Australian Government

rural R&D CORPORATIONS

Australian Grape and Wine Authority

Cotton Research and Development Corporation

Fisheries Research and Development Corporation

Grains Research and Development Corporation

Rural Industries Research and Development Corporation

AMPC

AUSTRALIAN EGG CORPORATION LIMITED

AUSTRALIAN Pork

awi Australian Wool Innovation Limited

Dairy Australia

Forest & Wood Products Australia

Horticulture Innovation Australia

LIVECORP

mla MEAT & LIVESTOCK AUSTRALIA

sra Sugar Research Australia

Council of Rural Research and Development Corporations

Response to Agricultural Competitiveness Green Paper

December 2014

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EXECUTIVE SUMMARY

The Australian Government's *Agricultural Competitiveness Green Paper* establishes that the government's agricultural policy is driven by one key objective: to achieve a better returns at the farm gate to ensure a sustainable and competitive Australian agricultural sector. In its ultimate *White Paper* the government is looking to establish a plan for growth and prosperity of the sector, and to bring about a more profitable future for farmers and their families.

Much has been made of the opportunities for agriculture to grow and prosper in coming decades. However, many of the opportunities and challenges are still unknown. What coming decades will bring for our rural industries is in many ways still unknown. What ***is*** known is that **innovation** is critical for Australian agricultural industries of the 21st century to remain competitive in the face of global pressure, to meet environmental, social and economic challenges, and to capitalise on new opportunities. Fostering and encouraging ongoing innovation will deliver against many of the areas outlined in the *Green Paper*, and facilitate the overall aim of greater profitability at the farm gate.

What does an innovative agricultural sector look like?

Successful agricultural enterprises will need to be flexible, responsive and resilient. They must have strong physical and virtual connectivity, integrating data from a range of sources to make better decisions and having options to efficiently move products to market. They need to focus on consumers, creating products that people want to buy. They must understand how to use knowledge for better business, and operate in an environment of making do with less, amidst greater volatility.

A culture of innovation is key to creating this success. An innovative culture means looking for solutions rather than articulating problems, engaging with risk and accepting that some things will fail, and being willing to consider and test a range of solutions. It means focusing on outcomes, and understanding that good governance can be achieved by better means that onerous compliance requirements.

For the White Paper to succeed in its aim of better returns at the farm gate to ensure a sustainable and competitive Australian agricultural sector, the government will need to foster and facilitate an innovation culture.

A major driver of this innovation is Australia's research, development and extension (RD&E) system. To effectively deliver innovation, the RD&E effort requires solid capacity and capability, with a flexibility to re-orient resources as needed to address changing circumstances and priorities.

We believe the following understandings should underpin the government's efforts to foster innovation through RD&E:

- There is a strong justification for collective RDE&M activities in the agriculture sector, and for associated public funding.
- The links between competitiveness, productivity and profitability are complex and an approach recognising differences between sectors offers greater chances of success.
- The rural research and development corporation (RDC) model is essentially sound, and numerous assessments have demonstrated its significant contribution to agricultural productivity.
- The system should be focused on delivering outcomes, not responding to process.

- RDCs must be able to maintain independence in their decision-making. Established to be at arm's length from both government and industry, RDCs operate via skills-based boards in the overall best interests of all stakeholders.
- Efforts to streamline the functions of RDCs must be mindful of the differences between the 15 organisations – consistency does not, of itself, necessarily equate to improved outcomes.
- Collaborative efforts and cross-sectoral research activities are already more numerous than the *Green Paper* would suggest, and sectoral approaches are also effective in driving productivity increases.

The general recommendations and responses to policy ideas are summarised below, and expressed in more detail (including responses to many of the *Green Paper*'s specific suggestions) in the body of this report.

General recommendations

1. A commitment to innovation should explicitly underpin Australia's agriculture policy. To effectively deliver innovation, the RD&E effort requires solid capacity and capability, with a flexibility to re-orient resources as needed to address changing circumstances and priorities.

2. Increasing farm gate returns requires a stable and responsive knowledge and innovation system, with a strong and primary focus on outcomes being sought. Components of the system include public and industry funding, RDC independence, and reduced red tape and compliance burdens.

3. The White Paper should set an ambitious, future-oriented vision for agriculture in the 21st century.

4. Reinvigoration, reform and an increased investment in public statistical capabilities is required. Consideration also needs to be given to how we can make better use of data that is already being captured, to support better business and policy decisions by improving transparency within supply chains and managing asymmetry between participants.

5. Efforts to strengthen the RD&E system should focus on enhancing the capacity of the RDCs to act for the common good of their industry and government stakeholders, from a position of independence, operating at arm's-length (though not in a hands-off manner) from government and industry.

Responses to policy ideas

6. Updating the Rural R&D priorities. We support an update of the rural R&D priorities and recommend the government undertaking a separate and specific process with industry and other stakeholders for the task. However, updating the priorities alone is not enough. To achieve better outcomes government must also engage more fully in the processes of identifying and balancing priorities and areas being targeted through R&D investments.

7. Increasing private investment in rural R&D. Government should encourage and facilitate increased private investment in rural R&D through the development and implementation of funding arrangements and co-investment models that complement current levy arrangements.

8. Regular scheduled reviews of the RD&E system. Regular scheduled reviews of the RD&E system should cover the roles, responsibilities and performance of all participants. The system reviews should be cognizant of the existing compliance burdens on RDCs (and other participants) and not add to these burdens. Currently there are limitations on the data available to assess the system fully.

9. Streamline RDC operations and structures. Government should assess the impact of the compliance burden and seek ways to reduce unnecessary costs for both the RDCs and the Department of Agriculture. This approach should recognise a level of RDC independence from government and actively seek to reduce the compliance burden; acknowledge the role and involvement of levy-payers; recognise existing streamlining efforts; and recognise the advantages of sectoral arrangement. We do not support government imposing prescriptive solutions, including where an individual RDC should be located.

10. Flexibility of levy arrangements. The efficiency of levy collections should be reviewed on a levy-by-levy basis, focusing on those that are the most complex and administratively expensive. Transparency and equity are key concerns and greater levy-payer involvement in discussion and resolution of issues surrounding levy arrangements is desirable.

INTRODUCTION

The Council of Rural Research and Development Corporations (the Council) and the rural research and development corporations (RDCs) welcome the release of the Agricultural Competitiveness *Green Paper* and the opportunity to make this submission.

Our intention in this response to the *Green Paper* is to set out, in big picture terms, the policy environment and instruments that will foster an innovation culture and capacity within rural industries in the coming decades. This response, provided by the Council on behalf of the rural RDCs, focuses on these key issues in relation to the RDC model. Individual RDCs will also make separate submissions to provide feedback and detail relevant to their own circumstances. Research, development and extension (RD&E) will be critical inputs. Accordingly we also respond specifically to the policies ideas put forward in the *Green Paper* chapter on RD&E.

