



CHANGE READY

REPORT

RT 2019

Global attitudes to research impact





Shifting sands: from metrics to real world impact – views from more than 1,000 participants from 102 countries

IF YOU CAN'T FLY, THEN RUN. IF YOU CAN'T RUN, THEN WALK. IF YOU CAN'T WALK, THEN CRAWL. BUT WHATEVER YOU DO, YOU HAVE TO KEEP MOVING FORWARD"

Martin Luther King Jr.

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Academics and higher education institutes around the world are increasingly thinking about the broader implications of their research and reaching out beyond their peers to government, industry and society. This 'impact agenda' has largely been fuelled by national research assessments such as the UK's Research Excellence Framework (REF) and Excellence in Research for Australia (ERA), as well as funders including the European Commission and the National Science Foundation, who naturally want a return on their investments. Aside from the funding requirement to ensure research has an impact beyond its scientific contribution, researchers around the world are starting to choose projects that will have societal, economic, environmental and health benefits, as well as adopting new approaches to research such as co-production.

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While the impact agenda is gaining momentum, there are significant barriers, including the culture of research itself which has a long history and focus on research outputs such as citations and publications. These measures often inform league tables and university rankings and are still widely used to evaluate career success and research quality. A 2019 survey by McKiernan, E. C. et al. in Preprint at PeerJ Preprints revealed that 40% of research-intensive universities in North America refer to journal impact factors (JIFs) or a similar term in their review, promotion and tenure documents. JIF, citations, number of publications and number of PhDs are also used in many national research performance-based funding (RPBF) systems to assess research quality and ensure that resources are allocated to the highest scorers. Even in countries that assess research using qualitative evaluations such as peer review, some form of metrics is considered.

Assessors often rely upon JIFs as a quick and easy way to judge the quality of research, but many in the academic community believe this metric to be an unreliable measure of impact, particularly of a project's broader implications. Efforts to change the way research is evaluated are a work in progress and alternative metrics may in the future offer a part solution. It is unlikely, however, as HEFCE's report, 'The Metric Tide' points out, that metrics of any type would stand alone as a sufficient measure of research quality.

While the metrics debate continues, Emerald is championing a way forward. As a signatory of DORA (San Francisco Declaration on Research Assessment), we recognise the need to take a broader and more inclusive approach to research evaluation, including the responsible use of metrics. Citations counts and JIFs can only indicate academic influence, they are unable to explain the extent to which research has made a difference. This is the reason we are challenging outdated measures of impact and driving impact literacy, helping researchers around the world to develop pathways to impact and make evidence-based decisions to create change.

Our intention with this report is to provide a sense of how 'change ready' we are as a research ecosystem to move beyond metrics and "to the provable effects of research in the real world" (the definition of impact we use at Emerald, closely aligned with the working definitions of those such as the UK Research and Innovation). By highlighting the most pressing global challenges to impact, as well as celebrating the researchers blazing a research impact trail in their field, we hope to raise awareness and inspire others to back this important movement.

This report is based on results from our 2018 Research Impact Survey, 2019 Change Ready Survey, a poll conducted by the Emerald Impact Council at the ARMA 2019 conference and interviews with those working in the research sector.

July 2019

CHANGE READY SURVEY

Who participated?

We sent an electronic questionnaire to 95,673 literati in 188 countries worldwide. 1,096 people in 102 countries responded to the survey.

Objectives

The aim of the survey was to:

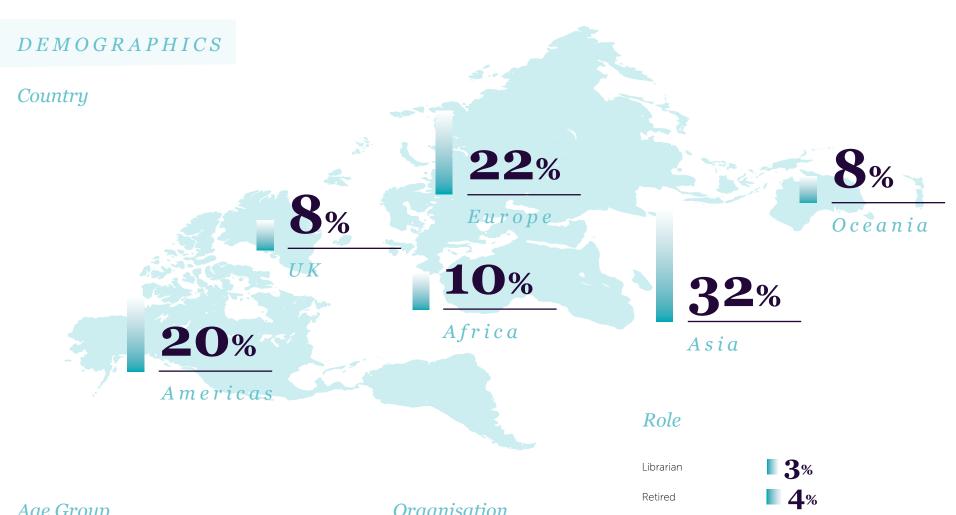
- Understand attitudes to change.
- Gauge change readiness in different communities.
- Uncover the challenges 'changemakers' face in driving change in their institution, role or region of the world.
- Celebrate the achievements to date
- Explore solutions for accelerating change that leads to real world impact.

Content

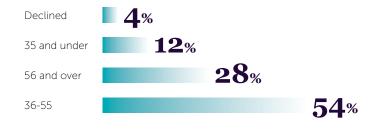
The survey focuses on two main areas, the first section explores the 'change readiness' of the research ecosystem to move from a traditional research evaluation system that focuses heavily on JIFs and citation counts to one that rewards the societal and other wider impacts of research. The second part of the survey continues to assess the 'change readiness' of the sector but delves further into its views on research impact as a concept and the future of research evaluation. Throughout the report we home in on the noteworthy result differences between regions and countries, where relevant (n.b. we have separated the results for UK and Europe, as well as Latin America and the Caribbean, and North America). In some cases, we also compare the results of the survey with those from our 2018 Research Impact Survey.

Limitations

We understand that the results of the survey are representative of this specific group and may not necessarily reflect the perceptions and attitudes of the wider research community.

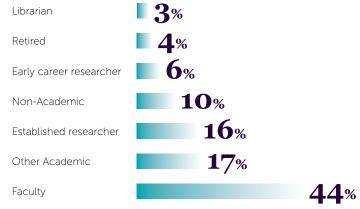






Organisation

Academic	1,318
Other Academic	431
Non-Academic	254
Retired	70



SECTION ONE

CHANGE READINESS

How 'change ready' are we as a global research community?

A key aim of our survey was to understand the extent to which the sector would be willing to change the way research quality is traditionally measured – from Journal Impact Factors and citations to research impact beyond academia. This is what we found:

Most of the research sector want the way research impact is measured to change.

Over 90% said they want some form of change to happen in the evaluation of research impact. A total of 69% described themselves as very open to change in the way research is measured and 68% said they want to introduce metrics beyond the Journal Impact Factor (JIF). According to participants, however, their organisations are yet to catch up with their progressive view – 35% reported their institution as very open to change and 30% as fairly open.

Individuals leading the way: institutions need to catch up.

Over a third (39%) of participants have driven change in the way they approach their research in relation to measuring impact and a further 30% are very open to change but are yet to drive change in their approach to measuring research impact. When it comes to their institution leading change, only 15% said their institution is very open and has already driven change. While another 10% said their institution was fairly against change, with a further 5% against change all together.

