Snapshots of Reform

Researcher Evaluation within Science Organizations

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A joint paper from the Global Young Academy, InterAcademy Partnership, and the International Science Council.

Delivered by CultureBase

Authors and Acknowledgements

About the Global Young Academy

The mission of the GYA is to give a voice to young scientists and researchers around the world. Founded in 2010, the GYA is an independent science academy of 200 outstanding early- to mid-career researchers from six continents who are selected from across disciplines based on their academic excellence and commitment to engage with society. One of the strategic aims of the GYA is to act as a facilitator of the growing global network of young academies and to support their ongoing establishment and cooperation. Its Scientific Excellence working group engages for change in the perception and measurement of scientific excellence.

About the InterAcademy Partnership

IAP is the global network of science, engineering and medical academies working together to provide independent expert advice on scientific, technological & health issues. IAP harnesses the expertise of the world's leading scientific minds to advance sound policies, improve public health, promote excellence in science education, and achieve other critical development goals. Our academy members constitute more than 30,000 leading scientists, engineers and health professionals in over 100 countries.

About the International Science Council

The ISC works at the global level to catalyse change by convening scientific expertise, advice and influence on issues of major importance to both science and society.

The ISC is an international non-governmental organization with a unique global membership that brings together 250 international scientific unions and associations, national and regional scientific organizations including academies and research councils, international federations and societies, and young academies and associations.

Foreword

In 2023 the Global Young Academy (GYA), the InterAcademy Partnership (IAP) and the International Science Council (ISC), released "The Future of Research Evaluation: A Synthesis of Current Debates and Developments." Building on this, we are pleased to present the "Snapshots of Reform Researcher Evaluation within Science Organizations" This report reflects the practices and aspirations of our respective memberships and lays the groundwork for future actions.

The conversation around research evaluation has gained momentum, emphasizing the need to move beyond traditional metrics that prioritize quantity over quality. Initiatives like the Declaration on Research Assessment (DORA) and the Coalition for Advancing Research Assessment (CoARA) have been pivotal in driving this dialogue. It has become clear that systemic change is necessary to create an environment where all researchers can thrive.

Derived from desk-based research, surveys, and interviews, this report provides insights into the current state of researcher evaluation. The diverse perspectives captured highlight both the challenges and opportunities that lie ahead, and recognize that a one-size-fits-all approach is neither feasible nor desirable.

We are encouraged by the innovative practices and pilot initiatives of our member organizations. These efforts demonstrate a willingness to experiment with new evaluation formats, such as narrative CVs and broader impact assessments, which provide a more comprehensive view of a researcher's contributions. However, the interdependencies within the researcher assessment, publication, university ranking systems and other metrics mean that change is not straightforward, and often requires a critical fraction of the researcher community to adopt change together.

The report finds that our organizations can play a role in supporting the reform of researcher evaluation through:

1.   Championing missing voices
2.   Lending the credibility needed to put reform on the agenda
3.   Supporting interventions that have reached their 'tipping point'
4.   Protecting researcher mobility within the global system
5.   Promoting the exchange of ideas and lessons

Some of these recommendations are already embedded in the core mission of our organizations, and the GYA, IAP and ISC are committed to supporting our members through this transformative period. By fostering collaboration, sharing knowledge, and advocating for policy changes, we aim to build a more robust and resilient research evaluation system.

We thank all participating organizations for their contributions. We hope the insights and recommendations presented here will be valuable to our members and beyond.

The Global Young Academy (GYA)
The InterAcademy Partnership (IAP)
The International Science Council (ISC)

Table of Contents

Executive Summary

The manner in which researchers are evaluated fundamentally shapes the entire research endeavor. It is a key driver of behavior within universities, it shapes appointments and career progression, and it is intricately tied to academic publishing and competitive funding.

The last decade has seen growing calls to reform researcher evaluation to shift the focus from quantity to quality, and value broader types of contributions. Given the role of research in advancing society, these evaluation procedures must be fit for purpose.

In 2023, CultureBase was commissioned by the Global Young Academy (GYA), InterAcademy Partnership (IAP), and International Science Council (ISC) to **map researcher evaluation practices – including criteria, policies and statements – across their networks**, to understand the status of researcher evaluation as an agenda and to inform any possible further interventions.

The combined networks of GYA, IAP and ISC include national, regional and global member academies of leading researchers, national Young Academies, young researcher networks, international scientific unions and associations, research institutes and foundations.

Our study employed a mix of methods to better understand practices around researcher evaluation among these organizations, including:

Desk-based analysis to identify researcher evaluation practices and hot-spots of change across the combined networks.

Survey distributed across the combined networks including questions on each organization's relationship with researcher evaluation, current evaluation practices, views on evaluation reform and any planned reforms to their own activities.

Semi-structured interviews with a total of 12 organizations, selected to provide a mix of perspectives from different disciplines, geographies, and levels of engagement with researcher evaluation reform.

Our evidence-gathering highlighted examples of innovative practice across the combined networks and explored cross-cutting trends including the nature of evaluation practices, challenges facing organizations, appetite for change, and levers of action.

These trends were combined to produce a typology of support needs, which groups together organizations that are facing similar challenges or share similar needs.

The evidence points towards a series of roles or success factors that are necessary within the research system if reforms to researcher evaluation are to succeed, as set out below.

Reforming researcher evaluation will require:

1. Championing missing voices
2. Lending the credibility needed to put reform on the agenda
3. Supporting interventions that have reached their 'tipping point'
4. Protecting researcher mobility within the global system
5. Promoting the exchange of ideas and lessons

Throughout the engagement with the combined networks, it was clear that a more holistic approach to researcher evaluation is needed. This needs to work for the changing nature of the research endeavor, including greater transdisciplinary research, new forms of collaboration and the pursuit of more inclusive models of working.

Successfully reforming researcher evaluation will require engaging with a diverse range of organizations, including those beyond the networks of GYA, IAP and ISC – such as universities. However, the credibility and breadth of the GYA, IAP and ISC networks means that these groups will have a pivotal role to play in this transformation.

The findings of this report are informing the next steps of GYA, IAP and ISC as they seek to support dialogue and action in this area.

Context

This report reflects on the growing dialogue – and action – around reforming research evaluation. The Declaration on Research Assessment (**DORA**)[1] published in 2013, marked an inflection point for the reform agenda, by uniting stakeholders and raising global awareness of the need for reform. Building from this base, the founding of the Coalition for Advancing Research Assessment (**CoARA**)[2] in 2022 has united over 600 organizations including research funders, research institutions, and academies across the world.

As the reform agenda has built momentum and collect allies, the dialogue has shifted away from whether reform should occur, towards how it should be delivered. However, this transition will need careful shepherding to avoid unintended consequences, such as patchwork implementation or divergent practices and measures of success. Delivering a sustainable, equitable and smooth change in practices will require engagement across the whole global research community, and the inclusion of stakeholders in the process.

Reforming research assessment: summary of the discourse

The reform agenda broadly originates from a reconsideration of the metrics used to assess researchers. Flawed measures of productivity, such as publication count[3], were replaced by metrics focused on citations or proxies such as Journal Impact Factor. However, these replacement metrics created new issues – including around what these metrics actually measure, and how they could be used fairly to compare researchers[4].

It is now understood that focusing on citation-based metrics profoundly shapes the focus and conduct of research[5] and the near-exclusive reliance on such metrics has come under intense scrutiny from initiatives including DORA. Concern about the responsible use of metrics has yielded several landmark reports and statements, including the Leiden Manifesto[6] and Metric Tide[7] which offer recommendations for the future of research evaluation. This has further reinforced appetite for reform in the use of metrics in evaluation.

More recently, the dialogue around reform has extended beyond metrics to include efforts to better recognize and reward the full range of skills needed in a research system. Traditional research evaluation often prioritizes research outputs and overlooks valuable contributions including peer-review, committee participation, outreach, and the translation of research into impact within society.[8] This has led to

1. https://sfdora.org/read/
2. https://coara.eu
3. Butler, L. Modifying publication practices in response to funding formulas. Research Evaluation 12, 39-46 (2003). https://doi.org:10.3152/147154403781776780
4. Larivière, V. & Sugimoto, C. R. in Springer Handbook of Science and Technology Indicators (eds Wolfgang Glänzel, Henk F. Moed, Ulrich Schmoch, & Mike Thelwall) 3-24 (Springer International Publishing, 2019).
5. de Rijcke, S., Wouters, P. F., Rushforth, A. D., Franssen, T. P. & Hammarfelt, B. Evaluation practices and effects of indicator use—a literature review. Research Evaluation 25, 161-169 (2015). https://doi.org:10.1093/reseval/rvv038; Moher, D. et al. Assessing scientists for hiring, promotion, and tenure. PloS Biol. 16, e2004089 (2018). https://doi.org:10.1371/journal.pbio.2004089
6. Hicks, D., Wouters, P., Waltman, L., Rijcke, S. d. & Rafols, I. The Leiden Manifesto for research metrics. Nature 520, 429-431 (2015). https://doi.org:10.1038/520429
7. Wilsdon, J. et al. The Metric Tide: Report of the Independent Review of the Role of Metrics in Research Assessment and Management. (HEFCE, 2015). https://re.ukri.org/documents/hefce-documents/metric-tide-2015-pdf/
8. Schimanski, L. & Alperin, J. The evaluation of scholarship in academic promotion and tenure processes: Past, present, and future [version 1; peer review: 2 approved]. F1000 Res. 7 (2018). https://doi.org:10.12688/f1000research.16493.1

narrow pathways of success that reduce the diversity of people and ideas in the research community, and negatively impact research. In response, initiatives such as the Recognition and Rewards program in the Netherlands have proposed new, more diverse career pathways which reward broader contributions.[9] Narrative CV formats also emerged from efforts to address this problem, offering space to describe more diverse contributions. Several universities, in and beyond the Netherlands, have since started implementing narrative CVs and diverse career paths.[10]
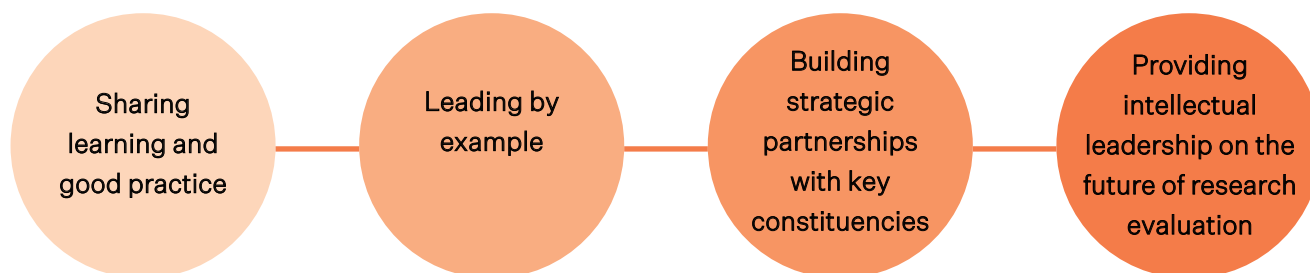
The boundaries of the reform debate have continued to expand, with links to existing discussions on topics such as equity, diversity, and inclusion, and the improved recognition of teams within research evaluation. This has crystallized into new initiatives, such as the Diversity Approach to Research Evaluation (DARE)[11] or team-based awards and prizes.[12]

The influence of university rankings on research evaluation has also come under scrutiny, with evidence that the ranking criteria are filtering down to how individuals are evaluated within universities.[13] This topic was initially given prominence by the International Network of Research Management Societies (INORMs) via their More than Our Rank initiative.[14]

The combined networks of GYA, IAP, and ISC offer a unique opportunity to understand and influence researcher evaluation. With evaluation woven into the fabric of the research system, any sustained reform must engage all parts of the research community – creating a vital role for organizations which reach across disciplines, career stages and nations.

