

# 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

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Minister for Agriculture

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.
- 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.

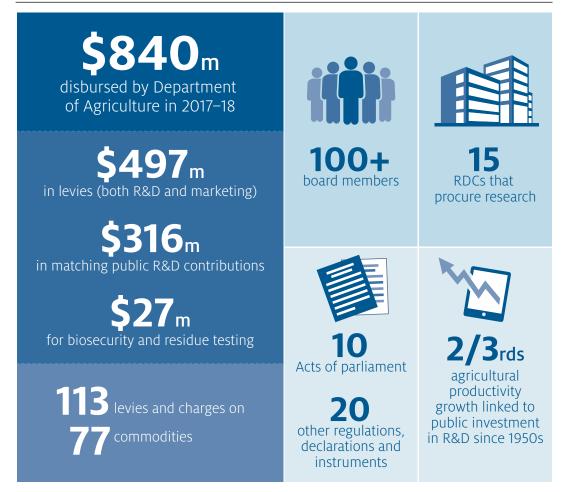
#### Box 1 Matched funding model

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

#### Global demand for food **Increasing consumer Increasing competition** and fibre products expectations for natural resources 9.7b people to feed and 93% of consumers in the 12m hectares of land lost clothe globally by 2050 Asia-Pacific region would be annually to desertification willing to pay a premium for and urbanisation globally healthier food **Increased variability Embrace non-traditional Digital disruption** and volatility players Temperatures to increase 76% growth in number of 24% compound annual by up to 2.5°C in Australia agricultural technology growth rate of AI in by 2070 funding deals in Australia agriculture by 2024

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)
- <u>Vision 2050: New thinking about rural innovation in Australia</u> (Council of Rural Research and Development Corporations 2018).

Earlier this year, the government also released <u>Agricultural innovation: A national approach to grow Australia's future</u> (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?



## 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.

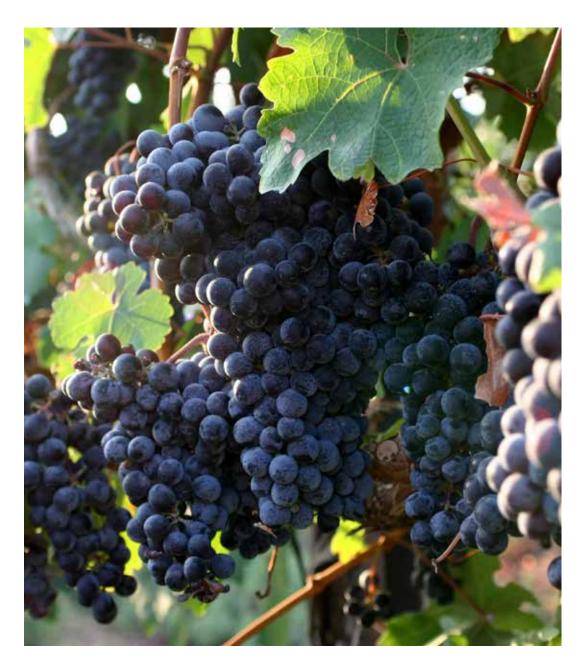
### 5.2 Next steps

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

ΤΔΒΙΕ Δ1	Commonwealth	statutory and	industry	v-owned RDCs
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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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