AMPC
AUSTRALIAN MEAT PROCESSOR CORPORATION

ANNUAL OPERATING PLAN 2017–2018

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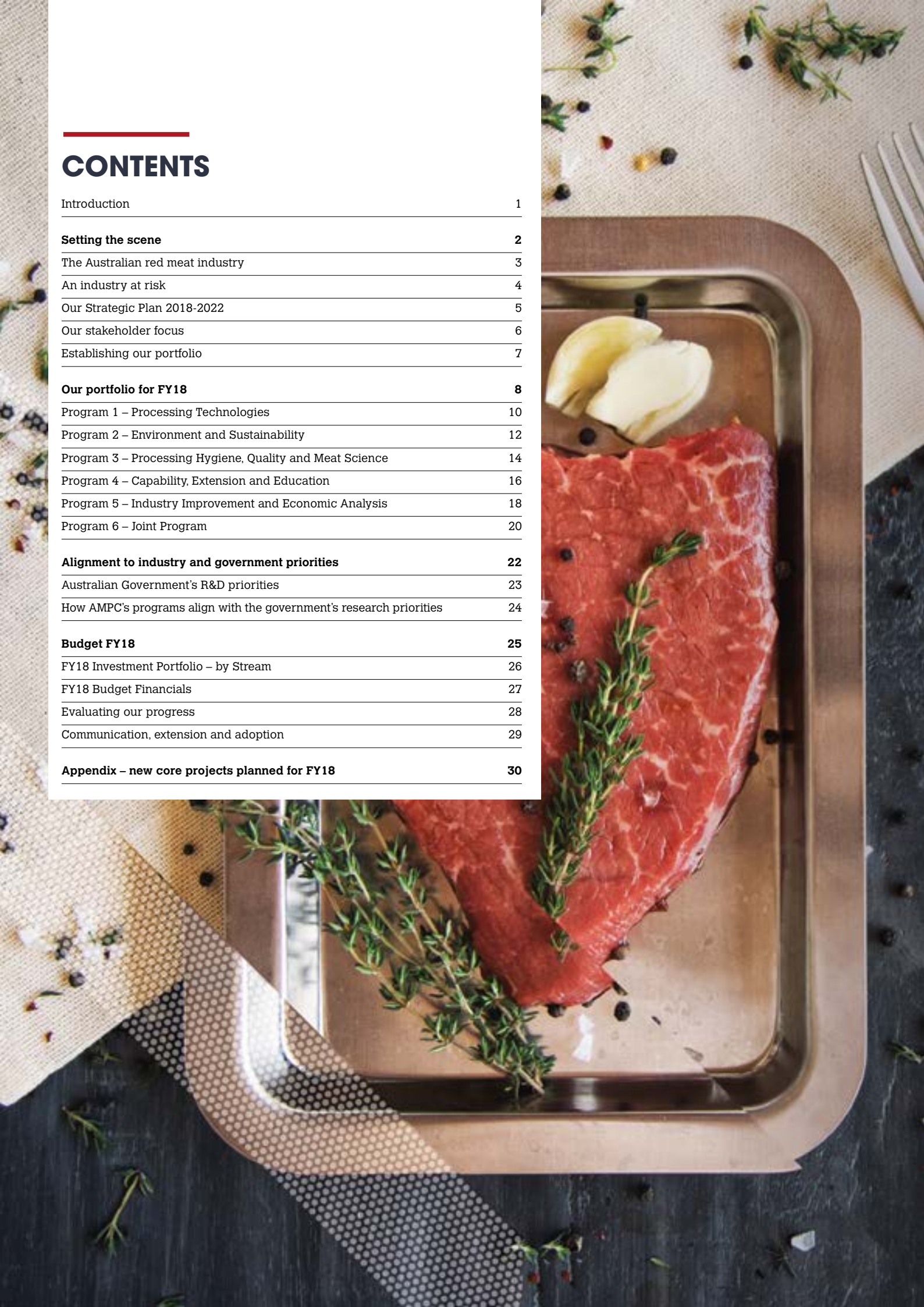


INTRODUCTION

I am thrilled to present an exciting and valuable program of work for FY18, and to lay out our new customer-centric approach to servicing the industry.
– Peter Rizzo, CEO

This Annual Operating Plan provides an overview of the activities AMPC will fund for the financial year 2017-2018, as allocated to each of the organisations' programs.

AMPC's planned activities are guided by our Strategic Plan 2018-2022 and annual Portfolio Development Process (PDP) cycle at which stakeholder consultation is the centre.

This plan is aligned with the Meat Industry Strategic Plan (MISP) 2020, which sets out the overarching priorities for the red meat industry. AMPC's selection of RD&E projects also takes into account other key industry elements such as the Australian Government National Science and Research Priorities, as well as industry trends and strategic risks.

AMPC acknowledges the significant contribution of the Commonwealth in remitting levy funds for the advancement of the Australian red meat processing sector through RD&E and marketing activities.

Our purpose

Enable Australia to build the most sustainable red meat industry

Our mission

To lead industry-level strategy, innovation and capability development for our members, stakeholders and communities

Our vision

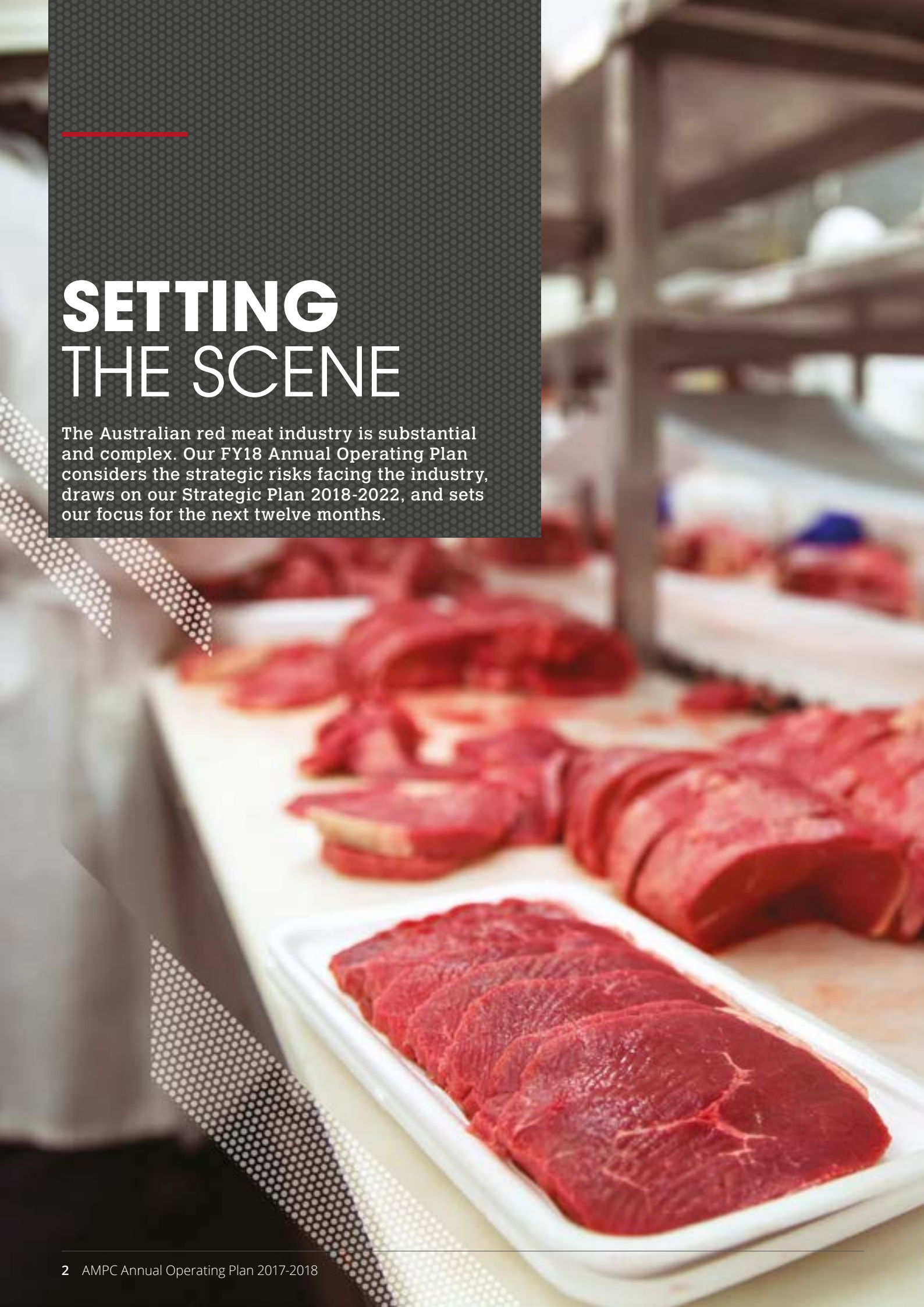
To become a highly regarded, world-class provider of RD&E playing a vital role in influencing and growing the Australian red meat industry

Our values

- Collaboration
- Innovation
- Creativity
- Challenge the status quo
- Continuous improvement

Our strategy

1. Focuses on member needs
2. Diversifies funding sources
3. Develops collaborative networks and relationships with authoritative resources
4. Strategically invests in research, implementation of R&D and marketing initiatives by harnessing the world's best ideas and skills that deliver industry-wide benefits



SETTING THE SCENE

The Australian red meat industry is substantial and complex. Our FY18 Annual Operating Plan considers the strategic risks facing the industry, draws on our Strategic Plan 2018-2022, and sets our focus for the next twelve months.

