

Pandemic could triple the gains of disruption

Artificial intelligence

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As the global economy implodes because of the COVID-19 shutdown, digital technologies are booming as businesses pushed into digital transformation and virtual workspaces turn to artificial intelligence to engage with customers, collaborate with employees and shore up supply chains.

Whether it's using chatbots to support front-end customer service, computer vision to help maintain social distancing, machine learning for modelling the effects of reopening economies or employing advanced automation for addressing frailties in the supply chain across industries, the pandemic has created the perfect storm for the AI industry to thrive.

A government-sponsored road map from CSIRO published at the end of 2019 found that the AI sector would be worth \$315 billion to the Australian economy by 2028 and \$22 trillion to the global economy by 2030.

However, experts such as KPMG's Partner-in-charge, James Mabbott, tells the *Financial Review* that both these figures could be as much as "1.5 to 3 times greater" after taking into account the increased levels of investment driven by the disruption caused by the pandemic.

Mabbott says that for Australia to realise this economic benefit, we need to re-evaluate our approach to AI and IoT by leveraging our strengths in areas like natural resources and agriculture to identify opportunities in new industries.



Although Australia has an unfortunate track record of faltering when it comes to commercialising technologies out of the research phase, there have been some notable success stories such as AI and IoT company, SenSen Networks.

The company's core technology called Gemineye, turns a regular smartphone into a powerful AI monitoring device capable of reading every street sign and licence plate, as well as measuring the segments of the road blocked off from use by the public and even detecting distracted and dangerous drivers, generating valuable insights and providing a cost effective way to manage cities more efficiently.

SenSen Networks CEO, Subhash Challa, originally developed the unique technology out of UTS' research labs and it has since been deployed in more than 20 smart cities across the world.

Rising demand.

Gemineye (above) turns a smartphone into an AI monitoring device to read street signs and licence plates. Below: SenSen Networks CEO, Subhash Challa.



Challa says that the demand for his product has gone up exponentially during the pandemic, with the company having just recorded its most lucrative quarter in terms of revenue.

"Like most responsible businesses, we took a 20 per cent pay cut across the board and cut staff numbers to contain costs as a direct response to the pandemic. However, we could not keep up with the demand and ended up increasing our net staff numbers by 15 per cent," Challa told the *Financial Review*.

The pandemic made many countries realise just how fragile their global supply chains were, and as a result, companies are looking to more sustainable and resilient supply.

Accenture's AI Delivery Lead for APAC, Amit Bansal, believes that through the use of AI and IoT, Australia has a golden opportunity to revive its manufacturing sector, in particular high tech manufacturing, where it is "less about labour arbitrage and more about smarter, efficient and high quality manufacturing".

"If you can apply technology and smarter manufacturing techniques with little to zero waste then you are going to be very competitive on the global stage," he said.

Bansal says that Australia can achieve this by applying the AI expertise gained from the agriculture industry where connected sensors, machine learning and computer vision are being used to maximise yield and financial return for farmers.

"During the production of petrochemicals for items such as plastic

crates, AI can be used to determine the right mix of raw materials during the process to achieve the highest levels of quality, durability and strength.

"Computer vision can also be trained to find the minutia of defects that a human eye cannot pick up in items such as ceramic tiles, high grade lenses and even construction. All of these on their own or in combination lead to a competitive advantage in manufacturing and get us closer to a goal of zero waste."