The Council made a response to the *Agricultural Competitiveness White Paper Issues Paper* in April 2014 on behalf of all of the rural RDCs. It argued that rural RD&E underpins innovation and productivity in primary industries, and that the RDC model is both robust and vital to bringing the requisite innovation to the future of Australian primary industries. It demonstrated that there are strong justifications for the investment of public funds in rural RD&E. It positioned the rural RDCs as willing partners of government, with capacity to help envision the future of Australian agriculture and act as a delivery mechanism for that future.

We are pleased to see the government acknowledging the importance of RD&E and its role in creating innovations that maintain or enhance competitiveness. We welcome the government's ongoing commitment to investment in rural RD&E – both its own, and through stimulating private investment. We applaud the government for its commitment to maintaining the rural RDC model.

Before responding to the *Green Paper*'s specific policy ideas, we reflect on the critical importance of innovation as a policy underpinning, the ongoing policy rationale for supporting RD&E with public funds, and further matters that should be considered in the White Paper development, as well as providing context for our response.

THE CRITICAL IMPORTANCE OF INNOVATION

> *'Innovation almost doubles the likelihood of productivity growth in Australian businesses. Compared to businesses that don't innovate, innovative Australian businesses are 78% more likely to report increases in productivity over the previous year. An extension of this analysis shows that collaborative innovation with research organisations triples the likelihood of business productivity growth. Compared to businesses that don't innovate, innovative Australian businesses that collaborate with research organisations (amongst others) are 242% more likely to report increases in productivity.'* (Department of Industry, 2013, p. 10)

What coming decades will bring for our rural industries is in many ways still unknown.

What ***is*** known is that **innovation** is critical for Australian agricultural industries of the 21st century to remain competitive in the face of global pressure, to meet environmental, social and economic challenges, and to capitalise on new opportunities. Agriculture is a knowledge business, and without innovation, industry simply will not be able to increase productivity sufficiently to compete internationally. Indeed, we have already lagged behind established and emerging international competitors such as Brazil, New Zealand, Canada and the USA (Australian Farm Institute, 2014, p. ii). Agricultural exports from competitive and increasingly sophisticated nations are now competing with Australia to reach emerging markets.

An innovative culture means looking for solutions rather than articulating problems, engaging with risk and accepting that some things will fail, and being willing to consider and test a range of solutions. Strengthening innovation as a core capability will be critical to ensure the rural sector is well placed to tackle challenges articulated throughout the Green Paper, including connecting with markets and getting product to them, equitable distribution of value across supply chains, managing biosecurity threats, resilience in the face of climate challenges, and sustainable management and use of our natural resources.

The rural sector has a strong history of innovation and development, which has been critical to its successes to date. The sector is exposed to international markets and has a history of adapting quickly to market forces, adopting new technology, altering product output, product type and production methods in response to shifting demand. The technology employed in the rural sector is at the leading edge across a range of fields of science such as gene technology, spatial imaging and geo-positioning, remote sensing, microbiology and materials handling.

A major driver of this innovation is Australia's research, development and extension (RD&E) system. To effectively deliver innovation, the RD&E effort requires solid capacity and capability, with a flexibility to re-orient resources as needed to address changing circumstances and priorities.

Historically rural RD&E has been the responsibility of state and territory governments, funded and conducted through departments of primary industries. Over many decades funding arrangements and mix of participants have been changing, with involvement from the Commonwealth as a funder and provider of research, through CSIRO, universities and specific programs such as Caring for Our Country or the Carbon Farming Initiative, as well as contributions from industry. In recent decades the trend has been for reduced public funding in real terms for rural RD&E – the results of which have been seen in stagnating productivity growth (Australian Farm Institute, 2014, p. 22).

We agree with the government's view that it is farmers who need to make business decisions that will make them profitable and competitive, while the government's role is to set the right policy environment to support this outcome. However, we assert that **a commitment to innovation must underpin this policy environment**. Fostering and encouraging ongoing innovation across the agriculture supply chain will deliver against many of the areas outlined in the *Green Paper*. The capacity for innovation is, in fact, a core capability for the agricultural sector if it is to achieve a sustainable and competitive Australian agriculture sector through improved farm gate returns – the key objective of the government's agricultural policy.

Recommendation 1: A commitment to innovation should explicitly underpin Australia's agriculture policy. To effectively deliver innovation, the RD&E effort requires solid capacity and capability, with a flexibility to re-orient resources as needed to address changing circumstances and priorities.

BUILDING A SUCCESSFUL KNOWLEDGE AND INNOVATIVE SYSTEM

The *Green Paper* acknowledges that it is farmers who need to make business decisions that will make them profitable and competitive. The government's role is to set the right policy environment to support this outcome for farmers and across industries, not to make business decisions for farmers who are far better placed to do so.

We agree with this position, noting that RD&E is essential in developing the innovations needed to address future challenges and increase productivity, which are two of the preconditions for farm gate profitability. Productivity improvements are identifiable and controllable, and within the remit of the RDCs. Our role, like that of government, is to support this outcome for farmers and across industries, maximising their ability and capacity to make business decisions that increase farm gate profitability and competitiveness.

To achieve the overarching objective of better farm gate returns in the coming decades, Australia **requires a stable and responsive knowledge and innovation system.** Applying innovation through RD&E is an ongoing process over long periods, and most change will occur incrementally. Innovation requires consistency in funding to support capacity (human and infrastructure) and activity. It also means engagement with risk, and the ability to change tack when needed. The focus should be strongly and primarily on the outcomes being sought.

Recommendation 2: Increasing farm gate returns requires a stable and responsive knowledge and innovation system, with a strong and primary focus on outcomes being sought. Components of the system include public and industry funding, RDC independence, and reduced red tape and compliance burdens.

Innovation structures in agriculture have been described through the model known as Agricultural Knowledge and Innovation Systems (AKIS), which provides a useful foundation for understanding the preconditions for innovation. Hunt et al report on a number of features common to effective industrial innovation systems that are relevant to Australia's RD&E system (Hunt, Birch, Vanclay, & Coutts, 2014, p. 132).

To paraphrase their work, within effective systems:

- Knowledge is developed and diffused (through learning or adoption by stakeholders)
- Opportunities are identified and pursued (by the right people and processes)

- Risks and uncertainties inherent in entrepreneurial experimentation are managed (including through effective communication channels between end users and researchers)
- New practices and technologies are developed and refined until they are accepted into the market place
- Resources can be accessed and mobilised
- Innovations are legitimised and given a social licence to operate
- Innovations provide positive 'spill-over' effects.

Drawing from this model, we recommend that the following understandings should underpin the development of innovation policy for rural RD&E in Australia:

There is a strong justification for collective RDE&M activities in the agriculture sector, and for associated public funding. The justifications include the multiple positive public-good spillovers, the factors discouraging rural businesses from making RD&E investments, and the need to maintain core R&D infrastructure and personnel, among other factors (further discussed in Australian Farm Institute, 2014, pp. 4-14).

The links between competitiveness, productivity and profitability are complex and an approach recognising differences between sectors offers greater chances of success. Productivity refers to the ratio of the quantity of outputs and inputs, whereas profitability is dependent both on quantities and prices (both output and input prices). Productivity improvements are identifiable and controllable (and the work done by the RDCs is clearly related to it), direct profitability increases that lead to greater farm-gate returns are subject to a wide range of variables including decisions made by individual businesses, and they are more challenging to influence. However, productivity improvement is a precondition for improving profitability.