THE AUSTRALIAN RED MEAT INDUSTRY

Industry Snapshot

Contributes **$23 BILLION** to Australia's GDP per year including flow-on effects

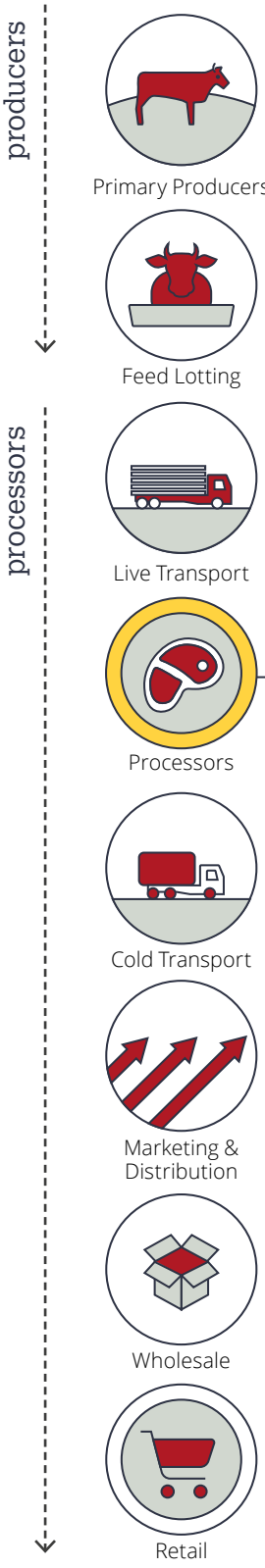
Exports 74% of produce to **86 COUNTRIES**

Meat processing is **AUSTRALIA'S LARGEST** food product manufacturing Industry

Australia is the **WORLD'S 7TH LARGEST** beef producer

Employs **135,000 AUSTRALIANS** including flow-on effects

Exports to the value of **$10.3 BILLION** $9 billion in processed, $1.3 billion in live exports



GENERATE $170,000 PER FTE* compared with an average $152,300 in other industries

EMPLOY 34,000 PEOPLE making them the 2nd largest employer by sector

AMONG THE WORLD'S LARGEST EXPORTERS OF BEEF comprising the largest trade-exposed manufacturing industry in Australia

* Full Time Equivalent (FTE) employment

The red meat processing sector is a significant contributor to the supply chain and the greater economy. Our purpose is to ensure the long-term sustainability of the sector for the benefit of all stakeholders.

AN INDUSTRY AT RISK

Key Material Issues

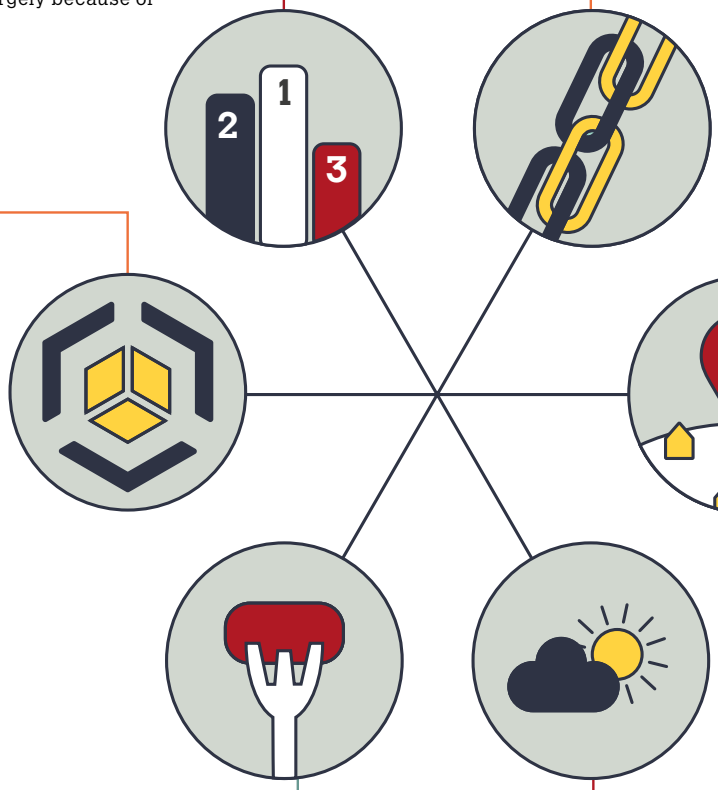
In FY17 we conducted research into the strategic risks facing the Australian red meat industry. Six key risks were identified, each critical to the sustainability of the industry. Each program detailed in this Annual Operating Plan aims at mitigating these risks through R&D and Marketing activities.

INTERNATIONAL COMPETITION

While Australia currently exports more than its peers on a relative basis, the industry faces substantial competitive pressures both domestically and internationally. Domestically, the sector competes with exporters of live animals. Internationally, it competes primarily with Brazil, the US and India for export markets. It is estimated that this competition will increase over the next five years, largely because of cost disadvantages.

VALUE CHAIN INTEGRATION

Australia's red meat sector operates at a competitive disadvantage to those other red meat industries with greater levels of integration. Not only does greater integration reduce economic costs in the sector, it also allows for more sharing of information, better economies of scale, effective marketing and an ability to respond to customer demands.



SOCIAL LICENCE TO OPERATE

The Australian red meat industry's social licence to operate is derived from the regional communities in which it operates. The confluence of factors around animal welfare, environmental impact and healthy diets will likely place the industry's social licence to operate under a higher degree of uncertainty.

REGULATORY ENVIRONMENT

The industry's value chain is highly fragmented. As a result, it is not well positioned to respond to an increasingly uncertain regulatory environment where changes can occur rapidly, and without industry consultation. Ensuring effective advocacy to avoid unnecessary and burdensome regulation typically requires a high degree of alignment.

CHANGING CONSUMPTION PATTERNS

With an increased focus on 'healthy' and 'humane' consumption and greater demand for convenience foods, eating patterns in developed nations are undergoing substantial change. During the past three decades, consumers have turned away from red meat, opting rather for chicken and pork. Moreover, while red meat has been traditionally known for its quality and nutritional value, consumers are increasingly turning to substitutes that are both cheaper and easier to produce.

CLIMATE CHANGE

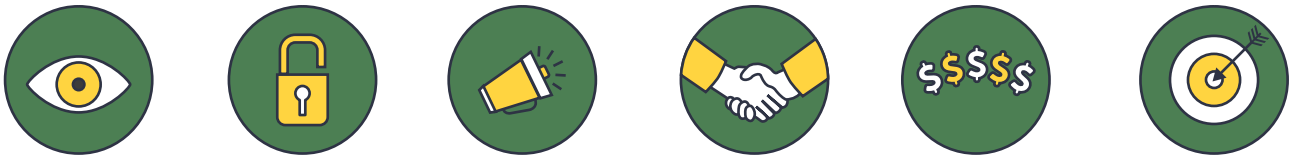
Australia is facing a changing natural environment with increasing incidences of 'extreme' weather events and changing weather patterns that directly impact the industry. The increasing rate and severity of 'extreme' climatic events may pose ongoing and regular disruptions to Australian production.

OUR STRATEGIC PLAN 2018-2022

Addressing Industry Risks

Our Strategic Plan 2018-2022 centres around six strategic themes that are a response to the strategic risks facing the industry, and the research priorities of both industry and the government. AMPC's Strategic Plan 2018-2022 draws on the Meat Industry Strategic Plan (MISP), strategic risks, industry trends and other inputs to deliver a structured plan for our activities.
The strategic themes and initiatives detailed below influence and drive the programs within this Annual Operating Plan.

