

## **The Tale of Two Companies – August 2003**

While everyone was at the beach I was invited to visit two contrasting companies. Both are enthusiastic about lean. Both are progressive, multi-national companies committed to modern business practices. One really understands what lean is about while the other is still struggling to grasp what lean has to offer. It struck me that we can learn a lot from their contrasting experiences.

The first company assembles several different types of machinery on separate lines in modest volumes. The plant is modern, well laid out and clean and suppliers deliver sub-assemblies in the planned sequence direct to the assembly track. But the work pace is relaxed as they are running well below planned capacity. However they are building to replenish several weeks of dealer stock and production is fixed three weeks in advance. The total stock turn for the whole system, including suppliers and dealers, is low and has not budged in recent years. Moreover they are worried that they may not be cost competitive in the market place, which was the reason for my visit.

For several years they have run a big Six-Sigma programme, with many staff trained as Black Belts and an impressive project management system. Recently they bought a copy of Learning to See and began to map their overall process for the first time. It was a revelation to them; no one had ever looked at their high-level process in this way. They then drew Current State maps for each assembly line and after a few days brainstorming identified over ninety possible new improvement projects! In true Six-Sigma fashion they plugged these into the project management system to prioritise them by the estimated cost savings and set their Black Belts to work.

However the Plant Manager, correctly, had a sneaking feeling that there is more to lean than this. A quick look at the list of projects that are underway revealed the truth – very few of them would make much difference to the total lead-time from placing an order, transmitting this back upstream to the suppliers and building the product and delivering it to the customer. Most of them were focused on improving the capability of individual operations, rather than linking them to improve the velocity of their production system. No doubt these projects will help improve their defect rate (although they already extensively test their products at several points in the assembly process) and their on-time delivery to their dealers stock yards. The only project to compress overall lead time was a top management edict that they would move to building every product to

end customer order, within a three week timeframe. However there was no clear plan as to how this was to be achieved.

The second company assembles several different types of consumer electronic devices for the retail and professional markets. A few years ago in response to competition from other plants within the group in lower wage locations, they decided to radically overhaul their operations using lean principles. Their goal was to be able to make every product every day so they could ship them to dealers the next day, and to have their main local suppliers totally synchronised with their production lines. This was a big leap from the several weeks of WIP and finished goods they ran with in the past.

They designed a series of quite different assembly lines and cells, each tailored to the mix and volume requirements of each product family. They also reconfigured their electronic board stuffing machines so each machine makes all the boards for one product family. These now only make boards when one of four karts arrives back empty from their assembly track. Likewise their local suppliers can access their equally innovative real time production monitoring system so they know exactly what to make and ship in the next delivery. Staff from the supplier actually check and load the parts on to the first station of the assembly track, closing the loop on quality.

Beyond this they have now pulled all their finished goods stock back to the plant, closing several regional warehouses, and brought engineering and customer service activities on site. Value Stream Managers are now responsible for leading the engineering, production, procurement, distribution and customer service for each product family, supported by the functions. They are now very close to achieving their goal of making today what they need to ship tomorrow – at the moment still to the retailer, but very shortly in many cases directly to the customer's home! No other plant in the group can now match their ability to serve the UK market.

There are three lessons we can learn from these two examples: First the real point of time compression is not just escaping from double-guessing forecasts several weeks out and being able to respond to customers more quickly and exactly. Time compression is also the most powerful way of squeezing out waste and variance from the ordering and production system – for once and for all. Integration has to be built on higher levels of capability – and if it starts to degrade, as it will when you are not

watching, it is immediately visible because it stops the whole system!  
And you know exactly where to go to work next.

Second it is true that implementing lean starts with mapping the Current State and asking the right questions to drive the actions to achieve a Future State. However developing a strategic vision of where lean could take you starts with developing an Ideal State, in which time is compressed to the bare minimum and actions are only triggered by demand from customers. Our second example was only following Toyota's lead in working backwards from that ideal. This may be far off in your industry – and may require some challenging thinking to get there – but it points our actions in the right direction.

Third, armed with such a vision of what it will take to compress time, we should make this a criterion in the selection of projects to work on. No question that we should develop a business case for our lean actions. But we cannot do everything at once. The real bottom line gains come from a sequence of actions that involve reconfiguring and compressing the value stream. And doing it again and again and again.

But...I hear you say...this is all very well...but my customers are unpredictable and sales are volatile...and my suppliers need time to respond...and our new production control system makes this impossible. OK, so there are many difficult issues to work through to make lean a reality. We will return to these in future letters.

However lean is also not rocket science and there is a growing body of practical experience to draw on from people who have done it themselves, both at the operational and the strategic level. Our objective is to help make this available to a wider audience, through our workbooks and workshops, in order to help others follow the example of our second company. In my view their example points the way to a viable future for lean manufacturing in the UK.

Yours sincerely  
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