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NOTE

From:	Presidency
To:	Delegations
Subject:	Draft Council conclusions on the transition towards an Open Science system – Presidency text

Delegations will find attached a Presidency text on draft Council conclusions on the transition towards an Open Science system with a view to the discussion by the Research Working Party at its meeting on 25 April 2016.

Changes to the previous text (doc. 7800/16) are indicated in **bold underlined** for additions and in ~~striketrough~~ for deletions.

COUNCIL CONCLUSIONS ON THE TRANSITION TOWARDS AN OPEN SCIENCE SYSTEM

THE COUNCIL OF THE EUROPEAN UNION

RECALLING

- the Commission Recommendation of 17 July 2012 on "Access to and preservation of scientific information"¹ and the Communication of 17 July 2012 on "Towards better access to scientific information: boosting the benefits of public investments in research"²;
- the general principles under Horizon 2020³, through which open access to scientific publications is ensured and open access to research data is promoted in publicly funded research at EU level;
- the Commission's Report of February 2015 on " Validation of the results of the public consultation on Science 2.0: Science in Transition"⁴;
- the Commission Communication of 6 May 2015 on "A Digital Single Market Strategy for Europe"⁵, which acknowledges the importance of science **and research** to boost innovation, notably by its goal to improve the framework conditions for data-driven science;

¹ Doc. 12846/12.

² Doc. 12847/12.

³ Regulation (EU) No 1291/2013 of the European Parliament and of the Council of 11 December 2013 establishing Horizon 2020 - The Framework Programme for Research and Innovation (2014-2020).

⁴ Report available at: http://ec.europa.eu/research/consultations/science-2.0/science_2_0_final_report.pdf#view=fit&pagemode=none

⁵ Doc. 8672/15.

- its Conclusions of 29 May 2015 on a “European Research Area Roadmap 2015-2020”⁶, adopting the ERA Roadmap and stressing the importance to start the implementation of the top action priorities identified in the Roadmap by mid-2016, including for priority 5 “Optimal circulation of knowledge”;
- its Conclusions of 29 May 2015 on "Open, data-intensive and networked research as a driver for faster and wider innovation"⁷, which express political support for setting the right framework conditions for research and innovation focused on big data and for strengthening the whole data value chain in Europe.

Open science

1. RECOGNISES that the exponential growth of data, the availability of increasingly powerful digital technologies, the globalisation of the scientific community, as well as the increasing demand from society to address the societal challenges of our times, are the bases of an ongoing transformation and opening up of science and research, referred to as "open science" affecting the modus operandi of doing research and organising science.
2. ACKNOWLEDGES that open science has the potential to increase the quality, impact and benefits of science **and to accelerate advancement of knowledge** by making it more reliable, more efficient and accurate, better understandable by society and responsive to societal challenges, and has the potential to enable growth and innovation through reuse of scientific results by all stakeholders at all levels of society, and ultimately contribute to growth and competitiveness of Europe.

⁶ Doc. 8975/15.

⁷ Doc. 9360/15.

3. STRESSES that open science entails amongst others open access to **scientific** publications and **optimal reuse of research** data, citizens science, and research integrity; TAKES NOTE that open access to scientific publications and optimal reuse of research data are of utmost importance for the development of open science; ~~WELCOMES the Amsterdam Call for Action resulting from The Netherlands' Presidency Conference on Open Science~~⁸; TAKES NOTE of the ERAC Opinion on "Open Research Data"⁹, **and of the Amsterdam Call for Action that was issued at the occasion of the Netherlands' Presidency Conference on Open Science**¹⁰ and various initiatives pursued by Member States, the Commission and stakeholders¹¹; STRESSES the need for concerted action by all partners involved: the Commission, the Member States, civil society and the stakeholders¹².

Open Science Policy Platform and European Open Science Agenda

4. ~~WELCOMES~~ **NOTES** the establishment of ~~the an~~ Open Science Policy Platform¹³ by the Commission, which aims at supporting the further development of the European Open Science policy and promoting the uptake by stakeholders of best practices, including issues such as adapting reward and evaluation systems, **alternative** models for open access publishing **and data archiving**, altmetrics, guiding principles for optimal reuse of research data, **development and use of standards**, and incentives for **other aspects of** open science such as **fostering** research integrity and **developing** citizen science; ASKS the Commission to ensure that the Open Science Policy Platform informs the Member States **and stakeholders** on a regular basis on its ~~the~~ developments **and outcomes of the Open Science Policy Platform**.

⁸ ~~The Netherlands' Presidency Conference on Open Science – From Vision to Action, Amsterdam, April 4-5 2016.~~

⁹ Doc. ERAC 1202/16.

