

# The 2020 Revolution

How Australian manufacturers are tapping into the opportunity to transform in times of economic uncertainty.



# Australian manufacturing's exciting next phase

For all the challenges, COVID-19 has delivered, it has also highlighted the agility and innovative nature of this industry.

Welcome to The 2020 Revolution, a special report by St.George that explores a unique time in Australia's manufacturing history.

No one in business could suggest it's been an easy year, but across all the sectors impacted by the pandemic and its ongoing economic fallout, manufacturing looks set to make good on the much-touted promise: "In every crisis there's opportunity."

**What started as a reactive, impressive round of 'pivoting' has turned into a true revolution.**

In many instances, business models for advanced manufacturing have been accelerated and new partnerships formed. Supply chains are being reconfigured as numerous local manufacturers have brought operations back on shore – and there's a heartening determined focus on building resilience into the sector and for the benefit of the wider Australian community.

As the manufacturing sector's brighter future rolls in, needless to say, there's still much to be done from the policy level to the factory floor. Not least in skilling up the workforce for advanced manufacturing. Training people for the jobs of the future is crucial for growing productivity and fast-tracking the economic recovery.

On the pages that follow you'll find the insights and foresight of industry leaders on how that recovery is likely to take shape. Big thanks to everyone interviewed in these busy times for sharing their perspectives with St.George customers.

I hope you find the report both useful and inspiring. Should it spark ideas or questions, as always, don't hesitate to be in touch. While economic uncertainty will continue over the coming months, one thing will be for sure, it's an incredibly exciting time to be an Australian manufacturer.

**Matthew Kelly**  
*Head of Manufacturing and Wholesale,*  
St.George

*St.George's  
Matthew Kelly  
is Head of  
Manufacturing  
and Wholesale.*



# The catalyst for change in Australian manufacturing

How the pandemic became the cue for a new-found agility.

AUSTRALIA'S trailblazing manufacturers have wasted no time in pivoting during one of the biggest disruptions - outside of the Second World War - in a century.

As the coronavirus pandemic has upset just-in-time global supply chains, Australian manufacturers large and small have moved with extraordinary agility during the crisis - quickly transforming to produce products most immediately needed to keep Australians safe, from face masks to hand sanitiser.

Simultaneously they have been shoring up their own longer term futures by finding different ways to co-operate, manage supply chains, accelerate innovation, transform business processes and reach new markets.

Along with exposing the gaps in Australia's manufacturing supply chains, COVID-19 also revealed the nation's vulnerability, as a commodity-based economy, to external shocks, and highlighted the need to reverse the hollowing out of our manufacturing capability, says Professor Roy Green, Chair of the University of Technology Sydney Innovation Council.

Heading into 2020, manufacturing was already undergoing massive transformation in the 'fourth industrial revolution' thanks to new processes and technologies, from robotics and automation to artificial intelligence, data analytics and machine learning. COVID-19 became the catalyst to accelerate that change.

While many businesses have been severely compromised by the effects of the global pandemic, a large number of Australia's quick-acting manufacturers have capitalised on the opportunity to transform, tapping into a groundswell of support for local products while also becoming more globally competitive.

From a macro perspective, there is now growing pressure for policy changes to respond to the loud recognition that rebuilding Australia's manufacturing capability will underpin the nation's future resilience, in the face of increased geopolitical trade risks and uncertainties over the duration of the COVID-19 pandemic, or possible future health emergencies.

## Businesses in transformation

Australia's manufacturing industry is reshaping, growing and developing a new strength to meet changing market demands. Of St.George's business customers:



**Almost 50%**

are reinventing themselves and proactively changing their business models to survive the pandemic.



**38%**

are offering new or additional products and services.



**26%**

are moving the business either partially or entirely online.



**25%**

of those experiencing growth have invested in new plant and equipment.



**20%**

have completely changed the focus of their operations.



**15%**

are operating longer hours.



**9%**

are hiring more staff.

Source: How business is gearing up for the post-pandemic life, The Australian Business Review, May 2020.



# “Never waste a crisis”

## Embracing new ways of sharing.

MANUFACTURERS are finding innovative ways to do nearly everything, from changing the types of products they make, to rethinking production methods, supply chains, distribution models and logistics.

Typically, they are collaborating online to achieve success with new partners. “They’ve realised the power of working together ... and sharing that knowledge to transform their business. It’s really the digital transformation of manufacturing,” says Michael Sharpe, Director of the [Advanced Manufacturing Growth Centre \(AMGC\)](#).

