1. CONTEXT AND BACKGROUND INFORMATION

Following the Communication 'European Cloud Initiative - Building a competitive data and knowledge economy in Europe'[1], the Commission explored in cooperation with Member States and stakeholders appropriate governance mechanisms for the European Open Science Cloud (the 'EOSC') and defined an Implementation Roadmap[2] where a possible federated model for the EOSC was highlighted. The Implementation Roadmap for the EOSC sets out the basis for the governance framework.

The governance structure is constituted of three components - a strategic body of representatives of the Member States, the Associated Countries and of the Commission, the Governance Board, an expert group including high-level representatives of the stakeholders overseeing the implementation, the Executive Board, and a Stakeholders Forum composed of a larger representation of actors providing advice.

In its conclusions of 29 May 2018[3], the Council welcomed the Implementation Roadmap and the federated model for the EOSC. As a result of the Council invitation, the Commission set up through its Decision C(2018)5552 an expert group "Executive Board of the European Open Science Cloud".

Conformant to the article 4 of the above Decision, the expert group is composed of highly qualified, specialised, independent members, appointed in their personal capacity acting independently and in the public interest, and of organisations of R&I stakeholders. Members of the expert group have been appointed by the Director-General of DG RTD in consultation with the Director-General of DG CNECT

2. PURPOSE, OBJECTIVES AND SCOPE

The purpose of the group is to oversee the EOSC implementation, provide advice on the way forward and on the implementation of the strategic and funding orientations and assist with the transition beyond 2020.

The group's tasks shall be to establish a cooperation between the Commission and R&I stakeholders on questions relating to the Implementation Roadmap for the European Open Science Cloud ('EOSC')[4] in coordination with the Member States. The group shall assist the Commission in the first phase of development of the EOSC until 2020 and in the preparation of the transition to the second phase of development of the EOSC after 2020.

In order to achieve the above the group will carry out the following tasks:

Task 1: Provide advice and support on the strategy, implementation, monitoring and reporting on the progress of the implementation of the EOSC as set out in the Staff Working Document on the Implementation Roadmap for the EOSC[5], notably in the form of:

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[1] COM(2016) 178
[2] SWD(2018) 83
[3] 9029/18
[4] SWD(2018) 83
[5] SWD(2018) 83

(a) a strategic implementation plan and annual work plans, and of a proposed mechanism for overseeing and steering the implementation of the strategic and annual work plans, and for monitoring and reporting on progress;

(b) rules for participation to guide service provision and an action plan for scientific data interoperability to operationalise the FAIR principles [67],

Task 2: provide recommendations on the appropriate mechanisms and possible forms for the EOSC governance after 2020 including business models and modes of financing, and on how the user base of the EOSC could be extended to the public sector and the industry.

Task 3 provide advice to the Commission on any matter relating to the EOSC, in particular on the actions required for achieving the federated model as described in the Implementation Roadmap for the EOSC, that is to say the six action lines: architecture, data, services, access & interface, rules and governance.

The group is expected to deliver six main outputs:

(1) A strategic implementation plan;

(2) An annual work plan (for 2019 and for 2020);

(3) A yearly monitoring report on progress of implementation based on quantitative and qualitative indicators (by end of 2019 and by end of 2020);

(4) Rules for participation to guide service provision;

(5) An action plan for scientific data interoperability to operationalise the FAIR principles (FAIR Data Action Plan);

(6) Recommendations on the appropriate mechanisms and possible forms for the EOSC governance after 2020 including business models and modes of financing and on how the user base of the EOSC could be extended to the public sector and the industry.

3. WORKING APPROACH AND METHODOLOGY

The Director-General of DG RTD, in consultation with the Director-General of DG CNECT, shall appoint, on an annual basis, a Chair and (a) Deputy Chair(s) of the group. The group shall act at the request of its Chair, with the agreement of the Commission and in compliance with Commission Decision C(2016) 3301, establishing horizontal rules on expert groups ('the horizontal rules'). The deputy-Chair shall assist the Chair and may substitute the Chair.

The work of the Executive Board should be based on the inputs from the European Open Science Cloud Governing Board constituted as a Working Group under the Strategic configuration of the Programme Committee for the specific programme implementing Horizon 2020 - the Framework Programme for Research and Innovation (2014-2020).

