



## Case Study

# Abbott Nutritionals

This Case Study outlines the experience of Abbott Nutritionals in implementing an OEE Program as part of their corporate Business Excellence initiative .

It outlines their approach, challenges and results during the program, and their plans for the future.



# Abbott Nutritionals - using OEE to adopt new lean manufacturing practices

“At all times we wanted real time answers to production based issues, identifying reasons for efficiency loss”

## BACKGROUND

Abbott Nutritionals, the multi-national, broad based health care company has been manufacturing in Ireland for over thirty years, now employing some 3400 people across eight sites. One of the first manufacturing sites in Ireland was the Cootehill plant, originally dedicated to nutritional products and now Abbott's largest nutritional powder plant worldwide.

It began by manufacturing feeds for infants and young children, and, now the remit has extended to providing specialised nutrition for specific diseases and conditions such as diabetes and cancer. The Nutritional Products are designed to provide nutrition support for patients who cannot meet their daily requirements through a normal diet.

With the plant's success came increased product diversity and continued expansion, the most recent investment of €88.5 million almost doubled the plant's capacity and with it a need to move to leaner manufacturing techniques.

## THE ISSUES

Pat Cooper knows both the plant and the challenges faced all too well. Since joining in 1975 Pat has worked his way up to become plant manager and is testament to the company's policy of investing in its own people. “We reached the point where we needed to look at introducing a leaner manufacturing program that could run all the way through the plant operations. Underpinning this were three main objectives reflecting where we thought improvements could be made which were improving machine efficiency, improving the percentage of value added time and increasing people empowerment.”

Having identified the drivers behind positive change, it was important that these could be systematically applied all the way through the plant. Because of this the decision was made to focus on a discrete area where tangible benefit could be delivered and overall the packing operation was where the most benefit could be realised.

More diverse products serving more markets meant that the packing operation carried the biggest risk of production bottlenecks and because of the increasing complexity of product leant itself to an OEE solution.

## THE SOLUTION

“There was no shortage of ideas in the initial stages,” remembers Cooper. “Ireland has built a strong indigenous process manufacturing industry and we were able to make a number of benchmarking visits where lean manufacturing practices were being developed. From the companies we'd seen and talked to it was the approach by OEE systems which had most resonance with our own objectives, from what they'd achieved with other companies through to their approach and understanding of our own situation.”

Before the decision to proceed with OEE systems and its PerformOEE platform, Abbott also looked at justifying the investment in terms of the likely return on investment.

Part of the success is down to getting strong buy in from everyone at the plant so the ROI exercise was important both from the purchasing decision but equally to start the process of understanding what we wanted to achieve at the plant,” adds Cooper.

Before the plant went live, the PerformOEE software had been used by the implementation team to set a baseline for the operation's overall efficiency and assess where performance can be improved and make predictions over what could be done.

## IMPLEMENTATION

The best advice is not to underestimate the amount of change that is required. It helped that the parent company as a whole was committed to a lean business excellence program which helped set objectives for the project as whole.



An internal team headed by the plant manager was put together representing line managers, supervisors and line workers began the process of implementation. "A lot of our success also comes from the people we worked with at OEEsystems," adds Cooper. "It was a genuinely consultative approach and we benefitted both from their industry experience and the fact that they developed and brought the PerformOEE package to market." Key personnel were identified to be trained in both the technology and the underlying principles of lean manufacturing and the tools available such as right first time and 5s for the shopfloor organisation. Part of this would rely on fishbone diagram techniques that would highlight the cause and effect for certain events, which was at the heart of the reporting requirements from the software package. As was SMED (Single Minute Exchange of Die) for quick changeovers of products on equipment and central to optimising the growing packing operation at the Cootehill plant.

"At all times we wanted real time answers to production based issues, identifying reasons for efficiency loss. This depends on getting the right data and that makes getting the buy-in to data entry on touch screen PC's in the plant vitally important," adds Cooper.

#### **THE RESULTS**

In the event the original ROI calculation turned out to be conservative. The system went live in September 2005 and according to Cooper, "We've made significant progress in line efficiencies as planned."

Given that further expansion of the product range at Cootehill is planned there can be little doubt of the progress that the Cootehill plant has already made in delivering lean business excellence in practice.

#### **THE FUTURE**

With the proof of concept now delivered the next stage will be to extend both the new practices and software to the plant's processing areas using the same principles of teamwork to identify and resolve the issues that need to be resolved in pursuit of best practice.



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