RESEARCH CULTURE:
PERSPECTIVES FROM ACROSS THE EUROPEAN RESEARCH AREA

James Morris
Science Europe

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UCD Dublin

https://scienceeurope.org

01 FWF Der Wissenschaftsfonds.
02 fnrs
03 fwo Research Foundation Flanders
04
05 HRZZ Croatian Science Foundation
06 GAČR Czech Science Foundation
07 Independent Research Fund Denmark
08 Danmarks Grundforskningsfond Danish National Research Foundation
09 Eesti Teadusagentuur Estonian Research Council
10 Academy of Finland
11 anr agence nationale de la recherche
12 DFG Deutsche Forschungsgemeinschaft
13 Max Planck Gesellschaft
14 ELKH Eötvös Loránd Research Network
15 rannís
16 HRB Health Research Board
17 Irish Research Council
18 Science Foundation Ireland Sfi For what's next
19 INFN Istituto Nazionale di Fisica Nucleare
20 Latvian Council of Science
21 Lietuvos mokslo taryba
22 Luxembourg National Research Fund
23 NWO
24 The Research Council of Norway
25 FNP Foundation for Polish Science
26 National Science Centre
27 FCT Fundação para a Ciência e a Tecnologia
28 uefiscdi
29 Slovak Research and Development Agency
30 arrs Slovenian Research Agency
31
32 CSIC
33 isc Instituto de Salud Carlos III
34 FORTE Swedish Research Council for Health, Working Life and Welfare
35 FORMAS
36 Vetenskapsrådet
37 Swiss National Science Foundation
38 UK Research and Innovation

RESEARCH FUNDING ORGANISATION
RESEARCH PERFORMING ORGANISATION

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Science Europe's Mission & Strategy

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MISSION

Define long-term perspectives for European research and champion best-practice approaches, ensuring high quality science for the benefit of humanity and the planet.

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https://scieur.org/strategy

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What do we mean by research culture?

https://royalsociety.org/topics-policy/projects/research-culture/changing-expectations/visions-of-2035/

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What do we mean by research culture?

...a broad topic that can encompass the behaviours, values, expectations, attitudes, and norms of research systems.

Research culture is an important consideration for all policies and practices that related to the research sector.

https://royalsociety.org/topics-policy/projects/research-culture/

Why is research assessment important?

Research assessment represents a core activity of Research Funding and Research Performing Organisations. It shapes many aspects of the research landscape and exerts influence over how research is performed and disseminated.

Research Assessment has been a long-standing priority topic of Science Europe, explored through various topics including: Research Impact (2017), Peer Review (2015 and 2018), and Gender Equality (2017) among others

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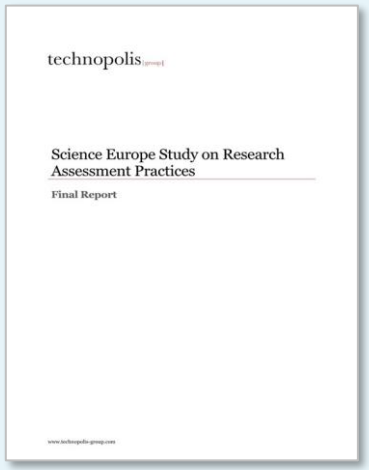
Why is research assessment reform needed?



Science Europe Study on Research Assessment Practices (2019)
DOI: 10.5281/zenodo.4915998

Objective - to study how Science Europe Member Organisations (and invited external organisations) **select the best projects for funding and researchers for career progression** through their assessment processes, and whether these processes are **fair, transparent, effective, and efficient.**

Engagement

Organisation type	Response rate
Members	86% (32/37)
Non-members	86% (6/7) *
RFOs	97% (33/34)
RPOs	50% (5/10)
Total	**86% (38/44)**

* Participating external organisations: European Research Council (EU), Weizmann Institute of Science (IL), Wellcome (UK), Czech Academy of Science (CZ), National Institute of Health (USA), and European Molecular Biology Organisation (DE)

