

AUSTRALIAN MEAT PROCESSING INDUSTRY SECTOR

IRC Skills Forecast and Proposed Schedule of Work

2019-2022

DRAFT

Prepared on behalf of the Meat Industry Reference Committee (IRC) for the Australian Industry and Skills Committee (AISC).

Australian Meat Processing IRC Skills Forecast and Proposed Schedule of Work 2019-2022

Purpose

The Industry Reference Committee (IRC) Skills Forecast and Proposed Schedule of Work identifies proposed Vocational Education and Training (VET) training package development work necessary to meet the needs of industry and sets out the evidence of that need. The Australian Industry and Skills Committee (AISC) consider this information in prioritising and commissioning training package development work.

The IRC annual review of the Skills Forecast and Proposed Schedule of Work allows the identification of priority projects and provides the likely timing of training package development work over the next four years.

The Skills Forecast and Proposed Schedule of Work needs to provide the AISC with sufficient information on each project to consider:

- What work is to be commissioned
- Clear evidence of employer and industry need
- Alignment to Ministers' Priorities (see Appendix)

The Skills Forecast and Proposed Schedule of Work is to be developed in line with:

- Standards for Training Packages 2012
- Training Package Products Policy
- Training Package Development and Endorsement Process Policy

This Skills Forecast presents the latest industry intelligence and resulting schedule of work for priority industry skills areas of the Meat Industry Reference Committee (IRC).

This document is not intended to identify and address every challenge faced across all industry sectors; it identifies and addresses the issues, challenges and opportunities that industry has identified as 'priority' for this stage of the schedule and acts as a resource and reference for industry and associated skills, learning and accreditation bodies seeking to act upon them.

Detailed data and information concerning industry skills needs across all sectors covered by the Meat IRC, including information from previous Skills Forecasts, can be found on the Skills Impact website www.skillsimpact.com.au and is available to industry, RTOs, and consumers in line with Ministerial priorities.

Method and Structure

This Skills Forecast and Proposed Schedule of Work was developed through research of national and industry data sources, and ongoing input from IRC members and key stakeholders.

IRC members undertake their own consultation with industry, and guide consultation processes undertaken on their behalf throughout each year. Consultation may include personal meetings, conference attendance, organised workshops and network meetings, surveys, project feedback collection and unsolicited contributions sent to the SSO.

The Skills Forecast structure is guided by the Australian Industry and Skills Committee (AISC), which requires the following to be included:

- **Sector overview:** Brief description of the industry and industry sub-sectors, the Training Package, and current challenges and opportunities.
- **Employment & Skills Outlook:** Overview of the data, strategies and policies relevant to the industry.
- **Key Changes and Proposed Responses:** identifying the drivers for change from industry (e.g. occupations, technology, emerging markets), regulation, and nationally important policies, and proposed responses including the impact on stakeholders.
- **Consultation Undertaken:** Information on the consultation previously undertaken to support the proposed responses, including issues and sensitivities raised.
- **Proposed Schedule of Work:** The current proposed schedule of work over the next four-year period as modified from previous plans as a result of consultations and the need to meet changing priorities.
- **Project Details:** details of proposed projects proposed for approval of the AISC to be undertaken in 2019 – 2020.

Administrative Information

Name of applicable Industry Reference Committees (IRC): Meat

Name of applicable Skills Service Organisation (SSO): Skills Impact Ltd

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EXECUTIVE SUMMARY

The Australian Meat Industry is rightfully recognised internationally as a high quality, reliable and providers of excellent value, and is a critical industry to the Australian economy with more than \$50billion in revenue each year. One of the keys to this success is the widespread industry commitment to vocational training, developed in consultation with industry stakeholders.

Attracting people to the industry is a continuing challenge for employers, and ongoing training development is becoming increasingly important to maintain business viability and competitiveness. Employers increasingly seek specialised skills to support more demanding job functions in most workplaces as businesses respond to opportunities with new value creation strategies, capital structure strategies, product development, and investments in world-leading technologies, among many other innovations. To address this need, the Meat IRC is proposing a review of the higher level qualifications in Meat Processing, removing the specialised retail qualification at Diploma level, and bolstering the Diploma and Advanced Diploma to adapt to more flexible job roles at senior levels.

Compared with other industry sectors, the meat processing sector has the advantage of a younger workforce and a balanced age structure under 50 years of age. This has been the result of industry planning and focused attention on building structured training, maintaining high-level and current skills and developing career paths. One aspect of building structured training and ensuring ongoing support from RTOs for delivery nationally has been the development of assessment and training materials, funded by industry, peak bodies, and other sources. Changes to demand levels and funding policies have led to the development of these materials falling behind the needs of industry, and the IRC is seeking support for a project to address this need.

An Australian senate enquiry recommended the development of a single, comprehensive approach to halal certification, given the increasing growth in this market and the requirements for auditing to meet internationally accepted standards. The Meat IRC is recommending vocational training support for this through the development of specialised skill sets and relevant units of competency.

There is increasing demand for poultry processing as the consumption of chicken continues to grow in Australia. Current training is outdated and the Meat IRC has responded to the interest and requirements of the poultry industry to develop a project to address their needs. Similarly, the Meat IRC is proposing work on Game Harvest Auditing to provide skills that can be used to ensure compliance with regulatory requirements.

Australia's harsh and changing climatic conditions are threatening the ongoing quality and productivity of the industry. Almost the entire state of New South Wales continues to be in severe drought, with no end to these conditions in sight. This will have a significant impact on stock levels. Also of significant impact will be the devastating floods in Queensland during February 2019, with cattle losses currently estimated at upwards of 500,000 animals, with this figure expected by some to continue to increase. These conditions have multiple effects on stock, feed, and employment.

New job functions continue to emerge for operational employees and higher-level skills will be required of specialist managers to support strategic developments, automation, use of data and business targets. The Meat IRC will continue to work on developing and flexible, adaptable training Package to meet the industry skill requirements.

Proposed Schedule of Work 2019-2022

2019-20	<p>Project 1: Review of the Diploma and Advanced Diploma Qualifications The review and updating of the Diploma and Advanced Diploma of Meat Processing qualifications. It is proposed that the Diploma of Meat Processing (Meat Retailing) be deleted due to low enrolments, but that provision be made in the Diploma of Meat Processing for meat retailers career development. Twenty-eight units of competency will be reviewed for suitability and up to ten additional units will be imported or developed to meet expanded scope requirements.</p> <p>Project 2: Development of new units and skill sets for Halal meat processing The development of three new skill sets and four new units of competency to ensure a consistent approach to Halal meat processing. The skill sets will consist of existing and the new units of competency proposed for development and will cover the following areas:</p> <ul style="list-style-type: none">• Halal slaughter• Halal auditing• Halal processing requirements <p>Project 3: Development of new unit and skill set for game harvesting auditing The development of a new skill set to ensure appropriate food safety and biosecurity standards are met within this highly specialised industry sector. A new unit will also be created to cover the inspection of a wild game field depot.</p> <p>Project 4: Addressing gaps in poultry processing training The development of new skill sets and units of competency tailored to the needs of poultry processing.</p> <p>Project 5: Development of meat industry contextualised training and assessment support materials This project is for the development of contextualised training and assessment support materials for up to 35 units of competency. The project will improve consistency of training delivery and assessment across the industry, as well as supporting established and new RTOs to deliver quality services and to offer new and imported units of competency as electives.</p>
2020-21	<p>Project 1: Data interrogation skills This project is to adopt new units within the Certificate IV in Meat Processing (Quality Assurance) and Diploma of Meat Processing to build data interrogation and analysis skills.</p> <p>Project 2: Quality Assurance qualification The purpose of this project is to investigate the feasibility of developing a Diploma in Quality Assurance. The outcome for a Diploma in Quality Assurance is to train higher-level skills in management of meat microbiology, food safety, data interrogations, quality systems management skills, energy efficiency, wastewater usage, and wholesale value-adding.</p>
2021-22	<p>Project 1: Skills in DEXA technologies This project focuses on developing operator and maintenance skills to support the implementation of dual-energy X-ray absorptiometry (DEXA) technologies.</p> <p>Project 2: Packaging technology skills update This project will review the need for inclusion of new units of competency in the Certificate IV in Meat Processing (General) or Diploma of Meat Processing to address changes in packaging technologies. Continuing consultation to assess application of emerging technologies to the meat industry.</p>
2022-23	<p>Project 1: To Be advised Projects will be considered based on feedback on the implementation of recent and current changes to the AMP Training Package.</p>

Meat IRC

The Meat Industry Reference Committee (IRC) has responsibility for overseeing the development of units of competency, skill sets and qualifications, which form the Training Package in service of the meat processing industry.

Further information about this IRC can be found at: <https://www.aisc.net.au/content/meat-industry-reference-committee>

IRCs provide the industry engagement mechanism at the centre of training package development (units of competency, skill sets and qualifications). They act as a conduit for feedback to government on industry trends and for the promotion of VET. The primary purpose of the IRC is to provide advice to the AISC about the skills needs of their industry or sector.

The Meat IRC has enjoyed a relatively stable membership for a number of years now, and usually meets at least four times per year to determine current and future training priorities which then form the basis of AMP Training Package developments.

Committee members undertake broad industry consultation with industry stakeholders through their individual networks.

The Chair of the Meat IRC is Mr Cameron Dart, and the Deputy Chair is Mr Michael Bayer. Recently a Poultry Processing position has been approved and added to the IRC.

IRC membership as at February 2019

Name	Organisation or area of expertise
Mr Cameron Dart (Chair)	Meat Processing
Mr Franz Knoll	Smallgoods manufacturing
Mr Geoff Yarham	Beef Processing
Mr Graham Smith	Australian Meat Industry Employees Union
Mr Grant Courtney	Meat Processing
Mr John Hughes	Australian Meat Industry Council (AMIC)
Mr Laurie Tobin	Pork Processing
Mr Matthew Journeaux	Meat Processing
Mr Michael Bayer (Deputy Chair)	Meat retailing
Mr Mick Williams	Beef Processing
Ms Nicole Orr	Poultry Processing
Mr Scott Robinson	Meat Processing
Ms Stacey McKenna	Sheep Processing

SECTOR OVERVIEW

Sector description

The Australian meat processing industry comprises processors, retailers and exporters who together are responsible for guaranteeing the supply of meat to domestic and international markets.

Australia exports \$7.96¹ billion of beef and cattle annually, making this sector one of the country's most valuable farm contributors. The value of sheep meat² and sheep exports is worth around \$1.28 billion, and goat meat and goats approximately \$257³ million. Combined, these represent around 23% of total Australian farm exports. One of the major growth areas is the Halal export meat trade, currently valued at \$1.6 billion per year and growing. Over 70% of red meat production is exported to 110 countries worldwide.

The Australian red meat and live exports generated \$12.17 billion in 2017⁴ and Australia is one of the world's largest exporters of red meat and livestock. Approximately 438 000 people are involved either directly in the supply chain or in businesses that service the industry.⁵ The Australian domestic market is the industry's largest single market.

The Australian production system is diverse, offering a wide variety of products to customers and consumers. Products include high-quality, tenderness-guaranteed eating products, and hides and pharmaceutical ingredients.

The industry is renowned for its efforts in meeting customer requirements. Major international customers for Australian beef are China, Japan, the US and Korea, with the US and the Middle East the dominant export markets for lamb, mutton and goat meat. However, variation in Halal market requirements is causing confusion, market failure and increased processing costs.

The Australian meat industry has an enviable international reputation as a leader in food safety, meat-eating quality, animal welfare and disease control. This reputation allows access to all global markets where over three million tonnes of Australian product is collectively consumed each year.

The Australian meat processing industry is considered by the Meat IRC to be comprised of the following sectors and sub-sectors.

Abattoirs

Beef and veal

Australia is one of the world's most efficient producers of cattle and the world's third largest exporter of beef. IBISWorld estimates industry revenue to be \$21.1 billion, with the four largest players accounting for an estimated 41.1% of revenue.

Sheep meat

Australia is one of the world's leading producers of lamb and mutton, the largest exporter of mutton and live sheep, and the second-largest exporter of lamb. The domestic market is among the biggest consumers of lamb in the world. The off-farm meat value of the sheep meat industry is \$5.2 billion.⁶ The Australian sheep flock decreased by 2% to 71 million in 2015.⁷

Goat meat

¹ Source: <https://www.mla.com.au/globalassets/mla-corporate/prices--markets/documents/os-markets/export-statistics/jan-2019-snapshots/global-beef-snapshot-jan2019.pdf>

² Source: <https://www.mla.com.au/globalassets/mla-corporate/prices--markets/documents/os-markets/export-statistics/jan-2019-snapshots/global-sheepmeat-snapshot-jan2019.pdf>

³ Source: https://www.mla.com.au/globalassets/mla-corporate/prices--markets/documents/os-markets/red-meat-market-snapshots/2018-mla-ms_global-goatmeat.pdf

⁴ Source: The MLA 2018 *State of the Industry Report*

⁵ Source: pg 2 <https://www.mla.com.au/globalassets/mla-corporate/prices--markets/documents/soti2018.pdf>.

⁶ MLA, 2015, *Australia's sheepmeat industry*. <<http://www.mla.com.au/Cattle-sheep-and-goat-industries/Industry-overview/Sheep>>.

⁷ MLA, October 2017, *State of the industry report: the Australian red meat and livestock industry*, p. 42.

Over the past 20 years, the Australian goat meat industry has experienced strong growth, largely underpinned by the sale of goats derived from rangeland or extensive production systems. Australia is the world leader in goat meat exports, in 2017 the industry was worth over \$257 million⁸. Most goat product is exported. Average goat prices increased by 177% between 2013 and 2016.⁹

Pork processing

The pork industry is focused predominantly on the domestic market, while maintaining a small export industry to New Zealand and Singapore (valued at \$144 million).¹⁰ Competition with the increasing volumes of subsidised imports from North America and Europe continues to be an issue for the industry.

Other species

Australian animals, such as kangaroos, possums, crocodiles and emus, and introduced animals such as horses and pigs, are the basis of significant commercial industries for human consumption and pet food.

Other species such as ratites (emus and ostriches), deer, crocodiles, llamas, alpacas, mutton birds and rabbits are also processed in Australia. Most of the meat is processed for domestic consumption, although skins, feathers, oils, etc. are often specialty export products.

Meat retailing

Meat retailers in Australia include traditional independent butchers, supermarkets, butcher shop chains, and gourmet and specialist retail meat outlets. The Australian Meat Industry Council (AMIC) estimates about 2,700 independent butchers operate throughout Australia, employing about 8,500 people. Woolworths and Coles dominate the supermarket distribution of meat products, with figures produced by Meat and Livestock Australia (MLA) in 2016 indicating that these two companies alone accounted for about 68% of beef, lamb and pork sales.

Poultry processing

The chicken meat industry is predominantly vertically integrated. Generally, individual companies own almost all aspects of production – breeding farms, multiplication farms, hatcheries, feed mills, some broiler growing farms and processing plants. This sub-sector has grown over the past five years due to the popularity of its processed products, with an annual revenue of \$6 billion¹¹. Growing demand for chicken meat has been supported by its lower price compared with other meats, and aided by dramatic improvements in production efficiencies.¹² Labour shortages are contributing to a rapid growth in the adoption of automation, and an increasing use of a casualised workforce.

Wild game harvesting

A wild game animal is an animal that has not been owned, controlled, herded, penned or confined prior to shooting. This sub-sector includes licensed wild game harvesters and mobile depots that harvest wild game, which includes kangaroos, wallabies, pigs, goats, deer, rabbits, hares and brushtail possums, for pet food and human consumption, and for a limited export market. This sub-sector does not include farmed game. Wild game harvesters must comply with strict animal welfare requirements, field dressing procedures, and be able to maintain and check adequate chiller controls in harvesting vehicles and depots.

Smallgoods manufacturing

Smallgoods, including sausages, salamis, bacon, hams, pates and dried, roasted and preserved meat products, are mainly consumed by the domestic market. IBISWorld estimates the total revenue of the industry at \$4 billion with the four top players accounting for less than 50% of total revenue.¹³

⁸ Source: <https://www.mla.com.au/extension-training-and-tools/going-into-goats/>

⁹ MLA, October 2017, *State of the industry report: the Australian red meat and livestock industry*, p. 51.

¹⁰ Source:<http://australianpork.com.au/wp-content/uploads/2019/02/ImportsExportsDom-Prod-November-Report-2018.pdf>

¹¹ Source: <https://www.ibisworld.com.au/industry-trends/market-research-reports/manufacturing/food-product/poultry-processing.html>

¹² Source: IBISWorld, June 2016. <<http://www.ibisworld.com.au/industry/default.aspx?indid=91>>.

¹³ As above.

A significant amount of Australian smallgoods product continues to be manufactured by smaller speciality processors.

Meat wholesaling/food services

The meat wholesaling sub-sector of the meat processing industry is a growing sector of newly emerging companies, primarily made up of boning rooms and value-adding establishments servicing the hospitality and supermarket industry.

