Lean & Green

Professor Peter Hines looks at the eight green wastes

A customer driven approach to supply chain strategy
Dr Janet Godsell, Cranfield University

How Roland UK took a customer led approach to developing their growth strategy

Staying Lean wins Shingo Prize
Welcome
to the home of Lean thinking.

Hello once again. In this, our third edition, we continue our journey around the Lean Business Model and look at how, through Value Stream Management, it is possible to deliver true value in the eyes of your customer.

Professor Peter Hines talks to us on the subject of Lean and Green, what it is, and what a Lean and Green organisation might look like.

I’m also delighted to welcome a contribution from Dr Janet Godsell of Cranfield University and offer my thanks to Roland UK for providing us with our case example for this edition.

If you would like to contribute an article for a future edition of Source, or would like to discuss or give feedback on any of the articles within, please do contact me at dale.williams@sapartners.co.uk

Until the next edition.

Dale Williams
Managing Partner

Stop Press – Staying Lean wins Shingo Prize

The publication *Staying Lean: Thriving not just Surviving* has been awarded a Shingo Prize for Research. The prize, named after engineering genius Dr Shigeo Shingo, is considered the “Nobel prize of manufacturing” and recognizes world-class research into the application of Lean principles in core manufacturing and business processes. For information about the book, related events and to order your copy, visit www.sapartners.com
It was just after the turn of the millennium that Jim Womack wrote: “Lean thinking must be “green” because it reduces the amount of energy and wasted by-products required to produce a given product...Indeed, examples are often cited of reducing human effort, space, and scrap by 50 percent or more, per product produced, through applying Lean principles in an organisation.....this means that...Lean’s role is to be green’s critical enabler as the massive waste in our current practices is reduced”.

However, apart from a strong movement in the west coast of the United States, progress seems to have been slow on this Lean and Green journey. This is in spite of the relentless march of Lean Thinking across industry sectors and the heightened awareness of green through high profile activities such as the Stern Review.

One of the first to put the green agenda on the map was the then Norwegian Prime Minister, Dr Gro Harlem Bruntland when she introduced the concept of sustainable development, describing it as being made up of three areas: economic, social and environmental sustainability. For a typical company or organisation we might translate this as a focus on a ‘respect for profit’ (economic), ‘respect for people’ (social) and ‘respect for environment’ (environmental). Where to position your business is a matter of choice. However, those students of Lean Thinking who have achieved more than fleeting success will know that to achieve economic success you require a major focus on your people. Taking a further step to encompass the environment seems only logical as this can also yield both economic and social benefits.

To think in very simple terms:

- Lean might be described as understanding customers’ needs and values and then reviewing the value streams that produce them so that the traditional eight wastes can be minimised.
- Green might be described as understanding society’s needs and values and then reviewing the system that delivers them so that the environmental wastes can be minimised.
The home of Lean Thinking 3

Lean & Green

So what is the difference? Well apart from the fact that individual customers are multiplied to become society and the environmental wastes have a slightly different character than the traditional lean wastes, not a lot.

To unpack this a little further, the traditional eight lean wastes consist of:

• Overproduction
• Defects
• Unnecessary Motion
• Unnecessary Inventory
• Inappropriate processing
• Transportation
• Waiting and
• Lost People Potential

The eight green wastes can be categorised as:

• Greenhouse Gases
• Eutrophication
• Excessive Resource Usage
• Excessive Water Usage
• Excessive Power Usage
• Pollution
• Rubbish and
• Poor Health & Safety

Although these wastes have different types of categories, both sets are designed to increase the efficiency and effectiveness of the value stream or system. In order to do this a traditional lean thinker would seek to map out these wastes in order to identify how they might be reduced or eliminated.

After many years of working with Value Stream Mapping we have found that there is no such thing as the ‘right’ tool to do this. It takes a combination of diagnostic approaches, all with their strengths and weaknesses. (Figure 2).

Figure 1

Figure 2
In a similar way there is no single ‘right’ green mapping tool, more a range of approaches for different stages of the process. Although space here does not permit us to illustrate all of these, it might be useful to have a look at one of the simpler tools, Green System Boundary Analysis, a tool used to great effect by carpet tile maker Interface. (Figure 3).

