



Charles Sturt
University

DEPARTMENT OF AGRICULTURE
Modernising the Research and
Development Corporation
System-Discussion Paper
Submission

20 December 2019

Office of the Vice-Chancellor
Charles Sturt University



20 December 2019

Senator the Hon Bridget McKenzie MP
Minister for Agriculture
Parliament House
Canberra ACT 2600

Dear Minister,

MODERNISING THE RESEARCH AND DEVELOPMENT CORPORATION SYSTEM

On behalf of Charles Sturt University, I am pleased to provide you with this submission in response to your call for views on modernising the Research and Development Corporation (RDC) system.

Charles Sturt University is Australia's largest regional university, with more than 43,000 students and approximately 2,000 full time equivalent staff. We are a unique multi-campus institution with campuses at Albury-Wodonga, Bathurst, Canberra, Dubbo, Goulburn, Manly, Orange, Parramatta, Port Macquarie and Wagga Wagga, as well as various study centres located throughout regional and rural south-eastern Australia.

Further, the University has deep and proven experience in agricultural and horticultural teaching, learning, research, development and engagement, spanning more than a century of contributing to the international competitiveness of our farmers and downstream industries. Application of our research in regional, rural and remote Australia has played a significant role in driving economic prosperity, social inclusion and environmental sustainability.

Charles Sturt University welcomes the Australian Government's historical and continued commitment to the ongoing development and implementation of the highly successful RDC system.

Charles Sturt University is pleased to contribute to the future development and focused implementation of the RDC system. The University's submission provides a range of views on the steps the Government could take to improve the RDC system to underwrite future prosperity, inclusion and sustainability in regional, rural and remote Australia.

Charles Sturt University has prepared this submission in accordance with the structure and content of the *Modernising the Research and Development Corporation System Discussion Paper, September 2019*, provided for reference at Attachment A.

RDCs enable the sector and government to collectively invest in innovation

Charles Sturt University's understanding of the RDC system demonstrates that most reviews have indicated the current system is delivering value for levy payers and taxpayers. However, it is likely that a new system could deliver even greater value. While the current system delivers high within-industry gains, given many investments are best targeted across-industry, for example in digital innovation, it is likely that a cross-sector approach will deliver greater value, especially for whole of sector growth.

Charles Sturt University believes that the industry specific RDC model does create a high degree of duplication in governance structures and administration, however it also provides the opportunity for broad representation across the sector. Reducing the number of RDCs will create cost savings in administrative and governance issues, but this should not occur at the expense of broad industry representation and input into any new structure or organisational arrangements.

RDCs manage and invest almost \$800 million of government funding each year in R&D and marketing. We need the most effective and efficient system for delivering this service.

Charles Sturt University is of the view that although retaining the current number of RDCs allows clear industry identity and attribution of the impacts of levy investment, there may be benefits in looking at some rationalization of RDCs.

From Charles Sturt University's experience in agricultural and horticultural research and development (R&D), as well as interaction with the RDCs and industry, we can see that there are several inefficiencies in current RDC system structure relating to:

- The costs associated with management and boards within multiple RDCs.
- Duplication of research for cross-sectoral issues, for example, many RDCs are investing separately in digital agriculture initiatives. We support the initiative of the Council of RDCs on forming a company to do cross-sectoral work which will help to address some of these concerns.
- Some cross-sectoral issues are not funded as there is often a view that it is not the remit of a specific RDC, and that "we won't contribute unless RDC 'x' does".
- Initiatives that focus on whole farm profitability where the farming system involves several commodities are often not supported unless the project aims to increase the production of all commodities. This often prevents funding of whole-farm systems projects that have the potential to significantly improve whole farm profitability.
- Some public-good proposals struggle to receive funding support from RDCs, as RDCs typically focus on projects that can deliver short-term industry specific benefits. However, some larger RDCs find it easier to fund longer-term and higher risk projects, for example the work of the GRDC and MLA, but this is difficult for the smaller RDCs.
- Longer term 'blue-sky' research proposals can be more difficult to justify to a specific industry, which can be especially the case for issues which are not commodity specific, for example soil research, such as carbon sequestration for water and nutrient retention.

What are some of the cross-sectoral issues being faced by the wider agricultural sector?

Charles Sturt University believes that the RDCs need to shift their focus away from short-term and often low- risk projects to longer-term and sometimes higher-risk projects, for example, climate change, water issues, fire management etc. As noted above, this could be facilitated by the cross-sector company being formed by the Council of RDCs.

Obvious cross sectoral issues include biosecurity, a changing climate, water efficiency, social license to operate – including animal welfare issues; ethical agriculture, digital agriculture, automation, food provenance, healthy food, changing consumer demands, new agricultural systems.

How can RDCs increase collaboration to ensure better investment in, and returns from, cross- sectoral, transformative and public good research?

Charles Sturt University sees good examples of RDC collaboration to address cross-sectoral, transformative and public good research. These have usually occurred when one RDC has identified a priority investment area and then approach other RDCs to co-invest, or incentives for leveraging commitment have existed through programs such as the Collaborative Research Centres (CRCs) or the Rural Research and Development for Profit Program.