Feedlots

A cattle feedlot is a facility where livestock are provided with a balanced and nutritious diet to ensure beef is produced of consistent quality and quantity. Around 2% of Australia's cattle population are located in feedlots. There were record numbers of cattle in feedlots during 2018 due to dry conditions, grain prices and demand factors.¹⁴

Job roles

The following fifty-two jobs have been identified as being covered by the Australian Meat Processing Training Package.

Labourers and general workers	
Boning room packer	
Stock handler	
Processor/packer	
Meat packer	
Production labourer	
Assistant meat retailer	
Cleaner	
Forklift driver	
Storeperson	
Offal room worker	
Assistant smallgoods worker	
Technical, trade and skilled worker positions	
QA Officer	
Meat safety inspector	
Boner	
Slicer	
Laboratory technician/assistant	
Butcher	
Smallgoods maker/manufacturer	Also covers: smallgoods production operator
Bandsaw operator	
Rendering plant operator	
Slaughter floor operator	

¹⁴ The MLA 2018 *State of the Industry Report*

Slaughterer	
Stock controller	
Wild game harvester	
Wild game depot manager	
Senior technical and supervisor positions	
Warehouse supervisor	
Supervisor supermarket meat dept	
Manager retail outlet	
QA manager	
Laboratory Manager	
Supervisor	Also covers: Leading Hand/foreperson; Team leader
Supervisor of meat safety inspectors	
Environment officer	
Animal Welfare Officer	
Animal Welfare Auditor	
Documentation clerk	
Management	
Plant/abattoir manager	Also covers: Enterprise manager;
Meat plant operations manager	Also covers: Operations manager
Meat retail manager	
Smallgoods manufacturing manager	
Section manager	
Livestock Manager	
Maintenance manager	
Special projects manager	
Quality systems manager	
By-products manager	
WHS Manager	
Environment manager	
Graduate positions	
Senior manager	
Plant Manager	
Production Manager	
Sales and marketing manager	

Sector Performance

In 2018, AMP-related businesses contributed \$9.4 billion to Australian gross domestic produce (GDP), with a revenue (sales turnover) of \$53.8 billion¹⁵.

Table 1: Industry performance

Title	Revenue	IVA ¹⁶	Exports	Imports	Wages	Domestic Demand ¹⁷
Meat Processing	\$20.2bn	\$4.5bn	\$12.5bn	\$704m	\$1.9bn	\$8.4bn
Poultry Processing	\$6.5bn	\$1.6bn	\$127.7m	\$65.3m	\$986.8m	\$6.5bn
Cured Meat and Smallgoods Manufacturing	\$3.7bn	\$697.4m	\$36.7m	\$77.1m	\$444.1m	\$3.7bn
Meat, Poultry and Smallgoods Wholesaling	\$17.2bn	\$1.4bn	n/a	n/a	\$502.6m	\$17.2bn
Fresh Meat, Fish and Poultry Retailing	\$6.2bn	\$1.2bn	\$0	\$0	\$812.7m	\$6.2bn

Source: IBISWorld Industry Wizard

The meat processing industry has performed strongly over the past five years due to favourable weather conditions and surging export demand, which has boosted domestic beef and lamb prices despite their respective production volumes decreasing. Meat processing industry growth is likely to slow over the next five years, with domestic meat consumption forecast to remain relatively stable, and export markets continuing to drive industry revenue¹⁸. It should be noted that most of NSW is currently experiencing severe drought, which will have an impact on sheep flock levels as producers reduce their numbers of breeding stock due to weather conditions and fewer lambs are born. Queensland experienced severe flooding in February 2019, with estimated cattle losses of 500,000 with this number expected by some to increase.¹⁹

The poultry processing industry has grown over the past five years, with productivity increasing in relation to demand. Driven by consumer perceptions of it being a healthier option, poultry is now the most consumed meat in Australia, but this has led to its declining retail price. However, the growing popularity of organic, free-range and pre-cooked products, which command higher prices, is expected to boost poultry prices over the next five years and support industry growth.²⁰

Following significant consolidation and rationalisation, the cured meat and smallgoods manufacturing industry has performed strongly over the past five years due to consumer demand for convenient and artisanal (including free-range organic, low-fat and low-salt) products that are often seen as healthier, more sophisticated alternatives to mass-produced staples. The industry is projected to continue its upward trajectory over the next five years, albeit at a lower rate²¹.

Over the past five years, operators in the meat, poultry and smallgoods wholesaling industry have experienced pressure due to structural changes in upstream industries and the prevalence of deals between manufacturers and retailers that bypass wholesalers. Notwithstanding competition from supermarkets and other retailers, industry revenue is projected to grow over the next five years.²²

¹⁵ IBISWorld Industry Wizard

¹⁶ IVA (industry value added): The measure of the contribution by industry businesses to gross domestic product (GDP).

¹⁷ Domestic demand: a measure of total consumption of an industry's goods and services within this country.

¹⁸ IBISWorld Industry Report: C1111 Meat Processing in Australia

¹⁹ Source: <https://www.beefcentral.com/news/aa-co-shares-take-a-pounding-after-flood-stock-loss-announcement/>

²⁰ IBISWorld Industry Report: C1112 Poultry Processing in Australia Industry Report

²¹ IBISWorld Industry Report: C1113 Cured Meat and Smallgoods Manufacturing in Australia Industry Report

²² IBISWorld Industry Report: F3602 Meat, Poultry and Smallgoods Wholesaling in Australia Industry Report

Changing consumer patterns and fierce pricing competition from supermarkets has led to declining profitability in the fresh meat, fish and poultry retailing industry over the past five years. However, projected rising disposable incomes over the coming years are likely to boost demand for high-value products, such as organic meats, leading to modest industry revenue growth.²³

Businesses

The red meat processing sector is dominated by five major participants, including significant foreign ownership, large scale and multinational operations:

- JBS Australia Limited
- Tleys Australia Limited
- NH Foods Australia
- Thomas Foods Australia
- Fletcher International

In addition, there are over 140 meat processing establishments, of varying sizes, across Australia.

While there are processing plants throughout Australia, the highest concentration is on the eastern seaboard. Most processors are located in regional towns, although there are some large processors in the outer metropolitan areas of Brisbane/Gold Coast and Melbourne. In many regional locations, the meat processing enterprise will be one of the largest employers and will have a significant impact on the local economy.

Table 2: Count and size of businesses (operating at end of financial year)

ANZSIC Industry Name	Business Size			
	Non-Employing	Small: 1-19 Employees	Medium: 20-199 Employees	Large: 200+ Employees
Meat Processing	268	199	73	46
Poultry Processing	155	140	32	8
Cured Meat and Smallgoods Manufacturing	62	98	37	9
Fresh Meat, Fish and Poultry Retailing	1,045	3,340	142	0
Meat, Poultry and Smallgoods Wholesaling	470	697	118	3
	2,000	4,474	402	66

Source: 8165.0 Counts of Australian Businesses, including Entries and Exits, Jun 2013 to Jun 2017 (Businesses operating at the end of financial year)

Meat processing businesses are concentrated in Victoria, New South Wales and Queensland. Industry abattoirs are commonly located in rural areas close to livestock producers, which helps to keep transport costs and animal stress to a minimum, while facilitating the appropriation of cheaper land.²⁴

The poultry processing industry is densely clustered in South Australia, New South Wales and Victoria (with Queensland an emerging player), close to regions with significant grain growing operations. Due to the high price of grain storage and poultry feed, processors and businesses have increasingly sought integration with grain farming.²⁵ Inghams and Baiada are the dominant poultry processors in Australia.

²³ IBISWorld Industry Report: G4121 Fresh Meat, Fish and Poultry Retailing in Australia Industry Report

²⁴ IBISWorld Industry Report: C1111 Meat Processing in Australia

²⁵ IBISWorld Industry Report: C1112 Poultry Processing in Australia Industry Report

The cured meat and smallgoods manufacturing industry is concentrated in Victoria, New South Wales and Queensland, although integrated operators are increasingly willing to move their pig herds across the nation to take advantage of more efficient meat processing facilities.²⁶ The dominant smallgoods processors are George Weston Foods and JBS Primo.

Meat, poultry and smallgoods wholesalers are located in rural and urban locations all over Australia. Wholesalers partnering with abattoirs or processing plants often locate close to their saleyards or suppliers. Proximity to livestock producers provides numerous benefits, principally in lowering transport costs (as carcasses are cheaper to transport than live animals).²⁷

The locations of fresh meat, fish and poultry retailers are consistent with population distribution; the majority of businesses are in New South Wales, Victoria and Queensland, in and around shopping centres and strips. Specialist retailers often situate according to specific suburb population demographics (along the lines of income, ethnicity or religion).²⁸

Stakeholders

Stakeholders may include but will not be limited to the following organisations

Industry Sector Associations:

- Red Meat Advisory Council (RMAC)
- Australian Meat Industry Council (AMIC)
- Australian Pork Limited (APL)
- Kangaroos Industry Association Australia
- Australian Lot Feeders Association (ALFA)
- Goat Industry Council of Australia (GICA)
- Australian Chicken Meat Federation (ACMF)

Regulatory Bodies:

- Department of Agriculture and Water Resources (DAWR), Federal
- PrimeSafe, Victoria
- South Australian Meat Hygiene Unit, South Australia
- NSW Department of Primary Industries, Biosecurity and Food Safety,
- Safe Food Production Queensland (SafeFood Qld)
- Department of Health, Western Australia
- Department of Primary Industries, Parks, Water and Environment, Tasmania
- Department of Primary Industries and Resources, Northern Territory
- AUS-MEAT

Employee Associations

- Australasian Meat Industry Employees Union (AMIEU)

Industry R&D Services Bodies

- Australian Meat Processor Corporation (AMPC)
- Meat and Livestock Australia (MLA)
- AgriFutures Australia

Industry Services Bodies

- National Meat Industry Training Advisory Council (MINTRAC)

See APPENDIX 2 for a detailed breakdown of stakeholders

²⁶ IBISWorld Industry Report: C1113 Cured Meat and Smallgoods Manufacturing in Australia Industry Report

²⁷ IBISWorld Industry Report: F3602 Meat, Poultry and Smallgoods Wholesaling in Australia Industry Report

²⁸ IBISWorld Industry Report: G4121 Fresh Meat, Fish and Poultry Retailing in Australia Industry Report

Industry challenges and opportunities

Structured training is becoming increasingly important as companies seek to maintain the viability and competitiveness of all sectors of the industry in both domestic and international markets. Ongoing training is a critical component of addressing customer demands and expectations, and the presence of a sophisticated and well established vocational education and training system has lead to a demand for higher level qualifications at Diploma and Advanced diploma level.

The industry is responding to:

- expectations from consumers, retailers and governments of high environmental and ethical standards, including food safety and animal welfare
- meeting ever increasing regulatory requirements (including export licensing, food safety, quality assurance, animal welfare, environment, work health and safety, and workers' compensation)
- the competitiveness and ever-changing nature of international markets
- the suggestion that the Australian red meat processing industry may face higher costs to operate than key international competitors²⁹
- the need to attract, develop and retain a productive workforce
- biosecurity management and the importance of protecting Australia's international reputation for producing a safe clean meat product
- the need to entice a new generation into the industry and to ensure succession planning is in place for the current workforce
- the need to ensure that learning and education opportunities exist for those already in the industry
- the challenges presented by energy costs, climate variability and other environmental factors
- the need to continue to innovate in order to remain competitive and ensure the viability of the industry into the future
- marketing and promotion requirements as markets diversify and more meal options become available
- the need to respond to an increasing interest in and competition from 'fake' and 'clean' meat alternatives
- whole-of-supply chain accountability in areas such as animal welfare and traceability
- the impact of social conscience and values, price and health considerations on meal choices
- the increase of animal activism and anti-meat social media campaigns
- increasing focus on social license to operate³⁰
- the continuing consolidation of large-scale, factory-based smallgoods production
- customer demands for higher standards of game meat processing and the monitoring and auditing of game harvesting depots
- the development of leading-edge boutique businesses operating across meat sectors
- enterprise capability in WHS compliance management for those companies that are self-insured
- the outcomes of the current national review of post-mortem inspection, likely resulting in changes to the Schedules of the Australian Standard, requiring some industry re-training.

Market and Trade Components

Demand for meat and meat products is largely dependent on the demand in the export market. Approximately 70% of the red meat processed in Australia is exported. This export demand is a result of:

- the state of the international economy
- the exchange rate
- livestock numbers in our major markets

²⁹ AMPC October 2018, *Analysis of regulatory related costs in red meat processing*

³⁰ RMAC February 2019, *A better red meat future*, a green paper for the Red Meat MOU identifies this as an important issue for the industry

- the international reputation Australia has for producing clean, high quality and environmentally sustainable meat products
- increasingly, the benefits derived from free trade agreements.

The supply of livestock in Australia to meet this demand is impacted by:

- competition from live exporters
- drought impacting on numbers
- industry cycles in rebuilding of herds and flocks
- producers moving out of livestock and into cropping.

While the industry is a relatively small player in global production terms, it does produce around 3% of the world's beef, 8% of the world's sheep meat and 0.5% of global goat meat production. It is on the global export stage that the Australian industry makes a significant contribution to the world's need for high-quality protein. In 2015, by value, Australia was the world's largest exporter of beef and goat meat and the second largest exporter of sheepmeat.³¹ By numbers, Australia was the world's largest exporter of livestock.³²

Likewise, the industry makes a vital contribution to Australia's overall trade performance, generating \$7 billion in export earnings in 2015–2016, placing the industry in the top seven Australian export industries.³³

Globally, real per capita incomes will increase by 60% to 2030. Red meat consumption and per capita income are closely related; this translates to an increase in red meat demand of 25% over that period, as well as an increase in demand from markets specifically seeking high-quality red meat and livestock products. These forecasts present an enormous opportunity for Australia's red meat and livestock industry for geographical proximity to key markets and as a recognised supplier of safe, nutritious and ethically-produced products.

A productivity challenge continues to face the Australian meat processing industry, both on- and off-farm. Off-farm costs are consistently higher than all of Australia's major competitors, while on-farm productivity performance is now below that of productivity improvements being secured by major competitors. When combined with the forecast of declining real prices for livestock, the onus on production sectors to exhaust existing pathways to productivity and find new pathways is an ongoing challenge for the industry.

Australia has been processing meat for halal markets for many years, and employees have traditionally undertaken the existing meat processing qualifications with separate certifications being carried out by a number of Islamic organisations. However, the move towards a single Australian Halal Certification system in response to the recommendations from The Senate Economics References Committee Inquiry into the third party certification of food (December 2015), has signalled the need for a unified approach to endorsement through the *AMP Australian Meat Processing Training Package*.

Over many years, the industry has invested in the technologies and systems that have built a reputation as a high-quality, safe, ethical and sustainable producer of red meat and livestock. The industry's work and commitment to maintain and improve integrity systems underpins Australia's international reputation. Continuing to invest and innovate in this area is essential. The industry requires concerted focus and robust systems to support greater integration through the supply chain, especially with respect to increasing the connectivity and responsiveness of the industry to its customers, and to the broader community.

The poultry processing industry has been driven by ever increasing consolidation as larger companies and bigger operations are being met with demands from their customers for increased output with strict portion and quality control. There are also new legislative and food safety demands being placed on the processor from authorities to meet new and ever tighter food safety and hygiene regulations.

To meet these demands, the poultry processor is turning to more and more automation on the processing line and in most cases, complete line systems that can handle processing from the arrival

³¹ MLA, 2017, *State of the industry report: The Australian red meat and livestock industry*.

³² RMAC, 2015, *Meat industry strategic plan – MISP 2020*.

³³ Department of Foreign Affairs and Trade, 2017, *Australia's trade at a glance*. <<http://dfat.gov.au/trade/resources/trade-at-a-glance/pages/top-goods-services.aspx>>.

of the live birds through to packaging and dispatch. Automated processing of poultry has several important benefits when compared to manual processing: processors can reach a much higher level of production; greater production efficiency; a more consistent and manageable process with optimal logistics and high value; high yield; and end-products.

In the feedlot industry the numbers of cattle on feed have reached unprecedented levels and are expected to continue to increase. This is driven by global demand for Australian branded beef, a favourable currency, as well as drought conditions on the east coast of the country. Profit margins in the industry are sensitive to increasing grain prices³⁴. The total economic contribution of the Australian feedlot industry to the GDP(direct and indirect) in 2017 was \$4.4 billion, and approximately 31,000 FTE employees. If the feedlot sector were to shut down it is estimated that this would reduce the size of the economy by over \$10 billion and 49,000 employees.³⁵

Automation not only helps food processors address the skilled labour gap, it also helps reduce the risk of employee injury from repetitive motion stress and increases food safety by reducing the risk of cross contamination. However, there are gaps in the availability of endorsed training for this industry.