Commonly, companies are initially agreeing to collaborate in the national interest. Take the example of US company Stryker. Faced with surging demand for hospital beds, Stryker called the AMGC for help in establishing manufacturing in Australia. Within hours the centre had pulled together a local supply chain: Mattress manufacturer A.H. Beard; wheel and castor maker Fallshaw; vehicle conversion specialists AmTek Australia; and fabrication and engineering company Varley Group joined [Stryker South Pacific](#) to get production moving ASAP.

“Within two weeks the first hospital beds were being produced”, says Sharpe. Now, 500 hospital beds have been procured by the Department of Health in Western Australia.

**“They’ve realised the power of working together ... and sharing that knowledge to transform their business.”**

**Michael Sharpe, Director of the Advanced Manufacturing Growth Centre**

For the Australian businesses involved “the goodwill and the willingness to adapt and stand up for the nation was certainly a proud moment”, says Sharpe.

There has also been a welcome fundamental shift in how manufacturers market themselves. “We’ve got members that are doing heavy engineering work, producing low-loader trailers in the mining and earthmoving sector ... but suddenly advertising on Facebook and finding new customers. It shows a new willingness to try new things in new ways,” says Sharpe.



## Matching manufacturers and customers

WHETHER you’re after a long- or short-term relationship with a purchaser, the [COVID-19 Manufacturer Response Register](#) can help hook you up. Think of it like speed dating for essential pandemic products.

Since its launch by the AMGC in late March, more than 2700 Australian manufacturers have signed up to be found. The portal is open to the public. Anyone can jump on and be matched with suppliers of Australian-made goods, says Sharpe.

The register has enabled a number of manufacturers

to take advantage of contracts available either directly or indirectly with the government for face masks or sanitisers, says Matthew Kelly, St. George’s Head of Manufacturing and Wholesale.

The AMGC and the Department of Industry, Science, Energy and Resources are working to expand the register beyond COVID-19 to ready-match supply with demand. “We will continue to monitor the portal to see how we can make it even more fruitful moving forward,” says Sharpe.

# Case study 1: Tacca Industries

TACCA INDUSTRIES, a Western Sydney company, which operates factories in Australia and in the Philippines, has had some challenging moments during COVID-19.

Not only did it need to manage production of its existing packaging business – just as consumer demand peaked and then dropped for supermarket products – it also faced the imperative to keep its staff safe in two vastly different locations during the health crisis. In response, the business pivoted to meet an urgent new demand, producing melt-blown fabric for masks to protect against coronavirus.

At one stage the company nearly had to halt its packaging production due to supply chain issues. “It was a juggling act,” says Chief Executive Clem Tacca. “There was one time there where the machines were going to run out in two hours and the resins arrived just in time.”

In April, when the Australian Government asked Australian businesses to assist in the fight against COVID-19, Tacca Industries answered the call and partnered with South Australian firm Detmold, which has been contracted to make 145 million masks for the South Australian government.

Tacca rapidly established a new off-shoot, Tacca Medical, and now has the vital job of extruding the melt-blown material that forms one of the three layers of mask fabric. It is the key layer, the electrically charged filter that helps to keep the virus at bay. Once Tacca has its fabric production down to a fine art in Australia, it plans to replicate the process at its Philippines plant, making material for Filipino mask producers.

**“As we get more export orders ... the goal then is to increase the workforce”**

**Clem Tacca, Chief Executive, Tacca Industries**

Australia’s reputation for quality is underpinning the company’s success in medical manufacturing. “The main issue at the moment is that a lot of PPE equipment has been coming from China and it’s been reported that a lot of it ... hasn’t passed the standards,” says Tacca. “That’s what a lot of people are afraid of.”

He explains that making mask fabric has enabled Tacca to retain all of its Australian workers. “We’ve been able to keep people’s food on the table,” Clem Tacca says. “As we get more export orders ... the goal then is to increase the workforce.”

*Answering the call: Cousins Dom and Clem Tacca quickly pivoted their business to help make masks for the national stockpile.*



IMAGE SUPPLIED



# What the next normal means for manufacturers

Get ready for the re-set, with a push to diversify supply chains.

PLANS FOR greater national self-sufficiency, shorter supply chains and onshore manufacturing are well underway.

