

Department of Industry

# NSW food and beverage manufacturing industry development strategy

2019







## FROM THE MINISTER

### **There is a quiet revolution happening in the world of food and beverages.**

While consumers used to give little thought to where their meal came from—and how it moved from paddock to plate—more and more consumers now want to know their food's story. This means where their food was grown, who grew it, how it was processed and whether it was grown and manufactured sustainably and ethically.

All of this is being revolutionised and driven by rapid developments in areas such as distributed ledger and sensor technology, so that every step of a supply chain can now be monitored and reported on, in real time, to a business or a consumer. In turn, this is transforming the workforce requirements of the industry—food and agriculture are now the place to be for our best and brightest minds, regardless of whether they are from the city or the country.

New South Wales (NSW) has a great story to tell across every part of the food and beverage value chain, as our international reputation as a 'clean and green' supplier attests.

The food and beverage manufacturing sector employs nearly 70,000 people in NSW, more than any other manufacturing sector in the state. It is made up of some 3,600 companies that deliver products to our plates and to consumers across the world.

NSW's high-quality and sustainable products, backed by a strong regulatory environment, mean the state is well placed to meet a burgeoning global appetite for premium produce. We are particularly well positioned to take advantage of the rapidly growing demand from the new middle classes in the Asia-Pacific.

*The NSW food and beverage manufacturing industry development strategy* sets out the NSW Government's wide-ranging support to this critical sector as it rises to meet the opportunities before it.

This strategy has been industry-led from its inception. The initiatives it contains will bring together government, industry, education providers and researchers to deliver on the potential of the industry to grow and contribute to the prosperity of families and communities across NSW.

This strategy will also help to ensure our economy remains the most dynamic in Australia and that the food and beverage manufacturing sector continues to fill plates and satisfy palates across the nation and across the world.

**The Hon. Niall Blair MLC**

Minister for Primary Industries  
Minister for Regional Water  
Minister for Trade and Industry

# EXECUTIVE SUMMARY

**New South Wales (NSW) is home to an established, innovative and high-quality food and beverage manufacturing industry that is vital to the diversity and strength of the Australian economy. The industry is the largest agribusiness sector in the state. It consists of around 3,600 businesses that produce almost one fifth of the Australian sector's exports and employs nearly 70,000 people.**

Food and beverage manufacturers process or reprocess ingredients, including fresh products, to produce ready-to-eat, shelf-ready or packaged food and beverages.

Increased demand for food and beverage products is being driven by the fast-growing middle class in emerging countries, particularly in Asia. These increasingly sophisticated consumers are interested in safe, high value-added goods and the provenance of their food. NSW has an opportunity to capture a much larger share of the global market and capitalise on the increasing availability of, and access to, domestic fresh food supplies including niche and specialist products.

To do this, NSW food and beverage manufacturers will need to improve food security and sustainability, enhance production, add value and better connect with the global marketplace.

Leading businesses are adopting new technologies, advanced business processes and advanced business models that increase productivity and transform how food and beverages are manufactured, distributed and sold. Their improved equipment and processing techniques are efficiently producing value-added products, creating an imperative for the rest of the industry to follow suit. This trend is creating a need for updated workforce skills.

Changes in how the industry operates mean that the food and beverage manufacturing jobs of the future will require deep technical knowledge, an understanding of supply chains, relationship management skills and digital literacy.<sup>1</sup>

It is in this context that the NSW Department of Industry has developed the *NSW food and beverage manufacturing industry development strategy* (the strategy) to provide a roadmap for future growth. The strategy will harness the state's ability to sustain food and beverage manufacturing as a leading industry in NSW. It sets out targeted, practical initiatives to grow the industry, build business capability, foster a supportive external business environment, and increase jobs and investment in NSW.

The strategy builds on existing NSW Government commitments to manufacturing and the food and beverage sector, including the release of the *NSW advanced manufacturing industry development strategy*<sup>2</sup> and the *NSW agribusiness positioned for prosperity* report for the NSW Department of Primary Industries (DPI) from July 2016.<sup>3</sup> Through these commitments, the NSW Government is leading collaboration with key partners to drive sustainable economic growth, job creation, skills development, and investment in the food and beverage manufacturing industry in NSW.

The strategy will position NSW to tackle the challenges posed by a competitive business and investment environment, availability of skilled labour, sustainability, waste management and access to markets. The strategy will also support the industry as it seizes the opportunities presented by diversifying consumer tastes, growing global demand, technology and Industry 4.0.<sup>4</sup> It will position NSW as a place where food and beverage manufacturers choose to invest, grow and create new jobs.



**In developing this *NSW food and beverage manufacturing industry development strategy*, the NSW Government undertook extensive research, data analysis and consultation with industry and key stakeholders. Key insights gained include:**

- NSW manufacturers benefit from economies of scale—the state has Australia’s largest consumer market and workforce, a significant proportion of the nation’s agricultural land and extensive infrastructure.
- Manufacturers are attracted by the state’s strong, stable economy, ease of doing business and NSW Government support for manufacturing, innovation and startups.
- Collaboration between industry, government and academia is important to position the industry to access overseas markets.
- NSW manufacturers can take advantage of the state’s world-class research and development (R&D) community, centred around universities, research organisations and centres of excellence, to increase efficiency and add value.
- Manufacturers need a highly skilled and productive labour force that can fully utilise emerging technologies to manufacture high-value products that meet diversifying consumer preferences.

To promote and grow opportunities for the industry in NSW through this strategy, the NSW Government will:

- maximise capabilities and access to information across the industry, by providing more opportunities for collaboration
- work with businesses and educational institutions to update key qualifications and inspire graduates to enter the sector
- engage with the industry to understand and advocate for its concerns, while building a supportive environment for growth
- help new market entrants, including innovative startups, to source and access capital and enter new supply chains
- build the capabilities of NSW businesses to access export markets, and provide platforms for them to do so.

The strategy will lay the foundations for the food and beverage manufacturing industry to remain a source of economic strength and innovation in NSW.

- 1 Australian Industry and Skills Committee (2017), *Food and Pharmaceutical Production—National Industry Insights Report*, [nationalindustryinsights.aisc.net.au/industries/food-and-pharmaceutical-production](http://nationalindustryinsights.aisc.net.au/industries/food-and-pharmaceutical-production), accessed November 2018.
- 2 *NSW advanced manufacturing industry development strategy*, NSW Department of Industry (2018), [industry.nsw.gov.au/manufacturing](http://industry.nsw.gov.au/manufacturing).
- 3 Deloitte Access Economics (July 2016), *NSW agribusiness positioned for prosperity*, produced for the NSW Department of Primary Industries, [dpi.nsw.gov.au/about-us/publications/nsw-agribusiness-positioned-for-prosperity](http://dpi.nsw.gov.au/about-us/publications/nsw-agribusiness-positioned-for-prosperity)
- 4 The Advanced Manufacturing Growth Centre defines ‘Industry 4.0’ as the suite of digital technologies augmenting industrial processes, including the rise of data volumes, computational power and connectivity; emergence of business intelligence capabilities; new forms of human-machine interactions; and improvements in transferring digital instructions to the physical world, such as 3D printing.

# KEY STRATEGIC THEMES AND INITIATIVES

Table 1: Summary of key themes

Strategic theme	Opportunity or challenge	Initiatives
<b>1</b> <b>Collaborate for commercial advantage</b>	To take advantage of market opportunities, stakeholders require information, partners and government support. Collaboration between industry, government, researchers, and education and training institutions is key to supporting innovation and unlocking the growth potential of the industry	<b>1.1</b> Capitalise upon existing collaborative networks <b>1.2</b> Build collaboration through new information channels <b>1.3</b> Facilitate collaboration with complementary industries <b>1.4</b> Map NSW capabilities to support industry growth and market entry
<b>2</b> <b>Create a fit-for-purpose workforce</b>	Changes in how the industry operates mean that the jobs of the future will require deep technical knowledge, an understanding of supply chains, relationship management skills and digital literacy. <sup>5</sup> Promoting and providing the necessary skills and training will help reshape perceptions of a career in the industry	<b>2.1</b> Implement a workforce development agenda with industry <b>2.2</b> Promote food and beverage manufacturing as a career <b>2.3</b> Facilitate worker attraction and retention <b>2.4</b> Enhance collaboration and exchange between industry, vocational training providers and universities
<b>3</b> <b>Advocate for the industry</b> and support its development	NSW is well placed to meet growing regional demand if businesses can adapt to the changes occurring in the industry. Government can assist by providing a supportive business environment, and promoting the strengths of the industry to investors and consumers <sup>6</sup>	<b>3.1</b> Create a supportive business environment <b>3.2</b> Support NSW manufacturers to access NSW Government and Commonwealth Government programs and funding initiatives <b>3.3</b> Undertake a feasibility study into establishing a world-leading agribusiness precinct in the Western Sydney Aerotropolis
<b>4</b> <b>Accelerate SME growth</b> in niche and emerging markets	NSW food and beverage manufacturers operate in an increasingly competitive and complex environment. SMEs will benefit from quickly innovating and adapting to changing demand, but face challenges navigating new domestic and international markets	<b>4.1</b> Promote support measures available to startups and SMEs

Strategic theme	Opportunity or challenge	Initiatives
<b>5</b> <b>Help attract investment and boost access</b> to international markets	NSW food and beverage manufacturers face challenges accessing capital and entering global markets—particularly SMEs. In addition, international investors may not be aware of the local sector, and businesses often lack access to market intelligence and skills to be export-ready	<b>5.1</b> Build the export readiness of NSW businesses <b>5.2</b> Promote NSW industry capabilities to international markets <b>5.3</b> Attract foreign direct investment

5 Food and Pharmaceutical Production, Australian Industry and Skills Committee (2017), *Food and Pharmaceutical Production—National Industry Insights Report*, [nationalindustryinsights.aisc.net.au/industries/food-and-pharmaceutical-production](http://nationalindustryinsights.aisc.net.au/industries/food-and-pharmaceutical-production), accessed November 2018.

