UNESCO

United Nations
Educational, Scientific
and Cultural Organization

Implementation of the UNESCO Recommendation on Open Science

First meeting of
the Working Group on Open Science Funding and Incentives
9 June 2022, 13:00-15:00 CEST (Paris time), Online meeting

Background and Objectives

The UNESCO Recommendation on Open Science was adopted in November 2021 at the 41st session of the UNESCO General Conference. This first international framework on open science was developed through a regionally balanced, multistakeholder, inclusive and transparent consultation process with the guidance of an International Advisory Committee.

To support the implementation of the Recommendation, UNESCO in collaboration with its Global Open Science Partnership and with inputs from a broader open science community, launched five Working Groups focusing on high impact areas for open science, namely: capacity building; policies; financing and incentives; infrastructures; and monitoring.

This online meeting was the third session of these Working Groups, with the aim of discussing existing initiatives, opportunities and gaps for Open Science funding and incentives. It was held on 9 June 2022 on the Zoom platform.

To support the transition to open science practices to effectively implement the Recommendation on Open Science, the deliverables of the Working Group on Open Science Funding and Incentives will include **proposals** for regional and thematic open science funding mechanisms and **recommendations** for revision of the current research careers assessments and evaluation criteria.

Recognizing the need for funding and appropriate incentives as critical for the operationalization of Open Science worldwide, UNESCO invited experts on the topic and the broad UNESCO Open Science community to discuss the trends and challenges in financing and incentivizing Open Science; to present the different existing mechanisms and activities; and to exchange on gaps and opportunities.

Report

The online meeting brought together over 70 participants from 39 countries. Seven experts were invited to speak about key initiatives, namely:
- **Ms Sarah Moore**, International Science Council
- **Ms Silvia Bottaro**, European Commission
- **Ms Dominique Babini**, on behalf of Laura Rovelli, coordinator of FOLEC-CLACSO
- **Mr Stephen Curry**, Imperial College, London
- **Ms Hannah Hope**, Open Research Lead, Wellcome
- **Ms Caitlin Turner**, Open Research Funders Group (ORFG)
- **Ms Claire Redhead**, Executive Director, Open Access Scholarly Publishers Association (OASPA)

All the regions were represented with attendees from universities and research institutes, from early career researchers to research directors; research funders; National Academies of Science; associations of universities; librarians and library associations; data organizations; citizen science groups; OA publishers; science incubators and non-governmental organizations; Permanent Delegations to UNESCO and National Commissions for UNESCO; and other regional and international Institutions.

The presentations of the experts and the subsequent discussion with the participants focused on the following:
- Initiatives for scoping and reforming research evaluation;

- the limitations of existing research evaluation tools and metrics, particularly in regional and disciplinary contexts;

- the need for consideration of funding and incentives, as part of scientific culture and practice, when building the transition to open science;

- opportunities and needs for innovative approaches to funding and incentives for sustainable open science, in partnership with existing actors such as publishers and funders; and

- the need for connection between the multiple ongoing initiatives by different actors.

The key messages of the meeting can be summarized as follows:

- The main objective of the open science funding and incentives working group is to develop proposals for regional and thematic open science funding mechanisms as well as recommendations for revision of the current research careers assessments and evaluation criteria, in line with the Recommendation on Open Science;
- The transition to Open Science relies on and requires revision of the existing metrics and mechanisms of research evaluation;

- Partnerships are essential for implementing the transition to open science in local contexts, instating openness as central to existing science practices including funding and incentives;

- Reform in the funding process can change the way that research topics are chosen by including the views of the society and citizens in review and selection processes, instead of only assessing the societal relevance of research products;

- Including openness as criteria for research assessment, funding and other evaluation will require the development of shared, standardized indicators of openness in practice, with attention to disciplinary contexts;

- UNESCO's role in open science funding and incentives includes:

  o developing guidance, in collaboration with this working group, regarding the core principles and approaches for the transition to open science, which can then be adapted and contextualized by local actors as they develop, adapt and use funding and incentives,

  o linkage with UNESCO's work on academic freedom, and

  o global framework for Open Science initiatives.

This report provides a detailed overview of the views, comments and recommendations discussed in the meeting.