Outcomes from the latter are not yet fully known, although experience suggests that proposals have largely been driven by a lead RDC who wishes to increase investment in a specific area, rather than a strategic analysis of cross-sectoral needs and priority opportunities. In fact, some of the opportunities may be outside of traditional industries which means co-investment from multiple RDCs is unlikely.

CRCs have produced cross-sectoral outcomes with significant impact, and these have occurred because the CRCs have been able to take a broader perspective than an individual RDC, and then broker co-investment from the RDCs. Industry Growth Centres could play a role in this regard, given they are important in providing endorsement of CRC bids. Should the current RDC structure remain, it is our view that cross-sectoral, transformative and public good research is best facilitated separately, with mandated investment from RDCs.

What are the cultural changes necessary in RDCs to achieve a modern fit-for-purpose RDC system?

Charles Sturt University believes that the culture of RDCs is often heavily influenced by the industry they collect levies from, by virtue of board composition, RDC leadership, and consultation mechanisms with levy payers. Often this results in a culture of being focused on a particular commodity rather than the farming system that produces them.

As such, proposals that are cross-sectoral, have uncertain outcomes, that have no clear short-term return on investment or are potentially disruptive to the current industry status quo may not be supported. RDCs should be required to have board structures that encourage disruptive thinking that focusses on improving profitability while enhancing sustainability across the whole agriculture sector, not just a specific industry. This should flow through to RDC leadership, which will drive cultural changes. For example, by ensuring the RDCs board are skills-based rather than levy-representative.

An associated issue is that many program managers with RDCs are required to manage a large portfolio of projects. This often results in a situation of minimal engagement in the research activity, with a focus simply on whether projects are progressing against agreed milestones. It also often creates a culture of supporting 'safe' proposals – those with clear and simple deliverables in which there is a low risk of failure – incremental research (for which there is a place) at the expense of transformational research.

Providers who are known to deliver on such 'low risk' projects are often favored instead of new entrants who are perceived as riskier. Apart from the consequence of not supporting potentially transformative research, this culture also results in opportunities not being identified. For example, a thorough understanding of projects in progress and emerging opportunities enables exploration of value-add and collaboration, including cross-sectoral, opportunities which can increase the impact of the research.

Finally, a culture of ongoing support to enhance the impact of research is required. Once projects are finished the approach is often to package the recommendations for use by next and end-users. A more mature and coordinated approach to ensuring that potential users of research outcomes have ongoing access to such recommendations, and that resultant practice change and impact can be monitored, is required to demonstrate the ongoing benefits of investment in the RDC system by levy and taxpayers.

What other ways are there for increasing investment in cross-sectoral, transformative and public good research?

Charles Sturt University believes that greater cooperation could be achieved through joint funding programs. For example, as mentioned earlier, programs such as the CRC and Rural R&D for Profit Program have attempted to facilitate this with varying success. If the current RDC structure is to remain, mandating minimum levels of RDC investment in cross-sectoral, transformative and public good research may be an effective way to ensure adequate investment in these. Further, the incorporated structure discussed above provides a mechanism for achieving this outcome.



What is the best way for RDCs to engage with levy payers to inform investment decisions?

Based on the University's understanding of the RDC system, most RDCs have structures to facilitate financial stakeholder engagement, for example levy payer representation on boards and on regional advisory panels. In terms of the latter, there is variance between RDCs in how much these panels influence investment decisions.

In the case where it is perceived that such panels are 'token', the process becomes self-defeating, whereby levy payers who participate in the process soon become disenfranchised, and in some cases levy payers who have the most to offer (in terms of identifying the big opportunities) will not participate. This can reinforce a culture of supporting incremental, short-term, 'fix an immediate problem' type research.

Each RDC should have an approved structure and process for engagement with levy payers to inform research decisions, but also should ensure that this does not only result in incremental, short-term and single commodity research being supported. This will require a process that encourages the best minds to contribute to informing investment decisions, and will likely require investment in capability building that the advice received as part of the engagement with levy payers does not only result in short term, incremental research. One way of achieving this outcome would be by ensuring that RDC boards are skills-based rather than levy-representative, as discussed above.

How can we encourage increased investment in the RDC system from the private sector and international partners?

Charles Sturt University believes that private and public partnerships thrive best when the private sector see a potential for economic return on investment within an acceptable time frame. Provision of tax offsets is one approach but valid only when companies are profitable. More generous tax deductions for funding research in the agricultural sector when used for research in regional locations would be of benefit, particularly given the substantial and sustained cuts to the R&D tax incentive program which is driving down industry investment in R&D.

Funding schemes which have provided incentives for leveraging private sector cash and in-kind have been quite successful, for example CRCs, Australian Research Council (ARC) Linkage Grants and the Rural R&D for Profit Program. But these have not always been a business as usual approach, for example, fixed calls and often specific priorities, and while they have created opportunistic investment from the private sector, we need to move to a longer-term strategy to encourage more private investment.

This could include incentives to match levy funds with private funds and perhaps also other non-government funds from universities etc. which would then be co-invested with taxpayer funds, to create a greater pool of funds for R&D. Attracting international private sector investment under a model such as this may also be possible, especially if the market for the innovation or technology is viewed as global rather than just designed to address Australian industry issues.

