



Lean and the CMS Provider

A Break-out Presentation:
CMS Forum
October 26, 2006

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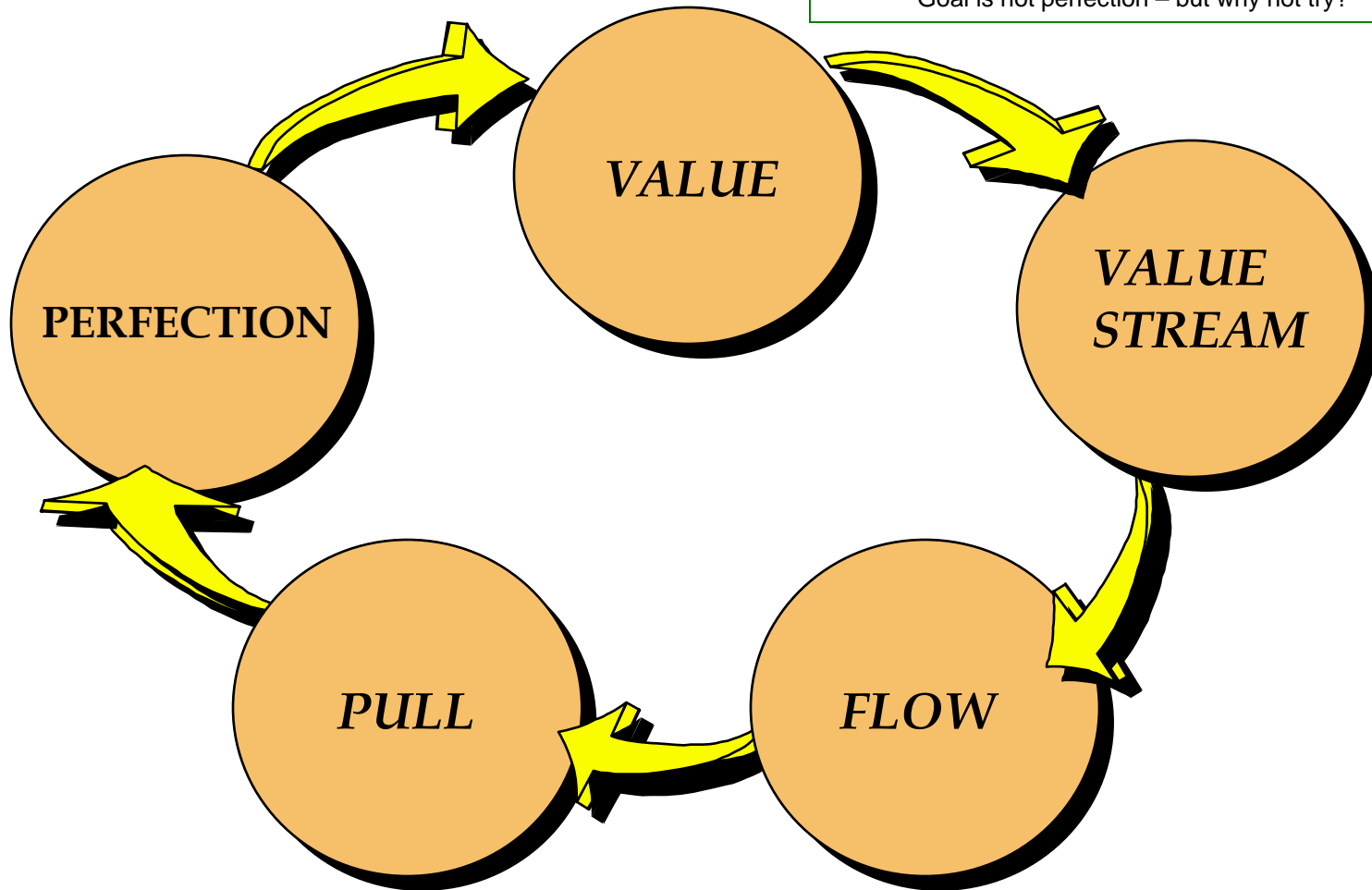
**Rockwell
Collins**

