



# QUEENSLAND FARMERS' FEDERATION

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## Submission

3 August 2017

R&D Policy and Partnerships  
Department of Agriculture and Fisheries  
GPO Box 267  
BRISBANE QLD 4001

Via email: [AgricultureRoadmap@daf.qld.gov.au](mailto:AgricultureRoadmap@daf.qld.gov.au)

Dear Sir/Madam

**Re: RJSA submission to the Agriculture and Food Research, Development and Extension 10-Year Roadmap**

The Queensland Farmers' Federation (QFF) welcomes the opportunity to comment on the 'Agriculture and Food Research, Development and Extension 10- year Roadmap Discussion Paper' (discussion paper) on behalf of the Rural Jobs and Skills Alliance (RJSA).

The Rural Jobs and Skills Alliance (RJSA) developed from the agricultural sector's need to engage more with the education and training sectors, and the Queensland Government's commitment to create and support jobs across Queensland.

The purpose of the Alliance is to address mutual goals for our member organisations that focus on the attraction, development and retention of new entrants and existing workers to underpin the prosperity of Queensland's agricultural sector now and into the future.

This objective aligns closely with that of Advance Queensland and the Department of Agriculture and Fisheries (DAF) in that we seek to promote productivity and innovation through the business owners and their employees by investing in their capacity to continuously improve and create wealth. Members of the Alliance are (in alphabetical order):

- AgForce
- CANEGROWERS
- Cotton Australia
- Department of Agriculture and Fisheries
- Growcom
- Queensland Chicken Growers' Association
- Queensland Farmers' Federation
- Timber and Building Materials Association

*The united voice of intensive agriculture*



The Alliance acknowledges the importance of having a roadmap together with an action plan to establish and implement key priorities for the Queensland Government to ensure the growth of a vibrant, resilient, sustainable agriculture and food industry. We understand that the discussion paper aims to align with the Advance Queensland initiative to maximise Queensland's potential to develop its agriculture and food sector. Advance Queensland's initiatives foster emerging and priority sectors that have the growth potential to generate knowledge-based jobs now and into the future; however, the discussion paper fails to mention the workforce needs.

This is a significant gap in the discussion paper's considerations. It is imperative to understand the skills and workforce needs that will help the sector achieve its vision, if the aim is to improve the ability of the sector to innovate and support research that has effective outcomes. Other roadmaps produced such as the Advance Manufacturing Roadmap, do highlight the importance of a skills and workforce strategy to prepare business for their projected workforce requirements.

The agribusiness sector is an important contributor to state and national economies, and particularly significant to driving growth and sustainability in regional areas. The sector has a bright and promising future. Enablers of the possible opportunities rely on a collaborative approach to research inclusive of the education, government, industry and investor communities.

By acknowledging the importance of a strategy that looks at skills and workforce issues to deliver the sector's vision, the industry will be better prepared. The importance of these issues has been acknowledged by the Food Innovation Australia (FIAL)'s Sector Competitiveness Plan for the Food and Agribusiness Growth Centre<sup>1</sup>. This plan acknowledges that to achieve their vision: "by 2025, the industry is working together to grow the share of Australian food in the global market place", and to achieve its objectives of "access to new markets" and "increase the productivity and/or competitiveness of the industry"; one of the required inputs is that "the industry players need to have the confidence and capacity to use their knowledge, resources, skilled workforce and associated capabilities to develop innovative, cost-effective and differential offerings that meet the wants and needs of Australian markets and consumers".

The importance of addressing capacity issues has also been mentioned in the Decadal Plan for Australian Agricultural Sciences 2017-26<sup>2</sup> "Capacity to deliver the agricultural science agenda involves a whole-of-education supply chain approach. It starts with capturing the minds of children and ends with qualified practitioners to create and implement innovation". Opportunities need to be created for students to align their own expectations with the expectations emerging in the ever changing rural and related industries.

The capacity of an economy to innovate relies on its stock of human capital — the skills, knowledge and expertise embedded in its workforce. Australian businesses report a lack of access to skilled personnel as a barrier to innovation. Innovation has been linked to educational attainment (OECD, 2015)<sup>3</sup>. Studies show that the education level of producers is directly related to productivity growth and influences their disposition towards adoption of new technologies and practices. Encouraging a more professional and

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<sup>1</sup> FIAL (2016). Industry Growth Centre: Food and Agribusiness Sector Competitiveness Plan

<sup>2</sup> Academy of Science (2017). Grow.Make.Prospere. The Decadal plan for Australian Agricultural Sciences 2017-26. P. 35.