The RDC model is essentially sound and numerous assessments have demonstrated its significant contribution to agricultural productivity. The RDC model has proven an effective way to address the needs of a stable and sustainable funding stream focused on delivering on the needs of end-users. It achieves a strong return on investment for its stakeholders and strikes the appropriate balance between public and industry benefits.

A clear articulation of measures of success is needed in relation to setting and/or reviewing targeted objectives for RDCs, or any of the other participants in the rural RD&E system. This is more complex than it first appears, and there are practical difficulties associated with measuring some performance indicators, such as productivity growth, particularly in small industry sectors.

The system should be focused on delivering outcomes, not responding to process. Governance, accountability and transparency are primary concerns but the focus should be on overall delivery and impact, not increasingly prescriptive compliance requirements. 'Any new institutional arrangements must eliminate excessive management hierarchies common to the former public sector 'Departmental' models. Less complex management structures allow for more flexibility, increased responsiveness to issues, and reduced cost structures' (Hunt et al., 2014, p. 138).

RDCs must be able to maintain independence in their decision-making, while also balancing the needs of their two stakeholders – industry and government. The RDCs are not industry representative organisations (with the exception of Australian Pork Limited) and have been established to operate at arm's length from both industry and government. Skills-based boards are appointed to ensure activities and investments are in the overall best interests of all stakeholders, and not captured by any one interest group.

Efforts to streamline the functions of RDCs must remain mindful of the differences between the 15 organisations and their respective industries. Consistency for the sake of compliance regimes will not necessarily equate to improved outcomes. One of the model's strengths is that the RDCs meet the needs of their individual industries – and these needs are not identical.

Collaborative efforts and cross-sectoral research activities are already more numerous than the *Green Paper* would suggest and sectoral approaches are also effective in driving productivity increases. While collaboration is often desirable and valuable, it is a resource-intensive means to an end and should not be pursued simply for its own sake. Moreover, the current system is designed around a sectoral approach because this is the most effective way to focus on and drive profitability on-farm.

FURTHER MATTERS FOR CONSIDERATION IN THE WHITE PAPER

The policy rationale for investment

It is worth reiterating the underlying principles that have led to the use of public and industry funds being allocated to the RD&E effort in rural Australia.

The nature, diversity and geographic spread of rural enterprises in Australia limits the potential and capacity for direct private engagement in funding and delivery of rural RDE&M for all but the very largest businesses. The nature of rural innovation means the benefits are often non-excludable (unable to be captured and held by individual parties at the exclusion of others), non-exhaustible (the value of knowledge is not diminished by others using it), and may give rise to substantial but unpriced spill over benefits. 'Free-riding' can be an issue because people are able to secure a benefit from an activity without having to directly contribute to it. These conditions and others contribute to 'market failure', a situation where private investment is lower than it otherwise should be.

A retrospective review for the Rural Research and Development Council made the following observation:

> *Strong public support for rural research has a long history in Australia. So does industry funding of this research…. The policy rationale for providing this support to rural research is that:*
>
> - *the sector is characterised by many industries with a large number of producers unable to capture sufficient benefits from R&D they would fund as individuals, which potentially leads to underinvestment;*
> - *the collection of compulsory levies avoids free-riding by some on R&D provided by others; and*
> - *there are spillover benefits to the wider community that are not captured by the immediate industry.* (Core, 2009, p. 1)

This policy rationale continues to hold today, as the conditions bringing about market failure are still current.

Several decades of reports, inquiries, and reviews of Australia's rural research and innovation system have consistently identified the importance of innovation for the continued success of Australia's agriculture, fisheries and forestry industries, and the strength of the rural RDC model in driving productivity and sustainability improvements for the sector. In addition to government and industry

reviews, extensive academic effort has been devoted during more than half a century to empirical measurement of the returns from public investment in rural R&D, taking into account the difficulties inherent in evaluating the exact contribution of R&D to projects where there are significant time lags before benefits are delivered. These examinations have looked at specific projects and at aggregate national investment, have used a range of sources of data, have analysed investment periods up to a century, have looked at returns over periods of more than 50 years and have used a wide range of techniques and measures of the returns. The broad conclusion from the substantial body of economic analysis of investment in publicly funded rural R&D, both globally and in Australia, confirms that returns are very high (Council of Rural Research and Development Corporations, 2010b, p. 17).

The government continues to have a critical role to play in supporting a culture of innovation in rural Australia, including through the funding of RD&E in the RDC model.

A vision for Australian agriculture

We note that the *Green Paper* contains no overarching vision for Australian agriculture, other than the objective of to achieving 'a better return at the farm gate to ensure a sustainable and competitive Australian agriculture sector'.

We recommend that the final *White Paper* should be based on a clearly articulated vision for the future that is ambitious, future-oriented, far-reaching – and that articulates the importance of innovation as an underpinning principle and a critical capability for success.

We believe that for our rural industries to be profitable and resilient throughout the 21st century they will need to have:

- A high degree of **connectivity**, in both physical and virtual spaces focused on farm and along supply chains. Agricultural producers already have and use a range of data and information from on and off-farm to support their decision-making processes. This trend will continue as technology improves, with challenges about how the data is managed, aggregated and packaged.
- A consistent focus on **consumers and markets**. Competition for agricultural commodities and downstream products is already strong and will only intensify. Australian products have significant comparative advantages that align with consumer trends.
- A capacity to **utilise knowledge** throughout the production and supply chain to maximise value at all stages. Rural enterprises are knowledge-based businesses which require skills and understanding across a wide range of activities.
- The ability to be **flexible, agile and efficient**. The pressure will be on to achieve more with less, and to do this despite increasing volatility.

In order to drive change, the sector will require **capital and innovation**. While access to capital can be restricted, our capacity for innovation is potentially unlimited. Innovation, driven and supported by a sustainable and effective rural research, development and extension effort, will be the critical element in long-term competitiveness of the Australian rural sector.

Recommendation 3: The White Paper should set an ambitious, future-oriented vision for agriculture in the 21st century.

The importance of data

The White Paper should also be cognizant of the changing landscape in relation to data needs of farmers, service providers and policy makers. The Council is concerned at the overall data landscape for rural industries. Analysis by ABARES (Cuevas-Cubria 2012) identified a lack of availability and accessible indicators hampers assessment of the overall performance of the rural RD&E system. Keogh and Potard (2011) note that within the official published statistics in Australia there are a range of collection methodologies and different definitions used for data about research and development activity. The available data is questionable and contradictory. Keogh and Potard went further in a later report (2013), finding that the Australian agricultural statistics system was in substantial need of reform and was failing industry and policy makers badly. On a number of fronts they identified that data was non-existent or not available, and that this reduced transparency within the supply chain, and limited understanding and capacity for analysis of changes and trends.

