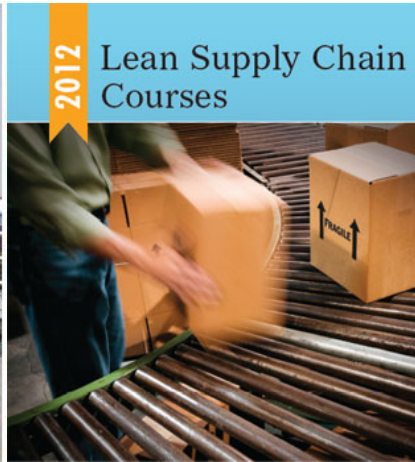


Lean Supply Chain Professional Series

with Robert Martichenko & Kevin von Grabe



GEORGIA TECH
Supply Chain & Logistics Institute

EDUCATION • INNOVATION • LEADERSHIP

The Lean Enterprise: Purpose

- Build the Learning Organization
- Articulate Your Purpose and Customer Value Proposition
- Show Respect for People
- Show Respect for Processes- Stability, Standardization, Quality at the Source
- Make Problems Visible - Solve Problems in Real Time
- Eliminate All Waste - Do Only Those Things That Add Value to the Customer
- Think Long Term as Well as Short Term
- Continuously Improve: Get Better Every Day
- Teach the Power of PDCA



The Lean Supply Chain Professional

**Problem
Solver**



**Lean SCM
Expert**



**Lean
Leader**



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Processes Want to Fall Apart

In a system, a process that occurs will tend to increase the total entropy of the universe.

Second law of thermodynamics

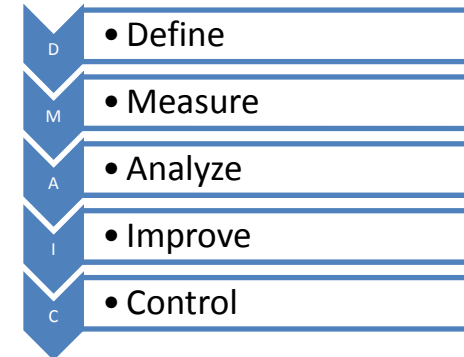
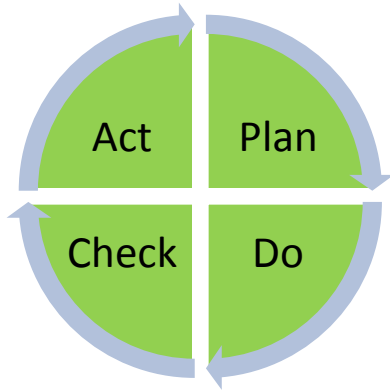


Entropy

- A measure of the disorder or randomness in a closed system
- A measure of the loss of information in a transmitted message
- Inevitable and steady deterioration of a system or society

System: A group of interacting, interrelated, or interdependent elements forming a complex whole.

The Current Gap in Problem Solving



Weaknesses	Strengths	Combined Strengths	Strengths	Weaknesses
Not Thorough	Simple	Simple, but Thorough	Thorough	Complicated
No specific tools	No "specific" tools	20% of the tools solve 80% of the problems	Multiple Tools	Multiple Tools
Hard to sustain	Provides quick fixes	Targets rapid improvements that are easily sustainable	Sustainable	Some sustainment plans can be overkill
Can be difficult to apply and use in problem solving settings	Concept can be explained and understood quickly	Clear, Comprehensive, easy to understand and apply	Clear & Comprehensive	Requires a lot of learning and practice

Orloe Problem Solving Model

Operate	Do the Work & Identify the Problem
	Plan & perform the work. Identify gap between plan vs. actual condition.
Review	Define the Problem
	Document & validate current state. Develop a clearly defined problem statement.
Learn	Determine Root Cause
	Identify all possible causes to the problem. Isolate critical few root causes to the problem.
Optimize	Identify Solutions
	Develop solutions that address the root causes to the problem. Ensure the solutions support the entire value-stream.
Execute	Implement & Sustain the Solution
	Communicate, train, and Implement the solution. Measure and monitor the impact of the solution.

Tools and Processes for Problem Solving

	Operate	Review	Learn	Optimize	Execute
Purpose	Do the Work & Identify the Problem	Define the Problem	Determine Root Cause	Identify Solutions	Implement & Sustain the Solution
Processes & Tools	Voice of Customer	A3O (A3 ORLOE Problem Solving Model)	Pareto - Critical Few	Future State Improvement Tools	Implementation Plan
	CTQ Checklist	Go See Management	Brainstorming	5S	Timeline
	Team Member Standard Work	Data Collection	Cause & Effect	Visual Management	FMEA
	Visual Management	Process Map	5 Why Analysis	Standard Work / Checklist	Dashboards
	Run Charts	Swim Lane Map		Quality at the Source - Error proofing	Communication Plan
	Scoreboards	Current State Value Stream Map		Velocity - One Piece Flow	Review Process
	Leader Standard Work			Leveled Flow	
				Pull Systems	
				Time and Motion Chart	
				Takt Time Calculation	
				Future State Maps & Gap Analysis	
			XY Matrix for Prioritization		

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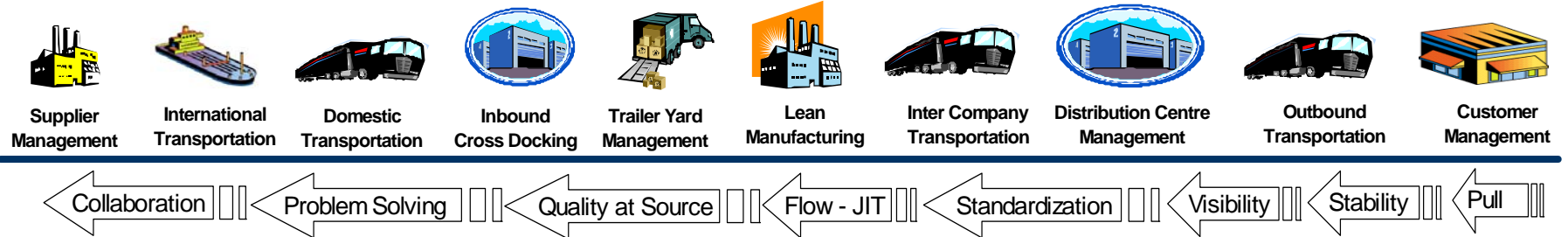


**Lean
Leader**

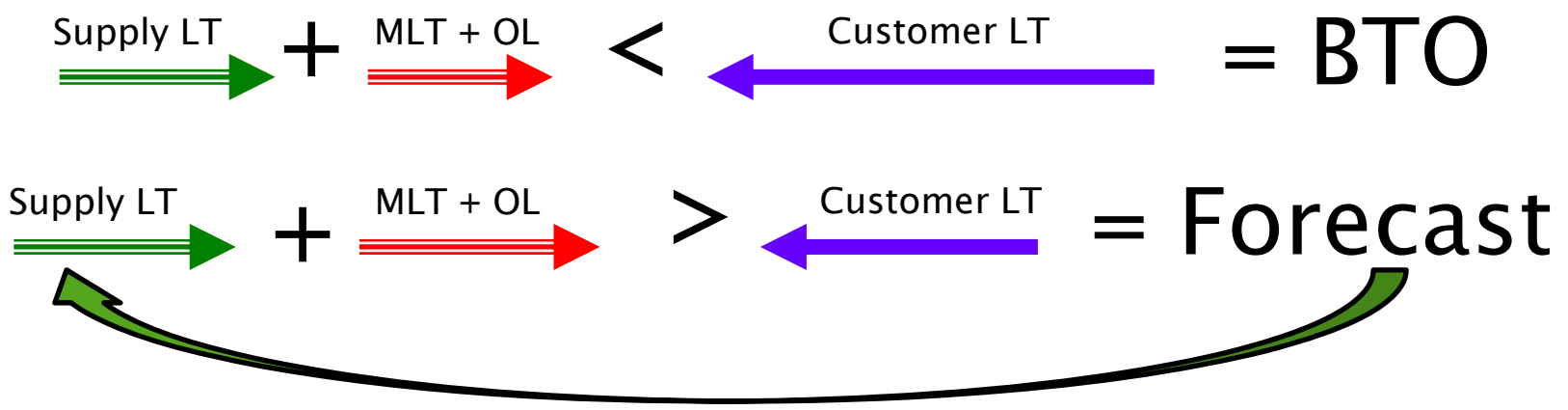


The Ultimate Business Model

Right Part ? Right Quantity ? Right Time ? Right Place ? Right Price ? Right Quality ? Right Source ? Right Service



Build to order = No overproduction so what's the problem?