6 *NSW advanced manufacturing industry development strategy*, NSW Department of Industry, 2018, [industry.nsw.gov.au/manufacturing](http://industry.nsw.gov.au/manufacturing).

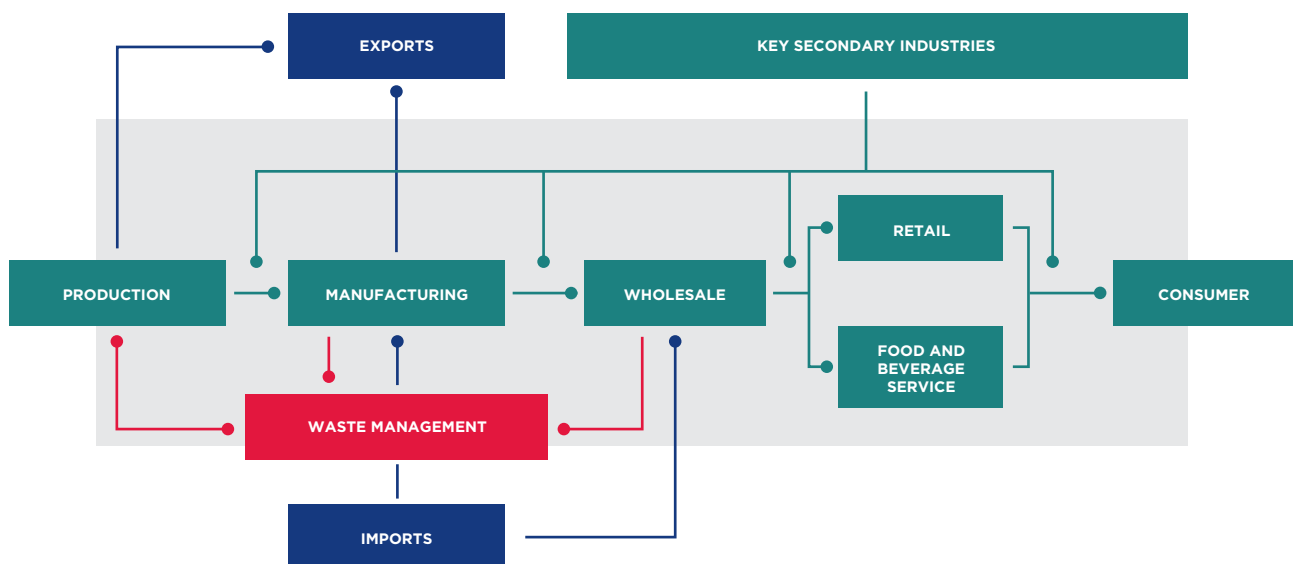
# ECONOMIC VALUE AND SECTOR OVERVIEW

Food Innovation Australia Limited (FIAL) forecasts that in 2025, global opportunities for the food and agribusiness sector will be worth between \$8.8 trillion and \$11.1 trillion (in 2015 Australian dollars).<sup>7</sup> To capitalise on these opportunities, NSW food and beverage manufacturers will need to improve food security and sustainability, enhance production and add value, better connect with the global marketplace, and meet the needs of the future consumer.

Currently, FIAL estimates that Australia shares in 1% of the global food and beverage export market. As the global population continues to grow and more people enter the middle class, the demand for safe and high-quality food and beverages from Australia will grow. NSW has an opportunity to capture a much larger share of the market.

Food and beverage manufacturing includes multiple sub-sectors and is part of a complex supply chain—from primary production to consumption (see Figure 1)—that is being transformed by technology. This diverse industry (see Table 2) also supports sectors including food services, agriculture, financial services, manufacturing, retail trade, transport, warehousing and wholesale trade.



**Figure 1: NSW food and beverage manufacturing industry supply chain**



Source: KPMG (modified), 2018



**Table 2: NSW food and beverage manufacturing industry sub-sectors**

Sub-sectors	
 Meat and meat product manufacturing	 Grain mill and cereal product manufacturing
 Seafood processing	 Bakery product manufacturing
 Dairy product manufacturing	 Sugar and confectionery manufacturing
 Fruit and vegetable processing	 Other food product manufacturing (including snack food, animal and bird feed, and products not classified elsewhere)
 Oil and fat manufacturing	 Beverage manufacturing <sup>8</sup>

Source: The Australian and New Zealand Standard Industrial Classification (ANZSIC)

7 Food Innovation Australian Limited (FIAL) is the Commonwealth Government-funded food and agribusiness growth centre. It seeks to build capability in the food and agribusiness industry by encouraging collaboration and innovation. It established the Enterprise Solution Centre Programme to connect SMEs with R&D expertise; developed and maintains the Australian Food Catalogue to connect international buyers with Australian suppliers; and delivers skills workshops on a range of topics, including export readiness, eCommerce, brand protection and market diversification. Source: Food and Agribusiness growth Centre, Industry Growth Centres.

8 Wine production in NSW contributes more than 30% of Australia's \$5 billion wine industry (New South Wales Wine Industry Association, About the NSWWIA). Support for the wine industry is covered by other NSW Government initiatives led by the NSW Department of Industry, NSW Department of Primary Industries and Destination NSW.



The food and beverage manufacturing industry plays a significant role in the NSW economy and accounts for a substantial part of the overall Australian economy. Key NSW statistics are summarised below.

## The NSW food and beverage industry at a glance



**NSW has the largest food and beverage manufacturing business in Australia**, with the sector contributing

**\$30.1 billion**

in sales and service income in 2016-17—32% of the Australian total. Food is the largest component of the NSW manufacturing industry.



The NSW food and beverage manufacturing industry is diverse and versatile with nearly

**70,000**

**people working in approximately**

**3,600**

**businesses**, almost 30% of the national industry.



**Food retailing is the biggest driver of growth in the NSW retail sector.**

In 2016-17, annual food retail turnover was valued at more than

**\$51 billion.**<sup>9</sup>



**The agrifood industry plays a key role in regional NSW.**

**Around 40%**

of food processing businesses are located in regional areas.



**99%**

of **food and beverage producers** in NSW are small to medium-sized businesses, highly dispersed across the state.



**The NSW Government is investing**

**\$51.2 billion**

**over four years to**

**2021-22** in major transport infrastructure projects that will assist food and beverage manufacturing businesses to source inputs and supply their products to market.<sup>10</sup>



**NSW exports of manufactured food grew 10.3%** in the five years to 2016-17 to

**\$4.4 billion.**

Sources: Australian Organic (2018) Market Report, accessed November 2018; State of the Industry, Australian Food and Grocery Council, 2017; ABS, Australian Industry 2012-17, cat. no. 8155.0; ABS, Australian Industry 2011-17, cat. no. 5368.0

<sup>9</sup> Australian Bureau of Statistics (ABS) Retail Trade, Australia, March 2018, cat. no. 8501.0

<sup>10</sup> NSW Government Budget Paper 2—Infrastructure Statement 2018-19.





Image courtesy of Young Henry's.

The production expertise of the food and beverage manufacturing industry in NSW is deep and broad, and includes a large range of niche food product manufacturing, such as artisan and organic foods, and craft beer and spirit manufacturing. The bulk of NSW food production is based on the processing of NSW primary products. Key sub-sector statistics are summarised below in Table 4.

**Table 4: Overview of food and beverage manufacturing sub-sectors**

Sub-sector	NSW
<b>Bakery product manufacturing</b>	NSW has 35.9% of factory-based bread producers, 35.2% of cake and pastry manufacturers and 32.4% of bakery product manufacturers, making it the largest state nationally. NSW is second to Victoria in factory-based biscuit manufacturing, with 26.9% of businesses
<b>Beverage manufacturing</b>	NSW has 36.4% of soft drink, cordial and syrup manufacturers, making it the largest state nationally. NSW is the second-largest state in Australia for beer manufacturing, with 24.3% of enterprises, and spirit manufacturing, with 20.8% of enterprises
<b>Dairy product manufacturing</b>	NSW is the second-largest state for all dairy product manufacturing sub-sectors
<b>Fruit and vegetable processing</b>	NSW is the largest state, with 29.3% of fruit and vegetable processing enterprises, supported by a range of climates. Imports are constricting the industry's ability to maintain its share of domestic demand
<b>Grain mill and cereal product manufacturing</b>	NSW has 33.8% of flour and grain mill product manufacturers and 33.2% of cereal, pasta and baking mix manufacturers, making it the largest state nationally
<b>Meat and meat product manufacturing</b>	NSW is the second-largest state for meat and poultry processing as well as cured meat and smallgoods manufacturing, with 25% of meat processing businesses, 28.3% of poultry processing businesses and 24.4% of cured meat and smallgoods businesses
<b>Oil and fat manufacturing</b>	NSW is home to 22.9% of enterprises, making it the second-largest state behind Victoria
<b>Seafood processing</b>	NSW is the fifth-largest state, with 12.4% of enterprises. Imports account for a growing proportion of domestic seafood demand
<b>Sugar and confectionery manufacturing</b>	NSW is home to 26.9% of sugar manufacturing enterprises, making it the second-largest state behind Queensland, which has 61.6% of enterprises. NSW has the second-largest share of chocolate and confectionery manufacturers, with 31%
<b>Other food product manufacturing</b>	NSW is home to 35.6% of other food manufacturers and 30.8% of pet food manufacturers, making it the largest state nationally

Source: IBISWorld industry reports





## Drivers of change in the food and beverage manufacturing industry

The food and beverage manufacturing industry is growing and evolving. Some changes affect the industry as a whole, while others affect specific sub-sectors.

