



STRATEGIC BUSINESS PLAN 2016-20
2017-18 Investments



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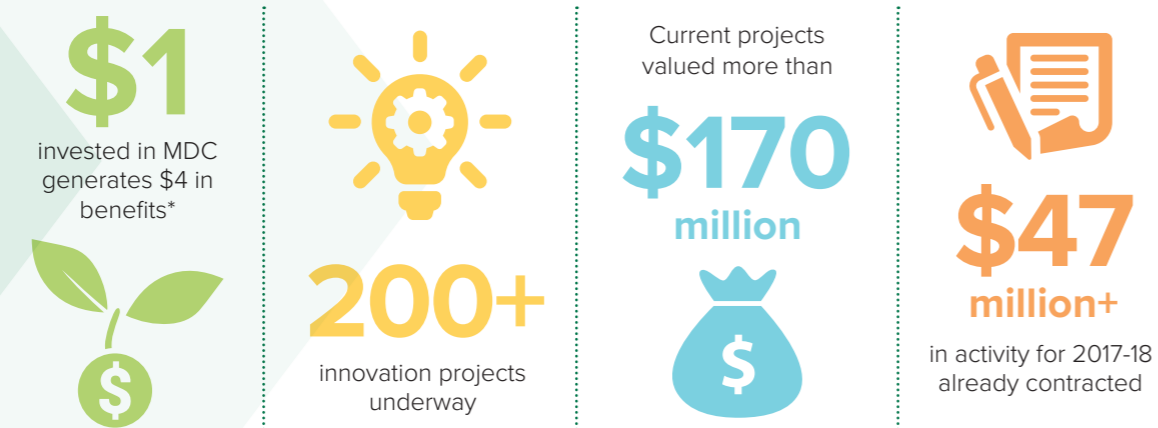
MDC AT A GLANCE

WHO IS MDC?

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.



*Sourced from the Impact Assessment of MLA Expenditure 2010-11 to 2014-15 – Economic quantification of benefits by the Centre for International Economics, ISJ Investments and AgStrat.

PURPOSE

MDC was established in 1999 as a fully-owned subsidiary of MLA.

MDC is incorporated under the *Corporations Act 2001*. The principal activity of MDC is to act as an approved donor under s61 (1) of the *Australian Meat and Live-stock Industry Act 1997* for research and development matching funding purposes.

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.

MDC has the same vision, mission and values as MLA (see mla.com.au/about-mla/who-we-are).

STRATEGIC INVESTMENT FOCUS AREAS

1. Consumer and community support
2. Market growth and diversification
3. Supply chain efficiency and integrity
4. Productivity and profitability
5. Leadership and collaborative culture
6. Stakeholder engagement
7. I+E Connect innovation and entrepreneurship platform.

FUNDING

MDC attracts MDC co-investment from individual enterprises and others that share a mutual interest with MLA to co-invest in innovations that will benefit the Australian red meat and livestock industry.

The Australian Government matches voluntary partner contributions in projects that address industry and government priorities and benefit the Australian community.

MDC projects include an access fee to cover costs associated with early stage feasibility studies, seed funding, industry dissemination and operational costs.

STAKEHOLDERS

MDC attracts investment from every part of the red meat and livestock value chain, including processors, value-adders, breed societies, large pastoral companies, international collaborators and technology providers. MDC works in partnership with these value chain partners and the Australian Government to deliver products and services to the cattle, sheep and goat industry (see Figure 1).

MDC also works with the Australian Meat Processor Corporation via the Plant Initiated Project initiative, to develop projects that address key processing issues and support the development of innovation capabilities within this sector.

STAFF

MDC does not directly employ any personnel. Activities are managed and undertaken via MLA with these personnel and operational costs funded from the collection of the MDC access fee. MDC activities are overseen by the MDC Board and CEO Dr Christine Pitt.

Directors and office bearers of MDC are as follows:

Directors

- | | |
|--------------------------|------------------|
| Dr Michele Allan (Chair) | Erin Gorter |
| Richard Norton | Geoffrey Maynard |
| Alan Beckett | Chris Mirams |
| Steven Chaur | George Scott |
| Robert Fitzpatrick | Allister Watson |

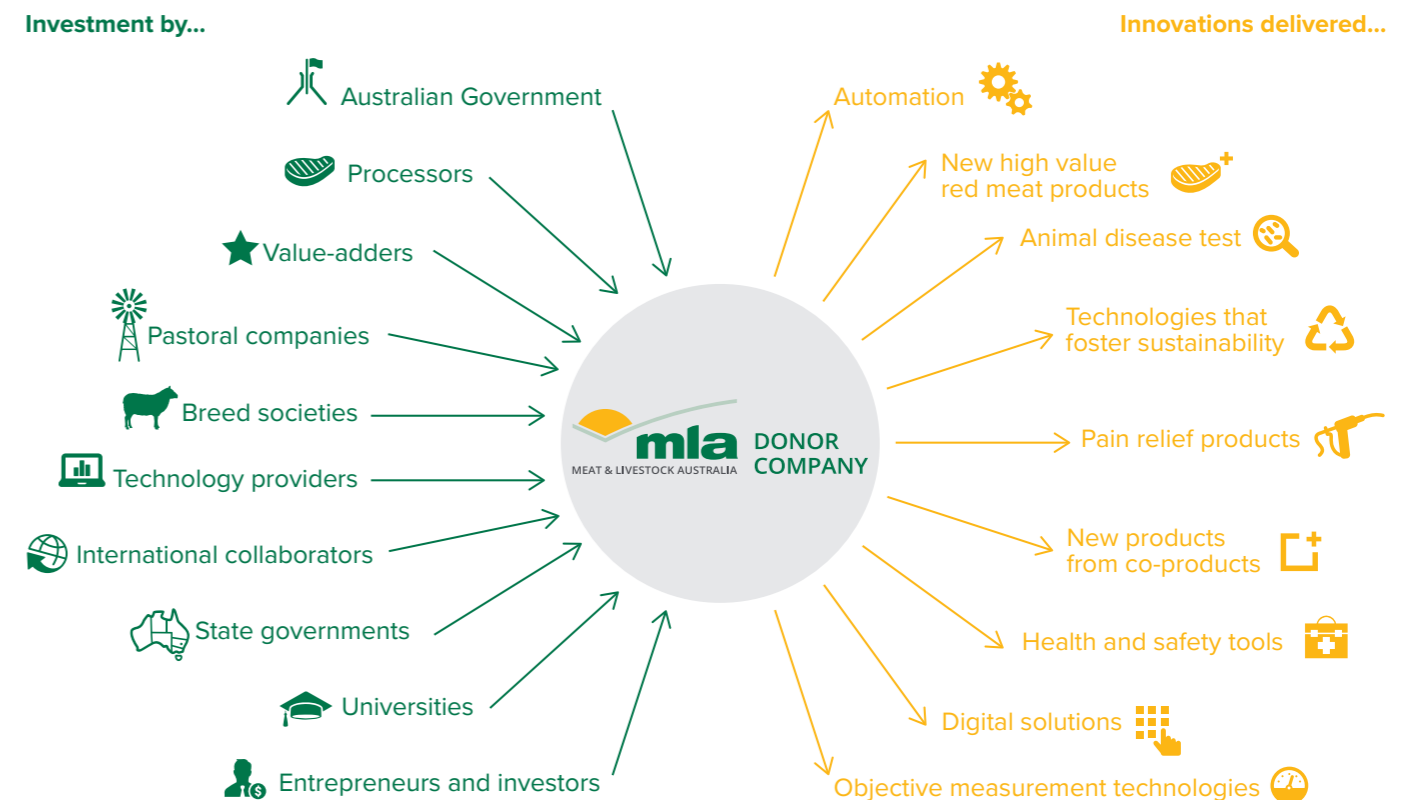
CEO

Dr Christine Pitt

Company Secretary

Clare Stanwix

Figure 1: The role of MDC



INTRODUCTION

THE MDC STRATEGIC BUSINESS PLAN 2016-20, 2017-18 INVESTMENTS PROVIDES OUR STAKEHOLDERS WITH A BROAD OVERVIEW OF THE DIRECTION THAT MDC INVESTMENTS ARE ANTICIPATED TO TAKE OVER THE NEXT THREE YEARS, WITH DETAILS OF THE AREAS OF INVESTMENT PLANNED DURING THE 2017-18 FINANCIAL YEAR.

The MDC Strategic Business Plan will be prepared each financial year to progressively show annual MDC investments over the 2016-20 plan period.

