

# Modernising the grain supply chain

- from Drought, through Covid-19 to 2030

An Innovative Growth & Investment Strategy for the Grain Supply Chain



GRAIN TRADE  
AUSTRALIA

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# 1. Innovative Growth & Investment Strategy for the Grain Supply Chain

Grain Trade Australia (GTA) and its member driven Technical Committees have developed an innovative growth and investment strategy for the Australian grain supply chain to take the industry from drought, through Covid-19 to 2030 and beyond. This strategy aims to:

- Support Australian supply chain initiatives to improve the competitiveness of the Australian Grain Industry;
- support GTA's Government Grant applications; and
- to provide context, structure and to outline the strategic value associated with the recent Government funding applications submitted by GTA.

needs, gaps and drive productivity and efficiency gains through the value chain, ultimately increasing the competitiveness of the Australian Grain Industry.

The 'strategy enabling projects focus on four key "Growth Pillars" - Skills and Capability, Quality and Market Access, Technology, and Transport and Logistics. These are foundation components of industry.

The 'strategy enabling projects' are aligned to key Australian Grain Industry and Government policy objectives and implementation programs. The 'strategy enabling projects are complimentary to the productivity strategies and initiatives currently being undertaken by industry and government to increase the farm gate value of Australia's grain.

The grain industry is one of Australia's largest agricultural industries. With over 70% of production exported (in a normal season), the export sector is a large earner of foreign income, while the domestic market is the largest consumptive home for Australian grain.

The 5-year average grain industry value (at the farm gate - excluding rice) is around \$A13.7 billion, with the 5-year average exports value (FOB) at \$A 10.8 billion. In 2018/19 Australian exporters shipped approximately 18.7 million metric tonnes (mmt) of grain<sup>1</sup>.

The grain industry, and its ancillary suppliers and service providers, are substantial employers in urban and regional areas from the farm gate through to end point consumption. The growth prospects for the industry are strong, given increased domestic demand and strong economic and demographic growth in the Asia, where wheat imports have doubled since 2000.

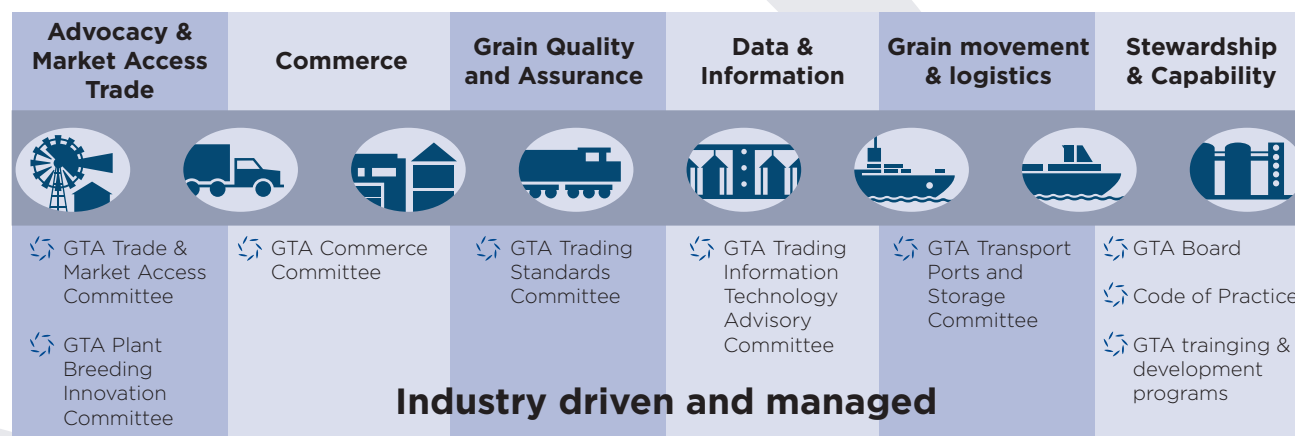
However, international competition into Australia's key markets in Asia is a significant threat.

The growing competitiveness of Black Sea and South American grain into these markets means that traditional advantages of Australian grain such as high quality and logistical advantages are now diminishing and further support this strategy.