This may lead to a more agile and entrepreneurial approach where the export is seen as the new innovation rather than the increased value or volume of the commodity that results from application of the innovation/technology.

How can we form stronger linkages between the RDC system and the food value chain?

From the University engagement with the agriculture and horticulture sector, we see that most RDCs appreciate that increasing farmer profitability involves more than just increasing on-farm productivity while managing costs, so investing throughout the value chain to ensure the price received by farmers is increased through increased demand as well as a sustainable value chain.



However, we believe that attracting co-investment from the private sector throughout the value chain has not been consistent. Strategies such as those suggested in the Discussion Paper may assist in achieving greater levels of co-investment. Inclusion of representation from throughout the value chain on RDC boards and advisory panels, which some RDCs already do, will also assist in achieving greater linkages. For example, through the Food and Agriculture Growth Centre.

What changes might encourage improved RDC collaboration with the private sector, including those outside the agricultural sector?

As indicated earlier, incentives to encourage private sector investment in RDC funded work is important to increase funds available for R&D, but also importantly it increases the likelihood that the outcomes of the R&D will be adopted by industry, as they have been involved in co-design of the work. This will also be applicable to those outside the agricultural sector.

One challenge for the private sector though, especially those outside the agricultural sector, to collaborate with RDCs is the number of RDCs. Hence most examples of private sector collaboration with RDCs have had a clear alignment with commodities, rather than innovations that may have applicability across many production systems, or may even generate a new industry, including service industries within the agricultural sector.

Fewer RDCs, or perhaps even a separate RDC charged with cross-sectoral, transformative research, should make it easier for the private sector, especially those with a non-agricultural background, to collaborate with the RDC ecosystem. For example, a cross sector organisation like Food Innovation Australia Limited could provide leadership for collaboration.

Where should the balance of investment between R&D and extension lie?

Charles Sturt University believes that the balance of investment and extension varies between RDCs, and there is some justification for there to be differences between the agricultural sector industries for more or less emphasis on extension, depending on the structure of the industry among other things. There is no doubt that in many industries, effective extension, whereby improved practices are adopted is the most effective way to increase profitability of farmers in the short term.

However, many extension programs are ineffective, such that the promised returns on investment do not eventuate. Most RDCs fund their own extension programs, which can be expensive yet limited in reach. A far more effective approach would be for RDCs to collaborate in this area to build effective platforms. It is this area in which there is the greatest duplication of effort, which creates information overload and often mixed messages.

Less extension platforms, that are contributed to by several RDCs, would be likely to lead to an improved platform which would allow users to access information and make informed decisions. This is particularly important for farming systems that operate several enterprises. Collaboration between RDCs should lead to extension messages that consider the risks and opportunities of various strategies within such mixed production systems. This may require greater investment in extension earlier on, but it is important that the majority of funds continue to be invested in R&D as this is where the long-term returns will come from.

Investment in extension must recognise the changing nature of extension, that is, increased numbers and influence of private consultants, and support capability building in the private advisory sector.



How could RDCs play a stronger role in extension service delivery, in light of existing private and state government extension efforts?

Charles Sturt University believes that a rethink of the current extension model is required. Such a rethink should look to the international arena and how research projects are undertaken. Engage with stakeholders to plan, conduct, extend and drive adoption of research outcomes, ensuring the research is addressing the key issues of stakeholders and building resilience amongst regional communities. A clear pathway of adoption should be included in research projects from the outset, not as an 'add on' towards the completion of projects.

Most state governments have reduced investment in extension services, which has resulted in an increase in private consultants. While the usage of such consultants varies between industries, it must be recognised. Many RDCs work with the consultants as a conduit for extension of R&D findings, but again it is commodity based. This often creates the situation where consultants will only advise farmers in a specific sector, for example grains or meat, rather than consider whole-farm enterprise profitability. Such an approach can be counter-productive, and as such a cross-sectoral extension approach is likely to have improved outcomes than the current approaches.

Any new approach must also recognise the role of farmer groups. Many of these are entities of considerable size and influence within their regions. Most RDCs recognise their importance, but again such groups often struggle to be effective because they are required to deal with multiple RDCs to continue to provide their services. Dealing with fewer RDCs, or an integrated RDC entity responsible for extension, will reduce their transaction costs and improve their effectiveness.

How could RDCs help researchers, entrepreneurs and others better engage with producers to accelerate uptake?

The University's experience demonstrates that most RDCs provide some incentives for researchers to engage with producers, for example presenting results at RDC run events, collaborating with farmers in applied R&D etc., but Charles Sturt University believes that engagement could be improved across the sector.

Encouraging more co-development of research proposals with producers, to ensure the potential outcomes are adoptable, and ensuring extension messages are developed with producers, is likely to result in increased uptake. Such an approach will also be effective to encourage entrepreneurs to engage with producers.

How could industry and levy payers drive increased uptake of R&D?

Charles Sturt University believes that the best way to drive increased uptake of R&D by industry and levy players requires a consistent approach to extension by RDCs to facilitate this outcome. As discussed above, the increasing role of private consultants and farming groups, which comprise of levy payers, must be recognised in order to ensure extension activities are effective in increasing uptake of R&D.