Reinvigoration and reform in public statistical capabilities is recommended. Consideration also needs to be given to how we can make better use of data that is already being captured, to support better business and policy decisions by improving transparency within supply chains and managing asymmetry between participants. This is an area where some RDCs have commenced making investments, highlighting the importance of the issue. With current technology and the right settings, standards and governance there are significant opportunities to bring together information from a variety of networked data pools rather than trying to create a single national database (Van Moort, Pers Comm, 20 Nov 2014). The aim should be to facilitate data markets while maintaining and protecting the status of the data itself in a pre-competitive space. The commercial sector should be enabled and encouraged to develop innovative products that combine, analysis and present the information depending on the needs of the users.

Recommendation 4: Reinvigoration and reform in public statistical capabilities is recommended. Consideration also needs to be given to how we can make better use of data that is already being captured, to support better business and policy decisions by improving transparency within supply chains and managing asymmetry between participants.

ADDITIONAL CONTEXT OF OUR RESPONSE TO THE *GREEN PAPER*

The RDC model has proven itself to be robust and effective. Like any organisational structure, it should be refined and evolve over time as the operating environment and the needs of the stakeholders change. Throughout this process it is critical to maintain a focus on the overall goal of ensuring we have a system that efficiently and effectively supports and promotes the necessary rural innovation to advance rural industries and deliver broad benefits for industry and the community.

Since the current RDC arrangements were established more than two decades ago Australian primary industries have gone through significant changes. The RDC model has a demonstrated capacity and flexibility to adapt and respond in line with the expectations and needs of the different industry sectors, both in terms of the investment priorities being pursued and the services provided by the organisations. This evolution is continuing.

A number of events and developments have occurred recently that are relevant to the collective response of the RDCs to the *Green Paper*. (For detail on these, please see Appendix One.) They include:

- The Independent Strategic Governance Review of Grains Research & Development Corporation (GRDC)
- Organisational review of Meat & Livestock Australia (MLA)
- Independent review of Horticulture Australia Limited (HAL)
- Senate enquiry into Industry structures and systems governing levies on grass-fed cattle
- The Senate inquiry into Industry structures and systems governing the imposition of and disbursement of marketing and research and development (R&D) levies in the agricultural sector
- *Public Governance Performance and Accountability Act* (effective 1 July 2014)
- Amendments to the *Primary Industries Research and Development Act*, (effective December 2013).

Emerging from these events and developments is a clear theme across industries of levy payers seeking a greater influence in how the RDCs function and allocate funds (including potential challenges to the collection of levies). The importance of levy payer involvement has been accepted by two Senate inquiries and various organisational reviews, and several of the RDCs are reorganising and restructuring in response.

At the same time, the government is looking for greater levels of assurance that public expenditures are targeted to areas of national importance, delivering returns, and minimising wasteful or duplicative spending across the RD&E system. Elements of the *Green Paper* are also indicative of a philosophical move by government to be more directive in relation to the RDCs and other research spending.

As a result, the RDCs are under increasing pressure from their financial stakeholders, with government and industry each wanting to exercise greater control over how investments are made.

While the RDCs are reliant on the Commonwealth for foundational arrangements that enable them to operate, as well as for levy-matching funding, they were conceived and established to be at arm's-length from, and generally independent of, government and industry. This independence is important for ensuring the balance of investments and activities of the RDCs can respond to the overall and long-term requirements of stakeholders. Arm's-length does not mean hands-off, and it is critical that industry and government take a strong interest. The RDCs embrace participation of many stakeholders in identifying and setting strategic priorities, and in assessing and understanding performance.

The RDCs are supportive of the government's (and industry's) desire to bring about improvements within rural R&D arrangements. We believe the underlying RDC model is robust and effective, and provides a solid foundation for modern, streamlined organisations that can effectively deliver a wide range of benefits while also providing necessary transparency to its stakeholders.

However, there is a tension in the government's approach to the RDCs between wanting a more directive role in terms of its own funding while also maintaining a strong culture of industry support, ownership and engagement which helps to ensure research is effectively targeted to areas of greatest priority and benefit. Stated ambitions to reduce red tape and regulatory burden are in some conflict with government requirements for high levels of compliance and reporting activities.

The RDC system balances the requirements of stakeholders looking for returns to industry against also delivering public good outcomes. It is the role of the RDCs themselves to balance the needs of its two financial stakeholders – government and industry – and assess the likely risks and rewards of certain courses of action with the understanding that risk leads to both reward and failure. Achieving a balance between the differing needs of stakeholders and for the common good is part of the RDC decision-making process. Tighter control through increased bureaucracy is likely to work against some desired outcomes by changing the risk appetite of key decision makers or simply diverting resources.

Accordingly, we recommend that efforts to strengthen the RD&E system focus on enhancing the capacity of the RDCs to act for the common good of their stakeholders, from a position of independence.

Recommendation 5: Efforts to strengthen the RD&E system should focus on enhancing the capacity of the RDCs to act for the common good of their industry and government stakeholders, from a position of independence, operating at arm's-length (though not in a hands-off manner) from government and industry.

RESPONSES TO POLICY PROPOSALS

Policy idea 20 – strengthening the RD&E system

Collaboration and encouraging closer working relationships

Collaboration allows us to work to our strengths and examine new ideas, as well as share risks, resources and rewards. However, it is important to understand some of the issues relating to collaboration when calling for 'increased collaboration'.

Firstly, collaboration is not an end in itself. It is a strategy that, when applied in the correct conditions, can have substantial benefits. But it takes significant resources and effort, and should not be pursued simply for its own sake.

Secondly, one of the strengths of the rural RDCs is that they each have a strong industry focus and a deep understanding of the preconditions for profitability in their own industries. This focus has allowed them to succeed in supporting improved productivity in their industries, and care should be taken that the focus is not diluted by pressure for collaboration for its own sake.

Thirdly, the RDCs are already active collaborators with each other, research providers, producers, processors, exporters, governments and other organisations. We have efforts domestically to share among ourselves and maximise value from our investments, and internationally to ensure we are learning from and leveraging the latest and best from around the world. The rural RDCs carry out numerous collaborative projects where this is the best way to achieve the desired result. This happens at multiple levels, at operational, project, program, portfolio and national scales.

The rural RDCs are investors in RD&E, and their relationships with research organisations frequently extend beyond classic purchaser-provider scenarios. ABARES notes that 'Partnerships and collaboration are features of how the RDCs operate. Their investment has a significant influence on where other research and extension organisations (including CSIRO, universities and state departments) invest' (Mallawaarachchi et al., 2009, p. 57). The leveraged funding approach means the RDCs and research organisations are working in partnership to address common goals. This strengthens engagement and commitment to the research program. RDCs have frequently been foundational partners in rural industry related Cooperative Research Centres, and these CRCs have proven to be some of the most effective of that program.

New opportunities are opening up for the RDCs to drive collaborative programs. The RDCs are currently collaborating on identifying collaborative projects and partnerships to put forward under the new Rural R&D for Profit Program, and are using this as an opportunity to develop a model for future RDC co-investment.

Fourthly, the RDCs are also major partners in the development and implementation of the National Primary Industries Research, Development and Extension Framework. This process has been developed jointly between the Commonwealth, the States and Northern Territory, the RDCs, CSIRO, and universities for the purposes of increasing coordination of primary industries RD&E. Twenty-two national RD&E strategies have been developed and endorsed, covering 14 commodity sectors and eight cross-sectoral issues.

