

# Lean Daily Management Systems

Sustained Improvement through Employee Engagement



## Iowa Lean Consortium

Des Moines, Iowa

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*October 30<sup>th</sup>, 2019*

*Session A4 11:00am – 12:15pm*

*Session C9 3:00pm – 4:15pm*

# Introduction ...

- Senior Consultant at Productivity Inc. – 4 Years
- Director, Continuous Improvement – Hershey Chocolate – 3 years
- Wm. Wrigley Jr. Co. – Total 18 years - (USA, EU, Asia)
  - 6 Years as a E2E Supply Chain Director
  - 2 Years Global CI
  - 10 years in Plant roles
- Merchant Marine Engineer – 10 years

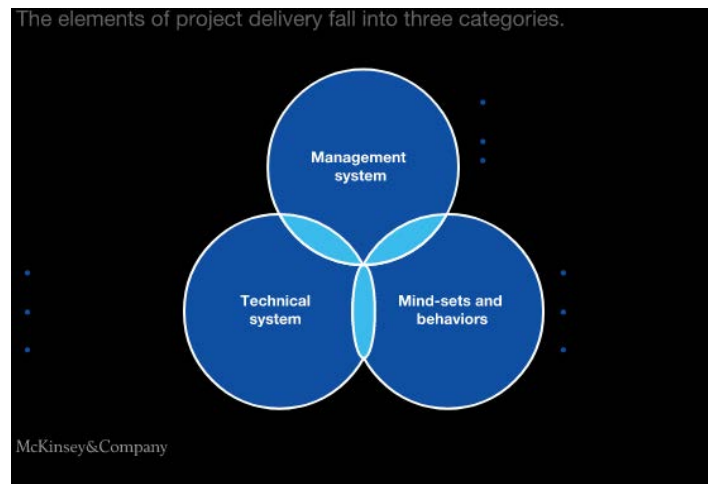


# Objectives for today ...



## Session Objectives:

- Learning how to build an effective Daily Management Systems across your plant/organization.
- Understanding the connection between Daily Management, employee engagement, and efficiency
- Understanding how “leaders as coaches” build capability at all levels of the organization.



*The Problem Statement – The Why?  
Business Need*

*Reflections / Questions in your mind?  
The What? Daily Management in a nutshell*

*Tactics  
What do I need to do differently to be successful?  
How does DMS help us become successful?*

*Leadership Responsibilities and Behaviors  
How can they best help add value?*

# I am working hard to make this happen ...

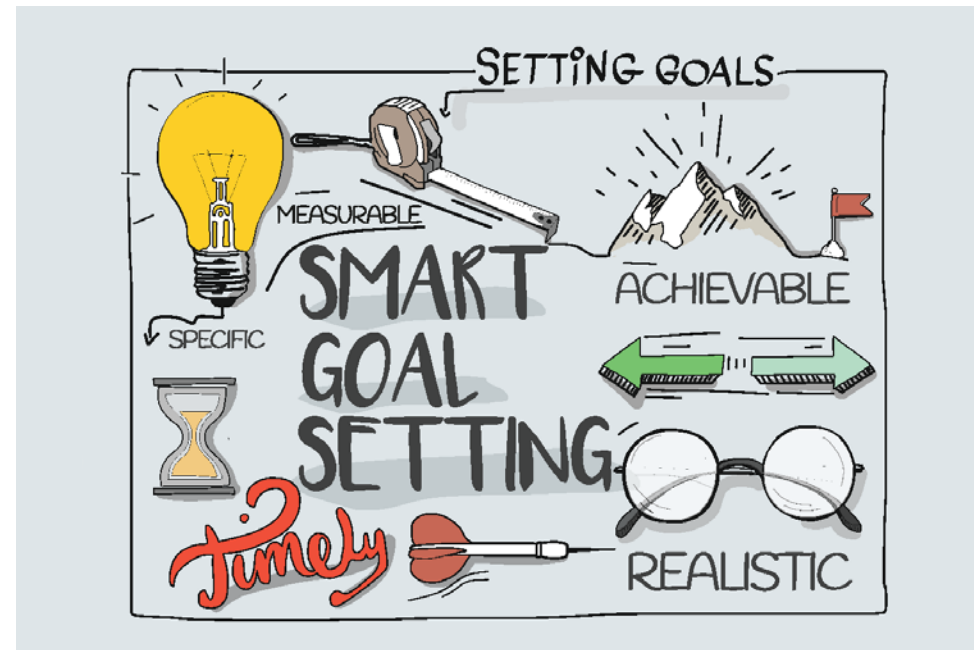
- Are improvements being made only by experts?
- Are you unable to sustain gains beyond a few days?
- Are CI leaders unable to engage floor employees?
- Are your best resources busy fighting fires?
- Run, run, run ..... No time to make improvements !
- Low Productivity is chronic; inconsistent performance
- “Legacy” momentum, leadership credibility very low