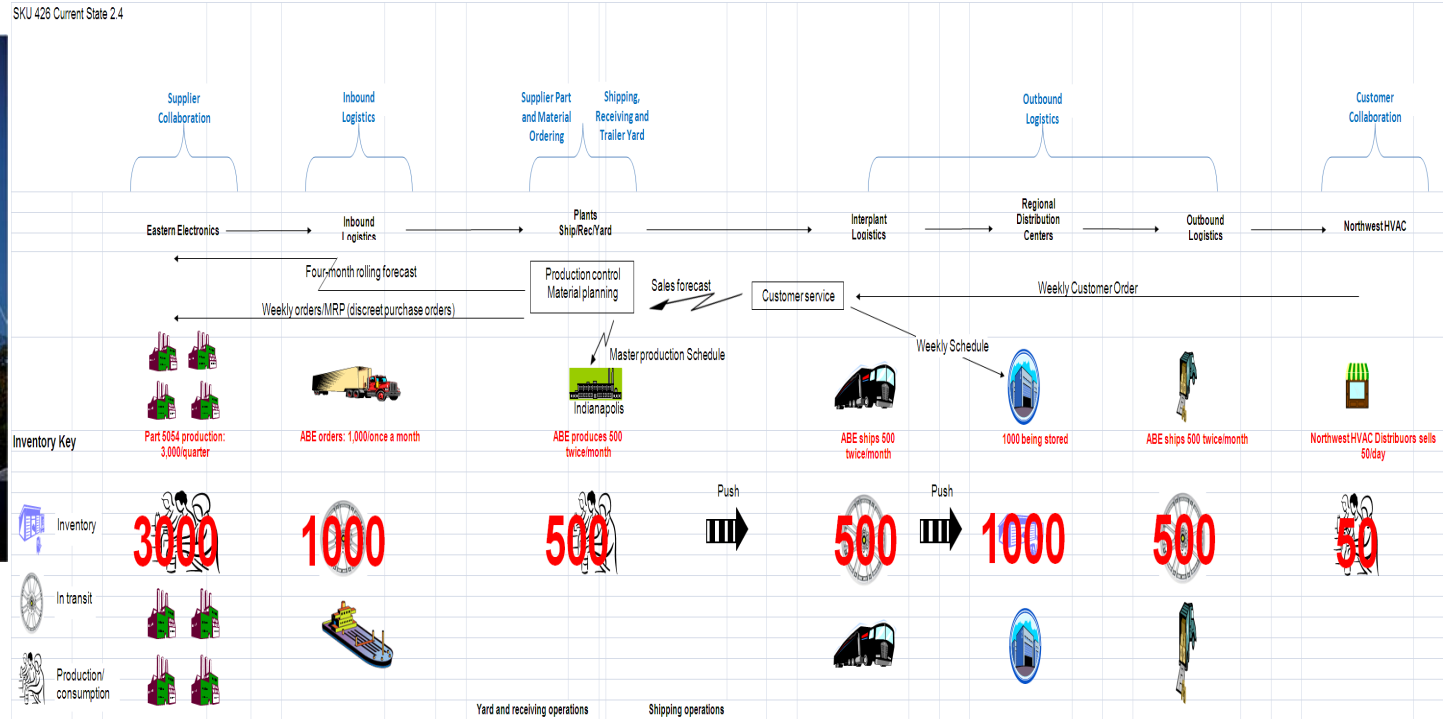


Process: Systems Thinking

SKU 428 Current State 2.4



**Ownership
and Control**



Taking Responsibility for System Wide Results

Lean Supply Chain - Guiding Principles

1. Make consumption visible throughout the fulfillment stream

2. Reduce lead time to enable pull and reduce inventory

3. Create level flow to reduce variation and enable stability

4. Use pull systems to reduce complexity and over production

5. Collaborate, solve problems and focus on process discipline

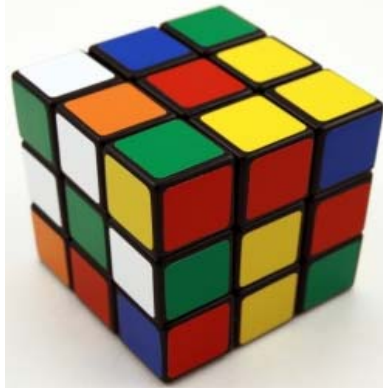
6. Increase velocity to drive flexibility to meet customer demand