Objectives

In June 2023, the Global Young Academy (GYA), InterAcademy Partnership (IAP), and International Science Council (ISC) published a joint discussion paper[15] on research evaluation, which recommended action in four areas:

Sharing learning and good practice

Leading by example

Building strategic partnerships with key constituencies

Providing intellectual leadership on the future of research evaluation

Building on these recommendations, CultureBase was commissioned by GYA, IAP and ISC to **map researcher evaluation practices – including criteria, policies and statements – across their combined networks,** to understand the status of researcher evaluation as an agenda and to inform any possible further interventions.

9. VSNU, NFU, KNAW, NWO & ZonMw. Room for everyone's talent. (The Hague, The Netherlands, 2019). https://vsnu.nl/recognitionandrewards/wp-content/uploads/2019/11/Position-paper-Room-for-everyone's-talent.pdf
10. https://www.ugent.be/en/work/mobility-career/career-aspects/professorial-staff/visionstatement.pdf; https://www.timeshighereducation.com/news/open-university-maps-new-routes-to-career-progression/2019410.article
11. Bone, F. et al. DARE to be different? A novel approach for analysing diversity in collaborative research projects. Research Evaluation 29, 300-315 (2020). https://doi.org:10.1093/reseval/rvaa006
12. https://www.cursor.tue.nl/en/news/2019/oktober/week-2/spinoza-prize-to-become-a-team-effort/
13. https://elephantinthelab.org/the-accuracy-of-university-rankings-in-a-international-perspective/
14. https://inorms.net/more-than-our-rank/
15. https://www.interacademies.org/publication/future-research-evaluation-synthesis-current-debates-and-developments

Boundaries of the study

Firstly, this study focused on the evaluation of researchers. Other common types of evaluation – such as of research projects, papers, departments, universities or countries – were considered out of scope. We also consciously excluded the evaluation of teaching, though we acknowledge this important facet of the role of many researchers.

We explored the topic from the perspective of the assessors, rather than those being assessed. This provided a perspective from organizations which deliver assessment, though this could be complemented by further exploration of the views of those individuals experiencing these assessment systems.

Secondly, the study focused on the combined networks of GYA, IAP and ISC, which includes national, regional and global member academies of leading researchers, national young academies, young researcher networks, international scientific unions and associations, research institutes and foundations. We recognize that these organizations are not the sole drivers of researcher evaluation, but they are a key part of the research system and need to participate in the reform movement for it to succeed.

Within these boundaries, this report adopts a broad definition of the term 'researcher', referring to those contributing to academic work regardless of discipline or career stage.

Our work has highlighted examples of innovative practice across the combined networks of GYA, IAP and ISC, and explores cross-cutting trends including:

Nature of evaluation practices	Perceived challenges	Appetite for change	Levers of action

These trends have been combined into a **typology of support needs**, describing groups across the combined networks which face similar challenges or share similar needs, with the aim of informing future steps by GYA, IAP and ISC to support their members and networks.

Evidence sources

This report draws on a mix of evidence sources, including **desk-based research**, a survey of the combined networks, and targeted interviews to explore the topic in greater detail. The project did not attempt to collect comprehensive evidence on the entire combined networks, but rather engage strategically to map common practices and identify trends.

As a first step, we conducted desk-based analysis to identify researcher evaluation practices and hot-spots of change among the combined networks, which helped inform the focal areas for the survey and interviews which followed.

As a second step, we circulated a **survey** across the combined networks including questions on their relationship with researcher evaluation, current evaluation practices, views on reform to evaluation practices, and any planned or ongoing reforms to their own activities. The survey was distributed to all 150 member academies of IAP, 251 members of the ISC, and 57 Young Academies and 15 transnational academies via GYA. We received 54 responses from organizations across a wide variety of disciplines and regions, providing a broad view of the combined networks.

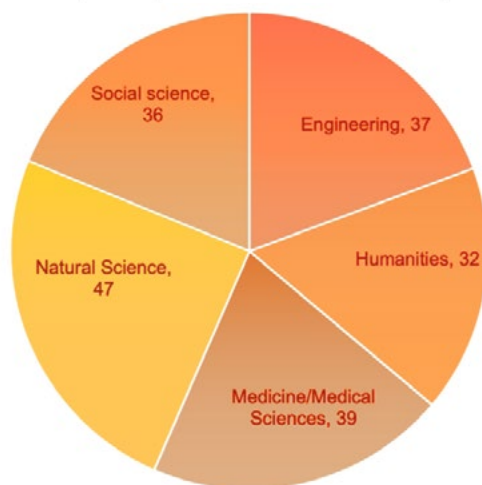**Figure 1**. Geographic distribution of survey respondents
NB: Respondents included 4 global organizations which are not included on the map

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© Australian Bureau of Statistics, GeoNames, Microsoft, Navinfo, OpenStreetMap, TomTom, Z

Respondents reflected the mix of the combined networks. Accounting for several respondents being linked to multiple organizations, 18 survey respondents were young academies or related networks, 36 were members of IAP, and 30 were members of ISC. Annex 1 offers further detail on how respondents map across the overlapping networks.

Figure 2. Disciplines of respondent organizations
Note, most respondents selected numerous disciplines

Social science, 36
Engineering, 37
Humanities, 32
Natural Science, 47
Medicine/Medical Sciences, 39

As a third step, we conducted **10 semi-structured interviews** with a total of 12 organizations selected from the survey respondents or identified in our desk-based research. Interviewees (see Annex 1) were selected to provide a mix of perspectives from different disciplines, geographies, and levels of engagement with researcher evaluation reform. Following a semi-structured discussion guide (Annex 3) each interview provided space for a conversation on the values, motivations, obstacles, and levers of action at play across the combined networks.

This report collates the findings across these three steps and illustrates the conclusions with direct examples from members.
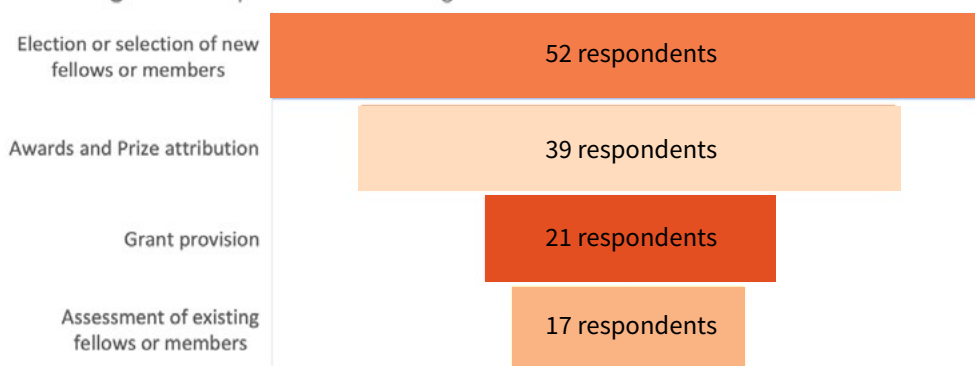
Evaluation practices

Given the range of organization types and roles across the combined networks, it is unsurprising to see substantial diversity in how members are engaging with researcher evaluation. Understanding these connection points provides valuable context when considering the motivations, obstacles, and future plans of different types of organizations.

The election or selection of new members, and the allocation of awards or prizes, are the most common contexts for researcher evaluation

We sought to understand the context in which most evaluation is occurring within organizations. Our survey responses suggested that the evaluation is primarily associated with electing or selecting new members to join their organization (52 out of the 54 respondents), but allocating awards and prizes is also a common connection point (39 respondents). A smaller proportion (21 respondents) are involved in evaluation for the purpose of awarding grants. Finally, 17 respondents mentioned that they conduct assessment of existing members, for instance when assessing renewal or extensions of membership mandates (Figure 3). Evaluation is typically focused on individuals, but some organizations are also involved in evaluating
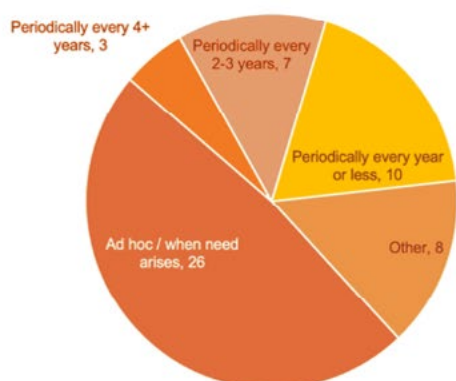
Figure 3. Purposes for which organizations conduct research assessment

Election or selection of new fellows or members	52 respondents
Awards and Prize attribution	39 respondents
Grant provision	21 respondents
Assessment of existing fellows or members	17 respondents

institutions or research groups.

Almost half (26 of 54) of survey respondents revise their evaluation processes on an ad hoc basis, while 17 do so periodically (Figure 4). Organizations involved a mix of different voices in the revision of researcher assessment process, with the most common group being leaders and senior members (e.g. fellows, senior staff) of the organization (42 respondents), as well as external reviewers (15 respondents). Only a minority

Frequency of review of researcher assessment processes

- Periodically every 4+ years, 3
- Periodically every 2-3 years, 7
- Periodically every year or less, 10
- Ad hoc / when need arises, 26
- Other, 8

Who is involved in revising researcher assessment processes

Leaders and senior members of our organization	42
External reviewers who are asked to appraise our assessment processes	15
Individuals who have been or are likely to be assessed (e.g. researchers)	8
Others	11

Number of respondents

of organizations involve individuals who have been, or are likely to be assessed (8 respondents). The survey asked whether experts or prospective members were informed of assessment criteria before being assessed. Twenty of the 44 organizations mentioned that their assessment criteria were openly shared online, and 15 mentioned that they were shared with prospective members ahead of the assessment process, while 14 organizations said they were neither online nor shared with prospective members.

Many organizations deliver their evaluation activities in collaboration with other parts of their respective research systems. For example, in the Colombian research system, the evaluation of researchers is primarily delivered by universities in the process of dividing research funding allocated to them from a national level. Here, the involvement of the **Colombian Academy of Exact, Physical and Natural Sciences** typically focusses on evaluating research projects, rather than individuals – with the majority of their researcher-focused evaluation being associated with the Academy's prizes and awards.

Recently established organizations, especially those serving early career researchers, are often 'leap frogging' traditional approaches to researcher evaluation

We see multiple examples of more recently established organizations, predominantly Young Academies, who are 'leap frogging' traditional evaluation approaches and becoming early adopters of innovative practices. This is likely helped by their ability to build evaluation processes from scratch, without working around legacy practices and perceptions. Their focus on early and mid-career researchers may also be driving the demand for innovative approaches, with wider data indicating a strong dissatisfaction among early and mid-career researchers with current evaluation systems. [16, 17, 18]

These organizations often prioritize measures of research quality, impact, or influence over quantity, which at times is placing them at odds with their wider research system.

"Our approach to researcher assessment is more liberal compared to the kind of prevailing assessment in the whole country. We don't emphasize publications, but the country emphasizes publications. So, there is a disconnect between what we do as an independent young academy and what is the norm within the country".

Zimbabwe Young Academy of Sciences (established 2013)

The **Young Academy of Spain** (established 2019) places extra emphasis on personal commitment and motivations when new fellows are introduced to the academy. Each new fellow gives an introductory lecture, but rather than focus on their career or publications, the lecture focusses on how they intend to use their membership as an opportunity to improve the working environment for early career researchers.