What we are doing with this tool is looking at a balance of how much material is put into the firm (in terms of raw material, energy and water), how much (gaseous, liquid and solid) waste is produced and consequently how much good product is made. A simple calculation can then show what percentage of good product is made by weight. In this example 219kg of input produces 143kg of waste and 76kg of good product, a system efficiency of 34.7%. This Current State Map may be used as a basis of a Future State Map where this is increased to 50% plus.

Of course, rather than seeing the lean mapping tools as completely separate toolkits they might be used in combination. Indeed, the traditional lean mapping tools are also likely to reduce a firm’s environmental impact and the green mapping tools will also help financially.

In this short article we will now look at integrating the lean and environmental toolkits for improvement activity. Let’s explore a Lean & Green Model of Excellence. In true lean style we will use a house structure. (Figure 4).

The Lean and Green Model of Excellence has at its base clear strategic foundations out of the Strategy Formation activity. Upon this are built the control platforms of managing by fact, workplace organisation and standardised stable processes. Above this now sit three pillars:

- **Delivery**: how to create perfect delivery through application of the traditional lean principles of pull and flow
- **Quality**: how to create the perfect product at source – the often forgotten pillar within Lean Thinking
- **Environment**: how to work in an environmentally efficient and effective way

The approach is capped off by a focus on people to ensure teamwork, continuous improvement and high levels of engagement.

Of course working on Lean and Green requires far more than the focus on value, waste, mapping and implementation tools described here. However, this might be a useful starting point for you to think about how this integration might work in your business.

For further information or details of forthcoming courses on Lean & Green please contact Professor Peter Hines at peter.hines@sapartners.co.uk or visit www.leanenterprise.org.uk and www.sapartners.com.
Tell us a little about yourself.

I was born in Salisbury in the late sixties and I’m married and have two children. We moved to a small village in the Vale of Glamorgan, South Wales about ten years ago.

And your education?

I went to Bristol University where I studied my degree in music. I had an interesting first six months. Two weeks after I began my degree I was invited to tour with Rowan Atkinson and Angus Deayton for six months. I was keen to carry on with my degree, but didn’t want to pass up this opportunity – so I did both. A musician by night, and student by day!

How has your career path developed?

I’ve travelled the road from failed rock star to becoming a ‘proper’ businessman. As a struggling musician I decided to work in my local music shop as a means to obtaining discounted equipment (I’m a keyboard player and so have to have all the mods) on my way to building a band and composing my own music. But after two years, I got hooked on the musical equipment side of the business.

I set up a business taking music into schools. Within eight years, this became a nationwide business which had links with Roland. I’d long been impressed by Roland – the company is all about...
people, partnerships and passion and after Roland had gone through a management restructure, I approached them to see if they had any vacancies. They didn’t, but the Managing Director created a role for me in the education team. Moving on, I built a new division in home pianos and keyboards, and worked on to become General Manager, Commercial Director, and as of April 2009, I’m the Chief Operating Officer.

What has been your career high?
For me it’s that I’ve been able to meet my aspiration of working for Roland. Roland UK is a subsidiary of a global organisation, and we are truly a global community. When each region comes together, we behave and operate as a team. We call ourselves ‘the Roland family’; and we behave in a family way. It is very real, and highly exciting, I’ve enjoyed the role of Commercial Director during this last year too, as I’ve finally been able to work across the entire range of musical equipment that we supply.

Can you share an interesting fact about yourself with us?
Music is one of my passions, and fireworks is the other. I’ve always loved putting on firework displays for my sons and a few years ago I realised that this didn’t have to be confined to bonfire night, so I asked a local firework company if they needed any help. They trained me up and now, several years later and on a part-time basis, I develop firework displays that run in time to music, all triggered from a laptop. My displays are well known on my local village calendar and the company I assist, G-Force Fireworks, is competing in the British Firework Championship finals in Plymouth this year. Winning will result in the World Championships in Hong Kong.

How did you discover Lean?
I first heard of Lean when I met Dale Williams of S A Partners. Traditionally, it’s associated with manufacturing companies but Roland UK is a sales, marketing and distribution organisation. Since we carried out our customer value exercise, we’ve gone onto use Lean in our strategy formation and are using The Business Hub as a deployment tool. We’ve also run Lean workshops within the business to begin to embed the philosophy further.

