

Queensland Government response to Jobs Queensland's *Advancing Manufacturing Skills: A Skills, Training and Workforce Development Strategy for the Manufacturing Industry in Queensland*

July 2018



The Queensland Government accepts in principle all 10 Priority Action Areas (PAAs) in Jobs Queensland's *Advancing Manufacturing Skills: A Skills, Training and Workforce Development Strategy for the Manufacturing Industry in Queensland*.

The Queensland Government recognises that the manufacturing sector is undergoing major change and there is a rapid shift toward advanced manufacturing. As such the government is committed to supporting our traditional manufacturers transition to becoming advanced manufacturers.

Advanced manufacturing involves the use of new technologies, advanced robotics, nanoelectronics, design in manufacturing, data analytics and innovative production systems to produce high-value, customised products with highly-skilled workforces.

These approaches are recognised as key characteristics of Industry 4.0, the Fourth Industrial Revolution, which also includes the Internet of Things, machine learning and artificial intelligence. The adoption of Industry 4.0 will help to drive improvements in efficiency, productivity, innovation, exports, economic growth and skilled jobs.

To progress this important issue the government will establish a Manufacturing Skills Working Group to develop a Manufacturing Skills Implementation Plan. The Manufacturing Skills Implementation Plan will address the 10 Jobs Queensland PAAs to identify priorities for government action, links with existing programs, and initiatives to shape sustainable workforce development, business development and training.

Queensland Government response to Jobs Queensland's manufacturing skills strategy

	Jobs Queensland Priority Action Area	Government response
1	<p>Positioning the manufacturing workforce as a key partner in the journey towards advanced manufacturing.</p>	<p>Jobs Queensland's manufacturing skills strategy states that implementing this action area is primarily for employers, industry associations, unions, training providers and employees.</p> <p>The Manufacturing Skills Implementation Plan will encourage Queensland manufacturers to embrace the transition to advanced manufacturing through the workforce being recognised as a key partner in the journey towards advanced manufacturing.</p> <p>It is recognised that both external forces, such as new technology and increased global competitiveness, and internal changes, such as developing new products and processes, are engendering the need for new skills in business management, productivity, innovation and supply chain management.</p> <p>As such, the Queensland Government is providing a range of initiatives under the \$7.6 million Queensland Advanced Manufacturing 10-Year Roadmap and Action Plan (the Advanced Manufacturing Roadmap) launched in December 2016 to assist business and industry to transition to advanced manufacturing through the adoption of technology and Industry 4.0.</p> <p>The Advanced Manufacturing Roadmap is being reviewed to ensure it remains relevant and supports local manufacturers to expand their businesses in this state, generate new growth and attract investment to further build the industry, particularly in regional Queensland.</p> <p>The Advanced Manufacturing Roadmap programs will continue to drive innovation, improve workforce and business skills and build on our competitive advantages to raise Queensland's profile and competitive position internationally. Jobs Queensland manufacturing skills strategy states that implementing this action area is primarily for employers, industry associations, unions, training providers and employees. The government also recognises that businesses face a range of issues relevant to funding innovation. Data from the Australian Bureau of Statistics indicates that a limited number of manufacturing businesses look to equity investment when seeking finance, with debt finance being preferred. There is little evidence that manufacturing businesses face greater obstacles obtaining debt financing than other sectors. However, the case remains that both debt and equity finance may not always be an optimal, or even feasible, means for small to medium businesses to finance innovation. For example, the dilution of owners' equity can be a deterrent to applicants and may render programs that focus only on equity investment ineffective. The government recognises the need for flexibility in developing programs to address the issues of finance, funding and investment and is confident that current programs, such as Advance Queensland, are responding to identified needs whilst managing the risks to government.</p>
2	<p>Strengthen the capabilities of manufacturing businesses and their leadership teams to successfully transform to advanced manufacturing in areas including:</p> <ul style="list-style-type: none"> • business management and leadership • market engagement including exporting • new product and service development 	<p>The Annual VET Investment Plan (the Plan) details the Queensland Government's more than \$770 million investment in vocational education and training (VET) in the 2018–19 financial year. Under the Plan, the government remains focused on supporting those who are unemployed or seeking a step up, to start on the pathway to a brighter future, and ensuring that Queenslanders continue to have access to quality, supportive, and affordable training that meets the ongoing needs of both individuals and employers.</p>

