

Rural Research and Development Corporations

A response from the University of Adelaide to the Productivity Commission's Draft Report,
November 2010

INTRODUCTION

The University of Adelaide welcomes the opportunity to comment on the Productivity Commission's Draft Report on the Rural Research and Development Corporations, released in September 2010.

The University of Adelaide has major teaching and research activities very closely aligned with the industries/issues related to the RDCs. In particular the University of Adelaide operates the Waite and Roseworthy campuses, the premier agriculture related education and research precincts in Australia, and the site of the southern hemisphere's largest concentration expertise in sustainable agriculture, cereal breeding, plant and animal biotechnology, dryland farming, and wine research. Waite-based plant breeding and biotechnology are at the leading edge of world research, with more than 35% of southern Australian wheat and barley plantings dedicated to University varieties. Adelaide is Australia's pre-eminent wine industry educator and has produced many of the country's greatest winemakers. At the Roseworthy Campus, the Livestock Systems Alliance is the largest gathering of livestock researchers in Australia. Dryland farming and animal science research at Roseworthy have international impact. Roseworthy is also the site the University's recently commissioned School of Veterinary Science, the first Australian School to provide training, research and biosecurity facilities servicing the marine and aquaculture industries.

The RDCs are an important Category 1 source of funding supporting our research. The extent of the University's research portfolio is reflected in the following funding summaries.

Scheme/Grant	2009* (\$'000)	2008 (\$'000)	2007 (\$'000)	2006 (\$'000)	2005 (\$'000)	2004 (\$'000)	2003 (\$'000)	2002 (\$'000)
Australian Competitive Grants	74,062	69,890	60,699	62,038	56,264	50,920	47,763	41,333
Other Public Sector Research Income	40,004	41,005	28,649	27,462	25,887	19,781	16,612	12,401
Industry & Other Funding for Research	28,907	28,141	20,413	18,169	13,016	17,090	17,454	20,623
Cooperative Research Centres	4,854	6,027	6,011	6,813	6,684	6,193	5,049	4,117
Total University Research Income	147,827	145,063	115,772	114,482	101,851	93,984	86,878	78,474

Source: [DEEWR 2006-2008 Higher Education Research Data Collection](#)

*2009 figures are preliminary based on 2009 financial statements.

Research Block Funding

Scheme/Grant	2010 (\$'000)	2009 (\$'000)	2008 (\$'000)	2007 (\$'000)	2006 (\$'000)	2005 (\$'000)	2004 (\$'000)
Research Training Scheme	28,072	27,809	28,127	28,989	29,757	29,640	29,161
Research Infrastructure Block Grants (RIBG)	12,838	12,961	13,641	13,820	14,248	13,773	12,194
Institutional Grants Scheme (IGS)		15,744	16,232	16,500	16,371	16,311	15,951
Joint Research Engagement (JRE)	15,271						
Sustainable Research Excellence (SRE)	4,551						

Source: [DEEWR Research Block Grants funding announcements](#)
 IGS replaced by JRE in 2010. SRE started in 2010.

Both the Waite and Roseworthy campuses are acknowledged as an exemplar for collaboration and collocation, servicing industries across the science spectrum, from the basic to applied. Collocated institutions include the University's Schools of Agriculture, Food and Wine (Waite), and Animal and Veterinary Sciences (Roseworthy), CSIRO, SARDI, Australian Centre for Plant Functional genomics (ACPFG), Australian Genome Research Facility (Agriculture Node), Australian Grain Technologies Pty Ltd, Food Plus Research Centre, Australian Wine Research Institute, and the Australian Plant Phenomics Facility (Plant Accelerator).

In addition, the University and its collaborating parties are major teaching and research providers in the cross-cutting environmental and natural resource disciplines associated with water security and its allocation; climate change and variability, incorporating adaptation of rural and regional communities in a carbon constrained economy; renewable and increased efficient energy technologies to reduce greenhouse gas and pollutant emissions from existing energy systems, while refining alternative energy sources to reduce the effects of climate change, and landscape futures aimed at vibrant and viable landscapes through sound environmental management and monitoring.

Continued support of the Research and Development Corporations (RDCs) is vital to the maintenance of this essential, nationally significant capability and the delivery of its collective outcomes, which benefit Australian primary industries and the natural resources on which they rely. RDCs' investments are significantly "leveraged" from institutional and other external grant funding entities, including that derived from industry.

Recommendation 1: Note the critical capacity building and "leveraging" roles of the RDCs to the development of the collective outcomes benefiting Australian primary industries and related natural resources.

DISCUSSION

The Rural Research and Development Corporations (RDCs) have been a critical and significant contributor and supporter of primary industries-related research since 1989 (original PIERD Act). The arrangement is recognised as a leader in the world, providing for joint investment by industry sectors and government in national portfolios, whilst still providing for regional delivery. The current structural/governance arrangement and funding model are strongly supported by the industry and research sectors. This reflects the critical role of research and the delivery of outcomes to competitive and sustainable industries and the economy.

In providing these comments the University fully endorses the Productivity Commission's (PC) assessment of the current model of:

- The contribution of R&D to productivity and competitiveness;
- The delivery of significant benefits to the industry; and
- The attraction of high regard and support in both Australia and overseas.

The University notes the findings of the draft report, in particular the Commission's views regarding:

- Private/public good and spill-overs, and suggested "crowding out" of private investment in R&D;
- Return on investment /alignment of investment;
- Applied vs. strategic/discovery research balance;
- Sector (industry) vs. cross-sector (water, climate change, biodiversity, food and biosecurity).