Investment in industry is critical to remain competitive into the future and to capture the benefits and to deliver economic growth for Australia.

Australia must compete and enhance its grain supply chain and quality competitive advantages.

## Grain Supply Chain & GTA Committees



GTA's Technical Committees play a critical role in GTA's Member driven activities (see Section 7) and work to develop policy that draws in industry expertise for the broader benefit of industry and Members. Technical Committee Members represent all sectors of the supply chain including Seed Producers, Farmer Associations, technical consultants & service industries, BHCs, Industry Good agencies, and small and large marketing enterprises.

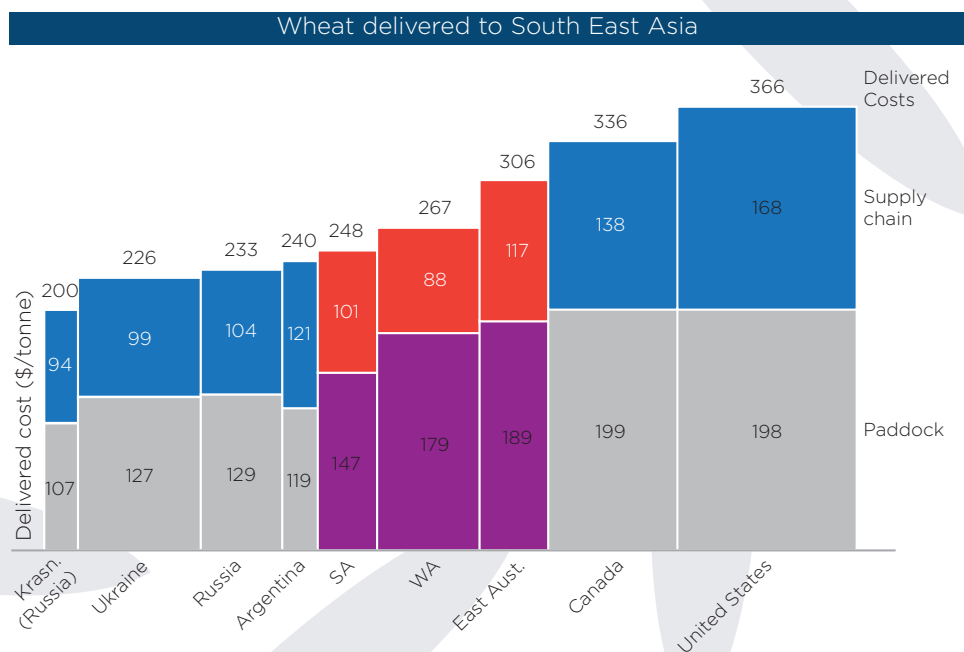
Within this context GTA proposes 13 industry driven 'strategy enabling projects' supported through current Government grant programs that will fulfil industry

<sup>1</sup> ABARES (March 2020)

## 2. The need for Supply Chain investment

The grain industry, recovering from one of the most severe droughts on record, is now managing through the COVID-19 pandemic. Both events have impacted all businesses in the grain value chain. Consequently, investment in the value chain will be critical, as industry and Government seek to rejuvenate and re-invest in material infrastructure and technology (systems and processes) in cash strapped businesses and government agencies in both the regions and major cities.

The alternative is to be left behind and not capture the opportunities that lie ahead for the Australian grain industry.



## 3. Joint Government Funding & Industry 'In Kind' Investment Partnerships are needed

A focus on four key “Strategic Growth Pillars” is required to develop and grow industry, through efficiency gains in the value chain. The Strategic Growth Pillars are:

### Growth Pillars

**A. Skills & Capability**

**B. Quality & Market Access**

**C. Technology**

**D. Transport & Logistics**

The strategy and the Government grant funding applications propose an investment of \$8.49m, supported by 'In Kind' industry contributions across 13 industry driven 'strategy enabling projects' with clear benefits to drive productivity and efficiency through the value chain to improve Australia's global competitiveness.