Regional differences:

- In Africa, the proportion of people who are very open to change but have yet to change is significantly higher than in other regions – 38% compared to 32% in the Americas, 30% in Asia, 28% in Europe and 28% in Oceania
- In Asia, the proportion of very open (regardless of change) is 7% greater than the average of 35%. The Americas are the largest proportion of those 'on the fence' (neither open to change nor against it) when compared to other regions.
- In Oceania, 'the very open but no change' category is much lower than the global average and in Asia, there is a significant proportion of institutions that are open to change but have not yet driven change.
- More people from the UK (53%) compared to Europe (38%) reported to be very open to change and have driven change. This is offset by a greater proportion in Europe that are fairly open to change – 25% compared to 12% of UK respondents.

over 90% said they wanted some form of change to happen in the way research is measured

have driven change

Vision versus reality:

While 68% of participants said they want to introduce metrics beyond JIFs and 39% are already driving change, their verbatim responses still focus on the sector's preoccupation with the JIF:

"You cannot drop the impact factor - you need other suitable and reliable metrics" (Australia)

"The idea of moving from objective Key Performance Indicator (publication and impact factors, citations) to subjective 'societal impact' type of measurement is a dangerous movement. [...] As long as no better objective KPI can be created, the last decade's consensus on publications and citations is the best performance measurement." (Europe)

"Keep impact factor and adopt multiple ubiquitous and complementary measures" (Canada)

IMPACT OFFICERS ARE THE MOST OPEN TO CHANGE: All Impact Officers reported that they want to see change – 50% are very open to change and have driven change, while the other 50% are fairly open to change, but are yet to drive change. Head of Departments scored the next highest for being very open to change and having driven changed, followed by 39% of Faculty/Teaching staff and Researchers, 38% of Research Managers and 21% of Librarians. Librarians scored the highest for very open to change but haven't driven change – 48% compared

to 32% of Faculty/Teaching staff, 31% of Researchers and Heads of Departments and 27% of Research Managers. As mentioned, 50% of Impact Officers said they were fairly open to change, this compares to 31% of

Research Managers, 25% of Faculty/Teaching staff, 24%

of Librarians, 23% of Researchers and 22% of Heads of

Departments.

WHAT DOES THE SECTOR WANT CHANGED?

New incentives and less focus on JIFs:

68% of respondents want the introduction of other metrics beyond the impact factor and 43% want to change the way incentives are used. More than 1 in 10 of the academics we spoke to want the impact factor to be removed altogether.

Regional differences:

- At 18.6%, Oceania was the most eager to drop the impact factor, compared to only 6% of those in Africa who would be willing to completely let go of this metric.
- Meanwhile, in Europe, 49% were keen to change the way incentives to publish research work, compared to 48% in Oceania, 40% in Asia and 39% in both the Americas and Africa.

"Forget about short-term evaluation, impacts of research can often only be seen in the long term" (Switzerland)

"Use metrics such an h-g index in conjunction with non-citation measures" (Australia)

"Moving away from metrics to a more mixed methods approach. Wherever you have metrics people just end up chasing them!" (UK)

68%

want wider scope of metrics



WHAT WOULD THEY CONSIDER IMPLEMENTING?

Impact plans and alternatives to traditional publishing:

47% would implement publishing non-traditional content. In addition, 29% would implement better tracking of potential societal impact at the start of the project and another 29% of participants would consider publishing open access, while just over a guarter (26%) would save their published work to an institutional repository.

Regional differences:

- 43% of respondents in Africa would consider publishing open access, compared to 31% in Europe, 28% in the Americas, 26% in Oceania and 25% in Asia.
- Meanwhile, attitudes towards publishing nontraditional content varied most between Europe and Asia, with 52% in Europe considering this option compared to 39% in Asia.
- The UK and North America scored higher than other regions for considering publishing non-traditional content if the rewards mechanisms for this were in place - 60% and 57% compared to the global score of 47%.
- The UK also scored higher (61%) for considering implementing better tracking of potential societal impact at the start of the research project (not retrospectively trying to measure) compared to Europe at 43%

"I write academic journalism to share findings with an intelligent non-academic suite of people. I write recommendations to government and NGOs to inform policy change" (Australia)

> "Having people devoted to translating research that can reach a wider audience" (New Zealand)

"Many people do not consider the impact of their research until after the fact, when they try to force-fit" (USA)



would implement publishing non-traditional content

WHAT ARE THE MAIN BARRIERS TO CHANGE?

