

Systems Change Principles: Key Concepts and Systems Change Debate

Module 2.2

Joel Cutcher-Gershenfeld

*Senior Research Scientist, MIT Sloan School of Management and
Executive Director, MIT Engineering Systems Learning Center*

Presentation for:
ESD.60 – Lean/Six Sigma Systems
MIT Leaders for Manufacturing Program (LFM)
Summer 2004

These materials were developed as part of MIT's ESD.60 course on "Lean/Six Sigma Systems." In some cases, the materials were produced by the lead instructor, Joel Cutcher-Gershenfeld, and in some cases by student teams working with LFM alumni/ae. Where the materials were developed by student teams, additional inputs from the faculty and from the technical instructor, Chris Musso, are reflected in some of the text or in an appendix

Overview

➤ Learning Objectives

- Build capability in conducting a stakeholder analysis
- Consider the role of Organizational Development (OD) in lean implementation
- Consider alternative models for systems change
- Appreciation for the dilemmas and challenges in lean implementation – contrasting “top down” and “bottom up” strategies

➤ Session Design (20-30 min.)

- ***Part I: Introduction and Learning Objectives (1-2 min.)***
- ***Part II: Key Concepts or Principles Defined and Explained (7-10 min.)***
- ***Part III: Exercise or Activity Based on Field Data that Illustrates the Concept or Principle (7-10 min.)***
- ***Parts IV-V: Common “Disconnects,” Metrics and Concluding Comments (2-3 min.)***



Stakeholder Analysis

➤ Small groups

- Brainstorm a list of stakeholders for the Single-Point Modules that we will be developing
- Identify 2-3 core interests of each stakeholder
- Analyze overall areas of common interest and potential areas of tension or conflicting interest

➤ Full group

- What are the implications of your analysis?
- What does this tell us about the nature of stakeholders and interests?



A Spectrum of Organizational Development Roles

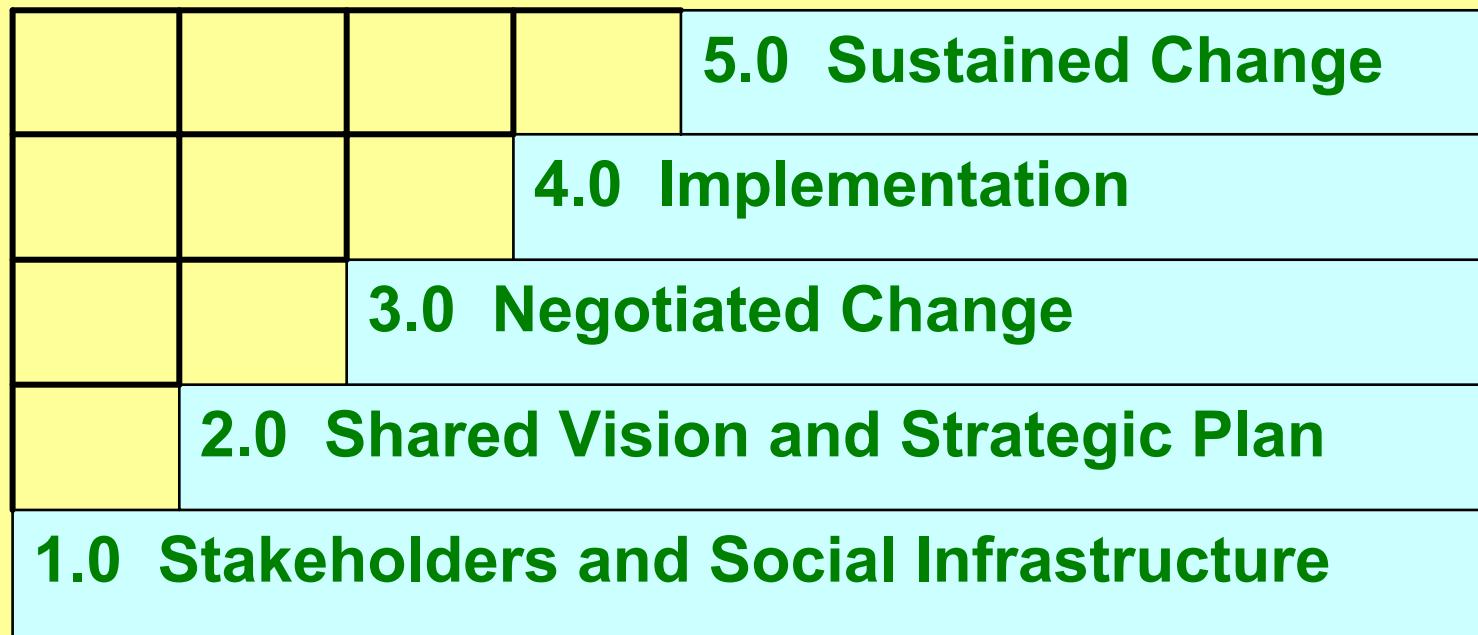


Sample OD Wisdom

- Resistance to change is not irrational
 - Training is not the solution to all problems
 - Disconnects are data
 - Leadership is necessary, but not sufficient
 - The big 3: Strategy, Structure, Process
-
- What are the implications for lean implementation?



