

CREATING A LEAN BUSINESS SYSTEM



This white paper provides an overview of The Lean Business Model® - how it was developed and how it can be used by enterprises that have decided to embark on a journey to create a Lean Business System.

The Lean Business Model® should be distinguished from the traditional Five Principles of Lean. The principles describe what it is for an organisation to be Lean, whereas the Lean Business Model® gives a framework for how organisations can create their own Lean Business System.

The approach described here focuses upon making Lean Thinking ‘a way of life’ and reaping the resulting benefits. It looks at the elements that need to be in place to complete a Lean transformation. Used well, the approach and the interventions and tools that lie behind it can provide any organisation with a Lean roadmap that is specific to them.

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1 Background

The approach is based on research undertaken by Professor Peter Hines in Japan, courtesy of Toyota Motors, in 1994. This followed the classic Womack/Jones/ Roos book 'The Machine that Changed the World' which identified that Toyota was not just the best auto maker in the world, but by far and away the best wherever it operated in the world.

The Toyota Source

So the model and approach is a distillation by Peter of what made Toyota much more successful both internally and in its wider supply chains. The research identified five elements behind this success:

- ✱ Using Policy Deployment to focus everyone in the same direction based on what adds value to their customers or, in essence, focusing everyone in a common aim of achieving what external and internal customers (the business) require.
- ✱ Deploying through a series of common cross functional processes, the most important of which Toyota describe as quality, cost and delivery. This does not just mean the classic "QCD" measures but deploying through these core processes.
- ✱ These top-down strategies and structures are then improved through bottom-up assessment of the capability of each process and their constituent value streams; from this assessment, bottom-up plans are created to take the organisation from current state through a series of future states towards an ideal state. Each future state is checked (catchballed) against the goals of the business before implementation. We call this Value Stream Management.
- ✱ Within this a set of tools is applied contingent on circumstances, i.e. pulled by the customer and business need, rather being thrown at a business (pushed).
- ✱ Finally, these 4 focal areas are applied in the extended enterprise, up and down the wider supply chain. In the Toyota context, this is generally through the kyoryoku kai or supplier associations.

The S A Partners Adaptation

Since this original research work, a blind spot about people has been recognised. Equally, we should not try to simply copy what Toyota did in different environments. So we have adapted the outcomes of the research to use our language and to enable application in a wide set of sectors. It has become known as the

2 Lean Business Model®

We use the term Strategy Deployment, not Policy Deployment because the word policy has different connotations in Japan. Its purpose is to align and engage everyone with the external customers and with the goals of the business.

Value Stream Management (note: not Value Stream Mapping) encompasses understanding, and managing to a result, the key elements of Customer Value and Waste for the important business processes. The techniques involved include mapping to diagnose the current state, dreaming about the ideal state before deciding upon a realistic future state to achieve.

The Tools and Techniques comprise the set of implementation tools that are chosen to suit circumstances. Firstly, they enable the detailed implementation of the planned improvements from Value Stream Management. Secondly, they provide the practical tools for people to practice Continuous Improvement. In Toyota this became known as the Toyota Production System or more recently the Thinking People System.

People Enabled Processes are the organisational foundations of a Lean transformation. Processes are cross-functional and the important processes need to be owned and managed across these functions to enable migration to a Lean organisation. People are given prominence in our adaptation of the model to give them the appropriate emphasis with the basic enablers being the workforce skills, engagement and continuity.

The Extended Enterprise part of the model is the final piece of the jigsaw and it is through this as much as anything else that Toyota's practice is truly distinctive. Working down the supply chain is essential to ensure that Customer Value is understood and that it is not filtered out. Working up the supply chain is essential to align all elements to deliver that Customer Value. At the same time working on the processes that cross organisational boundaries in the supply chain enables elimination of the inter-company waste (i.e. that caused by another organisation in your organisation) as well as the intra-company waste.

The most significant distinctions between Toyota and its competitors are

- * The consistency and penetration of Lean Thinking deep into its supply chain. This is not surprising when you realise that less than 20% of product cost lies in their factories.
- * The rigour, discipline and consistency of the internal application.

The Lean Business Model®



The model has been further developed in S A Partners to be not only a blueprint for the creation of an organisation's Lean Business System but also as basis for their Lean Maturity Assessment – a business-wide diagnostic.

3 Processes and Value Streams

To understand the model, we need to be clear about processes and value streams.

Processes

We can find academic definitions of a process. For example: “Patterns of interconnected value-adding relationships designed to meet business goals and objectives” Dimancescu et al, 1997. In S A Partners we use a more pragmatic definition: “A cross functional set of interconnected activities that adds value to meet business objectives”.