While a post-COVID world will certainly look different, the pandemic won't spell the end of doing business globally for Australian manufacturers. But there will "definitely be a reset", says Tim Harcourt, the J.W. Neville Fellow in Economics at [UNSW Business School](#), and part of that will involve a diversification of supply chains.

The pandemic provided a wake-up call. "I don't think people want to be - frankly - as dependent on China in the global supply chain anymore," Harcourt says. Certainly some will bring their manufacturing back home, he predicts, while many others will trade and work more widely around South-East Asia and North-East Asia.

St. George's Matthew Kelly says the early government support to bring more manufacturing back onshore is encouraging, adding: "Hopefully we'll see a little bit more of that in the Federal Budget as well".

Federal Minister for Industry, Science and Technology, Karen Andrews has already flagged the need to "get behind the push to diversify our supply chains". In the early stages of the pandemic, Andrews recognised the need to return more manufacturing to Australian shores, telling the media: "We're not going to be able to manufacture everything that we want in Australia, but I want us to be in a position that we can manufacture everything we need."

**"We're not going to be able to manufacture everything that we want in Australia, but I want us to be in a position that we can manufacture everything we need."**

**Karen Andrews, Federal Minister for Industry, Science and Technology**

Local sectors likely to receive favourable policy boosts include food, defence, engineering, medical, mining and the fledgling Australian space industry. ▶

## The research imperative

Government and business R&D expenditure as a percentage of GDP in 2017-2018:



How Australians responded to a recent YouGov poll<sup>3</sup>:

**88%**  
said we should be making more essential products here in Australia and less reliant on imports from China.

**82%**  
wanted the government to use locally produced items such as Australian steel, even if it was more expensive.

**68%**  
said they were more likely to look for Australian products to buy than they were before coronavirus.

JUST as science has played a vital role in managing the COVID-19 pandemic, research will be front and centre of manufacturing in recovery - with industry already reaching out to the research community to unearth future products, markets, equipment and technology, says Michael Sharpe: "We've got some great researchers in our universities, some of the best researchers in the world right here in Australia, and it's been good to get them out on the factory floors to talk with our members."

However, Roy Green is worried a lack of overarching framework in Australia could constrain the manufacturing

industry's potential, just as the community is looking to buy Australian.

Surveys by Boston Consulting Group, EY and others show strong attitudinal shifts in consumer preferences to buy Australian in the wake of the pandemic. To seize the moment to rebuild and sustain advanced manufacturing in Australia requires greater commitment all-round, Green says.

"The Commonwealth's total expenditure on research and innovation is AUD 10 billion. So, we're really lagging and what's going to be required is ... a coordinating and priority-setting agency."

Source: 1. ABS 2. OECD 3. Australian Workers Union YouGov survey June 2020



One of the challenges will be skilling of the workforce, says Kelly. With unemployment forecast to hit double digits, some deep thinking is needed on how TAFE, government and industry can work together to attract and train potential new manufacturing workers, including those recently unemployed from different industries.

Just what policy settings are needed is something many hope the [National COVID-19 Coordination Commission](#) – tasked with breaking through bottlenecks and fixing economic and social problems caused by the pandemic – is examining.

Andrew Liveris, the former Dow Chemicals boss and an advisor on manufacturing to both the Obama and Trump administrations, is spearheading a taskforce of industry leaders aimed at significantly boosting Australia's manufacturing sector for the advisory panel.

"Australia drank the free-trade juice and decided that off-shoring was OK. Well, that era is gone," Liveris told the Australian Financial Review, when he was appointed to the commission by Prime Minister Scott Morrison in April. Liveris intends to reboot and further invigorate high-end manufacturing in Australia.

While the COVID-19 crisis has exposed deficiencies in Australia's economic approach, Green is asking for a fundamental redesign. He's calling for a new National Industrial Strategy Commission, or similar central agency, to develop priorities in consultation with industry sectors, aimed at growing industries of the future with new technologies, skills and business models.

**"Australia drank the free-trade juice and decided that off-shoring was OK. Well, that era is gone."**

**Andrew Liveris, National COVID-19 Coordination Commission**

From the Australian Government, a robust, properly funded national policy framework is required, while the states should carry much of the responsibility for delivering business services and infrastructure for innovation hubs and industry clustering, he says, in an upcoming book chapter<sup>1</sup>.

1. What happens next? Reconstructing Australia after COVID-19 will be published by Melbourne University Press in September, 2020.



