# Competitiveness of Tasmanian Agriculture for 2050

# **Discussion Paper**

January 2020



Tasmanian Government

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# Minister's Foreword



This government has prioritised agriculture as a key pillar of Tasmania's economy. Not only does the sector continue to put food on our tables; it also underpins prosperity in our rural and regional communities, and will be a vital driver of economic growth over the next decade and beyond.

AgriVision 2050 sets a target for growing the farm gate value of agriculture in Tasmania to \$10 billion per year by 2050. When industry and government first cast this vision in 2014, a sustained tenfold growth in production was required. Our primary industries

have risen to the challenge and we are on track to meet that ambitious target, with agriculture delivering jobs and opportunities across every region of Tasmania. However, there is still more work to be done.

Remaining competitive in the global marketplace requires a holistic and long term view. There is no single action that will capture sustained market share. Instead it is the ongoing actions and initatives taken by those committed to sustainable growth, across the breadth of agricultural industries, over time that will increase the probability of success.

This Discussion Paper sits under *Tasmania's Sustainable Agri-food Plan 2019-23*, and beside our *Growing Tasmanian Agriculture – Research, Development and Extension for 2050 White Paper*, along with other government strategies across education, brand, trade, infrastructure, waste, freight, climate change and more. Its purpose is to consider the ongoing competitiveness of our state's land-based agricultural sector and how all parties can seize opportunities and tackle complex problems to meet the 2050 AgriVision target.

Supporting and listening to Tasmania's agriculture and food producers continues to be a key part of the government's plan. Increasingly, what drives value and advantage in the market place is the ability to collaborate across enterprises, industry, research bodies and government. It is for this reason that the government has undertaken preliminary consultation with stakeholders and is now seeking further input to shape the initiatives that will be taken forward as part of the White Paper process.

Your response to this Discussion Paper will help inform the final White Paper actions and I strongly encourage you to make a submission or complete the online survey.

Guy Barnett MP

Minister for Primary Industries and Water

# Introduction

As the world population grows, food production will need to keep pace. By 2050, the world's population is expected to reach more than nine billion people, and food production will need to increase by 70 per cent. With a growing demand for higher protein diets in the Asian middle class, and increased expectations for fresh, quality food, Tasmania has a remarkable opportunity to leverage our strengths in agriculture – rich soil, a favourable climate, water infrastructure, enterprising farmers and a premium brand – to significantly expand our agricultural industries and food manufacturing capacity.

To do so, in an increasingly aggressive global marketplace, the agri-food sector must pursue opportunities and address challenges impacting on competitiveness. Fundamental to agricultural competitiveness is the ability to produce and sell farmed products in markets profitably, relative to producers of similar products. Competitiveness is determined by a complex range of factors, some of which are beyond the control of business and government.

## **Background**

In 2018 the Tasmanian Government confirmed its commitment to prepare a whole-of-government White Paper on the Competitiveness of Tasmanian Agriculture for 2050.

The purpose of the White Paper is to present policy improvements and initiatives that will support greater competitiveness in Tasmanian agriculture, and to address issues impacting production, investment and profitability of Tasmanian farmers and agribusinesses.

In developing this Discussion Paper, the government has worked collaboratively with primary industry peak bodies. Preliminary consultation meetings with industry stakeholders identified a list of key issues that were compiled and categorised into focus areas. These focus areas and emerging priorities were discussed with Tasmanian Government bodies and form the basis of the framework presented in this Discussion Paper<sup>1</sup>.

Development of the Discussion Paper has been led by AgriGrowth Tasmania, a division of the Department of Primary Industries, Parks, Water and Environment (DPIPWE), in conjunction with the Department of Treasury and Finance (Treasury).

# **Policy Context**

Under *Tasmania's Sustainable Agri-Food Plan 2019-23* the Government is investing in, and delivering a range of initiatives to improve infrastructure, support competition, and maintain an effective biosecurity and regulatory environment with the goal of sustainably growing the farm gate value of Tasmania's agricultural sector to \$10 billion per year by 2050.

This Discussion Paper concentrates on cost and non-cost factors as they relate to enterprise competitiveness and profitability. It sits beside the White Paper on *Growing Tasmanian Agriculture – Research, Development and Extension for 2050* which has a focus on productivity outcomes in the sector.

A summary of the issues raised by the stakeholders is included at Appendix 2 – What Tasmania's agricultural industry has said.

## Scope

In developing the Discussion Paper, government has:

- assessed the many reviews which identified factors related to agricultural competitiveness at both the State and Federal Government level over the past ten to fifteen years;
- consulted with industry bodies on their view of the key issues that affect enterprise profitability and competitiveness; and
- developed a framework for appropriate policies and initiatives for government to consider in response to the issues identified.

This review has been restricted to land-based agriculture. While some recommendations may have positive impacts on the broader agri-food and forestry sector, the scope of this Discussion Paper does not extend to aquaculture, fisheries or forestry.

Measuring the competitiveness of Tasmanian agriculture in relation to other jurisdictions is also beyond the scope of this Discussion Paper.

Matters under the control of the Australian Government or statutory bodies will be raised up through Commonwealth, State and Territory for such as the Agricultural Minister's Forum (AGMIN) which is the peak forum for inter-jurisdictional collaboration on priority issues affecting the primary production sector.

# The Tasmanian Agricultural Context

## Tasmanian Agricultural Value

Agriculture is a pillar of the state's economy, with a gross value of \$1.60 billion in 2017-18. Dairy was the state's most valuable individual agricultural industry with a farm gate value of \$429 million. The pasture-based systems employed in the state result in one of the lowest costs of production in the world. Other major pasture-based industries included beef (\$329 million), sheep meat (\$119 million) and wool (\$117 million). Horticulture was another major contributor to agricultural value, including vegetables such as potatoes, carrots and onions (\$251 million) and fruit such as berries, cherries and apples (\$197 million). Broadacre production, included crops such as poppies and seed crops, accounts for \$152 million at the farm gate.

Additional value was added to Tasmanian food production through local processing and packing to generate a processed food value of \$3.24 billion for land-based agriculture. In 2017-18, major value-added industries included chocolate, with a processed food value of \$594 million; beef (\$545 million); dairy (\$532 million); potatoes (\$435 million); beer (\$169 million); and wine (\$146 million).

Land-based agri-food products accounted for 16.5 per cent of Tasmanian international merchandise exports in 2017-18, with a value of \$605 million. Beef was the highest value food export at \$210 million, with major markets in the United States and Japan. Other significant land-based agricultural exports included dairy (\$104 million), chocolate (\$50 million), cherries (\$39 million) and lamb and mutton (\$31 million).

