

Modernising the RDC System – IRU Submission

The Rural Research and Development Corporation (RDC) system is an important and effective facilitator of innovation and productivity improvement in regional economies through collective investments in research and development (R&D).

The RDC system supports engagement with R&D of relevance to levy payers and builds connections between the public research sector and industry. The alignment of research is strongly influenced by priorities determined by the RDCs, ensuring strong relevance to industry needs. The connections to the levy paying organisations is crucial. Universities rely on RDCs to make links with industry, to conduct research on industry sites and extend knowledge from R&D in to practice. Generally, there is a clear pathway for communication of research outcomes, and an associated budget and communication plan.

Based on consultations with IRU members, the RDC system appears to be working well to:

- Involve key stakeholders throughout the R&D process;
- Build connections between the public research sector and industry;
- Engage with end users when identifying gaps for productivity improvement and embed these into project scope and positions;
- Communicate R&D and its value to end users through rural workshops;
- Disburse R&D funds in a transparent and competitive basis.

The longer-term five year funding model is a particular strength of the RDC system. It facilitates long-term applied research, offering greater scope for R&D of transformative potential and engagement with research students. This is not possible under a shorter 1-3 year funding cycles, typical of other research grants. The co-investment model is critical to promote industry engagement for further adoption of research outcomes. Other longer-term funding schemes may deliver good science, but the RDC industry engagement across the R&D journey leads to greater utilisation.

Where there are areas for potential improvement, these lie primarily in the following areas:

1. Funding novel and transformative R&D across RDCs;
2. Greater collaboration between RDCs, CRCs and other major initiatives;
3. Clearer and defined roles for commercialization activities;
4. Consistency in IP ownership and use;
5. Recognising the public benefits of RDC funding.

The remainder of the submission outlines these in further detail, including an example of the future of agriculture.

1. Funding novel and transformative R&D across RDCs

RDCs have struggled to tackle big issues across sectors. Rural R&D for profit provided a platform to address that and works well when the leader within the RDCs have direct research expertise. However, there lacks a proper system for RDCs and stakeholders to come together for a common interest and collaboratively pool funds for investment. An example is soil health and the future of agriculture, which spans multiple disciplines and RDC portfolios. There is also potential for the RDC

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system to better engage with major infrastructure (e.g. NCRIS) facilities and universities to access cutting-edge facilities and implement transformative solutions through universities. An example is the genomics revolution and big data.

There is also a need for better joined up processes across RDCs for administration and cross-RDC funding. This would enable more funds for innovative research, novel tools and interdisciplinary activities.

The number of RDCs appears to be suitable, but some of the smaller RDCs may lack sufficient funds or scale to contribute to relevant cross-RDC areas of common interest. Consideration should be given to effects of combining small RDCs.

2. Greater collaboration between RDCs, CRCs and other major initiatives

RDCs are involved with Cooperative Research Centres (CRCs) and Cooperative Research Centres Projects (CRC-Ps). All develop research directly relevant to end users who have invested in the research. Whereas RDCs see their role as broader from discovery research through to translation, CRCs are more regulated towards delivering a particular product. RDC investment in discovery research has potential to future proof key rural sectors, particularly if in collaboration with relevant ARC Centres of Excellence. The goals of RDCs and CRCs can overlap and become competitive, limiting collaboration in common problems. Potential competitive tensions between RDCs and CRCs should be managed through cooperation in goal setting and through incentives for closer collaboration.

3. Clearer and defined roles for commercialisation activities

Whereas the ARC has a clear separation between knowledge creation and application in the Discovery and Linkage schemes, RDCs often try to do both but lack structures to effectively commercialise knowledge. This leads to greater expectations towards universities to commercialise. If universities are to invest in commercialisation, it may not be aligned with the broader benefit goals of RDCs.

4. Consistency in IP ownership and use

Systematic understanding and streamlining of how RDCs will use IP, rather than ad hoc approach (while acknowledging the need for flexibility), would improve contract administration. Certain universities are doing this better and gain more contracts, but this creates an imbalance in the RDC funding system.

5. Recognising the public benefits of RDC funding

The primary focus in the discussion paper for 'modernising' the RDC system relates to how they can better provide returns to producers. There is repeated mention of the desire to support the sector to achieve \$100 billion in gross value of production by 2030 with an emphasis on the need for R&D. This is a narrow perspective that needs to be widened, especially given that the Australian community is a major investor. An example of this is in soil health and the future of agriculture, which spans multiple disciplines and RDC portfolios, with considerable public benefit at stake.

Example – Future of agriculture

The future of agriculture and of society depends on healthy landscapes and the provision of ecosystem services provided by nature (clean water, air, soils, pollination, decomposition, biodiversity etc), as well as the use of the latest molecular technologies and digital solutions. Consequently, it is essential that the RDC system supports long-term sustainability of the land and water that underpins agricultural production. This land and water base must also be able to continue to provide the services that sustain society. We see the unravelling of these relationships in times of drought and water shortage, when the land and water base becomes degraded. Sustainability and being ‘future ready’ requires a long-term perspective, which can be easily lost.

Sustainability of land and water is a cross-cutting theme that should run across all RDCs. There are a growing number of landholders/producers who are striving to introduce more sustainable practices, but there is a lack of clear understanding and examples of how they can effectively run both a productive business enterprise and a sustainable enterprise – and the trade-offs required to do this.

RDCs operate on a mixed model of both industry levies (nearly \$500 M) and taxpayer funding (more than \$300 M). The RDC review may consider asking what kind of outcomes each of these investors seek? They will not be the same. Taxpayer investment should be seeking benefits for all Australians, and hence thinking beyond just agricultural production alone. Healthy rural communities, thriving towns, nature conservation in and among rural landscapes, healthy river systems and wetlands, reduced soil degradation, aesthetically pleasing landscapes, maintenance of cultural values, and so on, are all the kinds of values and outcomes that must figure in the R&D planning of these RDCs. The future of rural Australia depends on the capacity of rural landscapes to provide these, as well as agricultural products.

Universities have a lot to offer the RDCs and we need to continue to have strong relationships. The co-investment by universities in research projects is substantial. The model of strong applied focus and strong commitment to university-industry partnership in carrying out and communicating research can work well for both parties. The longer the duration of funding commitment for a project (e.g. 3-5 years or more), the greater the ‘value add’ that a university can provide through activities such as incorporating student research projects. This cannot be done with short-term projects (1-2 years) or year by year funds.

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