



Pete Murray
V.P. Operations
February 15, 2007

Oral Presentation

**The National Institute of Standards and Technology's Role in
Supporting Economic Competitiveness in the 21st Century: the FY08
Budget Request**

Agenda

- Welch Allyn's Experience Implementing Lean Manufacturing with  **OMEP**
- Why choose an OMEP?
- The Administration's FY08 funding proposal

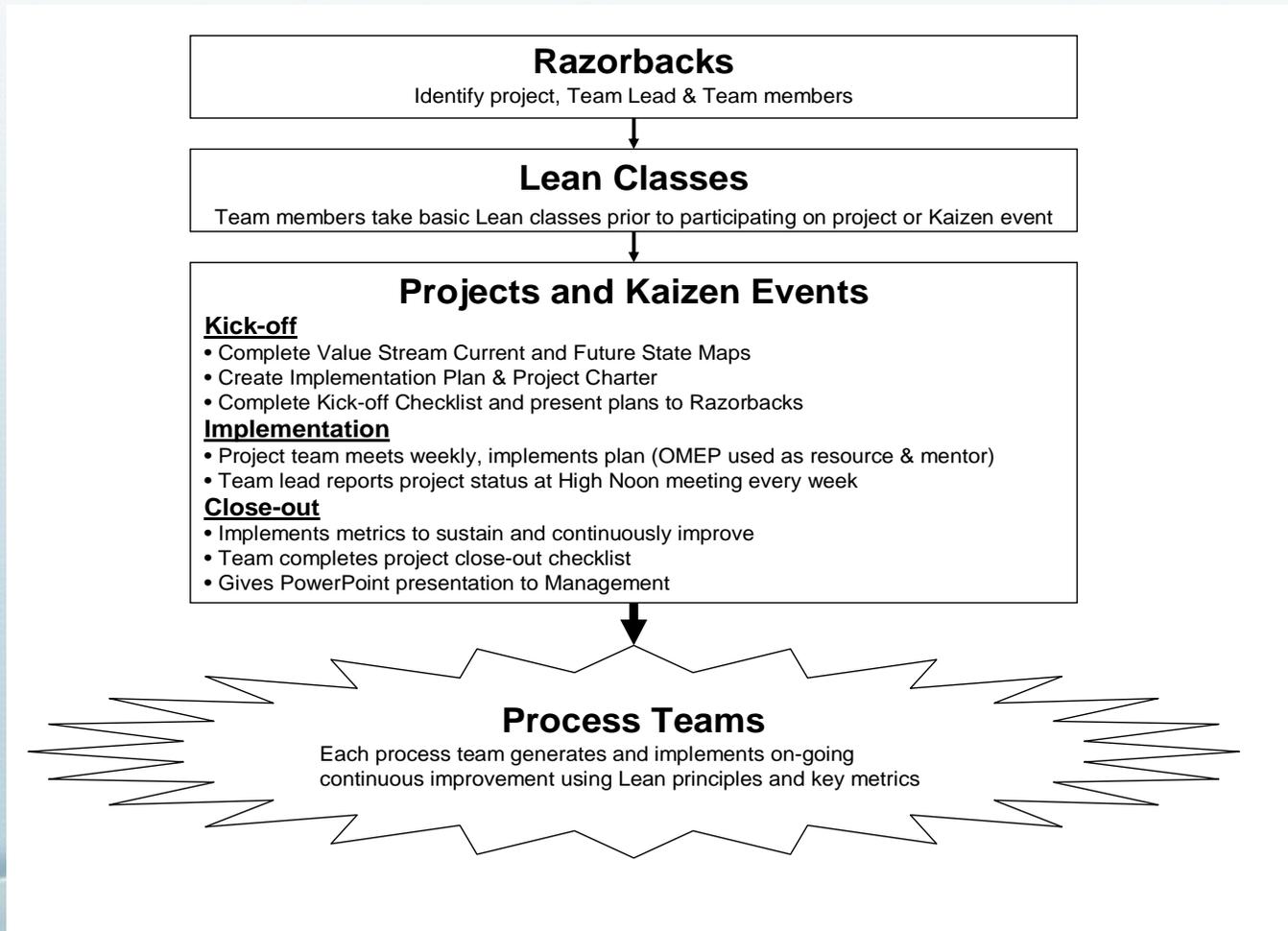
Getting Started – Finding The Right Partner

