

2018–19

ANNUAL INVESTMENT PLAN

Fostering prosperity

CONTENTS



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INTRODUCTION

This Annual Investment Plan (AIP) has been developed to inform levy payers, peak industry councils, the Australian Government and the wider industry about MLA's planned work program in 2018–19.

MLA is a research, development and marketing service provider to the Australian red meat and livestock industry. Funded by levy payers, the Australian Government and value chain partners, MLA's mission is to increase prosperity, sustainability and global competitiveness within and across the industry's value chain.

AIPs are prepared each financial year to guide the practical delivery of MLA's long-term investment priorities and outcomes, which are set out in MLA's *Strategic Plan 2016–2020*.

These priorities align with the Australian Government's Science and Research Priorities and its Rural Research, Development and Extension Priorities.

They also centre on the six strategic pillars that the Australian red meat and livestock industry has set itself to achieve by the year 2020 through its *Meat Industry Strategic Plan 2020*.

MLA's work plan in 2018–19 has been categorised into:

> 15 programs

>> 30 sub-programs

>>> 108 product groups























This AIP outlines the programs, sub-programs, product groups, key performance indicators and budgets that will guide MLA's activities in 2018–19. Successful delivery of this plan will act as a stepping stone towards achieving MLA's *Strategic Plan 2016–2020*.

This AIP also denotes the sub-programs and product groups carried out by MLA's subsidiaries, MLA Donor Company (MDC) and Integrity Systems Company (ISC). MDC's and ISC's activities are also summarised on pages 7 and 9 respectively.

Table 1: MLA's strategic pillars, priorities and outcomes

Pillar	Outcome
1. Consumer and community support	The community continues to support and trust the Australian red meat and livestock industry, with industry practices in step with community expectations.
2. Market growth and diversification	Improved access to markets, with marketing programs and value creating innovation driving increased consumer and customer preference and premiums for Australian red meat.
3. Supply chain efficiency and integrity	Increased returns through the value chain, with participants and customers confident in product quality, pricing and integrity systems.
4. Productivity and profitability	Productivity gains through the value chain from the adoption of tools and technologies.
5. Leadership and collaborative culture	Industry participants are confident in industry leadership capability.
6. Stakeholder engagement	Industry participants are confident that the levy investment is delivering value.

Table 2: Alignment of MLA's programs and sub-programs to pillars

Programs and sub-programs in MLA's AIP 2018–19		MLA's strategic plan 2016–20 pillars						
Program	Sub-program	1. 	2. 	3. 	4. 	5. 	6. 	 *
 Animal health and welfare	› Animal health							
	› Animal welfare							
 Domestic market	› Market knowledge (domestic)							
	› Nutrition							
	› Marketing and promotion (domestic)							
 International markets	› Market access							
	› Market knowledge (international)							
	› Marketing and promotion (international)							
	› Livestock export market activities							
	› Livestock export (research and development)							
 Eating quality	› Eating quality							
 Environmental sustainability	› Sustainability (off-farm)							
	› Sustainability (on-farm)							
 Integrity systems	› Market access science							
	› Integrity systems							
 Objective measurement	› Objective measurement							
 Producer adoption	› Producer adoption							
 Product and packaging innovation	› High Value Food Frontiers							
 Value chain information and efficiency	› Digital value chain information							
 Productivity (off-farm)	› Productivity (off-farm)							
 Productivity (on-farm)	› Beef productivity							
	› Feedbase production and infrastructure							
	› Goat productivity							
	› Livestock genetics							
	› Sheep productivity							
 Capability building	› Innovation capability building							
	› Industry leadership and capacity building							
 Communication	› Communication (community)							
	› Communication (stakeholder)							
 Corporate services	› Corporate services							

* Corporate services

BUDGET SUMMARY

In 2018–19 MLA plans to invest \$271.6 million in research, development and marketing activities across six pillars (together with corporate services) and 15 program areas.

Projected 2018–19 investment by pillar (\$ million)

Total may not add up due to rounding.

1. Consumer and community support

\$35.5m 🎁

2. Market growth and diversification

\$77.9m 🌐

3. Supply chain efficiency and integrity

\$43.4m 🔗

4. Productivity and profitability

\$57.4m 📊

5. Leadership and collaborative culture

\$29.6m 🤝

6. Stakeholder engagement

\$11.8m 💬

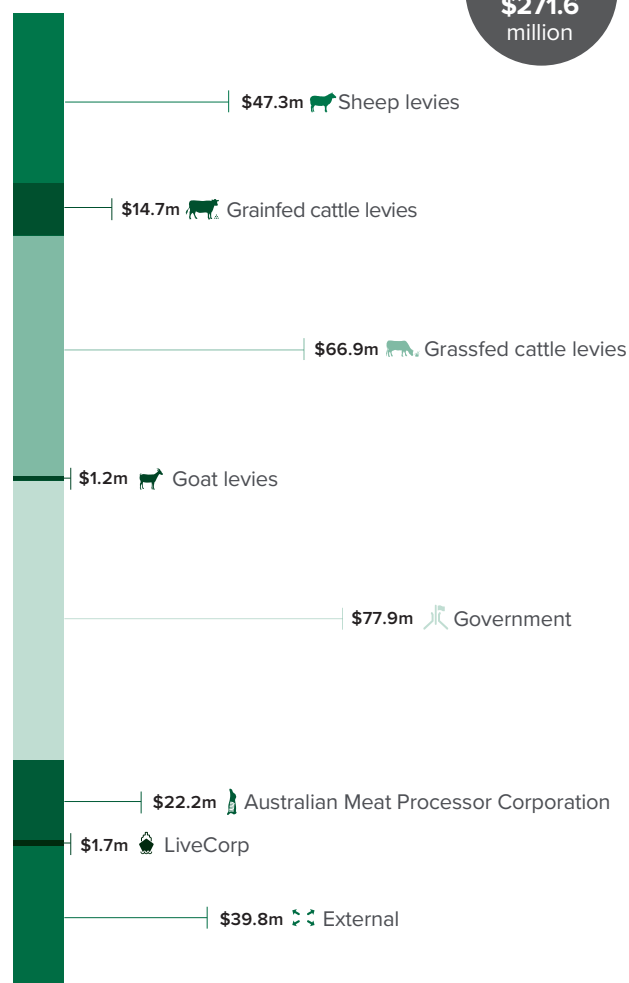
Corporate services, levy collection and AUS-MEAT

\$16.0m 💻

Total investment
\$271.6
million

Projected 2018–19 investment by funding source (\$ million)

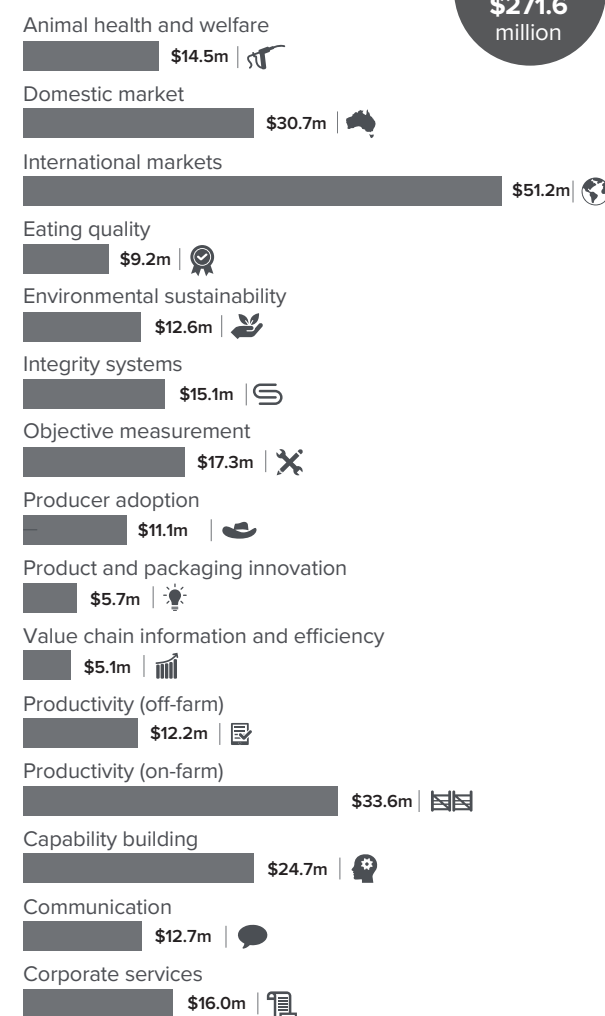
Total may not add up due to rounding.



Total investment
\$271.6
million

Projected 2018–19 investment by program (\$ million)

Total may not add up due to rounding.



Total investment
\$271.6
million

OPERATING ENVIRONMENT

The Australian red meat and livestock industry operates in a dynamic operating environment that presents challenges and opportunities. Some key aspects of this include:

- Rising incomes in key markets are driving demand and the negotiation of new trade agreements provide further opportunity for Australian red meat; however, the global trade environment remains challenging and unpredictable.
- Consumers are making their food choices based on value, nutrition, convenience and versatility benefits – and increasingly looking for animal welfare, sustainability and provenance attributes.
- Growing competition from the US, South America and low-cost proteins means the Australian red meat industry must continue to pursue quality and product integrity to hold its place on consumers' plates.
- Productivity gains are equally critical for our industry to compete and there are more innovation opportunities than ever before. Despite this, adoption remains low among many red meat businesses.

There will be no shortage of people to feed over the coming years, with the global population expected to increase by more than one billion people by 2030. As the population grows and global per capita incomes continue their expected upward trajectory in 2018–19, demand for red meat is also forecast to increase.

The prospect of new trade agreements with the EU and the UK presents added opportunity if Australia can rebalance the red meat trading disparities which have existed for the past 45 years. However, there are strong headwinds that the Australian red meat and livestock industry must navigate just to hold our position in the more than 100 markets we serve, let alone secure new opportunities. New barriers are being placed in front of trade flows, often in the form of non-tariff measures, while the changing geo-political landscape and rising nationalism mean the global trade environment remains challenging and unpredictable.

Australia's red meat processing costs are consistently higher than all of our major competitors and domestic energy prices continue to escalate. Production increases in the US, Brazil, India and other big red meat producing nations are also forecast to increase global supplies, further adding to the competitive pressure on Australia in our key markets and particularly in Asia.

Then there is the relentless competition from low-cost proteins such as chicken and pork that will continue to challenge the consumption of Australian red meat here and abroad.

For domestic supply, the vagaries of the climate and local seasons present a perennial challenge for red meat and livestock producers with implications for the national herd size, slaughter numbers, supply chain profitability, export volumes, domestic pricing and consumption. Cattle turn-off numbers bottomed out in 2017 but are forecast to gradually increase again, as will lamb turn-off. Mutton supplies are expected to remain flat in coming years.

Together, all these drivers mean the prosperity, sustainability and global competitiveness of Australia's red meat and livestock industry will rely even more on our continuing pursuit of quality, product integrity, productivity gains and innovation.

Consumers everywhere care more and want to know more about where their meat comes from and how it was produced. They will continue to seek food products based on their perceived value, nutrition, convenience and versatility benefits. However, they are also increasingly looking for animal welfare, sustainability and provenance attributes. Our industry will need to continue positioning Australian beef, lamb and goatmeat as high quality, healthy and convenient meal options with superior product integrity and a unique provenance story unmatched by our competitors.

Australia's commitment to improving eating quality and the 'fitness for purpose' of our red meat will ensure our ability to consistently meet consumer expectations. Coupling the adoption of new technology, objective carcase measurement and assurance systems will see a transition from price-averaging systems to pricing-based on defined quality, yield and integrity attributes – creating opportunities to increase returns right through the supply chain. The implementation of

the new Eating Quality Graded cipher alone will potentially add another \$46 million to the supply chain each year.

Operating on nearly half of the nation's landmass, the industry is demonstrating its environmental credentials through the sustainability of its production systems and by capturing productivity gains while reducing emissions. In fact, MLA has completed an initial investigation into pathways for the industry to become carbon neutral by 2030. Preserving Australia's freedom from exotic diseases is also critical to maintaining another productivity, welfare and competitive advantage.

Continuing productivity gains are critical for our industry to compete and prosper against low-cost competitors. Yet on-farm productivity performance remains a challenge and the adoption of new technology and business models remains low among many red meat businesses.

While public investment in agricultural extension services is diminishing and is likely to remain limited, there are opportunities for new adoption models to emerge and for the increased provision of services by private providers supported by industry.

MLA is also providing more innovation opportunities than ever before. One example is MLA Donor Company's (MDC) Producer Innovation Fast-Track program, which has been progressively implementing up to \$10 million worth of investment over the past 12 months to uncover innovation opportunities and work with producers to build capability. Likewise, increased collaboration with commercial companies, other agencies and research providers is accelerating the rate of innovation across the value chain. More private investment in research will see outcomes delivered faster and a more rapid uptake of innovation.

As new disruptive automation and measurement technologies emerge and the digital footprint expands, there will be even more ways for producers and their value chain partners to share information and adopt new practices and business models. Improved communication will increase awareness and capacity to embrace technology.

Over 2018–19, MLA will continue to foster the prosperity of the Australian red meat and livestock industry by collaborating with stakeholders to invest in research, development and marketing initiatives that contribute to producer profitability, sustainability and global competitiveness.

Table 3: Drivers affecting MLA's operating environment in 2018–19

	Driver	Outlook
Strengths	Exchange rates	The Australian dollar is projected to remain below parity with the US dollar, with the major Australian banks' forecasts ranging from US70¢ to US85¢. Any significant upwards shift to the Australian dollar would reduce the global competitiveness of Australian red meat and livestock.
	Global demand growth	Globally, real per capita incomes are expected to continue to grow in 2018–19. With per capita red meat consumption and income closely correlated, there is likely to be increased demand for high quality meat and livestock products.
	Safety and integrity	There continues to be increased consumer focus on provenance, country of origin and integrity systems that ensure meat safety.
	Disease freedom	Preserving Australia's freedom from exotic diseases will continue to provide a productivity, welfare and competitive advantage.
	Eating quality	Continuing commitment to predicting the eating quality and 'fitness for purpose' for a greater proportion of the national cattle and lamb slaughter will ensure greater consistency in meeting consumer expectations. Coupled with enhancements to the Australian Beef Language to embrace eating quality, this will create opportunities to increase returns to the whole supply chain.
Weaknesses	Domestic supply	Cattle turn-off numbers bottomed out in 2017 but will gradually increase again out to 2020. Lamb turn-off is forecast to continue slowly rising, with mutton supplies to remain reasonably flat in coming years.
	Protein competitors	Growth in chicken and pork production is expected to continue to outpace growth in red meat production both domestically and globally.
	Productivity	On-farm productivity performance remains a challenge with a perception that Australian red meat producers are below the productivity improvements being secured by major international competitors.
	Extension	State government investment in agricultural extension services is likely to remain limited. In general, private sector services are specialised, with only a portion of livestock producers prepared to pay for their services.
	Inputs	Red meat processing costs are consistently higher than all of our major competitors and energy prices continue to escalate.
Opportunities	Domestic demand	The domestic market remains the single most valuable destination for Australian red meat. While maintaining domestic consumption will be challenging, the value of sales is expected to remain the same or improve.
	Consumer interest and preferences	Consumers are interested in where their meat comes from, including knowing about the welfare of the animals and sustainable farming practices. They will continue to seek food products based on their perceived value, nutrition, convenience and versatility benefits.
	Global population	The world's population is forecast to grow by more than one billion by 2030. In the Asia Pacific region alone, the population is expected to increase by nearly 500 million to 4.6 billion.
	New technology and innovation	As new disruptive automation and measurement technologies emerge and the digital footprint expands, there will be more ways for producers and their value chain partners to share information and adopt new practices and business models. Improved communication will increase awareness and capacity to embrace technology.
	Adoption	As public adoption services diminish, there are opportunities for new adoption models to emerge and for the increased provision of services by private providers supported by industry.
	Demographics	More producers will operate commercial businesses and there may be less producers operating for lifestyle reasons. A desire for diversification, entrepreneurship and to solve on-farm challenges in novel ways provides the opportunity for new ideas and innovation.
	Collaboration	Increased collaboration with commercial companies – including through MLA Donor Company – has the potential to accelerate the rate of innovation across the value chain.
	Private investment	More private investment in research will see outcomes delivered faster and innovation uptake occur more rapidly.
	Value-based marketing	The adoption of new technology and objective carcase measurement and assurance systems will see a transition from price-averaging systems to pricing based on defined quality, yield and integrity attributes.
	Environmental credentials	The industry will continue to demonstrate its environmental credentials through the sustainability of its production systems and by capturing productivity gains while reducing emissions.
Threats	Levy resources	Local weather conditions and increased competition could impact on both levy income and/or the gross value of production (GVP) for the red meat industry. Any reduction in GVP would mean a reduction in Government matching funds.
	Business type	As consolidation of farm businesses occurs, companies may become more vertically integrated. This could have implications for the transaction levies that help fund MLA's work.
	Climate	Australia's variable climate presents a perennial challenge for red meat and livestock producers, with implications for the national herd size, slaughter numbers, supply chain profitability, export volumes, domestic pricing and consumption.
	International competitors	Competition is expected to intensify from the US and South American countries as they seek to improve their market access and underlying beef quality, which will continue to pressure Australia in a number of beef markets, particularly in Asia.
	Global supply	Global meat supply is expected to increase in coming years, as the US, Brazil and India are all forecasting production increases.
	Market access	The trade environment remains challenging, with new barriers being placed in front of trade flows (particularly non-tariff measures), and unpredictable due to changes in the global geo-political landscape, rising nationalism and non-tariff barriers.

OUR SUBSIDIARY COMPANIES

MLA owns two operating subsidiary companies.

MLA Donor Company partners with organisations to co-invest in innovation and new technologies that bring value to the red meat industry.

Integrity Systems Company administers the National Livestock Identification System database which records livestock movements. It is also responsible for the Livestock Production Assurance program and National Vendor Declarations.



MLA DONOR COMPANY

MLA Donor Company Limited (MDC) is a fully-owned subsidiary of Meat & Livestock Australia.

MDC accelerates innovation across the value chain so the Australian red meat and livestock industry can remain competitive on the world stage. It does this by attracting commercial investment from individual enterprises and others that share a mutual interest to co-invest in innovation that will benefit the industry (see figure).

MDC supports MLA's strategic purpose of fostering the long-term prosperity of the Australian red meat and livestock industry via:

- extending MLA's strategic priorities into future-focused, transformational impact areas
- facilitating capability and adoption of innovation by industry
- acting as a catalyst to accelerate the development of innovations with new types of provider partnerships
- partnerships that facilitate 'big picture' change in the industry
- engaging leading global providers and entrepreneurs that bring new ideas and new value to the industry
- attracting new investment partners to co-develop key priority areas.

A key MDC initiative in 2018–19 is the continued expansion of the innovation and entrepreneurship platform: I+E CONNECT. This platform aims to accelerate the delivery of commercially viable solutions that create unique and competitive positions for the Australian red meat industry. It taps into new forms of investment from venture capital and private equity funds, develops partnerships with the global ag-tech and food-tech accelerator and incubator community, and attracts entrepreneurs and start-ups to the industry.

As MDC activities are directly aligned to deliver against MLA's overall strategic plan, key program deliverables have been included in the relevant sections of this Annual Investment Plan.

