

**Submission to the Review of Closer Collaboration Between Universities and Major  
Publicly Funded Research Agencies**

**Charles Darwin University**

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**Issues**

**a) Significant benefits and outcomes of collaboration.**

The Northern Territory has a small, widely dispersed population with resources spread thinly across a large area. It follows that the Charles Darwin University (CDU) strongly supports mechanisms that facilitate collaboration. In addition, CDU sees it as critical that these mechanisms are geared towards building the capacity of the resident population rather than utilizing the ‘fly in – fly out’ approach to collaboration that has been prevalent in the past.

Examples of collaborative arrangements that have worked particularly well from CDU’s perspective include the CRC for Tropical Savannas Management, the CRC for Aboriginal and Tropical Health and the Key Centre for Tropical Wildlife Management, all of which are based in northern Australia.

**Disadvantages of collaboration.**

It is difficult to promote collaboration where partners in the collaboration do not have access to benefits on an equitable basis. One example relates to the current Commonwealth reporting arrangements for research performance arising from certain joint ventures involving university partners which attribute all the income and contingent benefits from Commonwealth programs such as the Institutional Grants Scheme, Research Training Scheme and Research Infrastructure Block Grant to just one of the partners.

**b) Drivers of collaboration.**

From CDU's experience collaboration is driven by:

1. Parties with complementary skill sets who recognise and have a common interest in a particular research problem, particularly when collaboration is underpinned by institutional-institutional arrangements; and
2. Schemes that attract significant funds to the partnership and leverage value from the collaboration including schemes such as the CRC Program, ARC Linkage Program and Centres of Excellence Program.

The CDU strongly supports mechanisms such as the ARC Research Network Initiative that will facilitate and enhance the linking of complementary skills through the mutual understanding of the missions of various parties.

**c) Systemic arrangements that facilitate effective collaboration.**

As indicated above the CDU believes that existing Commonwealth programmes and agendas that specifically provide leveraging support to collaborative ventures are essential, both to promote and support collaboration as a national culture and, at a more local level, to ensure on-going support for the cultural, social and economic development of the Northern Territory. However, this leveraging support can only work when it builds on local centres of excellence, sustained in the longer term by continuity of funding

**d) Systemic barriers to collaboration.**

As the only university based in the Northern Territory and one of only two universities based in northern Australia the most significant barrier faced by the CDU is its isolation. Collaboration with parties in other states and territories is an expensive exercise, particularly in relation to travel costs. As a result, it is difficult for the CDU to obtain equitable access to national infrastructure and human capacity. For these reasons it is important to the development of the Northern Territory that a focus of collaboration be towards increasing the capacity of the

resident population as discussed above. It is also critical that the Northern Territory is able to preserve and grow its local infrastructure base.

Mechanisms for equitable access to national infrastructure also need to be developed. The concept of paying a membership fee towards a major national research facility is one that has worked well for the CDU in the past but only where that fee is calculated on the basis of the relative sizes and access requirements of the participating members.

**Cultural issues between universities and PFRA's that enhance or restrict collaboration.**

Collaboration is an essential component of the CDU's research strategy for reasons that have been identified above. However, efforts can sometimes be restricted by the complexity of the administrative structures of some organizations and the length of time required to gain the necessary approvals for a proposed project or venture. There are numerous examples of quality research collaboration proposals that have missed funding submission deadlines as a result of complex and time-consuming approval processes.

Collaboration can also be restricted by the direction of research that a PFRA may be driven to pursue. For example, the relatively recent requirement on the CSIRO to generate a significant proportion of its research funds from external sources inevitably drives the organization towards the pursuit of particular types of research, often at the expense of collaboration.

The CDU also draws attention to the strict requirement of organizations such as the CSIRO to own (and have sole rights to exploit) all intellectual property generated by a university student in exchange for utilizing CSIRO facilities. This is not considered to be an equitable arrangement by the CDU and can act to restrict the potential for greater collaboration between the universities and that institution. It is noted that other PFRA's do not have this same policy.

**e) The scope for common use/administrative collaboration.**

The CDU is in favour of common use/administrative collaboration where such collaboration contributes to improvements in efficiency and performance through reducing the duplication of services and promoting a culture of capacity building. An example of such collaboration is the Partnership Agreement that was recently executed between the CDU and the Northern Territory Government. This Agreement covers areas such as maximizing the efficient provision of library resources and the joint development of scientific infrastructure.

**f) Promotion of research commercialisation.**

CDU recognizes that collaboration can enhance the likelihood of research commercialization through the leveraging of skills, infrastructure and networks towards a common goal. However, it is imperative that the collaborating parties have clear mechanisms in place to ensure the preservation of chain of title so that future investment opportunities are not thwarted and at the appropriate time reach agreement on the party best suited to take the commercial lead. It is also essential that the collaboration provides an upside to all parties involved, based on relative intellectual, financial and material contributions. Agreement needs to be reached on these issues, with regular review to reflect changing needs of the project .

The most significant hurdle faced by Australian universities and PFRAs in the commercialization of research is the virtual absence of funds for adaptive research to get a concept anywhere near ready for the minimal pre-seed funds available. UniSeed Pty Ltd, a joint venture involving a partnership between large universities, is an example of what the sectors need in this area to fill the gap between traditional R&D funding and the later stage seed and venture funding. However not all universities have the dollars from third party sources to invest in such an organisation. CDU recognizes that the Commonwealth has attempted to address this gap through the creation of the current 4 Pre-Seed Funds. However, CDU does not believe this initiative has been successful in addressing the extent

of the gap that exists, primarily because these funds are not operating in the true pre-seed, or adaptive research, space. They are looking for later stage technologies that can be readily developed for Seed Funding. The critical investment gap therefore still exists with the result that a large amount of intellectual property is unable to be further developed/adapted to the stage where it might be exploited commercially as the funds cannot be sourced to traverse ‘the valley of death’. Existing ARC Linkage grants while valuable are also targeted more towards solutions in the shorter term

**g) Advantages and disadvantages of current funding arrangements for PFRAs and universities in facilitating collaboration and ensuring excellence.**

As one of only two universities servicing northern Australia the CDU views as critical the ability to make strategic investments directed at ensuring the development of research capacity that will result in social, cultural and economic growth for the region. However, the fact that the research and research training funds received by universities are allocated almost entirely on a competitive basis is not conducive to this objective. Block grants, with appropriate performance indicators, to promote the activities of the universities active in this space as well as redirection of some block funds by relevant PFRAs to work in partnership to address these gaps would be beneficial.

The CDU also emphasises the importance of adaptive, applications based research as opposed to Discovery based research. Australia’s development critically depends on being able to adapt knowledge to solutions yet the current emphasis on ‘research excellence’ and the close cultural ties of this concept to Discovery based research have resulted in adaptive research being undervalued and underfunded, despite its past, current and future importance to the economic, social and cultural development of the nation. The CDU would welcome mechanisms and schemes that aim to redress the current imbalance and foster more inclusive cultural perceptions of ‘research excellence’.

**h) Options for alternative funding models for PFRAs.**

The CDU firmly believes that universities and PFRAs should be treated equitably in relation to research and research training funding allocations and that an appropriate funding model for both sectors would include a mix of both block and contestable funds. Ensuring that all institutions receive a component of block funding will enable the strategic and sustained investments in research capacity discussed above and the capacity for relevant adaptive research to be undertaken, while having a component of funds allocated on contestable/performance measures ensures adequate incentives to promote quality research outputs, particularly in basic research.