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White Paper

## ADMINISTRATING CHANGE: GLOBAL PERSPECTIVES ON RESEARCH MANAGEMENT















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### Introduction

As the world reaches the halfway point of the United Nations' 2030 Agenda for Sustainable Development, the focus on working towards the 17 Sustainable Development Goals (SDGs) is bringing about new interactions at the science–policy interface. As part of Goal 9 of this Agenda, countries have pledged to increase spending on R&D and the numbers of researchers by 2030. The UNESCO Science Report 2021 shows the progress achieved in the period 2014–2018, with global research spending increasing by 19% and the number of researchers increasing by 14%, growing three times faster than the global population.<sup>1</sup>

How the COVID-19 pandemic will affect continued progress is not yet fully known. What is clear is that COVID brought about changes to global research which will hopefully have lasting benefits. In particular, the pandemic demonstrated the benefits of rapidly sharing research information and data at a global level, highlighting how increased collaboration and cooperation can benefit society at large.

Even before COVID it was apparent that only by working together, across borders, disciplines and cultures, can we truly start to solve the world's biggest problems. Funding strategies are changing and at the same time universities are becoming global enterprises, re-focusing their research capabilities and connections towards addressing these global challenges and working to increase their international collaborations. Analysis of the Dimensions database has shown that between 2001 and 2020 international collaborations rose by 10%, to nearly one quarter of all papers.<sup>2</sup>

Research within universities and supported by funders has developed to accommodate these priorities and requirements. It is clear that with the increased complexity that collaborative funding brings, there is an increased need for professional management of research to:

- Support global research collaboration
- Manage equitable partnerships
- Implement emerging technology developments
- Create a healthy research environment

With this in mind, we interviewed to senior representatives of Research Management and Administration (RMA) organisations in Africa, Asia, Australasia, Europe, North America and South America to get their perspectives, understand growing trends, and reflect on how their role is changing.

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Between 2001 and 2020

International collaborations rose by

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<sup>&</sup>lt;sup>1</sup> "UNESCO science report: The race against time for smarter development," UNESCO, 2021, <a href="https://www.unesco.org/reports/science/2021/en/download-report">https://www.unesco.org/reports/science/2021/en/download-report</a>.

<sup>&</sup>lt;sup>2</sup> Brendan Maher and Richard Van Noorden, "How the COVID pandemic is changing global science collaborations," Nature 594 (2021): 316-319, <a href="https://doi.org/10.1038/d41586-021-01570-2">https://doi.org/10.1038/d41586-021-01570-2</a>.

#### **Contributors**

- Dr Andrew Bailey, President and Dr Therina Theron Past-President of <u>SARIMA</u>, the Southern African Research and Innovation Management Association.
- **Dr Tania Bezzobs**, President of <u>ARMS</u>, the Australasian Research Management Society.
- **Dr Evelina Brännvall**, Chair of <u>EARMA</u>, the European Association of Research Managers and Administrators.
- **Dr Alasdair Cameron**, Chief Executive Officer of <u>ARMA</u> (UK), the Association of Research Managers and Administrators in the UK.
- **Professor Shaliza Ibrahim**, President of MyRMA, the Malaysia Association of Research Managers and Administrators.
- **Juliana Juk**, President of <u>BRAMA</u>, the Brazilian Research Administration and Management Association.
- **Dr Anne Maglia**, President (2022–2023) of <u>NORDP</u>, the National Organization of Research Development Professionals in North America.



### The growing role of research managers

Changes in the political environment often mean that research offices have to react to government policy changes and consultations, with research managers needing to support researchers and university leadership through these changes. Perhaps unsurprisingly, interviewees all highlighted the strategic value that research managers add to institutional research programmes by conducting horizon scanning, helping researchers with grant applications, using data analytics to inform and shape strategy, supporting the delivery of research impact, and more.

However, in many respects these roles are highly adapted to their local research and funding environments. In particular, the overheads or indirect costs are a major determinant of the ability of institutions to create sustainable research offices. Consequently, in low- and middle-income countries (LMICs) the research manager role is not always very well recognised and, in less research-active universities, may not even exist. Funder policy is also a factor: for example in Brazil, public sponsors of research currently do not allow funds to be used on research management, which has meant that there has been little investment in these roles to date.

However Juliana Juk, President of BRAMA, suggested that this may be improving: "I hope in the next 5–10 years things change a bit, for at least a percentage of grant funds to be allowed to be invested in managing administration." Juliana noted that university leaders are starting to recognise the importance of the research manager role in light of global challenges. This was particularly highlighted during the COVID-19 pandemic when universities with established research offices were able to deal with the changes to collaborative grants much more quickly than those without dedicated research managers. Evelina Brännvall, Chair of EARMA, expressed a similar hope for the future, predicting: "In 5–10 years, research managers will be recognised as equal partners in the project lifecycle."