Further detail about MDC is available at mla.com.au/mdc

Figure: The role of MDC



Projected 2018–19 investment by funding source – MDC (\$ '000)

Program	Goat R	Goat M	Mutton R	Mutton M	Lamb R	Lamb M	Grassfed cattle R	Grassfed cattle M	Grainfed cattle R	Grainfed cattle M	AMPC R	AMPC M	LiveCorp R	LiveCorp M	External R	Government R	External M	Sum of R	Sum of M	Sum of AIP 2018–19
Animal health															1,662	1,662	1,951	3,324	1,951	5,275
Animal welfare											51				1,482	1,534		3,067		3,067
Innovation capability building			19		238		228				1,762				4,448	6,695		13,391		13,391
Communication (stakeholder)															3	3		6		6
Sustainability (off-farm)											1,073				1,600	2,673		5,346		5,346
Sustainability (on-farm)															659	659		1,318		1,318
Market access science															15	15		31		31
Integrity systems															340	340		680		680
Livestock export (research and development)															230	230		460		460
Objective measurement											59				3,278	3,338		6,675		6,675
Producer adoption															869	869		1,737		1,737
High Value Food Frontiers											247				1,281	1,528		3,057		3,057
Productivity (off- farm)											384				1,960	2,344		4,688		4,688
Beef productivity											25				466	491		981		981
Feedbase production and infrastructure															2,150	2,150		4,299		4,299
Sheep productivity															125	125		251		251
Livestock genetics															2,828	2,828		5,657		5,657
Digital value chain information											148				233	381		763		763
Total			19		238		228				3,750				23,629	27,865	1,951	55,730	1,951	57,681

INTEGRITY SYSTEMS COMPANY

The Integrity Systems Company (ISC) is a fully-owned subsidiary of Meat & Livestock Australia. ISC aims to grow red meat value chain opportunities through integrity and information systems innovation. This serves to increase returns through the value chain, with participants and customers confident in product quality, pricing and traceability systems.

ISC supports MLA's strategic purpose of fostering the long-term prosperity of the Australian red meat and livestock industry via:

- providing, delivering and administering meat and livestock integrity programs
- integrating, expanding and enhancing meat and livestock integrity programs to improve the quality, efficiency and performance of the programs for the benefit of the meat and livestock industry
- developing, delivering and administering information technology platforms for the benefit of the meat and livestock industry
- maintaining a framework for consultation with peak industry councils, SAFEMEAT partners, industry committees and government stakeholders
- pursuing commercial opportunities, provided such opportunities do not detract from the provision of the core business of Integrity Systems Company or conflict with the company's not-for-profit status.

As ISC activities are directly aligned to deliver against MLA's overall strategic plan, key program deliverables have been included in the relevant sections of this *Annual Investment Plan*.



Projected 2018–19 investment by funding source – Integrity Systems Company (\$ '000)

Sub-program	Goat R	Goat M	Mutton R	Mutton M	Lamb R	Lamb M	Grassfed cattle R	Grassfed cattle M	Grainfed cattle R	Grainfed cattle M	AMPC R	AMPC M	LiveCorp R	LiveCorp M	External R	Government R	External M	Sum of R	Sum of M	Sum of AIP 2018–19
Digital value chain information	36		98		717		963		362							2,177		4,353		4,353
Integrity systems	9	37	47	182	129	483	389	1,429	129	659	449	1,665	17	63		1,169	4,272	2,338	8,790	11,128
Total	45	37	146	182	846	483	1,352	1,429	491	659	449	1,665	17	63		3,346	4,272	6,692	8,790	15,482



Pillar 1. CONSUMER AND COMMUNITY SUPPORT



The red meat and livestock industry is a responsible and effective custodian of Australia's natural resources and the welfare of the animals in its care.

The community places a high – and growing – expectation on the Australian red meat and livestock industry to look after the environment and the welfare of livestock. Meeting these community expectations is essential for the industry to maintain its social licence to operate.

Industry must continue to proactively address and promote the welfare standards for livestock, the environmental impact of livestock practices and the role of red meat in a healthy diet. This pillar invests in research into the superior nutritional properties of red meat. It also invests in research and development to enhance the industry's animal welfare, disease control and environmental practices. This includes the communication of these actions and commitments by the industry to the community.

Alignment to industry and government priorities

Meat Industry Strategic Plan priorities

- Continuous improvement of the welfare of animals in our care
- Stewardship of environmental resources
- Role of red meat in a healthy diet

Australian Government priorities

Science and research priorities

- Food
- Soil and water
- Environmental change
- Transport
- Resources
- Health

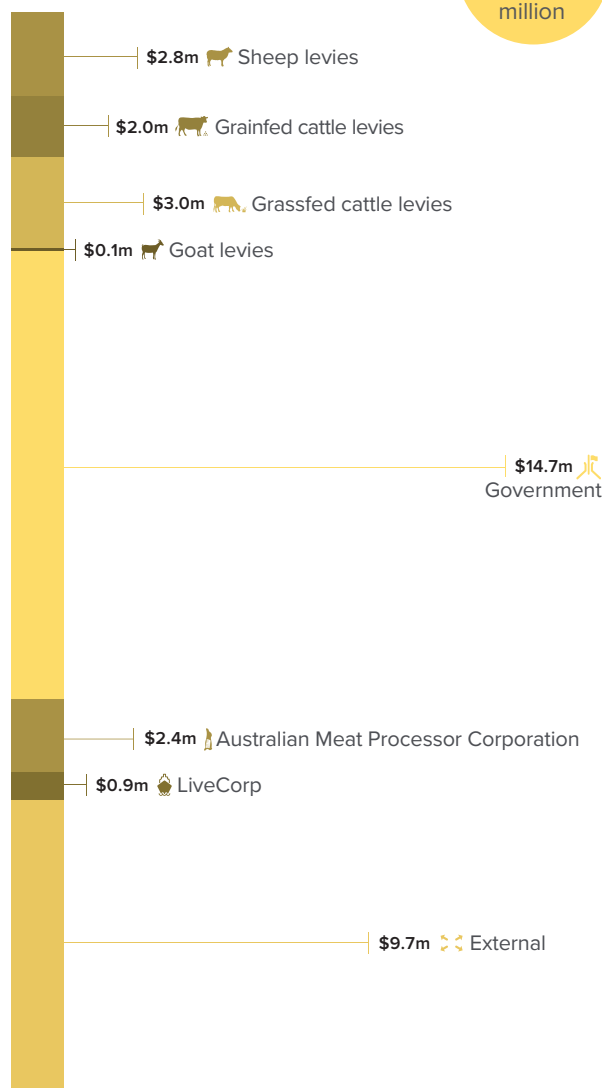
Rural research, development and extension priorities

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

INVESTMENT

Projected 2018–19 investment by funding source (\$ million)

Total may not add up due to rounding.



PROGRAMS

MLA's 2018–19 programs within this pillar¹ are:

	Animal health and welfare	p.18
	› Animal health	
	› Animal welfare	
	Domestic markets	p.21
	› Market knowledge (domestic)	
	› Nutrition	
	› Marketing and promotion (domestic)	
	International markets	p.24
	› Market access	
	› Market knowledge (international)	
	› Marketing and promotion (international)	
	› Livestock export market activities	
	› Livestock export (research and development)	
	Environmental sustainability	p.31
	› Sustainability (off-farm)	
	› Sustainability (on-farm)	
	Productivity (on-farm)	p.48
	› Beef productivity	
	› Feedbase production and infrastructure	
	› Goat productivity	
	› Livestock genetics	
	› Sheep productivity	
	Capability building	p.55
	› Innovation capability building	
	› Industry leadership and capacity building	
	Communication	p.59
	› Communication (community)	
	› Communication (stakeholder)	

¹ Some of these programs extend across other pillars.

Pillar 2. MARKET GROWTH AND DIVERSIFICATION

Improving market access and demonstrating Australian red meat and livestock's value proposition to consumers and customers are the primary ways for the industry to grow demand and diversify markets. Australia's desirable product attributes and value chain innovation together enables the industry to expand the number of potential customers, be better positioned to command higher premiums and deliver the best return on investment.

This pillar strives to reduce economic and technical barriers to trade, defend existing gains in trade and proactively identify and develop new business opportunities. It also recognises the quality and integrity systems that underpin marketing efforts to differentiate Australian red meat from other red meat competitors and proteins.

Alignment to industry and government priorities

Meat Industry Strategic Plan priorities

- Efficiency and value in trade and market access
- Marketing and promoting Australian red meat and livestock

Australian Government priorities

Science and research priorities

- Food

Rural research, development and extension priorities

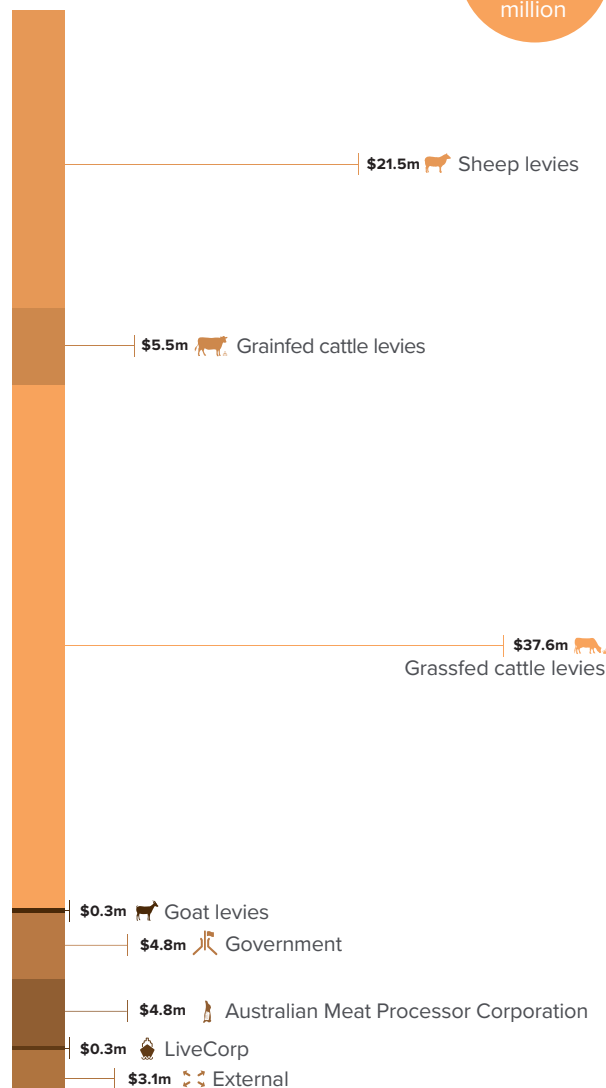
- Adoption of research and development
- Advanced technology

INVESTMENT

Projected 2018–19 investment by funding source (\$ million)





Total may not add up due to rounding.

Total investment
\$77.9
million



PROGRAMS

MLA's 2018–19 programs within this pillar¹ are:

	Domestic markets	p.21
	› Market knowledge (domestic)	
	› Nutrition	
	› Marketing and promotion (domestic)	
	International markets	p.24
	› Market access	
	› Market knowledge (international)	
	› Marketing and promotion (international)	
	› Livestock export market activities	
	› Livestock export (research and development)	
	Integrity systems	p.34
	› Market access science	
	› Integrity systems	
	Product and packaging innovation	p.42
	› High Value Food Frontiers	

¹ Some of these programs extend across other pillars.

Pillar 3. SUPPLY CHAIN EFFICIENCY AND INTEGRITY



Satisfied customers and industry partners are signs of a well-functioning value chain. The red meat and livestock industry strives to achieve this through Meat Standards Australia, which guarantees consumers a minimum eating quality in their red meat purchases, and also through integrity systems that underpin clean, safe, natural and traceability claims.

The Australian red meat and livestock industry has an opportunity to enhance this win-win for customers and value chain partners through new measurement technologies, information exchange and value based pricing, where consumers pay the true value of the products they purchase and industry is able to increase the value of each carcass.

Alignment to industry and government priorities

Meat Industry Strategic Plan priorities

- Optimising product quality and cost efficiency
- Guaranteeing product quality and systems integrity

Australian Government priorities

Science and research priorities

- Food
- Transport

Rural research, development and extension priorities

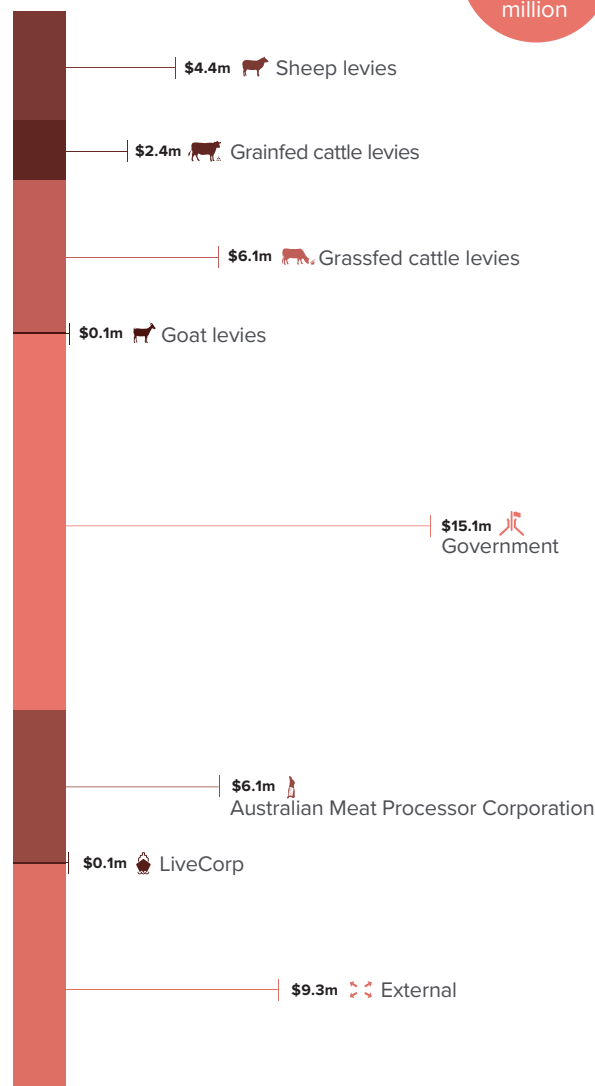
- Advanced technology
- Adoption of research and development
- Biosecurity

INVESTMENT

Projected 2018–19 investment by funding source (\$ million)

Total may not add up due to rounding.

Total investment
\$43.4
million



PROGRAMS

MLA's 2018–19 programs within this pillar¹ are:

	Eating quality	p.29
	› Eating quality	
	Integrity systems	p.34
	› Market access science	
	› Integrity systems	
	Objective measurement	p.37
	› Objective measurement	
	Product and packaging innovation	p.42
	› High Value Food Frontiers	
	Value chain information and efficiency	p.44
	› Digital value chain information	

¹ Some of these programs extend across other pillars.

Pillar 4. PRODUCTIVITY AND PROFITABILITY



Increasing productivity and profitability across the industry will assist red meat and livestock participants to raise their competitiveness and long-term sustainability and help offset the long running cost-price squeeze.

Encouraging the value chain to increase its productivity requires a new approach to adoption. Providing producers, lot feeders, livestock exporters and processors with compelling commercial benefits to implement research and development is another priority. Also critical is the supply of timely, accurate and relevant tools, technologies and information.

Alignment to industry and government priorities

Meat Industry Strategic Plan priorities

- Production efficiencies in farms and feedlots
- Processing productivity
- Live export productivity

Australian Government priorities

Science and research priorities

- Soil and water
- Food
- Transport
- Environmental change
- Advanced manufacturing
- Energy

Rural research, development and extension priorities

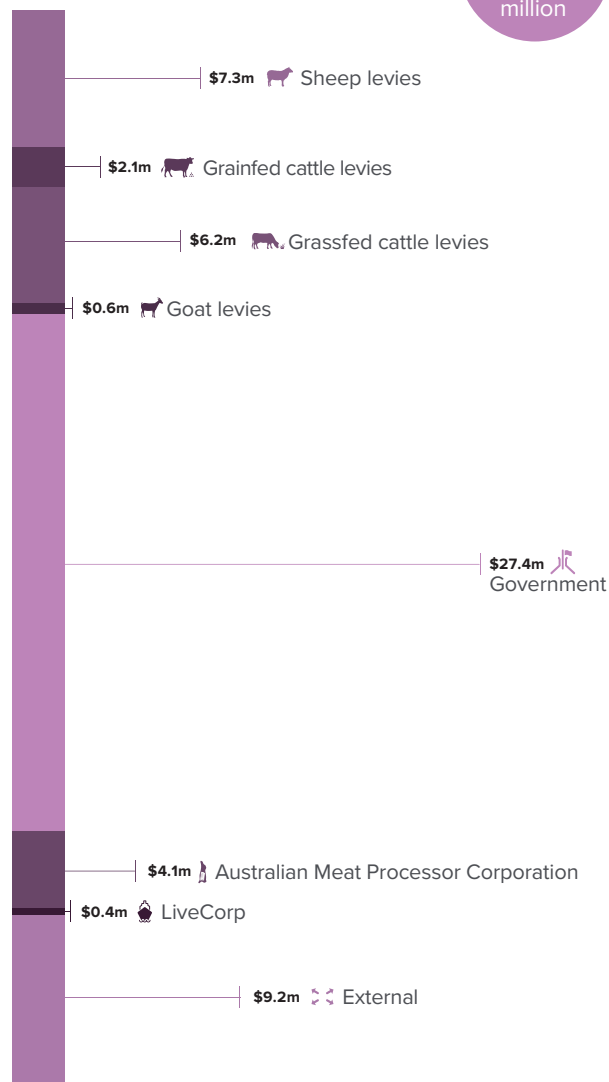
- Advanced technology
- Adoption of research and development
- Soil, water and managing natural resources

INVESTMENT

Projected 2018–19 investment by funding source (\$ million)

Total may not add up due to rounding.

Total investment
\$57.4
million



PROGRAMS

MLA's 2018–19 programs within this pillar¹ are:

	International markets	p.24
	<ul style="list-style-type: none"> › Market access › Market knowledge (international) › Marketing and promotion (international) › Livestock export market activities › Livestock export (research and development) 	
	Producer adoption	p.39
	<ul style="list-style-type: none"> › Producer adoption 	
	Productivity (off-farm)	p.46
	<ul style="list-style-type: none"> › Productivity (off-farm) 	
	Productivity (on-farm)	p.48
	<ul style="list-style-type: none"> › Beef productivity › Feedbase production and infrastructure › Goat productivity › Livestock genetics › Sheep productivity 	
	Capability building	p.55
	<ul style="list-style-type: none"> › Innovation capability building › Industry leadership and capacity building 	

¹ Some of these programs extend across other pillars.

Pillar 5. LEADERSHIP AND COLLABORATIVE CULTURE



Securing the potential of the Australian red meat and livestock industry and delivering on the ambitions of the Meat Industry Strategic Plan requires strong industry leadership, a capable workforce and the ability to attract the best and brightest minds to the industry.

For MLA, the delivery of its own Strategic Plan will rely on the strength of our team and the expertise of our people. Our progress will be continually monitored, objectively measured, and transparently communicated to all stakeholders.

Alignment to industry and government priorities

Meat Industry Strategic Plan priorities

- Building leadership capability
- Protecting and promoting our industry

Australian Government priorities

Science and research priorities

- Food
- Environmental change

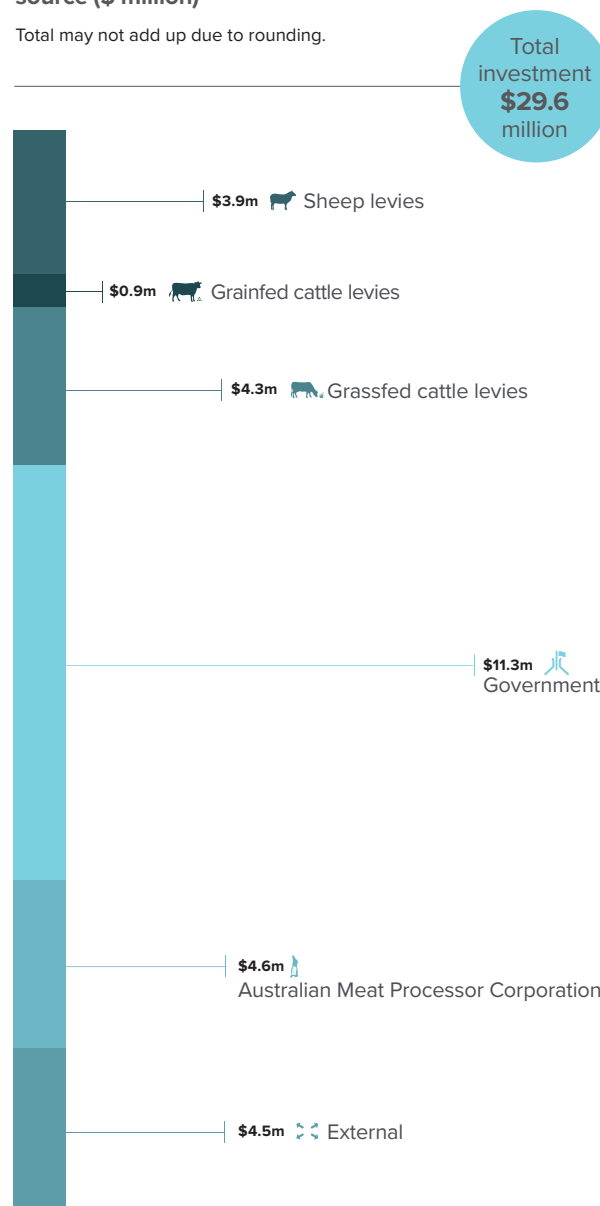
Rural research, development and extension priorities

- Adoption of research and development
- Biosecurity

INVESTMENT

Projected 2018–19 investment by funding source (\$ million)

Total may not add up due to rounding.