# Setting the organization up for success ...

## First Step:

- ✓ Are there meaningful goals to drive improvement?
- ✓ Is there a good line of sight?
- ✓ How are we making sure we will deliver consistently?



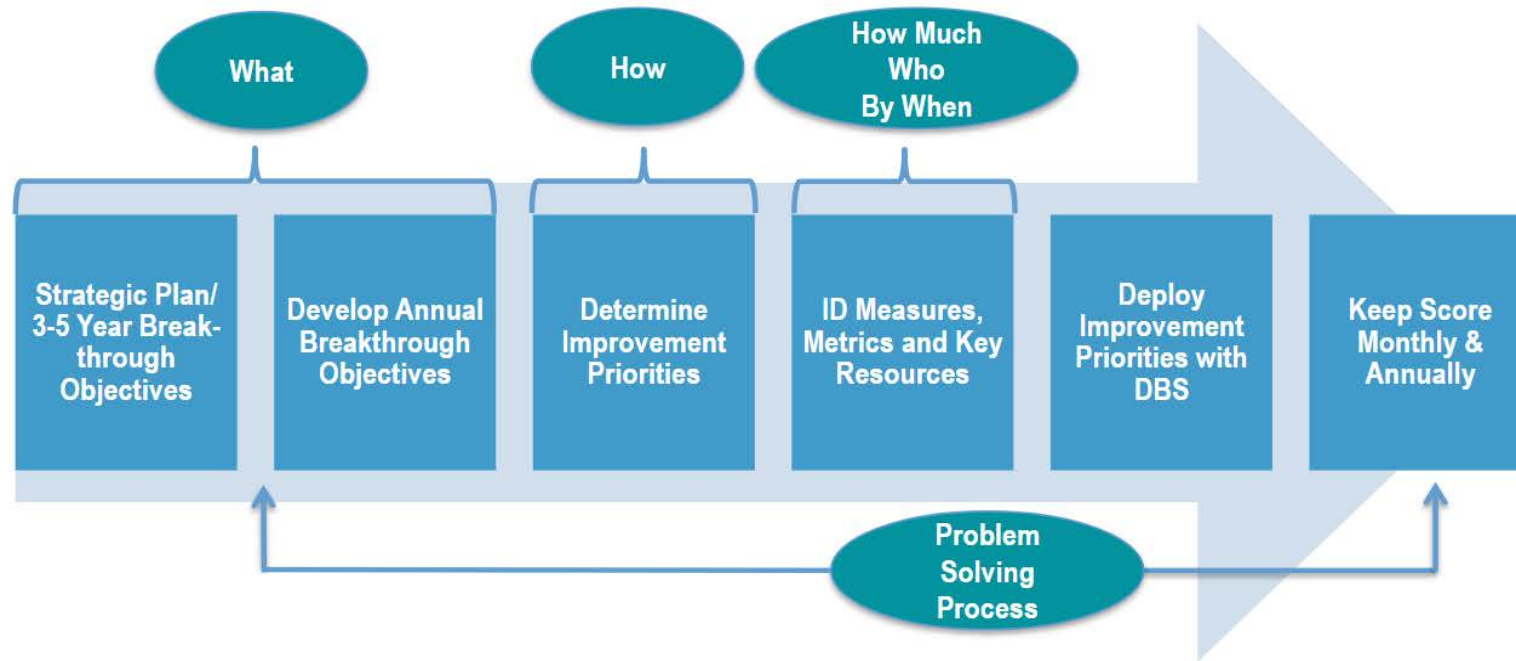
# Strategy (Policy) Deployment



**Aligns the Organization on solving what matters most  
Provides a Sense of Purpose for all**

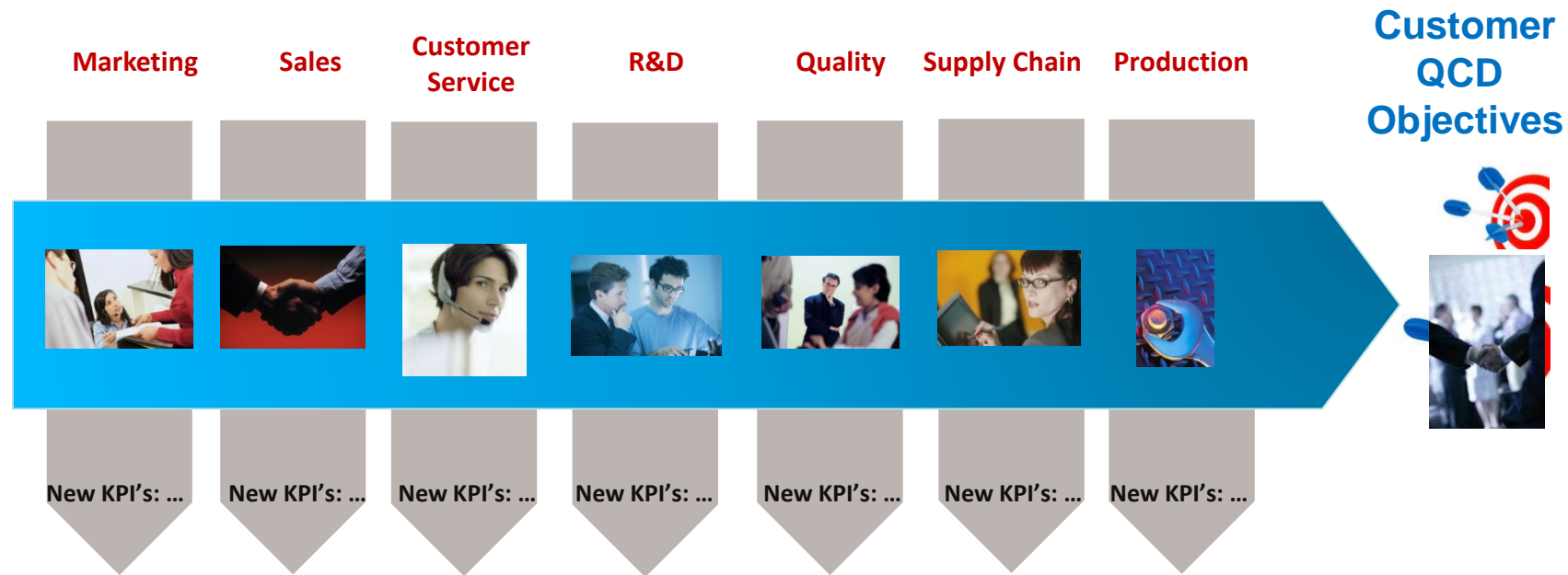
# Danaher Strategy Example ...

