

Lean Enterprise Academy



LEA e-letter – 7 November 2006

Changing Reasons for Going Lean

Dear Lean Community Member

Two questions from very different perspectives illustrate how the reasons for going lean are changing. First from Denmark, where a few years ago they were very worried about losing manufacturing jobs to low wage countries to the east. Since then Dansk Industri, the national industry association has run one of the most successful campaigns I have seen to encourage their members to go lean. As a result they are not just retaining manufacturing jobs in Denmark, but they are also running out of people to fill manufacturing jobs! At the same time they liberalised their labour market and unemployment is now very low, even amongst young people.

So their question was “how can we use lean to enable our existing employees to produce two or three times as much in the future?” As population ages and declines in many European countries, as well as in Russia and Japan, this question will be asked more frequently. We are going to need to find ways to produce the goods and deliver the services with less people, or to increase immigration. To achieve this means going beyond streamlining today’s processes and fundamentally redesigning tomorrow’s products, production processes and supply chains.

The second question was from a group of very senior managers from China. They are very enthusiastic to embrace lean, and could see how lean can help make locally produced goods more affordable to local consumers. But they realise that to meet the growing economic aspirations of their citizens they will have to do so in ways that require fewer resources and that create less environmental pollution and greenhouse gasses. So they were interested in “how can they use lean to save resources and avoid pollution?” In other words, how can lean help us also become green?

Lean thinkers are used to tracking the time and effort as a product moves through an organisation and to distinguishing the few minutes it takes to create the value customers are paying for from the month or more that it spends in the organisation. Compressing throughput time from several months to a few days clearly requires far less space and energy. It almost certainly also uses less materials and produces less scrap and obsolescent stock. The ability to produce in line with demand also reduces the inventories (and hence storage space and energy costs) in the pipeline all the way to the end consumer.

But the really significant gains come from compressing supply chains by relocating value creating steps closer together, and where possible also



Lean Enterprise Academy

LEA e-letter – 7 November 2006

closer to customers. Most organisations are unaware that their products take between three months to a year or more to travel through their current supply chains, often going back and forth across the globe before reaching the customer. Although current wage cost differentials and low transport costs encourage this trend, if we look at total supply chain costs much of this does not make economic sense, as we described in *Lean Solutions*.

If we also start tracking the energy and emissions from all the processing, storage and transportation steps across supply chains and convert them into units of CO2 per product we will also be able to see the environmental footprint of each end-to-end supply chain. We know from earlier work that the most polluting part of the supply chain for consumer goods is the trip to the supermarket and then storing the goods in our refrigerators and freezers at home until we eat them. But it also shows the choices we will increasingly have to make between for instance air freighting more and more products across the world or enabling people to fly across the world.

Beyond this the next step is to fundamentally rethink the product. A few weeks ago, tucked away inside the Financial Times I noticed a very interesting quote from the R&D Director of Toyota. He announced that their third generation hybrid engine to be launched in three years time would be “half, the size, half the weight and half the cost” of the current generation engine in the Prius. With characteristic understatement he said he thought a lot of people “might be quite surprised at this”.

They should not have been – Toyota began their green technology quest back in 1990 when Eiji Toyoda, the post war genius who built the post war Toyota, questioned whether it was a good idea for Toyota to keep making cars with conventional technology. At each stage Toyota has clearly announced their green intentions in their Annual Report – which everyone ignores - and then fulfilled them! Will the next generation diesel engine make such a dramatic leap in resource use and cost? What preparations are your organisations making to meet the green challenges of the future?

Yours sincerely

Daniel T Jones

Chairman, Lean Enterprise Academy