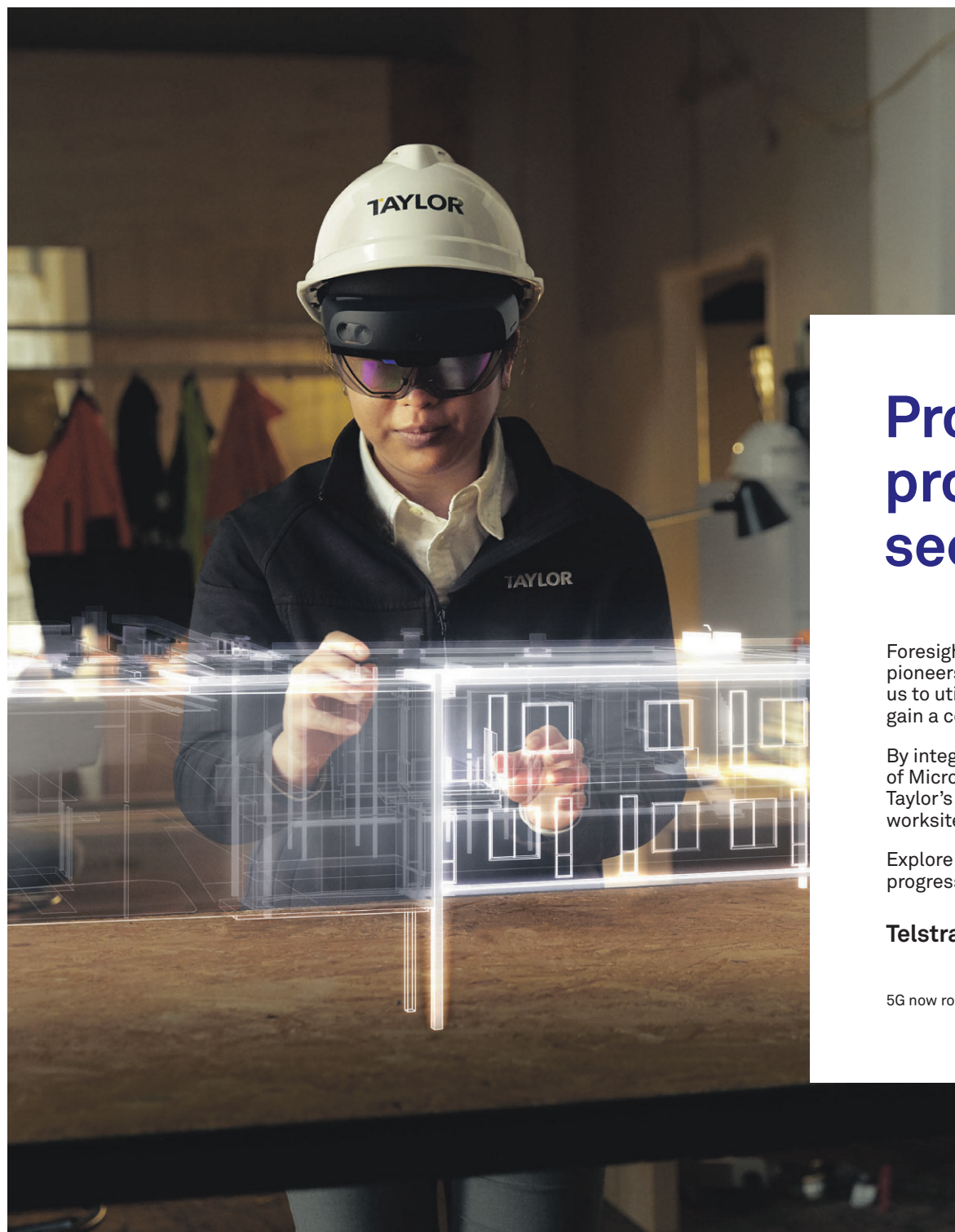
Adelaide-based Entech Electronics has proven that high-tech manufacturing in Australia can be a lucrative investment.

The 34-year old business manufactures various smart devices including IoT devices for medical, mining, aerospace, agriculture and telecommunications customers in its Adelaide factory as well as an Australian-owned and operated facility in Shenzhen.

The company has spent millions on AI and IoT related technologies to automate various production lines in its local factory in order to remain competitive amongst the global competition, a move that according to executive director Jason Reeves, paid off dividends during the pandemic, when the company increased its high-skilled staff count by 11 per cent to keep up with demand.

Reeves says a further 30 per cent growth in production volumes is expected in the next 12 months.

"Our goal was to eliminate as much manual handling from production-start to production-finish, empowering us to present an extremely low cost, on-shore manufacturing solution to our clients." AFR



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