¹⁰ **The Netherlands' Presidency Conference on Open Science – From Vision to Action, Amsterdam, 4-5 April 2016.**

¹¹ E.g. the development of open science agendas and policies at national level.

¹² Stakeholders include researchers (universities, research and technology organisations, enterprises), funding organisations, publishers and service organisations.

¹³ <http://ec.europa.eu/research/openscience/index.cfm?pg=open-science-policy-platform>

5. CALLS on the Commission, in cooperation with the Open Science Policy Platform and in close cooperation with the Member States and stakeholders, and taking into account existing initiatives ~~[the Amsterdam Call for Action on Open Science]~~ and the ~~ERAC Opinion on Open Research Data~~, to further develop a the European Open Science Agenda ~~notably aimed at opening up research processes, and open scientific communication~~, in order to further increase the impact of science to society at large, to stimulate an effective mobilization of all the potential knowledge from open science actions, and to address the requirements for training of ICT and data skills, in particular professional data management skills, which help to contribute to the access of citizens to the ~~outputs~~ results of research.

Removing barriers and fostering incentives

6. AGREES that the results of publicly funded research should be ~~free to read and use~~ made available in an as open as possible manner and ACKNOWLEDGES that unnecessary legal, organisational and financial barriers to access results of publicly funded research should be removed as much as possible and appropriate in order to attain optimal knowledge sharing, taking into account when necessary the need for ~~valorisation~~ exploitation of results; ~~INVITES~~ ENCOURAGES the Commission to further engage with third countries in order to accelerate the transition process to open science and to ensure mutual benefits regarding open access to scientific publications and optimal reuse of research results data in a global context.

7. CONSIDERS that ~~when assessing the quality the current focus is on indicators based on impact of journals and citation counts, while assessing scientific quality should be based on the work itself and be broadened to include an assessment of the impact of science on society at large,~~ **while the current focus is on indicators based on impact of journals and publication citation counts.** ENCOURAGES the Commission, Member States and the stakeholders to further develop and implement, in a coordinated way, initiatives for better quality assurance in their review and evaluation systems. STRESSES that incentive mechanisms need to be put in place to reward researchers (and research stakeholders) for sharing the results of their research for reuse; CALLS on the Commission, the Open Science Policy Platform, the Member States and the stakeholders to explore possible mechanisms, including training **activities** and awareness ~~activities~~ **raising**, to change the culture **ways** of doing ~~open~~ science. ENCOURAGES the Open Science Policy Platform to collaborate in particular on incentives for an internationally accepted system for data citation, making use of initiatives and expertise that already exists.
8. WELCOMES the Commission Communication of 9 December 2015 on "Towards a modern, more European copyright framework"¹⁴ and LOOKS FORWARD to the legislative proposals from the Commission announced therein; STRESSES the importance to enhance the EU's competitiveness, and technological and scientific leadership, notably through allowing public interest research organisations to carry out text and data mining of content, to which they already have lawful access, for scientific research purposes; STRESSES the need to continue the support by the Commission and Member States to allow all bodies and organisations, including citizens, scientists and businesses and SMEs, the right to mine results of publicly funded research they already have legal access to.
9. BELIEVES that production of scientific works, and optimal access and reuse of the results of scientific work can be enhanced if researchers or their employers retain the copyright on their scientific work; INVITES the Commission and the Member States to explore legal possibilities for measures in this respect and promote the use of licensing models, such as Creative Commons, for scientific publications and research data sets.

¹⁴ Doc. 15264/15.

Open access to scientific publications

10. WELCOMES open access to scientific publications¹⁵ as the option by default for scientific publishing the results of publicly funded research; RECOGNISES that the full scale transition towards open access should be based on common principles such as transparency, research integrity-competition, sustainability, fair pricing and economic viability; and CALLS on Member States, the Commission and stakeholders to remove financial and legal barriers, and to take the necessary steps for successful implementation in all scientific domains, including specific measures for disciplines where obstacles hinder its progress.
11. INVITES the Commission to develop and ~~enforce~~ encourage measures for optimal compliance with the provisions for ~~of~~ open access to scientific publications under Horizon 2020, together with the stakeholders and the Member States; ENCOURAGES Member States to work with stakeholders to do the same at the national level on publicly funded research.
12. AGREES to further promote the mainstreaming of open access to scientific publications by continuing to support a transition to immediate open access as the default by 2020, with ~~the aim of ensuring that all new~~ a transition in which the results of publicly funded scientific publications research are openly accessible ~~from 2020~~, without embargoes or reasonably short embargoes when necessary (allowing for pre-print publications), and without financial and legal barriers, taking into account the diversity in research systems and disciplines, and that open access to scientific publications should be achieved in full observance of the principle that no researcher should be prevented from publishing; INVITES the Commission,

¹⁵ For the purposes of these Conclusions, ‘open access to scientific publications’ is understood as having "its free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited" (source: Budapest Open Access Initiative, 2002, available at: <http://www.budapestopenaccessinitiative.org/read>).

