



The TOC-Lean Forum

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Links

www.toc-lean.com

(ready in December)

Launch of the TOC-Lean Institute

October 30th 2006 sees the launch of the TOC-Lean Institute in response to a real need for information and analysis related to these two powerful tools for business improvement. Many companies have already embraced lean into their operation – attacking waste and trying to make an improvement to the bottom-line. This also applies to service organisations such as the health service and schools.

For many companies the implementation of “lean” has become a critical aspect of their operation – yet many companies also report that their lean initiatives have not led to the expected bottom-line improvements! At the same time it is also accepted that the range of tools and techniques contained within the Lean toolbox are powerful when used in the correct manner. This suggests that many companies are perhaps using tools in the wrong place. Few people would try to plaster a wall with a screwdriver, and few would try to tighten a bolt with a paintbrush, which implies that it is essential to pick the right tool for the job and be an expert in its use.

Using the focusing power of the Theory of Constraints (TOC) can sort out the toolbox – with dramatic results. TOC techniques are able to identify the priority areas and concentrate improvements where they will have the most impact on the overall performance of the company. TOC methodology works perfectly well with Lean, helping to identify the right tool for the job and guiding people through the application in order to achieve better global performance. TOC-Lean thus provides a high degree of focus which is both in tune with reality and achievable on a practical level.

The TOC-Lean Institute is being launched, to promote the benefits that the fusion of the Theory of Constraints (TOC) and Lean techniques can bring to both manufacturing and service industries. The TOC-Lean Institute, founded by Dr Ted Hutchin, a qualified TOC expert across all applications with the TOC-ICO and a TOC practitioner with 20 years experience of implementing TOC and Lean in companies throughout Europe, will provide a range of services to highlight the power and capability of TOC-Lean.

The goal of this not-for-profit venture is to encourage people to learn more about how the combination of TOC and Lean can deliver improved service, better profitability and higher Return on Investment.

The Institute will initially focus on the following four strands of activity:

1. The development of the “**TOC-Lean Forum**” as a regular channel for disseminating knowledge about the applications of TOC and Lean.
2. The establishment of a “**TOC-Lean Library**” to enable members to access resources such as; research studies, case studies, white papers, and other knowledge in order to improve their understanding of both TOC and Lean.
3. The promotion of briefings, seminars, and workshops to enable members to learn more about the various tools of both TOC and Lean, and importantly how they work together to generate greater value.

4. The facilitation of an annual “**TOC-Lean Conference**”, the first of which will be held within the UK during October 2007. The Conference will enable delegates to hear about actual implementations, attend workshops and seminars, learn about new developments, and access new and developing areas of knowledge.

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Membership of the TOC-Lean Institute is free, and new members may simply sign up with their name, company, address and e-mail address, at the Institute's website – www.toc-lean.com once it has been fully set up. For the next few weeks the Institute will be using the I & J Munn web site at www.constraintmanagement.co.uk and e-mails can be sent through to Dr Hutchin at tedh@constraintmanagement.co.uk. Members are entitled to receive the TOC-Lean Forum monthly e-mail newsletter, and will receive invitations to the various events and conferences organised by the TOC-Lean Institute. Members will also have access to the on-line TOC-Lean Library which provides research papers, white papers and case studies that will enable members to examine just how this powerful combination can substantially improve their businesses.

Lean Issues

The key lean principles lie at the heart of any lean implementation.

1. **Specify value from the perspective of the customer:** which also means that we need to define the customer and also the supply chain in which they sit; a key aspect here is that high levels of due date performance (>95%) and a reducing lead time have a beneficial impact on both the company and the market.
2. **Identify the value stream:** all processes along the chain must be included, this is key to the identification of the weakest link in the chain.
3. **Make value flow:** in other words keep material flowing as much as possible from the supply base to the client. Again this is linked to the importance of addressing issues related to due date performance and the reduction of the overall lead time both being crucial dimensions within any TOC-Lean environment
4. **Pull:** pull in line with demand and schedule accordingly, which is why all schedules in a TOC-Lean environment start with the due date and volume of customer orders and work back to the release point – pull not push.
5. **Perfection:** this is where the concept of zero defect is both understood and applied. The tools and techniques of quality management must be implemented, and the primary focus is at the constraint operation.

The key wastes usually associated with lean are as follows:

1. **Waste of overproduction:** don't make more than is required by the schedule.
2. **Waste of waiting:** just ask how long does it take to make the product and then ask what are sales quoting for delivery, research shows that actual time to make the product is about 10% of the overall quoted lead time from sales – so what is happening the rest of the time?
3. **Waste of transporting:** How many times does material get handled/moved when it should not?
4. **Waste of inappropriate processing:** often an example of over-engineering, using more than is necessary to achieve the objective.

5. **Waste of unnecessary inventory:** How much WIP is there in the system, and what impact does this have of due date performance, lead time and loading on most machines?
6. **Waste of unnecessary motions:** this is where ergonomics has a role to play – it is also becoming a Health and Safety area to be watched closely
7. **Waste of defects:** many companies today still measure quality in parts per hundred – yet leading “world class” companies are reporting defects in terms of parts per million or better.

In the analyses of Lean implementations there is clear evidence that even when the principles are fully understood and the waste definitions also understood there is still a gap between the level of activity in implementing lean and the end results. This suggests a missing dimension, one that is provided by the Theory of Constraints – focus.

What is TOC?

