

Report to stakeholders



This *Report to stakeholders* provides a transparent overview of MLA's actual activities and outcomes in 2015-16, reporting against the objectives and planned activities outlined in *MLA's Annual Operating Plan 2015-16*.

MLA has regarded 2015-16 as a 'transitional year' given the release of the *Meat Industry Strategic Plan 2020* in September 2015 after *MLA's Annual Operating Plan 2015-16* had been finalised.

In 2015-16 MLA took its strategic direction from the Australian Government's Science and Research Priorities,

Rural Research and Development Priorities and Agricultural Competitiveness White Paper Priorities (the latter two priorities are now superseded by the Rural Research, Development and Extension Priorities), the *Meat Industry Strategic Plan 2010-2015* and the *MLA Corporate Plan 2010-2015*.

From July 2016 to June 2020, MLA will take its strategic direction from the *MLA Strategic Plan 2016-2020* which is aligned to the *Meat Industry Strategic Plan 2020* and the Australian Government's Science and Research Priorities and its Rural Research, Development and Extension Priorities.

<p>Science and Research Priorities</p> <ul style="list-style-type: none"> • Food • Soil and water • Transport • Cybersecurity • Energy • Resources • Advanced manufacturing • Environmental change • Health 	<p>Rural Research and Development Priorities</p> <ul style="list-style-type: none"> • Productivity and adding value • Natural resource management • Climate variability and climate change • Biosecurity • Supply chain and markets • Supporting the Rural Research and Development priorities 	<p>Agricultural Competitiveness White Paper Priorities</p> <ul style="list-style-type: none"> • Advanced technology • Adoption of research and development • Soil, water and managing natural resources • Biosecurity 	<p>Established by the Australian Government</p>
<p>Policy direction, budget and performance monitoring</p>			<p>Provided by the peak industry councils and through regional and industry consultation</p>
<p>Meat Industry Strategic Plan 2010-2015 contains the following strategic themes:</p> <ul style="list-style-type: none"> • Environment and ethics • Market access • Our industry • Our people • Innovation • Marketing and promotion • Economics and infrastructure 			<p>Established by the Red Meat Advisory Council</p>
<p>MLA Strategic Plan 2010-2015 contains the following strategic imperatives:</p> <ul style="list-style-type: none"> • Improving market access • Growing demand • Increasing productivity across the supply chain • Promoting industry integrity and sustainability • Increasing industry and people capability 			<p>Overseen by the MLA Board and managed by the MLA Leadership Team</p>
<p>Research and development and marketing business plans</p> <p>Whole-of-industry R&D consultation:</p> <ul style="list-style-type: none"> • North Australia Beef Research Council • Southern Australia Meat Research Council • Western Australia Livestock Research Council • 18 regional red meat and livestock committees (excluding WA) <p>Whole-of-industry marketing consultation:</p> <ul style="list-style-type: none"> • International markets • Domestic market • Meat Standards Australia 			<p>Managed by the MLA Leadership Team</p>
<p>MLA Annual Operating Plan 2015-16 contains the objectives, planned activities and key performance indicators for the following strategic imperatives:</p> <ol style="list-style-type: none"> 1. Trade and market access 2. Increasing customer and consumer demand for red meat 3. Improving productivity and profitability across the supply chain 4. Industry sustainability and integrity 5. Industry leadership, innovation adoption and capability 6. Stakeholder engagement and communication <ul style="list-style-type: none"> • Corporate services, levy collection and AUS-MEAT • MLA Donor Company 			<p>Managed by the MLA Leadership Team</p>
<p>MLA Annual Report 2015-16 (<i>Report to stakeholders</i>)</p>			

<p>1. Trade and market access</p> 	<p>2. Increasing customer and consumer demand for red meat</p> 	<p>3. Improving productivity and profitability across the supply chain</p> 	<p>4. Industry sustainability and integrity</p> 	<p>5. Industry leadership, innovation adoption and capability</p> 	<p>6. Stakeholder engagement and communication</p> 	<p>Corporate services, levy collection and AUS-MEAT</p> 
<p>MLA assists in maintaining and improving market access for Australian red meat by supporting industry and government to demonstrate product integrity, liberalise the trade and support the provision of supply chain assurance for the livestock export sector.</p>	<p>MLA works to grow demand for Australian beef, sheepmeat and goatmeat through aggressive marketing and promotions in domestic and global markets, as well as through eating quality, nutrition research and product development programs.</p>	<p>MLA invests in research and development that creates opportunities for cattle, sheep and goat producers and supply chains to improve the productivity and profitability of their enterprises.</p>	<p>MLA invests in programs that support the industry's environmental, animal welfare, community communications and workforce sustainability practices.</p>	<p>MLA supports industry innovation and research strategies by working to ensure industry has appropriately skilled people across the red meat supply chain.</p>	<p>MLA engages with a wide range of stakeholders on the value of its levy investment and ensures levy payers have opportunities to influence how it is invested. This includes coordinating effective and efficient consultation mechanisms with industry.</p>	<p>Supporting MLA's six strategic imperatives are the services essential to the effective management of the levy investments including financial accounting, contracting, evaluation and reporting. This area also includes the costs associated with the management of AUS-MEAT and the levy.</p>

Highlights in 2015-16

<p>Developing a shelf life prediction tool</p> <p>Establishing the framework for producers to sign on to the industry's integrity systems from a single online hub</p> <p>Delivering training to more than 1,161 people to support ESCAS</p> <p>MLA with industry ensured the red meat industry was favourably positioned in the Trans-Pacific Partnership negotiations</p>	<p>Expanding the number of saleyards covered by MLA's National Livestock Reporting Service</p> <p>Selling grab-and-go hot cooked beef in Woolworths stores</p> <p>Globalising MSA with eight brands using the eating quality message internationally</p> <p>MLA's Australia Day ad generating nearly a 37% increase in lamb sales</p>	<p>Producing eating quality breeding values for a wide range of animals</p> <p>Advancing lamb and beef automation technologies to working prototype stage</p> <p>Launching the National Livestock Genetics Consortium</p> <p>Discovering through a palatability trial of five varieties of leucaena - including the new psyllid-resistant 'Redlands' - that stock exhibited no significant preferences</p>	<p>Receiving approval of the new K5 strain of rabbit haemorrhagic disease (for release in 2016-17)</p> <p>Commercialising the first producer-administered pain relief product for cattle</p> <p>Increasing community engagement with Target 100's GoodMeat campaign</p>	<p>Launching the 'Emerging Leaders' building capability initiative with 15 participants</p> <p>Working with researchers and more than 300 producers through Producer Research Sites to promote productive and sustainable pastures</p> <p>Launching new adoption pilot programs to lift on-farm productivity</p>	<p>Identifying priorities for research, development and adoption through the regional consultation model</p> <p>Launching the first phase of the new MLA website</p> <p>Launching a new proactive media strategy to increase MLA's communications in rural and regional Australia</p> <p>Launching the <i>MLA Strategic Plan 2016-2020</i></p>	<p>Releasing the independent economic Impact Assessment of MLA's research, development and marketing programs showing a benefit-cost ratio of 6.2 to 1</p> <p>Releasing the independent Performance Review which found MLA delivered exceptional results to industry through many of its programs, although some areas could be improved</p>
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Milestone scorecard

<p>15 milestones: 12 achieved 1 not achieved 2 not available</p>	<p>25 milestones: 18 achieved 2 partly achieved 5 not achieved</p>	<p>14 milestones: 9 achieved 4 partly achieved 1 not achieved</p>	<p>31 milestones: 23 achieved 4 partly achieved 4 not achieved</p>	<p>15 milestones: 13 achieved 1 partly achieved 1 not achieved</p>	<p>8 milestones: 5 achieved 1 partly achieved 2 not achieved</p>	<p>7 milestones: 6 achieved 1 not achieved</p>
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Trade and market access

MLA assists in maintaining and improving market access for Australian beef, sheepmeat and goatmeat by supporting industry and government to demonstrate product integrity, liberalise the trade and support the provision of supply chain assurance for the livestock export sector.

MILESTONE SCORECARD

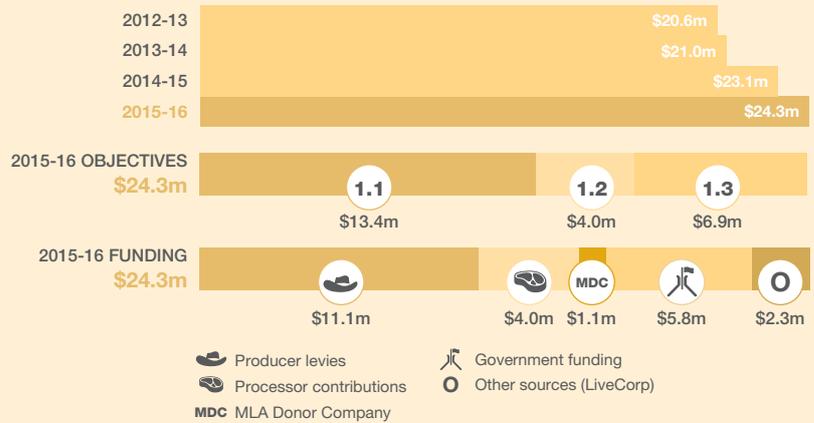
15 milestones

- 12 achieved
- 1 not achieved
- 2 not available

Objectives under this strategic imperative include:

- 1.1 Develop and deliver industry systems that underpin product integrity
- 1.2 Support industry and government to maintain and liberalise world meat markets
- 1.3 Maximise market options for producers and exporters in the livestock export market

INVESTMENT



Meat Industry Strategic Plan 2010-2015 Strategic Themes

- Market access
- Marketing and promotion
- Economics and infrastructure

Australian Government Science and Research Priorities

- Food
- Transport

Australian Government Rural Research and Development Priorities

- Biosecurity
- Productivity and adding value
- Supply chain and markets

Agricultural Competitiveness White Paper Priorities

- Adoption of research and development
- Advanced technology
- Biosecurity

KEY ACHIEVEMENTS

Shelf life prediction tool

MLA, in partnership with the University of Tasmania, is developing a tool that accurately predicts the shelf life of vacuum-packed meat in domestic and export markets.



Single sign-on to integrity systems

The framework was established for producers to access NLIS, LPA and NVDs from one online location with a single sign-on. The project is expected to be delivered in 2016-17.



FACTS AND FIGURES

Export value of FTAs in Asia over 20 years	No. of sheep tracked in live export study	Time since WTO delivered its last agricultural outcome	The benefit-cost ratio of the market access program	Recipients of animal welfare training in live export markets
\$20b	16,000	20 years	24:1	1,161
137,000 eDECs generated in 2015-16. Year on year	No. of visitors at LEP EXPO 2016 in Jakarta	Cattle movements recorded by NLIS in 2015-16	Sheep and goat movements recorded by NLIS in 2015-16	Annual cost of non-tariff barriers
↑59%	500	30m	21m	\$1.3b

+ OPPORTUNITIES

- Outcomes from a five-year research project into inanition (loss of appetite) in live export sheep will direct future industry projects to build more animal resilience and improve productivity, profitability and animal welfare outcomes.
- In future, the meat shelf life prediction tool is likely to be incorporated into a secure website, accessible to the entire production chain. It will further underpin Australia's reputation for supplying clean, fresh product and has the potential to reduce meat waste.
- Funded through MLA Donor Company, new producer apps for generating and sending electronic National Vendor Declarations (eNVDs) from mobiles and tablets will provide convenient options for producers while reducing industry costs.

■ CHALLENGES

- Field trials of producer apps for generating and sending eNVDs will begin in saleyards in the first half of 2016-17, with a focus on solving the operational and logistical challenges of this more complex selling platform.
- Producer uptake of eNVD apps will be influenced by their access to a mobile phone service and their willingness to embrace the technology.
- Implementation of new and improved systems to support the controls and traceability of livestock in international markets.

◀ OUTLOOK 2016-17

- Access to the National Livestock Identification System (NLIS), Livestock Production Assurance (LPA) and NVDs from a single online portal will be rolled out from late 2016.
- The LPA accreditation process will be strengthened from 1 September while existing producers will commence a three-year recommitment and e-learning program from January 2017.
- MLA will take its shelf life prediction tool for vacuum-packed beef and lamb to the supply chain for adoption while continuing work to extend its application to other packaging methods.
- Work continues to achieve a timely entry into force for the Trans-Pacific Partnership and positioning the industry for favourable outcomes under other trade agreements.
- MLA will support the industry rollout and adoption of the Live Export Global Assurance Program.

ESCAS support

The Exporter Supply Chain Assurance System continued to improve animal welfare and husbandry knowledge in key live export destinations with training delivered to 1,161 participants in feedlots, abattoirs and at ports.



More open trade in the Pacific

The Trans-Pacific Partnership negotiations, which concluded in October 2015, will deliver significant new tariff reductions for Australia's beef, sheepmeat, goat and offal exports to several trading partner nations.



Develop and deliver industry systems that underpin product integrity

MLA supports industry to maintain its reputation for producing safe and wholesome beef and sheepmeat by managing food safety, quality assurance, traceability and integrity systems.



STRATEGIES

Conduct scientific research to ensure food safety systems are at the leading edge of knowledge and practice

Develop and implement appropriate meat and livestock traceability systems

Support the development and uptake of food safety and quality assurance systems by all sectors of the red meat supply chain

OBJECTIVE HIGHLIGHTS

Meat safety

MLA-funded research at the University of Tasmania is creating a predictive tool that can assess the shelf life of vacuum-packaged meat in domestic and export markets. It promises to have far-reaching implications for Australian product, enabling the supply chain to guarantee freshness and safety to consumers, with a high degree of confidence, in a wide range of environments.

The project will begin the validation process, including supply chain trials, in 2016-17. The model could be incorporated into the management systems of supply chains to keep track of shelf life in real-time.

Integrated integrity systems

The establishment of a streamlined management structure for the delivery of the industry's integrity systems (National Livestock Identification System, Livestock Production Assurance and National Vendor Declarations) is being progressed as an outcome of the SAFEMEAT Initiatives Review.

The single integrity systems company, which will operate as a wholly-owned subsidiary of MLA, will have overall responsibility for the management of the integrity systems, paving the way for enhanced integration and efficiency.

Single sign-on

Producers can look forward to streamlined access to the industry's integrity databases through a single sign-on platform. Single sign-on will allow producers to use one login to record cattle movements, order National Vendor Declarations (NVDs) and access carcass performance information.

Integrated into the myMLA portal concept, single sign-on will be delivered in 2016-17.

eNVD

Funded through MLA Donor Company, during 2015-16 three producer eNVD apps, suitable for iPhone and Android, were developed and field trialled across cattle, sheep and goat supply chains.

The eNVD apps enable producers to generate NVDs on or offline (with the NVD able to be sent once the user is back in mobile service). The apps have been used successfully to track individual consignments from farm to feedlot, farm to processor and from property to property.

One integrated supply chain has expanded their proprietary software to trial the new paperless system, tracking consignments between feedlot and processor. Field trials of eNVD apps being used in the saleyards system will begin in the first half of 2016-17. MLA is hopeful commercial apps will be available to producers in 2016-17.

NLIS update

The NLIS website was updated in 2015-16 with increased usability and more information links to assist producers.

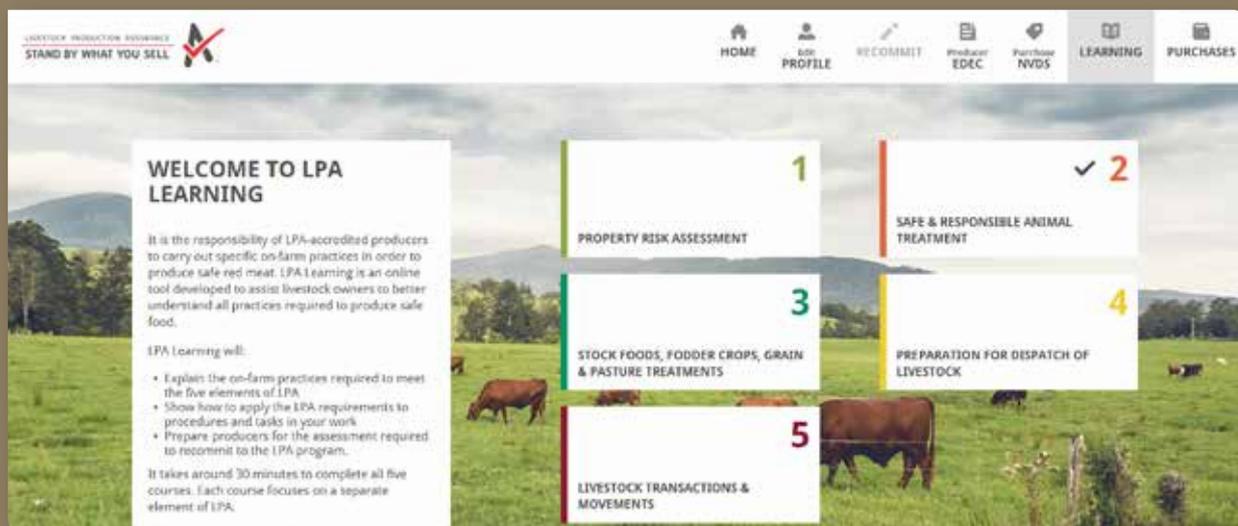
During early 2016-17, this flexible delivery model will feature a new dashboard that delivers a snapshot of relevant information about a producer's Property Identification Code (PIC), the number of animals on the PIC, recent movements and changes over time. With an emphasis on compliance, the new dashboard will help producers keep their NLIS records current and accurate.

KEY MILESTONES

MILESTONE	RESULT	COMMENTARY
Satisfaction rating of MLA's food safety activities by industry (processors and AMIC) rated at more than 85%	Achieved	An MLA survey revealed that 91% of stakeholders were satisfied with MLA's performance in the food safety program
Develop a comprehensive information resource on shelf life	Achieved	Up-to-date shelf life research is available as a hard copy and electronic publication
NLIS Database Refresh project completed	Not achieved	The project was delayed as the scope expanded to include eNVD and single sign-on
eDEC tool replaced by a simple-to-use interim solution by September 2015	Achieved	The eNVD system was integrated into the NLIS platform in September 2015. The eDEC tool will continue to be made available while the eNVD becomes established
Implement eNVD data standards for business-to-business use	Achieved	Data standards were developed for the eNVD and a portal was made available to software providers via MLA Donor Company to access the data standards and tools to build software for the delivery of eNVDs
A whole-of-industry eNVD strategy has been endorsed and enabling tools supporting this strategy are built	Achieved	The whole-of-industry eNVD strategy was endorsed by SAFEMEAT and enabling tools, including eNVD data standards and the central eNVD platform, were built
Development of an online assessment and registration tool for LPA by December 2015	Achieved	The LPA learning and online assessment tool was developed in December 2015. The LPA Advisory Committee endorsed the release of the tool from July 2016
Achieve recognition of industry assurance programs meeting national standards for food safety, traceability, biosecurity and animal welfare by June 2016	Achieved	SAFEMEAT endorsed a framework for government recognition of industry integrity programs as a means of complying with regulated national standards for food safety, traceability, animal welfare and biosecurity. Each jurisdiction has the discretion to adopt the framework

LPA learning

An e-learning resource has been developed for the Livestock Production Assurance (LPA) program to enhance its promotion of food safety quality control on farm and ensure producers are more informed about their obligations. The five-part program addresses key on-farm issues such as property risk assessments and how to manage those risks, safe and responsible animal health treatments, and effective record keeping. During 2016-17, new producers to LPA will undergo a strengthened LPA accreditation process, requiring them to read the learning modules and complete an assessment. Producers already LPA-accredited will become involved in a recommitment program where every three years they will be required to demonstrate their understanding of the key principles of LPA.



