GLOBAL RESEARCH COUNCIL

Responsible Research Assessment

Global Research Council (GRC) Conference Report 2021

A virtual conference from the Global Research Council | **held in November 2020**

Conference Hosts: UK Research and Innovation (UKRI), National Research Foundation (NRF) and UK Forum for Responsible Research Metrics.

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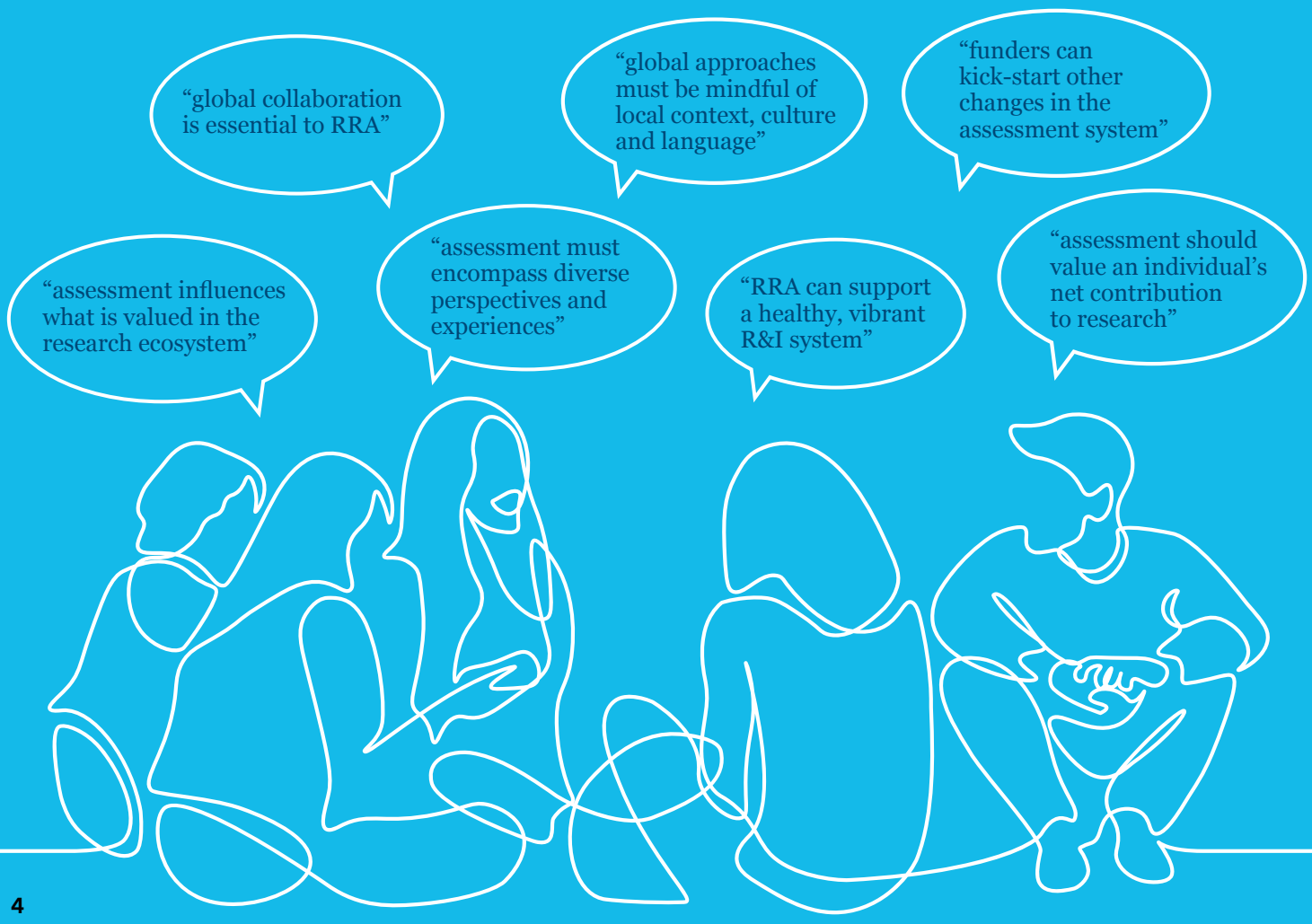
Executive Summary

A conference on Responsible Research Assessment was held with the support of the Global Research Council from 23 to 27 November 2020. This report presents the context for the conference, some key analytics and the main discussion outcomes. It also proposes next steps for the GRC.

The key points presented in this summary reflect discussions held by speakers and participants.



1 Research assessment shapes research culture

- Research assessment influences how research is performed and disseminated
- What funders value and measure will influence what is valued in the research ecosystem
- Funders can initiate positive culture change through careful design and implementation of research assessment
- As stewards of the R&I system, funders must address barriers to cultural change, especially pressures to perform in university league tables.

2 Diverse R&I sectors create high-quality research and impact

- A funder's definition of research excellence needs to be multidimensional
- Research excellence should encompass perspectives and experiences from people of all backgrounds
- Funders must support diversity through a broad portfolio of funding.

3 Fostering a healthy R&I system that does not undermine diversity

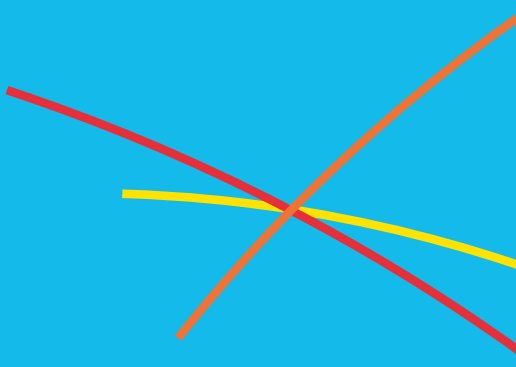
- Funders should employ clear criteria, relevant indicators, and regular self-evaluation
- Funders should experiment with new processes and test that they have the desired outcomes
- Addressing bias and providing equal opportunities are essential to the integrity of the research assessment process and should not be hindered by a resistance to change.

4 Research and scholarship are transnational endeavours

- Approaches must be mindful of local context, culture, language and unintended consequences which impact other countries
- Funders across the globe should agree on what conditions are required to support a healthy, vibrant R&I system
- Funders should work together to achieve high level coordination on what is valued and assessed as collaboration can deliver systemic change.

5 All stakeholders in the R&I ecosystem play a vital role in its construction

- All stakeholders should collaborate to develop and evaluate RRA and resist shifting blame to other parties
- Resistance to change should be countered through rewarding responsible assessments
- Buy-in for new approaches can be achieved through co-creation.



These key discussion points, together with the working paper published by Research on Research Institute (RoRI) ahead of the conference[1], have helped to inform next steps that the GRC, as a convenor and facilitator with global reach, should consider in enabling RRA to evolve and improve.