#### Tasmanian Agricultural Growth

Despite challenges the broader Tasmanian economy is currently experiencing the fastest pace of growth in ten years. Tasmania was the only State or Territory (apart from Queensland) where value added in agriculture grew at all in 2017-18. Strong commodity prices have contributed to a positive outlook over the past few years, with the Rabobank Producer Sentiment quarterly survey regularly indicating that Tasmanian farmers are some of the most optimistic in the nation. This confidence has continued to fuel investment.

In 2014 a target was set for growing the farm gate value of the agriculture sector in the state tenfold to \$10 billion per year by 2050 (AgriVision 2050). It was recognised that to achieve this goal our producers and processors would need to 'Grow' and 'Make' more, not just in terms of volume but in value. Together we would also need to 'Protect' through upholding biosecurity, product integrity, food safety and animal welfare. Finally, it was recognised that our agri-food businesses were contributing to tourism through cellar doors, farm shops, farmer's markets and linked food and beverage tasting trails reinforcing Tasmania's brand as a premium food producer and the 'Experience' of Tasmania as a food destination. 'Grow, Make, Protect and Experience' encapsulated the priorities across the agri-food value chain in progressing towards the AgriVision target.

The state remains on track to achieve this growth target, however meeting this goal will require a growth of more than double the rate experienced over the 20 years to 2013, as shown in the Figure below. Therefore, it is essential that the state has the right settings for businesses to operate.

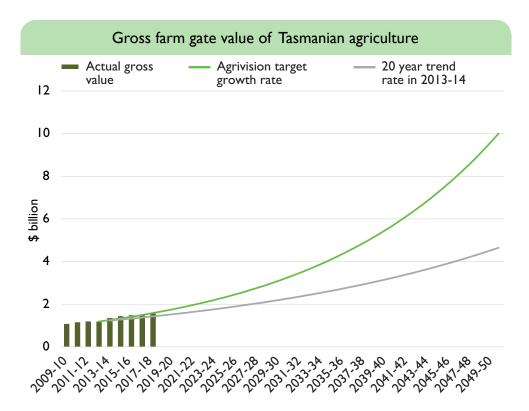


Figure 1 – AgriVision 2050 Growth Rate Progress 2017-18

# Competitiveness in Agriculture

According to the Productivity Commission<sup>ii</sup>, agricultural competitiveness is about advantage in markets. In its broadest terms, agricultural competitiveness means being able to profitably produce an agricultural product which is cheaper than products of the same quality, or is higher in quality or perceived value than products of the same price, relative to competitors. This results in the agricultural product being purchased in preference to others in the market.

As competitors are always working to gain an edge in the market, maintaining or improving competitiveness requires constant productivity improvements and innovation. At the same time, continuing productivity and profitability depends on good risk management and sustainable farming practices. While the concept of competitiveness is relatively simple, the range of factors influencing competitiveness (such as interest rates, skilled workforce or quality of physical inputs) are large and complex.

# Competitiveness of Tasmanian Agriculture

Changes in the national and global economy, availability of natural resources, market and consumer preferences, the adoption of technology, labour and skills, and the investment environment are all factors that influence the competitiveness of Tasmanian agriculture at every level from the individual farmer to consumer across the entire sector.

#### **Economic Influences**

A significant proportion of Tasmania's agricultural output is produced under contract and sold into commodity markets and so competitiveness is directly affected by global considerations such as trade policies and geopolitical factors. However, increasingly Tasmanian producers are creating extraordinary food and beverages and selling them into discerning markets where the quality of the state's products are recognised and valued and they therefore command a superior price.

For example, Tasmania's export-oriented industries are affected by exchange rates, with a weaker Australian Dollar increasing the competitiveness of Tasmanian exporters in global markets. The implementation of trade agreements with China and Japan have seen tariffs fall for Tasmanian beef exports in recent years, and through increased demand from the Middle East, high prices have been achieved for sheep meat.

Global trends such as the expansion of Asian economies are currently providing a source of demand for Tasmania's premium products such as dairy, beef and fruit. This trend is set to continue in future decades. To maintain our competitive advantage in global markets, it will be necessary for Tasmanian farmers and agribusinesses to manage risks associated with exposure to international markets and changes in global economic conditions.

#### Natural Resources

Tasmania's pure air, soil and water, relative freedom from pests and diseases and clean energy production provide the building blocks for the state's primary industries. Tasmania's agricultural estate was approximately 1.4 million hectares in 2017-18, representing around 20 per cent of the state's total land area and comprising 2,235 farms. In order to maximise competitiveness in this relatively small geographical area, it will be necessary to grow both the output and value of agricultural production. Sustainable intensification will be an important component of growth, particularly in managing limited natural resources and responding to an increasingly variable climate<sup>iii</sup>.

A key strategy that encompasses both sustainable intensification and responding to climate variation involves investment in irrigation infrastructure. Commencing with the opening of the Greater Meander Valley Irrigation Scheme in 2008, fifteen new irrigation schemes have been established since 2006-07 with a sixteenth scheme due to become operational in 2020. Availability of water has allowed agri-food businesses to invest with certainty in the production of higher value crops and in protected cropping systems. In 2017-18 while only 8 per cent of land used primarily for agricultural production is irrigated it produced 52 per cent of the gross value of Tasmania's agriculture.

The need to intensify food production must be balanced with increasing urban and residential development, community preferences and environmental concernsiv.

#### Market and Consumer Preferences

The expectations of markets and consumers are constantly evolving, with changing dietary preferences, greater demands for safe, nutritious, and ethical food, and increased appreciation of food provenance. Increased discretionary income in emerging economies is enabling consumers in international markets to be more discriminating in their food choices.

Tasmania has the opportunity to capitalise on these changing preferences through its recognisable brand based on a reputation for premium, clean, green, and safe products. As a relatively small agricultural producer, the state has been able to compete in national and international markets by producing high-quality, niche and premium food and beverage products. An important part of improving the competitiveness of Tasmania's agriculture will be continuing to build on this reputation, and in identifying further opportunities to value-add locally. Brand Tasmania is the custodian of the Tasmania master brand and promotes the uniqueness of the state, its products and its culture.

Policy settings that have helped underpin the Tasmanian Brand include strengthening organic food production, ensuring the safety of Tasmanian food and water supplies, maintaining the ban on the use of hormone growth promotants in beef and a moratorium on the release of Genetically Modified Organisms (GMOs) in Tasmania since 2001<sup>vii</sup>.

# Adoption of Technology

Technology has provided a means of increasing agricultural productivity throughout history, and readiness to adopt new technologies in areas such as robotics, precision farming, automation, data analytics and gene technologies will impact strongly on the competitiveness of Tasmanian agriculture<sup>viii</sup>.

For example, the use of sensor technology has many applications in agriculture. Sense-T, a partnership program between the University of Tasmania (UTAS), the Tasmanian and Australian Governments and CSIRO, has led to a range of projects in this area including apps to assess weather and disease threats in vineyards, identification of improvements in potato storage, predictions of pasture growth, and sensors to inform irrigation decisions.