What has Lean done for your business?
The first principle of Lean is ‘Listen to the voice of the Customer’. Having adopted this principle, we discovered things about our customers that we’d never have known. Armed with this knowledge, we’ve built a strategy that will deliver our customer needs, and have been able to cascade this strategy throughout the organisation. We’re all working towards the same goals and crucially, we all understand our contribution to those goals.

And your people?
It’s been amazing. Only a few weeks after the workshops, our staff are already using a different language, thinking in terms of waste and how they might operate more efficiently. And not a manufacturing machine in sight!

“on a part-time basis, I develop firework displays that run in time to music, all triggered from a laptop.”
Focus on Lean: Value Stream Management

The secret of successful Lean transformation is taking a fully integrated and holistic approach to business wide continuous improvement. Following validated research work carried out by Professor Peter Hines in Toyota Motors in 1994 and the subsequent years of practical application S A Partners has developed a proven approach which we call the Lean Business Model (LBM) (See Figure 1).

Value Stream Management (VSM) is the centre piece of our Lean Business Model approach, and is often seen as the touch point for integration with the other four elements of the Lean Business Model whilst helping to provide focus and drive for continuous improvement.

Value Stream Management (note: not just Value Stream Mapping) helps to ensure improvement is managed through processes and value streams, delivering outstanding customer value with minimum bureaucracy and waste. The approach comprises of three key elements (Figure 2):

- **Understand strategy and Customer Value**
- **Mapping to identify waste**
- **Managing to the future state result**

**Understand strategy and Customer Value**

In discussing Value Stream Management we often hear the phrase “learning to see”. This refers to the need for leadership teams to see the whole enterprise and align the strategic goals of the business with the current and future needs of its customers.

VSM provides the approach and diagnostic techniques to help us collect all relevant data and to convert that data into useful information. By aligning this information with strategy and customer value, we gain the insight to ensure we make appropriate improvements in the right areas of the business (See Figure 3).
To better understand this, let’s start with establishing what the core business processes are within the organisation. These may vary from business to business. Typical, and not exhaustive key business processes include:

- Order fulfilment – sometimes described as order to cash and covers product and/or service offerings
- Order creation – all of the activities needed to win new and extend existing business
- Innovation – the research and development of any offering from concept and trial until it becomes part of the business portfolio of offerings.

Core processes are also supported by some enabling processes such as People, Technology and Continuous Improvement all of which need to be aligned with strategy (See Figure 4).

Understanding key business processes is not enough and to fully maximise Lean business potential it is critical that we also understand the value streams in which they operate.

A key starting point is to look at the product/service offerings and break them down into family groupings and the variety of routes to market that they may have. Having established this we can then analyse each family grouping/route-to-market through a number of strategic lenses, for example:-

- **Volume** – High/Medium/Low
- **Growth** – Positive/Neutral/Negative
- **Margin** – High/Medium/Low

We can now begin to ask some questions around the various markets/customers served through the value streams and what the differentiating customer value criteria might be.

This analysis should begin to provide us some clarity around what our key value streams and supporting processes are, and more importantly where our improvement emphasis needs to be focused given the specific needs of the customers being served.

In order to capture true customer value insights, a more in-depth approach should be taken to help fully understand the “Voice of the Customer”. S A Partners use the Insight tool. By asking face-to-face open questions with a range of customer stakeholders the Insight tool is able to help establish key value criteria and measures performance against customer expectations for each of the value criteria.

### Mapping to identify waste

In Lean terms the product and/or service offering needs to flow without interruption. Lean offers a range of diagnostic (or mapping) tools that take a more in-depth look at the activity steps within key business processes to identify where wastes occur. More importantly these mapping tools also help identify the root causes of the wastes so that solutions may be developed.

The eight generic wastes that can be found in any process have been broadly defined as Transportation, Inventory, Motion, Waiting, Overproduction, Defects and more recently Untapped Human Potential.

There are revised lists of what wastes look like in a range of processes i.e. The Seven Service wastes are described as Delay, Duplication, Unnecessary Movement, Unclear Communication, Incorrect Inventory, Opportunity Lost and Errors. These definitions have been introduced to help people in non manufacturing environments to translate the language of lean into something more tangible.