*Investment in industry is critical to remain competitive into the future and to capture the benefits and deliver Australia economic growth.*





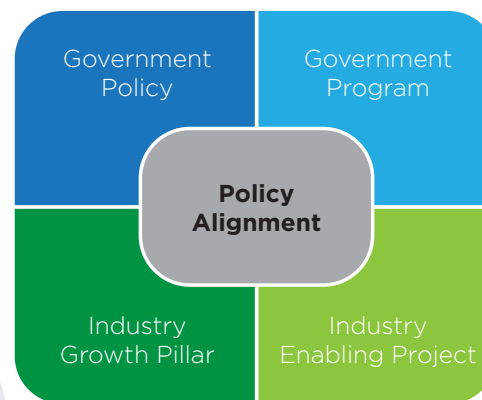
## 4. Government Policy Alignment

GTA recognises the importance of aligning wherever possible with Government's policy and its implementation programs to drive industry economic value and global competitiveness.

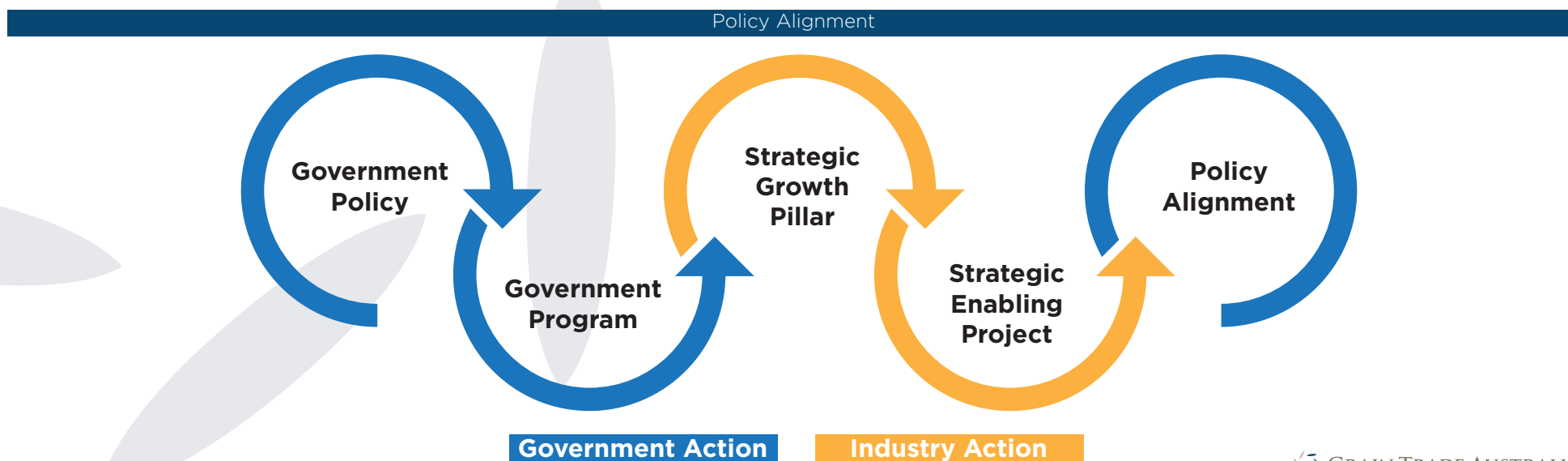
It also recognises the success of Government value driven policies are most effective when aligned with industry driven strategic objectives and enabling projects.

GTA has identified key Government Policy Areas and programs and aligned these with industry strategic growth pillars and strategy enabling projects.

The successful outcome of strong alignment between Industry strategic pillars and Government programs, should be positive Government Policy outcomes and strong Industry growth and improved efficiency and globally competitiveness.