Overview

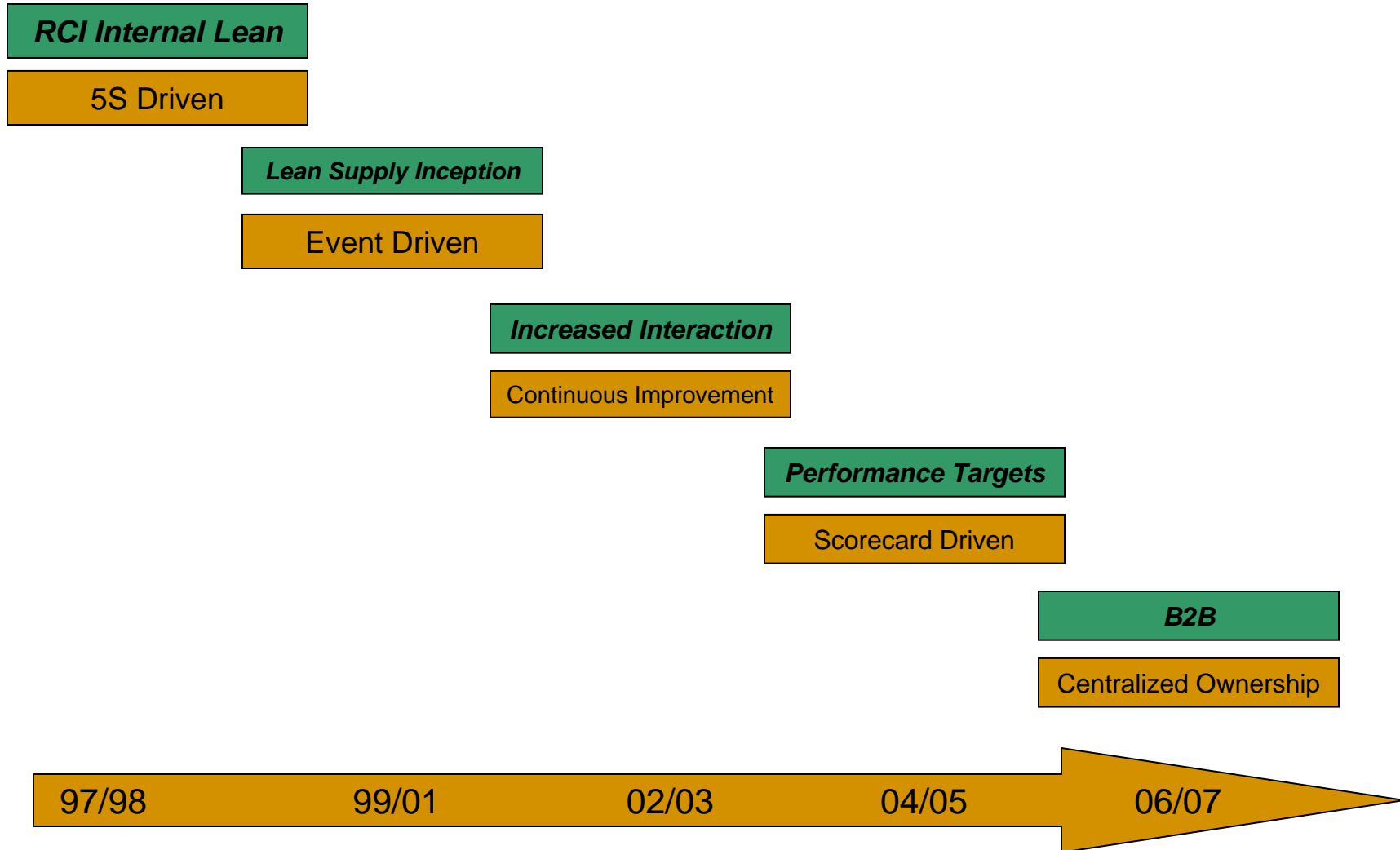
- Rockwell Collins, Inc. Lean/Lean Supply Background
- CMS Program Overview
- Lean/CMS Program Integration
- Advantages/Disadvantages of CMS/Lean Linkage
- Performance Tracking
- Key Program Benefits

What is Lean?

