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Australian Academy of the Humanities
Submission to the Review of the Cooperative Research Centres Programme

Dear Mr Miles,

The Australian Academy of the Humanities welcomes the opportunity to make a submission to the Cooperative Research Centres (CRC) review. The CRC programme has been vital to creating a culture of industry-researcher collaboration and innovation, and encouraging research translation as a national priority.

The strength of the CRC programme lies in its provision of opportunities for researchers to collaborate closely with industry and other end users to define the research agenda; develop targeted studies that address the stated needs of industry and other end users; and, through the development of meaningful partnerships, position the resulting products, policies and programmes for best possible uptake and impact. One of the persistent challenges with much applied research lies in ensuring that new knowledge translates into policy and practice settings once the research is complete.

The Academy's submission focuses on three key messages:

1. Continued investment in public good CRCs is vital to lifting national productivity and international competitiveness.
2. Recognising cross-sector and interdisciplinary collaborations is key to innovation and transformation.
3. Significant benefits accrue to both the research system and to industry and other end users from the CRC model.

1. Continued investment in public good CRCs is vital to lifting national productivity and international competitiveness

- Public good CRCs directly and indirectly contribute to national productivity and international competitiveness. Social innovation is a critical area for competition

policy. The Australian Government is determined to unlock productivity and competitiveness gains for industry by reducing red tape, including considering how government programmes can be delivered more efficiently. The CRC framework offers scope for collaborative partnerships (including public-private partnerships) that address a domestic competitive agenda around service delivery that would make Australia more competitive internationally. Public good CRCs can lead to high quality services that deliver productivity benefits at home which in turn can lead to export opportunities in the form of service industries increasingly required in the Asia Pacific region, for example in health and aged care.

- Professional and financial services, health, education and tourism services are all area of growth for Australia[1], with industry players keen to build research partnership with universities to pilot and test innovative partnerships to find cost-effective solutions for critical issues in ageing, disability, health, unemployment, and related services. Public good CRCs are an obvious place for those collaborations to be fostered.

- The continuation of support for public good CRCs is vital to ensure that the investment of public funds in the CRC programme not only assists large industries to become more productive and profitable, but also delivers major economic and social benefits for Australia by reducing the cost of complex social problems. Timely research investment in key social issues can reap significant savings for the nation (through, for example, reductions in burden of care) as well as enhance the wellbeing and productivity of the broadest possible population.

- The CRC for Remote Economic Participation (CRC-REP), for example, is focused on delivering solutions to the economic challenges that affect remote Australia. Through research, CRC-REP provides practical responses to the complex issues that can restrict remote Australians' full economic participation.[2]

2. Recognising cross-sector and interdisciplinary collaborations is key to innovation and transformation

- The Business Council of Australia has called for a "mindset change in how government conceives of innovation, and how it mobilises the system to create a more agile, creative and competitive economy".[3] The government must adopt a broad definition of innovation – and of industry – to drive policies around industry-researcher engagement.

- The nation's capacity to grow and prosper requires the harnessing of creativity and innovation through effective cross-sector and interdisciplinary collaborations. Australia's Chief Scientist argues that "The social sciences and the humanities will underpin a creative and innovative Australia; and it is only in this context that STEM can be effective."[4]

- The public good CRCs have provided a test bed for the kind of genuine collaborations between humanities, arts and social science (HASS) researchers and their colleagues in the STEM sector that were endorsed by the 2008 CRC

Review. The Young and Well CRC and the CRC for Remote Economic Participation offer concrete examples of best practice researcher-industry collaborations that have effectively leveraged HASS and STEM expertise to create innovative solutions and real social change. The Young and Well CRC has demonstrated that where previous approaches have failed to deliver systemic change, the integration of HASS and STEM approaches in a CRC context, makes it possible to develop and trial successful new interventions to address complex issues like suicide amongst young people.

- Many of the issues addressed by current CRCs (including but not limited to public good CRCs) have wide-ranging social and cultural dimensions, underscoring the importance of HASS research for generating innovative solutions to issues with important ramifications for the Australian economy. The Bushfire CRC, for example, started out as a STEM-focused CRC until it was realised by industry that a broader approach was needed to address the complex social and cultural issues that surrounded human responses to bushfire. Over time, the Bushfire CRC became more interdisciplinary, and the successor, the Bushfire and Natural Hazards CRC, is more interdisciplinary still.

- Although the CRC programme provides a powerful platform for cross-sector collaborations between HASS and STEM, this potential is yet to be fully realised. Non-science fields represent a small proportion of CRC activity: over the 2006-2010 period HASS share of CRC income was only 11%. This is in part a function of restrictive eligibility criteria that for a number of years made it extremely difficult for HASS researchers to apply for CRC funding.