As noted above, most participants said they wanted some form of change in the way research is measured. However, participants reported several obstacles preventing change from being widely realised. The top challenge cited was traditional rewards and incentives. The JIF and citation counts, for example, are readily available measures often used when appraising the quality of a researcher's work in the context of recruitment, promotion and salary.

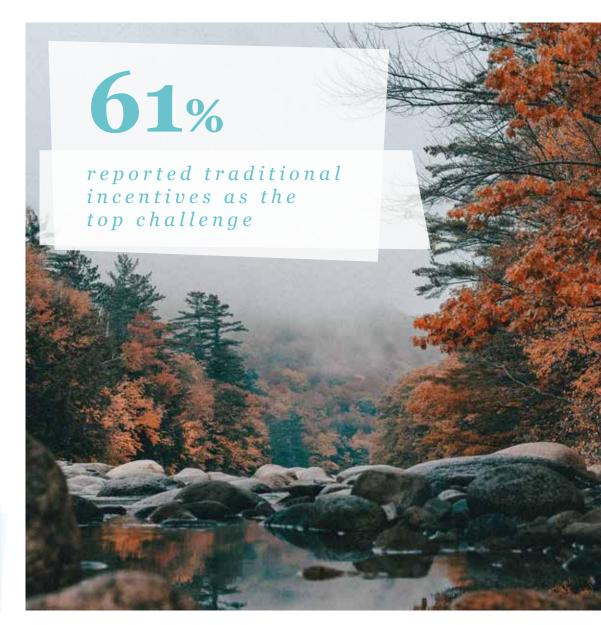
The sector must rethink academic research incentives. Almost two-thirds (61%) of participants highlighted the link between incentives and traditional impact metrics as the greatest challenge to change. Also high on the list of barriers (45%) was the lack of clarity around what measures would replace rankings to assess quality. While, for 42% of participants the difficulty in tracking research impact beyond academia was the biggest obstacle. Just over a third (34%) of respondents cited the greatest barrier to change as resistance from their organisation. Lower on the list, reported by 25% of participants, was a lack of funding for open access.

Regional differences:

- In Africa, lack of clarity on what measures would replace rankings to assess quality was much lower compared to other regions - 29% compared to 58% in Oceania, 50% in both the Americas and Europe and 40% in Asia.
- North America scored lack of funding for open research significantly lower than the global average – 17% compared to 25%.
- Both North America and the UK scored difficulty in tracking research impact beyond academia higher than the global average, 55%, 54% and 42% respectively.

"We are extremely limited by the University. All performance measures are correlated metrics. Thus limited scope to change the researcher's positioning" (South Africa)

"Dismantle the orthodoxy of our current academic reward and promotion mechanisms" (Australia)



WHAT IS THE BEST WAY TO ENABLE CHANGE TO HAPPEN?

60%

want to increase collaboration with industry and practice

want additional tools to help plan for impact

In this section, we present the results of the survey, followed by the key outcomes of a poll conducted at the 2019 ARMA conference on Disrupting Impact: A Manifesto for Change. We also spotlight those who are accelerating real impact in their fields.

The research community wants stronger alliances with those outside of academia, as well as support to help plan for impact. To enable change to happen, collaboration between industry and practice was cited by 60% of participants as the most important step forward. In terms of impact support, 45% believe that additional tools/ workbooks to help plan for impact will be the best route for change, while 33% want greater knowledge in impact literacy training. Opportunities to debate impact issues in a public forum was considered by 22% of participants as the top enabler to change. In terms of wider changes, over a third of participants (36%) want more publishers to make research open access and 12% want more institutions to sign up to DORA (San Francisco Declaration on Research Assessment). In their verbatim responses, participants also called for research impact to be re-define and existing impact evaluation measures to be re-assessed.

Regional differences:

- Africa gave the highest score of 56% to additional tools/workbooks to help researchers plan their research in a way that looks at societal impacts and additional tools to help research planning, this compares to the lowest score given by Oceania of 37%
- Europe scored greater knowledge in impact literacy training the lowest at 28% – 11 points under Africa which scored this option at 39%.



