Beyond mandates: For open science to become a norm, it must be recognised and rewarded

Calls to align incentives in academia to promote open research practices are not new. However, in recent years research funders are increasingly implementing policies and schemes designed to promote open science practices amongst researchers. In this post, **Maria Cruz** and **Hans de Jonge** outline details of the Dutch Research Council's (NWO) new Open Science Fund, which they suggest is the natural next step towards a culture of open science in Dutch research.

Funders increasingly expect and mandate researchers to pursue open science, but researchers remain poorly rewarded for these efforts. In fact, spending too much time making research open and transparent may even act against their individual interests, as career progression remains <u>stubbornly linked</u> to publication in high profile subscription journals.

Over the past decade, <u>funder mandates</u> have had an important role in stimulating open science practices. However, the justification of these mandates on the grounds of the common good (eg. <u>McKiernan et al. 2016</u>), has often been poorly reconciled with incentives for individual researchers. For open science to become a norm, rather than simply a hurdle to overcome, there is a need for incentives for collective success (what benefits science and society) and incentives for <u>individual success</u> (what determines academic career progression) to be aligned.

Whilst proposals, such as that of the <u>European Open Science Policy Platform</u>, to reimage and reframe national research and assessment systems have existed for some time, moves to transform research cultures have taken on a greater resonance in recent years, perhaps in part because open science in principle has become an established idea. At the Dutch Research Council (NWO), we are taking steps in this direction.

New approaches to stimulate a culture of open science

NWO has had open science policies in place for over a decade. Recently, as a step forward in transforming the way we stimulate open science, we announced a call for proposals for the first round of the NWO Open Science Fund. The aim is to support researchers to develop, test and implement innovative ways of making research open, accessible, transparent and reusable. Researchers employed at Dutch public research institutions can apply for funding of up to €50,000 for up to one year.

The NWO Open Science Fund is modelled on the <u>Wellcome Open Research Fund</u>. In the true spirit of open science, rather than reinventing the wheel, we decided to learn from the experiences and insights of colleagues who have already been successful at designing and implementing a funding instrument for open science.

If the <u>list of grants awarded by Wellcome in 2018 and 2019</u> is any guide, the projects to be awarded by the NWO Open Science Fund will help advance open science practices in ways that will benefit entire research communities and beyond. However, the NWO Open Science Fund is also designed to go beyond this and to reward and incentivize researchers who are, or want to be at the forefront of open science.

Building on a record of success

In particular, we will be piloting an open science track record question in the application form. This question is inspired by the steps taken by the <u>Ludwig Maximilian University in Munich</u> and <u>Charité Hospital in Berlin</u> to recognise open research practices in their hiring policy. In a similar fashion, we will ask our applicants to what extent they have embraced and adopted the principles of open science in their career to date.



The answer to this question doesn't need to be in the form of an exhaustive list of openly available outputs. Researchers can also highlight contributions to developing resources, tools or policies to enable open science practices or evidence of a broader passion and interest in the potential of open science approaches.

The open science track record of the applicant is worth 10% of the final score of the proposal. We want to reward researchers who have already contributed to open science, but we don't want to exclude those who have an innovative idea, but haven't yet had opportunities to contribute to open science.

Open and transparent decision making

Similarly to the Wellcome Trust, we will also experiment with transparent and open decision making. Where we have the applicants' consent, we will aim to make the details of the successful and unsuccessful proposals, alongside the evaluations from the selection committee, openly available.

We notice an increasing willingness in the Dutch research community to engage in these 'newer' forms of open research practice. For example, the Astronomy & Society group of <u>Leiden Observatory</u> announced recently that they have decided to share their rejected research proposals with the scientific community. From our colleagues at Wellcome, we learned that the publishing of project proposals and decision summaries has indeed led to rejected projects progressing with alternative sources of funding and support.

Leading by example to enable research culture change

With the NWO Open Science Fund we hope to identify the researchers who are leading the way in implementing open science practices in the Netherlands. We will put their projects in the spotlight to serve as an example to other researchers in the Netherlands and beyond.

Inspired by the example of the EPFL Open Science Champions, we are hoping to form a network of open science advocates who will stimulate others to make open science the norm in their research practice and their communities. In this way, the NWO Open Science Fund will contribute to changing research culture in the Netherlands, alongside the important grassroots work done by the Open Science Communities that have sprung up at almost all Dutch universities over the last few years.

A new approach to research assessment in the Netherlands

The NWO Open Science Fund is part of a broader movement in the Netherlands to change the way researchers are assessed, rewarded and incentivized. In November 2019, a national initiative was launched around the position paper "Room for everyone's talent", a collective call from all Dutch research institutions to fundamentally rethink the system of recognition and rewards. The need to better reward open science practices is one of the important aspects of this plan. As part of this program, NWO introduced a new narrative CV format based on DORA principles, in which applicants are specifically encouraged to mention open access and open science practices. Additionally, the new national framework for research assessment — jointly developed by NWO, by the Association of Universities in the Netherlands (VSNU), and by the Netherlands Academy of Arts and Sciences (KNAW) — which will come into effect in 2021, specifically requires research units to report on open science practices.

A role for research funders in transforming research culture

The transition to open science requires rethinking research assessment and career evaluation systems. This in turn requires transforming research culture. We know culture change can be hard, but it is not impossible if the right incentives are in place. Research funders can play an important role in this regard, and with the new NWO Open Science Fund we hope to further stimulate a shift to a culture of open science.

Applications to the NWO Open Science Fund can be made here.

Note: This article gives the views of the authors, and not the position of the Impact of Social Science blog, nor of the London School of Economics. Please review our Comments Policy if you have any concerns on posting a comment below.

Image Credit: Filip Kominik via Unsplash.