1. https://rori.figshare.com/articles/report/The_changing_role_of_funders_in_responsible_research_assessment_progress_obstacles_and_the_way_ahead/13227914

Context

UK Research and Innovation (UKRI) in collaboration with the UK Forum for Responsible Research Metrics and the National Research Foundation (NRF) in South Africa, delivered a GRC Virtual Conference on RRA during 23-27 November 2020.

The GRC is a virtual network of research funding agencies dedicated to the promotion of sharing data and best practices for high-quality collaboration among funding agencies worldwide. The virtual conference replaced a face-to-face meeting due to take place as a satellite conference to the GRC's 9th Annual Meeting in Durban in May 2020, which was postponed due to COVID-19.

The conference was aimed primarily at senior representatives from GRC participating organisations and therefore focused on RRA as undertaken by funders (while considering their role within a wider ecosystem).

The conference aimed to develop a shared understanding of the topic of RRA, bring together colleagues from GRC participant organisations, raise awareness of RRA processes and criteria with funders globally.

The conference partners invited participants to consider existing sector-wide frameworks on RRA and encouraged a global discussion on how funders can drive and support a positive research culture through research assessment criteria and processes. The conference explored at a high level the research ecosystem and range of stakeholders who influence and impact on research assessment before delving into the roles which funders play.

Focused discussion took place around three areas:

- funders' research assessment criteria and processes
- funders' assessment of their own performance
- the direct and indirect influence of funders on research organisations' assessment criteria and processes.

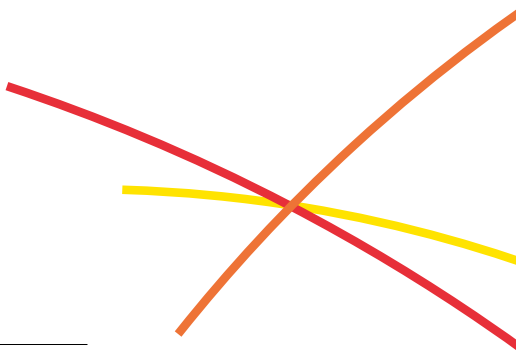
The conference was an opportunity to share good practice and develop a common understanding of the research assessment criteria and processes currently utilised by international funders for the assessment of research and researchers, as well as the challenges research funders face when implementing these criteria and processes responsibly.

Closed discussions were held in regional sessions for senior representatives from GRC participating organisations during conference week. Their purpose was to facilitate a deeper exploration of the themes arising from the plenary content in order to develop a detailed understanding of regional perspectives and to build consensus on the role of funders in promoting and supporting RRA processes and criteria at a senior level.

Conference attendees were invited to fill out a conference feedback survey at the end of the conference; nearly a quarter of attendees who had actively participated[2] in the conference responded.

Ahead of the conference, RoRI launched a working paper on **The changing role of funders in responsible research assessment: progress, obstacles and the way ahead.**[1] This was developed through a survey of GRC participant members, combined with desk-research on the state of play. Many of the topics addressed in the survey of GRC participants were raised throughout the conference. Cross-referencing to the survey analysis has been included in this conference summary report. The working paper clearly states that many frameworks on RRA already exist and that the focus for the GRC's discussions going forward should be on how to interpret these in the context of the public funders' role. This paper acted as an important springboard and informed discussions at the conference. It was well received in the community. 55% of the conference feedback survey respondents said that they found this working paper to be informative and a good document to use for preparation for the conference and subsequent participation in the conference discussions.

A set of working definitions were also made available to attendees (see Annex A).



2. It is to be noted that conference delegates can be referred to as registrants or active participants in this document. As this was a free virtual conference, anyone could register to attend but not all of those who registered (referred to registrants) actively participated in the conference. Active participation is defined as participating in at least one session at the conference.

Key analytics from the conference

Types of content during the conference week

43

Total sessions

Content

Approximately 15 hours of plenary content was available for participants to watch and participate in, as well as 'coffee lounges', which were informal sessions for delegates to meet and chat with other delegates. This diagram provides a breakdown of the types of content made available.

38

Total sessions available to all participants

22

Plenary content, including the panel sessions, keynotes, Q&As and regional reflections

9

Short videos introducing existing frameworks on RRA

7

Coffee Lounges

5

Closed Regional Sessions (by invitation only)

Speakers

The conference brought together the perspectives of **45 international speakers** from across **all 5 GRC regions** and captured many existing practices and approaches to RRA from funders internationally. Throughout the week there was open discussion on how all funders, regardless of their current engagement on issues of RRA, can improve their approaches to support a diverse and thriving research culture. Speakers were chosen with diversity in mind. For example, **women represented 56% of the speakers** during conference week.[3]

3. Speakers were suggested by: GRC Gender Working Group, GRC Executive Support Group, the GRC RRA Conference Advisory Group, the UK Forum for Responsible Research Metrics, and the Declaration on Research Assessment's Steering Committee and Advisory Board.

Delegates

Recognising that our primary audience - senior management in GRC funding organisations – would likely be juggling a normal workload alongside attending the virtual conference, the agenda was designed to be as flexible as possible (e.g. through many on-demand sessions). It is difficult to quantify attendance from senior management from GRC participant organisations given registrants identified their job titles in a variety of ways, but it is clear from the registrants' data that a sizeable proportion of registrants were from the targeted audience. This is also supported by senior management attendance at regional sessions (which were by invitation-only).

As this is an important topic requiring global partnerships and cooperation, it was vital for the event to be freely accessible to interested parties. At the end of the conference week, 1078 individuals registered.

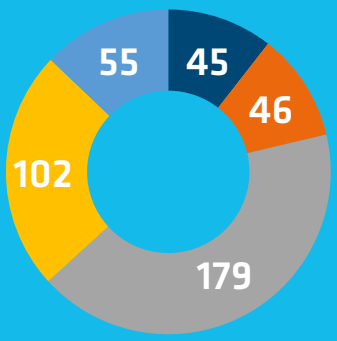
The graphs below provide some breakdowns of registrants by GRC participation, location, organisation type and (self-assessed) topic knowledge.

