Council of the European Union

Brussels, 26 February 2015
(OR. en)

6409/15

RECH 29
COMPET 54
TELECOM 44

NOTE

From:	Commission
To:	Council
Subject:	Science 2.0: outcome of the public consultation
	- Information from the Commission

Delegations will find attached an information note by the <u>Commission</u> on the above mentioned subject.

Outcome of the Public Consultation on 'Science 2.0: Science in Transition'

Information Note by the Commission

In July 2014, the Commission launched a public consultation on 'Science 2.0: Science in Transition', accompanied by a background paper. Science 2.0 - also referred to as Open Science - describes the on-going transitions in the way research is performed, researchers collaborate, knowledge is shared, and science is organised. It is a systemic change affecting the whole research cycle and all stakeholders, which is enabled by the increasing availability of digital technologies and Big data, and driven by the globalisation of the scientific community and the grand challenges of our time.

The consultation closed on 30 September 2014. Between October and December 2014, the Commission analysed the outcomes and organized four multi-stakeholder workshops to validate the findings.

General Outcomes of the Consultation

1. Responses

The Commission received 498 responses, of which 164 organisations and 38 public authorities. In addition, 28 position papers have been voluntarily submitted in addition to questionnaire by stakeholder/branch organisations at national and European level.

From the consultation, it appears that **46 %** of the respondents prefer to refer to **'Open Science'** to cover the phenomena described in the consultation; 22 % of the answers opt for the term 'Science 2.0'.

2. Drivers, barriers, and implications

The consultation asked for the views of the respondents about the main drivers, the barriers and opportunities for Science 2.0:

- *Identification of trends/drivers*: more than **70** % agree with analysis as presented in the background paper of the consultation: notably with *'availability of digital technology and Big data'* and *'researchers looking for new ways to disseminate research outcomes'* as main drivers.

- *Barriers for 'Science 2.0'*: more than **50** % indicate that *'concerns about quality assurance'* and *'lack of credit/incentives for 'Science 2.0' type of activity'* as main barriers.

- *Implications for science*: close to **80** % believe that Science 2.0 will make science *'better'*, *more reliable, more efficient, with greater integrity and contribute to faster & wider innovation*.

- *Evaluation of research:* **48** % agree that *Science 2.0 should be part of researchers' careers evaluation*.

- *Opportunities for 'Science 2.0':* **52** %: fostering new forms of research.

3. Role of the public authorities

The consultation asked what the public authorities should do:

- Develop coherent policies on Open Access to research publications and data: more than **70** % of respondents.

- Review procedures for quality assessment of research and evaluation criteria of research proposals: more than **53** % of respondents.

- The European Commission should promote Science 2.0 under the European Research Area (ERA) and Horizon 2020: more than **50** % of respondents.

4. Policy recommendations

On the basis of the public consultation, according to the results, examples of possible policy actions under a European Open Science Agenda in the context of the Digital Single Market are the following:

- Fostering Open Science:

  o raise awareness and support stakeholders' take-up by e.g. establishing a stakeholder forum at European level and a self-regulation/clearinghouse mechanism for addressing Open Science issues.

- Removing barriers to Open Science:

  o reward researchers engaged in Open Science activities by setting out in a Charter the general principles and requirements of how Open Science should affect the roles, responsibilities and entitlements of researchers and of their employers, with regard e.g. of scientific integrity;

  o support the development of research evaluation mechanisms supporting open science (e.g. alternative metrics, open peer review, involvement of the public);

  o provide incentives for 'collaborative science';

  o address legal constraints and uncertainty e.g. regarding the use of text and data mining (TDM) and the use of personal data in research;

  o provide training on 'innovative digital skills', for example regarding data management skills ('data practitioners').

- Developing e-research infrastructures for Open Science:

  o enable Big data solutions in secured virtual environments for storing and managing complex data from different sources to facilitate data-driven science (through for example a European science and research cloud).

- Mainstreaming Open Access to research publications and data:

    o step-up on existing Open Access policies across Europe;

    o develop solutions to ensure that research data is findable, accessible, interoperable and re-usable (FAIR).

- Using Open Science as socio-economic driver for innovation:

    o create 'knowledge coalitions' among societal, entrepreneurial and scientific actors to address societal challenges through Open Science approaches.

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