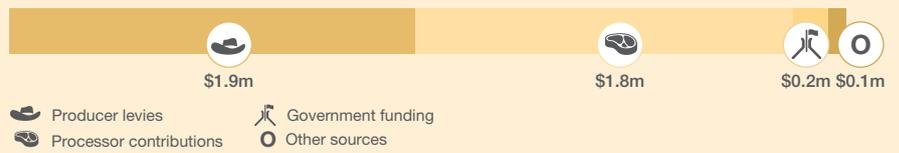
Support industry and government to maintain and liberalise world meat markets

MLA assists industry and government to defend existing favourable market access conditions and secure access improvements by providing research, undertaking trade liberalisation advocacy programs and building in-market coalitions.



INVESTMENT

\$4.0 million



STRATEGIES

Support industry and government to maintain and defend existing favourable market access conditions in overseas markets

Assist in positioning the Australian red meat and livestock industry for the WTO Doha Round

Assist in positioning the Australian red meat and livestock industry for FTA negotiations

Develop strategies to remove access barriers



OBJECTIVE HIGHLIGHTS

Impact assessment

MLA's economic impact assessment found the jointly funded (producer levy and processor contribution) Market Access Program demonstrated an exceptional return on investment for the period 2010-11 to 2014-15, achieving a benefit-cost ratio of 24:1 (see page 61).

Free trade agreement (FTA) update

The recent trifecta of North Asian free trade agreements with Japan, Korea and China has delivered unparalleled gains to the red meat sector. The export value from this trade reform is estimated at a combined \$20 billion over the next 20 years.

The Trans-Pacific Partnership (TPP) negotiations, which concluded in October 2015, will, once implemented, deliver even further tariff reductions and supply chain cost savings. For Australia's beef trade to Japan, the tariff on frozen and chilled beef will fall to 9% over 15 years under the TPP outcome as opposed to the end point of 19.5% for frozen beef and 23.5% for chilled beef under the Japan-Australia Economic Partnership Agreement. In Canada, Australian beef's above-quota tariff of 26.5% will be phased out, while the Australian sheepmeat tariff of 2.5% will be eliminated once the TPP is entered into force. For Australia's trade to Mexico, the 20-25% beef tariff will be eliminated within 10 years, the 10% sheepmeat

and goatmeat tariffs will be eliminated in eight years and the 10-15% tariffs on live animal exports and the majority of offal tariffs will be eliminated upon the TPP entering into force. The focus now will be securing a timely entry into force of the TPP agreement.

During 2016-17, the Market Access Program will continue to position the industry for positive outcomes from a number of ongoing and yet-to-be launched trade negotiations including the Regional Comprehensive Economic Partnership (RCEP) and the envisaged Australia-European Union FTA which is currently in a scoping/impact assessment phase.

World Trade Organization (WTO)

Although multilateral trade negotiations (via the WTO Doha Round) have remained slow, the 163 WTO members did agree, in December 2015, to abolish all agricultural export subsidies. While these are not presently applied to red meat, it does help ensure that these measures will not be applied in the future. This was the first time in 20 years the WTO delivered an outcome for agriculture. Unfortunately, there has yet to be an outcome for improving market access for the Australian red meat industry and there is no realistic short-term prospect of progress given the current negotiation impasse.

Non-tariff trade barriers

MLA continues to collaborate with industry and government to remove non-tariff barriers to trade that are estimated to cost the red meat value chain about \$1.3 billion annually.

In conjunction with the Australian Meat Industry Council and the Australian Meat Processor Corporation, MLA assisted with three cold chain integrity workshops in China to help improve access for chilled product. In the Middle East region, attention was focused on product shelf life issues and improved access for manufacturing beef. This work continues as does implementing action plans which aim to reduce offal restrictions, increase establishment listings and improve certification issues across several key markets.

KEY MILESTONES

MILESTONE	RESULT	COMMENTARY
Submissions prepared by MLA on market access barriers are endorsed by industry/peak councils	Achieved	All submissions prepared by MLA were endorsed by industry/peak industry councils
The Australian Government has clarity on industry access issues and values MLA's input	Achieved	Feedback received from the Federal Trade Minister's office indicated the red meat industry provided clear and incisive advice on trade positions
Demonstrable progress is made on implementing the Indonesia, China and EU market access and engagement strategies	Achieved	MLA partnered with industry stakeholders and in-market operatives to improve access conditions in Indonesia (around the issuance of import permits and the number of eligible products). Additional work saw collaboration with the Australian Government in guiding the implementation of the Indonesia-Australia Partnership on Food Security in the Red Meat and Cattle Sector

Preparations for an Australia-European Union Free Trade Agreement (A-EUFTA)

MLA has begun positioning the Australian beef, sheepmeat and goatmeat sectors for improved access in the lead-up to the A-EUFTA negotiations. This has involved proactive advocacy with parliamentary and government officials in both Canberra and across Europe.

This effort will intensify following the June 2016 referendum which saw the United Kingdom vote to leave the EU. This unprecedented move will require Australia to establish a new, separate trading regime with the UK. The UK accounts for about 63% of all Australian red meat exports to the EU.



Above left to right: The Hon Steven Ciobo MP, Minister for Trade, Tourism and Investment; MLA's International Business Manager for Europe, Josh Anderson; and Dr Mark Higginson, Australia's Ambassador to Belgium, Luxembourg, the European Union and NATO, discussing red meat industry priorities under a potential Australia-European Union Free Trade Agreement.

OBJECTIVE 1.3

Maximise market options for producers and exporters in the livestock export market

The joint MLA-LiveCorp Livestock Export Program provides research and development and in-market support services to address market access issues and assist cattle, sheep and goat supply chains to meet their responsibilities, particularly under the Exporter Supply Chain Assurance System (ESCAS).



INVESTMENT

\$6.9 million



STRATEGIES

Assist supply chains to deliver continuous improvement in animal health and welfare

Provide research and support to enable improvements in supply chain efficiency and performance

Provide communications support for the Industry Reform Strategy

Assist industry and government to defend and improve market access conditions and build demand for livestock



OBJECTIVE HIGHLIGHTS

Exporter Supply Chain Assurance System (ESCAS) support

MLA's livestock services managers, positioned in key export markets around the globe, continue to support ESCAS which now operates in 23 countries.

As commercial supply chains mature in countries such as Indonesia which have had ESCAS in place since 2011, the basic training and support required from MLA changes with reduced need for ESCAS training. In this case, MLA looks to support improvements in livestock performance through the system to gain better returns from the animals on feed.

Footage was aired in June 2016 showing significant breaches of animal welfare practices in non-ESCAS-approved facilities in Vietnam. MLA was not the lead agency on this issue but worked closely in support of industry and the Department, including the Australian Livestock Exporters' Council, Red Meat Advisory Council and Cattle Council of Australia, to ensure a timely and rigorous industry response.

During 2015-16, a best practice breeder management handbook was compiled to support Indonesia's planned importation of 25,000 heifers from northern Australia. During 2016-17, it is envisaged that, as well as supporting ESCAS, more Australian technical

skills will be involved in supporting the live export breeder trade and educating local farmers in animal welfare, husbandry and best practice management.

The Australian industry continued to provide assistance in the form of gap and risk analyses, with training delivered to 1,161 participants in feedlots, abattoirs and at ports. Animal welfare and ESCAS seminars were also run in four key cities for more than 420 industry and government representatives.

Livestock Global Assurance Program (LGAP) progress

Research outcomes from the LGAP pilot phase were delivered to the Australian Livestock Exporters' Council for consideration in late 2015-16. Aimed at improving animal welfare outcomes in live export supply chains by strengthening the ESCAS regulatory framework, LGAP research was carried out in Jordan (stunning sheep), Malaysia (non-stun goats), Indonesia (non-stun and stunning cattle) and Australia (exporters and importers). LGAP, co-funded by MLA, LiveCorp and the Australian Government, completed its pilot phase in 2014-15.

Inanition research

A five-year research project on inanition (loss of appetite) in live export sheep, funded by MLA, LiveCorp and matched dollar for dollar by the Australian Government, has delivered recommendations for improved practices for preparing animals for sea voyages. The project, led by Murdoch University, investigated the leading causes of death of sheep while at sea – salmonella and inanition – and possible prevention strategies. To achieve this, researchers recorded the individual eating and drinking habits of 16,000 sheep confined in the embarkation depot, using radio-frequency identification technology. They found more than 90% of animals adapted quickly, eating and drinking for more than 30 minutes a day. However, the remainder were much slower to adapt to the conditions and subsequent ration. Sheep reluctant to feed were not attracted to various appetisers either. The study concluded more research funds should be invested in producing more robust sheep or looking at strategies that can be applied on-farm to build sheep resilience. It also concluded the 8-10% of sheep that fail to adapt and don't eat and drink for more than 30 minutes a day prior to the voyage were considered 'high risk' and may therefore be more susceptible to salmonella and/or inanition during shipping.

KEY MILESTONES

MILESTONE	RESULT	COMMENTARY
The Livestock Export Program meets 85% of exporter/importer requests for gap analysis, risk analysis, training and technical advice	Achieved	MLA met all requests for training, gap and risk analysis, delivering 148 training events covering 1,161 people and 77 gap and risk analyses across all markets. There were 168 days of technical advice delivered, meeting all requests
For each of the supply chain efficiency key initiatives, deliver four programs to support improvements in supply chain efficiency and performance	Achieved	MLA delivered 29 supply chain performance improvement projects. This included 11 in Indonesia, nine in Vietnam, two in South-East Asia and seven in the Middle East
Peak councils rate Livestock Export Program advice on live export issues as valuable (3/5), measured by stakeholder survey	Not available	Stakeholder survey was not completed in 2015-16
Peak councils and government rate Livestock Export Program advice and management of market access issues as valuable (3/5), measured by stakeholder survey	Not available	Stakeholder survey was not completed in 2015-16

Grassroots education

Indonesia's planned importation of 25,000 heifers from northern Australia has already created more demand for Australian technical skills in animal husbandry and cattle production systems. During 2015-16, MLA helped educate local farmers in East Kalimantan in best practice management including animal nutrition and stock handling and also produced a best practice breeder management handbook that has been presented to the Indonesian Government.

In other work underpinning ESCAS, the LEP EXPO 2016 was held in Jakarta for the second consecutive year. A joint initiative of MLA and LiveCorp, the two-day event is considered Indonesia's only one-stop-shop for cattle products and services. A feature of the EXPO was the breeding seminar which attracted 180 participants and promoted a better understanding of Australia's cattle production system.



Increasing customer and consumer demand for red meat

MLA works to grow demand for Australian beef, sheepmeat and goatmeat through aggressive marketing and promotions in domestic and global markets, as well as through eating quality, nutrition research and product development programs.

✓ MILESTONE SCORECARD

25 milestones

18 achieved
2 partly achieved
5 not achieved

Objectives under this strategic imperative include:

- 2.1 Develop and deliver market and consumer insights for better decisions
- 2.2 Aggressive promotion of beef across global markets
- 2.3 Aggressive promotion of sheepmeat and goatmeat across global markets

\$ INVESTMENT



Meat Industry Strategic Plan 2010-2015 Strategic Themes

Marketing and promotion
Innovation

Australian Government Science and Research Priorities

Food
Health

Australian Government Rural Research and Development Priorities

Productivity and adding value
Supply chain and markets
Supporting the Rural Research and Development Priorities

Agricultural Competitiveness White Paper Priorities

Adoption of research and development
Advanced technology

○ KEY ACHIEVEMENTS

Greater coverage

MLA's National Livestock Reporting Service reported on an additional five saleyards and provided a new indicator for WA cattle producers.



Grab-and-go beef

Through a partnership with MLA Donor Company, hot, cooked beef products were rolled out to 900 Woolworths stores nationally, providing an opportunity to use 800 tonnes of outside flats, delivering \$5.5 million/year in new profit for the red meat industry.



✓ FACTS AND FIGURES

Time taken for vending machine to heat red meat meal	UAE consumers surveyed aware of 'True Aussie' brand	Lamb sales increase from Australia Day lamb campaign	No. of companies involved with beef CoMarketing	No. of companies involved with lamb CoMarketing	Penetration of 'True Aussie' logo in Japanese supermarkets
2 mins	>50%	↑ 37%	52	21	58%
Farm-gate return of MSA	No. of education brochures distributed to health carers	Beef value share increase from July/Aug 2015 campaign	No. of brands involved with beef CoMarketing	No. of brands involved with lamb CoMarketing	Japanese foodservice chains using the 'True Aussie' logo
\$153m	100,000	↑ \$17m	234	53	27

+ OPPORTUNITIES

- Opportunity exists to position Australian red meat to capitalise on global trends such as food ‘grazing’, premium retail-ready meals and meeting demand from consumer segments such as ‘active ageing’.
- Market insights are being used to understand future consumer attitudes and behaviours and guide the development of innovative products, such as high moisture extrusion cooked products.
- Australian red meat has an opportunity to capitalise on the trend of global fast food and casual dining franchises gaining footholds in the Middle East/North Africa region.
- Marketing activities can position lamb as a versatile, easy-to-cook meat that brings people together.
- Marketing campaigns should continue to focus on removing nutritional barriers to beef consumption and highlighting the iron credentials of beef.

■ CHALLENGES

- It’s important red meat is positioned as an affordable and convenient alternative to chicken and pork in supermarkets, and products are developed which add value to secondary cuts and carcasses which don’t meet specifications.
- As lamb’s heartland consumers age, it’s important the industry engages a new, younger audience by showcasing the relevance of lamb to their lives.
- Research shows one in three Australian women are still not getting enough iron from their diet.
- Health risks associated with red meat and cancer were raised in a report from the International Agency for Research on Cancer.
- Health care professionals are not always clear on the role of red meat in the context of chronic disease risk and sustainability concerns.
- Tight supply and improved market access of major competitors in global markets is likely to see Australia lose marketshare.

📌 OUTLOOK 2016-17

- ‘Little Foodies’ baby food range (featuring several red meat products) will be launched in domestic supermarkets to increase the quantity and frequency of red meat consumption by toddlers.
- Ready-to-eat red meat meals will be trialled in vending machines in Melbourne, Europe and the Middle East through a partnership with MDC.
- Through MDC, the value of secondary cuts and trimmings will be increased through high moisture extrusion cooked red meat products which will be trialled in South-East Asia.
- MLA will also create opportunities for MSA brands in international markets.
- The ‘You’re Better on Beef’ campaign platform will continue, with phases in July 2016 (winter campaign), October/November (iron campaign) and June/July 2017.
- A new iconic Australia Day lamb campaign will be launched, with a message of sharing lamb with family and friends on 26 January, reaffirming lamb as Australia’s national dish.

MSA goes global

Meat Standards Australia (MSA), Australia’s red meat eating quality system, embraced a global focus with eight Australian brands adopting the export guidelines to use the MSA eating quality message internationally.



Sales increase

MLA’s Australia Day lamb campaign generated a 36.9% sales increase across the two-week campaign period. The three phases of the ‘You’re Better on Beef’ campaign contributed to increased volume and value of beef sales. For example, beef’s value share increased by \$17 million following the July/August 2015 campaign.



Develop and deliver market and consumer insights for better decisions

MLA delivers market and consumer insights to help red meat producers and other value chain partners make informed business decisions. MLA also works to develop innovation insights to identify growth opportunities in emerging markets and market segments.



STRATEGIES

Collect and disseminate livestock market data and analyses that help producers make informed business decisions

Collect and disseminate international market data and conduct incisive analyses of relevant world meat market developments

Develop consumer and customer insights for decision making and KPI tracking

Develop value chain innovation insights

OBJECTIVE HIGHLIGHTS

New insights to guide innovation

MLA's Insights2Innovation program identified five areas of opportunity for Australian red meat: the export markets of China, South-East Asia and the Middle East, the snack food market and 'active ageing' consumers. An 'attractive cities' profile was developed to map 'hot spots' for Australian red meat by assessing factors such as e-commerce, port infrastructure and government policy in cities in the three overseas regions. These insights will be used to identify and develop innovative products. For example, consumers in South-East Asia and China desire food without fear so MLA has started a project to look at tamper-proof packaging. MLA is also exploring opportunities to collaborate with processing/value-adding companies to develop snack foods to capitalise on the global trend of 'grazing' (smaller meals eaten on-the-go instead of the traditional three square meals a day) and products that meet the demands of baby boomers, such as smaller portion sizes and products that can be easily chewed.

Understanding consumers

MLA conducted a major consumer research project to enhance the industry's understanding of the Australian red meat consumer to ultimately grow domestic red meat

demand. MLA shared data and insights from this 'Usage and Attitude Study' with industry participants. The insights have been adopted by MLA's marketing and trade teams and the creative, media and PR agencies MLA works with. This will guide the development of MLA's marketing activities that are based on a deep understanding of consumers, helping to ensure MLA's investment is targeted and efficient. MLA has also expanded the 'Global Tracker' consumer study to include four more countries and new data points, such as adding questions specific to retail and foodservice channels, to better inform marketing investment decisions by MLA and industry stakeholders.

Improved saleyard reporting

MLA added five new saleyards to the markets covered by the National Livestock Reporting Service (NLRS) in 2015-16. Market reports are now available for the Deniliquin, Cootamundra and Cowra sheep saleyards and the Moss Vale and Charters Towers cattle saleyards. MLA also developed a market indicator for WA cattle producers, which was launched in July 2015. The weekly Western Young Cattle Indicator (WYCI) draws on data from the Muchea, Mt Barker and Boyanup markets, reported by the NLRS. The new indicator provides a direct comparison for WA producers against

the longstanding Eastern Young Cattle Indicator (EYCI). The categories of stock included in the WYCI are the same as the EYCI, including C2 and C3 yearling and vealer steers and heifers.

Improved market communication

The Market Information Statistics Database was launched in September 2015 to give the red meat supply chain better access to export, production and price data. The database, available on the MLA website, averages 100 queries a day with the most searched term being 'Australian cattle prices'.