- August '04 – Launched company wide CI initiative
- November '04 – Site Management organizes to pursue program
- December '04 – Applied for State Grant through WSI to fund initial efforts
- January '04 – Grant approved, OMEP first meeting
- February '04 – **OMEP** contract signed, assessment begun
- April '04 – After 3 weeks delay for FDA inspection, training began



Examples of OMEP Engagement work

Custom Program Deployment Model



Generalized Lean Classes

Everyone receives Basic Lean training

- Principle of Lean Manufacturing
- 5S and Visual Factory
- Value Stream Mapping

Advanced Lean training for key personnel

- Leadership and Workshop Facilitation
- Performance Measures
- Teams
- Problem Solving

Project Selection Tools

Updated: 4/15/06

#	Project/Kaizen and 6 Sigma	2005					2006					Lead	Tech Support								
		July	August	September	October	November	December	January	February	March	April			May	June	July	August	September	October	November	December
1	POEM																			Sheila	Mike L
2	Propaq																			Kevin L.	Tom N.
3	Incoming Insp																			Pam	Tim W.
4	Whse																			Sean D.	
5	Service																			Eric	
6	Shipping																			Matt	Tom N.
7	DUET																			Sheila	Tom N.
8	Propaq #2																			Kevin L.	Tom N.
K1	Shipping Kaizen																			Matt	
9	Atlas																			Tom S.	Tom N.
10	Whse2																			Sean D.	Tom N.
11	Service #2																			Eric	Tom N.
12	Doc Center																			Dennis S.	
13	Planning																			Jim D.	
15	Propaq LT																			Jason	Tom N.
16	VSM																			Erin	Tom N.
	6-Sigma Trng (Green Belt)																				
S1	6-S #1 Line Down																			Dan, Sean	
S2	6-S #2 NCR Turn																			Mike, Brian	
S3	6-S #3 Propaq																			Dewey, Rich	
S4	6-S #4 Redundant																			Andrey, Scott	
K2	Whse Inv Rationalization Kaizen																			Frank	
K3	Acuity Kaizen																			Perry	
K4	Service Kits Kaizen																			Tom N.	
17	Purchasing																				
18																					
K5	open Kaizen slot																				
K6	open Kaizen slot																				
K7	open Kaizen slot																				

Razorbacks select projects, team members and schedule durations

Program Administration Tools: Scheduling

LEAN Classes, Key Project Dates, & OMEP Support Dates for 2006

Updated: Mar 13, 2006

Date	Class/Event/Activity	Projects	Class Time	Comments
17-Apr	M General OMEP Support			
19-Apr	W VSM (Class)		8am - 3pm	Aaron teach (Robin gone)
24-Apr	M 6 Sigma - Day 3		8am - 3pm	
25-Apr	T 6 Sigma - Day 4		8am - 3pm	
1-May	M Project kick-off Day 1	VSM & Propaq LT	8am - 4pm	
3-May	W Project kick-off Day 2	VSM & Propaq LT	8am - 4pm	
8-May	M 6 Sigma - Day 5		8am - 3pm	
9-May	T HPEC Learning Tour at Welch Allyn			
10-May	W 6 Sigma - Day 6		8am - 3pm	
15-May	M General OMEP Support		8am - 4pm	
17-May	W Class on running a Kaizen Event		8am - noon	1/2 day class
22-May	M 6 Sigma - Day 7		8am - 3pm	
23-May	T 6 Sigma - Day 8		8am - 3pm	
24-May	W General OMEP Support			
31-May	W General OMEP Support			
5-Jun	M General OMEP Support			
7-Jun	W Project Event Day 1	VSM & Propaq LT		
12-Jun	M General OMEP Support			
14-Jun	W PLM (class)		8am - 4pm	Include project team #17 & 18
19-Jun	M General OMEP Support	VSM & Propaq LT		
21-Jun	W Project Event Day 2	VSM & Propaq LT		
26-Jun	M General OMEP Support			
28-Jun	W 5S (class)		8am - noon	Include project team #17 & 18
5-Jul	W General OMEP Support			
10-Jul	M Class on running a Kaizen Event		8am - noon	1/2 day class
12-Jul	W VSM (class)		8am - 3pm	Include project team #17 & 18
17-Jul	M Project kick-off Day 1	Project teams #17 & 18	8am - 4pm	
19-Jul	W Project kick-off Day 2	Project teams #17 & 18	8am - 4pm	

