

HOW LEAN IS YOUR SUPPLY CHAIN?



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A guide to Lean Supply Chains for IDA Companies

The manufacturing sector in Ireland has undergone enormous change in the last twenty years. Globalisation, technology advances and the growth of emerging market economies have driven ever-increasing competition. One response by the Multinational sector has been a new focus on optimising global supply chains. IDA companies in Ireland have adopted to these changes and have moved their manufacturing facilities up the value chain and expanded their activities so that many have become strategic sites for their parent companies.

As these corporations focus on optimising their global supply chains, *there is a unique opportunity for Irish based Multinationals to increase differentiation amongst their peers*, by assessing and streamlining their broader supply chains.

Fortunately, the adoption of Lean techniques and “Lean Thinking” that have proven so effective in improving performance within these companies have also been shown to be equally applicable across the broader supply chain. The principles of pull, level-loaded work and synchronisation from one step to the next are relevant whether those steps are within one company or between a supplier and customer in a broader network. The phrase “Lean Enterprise” is often used to denote a cooperative effort to implement Lean beyond a single company, by including suppliers, partners, and customers who must all interact in the creation of value.

The trend to implement Lean beyond the “four walls” of an individual company and expand its use to the broader multi-organisation enterprise has evolved over several decades from the Toyota production system (TPS) in the 1960’s to a focus across the wider enterprise including subsidiaries, distributors, third-party contractors and other involved parties of today.

In the past ten years the Lean supply chain has been derived from the strong need and desire within industry to apply the core principles of Lean Thinking right through the supply chain, from raw material supplier to end consumer. *There is recognition that real competitive advantage can be leveraged from a sharp focus on the supply chain.* This growing emphasis on Lean coincides with the development and use of advanced information and planning systems to capture ‘real-time’ information. A paradigm shift from a forecast-driven to a demand-driven model has occurred with continued refinement of demand forecasting.

HOW DO YOU MEASURE YOUR SUPPLY CHAIN?

Leading Edge Group has developed a proprietary **Lean Supply Chain Health Check**. This assessment interrogates all core supply chain elements:

- ✓ **Core processes and effectiveness** of same – are they sufficiently integrated?
- ✓ **Structure/organisation** – both current and proposed
- ✓ **Systems** – both manual and automated. Are they being used effectively and efficiently?
- ✓ **Costs/Performance** – internal evaluation and external benchmarking. How do you compare?
- ✓ **Policies/Procedures** – both oral and written. Are they being adhered to?
- ✓ **Working Capital exposures** – what are the root causes?
- ✓ **Stock inaccuracies and stock outs** – are there regular cycle counts?
- ✓ **MRP and planning effectiveness** – online and off-line reports

- ✓ **Communications and culture** – what impact on overall performance?
- ✓ **Overall risks and exposure** – can they be quantified?

Our **Lean Supply Chain Health Check** involves gathering information through interviews and analyzing of data provided by the Supply Chain, Finance, Business Units and other relevant functions. Interviews are conducted with key managers/staff in the supply chain and supporting functions.

Information sought relates to the overall strategy of the business and future plans; how the supply chain functions and how it has evolved. Managers are also asked their opinions on the desired level of supply chain performance and recommendations for improvement.

Having compiled the necessary data and observations, a gap analysis is prepared highlighting differences between actual performance and the desired state.

PHARMACEUTICAL CASE STUDY

Challenge: Measure and benchmark the clients supply chain against competitors and “best of breed” from across industries

Issues:

- Too much reliance on single suppliers for critical components
- No price leverage with key suppliers
- The supply chain was not commercially aware i.e. suppliers were protected from market fluctuations

Solution:

- Full internal/external supply chain review undertaken using our Lean Supply Chain Health Check and Voice of the Customer Analysis
- Supply chain strategy developed using information gathered through a series of in-house workshops supported by data analytics

- Appropriate supply chain organizational structure put in place to align with the strategy
- Regular senior management contact with key suppliers formalized
- Skillssets were enhanced through practical hands on training in supply chain best practices
- structure put in place to align with the strategy

FOOD CASE STUDY

Challenge: Evaluate the clients supply chain to assess whether it was performing well, was structured properly and meeting current and future business requirements

Issues:

- The client was in a transition period from a traditional production driven company to a customer led supply chain organisation
- No integrated supply chain performance measurements in place
- Purchasing was de-centralised with too many buyer “touch points”

Solution:

- Lean Supply Chain Health Check deployed to interrogate and audit the supply chain across 13 different activities. Information was gathered through interviews and data analysis provided by the Supply Chain, Finance and Business Unit managers
- One-on-One interviews conducted with key managers/staff across the “full” supply chain and supporting functions

- Supply chain vision translated into a cohesive set of objectives and supply chain measurements that supported the transformation
- Agreement reached to set up a centralised procurement division for the Group which resulted in multi Euro savings on annual material expenditures

COMPARING LEAN AND TRADITIONAL SUPPLY CHAINS

Table 1 compares a Lean supply chain to the more traditional supply chains.

