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DO WE NEED LEAN?

Exploring lean's role as tech takes over

Organisations and interviews featured in this edition include: Hayward Tyler, Diakonhjemmet Hospital, Plexus Corp, Nicholson Consultancy, Bill Bellows, David Ben-Tovim and Torbjørn Netland.

IN THIS ISSUE:

Do we have to fail?

Does a start-up need lean from the very beginning?

Industry 4.0: where does it leave lean?

Exploring the new technology and where it leaves lean.

Don't tell them it's lean!

How an unnamed technique helped revolutionise a hospital.

Redesigning healthcare processes from Google

What can lean healthcare learn from the one of the world's most successful companies?



PUMPING IT UP

ABOUT HAYWARD TYLER

Hayward Tyler is one of the world's leading suppliers of mission critical electric motors and pumps. With a heritage spanning almost 200 years, the UK-based manufacturer operates in a number of sectors including oil and gas, renewables, fossil, nuclear, industrial and chemical.

Covering both original equipment manufacturing and aftermarket support Hayward Tyler has global revenues of over £45 million with its headquarters and main manufacturing operation in Luton with other facilities in the U.S., Scotland, India and China.

GROWTH PLANS OVER THE NEXT 5-10 YEARS

In order to capitalise on growth across a number of its markets, Hayward Tyler recognised it needed to undertake a business transformation project focused on maximising efficiency, aligning capacity to demand as closely as possible, and boosting profitability.

Having already achieved a substantial growth in the turnover of its Luton operations – from £18m in 2011 to £26m in the financial year to 31 March 2014, the next stage was to create a plan designed to achieve two key objectives: doubling the size of its Luton facility and increasing the number of units produced, whilst ensuring the facility remained fit for purpose.

Hayward Tyler had previously used Excel as its primary tool for planning. However when the management team looked at the extent of change required to meet accelerating demand across its markets, they felt it was impossible to deliver an accurate, trusted plan using such methods.

“The growth in our key markets means market share is there for the taking. We’ve already got great products – we simply have to get ourselves into the best position to take advantage of increasing demand,” comments Martin.

“We needed the foresight to be able to fully understand things like what will the business look like in 5-10 years, What will the opportunity look like then?, and how will it evolve over that period?.

Most importantly we needed to understand the timing of key asset investments. We had to factor in so many complex variables such as new equipment, people, sub-assembly processes, cranes, forklifts and back office processes, that even the most experienced brain would have been completely overwhelmed,” he continues.

HITTING THE GROUND RUNNING

A number of executives at Hayward Tyler had used modelling in the past and the company decided to look at how process simulation could

WITNESS simulation platform played an important part in developing the growth plans for mission-critical motors and pumps company, Hayward Tyler. *Martin Clocherty*, manufacturing systems director, explains the company's undertakings.

be used to create a virtual, dynamic factory. Having evaluated a number of solutions, the management team selected WITNESS from Lanner based on its ability to execute detailed schedule based planning in a rapidly deployable and user friendly environment, completely out of the box.

“We are dynamic as a company and needed a solution which we could adopt quickly and hit the ground running. When we saw the level of insight which WITNESS could provide, we immediately bought it, installed it and had a meaningful model from which to create our master plan within a few months,” Martin says.

THE VIRTUAL FACTORY

Using WITNESS, Hayward Tyler created a virtual factory which presented a highly visible picture of Hayward Tyler’s manufacturing operations as they evolve over the next 5-10 years. Highlighting exactly what would be required to meet demand and maximise profitability, the model factored in numerous influencers of plant capacity and performance, including factory layout, equipment requirements, shift patterns and peaks and troughs in demand. The model also factored in key milestones and product mixes and identified exactly what processes and resources would be needed at any such milestone in order to keep pace with predicted demand.

“Thanks to WITNESS we have our 2022 model which tells us everything we need to do to achieve our plans in the most efficient way possible. The model is effectively a virtual factory which shows us how the business will look in 2022 and any point between now and then. It’s exciting to clearly see where the ongoing investment in our facilities will take us. The model tells us when spare capacity will run out, when we need to upgrade machines, or when a shift pattern change is needed.” Martin explains.

This insight means Hayward Tyler has a robust, accurate plan which allows them to pre-empt forecast changes in the business, ensuring productivity

“WITNESS is hugely powerful in that it can run a year’s simulation in a second, facilitating a detailed picture of exactly what business processes and resources we need to deliver against future demand. In my 20 years of working with software this is the first time a solution has genuinely delivered on its out of the box promises and equipped us with insight to transform our business and boost profitability exponentially”

Martin Clocherty

remains high and costs are minimised. It also means they have a credible plan to present to stakeholders - both internally and externally.

“WITNESS has quickly become an invaluable tool in communication with our stakeholders. It has helped us to demonstrate the robustness of our plan and the diligence of our approach to our key banking partner, providing transparency, demonstrating the competency of the team and instilling confidence,” he continues.

“In parallel, it has been presented to our in-house manufacturing workforce and sub-contractors and has significantly helped us to engage, motivate and secure buy-in from such internal stakeholders, which will contribute to ensuring a successful transition to our new methods of operation.”

INSIGHT AND INTEGRITY

As Hayward Tyler embarks upon its growth strategy, it will use WITNESS to underpin its planning, updating the virtual factory with changes as they occur.

“The model is dynamic so we will continue to update and populate the model with more detail and market changes as we become aware of them. We are currently undertaking initial works at the factory based on the outputs of the model with main construction to start in 2015,” Martin comments.

“Testament to its success is our CEO has mandated simulation must be used as the foundation for planning across our other facilities, so we looking to extend the reach of WITNESS across the organisation - starting with our U.S. based operation.”

“In 20 years of using software across a number of different roles, nothing has impressed me as much. To gain the level of insight provided by WITNESS, and the productivity improvements which we will derive as a result, is testament to the integrity of the software and commitment and professionalism of the team at Lanner. That we were able to achieve this within a few months of engagement is hugely impressive.”