

Adelaide's Dematec Automation has been specialising in industrial automation and control since 1990.

It is enthusiastic about the new wave of Industry 4.0 automation technologies and what these solutions can offer Australian manufacturers.

"The customers we have are generally those that have invested in the infrastructure to make them globally competitive in what they're doing: and that is through automation and digitalisation," explains David Hart, Dematec's CEO, of the advanced manufacturing customer base they support.

“Traditionally, the manufacturing sector has been a big user of industrial automation, and that is where Dematec was born.”

However, the industries making up Dematec's customer base have shifted over the years with South Australia's economy. The company has diversified and won work in new sectors over the last decade or two, says Hart, an electrical engineer who has worked in and around manufacturing automation his entire career.

It has branched out to include agriculture clients and those in water infrastructure, which makes up about half of its revenues, as well as in those in defence. Major projects have included control and industrial communications support for the naval hub at Techport Australia and the \$22 million Gawler Water Reuse Scheme, for which it delivered the electrical, control, and communications infrastructure.

Within manufacturing, which remains a key part of Dematec's business, the

company has placed an emphasis on delivering affordable, Industry 4.0-style instrumentation and communications to small firms. Such SMEs have at times viewed the topic as too expensive and complicated to consider, a view Hart believes needs to change.

A package to retrofit legacy machinery with instrumentation and communication technology has been the focus of a collaborative project with the Advanced Manufacturing Growth Centre. It demonstrates practical, entry-level steps to digitalisation, believes Hart, and that SMEs need not be intimidated by the topic.

"We have developed an industrial internet of things platform that enables us to deliver digitalisation services to clients across all of our sectors at a very cost-effective price point," he explains of the solution deployed.

The Advanced Manufacturing Growth Centre's support has been invaluable," he says.

"And the new opportunities are for us servicing clients that perhaps wouldn't have traditionally afforded full-blown automation systems, the sort of traditional format in an Industry 3.0 sense."

Without digitalising and networking their operations, manufacturers can only guess at the levels of productivity they're getting from their machines. Measuring and managing performance can drive continuous improvement, smarter maintenance, and other gains.

It is simply a matter of using cloud computing, communications and sensors to make use of data that equipment is already producing, though which is being unused.

According to Dematec, the benefits of digitalisation can be either internal, for example the improvements listed above, or external, for example in providing remote operations, upgrades, support and operational data to a manufacturers' customers. This can help them introduce new revenue sources and servitised offerings.

These have been explored through the AMGC-supported collaborative project, led by Dematec, and will only become more important over time for manufacturers wanting to remain competitive.

“I think AMGC has value not only to us, but broader Australian manufacturing because they have a good oversight across the country and across the different layers within the manufacturing sector,” says Hart.

"So they have a good visibility of trends and understand where we sit on a global scale, and that helps us aspire to be at a global level in what we are doing. They provide a bit of assistance in getting us there."



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