Total investment
\$29.6
million

PROGRAMS

MLA's 2018–19 programs within this pillar¹ are:

- Capability building** p.55
 - › Innovation capability building
 - › Industry leadership and capacity building
- Communication** p.59
 - › Communication (community)
 - › Communication (stakeholder)
- Corporate services** p.63
 - › Corporate services

¹ Some of these programs extend across other pillars.

Pillar 6. STAKEHOLDER ENGAGEMENT



The successful delivery of MLA's Strategic Plan will require an enhanced level of collaboration between MLA and its many stakeholders.

This pillar focuses on extending the breadth and depth of stakeholder engagement across MLA. Genuine two-way consultation and collaboration will provide mutual benefit in the delivery of MLA's marketing, research and development services to industry. This pillar also includes the delivery of MLA's corporate reporting responsibilities within a culture of continuous improvement.

Alignment to industry and government priorities

Meat Industry Strategic Plan priorities

- N/A

Australian Government priorities

Science and research priorities

- Food

Rural research, development and extension priorities

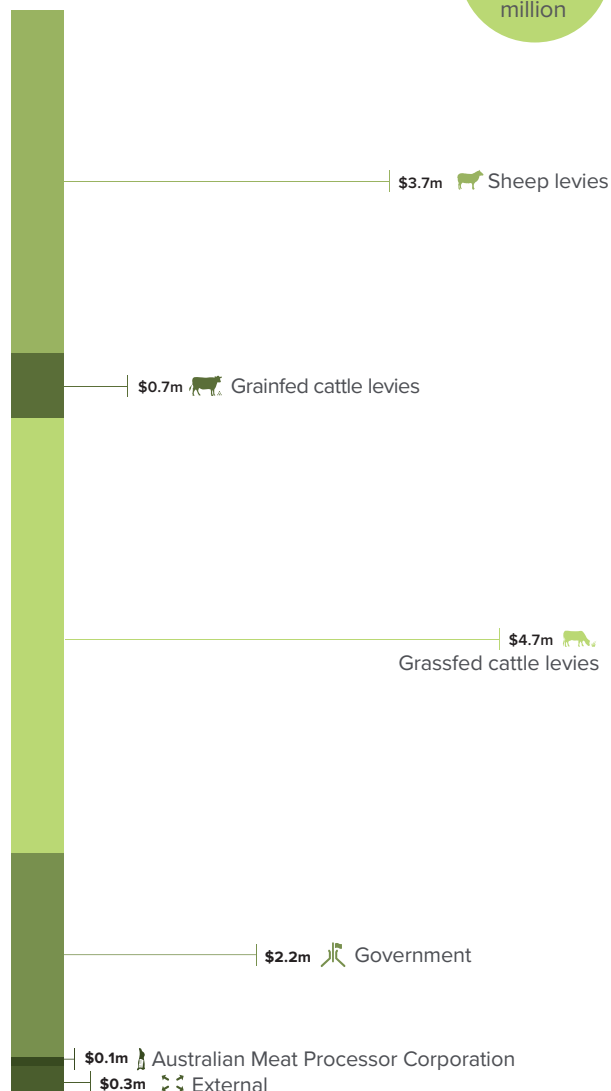
- Adoption of research and development

INVESTMENT

Projected 2018–19 investment by funding source (\$ million)

Total may not add up due to rounding.

Total investment
\$11.8
million



PROGRAMS

MLA's 2018–19 programs within this pillar¹ are:



Domestic markets

p.21

- › Market knowledge (domestic)
- › Nutrition
- › Marketing and promotion (domestic)



Capability building

p.55

- › Innovation capability building
- › Industry leadership and capacity building



Communication

p.59

- › Communication (community)
- › Communication (stakeholder)

¹ Some of these programs extend across other pillars.



PROGRAMS

PROGRAM

Animal health and welfare

MLA's animal health and welfare program assists MLA to foster the prosperity of the Australian red meat and livestock industry by improving the management of livestock's wellbeing by minimising the impact of endemic and emergency disease and by ensuring the continued support and trust of the community.

SUB-PROGRAM

- › Animal health
- › Animal welfare

PILLARS

- 🏠 Consumer and community support

BUDGET
\$14.5
million

Operating environment

The community has high and increasing expectations of the industry about the way livestock are treated. These expectations encompass the management of animal health, the application of animal welfare standards, the maintenance of Australia's freedom from exotic diseases and minimising the impact of endemic diseases.

There are significant productivity advantages for the industry as it continues to improve the health and welfare of livestock by enhancing husbandry practices, diagnosis testing and preventive treatment options including the reduction of livestock mortality and the impacts of parasitic disease.

MLA's investments in animal health and welfare research improve the management of the wellbeing of Australia's livestock. Good animal health management amounts to good biosecurity; preventing the incursion of new pathogens and, in the event of a disease occurrence, intervention and containment to prevent spread across boundaries. The term 'biosecurity' has evolved from the days when it was used to signify prevention of the incursion of diseases exotic to Australia, to a recognition today that biosecurity starts at the farm enterprise level.

› Animal health

MLA's animal health sub-program works to reduce the impacts of animal disease through:

- faster, cheaper and more accessible diagnosis
- preventative measures which rely less on chemicals and more on exploiting a host's resilience and immunity
- enhanced treatment options.

Further investments will contribute tools and enablers for reducing the impact of disease including disease surveys, decision support tools and epidemiological investigations.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Animal health tools and enablers	The 'animal health tools and enablers' product group works to reduce the impact of key livestock diseases. Initiatives include: <ul style="list-style-type: none">• exploring the epidemiology of conditions such as arthritis, sheep measles and bovine theileriosis• developing decision support tools and prediction models for parasite management and disease interventions• encouraging producer participation in disease surveillance.
■ Animal health diagnostics	The 'animal health diagnostics' product group includes initiatives to improve the diagnosis of sheep footrot and worm infestation, and exotic pathogens such as capripox and foot and mouth disease virus.
■ Animal health prevention and treatment	Initiatives within the 'animal health prevention and treatment' product group include: <ul style="list-style-type: none">• facilitating the implementation of integrated pest management• avoiding plant toxicities• identifying animals which are inherently resistant or resilient against e.g. cattle tick, internal parasites and infectious diseases• various investments aimed at developing a cattle tick vaccine.

Product group	Description
■ Feedlot animal health	<p>Initiatives within the ‘feedlot animal health’ product group include:</p> <ul style="list-style-type: none"> • developing and evaluating vaccines and immunostimulants to reduce feedlot disease and provide alternatives to medically important antimicrobials • antimicrobial resistance surveillance of bovine respiratory disease and food-borne pathogens • evaluating parasite resistance and drench strategies for feedlot cattle • developing and evaluating sensor technologies for feedlot disease prediction, detection and diagnosis • developing immune competence tests for feedlot cattle • quantifying the subclinical and clinical impact of feedlot disease through abattoir offal audits and veterinary pathology.

Key performance indicators in 2018–19

- Increased reporting of disease status from abattoir inspection back to producers.
- Foot and mouth disease animal vaccine test laboratory results available and tested for next generation sequencing. Farm-to-farm dispersal tool (beta version) released for end user consultation.
- One project underway to include cattle in ParaBoss.
- Improved diagnostic test for sheep footrot and serogroup determination made available to footrot vaccine program via diagnostic service providers.
- New tick vaccine research underway: protective effect of novel antigens and innovative delivery methods for sustained release.
- Surveillance program for antimicrobial resistance of bovine respiratory disease and food-borne pathogens implemented.
- Internal parasite resistance and drench strategies for feedlot cattle evaluated and results made available to industry.

This sub-program includes MDC partnership investment.

› Animal welfare

MLA’s animal welfare sub-program covers the research, development, adoption, engagement and communication activities that achieve and demonstrate to the community the continuous improvement of the welfare of Australian livestock.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Reduce mortality	The ‘reduce mortality’ product group includes initiatives to reduce mortality rates, particularly perinatal animals and cull females.
■ Relieve and replace painful husbandry practices	The ‘relieve and replace painful husbandry practices’ product group includes initiatives to deliver pain relief products and replace aversive practices.
■ Animal welfare guides, indices and assurance	<p>Initiatives within the ‘animal welfare guides, indices and assurance’ product group include:</p> <ul style="list-style-type: none"> • distributing, circulating and promoting existing guides to improve animal husbandry practices • researching new ways of demonstrating high welfare.
■ Animal welfare tools and enablers	The ‘animal welfare tools and enablers’ product group includes initiatives to develop and maintain effective research, development and adoption capability to respond to emerging welfare issues.
■ Feedlot animal welfare	<p>Initiatives within the ‘feedlot animal welfare’ product group include:</p> <ul style="list-style-type: none"> • commissioning feedlot bedding and pen surface ameliorant projects to mitigate the impact of wet pens on feedlot cattle comfort • commissioning projects to improve forecasts of heat load events, best practice nutrition and management strategies to limit the impact of heat load on animal performance and carcase characteristics • evaluating alternative truck crate design and its effect on feedlot animal health and carcase characteristics.

Animal health and welfare

Key performance indicators in 2018–19

- Less than 7% of the community limiting red meat consumption due to animal welfare concerns.
- Welfare strategic partnership launched and at least two blue-sky programs soundly established.
- Finalise NumNuts product and prepare for commercial release.
- Wild dog control program established and three wild dog management groups identify benefits of coordinated dog management.
- Project implemented to evaluate alternative truck crate design and its effect on feedlot animal health and carcass characteristics.

This sub-program includes MDC partnership investment.

Projected 2018–19 investment by funding source – animal health and welfare (\$ '000)

Sub-program	Goat R	Goat M	Mutton R	Mutton M	Lamb R	Lamb M	Grassfed cattle R	Grassfed cattle M	Grainfed cattle R	Grainfed cattle M	AMPC R	AMPC M	LiveCorp R	LiveCorp M	External R	Government R	External M	Sum of R	Sum of M	Sum of AIP
Animal health	29		89		837		428		600						1,662	3,646	2,118	7,291	2,118	9,409
Animal welfare	21		52		248		188		375	220	51				1,482	2,417		4,833	220	5,053
Total	50		141		1,085		616		975	220	51				3,144	6,062	2,118	12,124	2,338	14,462

PROGRAM

Domestic market

MLA's domestic market program assists MLA to foster the prosperity of the Australian red meat and livestock industry by demonstrating the value of red meat to consumers and by targeting the barriers limiting red meat consumption: price (relative to other popular proteins) and negative perceptions around health and production practices.

By addressing these barriers MLA seeks to maintain and enhance the value of domestic red meat sales and slow the historic long-term decline in consumption.

SUB-PROGRAM

- › Market knowledge (domestic)
- › Nutrition
- › Marketing and promotion (domestic)

PILLARS

- 🏠 Consumer and community support
- 🌐 Market growth and diversification
- 💬 Stakeholder engagement

BUDGET
\$30.7
million

Operating environment

The domestic market remains the single most valuable destination for Australian red meat. It is also the battleground where red meat and other proteins compete for their place on the dinner plate. With tight supply and robust global demand, domestic red meat prices remain high while pork and chicken prices stay low by comparison. Many retail and foodservice customers are experiencing margin pressures and some look to these and other protein alternatives to balance their books.

Despite low interest rates, consumer confidence remains soft and there is a growing trend towards 'savvy shopping' – buying on promotion, switching proteins, using less expensive cuts and minimising waste. Red meat is seen as having strengths when it comes to hearty and gourmet meal occasions, but among budget conscious and time poor consumers, red meat needs to promote its suitability as the perfect protein for the growing number of 'light' and 'easy' meal occasions.

Red meat's nutritional credentials are a question of portion size and balance on the plate. Positioning palm-sized portions of red meat three to four times a week as a key component of a healthy diet consistent with the Australian Dietary Guidelines will provide both industry and public health benefits (since average per capita consumption of red meat is below the recommended 65g/day). To be successful, MLA will require policy-makers to accept industry-funded evidence on the role of red meat in a healthy diet to ensure its continued representation in dietary guidelines and nutrition policy.

› Market knowledge (domestic)

MLA's market knowledge (domestic) sub-program collects, collates and analyses market information and intelligence, producing market and consumer insights. These aim to inform business decisions across the value chain and underpin domestic marketing strategies.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Domestic market insights	<p>The 'domestic market insights' product group provides economic insights to support the compilation of MLA's industry projections and statistics. Initiatives include:</p> <ul style="list-style-type: none"> • producing the MLA member survey, market information satisfaction survey and insight surveys • adoption of insights domestically with internal and external stakeholders; for example, domestic market snapshot and domestic market category plans • producing the quarterly (beef) and triannual (sheep) projections, covering supply (provided by NLRS) and demand • developing a three-year market insights plan, identifying needs and gaps in information.
■ Domestic consumer insights	<p>The 'domestic consumer insights' product group collects, analyses, interprets and disseminates channel and consumer insights. Initiatives include:</p> <ul style="list-style-type: none"> • tracking consumer (via consumer tracking) and shopper (via ACNielsen) • reviewing MLA domestic marketing campaigns and providing insights for future campaign development • gathering data to measure domestic KPIs • adoption of insights domestically with internal and external stakeholders; for example, in retailer category review presentations and processor workshops • developing a three-year consumer insight plan, identifying needs and gaps in information.

Domestic market

Product group	Description
■ National Livestock Reporting Service	<p>The 'National Livestock Reporting Service' product group produces timely, accurate and independent Australian livestock price data through the network of 27 Livestock Market Officers. Initiatives include:</p> <ul style="list-style-type: none">• capturing and reporting a minimum of 70% of each sale, in line with saleyard strategy• collecting and reporting weekly over-the-hooks and slaughter data, moving to online portal capture• collecting and reporting other data, including co-products• analysing market insights to provide supply insights to support the compilation of MLA's industry projections and statistics• driving adoption of online portal with current data providers• developing and commencing a plan to facilitate indicator comparisons across sales channels• developing leading-edge economic insights, feeding into quarterly projections and news• driving adoption of insights through technology in partnership with relevant MLA cross-functional teams; examples include education tools, industry presentations and indicators, such as Eastern Young Cattle Indicator and National Trade Lamb Indicator.

Key performance indicators in 2018–19

- High levels of satisfaction (above 85%) by industry stakeholders with MLA's market information services.
- Move to ISO 9001:2015 standard.
- High levels of satisfaction (above 85%) by industry stakeholders with MLA's market insights services.

› Nutrition

MLA's nutrition sub-program researches and communicates the health benefits of red meat to health practitioners, policy makers and consumers.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Nutrition communication	The 'nutrition communication' product group enables adoption of nutrition education material by producing and promoting easily accessible information and resources. Key adoption paths are the sponsorship of activities targeting health professionals. Initiatives within this product group include producing, promoting and disseminating nutrition education material; and supporting MLA marketing and community programs with relevant nutrition information.
■ Nutrition research	The 'nutrition research' product group generates information and resources in consultation with key nutrition experts and practitioners and in response to global and national policy directions so as to ensure information and resources are relevant, timely and user-friendly. Initiatives within this product group include funding and managing research on red meat consumption.

Key performance indicators in 2018–19

- Red meat consumption amounts consistent with the Australian Dietary Guidelines are recommended by 75–80% of GPs and dietitians.
- Balanced media coverage of red meat and health issues (above 75% positive and neutral coverage).
- Uptake of information and resources from the 'MLAhealthymeals' website increases by 10%.

› Marketing and promotion (domestic)

MLA's marketing and promotion (domestic) sub-program delivers a portfolio of marketing initiatives designed to ensure red meat consumers feel good about their choice and are inspired to eat three to four Australian red meat meals per week.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Domestic business development	Initiatives within the ‘domestic business development’ product group include: <ul style="list-style-type: none"> ensuring marketing activities are supported by retailer/trade partners developing and implementing bespoke key foodservice and retail account management plans setting appropriate targets for promotional activities and conduct post evaluations.
■ Domestic brand building	Initiatives within the ‘domestic brand building’ product group include: <ul style="list-style-type: none"> ensuring marketing activities are targeted against consumer purchase drivers delivering consumer-focused activities along the entire ‘path to purchase’ to build awareness and willingness to pay more for Australian red meat setting appropriate targets for promotional activities and conduct timely post evaluations evaluating the impacts of marketing activity, sharing the results and taking corrective action as required.
■ Domestic CoMarketing Program	The domestic ‘CoMarketing Program’ product group provides financial support and capacity building programs to assist brand owners to develop their brand propositions. Initiatives include: <ul style="list-style-type: none"> building awareness of key brand attributes building preference among target customers.

Key performance indicators in 2018–19

- Year-on-year increase in main grocery buyer endorsement of the statement “Willing to pay more for beef/lamb” to 20% (beef) and 22.5% (lamb) from 19% in 2015–16 (beef) and 21% in 2015–16 (lamb).
- Maintain mean number of serves per week: 1.5–1.7 for beef and 0.7–0.9 for lamb.
- Restrict the percentage of main grocery buyers limiting red meat for health reasons to 15% (beef) and 19% (lamb).
- 70% of participants satisfied with CoMarketing Program.
- 73% of CoMarketing participants believe their marketing activities raised awareness among target customers.

Projected 2018–19 investment by funding source – domestic market program (\$ ‘000)

Sub-program	Goat R	Goat M	Mutton R	Mutton M	Lamb R	Lamb M	Grassfed cattle R	Grassfed cattle M	Grainfed cattle R	Grainfed cattle M	AMPC R	AMPC M	LiveCorp R	LiveCorp M	External R	Government R	External M	Sum of R	Sum of M	Sum of AIP
Market knowledge (domestic)	7	5	22	4	675	912	525	1,411	106	181	180					1,515	384	3,031	2,898	5,928
Nutrition					273	205	254	141	130	126	63	27				720		1,441	499	1,940
Marketing and promotion (domestic)		51		125		9,582		11,183		1,637		174					68		22,819	22,819
Total	7	56	22	129	948	10,700	780	12,735	236	1,944	243	201				2,236	452	4,471	26,216	30,687

PROGRAM

International markets

MLA's international markets program assists MLA to foster the prosperity of the Australian red meat and livestock industry by growing demand for Australian red meat and livestock, by maintaining and improving access to global markets, by providing timely insights about global opportunities and by promoting Australia's superior points of difference.



SUB-PROGRAM

- › Market access
- › Market knowledge (international)
- › Marketing and promotion (international)
- › Livestock export market activities
- › Livestock export (research and development)

Operating environment

Australian red meat and livestock exports face considerable challenges in international markets. These include increased competition from other red meat suppliers, shifting global trade sentiment to more protectionist policies, ongoing restrictions in key markets due to non-tariff technical barriers and supply constraints in Australia.