Strategic Themes



SHAPE THE FUTURE OF THE INDUSTRY	UNLOCK MARKETS	PROTECT AND PROMOTE THE INDUSTRY	BUILD ENDURING INDUSTRY RELATIONSHIPS	DIVERSIFY FUNDING SOURCES	STRENGTHEN CAPABILITIES TO BECOME A WORLD-CLASS R&D ORGANISATION
Play a pivotal role in creating and sustaining an innovation driven red meat industry for the benefit of all stakeholders and the community	Address opportunities and risks both domestically and internationally to improve market access	Focus on investments that maintain the industry's social reputation and promote the benefits of red meat products	Enhance working relationships with all industry stakeholders	Explore and develop alternate sources of funding to prevent reliance on the fluctuating levy system	Develop alignment between strategy and service delivery and build a solid foundation of key enablers across people, process and technology

Strategic Initiatives

S1 Optimised Industry Structure **S2** Streamlined Procurement **S3** Industry Best Practices	**U1** Improve Value Chain Competitiveness **U2** Increase Market Access **U3** Reduce Trade Barriers	**P1** Effectively Manage the Reputation of the Red Meat Industry **P2** Improve Productivity of Members and the Broader Red Meat Industry **P3** Improve Wellbeing of Members, the Broader Red Meat Industry and Communities **P4** Reduce Environmental Impact **P5** Enhance Food Marketing and Communications **P6** Industry Promotion	**R1** Strengthen Government and Policy Market Relationships **R2** Grow Network of Leading Service Providers **R3** Support Successful Development of All Members	**F1** Control, Sustain and Enhance Existing Funding Sources **F2** Identify Alternative Sources of Funds	**C1** Align Operational Structures to Long-Term Strategic Objectives **C2** Grow AMPC's Capabilities and Culture **C3** Enhance the Organisation's Performance Management **C4** Raise the Standard of Policies and Procedures **C5** Enable Effective IT Solutions to Support Service Delivery

OUR STAKEHOLDER FOCUS

Although AMPC exists as the red meat processor R&D and marketing body, its stakeholder group is large and diverse. It is vital that we engage all stakeholder groups regularly and effectively.

GOVERNMENTS
State, federal and local governments

MEMBERS
Representatives for over 97% of Australia's red meat processing capacity

PRODUCERS
Farmers

COMMUNITIES
Places where our members operate

INDUSTRY BODIES
AMIC, RMAC, CCA, SCA, GICA, ALFA, ALEC

RESEARCH PARTNERS
Universities and research institutions

SERVICE PROVIDERS
Meat Livestock Australia & LiveCorp

CUSTOMERS
Wholesalers, retailers – major chains and butchers

CONSUMERS
Domestic and international

Service Delivery Model

A key focus for AMPC in FY18 will be the improvement of our service model to our key stakeholders. Our goal is to become customer-centric in our approach.

We are transitioning from a traditional project management model to a relationship management model, where the needs of our stakeholders take centre stage.

SERVICE DELIVERY MODEL

Members	Research & Development	Wider Stakeholders
Processor Levy Payers	Research Partners Collaborators	Industry Bodies Government Other RDCs Producers, Customers, and Consumers Other Stakeholders

Corporate Services

Finance & Accounting
Marketing & Communications
Corporate Governance & Compliance
Project Administration
Information Systems
General Administration
Human Resources

ESTABLISHING OUR PORTFOLIO

Portfolio Development Process

To build our annual project portfolio, AMPC facilitates an industry-wide consultative process known as the Program Portfolio Development Process (PDP). The PDP engages stakeholders through the use of Program Advisory Committees (PACs), and includes the following steps:

1. **Member survey** – identifies high-level interests and concerns of AMPC members
2. **Innovation webinar** – inspires a culture of innovation to permeate the PDP cycle
3. **Ideation day (PAC 1)** – industry brainstorm involving members, providers, MLA, and others
4. **Request for Preliminary Research Proposals (PRPs)** – only approved suppliers invited
5. **Project Assessment Tool (PAT)** – rates each PRP against predefined selection criteria
6. **Program Advisory Committee 2 (PAC 2)** – strategic, operational and technical review
7. **Request for Final Research Proposals (FRPs)** – detailed, fully costed project proposals
8. **Recommendation and approval** – Program Manager recommends FRPs to board for approval.

A Balanced Portfolio

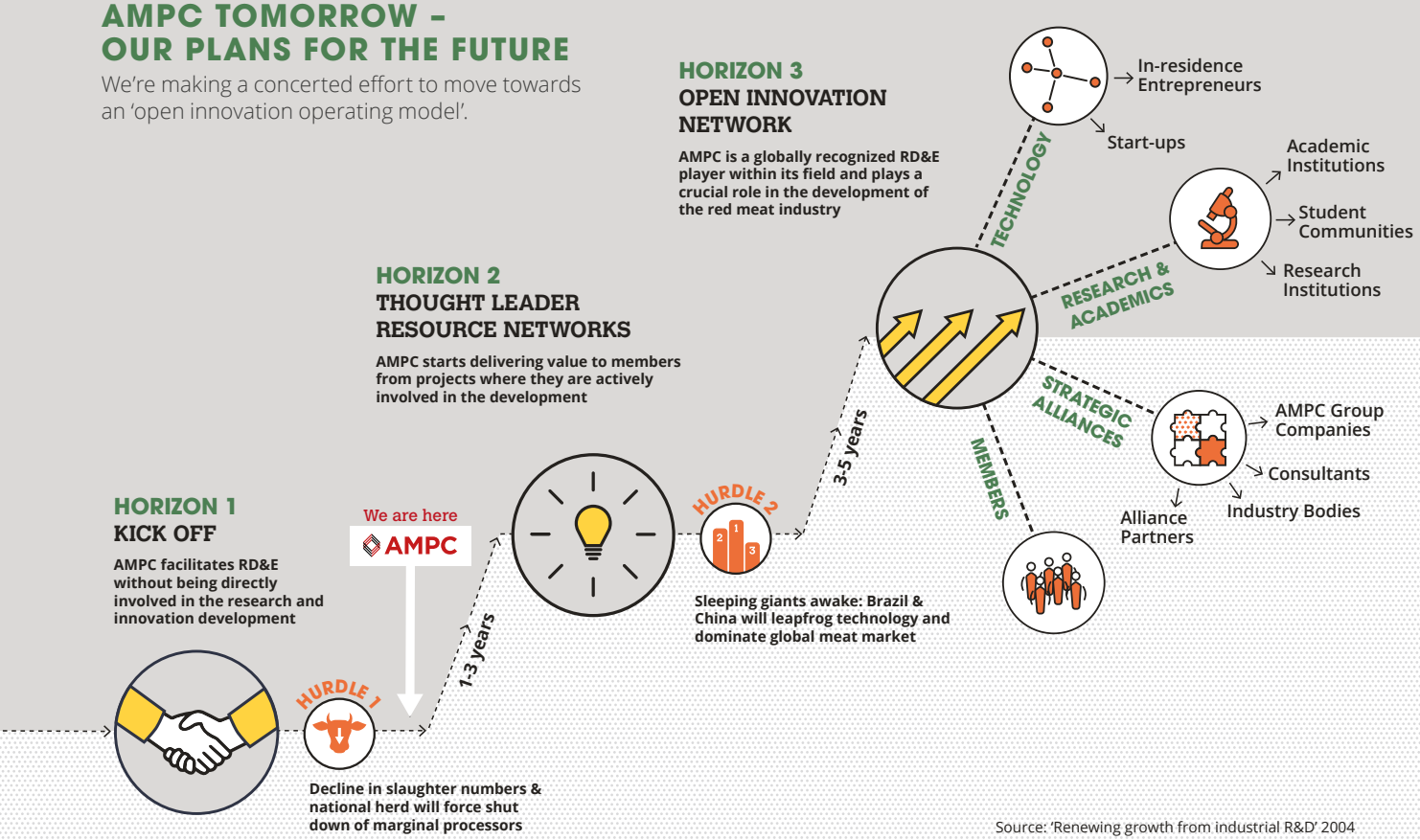
AMPC embraces the concept of a balanced portfolio that delivers a range of outcomes to meet the needs of a varied stakeholder base. During our consultations and the PDP cycle, consideration is given to the following factors in establishing a balanced portfolio:

- **Duration:** short, medium and longer-term projects
- **Horizon:** balance between adjacent, incremental and transformational projects
- **Alignment:** industry and government priorities, strategic risks and strategic initiatives
- **Gaps:** opportunities not yet addressed in the existing research portfolio
- **Continuance:** building on previous R&D activities and avoiding duplication
- **Adoption:** balance of fundamental and practical outputs for each member segment
- **Outcomes:** extent of industry return on AMPC's research investment
- **Participation:** opportunities for member and industry collaboration and participation
- **Risk:** technical, provider, financial risks and mitigation activities.