The outlook to 2030 points to ongoing nominal growth in the value of the Australian red meat and livestock industry. However, all other elements being equal, the prolonged period of herd rebuilding required to offset the record cattle slaughter levels of 2014, as well as to rebuild the north Queensland cattle herd, will limit the industry's ability to capitalise on the increase in global demand for red meat products.

Biosecurity

Recently there has been increased focus in the industry on enhancing management of biosecurity risks, in particular how prepared companies are for dealing with emergency animal diseases (EADs) and their surveillance practices. Australia currently has a good reputation domestically and in international markets for producing clean, green, and safe meat, however serious outbreak of disease in this country would have serious long term impacts to all areas of the supply chain. The recently released Red Meat Advisory Council (RMAC)'s Green Paper³⁶ poses a scenario in which a catastrophic biosecurity outbreak occurs and how current governance arrangements would respond. The paper suggests that an outbreak could have disastrous impacts for the industry, including impacting herd sizes, undermining efforts to improve market access, tarnishing the industry's reputation for clean and green meat, accelerate a loss of market share to alternative protein sources, and cause the imposition of greater regulatory obligations.

There have been a number of reforms of Australia's biosecurity system since 2012,³⁷ and these continue to be implemented and improved through government investment and initiatives such as *Stronger Farmers, Stronger Economy – Improvements to Accessing Premium Markets – Improve Biosecurity* funded through the Agricultural Competitiveness White Paper - Biosecurity Surveillance and Analysis³⁸. There has also been the Health 4 Wealth research and development project, the aims of which are to introduce a standardised approach to collection of disease data, support processors in providing this data back to producers and help producers to understand and utilise the feedback and to drive change. This project is jointly funded by government and industry, with contributing organisations including DAWR, Australian Pork Limited (APL), The Australian Meat Processor Corporation (AMPC), Meat and Livestock Australia (MLA), SARDI and AgVic.

Digital technologies and market shifts

The Meat Industry Strategic Plan (MISP) 2020 states that a key to the industry's success will be the ability to optimise the systems, technologies and practices within immediate control. Of increasing importance is the ability to ensure these elements are actively used to align industry practices with consumer and community expectations.

³⁴ Source: ALFA Media Release, November 2018 <http://www.feedlots.com.au/industry/quarterly-survey>

³⁵ Source: MLA, October 2018, *Regional feedlot investment study*

³⁶ RMAC, February 2019, *Towards a better red meat future, a green paper for the Red Meat MOU*

³⁷ Source: <http://www.agriculture.gov.au/biosecurity/australia/biosecurity-reform>

³⁸ Source: <http://www.agriculture.gov.au/biosecurity/aqwhitepaper-bio-surveillance-analysis>

One key requirement identified in MISP 2020 is the need for a whole-of-supply-chain electronic data-exchange capability, which can support industry specification, quality and integrity systems and provide open and transparent access for all relevant parties.

Through its primary research development corporations (RDCs), the Australian Meat Processor Corporation (AMPC) and Meat and Livestock Australia (MLA), the industry continues to invest in the development of new technologies.³⁹

AMPC's Processing Technologies program focuses on developing novel processing technologies; enhancing the adoption and commercialisation of technology throughout the industry; improving materials handling to reduce waste; and developing innovative meat products and possibilities for product differentiation.

AMPC ensures that there is a clear link between its research and development programs and implementation through its extension programs, and this includes monitoring the need to make changes to the training package. This means that the need for new/updated training products is identified as part of the implementation process.

Over the past three years, MLA has worked with industry, research institutes and technology providers to develop the application of DEXA (Dual energy X-ray absorptiometry), an objective measurement tool that measures meat, fat and bone on a carcass (carcass composition). As a result of recent reports, implementation of this technology is now being fast-tracked. This information can help the entire red meat value chain make more informed business decisions to improve on-farm and processing efficiency and deliver a product preferred by customers. The pig industry has developed, and is trialling, similar technology specific to pig processing through PorkScan. The Meat Industry Reference Committee is closely monitoring this development and its potential impact on the training system.

Internationally and domestically there has been a great deal of interest in blockchain technology and there is significant research and investment being undertaken. Meat and Livestock Australia states on their website that most of the activity currently being undertaken around blockchain technologies in Australia is still at the proof of concept stage with limited measurable impact. The research organisation is undertaking several research projects to identify valuable blockchain use cases for the red meat industry, which the Meat IRC will monitor.⁴⁰

Future markets

MISP 2020 identifies the current most valuable export markets as:

USA	\$4.0 billion
Japan	\$2.0 billion
China	\$1.1 billion
South Korea	\$1.1 billion
Taiwan	\$0.9 billion.

Under MISP 2020, marketing and promotion in export markets will focus on developing markets and the industry's underpinning quality and safety systems. It is expected that commercial parties will undertake the majority of effort in developed export markets, underpinned by industry quality and safety systems.

Environmental

The industry contributes extensively to Australia's social and environmental objectives. As caretakers of around half the continent's landscape, Australian red meat and livestock producers have a vested interest in continually improving sustainable farming practices. MISP 2020 states that greenhouse gas emissions' intensity has been reduced by 14% over the last 30 years ,while red meat production levels have increased by more than 70% over that period. In addition, the industry has achieved a 42% reduction in emissions associated with vegetation protection and tree planting, and a 65% reduction in water use.

Under the title of 'stewardship of environmental resources', the stated objectives in MISP 2020 are:

³⁹ AMPC, 2016, *Request for proposals (RFPs) FY2016-17*.

⁴⁰ Source: <https://www.mla.com.au/research-and-development/blockchain/>

- minimising industry impact on the environment
- sustainable management of the natural resource base
- adapting to climate variability.

Current AMPC research and development in this area includes projects seeking to reduce energy consumption and greenhouse gas emissions; improving industry awareness, capabilities and attitudes to adapt to climate variability; improvement of wastewater management and capturing value from waste products; exploring options to improve industry infrastructure; and maintaining efficient food safety and product integrity controls.

Free trade

Australia has signed free trade agreements (FTAs) with the USA, ASEAN, Korea, China, Peru and Japan. The consensus across the Australian meat processing industry is that the recently signed FTAs bring strong benefits to the industry, predominantly in the form of tariff reductions, which increase our international competitiveness. It is estimated that the benefits of Australia's the three North Asian FTAs with Korea (KAFTA), Japan (JAEPA) and China (ChAFTA) will result in a combined \$20 billion in extra value for the Australian industry over the next 20 years. January 2018 saw another cycle of annual tariff and quota relaxations on red meat exports to customer countries such as Korea, China and the US. However, the positive impact of these has been tempered against stock shortages and high cattle prices relative to other international suppliers.⁴¹

The beginning of 2019 has seen the significant reduction or abolishment of a number of tariffs, with almost all tariffs on product going into China largely eliminated under the ChAFTA from 1 January 2019. In addition to this, the Comprehensive and Progressive Agreement for Trans Pacific Partnership (CPTPP) came into force on 30 December 2018 which will mean a number of new trade options overseas due to reductions associated with entry and an annual tariff reduction⁴²

MISP 2020 states that as economic barriers fall, there will likely be an increase in technical barriers for both meat and live animals – currently costing \$1.3 billion annually – that will require a greater proportion of market access effort over the life of the plan. Border protection measures, including tariffs and quotas, are the most obvious. However, non-tariff barriers are also major issues, such as unfair competition in the form of subsidies, technical imposts, and exports from countries that subsidise their domestic industries.

Future investment

Economic modelling has identified the key investment pillars that stand to yield the greatest value in MISP 2020. The industry's ability to support these investments with appropriate resources, and monitor and communicate their value, will ultimately ensure the economic potential of the plan is fully realised.

MISP 2020 recommended a range of strategic investment priorities specifically related to red meat processing, including:

- increased investment in improving the flow of information and traceability that underpins business decisions through the supply chain
- increased investment in improving livestock and product assurance and specification compliance
- reduced investment in marketing and promotion in developed markets.

In March 2018 RMAC released a progress report showing that the anticipated level of industry investment has been delivered across the four pillars of the MISP2020, with significant benefits realised, however the targets relating to supply chain and efficiency will be realised significantly more slowly than originally thought. Overall, at the current trajectory it is anticipated that the growth in industry income will be closer to 85% of the proposed target for 2030 (\$6.6 billion instead of \$7 billion).

Access to nationally consistent training resources

⁴¹ Source: Beef Central, 17 January 2018.

⁴² Source: <http://minister.agriculture.gov.au/littleproud/Pages/Media-Releases/Tariff-cuts-and-better-access-for-Aussie-farmers-on-Jan-1.aspx>

Australia is one of the top red meat exporters internationally, however there is increasing competition in the international marketplace.⁴³ The nationally consistent training system is recognised internationally and for many countries who import Australian product this is critical to market access. For example, formal recognition of Australian training is recognised by the European Union to satisfy animal welfare training requirements.

Many meat industry businesses are located in regional and rural areas, and so struggle to retain access to training. Training providers often struggle to be able deliver cost-effective training to small numbers of students across wide geographical locations as well as providing the most relevant electives for job outcomes.

The industry has been addressing the difficulties of ensuring access to training in regional and rural locations and mitigate the cost for RTOs by funding the development of standardised and consistent training and assessment materials which RTOs can customise and contextualise for their own use.

The materials map directly to the units and qualifications from the AMP Australian Meat Industry Training Package and are managed and updated by the National Meat Industry Training Advisory Council Limited (MINTRAC).

The funding sources used to develop these resources are no longer available, and there are still a number of gaps in these resources, including:

- the materials are heavily red-meat focused and do no cover poultry processing. Poultry processing units were migrated into the last release of AMP
- the next release of AMP will include thirteen new units of competency, eleven of which do not have materials available
- there are 198 imported units in the AMP Training Package, most of which do not have any meat industry contextualised training resources developed

The provision of training and assessment materials is likely to support training organisations in establishing and encouraging enrolments in those units for which contextualised resources are currently unavailable. With a history of developing quality training and assessment products and materials, MINTRAC is well-placed to fill the gaps in availability of AMP Training Package Release 3.0 resources and therefore support the job outcomes that these as-yet neglected units facilitate.

⁴³ MLA, 2018, *State of the industry report: The Australian red meat and livestock industry*.

Training Package Overview

As at February 2019, there are 121 registered training organisations (RTOs) approved to deliver AMP Training Package components.⁴⁴ However, this number reflects the number of RTOs with implicit scope to deliver these components, and the number of RTOs who are actively working with AMP components is actually 44.

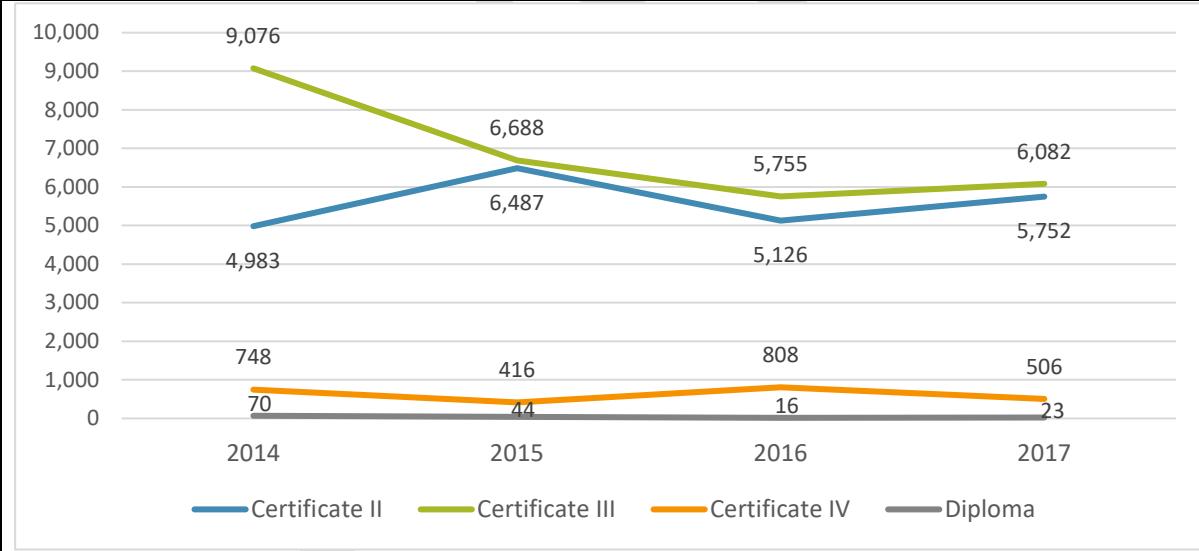
The industry self-funds the Diploma of Meat Processing, with an intake of students every year. The industry also self-funds the Advanced Diploma of Meat Processing, which runs as a national program approximately every two years. The Graduate Certificate has run once as a national program and is expected to be offered again in 2020.

Between 2014 and 2017, there were more than 52,600 program enrolments^{45,46}, 12,000 program completions (see APPENDIX 1), and 437,000 subject enrolments.

Up to 2016, there was a steady decrease in program enrolments and completions. In 2017, completions continued to fall; however, enrolments increased by 5.6 per cent (660) to nearly 12,400. Likewise, subject enrolments declined steadily from 2014 (115,174) to 2016 (101,278), but increased by 5.8 per cent (5,839) in 2017.

In 2017, there were low enrolments in Diploma (23), Advanced Diploma (two), Graduate Certificate (zero) and Graduate Diploma (six) qualifications. Certificates II, III and IV accounted for 99.7 per cent of enrolments (see Figure 1). There are no enrolment numbers for Certificate I as there are no Certificate I qualifications in the AMP Training Package.

Figure 1: Program enrolments by AQF level



Source: NCVER VOCSTATS, TVA program enrolments 2014-2017

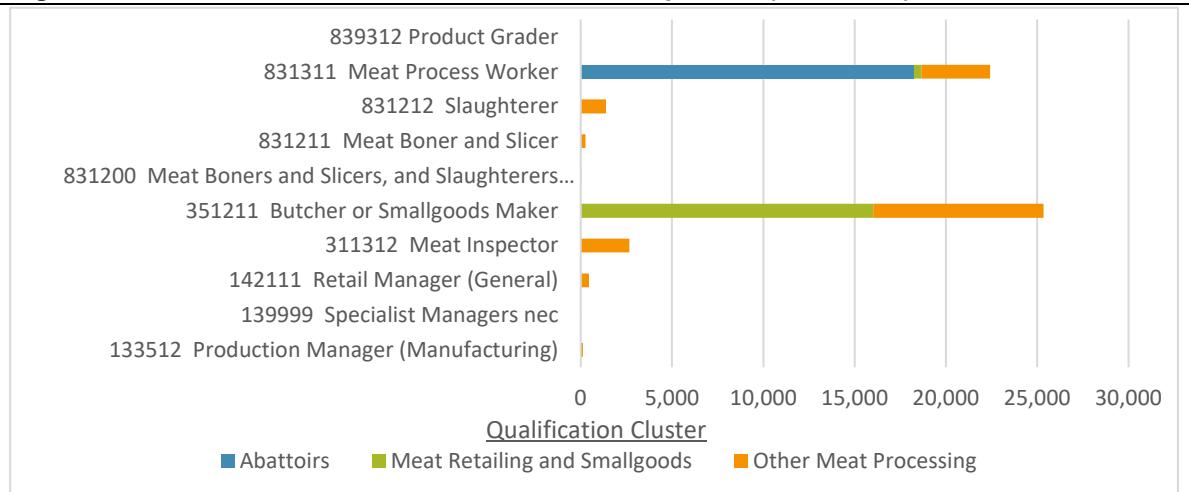
Between 2014 and 2017, Certificate II in Meat Processing (Abattoirs) and Certificate III in Meat Processing (Retail Butcher) made up 35 and 21 per cent of AMP Training Package enrolments respectively. These contributed to enrolments being weighted towards the intended occupations of 'Meat Process Worker' and 'Butcher or Smallgoods Maker' (see Figure 2; also Figure 7).

⁴⁴ <https://training.gov.au/Training/Details/AMP>

⁴⁵ Including MTM11 qualifications.

⁴⁶ Students from non-English-speaking backgrounds accounted for one-quarter of enrolments during this time. Indigenous learners accounted for five per cent, and people with disabilities four per cent (NCVER VOCSTATS, TVA program enrolments 2014-2017).

