Towards a Reform of the Research Assessment System

Produced by

European Commission Directorate-General for Research and Innovation Directorate A — ERA & Innovation Unit A.4 — Open Science

Summary

Assessment of research quality and impact, and of researchers' performance, is fundamental to selecting research proposals to fund, to deciding which researchers to recruit, promote or reward, and to identifying which research units and institutions to support. The research process is undergoing digital transformation, and is becoming less linear and more collaborative and open, and more multidisciplinary with a larger diversity of outputs. At the same time, the current research assessment system often uses inappropriate and narrow methods to assess the quality, performance and impact of research and researchers. Notably, the quantity of publications in journals with high Journal Impact Factor and citations are currently the dominant proxies for quality, performance and impact. Many research funding and performing organisations are already taking steps to reform and improve the way they assess research and researchers, but progress remains slow, uneven and fragmented across Europe. From March to November 2021, the European Commission consulted European and international stakeholders on how to facilitate and speed up reform so that the quality, performance and impact of research and researchers are assessed on the basis of more appropriate criteria and processes. The consultation identified objectives and outlines of a reformed research assessment system, with principles and actions that could be agreed between research funding and research performing organisations, as they have the responsibility to define their criteria and processes to assess their researchers and research projects. The proposed way forward consists of a European agreement that would be signed by individual research funding organisations, research performing organisations and national/regional assessment authorities and agencies, as well as by their associations, all willing to reform the current research assessment system. The aim is for research and researchers to be evaluated based on their intrinsic merits and performance rather than on the number of publications and where these are published, promoting qualitative judgement with peer-review, supported by a more responsible use of quantitative indicators. The way in which the system is reformed should be appropriate for each type of assessment: research projects, researchers, research units, and research institutions. A reformed system should also be sufficiently flexible to accommodate the diversity of countries, disciplines, research cultures, research maturity levels, the specific missions of institutions, and career paths. The agreement would confirm the commitment of the signatories to changes, along commonly agreed objectives, principles and actions. It would offer a space for individual institutions to test changes, for mutual learning, and to more safely and efficiently engage in reforms. An implementation plan would be established by the signatories, including deliverables, milestones and timeframes, in order to translate the commitments into effective changes. Measures for monitoring the progress made and for exchanging information would also be agreed among the signatories to ensure that commitments translate into tangible changes, and to ensure mutual learning for evidence-based changes. Researchers would need to be closely associated to the implementation and monitoring processes.

Definitions used

Research assessment:

The processes to "decide on the career progression of individual researchers, on the allocation of funding to research proposals, or to evaluate the performance of research institutes and universities". (Science Europe position statement and recommendations on research assessment processes, July 2020)

Responsible research assessment:

"An umbrella term for approaches to assessment which incentivise, reflect and reward the plural characteristics of high-quality research, in support of diverse and inclusive research cultures". (The changing role of funders in responsible research assessment: progress, obstacles & the way ahead, November 2020)

Academic assessment:

"The entire catalog of methods that are used to evaluate the outputs and impacts of academic activities for the purposes of recruitment and career progression (...), the performance of academic units, and applications for funding within institutional or national systems. While discussions on responsible practices were initially limited to "research" assessment, the scope of the

debate has since been broadened to include the incentives and rewards available for all academic activities, i.e., education, research, and innovation in service to society". (Reimagining academic career assessment: Stories of innovation and change, January 2021)

Open science:

"Open science is defined as an inclusive construct that combines various movements and practices aiming to make multilingual scientific knowledge openly available, accessible and reusable for everyone, to increase scientific collaborations and sharing of information for the benefits of science and society, and to open the processes of scientific knowledge creation, evaluation and communication to societal actors beyond the traditional scientific community. It comprises all scientific disciplines and aspects of scholarly practices, including basic and applied sciences, natural and social sciences and the humanities, and it builds on the following key pillars: open scientific knowledge, open science infrastructures, science communication, open engagement of societal actors and open dialogue with other knowledge systems". (UNESCO recommendation on open science, November 2021)