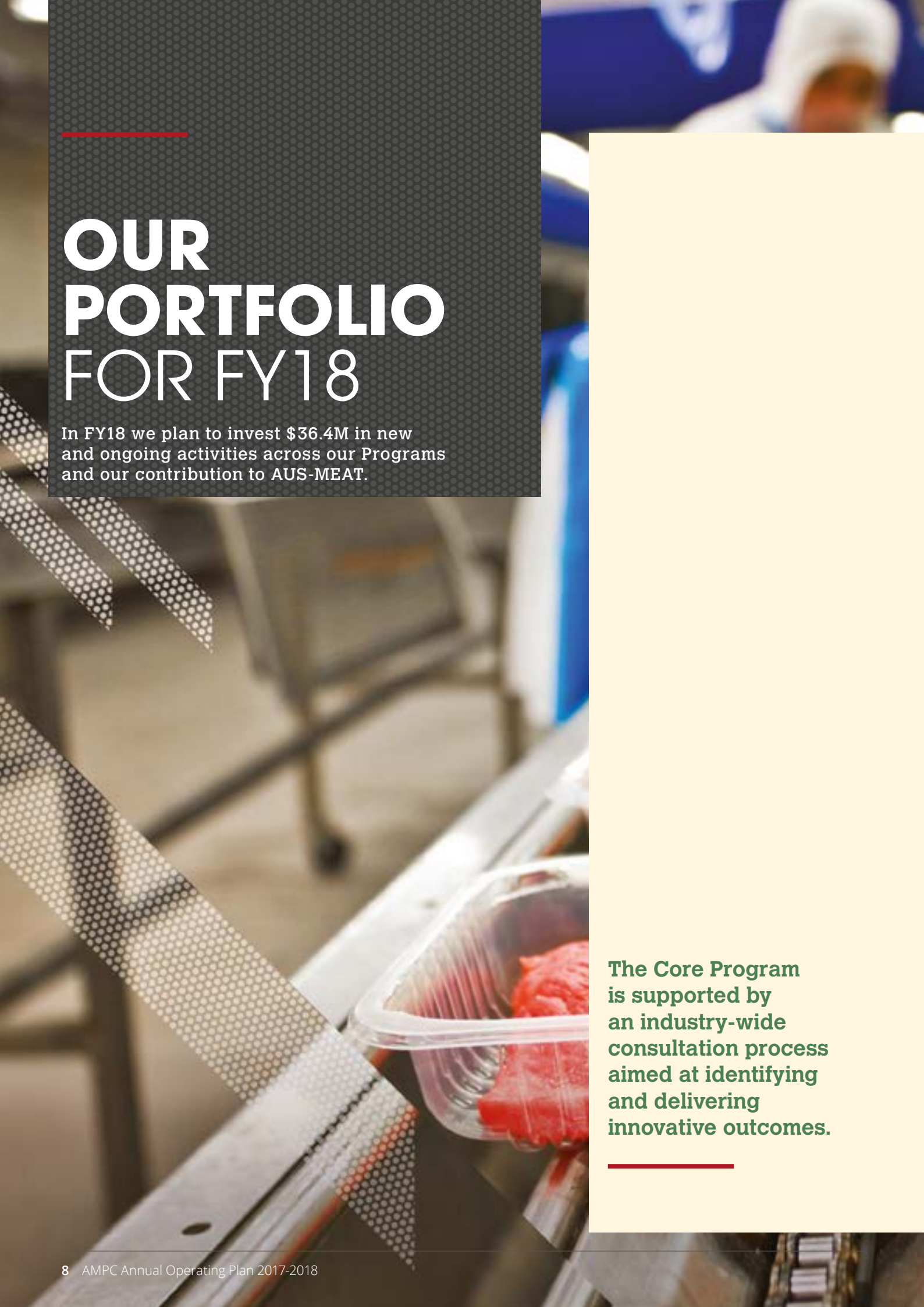
Our portfolio is driven by our strategy, and as such the mix of projects will change in future years as we move towards an open innovation network.

AMPC TOMORROW – OUR PLANS FOR THE FUTURE

We're making a concerted effort to move towards an 'open innovation operating model'.



Source: 'Renewing growth from industrial R&D' 2004



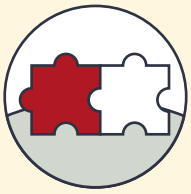
OUR PORTFOLIO FOR FY18

In FY18 we plan to invest $36.4M in new and ongoing activities across our Programs and our contribution to AUS-MEAT.

The Core Program is supported by an industry-wide consultation process aimed at identifying and delivering innovative outcomes.

The Core Program

The Core Program, divided into five sub-programs, addresses key issues facing processors in terms of productivity, profitability, sustainability, integrity and capability. It is supported by a robust industry-wide consultation process aimed at identifying and delivering innovative outcomes. Funding comes from processor levies and matched government funding (where applicable).



The Joint Program

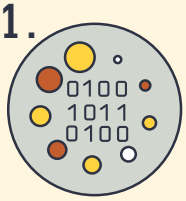
The Joint Program delivers supply chain improvements that support food safety, data integrity, eating quality and increased demand for red meat domestically and internationally. The program is collaboratively funded by AMPC and Meat & Livestock Australia (MLA), using both processor and producer levies, as well as matching government funds for eligible activities.

The Plant Initiated Projects (PIP) Program

The Plant Initiated Projects (PIP) Program enables processors to identify and undertake RD&E projects that generate whole-of-industry benefits by trialling and adopting new technologies at operating plants. These efforts are supported by private investment in industry RD&E as well as matching government funds for eligible activities.

AMPC Sub-programs

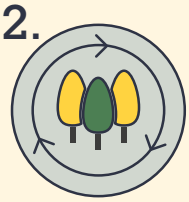
1.



Processing Technologies

Improve process efficiency, reduce production costs and facilitate improved value capture through the use of technology throughout the red meat processing value chain

2.



Environment & Sustainability

Improve industry sustainability through environmental, economic and social outcomes

3.

Processing Hygiene, Quality & meat Science

Increase the standards of food safety, product integrity and eating quality, while delivering new insights into effective process interventions for the industry and broader community

4.

Capability, Extension & Education

Translate and communicate AMPC's RD&E activities to stakeholders, including key training initiatives at both research and vocational levels

5.

Industry Improvement & Economic Analysis

Understand the economic impacts and levers for the industry through economic modelling, statistical analysis, benchmarking and networked information flows.

PROGRAM
1

PROCESSING TECHNOLOGIES

$9.3m

Investment

Program Overview

This program investigates technologies that improve process efficiency, reduce the cost of production, facilitate improved value capture and increase workplace health and safety.

Program Streams

PROGRAM STREAMS	BUDGET
1.1 Productivity and Quality **Context:** Increasing processing efficiency and productivity without compromising on safety is important to improve competitiveness in national and international markets as well as to ensure the long-term sustainability, high quality standards, and growth of an industry constrained by high costs and low margins. **Outputs:** Developing and implementing technologies and solutions that prioritise worker safety, automate manual tasks, increase the use of manual assist technologies, and improve resource efficiency to enhance process value and recovery.	$3.4M
1.2 Sensing and Analysis **Context:** The Australian red meat processing industry deals with highly variable carcases in terms of shape, size and composition. As a result, the ability to automatically measure characteristics 'online' provides an opportunity to increase overall processing efficiency and productivity. **Outputs:** Developing and implementing systems that can manage these variations to capture the data and images necessary to adjust cutting lines for automation and inform processing decisions according to carcase type, product specification, and customer and market requirements.	$0.9M
1.3 Material Handling **Context:** Meat processing facilities involve significant labour handling tasks that can risk injury to workers as well as affect costs associated with managing increasingly complex material handling tasks. **Outputs:** This stream focuses on developing and implementing cost-effective technologies and solutions to material handling tasks, including the load out of carcases, picking and packing boned and sliced product (e.g. primals, subprimals and shelf-ready portions) and cartoned meat.	$2.M
1.4 Value Added **Context:** Exploring the potential for innovative concepts, products and technologies to add value within the processing supply chain is a key requirement to ensure productivity growth and industry competitiveness of Australian red meat processors. **Outputs:** It will focus on transforming existing products (e.g. improving the eating characteristics of secondary cuts) and creating new ones (e.g. transforming inedible co-products into raw ingredients for other industries). Projects will deliver cost-effective methods of increasing value in alignment with customer needs.	$0.4M
1.5 Plant Initiated Projects (PIPs) AMPC supports members to identify and undertake RD&E projects that benefit the whole sector. AMPC facilitates these projects through the PIP Program. Members can identify site or business-level RD&E activities that will improve processing efficiency and technology.	$2.3M

Sample Projects

- Automated container loading
- Advanced machine learning
- Objective vision, analysis and grading system
- Automated picking and packing
- In-line grading of green and wet-blue hides
- Waterless lamb frenching

PROGRAM
2
ENVIRONMENT AND SUSTAINABILITY

$3.2m
Investment

Program Overview
This program aims to reduce the environmental impact of the red meat processing sector and ensure its long-term sustainability.