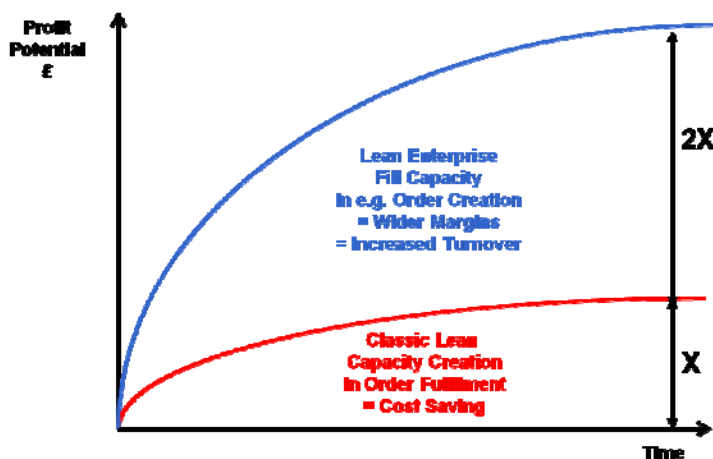
It is easy to recognise some processes because they are very tangible, such as Order Fulfilment. However, care needs to be taken to define the scope including the start point and end point. Other processes are much less familiar, such as Licence to Operate, comprising all the approvals, authorities and governance requirements that must be met, for example in meeting Health, Safety and Environmental legislation. Processes always have a sequential aspect to them but many activities may be in parallel as well as some in sequence. They are cross functional and the key ones are cross organisational, extending up and down supply chains. We call these Core Processes.

Value Streams

The term Value Stream was popularised by Womack & Jones in their classic text “Lean Thinking”. It was originally conceived to encompass product design and product delivery. However, in common use it has generally become regarded as little more than a series of specific Order Fulfilment processes. This has not only weakened the concept but led many firms to limit their total Lean activity to this single process, hence precluding them from ever achieving a truly Lean Business System.

X and 2X

So why does this matter? Well consider the following figure. In most businesses we find that the CEO or Managing Director, when asked, will describe the future of their business in terms of increased profit and growing turnover.



However, where these businesses employ a Lean approach they typically only focus on the Order Fulfilment process. Although this is useful and reduces waste and cost it rarely leads to a complete Lean Business System. It creates capacity. However, this capacity is often not used, leading to illusory savings. Have you ever added up the savings claimed in a Lean programme and then failed to see them hit the bottom line?

In order to harvest these savings within a Lean Business System it is also necessary to fill this capacity. This is rarely done by working in Order Fulfilment as benefits here are more likely to yield cost savings than increase Customer Value. As a result it is necessary to identify, diagnose and improve other processes more likely to add value to customers such as Order Creation (winning new business) or Innovation (providing a wider and/or better range of products).

When we have seen businesses adopt this business-, not just value stream-, approach we have seen that they achieve not only real cost savings but wider margins and increased turnover. We call this X and 2X as the profit potential yielded filling this capacity is always at least twice that of just creating the capacity. Why? Well, in effect the people, facility and overheads are already paid for and so new work yields very high margins.

4 Lean Business Model® – Blueprint for a Lean Business System

The Lean Business Model® not only provides us with a blueprint for implementation it is also a diagnostic tool that helps clients to see where they are in a journey and which interventions should be done early and which done later – i.e. it provides the building blocks for roadmaps to create a Lean Business System.



Think of the 5 elements of the model as 5 pieces of a jigsaw. The benefit of getting all of the pieces in the right place at the right time is that you are able to see the whole picture. The same is true of the Lean Business Model®. Over the course of a transition to develop a Lean Business System, organisations must systematically complete the whole of the jigsaw to get all of the benefit from their investment. One helpful way of understanding the model is to take ‘a journey’ around the model.

Let's start with Strategy Deployment



The purpose of Strategy Deployment is to align and engage everyone with the external customers and with the goals of the business. It is a process that takes the vision and strategy of an organisation and translates it into both Key Performance Indicators (with targets) and selected change projects. These KPIs and projects are then deployed into the organisation, ensuring that there are people accountable for the achievement of the targets and delivery of the projects at all levels. The vehicle that is used for deploying the KPIs and projects as well as sustaining the management process is the Business Cockpit.

Depending on how you go about Strategy Deployment you will also engage people in the vision and strategy as well as align them. This will make them feel some element of ownership and cause them to bring energy to what they are doing as well as doing the right things.

