

DEVELOPING A MACHINE HEALTH MONITORING SYSTEM



Asahi Beverages is the Australian and New Zealand business of the Japanese company Asahi Group Holdings. As part of its focus to leverage Industry 4.0 solutions to improve asset efficiency, and reduce production downtime it is developing and piloting a machine health monitoring system in collaboration with project partners Operations Feedback Systems, Chelgrave Consulting and University of Swinburne.

How the Growth Centre helped

The Advanced Manufacturing Growth Centre (AMGC) will contribute \$110,000 in co-funding to the project. AMGC has helped educate participants on the importance of Industry 4.0 and assisted in linking them for the project.



What's changed

The project will be implemented as a pilot proof-of concept to start with and looks to be an enabling tool to move from preventive maintenance to predictive maintenance. Predictive maintenance will help drive better use of assets, lower spare part inventory for maintenance, and move maintenance staff from reactive to strategic roles.

Success story overview

Asahi Beverages is part of Japan's Asahi Group Holdings. Asahi Beverages was formed in 2014 with through the integrated operations of Schweppes Australia, Asahi Premium Beverages, and Independent Liquor, and today employs approximately 2,200 staff.

Three years ago, the company decided to be part of the Industry 4.0 movement, and it has been a journey of discovery and growth over this time, explains Anna Reid, General Manager – Manufacturing at Asahi Beverages.

This collaborative project, uses Industry 4.0 principles to develop health monitoring tools for machinery, involves a business team of approximately 10 people, in addition to the project's collaborative partners.

“That includes our enterprise solutions team, our IT (Information Technology) team as well as our OT (Operational Technology) team, manufacturing manager, manufacturing engineer, continuous improvement and our operators, with the cross team collaboration focus being a key ingredient in the project,” Reid says.

The project aims to minimise unplanned stoppages and downtime by developing a data-driven approach and machine learning algorithms.

“If the pilot is successful, we will look to further expand it across our sites.”



Project partner Operations Feedback Systems provides Asahi's software for line performance monitoring and quality data collection activities across its Australian and New Zealand sites. It will provide data, both historical and live into the system. Chelgrave Consulting provides trade services to Asahi and for this project. University of Swinburne will provide technical support, and research and development for the project.

“As part of this project we are looking at the end-to-end ecosystem in our approach,” adds Reid.

Besides smarter maintenance and operations, the solution aims to shrink the required inventory of spare parts, and move the reliability focus from reactive to more strategic.

If the project moves from an estimated Manufacturing Readiness Level (MRL) 6 to MRL 9–10, it will provide a “living lab” for SME manufacturers and others to learn about Asahi's Industry 4.0 experience.

The Advanced Manufacturing Growth Centre has contributed \$110,000 in co-funding for this project, and Asahi will retain the IP developed.

Of AMGC's help, Reid says the Growth Centre was valuable in linking the partners together, and in explaining the unfamiliar yet vital concept of the fourth industrial revolution to them.

In addition, the AMGC highlighted someone that we were already working with pretty closely, on how they could contribute to the project and to gain mutual benefit.

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