	<ul style="list-style-type: none"> • innovation management • new technology identification and absorption • change management and workforce skills development • change management and workforce skills development. 	<p>In 2017–18, the Queensland Government invested over \$50 million through the Plan to provide skills for the manufacturing sector. Government will work with industry through existing stakeholder mechanisms, including regional training networks, to identify opportunities to upgrade leadership and management skills and capabilities in manufacturing workplaces. This could include short courses and focused master classes or skill set training programs to meet the needs of individuals, businesses, locations and regions.</p> <p>Government will provide access to industry-relevant mentoring through the Queensland Government’s Mentoring for Growth program. This proven program offers eligible businesses access to volunteer business experts who provide insights, options and suggestions relating to challenges and opportunities being experienced by the business.</p>
3	<p>Building the understanding of and capability related to business management, innovation and productivity enhancement at all levels of the manufacturing industry.</p>	<p>The Queensland Government recognises the importance of building critical capabilities in areas such as business and workforce management, identifying innovative solutions and improving efficiency and productivity.</p> <p>The Manufacturing Skills Implementation Plan will identify ways to support industry to access the right skilling, capability development and training solutions to address emerging skills needs.</p> <p>The Government will continue to support local manufacturers to build their business management, innovation and productivity capabilities through a range of tailored initiatives under the Advanced Manufacturing Roadmap such as:</p> <ul style="list-style-type: none"> • a series of Design in Manufacturing seminars to demonstrate the importance of design in the entire manufacturing and related process • a suite of Industry 4.0 events including an introductory seminar series in 2018 and 2019 and specific technology seminars to be delivered by leading specialists • Women in Manufacturing series to highlight the importance of a culture of inclusion in manufacturing so that the sector can draw on a broad range of talent to realise its potential • Manufacturing Hubs in Cairns, Townsville and Rockhampton will provide skills and training in business capabilities and workforce development, and • new workshops and seminars that provide ongoing opportunities for 'industry to learn from industry' and which assist in building manufacturing business and leadership capabilities.
4	<p>Support an industry led ‘ecosystem’ that provides:</p> <ul style="list-style-type: none"> • networking and information sharing opportunities for ‘industry to learn from industry’ and support sectoral and regional industry development • links with research institutes and specialists, suppliers, training providers and the resources available from industry networks and governments to support industry growth and transformation • access to benchmark services • opportunities for manufacturers to partner and collaborate to target major contracts 	<p>The Manufacturing Skills Implementation Plan will identify options to build on:</p> <ul style="list-style-type: none"> • existing industry sector and regional industry networks • strategic engagement between industry, government and the VET sector to support the adoption of advanced manufacturing systems and practices; • industry collaboration in relation to skilling and capability development. <p>The manufacturing hubs in Cairns, Townsville and Rockhampton will provide network opportunities for businesses to collaborate and strengthen skills and training.</p> <p>Opportunities for industry networking will underpin manufacturers’ transition to advanced manufacturing, generate opportunity for collaborative skilling and the development of ecosystems to further support industry growth. Government is</p>