Analysis of large soil and climate datasets, combined with mapping technology, has seen the development of Enterprise Suitability Mapping tools that help producers to make decisions, manage resources, and ultimately to be more resilient.

Breeding programs that use scientific techniques to identify and select for genes responsible for important agricultural traits have the potential to deliver benefits to the local environment and enhance agricultural competitiveness. For example, the Tasmanian Institute of Agriculture (TIA) is currently focussing on developing waterlogging tolerance in barley for commercial varieties with the use of marker assisted selection (MAS).

#### Labour and Skills

At the time of the most recent ABS census in 2016, there were 7,847 people employed in Tasmanian agriculture, representing around 3 per cent of the Tasmanian workforce. Major areas of employment included sheep, beef cattle, grain and dairy cattle farming. Expansion of irrigation schemes and the development of intensive horticultural enterprises have seen rapid increases in the number of people employed in fruit production.

Securing labour is a significant challenge to the competitiveness of the sector. The projected employment outlook for the period to May 2023 indicated slow growth for the state suggesting that challenges in attracting people to regional areas for work will continue. This is likely to have the greatest impact on industries such as fruit production which are particularly dependent on seasonal workers.

The skill profile required for agricultural work is changing throughout Australia. An increased focus on technology has resulted in fewer people employed in routine manual jobs\*, but also has the potential to attract interest and participation from non-traditional entrants to agriculture.

Investing in agricultural education is a key part of ensuring that the workforce is equipped with the necessary skills to obtain employment in the sector. Agricultural education is a compulsory part of the school curriculum only in Tasmania and New South Wales. The Tasmanian Agricultural Education Framework takes a coordinated partnership approach to underpin agricultural education programs, from pre-school to Year 12 and pathways into undergraduate and post-graduate studies through the TAFE and TIA.

#### The Investment Environment

To ensure that Tasmanian agriculture continues to grow sustainably and remains competitive, investment from both private and public sources is essential.

There has been strong private investment from both domestic and international sources in Tasmanian agricultural industries that offer strong financial returns or supply stability. For example, the Tasmanian wine industry represents only a small portion of the Australian production by volume, but the level of investment is well above the Australian average in percentage terms<sup>xi</sup>. Investment is also strong in the dairy industry, with climate change forecasts pointing to a long term and profitable future for both Tasmanian dairy farms and the Tasmanian agricultural sector more generally<sup>xii</sup> provided businesses continue to adapt.

Private debt is an important source of funds particularly for family-owned farms. While the Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry has created a more conservative rural lending environment, Tasmanian farmers remain confident with strong ongoing investment, particularly in irrigation infrastructure.

In terms of public funding, Tasmania is home to a diverse and substantial science research sector, which attracts around \$500 million in investment annually The Government has invested significantly in TIA as the Government's preferred supplier of publicly funded agricultural research, development and extension (RD&E) services. This funding includes \$3 million towards the establishment of an Agricultural Innovation Fund for specified industry-aligned priority research programs. This fund allows the Government to invest strategically in innovative RD&E projects that capitalise on opportunities, and respond to immediate threats.

The AgriGrowth Loan Scheme has been established as a means of investing public funds into agri-food businesses with a strong business case but low equity.

# White Paper Focus Areas

The Tasmanian Government's long term vision is of thriving regions with all Tasmanians benefitting from a strong economy. To achieve this, the Government has a broad range of priorities that are focussed on maintaining the momentum for growth that will drive the state's agricultural competitiveness.

Building blocks include Tasmania's first 30 year Infrastructure Strategy which explores the infrastructure needs for the future. Investment across intergenerational projects such as irrigation development, and transport and freight infrastructure are highlighted. The vision to be the nation's renewable energy powerhouse is underpinned by a policy which is focused on delivering Tasmanian businesses and households with the lowest regulated electricity prices in the nation, and a target to reach 100 per cent self-sufficiency in renewable energy by 2022.

In the Sustainable Agri-Food Plan 2019-23, the Tasmanian Government has set out a detailed strategy for helping achieve the AgriVision 2050 goal of increasing the value of the Tasmanian agricultural sector to \$10 billion per year by 2050. The Agri-Food Plan lists over 70 initiatives designed to provide practical support to Tasmanian farmers and agri-food businesses. The Growing Tasmanian Agriculture Research, Development and Extension for 2050 White Paper outlines investment in sustainable growth and productivity of Tasmanian agriculture and food sectors.

A range of other state government strategies and plans contribute to the competitiveness of Tasmanian agriculture, and have been considered in the context of this Discussion Paper. In addition, government delivers initiatives hand in hand with industry that create an environment for agricultural success. Appendix 1 details some of this assistance.

Six focus areas have been consistently raised during the consultation process to date. These are detailed below. Each focus area includes questions which could be considered in making your submission to this Discussion Paper:

## 1: Innovating for the Future

Innovation is a crucial aspect of agricultural competitiveness. This area captures a range of themes including taking advantage of technology across the value chain; finding creative solutions to problems; value adding; and promoting the development of innovative technologies, processes, systems and practices.

Investment in TIA's industry focused research, development and extension; Crown and TIA farm assets; support of precision agriculture; and the Agriculture Innovation Fund support the agricultural innovation system in Tasmania. For future competitiveness collaboration across industries and sectors; co-innovation; and rapid adoption of new technologies will be critical.

- i. What are the innovation barriers or opportunities to be further pursued in your industry or agriculture more broadly?
- ii. Are there Tasmanian Government policies that would promote greater innovation or uptake of technology in agriculture?

#### 2: Smarter Regulation

Regulation is necessary, but may impose avoidable costs on business. Small businesses, which make up a significant proportion of the Tasmanian agri-food sector, can be disproportionally impacted by regulation. Through the Red Tape Reduction Coordinator and Small Business Advocate the government has identified and implemented a range of legislative and policy reforms to improve competitiveness. It is important that Tasmania's regulatory system remains contemporary, is streamlined and able to respond to emerging issues, and is open to alternative regulatory approaches where appropriate. Industry has raised regulation matters under the control of the Australian Government or statutory bodies such as employment awards and taxation. These issues are being raised up through the Deregulation Taskforce and Agriculture Deregulation Working Group.

- i. What types of service improvements and management solutions can be considered to maximise value from our infrastructure and natural resources?
- ii. What new tools could be used to enable an adaptive and outcome-based approach to regulation?
- iii. What further opportunities do you see for red tape reduction, streamlining or harmonisation for your industry or agriculture more broadly?