It is helpful to understand why Strategy Deployment is so crucial. In creating a Lean Business System, this process plays 4 key roles:-

1. It engages the senior management team and gives them clarity of purpose.
2. It enables the business to prioritise where it will target its resources to best deliver the results.
3. It aligns and engages employees in these priorities.
4. Most importantly, it creates a clear link between the Lean approaches and the results of the business.

Let's go next to People Enabled Processes



Processes are the organisational foundations of a Lean transformation. Processes are cross-functional and the important processes need to be owned and managed across these functions to enable migration to a Lean organisation.

The link between People Enablers and Strategy Deployment is clear – the strategy of the business in the future and a clear understanding of its current performance lead quickly to identify which key business processes need to be the centre of attention and also inform how a business should organise to deliver that result. We work with, but question, existing functional structures and start to give people process oriented roles. We also consider the leadership approaches and behavioural norms necessary to begin and sustain the Lean Business System. In addition to leadership development, the basic people enablers are the workforce skills, engagement and continuity.

At the centre of the model is Value Stream Management



Value Stream Management (VSM) encompasses understanding, and managing to a result, the key elements of Customer Value and Waste for the important business processes.

VSM techniques involve diagnosing the process architecture, mapping these processes to diagnose their current state and ultimately managing to appropriate future states.

The future state conditions provide templates for how the business processes could and should be operated along with a set of key projects that will need to be undertaken to make these templates a reality. The link between VSM and the 2 previous elements of the model is also clear – the performance capability of each of the key business processes is determined during the Strategy Deployment element and the accountability for delivering the result through processes is set in the People Enabled Processes element of the model.

The fourth element is the Tools and Techniques



The key projects identified during the VSM and/or Strategy Deployment need to be carried out in a rigorous and repeatable manner. This is where the Tools and Techniques come in. They comprise a set of 'hard' and 'soft' implementation tools that deliver change and improvement in a repeatable and sustainable manner. They allow for the application of Lean in a way that everyone can understand and can be replicated.

At any point in time, there is a core set of approaches from this toolkit, adapted to the business, that will need to be rigorously and continually practised. This is the application of tools on the basis of pull; they are pulled according to need, not pushed at the business in a non-discriminating manner.

This not only enables effective implementation of the initial projects but also provides the practical tools for continuous improvement in the important processes. It should also lead to continuous improvement becoming a habit for the organisation. At Toyota, for the Order Fulfilment process, this core set of tools became known as the Toyota Production System.

The Extended Enterprise is the final piece of the jigsaw



It is through the Extended Enterprise as much as anything else that Toyota's practice is truly distinctive. The Extended Enterprise element of the Lean Business Model® applies approaches explained in the other four elements of the model up and down the supply chain to make the entire supply chain as Lean as it can be.

Working down the supply chain is essential to ensure that Customer Value is understood and that it is not filtered out. Working up the supply chain is essential to align all elements to deliver that Customer Value. At the same time working on

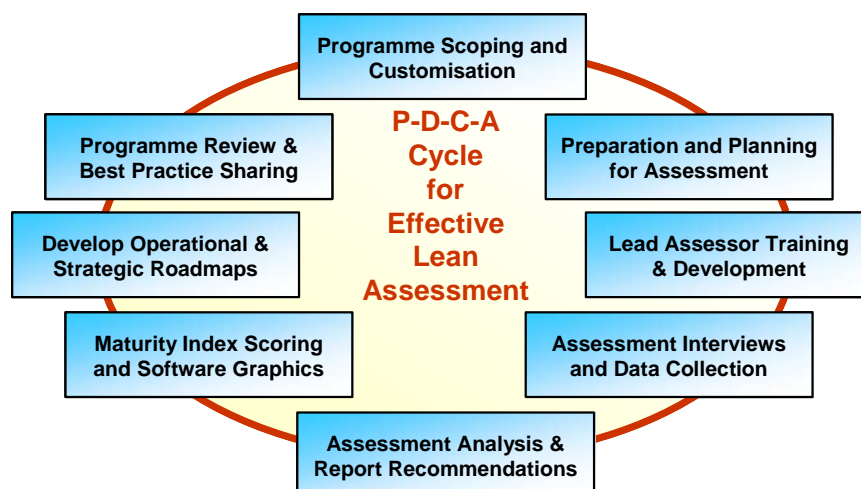
the processes that cross organisational boundaries in the supply chain enables elimination of the inter-company waste (i.e. that caused by another organisation in your organisation) as well as the intra-company waste (i.e. what you cause for yourself).

In embracing the Extended Enterprise, relationships are developed as well as performance improved. Where the relationships are strategic then the best partners are selected and the processes truly integrated.