MDC's strategic investment portfolio is directly aligned to extending the achievement of the *Meat Industry Strategic Plan 2020* and the *Meat & Livestock Australia Strategic Plan 2016-2020*.

| MLA PILLAR | 1. Consumer and community support | 2. Market growth and diversification | 3. Supply chain efficiency and integrity | 4. Productivity and profitability | 5. Leadership and collaborative culture | 6. Stakeholder engagement |
|----------------|--|---|---|--|---|--|
| MDC PRIORITIES | <ul style="list-style-type: none"> Animal health and welfare Supply chain environmental sustainability | <ul style="list-style-type: none"> High value food frontiers | <ul style="list-style-type: none"> Supply chain logistics Objective measurement Digital value chain Enhanced traceability and integrity systems | <ul style="list-style-type: none"> Farm and feedlot productivity Precision agriculture Livestock genetics Through-chain automation | <ul style="list-style-type: none"> MDC Co-innovation Program Producer Innovation Fast-Track Food value chain innovators Rural professionals Digital value chain officers | <ul style="list-style-type: none"> Engagement with producers and stakeholders |
| I+E CONNECT | | | | | | |

CHIEF EXECUTIVE OFFICER'S STATEMENT



MDC's ongoing expansion sees it strategically positioned to capitalise on current and future opportunities for the red meat industry and to continue to accelerate the achievement of industry and MLA priorities.

Over the 2016-17 financial year, MDC has been focused on building a strategic platform for future growth to underpin our broader remit to more than double the value of our program of work. The opportunity to attract additional voluntary contributions from partners to co-invest in innovation projects is due to MLA having access to more Australian Government funding than it will be able to match with levies alone. The decline in levy income combined with the overall increase in the value of the red meat industry has led to a significant increase in available matching funds.

As detailed in this Strategic Business Plan, MDC is continuing to build the increased level of co-investment across the whole value chain with an expanded portfolio of programs and initiatives that are aligned to the *Meat Industry Strategic Plan 2020* and the *MLA Strategic Plan 2016-2020*. In addition, MDC has been steadily expanding strategic partnerships with public and private investors from Australia and around the globe, and is engaging more deeply with industry partners via new innovation capability building programs including Producer Innovation Fast-Track and the enterprise-based Collaborative Co-Innovation Program.

Launched in early 2017, the Producer Innovation Fast-Track pilot program engaged almost 200 producers and resulted in 86 project proposals from across Australia. Given the overwhelmingly positive response, we have created an expanded support program to accommodate proposals at various stages of development. I am excited that MDC will be working with these producers throughout 2017-18 on the three target areas of: innovations to improve on-farm performance; producer-led new products, brands and value chains; and supporting producers looking to establish new ventures and start-ups.

Another key initiative commenced in 2016-17 was MDC's innovation and entrepreneurship platform, I+E Connect. I am pleased to report that this new program has already attracted a number of exciting start-ups and disruptive ideas to the Australian red meat industry. I am confident that through 2017-18 this platform will facilitate even greater engagement with the global entrepreneurship community, and will ultimately deliver transformational change that will help 'future proof' the industry. Areas identified with opportunities for disruption are broad across the AgTech, FoodTech and Food Innovation space and I look forward to reporting on I+E Connect success stories in the coming years.

In 2017-18, MDC will continue to grow investments in key program areas covering: processing automation; objective measurement; the National Livestock Genetics Consortium;

animal health and welfare; digital value chain enabling technologies; enhanced traceability; smart packaging; and whole of chain environmental sustainability. A priority will be to identify new global partners to broaden our co-investment base and to ensure that all MDC investments are underpinned by rigorous due diligence and design-led innovation methodologies that ensure there is real potential to deliver commercial outcomes along the entire value chain.

In addition to investing in productivity and supply chain efficiency initiatives, our emerging *High value food frontiers* program will seek to identify investable innovation options that will reposition the industry for high value growth over the next 3-5 years. This work will be complemented by MDC-led initiatives funded within the Rural R&D for Profit programme's Insights2Innovation project. In 2017-18, we will engage industry partners in the exploration of opportunities to create and capture high value growth in the emerging markets of China, ASEAN and Middle East, as well as the development of new product and packaging concepts that will underpin entry into rapidly growing new consumer segments related to snacking, functional ingredients and health and wellbeing.

It is also important that we support our future leaders, those who will play a key role in driving innovation and transforming the red meat industry. The Young Food Innovators program continues in 2017-18, with its second cohort comprised of young producers working in the red meat and other primary production sectors. They will embark on an intensive, accelerated development program that will equip them with advanced design-led innovation and value chain design approaches to enable them to become the innovation catalysts that will drive change. This, combined with the second round of the Future Livestock Consulting Internship program demonstrates MDC's commitment to supporting those who are the future of our industry.

The overarching purpose of MDC is clearly to support the delivery of MLA's strategic priorities that are aimed at fostering the long-term prosperity of the Australian red meat and livestock industry. However, MDC also has the mission of accelerating and extending these priorities into more future-focused transformational impact areas via global partnerships that will facilitate the 'big picture' change that is critical for the industry's long-term prosperity. Even more importantly, our co-investment model enables us to engage our industry in true partnerships that build capability in ways that are connected and meaningful and which deliver real benefits.

Dr Christine Pitt
MDC Chief Executive Officer

INVESTMENT SUMMARY

THIS SUMMARY REPRESENTS MDC'S PLANNED INVESTMENTS FOR 2017-18.

The MDC Strategic Business Plan will be updated each year to progressively show annual investments over the 2016-20 plan period.

| PILLAR | PRIORITY | MLA DONOR COMPANY | | | TOTAL (\$ '000) |
|--|---|-------------------|---------------|--------------|-----------------|
| | | MDC PARTNERS | GOVERNMENT R | EXTERNAL M | |
| 1. Consumer and community support | Animal health and welfare | 2,551 | 2,551 | 2,088 | 7,190 |
| | Supply chain environmental sustainability | 3,081 | 3,081 | | 6,162 |
| 2. Market growth and diversification | High value food frontiers | 2,568 | 2,568 | | 5,136 |
| 3. Supply chain efficiency and integrity | Supply chain logistics | 288 | 288 | | 576 |
| | Objective measurement | 3,595 | 3,595 | | 7,190 |
| | Digital value chain | 1,156 | 1,156 | | 2,312 |
| | Enhanced traceability and integrity systems | 564 | 564 | | 1,129 |
| 4. Productivity and profitability | Farm and feedlot productivity | 2,212 | 2,212 | 197 | 4,622 |
| | Precision agriculture | 2,568 | 2,568 | | 5,136 |
| | Livestock genetics | 5,546 | 5,546 | | 11,092 |
| | Through-chain automation | 4,366 | 4,366 | | 8,732 |
| 5. Leadership and collaborative culture | MDC Co-innovation Program | 2,471 | 2,471 | | 4,942 |
| | Producer Innovation Fast-Track program* | 1,500 | 1,500 | | 3,000 |
| | Food value chain innovators | 308 | 308 | | 616 |
| | Rural professionals | 867 | 867 | | 1,734 |
| | Digital value chain officers | 154 | 154 | | 308 |
| 6. Stakeholder engagement | Engagement with producers and stakeholders | 61 | 61 | | 123 |
| TOTAL | | 33,857 | 33,857 | 2,285 | 70,000 |

R-research dollars External M-external funding not eligible for matching via MDC
 *comprised of \$750k sourced from producer levies and \$750k from MDC producer partners
 I+E Connect investments of \$9m have been apportioned across the relevant priorities
 Totals may not add up due to rounding

INVESTMENTS BY PILLAR AND PRIORITY



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.

MDC's focus in this pillar is on:

- » A strategic partnership for animal welfare research, development and adoption, predominantly funded via MDC projects with a number of universities and public research institutes. MDC provides a mechanism to attract new money to this important priority area and to support novel and valuable research ideas and proposals.
- » The active pursuit of partnerships focused on the development and implementation of a whole supply chain sustainability strategy in areas including natural resources, energy, greenhouse gas emissions and waste streams. These partnerships will provide the leverage to accelerate innovation through the availability of additional funds, and support new routes to adoption and commercialisation.

2016-2020 OUTCOME

The community continues to support and trust the Australian red meat and livestock industry, with industry practices in step with community expectations.

MDC PRIORITIES



» ANIMAL HEALTH AND WELFARE

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.

At the same time, 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 and while reducing livestock mortality and the impacts of parasitic disease.

» SUPPLY CHAIN ENVIRONMENTAL SUSTAINABILITY

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.

The industry has made considerable inroads into addressing issues around its impact on the environment. Further opportunities exist to substantively reduce the industry's greenhouse gas footprint, including through biodiversity credits.

The long-term prosperity of the industry 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 its path to capturing productivity gains while reducing emissions.



