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Subject: Research assessment and implementation of Open Science
- Council conclusions (adopted on 10 June 2022)

Delegations will find in annex the Council conclusions on “Research assessment and implementation of Open Science”, adopted by the Council at its 3877th meeting held on 10 June 2022.

COUNCIL CONCLUSIONS ON RESEARCH ASSESSMENT AND IMPLEMENTATION
OF OPEN SCIENCE

THE COUNCIL OF THE EUROPEAN UNION,

RECALLING

- its conclusions of May 2016 on the transition towards an Open Science system¹, which acknowledged 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 more accurate, better understandable by society and responsive to societal challenges and encouraged to further develop the assessment of scientific quality;
- its conclusions of December 2020² on the New European Research Area, which highlighted that Open Science has a crucial role to play in boosting impact, quality, efficiency, transparency and integrity of R&I; which encouraged the Commission, Member States and stakeholders to support and implement Open Science practices in their reward and evaluation systems for research, researchers and institutions; and which recognised that bibliodiversity, multilingualism and the acknowledgement of all scientific output are relevant elements of an ERA policy on Open Science;
- its conclusions of 28 May 2021 on Deepening the European Research Area: Providing researchers with attractive and sustainable careers and working conditions and making brain circulation a reality³, which underlined the difficulties of the current reward and assessment practices, and invited Member States, the Commission, research performing and funding organisations to work towards its reform and the need to evolve towards a more qualitative assessment;

¹ 9526/16.
² 13567/20.
³ 9138/21.

- Council Recommendation (EU) 2021/2122 of 26 November 2021 on a Pact for Research and Innovation in Europe⁴, which recommends that Member States apply the principle of pursuit of excellence in the research assessment system and reward quality accordingly, and sets out as an ERA priority area for action supporting and rewarding a true open science culture across the Union;
 - its conclusions of 26 November 2021 on the Future governance of the European Research Area (ERA)⁵, in particular the ERA Policy Agenda 2022-2024, which set out a catalogue of voluntary ERA actions to contribute to the priority areas defined in the Council Recommendation on a Pact for Research and Innovation in Europe;
1. TAKES NOTE of the recommendations made in Commission Recommendation (EU) 2018/790 of 25 April 2018 on access to and preservation of scientific information⁶, the European Commission’s advisory group Open Science Policy Platform’s final report on ‘Progress on Open Science: Towards a shared research knowledge system’⁷, the ERAC ‘Triangle Task Force’ guideline paper on ‘Research evaluation in a context of Open Science and gender equality’⁸, which identifies several recommendations regarding research evaluation systems, as well as the UNESCO Recommendation on Open Science adopted in November 2021, which recommends a reform of the research assessment system⁹, and the outcome of consultation of stakeholders as laid down in the Commission scoping report ‘Towards a reform of the research assessment system’¹⁰;

⁴ OJ L 431, 2.12.2021, p. 1.

⁵ 14308/21.

⁶ OJ L 134, 31.5.2018, p. 12.

⁷ [Progress on open science - Publications Office of the EU \(europa.eu\)](https://european-council.europa.eu/media/e3000000/1/press/pr180001_en.pdf)

⁸ 1201/21.

⁹ [UNESCO Recommendation on Open Science - UNESCO Digital Library](https://unesco.org/en/unesco-digital-library)

¹⁰ Towards a reform of the research assessment system: scoping report - <https://op.europa.eu/en/publication-detail/-/publication/36ebb96c-50c5-11ec-91ac-01aa75ed71a1/language-en>

2. ACKNOWLEDGES that in order to accelerate the implementation and the impact of Open Science policies and practices across Europe, action has to be taken to move towards a renewed approach to research assessment, including incentive and reward schemes, to put in place a European approach in accordance with the Pact for Research and Innovation in Europe, and strengthen capacities for academic publishing and scholarly communication of all research outputs, and encourage where appropriate, the use of multilingualism for the purpose of wider communication of European research results;

I. Reform of research assessment systems in Europe

3. ACKNOWLEDGES that research assessment systems should focus on quality and impact, and RECALLS that the current research assessment systems are nowadays to a great extent too focused on the use of some quantitative journal- and publication-based indicators and the evaluation of a narrow range of research outputs; CONSIDERS that such an approach may lead to negative biases in terms of research quality, reproducibility and integrity; STRESSES that research assessment should include other research outcomes and processes and promote early knowledge sharing and collaboration to accelerate the implementation of Open Science policies and practices;
4. UNDERLINES that, while many research funding and performing organisations, as well as research assessment authorities, are taking steps to improve the way they assess research and researchers, change remains slow, uneven and fragmented across Europe, and therefore REITERATES the need to advance in a concerted effort towards reforming the various research assessment systems and practices for research, researchers, research teams and institutions to improve their quality, openness, performance and impact; furthermore, EMPHASIZES that applying Open Science principles should be appropriately rewarded in researchers' careers;