However, other players have a role, for example farm merchandise retailers, many of which have explored or are developing fee-for service consultancy as well as advice at the point of product sale. These must be engaged in the extension delivery in order to enhance uptake of new R&D findings. Again, dealing with multiple RDCs in this space creates greater transaction costs as well as the potential for mixed messages.

Levy payers are also critical to ensure uptake of R&D, this is where farming groups can be important. Farmers will often have more confidence in adopting if the farmer group recommends it or they see other farmers have adopted the practice.



How might RDCs be able to increase their role in policy R&D and participate in policy debate alongside industry representative bodies?

Charles Sturt University is of the view that RDC's could better support policy R&D, especially cross-sectoral policy R&D. RDCs could contribute to the provision of data for such policy R&D (along with Industry representative bodies), but care needs to be exercised that they are not perceived to be driving policy.

If RDCs were to play a greater role in this area, how could this activity be clearly distinguished from partisan and political activity, which must remain a role for industry representative bodies?

Charles Sturt University believes that if RDCs play a greater role in R&D policy development, it must be acknowledged that this increases the risk of partisan and political activity. However, in order to reduce this risk, it is recommended that RDCs only fund policy R&D with external, independent providers, to ensure clear separation of the R&D from advocacy.

In conclusion, Charles Sturt University believes that strengthening of the RDC system for continued and future success will need to be developed and implemented in partnership with industry and the broader community in regional, rural and remote Australia. The University agrees that by working together, governments, academia, industry and the community can strengthen Australia's agricultural and horticultural industries through investment and application of R&D.

I would be very pleased to provide further information for your and the Department's consideration and would be available to provide evidence at any proposed consultations that the Department may undertake in relation to modernising the RDC system.

Yours sincerely

Professor Andrew Vann
Vice-Chancellor





Australian Government
Department of Agriculture

Modernising the Research and Development Corporation system

Discussion paper

September 2019



Foreword

Australian agriculture is an international success story. Our farmers feed and clothe our nation and send safe, high-quality, sustainable products to markets around the globe. The Australian Government is working to position our farmers to build on that success.

A thriving agricultural sector underpins profitable farming families, strong rural and regional communities and contributes to our national economy. That's why this government is committed to realising a \$100 billion industry by 2030.

Agriculture in the 21st century will be even more science-led, employ even more cutting-edge technology and need highly skilled workers. The research and development system should be ready to support the next wave of innovation that will help our farmers stay at the forefront of agriculture internationally.

We need to better support our farmers to do what they do best, today and into the future. We need to recognise a step-change in the rate of technological advancements, not just in the agricultural sector but across the economy. That is why we must make sure our agricultural innovation system is future ready.

Rural Research and Development Corporations (RDCs) are the cornerstone of this system. They have been instrumental in underpinning the profitability and productivity of Australia's agricultural industries for four decades. The public-private co-investments made through the corporations is integral to the future of the system.

This discussion paper is about finding ways to deliver better value for money and improve the value farmers receive from research. I want to kickstart a national conversation about what that future looks like for research and development. This is an ambitious agenda and needs big ideas.

It is in our national interest to consider reforms to ensure our primary producers are best positioned for the 21st century. This needs to be a collaborative endeavour. As someone who has a stake in seeing the sector thrive, I call on you to share your ideas.

This is your opportunity to shape our future for the better.



Senator the Hon. Bridget McKenzie

Deputy Leader of The Nationals
Minister for Agriculture
Senator for Victoria

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Chapter 1

Introduction

A thriving agricultural sector underpins the future success of our regional communities and national economy and depends on our farmers getting strong returns at the farm gate.

Innovation is key to achieving productivity growth at the farm level. However many of the small producers and businesses in the agricultural sector lack the incentive and capacity to invest in research and development (R&D) and extension to drive innovation. RDCs provide a means of investing collectively in innovation.

Australia has a long history of investing in R&D and extension to improve productivity. The first R&D levy systems were initiated by producers in the early 1900s.

Following a review of R&D funding arrangements in 1989, the Australian Government established the RDC system. Since then, our agricultural sector has faced economic reforms, industry deregulation and the changing demands of the domestic and global markets. The profitability of these industries depends on their ability to adapt to change and remain competitive in global trade.

The RDC system must also keep pace with global changes. We aim to achieve \$100 billion in annual gross value of production for the sector by 2030. To meet this target, we have to make the most of our investment in R&D and extension. Increased profitability for our producers will also benefit regional communities, as well as our national economy.

This discussion paper outlines key focus areas to support a modern RDC system that will:

- deliver value for money for levy payers and the taxpayers who fund the RDC system
- drive collaboration and participation across the agricultural innovation system, with a focus on better cooperation and improved adoption of R&D
- target long-term cross-sectoral and transformative R&D
- improve levy-payer representation and advocacy.

We invite industry, business and community to contribute suggestions for improving and modernising the RDC system.

This discussion paper sets out key questions for you to consider. Share your feedback online at haveyoursay.agriculture.gov.au/modernising-rdc.