The industry is part of a broader manufacturing sector that is transforming in response to technological advancements, new business models, structural changes in the economy and changing consumer demand. The broader sector faces increasing competition due to industrialisation in Asia and the reduction or removal of barriers to trade. Some businesses have relocated manufacturing operations overseas.

An important driver of change in the food and beverage manufacturing industry is vertical integration and consolidation. SMEs are often drivers of innovation. Increasingly they are being acquired by larger businesses that often own enterprises along the whole supply chain. This process facilitates access to global supply chains and can bring new technologies and ideas to fruition.

In this context, relatively high cost base inputs compared to international competitors have compelled NSW food and beverage manufacturers to be efficient. Growing awareness of sustainability issues and waste management has increased the focus on a circular economy, along with increasing interest in biofuels and new waste reduction methods.

Increasing global demand for premium food and beverage products is a further driver of change in the industry. Growing prosperity in Asia, Africa and South America has increased the size of the global middle class, while free trade agreements are providing greater access to international markets for Australian businesses. Globally, consumers are diversifying and becoming more sophisticated as they develop awareness of the products they buy.

They now want high-quality, protein-rich food, and transparency about its origins and supply chain. These developments reflect increasingly urban, ageing populations and broader demographic changes in developed and developing regions.

**Technology has changed how food and beverages are produced, manufactured, distributed, marketed and sold, enabling the creation of new products with:**

- improved shelf stability
- enhanced nutritional profiles
- attributes that meet evolving health needs
- reduced environmental impacts.

Big data and predictive analytics are providing market insights that manufacturers can use to get the right products to consumers at the right time. Technologies such as automated monitoring systems, connected sensors, distributed ledgers (blockchain), DNA testing, isotope analysis and barcoding are increasingly used to trace the origins of a product. These developments are fuelling R&D and investor interest along the whole supply chain.

Digital technologies that verify a product's provenance could sustain and lift the NSW food and beverage manufacturing industry's export revenues by securing the price premium that NSW's high-quality products currently attract. Technology will continue to transform the supply chain as manufacturers harness the opportunities of Industry 4.0—a suite of digital technologies that are transforming industrial practices.<sup>11</sup> Digital agriculture can also improve the resource efficiency of agricultural practices, reducing the environmental cost of food production and improving food security by supporting higher yields.<sup>12</sup>

These advances are creating demand for new employee skill sets. Workers increasingly require advanced technical knowledge, an understanding of supply chains, relationship management skills and digital literacy. Support will be needed to build capabilities, such as reading and troubleshooting remote data technology, and using a range of new platforms to link their products with consumers.

The food and beverage manufacturing industry continues to be shaped by the growth of other industries in NSW. Advanced manufacturing capabilities are bringing new technologies and ideas, while traditional agricultural centres throughout regional NSW are being reinvigorated by the growth of agtech and opportunities to partner with research hubs such as the Global Ag-Tech Ecosystem (GATE) in Orange.

### **The GATE**

The Global Ag-Tech Ecosystem (GATE) is a collaborative research and technology facility designed to cultivate and develop agriculture technology ideas. An initiative by NSW DPI, GATE recently opened in Orange to fast track agriculture technology research and development into the commercialisation phase. The GATE provides support to startups along the whole journey, not just during the incubator phase.<sup>13</sup>

11 *Digital Innovation: Australia's \$315bn Opportunity*, CSIRO, September 2018.

12 *ibid.*

13 Global Ag-Tech Ecosystem (GATE), Department of Primary Industries, 2017.



## Challenges faced by NSW food and beverage manufacturers

NSW food and beverage manufacturers must overcome a number of challenges to build on the strengths of the industry and take advantage of emerging opportunities.

### 1. Difficulties attracting skilled workers.

The food and beverage industry requires specialists in marketing and social media, commercialising science, food technology, entrepreneurialism, business planning and data analytics. Stakeholders identified increasing competition for the small pool of available skilled labour, a push for secondary school graduates to attend university rather than undertake vocational education and training (VET), insufficient job readiness and an ageing workforce. These factors limit the ability of manufacturers to attract and retain skilled workers, particularly in regional areas.

### 2. A very competitive business environment.

It can be challenging to remain cost-competitive with domestic and international manufacturers operating in areas with particular geographical characteristics or less rigorous regulatory environments. NSW Government support for the industry and consumer education by industry and government are important measures employed to meet these challenges.

### 3. The challenges of waste management.

The NSW Government and the food and beverage manufacturing industry are developing policy responses and innovative solutions to meet changing waste management demands. A new Circular Economy policy is part of the NSW Government's response to China's National Sword policy, which has banned imports of 24 categories of solid waste. Industry is employing new technologies and business processes to improve energy efficiency, and reduce waste volumes and input costs.

### 4. Collaboration and information sharing.

Many SMEs lack the time and financial resources to keep abreast of new regulations, policies, support schemes, supply channels and market opportunities. This affects their appetite for R&D. SMEs are also uncertain about who to contact for food science R&D expertise and collaboration. These factors can stop SMEs from accessing government support, securing market share and boosting productivity.

### 5. Evolving customer expectations.

Manufacturers can find it hard to target evolving consumer tastes and expectations. It is as important for primary producers and manufacturers to educate consumers about new, emerging or reimagined products as it is for primary producers and manufacturers to understand their consumers.

### 6. Long distances and a fragmented supply chain.

These make it costly to transport key inputs and finished products. For example, the lack of cold chain facilities causes inefficiencies in transporting food and beverages across the state and internationally.

### 7. Variable and extreme seasonal conditions,

which present significant risks and costs in primary production. Stringent environmental protection standards and sustainable resource management practices are crucial to the NSW food and beverage manufacturing industry's long-term sustainability. In particular, water resources must be efficiently managed to ensure water security, which is integral to the future of the industry.



## Economic strengths and opportunities for the NSW food and beverage manufacturing industry

Research and consultation with key stakeholders identified a number of strengths and opportunities for food and beverage manufacturing in NSW. These are summarised below in Table 5.

**Table 5: Strengths and opportunities for the NSW food and beverage manufacturing industry**

Strengths	Opportunities
<ul style="list-style-type: none"> <li>■ Access and proximity to emerging markets in Asia</li> <li>■ Home to some of Australia's largest food and beverage brands</li> <li>■ Australia's largest consumer market, with 32% of the total population<sup>14</sup> and a large, diverse and growing regional economy</li> <li>■ Geography and climate support diverse primary production</li> <li>■ Skilled workforce, markets and infrastructure economies of scale</li> <li>■ Strong foundation in world-class food technology (foodtech) research and specialised training for food and beverage manufacturing</li> <li>■ National leader in innovation, with Sydney as Australia's startup capital, enabling access to the Sydney School of Entrepreneurship, the Global Ag-Tech Ecosystem (GATE) in Orange and other innovation hubs</li> <li>■ NSW Government commitment to manufacturing and agribusiness, such as initiatives in the <i>NSW advanced manufacturing industry development strategy</i> and <i>DPI's NSW agribusiness: positioned for prosperity</i> report</li> <li>■ NSW food and beverage products have an international reputation for being 'clean and green' including supply chain integrity that protects consumers from health risks and maintains public confidence in food supply<sup>15</sup></li> </ul>	<ul style="list-style-type: none"> <li>■ Improve the recognition and profile of NSW products and producers to grow exports to expanding export markets, especially Asia</li> <li>■ Promote the distinct competitive advantages of NSW regions</li> <li>■ Support industry to become export-ready and able to access international markets, leveraging the NSW TradeStart network</li> <li>■ Develop 'agriprecincts' to support and promote investment in the next generation of advanced, efficient and digitally enabled production facilities</li> <li>■ Develop the skills and agility of the food and beverage manufacturing workforce to ensure its ability to respond to rapid technological change</li> <li>■ Use automation and technology to improve productivity and to address metropolitan and regional skills shortages</li> <li>■ Use new technology to reduce food waste and energy costs</li> <li>■ Collaborate to share best-practice knowledge, information and market opportunities among industries, government and research institutions—especially for SMEs</li> <li>■ Personalise food and beverage products to consumer preferences to increase their value</li> <li>■ Build consumer trust and willingness to pay by increasing transparency across the entire supply chain</li> <li>■ Meet consumer demand for healthier and functional foods</li> <li>■ Understand the type and source of food and beverage imports into Australia and assess the potential to replace them with domestic products</li> </ul>

<sup>14</sup> ABS, Australian Demographic Statistics, 2017, cat. no. 3101.0.

<sup>15</sup> *Digital Innovation: Australia's \$315b Opportunity*, CSIRO, September 2018.