Australian beef cattle numbers are recovering from the drought-induced decline in the national herd, meaning supplies remain tight at the same time that key competitors are gaining a foothold in some of our important markets. Australian sheepmeat supplies are similarly tight, yet overall global demand remains strong. Livestock prices have been at record or near record levels.

Despite the challenges, there are still significant opportunities for Australian products in global markets. There are growth opportunities in Asia with rising incomes and the emerging middle class. There is increasing demand for Australian natural, pasturefed product and optimism about the potential for improved market access to Europe and Britain.

Australia's high quality product and powerful country of origin reputation remain key differentials to many of our competitors in international markets. The maintenance and enhancement of our products' attributes is critical to our continued success in international markets.

MLA's international markets sub-programs and individual market strategies are developed using a portfolio matrix to segment markets and determine the size of the opportunity and the impact of MLA's investments. This portfolio matrix is used to determine the level of investment in each country and each sub-program. These portfolio segmentations and budget allocations are agreed through an annual consultation process with peak industry councils and industry.

PILLARS

- 🏠 Consumer and community support
- 🌐 Market growth and diversification
- 📊 Productivity and profitability

BUDGET
\$51.2
million

› Market access

MLA's market access sub-program supports industry and government to defend and maintain existing favourable access conditions, position Australia favourably in trade negotiations and assist with the alleviation of non-tariff (technical) trade barriers.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Economic access	<p>Initiatives within the 'economic access' product group include:</p> <ul style="list-style-type: none">• monitoring market access and regulatory conditions in key international markets• maintaining a network of key government and industry stakeholders and advocating for favourable access conditions• monitoring trade reform developments, commission research to evaluate trade issues and provide industry with intelligence and insights into strategy and positioning• developing and implementing industry-agreed advocacy plans to support industry positions in trade negotiations (e.g. EU, Brexit, RECEP)• representing industry at international and domestic trade forums to advocate for favourable access conditions.

Product group	Description
■ Technical access	<p>Initiatives within the 'technical access' product group include:</p> <ul style="list-style-type: none"> • monitoring in-market import and food regulations to identify change and developing issues • providing industry with regular communications on developing issues and develop response plans in conjunction with industry • identifying and prioritising non-tariff trade barriers, in conjunction with industry • developing and implementing non-tariff trade barrier alleviation action plans • commissioning technical barrier research as required • identifying livestock export protocol improvements and developing advocacy strategies to improve access • advocating to overseas government departments and key stakeholders Australia's superior integrity systems and meat safety credentials.

Key performance indicators in 2018–19

- Persuasive and well-researched submissions, correspondence and advocacy strategies prepared/implemented by MLA are endorsed by peak industry councils, acknowledged and acted on by government, and support delivery of favourable trade outcomes.
- High level of satisfaction (above 85%) by industry and government stakeholders with MLA's contribution to implementing agreed industry strategies aimed at reducing impact of non-tariff (technical) barriers.

› Market knowledge (international)

MLA's market knowledge (international) sub-program delivers up-to-date market intelligence, consumer insights and analysis that support industry in making informed marketing decisions and develop global marketing strategies.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ International market insights	<p>Initiatives within the 'international market insights' product group include:</p> <ul style="list-style-type: none"> • monitoring market trends • monitoring competitors • tracking retail and foodservice trends within major Australian red meat markets • tracking trade behaviour, preferences and usage trends through annual trade tracker • providing industry with easy-to-interpret valuable market insights and analysis • gathering data to measure international (market) KPIs as required • providing industry with up-to-date market intelligence.
■ International consumer insights	<p>Initiatives within the 'international consumer insights' product group include:</p> <ul style="list-style-type: none"> • conducting consumer research, including annual Global Consumer Tracker • developing detailed market insights about consumer behaviours, preferences and consumption trends • providing industry with easy-to-interpret valuable consumer insights and analysis • gathering data to measure international (consumer) KPIs as required • working with in-market teams to build tools to drive adoption of insights and increase the use of insights to inform strategy, internally and externally.

Key performance indicators in 2018–19

- High levels of satisfaction (above 85%) by industry stakeholders with MLA's international market information.

› Marketing and promotion (international)

MLA's marketing and promotion (international) sub-program builds customer and consumer awareness of Australia's positive attributes (integrity systems and quality attributes) by supporting a network of strategic partners and delivering promotional activities.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ International business development	Initiatives within the 'international business development' product group include: <ul style="list-style-type: none"> • building and/or maintaining a network of strategic relationships and key accounts • promoting Australia's integrity and safety systems to customers and end users • conducting business to business facilitation activities through trade shows and business networking • working with strategic partnerships to develop value chain solutions to improve the performance of Australian product through the provision of educational and product knowledge activities.
■ International brand building	Initiatives within the 'international brand building' product group include: <ul style="list-style-type: none"> • creating engaging and impactful consumer communications that promote Australia's points of difference • conducting consumer marketing activities that build or maintain consumer preference for Australian red meat • supporting collaborative promotional activities with key end users and strategic partners that promote Australia's points of difference and build preference for Australian red meat.
■ International CoMarketing Program	The international 'CoMarketing program' product group provides strategic advice and financial support and capacity building programs to assist brand owners to develop their brand proposition(s).

Key performance indicators in 2018–19

- Build or maintain customer awareness and preference of Australia's positive attributes (safety, quality) within target range per market.
- Increase consumer preference for Australian red meat in key international markets to be above 22.8% for beef and 21.2% for lamb.
- Minimum 70% of participants satisfied with CoMarketing program.

› Livestock export market activities

MLA, together with LiveCorp, jointly invest in the Live Export Program (LEP) which funds research and development to improve animal health, welfare and productivity throughout the livestock export supply chain.

Within the LEP, MLA's livestock export market activities sub-program supports the growth, productivity improvements and sustainability of the livestock export industry through the delivery of risk mitigation strategies and extension and adoption of best practice livestock management.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Livestock export animal welfare	Initiatives within the 'livestock export animal welfare' product group include: <ul style="list-style-type: none"> • building and maintaining a network of strategic relationships across the supply chain to assist in the communication of Australia's animal welfare systems • supporting industry to identify animal welfare risks and develop risk mitigation strategies • delivering extension and adoption of best practice livestock management techniques to support industry risk mitigation • supporting the implementation of the Livestock Global Assurance Program (LGAP) and other initiatives that enhance and secure animal welfare and sustainability of the trade.

Product group	Description
■ Livestock export productivity gains	Initiatives within the 'livestock export productivity gains' product group include: <ul style="list-style-type: none"> • delivering projects that improve supply chain productivity and regulatory compliance improvements • supporting industry to identify opportunities to reduce the cost of production through the supply chain • conducting extension activities to encourage adoption of efficiency and productivity improvements through feedlots, breeding projects and processing of livestock.
■ Exporter co-funding	Initiatives within the 'exporter co-funding' product group include providing industry with strategic advice and financial support in developing programs that assist commercial parties deliver animal welfare improvements and productivity gains.

Key performance indicators in 2018–19

- Minimum 70% of government and industry stakeholders satisfied with MLA's livestock export market access, productivity and adoption initiatives.
- Minimum 70% of participants satisfied with co-funding program.

› Livestock export (research and development)

Within the LEP, MLA's livestock export (research and development) sub-program provides industry with the tools, technologies, knowledge and capability to improve their productivity, profitability and sustainability at an individual business and industry level.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Livestock export animal integrity research and development	The 'livestock export animal integrity research and development' product group supports the implementation of the Livestock Global Assurance Program (LGAP) and other initiatives that enhance and secure animal welfare and sustainability of the trade. Initiatives include the development of a control and traceability framework to support implementation of LGAP.
■ Livestock export animal welfare research and development	Initiatives within the 'livestock export animal welfare research and development' product group include: <ul style="list-style-type: none"> • supporting ongoing research and data collection, scoping studies and adoption to improve heat load management in the Middle East • identifying economic and non-invasive animal welfare measures • developing a 'monitoring and reporting framework' to identify problems, enable corrective actions and capture improvements in animal welfare • trialling and developing alternative power loads to operate captive bolt devices • validating acceptable stunning outcomes to comply with ESCAS/LGAP and Halal standards • conducting research on strategic issues to reduce welfare risks • project partnerships developed in bedding management and stocking densities on board livestock vessels and identification of on-board environmental monitoring technologies that support animal welfare indicators.
■ Livestock export market access research and development	The 'livestock export market access research and development' product group monitors market access barriers and delivers action plans to support industry to reduce technical and economic barriers to trade and improve market access.
■ Livestock export productivity research and development	Initiatives within the 'livestock export productivity research and development' product group include: <ul style="list-style-type: none"> • data averages gathered and tested with exporters to develop a global index for the livestock export industry to assess competitiveness • reviewing and identifying opportunities within livestock export supply chains to improve efficiencies and reduce capacity/access infrastructure bottlenecks • improving cost of delivery performance through the livestock export supply chain.

International markets

Product group	Description
■ Livestock export extension and adoption	<p>Initiatives within the 'livestock export extension and adoption' product group include:</p> <ul style="list-style-type: none"> • supporting industry extension and adoption of best practice systems and procedures to achieve continuous improvements in animal welfare and mitigate risk of trade closure • communicating research, development and adoption outcomes and program performance to stakeholders • consulting with industry through the Live Export Research & Development Advisory Committee • implementing the recommendations and proposed plan from the LEP R&D systems review • conducting extension and adoption activities to improve efficiency and productivity throughout the livestock export supply chain.

Key performance indicators in 2018–19

- Support supplied to allow industry to implement Livestock Global Assurance Program (LGAP) and ongoing refinement of the control and traceability framework to support LGAP where required.
- Ongoing data collection from industry to identify inefficiencies and address them through the live export supply chain, which will contribute data to develop a global index to monitor improvements in efficiency through the live export supply chain.
- Annual survey of industry and government stakeholders indicates a high level of satisfaction (above 70%) with the conduct of the livestock export program.
- Research projects implemented to improve and manage heat stress and mortality during summer in hot/dry or hot/humid Middle East environments.
- Reporting framework adopted and refined to support the animal welfare indicators pilot project and broader ongoing research data collection.
- Research implemented to support and refine stocking densities and best practice bedding management on board livestock vessels.
- Research, development and extension projects that support ongoing improvements to existing regulation are commissioned (i.e. ASEL Review).

Projected 2018–19 investment by funding source – international markets program (\$ '000)

Sub-program	Goat R	Goat M	Mutton R	Mutton M	Lamb R	Lamb M	Grassfed cattle R	Grassfed cattle M	Grainfed cattle R	Grainfed cattle M	AMPC R	AMPC M	LiveCorp R	LiveCorp M	External R	Government R	External M	Sum of R	Sum of M	Sum of AIP
Market access		42	4	189	39	1,092	56	1,641		273	99	2,788		278		198		395	6,303	6,698
Market knowledge (international)		51		37		660		1,592		560									2,901	2,901
Marketing and promotion (international)		127		291		8,148		22,240		2,869		352					926		34,952	34,952
Livestock export market activities		34		171		541		2,364						722					3,833	3,833
Livestock export (research and development)			97		290		213						601		230	1,431		2,861		2,861
Total		254	100	688	329	10,441	269	27,838		3,702	99	3,140	601	1,000	230	1,628	926	3,256	47,989	51,245

PROGRAM

Eating quality

MLA's eating quality program assists MLA to foster the prosperity of the Australian red meat and livestock industry by:

- creating the opportunity for price premiums to be delivered to beef and lamb supply chain participants
- underpinning Australian red meat brands and providing a point of difference from competitor countries and proteins
- encouraging repeat purchases by guaranteeing consumers a satisfying eating experience.

SUB-PROGRAM

› Eating quality

Operating environment

Brand owners cannot afford to dissatisfy their customers in a market of rising red meat prices and fierce competition from alternative proteins.

The world-leading Meat Standards Australia (MSA) eating quality program provides beef and sheepmeat brand owners with a competitive advantage, allowing them to offer a guaranteed eating quality to customers who are faced with greater choice from lower cost products.

The success of the MSA program is evidenced by its continued growth and delivery of returns to the farm gate, with more than 2.7 million cattle and 5.7 million sheep presented for MSA grading during 2016–17. The program also delivered an estimated additional \$130 million in farm gate revenue thanks to premiums paid for MSA accredited and compliant cattle, with more than 3,000 additional cattle and sheep producers becoming MSA registered.

Currently, 40% of the Australian adult cattle slaughter and 25% of the lamb slaughter are presented for MSA grading, highlighting the opportunity to increase adoption of MSA along the supply chain. There is also potential to raise the national eating quality of MSA eligible cattle – as measured by the MSA Index.

Another opportunity to enhance eating quality is through eating quality tools and technology interventions that directly improve red meat eating quality in both MSA and non-MSA based supply chains.

PILLARS

› Supply chain efficiency and integrity

BUDGET
\$9.2
million

› Eating quality

MLA's eating quality sub-program strives to deliver a world-leading, consumer-focused eating quality program that drives demand and improves the eating quality of Australian beef and sheepmeat. Within this sub-program, MLA also leads global consumer eating quality research and integrity programs through collaboration with domestic and international partners. This area also provides technologies and related tools or enablers that either directly improve eating quality or support this sub-program.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ MSA business development	<p>Initiatives within the 'MSA business development' product group include:</p> <ul style="list-style-type: none">• using MSA science to describe 'fitness for purpose' of all cattle and sheep types and their pathways to processing• supporting adoption of any enhancements to Australian Beef and Sheepmeat Languages• delivering producer education programs to support understanding of customer specifications within supply chains, including how to improve the MSA Index for beef• empowering brand-driven implementation of MSA in domestic and export markets and supporting educational opportunities with customers of MSA brands• increasing the volume of beef and sheepmeat delivered to consumers with eating quality predictions.

Eating quality

Product group	Description
■ MSA integrity and compliance	<p>Initiatives within the 'MSA integrity and compliance' product group include:</p> <ul style="list-style-type: none"> • continually improving MSA quality management systems and standards to ensure robust and effective integrity systems are in place • using MSA to identify eating quality segregation opportunities to reduce product variability between brands • leading the development and, where appropriate, commercialisation of MSA-related technology to position MSA as the global standard for eating quality language • conducting MSA benchmarking analyses to inform supply chains of seasonal and regional statistics • enhancing carcass feedback systems to better facilitate decisions to optimise eating quality and deliver transparent grading outcomes.
■ MSA research and development	<p>Initiatives within the 'MSA research and development' product group include:</p> <ul style="list-style-type: none"> • completing research priorities and commercially implementing research outcomes as identified by the MSA pathways and beef and sheepmeat taskforce committees • implementing MSA Model V1.8 for beef • leading the collaboration of international eating quality research and data platforms • developing a cuts-based grading system for lamb and sheepmeat • enhancing grading efficiencies through the potential for objective carcass measurements • identifying on-farm practices and technologies that increase eating quality or reduce non-compliance.

Key performance indicators in 2018–19

- Improve compliance to MSA requirements to 94.7% for beef and 95% for sheepmeat.
- Successfully pass audit requirements to maintain USDA Process verified approval and ISO certification to 9001:2015 Standard.
- Engagement with 3,000 producers in MSA information sessions or workshops, including delivery of 30 value chain-focused producer engagement activities.
- Improvement of average national beef herd eating quality (MSA Index) to 58.00 and increase in bottom 1% of herd by 0.4 points.
- Increase producer use of myMSA for feedback by 30% in number of visits and 10% in number of producers.
- Adoption of MSA grading for beef increased from 43% to 46% of adult cattle slaughter.
- 30% of national lamb slaughter following MSA pathways with 21% of national lamb slaughter being MSA trademarked.
- MSA Beef model V1.8 released for commercial implementation.
- Global eating quality research database established with Australian participation.

Projected 2018–19 investment by funding source – eating quality program (\$ '000)

Sub-program	Goat R	Goat M	Mutton R	Mutton M	Lamb R	Lamb M	Grassfed cattle R	Grassfed cattle M	Grainfed cattle R	Grainfed cattle M	AMPC R	AMPC M	LiveCorp R	LiveCorp M	External R	Government R	External M	Sum of R	Sum of M	Sum of AIP
Eating quality			89	176	992	999	1,252	1,755	439	677						2,771	65	5,543	3,672	9,215
Total			89	176	992	999	1,252	1,755	439	677						2,771	65	5,543	3,672	9,215

PROGRAM

Environmental sustainability

MLA's environmental sustainability program assists MLA to foster the prosperity of the Australian red meat and livestock industry by creating opportunities for it to efficiently and effectively manage soil health, weeds, invasive animals, water, methane emissions, biodiversity and climate variability.

This program also addresses the industry's priority to maintain or increase community support for the industry's environmental stewardship.



SUB-PROGRAM

- › Sustainability (off-farm)
- › Sustainability (on-farm)

PILLARS

- 🏠 Consumer and community support

BUDGET
\$12.6
million

Operating environment

Livestock production relies on natural resources, with forage production dependant on soil, water supply and quality and biological diversity. Changes in climate, regulations, market requirements and community concerns demand that livestock producers and value chain partners continually adapt to this evolving operating environment.

Given its operation on nearly half the Australian land mass and the proximity of its processing facilities to urban communities, the industry is under continuous scrutiny for its impact on the environment. Then there is the ongoing criticism from some regarding vegetation management, greenhouse gas emissions, water and land use and biodiversity loss.

However, the industry has made major inroads on all these issues. Agriculture is contributing more to reducing greenhouse gas emissions than any other sector in the Australian economy. Red meat producers are the major reason for this through their involvement in the Australian Government's Emissions Reduction Fund. Further opportunities exist to substantively reduce the industry's greenhouse gas footprint, including through biodiversity credits.

Industry's long-term prosperity depends on continuing to take a proactive and preventative approach to environmental sustainability – rather than a reactive one which only deals with the symptoms of resource degradation: poor soil and water quality and lack of biodiversity.

The industry can continue to demonstrate its environmental credentials through the sustainability of its production systems and by capturing productivity gains while reducing emissions.

› Sustainability (off-farm)

MLA's sustainability (off-farm) sub-program supports enterprises along the supply chain to improve their management of natural resources, greenhouse gas emissions and waste, and contribute to the industry's social licence to operate.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Sustainability technologies and practices (off-farm)	The 'sustainability technologies and practices (off-farm)' product group produces technologies and practices that promote the sustainable development of the sustainability of Australian red meat supply chains. Initiatives include: <ul style="list-style-type: none"> • developing biological processing systems to reduce impact and convert wastes into valuable products (includes the Rural R&D for Profit project 'Wastes to Profits') • driving adoption of innovation that improves management of water, energy, waste and greenhouse gas emissions.
■ Sustainability tools and enablers (off-farm)	The 'sustainability tools and enablers (off-farm)' product group produces tools and enablers that promote the sustainable development of the industry. Initiatives include: <ul style="list-style-type: none"> • developing business case studies, cost-benefit analysis models and e-learning modules • increasing environmental performance through supply chain optimisation enabled by enhanced information systems.
■ Environment (Australian Meat Processor Corporation (AMPC) managed)	The 'environment (AMPC managed)' product group includes AMPC-funded and managed initiatives that align with the AMPC and MLA strategic plans.

Environmental sustainability

Key performance indicators in 2018–19

- Form one global partnership to increase environmental performance through supply chain optimisation enabled by enhanced information systems.
- Engage two supply chains in a strategy towards a carbon neutral red meat supply.
- Provide the tools and resources for industry to achieve a 15% reduction in water and energy use intensity relative to 2015 levels.
- Provide the tools and resources for industry to achieve a 15% reduction in waste or increase in efficiency relative to 2015 levels.

This sub-program includes MDC partnership investment.

