Lean Systems Thinking: A Roadmap for Operational Excellence

Professor Peter Hines

BCCC 2011 Annual Conference
6th & 7th April 2011
Muda, Mura & Muri

Muda (Waste)  Mura (Unevenness)  Muri (Burden)
How we see Lean Implementation...

Research conducted by Professor Peter Hines and the Lean Enterprise research centre identified 5 key elements of success:-

- Focus on customer value through policy deployment
- Deploying through cross functional processes
- Value stream management aligned to business goals
- Lean tools and techniques aligned to need
- Application in the extended enterprise

S A Partners has learned, adapted, recognised a blind spot about people and created:

The Lean Business Model
Strategy Deployment

The vision, goals and strategy are clearly communicated throughout the organisation with key measures, targets and activities appropriately deployed.
Strategy Deployment - The Acid Test

In any function, at the lowest level....

...could we get answers to the following questions?

- **What is the plan for this business over the next few years?**
- **What are you doing that is different to contribute to this plan?**

If not, then how do we expect our people to help?
Cascading the strategy into the business

Business Level Cockpit

Operations Cockpit

Sales Cockpit

Product Development Cockpit

HRM Cockpit

Marketing

Sales (Key Accounts)

Customer Service

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Sustaining the Improvement Drive

CI FOCUS

Weekly Audit
Audit Trend
KPI Targets
KPI Project Status
Housekeeping Standards
Re-layout Plan
People Enabled Processes
People Enabled Processes

Accountabilities are clear at all levels and leaders motivate and develop their team in an environment where they can realise people potential.

- Clear Accountabilities
- Leading in a Lean context
- Realising People Potential
Typical Current Activity State

- Executives
- Middle Managers
- Front Line

- Strategic
- Improvement
- Fire Fighting
- Day Job
Ideal State

Executives  Middle Managers  Front Line

Strategic  Improvement  Day Job
Value Stream Management
Value Stream Management

Improvement is managed through processes and value streams to deliver outstanding customer value with minimum bureaucracy and waste

Understand Strategy and Customer Value
Mapping to identify Waste
Managing to the Future State Result
Value Stream Management
An Example – Process Manufacturing

- Cross-functional Team
- Select Value Stream
- Map the Current State
- Understand Customer Value
- Identify Waste & Unevenness

Big Picture Value Stream Map

Customer Value

Process Steps
Major Wastes

Demand Amplification
To identify unevenness in supply-chain demand

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VSM - Managing to the Future State Result

1) Envision the most advanced position
2) Back off to what is currently possible
3) Back off to chosen target
4) Establish new target

Performance Level

From mapping to management

Current State

Ideal State

Feasible Future State

Targeted Future State

Implementation Projects

Achieve Target

New Targeted Future State

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Tools & Techniques
The organisation has a “daily habit” of continuous improvement that uses simple, visual tools and techniques that have been chosen and adapted for effective use.
The Lean Toolkit Model of Excellence

Clear strategic foundations

Sustainable continuous improvement

People and teamwork

Delivery
- Flow
- Pull
- Takt time
- Quick changeover
- Workload balancing

Environmental
- 3Rs: Reduce, Reuse, Recycle
- Stress Point Management
- CO₂ budgets
- Technology solutions

Quality
- Authority to stop
- Error proofing
- In-station quality control
- Root cause solutions

Standardised and stable process

Workplace organisation and visual management

Manage by fact using appropriate tools

High Engagement
Best quality, cost, lead time, safety

Stress Point Management
CO₂ budgets
Technology solutions
Extended Enterprise
Extended Enterprise

The organisation develops integrated strategies & trusting relationships with the best external partners to deliver customer value and eliminate waste across the boundaries between organisations.

- End to End Supply Chain Strategy
- Supply Chain Deployment
- Collaborative Development
A Lean Supply Chain

The Supply Chain is the upstream and downstream set of organisations that create and deliver the product / service to the end customer.

There are two types of activity in the Supply Chain:

- Waste is found at boundaries.
- The bigger the boundaries the greater the Waste.
- The biggest boundaries are between companies.
Tesco One Touch Replenishment

30% Lower Logistics Costs
Tesco One Touch Replenishment
Creating a Roadmap
Creating your Roadmap – a 3 step process.

Step 1: Understand Current levels of Maturity
Step 2: Envision a compelling Future
Step 3: Develop the roadmap
Step 1 - Understand Current Maturity

The Milestones of LEAN MATURITY

Stage 1 Reactive
- Some dispersed activity may be going on in pockets. This may be driven by individuals but is not yet a formalised standard or shared across the business.

Stage 2 Formal
- A structured approach is in place and being used in some pilot areas. Knowledge is held in a small pool of resource with plans to roll-out after proven success.

Stage 3 Deployed
- The approach is clear, agreed and aligned with business goals. The systems, roles and behaviours are established and are found throughout the organisation.

Stage 4 Autonomous
- Continuous improvement of this process is happening at all levels of the organisation. Teams work to not only maintain standard but to improve the process and approach taken.

Stage 5 Way of Life
- Continuous improvement is a way of life at every level and in every part of the organisation. The organisation extends learning and improvement across the entire value stream.

Continuous Improvement is a way of life at every level and in every part of the organisation. The organisation extends learning and improvement across the entire value stream.
Lean Maturity Assessment

Where are we now, where will we be in 3 Years time and after the 1st Roadmap?

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<thead>
<tr>
<th>Milestone Attribute</th>
<th>Reactive</th>
<th>Formal</th>
<th>Deployed</th>
<th>Autonomous</th>
<th>Way of Life</th>
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<tr>
<td>1 Ways of Working</td>
<td>1 Reactive approach</td>
<td>1 Formal Structure</td>
<td>1 Goal Oriented</td>
<td>1 Managed Autonomy</td>
<td>1 Daily habit of CI</td>
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<tr>
<td>2 Associate Autonomy</td>
<td>2 Little / No involvement</td>
<td>2 Only Specialists</td>
<td>2 Selected Teams</td>
<td>2 Majority Involvement</td>
<td>2 Full Empowerment</td>
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<td>3 Share Best Practice</td>
<td>3 Adhoc Learning</td>
<td>3 Team Learning</td>
<td>3 Value Stream Learning</td>
<td>3 X-Process Learning</td>
<td>3 External Learning</td>
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Current: Own team  
Current: External view  
1st Roadmap: April 2011  
Future State: November 2012
Multi Site Straw Man

1. Corporate Lean Activity
2. Other UK Management
3. Corporate Lean Activity
4. Other UK Management
5. Awareness For Senior Supply Chain Management Team
6. Operations Manager Briefing
7. Middle Manager Awareness
8. Site Lean Comms & Strategy Deployment
9. Identified Key Value Streams & Processes For Improvement
10. Identified Projects & Targets
11. Agreed Projects & Targets
12. Review Results Of Projects & Lean Change
13. Review Strategy Review Needs
14. Trained Lean Coaches
15. Identified Further/ Wider Training Needs
16. Skilled Coaches & Other Team Members

Key:
- Yellow: Site level
- Blue: M.S. Academy level
- Green: UK level
- Key for Detailed Input

Pre-Plan Phase 2008
Plan Phase 2008-9
Do Phase 2008-9
Check Phase 2009
Further Information

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Please also join Peter in his LinkedIn groups:
