

Royal Society-FCDO Africa Capacity Building Initiative (ACBI): Lessons in facilitating wider access to consortia resources

Between 2015 and 2022, over 160 research and research support staff and 44 universities or research institutions directly benefitted through formal membership of one of ten Royal Society FCDO funded ‘Africa Capacity Building Initiative’ (ACBI) research consortia.

The vast and varied benefits of ACBI consortia membership have been well documented and include such things as the attainment of higher degrees, career advancement through research publication and grant income, and infrastructure development. What has been less well documented is the extent to which other individuals and institutions from across Africa, who were not formal members of an ACBI consortium, also directly benefitted from ACBI activities.

In this brief case study, we highlight three mutually beneficial methods by which activities and resources funded through ACBI consortia were made readily accessible to non-members. We then summarise actions taken, and lessons learned, in support of these ACBI efforts to ensure wider access to consortia resources.

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“So many people from outside of our consortium have benefitted from ACBI. It was very, very good.”

ACBI Consortium Africa-based Principal Investigator
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1. Ensuring consortia-funded training activities are relevant and accessible to ‘non-members’

Attendance at short-term training activities funded by ACBI consortia was almost always made available to relevant consortia members and non-members alike. For example, of the 64 technical or general professional skills training workshops provided by ACBI consortia between January 2017 and December 2021, 82% (56/64) included participants who were not formal members of an ACBI consortium. Furthermore, of the 2839 individuals who collectively attended these 64 training workshops, 73% (2066/2839) did not belong to an ACBI consortium. In other words, nearly three quarters of the people who benefitted from an ACBI-funded training workshop were not ACBI members. In addition, many of these workshops targeted critical research support staff such as laboratory technicians who often find it difficult to access quality professional development opportunities (for more information see [Research laboratory capacity | Royal Society](#)). Thus, ACBI training was not only widely accessible, but it also often met needs that were not readily accessible elsewhere. While clearly beneficial to the thousands of non-consortia members who were able to benefit from attendance at these workshops, consortia members also benefitted from non-member participation. Non-members brought different perspectives to the training events, provided further networking opportunities and increased the human resource ‘pool’ in terms of skill and knowledge acquisition.

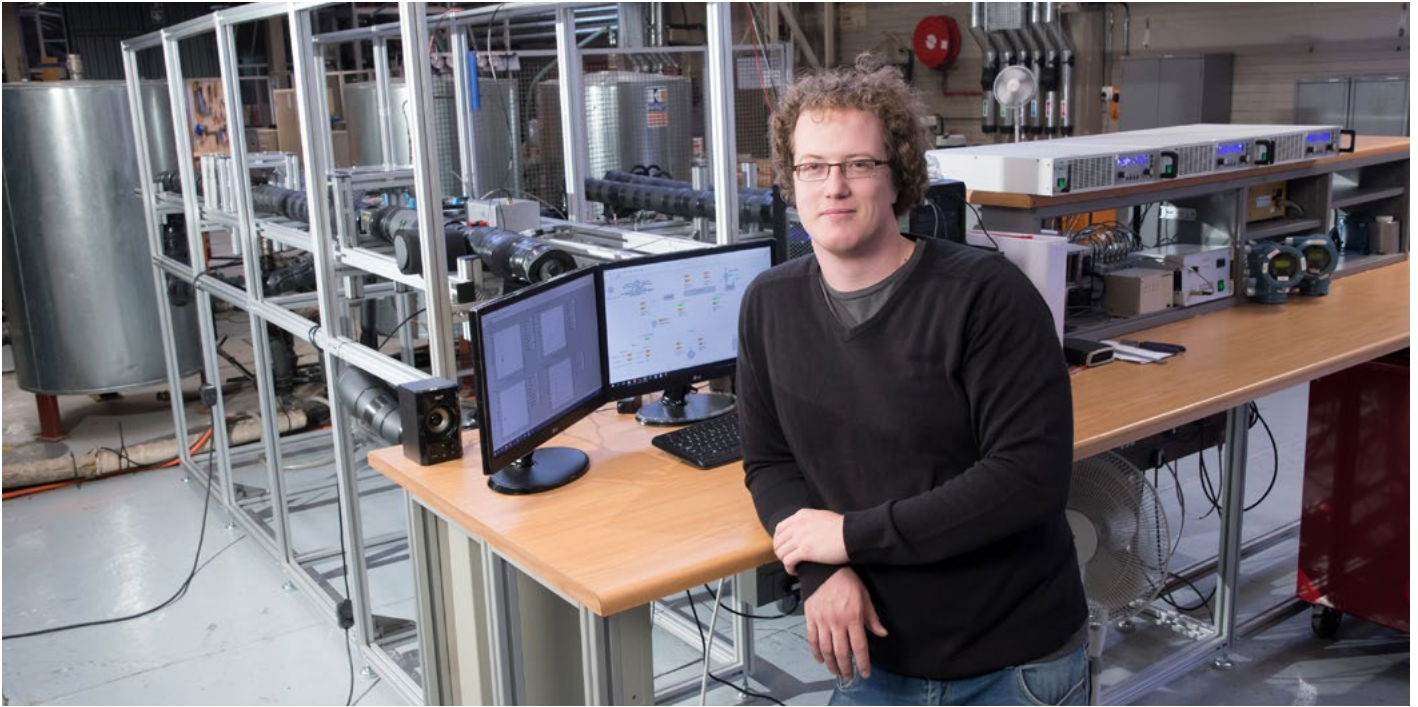


Image: RS-FCDO ACBI-funded PhD student, Dr Wilhelm van den Bergh, with a unique test facility he developed with ACBI funding. The test facility is designed to characterise flow boiling inside pipes, allowing for the measurement of heat transfer coefficients and pressure drops as well as record high speed video footage of the flow. This allows for the determination of the key heat transfer characteristics of a variety of industrial technologies such as concentrated parabolic-trough solar power plants and general heat exchangers used in chemical industries (although this facility has been tailored so far to solar applications).

2. Providing support to post-graduate students not directly funded through ACBI consortia

Many African postgraduate students not funded through ACBI were able to benefit from consortia resources, research programmes and activities. Approximately 40 non-consortia PhD and Master students, in addition to the 38 PhD students formally funded through the ACBI programme, were actively engaged in ACBI research. These postgraduate students variously engaged in training, networking and research activities, were often co-supervised by ACBI consortia members and – through their own research contributions – were in some cases able to co-author ACBI-credited publications. As the latter point indicates, engaging non-ACBI funded postgraduate students into ACBI programmes often resulted in a win-win situation. For example, a Masters student enrolled at the University of Pretoria was able to use a test facility developed and constructed by an ACBI PhD student to support her own study requirements. The means to complete her Masters study would not have been available without this ACBI support, yet the respective consortium was also able to draw on the student’s results to expand a dataset critical to achieving their own research aims.

3. Committing to deliberate, varied and meaningful stakeholder engagement

Access to consortia resources was not only facilitated at the individual level. All ACBI consortia actively engaged with a diverse range of non-academic stakeholders, from policy makers, industry, non-government organisations, community groups and others, throughout the duration of their respective programmes. This proactive approach resulted in almost all ACBI consortia reporting working relationships with non-academic or industry stakeholders by the end of 2021. These working relationships often afforded the various stakeholders ready access to relevant ACBI resources and outputs; however, ACBI consortia also similarly benefitted through such things as knowledge exchange, technology co-development and access to laboratory facilities housed by industrial partners.

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“ACBI supported the PhD student to develop and validate a unique test facility. That test facility was then used by another Masters student, and then another one and so on. Each student further extends our ongoing research programme and none of this would have been possible without the initial ACBI support.”

ACBI consortium Project coordinator

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Longer-term benefits to non-member organisations were also ensured in some cases through the strategic selection of ACBI PhD students.

For example, in one ACBI consortium two of the three core PhD studentships were awarded to scientists seconded from government institutions for the duration of their training.

This strategic decision ensured the respective government institutions, key stakeholders in the national research system, were able to retain and upskill essential research staff. Conversely, the ACBI consortium was able to benefit from the fellows' employment affiliation and established professional networks.