Cross-sectoral research

The RDCs have a long history collaborating on cross-sectoral programs and projects that have delivered benefits across multiple industry and research sectors, such as:

- Grain & Graze, a joint initiative of GRDC, Meat and Livestock Australia (MLA), Australian Wool Innovation Ltd (AWI) and the now defunct Land & Water Australia (LWA) aiming to improve productivity and environmental gains on mixed farms
- Making More From Sheep, a joint initiative between AWI and MLA: comprising a best practice package of information, tools and learning opportunities for Australian sheep producers.
- Managing Climate Variability Program, a joint initiative between LWA, GRDC, RIRDC, Sugar RDC, Dairy Australia, MLA, AWI and several non-rural RDC agencies that ran between 2002 and 2006.

As noted above, 8 of the 22 strategies developed under the National Primary Industries RD&E Framework are focused on cross-sectoral research questions, and the relevant RDCs are working together and with other participants in the RD&E system on the delivery of these strategies.

The RDCs are industry-driven and accountable to the levy-payers. Cross-sectoral programs are pursued when the benefits outweigh the costs and the activity will deliver demonstrable benefits.

Transformational research

The *Green Paper* states that transformational research and extension has been identified as a gap in the Australian RD&E system. Research and development is an incremental and cumulative process – each new piece of information adds to the existing knowledge bank and our understanding grows over time leading to refinements in tools and techniques. Truly transformational developments are very rare. While they can be less visible, incremental achievements from an ongoing RD&E program are also incredibly valuable in terms of maintaining and enhancing productivity and competitiveness.

The RDCs aim to balance investment across a spectrum of R&D activity from 'blue-sky' research, where the final outcome is unknowable and time to benefit many years away, to applied research adapting research findings into a practical application and where benefits can be achieved more quickly. Through a portfolio of investments the RDCs look to ensure industry can address the challenges and opportunities they currently face as well as those that are 'over-the-horizon'.

20 (a) Updating rural RD&E priorities to better align with community needs.

Four potential key areas for investment were identified:

- Advanced technology
- Biosecurity
- Soil, water and natural resource management
- Adoption of R&D.

These areas of investment appear reasonable and could have a role in addressing the government's overall policy objective of increase returns at the farm gate.

We support updating the National Rural RD&E priorities. As stated in our Productivity Commission response (Council of Rural Research and Development Corporations, 2010b), we believe that an important first step in addressing the government's concerns about the level of strategic and public good R&D is to define the government's aspirations in this area, establish R&D priorities, and clearly articulate these priorities to the R&D agencies. As the current priorities date to 2007, an update is timely. We welcome the opportunity to participate.

We recommend the government engages in a specific review and consultation on the rural RD&E priorities. Rather than trying to complete this update through the white paper, we suggest that the government engages with industry and other stakeholders on the question of what the rural R&D priorities should encompass. The green paper consultation will undoubtably raise a number of other potential priorities such as enhancing value chains or productivity and value-adding. There is an opportunity for governments, industries, research agencies and the community to work together in order to identify and target areas and issues that need specific attention in order to achieve the best outcomes.

Updating the priorities on their own is not enough. The process of identifying and reaching agreement on areas of strategic importance that will be targeted through R&D investment is iterative and ongoing. Implementation of the rural R&D priorities should not be seen as a set-and-forget activity, and there is an important level of discussion that occurs between the establishment of overarching priorities and the actual investment decision. To achieve the best outcomes that balance competing requirements it is important that all stakeholders engage fully in an ongoing dialogue.

We have some concerns with the current wording

- The phrase 'better align with community needs' requires clarification. Does this mean the broader Australian community? The agricultural community? How will 'community needs' be defined and assessed?
- The desire for 'greater control over the allocation of public RD&E funding in the national interest' must be clarified. Who will wield this greater control?

Our concern is that under the banner of 'community needs', the government is intending to take a more directive role in the allocation of public RD&E funding, rather than recognising the 'arm's-length' principle upon which the RDCs operate, with clear responsibility to balance the needs of their different stakeholders for the common good. We do not agree that government should be more directive of the RDCs as this limits the capacity of the organisations to be flexible and agile in the face of changing circumstances.

Recommendation 6: We support an update of the rural R&D priorities and recommend the government undertaking a separate and specific process to engage with industry and other stakeholders on this task. However, updating the priorities alone is not enough. To achieve better outcomes government must also engage more fully in the processes of identifying and balancing priorities and areas being targeted through R&D investments.

20 (b) Establishing a new body or tasking existing research bodies to coordinate cross sector research.

We do not support the creation of a new body to coordinate cross sector and transformational research. Land and Water Australia (which ceased operations in 2009) previously attempted to fulfil part of this function in relation to natural resource management and sustainability-driven research. A similar proposal was made during the 2010/2011 Productivity Commission Inquiry and rejected at that time – for reasons that still hold today. We believe it would be costly and not in the best interests of ensuring that R&D is relevant and is adopted by industry (Council of Rural Research and Development Corporations, 2010a, p. iii).

The RD&E system is capable of coordinating this research itself, with appropriate structures and funding arrangements put into place. We already have an organisation, the Rural Industries RDC

(RIRDC), that has an explicit role and mandate to manage public good cross-sectoral rural R&D, but RIRDC needs to be properly resourced in order to fulfil this function. The Council of Rural RDCs can play a role as an organising framework to facilitate the process of engaging with the RDCs to drive investments in particular agreed priority areas. And the National Primary Industries Research, Development and Extension Framework also aims to deliver improved coordination of cross-sector research and has facilitated the development of eight cross-sectoral RD&E strategies.

20 (c) Enhancing access to the R&D tax incentive

The *Green Paper* notes that proposals to expand the R&D Tax Incentive will be considered as part of the Tax White Paper, and that revisions could include making the R&D tax incentive more accessible in relation to unmatched voluntary R&D contributions which could encourage higher investment from industry.

Many specifically Australian conditions work against higher levels of private investment in rural R&D. In our Issues Paper response (Council of Rural Research and Development Corporations, 2014), we noted that the availability of the Australian R&D tax concession is one of the five existing or potential initiatives providing incentives to increase private sector agricultural R&D in Australia, based on the findings of the Australian Farm Institute's analysis of private sector investment (Keogh & Potard, 2010, p. v). The reasons why many producers don't use the R&D tax incentive aligns with the rationale for the RDC model, including: aggregating efforts delivers better results; R&D is expensive, needs specialist skills and equipment, and generally has long lead times with uncertain outcomes in terms of the ability to capture and exclusively capitalise on the benefits; and businesses operating on tight margins and with a stressed cash flow do not have the flexibility for individual investment in R&D activities. Rural enterprises can also operate in an environment of volatility and uncertainty, with incomes likely to vary substantially from one year to the next. For many in industry these conditions make investment in RD&E, beyond that through the levy system, highly unlikely.