Member States and relevant stakeholders, **including research funding organisations**, to catalyse this transition; **and** STRESSES the importance of clarity in scientific publishing agreements, ~~as well as the role of research financing organisations in developing corresponding funding conditions and funding for innovative open access publishing models.~~

13. CALLS on all partners to engage in synchronized efforts to reach this goal – with intermediate milestones¹⁶ for 2018; CALLS on the Commission and the Member States for close monitoring **on a regular basis** during this period through the National Points of Reference¹⁷, ~~on a regular basis~~, and to align it as much as possible with the monitoring of the ERA progress; ASKS the Commission to assist Member States and stakeholders to build up expertise and to facilitate information sharing, e.g. through EU funded projects to that effect.

Optimal reuse of research data

14. UNDERLINES that research data originating from publicly funded research projects ~~are~~ **can be considered as** a public good, and ENCOURAGES the Member States, the Commission and stakeholders to set optimal reuse of research data as the point of departure, whilst recognising the needs for different access regimes because of Intellectual Property Rights, personal data protection and confidentiality, security concerns, as well as global economic competitiveness and other legitimate interests. Therefore, the underlying principle for the optimal reuse of research data should be: “as open as possible, as closed as necessary”.

¹⁶ The milestone ~~percentage~~ covers Gold, Hybrid and Green Open Access.

¹⁷ As foreseen by the Commission Recommendation of 17 July 2012 on "Access to and preservation of scientific information" (doc. 12846/12).

15. WELCOMES the intention of the Commission to make optimal reuse of research data a basic principle across Horizon 2020¹⁸, whilst recognising the possibility of opting out on well-justified grounds based on Intellectual Property Rights, personal data protection and confidentiality, security concerns, ~~as well as global economic competitiveness~~ and other legitimate interests; CALLS on the Commission to ~~develop~~ **promote** data stewardship – including training activities and awareness ~~training~~ **-raising** – and to implement Data Management Plans as an integral part of the research process and to continue to make the costs incurred **for both data management and preparation of research data** eligible for funding in Horizon 2020; ~~STRONGLY-ENCOURAGES~~ Member States and stakeholders to set up strategies accordingly and to implement the use of Data Management Plans as a standard scientific practice in their national research programmes.
16. EMPHASISES that the opportunities for the optimal reuse of **research** data can only be realised if data are consistent with the FAIR principles (findable, accessible, interoperable and re-usable) within a secure and trustworthy environment; RECALLS the importance of storage, long term preservation and curation of data, **taking into consideration the capacity of the research group or organisation**, as well as ensuring the existence of metadata based on international standards; ENCOURAGES Member States, the Commission and stakeholders to ~~set up research programs and funding mechanisms that support long-term, efficient and~~ **follow the FAIR data storage and data sharing principles in research programmes and funding mechanisms.**

¹⁸ ~~[Reference to Pilot on Open Research Data under Horizon 2020.]~~ **Commission Communication of 19 April 2016 on a "European Cloud Initiative - Building a competitive data and knowledge economy in Europe".**

17. WELCOMES the {Commission Communication of ~~xx~~ **19 April 2016** on a "A-European Cloud Initiative - **Building a competitive data and knowledge economy in Europe**"¹⁹} and ACKNOWLEDGES that Europe ~~will~~**may** benefit from a European Open Science Cloud²⁰ that enables, **amongst others,** safe and long-term storage, efficient analysis, and user-friendly (re)use of data across borders and disciplines; CALLS on the Commission to ~~set up a~~ **ensure that the** governance and funding frameworks ~~for the~~ **take sufficient consideration of existing** initiatives ~~that ensures~~ **and their** sustainability and **of** a European-wide level playing field.

Follow-up

18. CALLS on the Commission, the Member States and the stakeholders to take the necessary actions needed for making open science a reality and to advocate the need for concerted actions in relevant national, EU, multilateral and international fora; CALLS on the Commission to keep the Member States informed of and involved in the work of the Open Science Policy Platform and to coordinate its activities with the Member States, and AGREES to take stock on the progress together with the Commission and the Platform on a regular basis, starting no later than one year from now.

¹⁹ [...]

²⁰ The European Open Science Cloud will federate existing scientific data infrastructures, today scattered across disciplines and Member States