Organisation

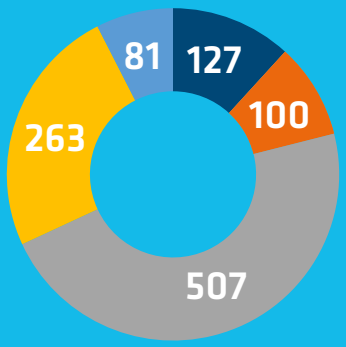
GRC participant **427**

Non-GRC participant **651**

GRC Region (GRC participant organisation only)

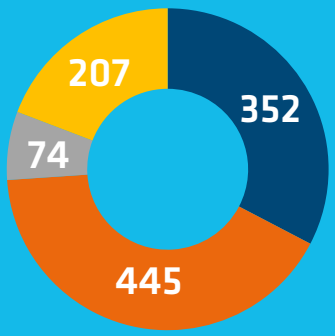


GRC Region (all delegates)



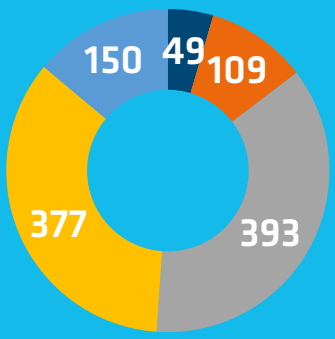
- Americas
- Europe
- Sub-saharan Africa
- Asia-Pacific
- Middle East and North Africa (MENA)

Type of organisation



- Funders
- Research Performing Organisations
- Publisher/Learned society
- Other

RRA knowledge and understanding



1 (Poor) 2 3 4 5 (Excellent)

85%

of the conference feedback survey respondents agreed that the conference met their expectations.

..with many highlighting the excellent speakers, the thought-provoking talks, the diversity of expertise and broad spectrum of topics covered at the conference.

45%

of respondents said that the conference had significantly increased their knowledge and understanding of RRA.

55%

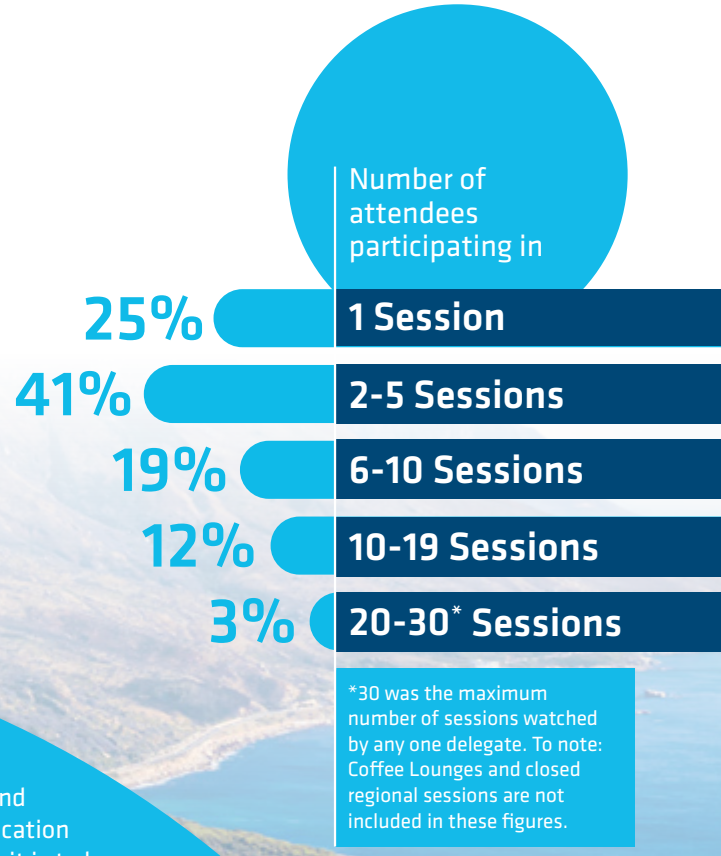
of the respondents agreed to take forward actions arising from the conference.

..with some expressing their willingness to share and disseminate the RRA concept within their organisation, to organise peer dialogue, to implement the San Francisco Declaration on Research Assessment recommendations in their future assessments, to pilot and set up RRA procedures and criteria in grants assessment in line with their mission and cultural context, as well to continue to lobby for fairer research assessment practices globally.

Participation

Looking at active participation in sessions, it was interesting to note that just under half of the registrants actively participated in the conference.

On average delegates participated in 5 sessions during conference week. **The following breakdown provides further detail ▶**



*30 was the maximum number of sessions watched by any one delegate. To note: Coffee Lounges and closed regional sessions are not included in these figures.

Session **participation** is distributed across regions, suggesting that GRC participant organisations worldwide engaged with the content and the topic. The graph below shows participation is representative of location profiles for registrants from GRC participant organisations; therefore, it is to be expected that nearly half of session participation was from Europe given just under half of **registrants** came from there. At the GRC annual meeting 2021, participants should therefore be broadly familiar with what is being presented in this report.

Session participation across GRC participant organisations

All figures above only include engagement during conference week. The content created for and during the conference was available until 25 February 2021 to those who registered for the conference via the conference platform. Many caught up on sessions they were unable to watch after the conference week. Between the end of the conference and the end of the period where registrants had access to the conference material on the conference platform on February 26, 2021, 60 registrants watched content on the platform; a few seemingly used the time to catch-up on a lot of sessions. The conference content was thereafter made publicly available to watch on the GRC YouTube channel.[4]

4. https://www.youtube.com/channel/UCEuLK_JPExentZ1XA8bGDWw

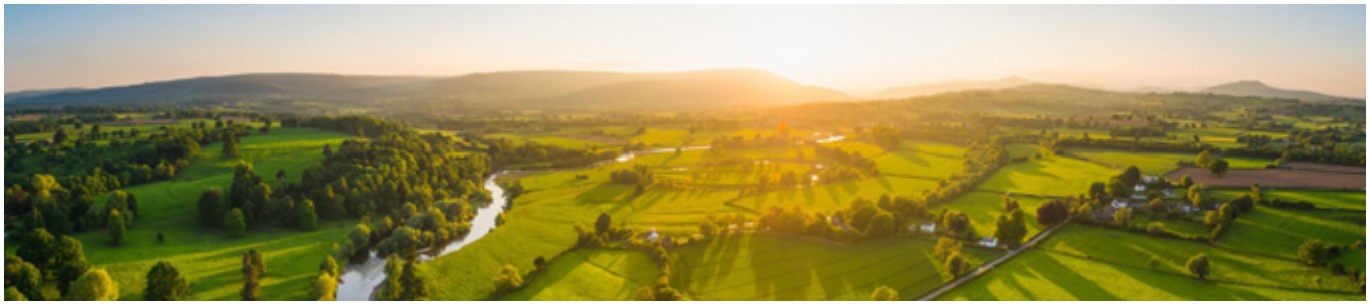
Thematic analysis

The conference agenda was developed to cover the breadth of the topic and demonstrate the importance of funders' role in the research ecosystem. As hoped, the conference fostered important and fruitful discussions on the topic.

This section presents an analysis of all the conference content. The key discussion points were drawn out into the following high-level points:

1. **Research assessment shapes research culture**
2. **Diverse R&I sectors create high-quality research and impact. This should be supported in research assessments**
3. **Carefully considered and formed research assessment criteria and processes foster a healthy R&I system**
4. **Global approaches to RRA are pivotal to high-quality research and impact but they must be cognisant of local context, culture and language**
5. **Funders must steward the system by acting and exerting the power they hold to influence other stakeholders.**

The analysis reflects the discussions throughout conference week. The discussions reiterate the existing principles of RRA described in the RoRI working paper[1] and the conference introductory material. The analysis draws out emerging findings for funders on their role in implementing RRA, including current progress and challenges. The GRC will use this information to inform future work on this topic. The information presented as part of this analysis does not currently reflect the position of the GRC.



