

STATE ADVANCED MANUFACTURING POLICIES AND PROGRAMS

As at February 2018

Queensland

The *Queensland Advanced Manufacturing 10-Year Roadmap and Action Plan* was finalised in December 2016 after consultation with the state's Industry and Manufacturing Advisory Group. It is one of a number of sector roadmaps under the *Advance Queensland* program targeting sectors where Queensland has some advantage.

Sector focus

The government is keen to ensure more Queensland manufacturing businesses seize the opportunities to supply high-value goods and services into global supply chains and export markets in the following areas:

Aerospace, Automotive and transport, Biomedical and life sciences, Defence, Food and beverage processing, Industrial biotechnology and bioproducts, Mining equipment, Technology and services, Precision agriculture, Renewable energy.

Policy focus areas

The Roadmap identifies a number of challenges facing Queensland companies in their efforts to be internationally competitive. They are productivity and international competitiveness (including skills and management capability), identifying, adopting and adapting innovative technologies and processes, and the perception and understanding of advanced manufacturing.

The document proposes actions in three areas to address these:

- 1 Increase productivity and international competitiveness - Benchmarking program; Business model innovation program; Design Thinking program and Industry Skills strategy.
- 2 Target the adoption and adaptation of innovative technologies and processes – hacker/maker places; Auto Innovation Lab; advanced manufacturing transition package; work with CSIRO, AMGC, IMCRC to strengthen co-operative research opportunities.
- 3 Promotion and marketing (domestic and international) – promotion of Queensland capability for export and business matching opportunities; foreign investment attraction; manufacturing career promotion and STEM in schools

Victoria

Advancing Victorian Manufacturing was released in mid-2017, following formation of an Advanced Manufacturing Advisory Council with strong industry representation, as well as from unions and researchers.

Sector focus

The policy identifies the following Future Industries with core manufacturing capabilities:

Construction technologies, Defence technologies, Food and fibre (Victoria's biggest export sector), Medical technologies and pharmaceuticals, New energy technologies and Transport technologies (design and engineering capabilities supporting the manufacture of trains, trams, buses, caravans, trucks, marine and aerospace technology, and intelligent transport systems).

Policy focus areas

The vision of the policy is to develop globally competitive manufacturers creating value from design, engineering, data and services through four domains:

- 1 Preparing for jobs of the future – Needs driven training for the next generation of manufacturing jobs
- 2 Innovation to capture high value opportunities through stronger links between industry and research, design and engineering capabilities; facilitating use of transformative technologies, access to risk capital for start-up and scale-up firms; use of procurement to support innovative design, engineering and manufacturing; and leadership in engineered materials development.
- 3 Building scale, capability and supply chain excellence – SME capability to grow markets and supply chain opportunities, digital transformation and cluster development.
- 4 Foster a globally competitive business environment – capability to export and secure global supply chain opportunities, investment attraction, build resilience to energy market volatility, co-operation with Commonwealth on tax and regulatory settings

The State will continue support for the Victorian Manufacturing Hall of Fame awards and Victorian Manufacturing Showcase.

New South Wales

A draft *NSW Advanced Manufacturing Strategy* was released for industry feedback in late 2017. It was developed after a brief industry consultation and draws heavily on the work of AMGC.

Sector focus

The Strategy assumes any manufacturer has the potential to become advanced. It does not mark out any subsectors of manufacturing for attention, although it identifies the state's strength in manufacturing of medical and computer equipment, and in appliances, as well as the opportunities in aerospace arising from the proposed Western Sydney airport.

Policy focus areas

The Strategy notes that NSW firms find it difficult to compete purely on cost, but that success in manufacturing can come from employing advanced knowledge (high R&D intensity and high skill levels), advanced processes (production technology and IT) and/or advanced business models and demand creation (including servitisation and global trade links). Cluster analysis of successful firms suggests that choosing the appropriate one of these approaches alone can be enough. There is also evidence that Australia has a cost advantage for higher skill levels compared to the US.

There is considerable scope for NSW manufacturers to improve in these areas and the state's efforts to support manufacturing will concentrate on these three factors,

This support will include:

- Establishing a Western Sydney Precinct around the proposed Badgerly's Creek airport to support manufacturers centred on defence and aerospace.
- Building capability of SMEs to adopt and exploit Industry 4.0 technologies;
- Overcoming the disadvantages of having few firms operating at global scale by encouraging collaboration between SMEs in bidding for government or export contracts.
- Encouraging both forward and backward linkages into global supply chains. Australian firms have strong forward linkages (supplying inputs into offshore manufacturers) but relatively weak backward linkages (using offshore suppliers) by international standards.
- Promoting Living Labs as co-working spaces for researchers, firms, policy makers and end users to test the practical use of innovative ideas. A Transport and Logistics Living Lab has already been established in Sydney.
- Identifying the nature of the skills gap in NSW advanced manufacturing.
- Market trend and best practice awareness building events and forums involving researchers, large firms and SMEs, AMGC and the Commonwealth.