For the **Early- and Mid-Career Researcher** (EMCR) Forum in Australia (established 2011), their stance on assessment is driven by a clear sense of the current systems inability to "value the whole person". They feel that traditional measures of success fail to recognize the unique challenges facing early and mid-career researchers, ranging from career instability to caring responsibilities.

Perceived challenges

Respondents described a range of challenges to reforming evaluation, with organizations reaching bottlenecks at different stages depending on their wider research system.

16. Research culture: embedding inclusive excellence | Royal Society
17. Cactus Foundation Mental Health Survey (cactusglobal.com)
18. https://wellcome.org/reports/what-researchers-think-about-research-culture

Among organizations that are engaged with reform, the drivers are typically endogenous (e.g. fellows, staff, members) rather than exogenous

Internal drivers, such as fellows, members or senior staff, are the primary reasons for many organizations to engage with the reform agenda. In our survey, the majority of organizations who had published a statement on researcher evaluation cited internal sources as a motivating factor, with 12 out of the 16 organizations with a published statement or position paper on the responsible assessment of researchers citing their fellows or members, and 11 citing the organization's leaders as the drivers for creating the statements. In contrast, external drivers (e.g. wider research community, Government) were a minor contributor (2 respondents each), while funders and donors did not register in the results.

While these internal motivations are valuable for driving change within an organization, there must still be routes for non-senior voices to be heard. For example, the **EMCR Forum** recognize the need to help early/ mid-career perspectives be heard and have sought to *"define and find new levers of influence to make the changes we want to see"*.

For some organizations, external drivers were more important. For the **Caribbean Academy of Sciences**, the prevailing agenda of the governments plays a key role in determining which reforms are prioritized within the national research system. In this context, timing and alignment with external factors plays a key role in the Academy delivering change.

Some organizations, particularly in Low- or Middle-Income Countries, feel excluded from wider dialogue and decisions about reforming researcher evaluation

Organizations in Low- or Middle-Income Countries (LMICs) face multiple barriers to engaging with researcher evaluation, both in the existing system and in proposed future models. The **Colombian Academy of Exact, Physical and Natural Sciences** called for more recognition of local languages as a legitimate mode of communication, describing language barriers as an obstacle to participating in dialogue about assessment reform.

The Colombian Academy of Exact, Physical and Natural Sciences also noted that any reforms to researcher evaluation must accommodate the different nature of research careers across the world. They highlighted that researchers in LMIC settings were often disadvantaged by traditional metrics due to resource constraints (e.g. costs to publish) and sought more recognition for wider contributions such as teaching and supervision. While this creates appetite for change, they noted that it also placed additional pressure on LMIC organizations to ensure that any future metrics were equitable, to avoid any new system perpetuating exclusionary practices.

Constrained capacity and underpowered infrastructure are hindering many organizations, despite their appetite to engage with reform

Many organizations are struggling to secure the capacity needed to engage in evaluation reform. The **Caribbean Academy of Sciences** are finding it difficult to attract new members able to take on extra responsibilities, such as dedicating time towards reforming their researcher evaluation practices or engaging with external initiatives. To help secure more champions for reform, the Academy is interested in attracting more early-career members and building more capacity within the Caribbean region.

Capacity constraints were mentioned by several organizations, who noted the considerable time and effort needed to reform researcher evaluation practices. The **World Data System** noted that implementation of new evaluation methods involved numerous lengthy and complex steps, including developing indicators, supporting adoption, culture change, and automating tools. They highlighted the underinvestment in the

relevant infrastructure, such as repositories, that is needed to underpin the adoption of new practices.

Organizations with staff specifically working on evaluation reform mentioned this as fundamental to their success in delivering change. The **Young Academy of Spain** credited their 2.5FTE employees with making a major difference to pursuing their goals in this area.

For reform to succeed, the priorities of research stakeholders must be aligned

In interviews, several participants spoke about the challenge of aligning practices across research institutions, funders and academies – and the particular role each played in assessing researchers. **World Data System** highlighted the challenge of supporting change when research institutions held differing priorities, while the **Zimbabwe Young Academy of Sciences** spoke about the resistance they have previously encountered from universities, even to them running a research assessment workshop on their premises. They saw this as being driven by the university ranking system, which continues to value quantity of research outputs – which then trickles down to how individuals are assessed. To address this, the **Zimbabwe Young Academy of Sciences** had found it helpful to reassure universities that they still value publications by offering workshops to help researchers improve the quality of their publications (e.g. improving reproducibility).

Many organizations are cautious about reform due to a lack of evidence on good practice and concerns about 'decoupling' from the wider research system

The global nature of the research community means that any significant reform can generate a 'first mover disadvantage', where deviating from standard practice leaves an institution – or researchers – isolated from the wider system.

Several organizations were seeking more evidence on good assessment practices, in tandem with adopting changes. For example, **World Data System** and other European organizations mentioned that they were seeking more evidence on the effectiveness of narrative CVs, including on user feedback, developing standards and the longer-term implications for researchers' careers.

The **Young Academy of the Netherlands** saw a risk in decoupling from the international research system – saying that researchers were understandably hesitant to step away from traditional markers of success in case they become less competitive in the wider research system. This concern is also felt at a national level, where rapid reform risks deterring globally mobile researchers if a system is perceived as a 'walled garden'. However, this young academy saw this as a reason to champion the broader global adoption of reforms.

Appetite for change

Reforms to research evaluation are already underway, but change remains fragmented and many organizations are yet to engage

Approximately half of organizations that responded to the survey were at some stage of evolving their evaluation practices (Figure 5). However, this leaves a large group of organizations whose practices remain unchanged in recent years. Given the sampling bias inherent in a voluntary survey, we would expect this to be an underreporting of the proportion of the combined networks have not recently engaged in evaluation reforms.
This patchwork of engagement has created a transitionary phase for the measures of success for researchers, with a mix of traditional and emerging measures in use. Our data show the continuing prevalence of traditional metrics such as journal impact factor, citations, and size of publication record. Notably, this latter measure remains in use even by some DORA signatories, showing that change is yet to

Figure 5. Responses to the question 'Has your organization discussed or implemented significant changes to assessment processes in the past three years?'
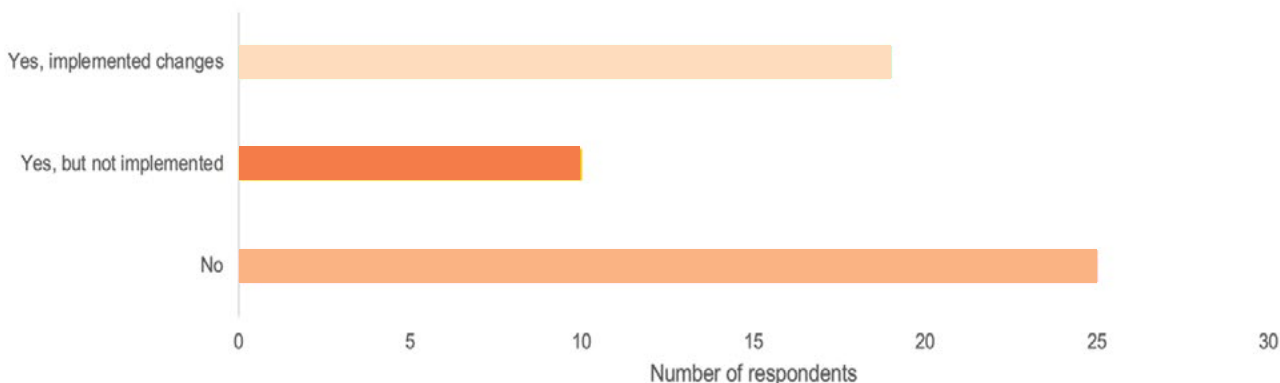
work its way through from theory to practice. However, we can also see measures of broader contributions, such as public engagement or knowledge transfer coming through in the data (Figure 6).

There are mixed opinions on the need for reform, but some of these differences may stem from unclear definitions and the different starting points across organizations

Our survey explored how organizations view the impact of current researcher evaluation practices on research quality, productivity, impact, creativity and on the overall culture of research. While a few organizations viewed the impact of current assessment as highly detrimental, many respondents viewed current assessment practices positively. This result conflicts with the extensive and well-established data

Figure 6. Importance of different elements when assessing researchers
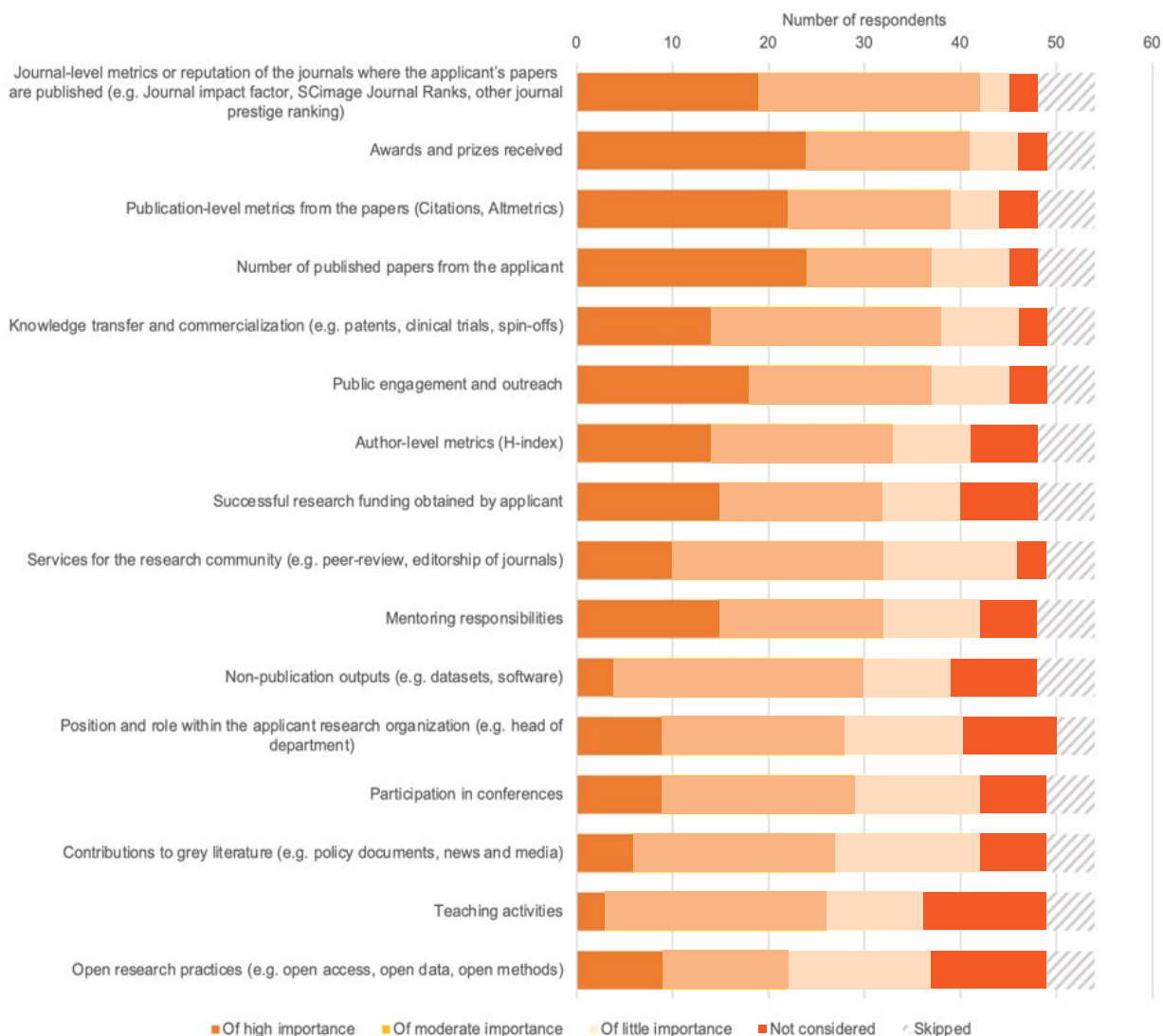
on the significant problems that flow from the prevailing approach to researcher assessment across the wider research system, as explored in the Context section. This result suggested a disconnect between the evidence and a substantial portion of organizations, which we were keen to explore further in our qualitative evidence-gathering.