» ANIMAL HEALTH AND WELFARE



THE 2017-18 PROGRAM OF WORK INCLUDES:

continuing the large foot and mouth disease risk management program with the Rural R&D for Profit programme; launching strategic partnerships around animal welfare; projects addressing cattle tick and bovine respiratory disease and novel approaches to disease resilience and pain relief.

| PROGRAM DESCRIPTION | 2017-18 CONTRIBUTION TOWARDS 2020 KPIS | 2017-18 BUDGET (\$ '000) |
|--|---|--------------------------|
| ANIMAL HEALTH Animal health tools and enablers » reducing the impact of key livestock diseases including exploring the epidemiology of conditions and developing decision support tools for parasite management and disease interventions Animal health diagnostics » initiatives to improve the diagnosis of foot and mouth disease virus Animal health prevention » facilitating the implementation of integrated parasite management » exploiting a host's immune system against cattle tick, internal parasites and infectious diseases Feedlot animal health » evaluating bovine respiratory disease vaccination practices for the backgrounding supply chain | » six new animal health projects contracted and underway » foot and mouth disease risk management program phase three underway through the Rural R&D for Profit programme » a suite of new tick vaccine research underway: protective effect of novel antigens (completed in 2017 – commercialisation potential to be evaluated) and innovative delivery methods for sustained release » commercial evaluation of bovine respiratory disease vaccination practices for the backgrounding supply chain completed and reported to industry | 4,801* |
| ANIMAL WELFARE Reduce mortality » initiatives to reduce mortality rates, particularly perinatal animals and cull females Relieve and replace painful husbandry practices Animal welfare tools and enablers » initiatives to develop and maintain effective research, development and adoption capability to respond to emerging welfare issues Feedlot animal welfare » 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 | » welfare strategic partnership launched and at least 10 blue sky programs of work soundly established » commercial track for NumNuts (a method for the delivery of local anaesthesia for lamb marking) identified | 2,388 |
| Total MDC investment | | 7,190 |

*contains external funding of \$2,088k not eligible for matching via MDC



» SUPPLY CHAIN ENVIRONMENTAL SUSTAINABILITY



THE 2017-18 PROGRAM OF WORK INCLUDES:

increasing environmental performance through supply chain optimisation enabled by enhanced information systems; using biological processing systems to convert waste from feedlots and red meat processing into valuable products; driving adoption of innovation that improves management of water, energy, waste, greenhouse gas emissions, soils and weeds; and exploring a carbon neutral red meat supply chain.

| PROGRAM DESCRIPTION | 2017-18 CONTRIBUTION TOWARDS 2020 KPIS | 2017-18 BUDGET (\$ '000) |
|---|--|--------------------------|
| SUSTAINABILITY (ON-FARM) » climate adaptation » environmental tools and enablers » natural resource management » feedlot sustainability | » improve seasonal forecasts for northern Australia by 10% » improve predictions of multi-year droughts through the use of general circulation models » quantify the economic value of seasonal climate forecasting in the grazing industry | 3,701 |
| SUSTAINABILITY (OFF-FARM) Sustainability technologies and practices » develop innovative technologies and practices which improve the sustainability of Australian red meat supply chains Sustainability tools and enablers » produce tools that enhance the sustainability of Australian red meat supply chains | » form one global partnership to provide solutions to increasing environmental performance through supply chain optimisation enabled by enhanced information systems » develop one new methodology that enables red meat supply chain participants to generate revenue from carbon credits » provide the tools and resources for industry to achieve a 10% reduction in waste or increase in efficiency relative to 2015 levels » provide the tools and resources for industry to achieve a 10% reduction in water and energy use intensity relative to 2015 levels » engage one supply chain in a strategy towards a carbon neutral red meat supply » compile a prioritised list of technologies / business models to reduce GHG emissions | 2,461 |
| Total MDC investment | | 6,162 |



PILLAR

2



MARKET GROWTH AND DIVERSIFICATION



DEEP MARKET INSIGHTS REGARDING CHANGING CONSUMER BEHAVIOURS AND EMERGING GLOBAL FOOD TRENDS WILL INFORM MORE STRATEGIC INNOVATION INVESTMENT DECISIONS AND ULTIMATELY LEAD TO INCREASED DEMAND AND VALUE FOR RED MEAT PRODUCTS.

Assisting food value chain businesses and producers to engage effectively with new higher value markets is critical to the sustained growth of the Australian red meat sector. Identifying new innovation opportunities and supporting high value growth activities will build demand for Australia's red meat products in both mature and emerging export markets and market segments.

MDC initiatives will support MLA's 2020 focus of countering the historical trend of reducing per capita red meat consumption in the domestic market, while also growing red meat consumption in high value markets in China, ASEAN and the Middle East.

Insights research has identified key emerging global food trends and consumer behaviours that offer clear opportunities for the Australian red meat industry. In addition, Asian markets are demanding higher levels of integrity and traceability, and there is potential for new technologies and value chain designs to support industry to achieve much higher premiums in these markets.

High value food frontiers is MDC's key mechanism for delivering innovations in support of MLA's market growth and diversification strategic pillar. MDC activities will be complemented by initiatives funded within the Rural R&D for Profit programme's Insights2Innovation grant project.

2016-2020 OUTCOME

Increased consumer and customer preference and premiums for Australian red meat and associated products across multiple markets driven by high value innovation.

MDC PRIORITIES



» HIGH VALUE FOOD FRONTIERS

An analysis of global food trends suggests there is an opportunity for red meat to capture significantly increased profitability through the creation of new value added product and packaging concepts that meet consumer requirements. Research identified trends including: health and wellbeing; convenience, including snacking; high protein; and targeted demographic needs such as ageing population and infants. These opportunities apply in both mature (domestic) and emerging markets like China, ASEAN and the Middle East.

Increasing pressure from low-cost competitors is also challenging the current predominantly commodity-based business models and further fuelling a desire by the industry to move into higher value product opportunities.

New value added product and service offerings will need to be created through new technologies and new B2B and B2C business models as the red meat industry transforms from a commodity focus to a high value food focus.

To capitalise on these opportunities, MDC will continue to develop Insights2Innovation initiatives to investigate market and consumer insights that lead to high value growth opportunities in China, ASEAN and Middle East regions. Industry partners and providers will be engaged in activities that will develop new ways to create and capture high value growth over the next two to five years. Through the I+E Connect platform, MDC will also seek out and encourage the entrance of new food entrepreneurs and start-ups to bring disruptive new ideas and products to the industry.

Key enablers include developing insights, engaging industry, developing a network of strategic partnerships and building sophisticated design-led innovation capabilities.



» HIGH VALUE FOOD FRONTIERS



THE 2017-18 PROGRAM OF WORK INCLUDES:

designing new products that create high value for emerging markets, and segments; implementing new value chain designs that connect the whole chain from paddock to plate; partnering with food entrepreneurs and the food innovation community; investing in emerging science and technology platforms; and engaging industry partners to build innovation capability and deliver high value outcomes.

| PROGRAM DESCRIPTION | 2017-18 CONTRIBUTION TOWARDS 2020 KPIS | 2017-18 BUDGET (\$ '000) |
|--|---|--------------------------|
| <p>INSIGHTS2INNOVATION Investigate market and consumer insights, develop a network of strategic partnerships and build sophisticated design-led innovation capabilities to help industry partners and research providers engage in activities to create and capture high value growth over the next two to five years</p> <p>Initiatives include:</p> <ul style="list-style-type: none"> » 2Morrow's Food » China Insights2Innovation » ASEAN Insights2Innovation » Middle East Insights2Innovation » industry and food entrepreneur engagement | <ul style="list-style-type: none"> » three new value chain designs developed and ready to launch » at least three case studies that demonstrate innovation capability development through Insights2Innovation program. » quantifiable progress towards 2025 goal for MDC <i>High value food frontiers</i> program of 50% red meat production converted to high value product » communicating Insights2Innovation opportunities via at least 10 workshops or speaking engagements » at least 10 industry partners actively investing in Insights2Innovation opportunities » food entrepreneurship platform (I+E Connect initiative) established » meet the agreed, cross-sectoral 2017-18 milestones for the Rural R&D for Profit programme's Insights2Innovation project | 3,434 |
| <p>PRODUCT AND PACKAGING INNOVATION SCIENCE AND TECHNOLOGY Based on insights, 'foresighting' and global scanning to identify 'investable' innovation opportunities that require further science and technology R+D investments.</p> <p>Initiatives include:</p> <ul style="list-style-type: none"> » smart packaging » enhanced traceability » digital platforms | <ul style="list-style-type: none"> » three new red meat value adding technology or packaging solutions identified and undergoing research and development | 1,701 |
| Total MDC investment | | 5,136 |

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 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.