The Theory of Constraints (TOC) is one of the most powerful tools of analysis available to any company. First described within the best selling book *The Goal* by Dr Eli Goldratt, the TOC is rapidly gaining world-wide recognition through such programmes as *Viable Vision* which sets out to turn the current level of sales turnover into profit within four years, an approach that has taken up with great speed in countries such as India and China and also the USA, Europe, South Africa and South America.

The starting point for any analysis using the TOC centres of the five steps of focusing:

Step One: identify the constraint: This is the weakest link in the chain from supply to market, it might be a physical resource, or it might be a set of policies or rules.

Step Two: exploit the constraint: Once the constraint has been identified, make it work, attack waste – but make sure it is doing the right work (effective not efficient)

Step Three: subordinate all decisions and operations to the constraint: make sure that all other activities and functions within the organisation support the operation of the constraint area, this applies to every function within the organisation without exception!

Step Four: elevate the constraint: once the constraint is under control and the organisation is stable, it is possible to elevate the constraint which often means.....

Step Five: prevent inertia – if a constraint has been broken go back to step one: elevation will usually mean that the constraint may well have moved so go back to step one and keep going round the loop – this is now a process of on-going improvement.

Following these analytical steps provides the data necessary to use the lean tools and techniques in the most productive manner. Research has shown (see below) that when the TOC is used as the focusing tool for both Lean and Six Sigma substantial results are achievable. This is where the new TOC-Lean Institute sets out to meet a need in the market for information about both TOC and Lean, access to research papers and other published material, and the promotion of seminars and briefings by I & J Munn Ltd who have many years experience in implementing TOC and Lean solutions throughout the UK, Europe, the USA and more recently Australia and New Zealand.

The need for the TOC-Lean Institute

The 2001 report by the eef “Manufacturing, at the Crossroads” studied the reasons why US companies were generally observed to be much more productive than their counterparts in Europe. The report reached the following conclusion:

*“The Theory of Constraints along with Lean Manufacturing was a leading factor in the ability of the USA manufacturing industry to create wealth”.
(p11)*

More recently, the May 2006 APICS journal contained an article entitled “Continuous Improvement Trio” which studied the results attained by various improvement techniques in a global electronics contract manufacturing company with 21 plants, and 45,000 employees. A total of 211 improvement projects were established across the company using three primary toolsets – TOC, Lean and Six Sigma. Each individual project leader, however, was empowered to choose which tool or tools they wanted to apply on their project. The improved bottom line results were then compared to evaluate the benefits each toolset had brought. Of the total results, 89% of the bottom line improvement came from projects which had used a combination of TOC with either Lean or Six Sigma or both. Results from Lean or Six Sigma projects on their own produced only 4% and 7% of the bottom line improvements respectively.

The increasing pressures of competition for UK and European companies mean that the bottom line benefits which TOC-Lean can deliver cannot be ignored. Lean techniques are being widely taken up by manufacturing and service industries alike, but as the above article shows, this by itself does not guarantee the levels of financial improvement which companies are lead to believe can be achieved through Lean techniques by themselves.

The TOC-Lean Institute aims to bridge this knowledge gap, and thus empower companies to achieve rapid and sustainable improvements to their bottom line.

Forthcoming Events from the Institute

We have a programme of seminars and briefings scheduled between now and the Christmas break. They are all being presented at our training centre in Melton Mowbray, details of which are listed below:

30th November – *The Goal breakfast*, come and join us at our training centre for a bacon bap, mug of tea or coffee and the chance to see the Goal Video, based on the best selling novel by Dr Eli Goldratt, followed by discussion as to how it can be implemented in your company.

Time: 07:45 – 09:30

Fee: £30 (ex VAT) per person

11th December – *The Goal breakfast* (as above)

11th December – *Critical Chain Project Management Seminar*: introducing the basic concepts of the Critical Chain approach to project management and new product introduction.

Time: 13:30 – 16:30

Fee: £95 (ex VAT) per person

12th December – *Operations Seminar*: introducing the key concepts of the TOC-Lean approach to operations management, showing how the lean principles and the five steps of focusing link to become a powerful methodology for managing a manufacturing company.

Time: 09:00 – 12:30

Fee: £95 (ex VAT) per person

12th December – *Finance and Measurements Seminar*: introducing how Throughput Accounting offers a new and dynamic approach to the process of measurements within any manufacturing company.

Time: 13:30 – 16:30

Fee: £95 (ex VAT) per person

13th December – *Lean Seminar*: introducing the lean concepts with a TOC-Lean spin! The seminar will cover key aspects of lean which are enhanced through the use of TOC's five steps of focusing. It also places the key lean concepts into a robust methodology for improvement.

Time: 09:00 – 12:30

Fee: £95 (ex VAT) per person

13th December – *Supply Chain Seminar*: discussing the importance of supply chain from a TOC-Lean perspective. The seminar will cover core issues including how to manage the interconnection between the different companies within the supply chain, drawing on work carried out by Dr Hutchin within the aerospace industry.

Time: 13:30 – 16:30

Fee: £95 (ex VAT) per person

14th December – *Lean Breakfast Briefing*, just like our Goal breakfast but this time focusing on Lean, so again come and have a bacon bap, mug of tea or coffee, listen to the short presentation and then enjoy the discussion.

Time: 07:45 – 09:30

Fee: £30 (ex VAT) per person

Booking is done through the Institute office in Melton Mowbray: contact either Diane Jeary or Suzie Hand on 01664 502860, or by e-mail to dianej@constraintmanagement.co.uk