› Sustainability (on-farm)

MLA's sustainability (on-farm) sub-program addresses on-farm natural resource challenges that impact production and influence community perceptions of the industry.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Climate adaptation	<p>The 'climate adaptation' product group produces tools and enablers that promote the sustainable development of the industry. Initiatives include:</p> <ul style="list-style-type: none"> • improving seasonal climate forecasting skills with key products delivered by the Bureau of Meteorology via the Managing Climate Variability 5 program, Forewarned is Forearmed Rural Research and Development for Profit project, Northern Climate Adaptation Program, and other MDC projects • maintaining membership of the cross-sectoral Water RD&E strategy to inform several research and development corporation and agency projects and remove duplication, presenting a coordinated/common message on climate adaptation, the Managing Climate Variability 5 program, and MLA's related adaption investments • designing, researching and demonstrating new grazing systems that incorporate pastures resilient to hotter and more variable climates.
■ Environment tools and enablers (on-farm)	<p>The 'environment tools and enablers (on-farm)' product group produces technologies and practices that promote the sustainable development of the industry. Initiatives include:</p> <ul style="list-style-type: none"> • supporting modified and new methodologies under the Emissions Reduction Fund • providing technical support for Grazing BMP through MLA research projects • developing implementation activities for industry 'Carbon Neutral by 2030' pathways.
■ Natural resource management	<p>Initiatives within the 'natural resource management' product group include:</p> <ul style="list-style-type: none"> • maintaining membership of the cross-sectoral Soils RD&E strategy to inform several research and development corporation and agency projects, removing duplication • commissioning a 35-year beef industry impact study • providing technical support for the RMAC sustainability framework and an industry approach to reporting sustainability.
■ Feedlot sustainability	<p>Initiatives within the 'feedlot sustainability' product group include:</p> <ul style="list-style-type: none"> • commissioning an <i>Asparagopsis</i> feedlot feeding trial to reduce enteric methane emissions • conducting long-term benchmarking of greenhouse gas emissions for southern and northern Australian feedlots.

Key performance indicators in 2018–19

- At least two new products on drought forecasting and decision support tools available for producers and advisors.
- At least three seasonal Bureau of Meteorology products available for trialling.
- Initiate a study with input from producer groups to evaluate profitable grazing systems for pastures in hotter and more variable climates.

- ‘Carbon Neutral by 2030’ implementation plan completed, based on CSIRO study.
- Investigation underway on sequestration of carbon under managed savannah burning in northern Australia, so as to assess a potential new Emission Reduction Fund method.
- Update the 2012 30-year study on the impact of beef on the environment to be 35 years (to 2017).
- Support and contract continuation of the ‘Wambiana’ grazing study, including impacts on environment and profitability of grazing operations in the Burdekin catchment. Subject to Red Meat Panel endorsement and budget availability.
- Commercialisation arrangements agreed with CSIRO for the production and supply of *Asparagopsis* to the Australian feedlot industry.
- Results from long-term benchmarking of greenhouse gas emissions in northern and southern Australian feedlots reported to industry and incorporated into the National Greenhouse Gas Inventory.
- Contribute to: restrict the percentage of consumers limiting red meat consumption due to environmental concerns to 10%.

This sub-program includes MDC partnership investment.

Projected 2018–19 investment by funding source – environmental sustainability program (\$ '000)

Sub-program	Goat R	Goat M	Mutton R	Mutton M	Lamb R	Lamb M	Grassfed cattle R	Grassfed cattle M	Grainfed cattle R	Grainfed cattle M	AMPC R	AMPC M	LiveCorp R	LiveCorp M	External R	Government R	External M	Sum of R	Sum of M	Sum of AIP
Sustainability (off-farm)			3		32		19				2,240				1,600	3,893		7,787		7,787
Sustainability (on-farm)			13		120		94		375						1,725	2,327	111	4,653	111	4,764
Total			16		152		112		375		2,240				3,325	6,220	111	12,440	111	12,550

PROGRAM

Integrity systems

MLA's integrity systems program assists MLA to foster the prosperity of the Australian red meat and livestock industry by protecting its disease-free status and underpinning the marketing of Australian product as clean, safe and traceable. It also helps Australia capture price premiums from customers and consumers willing to pay more for higher levels of product assurance.



SUB-PROGRAM

- › Market access science
- › Integrity systems

PILLARS

- 🌐 Market growth and diversification
- 🔗 Supply chain efficiency and integrity

BUDGET
\$15.1
million

Operating environment

The Australian red meat and livestock industry faces relentless competition from global suppliers so it must innovate, enhance its operating efficiencies and strengthen its competitive advantages.

A key response is the transformation of the industry's integrity systems – Livestock Production Assurance (LPA), National Vendor Declarations (NVD) and National Livestock Identification System (NLIS) – to ensure Australia maintains its global leadership in red meat product assurance and traceability. This follows the 2015 SAFEMEAT Initiatives Review, *Towards an Integrated Integrity System*, which recommended the establishment of a single entity to streamline their delivery.

MLA's Integrity Systems Company has the task of improving the integration between each of the integrity programs, driving efficiencies and implementing enhancements to achieve a more responsive and sustainable red meat integrity system into the future.

At the same time, digital technology and data science are rapidly advancing. Australia's red meat and livestock industry must capitalise on these innovations to strengthen its integrity and traceability systems, validate Australia's unique provenance and provide a single source of truth from the industry's data platforms.

The Integrity Systems Company is investing in new technologies to enhance on-farm food safety and traceability across the value chain. Communication and adoption are another focus for investment to ensure that every value chain participant understands their role and responsibilities in maintaining the industry's integrity systems.

› Market access science

MLA's market access science sub-program delivers assurance of product safety to customers and reduces non-tariff (technical) barriers to trade by applying science and technology to the supply chain.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Market access research and development (Australian Meat Processor Corporation (AMPC) managed)	The 'market access research and development (AMPC managed)' product group includes AMPC-funded and managed initiatives that align with the AMPC and MLA strategic plans.
■ Market access technical research	Initiatives within the 'market access technical research' product group include: <ul style="list-style-type: none">• assessing market-specific product risks• demonstrating low <i>E. coli</i> and <i>Salmonella</i> risk in beef• ensuring maximum residue limits are appropriate• estimating toxoplasma risk in sheep• demonstrating low antimicrobial resistance in beef and sheep.

Product group	Description
■ Market access technical research (<i>continued</i>)	<ul style="list-style-type: none"> • determining geographical disposition of sheep offals for cadmium • demonstrating the shelf life of vacuum-packed meat • demonstrating the shelf life of chilled vacuum-packed meat • determining the shelf life of frozen products • determining appropriate post-mortem inspection procedures • investigating new technology for safe products • improving process control in meat processing • developing through-chain quality assurance systems.

Key performance indicators in 2018–19

- Adoption of the shelf life model in domestic supply chain.
- Antimicrobial resistance in sheep is known.
- Changes to post-mortem inspection practices are implemented in domestic meat processing to manage risk and reduce costs.
- Qualitative assessment of the risk of toxoplasmosis in sheep for humans.
- Approaches to protecting the integrity (identity) of product in supply chains are piloted.

› Integrity systems

MLA's integrity systems sub-program delivers the industry's on-farm assurance and through-chain traceability systems (NLIS, LPA and NVDs). These integrity systems protect the disease-free status of the Australian red meat industry and underpin the marketing of Australian product as clean, safe and natural. This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Product assurance and traceability systems	<p>Initiatives within the 'product assurance and traceability systems' product group include:</p> <ul style="list-style-type: none"> • maintaining, reviewing and improving the integrity program's rules and standards (LPA, NLIS, device accreditation) • developing and maintaining the integrity system databases (NLIS, LPA, eNVD) • delivering integrity system communication and adoption • providing customer support • support tag-testing processes • producing and managing NVDs • adopting and supporting through-chain integrity technologies (via the MDC) • NLIS Standards Committee maintenance and support • funding the administration of the National Feedlot Accreditation Scheme (feedlot only) • evaluation and alignment of integrity systems developments with the <i>Integrity Systems 2025 Strategy</i>.

Integrity systems

Product group	Description
■ Livestock Production Assurance	Initiatives within the 'Livestock Production Assurance' product group include: <ul style="list-style-type: none"> • maintaining LPA on-farm random and targeted audit program and associated compliance activities • providing customer support • implementing the integrity system communication and adoption strategy • development of reporting dashboards to increase compliance transparency with industry • management of the LPA accreditation process • maintenance and support of the Integrity Systems Taskforce.
■ SAFEMEAT	Initiatives within the 'SAFEMEAT' product group include: <ul style="list-style-type: none"> • supporting the SAFEMEAT Secretariat • supporting the Chairs of SAFEMEAT Partners and the Integrity Systems Policy Group • providing strategic research support for a range of SAFEMEAT activities • providing support for SAFEMEAT communication activities including manage the development of the SAFEMEAT Annual Report and the SAFEMEAT website • providing ongoing assistance for industry responses to the SheepCatcherII and CowCatcherIII exercises, including the activities of the Sheep Traceability Working Group.

Key performance indicators in 2018–19

- NLIS movement recording compliance increase to 95.75%.
- 25% of livestock consignments to be accompanied by an eNVD during 2018–19.
- Integrity Systems communication and adoption strategy workplan activities for 2018–19 implemented.
- Implementation of *Integrity Systems 2025 Strategy* commenced.
- Implementation of improved LPA compliance monitoring system and non-conformance management system.
- LPA awareness levels increase to 86%.
- SAFEMEAT governance and reporting structures are supported and remain effective.

This sub-program includes MDC partnership investment and activities of the Integrity Systems Company.

Projected 2018–19 investment by funding source – integrity systems program (\$ '000)

Sub-program	Goat R	Goat M	Mutton R	Mutton M	Lamb R	Lamb M	Grassfed cattle R	Grassfed cattle M	Grainfed cattle R	Grainfed cattle M	AMPC R	AMPC M	LiveCorp R	LiveCorp M	External R	Government R	External M	Sum of R	Sum of M	Sum of AIP
Market access science			34		296		255		79		972				15	1,652		3,304		3,304
Integrity systems	9	37	47	182	129	483	389	1,429	129	659	449	1,665	17	63	340	1,509	4,272	3,018	8,790	11,808
Total	9	37	81	182	425	483	644	1,429	208	659	1,421	1,665	17	63	355	3,161	4,272	6,322	8,790	15,112

PROGRAM

Objective measurement

MLA's objective measurement program assists MLA to foster the prosperity of the Australian red meat and livestock industry by facilitating the adoption of objective measurement tools across the value chain. Objective measurement of livestock and carcase attributes is an essential enabler for industry to improve productivity and profitability, improve price transparency and develop value-based pricing.

SUB-PROGRAM

› Objective measurement

PILLARS

🔗 Supply chain efficiency and integrity

BUDGET
\$17.3
million

Operating environment

To date, livestock and carcase attributes have been largely assessed using manual, subjective measurement, resulting in a loss of value across the red meat supply chain through inaccurate measurement or appraisal systems.

There is now scope to improve the accuracy of measurements through the adoption of transparent objective measurement technologies.

Over recent years MLA has worked with industry, research institutes and technology providers to develop the application of DEXA (Dual Energy X-ray Absorptiometry) and other objective measurement tools. MLA now proposes to accelerate the adoption of DEXA technology throughout the red meat industry to create a single scientific measurement of carcase meat, fat and bone (lean meat yield) and the platform to pass this information back to producers.

Sharing the data along the value chain to complement other industry systems will allow all sectors to make more informed business decisions, improve on-farm and processing efficiency and deliver a product which is preferred by consumers.

An independent report has found a \$420 million/year potential benefit to the Australian red meat industry from full adoption of objective measurement. The benefits related to measuring lean meat yield account for around 65% of the impact, shared between producers and processors.

Unless the roll out of the technology is fast-tracked, the report found only \$72 million/year of benefit is likely to be realised by 2020 on current rates of adoption.

› Objective measurement

MLA's objective measurement sub-program develops – and then extends to industry – a range of technologies that measure or estimate lean meat yield and eating quality traits at appropriate points in the value chain for both live animals and carcasses. A key initiative within this sub-program is to fast-track the adoption of DEXA technology as an objective measure of lean meat yield in meat processing plants.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Objective measurement technologies	<p>The 'objective measurement technologies' product group supports the development of technologies that can be applied to live animals or carcasses to measure traits about the value of carcasses.</p> <p>Outcomes from this product group are primarily delivered via the Rural Research and Development for Profit objective measurement program as well as MDC investments. Initiatives include:</p> <ul style="list-style-type: none">• development, proof of concept and demonstration of spectral technologies to measure or predict characteristics describing carcase value• development, proof of concept and demonstration of airline security-based technologies for carcase scanning, as well as 3D imaging for composition and health feedback• development, proof of concept and demonstration of equine-based cone beam X-ray technologies for live and carcase scanning, as well as 3D imaging for composition and health feedback• evaluation of advanced X-ray sensing (MEXA, diffraction) for carcase health and eating quality traits• evaluation of nuclear magnetic resonance for eating quality traits.

Objective measurement

Product group	Description
■ Objective measurement tools and enablers	<p>Initiatives within the 'objective measurement tools and enablers' product group include:</p> <ul style="list-style-type: none"> • implementing objective measurement adoption activities through supply chain coordinators and the Rural Research and Development for Profit objective measurement program partner processors • developing the value proposition of objective measurement across the value chain and tools developed under the Rural Research and Development for Profit objective measurement program and associated objective measurement projects.

Key performance indicators in 2018–19

- Rural Research and Development for Profit ALMTech program successfully delivered and reporting accepted by the Department of Agriculture and Water Resources.
- DEXA output of carcass lean meat yield delivered in producer feedback from four lamb abattoirs and one beef abattoir.
- CT system installed for beef DEXA calibration and research and development data collection.
- Two spectral imaging devices trialled for objective assessment of traits contributing to eating quality.
- Create tools to enable industry to implement value-based pricing models.
- Beef carcass value calculator prototype commenced and trialled by one beef supply chain to develop an improved understanding of variation in carcass value and providing opportunities to improve value chain profit.
- DEXA adoption plan developed by Objective Measurement, Adoption and Commercialisation Committee (OMAC).

This sub-program includes MDC partnership investment.

Projected 2018–19 investment by funding source – objective measurement program (\$ '000)

Sub-program	Goat R	Goat M	Mutton R	Mutton M	Lamb R	Lamb M	Grassfed cattle R	Grassfed cattle M	Grainfed cattle R	Grainfed cattle M	AMPC R	AMPC M	LiveCorp R	LiveCorp M	External R	Government R	External M	Sum of R	Sum of M	Sum of AIP
Objective measurement			116		385		272		104		3,800				3,565	8,242	804	16,484	804	17,287
Total			116		385		272		104		3,800				3,565	8,242	804	16,484	804	17,287

PROGRAM

Producer adoption

MLA's producer adoption program assists MLA to foster the prosperity of the Australian red meat and livestock industry by building the capability of producers and advisors to increase on-farm productivity and profitability from research and development.



SUB-PROGRAM

› Producer adoption

PILLARS

Productivity and profitability

BUDGET
\$11.1
million

Operating environment

MLA developed a regional consultation framework in 2015 following an independent review of MLA's levy investment systems for on-farm research and development.

Regional consultation is a transparent, representative and systematic framework to deliver research, development and adoption that meets the priorities identified by producers during the consultation. Now in its third year, the framework has proven to be effective in enhancing transparency and generating genuine two-way engagement between MLA and grassroots producers.

Withdrawal of state governments from extension or adoption services in most Australian jurisdictions has dramatically changed the way research and development is delivered to producers. Today's environment demands the evolution of new commercial business models to deliver adoption services and support red meat producers' decision making. This requires developing private sector capacity and capability to support the continued delivery of high quality adoption services.

These new delivery models need to enable the private sector and transition industry to a (part) user pays approach for adoption services.

Disruptive platforms, technologies and programs such as Livestock Data Link, digital agriculture, objective measurement and MSA enable data sharing throughout the value chain and provide opportunity for new and more sophisticated business models. Data sharing, analytics and reporting create new insights for value chain stakeholders, enabling measurement, monitoring and management opportunities. To assist producers to capitalise on disruptive opportunities, whole of value chain extension and adoption programs will be necessary to link market requirements to on-farm producer and resource capability.

› Producer adoption

MLA's producer adoption sub-program aims to build producer capability and service provider capacity and capability to increase on-farm productivity and profitability impact from MLA's investment in research and development.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Create awareness for adoption	Initiatives within the 'create awareness for adoption' product group include: <ul style="list-style-type: none">• informing producers and delivery partners of the latest and practical research and development messages, and integrated learning opportunities through campaigns and large-scale forums• educational materials to support producer decision making.
■ Influence and motivate for adoption	Initiatives within the 'influence and motivate for adoption' product group include: <ul style="list-style-type: none">• engaging producers with training and education opportunities to influence uptake of improved practices and further skill development• strategically targeted workshops and seminars to motivate producers into further skills development and inform decision making• strategic development of online tools and resources to support producer decision making.

Producer adoption

Product group	Description
■ Involve and partner to achieve adoption	<p>Initiatives within the ‘involve and partner to achieve adoption’ product group include:</p> <ul style="list-style-type: none"> • involving and partnering with producers and service providers in integrated adoption programs that deliver transformational change to business performance • partnering with producers and producer groups to demonstrate, develop and adopt research and development outcomes by validating the commercial value proposition and benefits • developing and implementing whole of value chain adoption programs for disruptive technologies such as digital agriculture, Livestock Data Link and objective measurement • business mentoring for the Australian red meat and livestock industry.
■ Adoption tools and enablers	<p>Initiatives within the ‘adoption tools and enablers’ product group include:</p> <ul style="list-style-type: none"> • program evaluation and producer market research to establish qualitative and quantitative impacts of adoption programs and inform research, development and adoption needs • initiating a monitoring system to evaluate the improvement in profitability of producers participating in Profitable Grazing Systems (PGS) at a farm level and gain insight into industry level performance issues • private service provider capacity and capability building • adoption research to inform innovative adoption models for strategic issues.
■ Regional consultation for research, development and adoption	<p>Initiatives within the ‘regional consultation for research, development and adoption’ product group include:</p> <ul style="list-style-type: none"> • engaging grassfed beef and sheepmeat producers and research, development and adoption partners in two-way communication with MLA on priority industry research, development and adoption and impacts through regional forums and consultation processes • providing evidence-based advice to the MLA Board on priority research, development and adoption and portfolio balance for sheepmeat and grassfed beef investments.
■ Feedlot adoption	<p>Initiatives within the ‘feedlot adoption’ product group include:</p> <ul style="list-style-type: none"> • undertaking communication and workshop activities to disseminate outcomes of research and development • distributing <i>The Quarterly Feed</i>, a research and development e-newsletter to all MLA grainfed members and feedlots • aligning the feedlot industry sustainability benchmarking project with the RMAC sustainability framework • funding a technical services officer position for the feedlot industry • aligning the animal health and productivity benchmarking with the <i>Meat Industry Strategic Plan 2020</i> framework • funding ALFA-MLA consulting veterinarians and nutritionists to help identify research, development and adoption priorities and accelerate adoption of research and development outcomes.
■ Feedlot consultation and capability building	<p>Initiatives within the ‘feedlot consultation and capability building’ product group include:</p> <ul style="list-style-type: none"> • consulting with feedlot operators and industry service providers to provide a two-way communication opportunity to establish research, development and adoption funding priorities and disseminate outcomes • building capability for the feedlot sector through investment in training for feedlot operators and staff, industry leaders, service providers and researchers, including funding of scholarships for PhDs, the Australian Rural Leadership Program and the Trail Program • developing technical risk management briefs for the feedlot industry • implementing the Feedlot Industry Training and Leadership Development Strategy.