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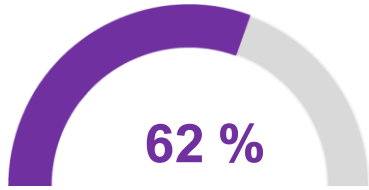
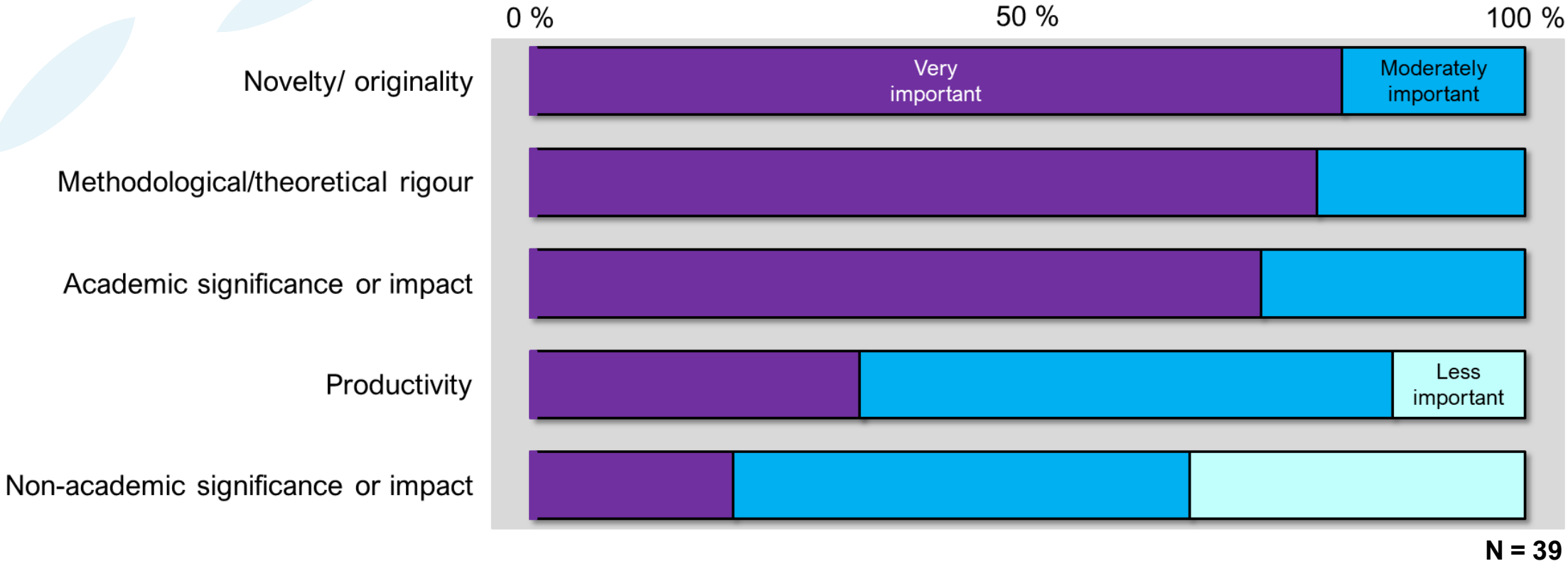
Question - How do organisations understand research quality?



of organisations do not have a formal definition of research quality



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DOI: 10.5281/zenodo.4915998

Question – What challenges face research organisations in the implementation of research assessments?

1. Research organisations describe the need for **continued effort in combating all forms of bias, discrimination, and unfair treatment**

2. Pressure exerted on assessment systems by **limited funds** and/or positions makes distinguishing and ranking proposals/applicants of **similar quality** (particularly around funding thresholds) more difficult.

3. The **cost and efficiency** of assessment systems is a major challenge (particularly for those that have moved towards more **qualitative assessments**).

4. Balancing the **effort and time burden of both applicants and reviewers** was also a common challenge described.

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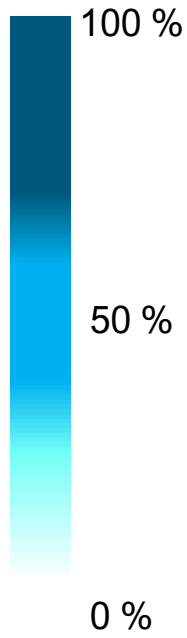
DOI: 10.5281/zenodo.4915998

Question – What author-level approaches/tools are used by the reviewers? … and how important are they?

