

# Open research requires a change in research culture

Maria Cruz | Dublin | 21 September 2022



# About NWO

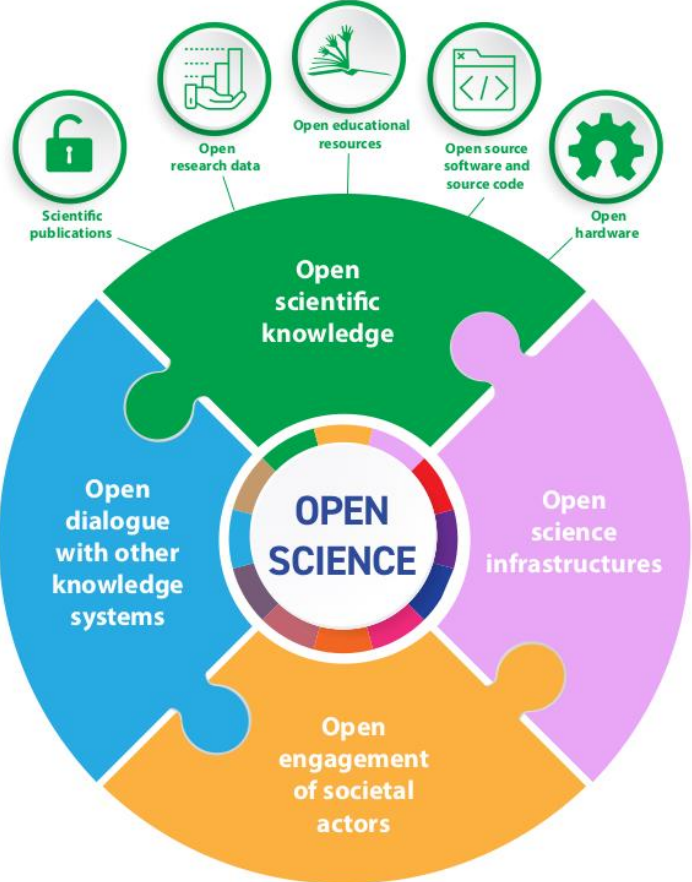
- NWO, the Dutch Research Council, is the main research funder in the Netherlands.
- Funds research at public research institutions in the Netherlands.
- Invests in large-scale research facilities and manages its own research institutes.



## Key Figures 2020

- **€ 1 billion** total expenditure in funding for research and research infrastructure
- **5,235 FTEs** research staff funded at various research institutes
- **7098** applications
- **1178** awards
- **7133** ongoing research projects

# Open Science as defined by UNESCO



# Open Science at NWO

**A collaborative research practice where scholarly knowledge (such as publications, data, software, methods, prototypes and workflows) is made openly available at the earliest possible stage for use and reuse across disciplinary, social and national boundaries.**



# NWO Open Science policies

Aimed at ensuring that publicly funded research outputs are as open as possible, and only closed where necessary, for the benefit of science and society.



# Why is NWO committed to Open Science?

Because it leads to:

- Reliable, reproducible, and transparent research
- knowledge sharing and innovation
- follow-on research and opportunities for collaboration