We revisited this topic in our interviews and found a much more negative view of the impact of current evaluation practices. This discrepancy warrants further exploration, including around the phrasing of survey questions on this topic. In our interviews, it was clear that many saw the current situation as complex – with "current practices" already being a mix of traditional and new ideas, as part of a wider transition across the researcher community. Differences in interpretation were also a factor, with the **Young Academy of the Netherlands** mentioning their experience with misunderstandings about evaluation reform which some interpreted to mean that quality no longer counted, rather than it being a diversification of 'excellence'.

Figure 7. Perceived impact that current research assessment has on areas of research
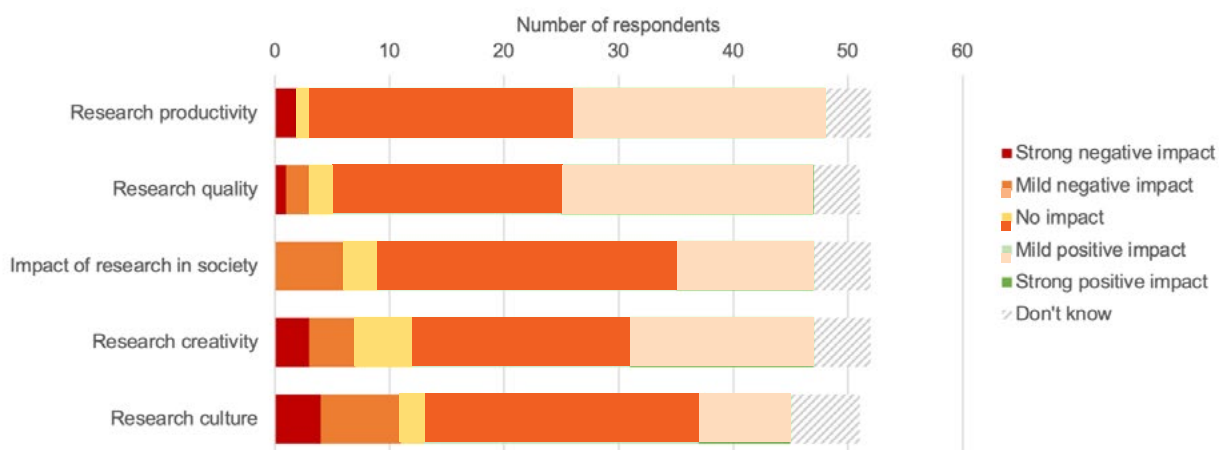
Likewise, organizations are starting from different points with their reforms. Some were in the process of moving from quantity-focused metrics (e.g. publication count) towards what they perceived to be quality-focused metrics such as the Journal Impact Factor, while others were seeking to abandon metrics to predominantly focus on peer review or to moving towards novel approaches such as narrative CVs or lottery-based methods.

Many organizations want to proceed carefully with any changes to evaluation practices, to avoid unintended consequences

Across many interviews, we heard a clear desire for cautious reform that engaged all parts of the research system. The **Young Academy of the Netherlands** highlighted the joint paper 'Room for everyone's talent'[19] which tackles concerns about a one-size-fits-all measure of excellence, where academics must be all things at once. Instead, the paper sets out a new system for recognizing and rewarding the contributions of academics, with the aim of supporting a wider range of career routes and opportunities to specialize.

The **Royal Netherlands Academy of Arts and Sciences** noted that this reform was designed to address a tension in the system, but also created new tensions for different people. They highlighted the need to acknowledge the uncertainty that comes with these transitionary periods, and the need for transparent discussions across the researcher community about the decisions being made. This measured but consistent pace was seen as essential for helping research institutions and researchers to acclimatize to any reforms.

19. https://www.nwo.nl/en/position-paper-room-for-everyones-talent

The process of reform also offers the chance to reset power dynamics in the current system. **World Data System** wanted to ensure that any evaluation data that are captured serve researchers, rather than 'shareholders' such as publishers. They felt this shift was essential if individuals were to trust and buy into new approaches, and that we could expect to see negative reactions if individuals felt their metrics were being monetized.

Many organizations are engaging in discussion forums and global initiatives, with a clear appetite for regional and discipline-specific spaces to explore ideas

Our survey explored whether organizations had adopted a formal, public stance on researcher evaluation – as an indicator of their engagement with this topic. One third of respondents had already published a statement or position paper on a topic connected to research assessment, with the majority of these being made public.

The combined body of statements across the combined networks represents a rich resource of debate and ideas about reforming research evaluation. Shared documents include discussions on issues such as the limitations of current evaluation metrics[20], recommendations for fairer assessments[21], the career development of researchers[22], the distribution of research resources[23], integrity and ethical conduct of science[24], and open science[25]. As examples, a statement from the **Real Academia de Ciencias Exactas,**

Figure 8. Presence of published statement or position paper on the responsible assessment of researchers
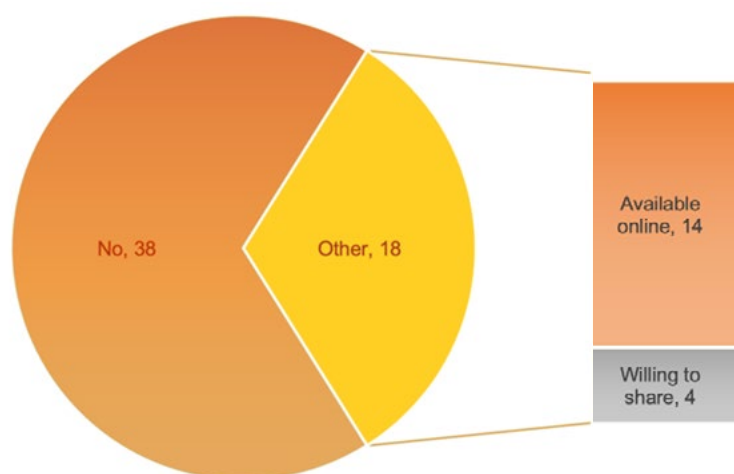
Físicas y Naturales de España[26] explores the digitalization of science and the low attractiveness of academic careers to many early career researchers. A statement from **The World Academy of Sciences (TWAS) Young Affiliates Network**[27] explores the need for a multilateral solution around open science to address the barrier of article processing charges to developing countries, while the **EMCR Forum** shared a statement on improving diversity within prizes and awards.[28]

We also explored participation in wider discussion forums and global initiatives. **Over a quarter** of

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20. https://rac.es/noticias/235/, https://www.zeit.de/2020/39/wissenschaft-qualitaet-forschung-beurteilung-messen-faktoren-indikatoren and https://www.oeaw.ac.at/fileadmin/NEWS/2017/PDF/Richtlinie-Praesentation.pdf
21. https://www.academie-sciences.fr/fr/Rapports-ouvrages-avis-et-recommandations-de-l-Academie/criteres-pour-une-evaluation-transparente-et-rigoureuse-des-chercheurs-et-de-leurs-equipes.html and https://www.academie-sciences.fr/pdf/rapport/Avis_SIGAPS.pdf
22. https://acmedsci.ac.uk/file-download/88085157
23. http://real.mtak.hu/116296/
24. https://www.abc.org.br/wp-content/uploads/2022/05/ABC-codigo-etica-conduta-abril-003.pdf and https://www.abc.org.br/IMG/pdf/doc-4559.pdf
25. https://www.abc.org.br/wp-content/uploads/2023/11/Open-Science-Overview-and-General-Recommendations.pdf
26. https://rac.es/noticias/253/

respondents (14 respondents) are signatories of the San Francisco Declaration on Research Assessment (DORA)[29] and 9 respondents are members of the Coalition for Advancing Research Assessment (CoARA).[30] Regional or discipline-specific initiatives were also an important connection point, with 8 respondents being signatories of another statement on research assessment, such as the Stockholm Charter for Academic Freedom and Statement on Research Assessment in Latin America and the Caribbean.

A total of 23 respondents participates in communities or discussion groups on research assessment, including regional networks such as European Network for Research Evaluation in the Social Sciences and Humanities. However, a **third** (18 respondents) do not participate in discussions or ongoing initiatives – indicating a significant proportion of the combined networks is not interested or are disconnected from this wider dialogue.

Organizations are approaching the reform agenda in different ways, based on the levers available to them

Even among those already engaged in the reform agenda, there are differences of opinion about how best to pursue change. Several organizations mentioned seeing value in 'starting at home', seeing credibility stemming from revising their own evaluation practices before seeking to advise others. Given the global power dynamics at play, a few organizations stressed that any change needed to be underpinned by an equitable conversation across the research community.

Figure 9. Participation in intitiative of the Reform of Research Assessment
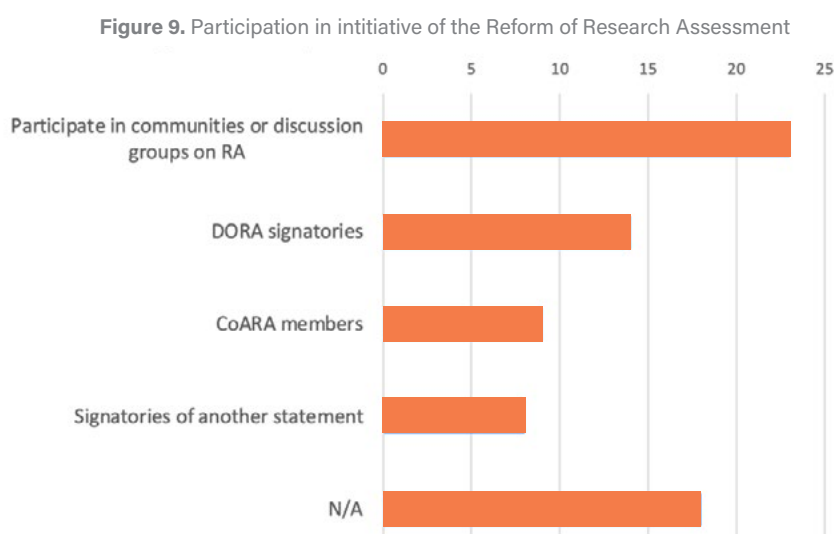
Other organizations are pursuing an incremental approach to reform. The **National Academy of Sciences of Sri Lanka** described their efforts to change practices via soft suggestions, such as encouraging evaluators to look at the statement of excellence in their evaluation of candidates, to encourage consideration of more 'narrative' aspects.

However, there is also a diverse set of organizations pushing ahead with sometimes radical reforms. Among our survey respondents with published statements on evaluation, the most common goal of the statements was to influence policies and practices beyond their organization (10 out of the 16 respondents with a statement on responsible assessment) or to establish or update a position in the ongoing debate (9 respondents). Influencing practices among members was also a common goal (8 respondents), whereas changing internal assessment practices was a less frequent target (4 respondents).