Opening

In his opening remarks, Mr Ezra Clark, Chief of Section, Science, Technology and Innovation Policy, UNESCO, welcomed the participants and provided a brief overview of the Recommendation on Open Science, its key objectives and areas of action. The key challenges and high-impact areas, to be addressed through the efforts of the five Working Groups, were presented as (1) change in the conventional scientific culture; (2) human and institutional capacity; (3) adequate infrastructures, including reliable Internet connectivity; (4) alignment of incentives and revision of criteria for evaluation of scientific excellence and scientific careers; and (5) addressing the unintended negative consequences of open science practices.

UNESCO, in collaboration through the Global Open Science Partnership, the Steering Committee for Open Science and the five Working Groups, will be:
- Developing a series of supporting tools - technical briefs, fact sheets and guidelines;
- Collecting/mapping existing open science policies and strategies;
- Collecting and sharing best practices;
- Analyzing open science financing mechanisms and incentives;
- Promoting open science infrastructures;
- Building capacity; and
- Developing an open science monitoring framework.

Recommendation: Developing an enabling environment for open science

Ms Ana Peršić, Programme Specialist, Science Technology and Innovation Policy, UNESCO, presented the provisions from the Recommendation relevant to incentives and assessment of research and researchers referring to paragraph 20 of the Recommendation.

Discussion on strategies for transforming the research assessment system by aligning incentives for open science: opportunities and challenges

The invited experts spoke briefly about existing initiatives and regional perspectives in capacity building for open science. The [presentation slides](#) and [meeting recording](#) are available online.

Ms Sarah Moore, science officer with the International Science Council, presented a trilateral initiative with InterAcademy Partnership and the Global Young Academy: the the GYA-IAP-ISC Initiative on Research Evaluation. To date, the initiative has conducted a scoping of research evaluation, conducted by a 10 person group representing a range of regions and disciplines as well as career stages. A basic regional consultation was conducted to seek perspectives. The scoping exercise identified activities suggested to boost best practices for research evaluation, including the following:

- Practical guidance on how to implement DORA and the Leiden Manifesto, etc.;
- Promotion of good practice; for instance, the transition to best practice within the membership of the GYA, IAP and ISC would involve institutional change in hundreds of organizations;
- Global mapping of debates, problems, diagnoses and solutions for effective research evaluation.

The next step is now to produce a report to be published later in 2022.

Ms Silvia Bottaro, European Commission, Directorate-General for Research & Innovation, Unit A.4 'Open Science', described the forthcoming agreement on reforming research assessment. As of today, 334 organizations from 38 countries have expressed their support to the principles outlined in a [scoping report](#) published in November 2021, and are involved in the co-creation of an agreement bringing together a coalition:

- 122 Universities, 22 Universities associations and 10 European Universities Alliances;
- 43 Research centers/institutes, 4 Research infrastructures;
- 23 Public funders, 4 Private funders, 2 Funders associations;
- 6 National/regional evaluation agencies, 5 Ministries, and 2 Regional authorities;
- 20 Academies, learned societies, researchers associations;
- 8 National reproducibility networks;
- 63 other organisations (research management, standardisation, consultancy, etc.).

The call remains open: [europa.eu/!DQMKYG](#) . Signatories agree to base actions on common principles (as defined in the scoping report), implementing commitments for change including a timeframe for implementation, and organizing and operating the coalition along common principles. The 3rd Stakeholder Assembly will be held on 8 July 2022 to present the final agreement and continue discussion on governance, organisation and operations of the coalition. A constitutive assembly will be held later in 2022.

Although the agreement extends beyond open science, the agreement is expected to support the implementation of the UNESCO Recommendation on Open Science through:

- Recognition of a diversity of outputs (beyond publications), practices (including open science practices), and activities of researchers (including societal engagement and teamwork);
- Assessment based primarily on qualitative judgement, supported by responsible use of quantitative indicators;
- Respect for the autonomy of organisations and allowance for differences in implementation;

- Piloting of changes to research assessment practices and sharing of experience and evidence.

Ms Dominique Babini, on behalf of Laura Rovelli, coordinator of FOLEC-CLACSO, discussed research assessment incentives in Latin America and the Caribbean. Open science is not new within the region and a broad range of institutions and governments are active in the transition to open science. However, in a region with a strong tradition of community-led, non-profit, scholarly publishing, this production is poorly represented in the Web of Science and Scopus research assessment indicators. For example, in 2019, only 416 journals from Latin American and the Caribbean were listed in Web of Science and Scopus, out of a total of around 2,800 quality journals in the region indexed by Latindex-C, Redalyc, SciELO and the Directory of Open Access Journals (DOAJ). In some fields, 80% of research output is invisible in standard research assessments because the outputs are not in English and/or in Scopus-listed journals.

