AGWA Process Efficiency Case Study 4

Wine Industry

- **Automated data collection**
- **Metric analysis**

Process Efficiency Opportunity	Outcomes
Measurement of metrics	Analysis of existing metric data
	Bottling line optimisation
	Increased process and materials efficiency
	Increased labour efficiency in reduced breakdowns
Automation	Data collection
	Equipment optimisation
	Increased process speed
	Higher production volumes
	Increased labour efficiency

Process Efficiency Outcomes	Outcomes
Process efficiency	Increase throughput
	Decreased cost
Materials efficiency	Decreased waste
	Decreased waste treatment costs
Labour efficiency	Utilising staff more efficiently
	Decreased labour costs, decreased breakdowns

Casella Family Brands – Bottling line automation and metric analysis

Core to Casella Family Brands business is its state of the art bottling system. At 36,000 bottles per hour, it is claimed to be one of the fastest bottling lines of its kind in the world. This was not always the case. In 2004, Casella Family Brands (known as Casella Wines at this time) implemented an automation and real time monitoring control system to increase the efficiency of the bottling line.

The process flow of Casella Family Brands primary bottling facility involved transferring pallets of empty bottles onto the bottling line, bottles being fed into a washer, bottle drying, bottle filling, closing, labelling, packing into boxes and palletising with a shrink wrap finish. The challenge with this bottling line, like most bottles lines, is that if one machine in the bottling process stops, the full line stops. The challenge for Casella Family Brands was to identify and rectify the cause of these stops. Without monitoring and data logging, getting the right information to understand the cause and frequency of these stops was challenging.

Through a dynamic array of measurement equipment and software, Casella Family Brands were able to log every event leading to stoppages or breakdowns. The automation system also allowed the facility to identify and prevent a previous 11 hour down time that had occurred 4 times over 6

months and cost the company $200,000 in down time. This has meant that automation has not only increased efficiency and savings, but has also reduced risk and reduced profit loss. It also allowed the identification of micro interruptions in the process which lead to the line stopping and starting.

Automation allowed the bottling line to be optimised and process bottles at its maximum capacity. After these changes, the process efficiency of the bottling line increased by 20% and this lead to significant cost savings for the business.