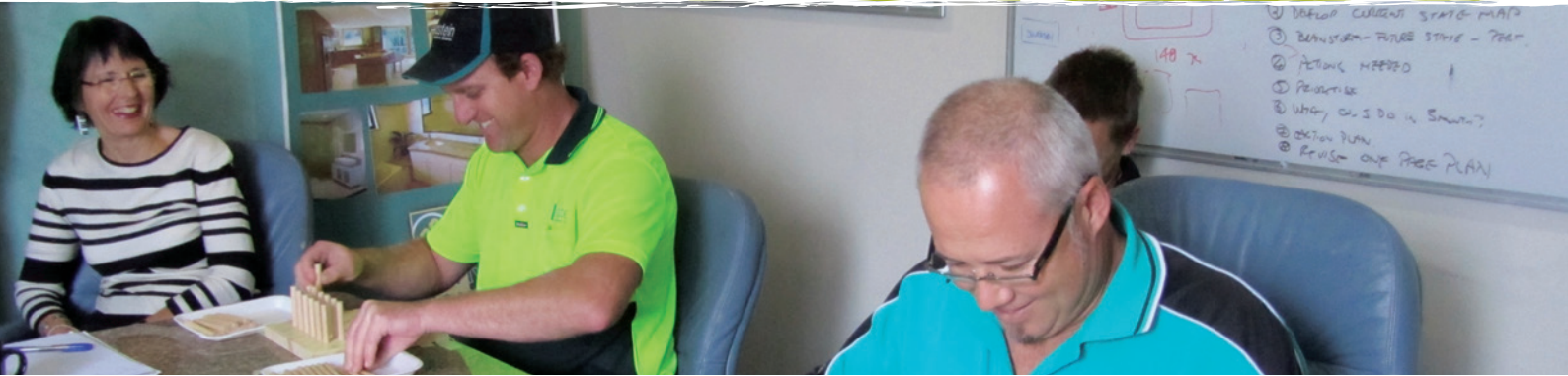


Case study – Edstein Creative Stone



Green Lean – delivering further savings for a silver member

Edstein Creative Stone is one of the largest and most technologically advanced manufacturers of stone products in NSW. The firm provides stonework for a wide range of uses, from kitchen benchtops to masonry for landscapes and monuments.

Edstein joined the NSW Government's Sustainability Advantage Program in 2009 and helped set up a Manning Valley cluster of businesses in the Program. This commitment to sustainability was rewarded with Edstein becoming a Silver Sustainability Advantage member in 2011 and winning the NSW Business Chamber *Excellence in Sustainability* award in 2013.

The Sustainability Advantage Program helped Edstein improve energy efficiency per benchtop from 170 kwh to 98 kwh; save \$67,500 per annum by diverting 100 per cent of potable water use from the mains supply; save \$24,000 per annum by diverting 32 tonnes of stone off-cuts per month from landfill and save a further \$66,000 from rework, energy efficiencies and increased productivity.

These savings (\$157,000 this past financial year) enabled Edstein to remain competitive and expand the business into new regions. The Green Lean program offered by the Office of Environment and Heritage in 2013 assisted them to further streamline processes, reduce waste, improve energy efficiency, increase throughput at lower cost and increase profitability.

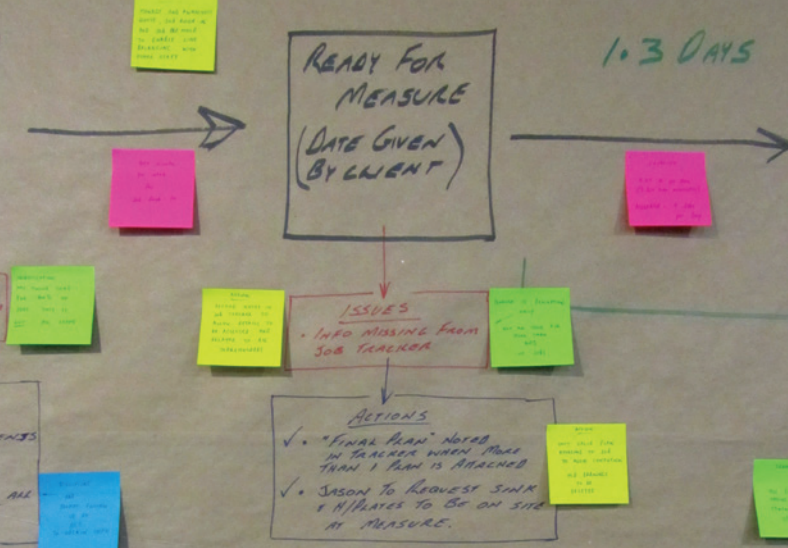
In brief

The benefits of Green Lean

In 2013 Edstein undertook the Green Lean process offered as part of the Sustainability Advantage Program. The program involved management and operations teams investigating their systems to cut lead times, ease bottlenecks, and reduce rework in order to enhance profitability, improve labour margins, and cut energy use per product.

Key achievements of the Green Lean process include:

- 90 per cent reduction in field rework (i.e. installation)
- 10 per cent increase in daily throughput
- energy efficiency per benchtop improved by a further 18 per cent
- reduction in lead time, which resulted in a competitive advantage and facilitated increased sales
- improvement in quality and standard product specification
- fewer bottlenecks
- the best labour margins in four years
- expanding the business into new areas such as the Central Coast.



- ▶ Edstein CEO, Nigel Ferguson, and Operations Manager, Allan Davis, say that the best outcome from the Green Lean initiative has been the change in culture.

“The previous culture of a manager or supervisor directing operations was transformed to one where our employees owned the process and felt empowered to make decisions,” says Ferguson.

The second major positive outcome at Edstein was also cultural. Root cause analysis of problems revealed flaws in the firm’s theories of installation issues. Edstein staff believed customers were at fault. However, “we discovered that the real causes had more to do with our own scheduling, capacity planning, and lack of standard work,” says Ferguson.

Other Lean tools, for example, Value Stream Mapping, identified bottlenecks, waste, causes of rework, and how they each relate to scheduling and capacity issues. Fixing these problems not only reduced field rework, lead-time, and labour, but it also revealed opportunities to reduce power consumption.

“The compressor, which drives our cutting machines, is a major consumer of power,” says Ferguson. “By re-scheduling shift times and machine sequencing, we can achieve a larger throughput with the same labour and machine time, but less compressor ‘on’ time. This has been a major contributing factor in us exceeding our goal of a 10% reduction in energy per benchtop unit of production.”

A major challenge for any continuous improvement project is time to implement change.

Green Lean breaks the cycle of rework and trouble shooting by establishing baseline metrics, making improvements, and allocating some of the time gained for further improvements.

Also vital for success was letting go of the old “them and us culture” manufacturing culture.

“We have new buy-in from employees, which comes from positive team experiences in implementing lean tools,” says Ferguson. “People don’t blame someone else for a problem. They fix the process by identifying, quantifying and reducing waste.

“We are all constantly seeking ways to improve processes through daily and weekly operational meetings, workplace organisation audits, and the occasional brainstorming session.”

Your next step

To find out how your business can join the Sustainability Advantage Program, contact the team:

- Email** sustainbus@environment.nsw.gov.au
- Call** 02 8837 6000
- Visit** environment.nsw.gov.au/sustainbus/sustainabilityadvantage.htm