<sup>3</sup> OECD (2015), Innovation, Agricultural Productivity and Sustainability in Australia, OECD Food and Agricultural Reviews, OECD Publishing, Paris.

capable sector will provide the capacity for it to be more responsive and forward-thinking to take advantages of the market opportunities available.

Furthermore, an innovation culture must be supported in the education sector continuously updating its programs to ensure packages are relevant for the needs of industry. As the level of skill and capability increase in farming operations, the level of uptake of technologies and innovations should similarly increase.

Agriculture has always and will continue to embrace new technology that requires a significant level of skills and expertise in the production and research workforce. This means there is a need to ensure appropriate training and education for the future workforce is a priority. Fostering skills and addressing skill gaps could provide an important boost to innovation.

Our sector has the highest share of employed persons who are above retirement age and its labour is aging more rapidly. The sector is likely to find a tightening of labour supply, particularly for skilled farm managers. Agriculture needs quality leaders and a workforce to adopt innovation<sup>4</sup>. Producers with good general, technical and business education would generally be more willing and better at adopting innovation. To encourage uptake of new technologies and products, producers require an understanding of the background principles, and the gains and risks involved.

Overall, it is expected that innovation and technological change will bring the demand for more professional and technical jobs in our industries. The agriculture sector recognises the need to embrace the use of technology and the opportunities for advancement that these innovations offer. We know that the sector will be highly influenced in the coming years by disruptive technologies that nevertheless may increase efficiency, productivity and profitability.

Emerging business tools such as crowd-funding, big data analytics, artificial intelligence, nutritional genomics, micro-grids, GPS and sensors will be applied<sup>5</sup>. Skills to embrace these technologies will be required as well as proficiency in finance, succession planning, risk management and best practice management. Increasingly, multidisciplinary skills sets will be required. Predicted future skill needs include those of other occupations not traditionally associated with agriculture including engineers, data analysts and business support services. Therefore, we need to attract new and different talent into the sector with these required skills.

In addition to this, the ability to deal with changes in technology is part of any job and trade. To remain relevant and continuously adapt to the advancement that technology and innovation brings; and government, industry, and the education sector must embrace the concept of continuous learning. This will be important because the ever-changing landscape requires these stakeholders to be up to date with the latest knowledge and flexible to any change required, including the lead-times necessary to implement appropriate responses.

To be more relevant to industry requirements and support the current workforce to constantly update their knowledge, the need for new skills should be investigated and assigned a higher priority. Adopting more flexible course structures that allow students to train in areas that might not be conventional

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<sup>4</sup> CSIRO (2017) Food and Agribusiness, A Roadmap for unlocking value-adding growth opportunities for Australia.

<sup>5</sup> Rural Industries Research and Development Corporation (RIRDC) (2016), Cross- Innovation Scan, September 2015, Canberra.

agricultural subjects but of significant value to their career in agriculture should be encouraged. We need to be able to support business with the desire to develop confidence to acquire the capabilities and capacity necessary to transition from the business of today into the business of tomorrow.

For our sector, it would be highly beneficial for government to partner with industry to develop an Advanced Agribusiness and Food Skills, Training and Workforce Development Strategy to prepare our businesses for the new technical and workplace requirements. Such a strategy should:

- identify the effect of technology in agriculture jobs;
- identify the new skills required in the agribusiness and food sector;
- explore alternate training approaches for workers to improve their workplace readiness;
- examine options to increase industry's mentoring role including using the knowledge and experience of senior and retired business people;
- review workforce planning and development issues and opportunities and develop workforce succession planning alternatives and solutions; and
- consider how to promote future career opportunities in agribusiness and food across the education sector and encourage the focus on science, technology, engineering and math (STEM) in schools to prepare young people for the future required jobs in our sector.

QFF provides this submission without prejudice to any additional submission provided by our members or individual farmers. If you have any questions on this submission, please contact Dr Diana Saunders at [diana@qff.org.au](mailto:diana@qff.org.au).

Yours sincerely

Travis Tobin  
Chief Executive Officer