Class:	Performance Measures	PLM (Swing)	PLM	5S	VSM	Six Sigma
	8300 Building	8500 Building				
Date(s):	13-Mar	27-Mar	5-Apr	12-Apr	3-May	Apr 10-11, 24-25 & May 8-10, 22-23
Day:	Mon	Mon	Wed	Wed	Wed	Mon-Tues
Scheduled Participants	1 Kevin Lowry	Erin Salter	Sharon Curley	Sharon Curley	Sharon Curley	Dan Nelson
	2 Sean Duffy	Shong Xiong	Jason Stratton	Jason Stratton	Jason Stratton	Andrew K.
	3 Tim Gonzalez	Vinh Troung	Peggy Meeks	Peggy Meeks	Peggy Meeks	Dewey Nigma
	4 Perry Brown	Chari Johnson	Scott Webber	Scott Webber	Scott Webber	Scott Christiansen
	5 Mike Orzen	Michael Tran	Nina Han	Service	service	Rich Wynkoop
	6 Eric Roper	Rian Moore	Rudy Reyes	Rudy Reyes	Rudy Reyes	Sean O'Bar
	7 Nova Cotner	Brandy Chung	Lynn Nguyen	Lynn Nguyen	Lynn Nguyen	Brian Hopkins
	8 Narin Lim	Sok Sukhon	Yothin	Yothin	Yothin	DeLynn Elrod
	9 Erin Salter	Lam Ton	Kim Riley	Tuan Do	Tuan Do	Mike Orzen
	10 Ron Clayton	Jamie Keck		William Burghardt	William Burghardt	Full
	11 Kevin Ehlers	Yen Cao	William Burghardt	Jenni Clarambeau	Terry Wood	
	12 Frank O'Connor	Abe Goodwin	Than Woodriddle	Bich Nguen	Bich Nguen	
	13 Sheila Worley	Don Hanson	Bich Nguen	Jeff Phelps	Jeff Phelps	
	14 Matt Olsen	Erica Stoliby	Tuan Do	Tanya Yasinskaya	Tanya Yasinskaya	
	15 Tom Normandin		Mike Farrell	Jean Kozhevnikova	Jean Kozhevnikova	
	16 Dennis Shaw		Marta Hernandez	Vibol Vath	Vibol Vath	
	17		Jenni Clarambeau	Joy Loftus	Joy Loftus	
	18		Adrian Roman	Anton Colonge	Anton Colonge	
	Full	Full	Full	Full	Full	

Managers responsible for selecting/notifying attendees

Customized Project Summary Plans

Project Status designated by color codes: Green = On Target, Yellow = Concerned, Red = Major Concern/Issue, Blue = Complete

Updated: April 12, 2006						Kick-off Month				Project Month 1				Project Month 2				Project Month 3				Task Leader	Required Resource
Project	Major Tasks/Actions	Deliverable	Target Compl Date	Percent Complete	Status/Comments	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
Planning																							
	Identify & implement strategy/method to reduce manual inputs (import Excel into Proman) [std Excel format]	Importing items from Excel into Proman	28-Apr	50%																		Paul	ProCo & Jim
	Start planning those items in weekly buckets	Items planned in weekly buckets	26-May	0%																		Jim & Matt	
	Identify & implement strategy/method to reduce manual inputs (import Excel into Proman)	Importing items from Excel into Proman	28-Apr	50%																		Paul	ProCo & Jim
	Improve forecast process	Documented and trained forecast process	26-May	20%	Marketing is working on model to assist in developing an accessory forecast																	Jim & Matt	Kevin, Buyers, & Team
	Create method to allow opening of work order to trigger elimination of master schedule demand		28-Apr	0%																		Paul	ProCo, Jim & Matt
	Improve production schedule work order completion process	Documented and trained production schedule work order process	28-Apr	0%																		Jim	
	Improve process for stock adjustment of negative balance of purchased parts		28-Apr	0%																		Kevin	Frank, Nova, & Matt
	Create and implement metrics			25%																			
	Prepare project summary & report																						
	Complete project	Closeout checklist completed																					

