

Leadership for Manufacturing Excellence Program

BUILDING SKILLS in Leadership, Lean Operations, Business Culture and Confidence for Geelong Manufacturers since 2012

PROVIDING TANGIBLE BENEFITS averaging up to \$300k per business per year in tangible cost savings.

2018 CASE STUDY 2



Incitec Pivot



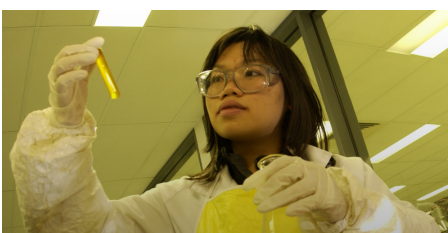
TRUCK LOADING IMPROVEMENT PROJECT

Incitec Pivot truck loading bays significantly improved output during peak season, allowing an additional \$2.3m in revenue

Incitec Pivot has experienced long-term benefits through participation in the GMC Leadership Program. The company sponsored teams in 2017 and 2018.

The projects in 2018 have allowed the business to significantly increase distribution output, save ongoing costs and reduce lead time in laboratory testing services and in vehicle loading output.

Incitec Pivot Fertilizers has a proud and long heritage supplying phosphates and derivatives as bulk commodities and analytical services for the Australian farming community since the early 1900s.



Improved lead time in lab testing saved more than \$100k per annum

The Geelong site was established 1926 in North Shore, where it manufactures and distributes bulk phosphates as well as providing analysis services for fertilizers, soil, water and acids in its NATA accredited laboratory.

Passionate about innovation and maximising customer service

Incitec Pivot is passionate about science, innovation and maximising soil potential for its clients. The business is impacted heavily by seasonal conditions and commodity price changes, and must deliver peak outputs during a relatively short season (late winter to spring).

The seasonal high peak demand places a heavy strain on the North Shore teams, when most of the annual stock production is offloaded in short time-frames.

Reducing lead time for lab testing

This peak also places pressure on turnaround times for lab tests. These tests are provided internally to production teams, but are also sold as a service to distribution teams and clients. Reducing lead times for lab tests would have a significant impact on costs and improve customer service.

Continuing success gained in 2017

Previous Leadership Program participants had already improved loading times in the superphosphate warehouse. Adjustments to the warehouse layout allowed for a significant reduction in front-end-loader to conveyor lead times.

The 2018 Incitec Leadership Program team identified that further improvements to the truck loading area could be made that could create an even larger impact on load and lead time reduction, resulting in improved output capacity and cost savings.

Improving Lead Time & Truck Loading Capacity

LAB ANALYSIS - LEAD TIME IMPROVEMENT PROJECT

Seasonal peak in “SSP” fertiliser analysis was another identified area of improvement in the 2018 Leadership Program.

With typical lead times of around 2 weeks for a sample to be returned to clients, and up to 7.5 hours to provide testing to the in-house production and distribution teams, a goal was set to reduce the turnaround time of tests to 5 hours.

Reduced lab test time improves production output

This reduction would have a positive impact in available production tonnage outputs, and distribution outputs. After implementing the improvement project, a lead reduction was achieved of 3 hours and 45 minutes across 3 technicians. This represented a total saving of \$39,000 per annum for soil test for external clients.



Reduced lead times
Lab soil tests:
2 weeks to 2 days
SSF Tests:
7 hours to 5.5 hours



Reduced truck loading costs
\$135k/year
Increased loading bay output
\$780,000/year



Cost savings:
Lab \$132,000
Truck Loading Bay \$135,000



Improved output/capacity by
\$3m

Internally, SSP test turnaround times for production was reduced by 1 hour and 15 minutes of inspected product, saving 15,000 tonnes of product that did not have to be re-blended.

This represents a savings of \$93,600 per year. The on-flow effect of these savings allows for a total increase in distribution output valued at \$2.3m per year.



Seasonal demand drives time saving goals

Due to seasonal demand for fertilizers, truck loading turnaround time at the bulk warehouses is critical to achieve the supply goals of the business. When client demand cannot be met, the business is at risk of losing clients to competitors for their fertilizer supply. Other time constraints in the loading area included daily clean-up of product spillage around the conveyors.

Another team member was asked to pick up where the 2017 loading bay project team had left off, and further improve loading bay output.

He identified that the conveyor belt operation could be improved, as the system was hampered by electrical trips due to extra load. The conveyors were also not auto-starting, causing delays in loading time.