Program Streams

PROGRAM STREAMS	BUDGET
2.1 Energy Efficiency **Context:** Red meat processing facilities consume a vast amount of energy due to the need for refrigeration, steam and hot water production, which represents a significant cost as well as being a source of greenhouse gas emissions. Stewardship of environmental resources has become a major priority for the red meat industry, which requires minimising the impact on the environment and managing waste and the natural resources base. **Outputs:** This stream focuses on developing pioneering concepts, methodologies and products for reducing overall energy consumption within the industry and limiting greenhouse gas emissions. It considers the use of renewable energy sources instead of relying on external energy derived from fossil fuels such as coal, gas, liquefied petroleum gas, oil or diesel.	$0.4M
2.2 Waste Management **Context:** Red meat processing is responsible for the production of liquid and solid wastes that are costly to treat and safely remove. As waste treatment technologies are currently available, they should be leveraged in abattoirs to not only reduce cost but also as an additional source of revenue by converting waste into solid and liquid biofuels, nutrients and edible or non-edible products. **Outputs:** This stream focuses on developing innovative products and processes to reduce waste and transform traditional waste streams into streams that add value to the industry while reducing the impact on the environment.	$0.4M
2.3 Water Conservation **Context:** Red meat processing requires water to ensure high levels of food safety and hygiene are maintained. The decreasing availability and the increasing cost of water are forcing plants to reduce consumption, recycle where it is safe to do so, and consider new sources where it is available. **Outputs:** This stream focuses on finding new products and processes to conserve water while delivering the highest food safety standards.	$0.4M
2.4 Sustainability **Context:** Economic, social and environmental challenges place an increasing pressure on the Australian red meat industry to remain productive and competitive in the international market without compromising food safety, integrity and quality. **Outputs:** This stream focuses on researching new concepts, methodologies and processes that can contribute to the improvement of the industry supply chain sustainability (food safety, integrity systems, animal health and welfare, biosecurity, etc.).	$1.0M
2.5 Plant Initiated Projects (PIPs) AMPC supports its members in identifying and undertaking RD&E projects that benefit the international competitiveness of the Australian red meat processing industry, e.g. site or business-level RD&E activities and the areas that will enable the sustainable development of the business (energy management, water management, waste management, planning for extreme climate events, biosecurity, animal welfare, etc.).	$1.0M

Sample Projects

- Predicting and scheduling supply system
- Energy-sufficient meat processing plant
- Holistic applications for passive heating and cooling
- Australian animal welfare systems, a supply chain approach
- Value adding using hydrothermal and supercritical water gasification

PROGRAM

3

PROCESSING HYGIENE, QUALITY AND MEAT SCIENCE

$4.9m

Investment

Program Overview

This program combines knowledge of meat science and quality in the delivery of high-quality standards and food safety, as a key differentiator of Australian products in a competitive market.

Program Streams

PROGRAM STREAMS	BUDGET
3.1 Food Safety **Context:** Food safety systems are a critical component of the red meat supply chain and a key driver of exports. Therefore, they should deliver the appropriate level of protection to the market and ensure that this level of protection is constantly reviewed against public health data and requirements. **Outputs:** AMPC is undertaking a series of project initiatives to ensure that technologies and tools comply with industry standards, demonstrate food safety and respond to safety risks. These projects are now being managed by AMPC under the Joint Program and project outputs will be shared with MLA to maximise information sharing and lifting capability, and ensuring value chain integration and benefits for the entire industry.	$0.1M
3.2 Integrity Systems **Context:** Australia enjoys an enviable reputation in the international market for producing clean and safe premium quality meat, thanks to the integrity of its underlying food safety systems. **Outputs:** This stream focuses on developing and implementing systems and technologies that ensure traceability, biosecurity, disease risk mitigation, strong animal health and hygiene, and overall meat quality standards.	$1.9M
3.3 Meat Science **Context:** Production of high-quality meat is underpinned by a robust understanding of meat properties and qualities, such as meat tenderness, colour, pH, intramuscular fat, etc. Therefore, investments into meat science disciplines appear to be an imperative for the future expansion of quality standards for Australian meat, both nationally and internationally. **Outputs:** This stream focuses on technologies and practices that help measure, monitor and improve meat qualities and properties.	$1.7M
3.4 Transformational Meat Science **Context:** Unanticipated scientific findings often push the boundaries of knowledge further than planned research. **Outputs:** This stream is dedicated to disruptive meat science. The projects under this stream investigate fundamental meat properties such as protein structure at a molecular level and research into how advanced technologies can be used to extract desired functionalities.	$0.6M
3.5 Plant Initiated Projects (PIPs) AMPC supports its members in identifying and undertaking RD&E projects that benefit the international competitiveness of the Australian red meat processing industry, e.g. site or business-level RD&E activities and areas that will ensure food safety, quality and integrity.	$0.3M

Sample Projects

- From farm to the plate: Eating quality of beef produced in the Southern Tablelands
- Real-time meat eating quality probe
- Process monitoring trials
- Impact of processing on meat protein digestibility
- Non-invasive prediction of flavour, tenderness and juiciness at slaughter
- Accelerated aging and improved tenderisation of low value meat cuts

PROGRAM
4

CAPABILITY, EXTENSION AND EDUCATION

$5.5m

Investment

Program Overview

This program aims to build the capabilities of industry personnel and encourage industry adoption of R&D outcomes to improve the productivity, profitability and sustainability of the industry.

Program Streams

PROGRAM STREAMS	BUDGET
4.1 Industry Capability **Context:** Developing capabilities within the red meat processing sector and among its personnel is key to its sustainability. Hence, AMPC has identified the importance of understanding the education and capability gaps that can exist among medium and small processors to tailor training resources accordingly. **Outputs:** This stream identifies the training, education and capability gaps that exist and develops new initiatives to fill those gaps. This will be done through both face-to-face training and online extension programs.	$1.1M
4.2 Extension Services **Context:** One of the main challenges identified to remain competitive in the meat industry is to ensure that the outcomes of research and development are successfully communicated and disseminated among processors to promote implementation. **Outputs:** This stream focuses on supporting the extension and adoption of R&D outputs to ensure they deliver value and high return on investment to industry.	$1.6M
4.3 Scientific Education **Context:** Improving collaboration with the government, Rural Research and Development Corporations (RDCs) and educators can lead to significant results such as innovative development, reducing duplication and improved efficiency. **Outputs:** This stream focuses on building relationships between industry and education providers to jointly conduct scientific research with maximal impact and return on investment to the industry and encourage employment within the industry in areas such as meat safety, quality assurance and laboratory.	$2.1M
4.4 Vocational Training **Context:** The red meat processing industry faces continual changes to operating market access and regulatory requirements, which result in the need for ongoing professional development and training for employees in a context where it is difficult to attract and retain highly skilled personnel. **Outputs:** Focusing on attracting, supporting, developing and retaining industry personnel through ongoing professional development to meet current and future industry needs	$0.6M
4.5 Plant Initiated Projects (PIPs) AMPC supports its members in identifying and undertaking RD&E projects that benefit the international competitiveness of the Australian red meat processing industry, including business-specific capability building, training and educational initiatives to be implemented on site that may then be rolled out to the broader industry.	$0.3M

Sample Projects

- Industry five-year R&D strategic plans
- Industry knowledge hub and continuity of practice
- Extension services, including MINTRAC network meetings
- Industry WH&S benchmarking project
- Maintenance engineering training pathways
- Ammonia refrigeration training

PROGRAM
5

INDUSTRY IMPROVEMENT AND ECONOMIC ANALYSIS

$1.3m

Investment

Program Overview

Projects in this program aim to understand the economic impacts and levers for the industry through economic modelling, statistical analysis, benchmarking and networked information flows.