An advisory panel will consider all submissions and advise government of the key issues and emerging themes. Your ideas will help them identify ways to improve the RDC system. The panel will present their recommendations to government in the first half of 2020.

1.1 Related industry and government initiatives

A number of other processes are underway that will affect how a modern RDC system is designed and functions, including:

- A multi-year policy initiative to **improve and streamline levies legislation** to better support Australian farmers is underway. A more modern legislative framework will improve the flexibility and efficiency of levy settings and provide greater transparency for levy payers. Learn more about [Levies process reform](#) (Department of Agriculture 2018).
- The **red meat industry released a White Paper** in July 2019, which included a proposal to consolidate the functions of the Red Meat Advisory Council with the 3 red meat RDCs. Industry is considering its response to the White Paper. Learn more about [A better red meat future: A White Paper for the Red Meat Advisory Council](#).
- The government is currently developing a **Future Drought Fund to support drought resilience** of Australian farms and communities. A portion of the fund's \$100 million annual pool is likely to be directed to collaborative research and innovation investments. Further information is at haveyoursay.agriculture.gov.au/future-drought-fund.



Chapter 2

Current RDC system

The RDC system was established in 1989 under the *Primary Industries Research and Development Act 1989*. The current 15 RDCs are established under 10 different Acts of Parliament (Figure 1). The ownership and governance structures of RDCs vary:

- 5 RDCs are Commonwealth statutory corporations
- 10 RDCs are industry-owned companies.

Statutory RDCs are established under their enabling legislation and are classified as corporate Commonwealth entities under the *Public Governance, Performance and Accountability Act 2013* (PGPA Act). Industry-owned RDCs are Australian public companies under the *Corporations Act 2001*. This means that they have different corporate reporting requirements and governance structures, such as the process to appoint board members.

Each RDC is responsible for planning, investing in and overseeing R&D activities. These activities are designed to improve production, sustainability and profitability in each industry (see Appendix A).

Each year, farmers' levies account for almost \$500 million in funding for R&D and marketing. The Australian Government provides around \$300 million in matched funding, to support eligible R&D activities.

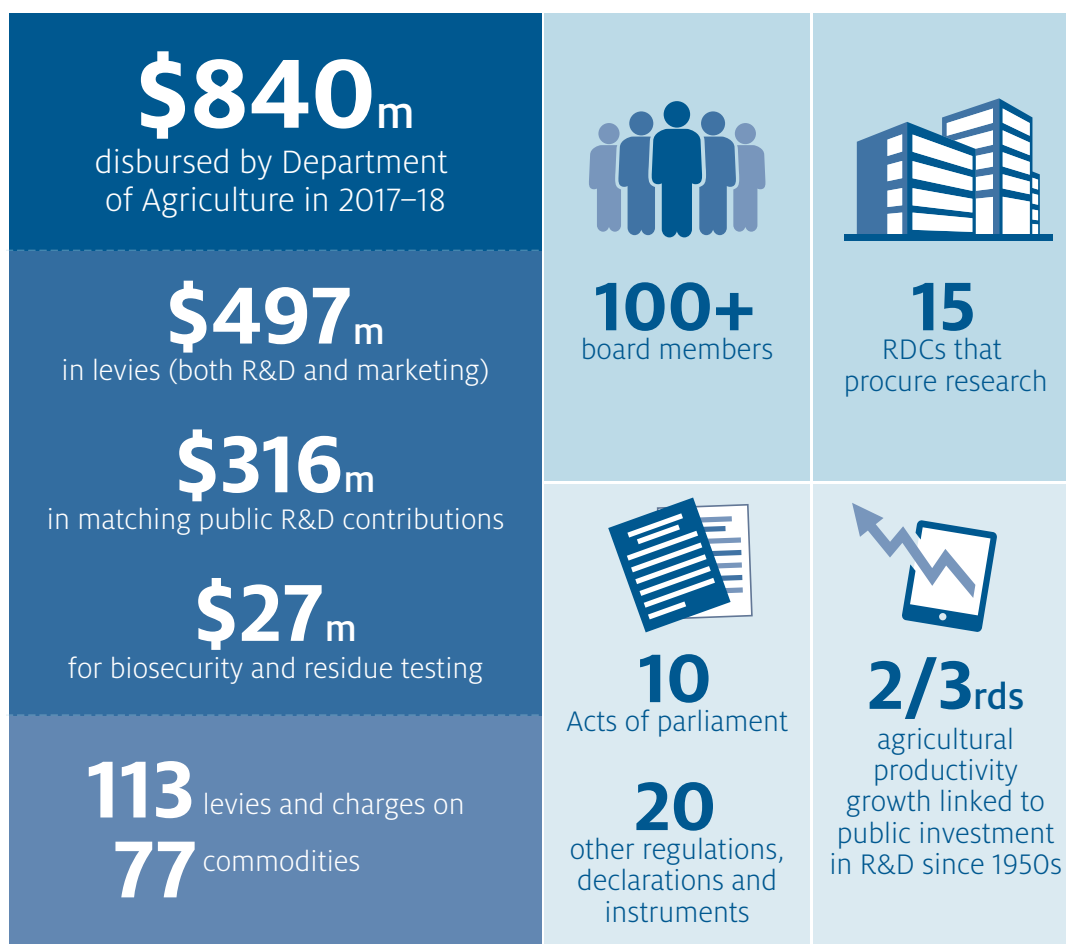
Box 1 Matched funding model

RDCs are funded through a longstanding public–private partnership. This is a combination of industry levies and contributions from the Australian Government (up to 0.5% of the gross value of agricultural production).