	Currently using *	Used in the past *	Never used but considering using in the future	Never used and not considering using in the future	*Very important	*Moderately important	*Less important
Cumulative no. citations	10 (31%)	5 (16%)	1 (3%)	16 (50%)	5 (33%)	5 (33%)	0 (0%)
H-Index	11 (34%)	7 (22%)	0 (0%)	14 (44%)	6 (33%)	3 (17%)	2 (11%)
No. highly cited publications	14 (40%)	5 (14%)	2 (6%)	14 (40%)	9 (47%)	5 (26%)	0 (0%)
No. publications high-ranking journals	17 (50%)	8 (24%)	0 (0%)	9 (26%)	12 (48%)	5 (20%)	0 (0%)
Altmetrics scores	2 (7%)	0 (0%)	9 (30%)	19 (63%)	1 (50%)	0 (0%)	1 (50%)
Qualitative assessment of research output	26 (81%)	0 (0%)	2 (6%)	4 (13%)	21 (81%)	4 (15%)	1 (4%)



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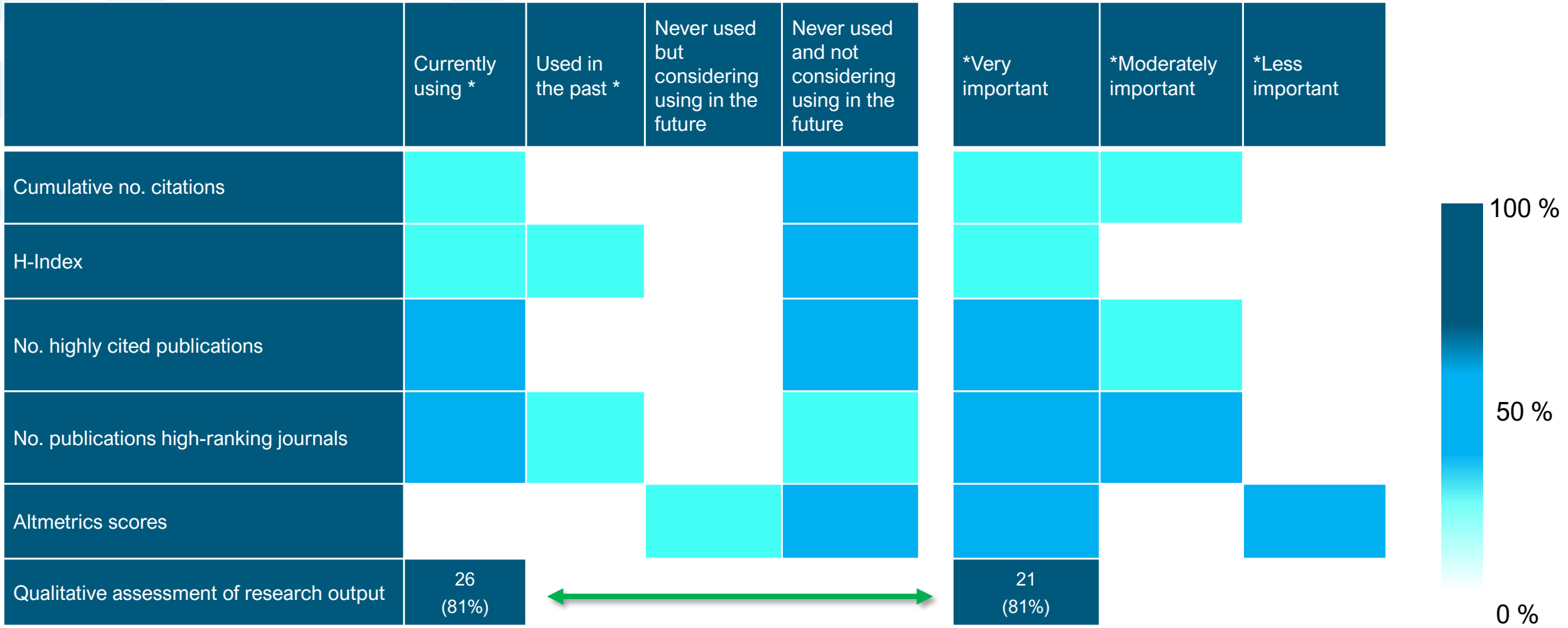