The levy system is an effective way for the production sector to contribute to its own RD&E needs, with benefits from the research investment flowing along supply chains and spill over for the community and environment. We support efforts to increase private investment in RD&E that complements levy arrangements. **We recommend government facilitate the development of funding arrangements and co-investment models, and remove barriers to implementation of them.** Enhancing the R&D tax incentive could be a tool for this. Changes brought in by the *Rural Research and Development Legislation Amendment Bill 2013* included the ability for the RDCs to implement matching arrangements for voluntary contributions for R&D. This means that additional private investment in RD&E through the RDCs can be matched by government funding, up to the level of the 0.5% cap. While this is a positive development, the majority of the RDCs are already at the limit of the cap. Therefore this incentive on its own is unlikely to leverage significant further private investment. Reviewing the impact and level of the cap could also be considered as a way of increasing private investment.

Recommendation 7: Government encourages and facilitate increased private investment in rural R&D through the development and implementation of funding arrangements and co-investment models that complement current levy arrangements.

20 (d) Promoting the development of extension services

The *Green Paper* supports the government enabling the development of private markets for extension services through cooperative activities. The challenge in this area is to get the balance of private investment and government intervention right.

Extension and adoption are fundamental components of investment in rural research and development to ensure the translation of R&D to practical application. Changes to extension service delivery in Australia has left gaps in the innovation pipeline, particularly following reduction in state-based extension activities and withdrawal of traditional extension officers employed by state and territory governments. In some cases and some industries private extension providers have stepped into the gap left by the withdrawal of state-based services, where commercial opportunities exist. But not all research lends itself to delivery by private providers. Like the research itself, extension can deliver a mix of public and private benefits and there is a place for public and private services.

The RDCs have responsibility to ensure R&D results are adoptable, promoted and available for industry. Extension is a part of the R&D process, and personal interactions are recognised as being very important for translation and uptake of research findings. But the RD&E system no longer has the capacity or resources required to support extensive, distributed teams of local extension officers that can promote research uptake. Evidence in Australia and internationally suggests that R&D efforts are most successful when extension is integrated with research: 'Extension and research disciplines must be closely associated with each other in organisational structures, and in the design and delivery of programs, to be able to sustain capacity building over time' (Hunt et al., 2014, p. 135). This can be and is achieved to a degree through project design and contracting, with researchers asked to identify and become active participants in sharing results with industry. However, RD&E project contracts are by nature time-bound, so these activities generally cease with the project.

It is important to understand how knowledge transfer has transformed over the period in which extension delivery has been changing. Today's producers have different expectations of how, when and where they should be able to access the latest research, and need different skills to assess available information. Remote delivery is playing a greater role, and this trend is likely to continue. Connectivity is key.

Australia's new extension system is in a process of change. It mixes public and private provision, and utilises new technologies. How the extension system will ultimately look is still open. Extension services should be integrated into the process and delivery of research, and allow for two-way communication channels between researchers, extension providers and end users. Private markets for extension services will grow, but we also must be careful that this doesn't just become a one-way flow of information and ensure there are effective feedback processes to the research community.

We support the principle of integrating extension closely into research and development activities. Moreover, we suggest that extension should not be considered as a separate activity with private benefits. R&D not leading to an improved technology or practice being implemented is a wasted investment. Extension and adoption are fundamental components of investment in rural research and development to ensure the translation of R&D to practical application along the supply chain. Capacity building for industry through extension, training and education are key factors in adoption and that investment in these areas must be allocated at the same time that investment is being considered for R&D.

20 (e) Decentralising government agricultural research functions

We strongly oppose the notion that government becomes directive in relation to the physical location of individual RDCs, in regional areas or otherwise.

The RDCs contribute most substantially to rural and regional Australia through investments in strategically important and prioritised research, not through the physical locations of their offices. RDC investments are spread throughout different geographic locations, as required by each industry. As appropriate the RDCs have located themselves within or in easy reach of their communities of interest while also meeting other needs of their organisations, including having access to a suitably qualified and diverse talent pool of staff, appropriate business services and transport links. The decision of where an RDC is located should continue to be the responsibility of each RDC board.

There is no evidence that relocation of RDCs from their current locations to other areas would deliver better stakeholder engagement, improve service delivery or promote additional regionally focused RD&E. Indeed it is likely for the RDCs affected in general stakeholder engagement and service delivery would become more difficult, costly and time consuming through increased travel times and a reduced set of options and opportunities. There is also no evidence to suggest the portfolio of investments across the RDCs has not appropriately addressed regional differences over time. As a principle it is important for the organisations to retain the flexibility to determine for themselves where various operations are located to most efficiently and effectively deliver outcomes for their industries.

There is strong evidence that attracting and recruiting qualified people within rural RD&E is already a challenge and likely to become more difficult over time. Career prospects in the rural sciences and associated industries are already under pressure, and the attractiveness and reputation of these professions has suffered. Disruption to the operations and staffing of RDCs through forced relocations would be detrimental to keeping and developing qualified and experienced staff and building upon their capacity and knowledge. Relocation would also have a significant negative impact on the capacity of the organisations to fulfil their responsibilities to industry and government through strategic investment in prioritised RD&E.

20 (f) Regular five yearly assessments of the RD&E system

We support the principle of regular assessments of the RD&E system, as long as these are consistent with the government's stated desire to reduce red tape and compliance burdens.

Collectively the RDCs have responsibility for an estimated one-third of the annual investment across Australia's rural RD&E system. While the RDCs are undoubtedly important and influential sources of funding, the system also involves research funders and providers from the Australian Government, state and territory governments, CSIRO, universities and the private sector. Assessing the effectiveness and performance of the overall system is a significant challenge, with the Rural Research and Development Council identifying that the process will be hampered by severely limited availability of appropriate data (Rural Research and Development Council, 2011, p. 8). An ABARES analysis of a proposed performance framework and a series of indicators confirmed this assessment (Cuevas-Cubria et al., 2012). ABARES also noted that assessment of the performance of the RD&E system depends on being clear on the objectives performance is being measured against. An increased investment in the collection and analysis of a range of data and statistics will be necessary in order to conduct this assessment.

We also note the difficulties inherent in measuring some performance indicators in relation to R&D. Significant studies have assessed overall impacts of rural RD&E. For example, Australian public RD&E directly accounted for nearly a third of the productivity growth experienced in Australia's broadacre farming sector between 1952/53 and 2006/07 according to an ABARES analysis (Sheng, Gray, Mullen, & Davidson, 2011, p. 5). However, in smaller industries it is difficult (and not always cost effective) to measure or track productivity gains flowing from RD&E investments.

Recommendation 8: Regular scheduled reviews of the RD&E system should cover the roles, responsibilities and performance of all participants. The system reviews should be cognisant of the existing compliance burdens on RDCs (and other participants) and not add to these burdens. Currently there are limitations on the data available to assess the system fully.

Policy idea 21 – improving the rural RDCs

21 (a) Administrative changes to the RDC model to increase transparency and reduce costs, including giving RDCs a targeted set of objectives.