Actions taken, and lessons learned, in support of ACBI efforts to facilitate wide access to consortia resources

Consortia were actively encouraged to adopt an inclusive approach to training provision and stakeholder engagement from the outset of the ACBI programme. Such encouragement was evident in both the scheme guidance provided at the application stage as well as mandated activities following the awarding of ACBI grants.

For example, funder stipulations in the scheme guidance clearly stated that training provided through consortia should benefit a 'wider range of researchers and technical staff', should include 'vocational elements' (e.g. grant writing and presentation skills) and take place at an African partner institution wherever possible¹.

Funder guidance further stated that 'While the initial training modules will concentrate on consortium members, we expect that over time these training modules will be opened to non-consortium participants from the African institutions.' In addition, a structured, independent assessment of research capacity strengths and gaps focusing on research management and support services as well as relevant research laboratories and PhD programmes was completed in each of the African partner institutions within the inception phase of each consortium. Assessment findings provided an institutional-level picture of immediate resource and training needs thereby enabling consortia leaders to develop informed training plans that addressed a broad set of priority training gaps relevant to a cross-section of partner institution staff and students.

Similarly, all ACBI consortia were required to complete detailed stakeholder mapping exercises in which they were tasked with identifying current and potential research partners and research end-users across policy-making, industry, academic and non-academic groups.

The provision of detailed guidance regarding access to consortia resources set clear expectations from the outset, and the institutional assessments and stakeholder mapping exercises provided a means to action these expectations. However, two years into the implementation period of ACBI the extent to which non-member individuals and institutions were accessing consortia resources remained unclear.

Two fundamental changes to ACBI consortia management were made at this point, which appear pivotal in facilitating the wide access to consortia resources reported above.

Firstly, the monitoring and evaluation logframe and annual report template were revised to include measurable indicators of non-member access to consortia resources.

For example, ACBI consortia were now required to report training attendance figures disaggregated by consortia membership status (member vs non-member) and to provide detailed accounts, and outcomes, of stakeholder engagement activities. Secondly, and as a complement to the revised monitoring, evaluation and reporting requirements, the overarching programme managers (Royal Society) established ever-closer working relationships with African partners in each consortium. Up until this point, the overarching programme managers had primarily engaged with ACBI consortia via the UK-based partners. By establishing closer working relationships with all consortium partners, programme managers ensured all partners understood expectations regarding access to consortia resources and were able to provide support where necessary to facilitate this.

1. This guidance was written prior to the global COVID-19 pandemic. In response to the latter, many ACBI consortia pivoted towards online training provision methodologies which further improved participant access. As online training provision became normalised globally during this period, then continued use of online and hybrid forms of training provision presents as a common-sense and cost-effective approach to improving participant access.

Key lessons for funders that may be drawn from the ACBI experience, therefore, include:

- Set clear guidance and flexible provision from the outset with respect to non-member access to consortia resources. This guidance should be provided at the application stage and proposals should be assessed accordingly.
- Mandate and resource stakeholder engagement and research capacity gap assessments in the inception stages of consortia implementation. Bespoke action plans should be developed and implemented and regularly revisited based on these assessments. These action plans should be demonstrably inclusive of a diverse range of relevant consortia members and non-members alike, at both individual and institutional levels. Alternatively, smaller pre-award funds could be made available to allow prospective partners to conduct capacity strength and gap assessments which would then inform subsequent proposal development.
- Ensure consortia leads from all partner institutions understand programme expectations regarding access to consortia resources and that they have ready access to supportive guidance and assistance as required.
- Include measures of non-member consortia access within programme monitoring and evaluation plans and ensure all consortia report against these measures on an at least annual basis.
- Review measures of non-member access to consortia resources on a scheduled (at least annual) basis. As with the ACBI experience, funders may need to be adaptable in their approach to programme management if initial expectations re non-member access are not met.

The Royal Society-FCDO Africa Capacity Building Initiative (ACBI) is a pilot programme funded by the UK Government's Foreign, Commonwealth and Development Office in collaboration with the Royal Society to increase the research capacity of universities and research institutes in sub-Saharan Africa.

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