MLA added a new information platform to its quarterly cattle industry projections in 2015 with the development of three-minute YouTube videos which summarise the key messages from the projections. This approach was refined in 2015-16 to include lamb, alternating with beef each quarter. The beef videos each received more than 3,000 views and the lamb video has been viewed more than 1,000 times.

KEY MILESTONES

MILESTONE	RESULT	COMMENTARY
Over 90% of stakeholders who utilise MLA market and industry insights information believe it is valuable and contributes towards their business decision making process	Achieved	99% of survey respondents rated market information as valuable
Maintain the National Livestock Reporting Service's ISO accreditation by reporting over 80% of livestock market sales	Achieved	NLRS passed its annual ISO certification audit
Establish innovation insights strategies to identify and evaluate new innovation opportunities that will underpin growth in at least three key markets and market segments	Achieved	An e-commerce platform and 'attractive cities' profiling is being evaluated in China and a South-East Asia multi-sector workshop was completed to identify key growth segments and innovation gaps. Through a strategic value chain partner, MLA is facilitating using a 'customer demand accelerator model process' to evaluate new value-added red meat beef products for new and existing retail and export markets. A series of customer segmented workshops in China has been completed with value-added red meat opportunities identified for specific markets
Design and deliver at least three industry workshops and/or communication materials that build industry's capabilities and awareness of emerging trends and opportunities for new growth opportunities in emerging markets and market segments	Achieved	A series of targeted trends and consumer insights workshops was conducted in Brisbane, Melbourne and Sydney with high industry participation and engagement. Customised materials were designed and delivered to specific value chains upon request. At least two new value-added products in the mega-trending areas of snacking and/or active ageing have been identified as a direct result of the facilitated workshops

Market Information Plus

MLA updated its NLRS app in 2015-16. Known as 'Market Information Plus', the app is an interactive tool for producers to compare and analyse sheep and cattle prices from across 70 saleyards to guide marketing decisions.

The new design includes the ability to compare weekly, monthly and annual saleyard data for specific classes of sheep and cattle and gives producers the option to chart or grid this information.

MLA's digital market service was also enhanced with revamped over-the-hooks reports for Queensland, Victoria and NSW. These weekly market reports now include charts and information about how the indicators can be used to guide individual businesses. *Meat & Livestock Weekly* was emailed twice a week to subscribers, with a downloadable version of the statistical tables and charts attached.



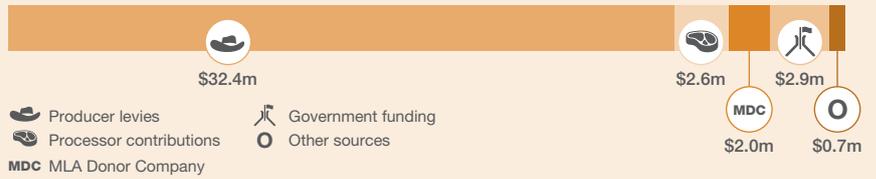
Aggressive promotion of beef across global markets

MLA delivers high-impact beef promotions to strengthen customer loyalty to beef in the domestic market. It also invests in nutrition research and marketing programs. MLA delivers business development and ‘brand Australia’ building programs globally. It also supports the adoption and recognition of the MSA beef grading system through the supply chain.



INVESTMENT

\$40.6 million



STRATEGIES

Strengthen customer loyalty and commitment for beef in the domestic market

Build evidence supporting health benefits and maintain fact-based recommendations

Communicate and promote evidence-based nutrition information on red meat to key influencers

Build the True Aussie brand to differentiate and add value to Australian beef in export markets

Develop novel value-adding options through packaging and product innovation that enhances demand for beef in global markets

Support brand owners in developing their brands to better differentiate them in global markets

Ensure sufficient integrity programs are implemented to build confidence in the MSA program

Support adoption and recognition of the MSA beef grading system through the supply chain



KEY MILESTONES

MILESTONE	RESULT	COMMENTARY
Domestic market		
Maintain beef's value share at 36% or higher of all fresh meat; and penetration in the last four weeks (preceding the survey) at 69% or higher	Partly achieved	The closing value share of beef for 2015-16 was 36.8%, up from 36.3% in 2014-15. Value share peaked at 38.2% in July/August 2015 and only dropped below 36% in summer months in line with the seasonal trend. Four-weekly penetration was 68% as at 9 July 2016
Improve key beef attributes that drive consumer purchase propensity as measured by consumer tracking	Achieved	Key attributes that are important to consumers and the focus of 2015-16 beef communications were: 'Makes healthy meals' (consumer endorsement up from 49.1% to 52%) and 'Contains a wide variety of vitamins, minerals and nutrients' (consumer endorsement up from 50% to 54%)
Strong trade/end user support for, and uptake of, MLA beef marketing programs	Achieved	Retailer support was seen for the beef brand campaign across summer and winter, as well as strong buy-in from independent retail (through the Australian Butchers' Guild). Promotions occurred across the foodservice sector. Further support was received from Spirit Hotels and Rashay's chain of restaurants
International markets		
International business plans are endorsed by industry and at least 80% of KPIs listed are achieved	Achieved	International marketing strategies were endorsed by the peak industry councils in February 2016. MLA delivered more than 80% of the international markets implementation plan KPIs
Business development programs deliver supply chain opportunities and create strong trade and customer links	Achieved	MLA business development activities (such as chef immersions, information seminars, butcher training, trade workshops) received more than an 80% satisfaction rating from industry participants
Over 80% of Australian exporters are satisfied with MLA delivery of key events (trade shows, missions, etc)	Achieved	MLA participated in five key international trade shows. More than 80% of surveyed exporters were satisfied with MLA's delivery of these events

MILESTONE	RESULT	COMMENTARY
Value-adding innovations		
Develop novel value-adding options through packaging and product/process innovation that enhances demand for beef in global markets	Achieved	A suite of beef grab-and-go products successfully launched in the domestic retail market as a result of being developed through a strategic value chain partnership involving a key processor, large retailer and MLA. A dry-aged beef production process was also developed
Work with supply chain partners and end customers to develop at least one new beef product opportunity that encompasses demand-driven technologies that transform and value-add low-value cuts, with the potential to add at least \$5/head in net value and grow demand for producers	Achieved	A range of new product concepts for targeted meal occasions including beef snacks and active ageing are under development after being identified through market and consumer-focused exercises. Examples of projects contributing to the \$5/head increased value include the deli hot box grab-and-go project which has the potential to deliver \$1.13/kg (\$2.39/head) net benefit, while the SmartShape meat shaping technology provides a premium of over \$0.50/kg (\$6.25/head)
Design and deliver at least two industry workshops and/or communications materials that improve beef industry capabilities and awareness to adopt and prosper from new products and value-adding innovations	Achieved	Customised workshops have been delivered to targeted value chains on new product concepts based on latest global trends and consumer insights. These include a global trends workshop in Sydney and Brisbane featuring snacking and ageing population trends, 'On my plate' online community panels and a YouTube video on dry-aged beef protocols
Lead and deliver objectives in the cross-sectoral Rural Research and Development for Profit Insights program	Achieved	The first three milestone reports for the Rural Research and Development for Profit 'Insights2Innovation' project have been successfully submitted to the Department of Agriculture and Water Resources
MSA		
100% of MSA-licensed processors implement the MSA Model V1.8 (MSA Model 2014)	Not achieved	All MSA beef processors used the current MSA optimisation model (V1.7) for 3.1 million cattle MSA graded in 2015-16. Version 1.8 is awaiting endorsement by the MSA Pathways Committee for implementation
Improvement of national eating quality measured by the MSA Index	Partly achieved	The national average MSA Index was 57.52 in 2015-16, just 0.9 points lower nationally than 2014-15. However, the average MSA index increased by 0.19 for grassfed cattle, representing 49% of MSA graded cattle

Grab-and-go beef

An MLA Donor Company (MDC) initiative with processor Teys Australia delivered a red meat alternative to 'grab-and-go' roast chickens in supermarkets. After trialling pre-cooked hot beef in selected Woolworths stores in Queensland in April 2016, two products were rolled out to 900 Woolworths stores nationally in July. The 'Cedric Walter' traditional roast beef and hot corned beef products are ready to slice and serve. The products add value to muscles such as the outside flat and use innovative packaging technology. The beef can be cooked in-store in a new high-temperature inner bag before being inserted into the outer carry-home bag.



Aggressive promotion of beef across global markets



OBJECTIVE HIGHLIGHTS

Domestic market – consumer and retail activities

MLA's 2015-16 domestic beef campaign responded to research that consumers rate nutrition as the second biggest reason for eating less beef, behind price. Three phases of the 'You're Better on Beef' campaign focused on the nutritional benefits of beef with national television, radio and outdoor advertising, online video and social media campaigns, point-of-sale material and influencer campaigns. An 'inspiration session' hosted by Mamamia, Australia's number one website for mothers, showed women how to use beef to produce simple, delicious mid-week meals. Each campaign phase contributed to an increased volume and value of beef sales. For example, beef's value share increased by \$17 million (compared to the same four-week period the previous year) following the July/August 2015 campaign. After the iron-focused campaign (November 2015) the number of mothers who limited red meat consumption due to health concerns fell from 32% before the campaign to 28% after.

At retail, MLA's biannual new cut concepts presentations to national retailers and their vendors contributed to new products appearing on shelves in 2015-16. Costco Wholesale is piloting *yakiniku* sliced beef and beef brisket in their range while Coles and some IGA networks are selling sub-primaled beef rumps. MLA supported a campaign with a national retailer to gain a greater understanding of shopper behaviour. An email promoting winter beef cuts was sent to 12.3 million customers; it was opened by 38.3% of recipients, 29.8% activated it and 15.6% purchased a promoted cut. This contributed to a 15% year-on-year increase in the retailer's beef sales during the campaign.

MLA launched a newsletter, *Butcher's Paper*, as an insert in *The Australian Butchers' Voice* magazine which is circulated to 2,700 butchers. *Butcher's Paper* includes market information, shopping and consumer trends, a cut masterclass, product innovation tips and details of upcoming MLA campaigns. The first issue featured the breakdown of a whole chuck to demonstrate the versatility of the primal and show butchers how to produce two new steak options for their range, the

Delmonico and Denver. An associated innovation workshop was attended by 55 butchers – 76% found the session extremely valuable, 88% said they would sub-primal the chuck and 94% would break down and value-add lamb legs.

Red meat nutrition – events, research and crisis management

As part of a partnership with the Dietitians Association of Australia, MLA supported the Australian Healthy Weight Week in February 2016 which involved 750 events around the country. More than 1,100 dietitians and 40,000 members of the public took part in activities promoting healthy meals, and 40,000 copies of MLA's *Guide to healthy, balanced meals* brochures were distributed. MLA also supported the Dietitians Association of Australia's National Conference in Melbourne in May 2016, where more than 200 delegates visited MLA's stand.

MLA Donor Company is working with the University of Otago in NZ to trial powdered beef products as a low-cost dietary supplement for young children in Indonesia to overcome iron and zinc deficiencies. The findings from this study will inform global policy about the amount of red meat required from six months of age to prevent iron and zinc deficiencies and support normal growth and development.

In October 2015, MLA reassured consumers on the benefits of Australian red meat in its response to a report on the carcinogenicity of red and processed meat by the International Agency for Research on Cancer, an agency of the World Health Organization. MLA's primary focus was to place the findings in the context of the Australian Dietary Guidelines which recommends Australians eat 455g/week of cooked red meat to meet their iron and zinc requirements. Credible third parties, including healthcare experts and media spokespeople, were briefed on the report's findings to ensure a balanced and consistent message. MLA's strategic response was well understood and supported by the peak industry councils and key industry stakeholders who were also pre-briefed. Despite high media coverage, reporting was largely balanced and the coverage of red meat and health has remained above 75% favourable/neutral since then.

MSA beef

Australia's red meat eating quality grading system, MSA, has gone global with eight Australian brands embracing the MSA export guidelines and using the MSA grading system to underpin their brand message in overseas markets. On the home front MSA brands continued to grow during 2015-16 with a further nine meat brands embracing the system, bringing the total to 140.

MSA adoption continued with another 3,244 producers becoming MSA registered with 74% eligible to supply cattle to the 43 MSA-licensed beef processors. This resulted in 3.1 million cattle being MSA graded with average compliance to MSA requirements maintained at 93%. Cattle producers with carcasses compliant to MSA and company specifications were rewarded with an additional \$0.24/kg for young, non-feedlot cattle and \$0.15/kg for cattle that met grainfed criteria. This resulted in an additional farm-gate return of \$153 million.

Producer uptake of the MyMSA feedback system continues to grow with more than 10,000 visits throughout the year and now 67% of all new producer registrations occur online. The online MSA e-learning module for producers, released and now accessed by more than 1,200 producers during 2015-16, won a gold medal in the Australia-wide Training Industry Awards.

True Aussie

MLA international marketing activities strengthened the positioning of the 'True Aussie' brand in Australia's two largest Asian beef markets in 2015-16.

Consumer brand awareness of 'True Aussie' increased in Japan from 18% in 2014-15 to 25% in 2015-16 and in Korea from 36% awareness to 46%.

Japan – Aussie-style barbecue

Australian steak sales in Japan increased by an average 197% at major supermarkets during the 'Let's Barbie' campaign in July and August 2015. Campaign events included a commercial broadcast on television, huge digital billboards in Tokyo and public barbecues. At an event at the Australian Embassy in Japan, 2 August was officially named annual 'Barbie Day', receiving significant national media coverage. Market research by Kantar

showed the 'Let's Barbie' television commercial was one of highest performing in their client database, in the top 2% for consumer engagement and the top 1% for purchase persuasion. The value of barbecue-type cuts exported from Australia to Japan between May and July 2015 increased 29.4% year on year, compared to an average increase of 17.1% across all beef cuts.

Middle East/North Africa (MENA) – LuLu

MLA ran a collaborative Ramadan program with the largest retailer in the MENA region, LuLu. 'True Aussie' co-branded Ramadan point-of-sale material featured in 19 hypermarkets across the United Arab Emirates (UAE), Kuwait, Qatar, the Kingdom of Saudi Arabia and Oman. In-store activities were supported by radio and print media advertising in Saudi Arabia and the UAE. Social media activities included videos of MLA's Chef Tarek giving live in-store recipe demonstrations, with supporting recipes uploaded weekly to the LuLu website. Sales of Australian beef and lamb increased by 18% in volume and 10% in value compared to 2015 levels.

South-East Asia – trade events

More than 30 Australian beef and lamb exporters attended the biennial Food Hotel Asia tradeshow in Singapore. MLA's co-funded stand generated up to 15 new leads from companies in Singapore and surrounding countries. Networking events hosted by MLA introduced trade sector exhibitors to 55 leading chefs from Singapore and Malaysia. More than 60 importers also attended red meat forums hosted by MLA in Hanoi and Ho Chi Minh City in Vietnam to learn more about importing Australian red meat. Some relaxation to tight regulatory cut restrictions in Indonesia in November 2015 saw the reintroduction of the rump as an additional export option. MLA provided six training forums across Indonesia to provide importers with information on loin alternatives.

EU – trade promotion

MLA assisted two major Australian beef importers to grow their online businesses into Europe with promotional merchandise and social media support. These distributors ran

successful campaigns over Christmas 2015 and achieved a 300% increase in sales compared to the same period in 2014. MLA partnered with another importer to host chef workshops with large German wholesalers and, as a result, a regular supply of grassfed and grainfed Australian cuts was established into foodservice and wholesale sectors. MLA also hosted 16 Australian exporters at the 2015 ANUGA trade show in Germany – the largest food show in Europe, with more than 155,000 visitors from 200 countries attending the event.

North America – culinary immersion

MLA ran two Australian grassfed beef and lamb culinary immersion events at Palm Springs and Chicago in May 2016. The 36 participants included chefs from large national and regional restaurant chains, hotels, independent restaurants and restaurant groups, universities and culinary consultants. These education events were positive for business development, with seven new leads – representing 1,100 restaurants across the US – requesting samples, additional menu ideas, supplier pricing and new Aussie grassfed beef menu placements. Four existing accounts – representing 126 restaurants – are considering additional beef or lamb products to their existing menu. The events also generated strong social engagement within the large US foodservice community, with 11,455 likes on the blog post about the events and 1.41 million impressions on Facebook and Instagram activity during the events.

Korea – digital marketing

MLA's red meat marketing activities in Korea in 2015-16 included a strong digital strategy. MLA engaged consumers with daily content on Facebook, such as facts about Australian red meat, recipes and events, including four key seasonal promotions. MLA's Korean Facebook page has 38,038 followers, and received 85,682 likes, 68,695 comments and 21,539 shares in 2015-16. 'Country of origin' is a key driver of consumer trends in Korea, and Australia has a high perception, even though 'True Aussie' is in its infancy. MLA rolled out 'True Aussie' branding in 2015-16 and distributed 12.6 million 'True Aussie Beef' stickers to 2,334 stores. MLA also

supported 8,515 days of in-store sampling promotions in 2015-16, and 35,303 sampling days by industry.

CoMarketing

The Collaborative Marketing Program (CoMarketing) continues to support Australian red meat brand owners to develop marketing strategies for their beef, veal, lamb and goatmeat brands. The number of beef companies involved in CoMarketing programs with MLA increased from 50 to 52 in 2015-16. These companies collectively have 234 brands, of which 81 are MSA certified and 14 are underpinned by the Pasturefed Cattle Assurance System (PCAS) or third-party verified grassfed brands.

Value-adding innovations – dry-aged beef

In response to renewed interest in dry-aged beef in the foodservice sector, a food manufacturer developed a best practice guide for this process via an MLA Donor Company project. The guide, which is targeted at butchers and chefs to ensure consistent product, is supported by a YouTube video featuring MLA's Corporate Chef, Sam Burke. In another dry-aged project, Meat Standards Australia has commenced running consumer sensory research to develop consistent eating quality standards for dry-aged beef, which did not previously exist.

Aggressive promotion of sheepmeat and goatmeat across global markets

MLA delivers high-impact seasonal lamb campaigns to maintain the market share of lamb in the domestic market. MLA also invests in nutrition research and marketing programs to ensure key influencers continue to recommend red meat consumption three to four times a week. MLA delivers business development and ‘brand Australia’ building programs for sheepmeat and goatmeat globally. It also identifies and evaluates opportunities for new lamb products and develops new technologies to transform and value-add low-value cuts.



