Embedding a Culture of Continuous Improvement

(June 2021)

After taking a Lean Six Sigma approach to solving a particular quality and yield issue in 2018, Smithstown Light Engineering embarked on a 3-year continuous improvement programme towards operational excellence.

Despite the pandemic, the company has made significant progress in the last 18 months.The integration of LEAN philosophies, tools, and systems into daily operations at Smithstown Light Engineering has taken the company to new levels of efficiency and quality controls. And its focus on building the capability of its people to identify problems and improve operations, has allowed the company to embed a culture of continuous improvement.

Process Improvement Engineer, Mark Cusack explains their approach, “Since the start, Smithstown Light Engineering took a holistic approach from the ground up, as we recognised the huge role staff on the manufacturing floor play in ensuring components are produced to the highest quality and the importance of getting the foundations right.”

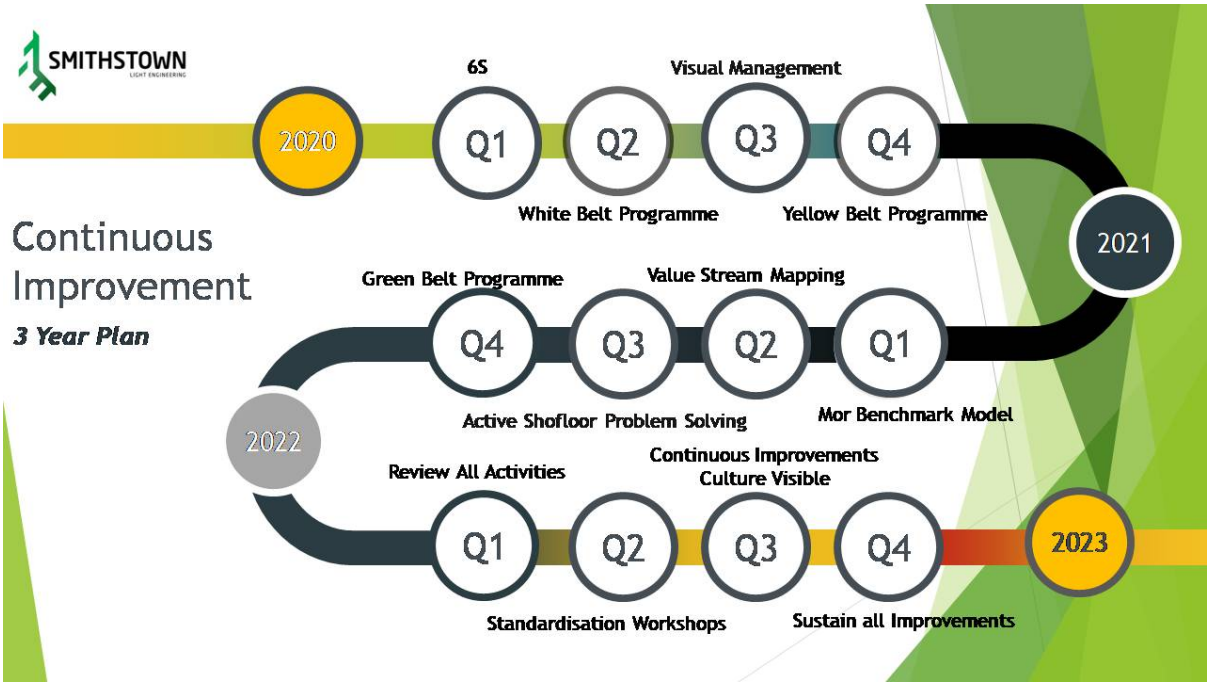
The company established 26 cells across its two production sites in Shannon.

6S has become a recognised standard across both production sites with all staff trained in the principles. Weekly 6S audits record scores which are visible to all cells in a weekly league format. It’s a basic continuous improvement tool but necessary as a foundation and for introducing staff to lean principles. Incremental improvements have been achieved on a weekly basis and several benefits, including increased shopfloor space and improved workplace organisation - leading to improved cycle and set up times.

Smithstown set a goal of implementing a visual factory which would be a bedrock for the lean programme and accompanying lean modules. Already all staff are trained in **visual management**. Now the status of a cells production plans and performance to plan can be seen at a glance. Process walks take place where a person from each department visits each cells whiteboard and addresses any issues as required while also giving feedback. The ability for anyone to contribute to a cell has improved cross-department communication and employee engagement.

All staff are now **White Belt** trained and can identify and eliminate eight forms of waste in their cell: Transport, Inventory, Motion, Waiting, Overproccesing, Overproduction, Defects and Skills. Staff now use Lean language and their waste identification skillset on a daily basis across both sites.

With the foundations firmly in place, the continuous improvement programme is now focused on the building blocks of Lean Six Sigma. So far 20% of staff are trained at **DMAIC** problem solving and root cause analysis (target is to get 50% of staff trained). Six Yellow Belt Projects have been completed with 30, 60, and 90 day follow up to ensure sustained improvements and eight Shopfloor-led DMAIC projects have been carried out making various improvements like Health and Safety, Cycle Time reduction, Improved Output, Set Up times and Changeover Times.



“Employing this methodology has created an environment of autonomous problem solving. Improvements are coming from the floor up and staff are more empowered. This means management are now more focused on client needs,” said Mark.

Lean is becoming a way of life at Smithstown Light Engineering. The company has now commenced the roll-out of the Green Belt programme for its key engineers and production management team.

Speaking about the journey to date, Gerard King, managing director, Smithstown Light Engineering said, “The medical industry has exacting standards. Zero defects, when it comes to manufacturing, is a policy. Our Lean manufacturing principles contribute to better quality products because tools like 6S and DMAIC seek to ensure components are manufactured in the most efficient and effective way.”

“As a medical device and component manufacturer, embracing Lean is a win-win for us and for our customers as we strive to provide the best products for patients,” he continued.