

## MASTERING SHORT INTERVAL DECISION MAKING



**B&R Enclosures** is transforming its business through digitalisation, which it believes will be critical to it and other Australian manufacturers wanting to be globally relevant. This project will turbocharge the company's agility by making information transparent throughout its entire operations, to improve decision making, lower costs and increase service. The project will help B&R increase export revenues, and create over 25 high-skilled roles.



### How the Growth Centre helped:

**The AMGC provided a \$245,000 grant for the six-month project, also involving, University of Queensland and Red Button Group as well as a number of B&R's suppliers and customers. According to B&R, the AMGC's involvement has helped attract the support of suppliers and technology partners and to create "an environment that is one of transformation."**

### What's changed:

The project is projected to significantly boost revenues and bring vast flexibility benefits to B&R's operations. Anything manufactured will have a "digital thread" running through it with useful information about its history and destination readily available to workers.

### Success story overview

The fourth generation has just started work at B&R Enclosures, coinciding with the company's jump into the fourth generation of industrial revolution.

"Industry 4.0" follows three previous "industrial revolutions". These being mechanisation and steam power: electrification and mass production, then computers and automation. The Fourth Industrial Revolution links the cyber and physical worlds, delivering transparency throughout a company's operations. This brings benefits including superior adaptation to customer needs and the ability to compete through "high-mix, low-volume" production.

B&R leads an eighteen-month "Mastering Short Interval Decision Making via an Industry 4.0 Application" project, which began September 2017.

It will allow the maker of enclosures, racks and cabinets to keep up with a shift from commoditised, low-variability production to an increasingly custom, "smart and competitive manufacturing model."

Its self-described push to avoid "Digital Darwinism" will feature affordable barcode and other part identification solutions to support automated tracking of an item throughout production.

**“The vision is that as the part starts in the process, the first thing that happens is a code is applied to the part, and from there and the whole way through everyone is either collecting information off the system from that code or putting data in.”**

explains Dan Bridges, Design & Engineering Manager at B&R Enclosures.

**“How long a job has taken, what materials were used, what processes it is next to go to. It is scanned and information comes up on the screen: what has to be manufactured, what goes where, where it goes next.”**

The transparency of information throughout the shop floor will enable much better responsiveness to changed customer demands, with real-time re-prioritising and rescheduling of different jobs possible.

University of Queensland is among five organisations involved in the collaboration, assisting with integration of the new system. Skills concerning new methods can often get caught within the walls of universities and take time to filter out within industry, according to Bridges, and the linkage with University of Queensland will provide a competitive edge.

The project investment of over \$1M is assisted by a \$245,000 grant from the Advanced Manufacturing Growth Centre.



Four or five new jobs will be required over the project, with more than 25 additional roles forecast to be created by growing revenues.

High-skilled jobs required will include mechatronics engineering, data analytics, and IT security staff. The transformation is predicted to generate a significant growth in export revenue by 2020

This project will build on recent international successes, including new work supplying multinational industrial companies based on B&R's superior ability to solve specific, challenging problems. The transformation will also continue B&R's example as a genuine advanced manufacturer, a definition based on approach rather than just what is produced.

Providing another example to other Australian manufacturers - some perhaps weighing up whether or not to take the Industry 4.0 plunge - will be available through a "living lab". Manufacturing SMEs will be able to see firsthand how technical leadership trumps issues of geographic isolation.

Getting on board with AMGC means making sure there's a viable manufacturing sector to create jobs for the next generation. The AMGC has helped communicate the urgency of the task and helped to address it, believes B&R's General Manager, Chris Bridges-Taylor.

**“Engaging in the project has definitely helped raise our profile so that we can attract the right people and the support of our suppliers and our technology partners,”** she says.

“It has provided the opportunity to network with other members of the industry, share ideas and learn off each other. And to create an environment that is one of transformation.”

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