South Australia

South Australia's Manufacturing *Works* program dates from 2012. It reflects the "problems of a small economy" in retaining capacity in a globalising industry without strong government intervention and anchoring family owned firms within the community. The policy identifies the four pillars of action to impact the transition of South Australian manufacturing to a more advanced and competitive basis:

1. Enhance the capacity of manufacturers to innovate and deliver highly-valued solutions for paying customers worldwide.
2. Upgrade the leadership, knowledge and skills of the South Australian workforce.
3. Capture future markets and opportunities.
4. Address infrastructure and policy gaps that are inhibiting the development of high-value manufacturing.

Sector focus

Resources, Defence, Food, Forestry, Automotive, Cleantech, Advanced Manufacturing Technologies, Knowledge Intensive Business Services

Policy focus areas

The original policy outlined the following initiatives in the first five years:

Innovation Vouchers

Small Business Innovation Research (SBIR) pilot using procurement to drive innovation

Mining Industry Participation Office

SME innovation capacity package

Skills Development and Workforce Training initiatives

Defence Industry program

Industry Participation Policy

High Performance Workplaces forum

Centre of Excellence in Design for Manufacturing

Tonsley Park Redevelopment site

Note: The South Australian Department of State Development is currently consulting on a revised industry policy framework to replace Manufacturing Works in the wake of the closure of auto assembly in the State. Further details [here](#)

Tasmania

The Tasmanian Advanced Manufacturing Action Plan was released in 2015 following an Advanced Manufacturing Summit.

The five-year Action Plan delivers initiatives across five key areas to support growth in Advanced manufacturing:

- 1 Support innovation and continuous improvement.
- 2 Support greater collaboration within and outside Tasmania.
- 3 Develop industry required education and skills.
- 4 Support market access activities.
- 5 Raise the profile and create a brand for the Tasmanian advanced manufacturing industry and the firms within it.

Sector focus

The Action Plan does not identify any subsectors of focus for the state, although it refers to opportunities in defence and bus procurement.

Policy focus areas

Innovation:

Innovation and Growth Voucher system to support industry in undertaking continuous improvement and innovation.

Specialised manufacturing events focused on areas of continuous improvement including Lean tools, visual management, theory of constraints, design integration, technology demonstration and diffusion.

Insights into Excellence Programs - visiting exemplar local, national and international firms to view best practice examples of products, processes and procedures and research and innovation institutes that demonstrate latest technology and innovation in the sector.

Collaboration:

Seed funding for two years to support the establishment of a single, state-wide industry led association to link businesses through new opportunities and diversification, and enhancing the capability within the sector.

Establish the Tasmanian Manufacturing Centre for Excellence at Burnie.

Local content objectives for the Metro Bus Upgrade and Modernisation Program.

Skills:

The Skills Tasmania Advanced Manufacturing Skills Initiative supported training organisations, in partnership with advanced manufacturing businesses, to deliver accredited training in skill priorities areas of continuous improvement, leadership and management, competitive (Lean) systems and practices, information technology and business system integration, and development of new business opportunities.

Market Access:

Manufacturing Market Expansion Program aimed at enabling more Tasmanian manufacturers to undertake market development activities to establish new interstate and international markets.

Provide ongoing client management support to enterprises funded under the Advanced Manufacturing Transition Fund and the Australian and Tasmanian Government's Tasmanian Jobs and Investment Fund, to ensure new product developments capitalise on growth opportunities in new markets outside Tasmania.

Profile and Brand Building:

Industry audit to understand the capability and capacity of the Tasmanian manufacturing sector feeding into Austrade's Changing Environment for Australian Advanced Manufacturing initiative.

Develop an online presence utilising the data gathered from the industry audit to create a dedicated online presence designed for, and owned by, the sector. This web portal would provide a channel to improve communication; encourage collaboration; raise awareness of assistance, services, facilities and activities; and showcase major projects and successes for the sector

Host relevant interstate and international trade missions and support or represent at key strategic tradeshows with the intent to access new and grow existing markets