## Regional strengths and opportunities

Leading international food and beverage manufacturers are increasingly locating their operations in regional NSW, attracted by the high value-add business environment, market access and world-class R&D centres. Each region in NSW can leverage unique advantages and opportunities, leading to a comparative advantage in at least one sub-sector (see Table 6).<sup>16</sup>

These advantages include direct access to supply chain partners and distribution networks, including road, rail, ports and airports.

Several regions across NSW are well known for production of specific agricultural products (see Figure 2) and so attract clusters of relevant manufacturers.

Underpinning this production and manufacturing capability is a depth of research and development capability across the state, including regional NSW.

### NSW Department of Primary Industries (DPI)

With more than 20 research institutes throughout the state, the NSW DPI supports applied research across agriculture, fisheries, biosecurity and food safety.

The NSW DPI is ranked in the top 1% of research organisations worldwide in the fields of agriculture and plant and animal science, and is closely connected to the producers, manufacturers and communities it serves.

As rapid population growth drives consumption demand for primary industry products in Australia and around the world, the NSW DPI's capacity to deliver productivity gains through research is key to ensuring the state's producers and manufacturers can take advantage of that demand.

<sup>16</sup> A region is judged to have a 'comparative advantage' when it has a higher share of employment in a specified sub-sector than the national average. While factors such as sub-sectors with low employment intensity or overall population size may limit the comparison, employment data provides the richest source of disaggregated information at a regional level across NSW, and the conclusions were validated through the stakeholder consultation process.



**Figure 2: NSW regions' food and beverage manufacturing strengths**



### **Far West**

- Meat and meat products
- Grain mill and cereal products
- Beverages

### **New England and North West**

- Meat and meat products
- Grain mill and cereal products

### **North Coast**

- Meat and meat products
- Seafood processing
- Dairy products
- Bakery products
- Sugar and confectionery
- Artisan and organic foods

### **Hunter**

- Meat and meat products
- Grain mill and cereal products
- Seafood processing
- Beverage manufacturing

### **Central West and Orana**

- Meat and meat products
- Grain mill and cereal products
- Dairy products
- Fruit and vegetable processing
- Craft beer and spirits
- Artisan and organic foods

### **Central Coast**

- Fruit and vegetable processing
- Meat and meat products
- Bakery products

### **Metropolitan Sydney**

- Meat and meat products
- Dairy products
- Bakery products
- Sugar and confectionery
- Craft beer and spirits

### **Illawarra Shoalhaven**

- Gluten and starch processing
- Dairy products

### **South East and Tablelands**

- Seafood processing
- Dairy products

### **Riverina Murray**

- Meat and meat products
- Fruit and vegetable processing
- Beverage manufacturing



**Table 6: Comparative advantages of NSW regions**

Region	Comparative advantage
<b>Far West</b>  <b>Total food and beverage manufacturing jobs</b> 248	<ul style="list-style-type: none"> <li>■ Diverse agricultural sector</li> <li>■ Vast areas of land ideal for agricultural production, particularly for organic meats, rangeland goats, sheep and kangaroo meat</li> <li>■ Well suited for pet food manufacturing due to the comparative strengths in meat and grain production</li> <li>■ Well positioned to use Inland Rail to connect rural areas with ports</li> <li>■ Emerging renewable energy presence may increase efficiencies in food and beverage production</li> <li>■ The region's mining skills base is transferable to the beverage manufacturing industry</li> </ul>
<b>New England and North West</b>  <b>Total food and beverage manufacturing jobs</b> 2,536	<ul style="list-style-type: none"> <li>■ Diverse agricultural sector driven by excellent growing conditions and a complementary logistics and warehousing sector</li> <li>■ Significant infrastructure development, including the proposed Tamworth Rail Freight Intermodal Hub</li> <li>■ The New England AgTech Cluster partners food manufacturers with the University of New England's Centre for Agribusiness, SMART Farm and SMART Region Incubator to align programs and activities with industry trends and priorities</li> <li>■ The Tamworth Agricultural Institute (part of NSW DPI's Agri-Food Science Centre of Excellence) has world-class food and nutrition experts who are using durum wheat and grain legumes (pulses) to assist regional food and beverage manufacturing with R&amp;D opportunities</li> </ul>
<b>North Coast</b>  <b>Total food and beverage manufacturing jobs</b> 4,651	<ul style="list-style-type: none"> <li>■ A long history of producing and exporting high-quality food and beverage products</li> <li>■ Extensive agriculture, horticulture and aquaculture sectors, enabled by a favourable climate, a biologically diverse environment and an abundance of productive farmland</li> <li>■ Food manufacturing and agribusiness are recognised focus areas of growth; for example, the Coffs Harbour Economic Development Strategy 2017-2022 aligns different layers of government and facilitates collaboration with industry through bodies such as Northern Rivers Food and the Mid North Coast Food Forum</li> </ul>
<b>Hunter</b>  <b>Total food and beverage manufacturing jobs</b> 5,778	<ul style="list-style-type: none"> <li>■ Largest regional economy in Australia</li> <li>■ Well connected through the Port of Newcastle to major shipping ports across the Asia-Pacific region</li> <li>■ The food and beverage manufacturing industry is supported by the educational framework of the region through its ME Program, which aims to equip the current and future workforce with STEM skills to take advantage of new industry technologies</li> </ul>

Region	Comparative advantage
<b>Central West and Orana</b>  <b>Total food and beverage manufacturing jobs</b> 3,788	<ul style="list-style-type: none"> <li>■ Connected by road and rail to major cities, including Sydney, Adelaide, Melbourne, Brisbane, Newcastle, Canberra and Wollongong, making the region ideal for distributing manufactured food and beverage products</li> <li>■ Emerging agri-finance hub of regional NSW as agribusiness lenders continue to build on their existing presence</li> <li>■ Cowra, Canowindra and Condobolin are home to several large vegetable growers and processing businesses</li> <li>■ Home to some of the nation's largest honey processors, a rapidly growing export industry</li> </ul>
<b>Central Coast</b>  <b>Total food and beverage manufacturing jobs</b> 2,481	<ul style="list-style-type: none"> <li>■ Located close to major markets and export hubs in Sydney and Newcastle</li> <li>■ Proposed NorthConnex will further reduce the time and cost of moving inputs and products to Sydney</li> <li>■ Desirable lifestyle destination, which helps to attract and retain skilled workers</li> <li>■ Educated workforce, with more than one in five residents holding a science, technology, engineering or mathematics (STEM) tertiary qualification</li> <li>■ Good collaboration infrastructure, including the Central Coast Food Innovation Initiative</li> <li>■ Emerging boutique producers</li> </ul>



Region	Comparative advantage
<b>Metropolitan Sydney</b>  <b>Total food and beverage manufacturing jobs</b> 31,357	<ul style="list-style-type: none"> <li>■ The International Convention Centre Sydney hosts events providing opportunities for local producers to promote their products to a global audience, including Fine Food Australia. The country's premier food and beverage manufacturing event, it is hosted bi-annually in Sydney</li> <li>■ Home to globally recognised research institutions and universities, providing a strong collaborative platform to assist the industry to implement innovative technologies that can improve productivity</li> <li>■ Many food and beverage manufacturers, including large Australian and multinational businesses, have head offices in Sydney</li> <li>■ Large, highly skilled, multilingual workforce</li> <li>■ Western Sydney is a significant and influential food and beverage producer. Western Sydney exports \$2.5 billion of food and grocery manufacturing products a year and sells a further \$5.7 billion to interstate and domestic regional markets. Between 2016 and 2017, international exports grew by 10.1%</li> <li>■ Emerging innovation clusters and government infrastructure investment in Western Sydney, including around the Western Sydney Airport, provide opportunities to grow the industry</li> </ul>
<b>Illawarra Shoalhaven</b>  <b>Total food and beverage manufacturing jobs</b> 1,318	<ul style="list-style-type: none"> <li>■ Well connected and close to Sydney and Canberra. Good access to primary inputs, complemented by pockets of highly productive land</li> <li>■ The Smart Foods Centre at the University of Wollongong provides excellent food and nutrition research to assist regional food and beverage manufacturing</li> <li>■ The NSW Shellfish Hatchery is providing opportunities for local seafood producers in training, R&amp;D and export packing</li> <li>■ The Blue Biotechnology cluster supports collaboration between local researchers, industries and government to produce innovative food products</li> </ul>

Region	Comparative advantage
<b>South East and Tablelands</b>  <b>Total food and beverage manufacturing jobs</b> 2,093	<ul style="list-style-type: none"> <li>■ Canberra International Airport (which has capacity to fill export orders and recently opened a cold chain facility, PAKFRESH) provides links for airfreight</li> <li>■ The Port of Eden has significant potential to export goods</li> <li>■ Proximity to Canberra provides opportunities to engage with the Australian National University on research, workforce training and upskilling employees</li> <li>■ Highly developed and successful dairy industry with advanced food manufacturing capabilities</li> <li>■ Growing aquaculture sub-sector, which offers crossover opportunities with the food and beverage manufacturing sector</li> </ul>
<b>Riverina Murray</b>  <b>Total food and beverage manufacturing jobs</b> 5,709	<ul style="list-style-type: none"> <li>■ Commonly referred to as the 'Food Bowl' of NSW, with high levels of agricultural production and value-added manufacturing</li> <li>■ The Wagga Wagga AgTech Cluster partners with industry to facilitate innovative solutions that produce more efficient and consistent food and beverage products</li> <li>■ TAFE NSW has established its agribusiness SkillsPoints in Griffith as a single point of contact for industry collaboration and product development that supports industry engagement on existing and future skills needs for the food and beverage manufacturing workforce</li> <li>■ The region has strategic locational advantages that present opportunities for food and beverage manufacturers in NSW.<sup>17</sup> It has infrastructure links to Melbourne (ports and airports), Canberra Airport, Adelaide and Sydney. The proposed Riverina Intermodal Freight &amp; Logistics (RIFL) Hub will connect agri-production, processing and supply chain links to ports and airports</li> <li>■ The agricultural institutes at Yanco and Wagga Wagga (part of NSW DPI's Agri-Food Science Centre of Excellence) provide world-class food and nutrition experts who are using rice, wheat and oils to assist regional food and beverage manufacturing with R&amp;D opportunities</li> <li>■ The Bridge Hub, headquartered in Wagga Wagga, is a new innovation hub to test and commercialise ideas in the agrifood sector</li> </ul>

Sources: Stakeholder engagement and Invest Regional NSW: [www.investregional.nsw.gov.au](http://www.investregional.nsw.gov.au); *Western Sydney Powering Australia's Food Supply*—Australian Food & Grocery Council, 2018.