INVESTMENT

\$18.9 million



STRATEGIES

Strengthen consumer loyalty and customer commitment for sheepmeat in the domestic market

Build evidence supporting health benefits and maintain fact-based recommendations

Communicate and promote evidence-based nutrition information on red meat to key influencers

Build the True Aussie brand to differentiate and add value to Australian sheepmeat in export markets

Develop novel value-adding options through packaging and product innovation that enhances demand for sheepmeat and goatmeat in global markets

Support brand owners in developing their brands and products that better differentiate them in global markets

Ensure sufficient integrity programs are implemented to build confidence in the MSA program

Support adoption and recognition of the MSA sheep grading system through the supply chain

Red meat from vending machines

MLA Donor Company supported an innovation by Australian lamb processor Frew Group to value-add lamb by developing ready-to-eat meals from vending machines. The vending machines can heat single-serve meals such as lamb meatballs in Massaman curry in just two minutes.

The vending machines were on show at IFFA, a global meat processing exhibition in Germany, in May and are looking to be trialled at railway stations and universities in Melbourne, Europe and the Middle East.

The vending machines not only value-add secondary cuts and provide convenient meals to time-poor consumers, they also create a new opportunity for Australian lamb in the face of volume restrictions into the EU (which apply to frozen but not cooked product).

The vending machines also collect point-of-sale information and will potentially gather consumer feedback.



KEY MILESTONES

MILESTONE	RESULT	COMMENTARY
Domestic market		
Maintain lamb's market share of fresh meat at retail at 13.5%	Not achieved	The closing value share of lamb was 13.3% in 2015-16, slightly below 13.4% in 2014-15
Improvement in key lamb attributes as measured by consumer tracking: 'Top of mind awareness' and 'Is loved by Australians'	Not achieved	'Top of mind awareness' averaged 14% in 2015-16 compared to 14.3% in 2014-15. The measure 'Is loved by Australians' was discontinued as a tracking measure in February 2016, at which point endorsement was at 68% for FY16, down from 71% in FY14. MLA is now measuring attributes that are most important to Australian consumers (e.g. purchase drivers) and has reflected these in strategy development and future target setting
International markets		
International business plans are endorsed by industry and at least 80% of KPIs listed are achieved	Achieved	International marketing strategies were endorsed by the peak industry councils in February 2016. MLA delivered more than 80% of the international markets implementation plan KPIs
Business development programs deliver supply chain opportunities and create strong trade and customer links	Achieved	MLA business development activities (such as chef immersions, information seminars, butcher training, trade workshops) received more than 80% satisfaction rating from industry participants
Over 80% of Australian exporters are satisfied with MLA delivery of key events (trade shows, missions, etc)	Achieved	MLA participated in five key international trade shows. More than 80% of surveyed exporters were satisfied with MLA's delivery of these events
Value-adding innovations		
Work with supply chain partners and end customers to develop at least one new smallstock product opportunity that encompasses demand-driven technologies that transform and value-add low-value cuts, with the potential to add at least \$1/head in net value and grow demand for producers	Achieved	Several smallstock product opportunities were developed, including dry-aged sheepmeat (achieving a premium of \$3-\$4.39/head), and recovered lamb meat from the aitch bone after leg boning, as well as deboned forequarter and leg meat to prepare cooked meals that will be sold directly to the end consumer via vending machines. The value-adding opportunity for the meat preparation and cooking supply chain phase is estimated at \$6.36/head
Design and deliver at least one industry workshop and/or communications resource that improves industry capabilities and awareness to adopt and prosper from new products and value-adding innovations	Achieved	A new 'web-scraping process' to gather market insights for lamb was delivered to a large processor and is now being adopted as a routine, cost-effective market insights method within its sales and marketing team
MSA		
Two supply chains trialling MSA cuts-based sheepmeat	Not achieved	Under the Sheep CRC, a cuts-based MSA prediction model for sheepmeat has been developed. Three supply chains engaged with the Lamb Supply Chain Group have been briefed on the model. Application will depend on the development of real-time intramuscular fat measurement, which is a priority for a value chain Rural Research and Development for Profit project
MSA Index implemented for sheep	Not achieved	An MSA Index for sheep will be implemented once a cuts-based model is developed. Eating quality indices have been integrated into Australian Sheep Breeding Values (ASBVs), within the Sheep Genetics program



OBJECTIVE HIGHLIGHTS

Domestic market – spring and Australia Day campaigns and Masterpieces

MLA's spring lamb campaign contributed to a 2.5% growth in lamb sales at a time when lamb retail prices were 9% higher. The campaign used a television commercial and billboards to position lamb as the seasonal meal of choice with a wide range of versatile, easy-to-cook cuts. A social media campaign, DisasterChef, was fronted by well-known chef George Calombaris. It was designed to place lamb as an easy, versatile meal option for less confident, younger consumers.

The 2016 Australia Day lamb campaign centred on the idea that no Australian should lamb alone on Australia Day. The video component of 'Operation Boomerang' featured a well-known cast of Australians and was supported by social media and PR campaigns. Sales results for the period (average sales figure of the third and fourth week of January) finished the highest on record at 36.9%, despite Australia Day falling on a Tuesday. (The last time Australia Day fell on a Tuesday sales increased by 10.1%.) During the campaign period, lamb's overall category value was 13.8%, up from 12.6% in 2015. The advertisement was also awarded 'TV Ad of the Year' at a prestigious media event, for the second year running. In addition to this the campaign received three golds at The Effie Awards (Effectiveness in Advertising Awards), along with the coveted Grand Effie, in recognition of the effectiveness of the campaign.

The autumn lamb campaign expanded from a historical focus on roasts and highlighted the versatility of the whole carcass. Lamb was positioned as the easy go-to solution in any situation, regardless of the unpredictability of autumn weather or spontaneous guests. Activities including television ads, billboards, social media, mobile ads and PR were aimed at engaging consumers when they were in the meal planning process with content that responded to the current weather forecast. The campaign resulted in a sales growth of 4.5% over the campaign period.

The Masterpieces whole-of-carcass series for beef, lamb and goatmeat was launched to engage the foodservice

sector with information about non-loin cuts, including beef chuck, lamb leg and goat forequarter. In the first three months of the program, Masterpieces content achieved 300,000 views across Facebook and YouTube and increased Facebook page audience numbers by 27% and YouTube channel subscribers by 176%.

Nutrition

General practitioners (GPs) are a trusted source of information but most are not trained in nutrition. MLA is providing doctors with practical tips on healthy eating so they can help their patients follow a healthy, balanced diet which includes red meat three to four times a week as per the Australian Dietary Guidelines.

MLA continued to work with ThinkGP, one of the leading online GP educators in Australia, to develop a second accredited learning module, this time on infant nutrition. The module was launched in September 2015 and 1,800 GPs have enrolled in both modules (the first was on weight management). MLA's partnership with GP publication, *Australian Doctor*, included developing a digital newsletter and supporting factsheets dedicated to nutrition. More than 2,000 GPs subscribed to the newsletter in 2015-16, with around half reading the content. The best-performing article, 'Four steps to healthy balanced meals', received 30,000 impressions on Facebook and the associated factsheet was downloaded almost 300 times.

MLA launched a new website www.mlahealthymeals.com.au in February to provide nutrition professionals with a central point of nutrition information, including scientific and behavioural evidence, about the role of red meat as part of a healthy balanced diet.

MSA sheepmeat

MSA continues to gain momentum in the sheepmeat industry with 5.2 million sheep processed using the MSA pathways during 2015-16, with 63% trade marked as MSA, up from 51% for 2014-15. Victoria represented the largest percentage of MSA lambs with 48% of the total MSA production. South Australia had the largest increase in MSA lambs being

presented for grading (an increase of 21%) and Tasmania had the largest growth in MSA trade marked lambs (an increase of 62%).

Of the 3,244 new MSA producer registrations, 60% were eligible to supply sheep to the MSA program to the 19 MSA-licensed sheep processors.

Japan – Lambassadors and Genghis Khan promotions

MLA's 'Lambassador' program created buzz among Tokyo's chefs about the versatility and quality of Australian lamb. Nine Lambassadors, including chefs, a butcher, a food stylist, a representative from the Sheepmeat Eating Association, a restaurant owner and a food consultant, travelled to Australia to learn more about Australian lamb production and how lamb is used creatively by chefs. Follow-up activities in Japan included creating a new lamb dish for 20 restaurant chefs; demonstrations for 20 influential food journalists and 170 bloggers/social influencers; and a lamb cutting demonstration for 30 culinary school teachers. Lambassadors cooked 1,500 lamb chops in two days for 10,000 visitors to the 2015 Hitsuji (sheepmeat) Festival, which received 60 media reports. The launch of *The Lambassadors* recipe booklet was attended by 90 media, and 30,000 copies of the booklet have been distributed to chefs in Tokyo.

The Hokkaido region has the highest sheepmeat consumption in Japan. This market is dominated by the 'Genghis Khan' dish (barbecue lamb). MLA worked to entrench Genghis Khan cuisine as a cultural icon in Hokkaido, in conjunction with the Genghis Khan Association. Through the Association, 2,000 copies of a multilingual *How to Genghis Khan* guide were distributed to restaurants to help independent restaurateurs target more than five million foreign tourists and compete for new customers in a flat economy. MLA continued to help manage the Genghis Khan Supporters Club, which it established in 2013 to encourage Hokkaido consumers to be proud of the local lamb dish. Activities included managing the club's social media profile, school events and the annual Genghis Khan festival in Sapporo.

Middle East/North Africa (MENA) – butcher training

MLA trained 423 retail butchers at 20 sessions across the MENA region in 2015-16. The events educated butchers about different cuts, the attributes of Australian lamb and beef, and demonstrated how to set up point-of-sale displays. The training emphasised the 'True Aussie' attributes of quality, consistency, halal and trust, and led to the placement of 'True Aussie' cut charts, pack stickers, caps and aprons into three large retailers in the region. MENA celebrity, Chef Tarek Ibrahim, also trained more than 3,000 chefs in 48 sessions across the region, including at culinary schools in the United Arab Emirates, Jordan and Egypt.

South-East Asia – chefs' tour

A tour to Australia inspired 10 Malaysian chefs to add new lamb products to the menus of their restaurant chains. MLA and the Victorian government hosted 10 of Malaysia's top chefs who participate in MLA's Red Majesty Chefs program (designed to promote and showcase how Australian beef and sheepmeat can be used in modern Chinese cuisine). The tour through Victoria, which included visits to exporters and producers, was designed to give the chefs a better understanding of lamb supply chains and discover alternate ways of using lamb in Chinese cuisine menus.

EU – retail promotions

MLA co-sponsored in-store promotions with a major UK retail chain with a strong focus on lamb around peak times of the year such as Easter. Selected in-store promotions contributed to sales increasing by more than 100% year on year. MLA put lamb on the menu in Germany to celebrate Australia's national sail training ship, *Young Endeavour*. The event was hosted by Australia's Ambassador to Germany, His Excellency David Ritchie AO and *Young Endeavour's* captain, Lieutenant Commander Gavin Dawe OAM. German dignitaries, businesses and media were treated to dishes such as braised lamb in prosciutto blankets which were prepared onboard by the *Young Endeavour's* Navy chefs.

US – retail and foodservice promotions

Thousands of Australian lamb and grassfed beef samples were provided to consumers in partnership with the Stop & Shop retail chain in Massachusetts as part of a 'True Aussie' lamb and grassfed beef 'tailgating' promotion. (Tailgating is the custom of barbecuing on the back of utes outside sporting events.) Other lamb retailers also conducted increased sampling during the winter and Easter periods. Sales increased between 30% and 100% at participating stores during the period.

'True Aussie' goat was a featured partner in New Orleans, Louisiana, during the year at the Rising Star Chefs Gala event. Rising Stars recognises up-and-coming independent chefs. More than 450 local chefs, restaurateurs, local media and consumer food enthusiasts attended, and foodservice leads from the event were provided to an importer partner. Australian goatmeat also featured at Rising Stars events in Miami and San Francisco – excellent target markets for Aussie goatmeat due to their consumers' love of ethnic flavours and preparedness to experiment.

China – cold chain integrity

MLA's promotional activities in China in 2015-16 focused on improving market access conditions and assisting industry increase plant listings and chilled access. MLA also supported business development through the education and training of Chinese customers on Australia's integrity systems and how to handle and present beef products. MLA ran a workshop on cold chain integrity for Australian chilled red meat for AQSIQ (China Administration of Quality Supervision, Inspection and Quarantine) in August 2015, with presentations on the Australian red meat export system, industry supply chain systems, cold chain management system and red meat knowledge. It was attended by 68 Chinese government officials from more than 40 red meat import entry ports in China. MLA also held training for 45 customs officials from the pricing departments in 33 ports in China.

Value-adding innovations

MLA carried out a project to assess how different fat scores impact the dry-ageing process for lamb. The research outcome was that fatter lambs produce a richer-flavoured product with less yield loss. Chef-designed menu ideas have been developed and the value to the industry is being evaluated, based on the potential for new markets (including hoggets and mutton) and premiums for lambs which fall outside current weight or dentition grids in the premium artisan trend of dry-ageing.

CoMarketing

In 2015-16, 21 lamb companies had collaborative marketing (CoMarketing) programs with MLA. These companies collectively have 53 lamb brands, including seven MSA brands. The goatmeat component of CoMarketing was formalised, with two goatmeat companies receiving support for their two brands.

Improving productivity and profitability across the supply chain

MLA invests in research and development that creates opportunities for cattle, sheep and goat producers and supply chains to improve the productivity and profitability of their enterprises.

MILESTONE SCORECARD

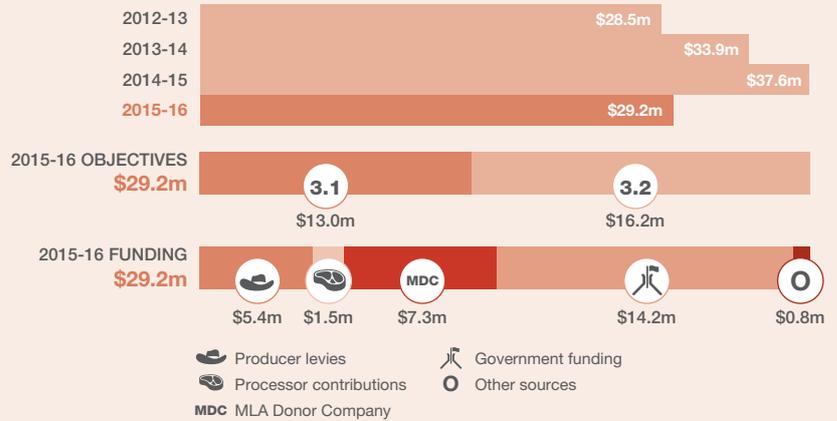
14 milestones

- 9 achieved
- 4 partly achieved
- 1 not achieved

Objectives under this strategic imperative include:

- 3.1 Identify and deliver innovative opportunities to increase on-farm productivity and profitability through genetic and management interventions
- 3.2 Identify information platforms and technologies that drive productivity and innovation throughout supply chains

INVESTMENT



Meat Industry Strategic Plan 2010-2015 Strategic Themes

- Innovation
- Our people
- Economics and infrastructure

Australian Government Science and Research Priorities

- Food

Australian Government Rural Research and Development Priorities

- Productivity and adding value
- Supply chain and markets

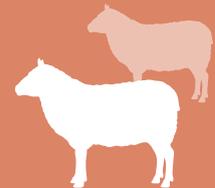
Agricultural Competitiveness White Paper Priorities

- Advanced technology

KEY ACHIEVEMENTS

World-first multi-trait sheep genetics

Sheep Genetics has delivered a world first, a new multi-trait single-step carcass analysis that means eating quality breeding values can be calculated for a wide range of animals. In addition, Sheep Genetics has also developed a new eating quality index which enables producers to achieve further gains for growth and lean meat yield in their animals while maintaining eating quality.



FACTS & FIGURES

Sides of beef processed by automated rib cutting machine	MSA compliance of graded beef carcasses	Accuracy of DEXA lean meat yield measurement	Producers trained in Livestock Data Link	Cost of dark cutting to Australian industry
7,000/day	93%	85%	200	\$50m/yr
Proportion of Australian cattle slaughter MSA graded	No. of Beef Industry Language White Paper recommendations	Accuracy of subjective lean meat yield measurement	Number of BladeStop™ units sold	Benefit-cost ratio of MDC automation program
38%	40	30%	129	4.7:1

+ OPPORTUNITIES

- Australia became part of the global eating quality conversation with MLA attending the International Eating Quality Conference in Paris, in late 2015, which aims to standardise eating quality research worldwide and create opportunities for research collaboration.
- The first *Australian Beef Quality Audit Report* was released at the MSA Excellence in Eating Quality forums held nationally during 2015-16, providing the opportunity for producers to benchmark their MSA performance.
- Advances in automation and objective measurement in beef and lamb have the potential to provide feedback to producers and the value chain that will ultimately enhance the consumer experience and improve market competitiveness.
- To encourage producer adoption, leucaena research outcomes need to be packaged with regionally relevant information on leucaena establishment strategies.

■ CHALLENGES

- The uptake of Livestock Data Link (LDL) by the processing sector remains relatively low, requiring its value to be clearly communicated and overcoming some technical challenges.
- Regardless of the pathway to slaughter, key challenges are to enable all Australian cattle to be MSA eligible and accurately predict the eating quality of all Australian cattle.
- Increasing the value of the carcass requires greater carcass utilisation and eating quality segregation.
- To remain a world leader in feedlot animal welfare, research outcomes are required that improve weather forecasting and the heat-load estimates of animals so industry is even better prepared to manage severe weather events.

📌 OUTLOOK 2016-17

- LDL will be rolled out to another three processing plants in southern Australia and will be introduced to two plants in northern Australia.
- Benchmarking tools in the myMSA feedback system will be introduced.
- In beef genetics, a DNA test for breed composition will continue to be developed which will help breeders achieve their desired breed composition mix in tropically adapted breeds and will eventually lead to predicting the genetic potential of composites.
- The development of a multi-energy X-ray system (MEXA) will commence, providing feedback to beef producers on lean meat yield and enabling the phenotype to be objectively measured.
- New management guidelines for non-Merino ewes will be delivered to optimise condition score profiles across the annual production cycle.

World-leading automation

Lamb and beef processing technologies saw new, world-leading cutting and objective measurement tools advance to working prototypes. The ability to accurately, reliably and objectively measure carcass attributes including lean meat yield will pave the way for producers to be paid on the actual value of the animal.

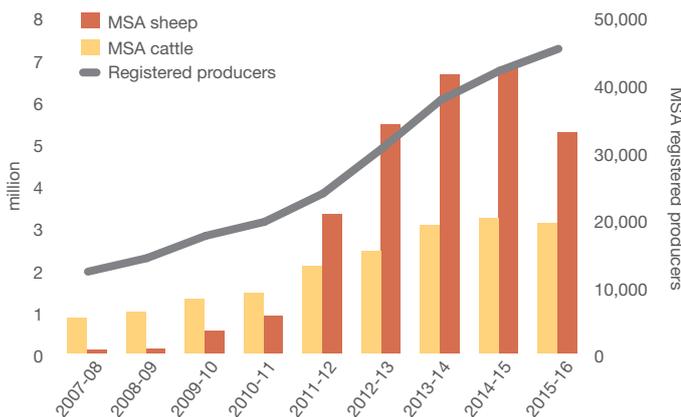


Genetics collaboration

MLA and MLA Donor Company collaborated with industry to launch the National Livestock Genetics Consortium which aims to double the annual rate of improvement in the industry's genetic value by 2022.