MDC partnerships will make a significant contribution in this area with a wide range of initiatives in measurement technologies, digital value chain, and product integrity and traceability spanning the entire value chain. MDC partners with leading global technology and invention providers to find and develop new ideas and solutions that will leverage additional funding to accelerate the achievement of key industry priorities. In addition, MDC's I+E Connect platform will provide access to the latest ideas in the rapidly emerging AgTech and FoodTech space and will attract disruptive new entrepreneurs and start-ups to the industry.

2016-2020 OUTCOME

Increased returns through the value chain, with participants and customers confident in product quality, pricing and integrity systems.

Figure 2: Value chain objective measurement



MDC PRIORITIES



» SUPPLY CHAIN LOGISTICS

There are a number of challenges in the red meat industry in terms of supply chain logistics related to both the movement of live animals and temperature sensitive goods. Technological advances in vehicle-to-vehicle and vehicle-to-infrastructure connectivity, as well as increasing affordability of monitoring and tracking devices over the next decade, provide a platform for productivity gains in a section of the supply chain currently hindered by a lack of innovation. In addition, the application of sophisticated supply chain optimisation modelling presents opportunities to provide the industry and government with decision support tools that better inform infrastructure investment decisions as well as resource optimisation.

» OBJECTIVE MEASUREMENT

Value chain objective measurement is an essential enabler for industry to improve productivity and profitability, improve price transparency and develop value-based pricing. Value chain objective measurement (see Figure 2) will require the development of a wide range of enablers in areas that will include: objective sensing solutions; sensing analytics; enterprise optimisation software (including interconnectivity hardware and software between measurements, and enterprise decision making systems); whole of value chain tracing and tracking systems; value chain reporting standards and templates; industry standards and calibration protocols; and capability building.

» DIGITAL VALUE CHAIN

Increasingly important is the development of a wide range of digital solutions, platforms and technologies that support data collection and analytics to enable improved decision-making at the enterprise level, and benchmarking between enterprises; support greater efficiencies along the value chain; enable the exchange of information between different parts of the value chain (e.g. Livestock Data Link) and underpin new payment systems (e.g. value-based marketing); underpin industry integrity systems (e.g. eNVD; LPA e-learning and re-accreditation process); support the aggregation of data sets (e.g. National Livestock Identification System); and support improved data exchange and engagement with end customers and trading partners. Of equal importance is the building of industry capability to adopt sophisticated digital technologies.

» ENHANCED TRACEABILITY AND INTEGRITY SYSTEMS

For years, Australian red meat has been marketed as clean, safe and natural, underpinned by its disease-free status and advanced food safety and integrity systems. As our competitors build their own capabilities to deliver a similar product claim, it is essential to enhance our systems and technologies to keep ahead of our competitors and maintain our point of difference. Raising the bar of our integrity systems also helps Australia capture price premiums from discerning consumers and customers willing to pay more for higher levels of product assurance.



» SUPPLY CHAIN LOGISTICS



THE 2017-18 PROGRAM OF WORK INCLUDES:

engaging innovation providers in the logistics sector; and piloting at least one transport logistics optimisation solution for live animal road transport.

| PROGRAM DESCRIPTION | 2017-18 CONTRIBUTION TOWARDS 2020 KPIS | 2017-18 BUDGET (\$ '000) |
|---|---|--------------------------|
| Decision making tools Initiatives to improve decisions and actions to enhance supply chain logistics and measure impact | <ul style="list-style-type: none"> » locate and evaluate innovative providers (both domestically and internationally) » at least one partnership established to develop and pilot a methodology to test in a red meat value chain | 322 |
| Logistics business models Investigate new infrastructure and business model(s) based on the exchange of supply chain information to underpin Intelligent Transport Systems (ITS) technology | <ul style="list-style-type: none"> » seek out and secure partnerships to deliver ITS to the red meat industry | 254 |
| Total MDC investment | | 576 |

» OBJECTIVE MEASUREMENT



THE 2017-18 PROGRAM OF WORK INCLUDES:

leveraging previous investments by MDC in the area of processing automation to upgrade measurement systems to evolve them into objective measurement solutions (i.e. SEXA to DEXA upgrades); in-situ demonstration and evaluation to industry of evolving solutions, specifically focused on how best to package and present outputs from objective measurement systems along the value chain; and connecting with global solution providers to source ideas that enable MLA's Value Chain Objective Measurement Strategy.

| PROGRAM DESCRIPTION | 2017-18 CONTRIBUTION TOWARDS 2020 KPIS | 2017-18 BUDGET (\$ '000) |
|---|--|--------------------------|
| Objective measurement tools and technologies The identification, development, commercialisation and adoption of tools and technologies that can be applied to live animals or carcasses to measure traits which describe the value of carcasses | <ul style="list-style-type: none"> » contribution to MLA KPI: Rural R&D for Profit programme for Advanced Livestock Measurement Technology (ALMTech) project successfully delivered and reporting accepted by the Australian Government » DEXA output of carcass lean meat yield delivered in producer feedback from three lamb and three beef abattoirs | 6,959 |
| Eating quality tools and technologies Investigate packaging options that improve eating quality, as well as better understanding the consumer acceptance of red meat from interactions between pH, meat colour and packaging | <ul style="list-style-type: none"> » identify potential objective measurement opportunities/metrics for determining tenderness and aging 'in-pack' » investigate the relationship between cut, cook method and modified atmosphere packaging to inform knowledge around MSA pathway for retail ready packaging | 231 |
| Total MDC investment | | 7,190 |



» DIGITAL VALUE CHAIN



THE 2017-18 PROGRAM OF WORK INCLUDES:

engaging industry stakeholders in the development of the digital strategy via a design-led innovation approach; connecting with the global AgTech community to source ideas aligned to the digital strategy; instigating global 'digital challenges' to source solutions to industry priorities; and attracting new digital entrepreneurs and start-ups to work in the Australian red meat industry.

| PROGRAM DESCRIPTION | 2017-18 CONTRIBUTION TOWARDS 2020 KPIS | 2017-18 BUDGET (\$ '000) |
|--|--|--------------------------|
| Digital tools and technologies Facilitate the development and adoption of information exchange systems and tools to inform decisions throughout the supply chain | <ul style="list-style-type: none"> » deliver at least one producer facing digital farm management tool » three value chains trialling an integrated information system » integrated industry information platform agreed and being implemented » methodology developed and tested on one beef and one lamb value chain | 2,312 |
| Total MDC investment | | 2,312 |

» ENHANCED TRACEABILITY AND INTEGRITY SYSTEMS



THE 2017-18 PROGRAM OF WORK INCLUDES:

sourcing innovative solutions for animal identification, in-market traceability and food safety technologies and systems; and working directly with industry partners to adapt and adopt technologies (e.g. eNVD) to enhance red meat and livestock integrity through the supply chain.

| PROGRAM DESCRIPTION | 2017-18 CONTRIBUTION TOWARDS 2020 KPIS | 2017-18 BUDGET (\$ '000) |
|---|--|--------------------------|
| Market access science and technology <ul style="list-style-type: none"> » determining appropriate post-mortem inspection procedures » investigating new technology for safe products | <ul style="list-style-type: none"> » maintaining a high level of satisfaction (above 85%) by industry and government stakeholders with MLA's contribution to reducing impact of non-tariff (technical) barriers » risk management options for Australian product are assessed | 795 |
| Integrity systems and technologies <ul style="list-style-type: none"> » identify next horizon product and system integrity attributes and new technologies that address customer and consumer assurance issues » adopting and supporting through chain integrity technologies | <ul style="list-style-type: none"> » pilots commenced for new animal identification and traceability technologies » integrity system communication, education and training strategy endorsed by industry to support compliance objective of livestock consignments accompanied by an eNVD to increase to 15% | 334 |
| Total MDC investment | | 1,129 |



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, lotfeeders, 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.

MDC partnerships will continue to make a significant contribution in this area, building on the MDC-funded processing automation strategy and strategic partnerships with global technology providers implemented over the past 10 years. This has seen the development and commercial uptake of world leading lamb boning and slaughter automation and the early development of beef automation technologies. MDC will also continue to co-invest in key livestock genetics initiatives via a substantial contribution to the National Livestock Genetics Consortium. New areas of co-investment will focus on automation on-farm and the development and introduction of a range of precision agriculture technologies. An initial review of global trends in investment in AgTech suggest an important role for the MDC H+E Connect platform in attracting entrepreneurs and start-ups from the US, NZ and Israel to our industry.

2016-2020 OUTCOME

Productivity gains through the value chain from the adoption of tools and technologies.

MDC PRIORITIES

» FARM AND FEEDLOT PRODUCTIVITY

For producers and lotfeeders to remain competitive and sustainable in the long-term, research, development and adoption programs need to deliver outcomes that improve their financial bottom line. This priority is focused on providing options to improve the efficiency of their operations through programs including feedbase, reproduction, animal nutrition, compliance to market specifications and feed efficiency.