Qualitative assessment is used by most and deemed very important

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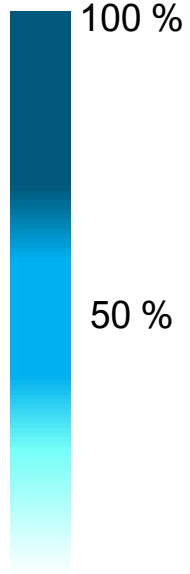
Altmetrics scores							
Qualitative assessment of research output							

There is a split in organisation approaches to the use of tools



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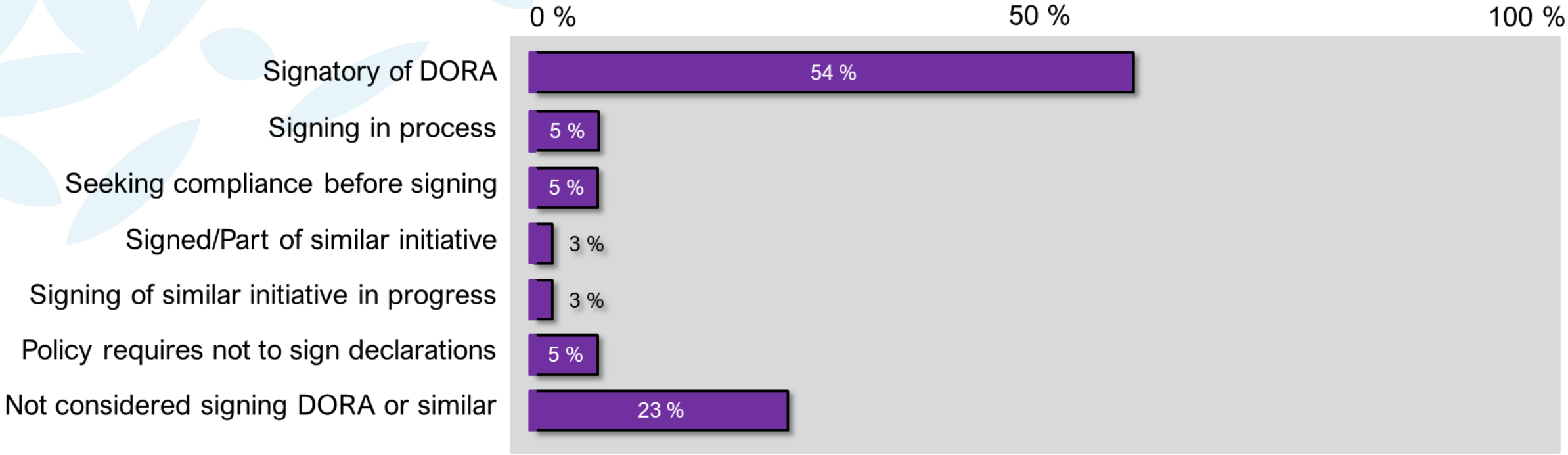
DOI: 10.5281/zenodo.4915998

Question – Has your organisation joined/supported any initiatives related to research assessment?



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A shift in reducing reliance on quantitative metrics may be partly driven by community-level actions and declarations and initiatives

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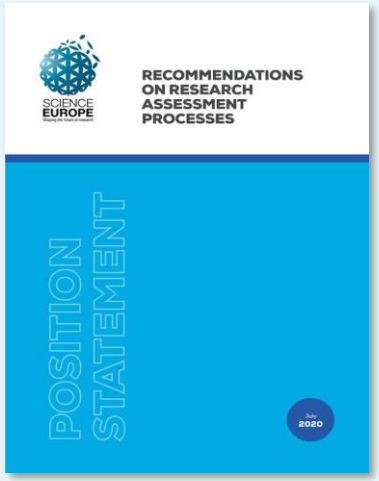

Science Europe Position Statement on Research Assessment Practices (2020)
DOI: 10.5281/zenodo.4916155

TRANSPARENCY
Assessment processes must be clear and transparent at all stages

EVALUATING ROBUSTNESS
Assessment processes should be monitored and evaluated, and best practices shared

BIAS, DISCRIMINATION & UNFAIR TREATMENT
Research organisations should publicly show how they address bias, discrimination and unfair treatment

COST, EFFICIENCY & APPLICANTS' EFFORT
Assessment processes should be streamlined and standardised to improve efficiency for all involved

BROADENING THE POOL OF REVIEWERS
Research organisations should consider broader selection criteria for reviewers and suitably recognise their work

QUALITATIVE ASSESSMENTS
Assessment processes should enable evaluations to focus on content and consider a wide range of research outputs and activities

NOVEL APPROACHES
Research organisations should consider novel approaches to assessments in an evidence-based manner and share their experiences

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Study & Recommendations summary

Assessment processes implemented by research organisations are mostly seen as effective, but with many known issues and challenges.