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[6] FAIR principles are a set of guiding lines to make data Findable, Accessible, Interoperable, and Reusable https://www.force11.org/group/fairgroup/fairprinciples

[7] Commission produced guidelines on FAIR Data Management in Horizon 2020 http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf

Sub-groups may be setup for examining specific questions based on terms of reference defined by the Commission. Subgroups shall operate in compliance with Decision C(2016)3301 and shall report to the Executive Board.

The Executive Board will be supported by the Coordination Structure setup through the Call INFRAEOSC-05-2018-2019[8]. The Executive Board shall also draw, in its work, on a voluntary basis, on the competences and resources of the stakeholders who are committed to developing the EOSC through its working groups and the Stakeholders Forum and on the inputs provided by relevant projects funded through Horizon 2020 and national research programmes.

4. DISTRIBUTION OF WORK AMONG THE EXPERTS

The Chair and Vice-Chair in close collaboration with the Commission will prepare and follow the planning, the progress and ensure the quality of the deliverables. The Commission will provide guidance for the experts.

Particularly, the independent experts will:

- Draft and produce the reports (as set in article 2 of this Annex);

- Contribute to the setting-up of Executive Board Working Groups to be established by the Commission with the support of the Coordination Structure as well to ensure coordination of one of these working groups (the precise scope of the work will be determined by the Commission);

- Perform any other specific tasks, such as rapporteur or chairperson tasks, focal point for the overall EOSC governance communication and liaison with the EOSC Governance Board.

  The experts will be responsible for the proofreading and ensuring that feedback will be taken into account for the final version of the deliverables.

5. MEETINGS, REPORTING AND DEADLINES

The group shall meet up to **eight times a year**. The Chair may convene additional *ad-hoc* meetings in agreement with the other Members when urgent advice is needed. The group shall meet, in principle, on Commission premises.

Members and members' representatives should be prepared to attend meetings systematically, to contribute actively to discussions in the group, to be involved in preparatory work ahead of meetings, to examine and provide comments on documents under discussion, and to act, as appropriate, as 'rapporteurs' on ad hoc basis. It is expected that preparatory, analytical and reporting work would represent approximately 30 days of remote work per year. For the Chair and Vice Chair(s) the amount of remote work is estimated to be up to 50 days per year. For

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[8] http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/infraeosc-05-2018-2019.html

the independent experts appointed in a personal capacity, the estimated maximum number of working days (remote and attending meetings) will be specified in their contract.

The estimated timeline of the outputs and reports (as set in article 2 of this Annex) is the following:

Q1 2019: Strategic implementation plan and Annual work plan for 2019

Q2 2019: Setting up of the EB Working Groups

Q4 2019: Rules of participation and Monitoring report on progress for 2019

Q3 2019: FAIR action plan (scientific data interoperability to operationalise the FAIR principles

Q1 2020: Annual work plan for 2020

Q3 2020 Recommendations on the appropriate mechanisms and possible forms for the EOSC post-2020 governance

Q4 2020 Final progress report

As a general rule, **working documents will be drafted in English** and meetings will be also conducted in **English**.

The group's deliverables shall be addressed to the Commission services and written in English.

The final outputs of the group will be made publicly available on:

https://ec.europa.eu/research/openscience/index.cfm

6. EXPERTS PROFILES

The group is composed of **eleven members** and includes:

    (a) **three independent experts** - programme managers with international experience, good knowledge of institutional framework of R&I funding and technical knowledge of data infrastructures - appointed in a personal capacity;

    (b) **eight pan-European organisations** of R&I stakeholders most relevant for the EOSC implementation such as the large pan-European research infrastructures ('RIs') including eInfrastructures, public research organisations ('PROs'), universities, public research funding organisations and industry organisations.

7. EXPERTS SHORT BIOGRAPHIES

Independent experts

Jean-François ABRAMATIC

Emeritus Senior Scientist at Inria, France, Chair of the Advisory Board of the Software Heritage project. Jean-François Abramatic's career has been divided between research and

industry in the field of computer science and applied mathematics. His research has focused in particular on digital image processing. Former chairperson of the World Wide Web Consortium (W3C) and a member of the ICANN Board. A member of the Governing Board of the (European Institute of Innovation and Technology (EIT) and Member of the Council of Coordination NETmundial Initiative.