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**Juliana Juk**President, BRAMA

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**Evelina Brännvall**Chair, FARMA

#### **Definitions**

For the purpose of this white paper, we use the below definitions:

- Research offices: Institutional professional services with responsibility
  for providing support across the lifecycle of research projects, from
  proposal writing through to project management, facilitating compliance,
  and improving impact. Research offices also play a central role in the
  development of institutional strategies, policies, processes and systems
  for research, working closely with academic leaders and relevant
  institutional committees.
- Research managers and administrators (RMAs): Research
  professionals with roles involving the management and coordination of
  research projects. The research manager role is varied and depending on
  the size of the research office may be specialised in one area or have a
  broad remit, covering many areas.



### Navigating international collaborations

Research is a global endeavour, and the influence of the SDGs on universities and funders is notable as it is now widely recognised that just solving the research issues on your own doorstep is not enough.<sup>3</sup> The COVID-19 pandemic illustrated clearly how we are all linked: the virus spread rapidly due to the globalised nature of everyday life, but the power of global research efforts brought about vaccines and treatments to reduce the number of deaths and hospitalisations from the disease. These new ways of working are now needed to help deliver research on other pressing challenges such as climate change and sustainable food production.

However, whilst there is growing international collaboration and widespread acknowledgement of these types of partnerships, the funding landscape remains largely country-specific. Interviewees noted that there are few truly international funding options for which researchers across multiple countries can apply together. While Horizon Europe, the Gates Foundation and the National Institutes of Health do offer these types of opportunities, in most cases international research projects require separate funding from all participating countries. Formal bilateral or trilateral partnerships are sometimes set up to bridge these funding gaps, with each institution allocating initial funding, and research managers often take a leading role in this coordination.

In those instances where international funding opportunities do exist, they frequently come with their own challenges for the research office to deal with. For example, applying for funding in a different currency brings with it risks as currencies can fluctuate over the life of a grant. Andrew Bailey, President of SARIMA, noted that due to regular fluctuations of the rand, institutions based in South Africa need to be diligent in managing this: "It can be 10% to 20% over the term of a project, and if you're looking at a multi-million-rand project that's significant for an institution, there's a lot you've got to be aware of just to make sure you don't come up short."

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**Andrew Bailey** President, SARIMA

<sup>&</sup>lt;sup>3</sup> Juergen Wastl, Daniel W. Hook, Briony Fane, Hélène Draux and Simon Porter, "Contextualizing sustainable development research", Digital Science, May 7, 2020, doi.org/10.6084/m9.figshare.12200081.

<sup>&</sup>lt;sup>4</sup> Adrian Collins and Maria Roitman, "Viewpoint: Global reform of research councils is needed to fund international collaboration," Science Business, November 3, 2022, <a href="https://sciencebusiness.net/viewpoint/viewpoint-global-reform-research-councils-needed-fund-international-collaboration">https://sciencebusiness.net/viewpoint/viewpoint-global-reform-research-councils-needed-fund-international-collaboration</a>.

The interviewees also recognised several administrative challenges with international collaborations, which can cause delays in submitting grant applications and, if awarded, in setting them up so that the research can commence – including compliance checks, due diligence, export control, and national security arrangements. Where international collaboration is common, new research manager roles are being created to keep on top of the requirements and look at mitigating against potential risks. In the UK, ARMA has delivered projects for the research management community to share best practice and help universities to navigate the requirements, including a standardised due diligence questionnaire<sup>5</sup> and a report on 'Complex Collaborations' which looks at efficiencies, equity, quality and security in international research.

It is clear that the administrative burden when coordinating an international collaboration is greater than that for national funders. However, Anne Maglia, President of NORDP, stated: "We recognise that we absolutely cannot address issues such as sustainability from a single university or single country perspective, so although the administrative burden is a challenge sometimes to get past, it is ultimately in the best interest of the public and society for us to make sure that we overcome that."

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<sup>&</sup>lt;sup>5</sup> "Updated UKRI-approved due diligence questionnaire and guidance," ARMA, September 22, 2021, <a href="https://arma.ac.uk/first-output-from-the-consolidated-approach-to-assurance-and-due-diligence-project/">https://arma.ac.uk/first-output-from-the-consolidated-approach-to-assurance-and-due-diligence-project/</a>.

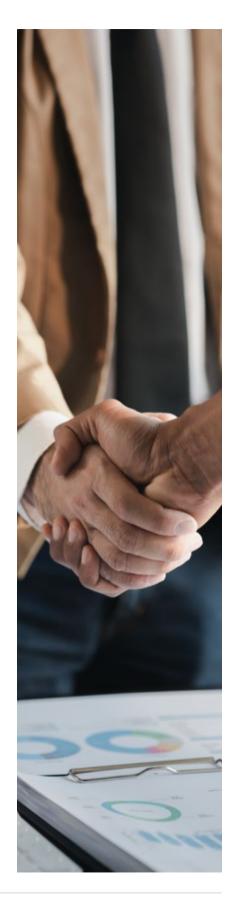
<sup>&</sup>lt;sup>6</sup> "Complex collaborations: Efficiency, equity, quality and security in international research," ARMA, March 2023, <a href="https://arma.ac.uk/wp-content/uploads/2023/03/Trusted-Report\_Booklet\_v7.pdf">https://arma.ac.uk/wp-content/uploads/2023/03/Trusted-Report\_Booklet\_v7.pdf</a>.

# Developing and managing equitable partnerships

Another key aspect of international collaboration is ensuring equity in research partnerships. Therina Theron, former President of SARIMA, noted that in the past international consortia were often formed without representation from LMICs. LMIC researchers were only brought in later, getting small amounts of funding, and not having the opportunity to input into the design or writing of the proposal. This is an issue that is becoming widely acknowledged, and a lot of work is being done to ensure more equitable research partnerships. In 2022, the World Health Organization published a good practice document? with recommendations at funder, institution and researcher level, and funders such as the Gates Foundation and the EU are also taking this into account.

Research managers are increasingly seeking to support the creation of equitable research partnerships. However, as discussed above, complex collaborative projects often come with administrative challenges, and regions like Africa (where research offices are smaller) lack the infrastructure and human capacity to support large grants without full indirect costs. NIH grants restrict indirect costs to 8% and other funders to 15%, which can make it unsustainable for some organisations to participate.

Some work is being done to address this issue. For example, the African Academy of Sciences developed the Research Management Programme (ReMPro) to strengthen research management capacity across Africa. ARMA contributed to the strand on 'developing individual capacity for research management staff' through knowledge sharing and the development of tools and resources for the wider research management community. Alasdair Cameron, CEO of ARMA, explained: "We're working to increase collaboration between African and UK institutions. This two-way exchange of knowledge is providing support to our colleagues in Africa and helping UK-based research managers understand what it's like to do research in Africa"



<sup>&</sup>lt;sup>7</sup> "Four approaches to supporting equitable research partnerships," TDR, 2022, <a href="https://tdr.who.int/publications/m/item/four-approaches-to-supporting-equitable-research-partnerships">https://tdr.who.int/publications/m/item/four-approaches-to-supporting-equitable-research-partnerships</a>.

<sup>&</sup>lt;sup>8</sup> "Research management programme in Africa (ReMPro Africa)," African Academy of Sciences, n.d., https://aasciences.africa/Programmes/ReMPro.

## Software and technology developments growing at pace

As a result of the above challenges, many interviewees also highlighted a rise in software systems to manage administrative processes in research offices – which supports (or perhaps helps to drive) the increasing appetite of university leaders for data. Over the last 5–10 years there has been a significant strengthening in the adoption of Research Information Systems (RIMs) that pull data from various sources to help streamline the activities of the research office.

Technology is becoming commonplace, with even smaller research offices using funder databases that provide information on eligible grant opportunities, and access to matchmaking tools for researchers looking for partners. Larger and more established research offices use systems with end-to-end oversight of research which are also integrated into HR and Finance databases. Such systems allow the research office to move from a process-orientated administrative function to a more strategic analysis function, with reports and metrics more readily available. The benefits to the research office and their stakeholder communities are increasingly evident, as Therina Theron acknowledged: "When they work, these systems are enabling and can take away a lot of inefficiencies, and that is critical in terms of managing research related information for strategic decision making."

With this influx of research-related information, the ways of working within the research office are beginning to change, with many established research offices employing data analysts to 'crunch' the data and generate analytics-based reporting. The names of the teams within research offices are changing too to reflect this shifting focus, as noted by Tania Bezzobs, President of ARMS: "At my previous institution, we had a team called 'Research Information Services' which became 'Research Analytics Services', and at my current institution my team is 'Research Knowledge Insights'; it is quite typical of how we have evolved in our thinking". Anne Maglia of NORDP agreed, stating: "Data analytics certainly is becoming commonplace and is part of the norm in doing our jobs."