This involves a range of activities leading to economic benefits derived from improved management of feed resources, growth efficiency, market specifications, reproduction and business enterprises. Projects have the potential to tackle significant issues in the industry in the long term and remove some traditional productivity limits. Technological aids and solutions that improve farm profitability will be incorporated. This activity is aligned with MLA investments through improved business skills and research.

» PRECISION AGRICULTURE

Precision agriculture is a fast developing field and is anticipated to grow into a multi-billion dollar industry in Australia. Benefits for producers will include more efficient management of animals, better matching to market specifications, opportunities for assurance (e.g. in welfare and environment), reduced labour inputs and increased safety on-farm. The devices and practices will collect digital data and build digital resources including big data analytics. A major outcome will be to underpin decision making on-farm, including how producers optimise benefits across the value chain. Some aspects of precision agriculture will migrate from other agricultural industries, while others will be specifically developed to work across the vast areas of Australia. Technology partners will range from large global providers to smaller innovators and AgTech entrepreneurs.

» LIVESTOCK GENETICS

Investment in genetics and genomics aims to double the rate of genetic gain in Australia's red meat livestock industry by 2022. The National Livestock Genetics Consortium (NLGC) was developed as a vehicle to increase collaboration, transparency, communication and investment in livestock genetics research, development and adoption in Australia. MDC investment will accelerate the development and adoption of beef and sheep genetic and genomic technologies. This will be achieved through investment in disruptive technologies, culture change through improved adoption, open data platforms and world leading research and development. The NLGC is governed by a skills-based taskforce that will review and recommend projects for funding. All projects relating to genetic and genomic investments presented to the MDC for funding will have been recommended by the NLGC taskforce.

» THROUGH-CHAIN AUTOMATION

Automation and technology ensure Australia's production and processing sectors increase returns through improved efficacy and efficiency.

The outcomes to be achieved by 2020 include x-ray sensing featuring carcass composition and precision cutting lines and the continued uptake of LEAP lamb boning technology.

In addition, investments commenced with industry host sites arising from the collaborative MLA/AMPC Beef Boning Strategy will continue. The program will aim to develop solutions and attract associated technology providers in areas such as: automated beef, sheep, lamb, and goat, processing systems; processing-based enterprise optimisation software (including interconnectivity between measurements and enterprise decision making systems); manufacturing data generation from integrated automation and sensing platforms; whole of value chain tracing and tracking systems; value chain reporting standards, and industry standards on equipment service and support, high reliability protocols; and industry capability building.



» FARM AND FEEDLOT PRODUCTIVITY



THE 2017-18 PROGRAM OF WORK INCLUDES:

expansion of the Northern Beef Business Mentoring Program model regionally and to mixed farm; investigation of feedlot induction automation; and continuing the Pasture Variety Trial Network to industry.

| PROGRAM DESCRIPTION | 2017-18 CONTRIBUTION TOWARDS 2020 KPIS | 2017-18 BUDGET (\$ '000) |
|---|--|--------------------------|
| Beef, sheep, and goat productivity » achieving growth benefits through research and development on ruminant productivity » productivity tools and enablers » commissioning a feedlot induction automation feasibility study » establishing a centre of excellence for feedlot research and development | » rumen manipulation practices and supplementation that contribute to improved rangeland productivity of 0.5% by 2020 » expansion of business mentoring program regionally » feedlot induction automation feasibility study completed, reported to industry, and decision made on progression to commercial implementation » business model for feedlot research and development centre of excellence completed | 3,172 |
| Feedbase productivity Feedbase productivity research and development | » research and development and adoption projects that improve Australian feedbase productivity (e.g. leucaena and medic) » with 8 seed companies, evaluate variety performance of 10 species in 30 trials at 16 locations | 1,450* |
| Total MDC investment | | 4,622 |

*contains external funding of \$197k not eligible for matching via MDC

» PRECISION AGRICULTURE



THE 2017-18 PROGRAM OF WORK INCLUDES:

develop and demonstrate potential of unmanned aerial and ground vehicles; improving traceability and monitoring of animals and estimates of feed availability.

| PROGRAM DESCRIPTION | 2017-18 CONTRIBUTION TOWARDS 2020 KPIS | 2017-18 BUDGET (\$ '000) |
|---|--|--------------------------|
| Improved traceability and monitoring of animals Optimise management through animal location, weight gain, behaviour measurements and events such as calving/lambing | » development and demonstration of digital technologies that improve animal and enterprise management » development and assessment of UAV technologies and data capture for extensive beef production across northern Australia » development and demonstration of unmanned ground vehicles » improve connectivity in rural Australia | 4,356 |
| Tools to improve estimates of feed availability | » nationally, 400 paid standard subscriptions, 10 advanced producer and corporate ag subscriptions for a farm mapping service that can contribute to improved grazing management outcomes in Queensland's reef catchments and other priority grazing regions | 780 |
| Total MDC investment | | 5,136 |



» LIVESTOCK GENETICS



THE 2017-18 PROGRAM OF WORK INCLUDES:

accelerating the development and adoption of genetic and genomic technologies for the northern and southern beef industry and the sheep industry and continuing partnership investments in line with the National Livestock Genetics Consortium (NLGC) investment plan.

| PROGRAM DESCRIPTION | 2017-18 CONTRIBUTION TOWARDS 2020 KPIS | 2017-18 BUDGET (\$ '000) |
|--|--|--------------------------|
| Genetic improvement Improve the rate of genetic progress in the beef cattle and sheep industries | » accelerate the development and adoption of beef and sheep genetic and genomic technologies through investments recommended by the NLGC covering: – genetic improvement delivery technologies – genetic improvement utilisation and adoption – new phenotypes and infrastructure for genetic improvement | 11,092 |
| Total MDC investment | | 11,092 |

» THROUGH-CHAIN AUTOMATION



THE 2017-18 PROGRAM OF WORK INCLUDES:

commencing the first module of beef automation with a processor (aligned to beef boning automation strategy); and initiating the first stage of an integrated lamb automation system with a major processor incorporating producer feedback

| PROGRAM DESCRIPTION | 2017-18 CONTRIBUTION TOWARDS 2020 KPIS | 2017-18 BUDGET (\$ '000) |
|--|--|--------------------------|
| Productivity and logistics (off-farm) » developing the beef and lamb boning automation program » engaging with global solution providers » commissioning other key activities including supply chain logistics projects such as pack-out and load-out automation | » 80% of the expected outcomes from productivity and logistics investments are achieved, including: – contract first beef boning sensing & automation module development – production demonstration of lamb LEAP V forequarter processing – additional lamb middle processing modules trialed – prototype demonstration of lamb LEAP II hindquarter processing – first automated primal pick and pack plant demonstration – first automated carton handling in-plant demonstration | 7,888 |
| Productivity and logistics tools and enablers (off-farm) » developing data driven support tools » conducting ongoing cost benefit analyses on key technologies and programs » in-plant traceability systems » evaluating augmented vision technologies | » productivity benefit of technologies adopted in 2017-18 and previous years deliver impact of \$30m per annum | 844 |
| Total MDC investment | | 8,732 |



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.

MDC makes a key contribution in this pillar via the engagement of industry participants in a range of capability building initiatives that accelerate innovation adoption, increase the level of industry investment in innovation, and facilitate cultural change. More specifically, MDC programs in this area:

- » Create a clear and compelling platform for industry transformation, via facilitating the adoption of major innovation initiatives by a critical mass of key opinion leaders. For example, whole-of-chain automation, value chain digital strategy and the transformation of the industry from a commodity supplier to purveyor of premium and high value products.
- » Expand the footprint and impact of MLA's *Strategic Plan 2016-2020* and fast-track the delivery of outcomes.
- » Create the opportunity for MLA to move into more disruptive 2025-2030 innovation opportunities with a level of industry engagement that underpins our thought leadership position and provides a 'licence to operate'.

2016-2020 OUTCOME

Industry participants are agile, ready to face challenges and capture opportunities in the future.

MDC PRIORITIES

» MDC CO-INNOVATION PROGRAM



MDC's 'Next Generation' Co-innovation Program supports leading Australian red meat value chains to fast-track their innovation and growth strategies. The program's integrated suite of modules are customised to match the specific business and innovation goals of participating enterprises and their value chains. MDC will continue to support partners with a range of services and co-investment initiatives. Any enterprise from within an Australian red meat and livestock value chain is eligible to participate, with the focus being on whole-of-chain innovation.