Growth in MSA registered producers and MSA graded livestock

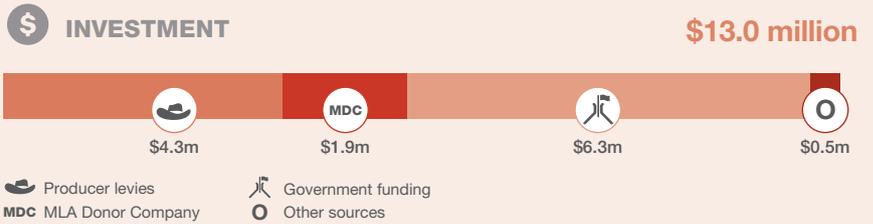


Source: MSA

OBJECTIVE 3.1

Identify and deliver innovative opportunities to increase on-farm productivity and profitability through genetic and management interventions

MLA assists livestock producers to increase their on-farm productivity and profitability by investing in research and development that creates opportunities to enhance the genetic performance of livestock and the feedbase, and improve grazing and feedlot systems and eating quality.



STRATEGIES

Enhanced rates of animal and feedbase genetic improvement for the beef and sheep industries

Continued **investment** in knowledge of management and measurement technologies that predict variation in eating quality performance

Improved productivity in grazing and feedlot systems

OBJECTIVE HIGHLIGHTS

Beef and sheep genetics

Beef and sheep genetics continue to advance by pinpointing and influencing the key profit drivers of fertility, eating quality and yield.

Australian sheep genetics research produced a world first, delivering a new, multi-trait, single-step carcass analysis, meaning eating quality breeding values can be calculated for a wider range of animals. These new ASBVs accompany a new selection index incorporating eating quality which will assist commercial lamb producers to target, more precisely, the best genetics for their business. The breakthrough was the result of decades of information gathering and analyses from LAMBPLAN, MERINOSELECT, the Sheep CRC and MLA's Resource Flock.

In the field of beef genetics, the 'Northern Repronomics™ Fertility Project' is focused on enhancing the evaluation of reproduction traits, enabling genomic selection and rapidly increasing the rates of genetic improvement in tropically adapted breeds. The legacy of the Beef Cooperative Research Centre (CRC) continues with enhanced analyses of research outcomes, searching for new insights and information with a special focus on cow body condition and longevity. In other work, a DNA test for breed composition is being developed which will underpin brand integrity, help manage *Bos indicus* content in tropically adapted breeds

and contribute to the development of genomic selection for multi-breed populations.

National Livestock Genetics Consortium launch

Red meat producers will benefit from the National Livestock Genetics Consortium which aims to double the annual rate of improvement in industry genetic value by 2022. To date this new model of research, development and adoption has generated more than \$32 million in cash and attracted more than \$38 million of in-kind resources, in addition to \$52 million already invested by MLA, MLA Donor Company and others. The aim is to deliver affordable, accurate and easy-to-use technologies for genetic improvement, in beef cattle and sheep.

MSA research

To improve the accuracy of the MSA beef grading model and increase livestock compliance to MSA requirements, a 'mixing and stress trial' was commissioned. The aim of the research is to identify on-farm objective measures of stress, develop an infra-red camera to measure stress indicators and develop management guidelines to reduce the impact of stress on beef eating quality. Results are due in early 2016-17. Stress is a major cause of dark cutting in livestock, estimated to cost the industry more than \$50 million a year.

For the MSA lamb and sheepmeat program, key research includes the development of a cuts-based model for MSA lamb as well as a yearling sheepmeat project. The sheepmeat project is testing the eating quality of lamb, hoggets and young mutton and has been extended to understand international consumer responses to eating quality, with work being conducted in China and the US. The work will be finalised in 2016-17.

The first *Australian Beef Quality Audit Report* was released at the MSA Excellence in Eating Quality forums held nationally during 2015-16 (see page 59), providing the opportunity for producers to benchmark their MSA performance.

Grazing advances

An ongoing leucaena trial at Whitewater Station, Queensland, compared the palatability of five varieties including 'Wondergraze' and the new psyllid-resistant 'Redlands'. The trial found stock exhibited no significant preferences. During 2016-17, researchers will record further observations (such as persistence characteristics) as the plants mature. Research into the methane-inhibiting properties of the marine algae *Asparagopsis* (red algae), under the MLA-managed National Livestock Methane Program, has delivered promising results for reducing the industry's carbon footprint. A sheep trial conducted in WA showed reductions in methane emissions per animal by up to 80%.

KEY MILESTONES

MILESTONE	RESULT	COMMENTARY
Increased rate of genetic improvement in beef and lamb through higher rates of genetic gain principally focused on eating quality (lamb) and reproductive rate (beef) and higher numbers of recorded seedstock animals particularly in northern Australia	Achieved	Sheep Genetics has delivered new eating quality breeding values and selection indexes. Reproductive rate trends are improving in northern Australia, with over 46,000 new records for fertility measures added since January 2014
Development and implementation of an MSA cuts-based program for lamb in two supply chains	Partly achieved	Under the Sheep CRC, a cuts-based MSA prediction model for sheepmeat has been developed. Three supply chains have been briefed on the model. Application will depend on the development of real-time intramuscular fat measurement, which is a priority for a Rural Research and Development for Profit value chain project
Development of at least two technologies that can predict yield and elements of eating quality in beef and lamb supply chains	Achieved	DEXA has been validated to provide high-accuracy prediction (85% relative to CT) of lean meat yield (LMY) for sheep. 3D camera imaging has been developed to positive proof-of-concept to predict LMY in sheep and beef carcasses
Establishment of three R&D programs to improve reproductive performance, increase northern feedbase options and develop novel options for lifting growth rates as part of the new growNORTH initiative (subject to the Department of Agriculture and Water Resources approving the initiative)	Achieved	Four growNORTH projects commenced in management intervention to improve reproductive performance, calf alert technology and growth paths for increasing beef production (heifers and cull cows)
Quantify the economic impact (using producer case studies) of adopting recommended practices to improve breeder herd productivity	Partly achieved	The economics of improving reproduction of beef cattle in northern Australia has been assessed and case studies have been conducted. Significant work is required to translate this into a useful document for industry
Evaluated Sperm Chromatin Structure Assay and the Sperm Protamine Deficiency Assay as predictors of bull semen quality and female reproductive traits	Achieved	Genome-wide studies identified regions of chromosome X that were associated with sperm chromatin integrity, protamine deficiency and % normal sperm
Developed and tested prototype systems for the on-property production of algae as a protein and energy supplement in northern Australia, including determining the optimal growth conditions for dry matter and crude protein accumulation and developing simple methods to harvest and store algae from these ponds	Achieved	The project investigating the use of micro algae on farm was completed. Results have identified a fast-growing, protein-rich, saline- and heat-tolerant microalga, and detail a new hydrodynamic pond design, airlift for efficient mixing and a low-cost harvesting process.

Feedlots

MLA has funded several key feedlot projects, including improved weather forecasting and heat-load estimates for feedlots to enable better preparation for extreme events. Two new user manuals for industry are nearing completion: *Feedlot Design and Construction* which features world-leading design and technology options; and *The Manure Handbook* which outlines best practice management for disposing of effluent and manure in feedlots.

Non-Merino ewe reproduction

Working on both commercial properties and research stations, MLA has funded research to improve the management of non-Merino ewes through developing an improved understanding of the impact of condition score on ewe and lamb survival, growth rate and reproduction. The result will be a tailored management system for non-Merino ewes that offers specific guidelines and advice to help producers maximise their enterprise productivity and profitability.



OBJECTIVE 3.2

Identify information platforms and technologies that drive productivity and innovation throughout supply chains

Working in partnership with technology providers, individual processors and the Australian Meat Processor Corporation, MLA via MLA Donor Company manages a research and development portfolio to improve processing efficiencies, address labour availability and health and safety, and increase innovation and supply chain information.



STRATEGIES

Develop and prove technologies that improve carcass information

Facilitate improved information flows within value chains

Develop new technologies to improve value chain productivity and efficiency

Implement new practices and technologies to increase labour efficiency and compliance with market specifications

OBJECTIVE HIGHLIGHTS

Objective carcass measurement

In April 2016, MLA was successful in receiving a \$4.8 million Australian Government grant, through the Rural Research and Development for Profit program, to develop more accurate measurement technologies using, for instance, multi-energy X-ray (MEXA) and 3D digital imaging. This important project leverages the capacity of 19 research and industry partners to achieve accurate, consistent measurements of live animals and carcasses. This will create opportunities for value-based payments to producers based on objectively measured meat yield and eating quality attributes.

Lamb automation

Automation of beef and lamb processing is a fast-moving space with the significant achievements in the lamb sector in recent years through the successful LEAP program being fast-tracked into beef. Commercial interest in robotic cutting and measurement technology has created strong research-industry partnerships, through MDC, reflected in the uptake by lamb processors of LEAP III (primal cutting using DEXA X-ray), LEAP IV (middle cutting system) and LEAP V (forequarter processing). LEAP V, presently a high-throughput production prototype, will be introduced into

two new processing facilities during 2016-17. A six-way automated robotic cutting system for mutton and goat also reached working prototype phase. The focus for LEAP during 2016-17 is to further refine the technology and extend the adoption and commercialisation into the processing sector.

Uptake of the BladeStop™ bandsaw, which reduces serious workplace injuries, has increased to more than 100 units across the meat supply chain. During 2016-17, the retro-fitted DigitDetect™ system, developed by MDC and Scott Technology, aimed at increasing the safety of saw operators in butcher shops and smaller processing plants, will become commercially available.

During 2015-16 an impact study on the return on investment of MDC’s automation program indicated a 4.7:1 benefit-cost ratio on investments.

Livestock Data Link (LDL)

LDL, an MLA-developed carcass feedback and information resource tool, was reviewed during 2015-16 with several enhancements recommended to improve its usability for producers. To encourage a wider adoption of the tool, MLA trained almost 200 producer members of the JBS Farm Assured program on how to access their carcass feedback information through LDL.

During 2016-17 it is expected another three processors will start delivering carcass feedback to producers via LDL, and animal health and disease feedback information for producers will be added. Uptake of LDL by industry is slower than anticipated, with the challenge ahead to demonstrate its value to the industry.

Language review

A review of the AUS-MEAT beef language, aimed at keeping descriptions meaningful and current, has resulted in more than 40 recommendations being delivered to industry through the development of an Australian Beef Industry Language White Paper. The review, initiated by peak industry councils and coordinated by MLA, focused on the language being customer rather than process driven, reducing complexity and aligning descriptions from the live animal through the supply chain. The AUS-MEAT language has significant influence internationally and has been adopted by the United Nations Economic Commission for Europe (UNECE) Meat Standards Working Group.

KEY MILESTONES

MILESTONE	RESULT	COMMENTARY
Develop and demonstrate in a supply chain a high-volume sensing system to increase capacity and productivity and provide accurate supply chain data on carcase quality which offer options that can directly benefit producers	Achieved	Dual-energy X-ray absorptiometry (DEXA) lamb carcase lean meat yield prediction was demonstrated at the JBS Bordertown plant, improving measurement accuracy to 85%, compared to CT scanning
Livestock Data Link (LDL) is demonstrated as adding value to both producers and processors through enhanced information flow and decision making abilities	Partly achieved	LDL is being successfully adopted within the JBS Farm Assured group, with two further processors having recently agreed to extend LDL to their producers. Animal health and disease feedback using the National Sheep Health Monitoring Program data was delayed due to technical issues, however, these have now been overcome
A whole-of-industry information exchange strategy endorsed by industry and implemented through key programs such as LDL	Not achieved	A report identifying the business requirements has been completed and a draft strategy has been developed for endorsement by industry
Realise net benefits of \$1 million/annum from processing technologies developed under the MLA Donor Company (MDC) program and for which installation is completed in 2015-16	Achieved	MLA's performance evaluation indicated \$2.51 million/year net benefits have been or will be realised from the following technologies that became operational in 2015-16: beef scriber/rib cutter, six-way cutting, LEAP III/IV primal and middle cutting and BladeStop™
Total aggregated net benefit of MDC-funded technologies installed in 2015-16 and previous years reaches \$10 million/annum	Achieved	MLA's performance evaluation indicated that for the period 2010-15, the aggregated net benefit of these technologies was \$345 million. This equates to \$69 million/annum
Five MDC-funded supply chain efficiency commercial innovations have achieved at least 80% of their annual adoption strategy targets, including associated cost-benefit analyses	Achieved	83% of targets achieved, with key achievements including: LEAP III/IV commercial sales to three processors, Australian BladeStop™ sales exceeding 129 units, X-ray guided beef rib cutter handed over to production, and mutton automated robotic six-way cutting system moves to full production. Four ex-post and two ex-ante cost-benefit analyses were also completed
Updated BeefSpecs tool includes prediction of eating quality attributes (carcase yield, MSA marble score, MSA ossification and MSA Index) and capability to assess the costs and benefits of changing livestock management for improved compliance	Partly achieved	A pilot is underway to assess prediction of carcase characteristics by using 3D cameras with a major vertically integrated supply chain

Automated robotic beef rib cutting

The significant achievements in lamb automation in recent years started flowing through to the beef sector in 2015-16, with the development of the first automated robotic beef rib cutting prototype. The system uses advanced imaging based on dual energy X-ray, laser-line scanning and colour imaging. These technologies calculate precise cutting lines, objectively estimate the lean meat yield of the carcase and offer the option of value-based pricing of livestock.

Developed by Scott Technology in partnership with MLA Donor Company, this new system is faster, more accurate and consistent, safer and more efficient than the manual process of determining lean meat yield. Objective measurements using DEXA have achieved 85% accuracy/consistency in lamb and an encouraging result in beef, as calibrated to the gold standard of helical CT scanning. In comparison, subjective measurement is only about 30%. The working prototypes are now in production.



Industry sustainability and integrity

MLA invests in programs that support the industry's environmental, animal welfare, community communications and workforce sustainability practices.

MILESTONE SCORECARD

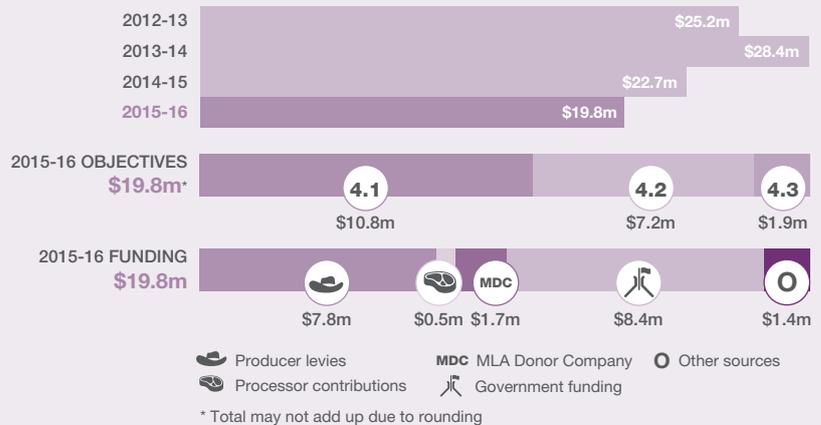
31 milestones

- 23 achieved
- 4 partly achieved
- 4 not achieved

Objectives under this strategic imperative include:

- 4.1 Sustainable supply chain resource management
- 4.2 Animal welfare, biosecurity and animal well-being without reducing productivity levels
- 4.3 Support industry's effective engagement with the community

INVESTMENT



Meat Industry Strategic Plan 2010-2015 Strategic Themes

- Environment and ethics
- Our industry
- Innovation
- Economics and infrastructure

Australian Government Science and Research Priorities

- Food
- Environmental change
- Soil and water
- Resources

Australian Government Rural Research and Development Priorities

- Biosecurity
- Climate change and variability
- Natural resource management
- Productivity and adding value
- Supply chain and markets

Agricultural Competitiveness White Paper Priorities

- Adoption of research and development
- Advanced technology
- Biosecurity
- Soil, water and managing natural resources

KEY ACHIEVEMENTS

Rabbit control

The new K5 strain of rabbit haemorrhagic disease (formerly calicivirus) has been approved for use with a target release date of autumn 2017. Following community engagement, the virus could potentially be released at 500 sites nationwide.



Pain relief breakthrough

The first producer-administered pain relief product for cattle, ILIUM®Buccalgescic OTM, became commercially available via a partnership with MLA Donor Company. A similar product for sheep is expected to be available for use in 2016-17.



FACTS & FIGURES

No. of parkinsonia biocontrol agent release sites	Producers with Emissions Reduction Fund contracts	Potential release sites of K5 strain rabbit haemorrhagic disease	Primary students attending Target 100 video conferencing lessons	Silverleaf night-shade areas under best practice management
50	400	500	4,000	95,000ha
Producers completing MLA animal husbandry practices survey	Consumers engaging with Target 100 events	Views of GoodMeat 2.0 series	No. of parkinsonia biocontrol agents released	Electricity savings identified by major beef processor
1,500	145,463	541,181	30,000	8%

+ OPPORTUNITIES

- Biological control of parkinsonia will soon become a more potent option with the release of more than 30,000 biological control agents across northern and Western Australia and the upcoming registration of a new bioherbicide.
- Producers will be able to use outcomes from northern feedbase research into assessing new pasture legumes and grasses, suited to Queensland's moderate rainfall zones, to build their enterprise's productivity and profitability.
- MLA-funded research into biosecurity and disease control is raising Australia's profile internationally as a proactive, safe and trustworthy supplier of quality red meat.
- Successful live demonstrations at food events, such as Regional Flavours in Brisbane and the national Taste food festivals, demonstrated a strong public appetite for understanding the paddock-to-plate journey and personal engagement with producers.

■ CHALLENGES

- The design of the NumNuts device for sheep needs further refinement, particularly improving its pain-relief efficacy on the scrotum. An investor is also being sought so the project can proceed to commercialisation.
- To enable the feedlot sector to provide the best animal welfare outcomes, a euthanasia manual providing protocols and a clear framework for the process, followed by on-site training, is in development.
- A challenge is to reduce the variability, in some locations, of a hand-held pasture biomass assessment tool by coupling allied sensors to estimate pasture quantity at the change of seasons.