Figure 2: Qualification clusters⁴⁷ and intended occupations (2014-2017)

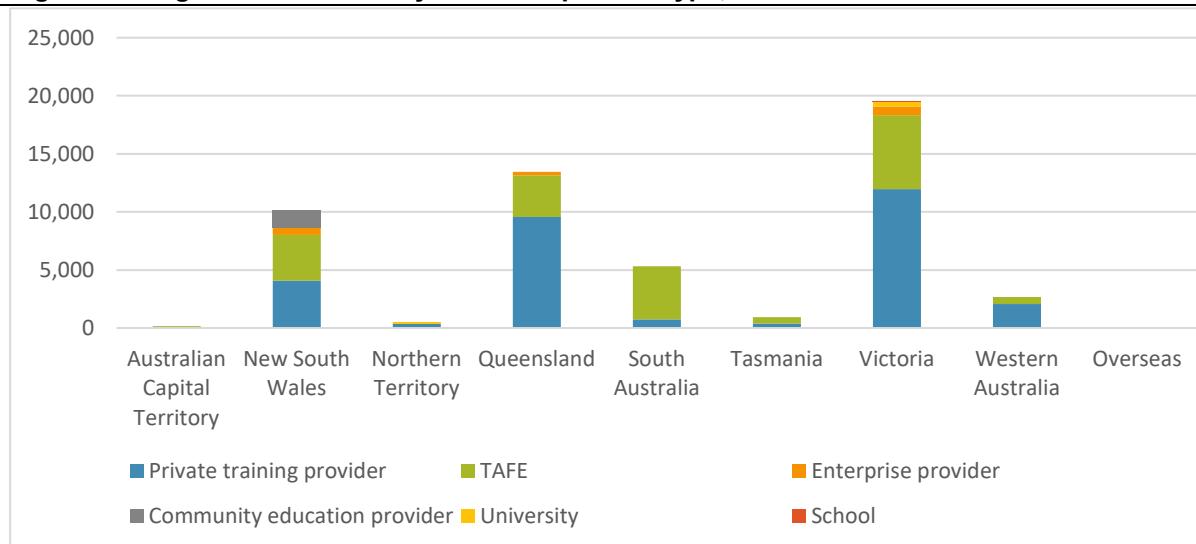


Source: NCVER VOCSTATS, TVA program enrolments 2014-2017

Around 55 per cent of AMP program training was delivered by private training providers (RTOs) between 2014 and 2017, with TAFEs accounting for a further 37 per cent. In that time, 84 per cent of subjects delivered at RTOs and 87 per cent of subjects delivered at TAFEs were government-funded (with the rest mostly domestic fee-for-service).

Between 2014 and 2017, 37 per cent (19,489) of program enrolments were in Victoria. Queensland (26 per cent) and New South Wales (19 per cent) also show significant proportions (see Figure 3).

Figure 3: Program enrolments by state and provider type, 2014-2017

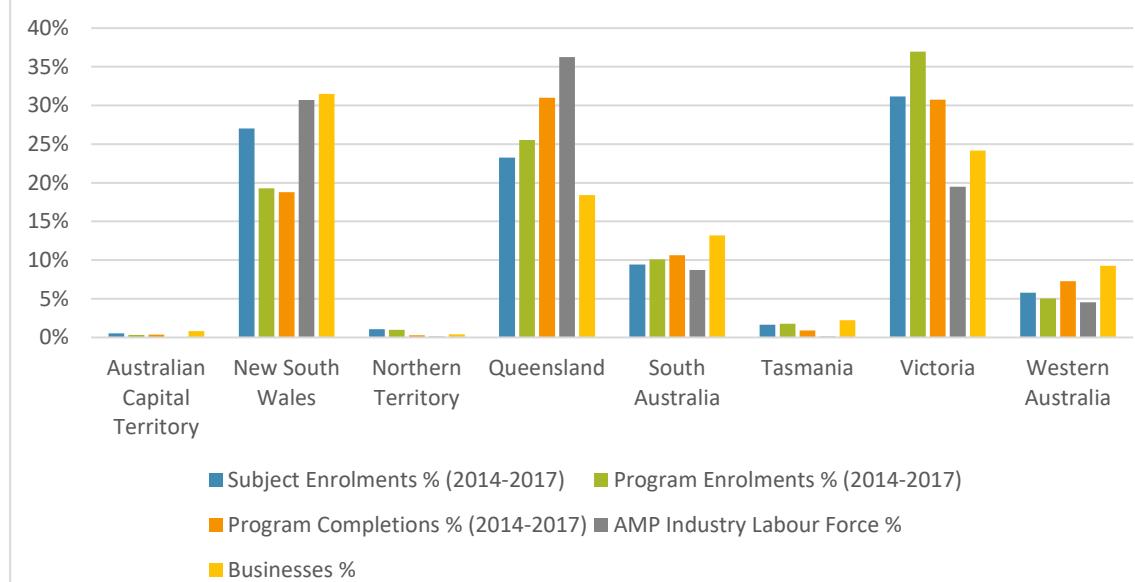


Source: NCVER VOCSTATS, TVA program enrolments 2014-2017

Indeed, the states in which there are large proportions of enrolments generally correlate with the locations of **Businesses** and **Employment**.

⁴⁷ The 'Abattoirs' cluster consists of only *Certificate II in Meat Processing (Abattoirs)*. The 'Meat Retailing and Smallgoods' cluster consists of Meat Processing qualifications in Meat Retailing, Smallgoods (General/Manufacture) and Retail Butcher. The 'Other Meat Processing' cluster consists of Meat Processing qualifications in Food Services, Boning Room, General, Livestock Handling, Meat Safety, Packing Operations, Quality Assurance, Rendering, Slaughtering, Leadership and Agribusiness.

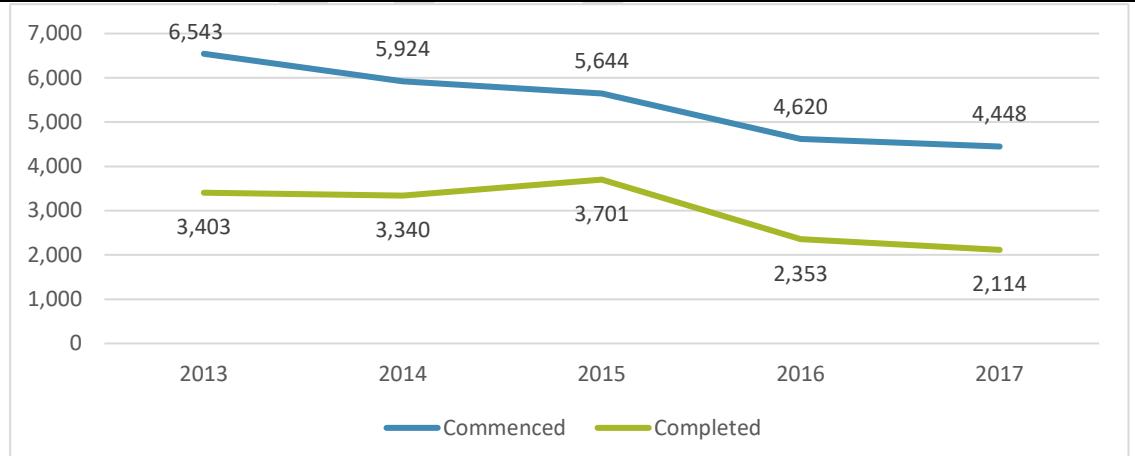
Figure 4: State proportions of enrolments, completions and AMP-related labour force



Source: Sources: a) NCVER VOCSTATS, TVA subject enrolments 2014-2017; b) NCVER VOCSTATS, TVA program enrolments 2014-2017; c) NCVER VOCSTATS, TVA program completions, 2014-2017; d) Australian Bureau of Statistics - 6291.0.55.003 - EQ06 - Employed persons by Industry group of main job (ANZSIC), Sex, State and Territory, November 1984 onwards

Traineeship and apprenticeships in each state likewise loosely mirror states' proportions of program enrolments. However, there has been a steady decline in both commencements and completions (see Figure 5).

Figure 5: Apprentice and Trainee commencements and completions, 2013-2017



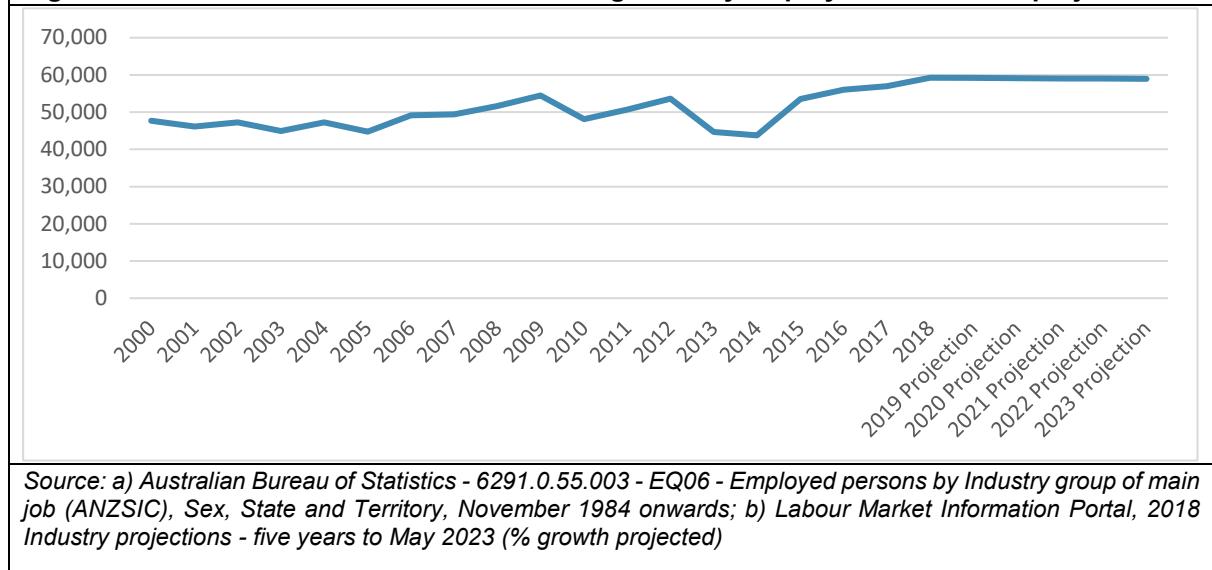
Source: NCVER, SAS Visual Analytics Viewer

EMPLOYMENT & SKILLS OUTLOOK

Employment

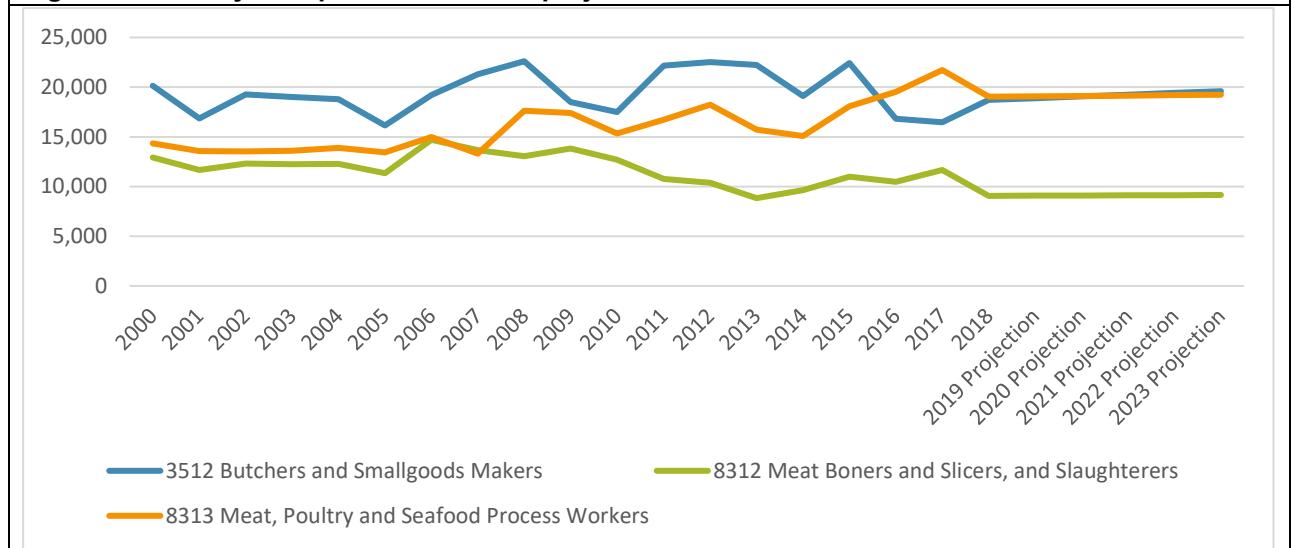
Total direct employment (59,241) in the meat and meat product manufacturing industry is at its highest on record⁴⁸ following a relative slump in 2013 and 2014 (see Figure 6).

Figure 6: Meat and Meat Product Manufacturing industry employment level and projection



While overall industry employment is projected to decrease by 0.5 per cent by 2023, the three main occupations – the top two of which align with prevalent qualification occupations (see Figure 2) – are projected to marginally increase (see Figure 7).

Figure 7: Industry occupation levels and projections



⁴⁸ ABS, 2018, 6291.0.55.003 - Labour Force, Australia, Detailed, Quarterly, Aug 2018, EQ06 - Employed persons by Industry group of main job (ANZSIC), Sex, State and Territory, November 1984 onwards (Pivot Table)

Source: a) 6291.0.55.003 - EQ08 - Employed persons by Occupation unit group of main job (ANZSCO), Sex, State and Territory, August 1986 onwards; b) Labour Market Information Portal, 2018, Occupation projections - five years to May 2023 (% growth projected)

Almost 87 per cent of the labour force resides in Queensland, New South Wales and Victoria. Meat and meat product manufacturing in those states – especially regional areas – directly and indirectly supports employment in various other industries; for example, in the ‘agriculture, forestry & fishing’ sector and ‘pulp, paper and converted paper product manufacturing’⁴⁹.

The only sector-specific occupation that requires a professional accreditation licence is ‘meat inspector’, and registration can be through a federal or state authority (depending on the nature of the enterprise). Licensed occupations or roles not specific to the meat industry, but which are essential to its on-going functions, include veterinarians, animal welfare officers, electricians, plumbers and forklift operators.

Skills

With the continuing growth of technology solutions and strong focus of research and development activity in this area, the meat processing industry needs to prepare for changing skills requirements at all levels of operation. In addition, international emphasis on biosecurity, food safety and traceability place greater demand on individual businesses to identify and manage associated risks.

The main occupations of employment in the meat processing industry are meat and poultry process workers (including seafood process), packers, meat boners, slicers, and slaughterers. Other occupations include butchers, smallgoods makers, livestock farm workers, forklift drivers, commercial cleaners, and production managers.

The proportion of people working as packers and forklift drivers increased by 1% from 2006 to 2016. Occupations that increased in number but decreased in proportion of all employees in the meat processing industry include meat boners, slicers and slaughterers, butcher and smallgoods makers and commercial cleaners.

Labourers and general workers

- Numbers of employees are expected to remain much the same.
- Customer requirements will place a greater focus on formal qualifications for stock handlers.
- Increased pressure for the provision of nationally endorsed training for itinerant and temporary workers.
- Continuing increase in warehousing and logistics skills and knowledge for loadout; greater requirement for technological skills.
- Consistent demand for task-related training (not necessarily nationally endorsed) in feedlots.

Technical, trade and skilled worker positions

- Overall numbers of employees expected to remain much the same.
- Customer requirements will place a greater focus on formal qualifications for stock slaughterers.
- Expected increased demand for the new Certificate III in Meat Processing (Quality Assurance).
- Greater diversification of skills, especially in boning and slicing, will be required as new technologies are introduced.
- Engineering tradespersons may require cross-trade maintenance skills, especially when working with new technology.
- Continuing emphasis on formal training in the management and maintenance of ammonia refrigeration.
- Increased requirements for food service qualifications with the increase in independent boning rooms.

⁴⁹ AMPC, 2016, Evaluating the Socio-Economic Benefit of the Red Meat Processing Industry in Regional Australia

- Greater demand for Certificate III in Meat Processing (Smallgoods - General) as national consolidation of enterprises is completed.
- Quality assurance training to meet NFAS accreditation requirements in feedlots.
- A continuing need for national consistency in the collection of animal health data.
- Game harvesting auditing skills and greater understanding of field depots to identify and prevent biosecurity hazards and risks

Senior technical and supervisor positions

- Greater emphasis on emergency animal disease recognition and preparedness
- Demand for a greater understanding of Halal markets, processing requirements and auditing requirements
- Continuing demand for skills and knowledge related to logistics and warehousing.
- With the increase in independent boning rooms and greater emphasis on wholesale value-adding, there will be increased demand for food service qualifications at Certificate III level.
- Increased shift of responsibility and accountability for food safety to plant-based QA personnel, resulting in training from the *AMP Australian Meat Processing Training Package* continuing to be important, particularly in the areas of meat microbiology, food safety, data interrogation, and quality systems management skills.
- Meat processors will continue to be active in seeking solutions in energy efficiency and wastewater usage.
- Greater knowledge of and capacity to assess emerging packaging technologies.
- Ongoing demand for task-related training (not necessarily nationally endorsed) in specialised areas in feedlots.
- Increased focus on horse riding and handling safety in feedlots and lairages, but shift away from nationally endorsed training.