# NWO grant requirements

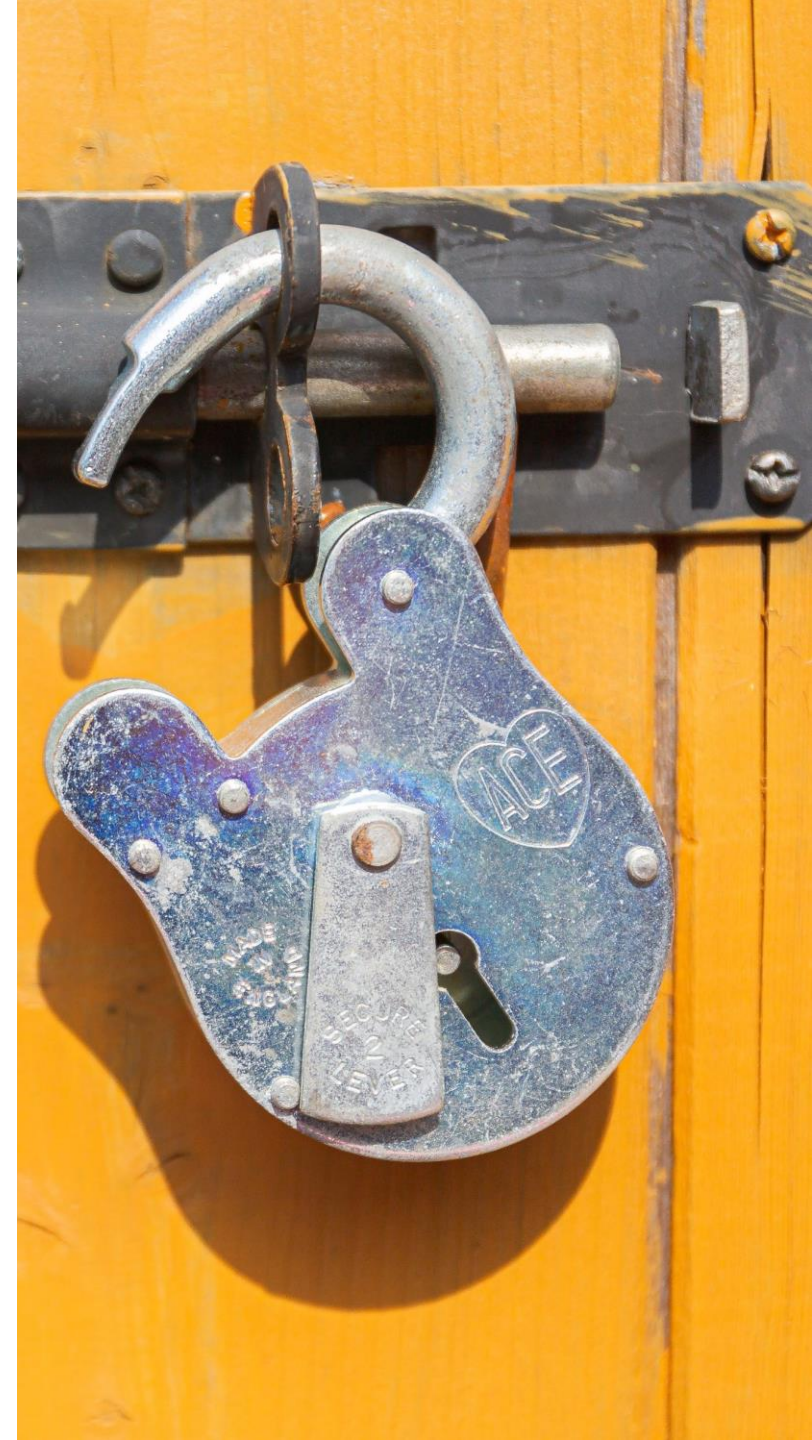
## Open Access publishing (since 2009)

- All publications funded by NWO must be made available open access immediately upon publication.

## Research Data Management (since 2006)

- Researchers are expected to carefully manage all research data generated as part of NWO funded projects.
- As open and FAIR as possible, closed if necessary.
- As a minimum, research data underlying research publications should be published alongside those publications, unless there are valid reasons not to do so.

<https://www.nwo.nl/en/open-science>



**Open Science** *“policies are often motivated by ethical, moral or utilitarian arguments, such as the right of taxpayers to access literature arising from publicly-funded research or the importance of public software and data deposition for reproducibility.”*

“Mckiernan *et al.* (2016) “How open science helps researchers succeed”, doi: [10.7554/eLife.16800](https://doi.org/10.7554/eLife.16800)



*“Meritorious as such arguments may be, however, they do not address the practical barriers involved in changing researchers’ behavior, such as **the common perception that open practices could present a risk to career advancement.**”*

“Mckiernan *et al.* (2016) “How open science helps researchers succeed”, doi: [10.7554/eLife.16800](https://doi.org/10.7554/eLife.16800)

# Success for research careers $\neq$ success for research

## Individual Success

- Quantity
- Exceptional findings
- Individual achievements
- Competition
- Positive Results

## Collective Success

- Quality
- Valid, reproducible findings
- Collaboration
- Open sharing of resources and results
- Transparency



For open science to become a norm, rather than simply a hurdle to overcome, **we need to give credit and recognition to the researchers who put open science into practice.**

The incentives for collective success (what benefits science and society) and incentives for individual success (what determines academic career progression) need to be aligned.