27. https://docs.google.com/forms/d/e/1FAIpQLScviZGzU1AmzYCZbZJmS3aBwStRsJwAKuekPfLos7A8o0MFyg/viewform
28. https://www.science.org.au/files/userfiles/support/emcr/documents/emcr-improving-diversity-web.pdf
29. https://sfdora.org/
30. https://coara.eu/

The US **National Academies of Sciences, Engineering, and Medicine** see their role as creating space for discussion and prioritization around reform, and have created the Strategic Council for Research Excellence, Integrity, and Trust to look at aligning incentives that drive better research among its other high-level goals. Likewise, **World Data System** is working behind-the-scenes to drive change by advancing persistent identifiers and metrics that recognize a more comprehensive range of research outputs, including datasets, peer-review and working groups.

When asked about their priorities in this area, **around half** of survey respondents mentioned promoting further discussion and strengthening links with local partners. Many sought to strengthen links with international partners, with **only a third** highly prioritizing internal changes to assessment practices.

The combined networks of GYA, IAP and ISC include many examples of innovative practice, but these often appear to be occurring in disconnected pockets

There are pockets of innovative practices, often limited to specific countries or early-career organizations with a deep appetite for change – the **EMCR Forum** encapsulated their attitude to reform: *"We're not scared to try things"*.

Figure 10. Priorities of survey respondents regarding the future of research assessment
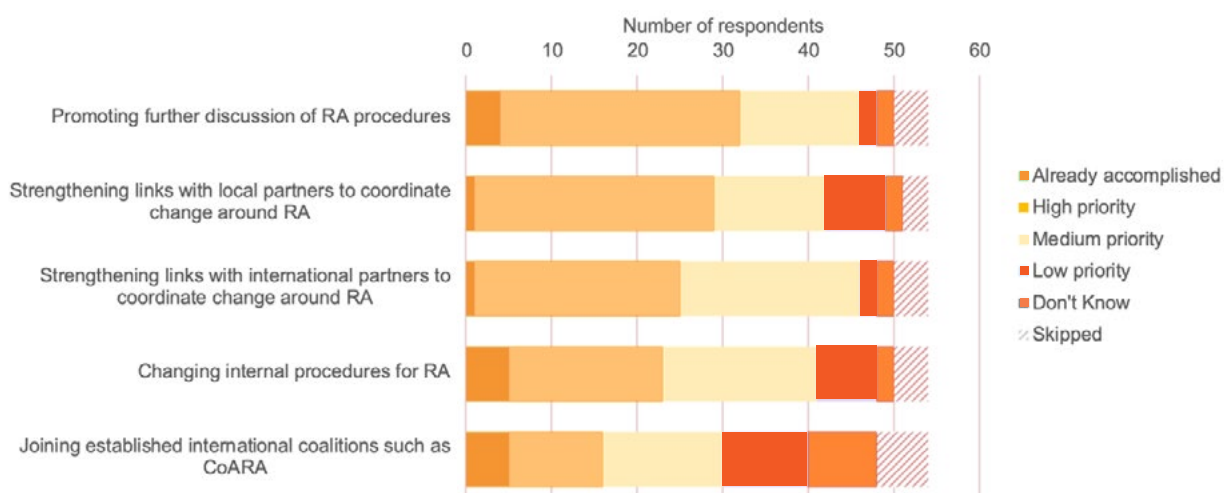
Organizations are forging networks and relationships to drive reform, including the **Zimbabwe Young Academy of Sciences** which is in discussions with the Zimbabwe Council of Higher Education on how to reform the output-driven guidelines used at a national level for hiring and promoting researchers.

In the Netherlands, the **Royal Netherlands Academy of Arts and Sciences** and the **Young Academy of the Netherlands** both spoke about their efforts to support discussion across the researcher community and open a dialogue on how change could be delivered. This discussion was complemented by action, with the young academy running trials of new methods such as lotteries for small prize competitions, to explore how these could be implemented in a fair way.

Many organizations are making progress towards diversifying their pool of evaluators, and engaging with under-represented groups

Many organizations told us that promoting diversity – of both people and ideas – has been a growing priority for them in recent years. Our survey demonstrated the range of factors which now feed into evaluation decisions, including factors such as age, gender, career stage and institutional affiliation. In our interviews, the UK **Academy of Medical Sciences** described their active approach to diversifying their fellowship, which includes a mechanism to ensure that fellowship candidates who identify as being an

**Figure 11.** Diversity elements considered when assessing researchers
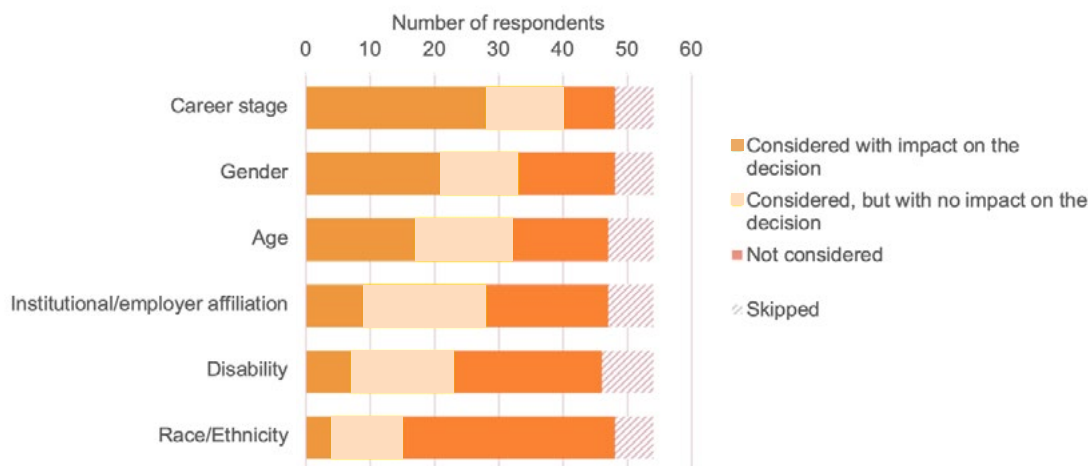
ethnic minority are automatically shortlisted at some point during their time in the applicant pool, increasing their chances of being selected as members.

The **EMCR Forum** has taken steps to better accommodate diversity in people's career paths, after recognizing that early/mid-career researchers were increasingly moving between sectors, noting: *"our generation is going to take very different and diverse pathways that will come in and out of traditional ivory tower academia".* For this reason, they also include non-academic research members as part of their core membership team.

Many fellowship organizations reported a general shift in the diversity of candidates elected, even without formal quotas. For example, in the last five years almost 50% of members elected to the US **National Academy of Sciences** (NAS) have been women, with the NAS noting that this *"shows that there is a big pool of overqualified women that were being neglected until we find a way to incentivize electing them."* They stressed that making it an incentive to find outstanding women *"does not mean compromising the standards at all, it simply means that women were being overlooked."* Other characteristics such as career stage and geographic distribution are not as well represented, but NAS were confident that these will follow similar trends to the gender representation in the coming years.

As well as those being evaluated, organizations are also considering diversity within assessment or review panelists themselves. Factors such as discipline and gender are being widely considered, with career background, geography and ethnicity lagging behind. Notably, few organizations are not promoting any type of diversity on their evaluation panels

Figure 12. Factors considered when diversifying review panels
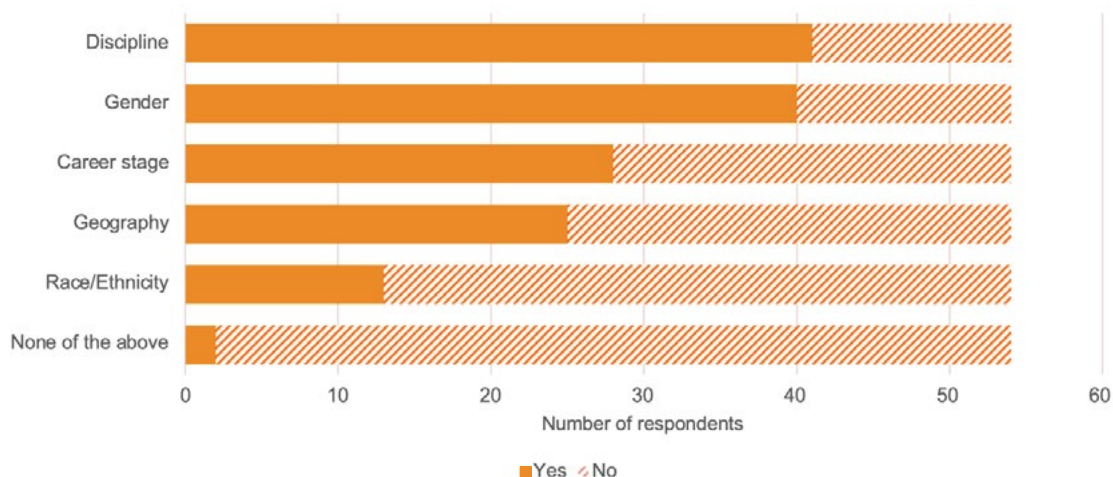
Only 5 survey respondents indicated that their review and evaluation panels received training. Among them, respondents mentioned training on the process and aims of the assessment, as well as unconscious bias training or 'coaching' to avoid falling in the *"the usual traps of selection processes"*. 25 respondents indicated that their review and evaluation panels received written guidance rather than training, while 22 indicated that they received no training or guidance. Among the latter group, one respondent commented *"We would like to get advice on this"*, indicating appetite to adjust practices.

As a leading example of diversifying evaluation, the **EMCR Forum** has made particular progress on including First Nation perspectives within their executive members, which has shaped the discourse and priorities of the organisation.

Levers of action

The levels of agency and power to drive change differ across organizations

> *"We need to hear these voices, that's very important. So, we…created a process where we invited First Nations Australians to apply, and they were assessed using the same criteria in parallel to the other pool to guarantee the selection of two members."*
>
> *"Until we hear those diverse voices… There isn't a platform. There is no way that we can fight or advocate for change to make things better for these groups of people."*
>
> EMCR Forum

Levels of autonomy differ across the combined networks, meaning that some organizations are well-placed to push for change, while others are better positioned to respond to it once a wider shift is evident across the research community.

Several organizations are already taking a leading role in reform, either at a global level or within their own regional or national research systems. The US **National Academies of Sciences, Engineering, and Medicine** has used its position as a respected source of advice and thought leadership at a national level to raise the prominence of evaluation reform on the agenda, while the **National Academy of Sciences of Sri Lanka** spoke about its aspirational role to be an honest broker on key topics with decision-makers. Newer institutions have also established credibility in this area, and both the **Young Academy of Spain and the Zimbabwe Young Academy of Sciences** spoke about their efforts to build relationships and credibility with national decision-makers, and to use these links to strategically draw attention to key issues.

There is an opportunity to make more of the pool of existing champions who are pushing for change

The **National Academy of Sciences of Sri Lanka** is seeing individual fellows organizing and advocating for change around evaluation, including a group that was sought by the university grant commission to advise on changes to the professorial promotion schemes. These activities are not organized by the Academy, but by the fellows themselves. The Academy is actively thinking about how to best support these activities. There were several examples of partnerships forming to help pool expertise and share perspectives. The ECMR Forum described an award scheme they assess together with the Australian Academy of Sciences, which allows Academy fellows and early/mid-career researchers to discuss the merits of the applicants together. Meanwhile, the Royal Netherlands Academy of Arts and Sciences and the Young Academy of the Netherlands often work in partnership, and both see value in involving the new generation of researchers in informing and adopting new practices.

