Amsterdam Call for Action on Open Science

This wiki was open for comments during 10 days after the Amsterdam Presidency Conference on Open Science (4-5 April 2016). The Dutch Presidency greatly appreciated all input and studied the comments carefully and with great interest.

Having studied the comments and considering the wide variety of the input, the Dutch Presidency decided not to publish a second or 'final' version of the Amsterdam Call for Action on Open Science. Also, composing a summary of all input was not really possible. Therefore it was decided to select a great number of highlights emerging from the comments.

Together with the Amsterdam Call for Action on Open Science, the document with the highlights will be published shortly on the website **www.op enaccess.nl**

Many thanks on behalf of the Dutch Presidency for all your input and comments!

Open science
Open science is about the way researchers work, collaborate, interact, share resources and disseminate results. A systemic change towards open science is driven by new technologies and data, the increasing demand in society to address the societal challenges of our times and the readiness of citizens to participate in research.
Increased openness and rapid, convenient and high-quality scientific communication - not just among researchers themselves but between researchers and society at large - will bring huge benefits for science itself, as well as for its connection with society. Open science has impact and has the potential to increase the quality and benefits of science by making it faster, more responsive to societal challenges, more inclusive and more accessible to new users. An example of this potential is the response to the outbreak of viral diseases such as Ebola and Zika. Access to the most recent scientific knowledge for a broad group of potential contributors, including new or unknown users of knowledge, has brought solutions closer. Open science also increases business opportunities. The speed at which innovative products and services are being developed is steadily increasing. Only companies (notably SMEs), entrepreneurs and innovative young people that have access to the latest scientific knowledge are able to apply this knowledge and to develop new market possibilities. Citizen science brings research closer to society and society closer to research.

A speedy transition is needed
For Europe to remain at the forefront and to ensure sustainable growth in the future, open science holds many promises. Reality, however, has not caught up yet with the emerging possibilities. The majority of scientific publications, research data and other research outputs are not freely accessible or reusable for potential users. Assessment, reward and evaluation systems in science are still measuring the old way. Although these issues are recognised and countless initiatives have been developed during recent years, policies are not aligned, and expertise can be shared more and better. There is a strong need for cooperation, common targets, real change, and stocktaking on a regular basis for a speedy transition towards open science.
The good news is that there is political and societal momentum. More and more researchers are supporting the transition and are moving towards open science in the way they work. Organisations from the scientific community are urging politicians to act. The European Commission and the Council of the European Union have expressed that they are prepared to take a leading role to facilitate and accelerate the transition towards open science.

From vision to action
This Call for Action is the main result of the Amsterdam conference on 'Open Science – From Vision to Action' hosted by the Netherlands' EU presidency on 4 and 5 April 2016. It is a living document reflecting the present state of open science evolution. Based on the input of all participating experts and stakeholders. Stakeholders include research funders, Research Performing Organisations (including researchers, libraries and support staff), publishers (including information service providers) and businesses. as well as outcomes of preceding international meetings and reports, a multi-actor approach was formulated to reach two important pan-European goals for 2020.

1. Full open access for all scientific publications. This requires leadership and can be accelerated through new publishing models and compliance with standards set.

2. A fundamentally new approach towards optimal reuse of research data. Data sharing and stewardship is the default approach for all publicly funded research. This requires definitions, standards and infrastructures.

To reach these goals by 2020 we need flanking policy:

3. New assessment, reward and evaluation systems. New systems that really deal with the core of knowledge creation and account for the impact of scientific research on science and society at large, including the economy, and incentivise citizen science.

4. Alignment of policies and exchange of best practices. Practices, activities and policies should be aligned and best practices and information should be shared. It will increase clarity and comparability for all parties concerned and to achieve joint and concerted actions. This should be accompanied by regular monitoring-based stocktaking.

Twelve action items with concrete actions to be taken
Twelve action items have been included in this Call for Action. They all contribute to the transition towards open science and have been grouped around five cross-cutting themes that follow the structure of the European Open Science Agenda as proposed by the European Commission. This may help for a quick-start of the Open Science Policy Platform that will be established in May 2016. Each action item contains concrete actions that can be taken immediately by the Member States, the European Commission and the stakeholders:

Removing barriers to open science
1. Change assessment, evaluation and reward systems in science
2. Facilitate text and data mining of content
3. Improve insight into IPR and issues such as privacy
4. Create transparency on the costs and conditions of academic communication

Developing research infrastructures
5. Introduce FAIR and secure data principles
6. Set up common e-infrastructures

Fostering and creating incentives for open science
7. Adopt open access principles
8. Stimulate new publishing models for knowledge transfer
9. Stimulate evidence-based research on innovations in open science

Mainstreaming and further promoting open science policies
10. Develop, implement, monitor and refine open access plans

Stimulating and embedding open science in science and society
11. Involve researchers and new users in open science
12. Encourage stakeholders to share expertise and information on open science