📍 OUTLOOK 2016-17

- A Rural Research and Development for Profit project is being implemented to fast-track the availability of biological control agents for weeds such as blackberry, cylindropuntia, gorse, parkinsonia and parthenium.
- Two new Rural Research and Development for Profit projects are being implemented: controlling rabbits through monitoring impact of the new RHD virus; and controlling wild dogs through early warning systems.
- MLA will refresh the Target 100 program to keep abreast of supply chain challenges, community expectations and build on its previous achievements.

Emissions Reduction Fund opportunity

MLA, in collaboration with AACo, led a project that directly contributed to the development of the 'Beef Cattle Herd Management' method and research on productivity gains associated with reduced methane emissions.



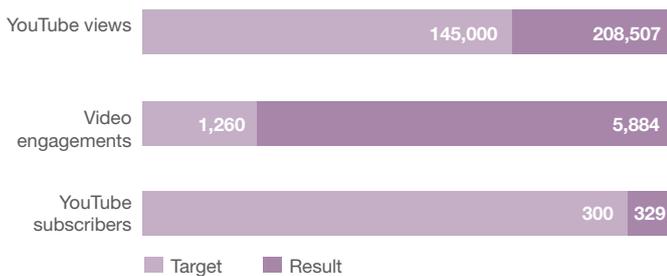
GoodMeat success

The success of Target 100's second GoodMeat* series far outstripped expectations, reaching over 541,181 views across YouTube and Facebook.

It also stimulated a 102% increase in subscribers to Target 100's YouTube channel and an almost five-fold increase in video engagements.



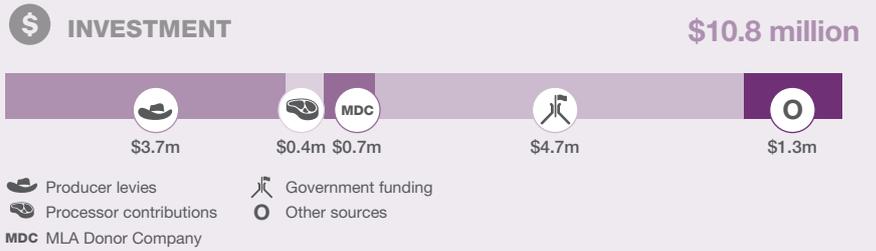
GoodMeat 2.0 targets and results



* GoodMeat aims to debunk myths around red meat production and share stories behind the making of 'good meat' with the community.

Sustainable supply chain resource management

MLA supports the livestock industry to further its environmental sustainability through research and development focused on improving natural resource management, responding to climate change and increasing productivity while demonstrating environmental stewardship. Off-farm research will continue to focus on using energy and water resources more efficiently.



STRATEGIES

Support sustainable on-farm resource productivity

Develop and implement through-chain environment strategy

KEY MILESTONES

MILESTONE	RESULT	COMMENTARY
Cost-effective weed management options for producers including parkinsonia biocontrol agents (looper caterpillar) classified as 'established' in >30 target zones across northern Australia (Queensland, NT and WA) and a parkinsonia bioherbicide approval for registration under review to the Australian Pesticides and Veterinary Medicines Authority (APVMA)	Achieved	Biocontrol agents (looper caterpillars) have been released at more than 50 sites, and establishment has been achieved at 31 sites (across Queensland, NT and WA). A parkinsonia bioherbicide is undergoing APVMA approval
10,000ha of silverleaf nightshade infected areas will be under best practice management during the 2015-2016 control season, including 150 producer demonstration/trial sites	Achieved	An additional 159 on-farm demonstrations have been established, bringing the cumulative number of sites to 396; corresponding to greater than 95,000ha of land under best practice management
Preliminary host specificity testing of Jatropha leaf miner to control bellyache bush completed and assessment completed of Nigrospora fungus for biocontrol of giant rat's tail grass	Achieved	Host testing of the Jatropha leaf miner is progressing with oviposition and larval feeding tests completed for 26 test plant species. There is no evidence of larval feeding or larval development on any non-target test plant species. The Nigrospora fungus has been assessed and has been deemed not suitable as a biocontrol of giant rat's tail grass
New tools for managing feral pigs, including submission of an APVMA registration package for a new pig toxin based on sodium nitrite, and release of PIGOUT® Econobait pending registration approval	Not achieved	Submission of an APVMA registration package has been delayed until at least December 2016 for a new (sodium nitrite based) pig toxin after delayed completion of field testing and technical issues with ensuring stability of the sodium nitrite in the bait matrix. PIGOUT® Econobait has not been released as the APVMA rejected the registration on grounds of inadequate stability and manufacturing difficulties with pest animal pesticide, 1080
New strain of rabbit calicivirus released across Australia pending APVMA registration approval	Achieved	APVMA approval has been granted for release of a new strain of calicivirus (K5) in autumn 2017. State approval is required before field release. An expression of interest call for participation in the release program attracted more than 500 responses from producers and community groups

MILESTONE	RESULT	COMMENTARY
New management options for producers to deal with hotter and more variable climates at a whole-farm level through: completion of NRM spatial hub assessment for potential of utilising remote sensing of land condition data to improve biomass, productivity, pasture growth models and grazing decision tools; evidence base underpinning recommendations for use of wet season spelling to recover poor condition grazing land developed and communicated; identified the long-term impacts of different grazing strategies on vertebrate faunal biodiversity (wildlife abundance and diversity); and completion of the Wambiana grazing trial analysis and deliver products designed with producer input to assist grazing land management decisions	Achieved	<p>More management options for producers were developed: whole-farm planning enabling infrastructure investment decisions (water points, fencing); a draft safe carrying capacity tool; improved seasonal forecast tools (Bureau of Meteorology reporting and the Climate Kelpie website); and spelling and grazing practices (guidelines from the Wambiana grazing trial) assist managing variable seasons.</p> <p>Research at Wambiana is supporting a grazing approach recommended for long-term sustainability (moderate approach) that also encourages wildlife biodiversity</p>
Developed strategies to abate N-based greenhouse gas emissions in feedlots, potentially allowing the industry to develop abatement methodologies that are approved under the Emissions Reduction Fund	Achieved	A project examined the potential mitigation of ammonia and nitrous oxide emissions from feed pads through the use of lignite addition to the pen surface, and clearly demonstrated that direct emissions of ammonia could be reduced by up to 67%. Ammonia emissions are an important precursor to potential nitrous oxide emissions
Completed benchmarking of the phosphorus (P) efficiency of a number of key pasture legume and grass species to identify those which have 30% better P-use efficiency. This will include the development and delivery to industry of lower P fertiliser management guidelines, strategies for targeted fertiliser use and objective information concerning the P-fertility requirements of emerging, novel and alternative pasture legumes	Achieved	<p>Benchmarking of the phosphorus efficiency of a key pasture legume and grass species to identify those which have 30% better P-use efficiency has been completed.</p> <p>Development and delivery to industry of P fertiliser management guidelines has commenced with broad-based awareness activities. Further packaging and approaches to delivery are to be progressed</p>
First results from the Pasture Variety Trial Network released to industry with results from over 100 varieties of six key pasture species evaluated in five environments	Not achieved	Development has been completed of the web-based delivery platform and user testing. Analysed pasture data is required to be 'ground truthed' with pasture specialists (public and private) before public release
Improved strategies and tools developed allowing for selection of sub-clover varieties which have resistance to fungal root diseases	Achieved	Genomic tools have been developed for selection of sub-clover. Markers for P efficiency and root disease have been identified and are being developed for inclusion in breeding programs. A paper has been accepted in the journal <i>Nature</i> , indicating the importance and originality of this work
Completed the 15-year breeding program for a psyllid-resistant variety of leucaena with the application for Plant Breeder's Rights for the selected line/s successfully completed	Achieved	Breeding program completed with the new 'Redlands' variety. An application for Plant Breeder's Rights has been lodged. Seed increase is underway
Technologies/processes that, in combination, demonstrate >10% reduction in electricity usage by meat processors defined and/or validated	Not achieved	An MDC-funded refrigeration project at a major beef processor identified electricity savings of 8%
New technologies or processes capable of reducing the fossil fuel consumption (LPG/natural gas/coal etc) for meat processing plants by 5% are defined and/or validated	Achieved	A project investigating the optimisation of biogas production from covered anaerobic lagoons demonstrated increased biogas production by 10% which offset more than 5% of natural gas use at the site. Another project will save 10% of another processing plant's boiler fuel requirements (equivalent to a reduction in natural gas use of 17,000GJ per year). A further project investigated new approaches to flash steam recovery in a rendering cooker and discovered 15% energy recovery potential

Sustainable supply chain resource management

MILESTONE	RESULT	COMMENTARY
New technologies or processes capable of reducing abattoir town water consumption are demonstrated and/or validated	Achieved	A project is looking at 'phytoremediation' (the use of plants to clean up polluted soils) as a new way to 'polish' waste water from abattoirs and move toward more sustainable waste water management and less dependence on town water
High-rate anaerobic pond technology adopted with ex-post cost-benefit analysis completed	Achieved	MDC projects with two value chain partners on high-rate anaerobic digestion completed
Ex-ante cost-benefit analysis on conversion of waste to value-add products completed	Achieved	An MDC project with a value chain partner on the cost-benefit analysis of converting blood meal to bioplastic was completed. A feasibility study into a centralised waste treatment facility was successful and is progressing to secure funds for building
Develop strategy that identifies the value propositions for producers through the adoption of environmental value chain opportunities	Achieved	A strategy identifying value propositions along the supply chain was completed

Invasive animals

The new K5 strain of rabbit haemorrhagic disease virus (RHDV), formerly known as calicivirus, has been approved by the Australian Pesticides and Veterinary Medicines Authority (APVMA) for release. Following community engagement, there could be potentially 500 release sites nationwide, with a target release date of autumn 2017. Work continues to progress the new sodium nitrite-based pig bait which is undergoing more field trials and is expected to be submitted to the APVMA for product registration during 2016-17. MLA remains supportive of fox and wild dog control measures through its involvement in the Invasive Animals Cooperative Research Centre.



OBJECTIVE HIGHLIGHTS

Weeds

MLA assisted CSIRO, Pilbara Mesquite Landcare group and others to improve parkinsonia control (one of the 20 'Weeds of National Significance') with the release of more than 30,000 biological control agents across northern and Western Australia. To support this, a new bioherbicide, in the form of a pathogenic fungi, is undergoing registration for release.

In the southern states, 300 producer and local government trial sites are contributing information to forming updated, regionalised, best practice management strategies for the control of silverleaf nightshade. The project exceeded its goal for the area under

monitoring by 46,000ha and has been a collaborative effort by producers, Landcare groups, local government and state departments.

Feedbase and Pasture Variety Trial Network

The feedbase portfolio targets better profitability of livestock enterprises through improving pasture quality, quantity and utilisation. Projects included on-property assessment of new pasture legumes and grasses for moderate rainfall zones across Queensland and southern Australia.

With Caring for Country funding, the NRM Spatial Hub is providing a unique rangelands management whole-farm

planning tool that combines the world's latest mapping and imagery technology to assist management decisions.

The Pasture Trial Network, funded through MLA Donor Company, aims to help producers select the best pasture varieties for their climate and enterprise. The tool is in the prototype phase with data analysis continuing before it is adapted for the web. To keep Australian producers informed of the latest pasture varieties, the Pasture Variety Trial Network, in conjunction with the Australian Seed Federation, is conducting trials across southern Australia to evaluate new species of ryegrass, fescue, phalaris, clover, lucerne and others.

In southern mixed-farming zones, new seeding techniques for hard-seeded annual legumes have resulted in germination on the first major autumn rains. High quality legume pastures can be established for less than \$100/ha, growth is rapid with no loss of productivity in the first year.

Tedera, a new species suited to Mediterranean-like climates, is to be commercialised. Tedera provides high quality green forage during summer and autumn and can be used to reduce or eliminate the need for supplementary feeding.

Climate variability and Emissions Reduction Fund methodologies

The Managing Climate Variability Program is a \$4.29 million collaborative research effort by agricultural industries to help producers prepare for and manage climate change. The three-year program, which concluded in 2015-16, has delivered a wide range of services, products and tools, many of which can be accessed through the Bureau of Meteorology website including:

- The Water and the Land website which integrates information from various weather bureaus, organised by weather elements
- POAMA, a state-of-the art long-range forecast system which can predict outlooks for up to nine months ahead, as well as *El Nino* and *La Nina* events
- the Northern Rainfall Onset prediction tool
- the Climate and Water Outlook video.

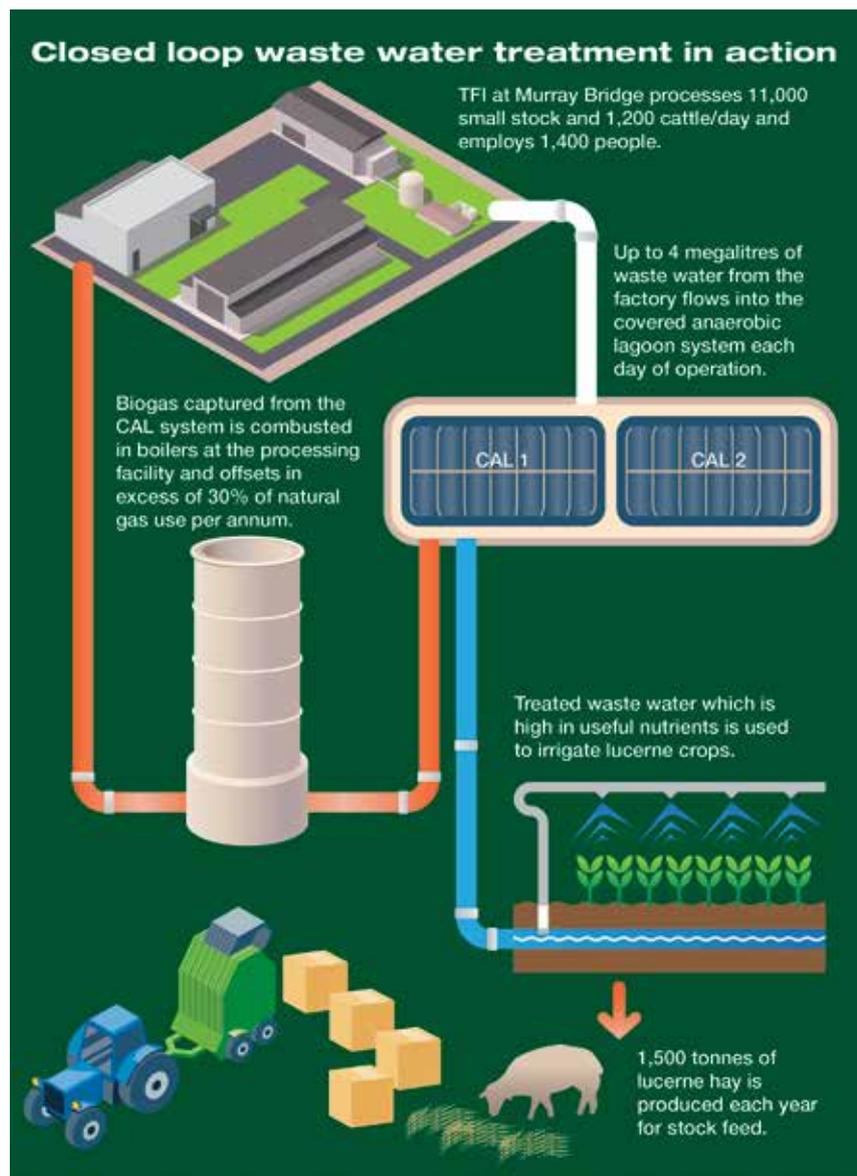
MLA, in collaboration with AACo, led a project that directly contributed to the development of the 'Beef Cattle Herd Management' method and research on productivity gains associated with reduced methane emissions. In the third Emissions Reduction Fund auction, announced in May 2016, three projects were approved (comprising more than 20 properties and more than 200,000 cattle) using the 'Beef Cattle Herd Management' method.

Processor energy efficiency measures

During 2015-16, MLA invested \$2.25 million in projects through the Supply Chain Sustainability program, aimed at delivering more environmentally sustainable outcomes

for the red meat processing industry. Within this program, Thomas Foods International (TFI) partnered with MLA Donor Company and service providers Johns Environmental and Quantum Power to achieve a 30% reduction in their natural gas requirements (see figure below). Through the installation of a closed-loop waste water treatment system at their Murray Bridge plant in SA, TFI captured the equivalent of 9,127 standard household gas bottles of biogas. This, and other investments made through the program in last five years, has reduced costs in the processing sector by \$27 million and decreased carbon dioxide equivalent emissions by 268,000 tonnes over the same period.

In the next five years, it is estimated the program will generate benefits of \$10 million in electricity cost savings, \$17 million in fossil fuel-derived heating energy offsets through the use of biogas generated from abattoir waste, and reduce carbon dioxide equivalent emissions by a further 270,000 tonnes.



OBJECTIVE 4.2

Animal welfare, biosecurity and animal well-being without reducing productivity levels

MLA invests in research and development to help the industry address major animal diseases affecting it and improve biosecurity measures to contain these diseases. MLA also invests in cost-effective opportunities for the industry to support continuous improvements in the welfare of livestock being raised, handled, transported and processed in Australia.



STRATEGIES

Manage and improve livestock welfare to meet community expectations

Support industry to improve animal health and biosecurity

OBJECTIVE HIGHLIGHTS

Animal welfare

The first producer-administered pain relief product for cattle became commercially available from veterinarians in 2015-16 with a similar product for sheep expected to be on the shelves in 2016-17. ILIUM® Buccalgesic OTM is the result of collaborative research and development between MLA Donor Company (MDC), Troy Laboratories and CSIRO. Administered orally, the product aims to improve animal welfare by reducing pain associated with on-farm husbandry practices. The NumNuts castration and tail-docking tool for sheep, developed by MLA and Scottish engineering firm, 4cDesigns, has entered the commercialisation phase, while proof-of-concept trials are underway for a cattle castration version. MLA is also funding research to set the minimum residue levels of lignocaine (a local anaesthetic used in NumNuts), which will determine any meat withholding periods.

MLA is reviewing all previous research into feedlot heat stress. Outcomes will pinpoint areas for improvement and direct new research efforts, including the ability to produce longer-term and more accurate heat-load forecasts (see page 39).

Biosecurity

MLA continued its behind-the-scenes commitment to Australia's biosecurity by continuing to invest in risk management programs to ensure the industry is both protected and prepared. During 2015-16, MDC invested \$2 million in the Foot and Mouth Disease Risk

Management Project (continuing until March 2017) which is investigating which virus serotypes are present in neighbouring countries and ensuring a vaccine is available should an outbreak occur. As a result of this investment, Australia is considered internationally as a leading authority on this disease. MDC also invested \$380,000 in developing an improved diagnostic technique for capripox, a skin disease that affects sheep and goats and has serious market access ramifications. The new test, which will be finalised during 2016-17, has helped position Australia as a frontrunner in disease management globally, with several nations expressing interest in using the test. During the year, an MLA-funded project resulted in the development of a mathematical prediction tool to simulate the potential spread of bluetongue disease in the event of an outbreak.