<sup>17</sup> *Riverina Murray Regional Plan 2036*, NSW Department of Planning and Environment, 2017.





# KEY STRATEGIC THEMES

The NSW Government will support the state's food and beverage manufacturing industry to drive job creation and economic growth.

It has developed this strategy through research and consultation with stakeholders in various government agencies and the food and beverage manufacturing industry. These include industry associations, research institutions, education providers, the Commonwealth Government and local councils.

**The strategy includes targeted and practical initiatives to grow the industry and harness its existing skills and capabilities. It will position NSW as a globally competitive leader in food and beverage manufacturing. It focuses on five strategic themes identified as critical to the industry:**

1

**Collaborate for commercial advantage**

2

**Create a fit-for-purpose workforce**

3

**Advocate for the industry and support its development**

4

**Accelerate SME growth in niche and emerging markets**

5

**Help attract investment and boost access to international markets**

## NSW Government Flagship Initiatives

To support the key strategic themes of this strategy, the NSW Government will implement three flagship initiatives:

- **Undertake a feasibility study to establish a world-class agribusiness precinct to leverage the Western Sydney Airport, providing better access to domestic and international markets.**

The precinct has the potential to create 12,000 jobs and will host advanced food and beverage manufacturing with transport and handling facilities linking to the airport and other distribution networks.<sup>18</sup> It will produce quality fresh and prepared food.

- **Establish the Food and Beverage Manufacturing Connect (FBMC) program to deliver workshops, networking and educational opportunities for NSW food and beverage manufacturers.**

The FBMC program will also encourage cross-industry collaboration, including through a dedicated online portal, which includes information for advanced manufacturers. The program will build on work of the NSW Department of Industry, TradeStart export advisers and FIAL. The workshops and events will focus on themes identified by stakeholders, such as connecting SMEs with industry leaders and investors, sharing information about existing government support, and building export capability. The program will include events in regional areas and offer opportunities for digital collaboration and participation.

- **Continue to invest in the future of food and beverage manufacturing.**

The Department of Industry will work with the industry to communicate the availability of NSW Government support programs including:

- Jobs for NSW fund, which helps fast-growth companies overcome barriers to accessing finance
- TechVouchers program, which helps SMEs make use of new technologies.

In addition, the NSW Government will continue to invest in major transport infrastructure projects that create supply chain efficiencies by enabling food and beverage manufacturers to source inputs, supply products to market and ship raw and processed products more quickly and conveniently, and at a lower cost.<sup>19</sup> These investments total \$52.2 billion over four years to 2021-22, including:

- NSW Government investment of \$9.9 million on infrastructure for the new Nexus manufacturing, transport and logistics hub in Albury
- \$7.5 million for the Sydney Gateway, connecting WestConnex to Sydney Airport and Port Botany
- \$1.2 billion for a range of regional road, rail and bridge projects.

<sup>18</sup> *Think Big, Think Fresh: A Fresh Food Precinct at the Heart of Western Sydney*, KPMG, 2017.

<sup>19</sup> NSW 2018-19 Budget, Budget Paper No. 2, 2. 'Building for tomorrow'.



# 1

## Collaborate for commercial advantage

Collaboration between industry, government, research and educational institutions is key to supporting innovation and unlocking the food and beverage manufacturing industry's growth potential. Stakeholders consulted for this strategy identified a need for greater national and international research partnerships and knowledge sharing to meet future challenges and take advantage of opportunities in emerging markets.

### WHAT SUCCESS WILL LOOK LIKE

Food and beverage manufacturers collaborate across the supply chain. Government, industry, research institutions, and education and training providers undertake more joint research projects, exchange insights, and launch training initiatives together. Information sharing about market trends, government support and business opportunities is considered to be business as usual. SMEs and startups easily integrate into supply chains.





## Initiative 1.1 Capitalise upon existing collaborative networks

There are numerous formal and informal networks in place at local, state and Commonwealth level, and within and between industry sub-sectors. These connect participants in the food and beverage manufacturing industry to each other or to complementary industries such as the broader manufacturing and agricultural industries. These networks often have common objectives and service areas of need with particular local, regional or sub-sector specialisation. They may operate independently of each other or not be capable of achieving their full potential due to a lack of resources or communication limitations.

The NSW Government will use its existing support programs and connections with partner organisations to strengthen industry networks. It will facilitate information flows and collaboration.

What we will do	Who	When
<ul style="list-style-type: none"> <li>Promote collaboration through existing regional networks, including increased engagement by large contractors to promote market opportunities for SMEs</li> <li>Foster collaboration with partner organisations such as TAFE NSW and Training Services NSW to deliver enterprise upskilling programs in food and beverage manufacturing technologies and other training solutions for businesses</li> <li>Identify opportunities to work with other state and territory governments and the Commonwealth Government to advance the industry (such as through branding and promoting Australian products overseas)</li> <li>Promote existing government support for industry collaboration, such as Industry Growth Centres, Knowledge Hubs, the Sydney Startup Hub, Innovation NSW, Cooperative Research Centres (CRCs) and Industry 4.0 test labs</li> </ul>	<p><b>Lead</b></p> <ul style="list-style-type: none"> <li>NSW Department of Industry</li> </ul> <p><b>Supported by</b></p> <ul style="list-style-type: none"> <li>Destination NSW</li> <li>NSW DPI</li> <li>NSW Department of Premier and Cabinet—Regional (DPC Regional)</li> <li>Innovation NSW</li> <li>NSW Food Authority</li> <li>Jobs for NSW</li> <li>Regional Development Australia (RDA)</li> <li>NSW universities and research institutions</li> <li>Vocational education and training providers (including TAFE NSW)</li> <li>Industry associations and business chambers</li> <li>Commonwealth and state and territory governments and their agencies</li> <li>FIAL</li> </ul>	<p><b>Short term (commencing within 12 months)</b></p>

## Initiative 1.2 Build collaboration through new information sharing channels

Food and beverage manufacturers sit at the nexus of the advanced manufacturing and agribusiness industries. Stakeholders reported they are not often informed of industry advancements or the complementary capabilities of connected industries, such as other advanced manufacturing sub-sectors. This includes information about the regulatory and policy environment, use of advanced technologies and supply chain management.

Finding information is challenging, especially for time-poor SMEs and startups. New and developing communication platforms and technologies can enable quick and easy access to this information.

What we will do	Who	When
<ul style="list-style-type: none"><li>■ Deliver networking events and activities under the FBMC program that encourage organisations and networks to connect locally and globally, including collaborating on research projects</li><li>■ Under the FBMC program, deliver a digital portal that will serve as a one-stop shop, providing information on industry opportunities, market intelligence and existing support, and encourage communication between businesses and cross-sector users</li><li>■ Encourage technology translation and adoption in areas such as automation, artificial intelligence and consumer systems through information sharing, including best-practice examples and case studies</li></ul>	<p><b>Lead</b></p> <ul style="list-style-type: none"><li>■ NSW Department of Industry</li></ul> <p><b>Supported by</b></p> <ul style="list-style-type: none"><li>■ NSW DPI</li><li>■ DPC Regional</li><li>■ NSW Food Authority</li><li>■ Jobs for NSW</li><li>■ NSW universities and research institutions</li><li>■ Vocational education and training providers (including TAFE NSW)</li><li>■ Industry associations and business chambers</li><li>■ CSIRO's Data61</li><li>■ FIAL</li></ul>	<p><b>Short term (commencing within 12 months)</b></p>

## Initiative 1.3 Facilitate collaboration with complementary industries

Collaboration will support the growth of food and beverage manufacturing across NSW. Changing conditions in complementary industries may require new cross-industry networks to align and service common objectives and areas of need. Stakeholders reported that they needed support to understand and take advantage of activities in the broader manufacturing, tourism and agriculture industries.