These are accepted as genuine concerns and if true, warranting redress. However, it is suggested that the treatment and assessment of a number of these key issues, and the proposed policy directions warrant greater examination. It is suggested that a greater recognition and weighting of the Commission's views needs to include:

- Recognition that, whilst the most direct beneficiaries of the RDC research outcomes are the individual farming enterprises, they comprise a large number of individual SMEs that are not conducive to extracting enterprise specific levies or fees on "direct benefit" received, (notwithstanding the enormous transaction costs to do so);
- This extends to the wider regional and rural communities where benefits, wealth and community security flow on from the enterprise benefit;
- The untested assumption that reductions in public sector expenditure will result in compensating private investment. History has demonstrated this is frequently not the case in Australia. Examples in national agriculture research where this has not occurred include Pastures, Weeds, Soils, Genetic Resource Collections and Plant and Animal Nutrition, with a resultant loss of national capacity. An underlying factor influencing this outcome, particularly in the context of major transnational agribusiness companies is that, while the major industries and commodities are significant and primary for Australia, the production magnitude and ranking of importance to the major transnational agribusinesses are considerably less.
- In embracing transnational investment uptake as a policy direction, there is a need to recognise two truisms associated with this investment:
 - Transnationals are very selective investors aimed at delivering profit outcomes, not the required general industry outcomes. There is also the issue of quality and the limited tactical nature of the research investment;
 - There is still a need for Australian R&D to adopt overseas technologies to Australian conditions and markets.

Recommendation 2: The Commission examine the feasibility of its proposal of greater "direct benefit" royalty capture on research from the farming sector, and the reality of the rate of private investment, particularly from trans-national agri-business, in response to reductions in public funds aimed at addressing "crowding out".

The Commission's assertion of an historic failure to maintain an adequate sector (industry) vs. cross-sector balance, and the proposal to establish the Rural Research Australia (RRA) is widely accepted. However, it is important to point out that we do not support the assertion that the present system has failed to support cross-sectoral programs. There have been successful examples of co-investment in

research in areas such as natural resource management, and environmental sustainability. It is essential to ensure that RRA, if created, is able to maintain the required level of funding to address adequately the research and development needs in this area, as well as ensure the required connectivity with the more focussed industry/commodity research by the RDCs. This reflects the fact that it may not be able easily to designate projects into one of the categories. Many projects deliver public, industry and wider cross sector benefits. There will need to be vigilance and processes to ensure worthwhile projects do not “fall between the cracks”.

The proposed funding metrics in response to the recommended structural changes require careful consideration. The core elements are a halving of the matching Commonwealth grant to the RDCs, compensated with a grant of \$50 million to RRA. The most likely consequences of this model will be a significant fall in public investment (estimated at \$75 million). With the doubts expressed above on the reality of this being offset by increased private investment, a decline in capability and programs of this extent would have major impacts on industry productivity and performance in the long run. There is a significant risk that the flow of public benefits from research, in the form of improved environmental outcomes, may diminish rather than increase as postulated.

Recommendation 3: Endorse the proposal to establish RRA to address more adequately cross-sectoral issues. However, give consideration to the expected decline in overall funding available for Australian agricultural R&D as a consequence of the proposed funding model.

The Commission’s scepticism of projected cost:benefit ratios and Rols is noted. Notwithstanding, there is significant documentation and publications that show historic RDC investment, and agriculture research investment in general, delivers impressive industry sector returns against comparative international benchmarks. These have been critical in maintaining the international competitiveness of the Australian industry.

The majority of scepticism is centred on the conventional ex-ante and ex-post cost:benefit assessments applied to research proposals. These are generally mandated by the RDC and/or the Commonwealth Government funding agreement. The recommendation that there be a greater emphasis on research evaluation is supported. The need is for the funding bodies and the Commonwealth to develop and apply an evaluation model that is consistent, relevant and provides confidence in the outcomes; within the context of uncertainties associated with the rate of uptake, weather cycles and other externalities.

Recommendation 4: The RDCs and the Commonwealth develop and apply an evaluation model that is consistent, relevant and provides confidence in the outcomes.

The Commission is recommending that RDCs engage in both R&D management and industry marketing. It is suggested that this recommendation be amended to remove the marketing function. Comparison of the performance, effectiveness and maintenance of national research capacity between those RDCs that have and have not undertaken industry marketing roles is starkly transparent. In particular, the distraction of marketing, coupled with industry governance issues, in RDCs associated with the livestock industries has resulted in a severe decline in the maintenance and standard of the national R&D capability in this sector.

Recommendation 5: The Commission review its recommendation that RDCs, where endorsed by a majority of levy holders, undertake marketing functions.

CONCLUSION

The University of Adelaide values the RDC funding model, noting the significant contributions it has delivered to the development and maintenance of Australian research capability, and industry competitiveness and prosperity. It is a major source of Category 1 funding, and provides an essential applied link to complement the more traditional research funding sources. In fact, the current model is acknowledged as an international exemplar.

We support the Commission's recommendations to enhance the RDC's operations, and increase the balance between industry focussed and cross-sector R&D through the establishment of RRA. However, it is suggested that there is a need to give consideration to the expected decline in overall funding available for Australian agricultural R&D as a consequence of the proposed funding model.

While supporting the major structural and operational recommendations, we believe there is a need to reconsider a number of the basic assumptions applied to the proposed model, to ensure that unwanted consequences, such as an overall decline in Australia's agricultural R&D capacity, do not occur.

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