3. Significant benefits accrue to both the research system and to industry and other end users from the CRC model

- The CRC programme has been fundamental to building capacity and a critical mass of expertise in a new generation of researchers. These researchers have first-hand experience of the importance of interdisciplinarity and close engagement with industry in effecting the translation of research into practice; they have the intellectual, project management and people skills to foster productive industry-research collaborations; and are positioned to champion this cause across the tertiary sector and industry.

- The CRC programme is successfully attracting highly skilled industry professionals into research in ways that position them as effective knowledge brokers working at the intersections of academia and industry to encourage and facilitate innovation.

- Small to medium enterprises (SMEs), who frequently have limited access to funding and resources to conduct substantial, collaborative, experimental work, stand to gain significantly from the CRC model, in terms of both capacity building and implementing new knowledge.

- The collaborative setting fostered by CRCs promotes effective pathways through which industry/other end users can implement and scale CRC outputs and

achieve efficiencies and cost savings. For example, Victorian-based not-for-profit organisation, **The Lab**, collaborated with young people, parents and researchers to evaluate its innovative technology-based engagement initiative targeting young people living with Aspergers Syndrome. The Lab used this evidence base and the Young and Well CRC's partnership structure to leverage $2 million in additional funding via the NBN Scheme and establish a range of new 'Labs' in Victoria, NSW and the Northern Territory.[5]

Improvements to the CRC scheme

The Academy strongly recommends that a future CRC programme takes a strengths-based approach (i.e. identifying the factors that make for successful CRCs) to maximise its benefits. We make the following suggestions for improving the scheme:

1. In conjunction with peak bodies and successful CRC research champions, the CRC programme should further **promote and model the value of interdisciplinary research to increase and strengthen HASS-STEM collaborations**. To date, HASS research has been under-represented in the CRC programme, and there is much scope to enhance its role in cross-sectoral and interdisciplinary collaboration.

2. The CRC programme structure should **maximise the opportunities for SMEs to effectively leverage the benefits of actively engaging in CRC research and translation**. This is key to unlocking the economic potential of SMEs and creating the ideal conditions for national innovation, productive competition, and economic growth. The issue of flexibility of CRC models was raised in the O'Kane review and the Academy sees merit in the prospect of multiple objectives for the programme, including appropriate diversity of scale.

3. Given the success of the model to date, **the CRC programme should target broader investment and engagement in the public good CRCs** to generate research and innovative solutions to a wider range of pressing social issues, such as the ageing population, physical health, and unemployment. Such work will have a flow-on effect of increasing service delivery efficiency in Australia, making us more competitive internationally.

4. The CRC programme should work with the tertiary sector to **provide greater incentives for researchers to engage in interdisciplinary, cross-sector research** in order to bolster the translation of research into practice and consolidate the pathways between industry and academia. Strategies might include counting non-conventional research outcomes in university's research quantum and prioritising research-industry placements. Such incentives will produce even closer collaboration between industry and the tertiary sector.

5. The CRC programme should **consult with HASS disciplinary representatives to identify national research priority areas** for the future. There are many fields in which potential HASS, STEM and industry collaborations might contribute to boosting and future-proofing Australia's economy. For example, Australia is home to HASS scholars who are internationally recognised experts in the cultural, economic and political systems of the Asia region, and in the fields of digital societies and economies. Harnessing this expertise via research-industry collaborations is vital to

growing Australia's economy. In the area of the digital economy there are major gains to be made in improving the uptake of digital technologies by business and also in terms of the delivery of services.[6]

We thank you for the opportunity to contribute to the CRC Review. The Australian Academy of the Humanities will follow the Review with great interest, and is available for further consultation and advice.

Yours sincerely

Emeritus Professor Lesley Johnson AM FAHA
President

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[1] Australian Government (2014) *Industry Innovation and Competitiveness Agenda*, p. 8. http://www.dpmc.gov.au/publications/Industry_Innovation_and_Competitiveness_Agenda/docs/industry_innovation_competitiveness_agenda.pdf

[2] CRC for Remote Economic Participation, http://crc-rep.com

[3] Business Council of Australia (2014) *Building Australia's Innovation System,* http://www.bca.com.au/publications/building-australias-innovation-system

[4] Ian Chubb (2014) 'Partners in a Stronger Australia: Launch of Mapping the Humanities, Arts and Social Sciences report', http://www.chiefscientist.gov.au/2014/10/speech-launch-of-mapping-the-humanities/

[5] 'About The Lab', *The Lab,* http://www.thelab.org.au/index.php/about

[6] CSIRO (2013) *Broadband Impact and Challenges: Realising the Benefits of the Digital Economy* http://www.csiro.au/Organisation-Structure/Flagships/Digital-Productivity-and-Services-Flagship/ACBI-Broadband-Impacts-Report.aspx; Australian Government (2014) *Industry Innovation and Competitiveness Agenda*, p. 10.