» PRODUCER INNOVATION FAST-TRACK

Launched in 2016-17 as an evolving 12-month pilot program, Producer Innovation Fast-Track provides a direct mechanism for producer levy payers to drive the innovation agenda and secure partial funding for high priority initiatives that they have identified as providing benefit to their businesses (and ultimately the broader industry). The Fast-Track program will provide the expertise, co-funding and support to producers who are actively seeking to: adopt new innovations to improve on-farm performance; utilise insights and innovations that lead to new products, brands and value chains; or develop and launch new business ventures in the AgTech space.

» FOOD VALUE CHAIN INNOVATORS

The Young Food Innovators program is a sub-project within the MLA-led Insights2Innovation project, part of the Rural R&D for Profit programme. It is designed to assist the red meat, horticulture, seafood, dairy and pork industries attract, develop and retain new talent. The specific aim is to attract well-qualified young professionals from diverse backgrounds to the industry, and assist them to develop whole-of-chain (plate to paddock) strategic value chain thinking and capability. A key objective is to equip them with the skills to work within value chains that are seeking to innovate and grow high value opportunities in both domestic and export markets.

» RURAL PROFESSIONALS

MDC recognises that investing in the development of young people is crucial to building and retaining a skilled and capable future workforce. This priority addresses many of the recommendations of the *MLA Education Pipeline Review*, which concluded that without an adequate supply of extension professionals, MLA and the broader industry will not be able to meet the objectives of the *Meat Industry Strategic Plan 2020*. The Future Livestock Consulting Internship program is a partnership between MDC and consulting firms designed to ensure the continuation of new consultants to the industry, by underpinning the cost of taking on entry level employees. In 2017-18, the second cohort of the program will undertake their two-year internships. In addition, opportunities will be considered for the deployment of the round 1 graduates into initiatives that will support MLA's objective to increase producer adoption of innovation, for example involvement in the delivery of Producer Innovation Fast-Track. It is anticipated that this will require additional development of these consultants in areas including design-led innovation and value chain design.

» DIGITAL VALUE CHAIN OFFICERS

This initiative assists companies within the red meat value chain 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 resulting impact is a structured approach to engaging the value chain and remaining at the forefront of the global digital agriculture revolution. MDC will co-fund these officers within value chains that are willing to commit to ensuring their enterprise is ready for digital agriculture by developing an enterprise digital implementation plan.



» MDC CO-INNOVATION PROGRAM



THE 2017-18 PROGRAM OF WORK INCLUDES:

developing and launching 17 modules within this new program.

| PROGRAM DESCRIPTION | 2017-18 CONTRIBUTION TOWARDS 2020 KPIS | 2017-18 BUDGET (\$ '000) |
|--|---|--------------------------|
| Evolution of Collaborative Innovation Strategies Program (CISP) to the new MDC Co-innovation Program | <ul style="list-style-type: none"> » all CISP partners successfully transition to the MDC Co-innovation Program » at least five new co-innovation industry partners are engaged | 4,942 |
| Total MDC investment | | 4,942 |



» PRODUCER INNOVATION FAST-TRACK

THE 2017-18 PROGRAM OF WORK INCLUDES:

implementing the pilot of this new program with participating producers.

| PROGRAM DESCRIPTION | 2017-18 CONTRIBUTION TOWARDS 2020 KPIS | 2017-18 BUDGET (\$ '000) |
|--|---|--------------------------|
| Co-investment and innovation support program for producers seeking to: <ul style="list-style-type: none"> » optimise farm performance via innovation adoption » engage directly in markets and value chains » develop new entrepreneurial AgTech ventures | <ul style="list-style-type: none"> » program is fully subscribed » more than 80% of participants express satisfaction with the program benefits | 3,000 |
| Total MDC investment | | 3,000 |



» FOOD VALUE CHAIN INNOVATORS



THE 2017-18 PROGRAM OF WORK INCLUDES:

continuing the implementation of the two-year cross-sectoral Young Food Innovators program with 12 participants; and designing and launching the second round focused on engaging young producers in the program.

| PROGRAM DESCRIPTION | 2017-18 CONTRIBUTION TOWARDS 2020 KPIS | 2017-18 BUDGET (\$ '000) |
|---|--|--------------------------|
| Young Food Innovator program – producer cohort <ul style="list-style-type: none"> » complete the design and delivery of round one program » develop and deliver round two of the program focused on young producers | <ul style="list-style-type: none"> » recruitment of 8-12 young producers into the Young Food Innovators program » evaluation completed and benefits to participants and companies quantified | 616 |
| Total MDC investment | | 616 |



» RURAL PROFESSIONALS

THE 2017-18 PROGRAM OF WORK INCLUDES:

delivery of round 2 of the Livestock Consulting Internship program; evaluation completed for round 1 of the program; exploring opportunities for the deployment of graduating interns from round 1 into initiatives that will support MLA's objectives to increase producer adoption of innovation.

| PROGRAM DESCRIPTION | 2017-18 CONTRIBUTION TOWARDS 2020 KPIS | 2017-18 BUDGET (\$ '000) |
|---|---|--------------------------|
| Livestock Consulting Internship program | <ul style="list-style-type: none"> » recruitment of 10 interns into round 2 of the program » partnerships with 10 consulting businesses as intern employers » evaluation report completed for round 1, including economic evaluation and benefits to participants and consulting businesses quantified | 1,734 |
| Total MDC investment | | 1,734 |



» DIGITAL VALUE CHAIN OFFICERS

THE 2017-18 PROGRAM OF WORK INCLUDES:

identifying potential opportunities to create value along the entire value chain in areas such as: growing the volume and quality of beef, lamb and goat meat; developing better relationships through reliable feedback across the value chain; exposure to the latest research in digital technology and process changes; tapping into the value of evolving measurement systems and automated production, processing and retail consumer systems; and building R&D capacity within the business.

| PROGRAM DESCRIPTION | 2017-18 CONTRIBUTION TOWARDS 2020 KPIS | 2017-18 BUDGET (\$ '000) |
|--|---|--------------------------|
| Co-investment program for value chain partners seeking to build capability in digital innovation | » implement a program for a Digital Value Chain Officer with three partners | 308 |
| Total MDC investment | | 308 |



PILLAR

6



STAKEHOLDER ENGAGEMENT



THE SUCCESSFUL DELIVERY OF BOTH THE MLA AND MDC STRATEGIC PLANS 2016-20 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 MDC. Genuine two-way consultation and collaboration will provide mutual benefit in the delivery of MDC's innovation services to industry. This pillar also includes the delivery of MDC's corporate reporting responsibilities within a culture of continuous improvement.

MDC's contribution to the outcome of this pillar is to:

- » attract voluntary investment partners to the industry
- » clearly articulate how MDC investments are complementary to, and align with, other MLA investments
- » deliver research, development and adoption outcomes for the Australian red meat industry
- » maintain strong collaboration with Government.

2016-2020 OUTCOME

An increased understanding of the MLA Donor Company, and its role in accelerating innovation, amongst the Australian red meat industry and other stakeholders.

MDC PRIORITIES

» ENGAGEMENT WITH PRODUCERS AND STAKEHOLDERS

MDC has already implemented an active communications plan which includes the development of a range of educational and promotional materials including:

- » industry case studies
- » media releases
- » program brochures
- » final reports
- » evaluation series
- » articles in *Feedback*.

We have also improved MDC's presence on the MLA website: mla.com.au/mdc.

However, as was noted in the MLA/MDC Performance Review, there is a need to increase efforts to ensure that MLA/ MDC stakeholders are aware of MDC initiatives; the benefits to industry derived from MDC projects; and the opportunities for all industry participants to actively engage in MDC activities.

In addition, as the footprint of MDC continues to play a more significant role in the delivery of MLA's Strategic Plan, it will be important to develop and execute a more sophisticated MDC marketing and communications plan.