1 Research assessment shapes research culture

Research assessment shapes the research landscape and influences how research is performed, who it is performed by and how it is disseminated. Research assessment processes and criteria must incentivise, and recognise, all behaviours that establish the R&I system that stakeholders would like to foster. What is valued and how it is measured will drive research culture within and across disciplines, and at national and international levels.

Research funders are stewards of the R&I system. Funders should take responsibility and use their power and influence in the research ecosystem to initiate positive change, leading by example.

Funders must consider how the things they value will translate to what is valued in the wider research ecosystem. Research assessment approaches that inform funding allocations map onto individuals and individual behaviours, even where the aim is to assess teams or organisations. Funders must think about research assessment in the context of the individual.

While the research system is interdependent (see theme 5), funders are in a crucial position with more freedom than other stakeholders to initiate change.[5] Funders could move faster and be more radical in in driving RRA and tackling deep systemic issues but they cannot deliver systemic change alone (see theme 4). However, funders can be subject to limited resources, lack of sustainable resources, and government policy shifts.

The pressure to perform in university league tables is a barrier to research culture change. Global rankings and league tables influence the higher education system. Prospective students use them to select where they should study (and graduate employers use them to select talent), the academy use them to decide where to work and apply for promotion, universities use them to market themselves, and funders use them to support decision making.

Many university rankings use a small number of proxies of quality (e.g. a narrow set of metrics) to compare very different research performing organisations. League tables often do not measure what matters to the R&I system and they do not demonstrate excellence at a useful scale for the users of this information (for example, pockets of excellence are not captured).

If a research organisation wishes to 'climb' the league table, then they will need to improve on the indicators of quality which are informing the rank. The values of organisations are therefore directly influenced. Stakeholders who use or consume the rankings need to be provided with a much better service.

Funders should:

a. not use existing rankings to inform research assessments

b. not create rankings themselves but instead provide much more nuanced information in an accessible form

c. take steps to reduce reliance on poorly constructed rankings across other stakeholder groups.

5. This is due to a number of factors including, but not limited to: funders may have quite a lot of control over the way they allocate money; many funders can set up their own funding criteria and processes which the R&I sector respond to; funders themselves are not competing for money in the same ways as individual researchers and research organisations; some funders can consider the health of the whole R&I system especially where they are multidisciplinary funders; funders are not usually ranked like other stakeholders.

2 Diverse R&I sectors create high quality research and impact. This should be supported in research assessments.

The definition of research excellence and impact must be multidimensional. There is no clear, measurable definition of research excellence. It often refers to outstanding performance and relates to reputation and standing, covering both the process and outcomes of research. Excellence is even harder to define than research quality. Quality emerges from a diverse system; however there has been a tendency to define quality in unitary ways that are globally applicable. Standards used to define excellence often incorporate the international impact of research, but these same standards often 'score' the research that has a local, regional or problem-solving perspective as lower in quality. If quality is multidimensional, so should be the definition of excellence.

There are challenges with demonstrating research impact due to its wide definitions. However, defining impact should also be multidimensional and based on context, discipline and location, as well as accounting for what impact is being assessed (impact of research, funders or programmes).

Examples include incorporating sex, gender and intersectionality (gendered innovations) into the definition of excellent research.[6] Research ethics is an important consideration, particularly for emerging economies. Open research should be a dimension of excellence, which can in turn support research integrity.[7] Funders should incentivise these dimensions in their assessment criteria (whether at project grant or organisation level) and mandate policies and processes to progress behavioural change (e.g. Wellcome which mandates open access and requires a commitment from funded organisations to principles of RRA[8]).

High-quality research is shaped and delivered by a wide range of perspectives and experience of people from all backgrounds. Globally, the demographics within the academy do not fully represent the demographics of the society it is aiming to serve. The research assessment system must accommodate and encourage inclusion and diversity, including individuals who have had a non-traditional academic career path, those who have worked within one discipline or multiple disciplines and those who have had career breaks. Narrative CVs could provide a process to effectively assess this diversity. There are differences for early career researchers (ECRs), noting that the existing assessment system broadly favours established researchers, and that the established community who may have successfully navigated the current system may be most reluctant to change. When assessing grants, it was noted that funders need to take into consideration the track record/achievement relative to opportunity, particularly for ECRs.

Funders play a critical role in addressing issues of equality, diversity and inclusion (EDI) but these issues are systemic and need also to be addressed by universities. The quality of research relies on and is improved by inclusivity. Funders' assessment criteria and processes should be inclusive and promote equality and diversity. Some funders have introduced processes to address bias, gender being the most prominent characteristic considered thus far. Other protected characteristics are less addressed but have been identified as representing major challenges for the future.[9]

A broad portfolio of research funding can enable responsible assessment. Diversity of research is essential for a high-quality R&I system that delivers real-world outcomes. This includes diverse types of research (basic, applied, translational) and disciplines[10] (including interdisciplinary), and people and skillsets. The design of assessment criteria which facilitate and support diversity is challenging but it is vital that progress is made. More should be done by all stakeholders conducting assessments to support diversity, including building confidence in assessing differences, even within the same funding schemes. Funders should have a portfolio of funding schemes with different objectives and underpinning criteria as this can help to support diversity in the system. Funders must empower assessment panels to fund diverse projects within these funding schemes, considering how individual projects can create portfolios of funding (e.g. balance between basic, 'blue-sky', and challenge-oriented research).

6. See data on how many GRC participants (who responded to the GRC survey on RRA) included gender dimension in research as part of the assessment (RoRI paper p32)
7. See data on how many GRC participants (who responded to the GRC survey on RRA) currently include open access publication, open research data, and data curation in their research assessment indicators and how many are considering including these indicators in the future (RoRI paper p33-35, figure 3)
8. https://wellcome.org/grant-funding/guidance/open-access-guidance/open-access-policy, https://wellcome.org/grant-funding/guidance/research-organisations-how-implement-responsible-and-fair-approaches-research
9. See data on how many GRC participants (who responded to the GRC survey on RRA) adjusted research assessments to ensure diversity (RoRI paper p32-33, figure 2)
10. See data on how many GRC participants (who responded to the GRC survey on RRA) adjusted research assessments to ensure diversity of research (RoRI paper p32-33, figure 2)

3 Carefully considered and formed research assessment criteria and processes foster a healthy R&I system

3a. Research assessment criteria should be broad and use indicators that assess what is valued

Assessments should be based on a broad set of criteria.[11] Narrow assessment criteria often homogenise research and stifle innovation. This can prevent the development of new research techniques, hinder progress into emerging and diverse research fields, and prevent and exclude diverse talent from entering the research system (see theme 3). Suppression of diversity is made worse by the narrow assessments informing global university rankings (see theme 1).