What we will do	Who	When
<ul style="list-style-type: none"> <li>Through the FBMC program, raise awareness within the food and beverage manufacturing industry of complementary capabilities and opportunities to collaborate with other industries such as advanced manufacturing, transport, agriculture and tourism</li> <li>Facilitate greater food and beverage manufacturing industry participation in the Innovative Manufacturing CRC, the Industry Capability Network NSW, the Advanced Manufacturing Growth Centre (AMGC) and other relevant institutions to build manufacturing capabilities</li> <li>Continue to implement the NSW DPI Strategic Plan to increase the productivity of the primary industries that support food and beverage manufacturing</li> <li>Support existing and planned initiatives to develop digital technologies that can verify the provenance of food and beverage products, improving supply chain integrity and enabling high-value food exports</li> <li>Facilitate a keynote speaker series and seminars on global best-practice, featuring national and international manufacturing experts</li> </ul>	<p><b>Lead</b></p> <ul style="list-style-type: none"> <li>NSW Department of Industry</li> </ul> <p><b>Supported by</b></p> <ul style="list-style-type: none"> <li>FIAL</li> <li>Innovative Manufacturing CRC</li> <li>DPC Regional</li> <li>AMGC</li> <li>NSW universities and research institutions</li> <li>Vocational education and training providers (including TAFE NSW)</li> <li>Industry associations</li> <li>Data61</li> <li>Destination NSW</li> </ul>	<p><b>Short term (commencing within 12 months)</b></p>

## Initiative 1.4 Map capabilities to support industry growth and market entry

Stakeholders reported that developing an understanding of opportunities within the food and beverage manufacturing industry can be costly, especially for SMEs and startups. By making more information available on industry clusters and the supporting infrastructure, businesses will be better able to decide where to establish themselves and how to invest their resources.

What we will do	Who	When
<ul style="list-style-type: none"> <li>■ Map food and beverage and related manufacturing skills capabilities and clusters to build a picture of workforce locations and support networks across NSW</li> <li>■ Promote the information obtained and make it easily accessible to industry stakeholders through the FBMC program</li> <li>■ Review consistency of mapping with existing Commonwealth, state and territory, and local government strategic plans</li> <li>■ Better connect participants in existing clusters across NSW, including through a digital portal, so they can share best practices and coordinate activities (also see Initiative 1.1)</li> </ul>	<p><b>Lead</b></p> <ul style="list-style-type: none"> <li>■ NSW Department of Industry</li> </ul> <p><b>Supported by</b></p> <ul style="list-style-type: none"> <li>■ FIAL</li> <li>■ Austrade</li> <li>■ NSW Department of Planning and Environment</li> <li>■ NSW Department of Education</li> <li>■ Transport for NSW</li> <li>■ NSW universities and research institutions</li> <li>■ Vocational education and training providers, (including TAFE NSW)</li> <li>■ Industry associations</li> </ul>	<p><b>Short term (commencing within 12 months)</b></p>







# 2

## Create a fit-for-purpose workforce

Food and beverage manufacturers report that it is becoming increasingly difficult to attract employees with the right skills. Changes in how the industry operates mean that the jobs of the future will require deep technical knowledge, an understanding of supply chains, relationship management skills and digital literacy.<sup>20</sup> The opportunity exists to reshape perceptions of a career in food and beverage manufacturing and to provide the training needed to upskill workers.

### WHAT SUCCESS WILL LOOK LIKE

The NSW Government collaborates with industry to meet the skills needs of the industry. A diverse workforce is attracted to the industry through greater understanding and increased awareness of the career opportunities available, including in regional areas and in niche SMEs. Food and beverage manufacturers integrate advanced capabilities, technologies and export skills to support their commercial success.

20 Australian Industry and Skills Committee (2017) Food and Pharmaceutical Production—National Industry Insights Report, [nationalindustryinsights.aisc.net.au/industries/food-and-pharmaceutical-production](http://nationalindustryinsights.aisc.net.au/industries/food-and-pharmaceutical-production), accessed November 2018.



## Initiative 2.1 Implement a workforce development agenda with industry

While NSW leads the nation in the number of qualified knowledge workers and researchers, it delivers a much smaller proportion of food and beverage industry training than other states. More information is needed about the industry's specific workforce needs.

What we will do	Who	When
<ul style="list-style-type: none"> <li>■ Conduct a gap analysis of unmet demand for labour, building on work undertaken by Jobs for NSW and the Australian Industry and Skills Committee</li> <li>■ Identify gaps in existing vocational courses, certifications and qualifications</li> <li>■ Review the skills and needs of existing workers and develop plans for re-skilling, including through micro-credentialing and online training courses</li> <li>■ Promote the Smart and Skilled initiatives to help people obtain the required skills</li> <li>■ Support industry engagement through TAFE NSW's agribusiness SkillsPoints, to ensure that training aligns with emerging workforce needs and that a strong skills base is developed across NSW</li> <li>■ Encourage workers in STEM fields to augment their training and move to roles in food and beverage manufacturing</li> <li>■ In conjunction with the <i>NSW advanced manufacturing industry development strategy</i>:             <ul style="list-style-type: none"> <li>• Build the industry's and education sector's understanding of the opportunities and skills associated with Industry 4.0</li> <li>• Support the AMGC to build advanced manufacturers' commercialisation and business skills.</li> </ul> </li> </ul>	<p><b>Lead</b></p> <ul style="list-style-type: none"> <li>■ NSW Department of Industry (Training Services NSW)</li> </ul> <p><b>Supported by</b></p> <ul style="list-style-type: none"> <li>■ Jobs for NSW</li> <li>■ NSW Department of Education</li> <li>■ NSW universities and research institutions</li> <li>■ Vocational education and training providers (including TAFE NSW)</li> <li>■ AMGC</li> <li>■ Industry Training Advisory Board</li> </ul>	<p><b>Short term (commencing within 12 months)</b></p>

## Initiative 2.2 Promote food and beverage manufacturing as a career

Stakeholders reported that the industry's ability to build an employment pipeline and attract strong candidates is constrained by limited awareness among students and the public of what career options the food and beverage manufacturing industry offers. Promoting the food and beverage manufacturing industry as a potential career will increase awareness among high school and university students.

What we will do	Who	When
<ul style="list-style-type: none"><li>■ Capitalise on existing school-industry engagement programs to provide information about the sector to school career advisers</li><li>■ Develop information packs and online resources about the industry for careers advisers and students</li><li>■ Promote the Smart and Skilled initiatives to help people obtain the skills required to work in the industry</li><li>■ Collaborate with the AMGC to engage schools, universities and vocational education and training providers (including TAFE NSW) to increase opportunities for students to participate at industry events and to grow awareness of career pathways</li><li>■ Work with industry to make industry exposure programs, such as school excursions to industry sites, more accessible</li></ul>	<p><b>Lead</b></p> <ul style="list-style-type: none"><li>■ NSW Department of Industry (Training Services NSW)</li></ul> <p><b>Supported by</b></p> <ul style="list-style-type: none"><li>■ NSW Department of Education</li><li>■ NSW universities and research institutions</li><li>■ Vocational education and training providers (including TAFE NSW)</li><li>■ FIAL</li><li>■ AMGC</li></ul>	<p><b>Short term (commencing within 12 months)</b></p>



## Initiative 2.3 Facilitate worker attraction and retention

Manufacturers highlighted the importance of making and promoting regional centres as desirable places to live and work in order to retain and attract workers. Essential services provided by the government—such as education, childcare, health and telecommunications services—contribute to attracting the best talent.<sup>21</sup> Additionally, diversifying the workforce by increasing the participation of under-represented groups, including women and skilled migrants, will also lead to qualitative and quantitative improvements.

What we will do	Who	When
<ul style="list-style-type: none"> <li>■ Help make regional centres more attractive places to work and live by activating local economies and improving services through the NSW Government's \$1.6 billion Regional Growth Fund</li> <li>■ Focus on enhancing workforce diversity, including through the Women in STEM program</li> <li>■ Create and share resources to encourage SMEs to better understand the regulations, processes and incentives for hiring interns and apprentices</li> <li>■ Raise awareness of the multiple pathways into the industry—including through university, vocational education and training (such as apprenticeships), upskilling, re-skilling, lateral moves and graduate schemes—which can attract a range of workers from diverse backgrounds</li> <li>■ Promote opportunities for agile and other flexible working models to accommodate work-life balance</li> </ul>	<p><b>Lead</b></p> <ul style="list-style-type: none"> <li>■ NSW Department of Industry</li> </ul> <p><b>Supported by</b></p> <ul style="list-style-type: none"> <li>■ Jobs for NSW</li> <li>■ NSW Department of Education</li> <li>■ Vocational education and training providers (including TAFE NSW)</li> <li>■ Transport for NSW</li> <li>■ NSW Department of Planning and Environment</li> <li>■ NSW Department of Health</li> <li>■ Local councils</li> <li>■ DPC Regional</li> </ul>	<p><b>Short term (commencing within 12 months)</b></p>

<sup>21</sup> *Talking 2030: Growing agriculture into a \$100 billion industry*, KPMG, 2018.

## Initiative 2.4 Enhance collaboration and exchange between industry, vocational education and training providers, and universities

Industry, schools, VET providers (including TAFE NSW) and universities can work together to increase awareness of careers available in the industry. Increasing collaboration between these groups can also support consumer education, driving demand for new and higher-value-added products.