## 3: Investing in People

Human capital is an important factor governing competitiveness in the agricultural sector. As farming and agribusiness becomes increasingly sophisticated, rural workers will need to adapt to new ways of doing business. A strong Tasmanian Agricultural Education Framework already exists ensuring links between schools, primary producers, industry and community to support student agricultural education. TAFE and TIA provide pathways into agricultural careers. However, increasingly opportunities for personally tailored learning and the development of new skills to meet the needs of a rapidly changing agricultural sector will be required. Succession planning, grower recruitment and workforce issues will need to be addressed.

- i. What other ways can Government support industry to help workers undertake ongoing training and skill development in response to technological advancements and innovation?
- ii. What else can the Tasmanian Government do to deliver skills for a modern and evolving agricultural sector?

#### 4: Managing Risk

Farmers are exposed to a wide range of risks. Some risks, such as variations in production, prices, disease and weather, are unavoidable and can be directly managed as part of a normal business strategy. However, extreme or infrequent events that impact farmers over a wide area may be beyond the capacity of farmers or markets to cope.

Helping sectors develop strategies to manage risk in a changing climate will be a key priority of government with the recent announcement of the first Tasmanian Liberal Minister for Climate Change.

Ongoing competitiveness will require access to more accurate agronomic insights, forecasting and risk assessment, together with tools that add value to farming operations in the form of greater operational efficiency and financial sustainability.

- i. What are the prospects and major risks you are concerned about in your industry or the agri-food sector? What aspects should be a focus for Government?
- ii. What are the additional policy directions for the Tasmanian Government that would support preparedness, management, resilience and adaptation to risk?

## 5: Harnessing Natural Capital

Tasmania's clean air, soil, water and energy are the foundation of a productive agricultural sector. In order to grow the value of agriculture, an ongoing transition towards land use for high value outcomes without putting unsustainable strain on natural resources, will need to occur. This will involve not only improving the efficiency with which inputs are turned into outputs, but also the conservation of scarce natural resources and reduction of waste<sup>xiv</sup>. Government continues to respond to infrastructure needs to harness natural capital, while also facilitating private sector investment.

- i. What additional steps can be taken by Government to take advantage of the opportunities provided by the state's unique natural qualities that you or your industry are progressing?
- ii. What other Tasmanian Government policies could be developed that would underpin the sustainable use of our natural resources to promote competitiveness in agriculture?

# 6: Capitalising on our Brand

What the state's agriculture sector lacks in terms of scale and cost to get products to market it makes up for by providing differentiated premium quality produce into markets that value the brand attributes associated with Tasmania. Tasmania is known for its wild places, extraordinary people, clean air, premium produce, and as a tourism destination. Brand Tasmania is the custodian of the Tasmania master brand and promotes the uniqueness of the state, its culture, and its products. Ongoing competitiveness will require businesses to continue to provide high-quality high-value products in globally competitive markets which value what we have to offer.

- i. Do you, or do you plan to employ strategies to capitalise on the Tasmanian Brand in domestic and international markets? Please provide examples.
- ii. What additional Tasmanian Government policies would support growth in high value markets and trade for Tasmanian agricultural and food products?

# White Paper Emerging Priorities

On analysis of the Focus Areas above, three additional overlapping priorities emerged. These are detailed below. Each Emerging Priority includes questions which could be considered in making your submission to this Discussion Paper:

## 1: Circular Economy

Circular economies do not use a traditional linear model of "take" (resources), "make" (products), and "dispose" (waste). Instead they aim to maximise the value and the use of materials and resources at every stage of the life of a product or material. Closing agri-food resource loops to move towards zero waste and improve profitability and sustainability is an emerging priority for Tasmania. There is a growing body of evidence that moving to a circular economy by reducing waste and increasing its use as a resource is likely to lead to increased innovation and a more creative, robust and productive economy. Also known as bioeconomy, emerging uses of surplus food resources include inventive goods such as production of vodka from potato offcuts and fermented food from vegetable waste. Waste raw materials can be incorporated into industrial processes for energy security and to help address climate change.

- i. How do you think Tasmania could lead the way in building a circular economy?
- ii. Are you aware of examples of good practice which you can share?

## 2: Digital Transformation

Integrating digital technology across the agri-food supply chain will help agri-food businesses to thrive in a technology-enabled world. Agri-tech developments such as sensing technologies, robotics, big data, the Internet of Things and cloud computing can rapidly increase farm productivity and improve efficiency and profitability across the value chain. Tasmania's *Digital Transformation Strategy* identifies a number of major actions for our digital future as the community, businesses and government take critical steps towards digital maturity.

- i. Can you provide examples of global technologies and business models that have had positive impacts on agriculture?
- ii. How could industry foster and government promote accelerated adoption of technologies in Tasmania?
- iii. What projects have you identified that could create opportunities to increase scale and reduce input costs?

## 3: Agricultural Innovation at the Core

Generating ideas to solve problems and capture value requires connections, creation and capability. Agricultural Innovation at the Core captures this concept of co-innovation and collaboration across industries and sectors and the coming together of virtual or physical hubs of agri-food excellence.

i. How can we translate marketing, cultural and production learnings from other successful sectors to agriculture, and across industries and the value chain?

A summary of the focus areas and emerging priorities is detailed in Figure 2.

#### Linking with Other **Strategies** and Plans including:

Tasmania's Sustainable Agri-Food Plan 2019-23

**Growing Tasmanian** Agriculture Research, Development and Extension for 2050 White Paper

Tasmanian Trade Strategy 2019-2025 and Food and Agribusiness Annual Action Plan 2019-20

Strategic Growth Plan for the Tasmanian Forests, Fine Timber and Wood Fibre Industry

Tasmanian Agricultural Education Framework

**Red Tape Reduction** Audit Report

Our Infrastructure Future – 30 year Infrastructure Strategy

Climate Action 21: Tasmania's Climate Change Action Plan

Tasmanian Energy Strategy

Waste Action Plan

Tasmanian **Biosecurity Strategy** 

Bee Industry **Futures Report** 

**Tasmanian** Integrated Freight Strategy

**Business Growth** Strategy 2019-2023

Brand Tasmania's Strategic Plan 2019-2024

Digital Transformation Strategy

# Competitiveness of Tasmanian Agriculture for 2050











#### **AGRIVISION 2050**

Increasing the annual farm gate value of agriculture to \$10 billion by 2050

#### **OUR FOCUS**

future





Investing in People



**Managing** Harnessing Risk Natural Capital



**Capitalising** on our **Brand** 

#### **EMERGING PRIORITIES**

#### Circular **Economy**

Closing agri-food resource loops for profit and sustainability.

Towards zero waste.

#### Digital **Transformation**

Integrating digital technology across the agri-food supply chain. **Agrifood businesses** thriving in a technologyenabled world.

#### Agricultural Innovation at the Core

Generating ideas to solve problems and capture value. Connection, creation and capability.