5. STRESSES that such a joint approach must be designed in an inclusive and collective way, since many actors at different levels are concerned, and HIGHLIGHTS that a European initiative may facilitate the coordination of changes to research assessment systems, taking into account national specificities and the characteristics of different research disciplines;
6. STRESSES that the transformation of research assessment systems should encompass the assessment of individual researchers, of research teams, research organisations and higher education institutions, of research infrastructures, of research outputs and projects, and that it is important to avoid contradictions between different assessment layers;
7. CONSIDERING the fact that the peer-reviewing principle of research assessment plays an important role for reliable and excellent science, and that researchers are themselves acting as reviewers and evaluators in many settings; UNDERLINES that researchers themselves should be at the core of this evolution, since it is of utmost importance that they support and implement the improved principles for research assessment and that they receive appropriate training for this task, in order to ensure broad adoption of the changes by the scientific community; in this respect, BELIEVES that researchers of all career stages should take an active role in the renewed approach to research assessment and in applying Open Science principles and practices;
8. SUGGESTS that the evolution of the research assessment systems in Europe should be guided by the following principles, while respecting the autonomy of research institutions and the freedom of scientific research, as well as the diversity of national and disciplinary contexts, and taking into account their consistency with international initiatives:
 - a. moving to a more balanced approach between the quantitative and the qualitative evaluation of research, by strengthening the qualitative research assessment indicators while developing the responsible use of quantitative indicators;

- b. recognising all forms of research and innovation output and processes, including *inter alia*, datasets, software, codes, methodologies, protocols and patents, and not only publications; STRESSES that data should be findable, accessible, interoperable and reusable, in line with the FAIR principles;
 - c. taking into consideration diverse career pathways and all research and innovation activities, including mentoring, leadership roles, entrepreneurship, data management, teaching, knowledge valorisation, industry-academia cooperation, support for evidence-informed policy making, interaction with society, including citizen science and public engagement;
 - d. taking into consideration the specificities of the various research disciplines, the range from basic to applied research, the stages of research careers and the missions of research institutions;
 - e. ensuring that ethics and integrity are accorded the highest priority and are not compromised by counter-incentives;
 - f. ensuring diversity, gender equality, and actively promoting women in science;
9. WELCOMES the European initiative which has launched a dialogue with stakeholders at European level in order to collect views on research assessment systems, and which aims to facilitate the establishment of a broad coalition of stakeholders willing to develop and implement changes, on a voluntary basis, through an agreement to foster concrete actions to reform research assessment systems;
10. TAKES NOTE OF the ‘Paris call on research assessment’ published on the occasion of the Open Science European Conference in February 2022¹¹, which invites all stakeholders to become involved in the coalition;

¹¹ [Paris Call – OSEC 2022](#)

11. ENCOURAGES Member States to promote the reform of the research assessment system at national and regional level, in close collaboration with researchers, while respecting the autonomy of research organisations, on the basis of the above-mentioned principles;
12. INVITES Member States to encourage research funding organisations and assessment authorities, universities and other relevant higher education institutions, research and technology performing organisations, as well as institutions which carry out assessment tasks, to join the European initiative and to promote appropriate guidance and support at national level;
13. RECOGNISES the need to ensure the sharing of best practices at European and national level in order to implement changes to the research assessment systems, and INVITES the Commission, together with the Member States, to carry out an analysis of legal and administrative barriers at EU, national and transnational level for a renewed research assessment system, to propose actions for removing identified barriers and to support the exchange of practices and mutual learning at European level;
14. INVITES the Member States, the Commission and stakeholders to promote independence, openness, reproducibility and transparency of the data and criteria necessary for research assessment and for determining research impacts; CONSIDERS that data and bibliographic databases used for research assessment should, in principle, be openly accessible and that tools and technical systems should enable transparency;
15. CONSIDERS that European Universities alliances and other relevant stakeholders could serve as a testbed for the transformation of research assessment systems; ENCOURAGES them to launch pilot projects to establish assessment procedures in line with the above-mentioned principles on a voluntary basis; INVITES the Commission and the Member States to promote framework conditions supporting relevant stakeholders, including European Universities alliances, to this end;

16. STRESSES that the transformation of research assessment systems is a key component of the attractiveness of research careers and INVITES the Commission and the Member States to include research assessment principles in the development of the European Framework for research careers, the revision of the European Charter for Researchers and the Code of Conduct for the recruitment of researchers, as well as the future establishment of the ERA Talent Platform;

II. European approach and capacities for academic publishing and scholarly communication

17. UNDERLINES that it is in the interest of European citizens and the European economy to ensure a transparent and competitive market that enables private companies, including small and medium-sized enterprises (SMEs), as well as publicly funded organisations such as universities, research organisations and learned societies, to contribute to, and benefit from, a shared research knowledge system; INVITES the Commission to work on improving a regulatory framework so that it enables unimpeded access to and reuse of publicly-funded research results, publications and data for research purposes and minimises administrative burden on research infrastructures and services;
18. UNDERLINES that the COVID-19 crisis has highlighted the benefits of Open Science and of immediate open access to research publications, enabling quicker ways of vetting the quality thereof, and of further expanding open access modalities, which has been key to developing rapid responses to the crisis by permitting quick access to new research results to combat the disease; RECOGNISES that the crisis has also highlighted the benefits of increased access to research data based on the FAIR principles;