The excess emphasis (and narrow use of) bibliometrics in research assessment, especially the focus on journal-level metrics such as Journal Impact Factor (JIF) and H-Index is particularly prominent in the Global South for hiring, promotion and funding purposes (in research organisations and research funders). The narrow use of bibliometrics suppresses diversity of research and researchers.

Current misapplication of narrow criteria of research quality does the following:

- creates a 'publish or perish' culture
- prevents transition to open science at a sustainable cost
- creates unsustainable pressures on researchers including hyper competition for jobs and funding
- exacerbates problems with research integrity and reproducibility (including the publication of the smallest possible units of research)
- leads to a focus on lower-risk/incremental work, bullying and harassment, poor mental health
- reduces equity - there are also systemic biases against those who do not meet the narrow criteria.

A holistic approach to assessment should be taken and be based on broad criteria of quality and impact where metrics complement expert evaluation (peer review is not free from bias see theme 3b). Seeking and providing context to indicators (qualitative and quantitative), valuing a range of outputs in assessment criteria, and being

explicit that the long list of criteria is not a checklist, but that only applicable ones are chosen, are key to delivering RRA.

Assessments should value an individual's net contribution to research. Broadening the range of contributions that are recognised in research assessments is vital. It is an important step towards enabling sustainable research systems, detoxifying competitive research cultures, removing barriers for under-represented groups, and improving researcher wellbeing.

The most cited contributions which should be recognised and rewarded are mentoring and wider services to the research community (such as peer review). Others included teaching, industrial collaborations, technology transfer, societal impact, and outreach/engagement with publics beyond the academy.[12] It follows that assessments that value the net contribution of an individual to the system - beyond their direct research contributions - incentivise researchers to play their individual role in creating a healthy and inclusive research culture.

Research assessment criteria should be clear and transparent, but this should not undermine diversity. Funders must be transparent, explicit and clear on the aims and meaning of each criterion (and supporting indicator) they use in research assessments. For example, when using 'Research Quality' as criterion, they should clarify for both those being assessed and reviewers, what this encompasses and how it will be indicated.

However, a tension exists between setting transparent assessment criteria and supporting diversity, notably EDI. Where the system has moved to a granular interpretation of transparent criteria setting this will sometimes directly work against supporting diversity. This may occur where clarity and brevity of criteria outweigh presenting breadth in assessment criteria. In our effort to make things fair we risk crushing difference.

Research assessment criteria must be regularly reviewed, discussed and updated.[13] Evaluation of research is not fixed in time but is something that evolves, and it must evolve according to the different level of maturity of the science system for each country. Indicators should be scrutinised regularly and updated accordingly.

11. See data on the methods of assessment and the indicators currently used and those being considered for future use from the GRC survey on RRA (RoRI paper 32-35).
12. See data on which indicators are being included in assessment and those being considered in the future from the GRC survey on RRA (RoRI paper p33, figure 3).
13. See data on the frequency of internal evaluations to test the robustness of research assessments from the GRC survey on RRA (RoRI paper p38, table 3).

3b. Processes play a key role in creating a research assessment system that is fit for purpose

Transparent processes are one of the principles of RRA and this should be balanced with the need for privacy. The potential for conflict between achieving transparency while maintaining privacy in assessments is undeniable. The legal context of the country or region can dictate whether assessments are put in the public domain or kept private, but where there is a choice, transparency and privacy can both be maintained through the following measures:

- putting in place a transparent review process and providing clarity to all parties on the process
- giving reviewers a chance to provide comments anonymously (or not)
- showing applicants all reviews; anonymised or not
- providing a rebuttal system even where reviewers' comments are anonymised.

Assessment processes can be burdensome and bureaucratic, especially when new methods are involved. Naturally resistance follows. Assessment processes are an important quality-assurance gateway for the creation of new knowledge and innovation which result in societal and economic developments. For funders, there is a fine balance between providing accountability for decisions made (specifically for funding allocations) and avoiding unnecessary, lengthy bureaucratic processes.

Burden arising from the implementation of new assessment methods can create resistance; resistance from applicants and reviewers needs attention but should not be a barrier. Funders should explain the changes they make and the problems which the change is aiming to overcome to get buy-in. It should be noted that resistance may naturally be countered where there is recognition of a need to correct imbalances, e.g. in gender. Streamlining processes can also somewhat counter resistance, as it helps to reduce burden across the whole ecosystem.

Well-conducted and thorough assessments are resource-intensive. Therefore, funders should seek to add automation into the process where possible without compromising on the assessment itself. Artificial Intelligence is being used by some to identify and select peer reviewers. Others recommend using data mining tools, such as Wellcome Reach[14], to inform assessments. Consulting stakeholders, early identification of data needs and pragmatism about data collection are further helpful suggestions.

Providing feedback is important. Peer-review should be delivered responsibly. Research organisations spend significant time on grant management; researchers on writing grant proposals, carrying out and submitting evaluation reports. It is therefore important to have a feedback mechanism from funding agencies.

Good communication to unsuccessful applicants should consider both when and whether to give detailed feedback. Where possible, there should be opportunities for submission of a revised version, giving applicants the opportunity to improve applications. Feedback, often a sensitive issue, can be provided in many ways, ranging from just providing a ranking through to fuller qualitative feedback. There is no consensus amongst funders on which feedback method is best. Some prefer giving feedback on all proposals (whether funded or not) as although it can be a lot of work, it builds trust with the sector and is seen as important for transparency. In all cases, it would be good practice for funders to seek applicants' and reviewers' feedback on the review process.

Addressing bias and providing equal opportunities are essential to the integrity of the research assessment process. Funders need to ensure their decision-making and grant evaluation processes support equal opportunities.[15] It is also important during the review process to examine where bias may have occurred, for example by checking if a reviewer has conflicts of interest with existing or ongoing projects. The recent Science Europe study noted that some forms of bias are scrutinised frequently (e.g. gender 82 %) but others are less often (e.g. ethnicity 31 %). Addressing unconscious bias, especially in the context of EDI, require funding agencies to identify risks of exclusion, and develop the appropriate mitigating actions in research assessment systems.[15]