Key challenges are to regain control, by the scientific and academic community, over the evaluation processes and their indicators (for instance, in the LAC region, complement the Web of Science and Scopus indicators with indicators that more accurately reflect regional research output); to value bibliodiversity and multilingualism in research assessment; and to strengthen policies and financial support for community-owned infrastructures and services. Argentina's National Research Council (CONICET) has begun including regional indexing indicators alongside the Web of Science and Scopus to classify the journals in which researchers publish.

The Latin American Forum for Research Assessment (FOLEC) in partnership with Consejo Latinoamericano de Ciencias Sociales (CLACSO) has produced a suite of documents and tools toward a transformation of scientific research assessment in LAC, including Tool 2: Promoting bibliodiversity and defending multilingualism. Tools to promote new research assessment policies (2021).

Mr Stephen Curry, Imperial College, London, presented the San Francisco Declaration on Research Assessment (DORA), which is both a declaration and now also a small organization. Over 19,000 individuals and over 2,500 organizations have now signed DORA. Under the ethos of DORA, research assessment is an important part of a larger picture, aiming to share more diversely the products of research endeavours. A key area of work is developing and promoting alternatives for effective research assessment, moving away from journal-based metrics that act as a surrogate measure of the quality of individual research articles and towards measures that more accurately assess an individual scientist's contributions. A transformation of assessment is deterred by biases (see 'The intersections between DORA, open scholarship, and equity'). The DORA team has compiled a resource library to develop and promote good practice. Under Project TARA (Tools for Advancing Research Assessment), an interactive online dashboard will track adoption and implementation of responsible research assessment practices in institutions worldwide, as well as provide a toolkit of resources informed by best practices in the community. These resources are presently under development for release in late 2022 or early 2023.

Discussion on existing funding mechanisms for open science, the outlook of the future investments and the needed funding mechanisms on regional and international levels

Ms Peršić reiterated the provisions from the Recommendation on Open Science pertaining to funding mechanisms and investments:

(II) Developing an enabling policy environment for open science
17.j. Designing, implementing and monitoring funding and investment policies and strategies for science based on the core values and principles of open science. The **costs** associated with operationalization of open science relate to the support of open science research, publishing, data and coding practices, the development and adoption of open science infrastructures and services, capacity building of all actors and innovative, highly collaborative and participatory approaches to the scientific enterprise.
(iii) Investing in open science infrastructures and services
(vii) Promoting international and multi-stakeholder cooperation in the context of open science and with a view to reducing digital, technological and knowledge gaps
22.c Establishing regional and international funding mechanisms for promoting and strengthening open science and identifying those mechanisms, including partnerships, which can support international, regional and national efforts.

Three experts spoke about existing funding mechanisms for open science, with [presentation slides](#) available online:

Hannah Hope, representing Wellcome, a philanthropic funder of research, [noted](#) that just making the existing system of science open is not going to resolve all of its weaknesses, nor will it give us the ethical, engaged and inclusive system of research we seek. However, every bit of money spent on science could be spent on open science. In the experience of Wellcome, providing financial support to tools or data re-use can be helpful, but adding onto existing funding schemes has limited impact. By contrast, principles of openness and of equity, diversity and inclusion need to be embedded by design into funding systems. Funding schemes should serve and include the range of people involved in creating inclusive, high-quality open research. Rather than separate funding for open science, we need more ways to coordinate funding to contribute to the same resources while lowering the burden (uneven among regions and peoples) in accessing funds and coordinating funding. The same is true for research infrastructure. We must ask how to distribute globally the infrastructure that the scientific community depends on, recognizing that open does not automatically mean free. Achieving more effective and equitable distribution of the tools of science will achieve greater representation in the governance of science, in scientific priority setting and in terms of the data included in future science.
In response to a question about coordinating funding for infrastructure, Hope noted the actions of the Global Sustainability Coalition for Open Science Services (SCOSS) and Invest in Open Infrastructure (IOI) to raise the profile of open infrastructure and the need for funding; however, the work of getting that funding still sits with the infrastructure providers. The model that Wellcome operates with Europe PubMed Central (PMC) attempts to reduce barriers for both funders and the infrastructure – though it remains imperfect as one funder needs to pick up the load of coordinating and bankrolling the investment.