There is appetite for collaboration and harmonization across the research landscape, including working with partners beyond the boundaries of the combined networks

Organizations sought more engagement with both funders and research institutions, as key stakeholders in any reforms to researcher evaluation. For example, World Data System was pleased to see more funders and research institutions promoting open research approaches, but wanted to support faster adoption to avoid them becoming the rate-limiting step to reform. They noted that reform could meet resistance if it wasn't formulated with these stakeholders in mind, given the need to adapt long-established assessment processes (e.g. tenure assessment).

A common theme among highly innovative organizations is the value they placed on working proactively with different parts of their research systems. The Young Academy of Spain prioritizes close cooperation with research institutions and recently signed a Memorandum of Understanding with some institutions linked to a program for researchers with disabilities.

The **Royal Netherlands Academy of Arts and Sciences** and the **Young Academy of the Netherlands** attributed much of the success of the Recognition and Rewards program to the alliances they proactively

> *"We don't like to do things on our own, most of the activities that we do we do in collaboration with others. […] We realize that if we want to be considered a team player and part of the ecosystem, we should be working with people who have been working for years, who have the channels, the resources… It's a multiplier."*
>
> Young Academy of Spain

forged between stakeholders. These partners included all universities, university medical centers, reputable research institutes and research funders in the Netherlands. They noted their advantage working in a small research system, where stakeholders are well-connected and able to pursue change in a coordinated way.

For the **Zimbabwe Young Academy of Science**, forging relationships with research institutions has helped overcome initial resistance to changing researcher evaluation and helped them build trust by offering researchers and institutions useful activities. They noted the success of their 'excellence initiative' to improve capacity, highlight funding calls, and offer training on grant writing, which had helped raise their profile among researchers and research institutions, creating space for conversations about reform.

This cooperative approach also extends to those being assessed. The Young Academy of Spain seeks feedback on the assessment experience after each fellow election process – both from those elected, and those who weren't successful. They also keep ties with the applicants who were not selected, for example by inviting them to the annual summit.

On the topic of coordination, the role of national initiatives as a force for harmonization and shared principles was mentioned. An example of such initiatives are the concordats in the UK – a growing set of collaborative guidelines and goals on cross-cutting topics, which organizations across the research system commit to pursuing. Even though there is no dedicated concordat on researcher evaluation, some concordats include a direct link to this topic. Such initiatives were noted as useful tools for coordination within research communities, provided that their over-proliferation does not dilute their impact.

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31. https://www.science.org.au/supporting-science/awards-and-opportunities/theo-murphy-initiative-australia

Opportunities for Support

From our engagement across the combined networks, it is clear that GYA, IAP and ISC have a key role to play in reforming researcher evaluation. Many organizations look to the natural convening power of these organizations to help the research community advance together in a unified way.

Without this coordinating force, organizations see challenges ahead for reform efforts – with gaps being filled by a fragmented collection of organizations with differing priorities. Organizations need spaces to align their priorities and work together to serve researchers.

Drawing on our combined evidence, we have assembled a **broad typology that describes the support needs** of different groups within the combined networks:

> *"The whole scientific community needs to be in one single place."*
>
> **Colombian Academy of Exact, Physical and Natural Sciences**

New to the Agenda: This group has yet to engage with the reform agenda. This may stem from insufficient communication about the current dialogue, or insufficient efforts to demonstrate its relevancy to this group's activities, mandate or goals. Tailored engagement and sustained encouragement may help motivate this group to participate further in existing dialogues.

This group represents a substantial portion of the GYA, IAP and ISC networks, who are

Interested but Excluded: This group is keen to participate in reform efforts but is constrained by internal and external factors. It may be excluded from the global dialogue by language barriers or overlooked as valued contributors to the debate. Its ability to implement or develop ideas may be limited by the capacity of its staff or fellows, or by wider priorities within their research systems and regions.

This group includes many Low- or Middle-Income Country organizations, or smaller organizations that are struggling to have their voice heard at a global level.

Cautious Adopters: This group are convinced by the need to act but unclear on how to proceed. They are seeking more evidence on effective interventions and may benefit from a spur to trial new approaches. Some need support to get reform onto the agenda of decision-makers in their research system (e.g. Government bodies, research institutions), and would welcome joining regional or global forums to connect with allies.

This group includes a mix of organizations, including from both High-Income Countries and Low- or Middle-Income Countries, which have hesitated at different stages of engaging with this agenda.

Leading Lights: This group are at the leading edge of the debate on reform and are actively trialing new ideas or promoting practical tools to evaluators. They would benefit from further support to align their efforts with other components of the research system, to increase their influence, and to promote a harmonized approach. They are prime candidates for sharing insights or partnering with Cautious Adopter organizations.

This group is made up of pockets of organizations, often within specific countries or among ECR-focused organizations.

After reviewing our evidence, we have identified a range of roles or success factors that will be necessary within the research system for the successful reform of researcher evaluation. While not exhaustive, this list highlights the gaps and requirements that we have seen emerging from our engagement with the combined networks.

Reforming researcher evaluation will require...

1. Championing missing voices

There is a need to strategically identify missing voices, remove barriers and convene unheard perspectives from across the research system. Our survey indicates an opportunity to diversify the voices involved in the reform, with 42 respondents including leaders or senior members in the reform of their research assessment processes, but only 8 involving those being assessed. These missing perspectives could be fed into existing initiatives such as CoARA, to strengthen these discussions.

2. Lending the credibility needed to put reform on the agenda

Organizations with weight and influence have a role to play in putting reform onto the agenda of key decision-makers, including governments, funders and universities. This would provide legitimacy for organizations with limited agency to engage with the topic, by making it visible and credible. Global initiatives such as DORA and CoARA have helped towards this goal and demonstrated the direction of the international community, but several organizations specifically noted the valued role played by GYA, IAP and ISC in lending credibility to other research policy topics in the past.

3. Supporting interventions which have reached their 'tipping point'

Some interventions are sat at a tipping point, where targeted support could promote rapid adoption. Our survey showed that the majority of respondents review their practices on an ad hoc basis, meaning that a synchronized spur to action could yield rapid and unified adoption. As an example, our engagement suggests that the introduction of narrative CV formats is likely near this tipping point, with a critical mass of early adopters and a substantial group of keen but cautious organizations. As such, there would be value in creating spaces for these cautious organizations to engage with early adopters, unlocking the next wave of adoption.

4. Protecting researcher mobility within the global system

Fragmentation within the global research system is a major challenge, especially during periods of reform, and this creates uncertainty for organizations and for researchers themselves. Organizations would likely benefit from support to promote harmonization and compatibility across national systems by engaging with initiatives such as DORA and CoARA, with space for organizations to explore reform options and agree shared goals, before pursuing implementation options that work for them. This could be done at different levels, given the appetite for regional and discipline-specific forums for cooperation.

5. Promoting the exchange of ideas and lessons

The combined networks of GYA, IAP and ISC contains an impressive set of innovators, and there could be value in creating more spaces to showcase their work to inform and inspire other organizations. There is an opportunity to extract further lessons from the body of statements and ongoing practices present across the combined networks, as a valuable insight into what works in researcher evaluation. This information could be shared via existing collections of good practice (e.g. DORA case studies) and discussion fora (e.g. CoARA National Chapters Exchange Forum) to raise awareness.

Annex 1: Methodology

This report draws on desk-based research, a survey, and targeted interviews. Each step was delivered in close cooperation with GYA, IAP, and ISC, and helped focus our evidence-gathering on examples of key innovators around researcher evaluation.

The **desk-based research** was informed by GYA, IAP and ISC, and included reviewing organizational websites and online publications, as well as wider initiatives and resources such as the DORA Resource Library, reports, statements, and guidance on research assessment. This process helped inform the focus of the survey questions that followed.

The **survey** explored various aspects of researcher evaluation and was designed to accommodate the variety of organizations found within the combined networks. The survey was built on the online SmartSurvey platform, with an estimated completion time of 35 minutes. An invitation to complete the survey was circulated by GYA, IAP and ISC to each of their networks, noting that in this instance GYA were engaging with their network of Young Academies rather than their individual members.

Respondents were asked for general demographic information about their organizations, and were then navigated through relevant content across several sections covering:

(i) The types of evaluation performed in their organization
(ii) Engagement with DORA and CoARA, and any published statements on evaluation
(iii) Their engagement with discussion or implementation of changes to evaluation practices
(iv) Their use of indicators to assess researchers
(v) Any measures in place to foster diversity in assessment processes
(vi) Engagement with different CV formats
(vii) Their approaches to review panel selection, training, and operation
(viii) Any experimental methods and technologies used in researcher assessment
(ix) Their approach to evaluating their own assessment methods
(x) Views on wider initiatives (e.g. university rankings)

The survey finished with an open text section, to allow respondents to share any further relevant content with us for analysis. Full details of the survey questions are in Annex 2. Survey responses were accepted between 16 November 2023 and 15 December 2023, yielding 54 complete responses.

The self-selecting nature of this sample creates limitations on the data produced. As a non-comprehensive sample of the combined networks of IAP, ISC and GYA, the results should be interpreted as an indication of broad trends and used as a prompt for further discussion. As noted throughout the report, the self-selection of respondents may also lead to an under-reporting of disengagement on this topic, given the likelihood that the organizations most engaged with evaluation reform would be more responsive to the survey request.

Figure 1. Geographic distribution of survey respondents
NB: Respondents included 4 global organizations which are not included on the map
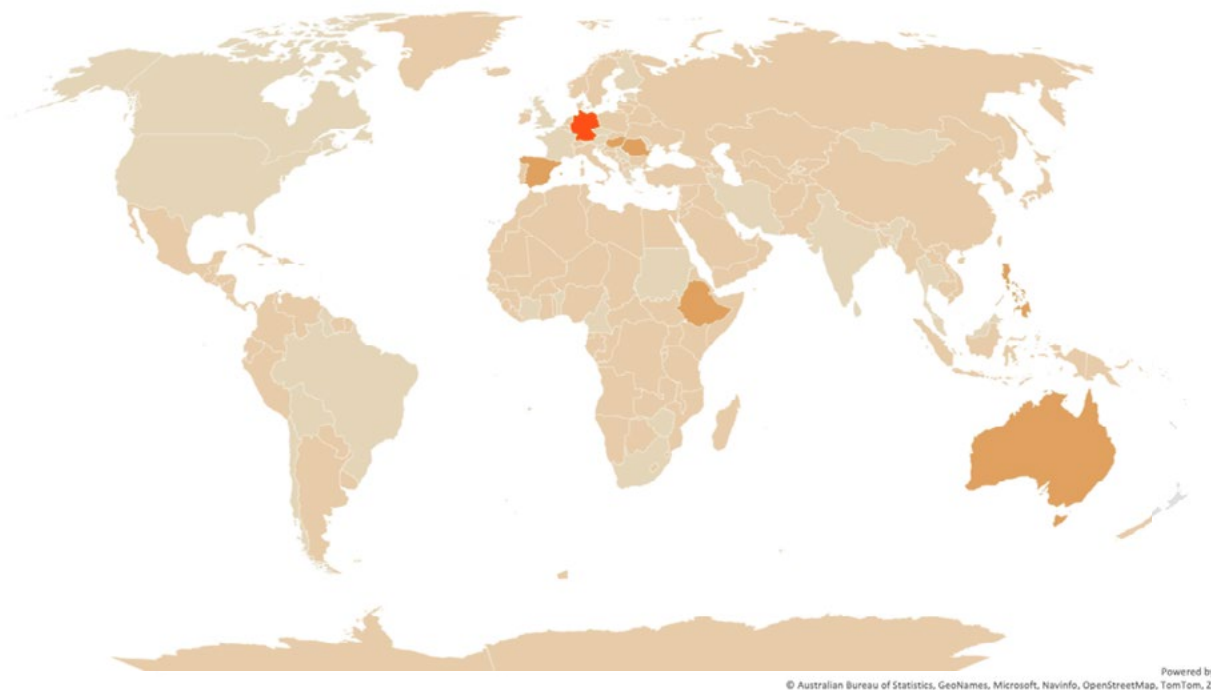
Respondents reflected the mix of the combined networks. Accounting for several respondents being linked with multiple organizations, 18 survey respondents were part of GYA's network, 36 were members of IAP, and 30 were members of ISC members.

