February 01, 2020

Source: https://www.cbc.ca/news/health/coronavirus-2019-ncov-science-virus-genome-who-research-collaboration-1.5446948
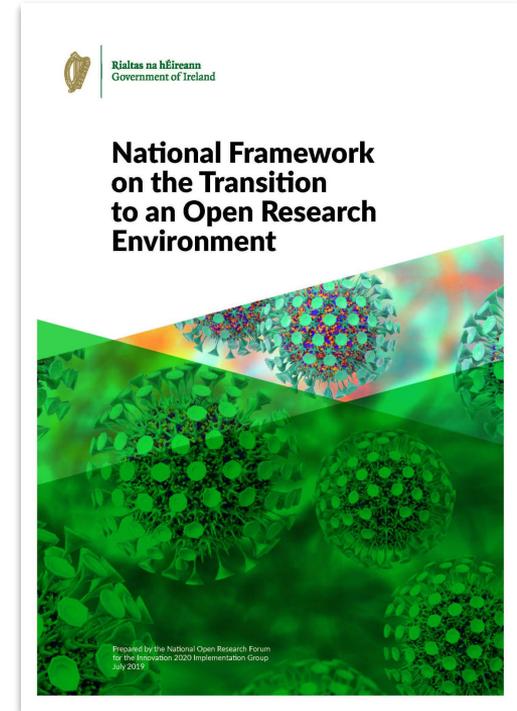
Ireland's National Open Research Forum (NORF)

Established in 2017 to drive the Irish agenda for Open Research

First phase of work included developing Ireland's *National Framework on the Transition to an Open Research Environment* (July 2019)

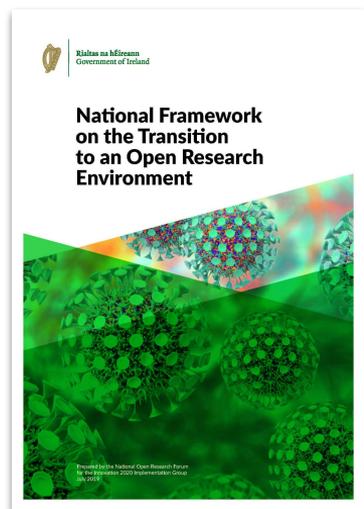Current phase focused on the development and delivery of a *National Action Plan for Open Research*

Development of the National Action Plan is supported by national Working Groups in five strategic areas

Rialtas na hÉireann
Government of Ireland

National Framework on the Transition to an Open Research Environment

Prepared by the National Open Research Forum
for the Innovation 2020 Implementation Group
July 2019

https://doi.org/10.7486/DRI.0287dj04d

Development of the National Action Plan

Led by Ireland's National Open Research Forum (NORF), with direct input from over 90 stakeholder representatives and further input via public and targeted consultations
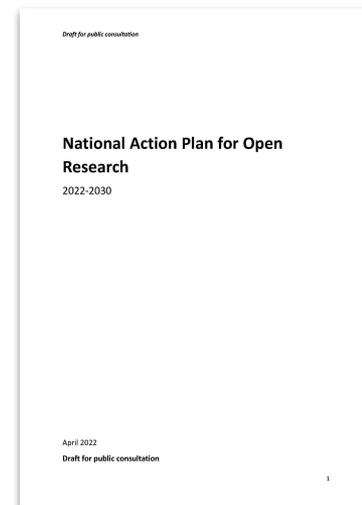

July 2019

Q1-2 2021

Q3-4 2021

April 2022

For all NORF outputs see https://norf.ie/index.php/publications/

National Action Plan for Open Research

Builds on national policies and international recommendations:

- *National Principles on Open Access*
- *European Commission Recommendation on access to and preservation of scientific information*
- *National Framework on the Transition to an Open Research Environment*
- *UNESCO Recommendation on Open Science*

Definition of open research and core values (quality and integrity, collective benefit, equity and fairness, and diversity and inclusiveness) aligned with UNESCO

Aligned with European Commission OS policy ambitions and conclusions on the new European Research Area

National Action Plan for Open Research

Outlines national vision for a research system fully aligned with open research principles and practices by 2030 under three themes:

- Establishing a culture of open research

- Achieving 100% open access to research publications

- Enabling FAIR research data and other outputs
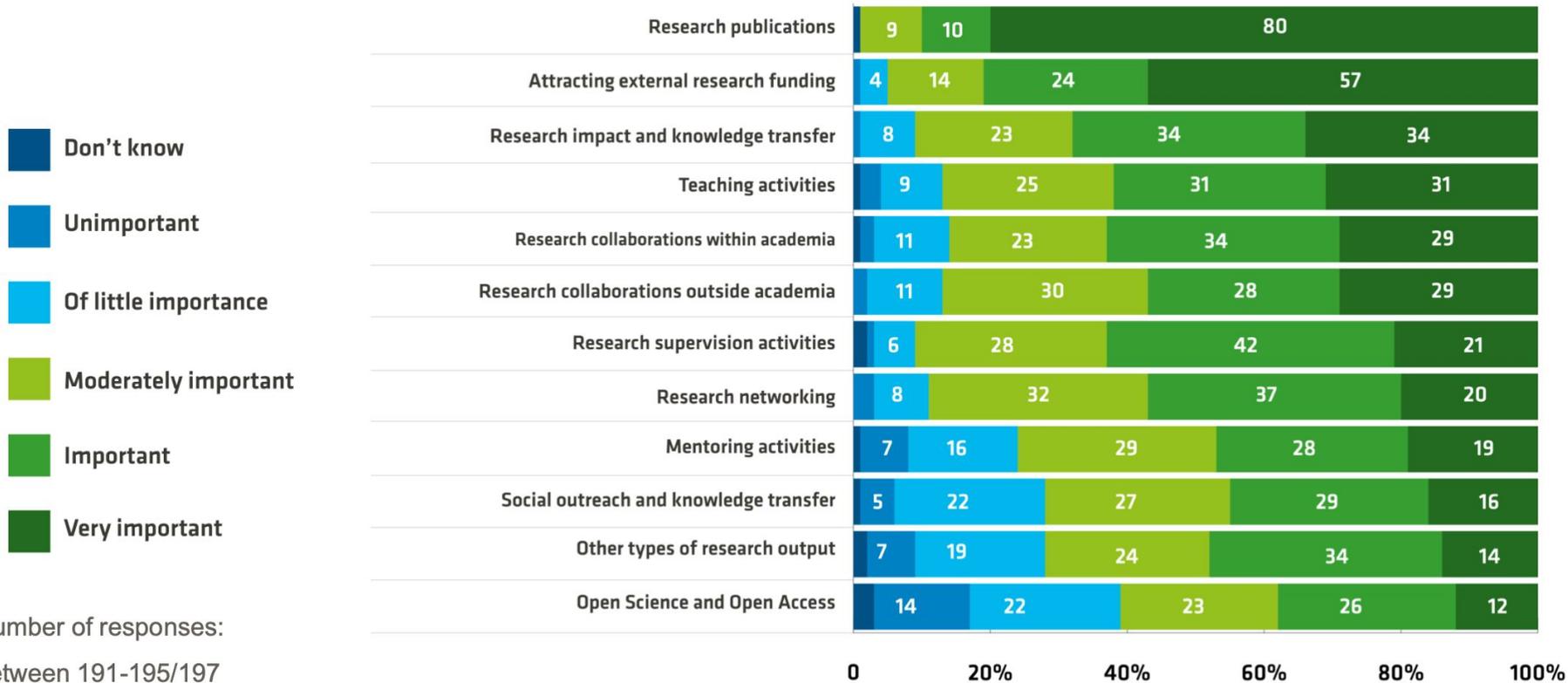
Establishing a culture of open research

As an approach to the research process, open research practices impact on methodologies across the research lifecycle and contribute to research excellence. Open research should therefore be fostered and become embedded in the Irish research system through consistent and system-wide recognition and reward mechanisms.

[Dutch Recognition and Rewards Programme](#) 'Room for everyone's talent':

> Diversifying career paths for academics, recognising individual and team performance, emphasising quality of work, encouraging all aspects of open science, encouraging high quality academic leadership.

[Paris Call on Research Assessment](#): we need to align what we assess with what we value

Which types of academic work matter most for research careers?

