

# MONASH INDUSTRY TEAM INITIATIVE (MITI)

## Critical Equipment Reliability Tool

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### Background

Saputo Dairy Australia is one of the largest dairy processors in the world and has the oldest dairy processing site in Australia with over 130 years of history. The site takes in approximately 1 billion litres of milk annually to produce high quality dairy products, hence process reliability is extremely crucial for efficient operation. Critical components such as valves play an important role in maintaining food quality and safety across the processing lines which are required to be inspected and appropriate maintenance performed to ensure plant operation runs smoothly.

### Project Scope

- Generate plant information that lists the critical valve equipment to produce adequate and appropriate preventative maintenance plans for specific valve equipment.
- Design and implement an app based interactive tool to assess the level of criticality of valve equipment based on a decision matrix.

### Project Outcome

We have successfully inspected 520 assets using the developed application tool to assess their individual level of criticality. Our results have been reviewed by Saputo staff and determined that the accuracy of data is greater than the pre-existing data by Saputo. Statistics showing that out of the 520 assets: 69% classified as low criticality, 1% medium criticality and 30% high criticality. To ensure that user experience is not compromised, we produced a helpful user manual for staff members of Saputo to navigate through the app.



### Recommendations

- Migrate the native application to a web-app based platform to easily incorporate onto portable devices such as an iPad.
- Integrate the local database with Saputo servers to act as the central hub and ensure consistent data management.
- Enable modular questions feature to allow users to add relevant questions to the decision matrix and refine the application to encompass different types of assets.

### Acknowledgement

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