Continuous Improvement Methodology
Focuses on elimination of non-value added activity
Toyota Production System
7 categories of waste
Value creation for customer
Reduction of internal costs
Goal is not perfection – but why not try?



Rockwell Collins, Inc. Lean/Lean Supply Background

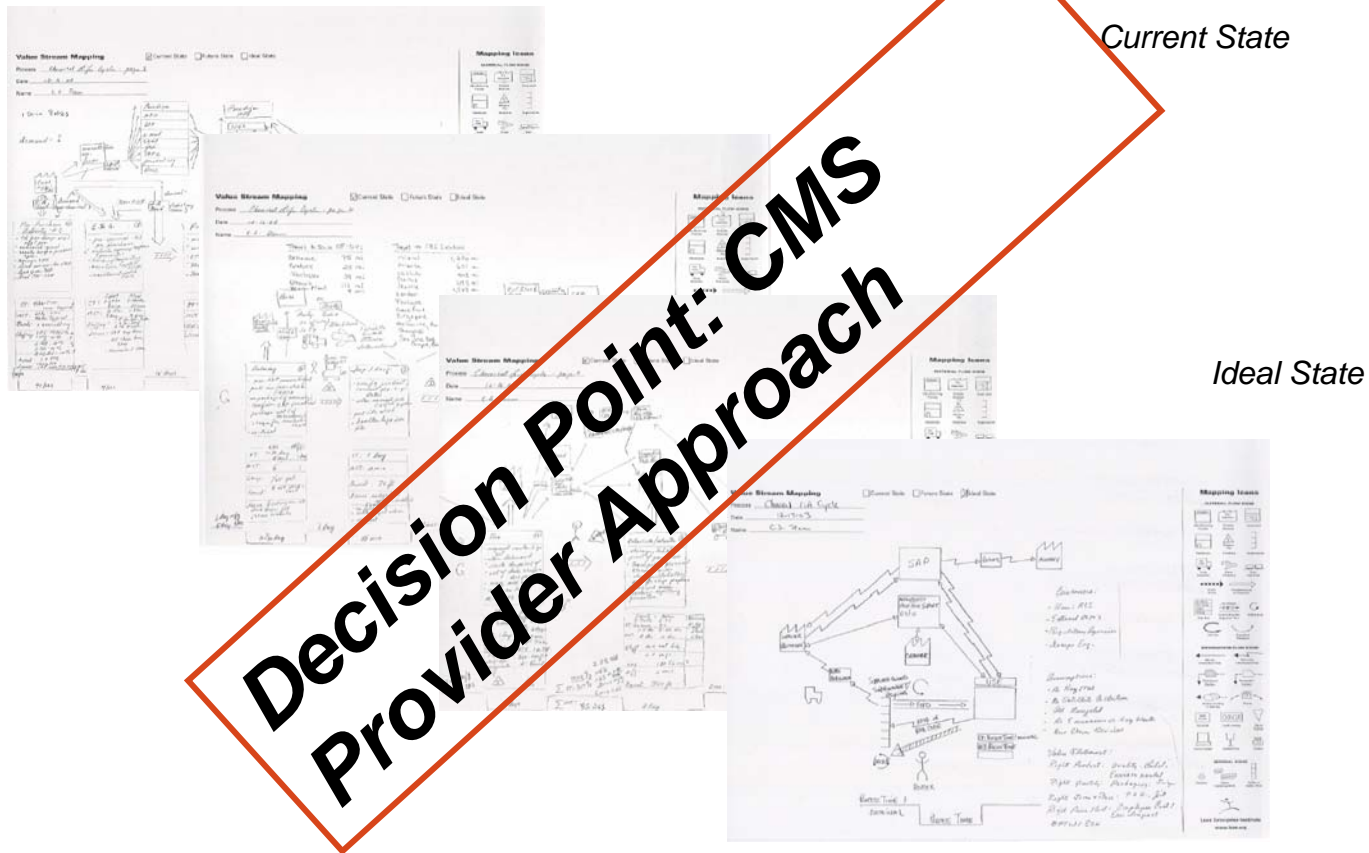


CMS Program Overview

- Avchem, Inc.
 - Headquarters: St. Charles, Missouri