"Funding bodies that focus on impact in the real world. Journal editors that can see beyond the standard hypothesis testing model of research" (Canada)

"We need to make research more accessible to the common man, less academic, more knowledge based" (UK)

OUTCOMES OF THE ARMA 2019 CONFERENCE SURVEY

Research managers at the ARMA 2019 conference agreed on a number of actions points to forward 'open impact' in light of a changing landscape towards e.g. responsible metrics, open access, open research, grand challenges and the sustainable development goals (SDGs). Interestingly, some of the results echo those highlighted in our Change Ready Survey – incentives and impact literacy, for instance, emerged as important areas for attention in both surveys. In the ARMA poll, research managers mostly agreed that impact should be incentivised as a pathway to promotion (14 strongly agreed, 22 agreed, 13 neutral, 6 disagreed, 2 strongly disagreed), while even more thought resources should be prioritised to improving/embedding impact literacy (12 strongly agreed, 33 agreed, 8 neutral, 2 disagreed).

Research managers at the ARMA conference also called for impact to be furthered by implementing the following:

Impact to be long-term and embedded into Higher Education Institutes (36 strongly agreed, 18 agreed, 3 neutral)

Stakeholder involvement to be embedded from the outset through to evaluation

(21 strongly agreed, 31 agreed, 4 neutral, 1 disagreed)



Early Career Researchers to be supported to maximise their own research impact for the sake of vitality and sustainability

(34 strongly agreed, 21 agreed, 1 neutral)

Impact to be holistically embedded in the research process, from cradle to beyond the grave!

(24 strongly agreed, 26 agreed, 3 neutral, 1 disagreed, 1 strongly disagreed)

Beneficiaries should be the focus of impact

Legend

Strongly agreed

Agreed

Neutral

Disagreed

Strongly Disagreed

HERE ARE THREE STRATEGIES THE SECTOR IS USING TO ACCELERATE REAL IMPACT:

Co-produced research

At the Brigstow Institute, University of Bristol, researchers are encouraged to work in interdisciplinary and co-produced research teams to conduct engaged research that makes a difference. The idea is that impact becomes an integral part of research design, rather than an after-thought. In this example, research recipients work with researchers at the start of the project to frame research questions and research design. "Co-produced research is what we really need to be doing. I think it often makes for much better research and I think it definitely makes for much richer impact," says Professor Tim Cole, Director of the Brigstow Institute. "It's crucial to bring recipients research right into the beginning of the process, but I think it can be really difficult and I think actually this is a challenging process, because research should be about asking new questions and finding out new answers. I mean that to me is impact, that is when impact is delivered, it's when an organisation through a research process can actually reshape the way they operate."

Professor Cole's advice to academics who want to engage in co-produced research that has an impact: "Don't think about impact as the kind of final thing you do, bring it into the beginning of any research project that you are working on. I think bring it into the stage when you start working on research design. [...] If you're going to start talking to your end users once your research is finished, I think you've left it far too late."

Public and co-production events

Ozlem Eylem, research fellow and project worker set up an e-mental health service for managing suicidal thinking amongst Turkish-speaking migrants. To showcase this service, he organised public and co-production events in collaboration with community organisations and key stakeholders representing the target group. "Co-organizing public events has helped me to achieve connectivity," he says. "They brought professionals (e.g. academics, GPs, NHS staff members), politicians, patient groups and lay people together to discuss publicly about suicide in Turkish-speaking diaspora."

He advises all researchers to engage in co-production and public engagement work: "In my experience, engagement with relevant organisations, stakeholders and key individuals at grass root level is crucial to bridge the gap between research and practice," he adds.

Journals that include a research impact summary

The Journal of Organisational Effectiveness now includes a research impact summary and how the work translates into a policy or behaviour change. Sir Cary Cooper, Professor of Organisational Psychology and Health at Alliance Manchester Business School and co-author of the Journal of Organisational Effectiveness encourages other scientific journals to follow suit.