*Positive Government Policy outcomes, strong industry growth, improved efficiency and globally competitiveness*



## 5. Industry Strategy Enabling Projects

The following table outlines the strategy enabling projects that are proposed to be considered as pre-competitive candidates for Government funding:

### A. Skills & Capability

Project Title	Description	Industry Benefits	Cost Estimate (\$m)
1. Trade & Market Access Education	<ul style="list-style-type: none"> <li>Develop industry focussed Training Package for Trade and Market Access to improve understanding of global bodies/forums, policy frameworks, processes and risk assessments impacting global and regional market access.</li> </ul>	<ol style="list-style-type: none"> <li>1. Improve industry and stakeholder knowledge &amp; understanding of activities and consequence</li> <li>2. Improve industry compliance</li> </ol>	<b>\$0.215</b>
2. Alignment of Industry Grain Assessment Training & Certification Program	<ul style="list-style-type: none"> <li>The re-design and better linkage of grain industry sampling assessment and training for supply chain management from general sampling to export certification.</li> <li>Re-design and alignment of industry driven training for supply chain management including Sampling Training               <ul style="list-style-type: none"> <li>• Level 1: General Sampling,</li> <li>• Level 2: Grain Assessment Sampling to support sales</li> <li>• Level 3: Export Certification</li> <li>• Level 4: Certified Grain Sampling Audit</li> </ul> </li> </ul>	<ol style="list-style-type: none"> <li>1. Improve export certification process</li> <li>2. Mitigate Industry Risk</li> <li>3. Increase access to skilled resources</li> <li>4. Improve level of industry expertise</li> <li>5. Improve uniformity of grain quality testing</li> </ol>	<b>\$0.23</b>
3. Code of Practice Assessment Program	<ul style="list-style-type: none"> <li>Enhancement to on-line export training tools (Code Assessment Program)</li> <li>Awareness campaign and assistance for small exporters to access &amp; participate.</li> </ul>	<ol style="list-style-type: none"> <li>1. Improve industry and stakeholder knowledge &amp; understanding of activities and consequence</li> <li>2. Improve industry compliance</li> <li>3. Improve product uniformity, reliability, customer confidence and Australia's reputation</li> <li>4. Mitigate Industry Risk</li> </ol>	<b>\$0.15</b>

## B. Quality & Market Access

Project Title	Description	Industry Benefits	Cost Estimate (\$m)
4. Maintenance and Modernisation of Grain Assessment Technology	<ul style="list-style-type: none"> <li>Creation and ongoing maintenance of a National Calibration Sample (NCS) set. This includes the collection and storage of grain samples with known percentile of defects such as weed seeds.</li> <li>An NCS is required to establish test samples for storage agents and exporters for calibration of existing sampling technology and to allow testing and calibration of emerging technology.</li> <li>Includes establishment of a management process and staff for the ongoing management of the samples, distribution to clients and management of ring-testing processes, VRSG and reference testing.</li> </ul>	<ol style="list-style-type: none"> <li>1. Improve efficiency, reduce duplication</li> <li>2. Improve consistency of grain quality assessment</li> <li>3. Improve reliability &amp; customer confidence</li> <li>4. Increase data capture to improve DAWE process, reduce costs and OHS risks</li> </ol>	<b>\$0.50</b>
5. Grain Storage Asset & Operations Standards & Assurance Certification Program	<ul style="list-style-type: none"> <li>Establish Industry standards for storage assets, storage management and storage operations.</li> <li>The Standards will provide structure, a framework and a sound base to industry including guidance on the business steps and processes storage operators should strive to achieve.</li> <li>Establish process and audit/validation requirements to support a Storage Assurance system that allows all farm and commercial storage assets and their operation to be integrated into industry driven quality assurance processes in the domestic &amp; export supply chain thus reducing industry exposure to potential risk and reputational damage by inclusion in the industry driven self-regulatory framework.</li> </ul>	<ol style="list-style-type: none"> <li>1. Improve Quality assurance in the supply chain</li> <li>2. Ensure consistency of storage and handling processes</li> <li>3. Allow market to differentiate storage types and management</li> <li>4. Mitigate Industry Risk</li> </ol>	<b>\$0.36</b>
6. Industry Standards for Samples	<ul style="list-style-type: none"> <li>Develop standardised methods and approaches for taking representative samples across the supply chain.</li> <li>Improves quality assurance, commercial and consumer confidence in supply chain</li> <li>Incorporate into Industry Self-Regulatory Framework with endorsement by Government</li> <li>Training and extension to industry will be required</li> </ul>	<ol style="list-style-type: none"> <li>1. Improve efficiency, reduce duplication</li> <li>2. Improve consistency &amp; reliability of grain quality assessment</li> <li>3. Improve market confidence in sampling processes &amp; outcomes</li> </ol>	<b>\$0.15</b>
7. Industry Standards for the Inspection of empty shipping containers	<ul style="list-style-type: none"> <li>Update and improvements to an industry/Government resource document that outlines the Standards for the inspection of empty shipping containers.</li> <li>Training and extension to industry will be required</li> </ul>	<ol style="list-style-type: none"> <li>1. Improve efficiency and lower costs</li> <li>2. Improve industry compliance</li> <li>3. Improve market confidence in container assessment processes &amp; outcomes</li> <li>4. Mitigate Industry Risk</li> </ol>	<b>\$0.15</b>