The mapping process typically begins with a “current state” analysis of the chosen process. Through a “Waste Walk”, a team follows the process steps of the product or the service offering and discusses the wastes, unevenness and personal overburden that could occur at every step of the activity. When the concern has been identified, the team discusses possible root causes and potential countermeasures.

It is important that we understand that there are a range of techniques available in the Lean diagnostic toolkit and combinations of techniques may be applied for best effect. (Figure 5).

Whenever we are mapping processes we must keep in perspective that value is the converse of waste and that Lean organisations need to focus on continually improving the ratio between value-adding and wasteful activities. We also need to remember that eliminating waste, variability and overburden is a means to achieving the ideal state – it is not an end in itself.

The tools mentioned are used to identify waste in the current state situations but they are also used to help us design the “Future State” required.

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**Figure 4 – Core Business Processes & Value Streams**

**Figure 5 – Lean Mapping Tools**
Managing to the future state result

As mentioned earlier, VSM means Value Stream Management and not just mapping and there needs to be a process that takes us from current state through to the realisation of future state improvement. The process steps for this are clear:-

• Current State – Assess the Current State using the approaches and tools described earlier
• Ideal State – Envision the most advanced position given the strategic and customer needs
• Feasible Future State – back off to what is currently more feasible which helps teams accept the challenge
• Targeted Future State – back off further by identifying the actual projects that can start to help move you in the right direction towards the end goal.

This stepped approach to mapping is illustrated in Figure 6 below.

As with any improvement activity or project that is undertaken within any organisation, Lean improvements have to be carefully and rigorously managed through to completion. It has been widely documented how projects and improvement programmes can fail due to:

• Poor project definition
• Insufficient stakeholder consultation
• No accountability and unclear roles
• Ambiguous breakdown of activities

Here are a few key indicators which describe what characteristics you would expect to see in an organisation that demonstrates good application of Value Stream Management.

Value Stream Management:

What good looks like:

• The business understands customer value and has a process in place to capture and respond to needs
• The business is clearly focussed on improving the strategically important key business processes
• People understand what waste is and know how to identify it through the application of a range of process diagnostic tools
• The organisation has a successful track record in eliminating waste and maximising value through its key business processes
• There is an effective continuous improvement and project management process that continues to realise future state aspirations.

Summary and key recommendations

It is no accident that VSM is central to the Lean Business Model as it helps to provide the focus and drive to the key activities needed to realise strategy and exceed customer value expectations.

You may like to take a look at your own organisation and begin to assess your capability in the area of Value Stream Management. Remember to assess not just the maturity of the hard systems, processes and tools but also of the capability and maturity of the leadership and the teams in how they apply VSM.

For more information on Value Stream Management

Go to www.sapartners.com

Or contact gary.griffiths@sapartners.co.uk
Embracing the five lean principles:

Customer driven supply chain strategy

Dr Janet Godsell, Senior Research Fellow, the Supply Chain Research Centre, Cranfield School of Management

The current economic downturn means that many companies are wrestling with the apparently conflicting priorities of reducing costs today whilst building capability for tomorrow. Evidence (Meehan and Sequeira, 2008) shows that recession is a prime time to move from industrial laggard to leader. But how is this achieved?

By developing a customer driven approach to their supply chain strategy companies will not only survive but should thrive in the downturn. This approach adopted by S A Partners embraces three powerful concepts:

- The principles of strategic alignment (Gattorna and Walters, 1996)
- The philosophy of Lean – the five Lean principles (Womack and Jones, 1996)
- The output from the Cranfield University Innovative Manufacturing Research Council (IMRC) project (IMRC 40) ‘Aligning and Integrating Marketing and Supply Chain Strategies’ for which S A Partners was the consultancy partner.
Alignment

Alignment is an important part of strategy deployment as it ensures that a company focuses on the right things that support its strategic direction (Dale, 2008). Taking this a step further, alignment in an enterprise-wide or supply chain context has two main constituents: strategic and enterprise-wide alignment as illustrated in Figure 1.

As explained in Table 1, strategic alignment is the alignment between the core elements of business strategy – product, marketing and supply chain strategy without which a business is dead in the water. For instance, Tesco can only deliver an ‘every day low price’ value proposition to their customers because they have a ‘every day low cost’ value or supply chain strategy to support it.