Sir Cary's advises those looking to drive change to carefully consider government agendas early in the research proposal and shape research plans accordingly. "Research funding is very competitive, so to cut through think about whether your research can impact something that the government is prioritising either directly or further down the line," he says. "Make sure you communicate this clearly and early into the proposal so that the societal impact can be easily understood "

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IF YOU'REGOING TO START TALKING TO YOUREND USERS ONCE YOUR RESEARCH IS FINISHED, I THINK YOU'VE LEFT IT FAR TOO LATE."

Tim Cole

Director of the Brigstow Institute.



THE IMPACT AGENDA

The global research community adhere to different definitions of research impact, making it challenging to plan, pursue and measure impact. We therefore thought it important to assess the sectors' varying attitudes and perceptions towards impact and examine how research evaluation might evolve in the future. Here we explore areas such as what impact means globally, who decides on the impact metrics and what the forthcoming changes/challenges might look like.

HOW IMPORTANT IS IMPACT?

Research impact is perceived to be more important to individuals than institutions. We asked respondents on a scale of 1-10 (where 1 is not at all important and 10 is very important), how important research impact is to them, their university, funders, policymakers and society. We also compared these results with our 2018 survey and found that research impact remains the highest with the person than the institution. Here are how the results stack up

	2018	2019
You personally	8.25	8.36
Your University	8.24	8.21
Funders	7.60	7•77
Policymakers	7.08	7 .2 4
Society	7.31	7.20

WHAT IMPACT MEANS GLOBALLY

In their verbatim responses, participants highlighted the need for research impact to be redefined. For the purposes of this questionnaire, the 'improved societal, health, economic or environmental outcomes' was most associated with demonstrating research impact.

The top three research impact definitions selected were:

Improved societal, health, economic or environmental

A measurable change in practice, policy or behaviour

Provable effects of research in the real world

More than **1** in **10** of the academics we spoke to said the **Impact** Factor should be removed altogether

Regional differences:

- The highest rankings given to the provable effects of research in the real world came from the UK (82%), Oceania (76%) and North America (72%),
- Compared to other regions, the UK and North America gave higher scores to a measurable change in practice, policy or behaviour (82% and 76% respectively) and mobilised knowledge that affects decision-making in applied settings (69% and 64% respectively).
- The UK ranked journal citations and impact factors (39%), and tenure or career advancement (16%) lower than the global averages of 57% and 31% respectively.
- In Africa, considerable weight was given to the incremental change in public engagement with academia higher - 45% compared with the global average of 34%.
- In Asia, journal citations and impact factors were considered the most important measure of impact – 66% compared to 52% who thought the same in Europe.

WHAT IMPACT MEANS GLOBALLY?



WHO DECIDES ON THE IMPACT METRICS?

The top three setting the agenda on impact metrics are:

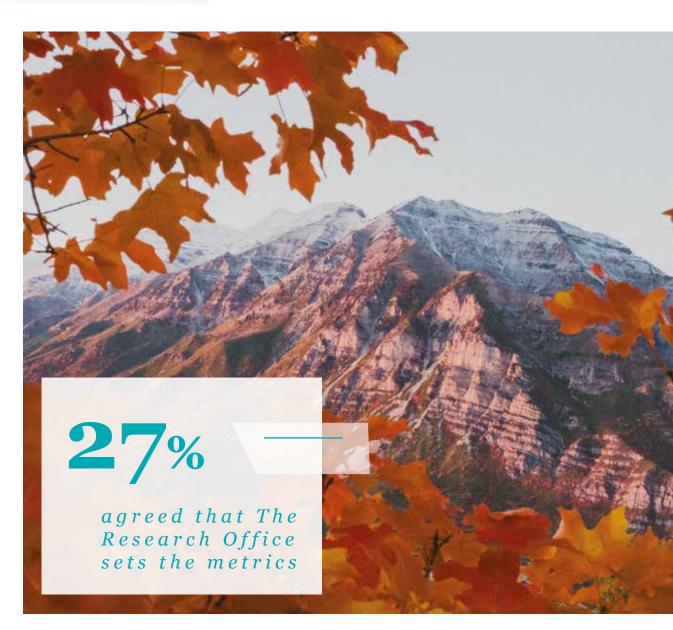
- The Research Office (27%)
- The Faculty (24%)
- The Researcher (22%)