Caitlin Turner, project coordinator of the [Higher Education Leadership Initiative for Open Scholarship](#) (HELIOS) of the Open Research Funders Group (ORFG), spoke about the engagement of educational institutions in open science. HELIOS is a community of practice launched as an outcome of discussions convened by the National Academies of Sciences, Engineering, and Medicine's (NASEM) [Roundtable on Aligning Incentives for Open Science](#). At present, HELIOS has 78 institutional members across the United States, representing approximately 2.5 million faculty, staff and students (measured as full-time equivalents). HELIOS is made up of senior leaders of higher education institutions. HELIOS and the Roundtable are working to consider ways to align 'why we do the work' (values) with 'how we do the work'

(practices) and how that work is rewarded (funding and incentives, reappointment, tenure and promotion, etc.). At both the departmental and institutional levels, there is a dearth of clear, succinct policy language to signal or codify the centrality of good open scholarship practice to institutional values and missions. The HELIOS Institutional and Departmental Policy Language Working Group is developing a roadmap to reform hiring, annual reviews and reappointment, promotion and tenure in higher education. The work is beginning with a commitment, action and accountability framework, focusing on developing language and actions that can be adapted to different disciplines and institutional types. In addition, in keeping with the theme of mutually reinforcing vectors in support of open scholarship, the ORFG and NASEM are hosting a convening of philanthropic society leaders to commit to incentivizing open scholarship, with the first meeting of funders to be held in June 2022.

Claire Redhead, OASPA, described the most common open access publishing models. When developed, the 'gold' model, in which the publisher provides immediate open access to a publication but may or may not charge a fee to support the publishing process, was well-intentioned. Article processing charges vary in magnitude and many discounting agreements are available. The gold model is used by both large and small publishers. However, an unintended consequence has been the creation of a cost barrier to open access publishing for authors, as well as a lack of profitability for publishers unable to continue supporting open access materials. A diverse range of funding models are now in use, ranging from article processing fees, membership fees and subscriptions to transformative agreements and collective or institutional support. In one example, the community action publishing method used by some Public Language of Science (PLOS) journals sets a community goal of covering the cost of the journals plus a 10% capped margin; any profit over that margin is passed back to subscribers at the renewal stage. The community focuses on making selectivity financially sustainable, rather than on maximizing revenue. OASPA's Equity in OA Working Group is tracking the trends and opportunities. Redhead noted that all too often, open access is funded with 'leftover' money rather than prioritized and integrated into funding strategies from the start.

Open Discussion on Open Science Funding and Incentives: opportunities and challenges for the implementation of the UNESCO Recommendation

Open discussion with the participants was moderated by Mr Ezra Clark, Chief of Section, Science Technology and Innovation Policy, UNESCO, who opened the floor for the participants to share their views regarding Open Science and related funding and incentives.

Some key highlights mentioned by the participants include the following:

Instead of always assessing the "outputs", opening science could also change the way in which research topics are chosen, in other words change the way of assessing the inputs. Currently, research topics are chosen by researchers, under the idea of academic freedom, and funded mainly following peer review; meaning only academic interests are in play when deciding on what research topics are to be pursued. This method generally relies on very specific academic interests and only vaguely considers the societal interest or impact of the proposed research. However, at the stage of research assessment, assessors demand societal impact and open science practices from research outputs. This means that there is constantly a misalignment between how the research "inputs" are designed and how "outputs" are assessed. This misalignment can only be changed if we change the way how research topics are chosen, by including the views of the society and citizens in review and selection processes. This

misalignment is growing in urgency within institutions of higher education, which are opening up to more people and a more diverse range of people.

In most countries, research is funded by public money: when citizens are paying scientists to conduct research, it is logical that citizens could be engaged in the selection process. This is not to deny the expertise of scientists in evaluating proposed research in their field, and the work by UNESCO and others to clarify the meaning and application of academic freedom will also be useful in the context of open science.