This joint industry-taxpayer funding model is unique internationally.

The Minister for Agriculture and the Australian Government are committed to this joint funding model.

FIGURE 1 Current RDC system



Source: Department of Agriculture

RDCs are part of a much broader agricultural innovation system that encompasses the work of the Australian, state and territory governments, Cooperative Research Centres (CRCs), CSIRO, universities, farming system groups, start-ups and entrepreneurs, and private sector businesses. Public and private investors contribute an estimated \$3.3 billion annually to the agricultural innovation system (ABARES 2017).

Chapter 3

Future RDC system

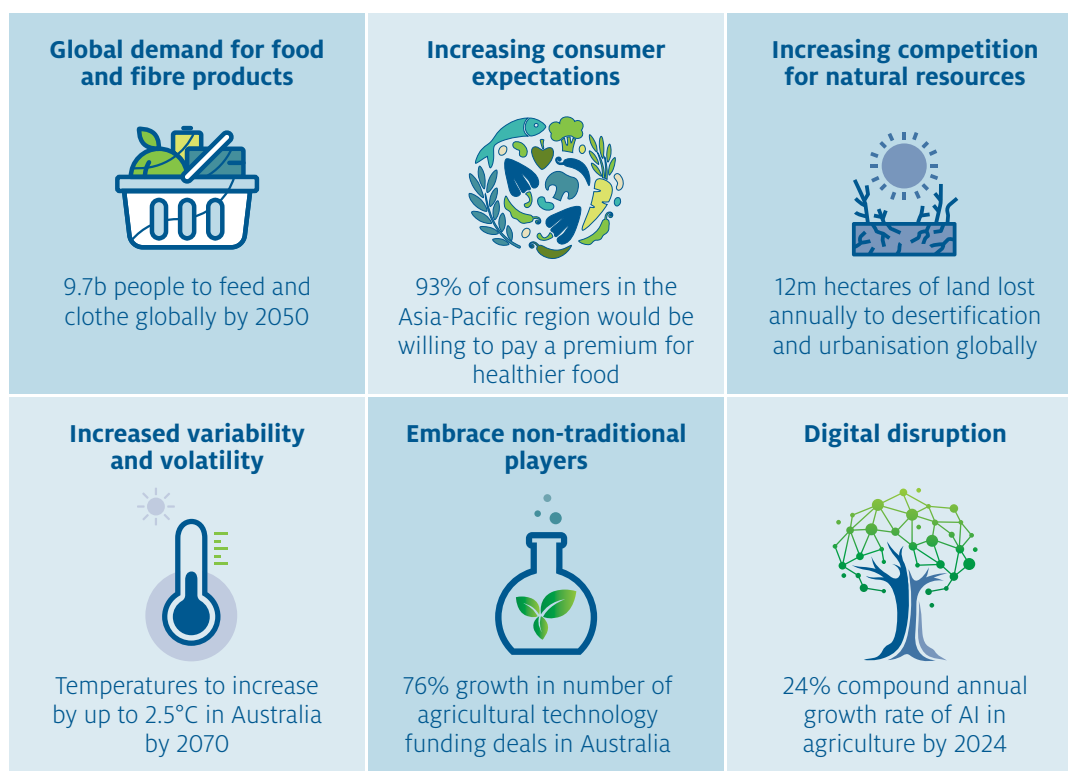
The future prosperity of our agricultural sector depends on the success of our agricultural innovation system. To help meet our goal of \$100 billion in annual gross value production by 2030, the RDC system needs to be modern, fit for purpose and able to respond to challenges facing the sector.

A modern RDC system needs to:

- be future ready and responsive to change in an increasingly complex global environment
- deliver value for levy payers and taxpayers
- focus on turning research into tangible benefits for producers
- take advantage of available R&D innovation and entrepreneurship opportunities
- enable producers to remain competitive in the global market
- deliver real profitability gains to the farm gate
- provide a strong and cohesive voice for industry.

When it was established, the RDC system was world-leading. Since then changing global markets, increasing international competition, technological disruption, evolving industry structures and supply chains, and climate and water risks have transformed the environment in which RDCs operate. The RDC system needs to respond to these current and emerging trends, which will require globally coordinated R&D efforts (Figure 2).

FIGURE 2 Megatrends affecting agricultural innovation



Note: Adapted from [Agricultural innovation—A national approach to grow Australia's future](#).