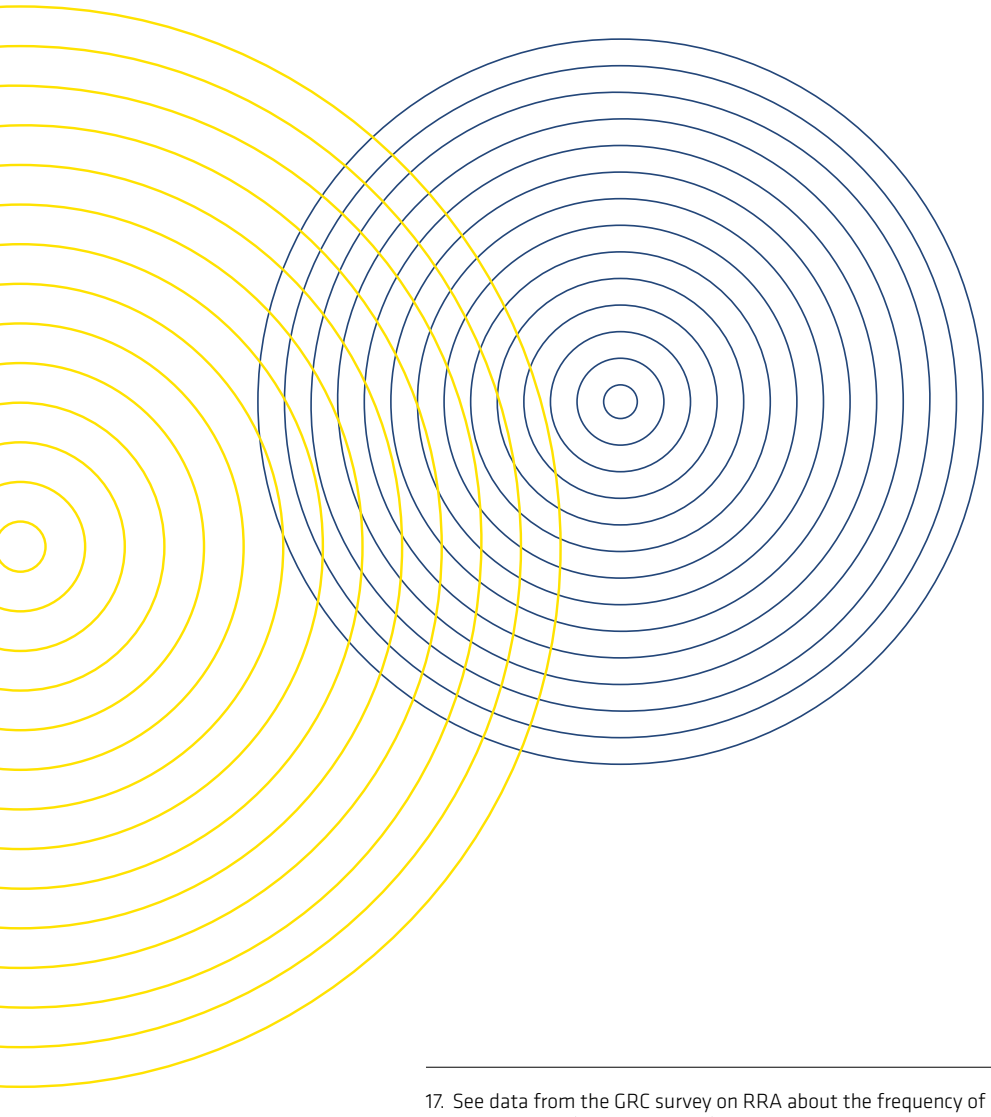
It is important to trial new methods.[16] New methods need to be evaluated carefully to understand what works and what does not. Two examples of innovative methods that were quoted frequently at the conference are lottery and narrative CVs. The introduction and implementation of such new methods must be done iteratively to allow for adjustments and modifications of the methods over time. Additionally, reviewers must be trained and be repeatedly encouraged to recall principles of the methods to ensure they do not fall back to using old methods. There is a need for funding, encouragement of further experimentation and higher levels of coordination amongst funders across the globe for these trials to become global and to have meaningful and long-lasting impact.

14. https://reach.wellcomedatalabs.org/about
15. Technopolis (2019) Science Europe Study on Research Assessment Practices. December 2019. https://www.scienceeurope.org/our-resources/science-europe-study-on-research-assessment-practices/
16. See data from the GRC survey on RRA about experimentation with new assessment systems and funding allocation methods (RoRI paper p36-38).

3c. Funder self-evaluation should be an essential part of RRA

Funder self-evaluation is an important exercise. Funders' most regularly sighted self-assessment is a review of their funding portfolio. There is no right or wrong answer when it comes to choosing timings[17] or methodologies for self-evaluation. Funder self-evaluation carries the same challenges as assessments that aim to understand the effectiveness of funded research (including demonstrating research impact). These challenges include the complexity and long timescales involved in measuring effectiveness, the absence of control experiments and difficulties with seamless exchange of data. The following suggestions can help funders in overcoming challenges of performing self-evaluation:

- seek to align evaluations with internal key strategies
- ask external evaluators to look not only at the effectiveness and impact of funder programmes but also at the funder's policies and strategies
- seek evidence to inform and transform their practice by regularly, continuously and critically reflecting on what funders fund and how the funded programmes maximise potential to benefit society.



17. See data from the GRC survey on RRA about the frequency of internal evaluations to test the robustness of research assessments (RoRI paper p38).

4 Global approaches to RRA are pivotal to high-quality research and impact but they must be cognisant of local context, culture and language

Research and scholarship are transnational and therefore reforming research assessment must be a fully international endeavour. Funders must draw together consensus about what they are trying to achieve in the R&I system and what they should be valuing and assessing (e.g. open research, research integrity and reproducibility). Cooperation and collaboration can enhance research quality, avoid unnecessary duplication, provide economies of scale, and address issues that can only be solved by working together. Important benefits of collaboration include best practice sharing and avoiding disadvantage (actual and perceived) for 'first movers'. Collaboration can be an opportunity to improve assessments, improve the data underpinning the assessments and supporting a better understanding on constraints and limitations of certain approaches.

International collaboration is important but local/regional context must be considered to realise a truly excellent system. Assessments should support researchers to move freely and collaborate effectively and should not restrict individuals. However, the finite balance of research regulation for international researchers, safeguarding indigenous knowledge (including brain drain) and enhancing intra-regional collaboration must be considered. Working globally is important but it must contribute to developing vibrant research ecosystems and economies locally. Not all regions and nations are starting from the same point, with diverse implementation of RRA principles and practices.

Therefore, defining the concept of 'quality research' at an international level needs a careful understanding of regional/local context. This includes recognising that local knowledge is important for research capability and discovery (particularly in emerging economies), funding constraints and political context, protecting language and dialect in the assessment of the proposals, the value of the research output/impact, and EDI considerations. Additionally, funders should appropriately consider proposals which are translated into a common language because assessments for such proposals have an impact on rigour, fairness and transparency.

Some regions rely to a great extent on international peer reviewers (due to limited local resource with the correct expertise and potential conflicts of interest) and it is not clear how much local context they have and if this impacts their review.