These are select key milestones reported each week from the detail implementation plan

Customized Project Management tools

Welch Allyn Project & Event Kick-off Checklist

Note: Normal continuous improvement activities are encouraged and should follow established guidelines provided by the appropriate managers. This checklist applies to all "projects" and "events". Prior to implementing any project/event changes, the follo

- A Compass (or Charter) is completed and approved by Razorback team
 - Team name, Team Leader & Team Members
 - Project/Event Purpose and Objectives
 - Boundaries (in-scope and out-of scope)
 - Project/Event Timeframe
- A detailed implementation plan is completed (using standard Welch Allyn format)
- Metrics (that will measure project/event effectiveness) are clearly defined.

Note: If no baseline metrics are available, sufficient baseline data has been collected prior to implementing changes.
- Implementation plan and key milestones are saved in the "Project Status" file on the T-drive.
- The implementation plan, team goals, and metrics have been presented to the Razorback team.
- Meetings and "events" have been scheduled to accomplish the implementation plan.

Welch Allyn Project & Event Completion Checklist

Note: The following items need to be completed prior to closing out a project or event

- A summary of the project/event is written and submitted to the Razorback team.
 - Include an assessment of how well the project/event met its stated objectives.
 - Summary has been submitted to the Razorback team
 - Summary has been saved in a folder on the T-Drive
- Improvements have been documented (using data).
- Metrics are in place to ensure continual improvement of process.
- A PowerPoint presentation (using standard format) of project/event is given to top management.
- Future improvements (with suggested urgency, responsibility, and timing) are summarized and reviewed with Razorback team.
- Documentation (to new process or changes) has been submitted to Doc Center.

WelchAllyn®					
Kaizen Event Compass					
Department:					
Project Name:					
Purpose:					
Process Boundaries:					
Start:		End:			
Process Tools:					
Project Goals:					
	Description	Goal (%)	Values		Change (%)
			Before	After	
Project Team:					

Standard Forms for each team/project

Standardize PowerPoint Summary Presentation

**Project Name
and
Team Members**

**Current & Future
State Value
Stream Maps**

Before & After Layout

**Before & After
Photos**

**Delivery
Improvements**

**Quality
Improvements**

**Cost
Reductions**

“What’s Next”

Training & Implementation Accomplishments in First Year

- ✓ Over 250 have completed the Lean course,
- ✓ Over 100 have implemented their training on projects,
- ✓ Over 20 Lean projects and 10 Kaizen events have been completed,
- ✓ Pleasure of seeing 10 – 15 CI “Stars” emerge!

Results, Results, Results!

- ✓ Reduced labor expenses >\$1 Million
- ✓ Reduced WIP >\$500k
- ✓ Saved ~2500 ft² of manufacturing space
- ✓ Added over 100 jobs in the past year (450 FTE in FY06 up from 270 FY04)
- ✓ **Great improvement in Morale**

Why Choose an OMEP?

- What distinguishes OMEP from similar groups who claim to provide the same services is OMEP's unique focus on their client's success and less so on selling future services
- They provided core training and implementation experience to get us started and were able then to adjust their approach as we progressed through our Lean journey.
- Their consultants are both hands on and strategic
- OMEP has been key to our success in making our Lean transformation
- We are continuing to expand our Lean Enterprise and we look forward to continuing to work with OMEP.

The Administration's FY08 funding proposal

- The Administration 56% cut to the funding for the MEP program to \$46.332 Million for FY08 I feel would be a serious blow for the affiliates to overcome
- I sit on the Board of OMEP and I would expect the following to occur if the budget reduction went through;
 - Staff reductions
 - Reduced ability to attract new clients
 - Client base unable to make up revenue shortfall
- The funding model of MEP is a very efficient use of federal dollars and the funding level should be restored.



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