» **ENGAGEMENT WITH PRODUCERS AND STAKEHOLDERS**

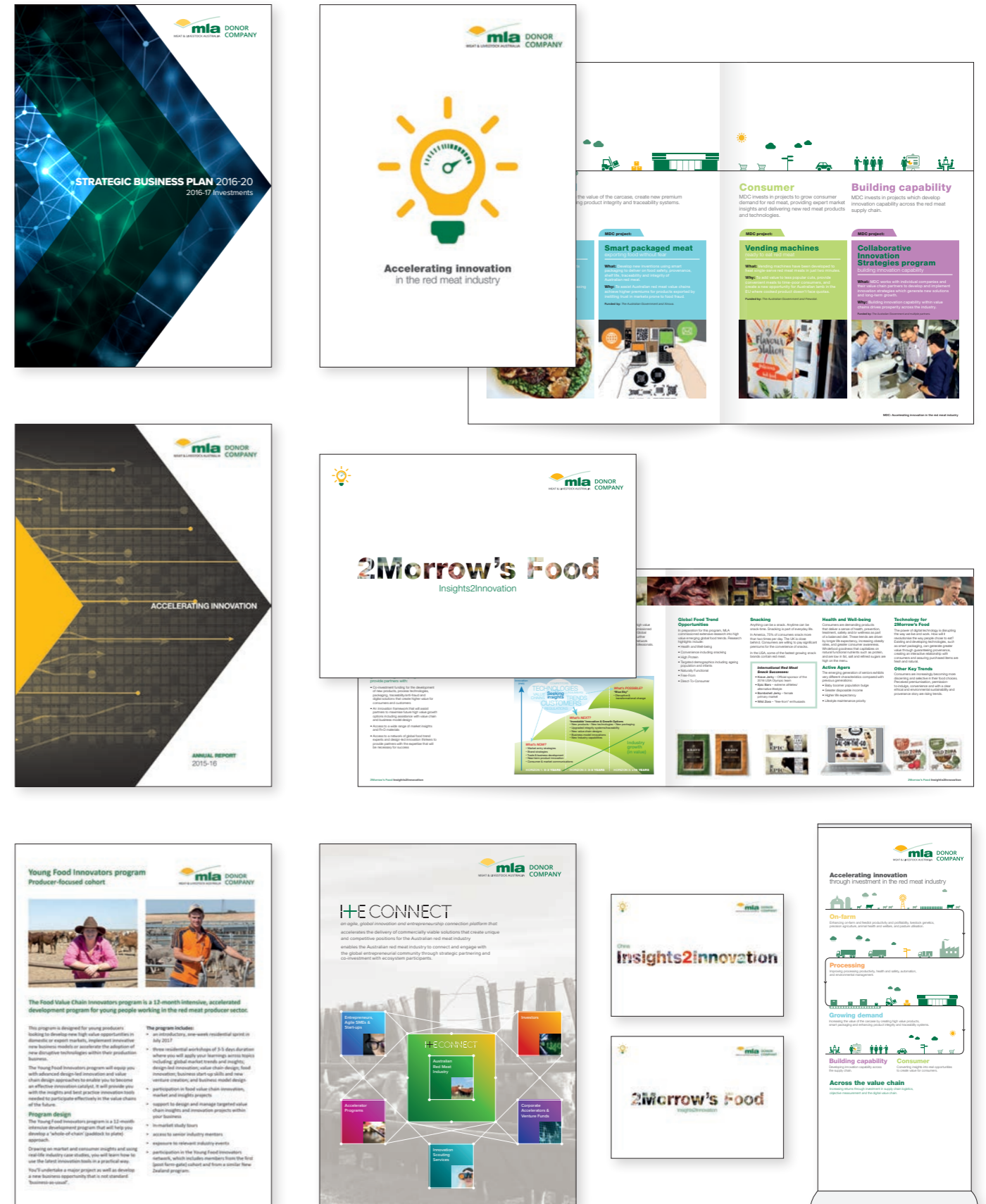


THE 2017-18 PROGRAM OF WORK INCLUDES:

producing the annual MDC Strategic Business Plan; developing MDC communications materials for prospective partners and new MDC program investment areas; developing a global presence through an upgraded digital platform and releasing multimedia versions of outcomes from existing MDC programs.

| PROGRAM DESCRIPTION | 2017-18 CONTRIBUTION TOWARDS 2020 KPIS | 2017-18 BUDGET (\$ '000) |
|---|---|--------------------------|
| <p>Stakeholder engagement</p> <p>Marketing and communications activities being undertaken in 2017-18 will focus on continuing to:</p> <ul style="list-style-type: none"> » build stakeholder awareness of both existing and new MDC initiatives » actively encourage stakeholder participation in MDC initiatives » deliver enhanced reporting including streamlined access to final reports and a clear articulation and demonstration of the benefits of MDC activities to the whole industry | <ul style="list-style-type: none"> » increased understanding of MLA Donor Company and programs as measured via MLA producer survey and MDC conducted surveys » 5,000 unique visits to MDC pages on the MLA website » 50+ presentations and/or speaking engagements delivered » increase in media coverage and promotion of key messages through media » improved presence on MDC website » 4+ features in <i>Feedback</i> magazine » improved government satisfaction with level of transparency and communication regarding MLA Donor Company | 123 |
| Total MDC investment | | 123 |

In 2017-18, MDC will continue to build stakeholder awareness of both existing and new MDC initiatives as well as actively encourage stakeholder participation in these initiatives.



I+E CONNECT



THE PRESSURE FOR ALL INDUSTRIES TO BECOME MORE AGILE TO DEAL WITH INCREASED MARKET VOLATILITY AND COMPLEXITY HAS SEEN A GLOBAL SHIFT TOWARDS INNOVATION, ENTREPRENEURSHIP AND THE ADOPTION OF DISRUPTIVE IDEAS AND TECHNOLOGIES.

To support the Australian red meat industry in making this important transition, MDC has developed I+E Connect.

A globally networked innovation and entrepreneurship platform, I+E Connect enables the Australian red meat industry to connect and engage with the global entrepreneurial community through strategic partnering and co-investment with a wide range of ecosystem participants. The reach of the I+E Connect platform is expected to include Australia, New Zealand, North America, Israel, Asia, and Europe. The design of I+E Connect has been tested and validated in the majority of these markets with strong interest to participate from numerous potential partners.

I+E Connect will accelerate the identification and development of new and disruptive ideas, and create

commercially viable solutions that will underpin a long-term sustainable competitive position for our industry.

The platform will enable MDC to tap into new forms of investment including from angel investors, venture capital and private equity funds; develop new partnerships within the global AgTech, FoodTech and Food Innovation accelerator and incubator community; and attract new entrepreneurs and start-ups to our industry.

I+E Connect will deliver transformational change and help future proof our industry by:

- » attracting and supporting entrepreneurs, agile SMEs and start-ups to develop and commercialise new and disruptive ideas
- » creating a 'landing pad' for global entrepreneurs and investors wanting to work with our industry
- » articulating industry pain points and identifying investable opportunities
- » providing industry expertise, insight and co-investment funding to support new ventures
- » connecting investors with exciting, qualified opportunities
- » helping our industry partners become more agile by building their capability to disrupt and fast-track innovation through connections with the global start-up ecosystem.



I+E CONNECT OFFERINGS AND PROGRAM OF WORK



Fast-track the generation and attraction of ‘big ideas’ by increasing visibility of our industry to global players.

- » establish strategic partnerships through which we can identify global innovations with applications relevant to our industry
- » effectively communicate industry pain points and opportunities to attract ideas ‘in’ from diverse sources
- » validate the viability of new ventures via access to a global network of expertise
- » gain access to the best data sources regarding the rapidly growing world of AgTech, FoodTech and Food Innovation
- » become a magnet for global entrepreneurs in AgTech and FoodTech, and Food Innovation disruptors to encourage them to bring new ideas to our industry.



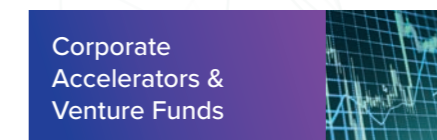
Develop and implement accelerator and incubator services for MLA, industry partners, providers, entrepreneurs and start-ups.

- » continue to develop and leverage global strategic partnerships with accelerators and incubators
- » engage users (particularly producers) in solution design
- » mobilise external entrepreneurial teams with industry relevant challenges to accelerate specific innovations within MLA portfolio
- » support the use of best practice tools and methodologies in MLA/ MDC strategy development and implementation including design thinking, sprints, lean start-up, business model canvas and rapid prototyping
- » work with external providers to develop new entrepreneur/new venture support programs customised to the needs of our industry.



Respond to the increasing number of entrepreneurs, start-ups and SMEs approaching MLA with venture concepts and proposals.

- » develop tailored support program for those ventures not suited to existing third party accelerator programs, e.g. where no proprietary technology will be developed or where value offerings will be intrinsic within specific business designs
- » create a ‘landing pad’ for global new ventures that want to work with our industry
- » tailored program for producer-led entrepreneurs and new ventures
- » network of experts to build MDC capability and provide support to sponsored new ventures.



Encourage and support industry partners to become more agile via building relationships with the global start-up ecosystem.

- » increase awareness within the corporate sector of the industry of the opportunities and value in increasing their engagement with entrepreneurs and start-ups
- » co-design and support the development of new industry innovation models that include entrepreneurship
- » co-develop corporate venture and corporate accelerator programs with industry partners to increase their ability to respond to rapid change
- » pilot corporate accelerator/venture activity within industry.



Connecting early stage venture capital, private equity and angel investors with qualified opportunities.