We are disappointed in the tone of some of the suggestions within Policy Idea 21, and surprised that recommendations of this level are contained in a document aiming to create an industry-wide future of innovation in the 21st century. While increasing transparency and reducing costs are laudable goals, some of the suggested strategies (such as requiring RDCs to keep up to date information on their websites) appear both patronising, and lacking in vision. We suggest that it would be more useful to focus on ensuring an appropriate balance and delivery across the overall endeavour of an organisation, and that they are having positive impacts, rather than relatively minor details of administration. Streamlining compliance for the purposes of government processes does not mean better outcomes for industry or the community.

The 15 RDCs are already mindful of the need to reduce costs and any duplications, and are proactive in pursuing possibilities for doing so. They are lean organisations for the activities they are undertaking and that are delivering tangible outcomes for industry and the broader community. They are also responsible 21st century organisations, well aware of their obligations to share their formal plans, priorities, activities and outcomes with stakeholders and to be accountable for their actions and investments.

The RDCS have demonstrated capacity to review their operations and make changes. We note that several of the RDCs have carried out their own investigations to find ways of eliminating duplication, streamlining governance and achieving economies in back office functions. For example, the Cotton RDC and Grains RDC in 2008 and 2009 investigated collaboration options up to and including a full merger, but found that although opportunities existed to improve collaboration, a merger would undermine the focus, responsiveness and effectiveness of each organisation's investment in R&D. In 2010 the two organisations further examined the benefits of shared back office functions. CRDC concluded that while it was possible to outsource its administrative functions from Grains RDC, the savings did not outweigh the benefit of having committed capability integrated within the business, being immediately available, and which understands the business, its stakeholders and suppliers. Importantly, retaining internal capacity also meant that responsibility and authority were aligned appropriately and from a risk management perspective, issues such as authorisation procedures, business continuity and succession planning were also appropriately managed (Cotton Research and

Development Corporation, 2010, p. 17). MLA and HAL are both currently restructuring their operations in response to inquiries into their effectiveness.

Administrative changes to the model

We are not against reviewing areas of RDC administration to increase transparency and reduce costs. However we note that the RDCs already have a significant compliance burden under current arrangements. The *Public Governance Performance and Accountability Act 2013* introduced a range of new or amended processes and requirements for the statutory authorities, increasing regulatory burden or red tape, while the *Primary Industries Research and Development Act* introduced a new requirement for the government to establish formal funding agreements with the statutory authorities (in addition to addressing the terms of the existing legislation, five-year and annual plans, annual portfolio budget statements, annual reports to Parliament and annual meetings with representative organisations).

With responsibility for the management and investment of funds on behalf of industry and government, the RDCs appreciate and readily acknowledge the need to implement and maintain high standards of transparency, governance and accountability. However, the Council is concerned with the creeping development over many years of increasingly heavy compliance requirements and a focus from government on compliance processes at the cost of engagement with industry in establishing shared goals for the R&D investment. There is frequently close examination on the small proportion of funding that goes towards organisational overheads and administration, rather than a more robust discussion about optimising outcomes delivered from the bulk of funds directed at RDE&M.

While the compliance burden is acutely felt by the smaller RDCs, the large organisations are also affected. For example, the recent governance review of the Grains Research and Development Corporation recommended the industry consider moving to an industry-owned company model. In part this was because changes in governing legislation created unnecessary red tape, constrained accountability to industry but increased accountability to government, and reduced the organisation's decision making autonomy (Marsden Jacob, 2014). At a minimum the review recommended the grains industry and GRDC seek specific exemptions from a range of government requirements in order to increase organisational flexibility and to better align accountabilities and operations with the needs of levy payers. This would bring GRDC into closer alignment with the industry-owned companies.

Similar arguments could be made for the other statutory authorities, although it is ultimately the responsibility of industry to determine the organisational arrangements that best meet their needs and circumstances. The industry-owned companies are also reporting a significant compliance burden that is impacting on the capacity of the organisations to operate and diverting resources away from activities that directly affect the productivity and profitability of industry. As part of the government's deregulation agenda, the Council recommends that government works with industry on an organisation-by-organisation basis to review compliance regimes with a view to identifying opportunities to streamline governance and reporting activities. In line with best practice regulation, additional compliance activities should only be added when there is clear evidence of a problem, and those activities targeted in such a way to limit imposition to where such a problem exists. Under a 'light-touch' regulation approach, government should seek as a matter of course to reduce the compliance burden over time in line with evidence of performance.

Our recommendation is that government should properly assess the impact of the compliance burden and seek ways to reduce unnecessary costs for both the RDCs and the Department of Agriculture.

A single generic application form for all RDCs

Efforts to streamline the functions of RDCs must remain mindful of the differences between the 15 organisations and their respective industries. Consistency for the sake of it does not necessarily equate to improved outcomes. It may be worth investigating the merits of a single generic form, but it is not a strategy that should be pursued unless clear benefits can be identified that outweigh any difficulties in making this change.

RDC annual reports to provide comprehensive coverage

All the RDCs produce detailed annual reports, as well as annual operating plans, regular (usually five year) strategic plans, and annual portfolio budget statements. We are at a loss to understand this requirement for further information, given the extensive material that every RDC provides to its stakeholders and makes available in the public domain. RDC annual reports are compliant with the requirements of corporations law (industry-owned companies) and government (statutory corporations and authorities). An extensive list of topics to be included with the RDC annual reports is captured in the Statutory Funding Agreements. The RDCs also go beyond these compliance requirements to also report on the outcomes and impacts delivered through their investments.

RDCs to keep up to date information on their websites

It goes without saying in 2014 that organisations such as RDCs should keep up to date information on their websites – it is our understanding that all the rural RDCs as a matter of course fulfil their obligations to keep up to date information in the public domain.

Targeted set of key objectives for each RDC

It is not clear what the development of an additional set of targeted objectives for each individual RDC is likely to achieve. Each RDC already provides detailed objectives as part of strategic and annual plans, with both industry and government encouraged to engage and fully participate in this work to identify and establish the priorities. The RDCs are also obliged to identify and report how their investments align with the national and rural R&D priorities. How the proposed targeted set of objectives would differ from the existing requirements needs to be clarified.

There are practical difficulties associated with measuring some key performance indicators, such as productivity growth. Particularly in small industry industries the cost of gathering data to measure productivity growth resulting from R&D investment can be prohibitive.

Recommendation 9: Government should assess the impact of the compliance burden and seek ways to reduce unnecessary costs for both the RDCs and the Department of Agriculture. This approach should recognise a level of RDC independence from government and actively seek to reduce the compliance burden; acknowledge the role and involvement of levy-payers; recognise existing streamlining efforts; and recognise the advantages of sectoral arrangement. We do not support government imposing prescriptive solutions, including where an individual RDC should be located.

21 (b) Increasing flexibility of levy arrangements.

We agree that the establishing, collecting and revising of levies should be periodically reviewed, both to improve efficiency and to ensure that the system is evolving to meet the needs of its stakeholders, and we note this is currently taking place with the Senate inquiry. **We recommend that any review should be conducted on an industry-by-industry and levy-by levy basis to focus on the levies that are most complex and administratively expensive.** The question of levy policy and arrangements is one for industry to resolve in conjunction with government. Across the multitude of commodities and industries there will not be a one-size-fits-all system, and imposing a single solution will increase costs and likely lead to perverse outcomes. Transparency and equity are key concerns and greater levy-payer involvement in these issues is desirable.