Key performance indicators in 2018–19

- Engage at least 3,000 producers in program initiatives.
- On average, participant satisfaction and value scores are greater than 7/10 for 'awareness' activities.
- 50% of participants indicate an intent to change practice.
- MLA member satisfaction survey rates awareness of extension and adoption programs above 4.5/10.
- Engage at least 2,500 commercial sheep and cattle producers in 'influence and motivate' activities.
- On average, participant satisfaction and value scores are greater than 7/10 for 'influence' activities.
- On average, participating producers achieve a 50% knowledge and skills improvement score.
- 750 producers participate in Profitable Grazing Systems (PGS) 'feeder' activities.
- 412 producers involved in PGS groups (cumulative total 732).
- 75% of producers involved in PGS groups increase their skills and knowledge above a skills audit score of 75% (competent).
- 800 businesses engaged in 'involve and partner' activities.
- Demonstration sites finishing in 2018–19 achieve a 75% adoption rate.
- On average, participant satisfaction scores are greater than 8/10 and value score greater than 8/10.
- Grassfed beef and sheepmeat producers and research, development and adoption partners have a satisfaction rate with MLA's Regional Consultation Framework of 4/5, measured via an annual satisfaction survey distributed by the regional councils.
- 5% increase in high quality, fundable proposals endorsed by the Red Meat Panel.
- Feedlot productivity baseline data established to align with *Meat Industry Strategic Plan* (MISP) reporting requirements.
- Animal health monitoring baseline data established to align with MISP reporting requirements.
- Development of initial suite of training packages identified in the Feedlot Industry Training and Leadership Development Strategy initiated.

This sub-program includes MDC partnership investment.

Projected 2018–19 investment by funding source – producer adoption program (\$ '000)

Sub-program	Goat R	Goat M	Mutton R	Mutton M	Lamb R	Lamb M	Grassfed cattle R	Grassfed cattle M	Grainfed cattle R	Grainfed cattle M	AMPC R	AMPC M	LiveCorp R	LiveCorp M	External R	Government R	External M	Sum of R	Sum of M	Sum of AIP
Producer adoption			327		2,341	3	1,329	4	554	150					869	5,419	117	10,839	275	11,113
Total			327		2,341	3	1,329	4	554	150					869	5,419	117	10,839	275	11,113

PROGRAM

Product and packaging innovation

MLA's product and packaging innovation program assists MLA to foster the prosperity of the Australian red meat and livestock industry by informing value chains and the wider industry about new products, processes, packaging and business models, leading to increased demand and higher value red meat.



SUB-PROGRAM

› High Value Food Frontiers

Operating environment

Insights gathered from market and consumer research have identified several key emerging global food trends and consumer behaviours that offer clear opportunities for the Australian red meat industry. Key themes include:

- health and wellness
- convenience and 'snacking'
- high protein diets
- targeted demographic needs such as the ageing population and infants.

To capitalise on these opportunities, new value-added product and service offerings need to be created through new technologies and business models.

Producing higher value, more desirable red meat products also responds to declining per capita consumption in the domestic market and provides emerging markets with more choice beyond commodity offerings.

PILLARS

- 🌐 Market growth and diversification
- 🔗 Supply chain efficiency and integrity

BUDGET
\$5.7
million

› High Value Food Frontiers

MLA's High Value Food Frontiers* sub-program aims to deliver global innovation strategies to value chains and the wider industry to increase demand and build value chain capability. Through high value innovation, the aim is to drive higher premiums for, and increase customer preference of, Australian red meat and associated products across key global markets.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Consumer and market trends and insights	Initiatives within the 'consumer and market trends and insights' product group include: <ul style="list-style-type: none">• analysing global food trends (2Morrow's Foods)• analysing alternate meat protein threats and opportunities• analysing changing lifestyles and life stages in emerging markets (China, ASEAN and the Middle East), mature markets and value chain designs.
■ Develop new products, processes and business models	Initiatives within the 'develop new products, processes and business models' product group include: <ul style="list-style-type: none">• developing proof of concepts• engaging with industry and adjacent food sectors to identify megatrend themes• developing a knowledge portal of insights that validate themes and strategic investment opportunities• engaging with food technology entrepreneurs (through I+E CONNECT) and producer-led initiatives for new products (via Producer Innovation Fast-Track)• building design-led innovation capability with partners• provide future-focused, consumer-led input across MLA activities.

* High Value Food Frontiers is MDC's key mechanism for delivering innovations in support of MLA's market growth and diversification strategic pillar.

Product group	Description
■ Product and packaging innovation science and technology	<p>Initiatives within the 'product and packaging innovation science and technology' product group include:</p> <ul style="list-style-type: none"> identifying and analysing new research and technologies in value-added red meat products, packaging and process improvements that unlock greater value technology reviews in supply chain efficiency and integrity systems related to value.

Key performance indicators in 2018–19

- Defined portfolio of growth opportunities (minimum 10) that will enable achievement of 3–5 value multiplier during 2020–25 on input raw commodity meat.
- Develop '2Morrow's Food Knowledge Portal' comprising foresights and insights to inform MLA decision making.
- At least five new red meat-based value-added products, processes or services (for new usages and occasions) developed and tested.
- At least two process improvement initiatives completed that positively impact on product quality and yield performance in value-added red meat products.
- Three new red meat value-adding technology or packaging solutions identified and undergoing research and development.

This sub-program includes MDC partnership investment.

Projected 2018–19 investment by funding source – product and packaging innovation program (\$ '000)

Sub-program	Goat R	Goat M	Mutton R	Mutton M	Lamb R	Lamb M	Grassfed cattle R	Grassfed cattle M	Grainfed cattle R	Grainfed cattle M	AMPC R	AMPC M	LiveCorp R	LiveCorp M	External R	Government R	External M	Sum of R	Sum of M	Sum of AIP
High Value Food Frontiers	13		64		516		171				396				1,326	2,486	727	4,971	727	5,698
Total	13		64		516		171				396				1,326	2,486	727	4,971	727	5,698

PROGRAM

Value chain information and efficiency

MLA's value chain information and efficiency program assists MLA to foster the prosperity of the Australian red meat and livestock industry by enabling increased productivity and product value across the value chain. This will occur through capturing, integrating and interpreting the vast and increasing range of data that is being generated through existing and new technologies.



SUB-PROGRAM

› Digital value chain information

Operating environment

Advances in technology are disrupting the way value chains operate and will continue to do so.

MLA's investment in the red meat's Digital Value Chain Strategy will enable the seamless capture, integration and interpretation of the vast and increasing range of data that is being generated through existing and new technologies. This will, in turn, enable the industry to capture improvements in productivity and product value across the entire value chain.

A key enabler to underpin more effective use of data will be the establishment of a red meat value chain open data system. This provides a central location for industry data to be stored, analysed and accessed, for the primary purpose of improving and validating the performance of the red meat value chain and strengthening our integrity systems.

It will require technology adoption to support the collection of data and feedback systems from on-farm right through to consumers. This journey will also demand a cultural change that recognises the power of data in informing and driving decision making. Data ownership, rules for data sharing and access are other critical components in developing a collaborative industry strategy that meets the needs of commercial businesses.

Through the consolidation, coordination and use of information across the value chain, this program aims to increase returns by driving efficiency, increasing market opportunities through innovative product assurance and traceability, and maintaining the customer's trust in Australian red meat.

PILLARS

› Supply chain efficiency and integrity

BUDGET
\$5.1
million

› Digital value chain information

MLA's digital value chain information sub-program aims to develop a wide range of digital solutions that will support:

- data collection and analytics to improve decision-making at all/any point(s) along the value chain
- benchmarking between enterprises
- greater efficiencies along the value chain.

The sub-program will focus on the scoping and initiation of an open data system for industry which will provide infrastructure to:

- enable multiple sources of industry data to be stored, linked and analysed
- further validate industry integrity systems
- assist in improving value chain collaboration and performance.

This will be complemented by the identification and implementation of tools and technologies to support adoption of digital solutions as a part of the open data system aimed at:

- enabling the exchange of information between different parts of the value chain (e.g. Livestock Data Link)
- supporting improved data exchange and engagement with end customers and trading partners
- identifying and addressing key capability and cultural change issues.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Data system development, delivery, communication and adoption	Initiatives within the 'data system development, delivery, communication and adoption' product group include: <ul style="list-style-type: none"> • coordinating a red meat data system, covering livestock, carcase and genetics • developing and delivering industry information platforms (myMLA/single sign-on) • coordinating value chain partnerships to drive digital technology uptake and adoption • coordinating MDC-based technology initiatives that contribute to overarching Digital Value Chain Strategy objectives • coordinating development around digital investment.
■ Data system enablers	Initiatives within the 'data system enablers' product group include: <ul style="list-style-type: none"> • funding industry and solution provider consultation through taskforces, networks and co-development programs • facilitating the development of interoperable industry platforms, architectures, protocols and rules • communicating and extending opportunities to raise awareness and increase industry uptake of digital technologies • building digital capability across MLA, the red meat value chain and agricultural sectors.
■ Livestock Data Link	Initiatives within the 'Livestock Data Link' product group include: <ul style="list-style-type: none"> • Livestock Data Link enhancements and rebuild, including inclusion of DEXA LMY and integration with third party systems • increased access of feedback to producers and enhanced regional reporting • increased throughput of carcasses and extension of access of feedback to producers • enhancement of the National Sheep Health Monitoring Project data.

Key performance indicators in 2018–19

- Data sharing and security principles established and executed.
- Data platform strategy implementation plan executed.
- More than 15,000 Integrity Systems Company (NLIS and LPA) linked accounts.
- Eight co-funded supply chain officer positions implemented.
- Increased uptake and adoption of Integrity Systems Company digital opportunities facilitated through implementation of the Communication and Adoption Strategy.
- 15% of industry throughput is available through Livestock Data Link.

This sub-program includes MDC partnership investment and activities of the Integrity Systems Company.

Projected 2018–19 investment by funding source – value chain information and efficiency program (\$ '000)

Sub-program	Goat R	Goat M	Mutton R	Mutton M	Lamb R	Lamb M	Grassfed cattle R	Grassfed cattle M	Grainfed cattle R	Grainfed cattle M	AMPC R	AMPC M	LiveCorp R	LiveCorp M	External R	Government R	External M	Sum of R	Sum of M	Sum of AIP
Digital value chain information	36		98		717		963		362		148				233	2,558		5,116		5,116
Total	36		98		717		963		362		148				233	2,588		5,116		5,116

PROGRAM

Productivity (off-farm)

MLA's productivity (off-farm) program assists MLA to foster the prosperity of the Australian red meat and livestock industry by working with processors to increase their efficiency and minimise production costs and, in doing so, to help the industry lift its global competitiveness.



SUB-PROGRAM

› Productivity (off-farm)

PILLARS

Productivity and profitability

BUDGET
\$12.2
million

Operating environment

The Australian red meat and livestock industry's processing sector operates within a highly competitive international marketplace and an operating environment characterised by high and increasing input costs.

The processing sector operates on tight margins to remain competitive in the face of intense price competition from other red meat suppliers and proteins, limiting the ability of many operators to fund innovations, especially over medium and long-term horizons. Small and medium-sized plants face particular challenges in funding new systems and approaches to innovation.

When plants are considering a new innovation, they often face space limitations. The layouts of plants are optimised towards existing processes and procedures, limiting the available space to deploy new cost and time saving equipment.

As operating costs continue to rise, especially for energy, transport and labour, there is a potential threat from foreign owned processors relocating their operations offshore to take advantage of cheaper labour. Should this occur, it would limit value chain innovation and value-adding options and opportunities with the Australian industry.

Despite these challenges, accelerating the rate of innovation adoption is an important solution for the Australian meat processing industry to remain globally competitive. Considerable technologies include collaborative and conventional robotics, advanced sensing platforms, internet connectivity and data and information flows.

› Productivity (off-farm)

MLA's productivity (off-farm) sub-program works to develop and adopt supply chain technologies that deliver productivity benefits to the off-farm sector. Key focus areas include maximising meat yield, optimising product mix, and addressing labour availability and workplace health and safety issues. Other priorities include broader efficiencies relating to data exchange up and down the value chain, and the efficient use and reduced cost of services. Automation technologies and advanced sensing are the key enabling technologies to achieve this.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Productivity and logistics (off-farm)	Initiatives within the 'productivity and logistics (off-farm)' product group include: <ul style="list-style-type: none">• developing the beef and lamb boning automation program with a focus on the development of beef boning automation modules• engaging with global solution providers• commissioning other key activities including supply chain logistics projects such as pack-out and load-out automation.
■ Productivity and logistics tools and enablers (off-farm)	Initiatives within the 'productivity and logistics tools and enablers (off-farm)' product group include developing tools and enablers that support the development of key technologies. These include: <ul style="list-style-type: none">• conducting ongoing cost-benefit analyses on key technologies and programs• in-plant traceability systems• developing and demonstrating innovative CT and other imaging technologies for cutting lines and automation.

Product group	Description
■ Processing efficiency (Australian Meat Processor Corporation (AMPC) managed)	The 'processing efficiency (AMPC managed)' product group includes AMPC-funded and managed initiatives that align with the AMPC and MLA strategic plans.

Key performance indicators in 2018–19

- Productivity benefit of technologies adopted in 2018–19 and previous years deliver impact of \$40 million/year.
- 80% of the expected outcomes from productivity and logistics investments are achieved, including:
 - contract with two beef boning automation providers to develop concepts for industry review
 - evaluation of innovation X-ray systems as automation enablers
 - sensing systems and beef automation module design progress
 - additional lamb processing modules trialled
 - identify plant partners for beef automation program
 - investigate adoption barriers, and finance/risk mitigation innovation.

This sub-program includes MDC partnership investment.

Projected 2018–19 investment by funding source – productivity (off-farm) program (\$ '000)

Sub-program	Goat R	Goat M	Mutton R	Mutton M	Lamb R	Lamb M	Grassfed cattle R	Grassfed cattle M	Grainfed cattle R	Grainfed cattle M	AMPC R	AMPC M	LiveCorp R	LiveCorp M	External R	Government R	External M	Sum of R	Sum of M	Sum of AIP
Productivity (off-farm)											4,115				1,960	6,076		12,151		12,151
Total											4,115				1,960	6,076		12,151		12,151

PROGRAM

Productivity (on-farm)

MLA's productivity (on-farm) program assists MLA to foster the prosperity of the Australian red meat and livestock industry by supporting new research which leads to increased productivity and profitability across the beef, sheepmeat and goat production sectors.



SUB-PROGRAM

- › Beef productivity
- › Feedbase production and infrastructure
- › Goat productivity
- › Livestock genetics
- › Sheep productivity

Operating environment

On-farm productivity and profitability gains can be achieved through new research that results in production efficiencies, reduced costs and higher returns on investment.

In the area of **livestock genetics**, there is an opportunity to increase the rate of genetic gain and improve commercial profitability by aligning genetic investment to value chain outcomes that meet consumer needs. Through this new approach, MLA's investment in genetics will aim to improve overall productivity by addressing key profit drivers such as market specification compliance, costs, growth rates, fertility and livestock production efficiency.

Future increases in animal production depend on efficiently managing the **feedbase** to ensure a stable supply of forage in the face of variable seasons and competition from undesirable plants and pest animals. This will be addressed by new plants and varieties with improved genetic gain, enhanced management of grasses, legumes and shrub-tree combinations, better utilisation (grazing frequency and intensity), and biological controls for pest animal and plants.

Grassfed **beef productivity** relies on pasture-based systems which are influenced by seasonality and the feedbase. The priorities for the northern beef industry remain live weight gains and increased breeder herd fertility. In the south, where enterprise sizes are smaller and more intensively managed, the priorities are reducing reproductive wastage and the impact of disease carried by pest animals that affect the mortality and fertility of livestock.

Lot feeding remains an integral part of the beef industry given the demand for a consistent supply of quality product for an expanding population. Priorities include the development of tools to increase productivity and reduce costs, such as the introduction of automation and remote monitoring technologies to routine feedlot processes. Integrating technologies such as DEXA to develop carcase end point specifications, based on yield and eating quality attributes together with customised management systems, will allow individual animals to achieve optimum profitability.

Sheepmeat production has remained stable despite the significant flock decline. On-farm prices remain strong, driven by the demand of a changing market in which exports now consume more than 50% of a limited supply. Production is predominantly pasture-based, exposing it to seasonal fluctuations that also impact the supply-demand equation. There is an opportunity to develop better integrated livestock-cropping systems to increase sheepmeat production in mixed farming regions. Lamb survival remains a significant economic cost and another high priority.

The goat industry remains in its infancy. Record prices are driven by tight and inconsistent supplies and strong export demand. The challenge is to grow supply by increasing producer and animal numbers. Demonstrating 'proof of profit' to entice producers to 'give goats a go' and the provision of support in adding goats as a long-term enterprise within their business are prerequisites. A whole-of-supply-chain approach and data-based decision making that considers best practice and total grazing pressure within each business is also necessary to ensure sustainability.

PILLARS

- › Consumer and community support
- › Productivity and profitability

BUDGET
\$33.6
million

› Beef productivity

MLA's beef productivity sub-program seeks to increase beef productivity and enterprise profitability through improved and targeted nutrition and supplementation including manipulation of rumen function, enhanced breeder herd fertility, reduced calf loss and optimising the compliance of grass finished cattle to market specifications.

These investments will be complementary to producer adoption activities that will create opportunities to achieve impact and practice change.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Market compliance technologies for grassfed cattle	Initiatives within the ‘market compliance technologies for grassfed cattle’ product group include: <ul style="list-style-type: none"> • predicting beef carcass composition through on-farm objective measurement technologies • improving meat quality and compliance through targeted supplementation strategies and revision of feeding standards for ruminants • improving management of growth paths to achieve a greater rate of market compliance resulting in high value beef.
■ Productivity tools and enablers for grassfed cattle	Initiatives within the ‘productivity tools and enablers for grassfed cattle’ product group include: <ul style="list-style-type: none"> • engaging with producers, northern pastoral industry groups and corporate entities to seek priorities and share plans and ideas on research directions and extension/adoption challenges • benchmarking input and output enterprise costs • advancing participatory research and development through multi-farm networks.
■ Productivity practices for grassfed cattle	Initiatives within the ‘productivity practices for grassfed cattle’ product group include: <ul style="list-style-type: none"> • improving fertility through animal breeding research and advancements in artificial breeding and nutritional practices • understanding and mitigating calf loss through farm-based research • research and adoption tools in nutritional supplementation • improving growth rates through use of leucaena and other perennial legumes, including impacts on greenhouse gas mitigation • improving ruminant production efficiency and reducing greenhouse gas emission intensities through research and development.
■ Productivity technologies for grassfed cattle	Initiatives within the ‘productivity technologies for grassfed cattle’ product group include: <ul style="list-style-type: none"> • developing animal monitoring and control technologies to collect and analyse location, body weight, calving and behaviours, and virtual fencing and herding.
■ Feedlot productivity	Initiatives within the ‘feedlot productivity’ product group include: <ul style="list-style-type: none"> • conducting feedlot cattle composition of grain research to predict ‘days on feed’ to a set carcass endpoint (including lean meat yield), and potential integration with DEXA or CT composition analysis • evaluating cattle sorting systems to maximise profit for a purchased population of cattle • conducting pen surface stabilisation research to reduce pen maintenance and improve cattle productivity during wet weather conditions • developing solutions to address dag formation on feedlot cattle • determining the effect of nutritional strategies (grain processing, water quality and feed additives) on feedlot animal, metabolism and carcass characteristics • developing and evaluating automation technologies to improve feedlot productivity and profitability • establishing a centre of excellence for feedlot research and development.

Key performance indicators in 2018–19

- Rumen manipulation practices that contribute to an improved rangeland productivity of 0.5% by 2020.
- Leverage production systems such as use of Redlands leucaena for northern bioregions that increases turn-off by 0.5%/year.
- Contribute to improved breeder herd fertility and reductions in calf loss, resulting in 0.5% increase in weaning rates by 2020.
- Technologies and practices for live animal measurements available for online sales.
- Project implemented to conduct feedlot cattle composition of gain research to predict days on feed to a set carcass endpoint (including lean meat yield), and potential integration with DEXA or CT composition analysis.

Productivity (on-farm)

- Decision made by MLA and Australian Lot Feeders' Association (ALFA) on the future of the research feedlot concept and, if positive, development initiated.
- Commercialisation arrangements agreed with CSIRO for the production and supply of *Asparagopsis* to the Australian feedlot industry.
- Project initiated to examine mechanisms for increasing the reactive surface area of black coal, as a mechanism for capturing nitrogen losses from manure.

This sub-program includes MDC partnership investment.

› Feedbase production and infrastructure

MLA's feedbase production and infrastructure sub-program underpins multiple MLA livestock productivity projects involving beef, sheep and goat enterprises.