	<p>and export opportunities</p> <ul style="list-style-type: none"> opportunities for manufacturers to participate in collaborative approaches to skilling and capability development. 	<p>working with TAFEs and universities to maximise the value of these hubs. The hubs will leverage off research opportunities undertaken in universities.</p> <p>The business and industry initiatives under the Advanced Manufacturing Roadmap, also provide opportunities for 'industry to learn from industry'. Manufacturing business and leadership events will be undertaken in 2018 and future years. The government will provide opportunities for manufacturers, subject to program requirements, to undergo a benchmarking process that will help identify opportunities for innovation and growth.</p> <p>Government will continue and strengthen its links with research institutes such as CQ University, Griffith University, James Cook University, QUT, Sunshine Coast University and The University of Queensland to provide opportunities to enhance industry-led ecosystems. The ABS ended the collection and release of state-based business innovation data, through the Business Characteristics Survey, in 2010. DITID, along with counterparts in other states, has and continues to advocate for the collection and release of this data to support innovation policy and evaluation efforts.</p>
5	<p>Foster continued industry opportunity growth that will flow through to increased opportunities for Queenslanders in the manufacturing industry, including through:</p> <ul style="list-style-type: none"> development of international market links and export market development capability development for manufacturers. 	<p>The Manufacturing Skills Implementation Plan will identify options that encourage manufacturers to build their export and business capabilities.</p> <p>Queensland government departments will engage with Trade and Investment Queensland (TIQ) to assist manufacturing firms develop export capabilities and to identify emerging opportunities. This may include the promotion and marketing of new international opportunities for manufacturers.</p> <p>The government will continue to support businesses to develop their capabilities through support mechanisms such as the tendering for business and capability statement workshops.</p> <p>Ongoing assistance will be provided to help businesses identify emerging procurement opportunities in major domestic and international supply chains.</p> <p>A series of seminars will promote, showcase and assist in developing capabilities of business which can support in building export capabilities. Seminars such as the Design in Manufacturing and Industry 4.0 initiatives will directly assist Queensland manufacturing firms to be better positioned to access new export markets.</p> <p>The manufacturing hubs in Cairns, Townsville and Rockhampton will provide opportunities for skills and training to enhance businesses' ability to expand supply into export markets. Advance Queensland comprises over 70 programs and activities delivered by nine government agencies. It has a strong policy framework, comprehensive governance arrangements, well-established reporting arrangements and a system-wide evaluation approach based on a broad evidence base. The scope of the Advance Queensland initiative and composition of programs and activities will change over time based on stakeholder feedback, the state of Queensland's innovation ecosystem and the outcomes of evaluations.</p>
6	<p>Strengthening the role of apprenticeships and traineeships, and the VET system more broadly, as providing the foundation of skills development to support the advancement of the manufacturing industry.</p>	<p>The Manufacturing Skills Implementation Plan will identify options to support industry leadership of workforce development, including:</p> <ul style="list-style-type: none"> Queensland advocacy for the development of training products under the Plan related to "Industry 4.0" skills for the manufacturing sector; new work-based training pathways; analysis of economic, employment and training trends relevant to Industry 4.0 training and skills delivered under the Plan; and support industry to develop standards that may be applied above current competency-based training outcomes as a quality standard, which could