In the face of the many challenges expressed, from bias mitigation, to inefficiencies, and limited funding/over-competition, changes to policies and practices are periodically made and appraised.

Changes to assessment processes take place slowly and incrementally.

Many good practices exist, and Science Europe's recommendations on research assessment processes offer a current gold standard model.

However, the system is under a lot of strain, and **broader reform, at all levels, (including of assessment criteria) is needed.**

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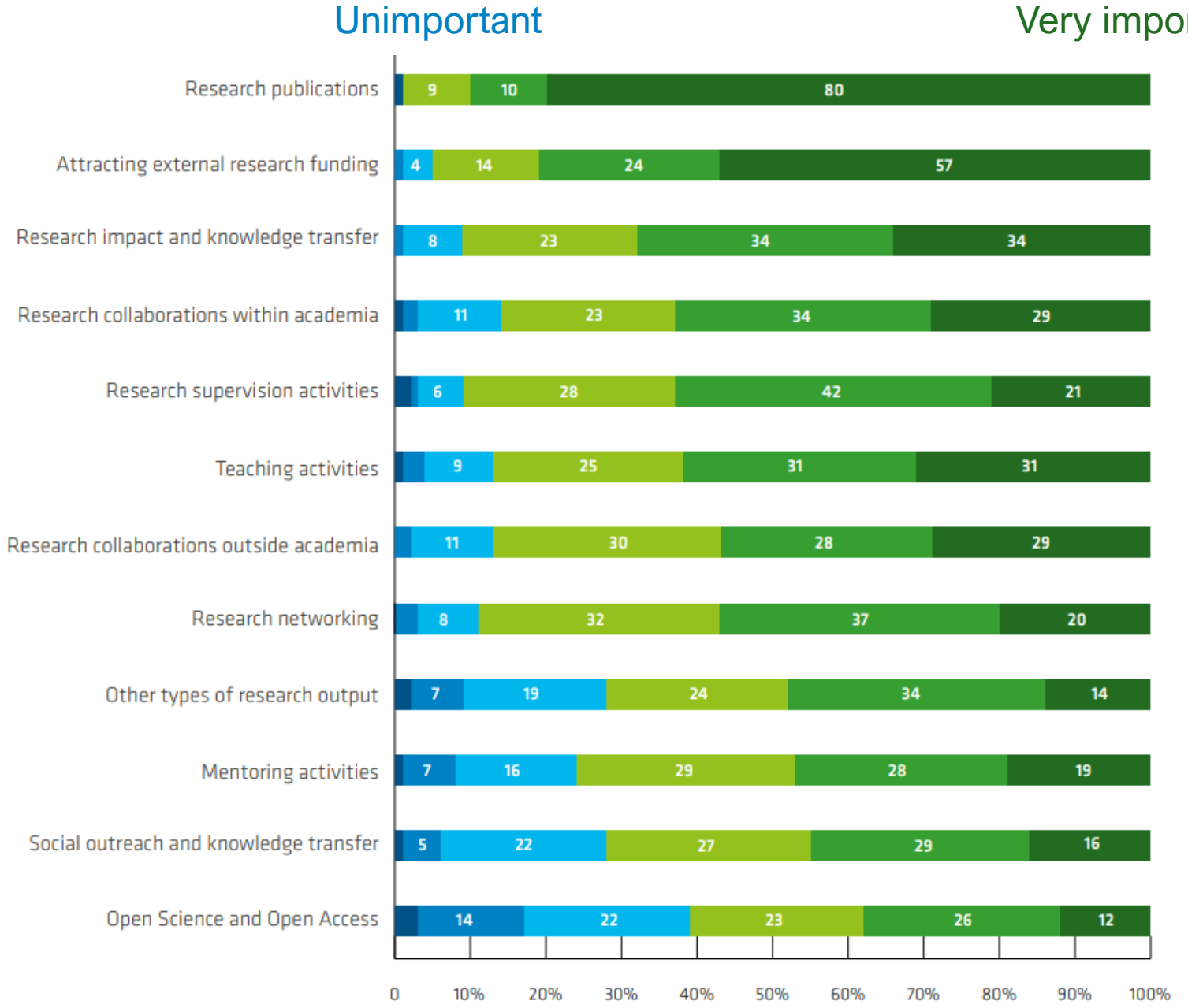
https://scieur.org/assessment



https://eua.eu/resources/publications/888:research-assessment-in-the-transition-to-open-science.html

