

## **INDUSTRY 4.0 AUDIT**



partner for a project that will introduce 12 manufacturing SMEs to Industry 4.0 methods within their business. It will feature an audit of the current digital readiness of the companies, followed by an implementation project based around their current needs.



## How has the Growth Centre helped?

The Advanced Manufacturing Growth Centre has supported the project fund, totalling \$547,000, through \$273,000 in co-funding.

## What's changed?

The participants will understand their current digital readiness level, then increase their levels of automation and ICT intensity. The project gives each a real-world understanding and affordable way to adopt Industry 4.0 methods. Industry 4.0 is a vital concept, though one that remains abstract or daunting for some manufacturers. Each participant will be a reference site and case study to communicate the benefits to other SME manufacturers.

## **Success story overview**

AMTIL, the Australian Manufacturing Technology Institute Limited, is an industry body established in 1999 to represent and vouch for the advanced manufacturing and precision engineering industries. It has 250 company-level members of varied sizes.

This takes in sole trader component makers with revenues of \$200,000 through to multinationals with revenues in the billions.

The group notes that adoption levels for newer, digital technologies such as 3D printing and Internet of Things solutions, is also varied. There are leaders and followers split up, five and 95 per cent respectively, estimates Greg Chalker, Corporate Services Manager at AMTIL.

Followers are watching and listening. Trying to educate themselves, he says.

AMTIL is helping 12 SMEs do more than watch and listen via an Impact Project, assessing the manufacturers' Industry 4.0 capability gaps and facilitating pilot implementation projects. The projects themselves will differ depending on the types of business but will introduce manufacturers to the digitalisation technologies which have long been acknowledged as vital to serving global supply chains of large companies<sup>1</sup>.

Industry 4.0 is defined differently by different people and companies, but one popular understanding is a set of nine different technology trends converging to reshape manufacturing by combining the digital and physical worlds<sup>2</sup>. This can be a daunting prospect for smaller companies.

- $1 \quad \text{https://www.afr.com/business/australian-firms-must-catch-up-with-hightech-global-supply-chains-20150419-lmoe3h} \\$
- $2 \quad \text{https://www.bcg.com/en-au/capabilities/operations/embracing-industry-4.0-rediscovering-growth.aspx} \\$



l think the very most important message to get across to smaller SMEs is that with an interconnected manufacturing environment you are always able to manage based on facts that are presenting live, pexplains Chalker of adoption.

Taking live production and warehousing to the accounting and MRP/ERP systems and further to linking their fully connected business to their suppliers would be huge and further still to include their clients another massive step. But let's keep it simple. Let's start my controlling production based on indisputable facts and not 'gut feel'.

He adds that the project has been tailored to communicate at the level of these smaller companies and to take them through the journey in an affordable way, based on peer-level data: a proven method of success.

Implementation partner Robert Bosch Australia Manufacturing Solutions have developed an auditing tool, which will assess the readiness of 15 SME manufacturers. 12 of these will go ahead with implementation plans, based on merit. These will provide tangible examples to themselves and others regarding the benefits of adopting Industry 4.0 technologies.

Bosch platforms will be provided to participants, though they will not be tied to any proprietary technology after the project ends. Bosch, the 12 participating SMEs and AMTIL will each support development of case studies. RMIT, which will provide validation of project outcomes, will do the same.

The first five participants are contract manufacturer QPS, equipment supplier Headland Machinery, fabricator New Touch Laser Cutting, and Sparkling Beverages. Each will serve as a reference site for three years.

The projects will see participants adopt advanced characteristics, such as increased ICT intensity, increased automation, and show the way to adopt increasingly advanced processes.

AMTIL will manage and distribute grant funds supporting the projects. The Advanced Manufacturing Growth Centre is contributing \$273,700 in co-funding to the \$547,400 project fund.

We are an advanced manufacturing representative body for industry, and you are an advanced manufacturing arm of the **commonwealth government,** says Chalker of collaborating with AMGC.

AMGC's role is to support the development of a world-leading advanced manufacturing sector in Australia. AMTIL believe they go hand-in-hand and hence the relationship.