Reconfiguration improves productivity

The improvement project allowed the truck loading bay to run from two warehouses, instead of one. As a result, the performance of the conveyors was improved thanks to reconfiguration of the Programmable Logic Control box.

This also provided a significant reduction in product spillage was achieved, and both conveyors and warehouses could be used simultaneously to offload more product onto trucks, where previously only one warehouse and conveyor could be operated.

In the first instance an annual \$135,000 cost reduction was achieved by no longer requiring a daily vacuum truck to clean the accumulated product spillage from the conveyors.

Thanks to the achieved improved access to the two warehouses by using programmable auto-starting conveyors, the overall loading output is improved by 40%, representing a productivity gain of \$780,000 per annum.

Cost reduction creates improved output

The two projects implemented by the Incitec team in 2018 assisted the business in delivering tangible benefits in lead time reduction and loading bay output.

Across both projects a total attributable annual cost saving was identified of \$267,000. Moreover, the improved output will have a strong positive impact on overall earnings through increased output in superphosphate distribution.

Continuous Improvement Skills Training:

Can your business afford not to save \$300k per year and lose a potential \$2m in increased sales?



8-Month Program: Instant Results

The Geelong Manufacturing Council (GMC) provides a highly effective, results driven Leadership Program as part of its offering to local businesses.



Valuable Continuous Improvement Skills

Both GMC members and non-members are provided with skills in Lean operation techniques, skills in identifying Innovation opportunities, developing a positive business culture and giving and receiving feedback.



On Site Coaching - Improvement Projects

Participating teams are trained, given a task and coached in identifying a real-time improvement project for their business. The teams are supported by a program coach, who can assist in skills to gain buy-in and barriers to project implementation.

Workshop based combined with on-site visits and coaching



The 8-month program covers a series of group-based workshops by leading Australian facilitators in Lean Continuous Improvement, Business Culture, Transformational Thinking and Professional Presentation.

At least one workshop is held at a local manufacturer where participants are given a task to identify and present an improvement project after a brief site tour. Throughout the course, two on-site coaching sessions are held, allowing participants, sponsors and coach to provide project guidance and feedback.

Leadership

The 2018 program achieved \$10.9m in tangible benefits to 10 businesses and 23 participants.



\$10.9m in benefit to business

Since 2012 the Leadership for Manufacturing Excellence program has provided participating businesses with more than \$500m in benefits. In 2018 the program generated a total benefit of \$10.9m. 23 participants identified 10 projects for local manufacturers.



Building a Positive Business Culture

Participants year-on-year highlight the value they gained through the positive feedback skills they learned, that assisted them in their project delivery.



Improving Presentation Skills

Developing Presentation Skills creates a strong sense of confidence for all participants, who continue to build and utilise these skills in their workplace.



2018 On Site Workshop at Boomaroo Nurseries - Lara

The program is concluded with a graduation day, where all projects and outcomes are presented to GMC members and participants' peers.

The day highlights the many achievements gained, for the businesses and the new soft skills obtained by participants along the way.

Ongoing long-term measurable results have seen the program go from strength to strength since inception.

The main objective for the GMC to provide this successful program is its ability to allow member businesses to remain competitive in challenging markets.



2018 Program Kick-Off Workshop - Innovative Thinking

The Leadership for Manufacturing Excellence Program has assisted local manufacturers since 2012 by improving innovative thinking, lean operation, positive business culture and presentation skills

Ex

GMC: unlocking the potential of local business

Incitec Pivot is a member of the GMC, and through this membership has reaped the benefit of the Leadership for Manufacturing Excellence Program (LfME). The program has been run with great success by the GMC since 2012 and to-date has achieved more than \$500m in returned benefits to local manufacturers.



2018 Leadership Program Improvement Projects

\$10.9M TOTAL VALUE GAIN

 **PROJECT MANAGEMENT SYSTEM**
REDUCED PROJECT LEAD TIMES

 **\$135,000**
per annum
IN COSTS

 **\$93K**
LAB TESTS
PROCESSING
TIME
IMPROVED

\$200,000
REDUCED
LEAD TIMES

EXISTING CONVEYOR BELT
LOADING IMPROVEMENTS
OVER \$2.55M
IN EXTRA REVENUE

 **\$1.6M**
IMPROVED
PRODUCTION
CAPACITY

excellence



Lean Operation Transformational Thinking **POSITIVE** **BUSINESS CULTURE** Presenting

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