What is next for research offices when it comes to technology? Several interviewees mentioned ChatGPT and increasing levels of automation and the opportunities and challenges that could come with that. How artificial intelligence systems will impact the research management profession, and the research process itself, remains to be seen; it is a key topic for further discussion as more becomes known about these tools.

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**Therina Theron**Former President, SARIMA



### Creating a healthy research environment

Alongside supporting collaborations and connections, research managers are also increasingly working on measures and interventions to support the creation of healthy research environments within their own institutions. Widely discussed under the term 'research culture' in the UK, this terminology is not as well known across the rest of the world. However, all of the interviewees recognised the types of activities that fit within the research culture umbrella – such as researcher wellbeing, academic progression and development, research integrity, and open research.

In particular, interviewees mentioned diversity, equity and inclusion (DEI) as a focus area – and all of those we spoke to acknowledged local challenges and priorities, with varying types of interventions. Initiatives like the Athena Swan Charter are widely recognised internationally, and a number of government and funder policies have been put in place to support wider diversity in research. Specific examples include South Africa where there have been funding calls for research chairs that were exclusively for female researchers, and Australia where institutions have strong indigenous research strategies or action plans to ensure mutual respect and empowerment.

Activities to monitor DEI and other aspects of research culture are becoming part of the research manager role. In the US, Anne Maglia noted that 'Campus Climate Surveys' are commonplace, where a university may be looking to understand and address any equality bias in areas such as internal funds distribution, access to equipment and resources, or academic recruitment.

However, within the research management profession, there is more to be done. Although strategies to monitor DEI for research staff are commonplace, these rarely take into account supporting staff, and many interviewees noted that there is a disproportionate number of female research managers. There is hope amongst those we spoke to that things will change as the role of a research manager becomes more widely recognised as a profession. In Europe, top—down policy actions at the European Commission level are aiming to promote attractive research careers and enhance public institutions' strategic capacity. This will help in creating broader career paths for researchers, including the transition into research management. Evelina Brännvall noted: "When research management and administration is better recognised as a profession that provides needed expertise, the gender balance will shift to be more equal, as the profession will be more attractive."



<sup>&</sup>lt;sup>9</sup> "International charters," AdvanceHE, n.d., <u>https://www.advance-he.ac.uk/equality-charters/international-charters</u>.

<sup>&</sup>lt;sup>10</sup> "European research area policy agenda: Overview of actions for the period 2022-2024," European Commission 2022, https://doi.org/10.2777/52110.

## Collaborations across networks to share best practice

With the above factors expanding the role of the research manager, all of the interviewees stressed the importance of country- and region-based RMA associations and their critical link in developing and sharing good practice and connecting to like-minded colleagues. As Evelina Brännvall stated: "We have a very open RMA community. We support each other and learn from each other. We do not compete, our researchers do."

MyRMA is one of the more recent RMA organisations to be set up, founded as an outcome of a project supported by the British Council in partnership with Malaysian government agencies. During MyRMA's foundation, members were inspired by other countries, and interacted with ARMA, ARMS and SARIMA to help develop their practices. These connections have continued, with research managers in Malaysia learning about the full costing of research, research impact, and research data repositories from counterparts in the UK, who in turn have learnt more about how research is managed in Malaysia (where several UK universities have campuses). These reciprocal arrangements are common across the different RMA organisations, with exchanges and study visits also taking place. Prof Shaliza Ibrahim of MyRMA stated: "For our research managers to spend time in another institution and learn and come back, this will be very interesting and a very good opportunity for them."

These networks are also helping the wider research ecosystem to recognise and understand the role of a research manager. An ARMA survey in 2021 revealed that many research managers felt underappreciated by their research colleagues, thick suggests there is still work to be done, and many networks are running initiatives to improve this. For example, EARMA is developing the 'RM Roadmap' for the future of Research Management, while ARMS shares case studies to help research colleagues better understand the role of a research manager and how they can add value. In providing role models and case studies this not only showcases what they do, but also highlights potential career paths, helping with recruiting and retaining staff, an issue raised by several of those we spoke to.

By working together these RMA organisations are not only benefiting their members, but also national and international research efforts. Anne Maglia summed this up neatly: "It's the sharing of resources, the camaraderie and the professionalism; I feel like these societies really are critically important to the research enterprise and helping us to support our researchers."

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### Key takeaways

Solving global challenges requires the successful delivery of global research programmes, and from our discussions it is clear that research managers are playing a vital role in this. Their specialist knowledge is essential when navigating the complex funding landscape of international collaborations, ensuring that these partnerships are equitable, and supporting the implementation of new technologies. Research managers are also integral to fostering a healthy research environment within their own institutions and connecting across nations to develop best practices.



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