Enterprise wide alignment on the other hand seeks to ensure the overall alignment of the supply chain from customers to suppliers. Enterprise wide alignment is rare and this presents the opportunity to align and get ahead of the competition. To do so, practically speaking companies need to improve the alignment with their customers, internally across their core supply chain processes (plan, source, make and deliver) and with their suppliers. By embracing the five Lean principles and considering them in a supply chain context (as illustrated in Table 2) enterprise wide alignment and competitive advantage becomes a distinct possibility.

![Figure 1 (after Godsell, 2009)](image1)

![Table 1 (after Godsell, 2009)](image2)

![Table 2](image3)
Value – customer value profiling

The enterprise-wide supply chain starts with the customer and the crucial first step is to understand what customers actually value. This creates customer alignment. Too often customer segmentation is confused with the segmentation under taken for account management or marketing purposes. Customer value profiling is done to create customer segments that are directly relevant to the supply chain and has three elements: the demand, service and product profiles. These are explained in more detail in Table 3.

Value streams – differentiated supply chains

Customer value profiling typically creates a number of different customer segments for which discrete supply chains or value streams could be developed. In practice companies find it difficult to manage more than three value streams. Whilst the solutions are designed specifically to the industrial and supply chain context in which the company operates, three dominant types of value stream have emerged. They are commonly referred to as lean, agile and innovation. But how do they differ?

Pull – demand profiling

Whilst there are three elements in the customer value profile, the primary driver of supply chain strategy is demand profiling. Different types of demand pattern require different types of supply chain strategy. If ‘pull’ is to be achieved cost effectively it is crucial to understand and differentiate the different types of demand.

As illustrated in Table 4 there are four main types of demand that drive the three different supply chains or value streams.
Embracing the Five Lean Principles

Flow – tailored practices

Internal alignment is achieved by developing a set of ‘tailored practices’ (Lapide, 2006) for each of the core supply chain processes (plan, source, make and deliver) for each of the different value streams (lean, agile and innovation). This essentially means considering exactly what the differences in demand mean to internal process design. How can flow, best be achieved?

As the name suggests these practices are context specific and cannot be copy-pasted from other companies. The principles may be the same but the solutions are different. Supplier alignment is achieved when the internal principles of flow are extended to the supply base. Table 5 illustrates the emerging tailored practices for a consumer packaged goods company currently implementing a customer driven supply chain strategy.

Perfection – enablers

As with all good strategies the formulation is much easier that the deployment. Having an organisational design, a performance management system and information systems that support a customer driven and differentiated approach are crucial to success and the pursuit of perfection.

Perfection is achieved when there is perfect strategic and enterprise-wide alignment. Examples are rare but the opportunities immense as costs can be reduced today and capability built for tomorrow.

Next steps

Complete the alignment audit in Table 6 and consider:

• Where are the major alignment gaps
• The potential for reducing the alignment gaps by embracing the lean principles and adopting a customer driven approach to supply chain strategy.

Table 5 (Godsell, 2009)

<table>
<thead>
<tr>
<th>Management Type</th>
<th>Alignment Type</th>
<th>Leading Edge</th>
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<tbody>
<tr>
<td></td>
<td>Strategic</td>
<td>Clear business strategy</td>
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<tr>
<td></td>
<td>Customer</td>
<td>Clear understanding of customer needs</td>
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<td></td>
<td>Internal</td>
<td>Balanced alignment with SC processes</td>
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<td></td>
<td>Supplier</td>
<td>Balanced alignment with supply base</td>
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<td></td>
<td>End-users</td>
<td>Balanced alignment with customer expectations</td>
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Table 6

References


For further information, e-mail
Janet Godsell at: janet.godsell@cranfield.ac.uk or
Robin Jaques at: robin.jaques@sapartners.co.uk
Customer Value brings music to Roland UK’s ears.

As a result of twenty customer value surveys, Roland UK develops a strategy for continued growth.
Roland Corporation is a world-leader in the design, manufacture and distribution of high-quality electronic musical instruments including pianos, drums, amplifiers and digital recording equipment.