## What is the Annual Process to Drive Performance?



Converting our strategy into execution through Policy Deployment

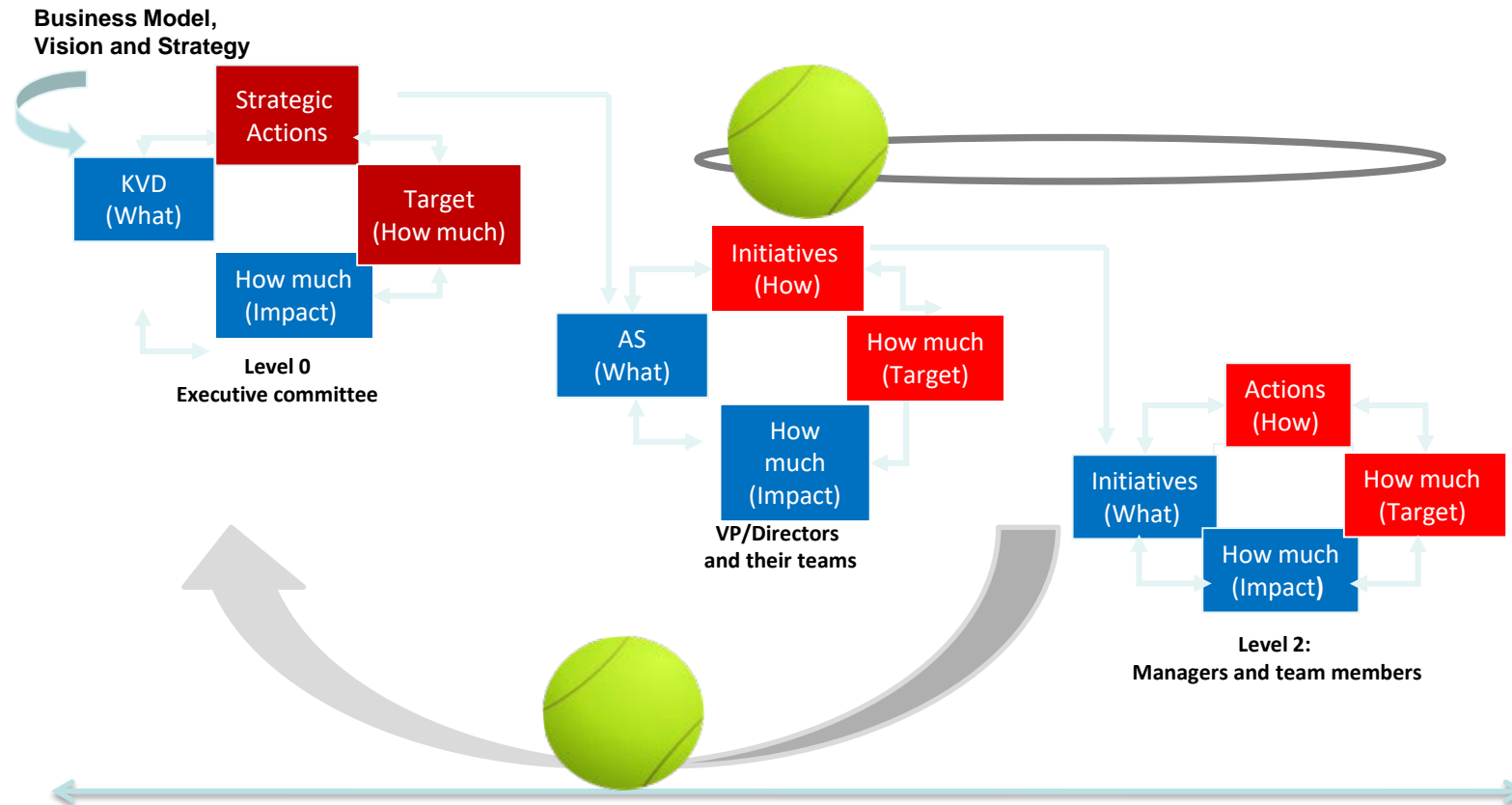
# Integrated goals across the organization ...