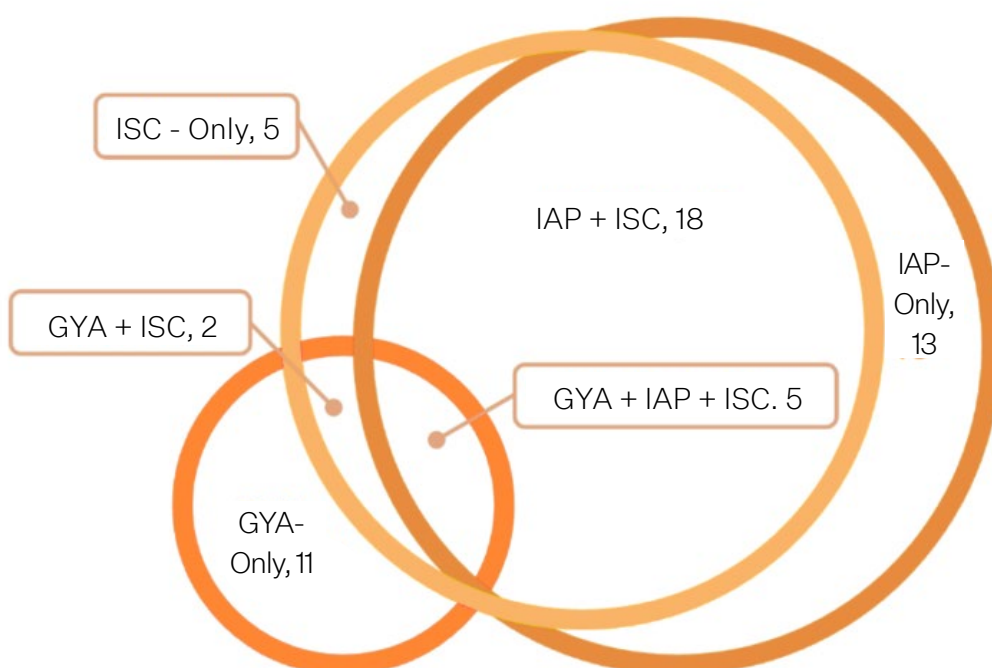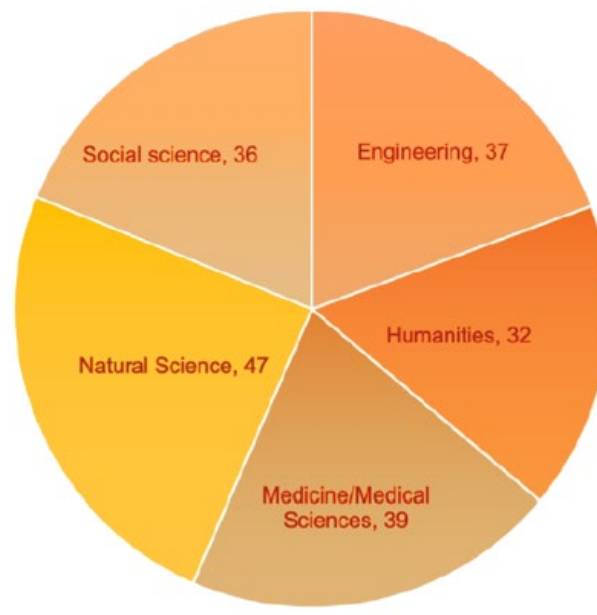**Figure A1-2.** Distribution of respondents across GYA/IAP/ISC networks

ISC - Only, 5

IAP + ISC, 18

IAP-Only, 13

GYA + ISC, 2

GYA + IAP + ISC. 5

GYA-Only, 11

Figure A1-3. Disciplines of respondent organizations

NB: Most respondents selected multiple disciplines

The **survey responses** were then analyzed to identify trends across the different organizations, with findings shared with GYA, IAP and ISC for discussion.

The **targeted interviews** provided a chance to explore researcher evaluation in greater depth. A balanced set of interview targets were chosen from both the survey respondents, with strategic additions to fill missing perspectives and achieve a mix of voices. Working with GYA, IAP and ISC, a semi-structured interview guide was designed which explored five themes: (i) evaluation practices, (ii) appetite for change, (iii) challenges and allies, (iv) support and levers for change, and (v) future directions. This discussion guide is online.

We contacted twelve organizations in total, all of which agreed to participate. From this group, one interview was cancelled because of severe weather issues which disrupted communication channels, and another could not be secured within the necessary timeframe due to staff changes.

We conducted semi-structured interviews with the 10 remaining organizations and two additional organizations joined in through their close collaboration with the chosen participants. All interviews were conducted via Microsoft Teams between 22 January 2024 and 15 February 2024, and were typically 45-60 minutes in length. Interviews were recorded to support the use of direct quotes in the report – access to these recordings was kept strictly to the CultureBase team, and they were subsequently deleted to protect privacy.

Figure A1-4. Geographic distribution of interview participants
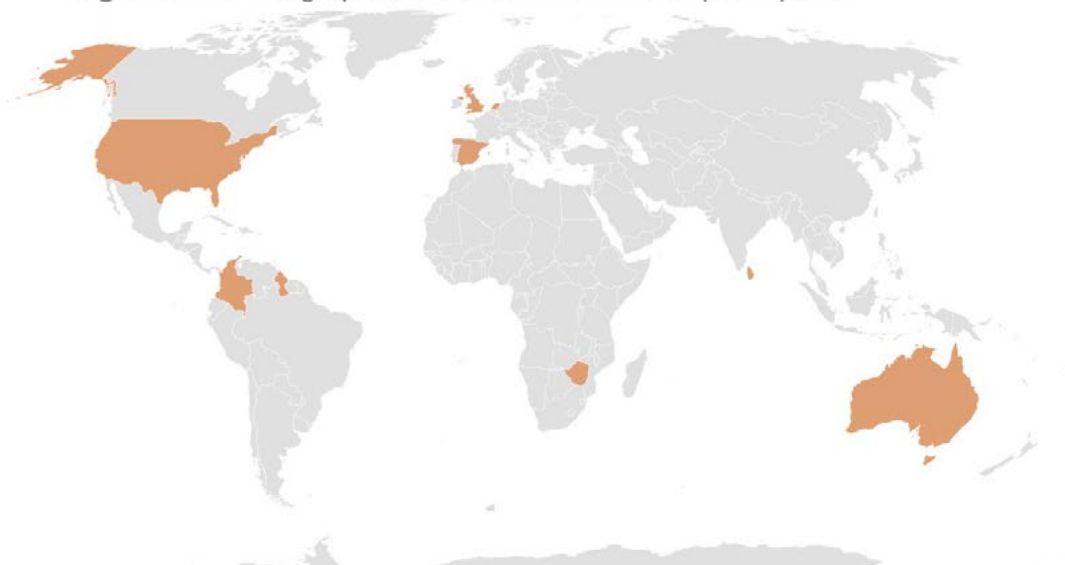
Note: the World Data Systems is a global organization and is not covered in the map

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Interview participants	Region
Academy of Medical Science	United Kingdom
Australian Early- and Mid-Career Researcher Forum (EMCR)	Australia
Caribbean Academy of Sciences	Caribbeans
Colombian Academy of Exact, Physical and Natural Sciences	Colombia
National Academies of Sciences, Engineering, and Medicine (NASEM) **and** the National Academy of Sciences (NAS)	United States of America
National Academy of Sciences of Sri Lanka	Sri Lanka
Royal Netherlands Academy of Arts and Sciences (KNAW) **and** De Jonge Akademie	Netherlands
World Data System	Global
Young Academy of Spain	Spain
Zimbabwe Young Academy of Sciences	Zimbabwe

Annex 2: Survey Questionnaire

This Annex sets out the survey structure and questions used in this study, including all possible routing options (note: respondents were directed towards only relevant questions, based on their accumulated answers).

SECTION 1

Before we start, please identify the organisation you are responding on behalf of:

[ ]

Is your organisation a member of, or affiliated with, any of the following groups? (Please check all that apply)

- ☐ Global Young Academy (GYA)
- ☐ InterAcademy Partnership (IAP)
- ☐ International Science Council (ISC)

Which region and country does your organisation primarily represent?

Region: _____
Country: _____

Which discipline(s) does your organisation cover?

- ☐ Engineering
- ☐ Humanities
- ☐ Medicine/Medical Sciences
- ☐ Natural Science
- ☐ Social science
- ☐ Other (please specify):

SECTION 2. Researcher Assessment – Demographics

In this survey, we are interested in your organisation's stance and practices around researcher assessment.

By researcher assessment, we mean any forms of assessment or evaluation of researchers for promotion, career advancement, membership selection, prize selection, funding selection, and any other activities in which researchers' profiles are assessed.

Is your organisation involved in assessing researchers for any of the following purposes?

- ☐ Election or selection of new fellows or members
- ☐ Assessment of existing fellows or members
- ☐ Awards and Prize attribution
- ☐ Grant provision
- ☐ None of the above
- ☐ Other (please specify):

Please indicate who/what is being assessed within each of those activities.

	Individual researcher	Research institutions	Research groups	Other
Election or selection of new fellows or members	☐	☐	☐	☐
Assessment of existing fellows or members	☐	☐	☐	☐
Awards and Prize attribution	☐	☐	☐	☐
Grant provision	☐	☐	☐	☐

SECTION 3. Researcher Assessment - Statements (1 of 3)

Debate around the assessment of researchers has grown in prominence in recent years, with suggestions that change is needed to support better and more equitable science and healthier research environments. In this next section, we would like to know more about the steps that your organisation is taking to reshape researcher assessment.

In general, what impact do you think the current way that researchers are assessed within academia (for example for career advancement, promotion, and funding) have on the following:

	Strong negative impact	Mild negative impact	No impact	Mild positive impact	Strong positive impact	Don't Know
Research quality	o	o	o	o	o	o
Research culture	o	o	o	o	o	o
Research productivity	o	o	o	o	o	o
Research creativity	o	o	o	o	o	o
Impact of research in society	o	o	o	o	o	o

Would you like to add any comments?

Do any of the following statements apply to your organisation? (select all that apply)

- ☐ We are signatories of the Declaration on Research Assessment (DORA; https://sfdora.org)
- ☐ We are members of the Coalition for Advancing Research Assessment (CoARA; https://coara.eu)
- ☐ We are signatories of, or abide by, another statement or set of principles on researcher assessment (please provide details below)
- ☐ We participate in communities or discussion groups to discuss researcher assessment (please provide details below)

Please provide details of other statements, sets of principles, communities or discussion groups you participate in:

Does your organisation have a published statement or position paper on the responsible assessment of researchers? *

- o Yes, we have one or multiple statement(s).
- o No/Not to the best of my knowledge.

