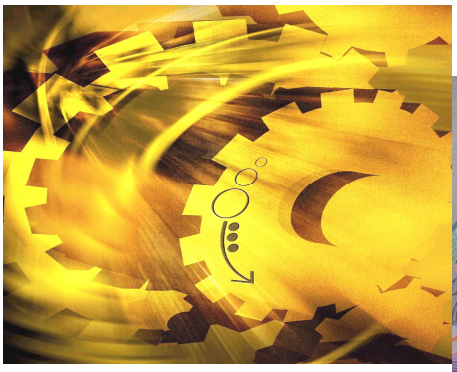
Vative and Motorola University

Lean Leadership Program



Internationally certified training program

Program Overview

Lean manufacturing which is often known simply as "**Lean**", is a generic process management philosophy derived mostly from the Toyota Production System (TPS). It is a powerful method that allows organizations to improve the productivity, efficiency, and quality of their products or services. Companies today, from a wide range of industries, government agencies and other areas are finding ways to apply the principles of lean as a means of producing goods and delivering services that creates value for the customer with the minimum amount of waste and the highest level of quality. Our simulation-based, hands-on workshop will present you with essential principles, tools and applications of Lean in the operational environment.

Objectives:

Upon completion of this program, the participants will be able to:

- Understand the Lean Principles and Tools
- Discuss the Lean Deployment Strategy and Framework
- Conduct Value Stream Maps of the Current State and Develop a Future State
- Identify Wastes and use critical Lean Tools to Eliminate Wastes
- Define the Improved Flow and Process in Simulated Process or Operational Environments.
- Apply the Lean Principles and Tools at their Workplace and Lead Projects.
- Improve the Overall Efficiency of a Process or Operations including the Support Areas.

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Program Participants

This program is designed for senior, middle and frontline managers and executives who want to equip themselves with the knowledge and skills necessary to be effective Change Agents and Lean Advocates and Practitioners in their organization.

Program Outline:

- **Module 1: Introduction to Lean Manufacturing**
  - Why "Lean"
  - History of lean
  - 5 principles of lean
  - Lean manufacturing and Toyota Production System
  - Lean and six sigma

- **Module 2: Waste Identification**
  - Define Customer Value- add and Business - Value add
  - Identify the 7 wastes
  - Identify the causes of 7 wastes
  - Muda, Mura & Muri

- **Module 3: Value Stream Mapping**
  - What is Value Stream
  - The purpose of a Value Stream Map (VSM)
  - Develop a Current State Value Stream Map of a process
  - Analyze a Current State Map for quick wins
  - Develop a Future State Map
  - How to implement VSM
- **Module 4: 5S-Workplace Organization**
  - Why 5S
  - What is 5S
  - Step by step 5S implementation
- **Module 5: Total Productive Maintenance**
  - What is TPM & TPM Metrics
  - Six Losses of Equipment and OEE calculation
  - 4 phases of TPM
  - 7 steps of TPM
- **Module 6: Standardization**
  - What is a standardized system
  - Advantages of standardization
  - Degrees of standardization
  - Development of Standard Operational Procedure

- **Module 7: Visual Management**
  - Why Visual Management
  - Benefits of Visual Management
  - Levels and steps of Visual Management
  - Tools of Visual Display and Visual Control
- **Module 8: PokaYoke or Error Proofing**
  - Poka Yoke Philosophy
  - Error & Defect
  - Poka Yoke Devices
  - Poka Yoke System
- **Module 9: Flow and Work Cell Design**
  - What's Flow?
  - Traditional Layout & Lean layout
  - What's Workcell?
  - Prerequisite of Workcell
  - 9 steps for Workcell Design
- **Module 10: Standardized Work**
  - What is Standardized Work
  - Difference between Work Standard and Standardized Work
  - Steps of Standardized Work
- **Module 11: SMED (Quick Change Over)**
  - What is SMED
  - Waste during Change Over (C/O) or Setups
  - Benefits gained from reducing C/O times
  - Procedures for observing & recording internal & external C/O activities
  - Methods for reducing C/O times
- **Module 12: Pull System Introduction**
  - What is "Pull"
  - Prerequisites of Pull System
  - Order Analysis
  - How to choose different Pull systems
  - Pull System Rules
  - Introduction of Supermarket Model
- **Module 13: Kanban**
  - What's Kanban?
  - Kanban Functions
  - Kanban Types and Application
  - Kanban Calculation
- **Module 14: Pacemaker & Heijunka**
  - Determine Pacemaker
  - Why Heijunka
  - Heijunka Elements &Sequence
  - Heijunka Box

- Water Spider Route
- Heijunka Application

- **Module 15: Upstream Process Pull**

  - Manage upstream process from Pacemaker
  - Trigger Withdrawal Kanban
  - Control upstream batch process from Supermarket

- **Module 16: Kaizen**

  - What is Kaizen
  - Kaizen Spirit
  - Main Kaizen Activity

Program Length: 3 days workshop (Operational Based)

The workshop simulation exercise Introduction:

The main purpose of the Lean simulation exercises is to enable the participants to master the concept and tools learned in the workshop. Participants can internalize the theory by simulating a simple operation similar to that in a plant, immediately upon studying the basic concept, methods and tools of lean. The simulation is run using a few rounds with step by step approach and focus to improve the flow of a simulated factory. It will also help the participants to understand all other aspects including pull system theory by using Kanban.

Lean leadership participants listening attentively to classroom theory and then working together in an engaging real-world simulation exercise that internalizes the tools and concepts taught.

Features for in-house delivery:

- 0.5 day site visit before the 3 days workshop as a pre-assessment of the current situation. Discussions with Leadership Team and interviews with factory personnel will be part of the plant tour. Focus is to understand Lean opportunities and to define the Lean base line for the company
- Minimum 2 x 4 hours per project on site coaching. Coaching session A at 2 weeks post training and coaching session B at 3 months post training. Maximum 6 months to submit project evidence for final certification.
- Optional operational forensic services of Value Stream Mapping and Lean Business Health Check

CD-ROM Job Aids and Toolkit: (optional)

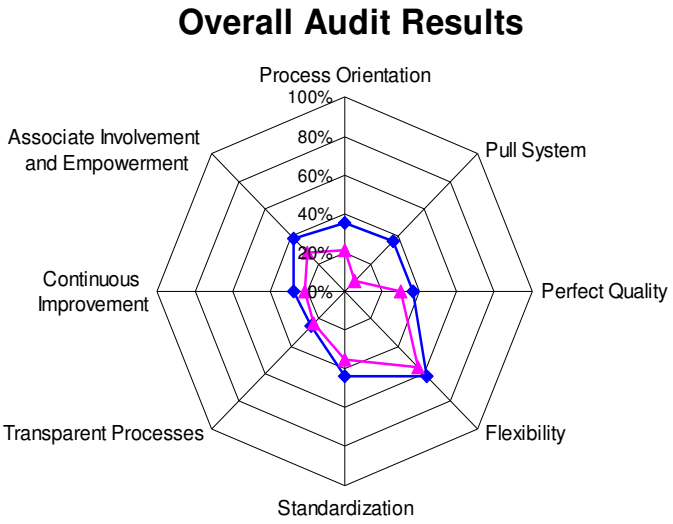
- Provide job aids and toolkit that can be used across a wide range of Lean improvement initiatives.

Certification

We offer the option of a formal **Lean Practitioner** certification. It requires that candidates complete the 3 day workshop, pass the examination and successfully complete one Lean project validated by the Company Management and reviewed and certified by Motorola University Lean Certification Committee.

Location:

This program is available for open classes and also onsite delivery at a location of your choice.



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