#### **BENEFITS**

**Economic Growth** 

Community Value

Sustainability

# How to Have Your Say

#### Terms of Reference

The questions relating to each of the focus areas and emerging priorities form the Terms of Reference for submissions to this Discussion Paper. The questions are provided in the boxes below:

#### Focus Areas

#### Innovating for the Future

- What are the innovation barriers or opportunities to be further pursued in your industry or agriculture more broadly?
- Are there Tasmanian Government policies that would promote greater innovation or uptake of technology in agriculture?

#### **Smarter Regulation**

- What types of service improvements and management solutions can be considered to maximise value from our infrastructure and natural resources?
- · What new tools could be used to enable an adaptive and outcome-based approach to regulation?
- What further opportunities do you see for red tape reduction, streamlining or harmonisation for your industry or agriculture more broadly?

#### Investing in People

- What other ways can Government support industry to help workers undertake ongoing training and skill development in response to technological advancements and innovation?
- What else can the Tasmanian Government do to deliver skills for a modern and evolving agricultural sector?

#### Managing Risk

- What are the prospects and major risks you are concerned about in your industry or the agri-food sector? What aspects should be a focus for Government?
- What are the additional policy directions for the Tasmanian Government that would support preparedness, management, resilience and adaptation to risk?

#### Harnessing Natural Capital

- What additional steps can be taken by Government to take advantage of the opportunities provided by the state's unique natural qualities that you or your industry are progressing?
- What other Tasmanian Government policies could be developed that would underpin the sustainable use of our natural resources to promote competitiveness in agriculture?

#### Capitalising on our Brand

- Do you, or do you plan to employ strategies to capitalise on the Tasmanian Brand in domestic and international markets? Please provide examples.
- What additional Tasmanian Government policies would support growth in high value markets and trade for Tasmanian agricultural and food products?

#### **Emerging Priorities**

#### Circular Economy

- How do you think Tasmania could lead the way in building a circular economy?
- Are you aware of examples of good practice which you can share?

#### **Digital Transformation**

- Can you provide examples of global technologies and business models that have had positive impacts on agriculture?
- How could industry foster and government promote accelerated adoption of technologies in Tasmania?
- · What projects have you identified that could create opportunities to increase scale and reduce input costs?

#### Agricultural Innovation at the Core

 How can we translate marketing, cultural and production learnings from other successful sectors to agriculture, and across industries and the value chain?

#### How to Make a Submission

All submissions on the Competitiveness of Tasmanian Agriculture for 2050 Discussion Paper must be received by 24 February 2020.

Submissions can be completed by either:

Taking the online survey available at https://www.surveymonkey.com/r/Competitiveness2050

Or

By preparing a written submission and forwarding it to:

The Project Team: Competitiveness of Tasmanian Agriculture for 2050

DPIPWE, GPO Box 44 HOBART TAS 7001

Email: agrigrowth@dpipwe.tas.gov.au

Other than indicated below, submissions will be treated as public information and may be published in part or in full on our website.

No personal information other than an individual's name or the organisation making a submission will be published.

For further information, please contact: agrigrowth@dpipwe.tas.gov.au.

# Accessibility of Submissions

The government recognises that not all individuals or groups are equally placed to access and understand information. We are therefore committed to ensuring government information is accessible and easily understood by people with diverse communication needs.

Where possible, please consider typing your submission in plain English and providing it in a format such as Microsoft Word or equivalent.

The government cannot however take responsibility for the accessibility of documents provided by third parties.

#### Important Information to Note

Your name (or the name of the organisation) may be published unless you request otherwise.

In the absence of a clear indication that a submission is intended to be treated as confidential (or parts of the submission), the Department will treat the submission as public.

If you would like your submission treated as confidential, whether in whole or in part, please indicate this at the time of making your submission clearly identifying the parts of your submission you want to remain confidential. In this case, your submission will not be published to the extent of that request.

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## The Right to Information Act 2009 and Confidentiality

Information provided to the government may be provided to an applicant under the provisions of the *Right to Information Act 2009* (RTI). If you have indicated that you wish all or part of your submission to be treated as confidential, your statement detailing the reasons may be taken into account in determining whether or not to release the information in the event of an RTI application for assessed disclosure. You may also be contacted to provide any further comment.



# **Appendices**

# Appendix I - Tasmanian Government Initiatives

The table below contains a list of a number of the specific initiatives undertaken or commenced during the  $49^{th}$  Parliament.

Initiative	Description
Innovating for the Future	
Grow More, Milk More, Make More Dairy Industry Development	<ul> <li>\$900,000 between 2018-19 and 2021-22 for a dairy extension program with:</li> <li>\$300,000 over three years to DairyTas for targeted education and extension for dairy farmers.</li> <li>Remainder to be assigned for productivity gains in consultation with industry.</li> </ul>
Red Meat Industry Development	\$1 million between 2018-19 and 2021-22 to work with farmers and processors to increase trade, marketing, value and sales of Tasmanian red meat:  • Feasibility of Establishing Further Meat Processing Capacity in Tasmania report released.  • Tasmanian Meat Industry Working Group recommendations for a viable red meat industry.  • Red Meat Industry Development Officer role to deliver the industry's Strategy Plan.  Remainder to be invested in consultation with industry.
Wine Industry Development	\$600,000 between 2018-19 and 2021-22 for a wine market development and tourism initiative to help drive the value and global reputation of Tasmanian wine and associated visitation to Tasmania in partnership with Wine Tasmania.
Fruit and Vegetable Industry Development	\$550,000 between 2018-19 and 2021-22 for a horticulture market and trade development initiative in partnership with Fruit Growers Tasmania to support the fruit and vegetable industry grow market and export opportunities linked to the Tasmanian Trade Strategy. Activities include:  • China trade and investment mission.  • Japan FOODEX and Ausveg mission.
Bee Industry Futures	\$750,000 between 2018-19 and 2020-21 to work closely with beekeepers and crop pollinators to implement Bee Industry Futures focusing on resource access, biosecurity, hive productivity and crop pollination resilience. Initiatives include:  • \$500,000 for selected infrastructure upgrades to improve floral resource access.  • \$40,000 to fund scientific research into medicinal and other qualities of leatherwood honey for market and trade benefits.  • \$150,000 Bee Industry Emergency Winter Colony Management Scheme to assist the bee industry manage their colonies following bushfires and challenging seasonal conditions.
Infrastructure Tasmania	Our Infrastructure Future 30-Year Infrastructure Strategy.
Negotiated expansion of the Tasmanian Freight Equalisation Scheme	Expanded the previous scheme's coverage by \$50 million annually with the support of the Australian Government.