3.1 Case for change

Over the past decade, government and industry have contributed to reviews and consultations aimed at identifying the needs of a modern RDC system and agricultural sector. These include:

- [Rural Research and Development Corporations: Final inquiry report](#) (Productivity Commission 2011)
- [Industry structures and systems governing the imposition of and disbursement of marketing and R&D levies in the agricultural sector](#) (Senate Rural and Regional Affairs and Transport Committee 2015)
- [Effect of market consolidation on the red meat processing sector: interim report](#) (Senate Rural and Regional Affairs and Transport Committee 2016)
- [Talking 2030 discussion paper: Growing agriculture into a \\$100 billion industry](#) (National Farmers' Federation 2018)
- [2030 roadmap: Australian agriculture's plan for \\$100 billion industry](#) (National Farmers' Federation 2018)
- [Vision 2050: New thinking about rural innovation in Australia](#) (Council of Rural Research and Development Corporations 2018).

Earlier this year, the government also released [Agricultural innovation: A national approach to grow Australia's future](#) (Ernst and Young 2019). It included a compelling vision for the future of Australia's agricultural innovation system, of which RDCs are a significant component.

These reviews and consultations made a number of observations and identified possible improvements to the current RDC system:

- Increasing investment in cross-sectoral and transformative R&D could enable the step change in productivity needed to remain ahead of our competitors
- Better collaboration and structures could reduce duplication
- Consolidating planning and procuring research could increase efficiency
- More of our R&D outcomes could be commercialised
- More levy-payer involvement in priority setting could drive uptake of R&D on-farm
- Returns to producers at the farm gate from their levy payments could be clearer
- New models could deliver higher-quality industry advocacy.

Now is the time for thoughtful responses to these issues to deliver a modernised RDC system that puts our primary producers in the best position to tackle emerging and future challenges.



Chapter 4

Discussion questions

This chapter sets out the key themes and poses questions to guide your submissions on opportunities to improve and modernise the RDC system. Your answers to these questions will help the advisory panel present their recommendations to government on the design of a modern RDC system that maximises value to levy payers and taxpayers.

RDCs enable the sector and government to collectively invest in innovation.

- 1 Is the current RDC system delivering value for levy payers and taxpayers? In what ways?

4.1 RDC structures

While the system has undergone minor changes such as new RDCs being created and moving from statutory to industry-owned models, no fundamental changes to the structure of the RDC system have been made since it was established.

Nearly all RDCs represent a single industry. RDCs mostly focus on individual sector concerns and commodity specific research, rather than collaborating on strategic, collaborative and cross-sectoral problems. Each RDC funds its own board, executive, corporate services and overheads. Mechanisms for planning and procuring research are also often duplicated.

Many future-shaping challenges are not specific to a single commodity in the agricultural sector. Digital technology adoption, drought and climate risks, emissions reduction, biosecurity, soil nutrition and supply-chain traceability are just a few examples. The system needs to be better coordinated to address these issues.

Greater industry collaboration and less duplication is needed to increase productivity gains across the agricultural sector. There is also a view that levy payers could have a clearer and more consistent role in RDC investment decisions.

RDCs manage and invest almost \$800 million each year in R&D and marketing. We need the most effective and efficient system for delivering this service.

- 2 What are some of the benefits of keeping the same number of RDCs?
- 3 What are some of the benefits of changing the number of RDCs?
- 4 What are some of the cross-sectoral issues being faced by the wider agricultural sector?
- 5 How can RDCs increase collaboration to ensure better investment in, and returns from, cross-sectoral, transformative and public good research?
- 6 What are the cultural changes necessary in RDCs to achieve a modern fit-for-purpose RDC system?
- 7 What other ways are there for increasing investment in cross-sectoral, transformative and public good research?
- 8 What is the best way for RDCs to engage with levy payers to inform investment decisions?

4.2 Collaboration and attracting new participants

The RDC system facilitates private investment from industry in the form of levies. There are few incentives to encourage non-levy private investment. Further growth in R&D investment is most likely to flow from the private sector.

The system needs stronger partnerships with the private sector, particularly large levy payers. This will broaden participation in the system, attract further investment and increase commercialisation efforts. There is also value in connecting with other sectors and the broader innovation system, domestically and internationally, to take advantage of their experiences and developments. Promoting stronger R&D linkages between the agriculture sector and food value chain will be particularly important to achieving a \$100 billion sector by 2030.

International organisations and multi-national corporations can find it difficult to identify potential collaborators in Australia's agricultural sector, due to the fragmented nature of our system. There are significant opportunities for Australia to draw in greater investment, develop key partnerships and collaboration with international organisations and leverage global expertise and resources.

Further growth in R&D investment can come from the private sector, domestically and internationally.

- 9 How can we encourage increased investment in the RDC system from the private sector and international partners?
- 10 How can we form stronger linkages between the RDC system and the food value chain?
- 11 What changes might encourage improved RDC collaboration with the private sector, including those outside the agricultural sector?

4.3 Uptake of agricultural R&D

The delivery and extent of extension services varies between jurisdictions and industries. Private sector delivery has largely replaced state-led delivery. In some industries, RDCs have taken on formal extension roles. This has both a benefit and an opportunity cost in forgone R&D investment.

Existing extension services are often fragmented and do not always provide tailored on-the-ground knowledge and advice to farmers and supply chain participants. Improved communication between researchers, industry and farmers will encourage uptake of new technologies and practices.