# Building capabilities for the future

## What will it take to generate sustained manufacturing growth?

MANUFACTURERS are primed to bounce back and for those who do, the pandemic-induced trend towards collaboration will need to continue into the future.

“Collaboration is a key driver for advanced manufacturing,” says Michael Sharpe. “We need more and more companies working together and supporting each other.”

Currently many companies are sharing resources – including staff and skills. “There’s a great community movement happening out there right now,” says Sharpe. He cites the example of metal fabricator Rose Valley Steel Works in Armidale in north-west NSW collaborating with industry counterpart R&R Murphy, four-hours’ drive south, to share knowledge on robotics production.

“They are able to support each other across phone calls and sharing knowledge about what it takes to incorporate robotics technology into an engineering firm,” says Sharpe.

A transformation in consumer attitudes – in the preference to buy locally-made goods, which also translates to procurement processes – will help to drive

a resurgence of Australian manufacturers, says Roy Green.

Along with many in the industry, Green is optimistic that much-needed policy settings will be developed to promote a sustained growth in manufacturing. “We know that we can’t be dependent forever on the diminishing returns from our commodity exports,” he says. He is more than hopeful that after years of “pleas in a vacuum” the enormity of the COVID-19 crisis will inspire policy action.

**“It requires learning from other countries, building on what we have, transforming existing industry, as well as creating industries of the future”**

Roy Green, Chair UTS Innovation Council

“It requires a systematic approach,” Green says. “It requires learning from other countries, building on what we have, transforming existing industry, as well as creating industries of the future.” When it comes to industry itself, Green affirms what many already know – there’s a “strong capability and interest”.

## How St.George supports manufacturers

St.George has already provided more than 2,000 business customers with a range of support measures during the health crisis.

In addition to relief measures, including loan repayment holidays, unsecured business loans and temporary overdrafts, St.George has also set up a dedicated [COVID-19 Help Hub](#) to help customers manage the economic impact of the pandemic.

Beyond the immediate crisis, St.George also provides Australian manufacturers with the following opportunities for growth, innovation and collaboration:



Facilitating connections between clients and networks to encourage partnerships and innovation



Liaising with universities to link clients to relevant research and innovation (R&D)



Access to energy efficiency assessments, which have the potential to realise significant savings for manufacturing businesses



Complimentary R&D reviews utilising St.George corporate partners



Assistance in researching government grants

Please don't hesitate to contact us to find out more: [stgeorge.com.au/manufacturing](https://stgeorge.com.au/manufacturing)





# Next horizons: what lies ahead?

## Signs are positive for a new era of smart and specialised manufacturing.

MANY AUSTRALIAN manufacturers have been operating at warp speed since coronavirus hit.

Their “fluid and fast-moving” response demonstrates beyond measure the smarts of our manufacturing community, says AMGC’s Sharpe. “We’ve got 47,000 manufacturing companies in Australia and I see that as a key strength, because the majority of them are small and family businesses, but the ability to be agile and adapt quickly is a key strength to Australia’s economy.”

As companies look to innovate, collaborate, diversify supply chains and secure vital products during challenging times, Australian manufacturers have a massive and uniquely timed opportunity.

Roy Green believes it can be done – as shown by Germany, Switzerland, Korea and Japan where, driven by knowledge and ingenuity, manufacturing and related services deliver high-productivity and high-skill jobs. Success is driven by smart specialisation in global markets and value chains, with an unrelenting focus on quality, design and innovation.

At the grassroots level, much of the focus to date has been on the intrepid, in-the-moment agility of Aussie businesses.

However, St.George’s Matthew Kelly is convinced many of the changes adopted to date will stick. He looks to the future of the sector with a fresh positivity.

**“There needs to be a positive out of this pandemic, and in the vast majority of cases, I think it has been good for the manufacturing industry”**

**Matthew Kelly, Head of Manufacturing and Wholesale, St.George**

Clear indicators are in simple facts, such as the 30 per cent of manufacturers who, amid the turmoil and uncertainty, have actually changed their processes in recent months, he says.

“There needs to be a positive out of this pandemic, and in the vast majority of cases, I think it has been good for the manufacturing industry,” Kelly concludes.



### Contact

Matthew Kelly

M: +61 412 265 197

E: [manufacturingwholesale@stgeorge.com.au](mailto:manufacturingwholesale@stgeorge.com.au)

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