Through a variety of mechanisms industry has control over its contribution to the level of investment in RDE&M. Similarly, each of the RDCs regularly engages with and seeks feedback from industry, right down to the level of individual producers.

Recommendation 10: The efficiency of levy collections should be reviewed on a levy-by-levy basis, focusing on those that are the most complex and administratively expensive. Transparency and equity are key concerns and greater levy-payer involvement in discussion and resolution of issues surrounding levy arrangements is desirable.

CONCLUSION

The RDCs welcome the opportunity to respond to the *Agricultural Competitiveness Green Pape*r. We support the government's ambition to facilitate long-term prosperity and growth for rural industries through strong, competitive and profitable enterprises. We contend a key to success to deliver on this goal will be fostering a culture of innovation, and that strong innovate capability across the sector will drive solutions to the challenges that will emerge in coming decades.

Australia's research, development and extension (RD&E) effort underpins our innovation capacity. To deliver effectively and respond to changing circumstances and priorities, the RD&E effort requires human, physical and financial resourcing with a flexibility to re-orient resources as needed. We believe there is a strong justification for collective action, and the long-standing investment partnership between industry and government through the Rural RDCs provides a solid foundation for future efforts. We look forward to continuing to work with government and industry to deliver benefits for industry, the environment and the broader Australian community.

APPENDIX ONE – RELEVANT RECENT DEVELOPMENTS

Organisational reviews

Individual rural RDCs have been the subject of three recent organisational reviews examining how the organisations relate to their stakeholders, particularly their levy payers. The 2013/14 review of the Grains Research & Development Corporation (GRDC)'s governance structure recommended a hybrid governance model as a way to increase organisational flexibility and better align accountabilities and operations with the needs of levy paying growers. Meat & Livestock Australia (MLA)'s 2014 restructure to improve transparency and engagement with producers was in response to criticisms from a 2013 organisational systems review, as well as criticisms expressed by levy payers through the Senate Inquiry process. An independent review of Horticulture Australia Ltd (HAL) and the horticultural levy system in May 2014 highlighted conflicts between HAL's ownership structure and some funding decisions and a new body, Horticulture Innovation Australia Limited, has now been formed to take over industry research, development, extension and marketing responsibilities.

Formal inquiries

The Senate inquiry into *Industry structures and systems governing levies on grass-fed cattle* (Senate Standing Committee on Rural and Regional Affairs and Transport, 2014a) examined the basis on which levies are collected and used; the opportunities levy payers have to influence the quantum and investment of the levies; industry governance arrangements, consultation and reporting frameworks; and recommendations to maximise the ability of grass-fed cattle producers to respond to challenges and capture opportunities in marketing and research and development. The Senate inquiry into *Industry structures and systems governing the imposition of and disbursement of marketing and research and development (R&D) levies in the agricultural sector* was announced in September 2014, following notice of a disallowance motion on increases to the mushroom, onions and mangoes levies in July 2014. The inquiry will examine similar issues to the grass-fed beef levy inquiry, including the opportunities levy payers have to influence the imposition and investment of levies (Senate Standing Committee on Rural and Regional Affairs and Transport, 2014b).

Government policy changes

The *Public Governance Performance and Accountability Act* came into effect on 1 July 2014 and introduced a range of new or amended processes and requirements for the statutory authorities, increasing regulatory burden or red tape. Amendments to the *Primary Industries Research and Development Act*, commencing December 2013, introduced a new requirement for the government to establish formal funding agreements with the statutory authorities (in addition to addressing the terms of the existing legislation, five-year and annual plans, annual portfolio budget statements, annual reports to Parliament and annual meetings with representative organisations).

REFERENCES

Australian Farm Institute. (2014). Submission: Inquiry into industry structures and systems governing levies in the Australian agriculture sector. Canberra: Senate standing commitee on rural and regional affairs and transport.

Core, P. (2009). A retrospective on rural R&D in Australia. Canberra: Australian Government Department of Agriculture, Fisheries and Forestry.

Cotton Research and Development Corporation. (2010). Submission by the Cotton Research and Development Corporation to the Productivity Commission Inquiry into Rural Research & Development Corporations.

Council of Rural Research and Development Corporations. (2010a). Submission by the CRRDC in response to to the Productivity Commission Draft Report on Rural Research and Development Corporations Model. Canberra.

Council of Rural Research and Development Corporations. (2010b). Submission by the CRRDC to the Productivity Commission Inquiry into the Australian Government Research and Development Corporations Model. Canberra.

Council of Rural Research and Development Corporations. (2014). Response to Agricultural Competitiveness White Paper Issues Paper. Canberra.

Cuevas-Cubria, C., Gibbs, C., Nossal, K., Gray, E., Oss-Emer, M., Lawson, K., & Davidson, A. (2012). Measuring and reporting trends relating to the performance of Australia's rural RD&E system. Canberra, June: ABARES report to client prepared for the Agricultural Productivity Division, Department of Agriculture, Fisheries and Forestry.

Department of Industry. (2013). Australian Innovation System Report 2013: Australian Government.

Hunt, W., Birch, C., Vanclay, F., & Coutts, J. (2014). Recommendations arising from an analysis of changes to the Australian agricultural research, development and extension system. *Food Policy, 44*, 129-141.

Keogh, M., & Potard, G. (2010). Private Sector Investment in Agricultural Research and Development in Australia, Research Report. Sydney: Australian Farm Institute.

Keogh, M., & Potard, G. (2013). Is Counting Farmers Harder than Counting Sheep, Research Report. Sydney: Australian Farm Institute.

Mallawaarachchi, T., Walcott, J., Hughes, N., Gooday, P., Georgeson, L., & Foster, A. (2009). Promoting productivity in the agriculture and food sector value chain: issues for R&D investment. *ABARE and BRS report to the Rural R&D Council, Canberra, December*.

National Farmers' Federation, & Sefton & Associates. (2013). The Blueprint for Australian Agriculture 2013-2020. Canberra: National Farmers' Federation.

Rural Research and Development Council. (2011). National Strategic Rural R&D Investment Plan. Canberra: Department of Agriculture, Fisheries and Forestry.

Senate Standing Committee on Rural and Regional Affairs and Transport. (2014a). Industry structures and systems governing levies on grass-fed cattle. Canberra.

Senate Standing Committee on Rural and Regional Affairs and Transport. (2014b). Terms of Reference: Industry structures and systems governing the imposition of and disbursement of marketing and research and development (R&D) levies in the agricultural sector. Retrieved 4 November, 2014, from http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Rural_and_Regional_Affairs_and_Transport/Agriculture_levies/Terms_of_Reference

Sheng, Y., Gray, E., Mullen, J., & Davidson, A. (2011). Public investment in agricultural R&D and extension: an analysis of the static and dynamic effects on Australian broadacre productivity. Canberra: Australian Bureau of Agricultural and Resource Economics and Sciences.