	Don't know	Unimportant	Of little importance	Moderately important	Important	Very important
Research publications			9	10		80
Attracting external research funding			4	14	24	57
Research impact and knowledge transfer			8	23	34	34
Teaching activities		9		25	31	31
Research collaborations within academia		11		23	34	29
Research collaborations outside academia		11		30	28	29
Research supervision activities		6		28	42	21
Research networking		8		32	37	20
Mentoring activities		7	16	29	28	19
Social outreach and knowledge transfer		5	22	27	29	16
Other types of research output		7	19	24	34	14
Open Science and Open Access	14		22	23	26	12

Number of responses:

between 191-195/197

Source: https://eua.eu/resources/publications/888:research-assessment-in-the-transition-to-open-science.html

Establishing a culture of open research

By 2030 a culture of open research will be embedded at every level of the Irish research system. The re-orientation of research recognition and rewards towards responsible research evaluation, and open research metrics and practices will be well underway or complete, and approaches to research assessment will be broadly aligned at a system level across all stakeholders. Researchers at all career levels will have opportunities to learn open research skills, with clear incentives to do so. Across the system, there will be widely available specialist open research support for researchers, provided by dedicated support professionals, who have access to accredited training and clear career progression routes.
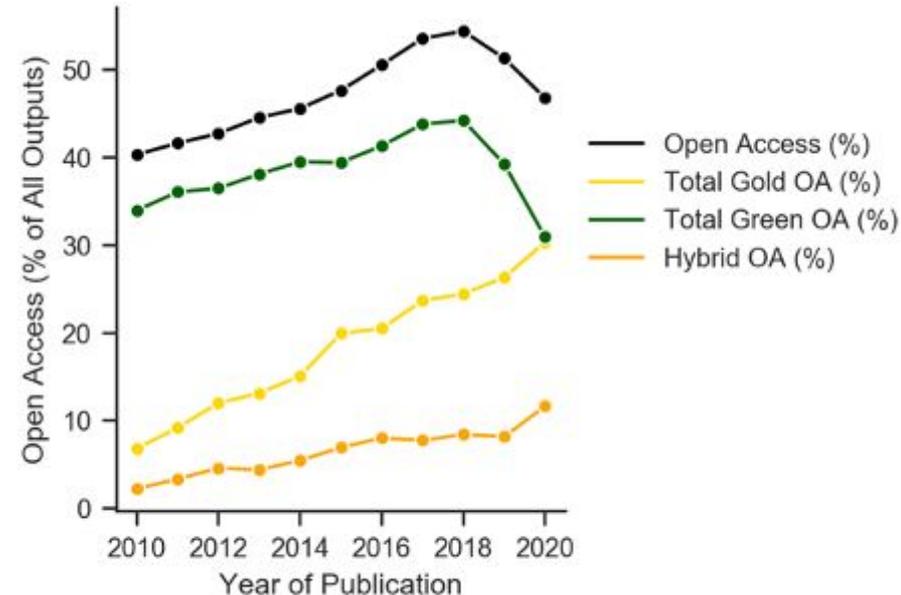
Establishing a culture of open research

- Upskill researchers and relevant professional support staff in open research

- Strengthen the system-wide recognition and reward of open research practices

- Align research assessment with the principles of open research

- Support institutional and community networks for open research

- Encourage funding programmes and awards for open research

Achieving 100% OA to research publications

Ireland's *National Framework* sets a target for all Irish scholarly publications resulting from publicly funded research to be openly available by default. To progress towards this objective, we support multi-track policies and pathways to open access, enabling both repository-mediated (also known as Green OA) and publisher-mediated (Gold OA) routes, without an embargo period.

Current overall level of Open Access for Ireland estimated at 47-54%.

