



### Background

Here's the thing about a volume production environment. The numbers are big. If that's stating the obvious, consider the implications. The multiplier effect means that minor changes at the start of the process can lead to big changes at the end. So companies which produce in large volumes can save in large volumes. The downside is that getting it wrong (or even not optimised) at the start can cause production problems which can be measured in the thousands or even tens of thousands of pounds. So there's a big motivation to get it right first time – and then improve on that.



One such volume producer is Diageo, one of the world's largest drinks producers. From its bottling facility in Shieldhall, Glasgow the company produces and ships up to 23 million cases of product per year around the globe. That's an average of nearly 450,000 cases / week or 63,000 cases every single day of the year. Shieldhall's day-to-day operations are headed up by Les Aitken. One of CeeD's earliest adopters, Les was quick to realise the potential benefits in using CeeD as a catalyst for change by looking outside of his own industry to see how other companies operate.



### The Business Need

Since taking over Diageo's operations at Shieldhall, Les was conscious of the need to frequently re-cut his production plan to accommodate necessary plant maintenance – both planned and unplanned – on the 8 production lines present. They say that practice makes perfect and Diageo's maintenance team was good at what it did – so much so that it could dictate what lines would be available and when to the production plan. However this seemed to be an example of the tail wagging the dog, especially for planned maintenance. And there was still the need to fire fight unplanned downtime, a result of a 'run to fail' regime. A quantum shift in thinking was needed to regain a level of control. How did other companies approach maintenance and what did best practice look like in this area?



### How CeeD helped

Les took part in CeeD's 'Planned Maintenance' Clinic, one of the first clinics introduced to meet the stated needs of member companies. In the latter part of 2007, the clinic was hosted by National Semiconductor in Greenock, which provided Les with the vision of where Diageo could and needed to be. Les was able to compare the approach to planned maintenance displayed by a volume spirits producer (operating to a 3mm tolerance) to an electronics firm (operating to a 3 micron tolerance). This was the quantum shift in thinking needed. National Semiconductor's planning regime, its scheduling of production and plant downtime, its use of control charts etc. was "a million miles away" from what was then in place at Diageo and provided a great deal of food for thought. Les came back to Shieldhall, inspired to begin a process of improvement with his engineering and operations teams, which is still ongoing today.



### Results

18 months into a 4 year programme of maintenance improvement, Shieldhall's plant availability is up by 6.5%, projected to rise to 10% by the end of year 2. Put another way, Diageo has added an incremental 1500 hours of reliable, bankable capacity to the site's operations as a result of the improvements the team there has put in place. This additional capacity allows the Shieldhall plant to produce up to an additional 3 million cases each year, which of course has a financial value...but it's not all about the numbers.



### Diageo's view

For Diageo, this program of improvement has given everyone at the plant much more confidence in the production plan itself. The big gain in the plan's accuracy means there's now far less cutting and re-cutting of the plan needed. This has allowed the engineering team there to focus much more on overall capabilities, rather than fighting another fire. The maintenance regime is now weighted more heavily in favour of planned, rather than unplanned events and the engineering team can now spend more time on root cause problem solving.



### CeeD as a catalyst...

"Timing is everything", says Les "and the visit to National Semiconductor came at just the right time for us as we knew we needed to improve this area of our operations. Without the opportunity to get engaged with National Semiconductor and other companies in the CeeD community, we may still just be doing what we'd always done. You don't know what you don't know. One of my team continues to attend CeeD's Planned Maintenance Clinic and we've developed a good relationship with National Semiconductor. Four of my team have attended training days in TQM there and we've even swapped apprentices back and forth, giving the next generation valuable experience of how other companies in other industries operate. You can't buy that. It's our engagement with CeeD that's opened up the opportunities for us."



Les Aitken, Operations Manager at Diageo Shieldhall discusses the benefits of cross company and cross industry collaboration at CeeD's recent Annual Members' Lunch.