Maria Cruz, Hans de Jonge, Beyond mandates: For open science to become a norm, it must be recognised and rewarded, [LSE Blog](#), December 2020

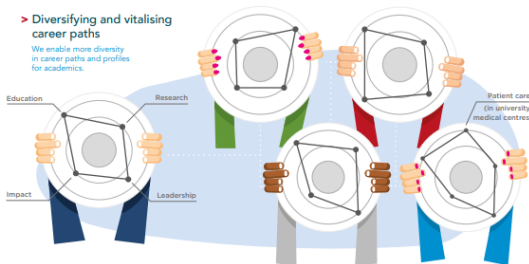
# Knowledge sector in the Netherlands takes major step forward in new approach to recognising and rewarding academics - November 2019

## Room for everyone's talent

towards a new balance in the recognition and rewards of academics

### > Diversifying and vitalising career paths

We enable more diversity in career paths and profiles for academics.



### > Achieving balance between individuals and the collective

We assess academics based on both their individual and their team performance.



### > Focusing on quality

In our assessments of academic performance, we increasingly focus on quality, content and creativity.

### > Stimulating open science

We encourage academics to share their research outcomes with society.



### > Stimulating academic leadership

We stimulate good academic leadership at all levels.

This calls for a system of recognition and rewards of academics and research that:

1. Enables the diversification and vitalisation of career paths, thereby promoting excellence in each of the key areas;
2. Acknowledges the independence and individual qualities and ambitions of academics as well as recognising team performances;
3. Emphasises quality of work over quantitative results (such as number of publications);
4. Encourages all aspects of open science; and
5. Encourages high-quality academic leadership.

### > Stimulating open science

We encourage academics to share their research outcomes with society.



<https://www.nwo.nl/en/news/knowledge-sector-takes-major-step-forward-new-approach-recognising-and-rewarding-academics>

# NWO signed DORA declaration in 2019



## Blog | Quality over quantity

Author: Kasper Gossink-Melenhorst

Date: 14 November 2019  
How the Dutch Research Council is giving researchers the opportunity to showcase diverse types of talent.

<https://sfdora.org/2019/11/14/quality-over-quantity-how-the-dutch-research-council-is-giving-researchers-the-opportunity-to-showcase-diverse-types-of-talent/>

## DORA implementation

- Removed all references to Journal Impact Factor and H-index from call texts and application forms
- Informed referees and committee members about DORA and the consequences for grant assessment procedure
- Introduced the narrative CV format

# Narrative CV format

- **Academic profile:** Who are you as a researcher?  
Possibility to highlight contributions to open science.
- **Key output:**
  - motivated list of max. 10 items
  - broad definition of output: also preprints, data, software, code, and other outputs can be listed
  - indication of open access status
  - metrics such as h-index or Journal Impact Factor not allowed (DORA)

***“Although it is not a formal criterion, making contributions to open science clearly visible in the CV causes jurors to explicitly take openness into account in their assessment”.***

## 4. Curriculum Vitae (weight: 40%)

### 4a. Academic profile ⓘ

(Min 400 words - max. 700 words)

Wordcount:

### 4b. Key output ⓘ

(Max. 10 items. Min. 400 words - max. 700 words, excl. output titles and references to the out

Wordcount:

▷ ← Expand for Explanatory Notes on section 4

## 5. Administrative details

### 5a. Personal details

Title(s), initial(s), surname(s):	
Postal address (for full duration of the round):	
Telephone:	
Mobile phone:	

# Open Science Fund 2020/2021

- New funding instrument to stimulate Open Science by **recognising and rewarding researchers for their open science activities.**
- To provide financial support to researchers with innovative projects specifically designed to stimulate open science.
- **Piloted Open Science Track Record question.**
- Transparent decision making through **open sharing of research proposals.**
- Received 167 eligible applications by the deadline on 18 May 2021.
- **26 projects awarded funding each up to 50K Euro**, announced on 27 October 2021.
- Have budget to run a second call for proposals.