Management

- Increased focus on biosecurity awareness and preparedness.
- Increased focus of the supply chain on productivity and traceability
- Increased demand for *AMP Australian Meat Processing Training Package* training in project management, particularly in relation to implementation of new technologies.
- Continued demand for formal qualifications such as the Diploma and Advanced Diploma of Meat Processing.
- Increased demand for financial and project management training in feedlots.
- Increased demand for supervisory and leadership skills in poultry processing.

KEY DRIVERS FOR CHANGE AND PROPOSED SOLUTIONS

This section will cover the proposed projects for 2019 – 2020.

Key Drivers	Proposed Solutions	Stakeholder Impact	Risks of not Proceeding
Review of the Diploma and Advanced Diploma qualifications			
Diploma of Meat Processing (Meat Retailing) has had very few graduates A need for career development needs of meat retailers to be addressed The impact of rapid technological development, automation, Big Data on management roles in the industry Growing need and interest from maintenance and tradespersons in higher level pathways Poultry processors and feedlot subsectors not considered when qualifications first developed Changes to imported units mean they may not longer be relevant or suitable for use in the meat industry Increasing vertical integration requiring staff to be able to move to different sectors and understand all aspects of operation	Removal of the Diploma of Meat Processing (Meat Retailing) Ensure Diploma of Meat Processing includes sufficient development options for retailers Reviewing current units for suitability, reviewing imported units. Searching for any newly developed units to determine if they are suitable for inclusion Developing new units where gaps in coverage are identified, including poultry and feedlot subsectors	Improved skills of managers in the industry Updated qualifications to meet changing industry requirements and new developments Increased training options and career development pathways for meat retailers, people working in feedlots, poultry processing, and maintenance Increased mobility of labour between industry subsectors	Current qualifications not providing up to date skills and knowledge Qualifications and units losing fitness for purpose, particularly in identified subsectors Duplication of units or qualifications, and retention of obsolete units Retention of a redundant qualification with skills that can be met in existing qualifications Failure to maintain currency with legislation and regulation
Development of new units and skill sets for halal meat processing			
Expansion of Halal export meat trade Senate Inquiry into Third Party Certification recommendations for a single Australian Halal certification system Variation in Halal market requirements causing	Three new skill sets covering: <ul style="list-style-type: none">• Halal slaughter• Halal auditing• Halal processing requirements A unit to cover slaughtering in	A unified training approach to halal meat processing Improved skills for operators undertaking Halal slaughter, auditing and processing	Increased costs related to non-compliance Risk of loss of market access for Halal markets

Key Drivers	Proposed Solutions	Stakeholder Impact	Risks of not Proceeding
<p>confusion and increased costs</p> <p>Export establishments are failing Halal market audits due to inconsistent implementation of Halal procedures.</p> <p>Support for new skill sets from the Commonwealth Department of Agriculture and Water Resources Halal Consultative Committee</p> <p>Active support from the Australian meat production and processing sector</p>	<p>accordance with Halal requirements</p> <p>A unit to address the specific requirements of conducting a Halal audit</p> <p>A unit for Quality Assurance managers to identify and address different Halal market requirements, including certification</p> <p>A unit for involved non-Muslims covering the need to understand Halal and Tayyib, and the Halal production process</p>	<p>Improved industry performance in Halal audits</p> <p>Improved market access</p> <p>Creation of nationally-recognised training products</p>	<p>Risk of non compliance in Halal audits</p> <p>Failure to maintain currency with Halal market requirements</p>
Development of new unit and skill set for game harvesting auditing			
<p>Increased requirements for game harvesters to identify and prevent biosecurity hazards</p> <p>Increased markets for game meats and need for product to be safe for human consumption</p> <p>Industry need for capability for conducting internal audits of depots/chillers</p>	<p>A new unit – Inspect wild game field depot</p> <p>A skill set to cover the auditing of a game harvesting field depot</p>	<p>Improved mobility of labour and skills to improve employer and employee options</p> <p>Enhancement of food safety and skills for consumers</p>	<p>Failure to maintain currency with legislation and regulation</p>
Addressing gaps in poultry processing training			
<p>Consolidation in the industry meaning small and medium enterprises have merged or been taken over by larger companies</p> <p>Increased customer demand for portion and quality control</p> <p>New legislation and food safety demands</p> <p>Increasing automation on the processing line</p>	<p>Development of skill sets to cover:</p> <ul style="list-style-type: none"> • Quality Assurance • Pre-processing • Processing • Further processing • Waste disposal/environment <p>A unit to cover monitoring product flow in an automated process</p> <p>A unit to cover packing and packaging of bulk product</p>	<p>Improved mobility of labour and skills to improve employer and employee options</p> <p>Enhancement of food safety and skills for consumers</p> <p>Increased training options and career development pathways poultry processing workers</p> <p>Improved safety for employees through improved training</p>	<p>Failure to maintain currency with legislation and regulation</p>

Key Drivers	Proposed Solutions	Stakeholder Impact	Risks of not Proceeding
Development of contextualized training and assessment support materials			
<p>Ensure nationally consistent training to meet national and international market requirements</p> <p>To improve training availability in regional and rural areas, by minimizing costs for RTO delivery</p> <p>To improve enrolments in elective Units of Competency, which may otherwise not be offered by RTO or have low enrolments</p>	<p>Development of contextualised training and assessment support materials for up to 35 units of competency.</p>	<p>Ensure completed Units can be used to provide evidence for compliance and market entry purposes for national and international markets</p> <p>Improve consistency of training delivery and assessment across the industry</p> <p>Support established and new RTOs to deliver quality services and to offer new and imported units of competency as electives</p> <p>Improve access to training in thin markets</p>	<p>Reduction in RTO with the training on scope, or providing particular electives</p> <p>Barriers to market entry, particularly in international markets</p> <p>Reduced standards of competency and formal assessment of competency</p>

CONSULTATION UNDERTAKEN

Consultation has been undertaken throughout 2018 – 2019 and continues. Each IRC member undertakes their own consultations and networking with industry stakeholders and organisations, training organisations.

The Meat IRC has overseen and guided consultations undertaken by Skills Impact both to support the development of the Skills forecast 2019-2022, and as part of consultations on the completion of current projects within the AMP Training package. Organisations that have been consulted include:

- The Australian Meat Industry Council (AMIC)
- Meat and Livestock Australia (MLA)
- John Langbridge
- The Department of Agriculture and Water Resources Halal Consultative Committee (DHCC)
- Inghams
- Baiada
- Macro Meats

In addition, consultation has been undertaken with RTOs, Industry Training Advisory Bodies and State Training Authorities.

Issues and sensitivities raised during consultations have been covered elsewhere in the Skills Forecast.

2019-2022 PROJECT DETAILS

Project 1: Review of the Diploma and Advanced Diploma Qualifications

Description

This proposal is for the review and updating of the Diploma and Advanced Diploma in Meat Processing qualifications. Twenty-eight current units of competency will be reviewed for suitability, and up to ten additional units either developed or imported to meet the expanded scope requirements

Rationale

There are a number of industry drivers that have necessitated this review, as follows:

- The Diploma of Meat Processing (Meat Retailing) has had very few graduates since it was introduced in 2000. It is proposed that this qualification should be removed from the AMP Australian Meat Processing Training Package. However, as part of this removal, the industry needs to ensure that the future career development needs of meat retailers are also addressed in the Diploma of Meat Processing.
- The speed of technological development, automation, and use of Big Data are rapidly impacting the management development requirements of the industry. It is proposed that new units of competency being developed as part of cross-industry projects would be considered for inclusion in the Diploma and Advanced Diploma of Meat Processing.
- Further to the point above, as a result of an AMPC funded work recently undertaken by MINTRAC to identify maintenance training pathways in the meat industry and develop training support resources in this area, the review of the Diploma and Advanced Diploma will need to ensure that there is sufficient scope within these qualifications for graduates of lower-level qualifications to continue to develop their maintenance careers by undertaking relevant higher-level qualifications.
- The inclusion of poultry processors and the feedlots sub-sectors were not considered when these qualifications were developed. Both sub-sectors, under the auspices of the Meat Industry Standing Committee, are now moving towards the inclusion of higher-level qualifications as part of their career planning. The scope and content of these qualifications need to be reviewed to ensure that the management development needs of each of these sub-sectors are addressed. In particular, both sub-sectors have indicated that project and financial management are high priorities for their sub-sectors.
- As some of the current imported units have been updated in their own training packages, they have become less suitable for use in the meat industry. For example, SIRXMG005A Set strategic plans now refers to 'Store' all the way through; this is no longer relevant to the meat processing sectors. All imported units will be reviewed for suitability by undertaking an extensive search enquiry using the Text Analytics search tool, and either (a) negotiations be undertaken with the relevant SSO to adjust the wording, or (b) new, more suitable units of competency be developed.
- Increased vertical integration means that staff in various parts of the enterprise will need mobility to move from sector to sector and/or understand all aspects of operation.

Changes in job roles, workplace or industry

As outlined above there have been a number of changes in the industry including changes in technology and increased use of automation. There are also sectors of the industry that may be interested in utilising the qualifications but may not find them suitable in their current form, e.g. their scope may not cover meat industry maintenance departments.

Need for Graduates

The meat industry is a unique and challenging environment with a great deal of regulation governing food safety, quality assurance, traceability, biosecurity, environmental impacts and work health and safety. As well there are a large number of important international markets all with different requirements that must be met in order to maintain market access. Meat industry managers must have a sound knowledge of all these requirements. A generic management qualification does not meet the needs of the industry, however wherever a generic unit from another package, such as the BSB package, does satisfy a training

requirement this is imported into the Diploma and Advanced Diploma. There are a significant number of imported units currently used within these qualifications.

Most people undertaking the Diploma and Advanced Diploma of Meat Processing are in a meat industry management position or have the potential to move into these positions. They usually have substantial experience in their relevant sector, such as meat processing, and are seeking to improve their business expertise and experience.

Timeline for Latest changes

All relevant qualifications and units of competency underwent transition to meet the Standards for Training Packages and were released in either 2015 or 2016. During that time they were also reviewed for relevance, content, new work methods or duplication.

This project will take twelve months from the time of commencement.

Low enrolments and New Components

AMP Australian Meat Industry Training Package

Generally, the qualifications and units of competency included in the project have good enrolment numbers. The figures shown below are the average annual enrolments for the years 2015-2017:

- AMPMGT501 Design and manage the food safety system (17)
- AMPMGT502 Manage new product or process development (1)
- AMPMGT503 Develop and assess a meat retailing business opportunity (0)
- AMPMGT504 Develop, manage and maintain quality systems (26)
- AMPMGT505 Manage maintenance systems (1)
- AMPMGT506 Manage utilities and energy (6)
- AMPMGT507 Manage and improve meat industry plant operations (3)
- AMPMGT508 Manage environmental impacts of meat processing operations (14)
- AMPMGT509 Manage, maintain and continuously improve workplace health and safety plans and systems (11)
- AMPMGT510 Manage transportation of meat, meat products and meat by-products (3)
- AMPMGT601 Benchmark to manage and improve enterprise performance (0)
- AMPMGT602 Monitor and manage organisational legal responsibilities (0)
- AMPMGT603 Manage meat processing systems to maintain and improve product quality (0)
- AMPMGT604 Manage effective operation of meat enterprise cold chain and refrigeration systems (0)
- AMPMGT605 Assess and purchase livestock (0)
- AMPMGT606 Analyse and develop enterprise systems for new opportunities (0)
- AMPMGT607 Establish new markets (0)
- BSBCOM501 Identify and interpret compliance requirements
- BSBDIV601 Develop and implement diversity policy
- BSBFIM501 Manage budgets and financial plans
- BSBFIM601 Manage finances
- BSBMGT605 Provide leadership across the organisation
- BSBMGT617 Develop and implement a business plan
- BSBMKG502 Establish and adjust the marketing mix
- MSL916005 Manage complex projects
- SIRXCLM402 Manage store facilities
- SIRXMGT005A Set strategic plans
- SIRXMGT006A Initiate and implement change

Enrolments for imported units are not included here as it is not possible to isolate meat industry enrollees.

It should also be noted that most of the enrolment activity in the AMP units is not captured by NCVER because mandatory reporting of fee-for-service enrolment has only recently been introduced.

Affected current qualifications will include (enrolment figures are annual averages for the years 2014-2017)

- Diploma of Meat Processing (30)
- Advanced Diploma of Meat Processing – (1) NCVER shows low enrolments, however 9 industry funded fee-for-service students were enrolled in this program in 2016-17
- Diploma of Meat Processing (Meat Retailing) (6) – to be removed.

Data

Detailed data is included in relevant sections of this Skills Forecast and in the Table A document separately submitted to the AISC.

Ministers Priorities Addressed

Obsolete and duplicate qualifications removed from the system

This project seeks to remove the Diploma of Meat Processing (Meat Retailing) from the AMP Australian Meat Processing Training Package, by ensuring that the requirements of this sector are addressed in the Diploma of Meat Processing.

More information about industry's expectations of training delivery is available to training providers to improve their delivery and to consumers to enable more informed choices

The current RTOs for these qualifications are very closely associated with the industry and will be included in the consultation and development processes.

The training system better supports individuals to move more easily between related occupations

Movement across these sub-sectors will be facilitated by broadening these qualifications to include additional industry sub-sectors.

Improved efficiency of the training system through units that can be owned and used by multiple industry sectors

Current units will be reviewed and broadened for applicability across all applicable meat industry sub-sectors, as will new units.

Foster greater recognition of skill sets

This review relates to full qualifications. However, new skill sets may be developed as sub-sets of the qualifications if these are required by the newly included sub-sectors.

Consultation Plan

Work in this project will be overseen by the Meat Industry Reference Committee.

A Technical Advisory Committee will be established, comprising:

- at least two representatives from each of the feedlots, poultry, and meat retailing sub-sectors
- one representative from the stock transport sector
- one representative from the meat processing sector
- one representative from each of the current RTOs offering these qualifications
- The National Meat Industry Training Advisory Council.

This Committee will meet a minimum of three times during the project.

Individual consultation will be undertaken with:

- AMIC (and in particular the National Meat Retail Council)
- Australian Lot Feeders Association
- Inghams, Baiada, and three medium-sized poultry processors.

As the project progresses public comment and input will be invited through:

- the Skills Impact website, and
- direct mail to industry stakeholders by both AMIC and MINTRAC

Scope of Project Overview

Key Activity Timing

Overall timing: 12 months from delivery of signed Activity Order
Expected Date for Endorsement: July 2020

Summary of Components

All work is within the AMP Australian Meat Industry Training Package

Qualifications (Details TAB: Table A – Qualifications)

Affected current qualifications will include

- Diploma of Meat Processing
- Advanced Diploma of Meat Processing
- Diploma of Meat Processing (Meat Retailing) – to be removed.

Units of Competency (Details TAB: Table A – Units)

It is proposed that up to ten new units will be developed to meet expanded scope needs with the removal of the Diploma of Meat Processing (Meat Retailing) and need of other meat industry sectors such as maintenance, the remaining units in the qualifications, 11 imported and 17 current AMP units, will be reviewed for suitability during this project.

Before the development of any new units is undertaken the project will first undertake an extensive search enquiry into using the Text Analytics search tool to ensure that where suitable units already exist these are imported into the qualification rather than any new units developed. New units will only be developed where it has been clearly identified that a gap exists which requires the development of a new unit of competency.

The current units will be reviewed to confirm that the unit has not been superseded or contains any wording that would make it unsuitable for use in the meat industry.

Current units of competency

- AMPMGT501 Design and manage the food safety system
- AMPMGT502 Manage new product or process development
- AMPMGT503 Develop and assess a meat retailing business opportunity
- AMPMGT504 Develop, manage and maintain quality systems
- AMPMGT505 Manage maintenance systems
- AMPMGT506 Manage utilities and energy
- AMPMGT507 Manage and improve meat industry plant operations
- AMPMGT508 Manage environmental impacts of meat processing operations
- AMPMGT509 Manage, maintain and continuously improve workplace health and safety plans and systems
- AMPMGT510 Manage transportation of meat, meat products and meat by-products
- AMPMGT601 Benchmark to manage and improve enterprise performance
- AMPMGT602 Monitor and manage organisational legal responsibilities
- AMPMGT603 Manage meat processing systems to maintain and improve product quality
- AMPMGT604 Manage effective operation of meat enterprise cold chain and refrigeration systems
- AMPMGT605 Assess and purchase livestock
- AMPMGT606 Analyse and develop enterprise systems for new opportunities
- AMPMGT607 Establish new markets
- BSBCOM501 Identify and interpret compliance requirements
- BSBDIV601 Develop and implement diversity policy

- BSBFIM501 Manage budgets and financial plans
- BSBFIM601 Manage finances
- BSBMGT605 Provide leadership across the organisation
- BSBMGT617 Develop and implement a business plan
- BSBMKG502 Establish and adjust the marketing mix
- MSL916005 Manage complex projects
- SIRXCLM402 Manage store facilities
- SIRXMGT005A Set strategic plans
- SIRXMGT006A Initiate and implement change

New units of competency to be developed

- Up to ten new units of competency may be developed to cover any gaps identified in the review process and where existing units are not suitable to be imported from other Training Packages.