Program Streams

PROGRAM STREAMS	BUDGET
5.1 Industry Improvement **Context:** As competition is growing in the meat industry, the need for competitiveness analysis, benchmarking studies and quantification of economic factors associated with regulatory compliance, industry marketing, energy policy, carbon emissions and infrastructure investment is inevitable. **Outputs:** This stream focuses on performing research and analysis to improve the overall performance (productivity, profitability and sustainability) of the Australian meat processing industry against its international competitors.	$0.5M
5.2 Economic Analysis, Data and Statistics **Context:** Understand the economic drivers of the industry, e.g. drivers of supply and demand to best prepare for the increasing competition. **Outputs:** This stream focuses on understanding the economic drivers of the industry and generating economic models for the red meat supply chain in order to better assess supply and demand, constraints and opportunities.	$0.1M
5.3 Industry-wide System Improvements **Context:** The red meat industry systems have evolved over time ensuring sustainability. It is imperative for AMPC that the industry maintain its competitiveness and leadership moving forward. **Outputs:** This stream focuses on identifying mechanisms by which the Australian red meat processing sector can become more competitive through industry-wide system improvements with a focus on areas where industry-wide reputation is critical to export success.	$0.6M
5.4 Strategic Communications **Context:** Managing relationships and communication with key stakeholders is a requirement to increase AMPC's visibility and differentiate it from similar organisations. **Outputs:** This stream focuses on producing strategic marketing communications based on a three year plan to substantially lift AMPC's visibility, and to differentiate it from other meat industry organisations.	$0.1M
5.5 Plant Initiated Projects (PIPs) AMPC supports its members in identifying and undertaking RD&E projects that benefit the international competitiveness of the Australian red meat processing industry through improvement and economic analysis.	$0.0M

Sample Projects

- Providing feedback to producers – what value for the processor?
- Blockchain for the meat industry: Where and how?
- Carcase cut yield prediction with machine learning

PROGRAM
6
JOINT PROGRAM

$11.8m
Investment

Program Overview

The Joint Program is a collaboratively funded and managed R&D and marketing program between AMPC and MLA that focuses on whole-of-supply chain matters.

Program Streams

PROGRAM STREAMS	BUDGET
Existing Joint Program Management Team (JPMT) Projects **Objective:** This stream represents existing joint projects that are contract managed by AMPC, with joint oversight provided through the Joint Program Management Team (JPMT) framework with Meat and Livestock Australia.	$2.8M
Capability Building **Objective:** The capability building program invests in current and emerging industry leaders, innovators and scientists to enhance professional and business skills and build a performance culture.	$0.03M
Communication **Objective:** The communication program ensures that MLA and AMPC's R&D and Marketing 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.	$0.1M
Domestic Market **Objective:** The domestic market program seeks to demonstrate the value of red meat to consumers and target barriers limiting red meat consumption: price and health perceptions.	$2.2M
Integrity Systems **Objective:** The integrity systems program seeks to protect Australia's disease-free status and underpin the marketing of Australian product as clean, safe and natural. It also helps Australia capture price premiums from customers and consumers willing to pay more for higher levels of product assurance.	$1.7M
International Markets **Objective:** The international market program seeks to grow demand for Australian red meat by maintaining and improving market access, providing timely insights about global opportunities, and promoting Australia's superior points of difference.	$3.6M
Objective Measurement **Objective:** The objective measurement program seeks to facilitate development and adoption of objective measurement tools across the value chain.	$1.2M
Product Packaging and Innovation **Objective:** The product packaging and innovation program seeks to inform value chains and the wider industry about new products, processes packaging and business models, leading to increased demand and higher value red meat.	$0.2M

Sample Projects

- Mobile CT system for objective measurement
- Hyperspectral ZT and food safety determination
- Market access
- Domestic and international marketing and promotion
- Integrity systems
- Objective measurement
- Nutrition

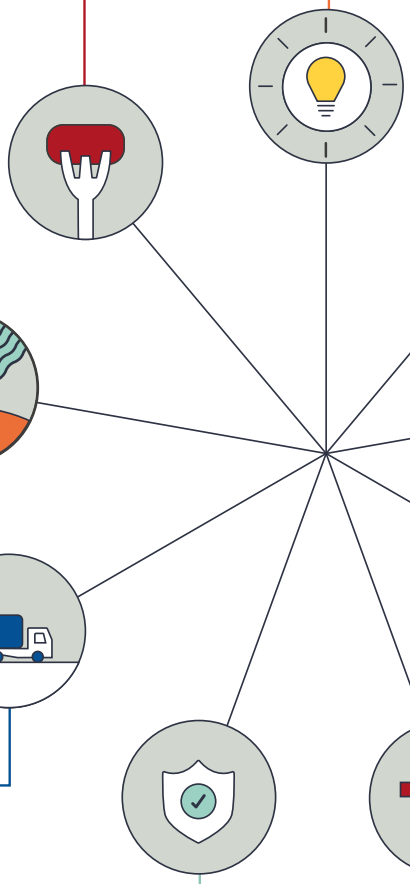
ALIGNMENT TO INDUSTRY AND GOVERNMENT PRIORITIES

AUSTRALIAN GOVERNMENT'S R&D PRIORITIES

In May 2015, the Australian government announced a set of science and research priorities designed to increase investments in areas of immediate and critical importance to the nation. The priorities are neither exclusive nor exhaustive. AMPC strives to align its RD&E portfolio with the research priorities by sharing objectives and aiming for corresponding outcomes. The objective for each priority is described next.

NATIONAL SCIENCE AND RESEARCH PRIORITIES

Nine priorities devoted to science and research have been developed by the Australian government.



FOOD

Develop internationally competitive, sustainable, profitable, high-intensity and high-production capacity in new and existing food products and maintain Australia's reputation for clean, safe and quality-controlled food production.

SOIL AND WATER

Focus on Australia's critical soil and water assets, build capacity for improved accuracy and precision in predicting change to enable better decision-making.

TRANSPORT

Develop low-cost, reliable, resilient and efficient transport systems that respond to Australia's changing urban, regional and remote communities and meet business needs.

CYBERSECURITY

Position Australia as a leader in cutting-edge cybersecurity research and innovation to safeguard the country's security, enhance resilience and enable economic growth.

ENERGY

Enable the Australian energy sector to improve efficiency and reduce emissions, integrate diverse energy sources into the electricity grid and, as a result, create jobs, growth and export opportunities.

RESOURCES

Support the exploration of traditional resources, rare earth elements and groundwater, and develop new technologies and knowledge to allow safe, environmentally sensitive and economically viable resource extraction.

ADVANCED MANUFACTURING

Develop and support existing industries while enabling the development of a new and advanced manufacturing sector.

ENVIRONMENTAL CHANGE

Build Australia's capacity to respond to environmental change and integrate research outcomes from biological, physical, social and economic systems.

HEALTH

Build healthy and resilient communities throughout Australia by developing treatments, solutions and preventative strategies to improve physical and mental well-being and improve the efficiency and effectiveness of Australia's health care system.

AMPC'S RD&E AND MARKETING PROGRAMS

To deliver on AMPC's mandate, there are five RD&E and Marketing program areas:

PROCESSING TECHNOLOGIES

ENVIRONMENT & SUSTAINABILITY

PROCESSING HYGIENE, QUALITY AND MEAT SCIENCE

CAPABILITY, EXTENSION & EDUCATION

INDUSTRY IMPROVEMENT & ECONOMIC ANALYSIS

HOW AMPC'S PROGRAMS ALIGN WITH THE GOVERNMENT'S RESEARCH PRIORITIES

	PROGRAM 1 Processing Technologies	PROGRAM 2 Environment and Sustainability	PROGRAM 3 Processing Hygiene, Quality and Meat Science	PROGRAM 4 Capability, Extension and Education	PROGRAM 5 Industry Improvement and Economic Analysis	PROGRAM 6 Joint Program
Meat Industry Strategic Plan 2020						
Consumer and community support		✓		✓		✓
Market growth and diversification					✓	✓
Supply chain efficiency and integrity	✓		✓		✓	✓
Productivity and profitability	✓					✓
Leadership and collaborative culture				✓		✓
Stakeholder engagement				✓		✓
National Science and Research Priorities						
Food		✓	✓			
Soil and water	✓	✓				
Transport		✓			✓	
Cybersecurity					✓	✓
Energy		✓				
Resources	✓		✓			
Advanced manufacturing	✓	✓	✓	✓	✓	✓
Environmental change		✓		✓		
Health				✓	✓	
Rural Research, Development and Extension Priorities						
Advanced technology	✓		✓	✓	✓	✓
Biosecurity	✓		✓			✓
Soil, water and managing natural resources		✓		✓		
Adoption of R&D				✓		