What we will do	Who	When
<ul style="list-style-type: none"> <li>■ Connect industry with educational and research institutions to facilitate collaboration on curriculum design and internship placements</li> <li>■ Increase the number of STEM graduate teachers and enhance the supply of students interested in manufacturing pathways by supporting initiatives at primary and secondary schools that encourage STEM learning</li> <li>■ Promote the Smart and Skilled initiatives to help potential employees obtain needed skills</li> <li>■ Support initiatives such as the Royal Agricultural Society of NSW's education programs for primary and secondary school engagement with industry to gain a practical understanding of career pathways into food and beverage manufacturing</li> </ul>	<p><b>Lead</b></p> <ul style="list-style-type: none"> <li>■ NSW Department of Industry (Training Services NSW)</li> </ul> <p><b>Supported by</b></p> <ul style="list-style-type: none"> <li>■ NSW DPI</li> <li>■ NSW Department of Education</li> <li>■ NSW universities and research institutions</li> <li>■ Vocational education and training providers (including TAFE NSW)</li> <li>■ Industry associations</li> </ul>	<p><b>Short term (commencing within 12 months)</b></p>



# 3

## Advocate for the industry and support its development

NSW has a reputation for producing safe, fresh and high-quality food. The state is well placed to meet growing demand from the Asia-Pacific region if businesses can adapt to changes occurring in the industry. The *NSW advanced manufacturing industry development strategy* concluded that the NSW Government is well placed to facilitate industry improvements needed for survival, growth and success. It can do this by supporting the development and implementation of advanced knowledge, processes and business models. The NSW Government can assist by providing a supportive business environment, and promoting the strengths of the manufacturing industry to investors and consumers.<sup>22</sup>

### WHAT SUCCESS WILL LOOK LIKE

Food and beverage manufacturers invest in R&D and future technologies, pursue new domestic and export opportunities, take risks, and manufacturers focus on adding value.

A thriving network of food and beverage manufacturing precincts exists across the state, including as part of the agribusiness precinct in the Western Sydney Aerotropolis. In the Aerotropolis, ideas, technology and skills are exchanged between the food and beverage manufacturing industry and co-located sectors.

<sup>22</sup> *NSW advanced manufacturing industry development strategy*, NSW Department of Industry, 2018.





## Initiative 3.1 Create a supportive business environment

Stringent Commonwealth and state quality and biosecurity standards support the NSW food and beverage manufacturing industry's reputation for safe, high-quality food, and give it a competitive edge in international markets. Stringent environmental protection standards and sustainable resource management practices support this reputation. The NSW Government will work closely with manufacturers to understand how regulations affect their operations and will continue to ensure that any regulatory reforms consider the potential impacts imposed on the industry.

What we will do	Who	When
<ul style="list-style-type: none"> <li>■ Establish a Food and Beverage Manufacturing Advisory Group (FBMAG), with a representative membership from across NSW and different industry sub-sectors. The Department of Industry will regularly consult with the FBMAG to understand the industry's priorities and to seek advice on targeted investment in food and beverage manufacturing infrastructure, including transport matters.</li> <li>■ In conjunction with the <i>NSW advanced manufacturing industry development strategy</i>, partner with AMGC to deliver Industry 4.0 workshops</li> <li>■ Advocate for harmonisation of regulations between states</li> </ul>	<p><b>Lead</b></p> <ul style="list-style-type: none"> <li>■ NSW Department of Industry</li> </ul> <p><b>Supported by</b></p> <ul style="list-style-type: none"> <li>■ NSW DPI</li> <li>■ NSW Department of Premier and Cabinet</li> <li>■ NSW Department of Finance, Services and Innovation</li> <li>■ Transport for NSW</li> <li>■ Industry associations</li> <li>■ NSW Small Business Commissioner</li> <li>■ Service NSW</li> <li>■ NSW Productivity Commissioner</li> <li>■ Commonwealth Government agencies</li> <li>■ AMGC</li> </ul>	<p><b>Short term (commencing within 12 months)</b></p>

## Initiative 3.2 Support NSW manufacturers to access NSW Government and Commonwealth Government programs and funding initiatives

A range of programs exist to support food and beverage manufacturers, but information regarding these is fragmented. Increasing awareness of existing activities could greatly increase the impact of such programs.

What we will do	Who	When
<ul style="list-style-type: none"> <li>■ Promote existing NSW Government and Commonwealth Government programs and funding initiatives such as: <ul style="list-style-type: none"> <li>• TechVouchers</li> <li>• Boosting Business Innovation Program</li> <li>• TradeStart network</li> <li>• Jobs for NSW suite of products</li> <li>• Launch Pad—Technology Business Incubator</li> <li>• Export Market Development Grants</li> </ul> </li> <li>■ In conjunction with the <i>NSW advanced manufacturing industry development strategy</i>, promote industry-led initiatives and activities, such as the AMGC Advanced Manufacturing Early Stage Research Fund</li> <li>■ Continue to implement the NSW Small Business Strategy to make the state the easiest place in Australia to start and grow a business</li> <li>■ Continue to implement the NSW Government Food Safety Strategy to improve food safety across the supply chain through R&amp;D and educational initiatives</li> <li>■ Continue to fast-track R&amp;D through investments in initiatives such as the GATE (\$6 million over the next five years)</li> </ul>	<p><b>Lead</b></p> <ul style="list-style-type: none"> <li>■ NSW Department of Industry</li> </ul> <p><b>Supported by</b></p> <ul style="list-style-type: none"> <li>■ NSW Food Authority</li> <li>■ Infrastructure NSW</li> <li>■ Transport for NSW</li> <li>■ NSW Department of Planning</li> <li>■ NSW DPI</li> <li>■ AusIndustry</li> <li>■ Commonwealth Department of Industry, Innovation and Science</li> <li>■ FIAL</li> <li>■ AMGC</li> <li>■ Innovative Manufacturing CRC</li> <li>■ Industry associations</li> <li>■ Austrade</li> </ul>	<p><b>Short to long term (commencing within two years)</b></p>

### Initiative 3.3 Undertake a feasibility study into establishing a world-leading agribusiness precinct in the Western Sydney Aerotropolis

Western Sydney will continue to be an epicentre for growth in the state's manufacturing sector. Access to international supply chains through the new airport will increase the competitiveness of local businesses. The NSW Government is committed to supporting this growth by developing the Aerotropolis, meeting commitments in the Western Sydney City Deal.

An agribusiness precinct within the Aerotropolis will create spillover effects for local food and beverage manufacturers, by clustering with related industries including agriculture, transport, research and education infrastructure. Through clustering, innovative approaches are likely to be adopted more quickly, along with new technology and best practices. In this increasingly competitive environment, businesses will have better access to prime contractors in global supply chains, enabling them to deliver goods to markets quickly and efficiently. The model may also apply to a number of regional airports across NSW, which are developing facilities that could be used to support the industry.

What we will do	Who	When
<ul style="list-style-type: none"> <li>■ Undertake a feasibility study into establishing an agribusiness precinct in the Western Sydney Aerotropolis</li> <li>■ Work with other regional airports in NSW to explore connectivity with the agribusiness precinct in the Aerotropolis, and also the potential to create similar precincts in regional NSW</li> </ul>	<p><b>Lead</b></p> <ul style="list-style-type: none"> <li>■ NSW Department of Industry</li> </ul> <p><b>Supported by</b></p> <ul style="list-style-type: none"> <li>■ NSW DPI</li> <li>■ Austrade</li> <li>■ Commonwealth Department of Industry, Innovation and Science</li> <li>■ Local councils</li> <li>■ FIAL</li> <li>■ NSW Farmers Association</li> <li>■ Industry associations</li> <li>■ Western Sydney Development Authority</li> </ul>	<p><b>Medium term (commencing within two years)</b></p>

# 4

## Accelerate SME growth in niche and emerging markets

NSW food and beverage manufacturers operate in an increasingly competitive and complex environment. FIAL estimates that of approximately 57,000 food and agribusiness enterprises, just 5% are 'businesses of tomorrow' that are pursuing new markets, taking risks and investing in market knowledge and capability.<sup>23</sup> Businesses that are able to offer consumers higher-value-added products are more likely to succeed. SMEs have an advantage in being able to quickly adapt and respond to changing demand, but stakeholders reported that they face challenges in navigating new markets domestically and internationally.

### WHAT SUCCESS WILL LOOK LIKE

NSW food and beverage manufacturers, particularly SMEs, focus on value-added products using technology and advanced market insights to respond to consumer demand, deliver premium products and increase returns.

<sup>23</sup> *Industry Growth Centre: Food and Agribusiness Sector Competitiveness Plan*, Food Innovation Australia Limited, 2016.



## Initiative 4.1 Promote support measures available to startups and SMEs

Generating startup activity is critical to ensuring that the food and beverage manufacturing industry can continue to develop and thrive. NSW Government and Commonwealth Government programs provide a range of specialised support to help startups bridge funding gaps, develop skills and access market opportunities.

NSW Government industry support programs include:

- **NSW Office of Liquor and Gaming's** new 12-month licensing trial for micro-breweries and small distilleries
- **NSW Department of Primary Industries'** research on functional pasta and rice, novel foods using pulse ingredients and waste utilisation, and legislative support for 'hemp as food' industries.

