

## General comments for the Region I Open Science consultation meeting, 23 July 2020

### *Netherlands Commission for Unesco*

The below comments were made during an expert meeting organised by the Netherlands Commission for Unesco in November 2019 with key Open Science stakeholders from the Netherlands, including representatives of the National Platform Open Science, in preparation of the General Conference in November 2019 (when member states adopted the proposal to proceed with the development of a Recommendation on Open Science). Hence, the below observations do not only represent the viewpoint of the National Commission but also those of key Open Science stakeholders in the Netherlands.

#### **1. A well-designed OS Recommendation has the potential to be highly relevant**

- It is essential that the Recommendation address the *fundamental value of OS*: science is in service of society, and an open science can fulfill that role better
- The Recommendation is a vehicle to address the risks and pitfalls of OS: while OS helps to remove barriers to the access to science and scientific output, it also creates new ones. For example the costs that arise for open publishing, infrastructure for data sharing etc.

#### **2. Open Science is not just a technical model, rather it is a value**

- OS is not just a new way of 'doing' science, a business model for publications, or the technical feasibility of sharing and finding data, rather it is about participation and the access to science. Issues of inequality and exclusion are therefore intrinsically embedded in the concept. The Recommendation needs to recognize and uncover the fact that society and political interests are at stake, that are at times contradicting.
- OS is an instrument to make science more responsive towards the needs of mankind and towards societal goals. At the same time, freedom in doing research is a great good that should not be undermined. Note that the Unesco Recommendation on Science and Scientific Researchers mentions of "balancing researchers' freedom, right and responsibilities".

#### **3. Open Science leads to new forms of inequality and exclusion**

- Open Science holds the risk that it enlarges global inequalities. Scientists and researchers in the Global South with limited access to funding pay the price for the free access to Open Access publications as a result of the Article Processing Chargers (APCs). As long as 'closed' (paid access) publications remain more affordable than open publishing, there will be no inclusive transition towards OS.
- Inequality is not just a global North-South issue. We also see inequality in our own country: in citizen science based research projects, or for example the participation of patients in new research and experiments, it is primarily highly educated people who participate. We need to think about new, more inclusive forms of participation.

#### **4. Open Science runs the risk to be 'hijacked' by commercial parties**

- The influence of commercially based organisations or companies needs to be carefully monitored in the process towards this Unesco Recommendation. An example is the Open Scholarship Initiative (OSI global), a partner of Unesco, in which the main commercial publishers are represented. We have seen with Open Education Resources (OER) in the past that MOOCs were presented as the future solution to Open Education and inclusive access to

education. However, it turned out to be yet another business model for commercial companies. There is a risk that this will happen with Open Science, too.

- Unesco as an organization needs to be vigilant for these processes, and the Recommendation needs to address these risks and pitfalls.
- Hence, Open Science must be considered a way to *empower* science rather than being just a different form of *commercializing* science by big multinationals.
- These risks do not only apply to countries in the Global South, but definitely also in our own country. How do we protect the public sector and the public role of science against the vested interest of big tech companies? Human rights, in particular article 27, are an important foundation for this.

#### 5. Shift from 'science for society' towards 'science with society'

- Open Science implies a paradigm shift from 'science for society' to 'science with society'. Citizen science in its broadest sense takes a central place in this respect. Defining the aim of research projects, the conduct of research and the evaluation of research needs to take place in collaboration with the people that the research concerns.
- As a result, we need to develop new ways of incentives and rewards: the local application of knowledge may be of more societal value than publishing in high impact journals ("protect excellence in locally relevant research" as spelled out in the Leiden [Manifesto for Research Metrics](#), principle 3, that was published in Nature in April 2015).
- As such, Open Science contributes to the empowerment of applied knowledge, and knowledge from origins and disciplines that were undervalued in the 'old' publication system and subsequent rewarding mechanisms. This includes traditional and indigenous knowledge.

#### 6. The move towards Open Science cannot be seen in isolation from the move towards a new science system

- The paradigm shift towards 'science with society' mentioned above implies a transition to a new science system altogether, which is designed to tailor to the needs of society and addressing global challenges.
- This shift demands new ways to organize science and research, that need to be more participatory and inclusive, and new forms of knowledge production. In this broader definition of knowledge production, 'science' as a term is too narrow. In order to tackle global challenges, we need local and applicable knowledge. Open Science means a re-evaluation of these types of knowledge from non-scientists, practice based research, practical and professional knowledge, knowledge validation etc.
- Such a transition also demands new forms of rewarding and incentives in scientific careers and hence new forms of allocating research funds. Currently about 75% of research funding is allocated on the basis of competition (grants etc.), in which impact factors and citation indices are leading criteria. In order for Open Science to succeed, the science system should be less competitive. Competition should be less of an organizational principle of science.
- Open Science is a vehicle for empowerment. We need new forms of education and training, in data management and stewardship. The Recommendation needs to address these educational needs.

#### 7. Unesco recommendation: principles or operational?

- Everyone agrees on the goals of Open Science. This is something that Unesco needs to emphasize in its Recommendation. But it is not enough. There is a need to translate these aims into practical suggestions for implementation of what is needed in order to meet these aims.
- At the same time the Recommendation should be careful with giving guidance for implementation. One blue print for each country does not work and does not do justice to local science systems and practices.
- Including a proper OS definition in the OS Recommendation is of importance, because the term is often used inappropriately, especially the term 'open'. We suggest that the definition coined by [Cameron Neylon](#) can offer inspiration.