Roland (UK) Ltd is a subsidiary of Roland Corporation and is responsible for the sales, marketing and distribution of Roland products within the UK and Ireland. Supplying over 500 independent music stores, the company also runs a sizable retail operation and prides itself on its culture of innovation and excellence.

During the last ten years, the business operated successfully by more than doubling turnover. While much of this was due to high levels of product innovation and quality, an unwavering focus on service levels was also a significant contributing factor.

To enable this success to continue, Tim Walter, Roland UK’s Chief Operating Officer, worked with S A Partners and identified three priorities.

1) To understand what customers value. Roland UK has a customer relationship culture of whatever it takes, however to ensure continued growth, Tim realised the importance of understanding in real detail, what key customers wanted in a supplier of musical instruments. “We have high standards of customer satisfaction but didn’t really know if we were meeting our customer ‘wants’. We didn’t know if we scored highly in the things that were important to our customers”, said Tim.

2) To learn how Roland UK measured against ‘best in class’ competitors against these value criteria. Understanding customer value criteria was just a part of the picture. To build upon past success, Roland UK needed to understand how they performed against these requirements when compared to other suppliers.

3) To develop a standard, repeatable process. This stemmed from recognition that customer value today may be very different tomorrow. To ensure that the changing needs of customers are met, Roland UK needed a standard, repeatable process that would enable it to carry out similar surveys in the future. “It doesn’t necessarily follow that what a customer needs today is what they need tomorrow. The recession we’re now in is a perfect example. Priorities will have changed” said Tim.

Over a five day period, twenty face-to-face interviews were undertaken with key customers across the UK. The interviews were carried out by a skilled S A Partners specialist, with data recorded by Roland’s Customer Services Manager. The interview technique used is specifically designed to ensure that the interviewee’s response is not steered by the interviewer in any way. By shadowing these interviews, the Roland UK team was able to understand how and why interviews are structured, and also learned how to ask questions in a way that didn’t lead to an anticipated response. This enabled them to carry out future customer value exercises independently.

“Over time, you build up a perception of what your customer wants. The idea of going into an interview with a blank piece of paper and getting your customer to tell you what’s important to them is quite simply, brilliant”, said Tim.

Customer Value exercises frequently deliver surprising results. Tim anticipated that although standards were high, the speed and efficiency of delivery services would feature as one of the key criteria raised but this was not the case. However, channels of communication were raised almost across the board.

While each customer had a ‘Relationship Manager’ and access to a sales team, these were only available during working hours. The Customer Value interviews led to the insight that customers wanted to order goods and check stock levels outside of normal working hours.

As a result, Roland has carried out significant investment in the development of a new e-commerce website which will enable customers to check stock levels, place orders and track order progress online. This will deliver huge benefits for customers who all, without exception, hold large quantities of valuable stock in purpose built warehouses to facilitate fast delivery. “Our customers were struggling to get through to a sales office, and they wanted to be able to check stock and order online 24/7. Very soon, they’ll be able to”, said Tim.

In addition, Roland UK has also re-structured its sales and support operations to align resources more closely with the needs of key customers, improving the efficiency of its own sales and operations processes at the same time.

The interviews also delivered many positive responses – customers value the Relationship Manager approach, and Roland UK will continue to invest in these roles. Customers were pleased to have been involved in the process and are likely to continue to take part in future surveys, providing Roland UK with fresh, relevant data, on which they can build their strategy for continued success.
Information & Events

Useful Websites

Lean Related
www.sapartners.com
www.superfactory.com
www.leanenterprise.org.uk

OEE
www.oetoolkit.com

Networking

Websites
www.linkedin.com

Linkedin discussion groups:
Lean & Green
Lean Enterprise Food & Drink
Lean Enterprise Retail
Lean Enterprise Asia Pacific
Lean Enterprise Ireland
Lean Enterprise Nordic
Lean Enterprise United Kingdom
Lean Enterprise Benelux
Lean Enterprise Central and Eastern Europe
Lean Enterprise Mediterranean

Events

Staying Lean: Food & Drink Sector
(Joint event by S A Partners and the Food & Drink Federation)
1st July 2009, Ettington Chase Hotel, Stratford upon Avon

The Food Manufacture Excellence Awards
11th November 2009, London, UK

The Manufacturer of the Year Awards 2009
12th November 2009, London, UK

Further details on:
www.sapartners.com

Recommended Reading

WINNER OF A SHINGO PRIZE
Staying Lean: Thriving, Not Just Surviving
by Hines, Found, Griffiths and Harrison

The book Staying Lean: Thriving, not just surviving tells the story of a multi-national organisation’s journey to Lean and how they successfully implemented and sustained Lean to help turn the organisation’s financial performance around. It is designed to be used as a practical workbook to guide practitioners along their own Lean journey so that Lean becomes embedded in the organisation and sustains the performance improvements over the long-term.