- » develop strategic partnerships with global private equity and VC investment community
- » explore opportunities to create, invest in and influence AgTech and FoodTech venture funds – including partnerships with other sectors
- » explore new ‘slow money’ and ‘impact’ investment models that may be more suited to the agri-food sector
- » support development of and co-invest in new agri-food venture funds that will benefit the red meat industry.

| PROGRAM DESCRIPTION | 2017-18 BENCHMARK KPI OR MILESTONE | 2017-18 BUDGET (\$ '000) |
|-----------------------------|---|--------------------------|
| I+E Connect platform | <ul style="list-style-type: none"> » attract new co-investment partners (funds and corporates) and establish strategic partnerships through which we can identify global innovations with applications relevant to our industry » attract 15+ global and local entrepreneurs in AgTech, FoodTech and Food Innovation to encourage them to bring new ideas to our industry » establish global knowledge network and digital portal to attract and connect ecosystem participants » develop metrics to assess direct benefit/impact on industry » demonstrate ongoing program support from Government and industry | 9,000 |
| Total MDC investment | | 9,000 |

*I+E Connect investments have been apportioned across the relevant priorities as noted in the Investment Summary on page 6

CORPORATE GOVERNANCE FRAMEWORK

MDC OPERATES UNDER MLA'S CORPORATE GOVERNANCE FRAMEWORK WHICH IS SET BY THE BOARD, HAVING REGARD TO THE BEST INTERESTS OF MLA'S MEMBERS, THE VALUES OF THE ORGANISATION, MLA'S OBLIGATIONS SET OUT UNDER ITS STATUTORY FUNDING AGREEMENT WITH THE COMMONWEALTH OF AUSTRALIA (DEED) AND IN ACCORDANCE WITH THE ASX CORPORATE GOVERNANCE COUNCIL'S CORPORATE GOVERNANCE PRINCIPLES AND RECOMMENDATIONS (3RD EDITION).

This long-established framework has been implemented to ensure MLA remains accountable to its stakeholders, and stakeholder interests are protected. MLA's governance arrangements are reviewed regularly to reflect industry developments, stakeholder expectations, and regulatory and legislative changes.

STRATEGY AND PRIORITY SETTING

MDC follows the MLA Annual Investment Plan (AIP) and all investments align to MLA key milestones and major initiatives. The MDC Board approves an MDC AIP that outlines targeted focus areas of investment. The budgets developed for MDC are indicative values in portfolio focus areas. They are subject to periodic review as the nature of the MDC co-investment mechanism means that if the partners do not invest in certain focus areas, MDC cannot invest in those areas.

PROGRAM AND PROJECT APPROVALS

MDC operates under the MLA Project Governance Framework for all program and project approvals with the MDC Board approving programs of work over \$5 million, individual projects over \$1 million where not part of an approved program and the MLA Leadership Team approving all other projects.

To manage the MDC 'pipeline' and to inform new project approvals, the MDC Board determines the preferred portfolio balance including a maximum allocation of funds for specific program initiatives where considered appropriate. Program managers are required to submit program strategy papers as determined by the Board.

MDC and Australian Meat Processor Corporation (AMPC) have developed and implemented at an operational level a joint process to approve Plant Initiated Projects (PIPs) as follows:

- » AMPC and MDC have merged the project review and approval process for both organisations in order to streamline and address governance concerns in a united way
- » budget meetings are merged and reporting is streamlined in order to improve timeliness and effectiveness of progress reporting, and to meet MLA and AMPC governance requirements
- » the program embraces a single process in order to eliminate any disparity between AMPC and MDC applications. This has simplified the application and review process for processors applying to the program.

MEASUREMENT AND EVALUATION

MDC INVESTMENTS ARE EVALUATED WITHIN AN OVERALL 'PATH TO IMPACT' MEASUREMENT AND EVALUATION FRAMEWORK. THIS IS BASED AROUND THE INPUT-OUTPUT-OUTCOME-IMPACT LOGIC MODEL, WHICH IS GENERALLY CONSIDERED TO BE BEST PRACTICE FOR IMPACT ASSESSMENT AND DELIVERY.

This model is focused on the delivery of outputs (or products) that have attributable outcomes (via adoption) and generate impact.

Outcomes and impacts relating to MDC investments are measured via a variety of approaches, including ex ante (forecast) and ex post (actual) independent cost/benefit analyses. While impact measurement is primarily focused on productivity and demand creation benefits within the Australian red meat industry, triple bottom line benefits are also considered both at an individual product, product group and pillar/priority level.

In some cases, both MLA levies as well as MDC investments (inputs) have contributed to delivering outcomes and impacts. MDC based inputs are clearly identified in the evaluation process and hence the contribution of the MDC to broader industry impacts can be assessed using a variety of tools such as partial and general equilibrium economic modelling.



“ALL MDC CONTRACTS ARE SUBJECT TO A RIGOROUS COST/BENEFIT ANALYSIS AND EVALUATION PROCESS. THIS IS FOLLOWED BY FURTHER IMPACT/ BENEFIT ANALYSES AT REGULAR INTERVALS DURING THE LIFE OF THE RESEARCH AND DEVELOPMENT PHASE OF THE PROJECT, AND THROUGH THE SUBSEQUENT INDUSTRY ADOPTION AND COMMERCIALISATION STAGES.”

Dr Christine Pitt
MDC Chief Executive Officer

KEY PERFORMANCE INDICATORS 2020

MDC activity contributes towards the achievement of the MLA *Strategic Plan 2016-2020*. The following key performance indicators outlined below will be used to measure the contribution of MDC investments to the outcomes of the MLA Strategic Plan.

| PILLAR | PRIORITY | KEY PERFORMANCE INDICATOR | MEASURE/UNITS | BENCHMARK (2015-16) | 2019-20 |
|--|--|--|--|---|-------------------------------------|
| 1. Consumer and community support | Continuous improvement of the welfare of animals in our care | Restrict % consumers limiting red meat due to animal welfare concerns to 10% | % of annual survey respondents | 7% | 10% |
| | | Four new products including vaccines, diagnostic tests and tools to reduce the cost and welfare impact of endemic and emergency disease in Australia | tool, diagnostic or vaccine developed | n.a. | one new tool, diagnostic or vaccine |
| | Stewardship of environmental resources | Restrict % consumers limiting red meat due to environmental concerns to 10% | % of annual survey respondents | 7% | 10% |
| | | Reduce cost of feral animals and weeds by \$50m | dollars/impact assessment | \$2.5b | -\$50m |
| 2. Market growth and diversification | Efficiency and value in trade and market access | Achieve \$15m in new market opportunities | dollars/impact assessment | | \$15m |
| | | Deliver \$150m in new export market opportunities' KPI to go with 'Efficiency and value in trade and market access' priority. | dollars/impact assessment | | \$150m |
| | Marketing and promoting Australian red meat and livestock | Increase percentage of global consumers who prefer Australian red meat | % annual survey respondents (weighted index) – beef | 22.2% | 23.4% |
| | | | % annual survey respondents (weighted index) – lamb | 20.4% | 21.4% |
| | | Increase percentage of domestic main grocery buyers willing to pay a premium for Australian red meat | % annual survey respondents – beef | 19% | 22% |
| | | | % annual survey respondents – lamb | 21% | 23.5% |
| 3. Supply chain efficiency and integrity | Optimising product quality and cost efficiency | Improve the MSA beef eating quality index by 2 points | points/MSA index | 57.61 | 59.61 |
| | | Improve beef compliance through optimising efficiency across the value chain | %, benchmarking report | 93.9% | 95.25% |
| | Guaranteeing product quality and systems integrity | Increase producer awareness and compliance of integrity systems by 20% | annual survey of participants | 75% | 90% |
| 4. Productivity and profitability | Production efficiencies in farms and feedlots | Engage ≥ 2,000 producers in decision support programs who will improve business performance by ≥ 5% | baseline regional benchmarks of productivity/profit and benefit cost ratio measures annual survey of participants | By 2020, improvement in total factor productivity of: 1.75% (southern beef); 0.5% (northern beef); 0.5% (sheepmeat); 1.5% (feedlot); 0.5% (goat) By 2020 improvement in business performance by ≥ 5% | |
| | Processing productivity | Leverage co-investment through the MLA Donor Company (MDC) in the processing automation R&D portfolio by \$10m p.a. | \$, annual co-investment | 0 | \$10m |
| 5. Leadership and collaborative culture | Building leadership capability | Improve stakeholder endorsement of MLA programs by .6 points | score of out 5; annual survey respondents | 2.5 | 3.1 |
| | Protecting and promoting our industry | Improved industry crisis and issues management capability | annual simulation conducted with PICs | 0 | 1 |
| 6. Stakeholder engagement | Engagement with producers and stakeholders | Increase member satisfaction with MLA group by .4points | score out of 5; annual MLA membership survey | 3.5 | 3.9 |
| | | Improve stakeholder endorsement of the value of MLA products and services | annual survey | review current surveys | continuous improvement |

NOTES

NOTES



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