Noting that some fields are already making these changes, such as medical panels with patient input on some proposal types, the participants noted that research funding decisions must address academic freedom while encouraging more holistic view of what a quality research output looks like. Research assessment is predicated on publishing in specific types of journals, at present, and that has shaped our own impressions of quality. The rapid and extensive 'opening' during the COVID-19 pandemic has raised questions: if we open science during an emergency, why are we not practicing open science all the time? Which emergency is sufficient for this change of practice: why a pandemic rather than the ongoing climate and biodiversity crises, or economic crises, etc.?

Participants returned to the idea of the absence of an international and "whole ecosystem" framework or initiative for research assessment reform. At present, there is not an organization for global research governance. UNESCO plays a role, the Global Research Council with its 150+ representatives has a role, DORA aspires to be global but is small and capacity-limited; the present approach to reforming research assessment is by creating a community of practice. The Project TARA Dashboard idea to track development in research assessment has a global aspiration. The European Commission initiative calling for an agreement on reforming research assessment has focused on the European Union but is open to all. Participants noted the need to make sure all of these and other initiatives are complementary. An alliance of initiatives can preclude complaints or delays due to arguments than an initiative is only for one region, one discipline, and so on.

There is a need to include the large, well-established publishers in the conversation, in part to identify their limitations. The aim should not be "open at any cost" if the resulting situation prohibits people from publishing and contributing to the conversation, wherever they are. The transition to open science must not just create new barriers.

Assessments of research should confront how to assess preprints as research outputs. Pre-prints are not peer-reviewed but are an output and theoretically could be measured and assessed. At present, it is difficult to evaluate a preprint on any factor other than its existence.
Preprints are one concrete case study for us to confront when developing a new methodology for assessing research, beyond peer review as usual and grant funding earned.

Participants mentioned possible initiatives to foster a culture of open science, aligning incentives for open science and removing the barriers for open science, such as:
- Strengthening awareness about the value of open science
- Building the costs of open practices into research costs (such as costs for publishing or for data, code or reagent sharing)
- Open access or data mandates and/or open science mandates more broadly
- Including openness as a performance criterion in hiring/promotion/funding. The conversation about how to define and use such criteria must involve the research

community. There is a strong and shared interest in rewarding people who do really good work (not just open work).
- Involving the public. Generally, people are not aware of the long time delays in publishing and so on. Once aware, citizens can bring pressure to bear and their involvement is very important.
- Creating space for Diamond OA models (free to publish, free to read). The lessons learned from the Latin American and Caribbean region will be valuable for others, with specific attention required to ways to promote Diamond OA in regions where commercial publishers dominate.

Participants indicated that a sustainable infrastructure is needed when considering regional and international funding mechanisms for promoting and strengthening open science. Innovative approaches to long-term sustainability of funding mechanisms may be needed. A coalition of national funders, such as the Global Research Council, may be able to make progress although it is not clear if such a coalition would be able to fully address the needs and sustainability at the regional and global levels.

The participants urged simultaneous consideration of funding and incentives to transition to equitable open science. Funders and grant applicants should consider openness as one of the core costs of doing research (that results can be shared).

Participated noted that it is easy to say openness should be a part of an institution's work; it is hard to define it and have validated criteria. Even including open data as part of performance assessment criteria for people and research departments or funding schemes requires shared definitions and practices, yet to be developed.

The Working Group can create guidance for different aspects of open science and for different actors based on the Recommendation, as OASPA has been doing for publishers. Where gaps are identified, the Working Group can create some additional guidance.

Next steps

Ms Ana Peršić presented the next steps for the Working Group on Open Science Funding and Incentives and invited feedback from participants on the Objectives of the Working Group, which are to provide:
- Proposals for regional and thematic open science funding mechanisms
- Recommendations for revision of the current research careers assessments and evaluation criteria

A first draft by September 2022 and finalization by December 2022 is expected.

Key questions were put to the Working Group, to be addressed by 15 July 2022:
- ❖ Existing open science funding mechanisms –what works and what does not work?
- ❖ Proposals for regional open science funding mechanisms – who are the key players?
- ❖ Proposals for thematic open science funding mechanisms – is a thematic approach best and if so, following the pillars of the Recommendation or which other breakdown?
- ❖ Existing initiatives for reviewing research assessment and career evaluation systems in line with open science principles
- ❖ Recommendations for revision of the current research careers assessments and evaluation criteria

The next meeting of this Working Group will be held on 20 September 2022.