BUDGET
FY18

FY18 INVESTMENT PORTFOLIO – BY STREAM

Budgeted investment before corporate costs

Program Stream		Levies	Matching	Total Investment
1	**Processing Technology**			
1.1	Productivity and Quality	$1,678,747	$1,678,747	$3,357,495
1.2	Sensing and Analysis	$464,875	$464,875	$929,751
1.3	Material Handling	$1,162,796	$1,162,796	$2,325,593
1.4	Value Added	$207,674	$207,674	$415,348
1.5	Plant Initiated Projects	$2,250,000	-	$2,250,000
	Total	**$5,764,093**	**$3,514,093**	**$9,278,186**
2	**Environment and Sustainability**			
2.1	Energy Efficiency	$199,009	$199,009	$398,019
2.2	Waste Management	$179,594	$179,594	$359,188
2.3	Water Conservation	$187,274	$187,274	$374,547
2.4	Sustainability	$513,515	$513,515	$1,027,030
2.5	Plant Initiated Projects	$1,000,000	-	$1,000,000
	Total	**$2,079,392**	**$1,079,392**	**$3,158,784**
3	**Processing Hygiene, Quality and Meat Science**			
3.1	Food Safety	$70,168	$70,168	$140,337
3.2	Integrity Systems	$966,840	$966,840	$1,933,681
3.3	Meat Science	$841,872	$841,872	$1,683,743
3.4	Transformational Meat Science	$297,903	$297,903	$595,806
3.5	Plant Initiated Projects	$500,000	-	$500,000
	Total	**$2,676,784**	**$2,176,784**	**$4,853,567**
4	**Capability, Extension and Education**			
4.1	Industry Capability	$529,126	$529,126	$1,058,252
4.2	Extension Services	$787,713	$787,713	$1,575,426
4.3	Scientific Education	$1,025,036	$1,025,036	$2,050,071
4.4	Vocational Training	$283,616	$283,616	$567,232
4.5	Plant Initiated Projects	$250,000	-	$250,000
	Total	**$2,875,491**	**$2,625,491**	**$5,500,982**
5	**Industry Improvement and Economic Analysis**			
5.1	Industry Improvement	$256,220	$256,220	$512,440
5.2	Economic Analysis, Data & Statistics	$39,829	$39,829	$79,658
5.3	Industry-Wide System Improvements	$307,632	$307,632	$615,265
5.4	Strategic Communication	$70,000	-	$70,000
5.5	Plant Initiated Projects	-	-	-
	Total	**$673,681**	**$603,681**	**$1,277,362**
6	**Joint Program**			
	Total	**$10,386,781**	**$1,418,681**	**$11,805,462**
	AUS-MEAT Contribution			
	Total	**$550,000**	**-**	**$550,000**
	Grand Total	**$25,006,221**	**$11,418,122**	**$36,424,343**

FY18 BUDGET FINANCIALS

Budgeted income and costs for FY18

	RD&E	Marketing	Pre-stat	Total
Income				
Levies	-	$17,408,200	-	$17,408,200
Interest	$492,150	$341,366	$266,741	$1,100,256
Government Matching	$12,930,157	-	-	$12,930,157
Total	**$13,422,306**	**$17,749,566**	**$266,741**	**$31,438,613**

	RD&E	Marketing	Pre-stat	Total
Program Expenditure				
Core RD&E				
1. Processing Technologies	$7,028,186	-	-	$7,028,186
2. Environment & Sustainability	$2,158,784	-	-	$2,158,784
3. Processing Hygiene, Quality & Meat Science	$4,353,567	-	-	$4,353,567
4. Capability, Extension & Education	$5,250,982	-	-	$5,250,982
5. Industry Improvement & Economic Analysis	$1,207,362	$70,000	-	$1,277,362
Total Core	**$19,998,881**	**$70,000**	**-**	**$20,068,881**
Joint Program				
6. Joint Program – MLA	$3,368,657	$5,599,443	-	$8,968,100
6. Joint Program – JPMT	$2,837,362	-	-	$2,837,362
Total Joint	**$6,206,019**	**$5,599,443**	**-**	**$11,805,462**
Plant Initiated Projects (PIPs)	**$4,000,000**	**-**	**-**	**$4,000,000**
AUS-MEAT Contribution	**-**	**$550,000**	**-**	**$550,000**
Total	**$30,204,900**	**$6,219,443**	**-**	**$36,424,343**

	RD&E	Marketing	Pre-stat	Total
Corporate Costs				
Direct Corporate Costs (Project Support)	$3,024,070	$125,000	-	$3,149,070
Indirect Corporate Costs	$1,124,806	$740,175	-	$1,864,981
Total	**$4,148,876**	**$865,175**	**-**	**$5,014,051**
Net Income	**$(20,931,469)**	**$10,664,948**	**$266,741**	**$(9,999,781)**

Reserves movements for FY18

	RD&E	Marketing	Pre-stat	Total
Opening Reserves as at 30 June 2017	$33,526,266	$(1,928,911)	$6,559,527	$38,156,882
Budget Net Income FY18	$(20,931,469)	$10,664,948	$266,741	$(9,999,781)
Closing Reserves as at 30 June 2018	$12,594,797	$8,736,037	$6,826,268	$28,157,102

EVALUATING OUR PROGRESS

Evaluation Framework

AMPC has recently introduced a new Evaluation Framework which is available on our website.

The Framework incorporates the following principles:

- RD&E investments align with AMPC's strategic priorities and risks
- AMPC will build evaluation review and management as a core organisation competency
- Findings of the RD&E investments are disseminated and implemented to stakeholders
- Evaluation processes are continuously reviewed and refined

Accordingly, AMPC undertakes a systematic approach to evaluate performance across the organisation with outcomes published to stakeholders throughout the year, and reviewed in our annual reporting cycle.

Key Performance Indicators

For FY18, we have identified the following key performance indicators against which we will measure and report our activities and outcomes in support of our strategic priorities.

Our performance for each will be reviewed in the FY18 Annual Report.

Key Performance Indicators	FY18 Target
R&D and Marketing projects funded in line with approved AOP budget	100%
2016-19 Funding Agreement compliance	100%
Strategic Plan Initiatives addressed	100%
New AMPC members engaged compared to FY17	35
Increased member satisfaction rating	50%
Number of eNewsletters distributed	12
Number of AMPC magazines published	4
Number of letters to members	12
Percentage of project completions communicated to stakeholders	100%
Increased social media impressions	50%

COMMUNICATION, EXTENSION AND ADOPTION

Stakeholder Communications

Consistent with our new relationship management model, the AMPC Marketing & Communications function supports the three key stakeholder groups: members, providers and external stakeholders.

Strategic marketing and communications activities will be targeted to these stakeholder groups. In FY18, we plan to use the following means of communicating with our stakeholders:

- Website enhancements to streamline information access and support two-way feedback
- Regular email campaigns, including project completion notifications and letters to members
- Digital quarterly magazine, with an emphasis on the processor community and its successes
- Monthly e-newsletters targeted at keeping stakeholders aware of our activities
- Social media, including Facebook, Twitter, LinkedIn, YouTube
- Events, workshops, webinars and seminars
- Personalised, face-to-face communication
- Corporate reporting that focuses on stakeholder outcomes

Through using this suite of tools, our aim is to increase the satisfaction of our stakeholder groups by communicating on our activities, and opening up communication channels to encourage interaction and feedback.

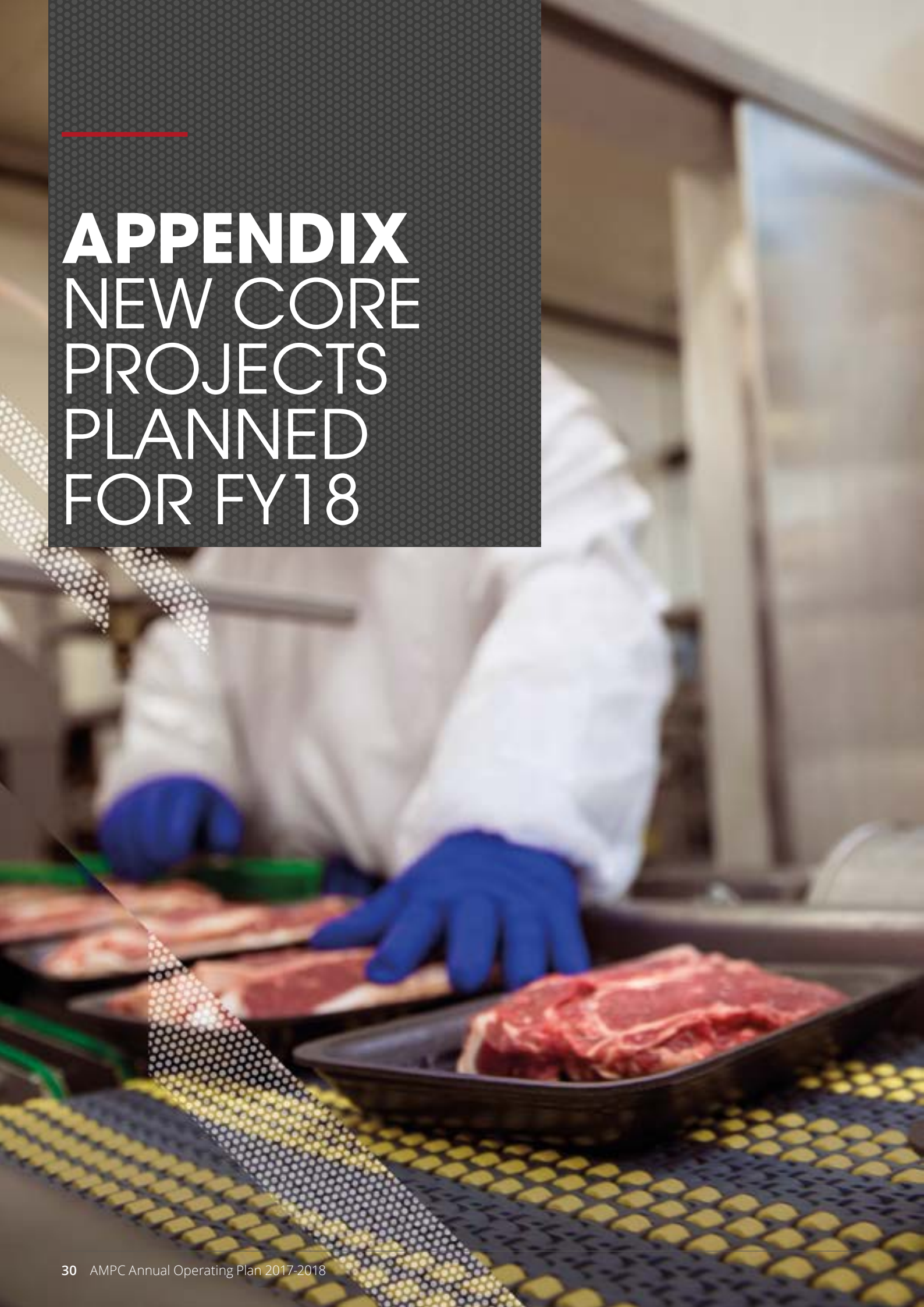
Project Outputs – Providing Extension and Encouraging Adoption