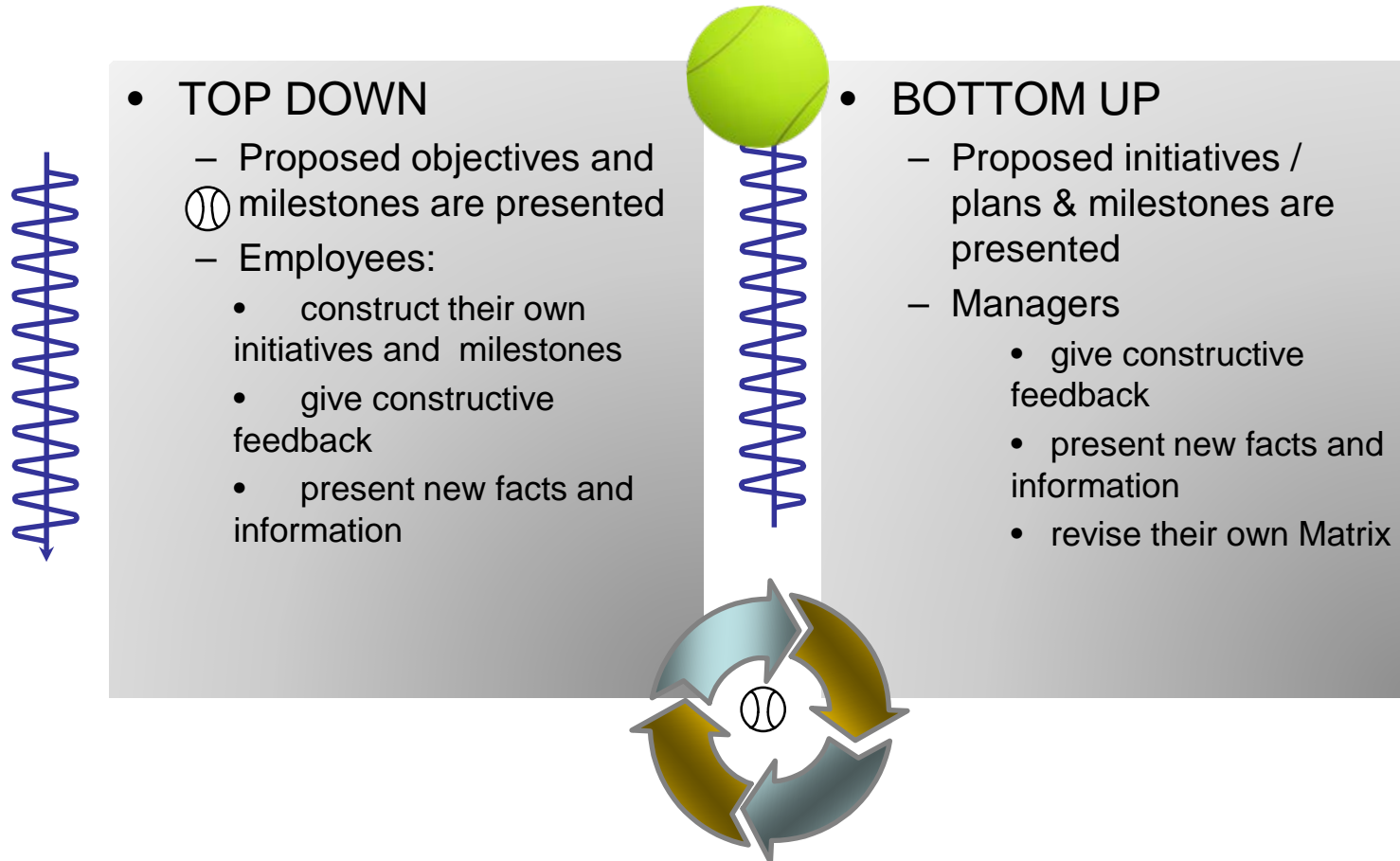
All functions, departments, processes and people must constantly improve

# The Strategy Deployment Cascade

Create a Compelling Business Need (CBN)



# The Catchball – Employee Engagement 101



- The result of catchball is team alignment at the operational level through the chartering, linking, and networking of teams

# CBN\* targets shoot for stretch improvements across all categories

**Illustrative**

*Example: Plant / Unit XYZ*

	<u>Metric</u>	<u>Baseline</u>	<u>3-year goal</u>	<u>Rationale</u>
<b>Safety</b>	DART rate	3.52	0.52	<ul style="list-style-type: none"> <li>25% reduction from <b>Plant / Unit XYZ best performance</b> (0.69 in 2012)</li> <li><b>2nd best in network</b>, Monterrey (0.11)</li> </ul>
<b>Quality</b>	Consumer complaint ratio	2.40	1.7	<ul style="list-style-type: none"> <li><b>Surpass Plant / Unit ABC</b> becoming number 4 in the network</li> </ul>
<b>Cost</b>	Lbs / labor hr	5.30%	3.2%	<ul style="list-style-type: none"> <li>50% YoY reduction in <b>stops</b></li> <li>30% reduction in <b>breakdowns</b></li> <li>50% reduction in <b>changeover</b> time</li> </ul>
	Waste & overweight	124.93	152.79	<ul style="list-style-type: none"> <li>40% reduction in <b>In- Process defects</b></li> <li>25% reduction in <b>Re-work</b></li> </ul>
<b>Delivery</b>	Case fill rate	97.3%	98.5%	<ul style="list-style-type: none"> <li><b>Return to 2010 level</b> sustained 98.5% case fill rate for the full year</li> </ul>
<b>Engagement</b>	Engagement score	46.7%	65%	<ul style="list-style-type: none"> <li>11% annual increase by focusing on low performing categories</li> <li><b>Surpass 2014 US manufacturing score</b> of 54.2%</li> </ul>