		<p>be funded by industry similar to models for trade and technical training in Europe.</p> <p>The Minister for Employment and Small Business and Minister for Training and Skills Development recently hosted a series of roundtables with industry, business and key stakeholders to discuss their experiences with the apprenticeship system.</p> <p>The roundtables are helping to identify what is working well and what can be done to improve government’s policies and activities, so apprentices and trainees continue to deliver a skilled workforce for Queensland.</p> <p>The Advancing Apprentices fund will provide up to \$1 million in 2018–19 to support activities and campaigns to increase the number of businesses taking on apprentices in Queensland.</p>
7	<p>Drive the advancement of the industry in Queensland through enabling the existing manufacturing workforce to develop high levels of skills, adaptability and capability by:</p> <ul style="list-style-type: none"> • building the new skills profile across the industry needed to advance manufacturing • fostering a supportive culture of continuous skill development throughout the industry • facilitating the training of a highly skilled workforce that is a key driver of competitiveness. 	<p>The government will promote the Small Business Digital Grants program to small businesses in the manufacturing sector, to provide them with access to digital technologies and services to enable their staff to work smarter, engage with the global economy and make the most of online business opportunities arising from digital disruption. Targeted promotion could be undertaken to the small business community.</p> <p>The Manufacturing Skills Implementation Plan will assist in developing industry leadership of workforce development, to support the development of industry related foundation and employability skills for the manufacturing workforce, such as adaptability, resilience, digital literacy and STEM skills.</p> <p>Government recognises that there is a growing trend toward the requirement for soft skills in advanced manufacturing. These findings will inform future programs rolled out under the Advanced Manufacturing Roadmap initiatives and supported by the Digital Capability Workshops.</p>
8	<p>Increase the diversity of the manufacturing workforce to best harness the available skills and talent in the labour market and build a more resilient workforce.</p>	<p>The Queensland Government strongly supports inclusion and diversity across the workforce.</p> <p>The Manufacturing Skills Implementation Plan will assist industry to promote diversity through initiatives including targeting increased employment opportunities for young people, mature-age job seekers, Aboriginal and Torres Strait Islanders, people with disability, women re-entering the workforce and people from culturally and linguistically diverse backgrounds.</p> <p>Consideration will also be given to how the government can support Indigenous workers and business owners/operators to transition and adapt to the advanced manufacturing sector. Government is currently seeking to engage with service providers that specialise in Indigenous businesses to deliver services to support the Advancing Indigenous Business initiative. The initiative aims to increase the number of Indigenous businesses and improve the skills and capabilities of existing businesses to assist them to grow and become more resilient.</p> <p>Government is convening the Women in Manufacturing seminars, in partnership with the Australian Industry Group. The series includes six regional networking and mentoring events delivered across 2018, highlighting the importance of mentoring the next generation of females in the industry and establishing supportive networks.</p>
9	<p>Position manufacturing as a first-choice career for new entrants and experienced</p>	<p>The government notes that this action involves key roles for industry, VET and training providers.</p>

<p>skilled workers that offers a diverse range of technology, business and professional careers which are technology-rich and stable.</p>	<p>The Manufacturing Skills Implementation Plan will identify options to encourage careers in manufacturing including by:</p> <ul style="list-style-type: none"> • identifying opportunities to incorporate advanced manufacturing principles into school, VET and higher education programs under the VET Investment Plan; • exploring a range of strategies to support: <ul style="list-style-type: none"> o the skills and currency of VET teachers and trainers; and o engaging with industry stakeholders and the regional training network to explore options to support industry to improve career information for schools, VET students and Queenslanders. <p>Government will support TAFE Queensland to provide transition pathways, training and placement assistance for skilled workers to be retained by the manufacturing sector or to transition from other sectors impacted by structural change under the Regional Skills Adjustment Strategy.</p> <p>Government supported the Gateway to Industry Schools Program to develop a careers video and a career mapping document promoting the link between science, technology, engineering and maths (STEM) subjects and manufacturing and engineering. Work will continue with the Gateway to Industry Schools Program to identify initiatives to encourage school students' careers in manufacturing.</p>
<p>10</p> <p>Facilitate enhanced partnerships and engagement between the manufacturing industry and schools, VET providers and universities to better prepare new entrants for successful careers in the industry.</p>	<p>The government notes this action involves key roles for industry, VET and training providers.</p> <p>The Manufacturing Skills Implementation Plan will assist in facilitating engagement between the manufacturing sector and the VET sector by engaging with industry stakeholders to explore strategies to improve the skills and currency of Queensland's VET teachers and trainers.</p> <p>Government will engage with industry stakeholders through the Gateway to Industry Schools program to explore options for strengthening and expanding existing successful university/ school/ industry programs, and to inform young people of the career opportunities available in the advanced manufacturing sector</p> <p>The government convened the inaugural BrisMakerFest, putting a spotlight on emerging technologies and the opportunities a career in advanced manufacturing can offer young Queenslanders.</p>



Queensland
Government