



**COOPERATIVE RESEARCH CENTRES**

**ASSOCIATION**

# **University Research Commercialisation**

**Cooperative Research Centres Association  
9 April 2021**

*The Cooperative Research Centres Association acknowledges the traditional custodians of the land on which we operate, the Ngunnawal people. We also acknowledge the traditional custodians of the various lands across Australia upon which Cooperative Research Centres operate.*

*We pay our respects to Elders past, present and emerging and celebrate the diversity of Aboriginal peoples and their ongoing cultures and connections to our lands and waters.*

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## **Introduction – Shaping an innovation system for Australia’s unique circumstances.**

The Cooperative Research Centres (CRC) Association welcomes the opportunity to comment on the University Research Commercialisation consultation paper.

The CRC Association represents CRCs, universities, post-CRC entities and companies, CRC-Ps and related businesses. Our 24 CRC members represent an estimated \$4 billion in collective investment in innovation and commercialisation by industry, universities and other research institutions, and the Australian Government. Our members are a lynchpin in the Australian innovation system and are focused on creating new value in our economy for the benefit of all Australians.

The CRC Association agrees with the Committee that Australian universities produce high-quality research that consistently places them amongst the best in the world, but the nation struggles to translate this research into commercial outcomes at scale.

Given the nature of Australia’s economy, with its high proportion of SME’s and relatively small population, we urge the committee to pursue policy interventions that are not simply copies from other countries but are shaped for Australia’s unique circumstances and strengths and build the capacity of Australian industry to invest and participate in research and development.

### **The role of CRCs and CRC-Ps in the Australian Innovation System**

The Cooperative Research Centres Program (CRC Program) is an Australian success story. The first CRCs were established 30 years ago this year, and the program is highly respected internationally as an exemplar for fostering medium to long-term research collaboration between universities and industry.

The CRC Program is one of the key pillars in the Australian innovation system and is arguably one of the most tried and tested programs by the Federal Government. Successive reviews and assessments of the program have all found it to generate real benefit to Australia. The most recent impact assessment, undertaken by Allen Consulting in 2012, conservatively estimated that by 2017 the program would have contributed: <sup>1</sup>

- \$14.5 billion in direct economic impacts from CRC produced technologies, products and processes; and
- a net benefit to the economy of around 0.03 percentage points of additional GDP growth per annum since 1992.

A new impact assessment is underway and, based on known data from our members, we anticipate it will find an even more substantial return on investment.

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<sup>1</sup> The economic, social and environmental impacts of the Cooperative Research Centres Program, 2012, The Allen Consulting Group

The Program has improved the lives of Australians by harnessing our sovereign research capability to create new industries, businesses, and products. It leverages government financing with co-investment from industry and universities, returning on average three times the value of the Australian Government's contribution. The program creates an environment that makes investment in research collaboration for step-change rather than incremental change more attractive and less risky for Australian businesses.

### **Building on success to create cultural change.**

Australia's industry is not characterised by a high proportion of research-intensive businesses, and collaboration between public research institutions and industry has not yet reached its full potential.

The 2013 OECD Science, Technology and Industry Scoreboard<sup>2</sup> ranked Australia last out of the thirty-three countries surveyed in firms collaboration with the higher education/public research institutions, with equally weighting between SMEs and large firms.

We will have succeeded in transformation when a greater proportion of Australian businesses are willing and able to take calculated risks, investing in R&D and collaboration with research institutions as a core activity. This requires exposure to and trust with research institutions.

Cooperative Research Centres address this challenge by exposing companies to the research sector in a structured way that effectively helps de-risk investment and fosters the development of long-term collaborative relationships that go beyond the innovations that emerge from the program.

The 2015 review of the CRC Program, Growth through Innovation and Collaboration by David Miles AM, saw the introduction of Cooperative Research Center Projects (CRC-P).<sup>3</sup> The CRC-Ps were introduced to more create space for easier engagement for Small to Medium Enterprises (SMEs) on industry-led short projects.

We urge government to build upon success by enhancing the CRC program, and ensuring that any new scheme compliments or builds upon that success and learnings, rather than risk dissipating or loosing the momentum and capacity it has created.