7. Lead and make decisions based on Total Cost of Fulfillment

Why? To eliminate all waste so that only value remains

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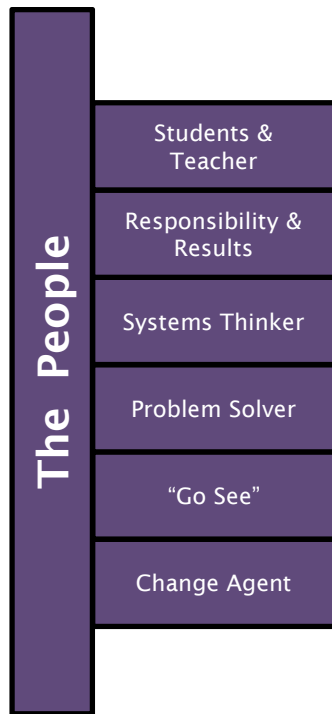
**Lean
Leader**



Lean Leadership – People

→ Respect for people produces:

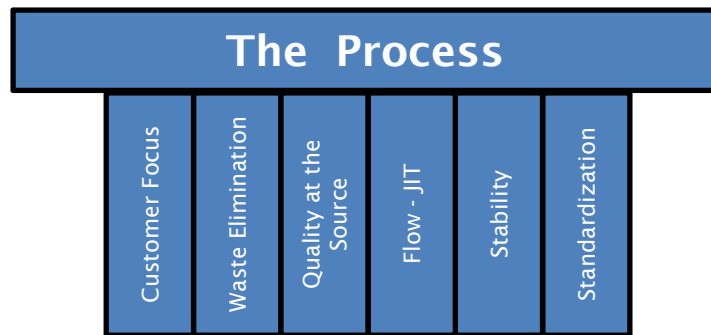
- A safe and visual work environment
- Communication and alignment of corporate purpose
- Fair days pay for a fair days effort
- Development for opportunity and growth
- Candid and respectful feedback on performance
- Problem identification and improvement (at root cause)
- Experiments, failure and self reflection
- Mutual trust creating strong relationships for change



Lean Leadership – Process

A Respect for humanity through process thinking

- Internal and external customer expectations known to all
- Understood standards to be used for improvement baseline
- Stability of processes to reduce over-burden
- Focus on flow and delivering customer value
- Quality in our work, pride to not pass on defects
- Waste Elimination – Respect for each moment of our lives



Do your best every time ... because by doing a thing well you build something valuable into yourself.

HENRY FORD, *Theosophist Magazine*, Feb. 1930

Becoming a Lean Leader

1. Building the Lean Enterprise -- Deep Understanding of Lean Thinking
2. Lean Leadership -- Lean vs. Traditional Leadership
3. Leading by Principles & Purpose
4. Leading the Vision -- Focus, Alignment, and Constancy of Purpose
5. Leader as Student and Teacher
6. Advocacy vs. Inquiry
7. Respect for People -- Deep Understanding of Lean Thinking
8. Lean Leadership -- Process and Value Stream Thinking
9. Management Systems and the Role of the Leader
10. Lean Leadership and Effective Measurement Systems
11. Reflection
12. Time Management -- Leader Standard Work
13. Visual Management and “Go See” Leadership
14. Building Teams
15. Convincing People on Lean Thinking and Dealing with Resistance



Building the Supply Chain Professional

**Building the Lean Supply
Chain Problem Solver**

March 13-15, 2012
September 18-20, 2012

**Building the Lean Supply
Chain Professional**

April 10-12, 2012
October 16-18, 2012

**Building the Lean
Supply Chain Leader**

May 15-17, 2012
November 13-15, 2012



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Passes the “So what?” test



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Thank You

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