\*CBN – Compelling Business Need

# Principles of Strategy Deployment



## From vision to daily work

- Can every member of your organization explain the strategic objectives?
- Can they describe the link between their daily work and the strategic objectives?
- Does everyone understand the metrics they are working to improve?
- How do we progress beyond our daily work?

A strong Daily Management System helps execute to achieve this “line of sight” .....

Strategy Deployment is great but ....

**Culture eats strategy  
for breakfast.**

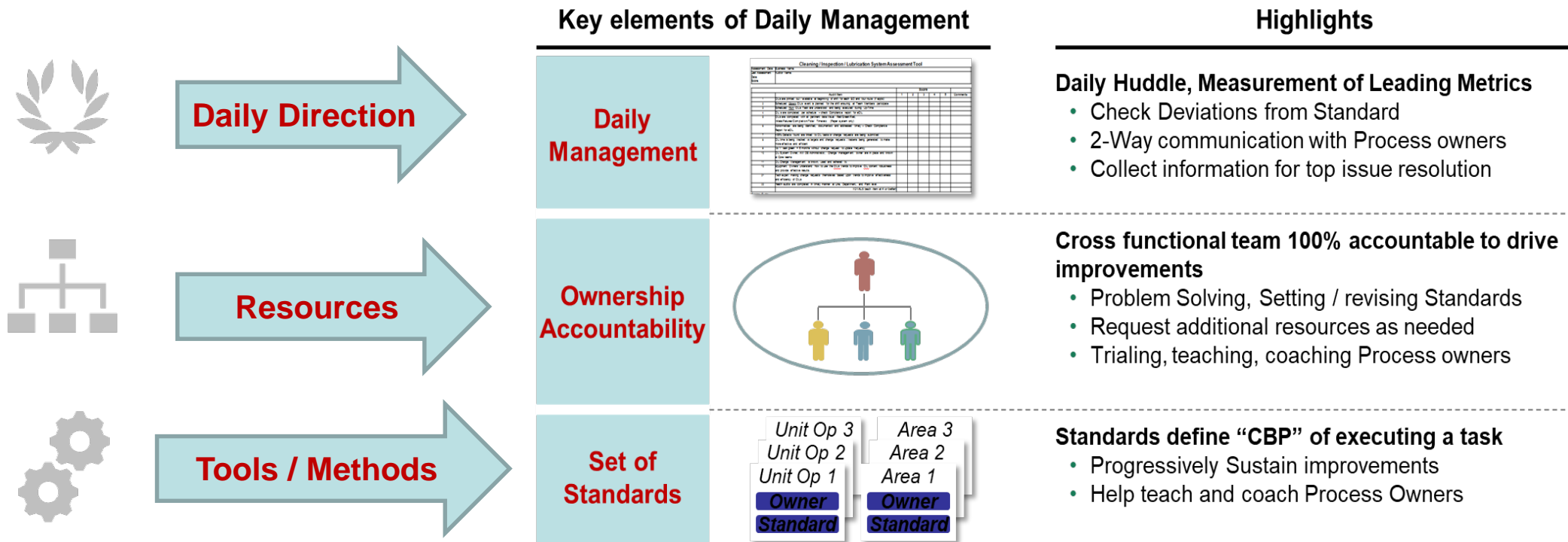
- Peter Drucker

# So let's check a few “culture” boxes first ..

Lean is a culture, not a set of tools

- ✓ Serve value adding process owners – improve their work life
- ✓ Push decision making, ownership down to workplace
- ✓ Build capable, autonomous leaders in the organization
- ✓ Build a larger Problem Solving community through standards, tools
  