Skill Sets

No new skill sets are proposed at this time. The feedlot industry has expressed an interest in skill sets. The possibility of developing skill sets and sub-sets of these qualifications will be explored during the consultation periods.

Project 2: Development of new units and skill sets for halal meat processing

Description

The project is for the development of four new units of competency and three new skill sets to address the need for a unified training approach to halal meat processing.

Rationale

There are a number of industry drivers that have necessitated this development, including:

- Expansion of the Halal export meat trade, currently valued at \$1.6 billion per year and growing. This increases the viability of the meat processing sector and increases farm gate returns.
- Senate Inquiry into Third Party Certification recommendations for a single Australian Halal certification system as covered in Recommendations 2, 3, 5 and 6 (attached)
- Variation in Halal market requirements is causing confusion, market failure and increased processing costs
- Export establishments are failing Halal market audits due to inconsistent implementation of Halal procedures.
- Support for the new skill sets from the Commonwealth Department of Agriculture and Water Resources Halal Consultative Committee
- Active support from the Australian meat production and processing sector, including The Australian Meat Industry Council, Cattle Council of Australia and the Sheep Meat Council of Australia.
- The industry itself through the use of questionnaires and independent economic analysis and modelling estimate that total direct employment in the red meat processing industry is around 45,000 and indirectly it supports around another 100000 jobs in rural and regional Australia.
- The industry contributes \$18 billion annually to the Gross Domestic Product and generates \$15 billion in export earnings

Changes in job roles, workplace or industry

Australia has been processing meat for halal markets for many years, and employees have traditionally undertaken the existing meat processing qualifications with separate certifications being carried out by a number of Islamic organisations. However, the move towards a single Australian Halal Certification system has signalled the need for a unified approach to endorsement through the *AMP Australian Meat Processing Training Package*.

Need for Graduates

Graduates from the proposed training in this project will be critically needed in order to demonstrate compliance to an Australian standard for halal processing to overseas customers. Most people undertaking the proposed training will be existing meat processing workers who may already have completed or be currently undertaking meat processing qualifications.

Timeline for Latest changes

All relevant qualifications and units of competency underwent transition to meet the Standards for Training Packages and were released in either 2015 or 2016. During that time they were also reviewed for relevance, content, new work methods or duplication. Since that time all three affected qualifications have had additional elective units added.

This project will take eight months from the time of commencement. Consultation has already commenced in line with industry requirements to address overseas customer requirements.

Low enrolments and New Components

AMP Australian Meat Industry Training Package

Generally, the qualifications and units of competency included in the project have good enrolment numbers. The figures shown below are the average annual enrolments for the years 2014-2016:

- AMPX404 Conduct an internal audit of a documented program (296)
- AMPCOR204 Follow safe work policies and procedures (8722)

- AMPA3000 Stun animal (205)
- AMPX209 Sharpen knives (5924)
- AMPA3001 Stick and bleed animal (192)

Affected current qualifications will include (enrolment figures are annual averages for the years 2015-2017)

- Certificate III in Meat Processing (Slaughtering) (322)
- Certificate III in Meat Processing (Quality Assurance) (6)
- Certificate IV in Meat Processing (Quality Assurance) (232)

Data

Detailed data is included in relevant sections of this Skills Forecast and in the Table A document separately submitted to the AISC.

Ministers Priorities Addressed

Obsolete and duplicate qualifications removed from the system

Not applicable

More information about industry's expectations of training delivery is available to training providers to improve their delivery and to consumers to enable more informed choices

The meat industry proposes the development of training and assessment support materials in association with this project. A large amount of research has already been accessed. There will be an increased knowledge of Australia's animal welfare requirements and acceptable pre-slaughter stunning methods.

The training system better supports individuals to move more easily between related occupations

These units and skill sets relate to specific and specialised meat processing occupations involved with the production, supervision, compliance monitoring and certification of Halal meat production and as such will be highly transportable.

Improved efficiency of the training system through units that can be owned and used by multiple industry sectors

Current units will be reviewed and broadened for applicability across all applicable meat industry sub-sectors, as will new units. They can be applied equally to the domestic sector to facilitate the implementation of the federal governments senate review into the Halal area of Third Party certification.

Foster greater recognition of skill sets

Three new Skill Sets will be created as part of this project.

Consultation Plan

Work in this project will be overseen by the Meat Industry Reference Committee (Department of Agriculture and Water Resources Halal Consultative Committee - DHCC).

A Committee (DHCC) already established under the auspices of the Export Meat Industry Advisory Committee will serve as the Technical Advisory Committee for this project. The DHCC has a sub-ordinate Halal Training Sub-Committee that consists of members drawn from the DHCC specifically tasked with the development of the training framework to report back to the DHCC who will determine what the DHCC will support.

The membership of the DHCC Committee is:

DHCC Membership

- DAWR: Chairperson, secretariat and required support staff
- Australian Meat Industry Council - 4 members
- AUS-MEAT Limited - 1 member
- Meat and Livestock Australia - 1 member
- Approved Islamic Organisation* - 2 members from each (*as identified on the "List of Islamic Bodies" Approved to supply Halal Certification in accordance with the ECMMPO'S)

This Committee will meet a minimum of two times during the project.

The DHCC training sub-committee will meet as many times as necessary to provide advice and the complete halal training framework to the DHCC.

As the project progresses public comment and input will be invited through:

- the Skills Impact website, and
- direct mail to industry stakeholders by both AMIC and MINTRAC

Individual consultation will be undertaken with:

- Islamic certifiers
- Deloitte Access Economics (conducting a Cost Regulatory Impact Statement of proposed regulatory amendments to meet the recommendations of the Senate Inquiry).

Scope of Project Overview

Key Activity Timing

Overall timing: 8 months from delivery of signed Activity Order
Expected Date for Endorsement: July 2020

Summary of Components

All work is within the *AMP Australian Meat Industry Training Package*

Qualifications (Details TAB: Table A – Qualifications)

Affected current qualifications will include

- Certificate III in Meat Processing (Slaughtering)
- Certificate III in Meat Processing (Quality Assurance)
- Certificate IV in Meat Processing (Quality Assurance)

Units of Competency (Details TAB: Table A – Units)

While 4 new units will be developed, the remaining units in the Skill Sets will be made up from current AMP units, which will be reviewed for suitability during this project. It is expected that this process will involve up to 5 current AMP units. There will be three new skill sets, two of which will be specifically developed for Muslims involved in the production and auditing process and one to help non-Muslims understand the Halal (permitted) and Tayyib (clean and hygienic) processes.

Current units of competency

- AMPX404 Conduct an internal audit of a documented program
- AMPCOR204 Follow safe work policies and procedures
- AMPA3000 Stun animal
- AMPX209 Sharpen knives
- AMPA3001 Stick and bleed animal.

New units of competency to be developed

- A Unit to cover slaughtering in accordance with Halal requirements (to be delivered by Authorised Islamic Organisations)
- A unit to address the specific requirements of conducting a Halal audit
- A unit for Quality Assurance managers to identify and address different Halal market requirements, including certification
- A unit for involved non-Muslims covering the need to understand Halal and Tayyib, and the Halal production process

Note: These proposed units of competency will be transportable to other livestock sectors (e.g. slaughter to poultry) and to other food sectors (Halal audit, Halal market requirements and understanding the Halal production process). They may need to tailored to some degree to ensure coverage of the differing agriculture and food commodities.

Skill Sets

Proposed new skill sets

- Halal Slaughter
- Halal Auditing
- Halal Processing Requirements

Project 3: Development of new unit and skill set for game harvesting auditing

Description

The proposed project will develop a new Skill Set for Game Harvesting Auditing to ensure appropriate food safety and biosecurity standards are met within a highly specialised industry.

Rationale

In this industry sector, wild game harvesters are predominantly individual operators. The 'depots' are mobile chillers that receive and chill shot game and transport the product to licensed processors. The request for this training to be developed was first raised by a kangaroo processor in South Australia, at an industry network meeting held in Adelaide. MINTRAC was asked by the Meat IRC to investigate the matter further and report back to the IRC.

The company provided current checklists they use when auditing/monitoring field depots and mobile chillers and explained that there was a need for some formal training including the development of auditing skills in this area.

There are a number of industry drivers that have necessitated this development, as follows:

- Increased industry focus and requirements for wild game harvesters to systematically identify and prevent biosecurity hazards and threats
- Increased domestic markets for niche products such as game meats and the requirement that this product be wholesome and safe for human consumption
- Active support from industry to improve the knowledge and understanding of the overall requirements for a field depot/chiller as well as understanding and having capability for conducting internal audits of depots/chillers.

Changes in job roles, workplace or industry

Over the past ten years there has been a significant shift to formalisation of the training and accreditation requirements for the wild game harvesting sector. Loss of access to the Russian market in 2009 led to a national training program and the creation of three Skill Sets for wild game harvesters, and components of these are now standard requirements in most State licensing systems. There is now a much greater focus on the product control processes from harvest through to processing.

After reviewing the documentation provided by the SA processor it was clear that there are two key areas of skill and knowledge required of depot operators:

- Internal auditing capability
- Knowledge and understanding of the overall requirements for a field depot/chiller.

From this information it is evident that the training requirement can be addressed through the creation of a Skill Set comprising:

- AMPG300 - Overview wild game meat industry (existing unit)
- AMPX404 - Conduct an internal audit of a documented program (existing unit)
- New unit: - *Inspect wild game field depot*. Covering:
 - Records and documentation
 - Site hygiene
 - On-site equipment and maintenance
 - Carcase examination
 - Harvester check
 - Prepare audit report.

Need for Graduates

Most people undertaking the proposed training will be wild game harvesters.

Timeline for Latest changes

All relevant qualifications and units of competency underwent transition to meet the Standards for Training Packages and were released in either 2015 or 2016. During that time they were also reviewed for relevance, content, new work methods or duplication. Since that time both affected qualifications have had additional elective units added.

This project will take eight months from the time of commencement.

Low enrolments and New Components

AMP Australian Meat Industry Training Package

Generally, the qualifications and units of competency included in the project have good enrolment numbers. The figures shown below are the average annual enrolments for the years 2014-2016:

- AMPX404 Conduct an internal audit of a documented program (296)
- AMPG300 Overview wild game meat industry (350)

Affected current qualifications will include (enrolment figures are annual averages for the years 2014-2017)

- Certificate III in Meat Processing (Quality Assurance) (6)
- Certificate III in Meat Processing (General) (560)

Data

Detailed data is included in relevant sections of this Skills Forecast and in the Table A document separately submitted to the AISC.

Ministers Priorities Addressed

Obsolete and duplicate qualifications removed from the system

Not applicable

More information about industry's expectations of training delivery is available to training providers to improve their delivery and to consumers to enable more informed choices

The meat industry proposes the development of training and assessment support materials in association with this project.

The training system better supports individuals to move more easily between related occupations

These units and skill sets relate to specific and specialised auditing and inspection skills and knowledge for the wild game harvest sector but also for inspection and auditing roles in general and as such will be highly transportable.

Improved efficiency of the training system through units that can be owned and used by multiple industry sectors

Current units will be reviewed and broadened for applicability across all applicable meat industry sub-sectors, as will the new unit.

Foster greater recognition of skill sets

One new Skill Set will be created as part of this project.

Consultation Plan

Work in this project will be overseen by the Meat Industry Reference Committee.

As the project progresses public comment and input will be invited through:

- the Skills Impact website, and
- direct mail to industry stakeholders by both AMIC and MINTRAC

Individual consultation will be undertaken with:

- Macro Meats – the company who have raised this skill area as a priority
- Processors of other wild game species such as deer, wild boar and rabbits

Scope of Project Overview

Key Activity Timing

Overall timing: 8 months from delivery of signed Activity Order
Expected Date for Endorsement: July 2020

Summary of Components

All work is within the AMP Australian Meat Industry Training Package

Qualifications (Details TAB: Table A – Qualifications)

Affected current qualifications will include

- Certificate III in Meat Processing (Quality Assurance)
- Certificate III in Meat Processing (General)

Units of Competency (Details TAB: Table A – Units)

While one new unit will be developed, the remaining units in the Skill Set will be made up from current AMP units, which will be reviewed for suitability during this project. It is expected that this process will involve up to two current AMP units. There will be one new skill sets

Current units of competency

- AMPX404 Conduct an internal audit of a documented program
- AMPG300 Overview wild game meat industry

New units of competency to be developed

- A unit to cover inspecting a wild game field depot – *Inspect wild game field depot.*

Skill Sets

Proposed new skill sets

- Game Harvest Auditor Skill Set

IRC Sign-Off

Signed on behalf of the Meat IRC

Project 4: Addressing gaps in poultry processing training

Description

This project involves the development of up to five new skill sets and two units of competency to address current gaps in poultry processing training.

Rationale

The poultry processing industry has been driven by ever increasing consolidation, which has seen more and more small and medium sized operations either merge or being swallowed up by larger companies. These larger companies and bigger operations are being met with demands from their customers for increased output with strict portion and quality control.

There are also new legislative and food safety demands being placed on the processor from authorities to meet new and ever tighter food safety and hygiene regulations.

To achieve all these goals and to meet all these demands, the processor is turning to more and more automation on the processing line and in most cases, complete line systems that can handle processing from the arrival of the live birds through to packaging and dispatch. Most suppliers now offer modular solutions to all aspects of the processing sequence which can be customised and adjusted to individual processor requirements.

Automated processing of poultry has several important benefits when compared to manual processing: processors can reach a much higher level of production, greater production efficiency, a more consistent and manageable process with optimal logistics and high value, high yield, end- products.

Automation not only helps food processors address the skilled labour gap, it also helps reduce the risk of employee injury from repetitive motion stress and increases food safety by reducing the risk of cross contamination.

Recent interaction with the poultry processing industry and RTOs has also indicated that there are some gaps in the availability of endorsed training for this industry. In addition, only a small proportion of the workforce is eligible for traineeships and the IRC believes that the uptake of training into full qualifications is poor. Because poultry processing does not have an identified separate qualification, actual uptake of the qualifications by poultry processors cannot be extracted from the qualifications data as the same qualifications cover several different industry groups.

It is clear that making Skill Sets available would increase access to training and may also encourage employers who do not currently offer endorsed training to reconsider the options available.

This project therefore has two aims:

- to create Skill Sets in order to make training in the poultry processing industry more accessible
- to identify/create new units to fill identified gaps in the availability of endorsed training.

Changes in job roles, workplace or industry

Automation means that there is a change to the mix of skills required by process workers. There is a greater emphasis on operating automated machinery, monitoring supply, hygiene and quality, monitoring and checking data and ensuring smooth operation of process.

Need for Graduates

Most people undertaking poultry processing training will be existing employees. Most of these people commence work without any prior experience in poultry processing and thus quick access to applicable, job focussed training is essential.

Timeline for Latest changes

All relevant qualifications and units of competency underwent transition to meet the Standards for Training Packages and were released in either 2015 or 2016. During that time they were also reviewed for relevance, content, new work methods or duplication.

This project will take eight months from the time of commencement.

Low enrolments and New Components

AMP Australian Meat Industry Training Package

Affected current qualifications will include (enrolment figures specifically for poultry processing are not available):

- Certificate III in Meat Processing (Food Services)
- Certificate III in Meat Processing (Food Services).

Data

Detailed data is included in relevant sections of this Skills Forecast and in the Table A document separately submitted to the AISC.

Ministers Priorities Addressed

Obsolete and duplicate qualifications removed from the system

Not applicable

More information about industry's expectations of training delivery is available to training providers to improve their delivery and to consumers to enable more informed choices

The meat industry proposes to develop training and assessment support materials in association with this project. Guidance materials on the use of Skill Sets and subsequent training pathways will also be created for use by employers and RTOs.

The training system better supports individuals to move more easily between related occupations

These units and skill sets relate specifically to poultry processing, but by grouping the various jobs into Skill Sets they will increase potential for worker mobility across the sequence of operations.

Improved efficiency of the training system through units that can be owned and used by multiple industry sectors

Current units will be reviewed and broadened for applicability across all applicable meat and food processing industry sub-sectors, as will the new units.

Foster greater recognition of skill sets

Up to five new Skill Sets will be created as part of this project.

Consultation Plan

Work in this project will be overseen by the Meat Industry Reference Committee.

As the project progresses public comment and input will be invited through:

- the Skills Impact website, and
- direct mail to industry stakeholders by both the Australian Poultry Industries Association and MINTRAC.

Individual consultation will be undertaken with:

- Baiada and Inghams – the two major poultry processing companies
- smaller specialty processors such as Hazeldenes and Golden Cockerel
- processors of other species such as ducks and turkeys.