Endemic diseases

MLA funded Australia's first cost-of-disease review in almost a decade and its findings revealed a changed landscape of priorities and directions for new research and adoption efforts and the need to regularly scrutinise the status of animal diseases in Australia and their impact. For example, bovine viral diarrhoea virus (pestivirus) went from being unknown to being the second highest on the cattle disease impact list, estimated to cost the Australian industry an estimated \$117 million/year. In sheep, peri-natal mortality (including losses to dystocia) led the way, costing the nation an estimated \$540.4 million/year.

Internal parasites were identified as having the highest impact on the farmed goat industry, with goats being included in the review for the first time.

MLA-funded research into buffalo fly control, ranked number three on the priority list of endemic diseases, hopes to find a new biological control agent that will inhibit its spread. Wolbachia, a maternally transmitted intracellular bacterium, will be trialled to see if it will provide area-wide control and arrest the fly's southerly spread. The research team has also developed two important research tools to enable these studies: a persisting colony of buffalo flies that can be reared in a laboratory without using live cattle, which delivers an important animal welfare outcome; and a buffalo fly cell line which will contribute to further work including insecticide testing, resistance screening and vaccine design.



 KEY MILESTONES

MILESTONE	RESULT	COMMENTARY
Livestock producers and industry will have baseline data to address the increasing consumer and community scrutiny of animal well-being credentials	Achieved	National animal husbandry survey completed with 1,210 producers interviewed. Results provide baseline data and inform extension and adoption efforts
Livestock producers will have improved tools and techniques to manage animals in feedlots for improved health and welfare	Achieved	Animal welfare officer training courses conducted by ALFA and MLA were attended by 157 feedlot personnel. <i>The Bovine Respiratory Disease Best Practice Manual</i> and <i>Euthanasia Guidelines Manual</i> are nearing completion and will be made available to industry
The livestock industry will have improved processes to detect and respond to new and exotic diseases and biosecurity threats	Partly achieved	ELISA diagnostic test for capripox is being validated for international use
Livestock producers will have improved processes and tools to manage and reduce the impact of endemic disease on productivity and market access	Partly achieved	Barbervax, a world-first vaccine against a sheep nematode parasite, is in its second year on the market. Theileria PCR diagnostic test developed. Concerted adoption promotion underway
Established a new program of sheep animal health RD&E projects based on the priority endemic diseases identified in the B.AHE.0010 endemic disease survey and impact assessment project	Achieved	Six animal health projects were approved through the open call process and now need to go through the MLA internal approval process. A WormBoss Producer Demonstration Site was established to demonstrate the efficacy and financial benefits from implementing integrated parasite management
Completed a risk assessment of bluetongue transmission in southern Australia by identification of endemic <i>Culicoides</i> spp. host-feeding preferences and their competence to transmit bluetongue virus	Achieved	Transmission risk found to be low to negligible. Southern <i>Culicoides</i> spp. found to favour birds and marsupials as hosts
Identified the vector/s of theileriosis and assessed the potential for passive transfer of the organism, for example on contaminated needles used for injection	Partly achieved	<i>Haemaphysalis longicornis</i> found to be infected – transmission still to be proven. Mechanical transmission (e.g. on needles, biting insects' mouthparts) shown to be possible
Developed a quantitative, real-time PCR (qPCR) diagnostic test for theileriosis in multiplex format which is more sensitive and provides faster and more cost-effective results than conventional PCR	Achieved	A project delivered a qPCR test which identifies the strain of <i>Theileria</i> in a blood sample, as well as the parasitaemia (parasite load)
Completed efficacy trials using the Barbervax vaccine for barber's pole worm in goats, enabling a claim to be submitted to the Australian Pesticides and Veterinary Medicines Authority (APVMA) for Australian goats and Barbervax (MDC project)	Partly achieved	Efficacy field trials were performed and unfortunately the results were mixed: one trial worked well, a second showed some positive effects, but a third failed. Because the anti-vaccine antibody responses were similar in all three trials, the underlying cause of the variable vaccine efficacy is not understood. It was concluded that the results were too variable for registration to be granted by the regulators
Assessed the production and financial benefits to feedlot operators from the adoption of the principles of 'acclimation' under Australian feedlot conditions	Not achieved	Problems sourcing sufficient cattle for the trial work have delayed project completion. Project agreement has been varied to extend timelines for completion

Support industry's effective engagement with the community

MLA supports industry bodies and individual producers to authentically communicate the integrity of livestock production practices to the broader community and demonstrate industry's commitment to improvements underpinned by science.



INVESTMENT

\$1.9 million



STRATEGIES

Support the industry to maintain the community's trust and confidence in the integrity and ethics of the Australian red meat industry by building knowledge and providing experience

Equip and empower producers and their representatives to build our industry's reputation through facts and engagement



OBJECTIVE HIGHLIGHTS

GoodMeat 2.0 campaign

During 2015-16, Australian consumers proved they were very hungry for information on where their red meat came from with the second YouTube series of GoodMeat exceeding its target audience views by almost four-fold. Starring *Bondi Rescue's* Andrew Reid and chef and leading social media personality Rob Nixon (who has more than one million subscribers to his YouTube channel), the campaign used these two popular identities with strong social media followings to help producers tell their stories directly to consumers.

GoodMeat 2.0 consisted of five short, animated education pieces and five live-action pieces filmed on three properties at Goondiwindi, Queensland and hosted on the social media channels of MLA community engagement platform, Target 100.

The first GoodMeat series was also released on Facebook during the year, attracting a further 195,946 views.

Rebranding Target 100

Target 100, which has engaged the community with Australia's sustainable red meat industry since 2012, was evaluated during 2015-16 to compare the value of retaining the current model versus rebranding and relaunching the program.

The outcome was to refresh Target 100 during 2016-17, to further align the expectations of the community with industry practices. Key stakeholders, producers and peak industry councils will be invited to contribute to the future direction of the program.

Education

MLA continued to raise the profile of the red meat and livestock industry through the development and promotion of primary, secondary and tertiary teaching resources, accessible on the Target 100 website. During 2015-16 there were 1,988 downloads of education materials, ranging from study guides for high school students to posters and guides for primary students; an increase of 50% on 2014-15.

Approximately 4,000 primary students from NSW, ACT, Queensland, Victoria and SA expanded their knowledge on how beef and lamb are produced through 34 lessons hosted via video conferencing. Cattle and sheep producers helped present nearly two-thirds of these lessons with teachers, adding to the engagement and learning experience for the students.

MLA continued its membership of the Primary Industries Education Foundation Australia which attended/presented at five teacher conferences across Australia, reaching 2,315 teacher attendees and 121 workshop participants.

KEY MILESTONES

MILESTONE	RESULT	COMMENTARY
Percentage of consumers stating they are reducing red meat consumption due to perceived animal welfare or environment reasons remains below 7%	Achieved	Consumer sentiment benchmark research in 2015-16 found the percentage of consumers reducing meat consumption due to environment reasons fell to 1.6% and due to animal welfare reasons fell to 3.2% (to total 4.8%). This is the first time this figure has been under 5% since this benchmarking project began in 2010
Drive increased engagement with the community engagement program through the Target 100 social platforms by 20% from the 2014-15 baseline	Achieved	Average monthly engagement on MLA's Facebook page increased by 164% year on year and Twitter referrals have increased by 86% during 2015-16
Promote beef and lamb teacher guides and drive an increase in their use as tracked by teacher resource downloads from Target 100 by 20% from the 2014-15 baseline	Achieved	During 2015-16 there were 1,988 downloads of education materials, ranging from study guides for high school students to posters and guides for primary students, an increase of 50% on 2014-15. Lessons have been streamed live into 127 primary schools across Australia to utilise the MLA teacher resources and introduce farmers to students
Assist industry in responding to community reputation issues as measured by peak council feedback	Achieved	MLA provided issues management support to assist industry's response to two major issues during 2015-16: a cancer report released by the International Agency for Research on Cancer and a live export welfare breach in Vietnam

Red meat flavours

Taste festivals held in Melbourne, Sydney (pictured below) and Perth helped raise the profile of red meat in 2015-16, collectively attracting 60,463 patrons. The format at the Taste food festivals this year featured 34 live presentations across three events in 13 days. Target 100 involved 10 producer advocates and all the presentations were sold out. Additionally, Regional Flavours, held in Brisbane's Southbank and attended by 85,000 people in July 2015, was a great success with Target 100 and beef and lamb well represented in the Hunting Club, a pop-up bar and bistro that championed Queensland's best meat and malt. Regional Flavours was attended by six producer advocates who, matched with a celebrity chef, spoke to audience members throughout six cooking demonstrations.



Industry leadership, innovation adoption and capability

MLA supports industry innovation and research strategies by working to ensure industry has appropriately skilled people across the red meat supply chain.

MILESTONE SCORECARD

15 milestones

- 13 achieved
- 1 partly achieved
- 1 not achieved

Objectives under this strategic imperative include:

- 5.1 Platforms for supporting skill development and innovation adoption by producers
- 5.2 Build industry value chain innovation capability
- 5.3 Industry leadership and issues research

INVESTMENT



Meat Industry Strategic Plan 2010-2015 Strategic Themes

- Innovation
- Our people
- Our industry
- Economics and infrastructure

Australian Government Science and Research Priorities

- Food
- Resources

Australian Government Rural Research and Development Priorities

- Productivity and adding value
- Supply chain and markets
- Supporting the Rural Research and Development Priorities

Agricultural Competitiveness White Paper Priorities

- Adoption of research and development
- Advanced technology

KEY ACHIEVEMENTS

Pasture partners

MLA built links with researchers and more than 300 producers through 25 southern Producer Research Sites which promote productive, sustainable pastures and best practice grazing management.



Agri-food traineeships

The 'Emerging Leaders' initiative was launched to retain and develop the 'bright young minds' of Australia's agri-food industries – 15 participants from six agri-food sectors (eight in the red meat sector) have begun the first two-year professional development program.



FACTS & FIGURES

No. of 'Emerging Leaders' selected across six agri-food sectors	No. of producers at 16 Pasture Updates events	Northern producers involved with EDGE workshops	Number of new sheep Producer Demonstration Sites	Reduced ewe and lamb mortality from Bred Well Fed Well
15	800	150	6	\$50m/yr
'Emerging Leaders' in the red meat industry	Producers involved in Producer Research Sites	Producers involved in pilot Profitable Grazing Systems	Students in the Intercollegiate Meat Judging program	Industry advocates trained to engage with the community
8	300	95	163	33

+ OPPORTUNITIES

- Red meat producers will be equipped to measure, monitor and manage key business performance indicators, helping to boost their confidence in making decisions which are informed by value chain data.
- The development of new sustainable commercial business models to inform producer decision making will be supported by MLA given the withdrawal of state extension services.
- The integration of digital and other information platforms and tools to support business decisions will provide producers with access to new-found data and evidence to inform data-driven decisions.
- Through MLA Donor Company (MDC), a network of future agri-food industry leaders will be created, with collaboration encouraged between agri-food sectors, processing and value-adding companies, industry organisations and universities.

■ CHALLENGES

- Adoption of new research and development remains a priority, particularly in northern Australia.
- Designing and delivering engaging and targeted adoption programs that achieve on-farm practice change to deliver productivity benefits remains challenging, while supporting industry to transition to a user-pays system.
- Challenges exist in the capacity and capability of the service provider sector to support producers to adopt and integrate research and development outputs in a whole-farm context.
- A key challenge is attracting and retaining leaders across agri-food value chains.

📌 OUTLOOK 2016-17

- Four presenters will each deliver at least four BusinessEDGE courses a year in southern Australia, and the course will be reviewed after 12 months.
- Outcomes from the leucaena Producer Demonstration Site will be extended to the broader beef industry through field days, webinars, YouTube videos and podcasts.
- 30 Bred Well Fed Well workshops will be delivered to sheep producers, and the delivery model reviewed.
- Making More From Sheep and More Beef from Pastures will be considered for transition to the Profitable Grazing Systems adoption program.
- The Pastoral Profit program will be reviewed during 2016-17 to assess the benefit and impact to industry.
- The second intake for the Emerging Leaders program will be recruited.
- The MDC Collaborative Innovation Strategies Program will continue to broaden and build innovation across the entire value chain.

New adoption pilots

MLA launched several pilot initiatives to lift the productivity of red meat producers and demonstrate practice change and industry impact. This included Bred Well Fed Well for the southern beef industry, and the Profitable Grazing Systems program which has already been delivered to 95 producers.



A profitable performer

MLA delivered business management skills to 1,198 sheep and beef producers in the southern rangelands zone in 2015-16, through the MLA/Australian Wool Innovation Pastoral Profit program.



OBJECTIVE 5.1

Platforms for supporting skill development and innovation adoption by producers

MLA supports the adoption of research and development through various educational platforms, tools and services that enable levy payers to build their skills and capacity to enhance their decision making and overall business management.

STRATEGIES

Facilitate the adoption of MLA research and development through tools and innovative learning programs

Partner with producers to support the development and adaptation of research and development and accelerate adoption

Continuously measure and monitor the performance and overall impact of the levy investment in research, development and adoption



OBJECTIVE HIGHLIGHTS

Profitable Grazing Systems pilot

MLA launched a 12-month adoption program in January 2016 to help lift the productivity of red meat producers and demonstrate practice change and industry impact. The pilot, Profitable Grazing Systems, centres on groups of producers being supported and guided by specialist coaches to build their skills and adopt practices that improve their business performance. MLA partnered with 10 service providers to develop and deliver the pilot to 95 producers in a mix of production zones and beef, sheep and goat enterprises. A peer-reviewed curriculum has been developed for each production zone. MLA has also developed a monitoring and evaluation framework to guide the collection and reporting of data to inform and assist it to assess the value of its investment in adoption, more effectively report outcomes and benefits back to stakeholders, and continually improve the management of its adoption programs.

Producer Research Sites

MLA continued to build links between researchers and more than 300 southern producers through its Producer Research Sites program to promote productive, sustainable pastures and best practice grazing management. Researchers, the five state coordinators and producers from 18 of the groups shared their learnings at the first national producer feedback workshop in Melbourne in June 2016.

Producer Demonstration Sites (PDS)

The PDS program was redesigned in 2015-16 to broaden the opportunity for producer involvement through open annual calls, enhance the alignment with regional producer priorities and streamline the application process. MLA established six new sheep sites during the year, bringing the total number of demonstration sites to 15.

BeefUps

Four BeefUp events were held in WA and Queensland to increase producer awareness of MLA and the latest regionally relevant research and development. A new delivery model was introduced where MLA partnered with local organisations to host the days and added feedback sessions to encourage producer involvement. Surveys showed that BeefUps exposed producers to information and tools which they could use on farm immediately to improve the productivity and profitability of their business and influenced them to attend other adoption events.

EDGE

MLA ran 12 EDGE northern events during the year, attended by 150 producers. A new one-day course, Grazing Fundamentals, was added as an introduction to grazing land management and nutrition. The BusinessEDGE two-day program was adapted to suit southern grazing businesses. Participants rated all elements of the workshop 9/10. Four presenters are being trained to deliver this course in southern Australia.

The northern EDGE program was reviewed and all workshop material was updated with the most recent research and development outcomes.

Making More From Sheep (MMFS)

MLA and AWI launched a new module, 'Efficient Pastoral Production'. The module was developed by technical experts and industry-leading sheep producers and road-tested by sheep producers from all pastoral areas. MMFS also delivered a set of animal health resources aligned to the 'Healthy and Contented Sheep' module. MMFS delivered 151 events to 3,124 producers in 2015-16. Workshop evaluation showed, on average, the value received from MMFS events was 8/10, and 86% of producers intended to change their practices as a result.

More Beef from Pastures (MBfP)

MBfP delivered 117 events to 6,159 producers in the 14 months to May 2016. On average, workshop evaluation showed the value received from events was 8/10 and 41% of producers intended to change their practices as a result.

Pastoral Profit

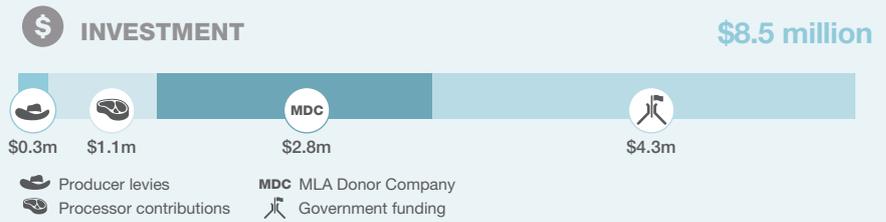
The MLA/AWI business management program, Pastoral Profit, delivered 38 events to 1,198 sheep and beef producers in the southern rangelands zone in 2015-16. On average, producers rated the value of the events to their business 8.1/10 and 54% indicated they intended to change practices as a result of the event.


KEY MILESTONES

MILESTONE	RESULT	COMMENTARY
On average, 50% of engaged producers in the majority market programs (More Beef from Pastures (MBfP), Making More From Sheep (MMFS), FutureBeef and the Pastoral Profit program) will apply at least one new practice to improve their business performance	Achieved	On average 70% of surveyed producers across the majority market programs stated they intended to change their practices (41% for MBfP events; 86% for MMFS events; 54% for Pastoral Profit events; 99% for EDGE events; and 68% for FutureBeef)
Ten additional Producer Demonstration Sites (PDS) to be implemented (across sheepmeat and grassfed beef programs)	Not achieved	Six new producer demonstration sites (PDS) for sheep producers were established engaging over 300 producers. Robust monitoring and evaluation processes integrated. No demonstration sites for beef producers were established due to reassessment of the benefits of PDS projects for the beef industry
A pilot for a new adoption program will be completed that will underpin MLA's future investments in producer adoption for the next five years	Achieved	Ten producer groups, involving 95 producers, were recruited to pilot the program and provide feedback on feasibility
BusinessEDGE delivery will be enhanced in the north and a new program will be implemented for southern producers and also for those within the pastoral zone	Achieved	The BusinessEDGE launch was initiated in Victoria and Tasmania. Rollout is continuing across the remaining southern states
A new monitoring, evaluation and reporting framework will be implemented to ensure effective and transparent measurement of overall on-farm RD&A program impact for the red meat and livestock industry against the <i>Meat Industry Strategic Plan 4</i> , the <i>Sheep Industry Strategic Plan</i> and the <i>Beef Industry Strategic Plan</i>	Achieved	A monitoring, evaluation and reporting framework was completed for extension and adoption programs. Integration into flagship extension and adoption programs is ongoing. One professional development activity was completed for external project leaders
At least 300 producers will be actively involved in the Producer Research Sites program as part of the Feedbase Investment Plan	Achieved	More than 300 producers have been actively involved in the Producer Research Sites across 25 producer groups spread over southern Australia
The Parasite Control module within the <i>Going into Goats</i> manual will be reviewed and updated content developed to provide Australian goat producers with current best practice advice to minimise the impacts of parasites on enterprise profitability and sustainability	Achieved	The module has been reviewed and content updated. It will be published in early 2016-17
Developed a management package for the successful integration of goats into sheep and/or cattle enterprises. The management package will focus on the benefits of 'co-grazing' with economic analyses demonstrating the benefits of diversifying into goats	Partly achieved	The management package will be finalised in early 2016-17 once desktop publishing and final fact checking are completed
Completed the pilot phase for a new feedlot extension model that utilises face-to-face communication to open dialogue with feedlots, and a range of different media, including mailouts, emails and a Facebook page as mechanisms for making information available and maintaining contact with interested feedlots	Achieved	The Feedlot Technology Adoption Group pilot was successfully completed and has been extended for a further two years

Build industry value chain innovation capability

MLA supports industry innovation and research strategies by working to ensure industry has appropriately skilled people within individual companies, throughout the supply chain and also among research, technical and scientific and extension providers.