 - Cradle to grave chemical management services
- Combination:
 - Point-of-use (POU) cabinet management
 - All of Iowa
 - Melbourne, Florida
 - San Jose, California
 - Lynx on-line desk-top ordering system
 - Stand-alone web-based interface
 - Home for virtual POU
 - Cost savings and process improvements
- Environmental Safety & Health reporting data provisions

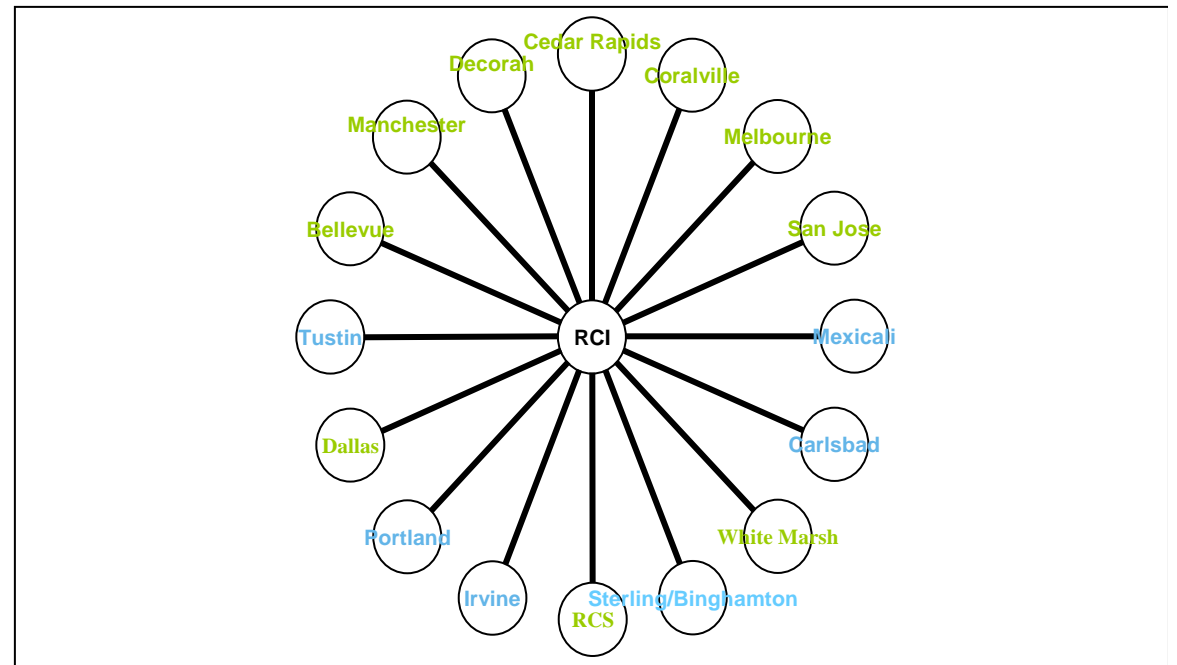
Integration of Lean and the CMS Program: 2003