## B. Quality & Market Access (cont)

Project Title	Description	Industry Benefits	Cost Estimate (\$m)
8. Market Access - AGIC Asia	<ul style="list-style-type: none"> <li>Building Networks and addressing Trade Barriers to focus on the growing and diversifying demand for feed grains throughout Asia and improving the competitiveness of Australian grain</li> <li>Develop relationships and/or information sources to better understand policy developments in target markets</li> <li>Enable industry and Government discussions in-market to support the promotion of Australian grain as a preferred product</li> <li>Share technical data and learnings to enable market access issues to be addressed in a timely and collaborative manner</li> </ul>	<ol style="list-style-type: none"> <li>Improved market access &amp; stronger relationships</li> <li>Market intelligence and understanding</li> <li>Improved technical knowledge and capability</li> <li>Improve reputation &amp; confidence of Australian industry &amp; QA processes</li> </ol>	<b>\$0.30</b>
9. Market Access - China Re-engagement Strategy	<ul style="list-style-type: none"> <li>Develop and implement an Australia China Grains Industry Market Engagement Strategy that will enable the grains industry to broaden, deepen and strengthen the Australia-China grains sector relationship through trade and cooperation across areas of mutual benefit over the longer term</li> <li>Foster enduring relations and to maximise the opportunities for development and collaboration amongst the Chinese and Australian grains, food and processing sectors</li> <li>Create a deeper understanding of the Chinese industry and needs and work with China to build a similar understanding of the Australian grain industry's capability and capacity</li> <li>Build substantive and enduring connections between both governments and industries</li> <li>Deliver mutual benefit through identifying economic and capacity building opportunities that maximise the mutual economic value and promote diversity, growth and innovation of Australia's trade and investment relationship with China.</li> </ul>	<ol style="list-style-type: none"> <li>Improved market access &amp; stronger relationships</li> <li>Market intelligence and understanding</li> <li>Improved technical knowledge and capability</li> <li>Improve reputation &amp; confidence of Australian industry &amp; QA processes</li> <li>Improve technical exchange &amp; harmonisation of QA, testing methodology with China and other countries</li> </ol>	<b>\$5.00</b>



## B. Quality & Market Access (cont)

Project Title	Description	Industry Benefits	Cost Estimate (\$m)
10. Collaborative approach to strengthen trade relationships to address NTMs, food safety and improve market access	<ul style="list-style-type: none"> <li>Regional Trade Forums - Participate and lead global private sector engagement in regional trade and regulatory forums to strengthen trade relationships and increase mutual understanding of technical and policy issues to improve market access and address NTMs</li> <li>NTM Report &amp; Communications- Maintain grains industry Market Access and NTM data and consult with exporters to update grains NTM data and prepare updated report as key part of Communications strategy</li> <li>The NTM report will form a key component of the Communications Strategy. The report will be an important evidenced based communications tool that can be utilised by industry and government to raise awareness of NTMs among industry, Government, trading partners, global forums and like-minded countries.</li> <li>Global Forums - Building stronger international knowledge and awareness of Australia's collaborative approach and leadership to improving trade policy issues that affect global trade market access (including NTMs)</li> </ul>	<ol style="list-style-type: none"> <li>Improved trade relationships through collaboration and cooperation with trade partners, like minded countries and global forums</li> <li>Improved knowledge &amp; understanding of the market access issues that affect trade including identification and validation of priority NTMs.</li> <li>Improved knowledge &amp; understanding by Australian Government and Industry of the perspectives, positions and understanding of trade partners and like-minded countries of market access issues that affect trade to assist in breaking down technical barriers to trade.</li> <li>More consistent positions among private sector/industry in trade partners and like-minded countries to promote and advocate with respective regulators to develop transparent and coherent science and risk-based systems and trade frameworks and adoption of harmonised methodologies.</li> </ol>	<b>\$0.78</b>