A greater understanding of customers and collaboration across the supply chain is also needed. Improving the uptake of innovation and the commercialisation of R&D along the supply chain will increase the productivity and profitability of the food and fibre sector as a whole.

The RDC system needs to plan how farmers and supply chain participants will adopt R&D at the project inception stage. Increasing rates of adoption can generate higher productivity gains in the short term.

The uptake of R&D outcomes is a shared responsibility. Industry and levy payers have a key role in ensuring that research outcomes are explored and used to drive increased productivity gains.

Industry needs access to R&D that meets its needs and delivers on investment. This will reduce the time it takes to adopt new technologies.

- 12 Where should the balance of investment between R&D and extension lie?
- 13 How could RDCs play a stronger role in extension service delivery, in light of existing private and state government extension efforts?
- 14 How could RDCs help researchers, entrepreneurs and others better engage with producers to accelerate uptake?
- 15 How could industry and levy payers drive increased uptake of R&D?

4.4 Advocacy

Our agricultural sector needs strong and effective advocacy to promote the sector's interests and priorities to the Australian public and to government. The RDCs are the key source of knowledge for influencing policy direction in most industries.

Currently, all RDCs except Australian Pork Limited (APL) are not permitted to engage in advocacy activities under the *Primary Industries Research and Development Act 1989* or other RDC enabling legislation (apart from APL, which is covered under the *Pig Industry Act 2001*). For some RDCs advocacy is also explicitly prohibited under their funding agreements with the Commonwealth.

This has limited the capacity of industry to use the policy research and knowledge development done by RDCs to contribute to public debate.

Currently most RDCs are not permitted to undertake advocacy activities.

- 16 How might RDCs be able to increase their role in policy R&D and participate in policy debate alongside industry representative bodies?
- 17 If RDCs were to play a greater role in this area, how could this activity be clearly distinguished from partisan and political activity, which must remain a role for industry representative bodies?



Chapter 5

Submissions and next steps

Designing a RDC system that will deliver the objectives outlined in this paper and support the sector to achieve \$100 billion in gross value of production by 2030 is an ambitious and complicated goal. It requires forward thinking if we are to come up with the best solutions.

We invite industry, business and community to contribute suggestions for improving and modernising the RDC system.

5.1 Have your say

We want to hear from you. All interested stakeholders wishing to have their views considered on how to modernise our RDC system and ensure it is future ready are invited to provide a submission.

All submissions and comments, or parts thereof, will be treated as non-confidential information unless specifically requested.

Respondents lodging submissions should be aware that submissions may be made publicly available and will be subject to freedom of information provisions. Despite a submission being identified as confidential, submissions may be disclosed where authorised or required by law, or for the purpose of parliamentary processes.

Questions raised in this discussion paper are intended as a guide only. Respondents are welcome to provide more general comments.

Submissions close on 4 November 2019.

Join the national conversation. Go to haveyoursay.agriculture.gov.au/modernising-rdc.

5.2 Next steps

The advisory panel will consider all submissions. Your ideas will help them identify ways to improve the RDC system. The panel will present their recommendations to government in the first half of 2020.

Modernising the RDC system will not happen overnight. Implementation of any government decision will take time and may involve the development of transition arrangements, changes to legislation and passage through the Australian Parliament. Implementation will require ongoing engagement with stakeholders to ensure the best outcomes.

5.3 Contact us

For further information about modernising the RDC system or to discuss elements of this paper, email aginnovation@agriculture.gov.au.



Appendix A

Current RDCs

TABLE A1 Commonwealth statutory and industry-owned RDCs

Research and Development Corporations	Industries	Role
Commonwealth statutory RDCs		
Cotton Research and Development Corporation (CRDC)	Cotton	R&D
Fisheries Research and Development Corporation (FRDC)	Fisheries and aquaculture	R&D and marketing
Grains Research and Development Corporation (GRDC)	Grains	R&D
Rural Industries Research and Development Corporation (trading as AgriFutures Australia)	Multi-industry, cross-sectoral and national interest R&D, buffalo, chicken meat, deer, ginger, goat fibre, honey bee/pollination and queen bee, macropod, pasture seeds, ratite, rice, export fodder, tea tree oil and thoroughbred breeding	R&D
Wine Australia	Wine	R&D, marketing and regulation
Industry-owned companies		
Australian Egg Corporation Limited (Australian Eggs)	Eggs	R&D and marketing
Australian Livestock Export Corporation Limited (LiveCorp)	Livestock export	R&D and marketing
Australian Meat Processor Corporation (AMPC)	Meat processing	R&D and marketing
Australian Pork Limited (APL)	Pork	R&D, marketing and advocacy
Australian Wool Innovation Limited (AWI)	Wool	R&D and marketing
Dairy Australia Limited (DA)	Dairy	R&D and marketing
Forest and Wood Products Australia Limited (FWPA)	Forest and wood products	R&D and marketing
Horticulture Innovation Australia Limited (Hort Innovation)	Horticulture	R&D and marketing
Meat & Livestock Australia (MLA)	Meat and livestock	R&D and marketing
Sugar Research Australia Limited (SRA)	Sugar	R&D

Source: Department of Agriculture

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