Large-Scale Systems Change: A Five-Phase Process for Envisioning, Planning, Implementing and Sustaining Change



Decomposition of Generic Implementation Model



1.0 Stakeholders and Social Infrastructure

- 1.1 Identify stakeholders (including “communities of practice”) and analyze stakeholder interests (assuming a mix of common and competing interests)**
- 1.2 Form representative Design/Implementation Team(s) with identified Champions from among leaders in stakeholder groups (including reciprocal contracting with Champions)**
- 1.3 Identify existing forums and communication channels**
- 1.4 Identify missing or unstable forums and communication channels (gaps in the Social Infrastructure)**
- 1.5 Targeted chartering and other mechanisms to address gaps in the Social Infrastructure**

2.0 Shared Vision and Strategic Plan

- 2.1 Summarize Current State data/research (in a presentational format)**
- 2.2 Develop initial text of potential Shared Vision (facilitated with identified thought leaders) and including vision on substance and vision on the change process**
- 2.3 Facilitate single or multiple stakeholder forums to calibrate/adjust the draft Shared Vision**
- 2.4 Identify preliminary set of implementation milestones, with associated resources and responsibilities – to form a Strategic Plan**
- 2.5 Identify relevant metrics and feedback processes**
- 2.6 Calibrate/adjust Strategic Plan based on stakeholder input and identify key domains for negotiations**



Decomposition of Generic Implementation Model (cont.)



3.0 Negotiated Change

- 3.1 Build capability for interest-based bargaining as appropriate**
- 3.2 Facilitate interest-based negotiations among key stakeholders – seeking mutual gains agreements within bounds of regulatory and other constraints**
- 3.3 Ensure appropriate constituent ratification or calibration of agreements**
- 3.4 Document and “error proof” formal and informal agreements, anticipating potential “disconnects” in implementation**

4.0 Implementation

- 4.1 Launch an appropriate mix of top-down restructuring and bottom-up engagement across relevant forums and channels for communications (with a continuing commitment to avoid surprises)**

4.0 Implementation (cont.)

- 4.2 Utilize “Leader as Teacher” interventions to build capability and foster commitment**
- 4.3 Track relevant metrics, open issues and other key data**
- 4.4 Anticipate “disconnects” in implementation and ensure appropriate mechanisms to learn from the disconnects in a non-blaming, constructive way**

5.0 Sustained Change

- 5.1 Ongoing feedback, calibration, and incremental adjustment**
- 5.2 Hand-off mechanisms for leadership transitions**
- 5.3 Periodic review and renewal for more substantial adjustments**

LaMarsh 4x3 “Managed Change” Model

A. Identify the Change

- 1.1 ANALYZE THE CURRENT STATE
- 1.2 DEFINE THE DESIRED STATE
- 1.3 ASSESS THE DELTA STATE

B. Prepare to Change

- 2.1 SPONSORS
- 2.2 CHANGE AGENTS
- 2.3 TARGETS
- 3.1 CULTURE
- 3.2 HISTORY
- 3.3 RESISTANCE

C. Plan the Change

- 4.1 COMMUNICATIONS SYSTEM
- 4.2 LEARNING SYSTEM
- 4.3 REWARD SYSTEM

D. Implement the Change:

Build the Change Strategies and Tactics into an overall change plan

E. Monitor the Change:

Watch, Measure and Adapt as the change is changing

Courtesy of LaMarsh and Associates. Used with permission.



Source: <http://www.lamarsch.com>

© Joel Cutcher-Gershenfeld – ESD.60 Lean/Six Sigma Systems, LFM, MIT

6/9/04 -- 9



Lean implementation strategies

Top-Down “Re-engineering”

- **Many meanings:**
 - Range from a pretext for restructuring and downsizing to a systematic review of operations with comprehensive process mapping
- **Key quote:**
 - “*if it’s not broke, break it*”
- **Roots:**
 - Roots in private and public sectors, including “re-inventing government”
 - First driven by economic crisis in 1980's, now seen as a process for system change
- **Archetypical Example:**
 - GE “workout” process

Bottom-up “Kaizen”

- **Many meanings:**
 - Range from suggestion systems (kaizen-teian) to an underlying philosophy and a way of life
- **Key quote:**
 - “*many small improvements build long-term transformation capability*”
- **Roots:**
 - Post WWII Japan, beginning with quality circles (QC), statistical process control (SPC), and just-in-time (JIT) delivery practices
 - Increasingly seen from a systems perspective -- Total Quality Management (TQM), Six Sigma, Lean Enterprise
- **Archetypical Example:**
 - Toyota Production System (TPS)



“*Kaizen event*” – A contradiction in terms?



Metrics, Disconnects, and Concluding Comments

- What metrics can be used to track progress in the lean implementation process?
- What disconnects can be anticipated in managing a change process?
- How important is the process as compared to the substance when it comes to lean implementation?