- ✓ Embed real time analytics into Daily Work flows
- ✓ Stay laser focused on measures that matter
- ✓ Communicate information in an easy, visual way
  
- ✓ Rewards and recognition

# DMS aligns to Change Management Process framework



# Daily Management focuses teams on creating loss-focused action plans

**Enhances communication and leverages metrics...**

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**Tight consistent agenda**



**Loss-focused metrics**



**Data driven prioritization & planning**



**Visual boards**



**Clear delineation of responsibilities**

**...To create a daily plan to achieve performance targets**

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**Consistently communicated**

**Loss focused and data driven**

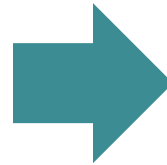
**Creates accountability**

**Allocates resources effectively**

# From Reactive to Proactive .....

Lean is a 80% cultural, 20% tools

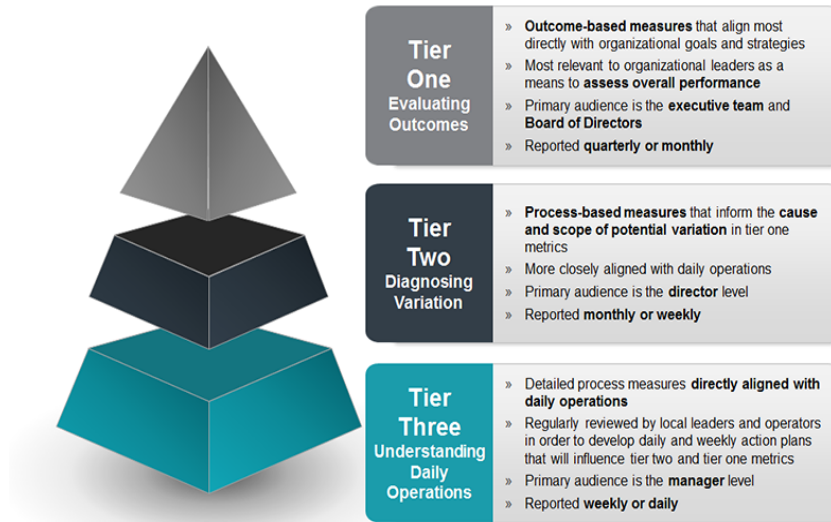
- Undefined goals
- Reacting / Fire fighting
- Problems are hidden, no data
- Few experts solve problems
- Blame, disengagement
- Tribal knowledge
- No room for new ideas, change



- Measureable Objectives
- Proactive management
- Managing to standards
- Problems are visible
- Data-based problem solving
- Leaders on floor solving problems
- Everyone is engaged in solutions

# Leadership at all levels drives results by linking daily work “standards” to business imperatives ..

Important to connect and monitor measurable metrics at all levels .....



Shared Standards  
Flexible Implementation

## ENTERPRISE LEVEL

- ✓ Customer Satisfaction
- ✓ Margin, Free-Up Cash Flow
- ✓ **Preferred Employer of choice**

MONTHLY

## MID MANAGEMENT

- ✓ Safety, Quality
- ✓ On time Delivery, Project Mgmt.
- ✓ After sales service
- ✓ **Integrated Leadership**

WEEKLY

## FIELD OPS

- ✓ Safety, Quality
- ✓ Reduced downtime, rework
- ✓ Workplace organization
- ✓ Lean improvements
- ✓ **Skills, Employee engagement**

DAILY

# Huddles and Boards .....

- General Principles:
  - Located where the work takes place
  - Organized into few macro topics with PDCA
  - Reviewed, information updated on each shift by the employees
  - Review is led by Supervisor (good), Employee (better), Employee Rotation (best)
  
- Metrics must be relevant to the problems on the floor:
  - Safety and Quality status & problems
  - Productivity constraints & problems
  - Inventory Control
  - Process Improvements



# Daily Accountability

- DMB's allow anyone to know how the team is doing & what needs to be worked on:
- ...what went right today, what went wrong?
- ...what did we learn today?
- ...what are we going to do tomorrow to make it better?
- ...what help do we need?