Funders' research assessment criteria and processes at a national level influences the system globally which can exacerbate the global north/south divide. Large publication databases are biased towards commercial publishers (e.g. Scopus and WoS). Due to differences in scholarly communication systems, for example in Latin America, which is dominated by university presses and non-commercial providers, limited publication data exacerbates inequalities in the system and stifles the success of non-commercial publishers. Funders must adopt an approach which enables equity, diversity and open research.

5 Funders must steward the system by acting and exerting the power they hold to influence other stakeholders

Collaboration is needed across all stakeholder groups to inform, develop and evaluate RRA. Systemic change (see theme 1) is required and needs a coordinated and consistent approach across stakeholder groups. It is important that all stakeholders work in partnership to truly embrace the responsibility of research assessment. Funders are important stewards of the system and play an influential role but governments, research organisations, publishers, rankers, other regulators (for example where the quality of teaching at an organisation is regulated or monitored by another body) must also review and change their approaches.

Each stakeholder group's actions can condition the behaviour of individual researchers in significant ways and it is up to the whole research community to work together to achieve cultural change. However, most stakeholder groups shift the blame of the toxic culture to another party.

There is resistance to change by a variety of stakeholder groups. In practice, a concerted effort across all stakeholder groups is challenging. Among the main obstacles to implementing RRA are the resistance to change by the academic community and the influence of commercial publishers and league tables. The resistance from the academic community is driven by concerns about maintaining quality in the assessments (e.g. how robust and reliable new paradigms are, compared to the standards that have been in use for the last decades).

Another concern is the perceived complexity, to external reviewers, of thorough qualitative research assessments. For those researchers who are well rewarded by the current evaluation system, there is little incentive to change the status quo. The system must reward each group and individual for taking responsibility to deliver responsible assessments and the academic community should rein in the power it has historically given to stakeholders such as commercial publishers, commercial providers of research analytics services, and rankers. Senior leaders in research organisations are pivotal to this shift and must drive forward cultural changes by placing less emphasis on external measures of their organisational prowess. The system needs cohesion to support senior leaders to deliver this.

Funders can (where possible) take leadership and use their power to kick-start other changes in the system (see theme 1). It is crucial for funders to understand how their actions shape the R&I system. This involves a deep engagement and collaboration with stakeholders (including academia, government, third sector, and international community) to understand how they work and how funder policies will impact on how they do their business.

It is apparent that all funders do not have a consistent level of delegated authority from their governments to change criteria and processes for research assessment.

For some funders, implementation of new approaches and broader indicators of quality have been received with mistrust from the sector, and narrow measures of quality are still perceived as the most important indicators in the assessment of grants or organisations. Engaging the research community in the development of assessment criteria through co-creation will ensure buy-in and confidence in the approach developed. Where champions and/or experts are engaged, change is much better heard from the research community.

Regional Perspectives

The tables below include some key points raised in each of the regional meetings. The full reports can be found at Annex B.

Americas

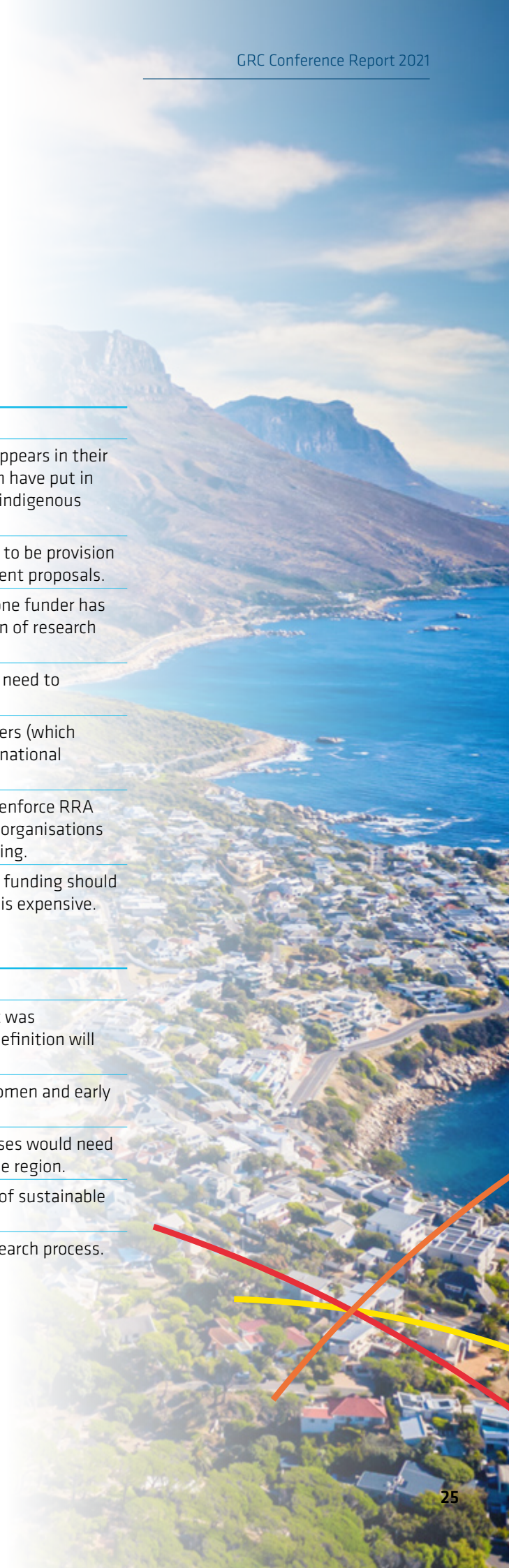
- RRA implementation is diverse across the region, as new approaches are tested and evaluated in each context.
- The definition of RRA includes EDI, however the assessment approaches to best support and promote EDI in assessment were debated.
- RRA and societal value/impact interplay. Mission-oriented research is desired by funders but the ecosystem challenges this shift (especially where curiosity-driven research has been the norm).
- Assessments should value local delivery and application of research as well as global impacts.
- There is resistance to change research assessments from the academic community. Cost and complexity to implement novel approaches was a real barrier for change.

Sub-Saharan Africa

- Context is particularly important for the region, especially for emerging economies who are developing national research ecosystems.
- A systems wide approach across the region was desired to strengthen RRA.
- Open Science is an emerging policy area for funders in the region. Approaches to open science differ by agency country or region based on context.
- There is a need to strengthen capacities of research performing organisations to undertake RRA.
- The region can share experiences and knowledge about dealing with unconscious bias, especially in the context of EDI.

Europe

- Funders in the region range from conservative to revolutionary in the ways they assess research.
- European funders would like to agree common approaches and methodology for assessments, especially useful in the context of the European Commission and funding from Horizon Europe. The region noted the opportunity to collaborate globally and seek agreement.
- Despite efforts from funding agencies indicators like JIF may be used by reviewers (especially ad-hoc reviewers where practice cannot be called out by panel members) and embedding widespread reform is needed.
- Assessment of interdisciplinary research tends to be conservative especially where reviewers do not feel expert across the disciplines and where funding is tight. Similar issues were noted for high-risk, high reward research.
- Funders must have a diverse portfolio of uncorrelated risk where individual programmes have different objectives and therefore assessment mechanisms.