Common understanding of the challenges and opportunities:

DORA

LEIDEN MANIFESTO FOR RESEARCH METRICS

OSF

science in transition

HONG KONG PRINCIPLES

The Metric Tide

inorms

RoRI Working Paper No.3
The changing role of funders in responsible research assessment:

...

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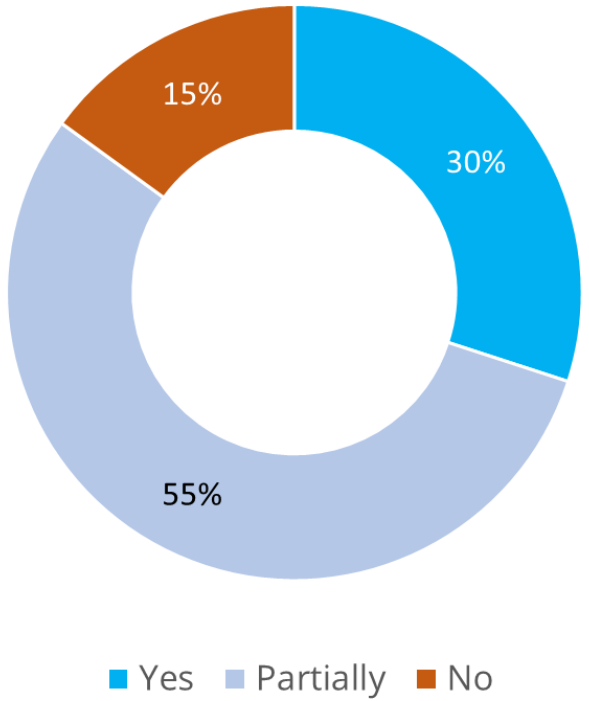
Science Europe's 2021 Scoping Study on Research Culture

Question - Does your organisation have a working definition and/or position on research culture?



https://www.scienceeurope.org/our-priorities/research-culture/scoping-questionnaire-on-research-culture/

N = 20

Science Europe's 2021 Scoping Study on Research Culture

Question - Describe elements of an ideal culture of the national research system of which your organisation is a part?