Initiative	Description		
Ships Replacement Cabinet Sub- Committee	Planning the replacement of the Spirits with new, larger vessels by 2022-23.		
Burnie Port Optimisation	\$12 million has been committed to improve the productivity of the state's largest general cargo port - funded in conjunction with the Commonwealth and the private sector.		
Tasmanian Freight Rail Revitalisation	\$119.6 million has been committed in a joint Federal/State project to upgrade track infrastructure.		
Two new AgriGrowth Liaison Officers	\$860,000 between 2018-19 and 2021-22 for two permanent AgriGrowth Liaison Officers based in the North, combined with a new primary producer's helpline, to provide easier access and a single contact point for those primary producers who need to conduct business with DPIPWE.		
Stock Underpass Program Extension	To continue the Stock Underpass Program over four years to 2022 to offset the costs associated with stock underpass infrastructure, improving farm and road safety and increase farm efficiency.		
Truck and Machine Wash-down Stations	\$2 million between 2018-19 and 2021-22 for truck and machinery wash-down stations partnering with farmers, agribusiness and local government.		
Tasmanian Institute of Agriculture (TIA) and Agricultural Innovation Fund	Funding of \$28 million to Tasmanian Institute of Agriculture (TIA) between 2018-19 and 2022-23, including \$3 million Agricultural Innovation Fund for specific industry-aligned priority research projects.		
Upgrade of Research Farm Assets	\$7 million to modernise our Crown and TIA research farm assets to make our research farms the centre of excellence for practical research and demonstration.		
Smarter Regulation			
Red Tape Reduction Unit	The Red Tape Reduction Coordinator works to change regulations and help individual businesses to navigate complex red tape issues.		
On-line Portal	For business and wider community to submit details regarding red tape problems directly to the Regulation Reduction Coordinator.		
GMO Moratorium Review	Tasmania's Genetically Modified Organisms Moratorium was extended for ten years following a review in 2019.		
Irrigation Tariff Review	Review into the current structure of irrigation electricity tariffs is underway to ensure they are more suitable to modern irrigation enterprises, while offering a competitive advantage to Tasmanians.		
Investing in People			
AgriGrowth Loan Scheme	Low interest loans to support industry sectors and young farmers.		
Strategic Industry Partnership Program	\$1.2 million over four years has been committed to co-invest with industry peak bodies and organisations in supporting growth and prosperity in our agri-food sector.		
Crop and Pasture Seed Industry Plan	A Plan to develop in consultation with farmers and agribusiness to grow Tasmania's place in this potentially high-value market.		
Trade, Investment and Small Business support	Continued support for primary industries through Department of State Growth's trade and investment and small business support programs including trade missions and Brand Tasmania.		
Office of Coordinator General	The primary point of access for investors and is responsible for attracting and securing investment in major development projects.		

Initiative	Description			
Wool industry – Shearer-hand training	\$310,000 has been committed over three years to Primary Employers Tasmania to deliver training.			
Safe Farming Tasmania	In the 2017-18 State Budget \$600,000 was committed for a further four years of the Safe Farming Program to provide ongoing support to improve on farm safety through a full-time On-Farm Safety Facilitator.			
Supporting a skilled workforce	Through an investment in Skills for Growth, the Tasmanian Government is invigorating the Tasmanian training and workforce development system by engaging strategically with industry to deliver real skills for Tasmanian workplaces.			
Primary School to Primary Industries – supporting curriculum, higher education and program delivery to promote careers in primary industries	The Tasmanian Agricultural Education Framework is building the capacity of departmental school staff to develop and promote sustainable agricultural education experiences and opportunities linked to the Australian curriculum, and lead and coordinate the development of contemporary learning materials and resources and professional learning to support the Primary Schools to Primary Industries initiative.			
Tasmanian Agricultural Education Network	\$15,000 was provided to the Network to host the National Association of Agricultural Educators National Conference in Launceston in January 2018.			
Capacity building for rural women	Tasmanian Women in Agriculture has implemented projects to increase leadership capacity, including connecting mainland Tasmanian rural women with women living on King and Flinders Islands.			
Rural Alive and Well	A further \$1.46 million was committed over 2019-20 to enable Rural Alive and Well to continue its mental health outreach services in rural communities. In November 2019, \$80,000 was provided for drought support.			
Pastures and livestock productivity	Investing \$648,000 in working with farmers on practical strategies to improve pasture and livestock productivity to underpin grazing and meat processing sectors.			
Supporting Landcare Tasmania	\$960,000 over four years to 2022 to the Landcare Tasmania to support grass roots Landcare groups.			
Centre of Excellence	\$5 million to build a contemporary learning facility for agriculture students centred around Burnie's Freer Farm, the Centre of Excellence will include TasTAFE course delivery plus partnerships with Agritas and the University of Tasmania.			
Rural Cadetship Project	\$200,000 from 2019-22 to create a link between the current formal school learning packages and practical learning through apprenticeships/traineeships with primary producers in Tasmania. In collaboration with agricultural and educational stakeholders, Rural Business Tasmania will develop and deliver a Pilot Cadetship Program that will guide and mentor young Tasmanians in the Agribusiness sector and deliver training to farmers to better support workers.			
Agricultural Workforce Development Project for the North West	\$450,000 to assist development of the workforce in the North West of Tasmania. Stage I will see a Workforce Plan developed for the region based on the successful Northern Midlands pilot in 2018. Stage 2 will see funding directed to actions arising from the Plan and involve working with key agricultural sector stakeholders including TFGA, Dutch Mill Dairy, University of Tasmania (Including Tasmanian Institute of Agriculture), Primary Employers Tasmania, TasTAFE, AgriTas and the Department of Education.			

Initiative	Description			
Blundstone Scholarship to support agricultural education and jobs	Providing \$60,000 per year for a further six years for students completing a Diploma in Agribusiness. The program will now apply to students commencing their studies up to 2024.			
Crawford Fund – extension of support funding	A contribution to the fund of \$20,000 per annum until 2021-2022. The F supports projects raising public awareness of the benefits to developing countries and Australia of international research and development in agriculture, forestry and fisheries.			
Managing Risk				
Biosecurity Frontline Services	In 2017 \$632,000 was committed over four years to increase the capacity of seasonal Biosecurity Frontline Services to respond to demand during peak times of activity.			
Livestock Officers	In the 2017-18 budget \$235,000 per annum was committed to support new Livestock Officers within DPIPWE for production animals.			
Support for RSPCA Inspectorate	Increased funding, to \$550,000 per annum, for the RSPCA Animal Welfare Inspectorate to focus on the welfare of domestic animals.			
Tasmanian Cat Management Plan	Released in June 2017, the Tasmanian Cat Management Plan 2017-2022 presents the first comprehensive and collaborative approach to managing cats in Tasmania. State Government funding of \$1.44 million is supporting implementation of the Plan in partnership with Local Government.			
Improved management of weeds, pests and vertebrate invasive species	\$2 million over four years was committed in the 2018-19 budget to continue to improve the management of weeds, vertebrate pests and invasive species and other risks to animal and plant industries.			
Industry biosecurity initiatives	\$510,000 between 2018-19 and 2021-22 to plan for and manage post-border biosecurity risks and to support on-farm biosecurity hygiene strategies.  • \$310,000 between 2018-19 and 2021-22 to the Tasmanian Farmers and Graziers Association for an On-Farm Biosecurity Tasmania Engagement Project.  • \$500,000 between 2018-19 and 2021-22 to a Fruit Growers Tasmania biosecurity project.			
Additional biosecurity officers for King Island and Flinders Island	, , , ,			
Modernise Tasmania's biosecurity legislation	The Tasmanian Biosecurity Act 2019 passed both houses in 2019.			
Securing our Borders	From 2018-19, revenue obtained from partial cost recovery of Plant Quarantine Inspection fees will be used to fund more field staff doing border inspections during the high risk season; an online traceability and verification system; increased capability of agricultural sectors for emergency preparedness; and increased level of biosecurity education of tourists.			