What we will do	Who	When
<ul style="list-style-type: none"> <li>■ Promote existing support measures for startups and SMEs</li> <li>■ Use the new FBMC program to: <ul style="list-style-type: none"> <li>• develop an annual schedule of networking and educational events for the NSW startup sector</li> <li>• encourage data sharing between suppliers and retailers to help SMEs understand supply chain requirements and consumer tastes</li> </ul> </li> <li>■ Regularly engage with the FBMA (see Initiative 3.1) to ensure that business support measures are adequately tailored to the specific needs of NSW niche and specialist food and beverage manufacturers</li> </ul>	<p><b>Lead</b></p> <ul style="list-style-type: none"> <li>■ NSW Department of Industry</li> </ul> <p><b>Supported by</b></p> <ul style="list-style-type: none"> <li>■ NSW Small Business Commissioner</li> <li>■ NSW Department of Finance, Services and Innovation</li> <li>■ NSW DPI</li> <li>■ Jobs for NSW</li> <li>■ The GATE</li> <li>■ Industry associations</li> <li>■ Liquor &amp; Gaming NSW</li> <li>■ Austrade</li> </ul>	<p><b>Short term (commencing within 12 months)</b></p>

# 5

## Help attract investment and boost access to international markets

Australia's free trade agreements give manufacturers competitive advantage accessing new markets. However, NSW food and beverage manufacturers still face non-tariff barriers and challenges in gaining access to capital that will support export growth. International investors may not be aware of the local sector, and businesses often lack access to market intelligence and skills that would make them export ready.

### WHAT SUCCESS WILL LOOK LIKE

International buyers are aware of the capabilities of the NSW food and beverage manufacturing industry, which translates into better access to domestic and international capital for local manufacturers and greater international demand for products. NSW firms are aware of international opportunities, and how to pursue them, resulting in successful and sustained market entries.



## Initiative 5.1 Build the export readiness of NSW businesses

Food and beverage manufacturers need specific skills, capabilities and knowledge to identify and access opportunities in export markets. The FBMC program will leverage TradeStart, Australian Industry Group's Trade and Export Development Services and the NSW Government's offshore trade network to develop and nurture the export capabilities of NSW food and beverage manufacturing businesses.

What we will do	Who	When
<ul style="list-style-type: none"><li>■ Through the FBMC program, hold workshops in regional and metropolitan areas to build business capabilities and export readiness, including ways to leverage the benefits of free trade agreements for exporters</li><li>■ Support businesses to become more export-ready by developing tools, templates and associated content, and make market intelligence available from the network</li><li>■ Promote the NSW Department of Industry's Business Connect program</li></ul>	<p><b>Lead</b></p> <ul style="list-style-type: none"><li>■ NSW Department of Industry</li></ul> <p><b>Supported by</b></p> <ul style="list-style-type: none"><li>■ TradeStart export advisers</li><li>■ Austrade</li><li>■ Destination NSW</li><li>■ Department of Industry, Innovation and Science</li><li>■ FIAL</li><li>■ Export Council of Australia</li><li>■ Industry associations</li><li>■ EFIC</li></ul>	<p><b>Short term (commencing within 12 months)</b></p>

## Initiative 5.2 Promote NSW industry capabilities to international markets

Greater international promotion of NSW's food and beverage manufacturing capabilities will increase exports and business partnerships, particularly for SMEs. Stakeholders highlighted the importance of branding and positioning, focusing on the shared strengths of the Australian brand alongside the distinguishing characteristics of particular NSW regions.

What we will do	Who	When
<ul style="list-style-type: none"><li>■ Support NSW businesses at international events to showcase the advantages of NSW's regions and the state's reputation for quality and sustainability</li><li>■ Use the FBMC program to:<ul style="list-style-type: none"><li>• promote supply chain capability development workshops to boost the capability of local SMEs to bid for contracts to supply major multinational and national companies</li><li>• work with export-ready clients to support their international growth plans</li><li>• support international buyers to connect with NSW food and beverage manufacturers at the annual Fine Food Australia trade exhibition</li></ul></li></ul>	<p><b>Lead</b></p> <ul style="list-style-type: none"><li>■ NSW Department of Industry</li></ul> <p><b>Supported by</b></p> <ul style="list-style-type: none"><li>■ Austrade</li><li>■ Destination NSW</li><li>■ AMGC</li><li>■ FIAL</li><li>■ Destination NSW</li><li>■ Export Council of Australia</li><li>■ TradeStart</li><li>■ Industry associations</li><li>■ NSW Business Chamber</li></ul>	<p><b>Short term (within 12 months)</b></p>





## Initiative 5.3 Attract foreign direct investment

Stakeholders, particularly startups, highlighted the need for greater access to capital to scale up, commercialise new products, implement new technologies and access export opportunities. Foreign direct investment could be an important source of additional capital, particularly for SMEs when local sources of investment are unavailable.

What we will do	Who	When
<ul style="list-style-type: none"><li>■ Develop and showcase the NSW food and beverage manufacturing industry by developing in-language (translated) sector capability profiles</li><li>■ Support inbound investor missions</li><li>■ Promote Invest NSW's Investment Prospectus</li><li>■ Organise and host investor business forums and networking events</li><li>■ Support multinationals to set up their headquarters in NSW by providing them with assistance through the NSW Government's one-stop-shop concierge service</li><li>■ Through Austrade and NSW educational institutions, engage the international network of NSW alumni to promote the food and beverage manufacturing industry's capabilities</li></ul>	<p><b>Lead</b></p> <ul style="list-style-type: none"><li>■ NSW Department of Industry</li></ul> <p><b>Supported by</b></p> <ul style="list-style-type: none"><li>■ Austrade</li><li>■ TAFE NSW</li><li>■ NSW DPI</li><li>■ DPC Regional</li><li>■ Jobs for NSW</li></ul>	<p><b>Short term (within 12 months)</b></p>

## Acknowledgements

The NSW Government and the Department of Industry would like to acknowledge and thank the following key partners from across government, food and beverage manufacturers, and industry sector participants, who gave valuable insights and feedback to enable development of the *NSW food and beverage manufacturing industry development strategy*. These organisations have not necessarily endorsed the strategy.

### Industry

- Agritechnology
- ANZ
- Appledale Processors
- Asahi
- Australian Eggs
- Bellata Gold Milling
- Bevco Pty Ltd
- Bodalla Dairy
- Bondi Chai
- Botanical Innovations
- Carbeen Pastured Produce
- Celestino Pty Limited
- Clarence Valley Food Inc
- Coles
- Davies Chocolates Pty Ltd
- Eclipse Organics Pty Ltd
- Elegre Pty Ltd
- Flavourtech
- Fresh Technique
- Good Life Food
- Graincorp Limited
- HACCP Australia
- Hillbrook Hygge
- Hop Dog
- Hunter Heritage Gourmet Foods Pty Ltd
- ICI Industries Pty Ltd
- Irons and Craig
- Kokonut Pacific
- Kuranda Wholefoods
- Land of Plenty Food Co.
- Lively Linseed
- Mars Food Australia
- Milton Meats
- MSM Milling
- Nestlé Purina
- New England Cheese
- Nicholson Fine Foods
- Nortec
- Northern NSW Renewable Energies
- Omania Terry
- Pepsico
- Poachers Pantry
- Quast Turkeys
- Random Harvest Gourmet
- Raw Food Hub
- Red Belly Citrus
- Serendipity Icecream
- Sumar Produce & AusGrown
- Sun Rice
- Sunshine Sugar
- Sydney Markets
- The Real Juice Company Pty Ltd
- The Welder's Dog Brewing
- thefoodpeople
- Thomas Foods
- Tilba Real Dairy
- Two Heads Brewery
- Urbis
- Venus Shell Systems
- Woolworths

## Government

- ACT Government
- AusIndustry
- Austrade
- Bega Council
- Business Connect
- Clarence Valley Council
- Commonwealth Department of Communications and the Arts
- Commonwealth Department of Industry, Innovation and Science
- Destination Sydney Surrounds South
- Eurobodalla Shire Council
- Innovative Manufacturing CRC
- Jobs for NSW
- Kiama Municipal Council
- Liquor & Gaming NSW
- NSW Department of Planning and Environment
- NSW Department of Premier and Cabinet
- NSW Department of Primary Industries
- NSW Local Land Services
- NSW Small Business Commissioner
- Queanbeyan-Palerang Regional Council
- Regional Development Australia
- Shoalhaven City Council
- TAFE NSW
- Tamworth Council
- TradeStart NSW
- Training Services NSW
- Transport for NSW
- Western Sydney Investment Attraction Office
- Wollongong Council
- Yass Valley Council

## Industry associations

- Australian Beverages Council
- Australian Blueberry Growers Association
- Australian Food and Grocery Council
- Australian Green Tea/Australia Tea Growers Co-operative Ltd
- Australian Meat Industry Council
- Australian Packaging Covenant Authority
- Australian Prune Industry Association
- Ballina Fishermen's Co-operative Limited
- Central Coast Industry Connect
- Dairy Connect
- Food Collective Central Coast
- Food Innovation Australia Limited
- Halal Certification Authority
- Independent Brewers Association
- NSW Agrifood ITAB
- NSW Farmers Association
- Nutrition Australia
- Sydney Business Chamber—Western Sydney

## Research organisations

- Agri-Food Science Centre of Excellence (NSW DPI)
- Australian Institute of Food Science and Technology
- Charles Sturt University
- Commonwealth Scientific and Industrial Research Organisation (CSIRO)
- Southern Cross University—Centre for Organics Research
- University of New South Wales
- University of Newcastle
- University of Wollongong—Smart Foods Centre
- University of Technology Sydney—Centre for Health Technologies
- Western Sydney University



**PUBLISHED BY NSW DEPARTMENT OF INDUSTRY**  
**INDUSTRY.NSW.GOV.AU**

First published JANUARY 2019.

PUB18/687

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