## C. Technology

Project Title	Description	Industry Benefits	Cost Estimate (\$m)
11. Digital consignment Data to support Traceability (e-CVD)	<ul style="list-style-type: none"> <li>Conversion of grain industry consignment data from the paper-based Commodity Vendor Declaration to a digital format to support supply chain traceability, biosecurity and feed/food safety.</li> <li>Establishment of GTA Standard for e-CVDs and associated consignment data</li> <li>Explore the requirement to establish and operate an industry database to provide a central point to support commercial enterprise such as e-CVDs.</li> <li>Establish the suitability of this database and system to enhance Traceability within the grain supply chain (such as consignment number system)</li> </ul>	<ol style="list-style-type: none"> <li>1. Improve ability to establish and track grain pathways.</li> <li>2. Improve Quality assurance in the supply chain</li> <li>3. Improve industry capability in the transfer of digital data</li> <li>4. Mitigate Industry Risk</li> </ol>	<b>\$0.52</b>
12. Automated Visual Recognition & Assessment for Grain Sampling	<ul style="list-style-type: none"> <li>Establish industry Standards and process for the use of Image Assessment Technology to assess grain quality and to improve objectivity and increase efficiency in the supply chain for potential application for supply chain quality assurance, export certification and initial receival analysis.</li> <li>Synergy and Alignment to the National Calibration Sample (NCS)</li> </ul>	<ol style="list-style-type: none"> <li>1. Improve efficiency, reduce duplication</li> <li>2. Improve the national consistency of grain quality assessment and certification.</li> <li>3. Build data &amp; process to reduce operational need for mandatory on-site inspections to risk-based assessment approach</li> <li>4. Reduce OHS safety risks &amp; costs</li> </ol>	<b>\$0.33</b>

## D. Transport & Logistics

Project Title	Description	Industry Benefits	Cost Estimate (\$m)
13. Supply Chain Collaborative Planning	<ul style="list-style-type: none"> <li>Benefits to the grain industry from government investment (eg. Inland Rail) cannot be realised without a plan to integrate the projects with existing infrastructure and market and operational arrangements.</li> <li>explore coordination and collaboration opportunities within the supply chain by supply chain participants.</li> <li>An industry and government review of the grain supply chain is necessary to shape government planning and to explore coordination and collaboration opportunities within the supply chain by supply chain participants.</li> </ul>	<ol style="list-style-type: none"> <li>Improved efficiency &amp; utilisation of public &amp; private assets</li> <li>Improve the understanding and transparency of supply chain cost and reduce costs</li> <li>Mitigate risks</li> </ol>	<b>\$0.50</b>

The amount for the projects in the above table is summarised below and totals around \$8.488m:

Pillar	Number of Projects	Amount (\$'000)
Skills & Capability	3	\$600
Quality & Market Access	7	\$6,538
Technology	2	\$850
Transport & logistics	1	\$500
<b>Total</b>	<b>13</b>	<b>\$8,488</b>

These projects are identified by industry as important supply chain priorities to:

1. Protect and grow the industry in the short to medium term;
2. Enhance grain producer's capability and ability to further extend and capture value in the post farm gate supply chain; and
3. To improve industry efficiency in order to compete internationally and grow into the future.

These supply chain priorities are in addition to strategic plan and priorities established such as through the GRDC Strategic RD&E Plan.