The sub-program supports the development of better plants, better management and better utilisation of forages, while reducing the impact on the feedbase by pest animals and pest plants. It also supports whole-of-farm infrastructure technologies such as digital agriculture (e.g. internet connectivity, drone and unmanned vehicles and digital information-based tools/enablers).

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Feedbase productivity research and development	<p>Initiatives within the 'feedbase productivity research and development' product group include:</p> <ul style="list-style-type: none"> • developing new legume options for northern and southern Australia • demonstrating and evaluating pasture species, their establishment, management, grazing frequency and intensity, or in combination with dual-purpose crops, to ensure production efficiencies and market specifications can be achieved • developing practices and technologies that confer efficient fertiliser use – targeting fertiliser use, zonal management of fertilisers and nutrient efficient plants • exploring opportunities across Australia for improved soil health via enhanced efficient fertilisers • implementing the business case to address 'total grazing pressure' across southern rangelands • implementing the business case to address integration of crops, pastures and livestock in mixed farming systems to maximise use of forage for livestock and business benefits.
■ Digital agriculture	<p>Initiatives within the 'digital agriculture' product group include:</p> <ul style="list-style-type: none"> • improving connectivity for optimal use of digital technologies in remote locations • developing digital information products and decision tools/guidelines to provide informed and predictive management systems • deploying autonomous ground and aerial vehicles for data collection to improve decisions on-farm.
■ Plant breeding and evaluation	<p>Initiatives within the 'plant breeding and evaluation' product group include:</p> <ul style="list-style-type: none"> • promoting and gaining seed company use of genomic tools and markers for difficult traits in annual legumes and phalaris • providing objective pasture performance information to producers to assist purchase decisions (in partnership with the Australian Seed Federation and more than eight seed companies) • exploring the opportunity and feasibility for the Pasture Trial Network in northern Australia • commercialising prospective species for target production systems (with GRDC); includes the low rainfall Rural R&D for Profit project; Tedera for WA; powdery mildew resistant medic; spineless burr medic.
■ Weed controls	<p>Initiatives within the 'weed controls' product group include:</p> <ul style="list-style-type: none"> • releasing biological control agents and management practices for five weeds of significance (including biological control, or low cost/low chemical approaches) to reduce costs of weed control by 20% • developing interactions between organisations and jurisdiction involved in weed management to improve delivery of products and information to livestock producers • seeking high impact solutions at scale by developing 'communities of interest' and working with producer and community groups • developing the weed investment plan in the Centre for Invasive Species Solutions • developing weed mapping capability, and integrating with on-farm tools to provide informed and predictive management decisions.

Product group	Description
■ Feral animal controls	<p>Initiatives within the ‘feral animal controls’ product group include:</p> <ul style="list-style-type: none"> • developing improved products and delivery processes that address feral animal management and community concerns • developing the pest animal investment plan in the Centre for Invasive Species Solutions • expanding rabbit biocontrol opportunities • developing pest animal alert systems and integrating them with on-farm tools to support informed management decisions • utilising the human and physical resources of various jurisdictions involved in feral management to improve efficiency and effectiveness of control programs.

Key performance indicators in 2018–19

- Obtain preliminary results for phosphorus efficient pasture studies. Ensure glasshouse studies are underway on plant traits and phosphorus efficiency.
- Feedbase investment delivery initiatives underway for developed phosphorus nutrition with establishment of 20 ‘soil clubs’ in NSW and Victoria.
- Commence five projects across NSW and southern Queensland which focus on increasing feedbase options.
- Hand-held biomass sensor and mobile device app available.
- Terrestrial unmanned aerial vehicle (UAV) and long-range unmanned ground vehicle (UGV) evaluated for multiple applications such as fence line inspection, counting livestock, locating pest animals and taking soil samples.
- Farm Map Australia commercially available with more than 1,000 subscribers accessing farm mapping tools.
- Confirm UAV’s ability to map pasture, weeds and animals at three locations in northern Australia.
- Genomic tools for annual legumes used by one seed company in breeding decisions.
- Tedera species commercially available in WA.
- Pasture variety and forage value index web site accessed by more than 1,000 producers.
- Leucaena seed sold to enable 8,000ha to be sown.
- Biocontrol web portal reports more than 100 new entries by users of the Biocontrol app.
- APVMA submission for Prickly Acacia completed by June 2019.
- Red Witchweed monitoring reports success in containment in Queensland.
- K5 calicivirus reduces rabbit populations at more than 250 detailed monitoring sites by 30%.
- Report on the R&D outputs which are passed along and included in the ‘producer adoption’ sub-program.

This sub-program includes MDC partnership investment.

› Goat productivity

MLA’s goat productivity sub-program aims to increase on-farm productivity and profitability to underpin the sustainability of goat businesses through research, development and adoption activities. This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Goat adoption	<p>Initiatives within the ‘goat adoption’ product group include:</p> <ul style="list-style-type: none"> • conducting program evaluation and levy payer market research to establish qualitative and quantitative impact of adoption programs and inform research, development and adoption needs • monitoring and managing regional business and enterprise performance • delivering educational materials to support producer decision making • delivering strategically targeted workshops and seminars to motivate producers into further skill development and informed decision making • involving and partnering with producers and service providers in integrated adoption programs that deliver transformational change to their business performance • engaging goat producers in two-way communication with MLA.

Productivity (on-farm)

Product group	Description
■ Goat productivity improvement	<p>Initiatives within the 'goat productivity improvement' product group include:</p> <ul style="list-style-type: none"> • undertaking trials on goat growth rates and supplementation for the development of a least cost supplementation calculator • delivering projections through the population modelling project and using them to inform strategic messaging back to industry • review and upgrade of KIDPLAN.

Key performance indicators in 2018–19

- National supply estimates, scenario modelling and key messages generated, leading to informed advice back to industry regarding herd expansion needs.
- Kid loss issue quantified, leading to the provision of informed advice back to industry regarding management.
- At least 400 goat producers engaged in awareness activities; at least 240 engaged in 'influence and motivate' activities with on average a 75% knowledge and skills improvement score; at least 35 goat producers enrolled in category B and C activities like Profitable Grazing Systems and EDGE, with on average 75% making at least one practice change.

› Livestock genetics

MLA's livestock genetics sub-program targets improving the rate of genetic progress in the beef cattle and sheep industries.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Genetic improvement delivery technologies	The 'genetic improvement delivery technologies' product group involves delivering Sheep Genetics services: LAMBPLAN, MERINOSELECT and KIDPLAN.
■ Genetic improvement research and development	<p>Initiatives within the 'genetic improvement research and development' product group include:</p> <ul style="list-style-type: none"> • develop technologies that maintain Australia's position as a world-leader in genetic improvement science and application and which underpin genetic improvement across the value chain • develop analytical engines for BREEDPLAN and OVIS to help improve single-step analysis and multi-breed analysis capabilities.
■ Genetic improvement utilisation and adoption	<p>Initiatives within the 'genetic improvement utilisation and adoption' product group include:</p> <ul style="list-style-type: none"> • implement the National Livestock Genetics Consortium adoption and extension strategy to address barriers to adoption of genetic improvement technologies • provide support for genetic evaluation 'users' through SBTS, TBTS and Sheep Genetics • develop a genetics communications strategy.
■ New phenotypes and infrastructure for genetic improvement	<p>Initiatives within the 'new phenotypes and infrastructure for genetic improvement' product group include:</p> <ul style="list-style-type: none"> • continuing the Beef Information Nucleus and Resource Flock projects • continuing novel and hard-to-measure phenotype collection • develop a database/open data platform.

Key performance indicators in 2018–19

- Minimum 2% increase in annual rate of gain for each of the default Sheep Genetics indexes for Terminal, Maternal and Merino analyses.
- Three major Sheep Genetics analyses indicate that terminal animal numbers maintained at current levels, maternal numbers increased by 1% and Merino numbers increased by 3%.
- Sheep Genetics customer satisfaction level of 4/5 as described by annual client survey.

- Automated breed percentage tool available.
- Diagnostics for single-step developed and implemented.
- Pipeline for flock benchmarking developed and implemented.
- Pipeline to automate construction of Genomic Relationship matrix implemented for all BREEDPLAN analyses.
- raceMule solver implemented in BREEDPLAN.
- New BREEDPLAN reproduction model developed and new Sheep Genetics reproduction model implemented.
- Sheep Genetics database redevelopment project initiated.
- Development of genetics “National Data Platform” initiated.
- Management of genomics information management transitioned from Sheep CRC to MLA.
- Genetics campaign launched.
- Establishment of at least one genetics demonstration site.
- Genetics network development initiated.
- At least one project to simplify EBVs/ASBVs initiated.
- At least three new BIN herds and one new sheep resource flock established.

This sub-program includes MDC partnership investment.

› Sheep productivity

MLA's sheep productivity sub-program aims to increase on-farm productivity and profitability to underpin the sustainability of lamb and sheepmeat businesses.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Sheep productivity practices	The 'sheep productivity practices' product group develops new knowledge to enable improved management of flocks producing sheepmeat delivered for incorporation in adoption programs.
■ Sheep productivity tools and enablers	The 'sheep productivity tools and enablers' product group aims to investigate new technologies, develop new tools and support R&D investment planning to inform future investment priorities. It also supports the value chain through the Lamb Supply Chain Group (now transitioning to include beef supply chains) in association with the Advanced Livestock Measurement Technologies program underpinned by Rural R&D for Profit program funding.

Key performance indicators in 2018–19

- Develop new knowledge to enable producers to increase marking rates by 5% and reduce ewe mortality rates by 1% by 2020.
- Key 2018–19 deliverables include:
 - guidelines for management of ewe lambs for reproductive success
 - guidelines for management of modern maternal ewes
 - new nutrition strategies to improve reproduction rate, as well as lamb and ewe survival
 - new technologies to improve flock management and labour efficiency.

This sub-program includes MDC partnership investment.

Productivity (on-farm)

Projected 2018–19 investment by funding source – productivity (on-farm) program (\$ '000)

Sub-program	Goat R	Goat M	Mutton R	Mutton M	Lamb R	Lamb M	Grassfed cattle R	Grassfed cattle M	Grainfed cattle R	Grainfed cattle M	AMPC R	AMPC M	LiveCorp R	LiveCorp M	External R	Government R	External M	Sum of R	Sum of M	Sum of AIP
Beef productivity			18		114		1,083		1,175		25				466	2,881		5,762		5,762
Feedbase production and infrastructure	2		30		308		781		3				34		2,150	3,309	1,199	6,617	1,199	7,816
Goat productivity	631															631		1,262		1,262
Livestock genetics					3,061		2,042		250						3,125	8,479		16,957		16,957
Sheep productivity			61		694										125	881		1,762		1,762
Total	633		109		4,178		3,906		1,429		25		34		5,866	16,180	1,199	32,359	1,199	33,559

PROGRAM

Capability building

MLA's capability building program assists MLA to foster the prosperity of the Australian red meat and livestock industry by investing in current and emerging industry leaders, innovators and scientists to enhance professional and business skills and build a performance culture.



SUB-PROGRAM

- › Innovation capability building
- › Industry leadership and capacity building

Operating environment

A skilled and capable workforce is critical to the red meat industry delivering on the ambitious targets set out in its strategic plans – and to building a more profitable and resilient industry.

Innovators and entrepreneurs are needed right across the value chain to fast-track innovation and identify and implement commercially viable solutions. The significant shortfall of early and mid-career scientists and farm advisors with the skills and experience to serve the industry also needs to be addressed. Meanwhile the demands on the peak industry councils continue to increase, in turn demanding the examination of current industry structures and their value proposition to members and non-members.

A plethora of professional development and training programs exist within the industry. However, these are often fragmented and can lack the coordination necessary to convert graduates of these programs to leadership roles within industry bodies, the peak industry councils and other organisations.

The opportunity remains to renew capability building within the industry and develop a coordinated, holistic approach that will improve the return on our stakeholders' investment in this area.

PILLARS

- 🏠 Consumer and community support
- 📊 Productivity and profitability
- 🤝 Leadership and collaborative culture
- 💬 Stakeholder engagement

BUDGET
\$24.7
million

› Innovation capability building

MLA's innovation capability building sub-program engages with scientists, researchers, value chain partners and innovators in a range of capability building initiatives to accelerate innovation adoption and increase the industry's investment in innovation.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Capability building (industry)	Initiatives within the 'capability building (industry)' product group include: <ul style="list-style-type: none"> • the Producer Innovation Fast-Track program, which accelerates producer innovation capability by recognising the importance of producer-led innovation and provides participants with customised support models • the Advanced Rural professionals program, which recognises that investing in the development of young people is crucial to building and retaining a skilled and capable future workforce • investment in digital value chain officers to assist companies to develop a whole-of-value chain digital strategy that leverages the best solutions and ensures they are well-positioned for new and evolving digital enablers • the Intercollegiate Meat Judging Competition program • developing general industry partner capability.
■ Collaborative co-innovation program	The 'collaborative co-innovation program' product group supports Australian red meat value chains to fast-track their innovation and growth strategies. The program offers an integrated suite of modules that can be customised to match specific business goals.
■ Capability building tools and enablers	The 'capability building tools and enablers' product group includes initiatives such as maintaining memberships to innovation institutes to stay abreast with the latest trends and innovations, and network with innovators and entrepreneurs.

Capability building

Product group	Description
■ Capability building (education)	Initiatives within the 'capability building (education)' product group include: <ul style="list-style-type: none"> • training PhD level and post-doctoral scientists to provide an enduring career path in red meat research, development and adoption • mentoring postgraduate participants within Australian Research Council Industrial Transformation Research Hubs.
■ I+E CONNECT	I+E CONNECT provides a unique global platform for the red meat industry to access high quality new ventures and entrepreneurs to support the development and delivery of disruptive innovations that have the potential to transform the industry. The design of the I+E CONNECT platform is based on connecting the key elements within the global entrepreneurial ecosystem (new ventures; investors; service providers such as accelerators; corporates; global scouts) which will maximise outcomes and help to de-risk MDC co-investments.
■ Capability building (Australian Meat Processor Corporation (AMPC) managed)	The 'capability building (AMPC managed)' product group includes AMPC-funded and managed initiatives that align with the AMPC and MLA strategic plans.

Key performance indicators in 2018–19

- Implement a program for a Digital Value Chain Officer with three additional partners (total of six).
- 80% of Producer Innovation Fast-Track participants express satisfaction with the program.
- Delivery of three capability programs (new ventures, new food products/value chain, on-farm) to Producer Innovation Fast-Track program participants.
- Livestock Consulting Internship program completed, with employers and interns expressing 80% satisfaction with the program.
- Delivery of an industry development education program for 20 Intercollegiate Meat Judging finalists.
- Co-innovation program partners achieve 80% of documented innovation objectives and five new partners are engaged.
- Appoint at least five new PhD students.
- At least 10 early career scientists employed in MLA-funded research and development.
- A minimum of 20 high quality I+E CONNECT new ventures are supported.
- Strategic partnerships in place with all global aligned ag-tech, food-tech and food innovation programs supporting red meat entrepreneurs.
- The I+E CONNECT program attracts at least \$5 million venture capital to enable \$10.5 million new venture project investment, with at least two Australian red meat businesses supported to develop corporate venturing capability and models.

This sub-program includes MDC partnership investment.

› Industry leadership and capacity building

MLA's industry leadership and capacity building sub-program equips industry representatives with the skills, knowledge and confidence to be effective communicators, positive contributors and successful leaders.

While developing the skills base of the current generation, this sub-program also exists to develop emerging talent for succession planning and strategic contributions to industry and the community into the future. The development of capable leaders with a whole-of-value-chain and global perspective will ensure there are highly skilled producers who can represent industry and contribute effectively.

This sub-program also works to build capability within MLA, driving a customer-centric culture and recruiting leading scientists, marketers, entrepreneurial innovators and other professions to further enhance the company's capacity to effectively service levy payers and the industry.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Industry leadership scholarships	<p>The ‘industry leadership scholarships’ product group consists of an annual scholarship program to build expertise and professional capability within the red meat and livestock industry. Initiatives include:</p> <ul style="list-style-type: none"> • maintaining a scholarship program tailored to the leadership and advocacy needs of the red meat and livestock industry • ensuring the most efficient and effective promotion of scholarship opportunities throughout the industry to ensure the widest awareness and to attract the best applicants • managing a selection system that ensures that scholarships are awarded to the best applicant with projects aligned to the achievement of <i>Meat Industry Strategic Plan 2020</i> • ensuring that MLA and industry receive maximum return on the industry’s investment in scholarship recipients through their production of timely and quality reports that are shared to maximise industry learning • where appropriate, participating in the management of industry-aligned scholarship programs • past MLA-sponsored scholars engaged in advocacy work for the industry through MLA’s Communications (community) sub-program and other avenues.
■ Industry development	<p>The ‘industry development’ product group consists of a professional development program for current and emerging industry leaders and others in key industry and MLA roles. Initiatives include:</p> <ul style="list-style-type: none"> • delivering media, presentation and communication training • facilitating advocacy and community engagement workshops • conducting professional development, training and briefings for state farm organisations and other red meat and livestock production groups.
■ Peak council development	<p>The ‘peak council development’ product area consists of a tailored suite of programs to build skills, leadership capacity and performance within the peak industry councils (PICs). Initiatives include:</p> <ul style="list-style-type: none"> • conducting professional development for current and emerging industry leaders • conducting media, presentation and advocacy training • delivering mentor programs to provide exposure to learnings and best practice within and outside the industry • Supporting Cattle Council of Australia’s ‘building capacity in the grassfed beef industry’ project • new leadership and capacity building projects to be delivered by Sheep Producers Australia, Australian Lot Feeders’ Association and Goat Industry Council of Australia • ensuring effective consultative processes with PICs for key MLA programs and activities • commissioning the second annual State of the Industry report and other industry issues research and analysis to assist PICs in policy development.

Key performance indicators in 2018–19

- Grant a minimum of two scholarships a year to ensure ongoing investment in industry leadership capability.
- Engage a minimum of six past MLA-sponsored scholars in advocacy work for the industry.
- 40 industry people identified and trained as industry advocates.
- Advocates used to support MLA’s ‘Paddock to Plate 360 Beef and Lamb Experiences’ at community events.
- At least seven industry representatives provided media and/or communications training.
- 40% of current and within 6 months of appointment, all future Cattle Council of Australia (CCA) directors will have completed the AICD Company Directors Course and assessment.
- CCA governance reviewed and recommendations implemented.
- 15 producers will have completed ‘governance in action’ training.

Capability building

- 15 Sheep Producers Australia (SPA) board and/or committee members will have completed media and communications training.
- Two Australian Lot Feeders' Association (ALFA) representatives provided governance training.
- Two Goat Industry Council of Australia (GICA) representatives provided governance training.
- Publication of second annual State of the Industry report.

Projected 2018–19 investment by funding source – capability building program (\$ '000)

Sub-program	Goat R	Goat M	Mutton R	Mutton M	Lamb R	Lamb M	Grassfed cattle R	Grassfed cattle M	Grainfed cattle R	Grainfed cattle M	AMPC R	AMPC M	LiveCorp R	LiveCorp M	External R	Government R	External M	Sum of R	Sum of M	Sum of AIP
Innovation capability building	12		63		452		343		51		4,636				4,451	10,007	7	20,014	7	20,021
Industry leadership and capacity building			12	55	461	1,176	414	1,305	37	303						924		1,848	2,839	4,687
Total	12		75	55	912	1,176	757	1,305	88	303	4,636				4,451	10,931	7	21,861	2,846	24,707

PROGRAM

Communication

MLA's communication program assists MLA to foster the prosperity of the Australian red meat and livestock industry by ensuring that MLA's marketing, research and development services are known and accessible to levy payers and stakeholders. It also seeks to build confidence in the industry, ensuring the community understands the contribution the industry makes and supports its operation.