5 The Lean Maturity Assessment Process

The Lean Business Model® has been developed into an assessment tool that gives a measurement of current maturity of an organisation against the model. The quantitative Index Score is supported with a written diagnosis of the improvements needed for the business to progress to the next stage of its Lean journey.

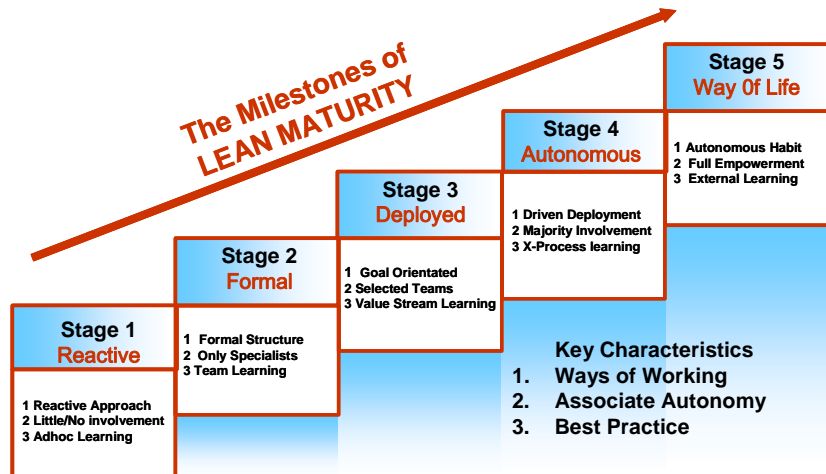
The assessment has been successfully proven in a wide variety of businesses, both manufacturing and service, and offers a clear roadmap of improvement in all areas of the organisation. The assessment is made by skilled practitioners working through the key stages set out in the diagram below. This approach provides the appropriate level of planning, data collection and analysis that leads to recommendations.



The Measurement System

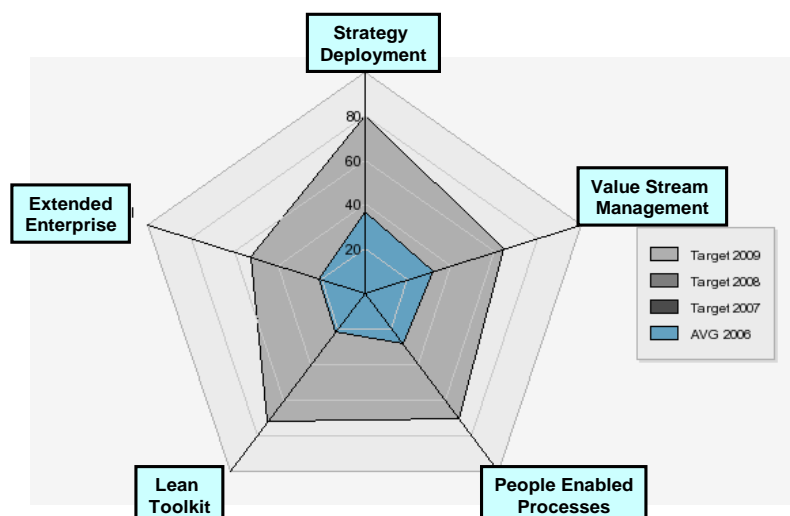
The Measurement System is based on the academically proven Five Key Milestones of Continuous Improvement Maturity from “ad-hoc” through to “way of life”. Each of the core elements of the Lean Business Model® are assessed not only from a quantitative viewpoint of - systems and procedures - but also from a qualitative viewpoint of - values and behaviours.

In other words we measure not just what you do but also (and more importantly) the way that you do it. This helps to build a learning organisation that not only has the capability to maintain the gains of the improvement but is also self-propelled to continuously improve the continuous improvement process until it becomes a daily habit for everyone.



