

# HOW JONES ENGINEERING GROUP HAS EMBRACED LEAN CONSTRUCTION

by Simon Watson, Team Development, Jones Engineering

Anything you read about what actually makes a company successful always has its staff at the core. It's true that if you don't have good systems and processes in place, even with the best team in the world, you still only produce mediocre results.

The following quote from the Toyota Motor Company reinforces this statement:

**"At Toyota we get brilliant results from average people managing a brilliant process. Others get average results from brilliant people managing broken processes."**

With this in mind we at Jones Engineering, utilising our long history



of training and developing people have fostered and implemented new ideas throughout the business in key areas which support our continued expansion. In doing so we have totally embraced the LEAN concept and find that it has considerably contributed to the development of both our employees and the company.

## **"A Better Way" – Suggestion box scheme**

Our company has close to 2,500 employees each of whom is an expert in the daily operations they carry out. In order to harness all this expertise, we introduced a suggestion box scheme to allow them propose improvements in their own work areas. All suggestions are reviewed locally on each project and, for any that are implemented, the employee is rewarded with a gift voucher (we have had 32 winners to date). Every suggestion (successful or otherwise) receives a response and an explanation why it was either possible, or not possible, to implement. In order to further encourage this we introduced a monthly newsletter called *LEAN Times*.



**"Success in business is all about people, people, people. Whatever industry a company is in, its employees are its biggest competitive advantage."**

*Richard Branson*

## **LEAN Times**

Three years ago, when we introduced "A Better Way", we were receiving that many suggestions that we were struggling to respond in a timely manner to everyone who had contributed. In order to improve this process we then established the *LEAN Times*. Updating all staff across every project and office on a monthly basis has proved a great way of sharing new ideas, and celebrating the success and innovation of each of our winners. We have had 48 editions of our newsletter to date!



**LEAN Steering group**

In order to coordinate the introduction of innovations across Jones Engineering Group as a whole, we set up a steering group with a representative from each of the companies attending. This has given us another outlet for generating and sharing ideas and helps to ensure that all companies within the group develop simultaneously.

**Continuing education**

To start off our LEAN journey we recruited the help and guidance of an expert consultant. We ran multiple workshops designed to introduce various levels of staff to the fundamental principles of LEAN, and to raise peoples’ awareness of how to use these to make systems better.

We then realised that to be self-sufficient in this area we needed to increase our internal expertise. We looked for in-house volunteers who

were willing to undertake degree courses through third level institutions, as this would give us the flexibility to carry out improvements in areas where more confidentiality was required.

We now have successful graduates from both engineering and trade backgrounds, from different group



companies, giving us the desired expertise at different levels within the organisation.

To help promote education in the industry in general, Jones Engineering

has strong connections with LEAN Construction Ireland (LCI) and recently sponsored the latest LCI event at the Marker Hotel in Dublin’s Grand Canal Square. Representatives from all the major players across the construction industry were present.

The theme for the evening was “People are our greatest assets. How can we maximise their potential?”

Tom Parlon, Director General of the CIF, was MC for the evening and opened proceedings by inviting Jim Curley, Jones Engineering Group Managing Director, to deliver the welcome address. Richard Fitzpatrick, Chair for the LCI Leadership Group, then gave a brief update on recent LCI events to put the evening into context.

Keynote speaker was Philip Matthews, former President, National College of Ireland and international rugby team captain. Phillip reinforced the theme of the evening with his address and left us with the following summary: “If we don’t exhibit a sincere regard for our greatest assets, and if we don’t have a culture that supports and challenges our greatest assets to learn and contribute, then how are we going to compete with organisations that do?”

There were then three break-out sessions where with the delegates choose which one to attend based on the topic of their choice. Brief details of these were:

**Breakout Room 1**

Colm Sheils, Boston Scientific – Understanding and improving cultures on our operational excellence journey;



Philip Matthews, former President, National College of Ireland and international rugby captain with Jim Collins, University of Limerick LEAN Trainer, Colm Sheils, Boston Scientific and Kevin White, Jones Engineering.



"It is over 125 years since Harry O'Neil set up HA O'Neil Ltd, the founding member of the Jones Engineering Group. As a young man Harry travelled to Philadelphia, learned his trade and eventually returned to Ireland as a Master Craftsman. He appreciated from the outset that education, training and innovation would be key elements of future success.

"The core values of recruiting, nurturing and developing the best people have been a cornerstone of our Group's development. We are very much a people business in which opportunities are realised, challenges are met and success is driven by teams of some of the best people in the country.

"This has allowed our team to gain an expertise and knowledge second to none, positioning Jones Engineering Ltd as the 'go to' contractor."

*Jim Curley, CEO Jones Engineering Group*

### **Breakout Room 2**

Rob Hughes, Jones Engineering – How Geo surveying has given us a systematic and coordinated approach;

### **Breakout Room 3**

Kevin White, Jones Engineering – Cable spooling improvements providing reduced risk to project delivery.

Everyone then re-grouped in the main room for the final speaker, Jim Collins, University of Limerick Lean Trainer, consultant, coach and guide. Jim's talk was entitled: "The need to create a learning organisation to support sustainment and enhancement of a culture of continuous improvement beyond the initial wave of enthusiasm". After an inspiring address Jim left the audience with the following key message: "Projects will deliver

improvements and benefits. However, unless employees are developed and engaged in the journey, then improvements will not be sustained and the necessary problem solving-culture will not be embedded"

The event was a great success and, judging by the numbers present and the fact that each sector of the industry was represented, it is obvious that there is growing interest within the sector in how to make positive changes to the way we carry out our business.

### **BIM and Geo surveying**

The many benefits of BIM to our industry have already been explained by people with a much better knowledge than I possess, so I'm not going to pretend to understand it all and fill these pages with waffle. What

I will say though is that since we have started using the BIM process for designing services in conjunction with 3D laser scans, we have seen much greater accuracy of design and much increased confidence from our trade teams to fabricate to these designs without checking everything in advance.

Our Geo-surveying Division provides a fast, efficient and reliable way for the trade teams to set out their work, knowing that they do not have to take into account discrepancies that may exist with finished floor levels or column sizes and locations. 3D laser scanning is also saving time for us by removing costly access systems required to survey areas prior to design.

### **Constantly ask why?**

By empowering everyone within the company to ask why, we will continue to expose areas that can be streamlined, and identify systems that are not operating as efficiently as they could be.

Introducing change into an established industry like ours is a slow and challenging process but, if we take the view "If it ain't broke, don't fix it", we will not be around for another 125 years. ■



Richard Fitzpatrick, Chair, LCI Leadership Group with Tom Parlon, Director General, CIF and Jim Curley, CEO, Jones Engineering Group.