Scope of Project Overview

Key Activity Timing

Overall timing: 8 months from delivery of signed Activity Order
Expected Date for Endorsement: July 2020

Summary of Components

All work is within the *AMP Australian Meat Industry Training Package*

Qualifications (Details TAB: Table A – Qualifications)

Affected current qualifications will include

- Certificate II in Meat Processing (Food Services)
- Certificate III in Meat Processing (Food Services)

Units of Competency (Details TAB: Table A – Units)

While up to three new units will be developed, the remaining units in the Skill Sets will be made up from current AMP/FDF units, which will be reviewed for suitability during this project. It is expected that this process will involve up to fifteen current units.

Current units of competency

These units specifically relate to poultry processing:

- AMPP201 Operate a poultry dicing, stripping or mincing process
- AMPP202 Operate a poultry evisceration process
- AMPP203 Grade poultry carcase
- AMPP204 Harvest edible poultry offal
- AMPP205 Operate a poultry marinade injecting process
- AMPP206 Operate a poultry washing and chilling process
- AMPP207 Operate the bird receival and hanging process
- AMPP208 Operate a poultry stunning, killing and defeathering process
- AMPP301 Operate a poultry carcase delivery system
- AMPP302 Debone and fillet poultry product (manually)

Other AMP or FDF units which are relevant to aspects of poultry processing.

New units of competency to be developed

- A unit to cover monitoring product flow in an automated process
- A unit to cover packing and packaging of bulk product (whole bird) and also packing of portions (drumsticks, legs, wings etc.), fillets, eviscerated products (necks, giblets, hearts, liver) (this may need to be two separate units)

Skill Sets

Proposed new skill sets

- a Quality Assurance Skill Set
- a pre-processing Skill Set: covering bird receival, hanging, stunning, killing, scalding, defeathering and evisceration
- a processing Skill set covering: washing, chilling, grading, portioning, packaging and chilling or freezing
- a further processing skill set: i.e. packing and processing of kebabs, schnitzels, roasts, filos (where this is not already available in the FDF package)
- consideration will also be given to the possible development of a skill set to cover waste disposal/environmental awareness.

Project 5: Development of meat industry contextualised training & assessment support materials

Description

This project is for the development of contextualised training and assessment support materials for up to 35 units of competency. The units identified are a combination of new AMP units and imported units used in qualifications from the AMP Australian Meat Processing Training Package, and have been identified as high priority units for the industry. The project will improve consistency of training delivery and assessment across the industry, as well as supporting established and new RTOs to deliver quality services and to offer new and imported units of competency as electives.

Key Deliverables

- The development of standardised training and assessment resources for 35 units of competency where no MINTRAC training and assessment materials have been developed, including:
 - Newly developed AMP units from Release 3.0
 - Units which are currently undergoing endorsement as part of AMP 4.0 (due for release in June 2019)
 - Imported units identified as a high priority and used in AMP qualifications
 - AMPCOR sector units (core units across AMP qualifications) which have materials that are typically focused on red meat and pork and now require a poultry version developed

Rationale

The National Meat Industry Training Advisory Council Limited (MINTRAC) has been developing training and assessment resources for the meat industry for more than 25 years. MINTRAC has already developed training and assessment support materials for most of the 443 units within the current AMP Australian Meat Processing Training Package. These developments were initially industry-funded and are reviewed every six months and updated when required, e.g. after changes to Training Packages, legislation and standards, or industry practices. There are, however, still many new and imported units for which there have yet to be contextualised training and assessment materials created.

This development program is part of industry planning and focused attention on building structured training, maintaining high-level and current skills and developing career paths, and has contributed to the meat processing sector having the advantage of a younger workforce and a balanced age structure under 50 years of age. The program has helped to ensure ongoing support from RTOs for delivery nationally. Changes to demand levels and funding policies have led to the development of these materials falling behind the needs of industry, and the IRC is seeking support for a project to address this need

Industry drivers that have necessitated this development include:

- The AMP Training Package currently includes 198 imported units, many of which do not have meat industry-specific training and assessment materials available;
 - There are a small number of AMP units from Release 3.0 of the *AMP Training Package* for which there are no training materials;
 - Release 4.0 of the AMP Training Package will include 13 new units of competency, 11 of which have no training materials developed;

- In Release 3.0, ten poultry processing units were migrated into the *AMP Training Package*. MINTRAC has already developed contextualised units of competency for these units; however, the core units used across AMP qualifications are specific to red meat processing, thus are inappropriate for the poultry sector. There is a requirement for creating contextualised materials for the poultry processing sector.
- MINTRAC has a long history and reputation for developing quality training products and training and assessment materials. There is currently a well-tested template used to develop contextualised materials for each unit. To maintain consistency across the industry, it is important to capture new and imported units within this suite of products.
 - Enrolment evidence strongly suggests that the provision of these materials have contributed to electives being offered by RTO (on scope) and taken up by learners.
- For many companies, particularly those who export products overseas, the national framework for training, and consistency of training and skills this provides, is critical for market access. Good quality assessment tools and training resources are essential to ensure consistency is maintained. MINTRAC is a national organisation and all RTOs across Australia delivering AMP units, skill sets and qualifications have access to the materials to support the delivery of national skill standards.
- The current materials are widely used within the industry by Registered Training Organisations as samples which they customise and contextualise further to their individual learner cohorts and workplaces. RTOs are familiar with their content and structure, with many providing regular feedback to ensure materials remain current and any errors or changes are updated promptly and regularly.
- The MINTRAC template provides very clear instructions and advice to RTOs on customisation and contextualisation, as well as guidance on mapping the materials and assessments to unit of competency requirements.
- Due to the regional location of many employers, RTOs find it difficult to achieve economies of scale by delivering to large groups of students and often find the cost of delivering in thin markets prohibitive, even though this training is essential to industry. Having training and assessment resources readily available, which require only customisation and contextualisation rather than development from scratch, may encourage RTOs to offer training in new units of competency more relevant to the job outcomes than selecting units for which there are already materials prepared.

Changes in job roles, workplace or industry

The *AMP Training Package* has recently included poultry units that were formerly in the *FDF Training Package*. There is now a need for training materials that are contextualised for the poultry sector of the industry. To date, most of the materials developed are very much oriented to lamb/mutton, beef, pork and, in some cases, game meats.

A number of new units have been developed over the past two releases of the *AMP Training Package* in direct response to changing or emerging job roles; however, there are no training materials yet available to support units facilitate managing biogas collection, responding to workplace incidents, handling meat products in cold stores and warehouses, and implementing TACCP/VACCP plans.

Need for Graduates

Most people undertaking the proposed training and using the training and assessment materials will be across all meat industry sectors and job roles including abattoir, retail and smallgoods workers and/or assistants, team leaders, supervisors, quality assurance managers, plant managers and other management roles who may already be currently undertaking meat processing qualifications.

The meat industry across all sectors and roles struggles with attraction and retention of staff. Providing more opportunities for training and development may help employers recruit and retain staff and reduce the significant costs associated with high levels of turnover.

Timeline for Latest changes

This project supports development work that has taken place over the last two years..

Low enrolments and New Components

AMP Australian Meat Industry Training Package

As at February 2019, there are 44 registered training organisations (RTOs) actively delivering *AMP Training Package* components.

The industry self-funds the *Diploma of Meat Processing*, with students commencing every year. The industry also self-funds the *Advanced Diploma of Meat Processing*, which runs as a national program approximately every two years. The *Graduate Certificate of Agribusiness* has run once as a national program and is expected to be offered again in 2020.

Between 2014 and 2017, there were more than 52,600 program enrolments, 12,000 program completions, and 437,000 subject enrolments.

Up to 2016, there was a steady decrease in program enrolments and completions. In 2017, completions continued to fall but, conversely, enrolments increased by 5.6 per cent (660) to nearly 12,400. Likewise, subject enrolments declined steadily from 2014 (115,174) to 2016 (101,278) but increased by 5.8 per cent (5,839) in 2017.

In 2017, there were low enrolments in Diploma (23), Advanced Diploma (two), Graduate Certificate (zero) and Graduate Diploma (six) qualifications. Certificates II, III and IV accounted for 99.7 per cent of enrolments.

One method of addressing low enrolments has been the development of contextualised training and assessment materials. There is strong evidence that unit enrolments are inhibited if there are no available training and assessment resources.

Four AMP Training package Release 3.0 units are part of this proposed project:

- AMPX312 - Calculate carcase yield in a boning room
- AMPA413 - Review or develop an Emergency Animal Disease Response Plan
- AMPG305 - Store wild game carcase
- AMPX427 - Dry age meat

Enrolment data is not yet available for AMPX312 or AMPA413 (due to their 2018 releases) and so cannot be analysed here; but AMPG305 and AMPX427 demonstrate barriers to unit enrolments due to the lack of training and assessment resources.

For example, the unit *AMPX427 - Dry age meat* is included in one qualification: *AMP40215 - Certificate IV in Meat Processing (General)*⁵⁰. Compared with other units included in the qualification, AMPX427 shows unfavourable RTO availability and enrolment figures:

- Out of 41 AMP units included in the qualification, AMPX427 is on the scope of the fewest training organisations (ten).

⁵⁰ <https://training.gov.au/Training/Details/AMPX427>

- Most units included in the qualification – all of which have available training and assessment resources – are on the scope of between 14 and 18 training organisations.
- Out of 41 AMP units (37 electives) included in the qualification, *AMPX427* is one of only nine units with zero enrolments between 2014 and 2017.
 - In 2017, the average number of enrolments for each elective unit included in this qualification was 104.

As the other AMP units included in *AMP40215 - Certificate IV in Meat Processing (General)* all have training and assessment materials, it is likely that a lack of resources is in part responsible for fewer RTOs applying to have *AMPX427 - Dry age meat* on scope, and the correspondingly low enrolment numbers.

The unit *AMPG305 - Store wild game carcase* likewise shows significantly low enrolments within the three AMP qualifications in which it is included:

- Between 2014 and 2017, there were three enrolments in the unit *AMPG305*.
- In 2017, there were zero enrolments in *AMPG305*. In this context, it shows consistently low enrolments across the board when compared with the overall uptake of units in the three qualifications in which it is included – and for which there are already training and assessment resources:

Table 3: Data for qualifications in which *AMPG305 - Store wild game carcase* is included

Qualification in which <i>AMPG305</i> is included	No. of AMP elective units included in qualification	No. of AMP elective units with zero enrolments in 2017	Average number of enrolments for each elective unit in 2017
AMP40516 - Certificate IV in Meat Processing (Meat Safety)	44	12	111
AMP30616 - Certificate III in Meat Processing (General)	110	30	158
AMP30316 - Certificate III in Meat Processing (Meat Safety)	27	8	113

Source: NCVER VOCSTATS, program enrolments, 2014-2017

The provision of training and assessment materials is likely to support training organisations in establishing and encouraging enrolments in those units for which contextualised resources are currently unavailable. With a history of developing quality training and assessment products and materials, MINTRAC is well-placed to fill the gaps in availability of *AMP Training Package* Release 3.0 resources and therefore support the job outcomes that these as-yet neglected units facilitate.

Data

	Enrolments (inclusive of superseded units)				
Unit of Competency	2014	2015	2016	2017	Notes
AMPA3137 - Operate biogas facilities	n/a*	n/a*	n/a*	n/a*	New unit being developed for Release 4.0
AMPA3138 - Identify secondary sexual characteristics - beef	n/a*	n/a*	n/a*	n/a*	New unit being developed for Release 4.0
AMPA3139 - Prepare market reports - cattle	n/a*	n/a*	n/a*	n/a*	New unit being developed for Release 4.0
AMPA3140 - Prepare market reports – sheep	n/a*	n/a*	n/a*	n/a*	New unit being developed for Release 4.0
AMPA413 - Review or develop an Emergency Animal Disease Response Plan	n/a*	n/a*	n/a*	n/a*	Release 3.0 unit (release date: 01/03/18)
AMPCOR201 - Maintain personal equipment	7,939	7,129	6,198	11,248	Requires contextualisation for poultry sector
AMPCOR203 - Comply with Quality Assurance and HACCP requirements	7,244	7,030	6,186	11,384	Requires contextualisation for poultry sector
AMPCOR204 - Follow safe work policies and procedures	8,160	7,287	6,593	12,286	Requires contextualisation for poultry sector
AMPCOR205 - Communicate in the workplace	7,854	7,401	6,083	12,151	Requires contextualisation for poultry sector
AMPCOR401 - Manage own work performance	303	238	433	581	Requires contextualisation for poultry sector
AMPCOR402 - Facilitate Quality Assurance Process	310	210	352	406	Requires contextualisation for poultry sector
AMPG305 - Store wild game carcasses	1	2	0	0	Release 3.0 unit
AMPX219 - Follow electronic labelling and traceability systems in a food processing establishment	n/a*	n/a*	n/a*	n/a*	New unit being developed for Release 4.0
AMPX230 - Undertake pest control in a food processing establishment	n/a*	n/a*	n/a*	n/a*	New unit being developed for Release 4.0
AMPX312 - Calculate carcase yield in a boning room	n/a*	n/a*	n/a*	n/a*	Release 3.0 unit (release date: 01/03/18)
AMPX314 - Handle meat product in cold stores	n/a*	n/a*	n/a*	n/a*	New unit being developed for Release 4.0

AMPX315 - Follow hygiene, sanitation and quality requirements when handling meat product in cold stores	n/a*	n/a*	n/a*	n/a*	New unit being developed for Release 4.0
AMPX427 - Dry age meat	0	0	0	0	Release 3.0 unit
AMPX428 - Plan, conduct and report a workplace incident investigation	n/a*	n/a*	n/a*	n/a*	New unit being developed for Release 4.0
AMPX429 - Develop and implement a TACCP and VACCP plan	n/a*	n/a*	n/a*	n/a*	New unit being developed for Release 4.0
AMPX430 - Develop, implement and evaluate a pest control program in a meat processing premises	n/a*	n/a*	n/a*	n/a*	New unit being developed for Release 4.0
AHCLSK204 - Carry out regular livestock observation	0	0	0	15	Imported unit to be contextualised (current)
AHCLSK320 - Coordinate and monitor livestock transport	0	0	0	0	Imported unit to be contextualised (current)
AHCMOM217 - Operate quad bikes	0	0	0	0	Imported unit to be contextualised (for Release 4.0)
FBPAUD4001 - Assess compliance with food safety programs	76	50	97	52	Imported unit to be contextualised (for Release 4.0)
FBPAUD4002 - Communicate and negotiate to conduct food safety audits	76	47	79	42	Imported unit to be contextualised (for Release 4.0)
FBPAUD4003 - Conduct food safety audits	64	23	64	30	Imported unit to be contextualised (for Release 4.0)
FBPAUD4004 - Identify, evaluate and control food safety hazards	27	14	35	22	Imported unit to be contextualised (for Release 4.0)
FBPOPR2001 - Work effectively in the food processing industry	0	0	0	29	Imported unit to be contextualised (current)
FBPOPR2012 - Maintain food safety when loading, unloading and transporting food	4	0	0	0	Imported unit to be contextualised (current)
MSMENV472 - Implement and monitor environmentally sustainable work practices	0	0	0	0	Imported unit to be contextualised (current)
MSS024006A - Perform sampling and testing of water	0	0	0	0	Imported unit to be contextualised (for Release 4.0)
NWPGEN006 - Implement and manage environmental management policies	0	0	0	0	Imported unit to be contextualised (current)
NWPGEN008 - Sample and test wastewater	0	0	0	0	Imported unit to be contextualised (current)

SIRXCEG003 - Build customer relationships and loyalty	0	0	0	0	Imported unit to be contextualised (current)
n/a* = data not yet available due to recent or forthcoming release date of unit					
Figures for imported units only include enrolments under AMP Training Package					

Employment and funding data is contained elsewhere in this Skills Forecast.

Ministers Priorities Addressed

Obsolete and duplicate qualifications removed from the system

Not applicable

More information about industry's expectations of training delivery is available to training providers to improve their delivery and to consumers to enable more informed choices

The development of training and assessment support material will incorporate current research, legislation and standards. The training and assessment materials templates include extensive information regarding training in the meat industry.

The training system better supports individuals to move more easily between related occupations

These materials will be designed to relate to specific and specialised meat processing industry sectors, depending on the unit of competency, however care will be taken to ensure that where possible materials can be used across sectors and industry sectors such as poultry which have not been included to date will have materials directly related to that sector.

Improved efficiency of the training system through units that can be owned and used by multiple industry sectors

Not applicable

Foster greater recognition of skill sets

Not applicable

Consultation Plan

Work in this project will be overseen by a network of industry experts, their advice will be sought for the technical aspects of the training materials. The technical expert consulted will depend on the nature of the unit involved. MINTRAC has an established database of meat processing and training provider experts to draw on.

As the project progresses public comment and input will be invited through:

- the Skills Impact website, and
- direct mail to industry stakeholders

Individual consultation will be undertaken with:

- the 44 RTOs who actively deliver AMP Training Package components
- the AMIEU
- peak bodies such as AMPC, AMIC and MLA

Scope of Project Overview

Overall timing: 12 months from delivery of signed Activity Order

Expected Date for Completion: July 2020

Note: The completed project will not require formal endorsement by the Australian Industry and Skills Committee.