An extension and adoption plan is included in each new project from FY18 to increase uptake of AMPC's research outputs. Each project will have its own extension or adoption activity, whether it be a webinar, website portal, promotional plan, industry roll-out or similar.

We will also be rolling out one-page project summaries that will be distributed to stakeholders at the completion of each project. This will provide a succinct, accessible snapshot of the project, its objectives, and its outcomes.

Our aim is to increase the satisfaction of our stakeholder groups by communicating on our activities, and opening up communication channels to encourage interaction and feedback.

APPENDIX
NEW CORE PROJECTS PLANNED FOR FY18



New Core Projects for FY18

The budget estimates included in the FY18 Annual Operating Plan are derived from the following project proposals. The following should be used as a guide only, and is subject to change.

Program 1: Processing Technologies

Project Code	Project Title	Stream	Completion
2018-1045	First prototype automation for deboning lamb shoulder - STEP 2	1.1	28/09/2018
2018-1041	Applications of deep learning for the red meat processing industry	1.1	16/07/2018
2018-1031	Automatic equipment for handling of the bung in the lamb slaughter process – STEP 2	1.1	1/12/2018
2018-1025	Roadmap development for meat processing intelligent automation centre	1.1	22/12/2017
2018-1052	Investigation into the suitability of standard meat conveyor belt materials for CO_2 pellet cleaning	1.1	11/05/2018
2018-1005	Developing a phone-based machine learning imaging tool to inform on beef carcase evaluation in compliance with the AUS-MEAT Chiller Assessment Language	1.2	31/07/2020
2018-1035	Beef wet-blue hide grading using 3D profile scanning – proof of concept, and optional green hide grading using hyperspectral – proof of concept	1.2	22/01/2018
2018-1020	Abattoir production data analysis for operational performance improvements	1.2	1/06/2018
2018-1048	Naked primal cut recognition vision system trial in plant	1.2	15/06/2018
2018-1042	Automated container load production system – SCOTT JA13961 FRPFY2017-18	1.3	30/06/2018
2018-1051	Feed study to establish pilot plant boundaries for the implementation of a CO_2 capturing facility	1.3	30/03/2018
2018-1049	Automation of primal cut bagging	1.3	15/05/2018

AMPC undertakes a systematic approach to evaluate performance across the organisation with outcomes published to stakeholders throughout the year

Program 2: Environment & Sustainability

Proposal	Project Code	Project Title	Stream	Completion
FRP200328	2018-1014	Energy-sufficient meat processing plant	2.1	30/06/2018
FRP200586	2018-1017	Employing wastewater for passive heating and cooling in red meat processing facilities	2.1	15/03/2019
FRP200512	2018-1027	Energy and materials recovery from paunch waste using novel hydrothermal and supercritical water gasification processes	2.2	1/11/2018
FRP200517	2018-1026	Struvite or traditional chemical phosphorus precipitation – what option rocks?	2.2	29/06/2018
FRP200529	2018-1023	Oil and grease value assessment tool	2.2	22/06/2018
FRP200344	2018-1046	Future of water recycling and purification technologies	2.3	20/11/2017
FRP200475	2018-1030	Technical and economic feasibility of water recycling and energy recovery for red meat processing operations in abattoirs	2.3	30/07/2018
FRP200420	2018-1037	Development of 'Is it fit to process?' guides for Tier 1 export abattoirs and small to medium enterprises (SMEs) processing for the domestic market	2.4	1/06/2018
FRP200504	2018-1029	Predicting and scheduling lamb supply with variable seasonal conditions	2.4	30/06/2019
FRP200525	2018-1024	Communications for improved livestock welfare	2.4	5/11/2018
FRP200559	2018-1021	Review and compare Australian animal welfare systems throughout the supply chain to major trading partners (whole of life animal welfare)	2.4	15/06/2018

Program 3: Processing Hygiene, Quality and Meat Science

Proposal	Project Code	Project Title	Stream	Completion
FRP200423	2018-1082	Laser shock wave processing facility for cryovac meat products	3.1	31/12/2018
FRP200645	2018-1070	Process monitoring for the Australian meat industry – a comparative industry trial	3.2	30/07/2018
FRP200652	2018-1086	Food safety and storage life status of the Australian red meat industry 1880-present	3.2	31/10/2017
FRP200657	2018-1088	Real-time meat eating quality probe: technology refinement and commercialisation	3.2	30/06/2018
FRP200455	2018-1083	Non-invasive prediction of flavour, tenderness and juiciness for individual animals at point of slaughter	3.3	20/05/2018
FRP200465	2018-1085	Development of shockwave technology for tenderisation and decontamination of beef cuts	3.3	30/09/2020
FRP200461	2018-1084	Transforming low-value meat cuts and non-meat products into high quality powders	3.4	30/06/2019
FRP200654	2018-1087	Development of novel bioactive peptides from slaughterhouse blood	3.4	30/06/2020

Program 4: Capability, Extension and Education

Proposal	Project Code	Project Title	Stream	Completion
FRP200316	2018-1009	MINTRAC provision of extension services to red meat processors 2017-2019	4.1	31/05/2019
FRP200325	2018-1013	Development of an engineering maintenance training strategy	4.1	7/06/2018
FRP200604	2018-1016	Making the meat industry a safer place for workers	4.1	16/06/2018
FRP200284	2018-1002	Meat Industry Training Network 2017-2019	4.2	24/05/2019
FRP200293	2018-1003	Meat Inspection and Quality Assurance Network 2017-2019	4.2	27/05/2019
FRP200320	2018-1011	Meat Industry Environment Network 2017-2019	4.2	20/07/2019
FRP200321	2018-1012	Meat Processing Engineering Network 2017-2019	4.2	28/05/2019
FRP200358	2018-1044	Development and implementation of a red meat processing knowledge hub	4.2	30/03/2018
FRP200370	2018-1054	Management of the Australian Q Fever Register 2017-18	4.2	30/06/2018
FRP200365	2018-1043	Innovation, value and health – new meat product development competition for China and Australia university students	4.3	1/07/2018
FRP200443	2018-1033	Charles Sturt University Partnership Program for red meat capacity development	4.3	31/07/2022
FRP200313	2018-1007	Diploma of Meat Processing Scholarship Program	4.4	31/05/2018
FRP200314	2018-1008	Ammonia refrigeration training programs 2017-2018	4.4	29/05/2018
FRP200318	2018-1010	Upgrade of the meat inspection exam generator	4.4	30/04/2018

Program 5: Industry Improvement and Economic Analysis

Proposal	Project Code	Project Title	Stream	Completion
FRP200413	2018-1039	Providing feedback to producers – what value for the processor?	5.1	3/06/2019
FRP200338	2018-1047	Blockchain for the meat industry: where and how?	5.3	30/10/2018
FRP200494	2018-1028	Carcase cut yield prediction with machine learning	5.3	13/10/2017

Designed and produced by BWD

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