## 6. Alignment of Industry Priorities with Policy Objectives & Programs

The industry Priorities identified above are all practical and align strongly with Government Policy Objectives and policy implementation programs. This is mapped in the table below:

Project Title		Agriculture Policy						Trade & Market Access						Information Technology		Transport & Supply Chain			
Growth Pillar	Project	Drought Policy & Funding	Growing Agriculture to \$100b by 2030	Productivity/RD&E	Modernising Agriculture	Water Policy	ACCC/Competition/Codes	NTMs	Food Safety	Biosecurity & Export Inspection	Traceability	FTA Implementation & Leverage	Multi-lateral Trade forums & Agreements	Fin Tech	Ag Tech	In-land Rail	Heavy Vehicle & COR	Coastal Shipping Reform	Inter-modal Developments
Skills & Capability	Trade & Market Access Education		✓					✓	✓	✓	✓	✓	✓						
	Alignment of Industry Grain Assessment Training & Certification Program						✓			✓	✓								
	Code of Practice Assessment Program				✓		✓		✓	✓	✓								
Quality & Market Access	Modernisation of Grain Assessment Technology		✓	✓	✓				✓	✓	✓				✓				
	Grain Storage Asset & Operations Standards & Assurance Certification Program		✓		✓		✓		✓	✓	✓			✓	✓		✓		
	Industry Standards for Samples		✓		✓		✓		✓	✓	✓				✓				
	Industry Standards for the Inspection of empty shipping		✓		✓		✓		✓	✓	✓			✓	✓				
	Market Access - AGIC Asia		✓					✓	✓	✓	✓	✓	✓						
	Market Access - China Re-engagement Strategy		✓					✓	✓	✓	✓		✓	✓					
	Collaborative Approach to address NTMs		✓		✓			✓	✓	✓		✓	✓		✓				
Technology	Digital consignment Data to support Traceability (e-CVD)		✓	✓	✓				✓	✓	✓			✓	✓				
	Automated Visual Recognition & Assessment		✓	✓	✓				✓	✓	✓			✓	✓				
Transport & Logistics	Supply Chain Collaboration		✓		✓										✓	✓	✓	✓	✓

The alignment of project candidates to Government Department and program or grant is tabled below:

	Project Title	Department of Agriculture							DFAT					Dept of Industry & Science		Transport & Infrastructure				
Growth Pillar	Project	Drought Policy & Funding	Growing Agriculture to \$100b by 2030	GRDC	Modernising Agriculture	Traceability	PASE	ATMAC	NTMs	IA-CEPA Strategic Grain Partnership	Biosecurity & Export Inspection	Traceability	FTA Implementation & Leverage	Multi-lateral Trade forums & Agreements	Fin Tech	Ag Tech	In-land Rail	Heavy Vehicle & COR	Coastal Shipping Reform	Inter-modal Developments
Skills & Capability	Trade & Market Access Education		✓			✓	✓	✓	✓	✓	✓	✓	✓	✓						
	Alignment of Industry Grain Assessment Training & Certification Program					✓	✓	✓			✓	✓								
	Code of Practice Assessment Program				✓	✓	✓			✓	✓	✓								
Quality & Market Access	Modernisation of Grain Assessment Technology		✓	✓	✓	✓	✓			✓	✓	✓				✓				
	Grain Storage Asset & Operations Standards & Assurance Certification Program		✓	✓	✓	✓	✓	✓			✓	✓				✓	✓		✓	
	Industry Standards for Samples		✓		✓	✓	✓			✓	✓	✓				✓				
	Industry Standards for the Inspection of empty shipping		✓		✓	✓	✓			✓	✓	✓								
	Market Access - AGIC Asia		✓			✓	✓	✓	✓	✓	✓	✓	✓	✓						
	Market Access - China Re-engagement Strategy		✓			✓	✓	✓	✓	✓	✓	✓	✓	✓						
	Collaborative Approach to address NTMs		✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓			
Technology	Digital consignment Data to support Traceability (e-CVD)		✓	✓	✓	✓	✓	✓		✓	✓	✓			✓	✓				
	Automated Visual Recognition & Assessment		✓	✓	✓	✓	✓			✓	✓	✓			✓	✓				
Transport & Logistics	Supply Chain Collaboration		✓		✓		✓									✓	✓	✓	✓	✓



## 7. Agricultural Sectors and Enterprises that provide input and drive GTA Member and Industry Policy Objectives & Programs

GTA's role is to facilitate Trade by engaging its Members and industry in Technical Committees to develop policy. It does this by drawing in industry expertise to develop policy for the broader benefit of industry and Members.