SUB-PROGRAM

- › Communication (community)
- › Communication (stakeholder)

PILLARS

- 🏠 Consumer and community support
- 🤝 Leadership and collaborative culture
- 💬 Stakeholder engagement

BUDGET
\$12.7
million

Operating environment

The communication program operates in a complex and diverse environment with many stakeholders who have wide-ranging research, development and marketing needs. Understanding these needs is critical for MLA to tailor its services and communications to ensure stakeholders can access the information they need, when they need it, through the channels they prefer. Improved access to enhanced information empowers stakeholders to make more informed decisions and increase their uptake of business-enhancing marketing, research and development.

Understanding our consumers, meeting their expectations and telling our story as an industry helps ensure we maintain the community's confidence – and consumer support. The community has high expectations about animal health and welfare and how the industry manages the natural resources it relies on. Domestic and international consumers are also increasingly interested in the provenance of their food. MLA assists industry to maintain and enhance community confidence and red meat consumption by engaging with consumers to demonstrate the industry is an ethical and responsible custodian of livestock, land and natural resources.

› Communication (community)

MLA's communication (community) sub-program works to engage and inform the community about the Australian red meat and livestock industry, with a particular focus on animal welfare and environmental management.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Consumer education	<p>The 'consumer education' product group provides trusted information and targeted communications to inform consumers about the production of red meat and livestock in Australia. Initiatives include:</p> <ul style="list-style-type: none"> • promoting the new GoodMeat online platform for community engagement • an annual benchmarking survey of consumer sentiment to identify current issues and trends • four-year research project with the Animal Welfare Science Centre at University of Melbourne to identify public and producer attitudes to sheep and cattle animal welfare to inform education strategies • developing and using engaging social media tools and online content to communicate with consumers, stakeholders and producers • using search engine optimisation to ensure ready availability of relevant and factual information about the industry.
■ Consumer engagement	<p>The 'consumer engagement' product group is a series of strategic partnerships with major community events to inform consumers about the provenance of Australian red meat, enhance community confidence in the industry and promote red meat consumption. Initiatives include:</p> <ul style="list-style-type: none"> • sponsoring and participating in Taste Festivals in Sydney, Melbourne and Perth, Regional Flavours in Brisbane and Gourmet Escapes, Margaret River • partnering with producers at events and in other forums to inform consumers about the sustainable production methods used by the industry • using paddock-to-plate style demonstrations to inform consumers and promote red meat consumption • taking MLA's 'Paddock to Plate 360 Beef and Lamb Experiences' to Royal Agricultural Shows in capital cities, LambEx 2018 and other community events • engaging key opinion leaders to represent and promote the GoodMeat missive and the positive attributes of the Australian red meat industry.

Communication

Product group	Description
■ School education	<p>The 'school education' product group engages with schools and teachers through the development of teaching resources on red meat and livestock production that are aligned with the national curriculum. Initiatives include:</p> <ul style="list-style-type: none"> • maintaining an active membership with the Primary Industries Education Foundation Australia • representing the industry at educational conferences and events with MLA materials distributed for use by participants • encouraging the use of MLA educational materials taught directly in schools using video conferencing and 'real life' livestock producers • enhancing teachers' uptake of MLA's educational materials in their lesson planning and delivery • involving children in cooking classes at community events to normalise and familiarise them with red meat preparation, consumption and production.

Key performance indicators in 2018–19

- Promotion of the GoodMeat online community engagement platform within MLA's Domestic Market Strategy.
- Year-on-year increase in producer engagement via digital and social media.
- Community sentiment tracked, including percentage limiting red meat consumption due to animal welfare or environmental management concerns (KPI: 8%).
- Participate in a minimum of four events to engage and inform key consumer segments "Passionate Foodies" and "Constrained Aspirers" - about the provenance of Australian red meat to enhance community confidence in the industry and promote red meat consumption as part of a healthy balanced diet.
- At least 6,000 consumers engaged and informed about the production of red meat and livestock in Australia.
- Utilise at least 20 producer advocates in community events.
- MLA's 'Paddock to Plate 360 Beef and Lamb Experiences' presented at four RAS events with 80% of viewers responding that they have:
 - a better understanding of the industry
 - improved perceptions of Australian beef/sheepmeat production.
- At least two teacher-focused events feature MLA educational resources.
- A minimum of 70 schools engaging with MLA education materials.
- A minimum 1,000 education resource downloads.

This sub-program includes MDC partnership investment.

› Communication (stakeholder)

MLA's communication (stakeholder) sub-program engages and communicates with MLA members, levy payers and stakeholders across the value chain about MLA's work in its research, development and marketing. This includes activities funded by producer levies and MLA's subsidiary companies.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Beef and Sheep Industry Sustainability Framework	<p>The 'Beef and Sheep Industry Sustainability Framework' product group covers MLA's provision of management to the Red Meat Advisory Council's (RMAC) Sustainability Steering Group for the implementation of the Australian Beef Sustainability Framework, covering economic resilience, animal welfare, environmental stewardship, people and the community across the value chain. MLA will also assist the sheepmeat industry in developing a strategy for sustainability reporting. Initiatives include:</p> <ul style="list-style-type: none"> • managing ongoing framework reporting and stakeholder engagement for the beef framework • ensuring strategies are in place and driving the coordination for the six key priorities of the beef framework • delivery of the annual report for the beef industry sustainability framework • assisting the sheep industry in reporting on sustainability.

Product group	Description
■ MLA communications	<p>The 'MLA communications' product group provides a targeted suite of print, digital and media communications to inform members and empower on-farm decision makers, meet stakeholder needs, promote the industry to the Australian community and promote the role and value of MLA. This product group also provides communications support across MLA and its subsidiaries. Initiatives include:</p> <ul style="list-style-type: none"> • implementing a corporate communications strategy to coordinate and direct MLA's communications toward the achievement of MLA's mission and the needs of MLA's stakeholders • conducting media engagement, monitoring, evaluation and training • enhancing myMLA and other MLA online services as secure, reliable, informative and user friendly digital platforms for the red meat industry • producing and delivering relevant regional and seasonal content through e-newsletters, mla.com.au, social media and printed materials such as MLA's flagship <i>Feedback</i> magazine • delivering MLA's corporate social media strategy as a key channel of MLA's corporate communications strategy.
■ MLA corporate reporting	<p>The 'MLA corporate reporting' product group fulfils MLA's reporting requirements under the <i>Corporations Act 2001</i> and the <i>Australian Meat and Live-stock Industry Act 1997</i> as per MLA's Statutory Funding Agreement with the Australian Government. Initiatives include:</p> <ul style="list-style-type: none"> • producing the <i>Annual Report 2018–19</i> • producing the <i>Annual Investment Plan 2019–20</i>.
■ MLA stakeholder engagement	<p>The 'MLA stakeholder engagement' product group covers MLA's activities to engage with stakeholders. Initiatives include:</p> <ul style="list-style-type: none"> • providing MLA's membership services • gathering and using the views and needs of stakeholders to inform MLA's decision making, strategy and organisational behaviour • delivering events such as the MLA Annual General Meeting and Red Meat 2018 • coordinating MLA's sponsorship program for industry events that increase awareness and adoption of business-enhancing research, development and marketing.

Key performance indicators in 2018–19

- Delivery of the annual report for the Beef Industry Sustainability Framework.
- An agreed approach for reporting on sheepmeat industry sustainability.
- High levels of member satisfaction (above 70%) with MLA printed communications.
- Delivery of three high impact communication campaigns.
- High levels of member awareness (above 70%) of MLA's role.
- Increase in media volume against the 2017–18 benchmark.
- Completed registrations to myMLA (MLA members and non-members) to exceed 35,000.
- High levels of MLA member user satisfaction (above 70%) with MLA digital communications.
- E-newsletter subscription database growth of 5%.
- Year-on-year increase in producer engagement through social media.
- Interactive electronic version of Annual Report published on MLA website.
- High levels of satisfaction (above 70%) recorded by attendees at MLA events.

This sub-program includes MDC partnership investment.

Communication

Projected 2018–19 investment by funding source – communication program (\$ '000)

Sub-program	Goat R	Goat M	Mutton R	Mutton M	Lamb R	Lamb M	Grassfed cattle R	Grassfed cattle M	Grainfed cattle R	Grainfed cattle M	AMPC R	AMPC M	LiveCorp R	LiveCorp M	External R	Government R	External M	Sum of R	Sum of M	Sum of AIP
Communication (community)		5		38	25	859	15	1,288		436						40		81	2,626	2,707
Communication (stakeholder)	32	10	50	125	827	2,516	447	3,849	76	616					3	1,435		2,870	7,116	9,986
Total	32	15	50	163	852	3,375	462	5,137	76	1,052					3	1,475		2,950	9,742	12,692

PROGRAM

Corporate services

MLA's corporate services program assists MLA to foster the prosperity of the Australian red meat and livestock industry by:

- effectively managing the levy investments through accounting, contracting, project management, foreign exchange management, evaluation and reporting
- ensuring MLA meets its statutory and legislative requirements through a robust corporate governance framework including audit, risk and legal services
- attracting and retaining a diverse and talented workforce.

SUB-PROGRAM

› Corporate services

Operating environment

Overall, levy income is expected to increase moderately in 2018–19. According to ABARES, Australian beef production and export volumes are projected to stabilise and slaughter volumes are projected to increase by 3%. In relation to sheepmeat, strong income growth in major export markets is expected to sustain strong demand, with slaughter volumes projected to increase by 0.5%.

ABARES predicts that the gross value of production for red meat will remain steady in 2018–19. This projection would translate into 1.6% less Government matched funds available to MLA this financial year.

PILLARS

Leadership and collaborative culture

Corporate services

BUDGET
\$16.0
million

› Corporate services

Encompassing the Board, executive, finance, legal, human resources, information technology and other MLA-funded initiatives, corporate services provides support services, risk management, governance, budget and planning and reporting functions to MLA management and stakeholders as well as ensuring compliance with statutory and other corporate obligations.

MLA's corporate services sub-program ensures levy dollars are invested wisely by the company and strict governance processes are followed.

This sub-program aims to achieve this through the following product groups:

Product group	Description
■ Board and executive	Initiatives within the 'board and executive' product group include providing strategic guidance for MLA and effective oversight of the management and performance of MLA in delivering its Strategic Plan.
■ Legal and governance	The 'legal and governance' product group provides legal advice and support to the Board and management. Initiatives include: <ul style="list-style-type: none">• monitoring compliance with statutory and other regulations applicable to the MLA Group of companies• promoting and defending MLA by minimising legal risk and ensuring good governance processes• interacting with stakeholders• maintaining the member registry.

Product group	Description
■ Crisis management	Initiatives within the 'crisis management' product group include: <ul style="list-style-type: none"> • maintaining the crisis portal • conducting internal crisis simulations • supporting industry crisis simulation.
■ Risk management	The 'risk management' product group includes activities that ensure MLA's risk management framework is: <ul style="list-style-type: none"> • regularly reviewed, maintained and operationalised to reflect the Board's risk appetite • reflects the industry's operating environment • adopted and reflected in the operations of MLA in the delivery of its Strategic Plan.
■ Finance	The 'finance' product group captures the stewardship role of effectively managing of levy investments and non-levy investments. Key activities include: <ul style="list-style-type: none"> • management reporting to internal and external stakeholders • financial planning and analysis including the Annual Investment Plan and quarterly rolling forecasts • treasury including the management of cash and foreign exchange • financial accounting.
■ Levy management	The 'levy management' product group contains costs associated with MLA's share of levy administration (including third party verification of voting entitlements).
■ Evaluation	The 'evaluation' product group implements and provides oversight of the MLA Evaluation Framework, encompassing the entire suite of MLA's investments.
■ Commercialisation	The 'commercialisation' product group delivers adoption through the commercialisation of products derived from MLA-funded research and development. It focuses on the commercialisation of high impact R&D outputs (products), while ensuring that the intellectual property developed from R&D investments is appropriately protected.
■ Human resources	The 'human resources' product group supports MLA to attract, develop and engage exceptional people to deliver outcomes that make a difference. Initiatives include: <ul style="list-style-type: none"> • creating solutions that enable a global and agile workforce to succeed • providing a framework to ensure a safe and compliant work environment.
■ Information technology	The 'information technology' product group provides IT advice and support to the greater MLA group and across all facets of the technology platform including infrastructure, intranet, financials, CRM, websites, business intelligence, financials and project/contract management. The IT team's core focus is to ensure the technology platform is at all times both robust and scalable and one which the business can leverage off to achieve their objectives.
■ Project governance and management	The 'project governance and management' group provides a central service point for project approval, contracting, milestone management and reporting.
■ AUS-MEAT	The 'AUS-MEAT' product group contains MLA's investment in the standards division of AUS-MEAT. The costs included by the services division (AUS-QUAL) is met from revenues and from previous industry transition capitalisation.

Key performance indicators in 2018–19

- Detailed 2017–20 sub-program business plans completed and approved by MLA Board, resulting in increased delegation levels for project approval.
- Compliance management and oversight to ensure MLA Group operating in accordance with requirements of:

- Commonwealth Funding Agreement
- Corporate Governance framework – finance, legal and risk systems and processes
- maintenance of member registry.
- Implement smart contract system to streamline MLA contracting process.
- Crisis Portal maintained and reflects the latest Risk Management Plan.
- Risk Management Plan is maintained in accordance with the Board's risk appetite and reflects industry context.
- Clean audit report received.
- Internal audit program delivered to the satisfaction of the MLA Audit and Risk Committee.
- Implement quarterly rolling forecasts from October 2017.
- Ensure reporting to internal and external stakeholders is timely, accurate and insightful.
- Implement sub-program level evaluation system to track return on MLA investments against MLA *Strategic Plan 2016–2020*.
- Commercialisation is focused on high impact project outputs (products) and is integrated with program strategy and project approval activities.
- Internal stakeholder satisfaction measured at >80% for MLA IT infrastructure Project Governance and Management.
- Reduce project approval and contracting times by 30%, while maintaining or improving governance levels.
- Simplify and fast-track current contract variation process, resulting in a 25% reduction in process times.

Projected 2018–19 investment by funding source – corporate services program (\$ '000)

Sub-program	Goat R	Goat M	Mutton R	Mutton M	Lamb R	Lamb M	Grassfed cattle R	Grassfed cattle M	Grainfed cattle R	Grainfed cattle M	AMPC R	AMPC M	LiveCorp R	LiveCorp M	External R	Government R	External M	Sum of R	Sum of M	Sum of AIP
Corporate services	61	31	99	118	1,060	2,300	884	4,248	371	737						2,475	3,666	4,950	11,098	16,048
Total	61	31	99	118	1,060	2,300	884	4,248	371	737						2,475	3,666	4,950	11,098	16,048

FUNDING SOURCES



Expenditure by funding source, 2018–19, \$ '000

Program	Goat R	Goat M	Mutton R	Mutton M	Lamb R	Lamb M	Total sheep R	Total sheep M	Grassfed cattle R	Grassfed cattle M	Grainfed cattle R	Grainfed cattle M	Total cattle R	Total cattle M	Total levies R	Total levies M	AMPC R	AMPC M	LiveCorp R	LiveCorp M	External R	External M	Government R	MLA consolidated
Animal health and welfare	50		141		1,085		1,226		616		975	220	1,591	220	2,867	220	51				3,144	2,118	6,062	14,462
Domestic markets	7	56	22	129	948	10,700	970	10,828	780	12,735	236	1,944	1,015	14,679	1,992	25,563	243	201				452	2,236	30,687
International markets		254	100	688	329	10,441	430	11,129	269	27,838		3,702	269	31,540	699	42,923	99	3,140	601	1,000	230	926	1,628	51,245
Eating quality			89	176	992	999	1,080	1,175	1,252	1,755	439	677	1,691	2,432	2,771	3,607						65	2,771	9,215
Environmental sustainability			16		152		168		112		375		487		655		2,240				3,325	111	6,220	12,550
Integrity systems	9	37	81	182	425	483	506	666	644	1,429	208	659	852	2,088	1,368	2,791	1,421	1,665	17	63	355	4,272	3,161	15,112
Objective measurement			116		385		501		272		104		376		877		3,800				3,565	804	8,242	17,287
Producer adoption			327		2,341	3	2,668	3	1,329	4	554	150	1,883	154	4,551	157					869	117	5,419	11,113
Product and packaging innovation	13		64		516		580		171				171		764		396				1,326	727	2,486	5,698
Value chain information and efficiency	36		98		717		815		963		362		1,325		2,177		148				233		2,558	5,116
Productivity (off-farm)																	4,115				1,960		6,076	12,151
Productivity (on-farm)	633		109		4,178		4,287		3,906		1,429		5,335		10,254		25		34		5,866	1,199	16,180	33,559
Capability building	12		75	55	912	1,176	987	1,231	757	1,305	88	303	844	1,608	1,843	2,839	4,636				4,451	7	10,931	24,707
Communication	32	15	50	163	852	3,375	902	3,538	462	5,137	76	1,052	538	6,189	1,472	9,742					3		1,475	12,692
Corporate services	61	31	99	118	1,060	2,300	1,159	2,417	884	4,248	371	737	1,255	4,985	2,475	7,433						3,666	2,475	16,048
Total expenditure	853	393	1,388	1,510	14,892	29,477	16,281	30,987	12,416	54,451	5,217	9,444	17,632	63,895	34,765	95,275	17,175	5,005	652	1,063	25,327	14,462	77,919	271,644

Income available by funding source 2018–19, \$ '000

	Goat R	Goat M	Mutton R	Mutton M	Lamb R	Lamb M	Total sheep R	Total sheep M	Grassfed cattle R	Grassfed cattle M	Grainfed cattle R	Grainfed cattle M	Total cattle R	Total cattle M	Total levies R	Total levies M	AMPC R	AMPC M	LiveCorp R	LiveCorp M	External R	External M	Government R	MLA consolidated
Levies	523	329	1,152	1,301	11,327	27,552	12,479	28,853	10,940	42,378	3,526	7,240	14,466	49,618	27,468	78,801								106,269
Government																							77,919	77,919
AMPC																	17,175	5,005						22,180
LiveCorp																			652	1,063				1,715
External R																					25,327			25,327
External M																						14,853		14,853
Total income	523	329	1,152	1,301	11,327	27,552	12,479	28,853	10,940	42,378	3,526	7,240	14,466	49,618	27,468	78,801	17,175	5,005	652	1,063	25,327	14,853	77,919	248,263
Difference (to/from reserves)	(329)	(64)	(237)	(209)	(3,565)	(1,925)	(3,802)	(2,134)	(1,475)	(12,072)	(1,691)	(2,204)	(3,166)	(14,277)	(7,297)	(16,474)						391		-23,381

Opening reserves	818	502	941	787	10,661	23,339	11,602	24,126	5,957	35,065	4,232	9,127	10,189	44,192	22,609	68,820						
Closing reserves 2018–19	489	438	705	578	7,096	21,415	7,800	21,993	4,482	22,993	2,541	6,923	7,023	29,916	15,312	52,346						
% of revenue	93%	133%	61%	44%	63%	78%	63%	76%	41%	54%	72%	96%	49%	60%	56%	66%						

ACRONYMS

ALFA	Australian Lot Feeders' Association
AMPC	Australian Meat Processor Corporation
APVMA	Australian Pesticides and Veterinary Medicines Authority
ASEAN	Association of South East Asian Nations
DEXA	Dual Energy X-ray Absorptiometry
eNVD	Electronic National Vendor Declaration
ERF	Emissions Reduction Fund
ESCAS	Exporter Supply Chain Assurance System
ICMJ	Intercollegiate Meat Judging
ISC	Integrity Systems Company
LPA	Livestock Production Assurance
M	Marketing dollars
MCV	Managing Climate Variability
MDC	MLA Donor Company
MSA	Meat Standards Australia
NLIS	National Livestock Identification System
PICs	peak industry councils
R	Research, development and adoption dollars
RD&A	Research, development and adoption
RD&E	Research, development and extension
RDCs	Research and Development Corporations
RMAC	Red Meat Advisory Council
SBTS	Southern Beef Technology Services
TBTS	Tropical Beef Technology Services



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