

Dear Lean Community Member,

Beyond Cost Cutting

What is in your plan for going lean over the next year? Do you still think of lean as just a programme for eliminating waste and cutting costs? Have you woken up to the full potential of applying lean thinking to every process in your business?

Toyota's latest Annual Report just arrived on my desk. While most Annual Reports are really boring, Toyota's are in my view essential reading. Every year it spells out with absolute clarity what Toyota intends to do over the next year. And then it goes ahead and does it! It seldom misses a target and is quite frank about the challenges it faces, which it calls its new frontiers. Think of it as a high level summary of their A3 reports on the plans they are working on right now.

The first new frontier is its investment in new engine, safety and driver assistance technologies. Toyota was always thought of as a conservative follower taking incremental steps forward, rather than as an innovator. However times have changed. In engine technology, it is already way ahead of the competition with its second generation hybrid powered car, the Prius. Hybrids are going to rival diesel engines as the power source of the future, particularly in North America, where they will appeal as the "guilt-free" large car or truck. Toyota began its "out of the box" thinking about green technologies many years ago. It has now shown that its lean product development process can turn these innovations into marketable products faster than anyone else. What are you doing to anticipate, rather than follow the challenges from your marketplace?

Second on their list is production engineering. Here their slogan is "Lean and Simple". They are rethinking every one of their production processes, so they can be redesigned to save cost and so they can be used by less experienced employees in their new facilities across the world. This means for instance "reducing die casting, forging and plastic injection moulds to between one third and one tenth of their original sizes", and "reducing the length of their new engine lines by between two thirds and five sixths". This is also "out of the box" thinking.

We should not miss the significance of this development. Most engineers designing new equipment (the same applies to new software systems) still dream of the even bigger, better, faster and more capable machine. As a result you often see the ridiculous situation of a huge line of big machines

stretching across the shop floor making a piece that can fit into your hand!

I recently visited just such a plant in Germany, where they love bigger machines. Luckily this firm now realises that bigger machines are not the future. Like Toyota they are busy designing simpler, cheaper and more manual systems for their next generation products. They also showed me some prototypes of their next generation modular, desk-top machines that can be combined in any sequence to make a wide range of small products. These machines also require less operator knowledge and can be moved round the world very easily.

This greatly facilitates the compression of each value stream, so that as many value creating steps as possible can be placed close to each other. Not only are these clever but simple machines less expensive, but capacity can be added (and removed) in smaller increments to mirror changes in demand over the lifetime of the product in each region.

Perhaps the most interesting thing is that designing smaller, smarter and simpler machines is an even more exciting challenge for the next generation of engineers than designing the next even bigger machine. In my view every business is going to have to think about this in the future, rather than relying on general purpose machines bought off the shelf. Are you working to rethink and simplify the design of your equipment and production systems for the future?

In addition to this “out of the box” thinking Toyota is continuing its aggressive cost reduction programme and increasing its capacity round the world by leaps and bounds, particularly in China. This global expansion presents Toyota with its biggest challenge, developing enough managers and engineers to run all these operations with sufficient knowledge of the Toyota Way. To this end Toyota has established the Toyota Institute to train future leaders and a new Global Production Centre at its Motomachi plant to train managers to run its plants across the world.

Many of you will have heard that Toyota attributes its success to brilliant processes and to a production system designed on lean principles. However this in turn is underpinned by a deep knowledge base of problem solving and process redesign. This knowledge is built up as every employee goes through successive rounds of problem solving and root cause analysis, which are captured in a common format, an A3 report. It will be a challenge for Toyota to speed up this knowledge

acquisition by new employees from new locations without diluting their performance.

Following Toyota's example it is clear that the big gains from lean come from feeding back lean knowledge into the design of the next generation product and equipment – and from thinking “outside the box”. The real question is how much time and effort you are planning to invest in making this next lean leap, beyond today's cost cutting?

Jim Womack and I will be picking up several of these themes at the Lean Management Summit in Aachen, Germany on 11-12 November. I wish you the best of luck in thinking through your lean plans for next year.

Yours sincerely
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PS. You can download Toyota's Annual Report from www.toyota.co.jp, where you might also enjoy visiting Planet Kaizen. Details of LEAs new workshops in December can be found at www.leanuk.org and for the Lean Management Summit in Germany at www.lean-management-institut.de.