Achieving 100% OA to research publications

By 2030 Ireland will have implemented a sustainable and inclusive course for achieving 100% open access to research publications. Provisions put in place to support a diverse OA publishing ecosystem and the retention of authors rights will ensure Irish researchers have the freedom to choose from a range of quality options for making their research OA. An interoperable and robust network of repositories will contribute to making Irish research more visible and accessible locally and internationally. Benchmarking, drawing on a transparent national OA monitoring mechanism, will place Ireland amongst the leading countries internationally in terms of achieving 100% OA.
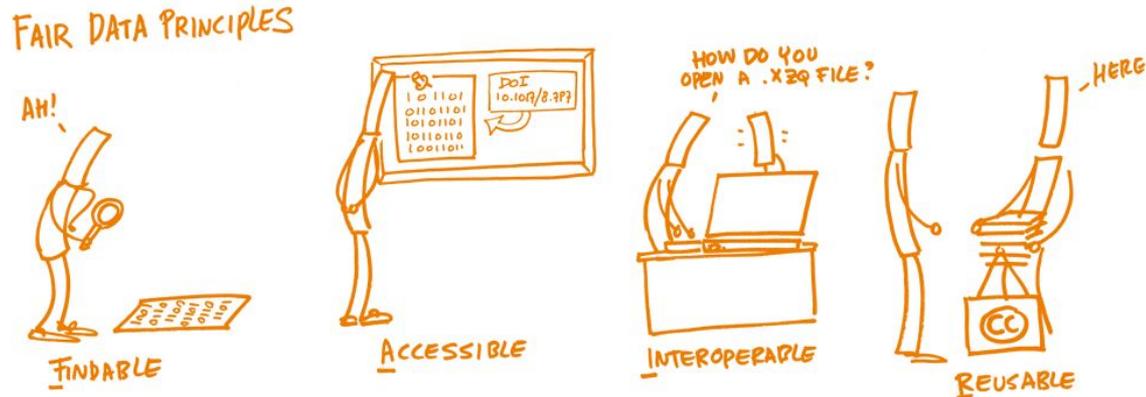
Achieving 100% OA to research publications

- Strengthen Ireland's network of open access repositories

- Support rights retention for Irish researchers

- Support bibliodiversity in Ireland

- Invest in Persistent Identifier infrastructure to enable consistent monitoring and improve interoperability

- Align policies for open access to publications

Enabling FAIR research data and other outputs

Ireland's *National Framework* supports the principle that FAIR (Findable, Accessible, Interoperable, Reusable) data contribute to research integrity and reproducibility, and that research data should be 'as open as possible, as closed as necessary'.

National examples: Ireland's Health Research Board; Digital Repository of Ireland; Irish ORCID Consortium

Source: FOSTER

Enabling FAIR research data and other outputs

By 2030 Ireland will have a mature ecosystem of infrastructures to support the responsible management and sharing of research data and other outputs in line with the FAIR principles. A diverse range of research activities and outputs will be recognised and rewarded in research assessment and evaluation, including data sharing. Data stewardship will be firmly established in the national landscape, with data stewards providing key expertise to assist researchers with research data management needs. Open research infrastructures will be considered and planned for within national roadmaps for research infrastructures. As an outcome of national roadmapping processes, open research infrastructures will receive adequate funding, form part of a coherent and sustainable approach to RIs, and will be benchmarked against other national RIs.

Enabling FAIR research data and other outputs

- Support the development and professionalisation of research data stewardship nationally

- Support national services for storing, managing, sharing and preserving research data

- Align policies for the management and sharing of research data, software, and other outputs

- Contribute to a Research Infrastructure roadmapping strategy

- Strengthen connections to international infrastructures supporting open research and research data

Coordination, implementation and monitoring

- Coordinate Ireland's open research agenda

  [Minister Harris welcomes €1.7 million funding for Ireland's open research transition](#)

  > "Open research has the potential to be a gamechanger on the research landscape. During the pandemic, the speed at which scientists advanced their understanding of how the virus worked and how to fight it was greatly assisted by a culture of open research where research and data driven evidence was shared across the world's research community, to the benefit of all."

- Establish a national monitoring service for open access and open research more broadly

- Conduct a national-level survey on open research

- Conduct periodic reviews and updates of the National Action Plan

Summary and reflections

Open research is a cross-cutting, strategic priority for R&I

National agenda progressed through a multi-stakeholder, consultative approach to build community consensus and address the underlying challenge of culture change

National coordination aims to overcome fragmentation and avoid duplication by identifying and implementing actions for collective benefit

Appeal to 'generous thinking': *a mode of engagement that emphasises listening over speaking, community over individualism, collaboration over competition* ([Kathleen Fitzpatrick](#))

See NORF publications for further details: https://norf.ie/index.php/publications/

Discussion

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