Asia-Pacific

- Each country in the region reflected differences in how inequity appears in their systems e.g. geography, gender or ethnicity. Funders in the region have put in place positive action (otherwise known as affirmative action) for indigenous people, women and early career researchers.
- Where there is not a level playing field for applicants there needs to be provision of resources for applicants to be able to develop sound and coherent proposals.
- Some funders have an emphasis on preventing misconduct and one funder has put in place greater checks and balances on the misrepresentation of research and possible fraudulent applications.
- Countries within the region have multiple languages and funders need to support the assessment (including assessors) for parity.
- Some funders in the region have a limited number of peer reviewers (which raises the chances for conflicts of interest), and they rely on international reviewers who may not understand local context.
- A suggested way to improve RRA was to both include clauses to enforce RRA in contracts and provide expectations in guidance for all research organisations that might have either funding already in place or for future funding.
- There is growing recognition that impact assessment of research funding should be performed although it is recognised that this takes effort and is expensive. Funders have used various methods to demonstrate impact.

Middle East and North Africa

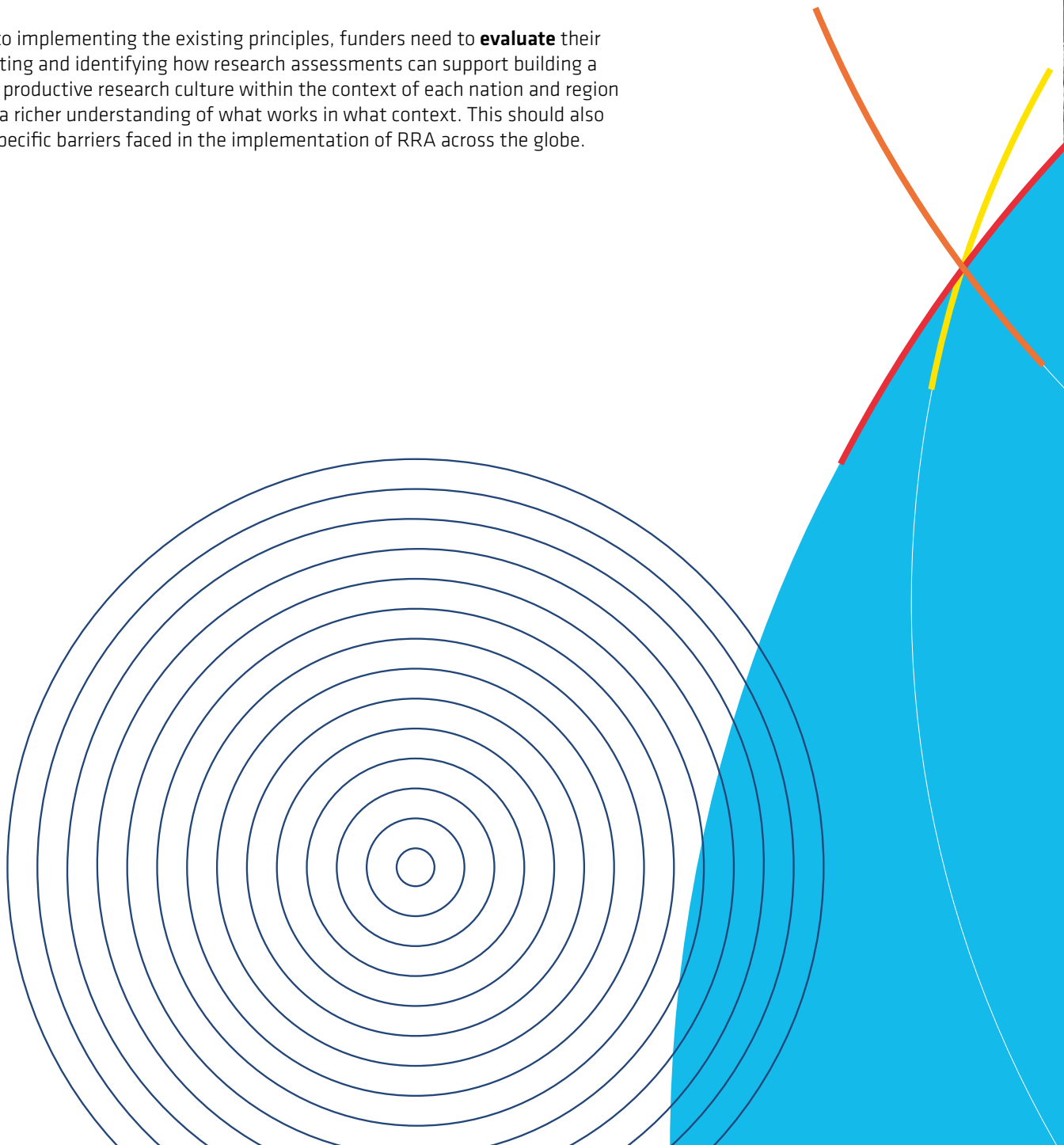
- The region does not have an agreed definition of RRA however, it was considered an important topic for further discussion. Key to the definition will be local and contextual sensitivities.
- EDI is a core value in the region, with specific interventions for women and early career researchers in assessments.
- Bureaucracy is a barrier. Research assessment criteria and processes would need to be updated in law and this is not delivered by the funders in the region.
- Funders in the region are impacted by limited resources and lack of sustainable funding (from governments and private sector contributors).
- Funders recognise the lack of stakeholder engagement in the research process. The region plan to address this in support of RRA.

Next steps for RRA for the GRC

Many existing principles on RRA were discussed during the conference, providing a clear rationale for action. It resonated that the policy landscape is crowded and further frameworks/principles on RRA are not needed. Instead funders should focus their efforts on **embedding** existing principles and **taking concrete actions** to incentivise and fulfil RRA ambitions. Any future support from the GRC must factor in that not all regions and nations are starting from the same point, with diverse existing implementation of RRA principles and practices.

Funders should think about how to make sustainable and systemic changes. The GRC could support funders to deliver systemic change by defining what this means in practice.

In addition to implementing the existing principles, funders need to **evaluate** their policies. Testing and identifying how research assessments can support building a healthy and productive research culture within the context of each nation and region will provide a richer understanding of what works in what context. This should also clarify the specific barriers faced in the implementation of RRA across the globe.



In the conference closing remarks the outgoing Chair of the GRC Governing Board asked for

> an open, global forum where common values and important differences can be debated and articulated, and where good practices emerging from experimentation and evaluation can be shared. This will enable the concept of RRA to evolve and improve. Given its global reach, the GRC is well placed to play a role in convening and facilitating such a forum, ensuring that voices from across the research world are involved.

UK Forum for Responsible
Research Metrics