

# MONASH INDUSTRY TEAM INITIATIVE (MITI)

## Optimisation Of Real-time Data Flow From Farm Recruitment To Production Site Demand

**Dilan Abeysekara** Bachelor of Engineering/Commerce  
**Jaclyn May Ginn Lee** PhD Chemical Engineering  
**Liam Welsford** Bachelor of ChemEng/Pharmaceutical Science  
**Yanjun (Zimo) Wu** Masters of Information Technology

Project Supervisor  
**Andrew Sutton** National Inbound Logistics Manager, Parmalat



### PROJECT SCOPE

Parmalat Australia have recently grown to over one billion litres of farm milk supply nationally, hence the updating of processes needs to reflect the rapid growth in the business.

### PROJECT AIMS

The underlying project aims were to update, optimise and redevelop the processes that were in place to assist the milk supply team with their operations.

Our overarching project was about creating a forecasting and scheduling model for milk supply and demand. This model would provide significant benefits for all the planning done by the milk supply team. It would also allows analysis of data in order to optimise operations and minimise costs.

A number of side projects were also completed to further assist the milk supply team. This included implementation of new processes to automate some of the day to day tasks of the milk supply team and providing solutions that will continue to be used after completion of the program.



### OUTCOMES

- Mapped farms into newly assigned regions after data analysis and re-examining freight rates with carrier
- Saving of over \$100,000 per annum from the changes implemented to the freight rates
- Formalised and optimised milk supply scheduling for daily usage
- Streamline data inflow and outflow process
- Evaluated tanker performance to monitor which tankers better retain temperatures for long trips
- Built intuitive dashboards and data consolidation tools for further data analysis
- Dynamically forecast and schedule milk supply from farm and demand from sites

### CHALLENGES

- Developing an understanding of how current milk supply system works and becoming familiar with dairy-specific terms
- Milk supply is extremely volatile and very difficult to accurately forecast

### LEARNING

- An insight of how the dairy industry and milk supply chain works
- Practical work experience of data analysis and reporting
- Improved excel proficiency
- Work as a multi-cultural team for better communication and collaboration