These are followed by The Funder (13%), Other (8%), Government (2%), University Administration (2%), Unsure (2%) and Society (1%)

There has been an increase in researchers deciding on the metrics in 2019. When compared to our 2018 survey, there has been a shift in who decides the impact metrics - The Research Office has dropped 10 points, from 37% in 2018 to 27% in 2019. The increase in The Researcher, from 14% in 2018 to 22% in 2019 almost corresponds to the decrease in The Research Office's scores. The rise could potentially point to researchers taking an increasingly active role in how impact is measured.

Regional differences in 2019:

- In Asia, The Faculty scored significantly higher at 35% compared to the global average of 24%.
- In the Americas it was The Researcher that scored significantly higher – 31% compared to the global average of 22% – accounting for almost 1 in 3 when it comes to who decides on the impact metrics.
- Oceania is an interesting case, it scored The Research Office much higher (38%) than the global average of 27%, corresponding to a significant difference in the weight it attached to The Researcher (10%) and The Faculty (13%).



WHAT DOES THE FUTURE HOLD FOR REAL WORLD IMPACT EVALUATION OVER THE NEXT 12-18 MONTHS?

The future of impact/change is coming. 40% of participants expect the priority of measuring real-world impact will change in their institution within the next 12-18 months. In 2018, only 27% agreed that priorities would change.

40%

expect impact priority to change in 2020

Regional differences:

- Participants in Africa (51%) and Asia (51%) led in their optimism that priorities would change in the near future, with Oceania close behind with 49% confident that change is coming. This compares to just 28% of those in Europe and 29% in the Americas
- When compared to the global score of 40%, North America and the UK are less optimistic that priorities will change in the next 12-18 months - 24% and 33% respectively

Do you expect the priority of measuring real-world impact will change in their institution within the next 12-18 months?

	Africa	Americas	Asia	Europe	Oceana	Global Average in 2019	Global Average in 2018
Yes	51 %	29%	51 %	28%	49%	40%	27 %
No	24%	41%	18%	38%	23%	29%	54%
I don't know	24%	29%	31 %	34%	27 %	31%	19%

GLOBAL CHANGE READY BAROMETER



"Please, please keep moving research impact towards how it actually impacts society/commerce...not how it impacts a research agenda set by institutions with too much at stake to allow change" (UK)

Most open to change



The overall results of our survey show that Africa (26%), the UK (22%) and Asia (21%) are most open to change, followed by Oceania (20%) and Latin America and the Caribbean (18%). The least change ready regions are North America (16%) and Europe (excluding UK) at 14%.



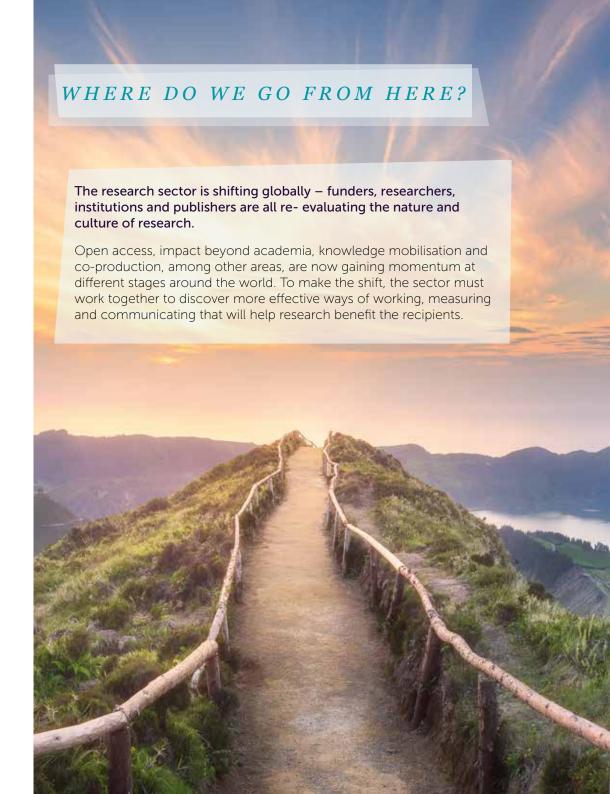
"I applaud Emerald's clear agenda to widen impact and increase access. The narrowness of research impact criteria has had a negative impact on the quality and purpose of academic life" (Oceania)