Mr Ezra Clark closed the meeting by thanking the group for their many positive contributions and questions. Participants were requested to continue contributing to the shared documents and themes of the Working Group.

List of participants in the first meeting of the Working Group on Open Science Capacity Building

1. Sovan Acharyaj, Sa citizen science group, India
2. Thomas Alexander, North Carolina State University, United States of America
3. Batool Almarzouq, University of Liverpool, Saudi Arabia
4. Juan Pablo Alperin, Simon Fraser University, Canada
5. Saeed Alsayed
6. Roheena Anand, PLOS, United Kingdom of Great Britain and Northern Ireland
7. Paul Anderson, SPREP, Samoa
8. Guillermo Anlló, UNESCO, Argentina
9. Innocent Azilan, Institute of Research for Development (IMSIC), France / Togo
10. Aleksandra Barac, Clinical Center of Serbia, Serbia
11. Fernanda Beigel, CONICET-UNCuyo, Argentina
12. Michael Bojko, XDI Systems, Australia
13. Silvia Bottaro, European Commission, Belgium
14. Anne Britton, Invest in Open Infrastructure, United States of America
15. Egle Butkeviciene, Kaunas University of Technology, Lithuania
16. Caitlin Carter, Open Research Funders Group (ORFG)
17. Atchia Mohammad Cassam, Mauritius Institute of Education, Mauritius
18. Tung Tung Chan, Erasmus University Rotterdam, Netherlands
19. Shyama Chanthran
20. Neha S Chaudhry, PRIA, India
21. Medea Chelidze, Georgian Technical University, Georgia
22. Ilídio André Costa
23. Jacquelyn Cragg