# Open Science in Practice Webinar Series

- To showcase the projects awarded an Open Science Fund grant
- Present grantees as role models in Open Science
- Cover a wide variety of open science topics

Facilitating the sharing and reuse of qualitative data

**Thursday, 17 November 2022, 15:00 - 16:00 CET**

- Hans Berends, VU Amsterdam, [Case-study Research & Data Reuse \(CaRe & DaRe\)](#)
- Bennett Kleinberg, Tilburg University, [FAMTAFOS: Free automated multi-language text anonymization for open science](#)

Recordings of previous webinars:

<https://www.nwo.nl/en/open-science-practice-webinar-series>







# Wetenschap werkt!

NWO-STRATEGIE 2023 – 2026



# A Healthy Research Culture

**One of the building blocks in the NWO Strategy  
2023-2026**

We are working on a culture that prioritises collaboration, respect, safety and mutual trust, and in which scientific integrity and open science are a given.



## Open Science in the new strategy

NWO encourages the transition to open science (open access, FAIR data, open software and citizen science). NWO will continue to take the lead by using instruments that contribute to this ambition, such as (grant) conditions, the (financial) support of open science, **recognising and rewarding researchers who put open science into practice**, and encouraging developments in the field.

<https://www.nwo.nl/en/ambitions-2023-2026#ambitions-for-the-healthy-research-culture-building-block>

# Ask about plan for sharing alongside track record of sharing?



Casey Greene  
@GreeneScientist

I have to say, the @AlexsLemonade strategy of making future funding decisions based on passed sharing performance seems like the most elegant, feasible strategy to encourage data sharing that accelerates research. #CZIOpenSci

## Application Resource Sharing Section: Track Record and Plan

Application reviewers will be asked to consider the manner in which resources will be shared and the extent to which that plan, as well as the investigator's track record\* of sharing useful outputs, will increase or decrease the impact of the proposed project. This will depend on the extent to which sharing enhances or diminishes the perceived value of the work.

- Complete relevant categories for unique research outputs expected from this grant.
- Delete unused categories; use "Other" for additional categories.
- You should delete the instruction text in italics when completing this form.
- Copy and insert the completed form into the Resource Sharing section of the application outline.

*\*Early Career investigators applying for Young Investigator, 'A' Award or Psychosocial Launch grants are encouraged to describe past experience; however, it is understood this may be limited. The review will focus on how you would share outputs from this project.*

FORM (1-page maximum)

### Data Sharing:

- Highlight how you have shared data publicly – i.e., not upon request – and how those data have been reused. Illustrate with reuse metrics such as citation counts, downloads, or other such data if available.
- Discuss how you plan to share the outputs from this proposal and how the data will be archived (via the recognized repository for the type of data or, for data without such a repository, via Zenodo, FigShare, or similar archival services). How will data be licensed (i.e., CC0 or another license). You must discuss how and when data that you generate during the course of this project will be shared. If access will be controlled via a data access committee or other such structure, describe the conditions under which data will be shared and specify how relevant metrics (number of requests made, number of requests approved, time to respond to requests) will be stored and reported to us and the scientific community.

### Protocol Sharing:

- Highlight how you have shared protocols openly – i.e., not upon request – and how those protocols have been used by others. For example, you may have posted them to [protocols.io](https://protocols.io) or a similar service.
- Discuss how and when you plan to share the outputs from this proposal. Not all projects will result in protocols. If yours does not, this section can be deleted.

### Material and Reagent Sharing:

- Highlight how you have shared materials and reagents and how those reagents have been reused.
- Discuss how and when you plan to share the reagents and materials developed in your group as part of the proposal (e.g. deposit plasmids in Addgene, deposit cell lines in the appropriate cell bank). Not all projects will produce new materials and reagents. If yours does not, this section can be deleted.

### Source Code Sharing:

- Highlight how you have shared source code, software, and computational workflows openly – i.e., not upon request – and how the source code has been used by others. For example, you may have uploaded them to [GitHub](https://github.com) or a similar

# Thank you! Any questions?

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