Sarah JONES

Director and chief executive of the Digital Curation Centre, University of Glasgow, UK. She has over ten years professional experience in digital curation, research data management and Open Science and a wide network of international collaborators from European e-infrastructure projects and roles in coordinating fora such as the Research Data Alliance, FORCE11 and CODATA. She served as the rapporteur on the FAIR Data Expert Group, member of the Transport Research Cloud Expert Group and participated in various steering committees and task groups. She is service manager of DMPonline, the Digital Curation Centre's Data Management Planning tool.

Jan HRUŠÁK

The Chair of the European Strategy Forum on Research Infrastructures – ESFRI. Since 2007, Jan Hrušák has been a member of the "Council for large research infrastructures", an advisory body at the Ministry of Education, Youth and sports (MEYS). Jan Hrušák works as a senior researcher in the J. Heyrovsky Institute of Physical Chemistry of the Czech Academy of Sciences and as a senior consultant of the Academic Council of Czech Academy of Sciences. Jan Hrušák has served for more than ten years as the Czech delegate to ESFRI, the last 4 years also acting as an EB member. He was chairing the ESFRI ad hoc [Working Group on Long Term Sustainability](#) of RIs.

Organisations

1. CESAER (joint nomination of CESAER, EUA and ALLEA)

CESAER represents 50 leading universities of science and technology from 25 European countries. The European University Association (EUA) represents more than 800 universities and national rectors' conferences in 48 European countries. EUA plays a crucial role in the Bologna Process and in influencing EU policies on higher education, research and innovation. ALLEA is the European Federation of Academies of Sciences and Humanities which brings together almost 60 Academies in more than 40 countries from the Council of Europe region. Member Academies operate as learned societies, think tanks and research performing organisations

Representative: Karel LUYBEN

2. GÉANT

The pan-European data network for the research and education community. It interconnects national research and education networks (NRENs) across Europe, enabling collaboration on projects ranging from biological science, to earth observation, to arts and culture. The GÉANT project combines a high-bandwidth, high-capacity 50,000 km network with a growing range of services.

Representative: Cathrin STÖVER

3. OPENAIRE

A scholarly communication e-Infrastructure providing an effective channel of research support mechanisms. Its network of 34 National Open Access Desks (NOADs) operates a European Helpdesk supporting a coordinated transition to Open Science.

Representative: Natalia MANOLA

4. CESSDA ERIC

Consortium of European Social Science Data Archives - European Research Infrastructure Consortium. CESSDA provides large-scale, integrated and sustainable data services to the social sciences. It brings together social science data archives across Europe, with the aim of promoting the results of social science research and supporting national and international research and cooperation.

Representative: Ron DEKKER

5. EMBL

The European Molecular Biology Laboratory (EMBL) is an intergovernmental organisation specialising in basic research in the life sciences, funded by public research funding from more than 20 Member States, including much of Europe and Israel, and two associate members, Argentina and Australia. EMBL is one of the world's leading research institutions, and Europe's flagship laboratory for the life sciences.

Representative: Rupert LÜCK

6. European Spallation Source ERIC

The European Spallation Source (ESS) is a European Research Infrastructure Consortium (ERIC), a multi-disciplinary research facility based on the world's most powerful neutron source. Its vision is to build and operate the world's most powerful neutron source, enabling scientific breakthroughs in research related to materials, energy, health and the environment, and addressing some of the most important societal challenges.

Representative: John WOMERSLEY

7. Research Data Alliance (RDA)

The Research Data Alliance (RDA) was launched as a community-driven organization in 2013 by the European Commission, the United States Government's National Science Foundation and National Institute of Standards and Technology, and the Australian Government's Department of Innovation with the goal of building the social and technical infrastructure to enable open sharing of data. It has more than 7,400 members from 137 countries.

Representative: Juan BICARREGUI

8. Science Europe

Science Europe is an association of European Research Funding Organisations (RFO) and Research Performing Organisations (RPO), based in Brussels. It promotes the collective interests of the Research Funding and Research Performing Organisations of Europe.

Representative: Lidia BORRELL-DAMIAN