- RCI Chemical Life Cycle Value Stream Map approach 12-03:



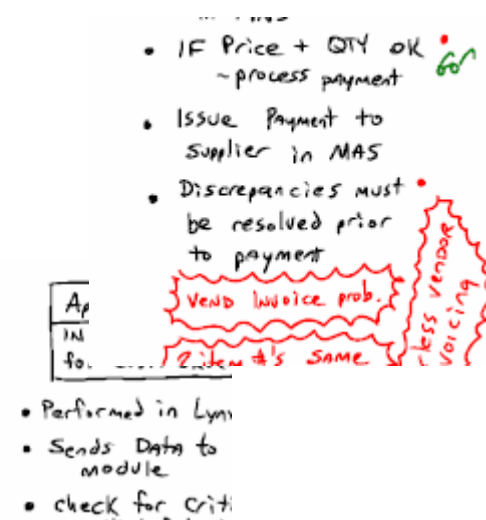
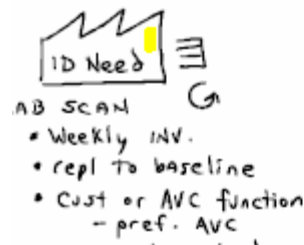
2004/2005/2006:

- Sourcing process
 - Standard process
- Contract signature: 10-04
 - Support service contract
- Hand-off and implementation
 - Underestimation of effort and scope



Additional Integration: Value Stream Map, Avchem – June, 2006

- St. Charles headquarters
- Team make-up
 - Top level leadership
 - Management level process owners
- Scope
 - From: identification of need
 - To: receipt of payment
- Process
 - Map current state
 - Process flow
 - Gather data and issues
 - Information flow
 - Results
 - % VA






Value Stream Mapping Event continued

- Ideal state
- Future state vision and characteristics
- Future state map
- Gap analysis
- Action plan
 - Known as Kaizen
 - 5 days of “doing”



- Keys to success
 - Leadership support and enablement
 - Stakeholder involvement

Kaizen Events at Avchem

- September, 2006 
 - Kaizen event #1: Expiring Materials Process Re-engineer (EMPR)
 - Short term and long term solution
 - Standard work instructions
 - Training documents and roll-out plan
 - RCI facilitation and mentor dedicated Avchem Lean resource
- November, 2006: 
 - Second kaizen event
 - RCI/Avchem co-facilitation
- December, 2006: 
 - 5S
 - Avchem facilitation
- Additional local floor level VSM at RCI
 - Scheduled for October
 - Address baseline quantities/adjustments

Additional Linkage: Cabinet Management = Kanban System

- Kanban is a visual signal to produce or act
 - Kanban is a Lean tool that ties activities together
 - Kanban only functions effectively in combination with other Lean tools
- Kanban includes the use of cards, empty totes or shelves, electronic signals OR:
 - **CABINET LEVELS BELOW BASELINE**
- Kanban levels need to be monitored periodically
 - Baseline adjustments
- Advantages/disadvantages of Lean/CMS program linkage
 - No disadvantages – Lesson Learned!
 - Should have mapped a future state
 - Better understanding of requirements from each area
 - Maps key processes and change actions necessary
 - Enables buy-in



Performance Tracking

- Existing scorecard
 - Savings
 - Backorders
 - FTE savings
 - Delivery metrics
 - Quality

<u>CMS Scorecard</u>	Enterprise				
Metrics	Baseline	Current Month - Sept 06	YTD	Goal - end of year one	Trend
Savings					
FTE Savings					
Backorders: Scanned					
Average Customer Wait Time					
Quality					



Key Program Benefits

- Forces change
- Reporting accuracy
 - ES&H VOC/HAP's
- Tollgate process
 - On-line work flow
 - Lynx on-line request forms
 - visibility and approval for:
 - ES&H
 - Application Engineering
- Lowers floor inventory





QUESTIONS?????