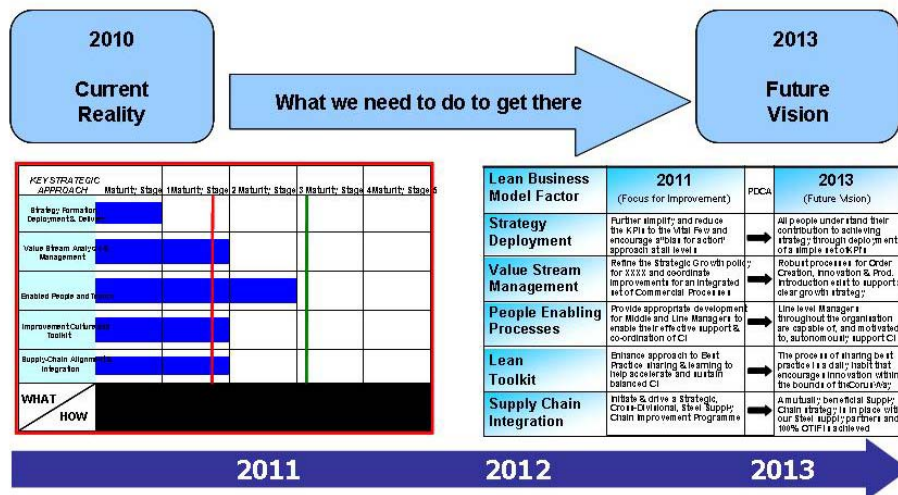
The Assessment Technique

Through a combination of interviews, collection of tangible evidence and walking about, up and down the structure looking at the important processes, an Index Score is compiled. The score provides measure of Current State. In addition a Future State is developed to define where the Business needs to be on its journey to creating a Lean Business System. By comparing the two a gap analysis is generated



Reports, Recommendations and Roadmaps

To support the Index Score a written report is compiled against each of the 5 aspects of the Lean Business Model®, highlighting what's working well, what's not working well and what may be missing. Using this diagnosis in line with the future state vision for Lean Maturity and the Business Strategy provides the appropriate context to create a roadmap for how to progress from the current state to the future state.

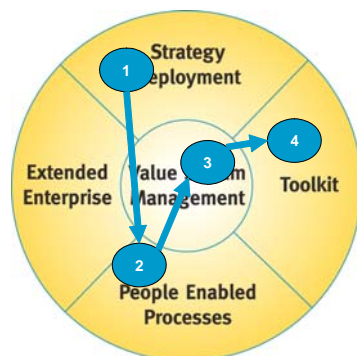


By understanding the current reality of every aspect of the Lean Business Model® and articulating what you want to achieve (i.e. what good will look like and what will be the tangible benefits to the business) enables you to develop a top-level business roadmap.

At a high level the roadmap identifies which element you should place early emphasis on and which later emphasis. As such, the model starts not only to provide a blueprint, but the assessment also leads to a roadmap for developing a true Lean Business System.

Examples

Roadmap 1



In this case, assessment indicated that a manufacturing unit had worked on continuous improvement but the process lacked cohesion and alignment. The result showed that, although some tools had been used to make improvement, the approach was functionally focused and never really achieved buy-in and alignment with the strategic goals.

The resultant roadmap example 1 indicates a sequence and emphasis of business improvement that chooses to focus initially on Strategy Deployment, closely followed by People Engagement. The programme identifies that Value Stream Management would be the basis for the application of an appropriate set of Lean Tools and Techniques.

Roadmap 2



The second example is taken from a service organisation which had not applied the principles and tools of Lean in its pre-dominantly office based activities. Other issues uncovered included a lack of understanding of process thinking and Value Stream Management in this functionally orientated set-up.

This roadmap recommends that the business start with a pilot activity around Lean tools to illustrate what tangible improvements are possible. Given this relatively “quick-win scenario” the roadmap leads the business on a journey to working in wider value streams and people processes, and eventually escalating through to Strategy Deployment.

These business level roadmap examples provide the overall sequencing and emphasis needed in any given business situation. However, it is important to point out that the assessment also provides specific areas for focus within each of the 5 Key Aspects of the Lean Business Model®. In reality, there is not often a simple sequence of one element followed by another element. There will be parallel working in two or more of the elements at any time and new projects that build on an element previously worked on.

As with so many other tools for improvement (whether diagnostic and/or implementation based) this technique requires a discipline of Plan-Do-Check-Act. Each year the assessment can provide an objective and subjective viewpoint on the current maturity of Lean across the organisation. The detailed analysis and index provide the business with a dynamic benchmark of world class performance with clear recommendations on what is needed to reach the next milestone in creating a complete Lean Business System.

6 Conclusion

The S A Partners Lean Business Model® provides insight into how to make Lean Thinking a way of life. It serves as a blueprint for transforming an organisation using Lean as the vehicle both for continuous improvement and for radical change.

The Lean Maturity Assessment translates the Lean Business Model® into a practical tool. It is a diagnostic intervention that provides not only a measured outcome for the position of the organisation in terms of its Lean Maturity but also a qualitative analysis. Outcomes from this are: a description of the current state, the generation of a future state that is grounded in the business strategy and a roadmap of how to close the gap – a roadmap that has been developed within the client’s own context.

Both the Lean Business Model® and the Lean Maturity Assessment have been applied many times in organisations of varying size in both manufacturing and service environments. As organisations repeat the assessment process they experience not only a growth in Lean Maturity but also see the “needles move” on the key performance indicators.

More information and contact details can be found at www.sapartners.com