24. Antica Culina

25. Stephen Curry, Imperial College of London, United Kingdom of Great Britain and Northern Ireland

26. Qun Xiang Da, Asia Riches International Communication Publishing Hous, Hong Kong, China

27. Sunje Dallmeier-Tiessen, CERN,

28. Sushanta De, The Young Explorers' Instiute for Social Service, India

29. Carla Di Paola, Permanent Delegation of Italy to UNESCO, Italy

30. Paul Diederen, Rathenau Institut, Netherlands

31. Jitka Dobbersteinová, Slovak Centre of Scientific and Technical Information, Slovakia

32. Saritha Donthi, UNESCO Chair Community, India

33. Richard Dunks

34. Tracey Elliott, InterAcademy Partnership (IAP)

35. Galina Enyaeva

36. Dimity Flanagan, Open Access Australasia/ University of Melbourne, Australia

37. Miho Funamori, National Institute of Informatics, Japan

38. Ed Gerstner, Springer Nature, United Kingdom of Great Britain and Northern Ireland

39. Robert Giessmann

40. Hong Ching Goh, University of Malaya, Malaysia

41. Sarah Gonzalez, World Data System, United States of America

42. Genny Govoni, Permanent Delegation of Italy to UNESCO, Italy

43. Monica Granados, Creative Commons, Canada

44. Takuro Hamasaki, Minstory of Education, Culture, Sports, Science and Technology(MEXT), Japan

45. Masaharu Hayashi, Japan

46. Kazuhiro Hayashi, NISTEP, Japan

47. Verena Heise

48. John Helliwell, IUCr, United Kingdom of Great Britain and Northern Ireland

49. Angela Holzer, DFG, Germany

50. Hannah Hope, Wellcome, UK

51. Iain Hrynaszkiewicz, PLOS, United Kingdom of Great Britain and Northern Ireland

52. Tống Hùng, Trung tâm Công nghệ thông tin, Viet Nam

53. Rue Ikeya, National Institute of Informatics, Japan

54. Alina Irimia, UEFISCDI, Romania

55. Natarajan Ishwaran, DDE, France

56. Nur Hanisah Ismail, Academy of Sciences Malaysia, Malaysia

57. Ilmari Jauhiainen, Federation of Finnish Learned Societies, Finland

58. Md Biozid Jessorey, Shorab Ali Dewan Cultural Society, Bangladesh

59. Barbara Kalumenos, STM

60. Muhammad Abdullah Khan, Quaid-i-Azam University, Pakistan

61. Miriam Kip, Berlin Institute of Health, Germany

62. Markus Konkol, Univeristy of Twente, Netherlands

63. Liliia Korytnyk, SESE the "Academy of Financial Management", Ukraine

64. Nghia Le Trung, Association of Vietnam Universities and Collages, Viet Nam

65. Jerry Li

66. Faroha Liaqat, Quaid-i-Azam University, Islamabad, Pakistan

67. Yvonne Loh, University of Ghana, Ghana

68. Jia Meng Lu

69. Mathew Lubari, Community Creativity For Development (CC4D-Uganda), Uganda

70. Juncai Ma, The Institute of Microbiology, Chinese Academy of Sciences, China

71. Aisha Mahmood, University Of Education, Lahore, Pakistan

72. Eirini Malliaraki, Deep Science Ventures, United Kingdom of Great Britain and Northern Ireland

73. Natalia Manola, OpenAIRE, Greece

74. Sinisa Marcic, Regional Cooperation Council

75. Claudia Medeiros, Brazilian Academy of Sciences/University of Campinas, Brazil

76. Christine Mieck

77. Sarah Moore, International Science Council

78. Rita Morais, European University Association (EUA), Belgium

79. Florence Muheirwe

80. Ghulam Mustafa, University of Okara, Pakistan

81. Dominique Mvunabandi, UNESCO Rwanda National Commission (CNRU), Rwanda

82. Kamran Naim, European Organization for Nuclear Research, Switzerland

83. Ritsuko Nakajima, Japan Science and Technology Agency, Japan

84. Asif Naseer, University of Management and Technology, Pakistan

85. Zivar Nazari, Natural Company, Iran

86. Alena Nikolaeva, Ministry of Science and Higher Education of the Russian Federation

87. Martina Noero, Permanent Delegation of Italy to UNESCO, Italy

88. Daniel Nyanganyura, African Science, Technology and Policy Institute, South Africa

89. Chloe O'Donnell, Springer Nature, United Kingdom of Great Britain and Northern Ireland

90. Aoife O'Mahony, MGCY, United Kingdom of Great Britain and Northern Ireland

91. Omo Oaiya

92. Angela Okune, Code for Science and Society, United States of America

93. Esther Orozco, Embassyof Mexico in France, Mexico

94. Nora Papp

95. Alison Parker, The Wilson Center

96. Louise Poissant, FRQSC, Canada

97. Vanessa Proudman, SPARC Europe

98. Aimeé Pujadas Calvel, Permanent Delegation of Cuba to UNESCO, Cuba

99. Fatma Rebeggiani, German Commission for UNESCO, Germany

100. Claire Redhead, Open Access Scholarly Publishers Association (OASPA)

101. Eloy Rodrigues, COAR

102. Jan Philipp Röer

103. Madiha Rohi, Government College Women University, Faisalabad, Pakistan

104. Fernanda Rollo, CFE University of Coimbra and NOVA University of Lisbon, Portugal

105. Johan Rooryck, Coalition S, Belgium

106. Laura Rovelli, CLACSO, Argentina

107. Christian Rutz, University of St Andrews, United Kingdom of Great Britain and Northern Ireland

108. Santiago Saint Pierre, Argentina

109. Abdelgadir Salih

110. Valerian Sanga, Tanzania Open Science Hardware (TanzaniaOSH), Tanzania

111. Kathleen Shearer

112. Xuesong Shen, Permanent Delegation of the People's Republic of China to UNESCO, China

113. Jadranka Stojanovski, University of Zadar / Ruđer Bošković Institute, Croatia

114. Megha Sud, ISC, France

115. Madiareni Sulaiman, BRIN

116. Zarena Syrgak Kyrgyzstan

117. Greg Tananbaum, Open Research Funders Group (ORFG), United States of America

118. Emmy Tsang, Invest in Open Infrastructure, Netherlands

119. Caitlin Turner, Open Research Funders Group (ORFG), United States of America

120. Yusuke Umeda, Permanent Delegation of Japan UNESCO, Japan

121. Astrid Verheusen, LIBER, Netherlands

122. André Le Doux Wamba

123. Uta When, IHE Delft Institute for Water Education, Netherlands

124. Ning Xu, Permanent Delegation of the People's Republic of China to UNESCO, China

125. Tetyana Yefimenko, DNNU "Academy of Financial Management",Ukraine

126. Victoria Haustova, DNNU "Academy of Financial Management", Ukraine