### **Policy Proposals**

1. Ensure adequate funding for fundamental research.

The first step on the ladder to research commercialisation is outstanding fundamental research. Applied research and commercialisation cannot occur without fundamental

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<sup>2</sup> OECD Science, Technology and Industry Scoreboard 2013, Innovation for Growth

<sup>3</sup> Growth through Innovation and Collaboration: A Review of the Cooperative Research Centres Programme, March 2015, David A Miles AM

research providing the basis from which unimagined possibilities flow. In the post-war era, Australia has built a well-earned reputation and capacity for excellence in fundamental research. A robust system for supporting fundamental research is the bedrock upon which an innovative economy is built. Continuing to fund it at a sufficient level is vital to Australia's global competitiveness and ensures a pipeline for future applied research.

## 2. Build Scale for Collaborative Research

The CRC program has a proven track record and is well understood within the Australian innovation ecosystem for its capacity to generate significant leverage from Commonwealth investment. It does not operate on the scale of programs overseas. We propose scaling that impact by boosting the program and putting in place flexible pathways for post-CRC innovation. In our [2021/22 Budget submission](#), we proposed an additional investment of \$50 million a year over the forward estimates, with new investment focused on identified priorities, which could include Missions, or for CRC-Ps, Challenges.

## 3. Draw upon success and experience.

The CRC Program has been a significant and successful element of the Australian innovation ecosystem for 30 years. No other scheme has seen industry and universities collaborate for as long or on the scale that it has, and the long-run impact of those collaborative relationships, while they have not been quantified, can be assumed to be profound.

Currently, CRCs host a significant portion of PhD candidates undertaking industry-led research in Australia, with around 400 current students and more than 4000 alumni. These are the people who advance Australian capacity for research commercialisation.

There is a critical need in Australia for more senior brokerage roles and skills when it comes to commercialisation both in the private and public sector. Equipping people on both sides with the skills required to speak both languages would bring about more effective translation. One way to address this would be through the establishment of a Commercialisation Fellows Program which would help to develop these skills and increase the importance of this kind of position.

The inclusion of CRC experience and expertise in the governance of a new Scheme would be of significant benefit.

## 4. Ensure a mixture of mission-driven and serendipitous discovery.

The development of Missions or other clearly set research priorities is welcomed, if it is balanced with support for serendipitous discovery and capacity for step-change rather than incremental change. The CRC-P program provides a successful example of a mixture of approaches, with part of the funding directed a clearly identified priorities.

## 5. Incentivise collaboration with a commercial focus.

While the discussion paper proposes incentivising industry through a new Scheme, we would propose that the R&D Tax Incentive (R&DTI) be revisited as an incentive for industry.

We believe incentivising collaboration through the introduction of up to a 20% collaboration premium consistent with Recommendation 2 of the Review of the R&D Tax Incentive, would be an effective mechanism generating new collaboration between industry and research institutes and foster a culture of innovation.

We also support the recommendation in the review to apply the collaboration premium to the cost of employing new STEM PhD or equivalent graduates in their first three years of employment. 5 As of 2015, six OCED countries (Belgium, France, Iceland, Italy, Japan and Hungary) provide an R&DTI for collaboration. We propose the extension of such a premium to companies who host PhD and research scholars for the duration of their program.

## 6. Create Industrial Research and Innovation Capacity

Investment in Industrial PhDs puts industry at the heart of the Government's scientific agenda. We support the creation of a PhD program that requires candidates to spend the majority of their PhD undertaking research for an industrial organisation partnered with their university. This produces commercially applicable research, gives industry an ability to co-create research education that meets their needs, and creates a highly skilled, industry-ready workforce.

We propose that a new Industrial PhD scheme be established under the Research Training Program (RTP) that extends some RTP scholarships to industry with experience in postgraduate research who are partnered with a university for programs where students spend the majority of their time in industry.

We also would welcome the Scheme incentivising industry-based masters-by-research and post-doctoral scholars, and greater opportunities for undergraduate and postgraduate coursework students to undertake internships focused on research commercialisation.