19. NOTES with concern the financial burden on research institutions and Member States' budgets arising from the increasing volume of expenditure for access to scientific publications and for open access publishing and TAKES NOTE in this context of strategies which aim to contain expenditures, such as the actions taken on this issue by Coalition S or Open APC, and which aim to ensure transparency as well as fair and equal conditions in contracts with publishers;
20. UNDERLINES that it is key for the Union and its Members States to establish a common approach in terms of shared principles for academic publishing and scholarly communication, since this is an issue of knowledge development and dissemination, sovereignty and proper use of public funds, and that the Union and Member States need to develop their capacities for academic publishing in proper coordination with all existing and future public and private stakeholders in this field, while paying attention to the specific challenges of each scientific discipline, including the humanities and social sciences;
21. WELCOMES the setting up of Open Research Europe, the open access publishing platform established by the Commission, as well as similar platforms and open access university presses established by both public and private research funders within the European Union and beyond, as well as dedicated research infrastructures such as OpenAIRE (Open Access Infrastructure for Research in Europe) and OPERAS (Open scholarly communication in the European Research Area for social sciences and humanities); INVITES Members States and research funding organisations to consider joining the Open Research Europe initiative in order to improve its quality and attractiveness or, if this is not possible, to consider setting up their own open access publishing platforms, if necessary;

22. UNDERLINES that the diversity of business models for open access journals and platforms should be encouraged; CONSIDERS that the authors of research publications or their institutions should retain sufficient intellectual property rights to ensure open access, leading to broader dissemination, valorisation and reuse of results improving the fair balance of the publishing business models; STRESSES that subscription fees as well as open access publication fees when applied, should be transparent and commensurate with the publication services; CONSIDERS that the publication of any research output should be based on the assessment of its quality, and that any potential bias, inter alia due to expenditure capacities, at researcher or organizational level should be tackled, and INVITES the Commission to work on that;
23. ASKS the Commission to monitor, together with Member States, the development and diversity of scientific publishing in Europe and the practices and costs of scholarly publications, including the transparency of billing costs, taking stock of and sharing existing best procedures developed at national level, and, wherever possible, disclosing the findings, and to this end ENCOURAGES Member States or, where appropriate, research organisations, in cooperation with the Commission, to take concrete measures against the proliferation of insufficiently transparent contractual arrangements in their interactions with publishers;
24. CONSIDERS that some Open Science practices such as open peer-review and early publication of preprints are very promising but challenging, and should be further promoted within a coherent framework and be based on rigorous integrity principles and practices, as they allow quicker dissemination of research results and quicker ways of vetting the quality thereof;
25. NOTES in this respect the need to increase the reproducibility of research results since this contributes to higher quality, a more efficient research processes, more trustworthy results, more effective translation into innovations, and higher return on investments in research as well as the promotion of public trust in science and evidence-informed policy making;

26. TAKES NOTE of the ERAC recommendations¹² related to Open Science and integrity, including the issue of preprint practices, and INVITES Member States to support research organisations in developing coherent guidelines on this issue;

III. Development of multilingualism for European scholarly publications

27. EMPHASISES that one of the main goals of Open Science is to increase the dissemination and impact of scientific research results; NOTES that English has become the lingua franca for international scientific cross-border collaboration and for communication in many scientific communities; CONSIDERS that reaching non-academic audiences may require dedicated publishing formats, written in less technical language, and ACKNOWLEDGES the important role of multilingualism in the context of science communication with society, in particular on the national and regional levels; in this respect, WELCOMES initiatives to promote multilingualism, such as the Helsinki initiative on multilingualism in scholarly communication¹³;
28. NOTES that in the context of the COVID-19 crisis, the necessity of having access to new and reliable research results was key, and that access to this new knowledge in different European languages can contribute to enhancing the dissemination of research results in the media, as well as among public and private organisations, public and private professionals, and citizens;
29. AGREES that the voluntary dissemination of scholarly publications in more than one language should not be in the remit of the responsibility of individual researchers nor be in contradiction with researchers' customs and traditions, nor with the need to publish in specific languages depending on the disciplines;

¹² 1207/21.

¹³ *Helsinki Initiative on Multilingualism in Scholarly Communication*, 2019 - doi.org/10.6084/M9.FIGSHARE.7887059

30. WELCOMES the promising developments that have recently emerged in the area of automatic translation thanks to the progress of artificial intelligence and CONSIDERS that the semi-automatic translation of scholarly publications within Europe may have major potential in terms of market creation for this new technology and is also an important issue of sovereignty;
 31. INVITES the Commission and the Member States to experiment with multilingualism, on a voluntary basis;
 32. CALLS ON the Commission to inform the Council on the progress made on the three sections of these conclusions by the end of 2023, in order to assess the need for further action if necessary.
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