Publisher: Lean Enterprise Research Centre
(1 Feb 2008)
ISBN: 0953798291

Learning to See
By Mike Rother

In plain language and with detailed drawings, this workbook explains everything you will need to know to create accurate current-state and future-state maps for each of your product families and then to turn the current state into the future state rapidly and sustainably.

Publisher: Lean Enterprise Institute, US;
Spiral edition (1 Dec 1999)
ISBN-10: 0966784308

Lean Hospitals
By Mark Graban

Drawing on his years working with hospitals, Mark Graban explains why and how lean can be used to improve safety, quality, and efficiency in a healthcare setting. He highlights the benefits of lean methods and explains how lean manufacturing staples such as Value Stream Mapping can help hospital personnel identify and eliminate waste, preventing delays for patients, reducing wasted motion for caregivers, and improving quality of care. The book also describes root cause problem-solving and daily improvement processes that can engage everyone in systemic improvement.

Publisher: Productivity Press;
1 edition (23 Jul 2008)
ISBN-10: 1420083805

Websites

www.linkedin.com

Linkedin discussion groups:
Lean & Green
Lean Enterprise Food & Drink
Lean Enterprise Retail
Lean Enterprise Asia Pacific
Lean Enterprise Ireland
Lean Enterprise Nordic
Lean Enterprise United Kingdom
Lean Enterprise Benelux
Lean Enterprise Central and Eastern Europe
Lean Enterprise Mediterranean

Recommended Reading

16 The home of Lean Thinking
Three of the four authors of Staying Lean: Thriving not just Surviving flew to Nashville USA to collect their Shingo Prize for Research, presented by Ritsuo Shingo (Former President of Toyota China and son of Dr Shigeo Shingo) and Robert D Miller, Executive Director of the Shingo Prize Board of Governors.

Staying Lean tells the story of how a multi-national manufacturing organisation successfully implemented and sustained Lean Enterprise operational improvements to help turn around its financial performance. The story is based around the Lean Iceberg Model of sustainable change and addresses the often invisible, and hard to copy, enabling elements of successful Lean Management in manufacturing organisations: Strategy and Alignment, Leadership, Behaviour and Engagement as well as the more visible features: Process Management and the application of Lean Technology, Tools and Techniques. The book can be used as a practical workbook to guide practitioners along their own Lean journey so that Lean becomes embedded in the organisation and sustains the performance improvements over the long-term.

Co-author Gary Griffiths was unable to attend the ceremony as a result of an engagement at Uni-SA (University of South Australia). On seeing his obvious disappointment, the University staff presented Gary with a hastily created “Dingo” award as compensation!

About the authors:
Professor Peter Hines holds the Chair in Supply Chain Management at Cardiff University’s Lean Enterprise Research Centre and is the Chairman of SA Partners.

Dr Pauline Found holds a B.A., B.Sc., MBA and PhD. She has been with the Cardiff University Innovative Manufacturing Research Centre (CUIMRC) since it formed in 2004 where she worked with the SUCCESS project on sustainable manufacturing change from 2004-2007.

Gary Griffiths is a partner and full time consultant with SA Partners. He has more than 20 years experience in continuous improvement and Lean Thinking and has designed multi-site integrated continuous improvement programmes for a range of corporate clients.

Richard Harrison is a managing consultant with SA Partners. He joined the business with the remit to take Lean off the shop floor and apply the philosophy within the sales and marketing environment using his broad experience at board level in sales roles with premium branded products.

Pictured (left to right): Mr Ritsuo Shingo, Professor Peter Hines, Dr Pauline Found, Mr Richard Harrison, Mr Robert D Miller.