Using Lean Thinking
Your Instructor: Vimal Patel

- **Consultant, Project Manager, Supply Chain Engineer, Programmer, Thought Leader**

- **Leads and manages** consulting projects for clients embracing lean and continuous improvement methodologies

- **Identifies recommendations and deployment roadmaps** to guide customers in improving their supply chain

- **Experience spans various industries** such as automotive, pharmaceuticals, and consumer goods

- Expertise in **training and development** of staff to build a lean culture that drives efficiency gains

- **Oversaw early development** of LeanCor’s in house IT supply chain tools

- **Embraces and practices** Lean principles
What is Lean?
Lean in Industries Outside of Manufacturing

- Auto Body
- Construction
- Office Environment
- Travel
- Healthcare
“To eliminate waste and satisfy customer needs at the lowest possible cost with consideration and respect for humanity of employees.” - Taiichi Ohno

Lean is About **Purpose**

Lean is About **People**

Lean is about **Process**

Lean is About **Problem Solving**
Where do we start?

- Gather and understand the Voice of Customer! Our customers are our true north. Every aspect of our business should be focused on creating value for the customers (external and internal), and every decision and improvement made should be guided toward that true north. **If we are not meeting a customer expectation, we have a problem.**

\[ \text{Satisfaction} = \text{Expectation} - \text{Perception} \]

- Perceived service is much better than expected
- Perceived service is as expected
- Perceived service is worse or different than expected
The Lean Enterprise System

Learning Organization

Long Term Thinking

Respect For Humanity

Customer Focus
Waste Elimination
Quality at the Source
Flow – JIT
Stability
Standardization

The People

The Process

Students & Teacher
Responsibility & Results
Systems Thinker
Problem Solver
“Go See”
Change Agent

Creating Customer Value

The Purpose

PDCA

LeanCor CONSULTING
Lean Thinking 101: Our Activities Are Either

Non-Value Added Activities
(not necessary to process)

Does not add value to the product / process and is not necessary in moving it closer to the customer.

Examples:
Rework (including touches, inspection & verification).
Waiting for work.
All movement that does not move the product or service closer to the customer.

Value Added Activities
(necessary to process)

Adds value to the product / process, moving it closer to the customer.
This also includes support processes that are necessary to keep the system stable so that value added processes can happen.

Examples:
Delivering to the customer on time and in full (OTIF) the first time
Providing the right quality product or service with 100% satisfaction
“The problem is not that there are problems. The problem is expecting otherwise and thinking that having problems is a problem.” --Theodore Ruskin
The Learning Organization

Learning Organization

Problem-Solving Organization

Lowers the Water Level

Makes Problems Visible

Natural Teamwork Created

Organizational Learning Occurs

These people are very smart, they are not pawns. They’re very smart, and if given the opportunity to change and improve, they will. They will improve the processes if there’s a mechanism for it.”

–Steve Jobs (~1990)
Lean within your Department: How can you lead?
Lean Leader - Purpose

- Create and deliver customer value at the lowest possible total cost
- Create flow through the entire value stream through cross functional collaboration
- Develop a problem-solving culture where problems are identified and fixed at the root cause
- Engages in relentless pursuit of continuous improvement
- Ensures that the company takes long-term view, yet is sensitive to the need for immediate actions and waste reduction
- Create the learning organization inside the company
Lean Leader - Process

- Understands how to articulate the implications of (systems impact) throughout entire value stream
- Goes to the Gemba (employ Go See Management) to understand and solve problems at the root cause
- Knows not to be complacent with current process
- Teaches fundamental problem solving (PDCA-Plan Do Check Act) to find problems, define them, fix them, and keep them from coming back
- Creates a formal, effective process for sharing best practices
<table>
<thead>
<tr>
<th>Traditional Thinking</th>
<th>Lean Thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Push - Economies of Scale - Make the Numbers - Unit Cost</td>
<td>Pull - Make (move) only what the customer has ordered</td>
</tr>
<tr>
<td>Batch and Queue - Make (Order) and Move Big Batches</td>
<td>One Piece Flow - Move small batches and keep them moving</td>
</tr>
<tr>
<td>No standards or complicated standards hidden in a binder</td>
<td>Simple, visible standards for all critical processes for all to see</td>
</tr>
<tr>
<td>Move the product, let defects flow down the supply chain</td>
<td>Stop the process immediately - Deal with defects at root cause</td>
</tr>
<tr>
<td>Engineers solve problems and create the best way to do work</td>
<td>The people doing the work design it and solve the problems</td>
</tr>
<tr>
<td>Hire brilliant people to try to fix broken processes</td>
<td>Empower regular people to improve upon brilliant processes</td>
</tr>
<tr>
<td>Hide problems by throwing inventory and resources at them</td>
<td>Expose problems by reducing inventory and resource levels</td>
</tr>
<tr>
<td>Managers work in offices and manage with data and reports</td>
<td>Managers &quot;go and see&quot; and manage with data and facts</td>
</tr>
<tr>
<td>Execute fast and go on to the next &quot;new&quot; thing</td>
<td>Plan, Do, Check, Act...Getting the Right Things Done Right</td>
</tr>
<tr>
<td>A problem is an unclear opportunity... it is optional to fix it</td>
<td>A problem is a deviation from the standard...it must be fixed</td>
</tr>
<tr>
<td>The cause of a problem is people... we ask who?</td>
<td>The cause of a problem is the process...we ask why (5 times)</td>
</tr>
<tr>
<td>We become defensive if others suggest problems in our area</td>
<td>We are thankful others see what we do not see ourselves</td>
</tr>
<tr>
<td>The business is a collection of independent departments</td>
<td>The business is a system of inter-dependent processes</td>
</tr>
<tr>
<td>Focus on outputs and cost reduction</td>
<td>Focus on inputs and lead time reduction</td>
</tr>
<tr>
<td>If it's not broken, don't fix it</td>
<td>It can always be improved</td>
</tr>
</tbody>
</table>
Convincing People on Lean Thinking and Dealing with Resistance

• Create a Sense of Urgency and Articulate the Source of the Urgency
• Show People the Whole Vision So they Can See the Big Picture
• Show People How They Fit Into the Big Picture and the Importance of their Role
• Show People What Challenges and Hurdles are Before You Start the Work
• Recognize How People’s Work Will Be Impacted and Manage the Negative Impacts
• When Challenges Arise, Go Back to the Vision to Validate That You Knew It was Coming
• Find Sites of Excellence to Tour and Show People What You Are Advocating
• Pilot Small Initiatives and Improvement Work to Show How Good Life Can Be
• Appreciate Where Resisters are Coming From and Accept Resistance as Normal
• Show People You are Not Giving Up on Them; That Together You Can Get It Done
• Deal With Fanatical Resisters to Save the Team
• Choose What You Actually Believe In and Get on With the Work
Bring Lean to All Functions
Questions?
Thank you!

Vimal Patel
vpatel@leancor.com