Initiative	Description		
Harnessing our Natural Cap	pital		
Energy Rebate Fund	The rebate aims to protect medium to large electricity consumers to lir future price shocks due market volatility outside the state's control.		
Battery of the Nation	Potential pumped hydro energy storage projects to take Tasmania to the goal of achieving 100 percent self-sufficient renewable generation by 202		
Building the Case for a Second Interconnector for Bass Strait	The Australian Renewable Energy Agency and TasNetworks are developing a detailed feasibility and business cases assessment for a second interconnector across Bass Strait to expand the amount of electricity sold into the interstate grid and to ensure supply to Tasmania.		
Tasmanian Renewable Hydrogen Action Plan	An action plan has been developed with the intension that Tasmania will use our existing and expanding renewable energy and water resources to become a leader in large scale renewable hydrogen production. By 2030 it is proposed that Tasmanian will be a significant global supplier of renewable hydrogen for export and domestic use.		
Farm Energy Advocate	Advocate service available through Aurora Energy to work directly with farmers to help them manage energy supply options and usage costs.		
Water for Profit Program	\$1.5 million was delivered to ensure farmers were equipped with skills and information to maximise their investment. The program completes in March 2020.		
Pipeline to Prosperity -Tranche 3 irrigation development to deliver an additional 50,000 megalitres	Invest an additional \$70 million of state funds and an additional \$100 million Australian government funds towards a third tranche of Tasmanian Irrigation schemes continuing our successful partnership with farmers and the Commonwealth.		
Tranche Two Irrigation Schemes	\$50 million contribution for the development of five schemes,		
Changes to the dam works approval process	Simplified and streamlined process to support on-farm storage construction.		
Tasmanian Rural Water Use Strategy	Work with farmers, irrigators, rural communities and other stakeholders to develop a Rural Water Use Strategy. The strategy will set the direction for legislative and policy reform in the rural water sector for the next few decades.		
Tasmanian Irrigation Renewable Energy Program	A \$5.5 million, three year program for Tasmanian Irrigation to work with irrigators to construct mini and micro hydro-electric systems as part of the irrigation system network.		
Landcare Action Grants Program	\$2 million Landcare Action Grants Program over four years to 2022 to co-invest with farmers, Landcare, and other community organisations on practical on-ground works for sustainable agriculture and rivercare.		
Game Management	Modernise the management of game and browsing animals through the new independent Tasmanian Game Council supported by Game Services Tasmania in DPIPWE with a primary industries focus to support landhold farmers and hunters to sustainably manage issues relating to game and browsing animals.		
Supporting Natural Resource Management (NRM)	Increase funding for Natural Resource Management (NRM) to \$4.2 million over four years to 2022 years to enable NRM North, NRM South and Cradle Coast NRM to coordinate community involvement in landcare programs.		

Initiative	Description		
Weed Action Fund	\$5 million over five years to 2023 into a new Weed Action Fund which will invest with farmers, landcare and other community organisations to tackle weeds that are impacting on valuable agricultural or environmental assets.		
Tasmanian Weed Action Fund Chair	A new Tasmanian Weed Action Fund Chair appointed – a recognised community landcare leader – working in partnership with existing DPIPWE weeds and invasive species experts and stakeholders to identify the strategic on ground priorities across land tenures and coordinate the Weed Action Fund.		
Capitalising on our Brand			
Tasmanian Trade Strategy	Support agri-food businesses enter new markets including Australian mainland and key international markets such as China, Japan, Singapore, Malaysia and the United States.		
Brand Tasmania	Brand Tasmania statutory authority created. Brand Tasmania's Strategic Plan 2019-2024 released.		
Moratorium on Fracking	In 2018 extended for another term a moratorium on fracking, protecting our valuable farmland, premium agri-food brand and markets.		
Regional Tourism Attraction Loan Scheme	\$20 million Regional Tourism Attraction Loan Scheme with a focus on supporting agribusiness investment in vineyards, cellar doors, distilleries and breweries.		
Accelerating Trade Grant Program	Support businesses strengthen trade with international and mainland markets, through assistance for market research, business matching, cluster support, supply chain improvement and promotional activities.		
AgriTourism Strategy	Grow Tasmania's agri-tourism sector and on-farm experiences as part of ou visitor experience.		

# Appendix 2 - What Tasmania's Agricultural Industry has Said

DPIPWE and Treasury have undertaken a comprehensive process with industry, TIA and government to date. Flowing on from these discussions there is understandable expectation that the matters explored will be farreaching and dynamic. DPIPWE has completed a desktop analysis to further evaluate factors that may impact the sector in the future, examined policy responses, and considered work undertaken locally and in other jurisdictions on productivity and competitiveness including the Australian Government's 2015 Agricultural Competitiveness White Paper<sup>2</sup> and the 2016 Regulation of Australian Agriculture Productivity Commission Inquiry Report<sup>3</sup>. DPIPWE also considered the survey results from the TIA TasAgFuture project<sup>4</sup>, and the findings from the International Farm Management Association Congress held in Tasmania in 2019<sup>5</sup>.

During the preparation of the Discussion Paper, industry identified a range of factors influencing farm productivity and competitiveness. Many of these (such as creating a positive image for the industry, and on-farm safety) are within the control of farm businesses, but others (such as prices of inputs, managing climate extremes or the regulatory environment) may not be.

Some areas, such as skills and training and freight infrastructure, are supported by Government policies or processes (such as coordination between levels of government) which have been established to assist industry. Where industry raised issues that are largely under the control of the Australian Government or statutory bodies, such as employee award rates and taxation, the Tasmanian Government will refer these up through avenues such as the Agricultural Ministers' Forum.

The White Paper (which is to follow) will build on the policies of the past and the ideas generated from you through consultation and the Discussion Paper process. Industry is best placed to make decisions that will ensure their ongoing business viability and competitiveness. However, government's role is to ensure the right policy environment to support industry. Not all ideas will be able to be taken forward in the White Paper however this work is driven by an overwhelming desire to ensure a sustainable and competitive Tasmanian agriculture sector for future generations.

The table below groups some of the issues identified by industry into areas where government can establish policies or processes to assist.

The Agricultural Competitiveness White Paper can be viewed at: https://agwhitepaper.agriculture.gov.au/sites/default/files/SiteCollectionDocuments/ag-competitiveness-white-paper.pdf

The Productivity Commission Inquirt Report can be viewed at: https://www.pc.gov.au/inquiries/completed/agriculture/report/agriculture.pdf

<sup>&</sup>lt;sup>4</sup> See https://www.utas.edu.au/tia/research/research-projects/projects/tas-ag-future for details

<sup>&</sup>lt;sup>5</sup> For details of this conference, visit http://www.ifma22.org

Competitive Sphere	Driver	Industry identified concern	Policy Concepts	Government Policy Categories
Ongoing pressures for structural change and adjustment	Changing economies and investment means that industry continue to adjust. Individual businesses move resources to their most highly valued uses when guided by market price signals.	Barriers to entry, desire to diversify, the levels of business and financial management skills required around investment decisions.	Encouraging investment into Tasmania for agritech.	Support for private and public research and innovation Diffusion of knowledge Education and training Support for private and public innovation
Ongoing need to focus on risk management	Agriculture will need to continue to adapt to a changing climate with more extreme events. There is an unprecedented demand for food and fibre due to burgeoning global population. There will be heightened expectations on environmental, health, employee and welfare considerations and these will continue to influence consumer purchase decisions.  Importance of Tasmanian brand.	Insurance, OH&S, biosecurity, training, adapting to a changing climate.	Prevent waste, encourage efficient use, reuse and repair of resources.  Better utilisation of onfarm and processor food loss streams  Realising strategic regional agricultural growth opportunities (such as protected cropping, processing capacity), or to encourage further diversification.  Enhancing ecosystems (such as enriching soils, increasing biodiversity).	Regulation and standards Support for private and public innovation Diffusion of knowledge
Improving productivity and competitiveness	Changing technologies and innovation have the potential to enhance competitiveness.  The changing workforce and changing core competencies (skills required) will continue to create pressure on labour and service availability.  Labour participation rates and new private investment have been weaker in recent years <sup>xv</sup> .	Energy cost, labour (right time, right place, right skills), cost-effective finance, attracting infrastructure, water infrastructure, investing and adopting new and emerging technology, export competiveness, reduce duplication, integrating opportunities across sectors.	Build on Primary Schools to Primary Industries initiative to attract, develop and retain new workers. Continue to build safe farming practices with focus on high incident areas to reduce risk. Energy made easier. Examine regulatory areas where identified opportunities emerge (for example agri-tech). Attracting capital.	Education and training system. Support for private and public research and innovation. Regulation and standards. Diffusion of knowledge.
Ensuring supply chain efficiency	Evolving global markets with Australian agricultural exports facing increasing competition as well as opportunities for new markets.	Freight capacity, access to new markets and emerging platforms, supporting the growth of industry through infrastructure.	Awareness of emerging digital route channels to market.  Capitalising on new market opportunities in premium niche markets.	Physical infrastructure. Diffusion of knowledge. Support for private innovation.

# References

- Tasmanian Chamber of Commerce and Industry. (2018). *Tasmania Report*, viewed 1 May 2019. http://www.tcci.com.au/Services/Policies-Research/Tasmania-Report/TCCI-Tasmania-Report-2018.aspx p.10
- Australian Government. (2014). Submission to the Agricultural Competitiveness Taskforce. Productivity Commission, viewed 13 November 2019. https://www.pc.gov.au/research/supporting/agricultural-competitiveness-taskforce/agricultural-competitiveness-submission.pdf
- KPMG. (2019). Growing agriculture into a \$100 billion industry, viewed 22 February 2019. https://assets.kpmg/content/dam/kpmg/au/pdf/2018/talking-2030-growing-australian-agriculture.pdf p.45
- iv Ibid, p.49
- v International Food Information Council Foundation. (2019). Five Food Trends to watch in 2019, viewed 7 March 2019. https://foodinsight.org/five-food-trends-to-watch-in-2019/
- vi KPMG. (2019). Growing agriculture into a \$100 billion industry, viewed 22 February 2019. https://assets.kpmg/content/dam/kpmg/au/pdf/2018/talking-2030-growing-australian-agriculture.pdf p.29
- Tasmanian Government. (2019) Review of Tasmania's Genetically Modified Organisms (GMO) Moratorium, viewed 24 January 2020. https://dpipwe.tas.gov.au/Documents/GMO%20Final%20Report.pdf
- International Farm Management Association. (2019). *IFMA22 Conference*, *Launceston*, *Tasmania*, viewed 7 March 2019. http://ifma22.org/2485, http://ifma22.org/2474 and http://ifma22.org/2482
- Australian Government. (2019). Employment Outlook to May 2023, viewed 18 April 2019. http://lmip.gov.au/default.aspx?LMIP/GainInsights/EmploymentProjections p.10
- Heath, A. (2016). The changing nature of the Australian workforce, CEDA Conference, Brisbane, Queensland, viewed
   18 April 2019. https://www.rba.gov.au/speeches/2016/sp-so-2016-09-21.html
- Wine Tasmania. (2018). *Tasmanian wine sector worth more than* \$115million annually, viewed 15 November 2019. http://winetasmania.com.au/resources/downloads/Release\_-\_Tasmanian\_wine\_sector\_economic\_impact\_ FINAL.pdf
- Antarctic Climate and Ecosystems CRC. (2010). Climate futures for Tasmania: Impacts on agriculture, viewed 24 Januray 2020.
  - http://www.dpac.tas.gov.au/\_\_data/assets/pdf\_file/0004/140197/CFT\_-\_Impacts\_on\_Ag\_Summary.pdf
- Tasmanian Government. (2018). Department of State Growth: science research, viewed 18 April 2019. https://www.stategrowth.tas.gov.au/business/sectors/science\_research
- KPMG. (2019). Growing agriculture into a \$100 billion industry, viewed 22 February 2019.
   https://assets.kpmg/content/dam/kpmg/au/pdf/2018/talking-2030-growing-australian-agriculture.pdf p.45
- Australian Government. (2017). Inquiry Report Number 84, shifting the dial: 5 year productivity review. Productivity Commission, viewed 24 January 2020.
   https://www.pc.gov.au/inquiries/completed/productivity-review/report/productivity-review.pdf p.34



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