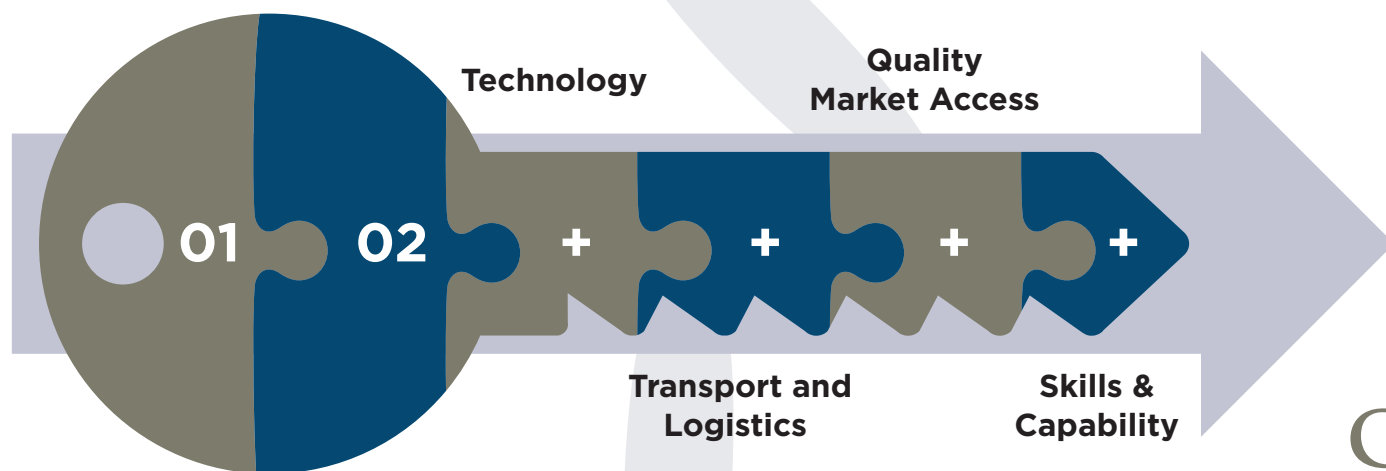
Agricultural & Professional Sectors/Groupings Represented in GTA Technical Committees													
	Grain Marketing	Legal Profession	Farmer - Sole Trader	Grain Producers Australia	Industry Good Agencies - GIMAF, AEGIC, AOF, PA, GIWA	Domestic Grain Consumer - Feed	Container Exporter and Packer	Grain Growers Limited	Grower Brokers	Domestic Millers	Storage, Ports and Handling Companies	Industry Technical Consultants / Service entities	Country Merchants/Aggregators
Trade & Market Access Committee	✓				✓			✓			✓	✓	
Trading Standards Committee	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓	
Commerce Committee	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Transport Storage & Ports Committee	✓	✓		✓			✓	✓	✓	✓	✓		✓
Plant Breeding Innovation Committee	✓			✓	✓			✓			✓	✓	
Information Technology Advisory Committee	✓						✓	✓				✓	

## 8. Conclusion - Key to unlocking value

- Growth in demand for grain means a strong opportunity for the Australian grain industry
- Increasing global competition is increasing pressure on margins for growers.
- Rejuvenation of industry is important following one of the harshest droughts on record to capture the opportunities and meet the challenge of increasing global competition.
- The report identifies four Growth Pillars and 13 Investment Projects to rejuvenate the industry that add value to 12 Government Policy areas and objectives.
- It recommends investment of \$8.49m in public funding to drive benefits through the value chain and back down the farm gate in modernising and rejuvenating the grains supply chain.

### 01 Collective Investment

Public/Private Investment to unlock innovation



### 02 Collaborative Strategic and Operational Planning

Unlock the efficiency of the Supply Chain



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