STRATEGIES

Attract and build individual value chain innovation capability

Work with enterprises and value chains to build capability to implement innovation strategies

Support the development of essential science, research, technical and extension capabilities

KEY MILESTONES

MILESTONE	RESULT	COMMENTARY
The Intercollegiate Meat Judging program is successfully delivered with positive feedback received from participating companies and students documented	Achieved	In 2015-16, 163 students and coaches from 15 tertiary institutions participated in the program. A survey showed that 77% of participants rated the program as exceeding their expectations. An alumni survey indicated that 100% of respondents are employed in the industry
The Collaborative Innovation Strategic Partnership (CISP) program is demonstrating significant benefit to processors and producers as evidenced through a stakeholder engagement survey	Achieved	Endorsement of the CISP program is evidenced by 100% agreement to progress at scheduled go/no go review meetings. Positive feedback was also provided through media reports of producer and value chain workshops, and via independent third-party interviews. Transitioning five value chains to the next phase of the program also demonstrates the program is delivering benefits
The 'Young value chain innovators program' is designed and delivered and attracts at least 15 participants and is supported by industry and university programs	Achieved	There has been placement of 15 trainees in the 'Food Value Chain Innovators Emerging Leaders Program' as a major initiative of the building industry capability pillar of the Insights2Innovation program

OBJECTIVE HIGHLIGHTS

Emerging Leaders

As part of the Australian Government's Department of Agriculture Rural Research and Development for Profit grant, MLA has joined forces with other agri-food bodies to develop the 'Emerging Leaders' initiative. This program aims to retain and develop the 'bright young minds' of Australia's agri-food industries and to create thought leaders for the future. The first intake of Emerging Leaders in June 2016 included 15 participants, with eight in the red meat industry who were placed in traineeships with seven processing and value-adding companies. The program, funded via MDC, involves six residential programs with universities to build participants' skills in areas such as leadership and influence.

Collaborative Innovation Strategic Partnership program

MLA's Collaborative Innovation Strategic Partnership (CISP) program aims to build innovation capability along the value chain. During 2015-16, companies participating in the program represented 66% of Australia's total beef and sheepmeat production.

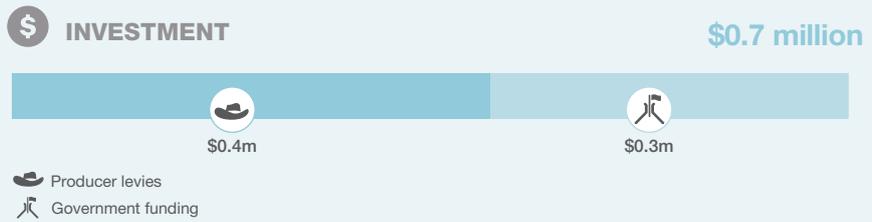
Analysis of the 2015-16 program via MDC has shown MLA's partnerships with industry have created an increased appetite for operational excellence investment and risk which has driven investment in innovation. For example, one CISP partner's investment in 'operational excellence' initiatives has increased from 62% to 70% over three years, demonstrating a stronger commitment to investigating new

pathways and radical change rather than just improving on existing processes.

During 2015-16, the application of beef spray chilling technology across eight beef processing sites, within one CISP partner business, proved it could deliver more than \$11/head return in yield savings (by reducing carcass shrinkage) and provide a direct annual benefit of more than \$7 million.

Other processing improvements, broadly adopted by CISP partners, include the rollout of the fully automated lamb LEAP system X-ray primal and middle cutting machine, a beef X-ray machine that provides accurate cutting of rib set, the use of RTL aitch bone pullers and a beef knuckle puller which have created combined savings of up to \$500,000 in occupational health and safety benefits.

MLA invests in current and future industry leaders through a range of industry development and scholarship opportunities. This upskilling also serves to empower participants to promote the industry. MLA also delivers research on priority industry issues at the request of peak industry councils to inform their policy development.



STRATEGIES

Equip and empower producers to build the industry’s reputation through skills development

Work closely with peak councils and government and seek opportunities with like-minded organisations to identify priority industry issues and commission research to support these issues

KEY MILESTONES

MILESTONE	RESULT	COMMENTARY
Three people to be supported through industry leadership programs in 2015-16 and actively engaged in industry activities	Achieved	Horizon scholar Caitlyn Daffey, Nuffield scholar Liz Manchee and ARLP participant Wil Wilson were sponsored by MLA in 2015-16 and have been actively engaged as advocates for the Australian red meat and livestock industry
20 previous industry leadership program participants to be actively engaged in the alumni program, with at least five participating in events and five media trained	Achieved	33 producers and stakeholders attended a full-day workshop at MLA’s North Sydney office to undertake presentation training, industry orientation and capability building in March 2016. Over a dozen producers were engaged with MLA-sponsored consumer events and another eight engaged to assist with MLA’s education program
Three projects completed and used by peak industry councils to progress priority policy issues on behalf of the red meat industry	Achieved	Five projects were completed on industry issues covering levy payer identification, price transparency, the CSIRO Transit model, regulatory impacts on agriculture and taxation

OBJECTIVE HIGHLIGHTS

Industry advocates

MLA took a new approach to engaging with the community. It hosted a workshop in March 2016 for a diverse group of 33 producers who will use their extensive industry knowledge and communication skills to become advocates for the red meat industry. The producers were chosen because they are familiar with the red meat sector and are experienced, accomplished communicators in a broad range of environments and across numerous communication platforms. The advocates will use their own experiences and personal stories to encourage a better understanding of the industry by the urban population and to build relationships with people keen to develop a deeper understanding of the paddock-to-plate journey.

Feedback from the workshop’s participants provided useful insights which will influence some community engagement opportunities during 2016-17.

MLA will continue to engage this group and invite them to participate at upcoming events and in educational and social media opportunities.

Price transparency

MLA continued to assess options to increase price transparency in the beef supply. The initial project was requested by the Cattle Council of Australia (CCA), as a result of a recommendation from the Senate inquiry (Rural and Regional Affairs and Transport References Committee) into industry structures and systems governing levies on grassfed cattle. Given the complexity of the

issue, CCA has requested further work on the issue to look at the development of a reporting system which could provide producers with up-to-date data on wholesale beef prices, offal and co-products to guide business decisions. CCA also recommended that MLA invest in producer education days, to enable producers to gain a better understanding of available marketing opportunities, including information on grids. MLA has already improved the presentation of over-the-hooks information for producers, via the National Livestock Reporting Service’s weekly market reports.

Stakeholder engagement and communication

MLA engages with a wide range of stakeholders on the value of its levy investment and ensures levy payers have opportunities to influence how it is invested. This includes coordinating effective and efficient consultation mechanisms with industry.

MILESTONE SCORECARD

8 milestones

- 5 achieved
- 1 partly achieved
- 2 not achieved

STRATEGIES

Deliver best practice corporate reporting

Develop opportunities to actively engage with stakeholders and improve services to members

Ensure stakeholders are aware of the activities and opportunities created by the investment of the levy in R&D and marketing

Meat Industry Strategic Plan 2010-2015 Strategic Theme

Innovation

Australian Government Science and Research Priorities

Food

INVESTMENT



Australian Government Rural Research and Development Priorities

Supply chain and markets
Supporting the Rural Research and Development Priorities

Agricultural Competitiveness White Paper Priorities

Adoption of research and development

OBJECTIVE HIGHLIGHTS

Regional consultation

The first annual round of MLA's new regional consultation process was completed in December 2015 when the inaugural Red Meat Panel met. The Panel recommended nine priorities for research, development and adoption:

1. Integration of cropping and livestock
2. Adaptation of tropical pasture species and companion legumes in new areas
3. Adaptation in a future whole-farm systems context
4. Managing total grazing pressure in extensive livestock production systems
5. Rapid, cost-effective mechanisms to get superior beef genetics into northern commercial beef herds via heifers
6. Novel feed strategies for supplementation
7. Reducing the economic impact of cattle tick
8. Scoping tool to aid farm risk management

9. Attracting new and young entrants and the best brains for livestock research and development and the industry through career paths and culture change.

These were identified through engagement with more than 100 sheepmeat and grassfed beef producers, eight state agencies, 11 universities, CSIRO, the Sheep Cooperative Research Centre, the Sheepmeat Council of Australia, the Cattle Council of Australia, two processors and MLA staff.

MLA also held its first annual project call, which sought preliminary research, development and adoption proposals in response to the national research, development and adoption priorities for sheepmeat and grassfed beef. The first stage of MLA's first annual call for projects was completed on time in February 2016 and 185 preliminary proposals were received by MLA. These were shortlisted by producer

panels, the Expert Panel and the Red Meat Panel to 18 proposals which will be funded by MLA. These projects represent an MLA investment of \$9.4 million over five years.

Improved website

The first phase of the redevelopment of MLA's website was completed in 2015-16. The new design positions MLA as transparent and accountable to levy payers. For example, the homepage now features a breakdown of investment in research, development and marketing by levy type (grassfed cattle, grainfed cattle, sheep, goats and supply chain). In 2015-16, visits to the MLA homepage increased 6% compared with the previous year. The most viewed section was 'Prices and Markets', which received close to 950,000 visits. The second phase of website redesign will be completed in 2016-17, including the development of a dashboard which provides customised content for each user.

KEY MILESTONES

MILESTONE	RESULT	COMMENTARY
Increase membership to 51,000 members (from 49,500 in 2014-15)	Not achieved	Membership increased to 49,892 as at 30 June 2016
Producer feedback via a survey conducted in August with 65% of feedback being positive	Achieved	Overall satisfaction with MLA increased to 7/10 (up from 6.6/10 in 2014). Satisfaction with MLA communications rated at 7.6/10 (up from 7/10 in 2014)
All reporting requirements required under corporations law and MLA's Statutory Funding Agreement with the Australian Government are met	Achieved	<i>Annual Report 2014-15, Performance Review, Impact Assessment, Strategic Plan 2016-2020 and Annual Investment Plan 2016-17</i> all completed on time
Consultation model established and implemented by October 2015	Achieved	The consultation model was established and implemented by September 2015
10% increase in usage of the website from 2014-15 baseline	Partly achieved	The MLA homepage saw an increase of 6% in user visits in 2015-16. The most viewed section was 'Prices and Markets' which received 933,000 visits. Average monthly engagement on MLA's Facebook page increased by 164% year on year and Twitter referrals increased by 86%
5% increase in open rates of <i>Friday Feedback</i> from 2014-15 baseline	Not achieved	Open rates have increased by 3%. A new iteration of <i>Friday Feedback</i> was launched in November 2015, including a new design and greater emphasis on regional content and timely news, advice and information
Increase member satisfaction with <i>Feedback</i> magazine from 71% to over 80%	Achieved	92% of members always or sometimes read <i>Feedback</i> with 50% saying it is their main source of information about MLA
Annual call for sponsorships implemented	Achieved	MLA has successfully implemented a new system for sponsorship requests and subsequent funding allocation

Digital communications

MLA's digital communications strategy included the redesign of *Friday Feedback* to ensure this weekly e-newsletter is seasonally relevant, timely and producer-focused. This drove an increase in newsletter opens (28.1%, up from 25.7% the previous year) and clicks (8.3%, up from 7.9% in 2014-15). MLA's social media performance increased on the back of a strategic focus on timely information and platform-specific content, such as YouTube videos of quarterly market projections and highlights from *MLA's Strategic Plan 2016-2020* and *Impact Assessment* report. Average monthly engagement on MLA's Facebook page increased by 164% year on year and Twitter referrals increased by 86%.

Media

MLA launched a new proactive media and communications strategy in 2015-16 with a renewed focus on radio as a platform to engage producers. A targeted advertising campaign with Fairfax's rural and regional publications promoted MLA's role and value to producers.

Corporate reporting

The *MLA Strategic Plan 2016-2020* was released in June 2016. This plan, which dictates where MLA will focus its investment during the next four years, is aligned with the *Meat Industry Strategic Plan 2020* and reflects the Australian Government's Science and Research Priorities and Rural Research, Development and Extension Priorities (page 6). The Plan was also distilled into a five-minute video to make the findings easily accessible to stakeholders.

Events

The inaugural MSA Excellence in Eating Quality Awards were presented at a series of producer forums in each state during March and April 2016, with more than 900 producers registering to attend. These awards recognised the top three performing producers in each state, based on their compliance rates to MSA specifications and high eating quality performance, as represented by MSA Index results during 2014-15.



Corporate services

Supporting MLA's six strategic imperatives are the services essential to the effective management of the levy investments including financial accounting, contracting, evaluation and reporting. This area also includes the costs associated with the management of AUS-MEAT and the levy (including third-party verification of voting entitlements).

STRATEGIES

- Board and executive
- Finance
- Human resources and administration
- Information technology and library services
- Legal and registry
- Performance evaluation and benchmarking
- Commercial

INVESTMENT



MILESTONE SCORECARD

7 milestones

- 6 achieved
- 1 not achieved

OBJECTIVE HIGHLIGHTS

Performance review

During 2015-16 MLA released the results of a rigorous and independent review of its performance, testing its service delivery to stakeholders and relevance to industry. Conducted by ACIL Allen, the review period covered the five years to 2014-15 and found that, while MLA had delivered exceptional results to industry through many of its programs, some areas could be improved.

Among the highlights of MLA's performance was recognition that MLA is a mature company which acts in the best interests of the red meat and livestock industry and, through its strong, organisational and governance structure, delivers on its goals.

There were four key recommendations:

1. MLA should maintain its present company structures to ensure the necessary 'breathing space' for it to operationalise the internal reforms that have been carried out during the past three years. The continuation of MLA Donor Company (MDC), as a fully-owned subsidiary of MLA,

is supported with recommendations for some enhancements.

2. The *Meat Industry Strategic Plan (MISP) 2020* is under-utilised as a planning, investment, engagement and communication tool and should be used as the access and exit point to MLA. This would reinforce its role as a strategic planning and operational tool which drives internal and external company interactions.
3. Listening is not enough. Genuine partnerships with industry are needed to drive future performance with an emphasis on meaningful stakeholder engagement and building trust for the mutual benefit of stakeholders and MLA.
4. The activities of sourcing and procurement cause performance issues for MLA and MDC. A leaner, more flexible procurement process needs to be identified and implemented which will help both entities achieve more from their investments and accelerate the realisation of *MISP 2020* for the industry's benefit.

The review, which informs MLA's next five-year funding agreement with the Australian Government, also shaped MLA's *Strategic Plan 2016-2020* (see page 6).

Impact assessment

An economic impact assessment of MLA's research, development and marketing programs (from 2010-11 to 2014-15), conducted by the Centre for International Economics, AgStrat Associates and ISJ Investments, showed significant returns on investment for industry. For every \$1 invested in these programs, industry is recouping \$6.20, a benefit-cost ratio of 6.2 to 1. In total, MLA's \$997 million investment over this period will benefit industry to the tune of \$6,170 million now and into the future.

The assessment also showed that every red meat sector shares in this success with grassfed cattle producers yielding a benefit-cost ratio of 8.8:1, sheep producers 4.3:1, lotfeeders 4.1:1, goat producers 6.7:1, live exporters 7.8:1 and processors 3:1.

KEY MILESTONES

MILESTONE	RESULT	COMMENTARY
Clean audit report received	Achieved	External audit performed by EY and published as part of FY2015 annual report
Internal audit program delivered to the satisfaction of the MLA Audit and Risk Committee	Achieved	Achieved agreed outcomes as outlined by Audit and Risk Committee in its annual work plan
Risk and Compliance program implemented throughout business via dedicated risk specialist resource	Achieved	Achieved agreed outcomes as outlined by Audit and Risk committee in its annual work plan
Operation within the framework of the <i>Deed of Agreement</i> and statutory obligations	Achieved	An independent Performance Review was conducted by ACIL Allen for the Statutory Funding Agreement period 2012-16. The review confirmed that MLA has performed well against its SFA obligations. MLA's governance arrangements, practices and procedures were found to meet each of the principles and recommendations required by the ASX's Corporate Governance Council, and the operational structure is constantly evolving to better meet the imperatives of the <i>MLA Strategic Plan</i>
Implement information technology three-year business plan	Achieved	Three-year plan developed and rolled out by IT manager during the year
Implement people and values business plan	Achieved	MLA developed, implemented and achieved a human resources plan in 2015-16
Implement processes and systems business plan	Not achieved	The plan was superseded by other measures

All of MLA's strategic areas of investment generated a positive return on investment, ranging from \$14.80 for every dollar invested to \$3.80 for every dollar. MLA's subsidiary company, MLA Donor Company, yielded a benefit-cost ratio of 4:1.

The 'Market access' program within the 'Maintaining and improving market access' strategic imperative was the stand-out performer. Bolstered by the recent success of the completion of free trade agreements with three of Australia's four largest red meat export markets, this program produces current and future benefits of \$999 million at a benefit-cost ratio of 24:1.

The domestic beef marketing program experienced challenges that led to positive but low returns (1.1:1). MLA has since overhauled the program to directly address issues such as competition from other proteins, reduced beef consumption and strong export demand.

On-farm productivity also had a low but positive return on investment with most benefits to be realised beyond 2015. Achieving a benefit-cost ratio

of 2.7:1, this area's performance was heavily impacted by prolonged drought. Adoption of new research and development remains a priority, particularly in northern Australia.

MLA distilled the 500-page final report of the Impact Assessment into a 32-page plain English summary and a three-minute video to make the findings easily accessible to stakeholders.

Right: The high-level results of MLA's Impact Assessment were summarised into an infographic for use on MLA's online platforms and in Feedback magazine.