CONCLUSIONS/TOP TAKEAWAYS

- Majority are open to change, and over a third are driving change, but less than half expect impact priority to change in 2020
- Most want new incentives and less focus on JIFs, but research culture is still wedded to metrics.
- Almost half are keen to implement publishing non-traditional content and a similar amount want additional tools to help plan for impact, while more than half want to increase collaboration with industry and practice

The results of the survey are hopeful, revealing the sector's pervasive willingness for change and some of the important strides that are being made. It is encouraging to see the sector's readiness to embrace alternative approaches to research and dissemination, such as publishing non-traditional content, tracking of societal impact at the start of a project and open access. There are, however, challenges to overcome – JIFs are still very much embedded into research culture and continue to be used to gauge research outputs and influence academic advancement and recognition.

The majority want changes to research impact measurements and are willing to alter the way they approach research. To realise change, there was a leaning towards greater collaboration between industry and practice and a need for tools to help plan for impact. Open access and literacy training were also highlighted as vital steps towards change.



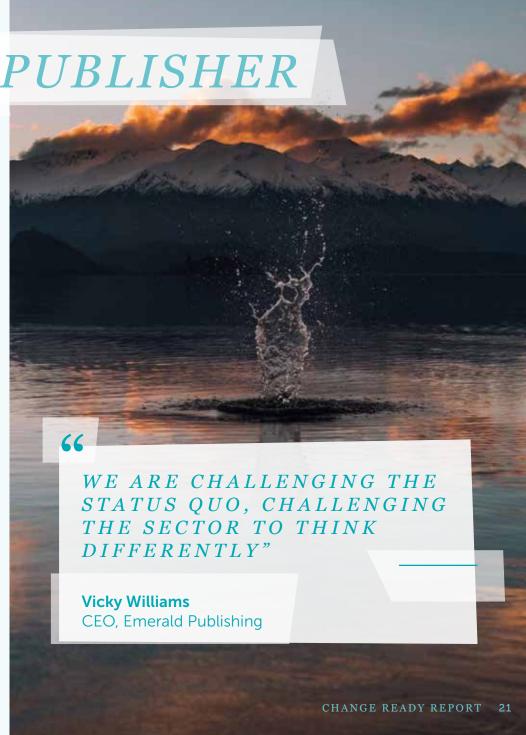
THE ROLE OF THE PUBLISHER

Publishers have a crucial role to play in enabling change and we at Emerald have made a commitment to lead the publishing charge towards meaningful impact. In our Real Impact Manifesto, we have committed to support the community of practice to overcome barriers to impact, challenge simplistic and outdated approaches to impact and drive impact literacy. We are also dedicated to supporting a wider move towards an open research ecosystem.

Based on our commitment to support and drive change, our whole approach to publishing is now framed around helping our authors develop pathways to impact and endusers to make evidence-based decisions to create change. Vicky Williams, CEO, Emerald Publishing, highlights some of the steps the company is taking to drive and support change: "We are challenging the status quo, challenging the sector to think differently," she says. "We are doing this through rethinking our content portfolio, having an external impact council and working with impact advisors, so that we are learning from the market, while challenging the market." Tony Roche, Publishing & Strategic Relations Director notes some additional ways Emerald is supporting the research community: "At the heart of our content strategy we are supporting our authors and users and co-production with author communities," he says. "A key enabler is open, open research itself is a fundamental shift for publishing, Emerald Reach Brand is about choice and the F1000 platform is aligned to SDGs."

There is clearly much more that we as a research ecosystem need to be doing, but if we all do our part, we will collectively make a difference.

Visit the Emerald website to explore our range of resources to support your pursuit of impact.



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