	Traditional Supply Chain	Lean Supply Chain
Production	Based on forecast	Based on actual orders
Customer service	Not responsive	Responsive/flexible
Plant layout	By function/department	By product flow (cell)
Planning and scheduling	Limited/haphazard	Detailed/long term/focused
Processing	Batch and queue	Continuous (team leaders)
Quality	Lot sampling	Assured by the process
Logistics	Cost based/limited focus	Develop 'value' logistics
Supplier	Adversarial/win-lose	Partnership/ win-win
Returns/recyclables	Very limited	Growing and essential
Environment	Poor awareness	Integral for sustainable companies
Information Technology	Slow/manual	Fast/automated

Table 1: Comparison of a traditional and a Lean supply chain.

KEY ASPECTS OF LEAN SUPPLY CHAIN MANAGEMENT

Customer Relationship Management. This involves working openly with key customers to ensure a 'win-win' ethos. It is critical to be close to the customer in order to understand their needs, values and requirements. Excellent companies utilise such intelligence in a proactive fashion often enabling them to actually anticipate customer needs. At a secondary level, this close customer contact ensures processes such as end distribution and inventory levels are adjusted and controlled to suit the demand which helps in the elimination of demand variability and non-value-added activities.

Customer Service Management. Very often companies no longer sell a single product but include additional service level needs to suit customer requirements. For example, this may be regular free updates with the purchase of a computer software program and direct links to technical experts for solutions to problems encountered. Or the realisation, because of changing market dynamics, that more product information must be supplied. Constantly seeking improvements and new ways of adding value for the customer are essential.

Demand Management. This is a key element in 'leaning' the supply chain because customer demand is one of the biggest sources of uncertainty. A responsive sales forecasting team is a primary requirement. Integrating this team with the demand planners and schedulers is an essential element of a more responsive supply chain. Striving to break away from the 'silo' mentality is a dilemma for many larger organisations, but it needs to be dealt with effectively.

Order Fulfilment and Logistical Flow. This involves the smooth integration of planning, manufacturing and logistics. This must be done not just within the enterprise but across the supply chain. Regular projects need to be undertaken that analyse distribution facilities and capacity, pipeline inventory and transportation

operations. The key is visibility because suppliers must be able to 'see' into their customers' operations and customers must be able to 'see' into their suppliers' operations. This involves close liaison with upstream and downstream partners and suppliers.

Manufacturing Flow Management. Organisations must leverage manufacturing services and sourcing for flexibility and efficiency. In addition to JIT and Lean operations, many leading companies have developed highly sophisticated outsourcing and subcontracting of different parts of their production or service needs. Others have collaborative partnerships with suppliers.

Supplier Relationship Management. The aim is to strive for long-term strategic supplier agreements that lead to ongoing collaboration. It can be a highly challenging objective, given that many suppliers will aim to retain an independent stance. However, leading companies have shown how effective these arrangements can be if approached with a win-win mentality. They encourage suppliers to make the Lean transformation and involve them in Lean activities. Deepening trust and undertaking mutually beneficial, innovative process improvements will in the long term achieve real gains and cost benefits.

Product Development and Commercialisation. Time to market is dependent on smart design that allows for ease of manufacture and assembly. Experienced project and product development teams need to be in place to monitor and reduce cycle times and lead-times. You can create obvious competitive advantages by designing a process system that is Lean yet adaptable and easily altered to allow for upgrades and advances.

Environmental Concerns. The issue of environmental awareness has become of vital importance to organisations. Manufacturers are being forced to ensure that a high level of materials used in manufacturing can be recycled. This means that manufacturers and their suppliers need to agree on compliance specifications and have facilities and processes in place to re-use and re-process the materials.

SUMMARY

Leading companies within many industry sectors have come to realise the competitive advantage that can be gained from streamlining their supply chains. Exceptional companies have applied Lean Thinking across their supply chains to enable excellence in products and services for their customers. Mutually beneficial supplier partnership agreements, focused consumer response initiatives and a strong emphasis on reduced inventory across product pipelines are what drives efficient supply chains.

Leading Edge Group are committed to helping organisations to build new capabilities in Supply Chain Management. Please contact us for further information on our proprietary ***Lean Supply Chain Health Check***.

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