

15 August 2013

Manager  
Research Outcomes and Strategy  
Department of Industry, Innovation, Climate Change,  
Science, Research and Tertiary Education  
GPO Box 9839  
CANBERRA ACT 2601

Dear Sir/Madam

Thank you for the opportunity to comment on the paper – Assessing the wider benefits arising from university-based research: Discussion paper.

The Cooperative Research Centres Association (CRCA) represents all of Australia's CRCs as well as a range of Associate and Affiliate Members. Every CRC must include at least one Australian university and most have at least several university participants. CRCs are developed to deliver impact from research. CRCA therefore holds strong views on the role of universities in creating social, economic and environmental impacts for the nation.

It is our view that there is a need for research impact to be given greater emphasis in the Australian university sector. We would like to see more systems, processes and incentives that increase interaction, engagement and collaboration between university personnel and industry, NGOs and governments. To this end, we recommend the removal of any disincentives to greater industry engagement. These include the lower returns for the University Block Funding Scheme that universities achieve through Category 4 funding in comparison to other categories under the Scheme. We hear consistent stories from university researchers that they are directed away from participation in a Cooperative Research Centre when they are capable of winning Category 1 funding grants because the financial return to the university is superior under Category 1. Researchers are often frustrated by such direction because for them personally the rewards are usually no better and they may prefer to work on a more industry-engaged project. Industry may fail to access the best available talent and therefore Australia is worse off due to the very artificial line between Category 1 and Category 4.

Within universities themselves, the selection and promotion of academic staff needs to better recognise industry engagement. We believe, in general, universities significantly undervalue industry experience and engagement and reward behaviour that isolates academics from industry. We observe that we have heard widespread commentary agreeing with this view for years, including from prominent Vice-Chancellors. However, we are unaware of any significant changes in any university enterprise agreements to truly reward industry engagement. We believe the Department of Innovation should put measures in place to achieve important changes in this direction, especially in those universities seeking to place "engagement" as a core focus. While university enterprise agreements are a matter for each university, there appears to be little progress towards better industry engagement, which is so widely considered to be an important national need.

In terms of measuring research impact, the CRCA is cautious about the cost of doing so effectively on a national scale, but we believe it warrants further consideration. The CRCA commissioned an Impact Study of the CRC Program in 2005<sup>1</sup>. The Department of Innovation extended that study in

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<sup>1</sup> Allen Consulting Group report: The Economic Impact of Cooperative Research Centres in Australia (2005)

2006<sup>2</sup> and again in 2012<sup>3</sup>. Each of these studies showed considerable impact and excellent returns on public investment. They were detailed studies by very experienced consultants with considerable industry validation and work from individual CRCs. We struggle to see how this level of detail could be achieved, cost effectively, on a national level (the CRC Program represents only 1.5% of the Federal Government's innovation expenditure).

The recent ATN-Go8 Excellence in Innovation study represents an alternative approach to measuring impact. However, the study is case study based and we believe documenting the impact of research should become part of the core skills of research teams, in preference to a "look back" conducted far down the track. We would like to see it become normal practice for communication expertise to be closely associated with the whole research process wherever possible. If government elects to conduct some form of impact assessment along the lines of the ATN-Go8 exercise, we would like to think it may be several imposed assessments along a pathway leading to better communication of impact becoming embedded in Australian publicly-funded research.

The best measure of industry engagement for a university is the funding each university derives from industry engagement. Undoubtedly some really valuable, high impact work comes at low cost, and the capacity to fund projects will differ widely between some industries and NGOs. But cash through the door is a clear figure and comparable between universities. Block funding clearly affects behaviour within universities and is a major lever that the Commonwealth can use to change behaviour. It is our view that if the Commonwealth wants to increase university-industry engagement then use of the block grants would be the most effective and cheapest means to do so. If universities were directly rewarded for bringing in industry research funding through the block granting system (by removing the current large disparity between the current categories) the CRCA strongly believes we would see an immediate, meaningful lift in industry engagement.

Other measures of innovation and impact were canvassed extensively in the recommendations from the Government's 2009 Innovation Metrics Framework Study ([attached](#)). We are not clear whether the extent to which these recommendations have been implemented and believe there is merit in re-examining them. One of the CRCA Directors has provided a suggested list of "Innovation Metrics" based on internationally accepted metrics (also attached for discussion). The CRC Impact Tool already provides the basis for future assessment of the impact of CRC activity. The CRCA Association would support an annual aggregate Impact Tool-based assessment to provide a clear picture to taxpayers of the value of publically-funded innovation spending. We would encourage other innovation spending, both within the university sector but also more widely, to be subject to the same disciplined approach to impact assessment.

Once again, we thank you for the opportunity to comment on this issue. We wish you well with further policy development in this very important area.

Yours sincerely  
CRC ASSOCIATION

Dr Tony Peacock  
CHIEF EXECUTIVE

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<sup>2</sup> Insight Economics report: Economic Impact Study of the CRC Programme (2006)

<sup>3</sup> Allen Consulting Group report: Economic, Social and Environmental Impacts of the Cooperative Research Centres Program (2012)

## **INNOVATION METRICS**

### **ENABLERS**

#### **Human resources**

1.1.1 New doctorate graduates (ISCED 6) per 1000 population aged 25-34.

1.1.2 Percentage population aged 30-34 having completed tertiary education.

1.1.3 Percentage youth aged 20-24 having attained at least upper secondary level education.

#### **Open, excellent and attractive research systems**

1.2.1 International scientific co-publications per million population.

1.2.2 Scientific publications among the top 10% most cited publications worldwide as % of total scientific publications of the country.

1.2.3 Non Aust doctorate students as a % of all doctorate students.

#### **Finance and support**

1.3.1 Public R&D expenditures as % of GDP.

1.3.2 Venture capital (early stage, expansion and replacement) as % of GDP.

### **FIRM ACTIVITIES**

#### **Firm investments**

2.1.1 Business R&D expenditures as % of GDP.

2.1.2 Non-R&D innovation expenditures as % of turnover.

#### **Linkages & entrepreneurship**

2.2.1 SMEs innovating in-house as % of SMEs.

2.2.2 Innovative SMEs collaborating with others as % of SMEs.

2.2.3 Public-private co-publications per million population.

#### **Intellectual assets**

2.3.1 PCT patents applications per billion GDP.

2.3.2 PCT patent applications in societal challenges per billion GDP (climate change mitigation, health).

2.3.3 Community trademarks per billion GDP.

2.3.4 Community designs per billion GDP.

### **OUTPUTS**

#### **Innovators**

3.1.1 SMEs introducing product or process innovations as % of SME's.

3.1.2 SMEs introducing marketing or organisational innovations as % of SME's.

3.1.3 High-growth innovative firms.

#### **Economic effects**

3.2.1 Employment in knowledge-intensive activities (manufacturing and services) as % of total employment.

3.2.2 Medium and high-tech product exports as % total product exports.

3.2.3 Knowledge-intensive services exports as % total service exports.

3.2.4 Sales of new to market and new to firm innovations as % of turnover.

3.2.5 License and patent revenues from abroad as % of GDP.