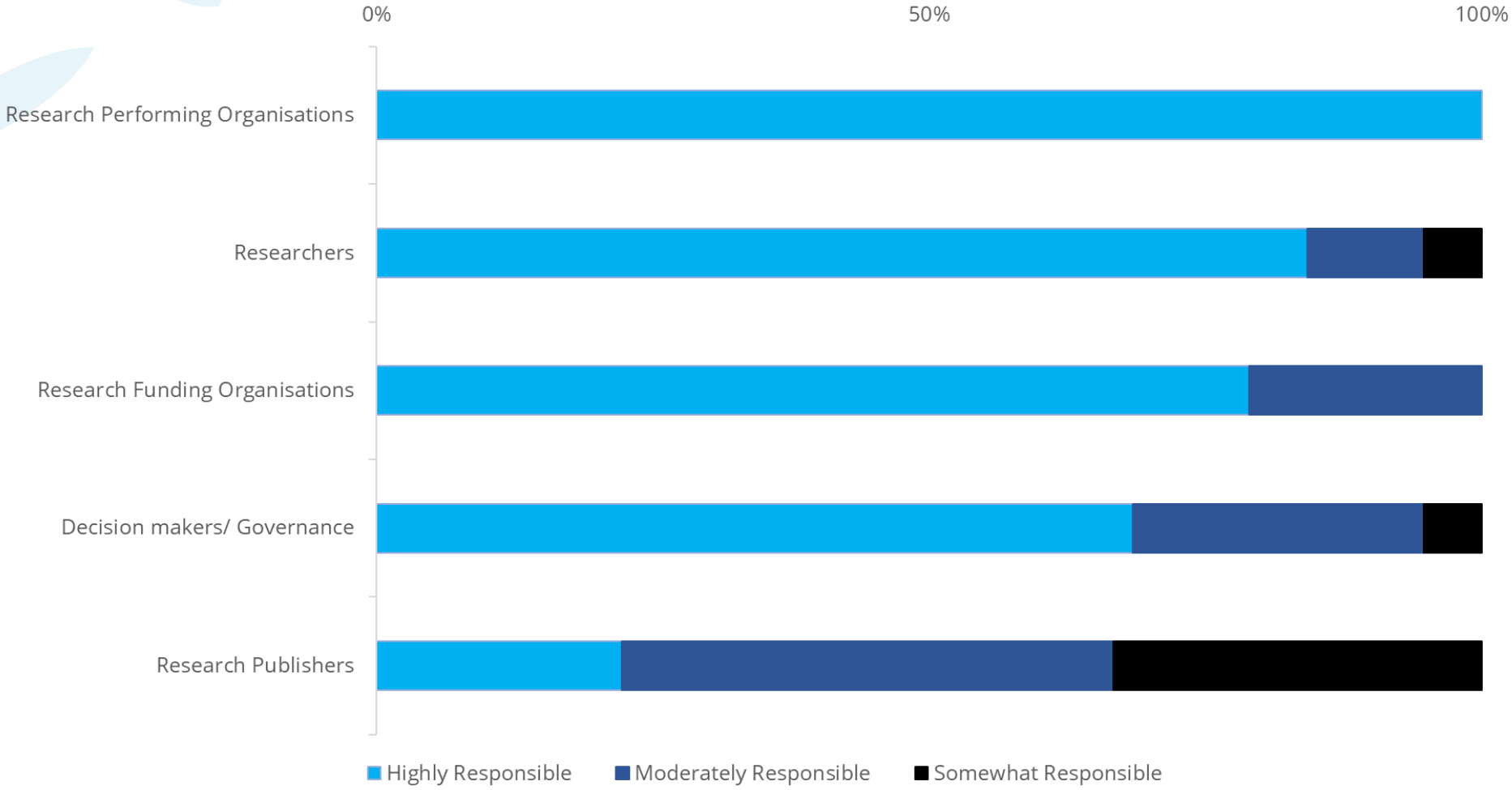
Free text answers converted and collated into keyword groups:

https://www.scienceeurope.org/our-priorities/research-culture/scoping-questionnaire-on-research-culture/

N = 20

Science Europe's 2021 Scoping Study on Research Culture

Question - Incentives to drive research culture change should come from which organisational levels?



https://www.scienceeurope.org/our-priorities/research-culture/scoping-questionnaire-on-research-culture/

N = 18

Science Europe's commitment to Research Culture

"We envisage a research culture in the European Research Area where a) **all participants** in the research endeavour are **appropriately recognised** for their **diverse contributions**, b) the **broad skills and competencies** of researchers are fostered and supported by **suitable training**, **appropriate infrastructure**, and **responsible management and governance**, c) **research integrity** and **high ethical standards** are promoted effectively, and d) careers in research are **attractive and sustainable.**"

Science Europe Statement (Nov 2021)
DOI: 10.5281/zenodo.5726893

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https://royalsociety.org/topics-policy/projects/research-culture/

A shared Values Framework

- Values underpin research culture and lie at the centre of the research system.
- They underlie research processes and outcomes as well as research management and governance.
- Despite their central influence, **these values are often presumed and unwritten.**
- Science Europe decided to create a shared reference point and set a foundation for appraisal and adaptation of research policies and practices: in doing so, contributing to the evolution of research culture.
  - Framework is a guide, and should be consider flexible to reflect individual needs and accommodate a diversity of practices, pathways, and cultures.
- Shifting policy and practice to those that better reflect our shared values requires a solid evidence base that can support change, and a constant dialogue with all stakeholders.

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https://scieur.org/values-frame

A shared Values Framework

https://scieur.org/values-frame

Reform of Research Assessment Initiative

The Agreement sets a shared direction for changes in assessment practices for research, researchers, and research performing organisations, with the goal to maximise the quality and impact of research. It includes principles, commitments, and timeframes for reforms and lays out principles for a Coalition of organisations willing to work together in implementing the changes.

https://www.scienceeurope.org/news/rra-agreement-final

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eua EUROPEAN UNIVERSITY ASSOCIATION

European Commission

Thank you for your attention