Summary of Components

All work is within the *AMP Australian Meat Industry Training Package*

Key Deliverables

- The development of standardised training and assessment resources for 35 units of competency where no MINTRAC training and assessment materials have been developed, including:
 - Newly developed AMP units from Release 3.0
 - Units which are currently undergoing endorsement as part of AMP 4.0 (due for release in June 2019)
 - Imported units identified as a high priority and used in AMP qualifications
 - AMPCOR sector units (core units across AMP qualifications) which have materials that are typically focused on red meat and pork and now require a poultry version developed

Units for which training materials are considered a priority:

	Unit
1.	AMPX312 Calculate carcase yield in a boning room
2.	AMPA3137 Operate biogas facilities
3.	AMPA3138 Identify secondary sexual characteristics - beef
4.	AMPA3139 Prepare market reports - cattle
5.	AMPA3140 Prepare market reports – sheep
6.	AMPA413 Review or develop an Emergency Animal Disease Response Plan
7.	AMPG305 Store wild game carcases
8.	AMPX219 Follow electronic labelling and traceability systems in a food processing establishment
9.	AMPX230 Undertake pest control in a food processing establishment
10.	AMPX314 Handle meat product in cold stores

11.	AMPX315 Follow hygiene, sanitation and quality requirements when handling meat product in cold stores
12.	AMPX427 Dry age meat
13.	AMPX428 Plan, conduct and report a workplace incident investigation
14.	AMPX429 Develop and implement a TACCP and VACCP plan
15.	AMPX430 Develop, implement and evaluate a pest control program in a meat processing premises
16.	AHCLSK320 Coordinate and monitor livestock transport
17.	AHCLSK204 Carry out regular livestock observation
18.	AHCMOM217 Operate quad bikes
19.	FBPAUD4001 Assess compliance with food safety programs
20.	FBPAUD4002 Communicate and negotiate to conduct food safety audits
21.	FBPAUD4003 Conduct food safety audits
22.	FBPAUD4004 Identify, evaluate and control food safety hazards
23.	FBPOPR2001 Work effectively in the food processing industry
24.	FBPOPR2012 Maintain food safety when loading, unloading and transporting food
25.	MSMENV472 Implement and monitor environmentally sustainable work practices
26.	MSS024006 Perform sampling and testing of water
27.	NWPGEN008 Sample and test wastewater
28.	NWPGEN006 Implement and manage environmental management policies
29.	SIRXCEG003 Build customer relationships and loyalty
30.	AMPCOR201 Maintain personal equipment
31.	AMPCOR203 Comply with Quality Assurance and HACCP requirements
32.	AMPCOR204 Follow safe work policies and procedures
33.	AMPCOR205 Communicate in the workplace
34.	AMPCOR401 Manage own work performance
35.	AMPCOR402 Facilitate Quality Assurance Process

IRC SIGNOFF

This Workplan was agreed as the result of a properly constituted IRC decision.

Signed for and on behalf of the **Australian Meat Processing IRC** by its appointed Chair.

Cameron Dart

Signature of Chair

Date:

DRAFT

APPENDIX 1: AMP TRAINING PACKAGE QUALIFICATIONS

The *AMP Australian Meat Industry Training Package* provides current and applicable training across the broad range of meat processing occupations. It comprises 26 qualifications, 60 skill sets, 443 units of competency, and a further 229 imported units.

Note 1: There is currently only one qualification specifically developed for the Australian feedlot industry: Certificate III in Feedlot Operations (AHC33311). There has been minimal uptake of this qualification. Until recently, training in the feedlot industry has been relatively ad hoc; however, under the leadership of the Australian Lot Feeders Association (ALFA), the industry is currently developing an industry-wide strategic training plan, which is the first step towards a structured training system. While there are currently few drivers to move towards nationally endorsed training, this is likely in the future.

AMP Qualifications

Qualification Level: Certificate II

- Certificate II in Meat Processing (Food Services)
- Certificate II in Meat Processing (Smallgoods)
- Certificate II in Meat Processing (Abattoirs)
- Certificate II in Meat Processing (Meat Retailing)

Qualification Level: Certificate III

- Certificate III in Meat Processing (Boning Room)
- Certificate III in Meat Processing (Food Services)
- Certificate III in Meat Processing (Meat Safety)
- Certificate III in Meat Processing (Rendering)
- Certificate III in Meat Processing (Slaughtering)
- Certificate III in Meat Processing (General)
- Certificate III in Meat Processing (Quality Assurance)
- Certificate III in Meat Processing (Retail Butcher)
- Certificate III in Meat Processing (Smallgoods - General)
- Certificate III in Meat Processing (Smallgoods - Manufacture)
- Certificate III in Meat Processing (Livestock Handling)
- Certificate III in Meat Processing (Packing Operations)

Qualification Level: Certificate IV

- Certificate IV in Meat Processing (General)
- Certificate IV in Meat Processing (Leadership)
- Certificate IV in Meat Processing (Quality Assurance)
- Certificate IV in Meat Processing (Meat Safety)

Qualification Level: Diploma

- Diploma of Meat Processing (Meat Retailing)
- Diploma of Meat Processing

Qualification Level: Advanced Diploma

- Advanced Diploma of Meat Processing

Qualification Level: Graduate Certificate

- Graduate Certificate in Agribusiness

Qualification Level: Graduate Diploma

- Graduate Diploma of Agribusiness

APPENDIX 2: RELEVANT STAKEHOLDERS

The meat processing industry is represented at the national level by the following organisations:

Table 1: Relative number of the industry peak bodies.

Category	Number
Industry sector associations	6
Regulatory bodies	10
Employee associations	1
Industry R&D services bodies	3
Industry services bodies	1
Total	21

Table 2: Peak industry sector organisations.

Categories – Peak Industry Sector Organisations	Geographical Representation
Industry Sector Associations	
Red Meat Advisory Council	National
Australian Meat Industry Council	National
Australian Pork Limited	National
Kangaroos Industry Association Australia	National
Australian Lot Feeders Association	National
Goat Industry Council of Australia	National
Red Meat Advisory Council	National
Australian Chicken Meat Federation	National
Regulatory Bodies	
Department of Agriculture and Water Resources	National
PrimeSafe	Victoria
Primary Industries and Regions South Australia (PIRSA)	South Australia
NSW Department of Primary Industries, Biosecurity and Food Safety	New South Wales
Safe Food Production Queensland (SafeFood Qld)	Queensland
Department of Health	Western Australia
Department of Primary Industries, Parks, Water and Environment	Tasmania
Department of Primary Industries and Resources	Northern Territory
AUS-MEAT	National
Employee Associations	
Australasian Meat Industry Employees Union	National
Industry R&D Services Bodies	
Australian Meat Processor Corporation	National
Meat and Livestock Australia	National
AgriFutures Australia	National
Industry Services Bodies	
National Meat Industry Training Advisory Council (MINTRAC)	National

APPENDIX 3: INDUSTRY REGULATIONS AND STANDARDS

Seventy per cent of meat consumed in Australia is produced in export-registered abattoirs under the control of the federal Department of Agriculture and Water Resources. The Department regulates export operations in all states and territories. Apart from export certification, the Department supplies a meat inspection service (including veterinarians and meat inspectors) and regulatory oversight by area technical managers.

In order to supply meat to the domestic market, all meat processing plants must be licensed with the relevant state/territory authorities. Most authorities have different classes of licence, depending on the type of animal/meat being processed.

Since the early 1990s, the regulation of the domestic meat industry has been conducted by state-based Meat Hygiene Authorities. The extent and methods vary somewhat between states, but all must meet the agreed Australian Standards, which are reflected by legislation in each state.

These authorities are:

- PrimeSafe-Victoria – regulates meat hygiene
- Primary Industries and Regions South Australia (PIRSA) – regulates the meat industry
- NSW Department of Primary Industries, Biosecurity and Food Safety (formerly the Meat Branch of NSW Food Authority) – responsible for meat hygiene regulation
- Safe Food Production Queensland (SafeFood Qld) – incorporates all aspects of food safety in all food products, including meat
- The Tasmanian Government Department of Primary Industries, Parks, Water and Environment – regulates the meat industry
- In Western Australia, meat hygiene is controlled by the Department of Health with input from the Western Australian Meat Industry Authority
- In the Northern Territory, the Department of Primary Industries and Resources regulates the meat industry.

All state-/territory-based meat hygiene authorities base their legislation on the Australian Standards, in particular, *AS4696:2007 Hygienic production and transportation of meat and meat products for human consumption*.

The Australian Standards also apply to wholesale businesses handling raw meat. Once a product is further processed by cooking, drying or fermentation, it is regulated by food authorities applying the Australia New Zealand Food Standards Code, although the *AS 4696:2007 Hygienic production and transportation of meat and meat products for human consumption* also applies.

Meat Standards Australia (MSA) is a voluntary eating-quality grading system underpinning the buying and cooking Australian beef and lamb. All products identified with the MSA symbol must meet strict criteria to ensure they achieve consumer expectations for tenderness, juiciness and flavour. Only licensed producers can apply the MSA grading system. Australian brands can choose to underpin the eating quality of their products by using MSA standards and grading specifications. These brands may also have additional specifications, which can be applied at grading.

Most retail activity is controlled by state/territory food authorities and by local councils.

AUS-MEAT is a non-profit company limited by guarantee that is wholly owned by its member bodies, MLA and AMPC. The AUS-MEAT National Accreditation Standards ensure that processors' quality systems are independently audited and cover quality assurance procedures throughout every step of the process, from handling, storage, processing and packaging through to labelling and description of meat products. This ensures meat products are produced by trained staff and monitored throughout production by accredited personnel. The standards are essential to the international reputation and integrity of Australia's red meat export market.⁵¹

⁵¹ AUS-MEAT. [www] <https://www.ausmeat.com.au>

Australian Standards that apply to meat processing

There are Australian Standards that apply to meat processing. Meat that is further processed by cooking, drying or fermentation must also meet the requirements of the Australia New Zealand Food Standards Code.

The Australian Standard that applies to meat processing depends on the type of processing that is occurring. The various Standards and how they apply are listed below:

- AS 4696-2007 *Hygienic production and transportation of meat and meat products for human consumption* – As discussed above.
- AS 5812-2017 *Manufacturing and marketing of pet food* – This standard provides requirements for the manufacture and marketing of pet food intended for consumption by domesticated cats and dogs.
- AS 4464-2007 *Hygienic production of game meat for human consumption* – This Standard applies to game animals shot in the field and processed at game processing plants.
- AS 4466-1998 *Hygienic production of rabbit meat for human consumption* – This Standard applies to rabbits and hares, both those shot in the field and raised commercially.
- AS 5010-2001 *Hygienic production of ratite (emu/ostrich) meat for human consumption* – This Standard applies to emus and ostriches processed at specialist abattoirs with full ante-mortem and post-mortem inspection.
- AS 4465-2006 *Construction of premises and hygienic production of poultry meat for human consumption* – This Standard applies to all poultry processing including further processing such as boning and packing.
- AS 4467-1998 *Hygienic production of crocodile meat for human consumption* – This Standard applies to all crocodile processing including further processing such as boning and packing.
- AS 5011-2001 *Hygienic production of natural casings for human consumption* – This Standard applies only to casing manufacture from animal intestines, not artificial casings.
- AS 5008-2007 *Hygienic rendering of animal products* – This Standard applies to rendering of meat by-products from slaughtering and processing for the production inedible tallow and meat meal.
- *Australian Animal Welfare Standards and Guidelines* – standards have been developed for cattle and sheep and poultry standards are currently under development. The standards and guidelines are currently being regulated into law by most State and Territory governments
- The *Land Transport Standards and Guidelines* are being regulated into law by State and Territory governments⁵². Currently the Standards are implemented in all states except for Western Australia.
- The *Export Control Act 1982* – This Act sets out the requirements and responsibilities for exporting goods to other countries.
- The *Biosecurity Act 2015* – This Act has replaced the *Quarantine Act 1908*, and sets up new requirements and regulatory powers that will affect how the Department manages the biosecurity risks of goods, people and conveyances entering Australia.

Meat inspection standards

There are three tiers of meat inspection standard in Australia, based on the level and type of meat inspection system in place:

- Tier 1 – Australian Standards
- Tier 2 – Requirements set by overseas governments for access to their markets
- Tier 3 – Market-specific requirements.⁵³

Professional accreditations in the industry

⁵² Source: <http://www.animalwelfarestandards.net.au/land-transport/>

⁵³ Export Control (Meat and Meat Products) Orders 2005.

The only sector-specific occupation that requires a licence is the role of meat inspector, and registration can be with a federal or state authority, depending on the nature of the enterprise. Veterinarians and Animal Welfare Officers also require formal qualifications.

However, this industry also employs electricians, plumbers, and forklift operators, which are all licensed occupations.

National Feedlot Accreditation Scheme

The National Feedlot Accreditation Scheme (NFAS) is an independently audited quality assurance scheme. Initiated by ALFA and is managed by an industry committee, the Feedlot Industry Accreditation Committee (FLIAC), participation in the NFAS is voluntary.

Australian Pork Industry Quality Assurance program (APIQ®) APIQ® is the pig industry on-farm quality assurance program, which includes standards and performance indicators for management, food safety, animal welfare, biosecurity, traceability, environment and transport. Producers are audited annually by a third-party certifying body and participation is voluntary. Over 90% of all sows in production are APIQ® certified. Participation in APIQ® is voluntary. The program is currently undergoing a review.

APPENDIX 4: INDUSTRY PRIORITY FOR GENERIC SKILLS

The Meat Industry Reference Committee has declined to rank these skills because of their varying importance according to job role/level and industry sector.

Rank	Generic Skill
1	Managerial/Leadership skills <ul style="list-style-type: none"> Ability to effectively communicate with all functional areas of the organisation. Ability to represent and develop tasks and work processes for desired outcomes. Ability to oversee processes, guide initiatives and steer employees toward achievement of goals.
2	Entrepreneurial skills <ul style="list-style-type: none"> Ability to take any idea, whether it be a product and service, and turn that concept into reality and not only bring it to market but make it a viable product and/or service. Ability to focus on the very next step to get closer to the ultimate goal. Ability to weather the ups and downs of any business. Ability to sell ideas, products or services to customers, investors or employees etc.
2	Learning agility/Information literacy/Intellectual autonomy and self-management skills <ul style="list-style-type: none"> Ability to identify a need for information. Ability to identify, locate, evaluate, and effectively use and cite the information. Ability to discriminate and filter information for importance. Ability to do more with less. Ability to quickly develop a working knowledge of new systems to fulfil the expectations of a job. Ability to work without direct leadership and independently.
3	Customer service/Marketing skills <ul style="list-style-type: none"> Ability to interact with another human being, whether helping them find, choose or buy something. Ability to supply customers' wants and needs both via face to face interactions or digital technology. Ability to manage online sales and marketing. Ability to understand and manage digital products.
4	Financial skills <ul style="list-style-type: none"> Ability to understand and apply core financial literacy concepts and metrics, streamlining processes such as budgeting, forecasting, and reporting, and stepping up compliance. Ability to manage costs and resources, and drive efficiency.
5	Technology use and application skills <ul style="list-style-type: none"> Ability to create and/or use of technical means understand their interrelation with life, society, and the environment. Ability to understand and apply scientific or industrial processes, inventions, methods, etc. Ability to deal with increasing mechanisation and automation and computerisation. Ability to do work from mobile devices rather than from paper.
6	Data analysis skills <ul style="list-style-type: none"> Ability to translate vast amounts of data into abstract concepts and understand data-based reasoning. Ability to use data effectively to improve programs, processes and business outcomes. Ability to work with large amounts of data: facts, figures, number crunching, analysing results.
8	Communication/Collaboration including virtual collaboration/Social intelligence skills <ul style="list-style-type: none"> Ability to understand and apply the principles of creating more value for customers with fewer resources (lean manufacturing) and collaborative skills. Ability to critically assess and develop content that uses new media forms and leverage these media for persuasive communications. Ability to connect with others deeply and directly, to sense and stimulate reactions and desired interactions.
9	Language, Literacy and Numeracy (LLN) skills <ul style="list-style-type: none"> Foundation skills of literacy and numeracy.

Rank	Generic Skill
10	Science, Technology, Engineering and Maths (STEM) skills Sciences, mathematics and scientific literacy.
9	Design mindset/Thinking critically/System thinking/Solving problems skills Ability to adapt products to rapidly shifting consumer tastes and trends. Ability to determine the deeper meaning or significance of what is being expressed via technology. Ability to understand how things that are regarded as systems influence one another within a complete entity, or larger system. Ability to think holistically.
12	Environmental and sustainability skills Ability to focus on problem-solving and the development of applied solutions to environmental issues and resource pressures at local, national and international levels.
13	Other generic skills