SECTION 4. Research Assessment - Statements (2 of 3)

Is/are the statement(s) available? *

      A) The statement(s) is/are available online.
      B) The statement(s) is/are not available online, but we are willing to share them.
      C) The statement(s) is/are not available online and cannot be shared.

If A), skip to Section 5; If B), skip to Section 6; If C), skip to Section 7

SECTION 5. Researcher Assessment - Statements (3 of 3)

Please share the URLs where the statement(s) from your organisation are available:

Was the creation of the statement(s) driven by any of the following (select all that apply):

- ☐ Your organisation's leaders
- ☐ Your fellows / members
- ☐ Wider researcher community
- ☐ Government
- ☐ Funders
- ☐ Research institutions
- ☐ Donors financing your organisation
- ☐ Don't Know
- ☐ Other (please specify):

What was the intended impact of the statement? (Select all that apply)

- ☐ Change assessment practices within your organisation
- ☐ Set researcher assessment standards with members of your organisation
- ☐ Establish or update a position in the ongoing debate on researcher assessment
- ☐ Influence policies and practices beyond your organisation
- ☐ Other (please specify):

SECTION 6. Researcher Assessment - Statements (3 of 3)

Please upload a copy of the statement(s) directly to this survey or email to [email]. Would you like to add any comment about the uploaded statements?

Was the creation of the statement(s) driven by any of the following (select all that apply):

- ☐ Your organisation's leadership
- ☐ Your fellows / members
- ☐ Wider researcher community
- ☐ Government
- ☐ Funders
- ☐ Research institutions
- ☐ Donors financing your organisation
- ☐ Don't know
- ☐ Other (please specify):

What was the intended impact of the statement? (Select all that apply)

- ☐ Change assessment practices within your organisation
- ☐ Set researcher assessment standards with members of your organisation
- ☐ Establish or update a position in the ongoing debate on researcher assessment
- ☐ Influence policies and practices beyond your organisation
- ☐ Other (please specify):

SECTION 7. Researcher Assessment - Statements (3 of 3)

If possible, could you provide a brief overview of the themes covered by the statement(s) you have highlighted?

Was the creation of the statement(s) driven by any of the following (select all that apply):

- ☐ Your organisation's leadership
- ☐ Your fellows / members
- ☐ Wider researcher community
- ☐ Government
- ☐ Funders
- ☐ Research institutions
- ☐ Donors financing your organisation
- ☐ Don't know
- ☐ Other (please specify):

What was the intended impact of the statement? (Select all that apply)

- ☐ Change assessment practices within your organisation
- ☐ Set researcher assessment standards with members of your organisation
- ☐ Establish or update a position in the ongoing debate on researcher assessment
- ☐ Influence policies and practices beyond your organisation
- ☐ Other (please specify):

SECTION 8. Researcher Assessment - Practices

The following questions explore your organisation's practices when assessing researchers, for example for fellowship or membership election/selection or any other assessment that looks at researchers' profiles.

We will address several topics, including metrics and criteria for assessment, CV formats, peer review processes, decision processes, and your overall approach to researcher assessment.

Has your organisation discussed or implemented significant changes to assessment processes in the past three years?

- o No, our assessment processes have remained largely the same.
- o Yes, our organisation discussed changing assessment processes, but changes have not yet been implemented.
- o Yes, our organisation implemented changes to assessment processes.

[If Yes] Please briefly comment on the changes that have been discussed or implemented.

When assessing researchers, for example for fellowship or membership election/selection or any other assessment that looks at researchers' and innovators' profiles, which elements are considered?

Skip this question if your organisation does not assess researchers, experts, or individuals, for any of its activities

	Not considered	Of little importance	Of moderate importance	Of high importance
Number of published papers from the applicant	o	o	o	o
Publication-level metrics from the papers (Citations, Altmetrics)	o	o	o	o
Journal-level metrics or reputation of the journals where the applicant's papers are published (e.g. Journal impact factor, SCimage Journal Ranks, other journal prestige ranking)	o	o	o	o
Author-level metrics (H-index)	o	o	o	o
Non-publication outputs (e.g. datasets, software)	o	o	o	o
Contributions to grey literature (e.g. policy documents, news and media)	o	o	o	o
Position and role within the applicant research organisation (e.g. head of department)	o	o	o	o
Successful research funding obtained by applicant	o	o	o	o
Awards and prizes received	o	o	o	o
Open research practices (e.g. open access, open data, open methods)	o	o	o	o
Teaching activities	o	o	o	o
Mentoring responsibilities	o	o	o	o
Services for the research community (e.g. peer-review, editorship of journals)	o	o	o	o
Knowledge transfer and commercialization (e.g. patents, clinical trials, spin-offs)	o	o	o	o
Participation in conferences	o	o	o	o
Public engagement and outreach	o	o	o	o

Other element(s) or comments:

Are experts or prospective member/fellows informed of your assessment criteria before they agree to be considered for membership/fellowship?

Skip this question if your organisation does not assess researchers, experts, or individuals, for any of its activities

- o No, the criteria for assessment are only shared with the review panels.
- o Yes, the assessment criteria are shared with prospective members/fellows before the submission process.
- o Yes, the assessment criteria are openly shared online.

If the assessment criteria are openly shared online, please share URL:

When assessing researchers, for example for membership or fellowship election/selection or any other assessment that looks at researchers' profiles, are diversity characteristics of applicants considered?

Skip this question if your organisation does not assess researchers, experts, or individuals, for any of its activities

	Not considered	Considered, but with no impact on the decision	Considered with impact on the decision
Gender	o	o	o
Disability	o	o	o
Age	o	o	o
Career stage	o	o	o
Race/Ethnicity	o	o	o
Institutional / employer affiliation	o	o	o

Other or comment:

Did your organisation adapt, or consider adapting, its preferred CV format to improve assessment (e.g., narrative CV, capping the number of outputs submitted, etc.)?

Skip this question if your organisation does not assess researchers, experts, or individuals, for any of its activities

- o No.
- o Yes, we are considering this for the near future.
- o Yes, we implemented changes.

If yes, please provide a few details on the changes being considered or implemented:

SECTION 9. Researcher Assessment - Review Panels

The next questions look at review panels. By review panels, we mean the individuals who assess and evaluate submissions or potential membership/fellowship candidates.

In your organisation, what types of assessors are represented in the review panels (e.g., organisation leaders, organisation members, external members, members of the public, senior researchers, junior researchers, etc.)?

Does your organisation actively promote diversity in review panels in any of the following areas?

- ☐ Gender
- ☐ Career stage
- ☐ Race/Ethnicity
- ☐ Discipline
- ☐ Geography
- ☐ None of the above
- ☐ Other (please specify):

Do you provide training to individuals that serve on review and evaluation panels?

- o No.
- o No, but panelists receive written guidance.
- o Yes, panelists receive training.

If panelists receive guidance or training, please indicate the topics covered in the guidance/training and the format used:

> [ ]

SECTION 10. Researcher Assessment - Experimentation

Has your organisation adopted any experimental methods or technologies in assessment, for example lotteries or the use of artificial intelligence for identifying assessment panel members, or for selecting members/fellows?

> [ ]

SECTION 11. Researcher Assessment - Assessment of assessment

How often does your organisation review its researcher assessment processes?

- o Ad hoc / when need arises
- o Periodically every 4+ years
- o Periodically every 2-3 years
- o Periodically every year or less
- o Other (please specify):

Who is involved in revising the researcher assessment processes in your organisation?

- ☐ Leaders and senior members of our organisation
- ☐ External reviewers who are asked to appraise our assessment processes
- ☐ Individuals who have been or are likely to be assessed (e.g. researchers)
- ☐ Other (please specify):

SECTION 12. Researcher Assessment - Other topic

University ranking exercises or lists are often discussed together with researcher assessment. Does your organisation have a stance on this topic?

> [ ]

Another element often associated with researcher assessment is the precarity and career insecurity of early career researchers. Does your organisation have a stance on this topic?

> [ ]

Looking ahead, what are the priorities for your organisation regarding the future of researcher assessment?

	Low priority	Medium priority	High priority	Already accomplished	Don't Know
Promoting further discussion of researcher assessment procedures	O	O	O	O	O
Changing internal procedures for researcher assessment	O	O	O	O	O
Strengthening links with local partners (e.g. research institutions, funders) to coordinate change around researcher assessment	O	O	O	O	O
Strengthening links with international partners to coordinate change around researcher assessment	O	O	O	O	O
Joining established international coalitions such as CoARA	O	O	O	O	O

Other:

SECTION 13. Final remarks

Are there any further points you would like to raise with us?

Annex 3: Interview Discussion Guide

Discussion guide for interviews

Objective: collect insights of greater depth and nuance from a reflective sample of members across geographies, disciplines and member types. Seek to test and better understand the survey results (including by engaging with organizations that did not submit a survey response), and probe for more qualitative data on the obstacles facing organizations on the topic of researcher evaluation, and their ambitions and aspirations for the future in this area.

- 45-minute, one-on-one interviews
- Semi-structured format, covering key themes from survey data
- Includes flexibility to accommodate organizations which did / did not submit a survey response

Time	Focal theme	Specific question and prompts
5m	**Context**	- Brief summary of project objectives, purpose of the interview, and the value of contributing to this work
10m	**Researcher evaluation practices**	**Primary question(s):** - What role does the evaluation of researchers play in your organisation? - How does your organisation approach this evaluation? **Prompts (if needed):** - *Offer examples of typical evaluation activities* - What are the reasons behind assessing researchers? - Which factors are being examined? *Prompt with traditional examples (e.g. publication record) versus wider contributions (e.g. societal impact, interdisciplinarity).* - *If terms such as excellence/quality/impact are mentioned, probe how these are defined*
7m	**Appetite for change**	**Primary question(s):** - Broadly, what impact do you think current researcher evaluation practices have on research / researchers / the beneficiaries of research (e.g. society)? - Has your organisation sought to change evaluation practices in recent years, either internally or within your wider community? **Prompts (if needed):** - *Prompt with data or opinion pieces on the potential impacts of the current evaluation.* - Has your organisation published any statement or stance on researcher evaluation? - For 'No Change': is there appetite to seek changes in the near-term future? For 'Yes Change': is there appetite to continue pursuing changes in evaluation practices?

7m	**Obstacles and allies**	**Primary question(s):** - Do you face, or foresee, any obstacles or challenges when seeking to change researcher evaluation? - Do you feel that your organisation has the power to change researcher evaluation? - In your opinion, who in the research landscape has that power to initiate/make the change? - Which these groups do you see as allies in seeking to change researcher evaluation? **Prompts (if needed):** - *Prompt with different potential sources of challenges or allies (e.g. fellowship/members, peer organisations, wider researcher community, funders, universities, national government, international bodies)* - Have you observed any changing stances towards researcher evaluation among these stakeholder groups in recent years?
7m	**Support and levers**	**Primary question(s):** - Are there any actions that could happen outside your organisation that would support you to change research evaluation practices? - What types of support would be most useful to your organisation? **Prompts (if needed):** - *Prompt with examples of external supportive actions (e.g. discussion forums, peer networks, case studies)* - What has previously helped you in implementing changes in this area? Would more of that support help, or have you needs changed since then? - What actions might motivate your organisation to pursue further engagement with this topic? *Prompt with examples (e.g. international agreements, internal member pressures, funder pressure)*
8m	**Future**	**Primary question(s):** - What are the next steps for your organisation around the topic of researcher evaluation? - Are there any key moments or actions on the horizon? **Prompts (if needed):** - *Where does your organisation hope to be on this topic in 5 or 10-year's time?*