

# Lean Enterprise Academy



LEA e-letter –8 May 2007

## From Supply Chains to Value Streams

Dear Lean Community Member

Fifteen years ago I first began to study lean supply chains, by observing Toyota's inbound parts supply chain and later their aftermarket parts distribution system. This was the beginning of a fascinating journey with Unipart, Tesco and many other firms, during which we learnt a great deal about assembling all the elements that transform a supply chain into a value stream that flows towards the consumer in line with demand.

It is very encouraging that interest in lean supply chains is growing again. Many manufacturers are now ready to extend their lean efforts to their suppliers. Leading retailers are also challenging their suppliers to produce and ship in line with their lean distribution systems. As lean takes root in healthcare delivery organizations their suppliers will also come under similar pressures. Despite their differences, the issues to be addressed in turning their supply chains into value streams are very similar. Here is my list of six questions that need to be addressed in any supply chain.

First ask why, if it only takes minutes of value creating time to make a product and only a few days to ship it to consumers, are our supply chains typically several months (or even years) long? Even if we add a few days buffer stock to cope with real variations in demand from end consumers the gap is still huge – a few days compared with several months. You only need to walk and then map your supply chain from end-to-end to see the scale of the opportunity.

Second, ask what can be done to close the gap between the use of the product and when and how it is ordered or purchased? For example, we have been staggered to see the amount of supplies hidden away in cupboards in every hospital ward – literally thousands of pounds worth - all because of the rather chaotic reordering and unreliable and infrequent delivery from central stores. This is not only extremely wasteful but means reorder signals sent to suppliers bear very little relationship to actual use in the ward or theatre. The closer the order signal is to actual use the less volatility is passed upstream and the smaller the buffer stock required to guarantee availability.

Third, ask what can be done to increase the frequency of production or delivery at every point down the chain? Picking up just the right amount of products from several suppliers on milk rounds rather than waiting for several days for suppliers to send you a full truck means you need to carry less cycle stock. It also levels the workload, improves the accuracy of picking and delivery and results in much better truck utilization.



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Fourth, ask how to synchronize the rate of production with the pattern of demand? In our experience this begins with digging behind the point optimization, the short-term plan changes and the fire-fighting to discover the underlying stability in our order and product flows. Then it involves establishing a common rhythm to make and to ship Every Product Every Cycle (EPEC). Then it involves using the lean tools to speed up the cycle from roughly every month to exactly every week and ultimately to making and shipping every product required by consumers every day. And finally, it involves linking every step in a dramatically compressed flow that responds quickly and accurately to demand. As a result you need to carry less safety stock at each point down the value stream.

Fifth, ask what are the win-win gains that will encourage partners to work together that can only be achieved through collaboration – both between functions and between firms? The biggest win-win is often smoother order signals in return for closer synchronization of production with demand.

Sixth, ask who is going to be the architect of this end-to-end value stream redesign? Who is going to put all the pieces of the value stream together? Who will take the tough decisions about the appropriate division of labour, the right degree of risk-sharing and the correct location of suppliers to enable the value stream to flow?

Being able to respond quickly and exactly to local customers is a critical competitive advantage for all kinds of manufacturers in advanced economies. It is interesting that this responsiveness is achieved by focusing on stability and time compression, rather than flexibility and fire-fighting. And it ends up costing less rather than more!

Turning supply chains into value streams does not happen overnight. It takes time and requires a clear overall vision of where you are going and an understanding of the most effective sequence of actions to get there.

To help plan your lean supply chain journey we decided to bring our knowledge and experiences together for the first time at our first Lean Supply Chain Forum. This will take place in Birmingham one month from now on June 5<sup>th</sup>.

Those booking early will also be able to join us to visit one of the best lean warehouses at Unipart in Bagington, near Coventry, the day before, followed by dinner. We look forward to seeing many of you there.

Yours sincerely

***Daniel T Jones***

**Chairman, Lean Enterprise Academy**