# Operational Area review board displays trends for key metrics

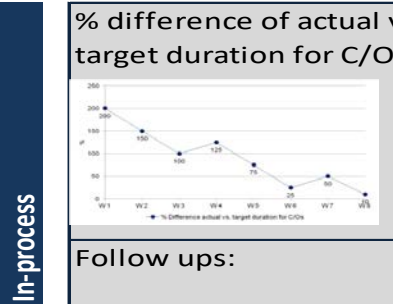


## DDS

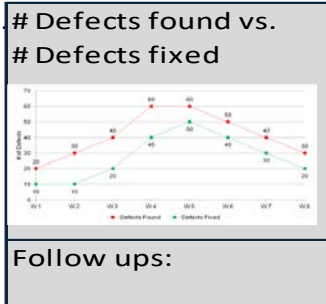
### BU Meeting Health Check

BU Meeting Health Check	1-Dec	8-Dec	15-Dec	22-Dec
1. Did the meeting start on time?				
2. Was the entire team present and engaged?	0			
3. Was all information recorded before the meeting?				
4. Did the team cover all information in order?				
5. Did the team create a plan for the day?				
6. Did the team create a plan for planned maintenance to address top losses?				
7. Were action items from the previous day completed?				
	85%	71%	80%	89%

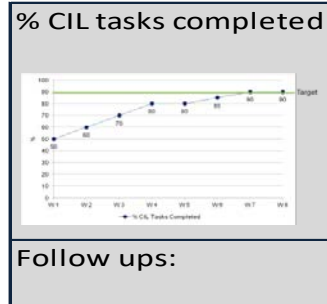
## RCO



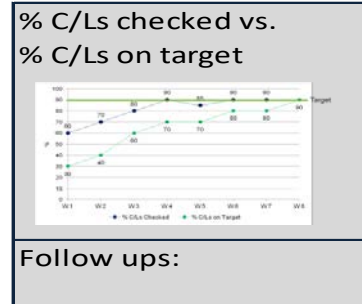
## Defect Handling



## CIL



## C/L



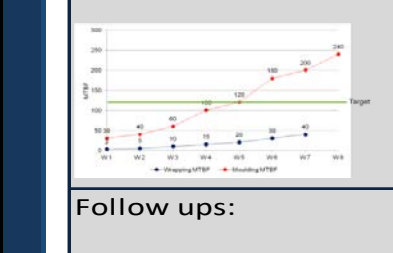
In-process

## Team Lead Meeting Health Check

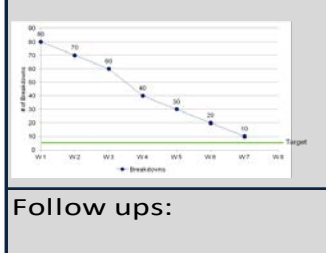
### Team Lead Meeting Health Check

Team Lead Meeting Health Check	1-Dec	8-Dec	15-Dec	22-Dec
1. Did the meeting start on time?				
2. Was the entire team present and engaged?	0			
3. Were all metrics recorded?				
4. Did the team cover all information in order?				
5. Did the team create a plan for the shift?				
6. Were all action items recorded?				
7. Were action items from previous shift completed?				
	85%	71%	80%	89%

## MTBF



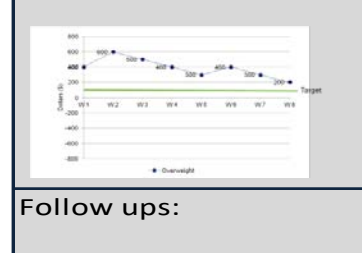
## # Breakdowns



## Waste



## Overweight



## Operator Huddle Health Check

### Operator Huddle Health Check

Operator Huddle Health Check	1-Dec	8-Dec	15-Dec	22-Dec
1. Did the meeting start on time?				
2. Were all operators present and engaged?				
3. Did the shift supervisor cover all information?				
4. Did the shift supervisor cover the plan for the shift for the entire line? for each line area?				
5. Were action items assigned to operators to own?				
	100%	80%	80%	100%

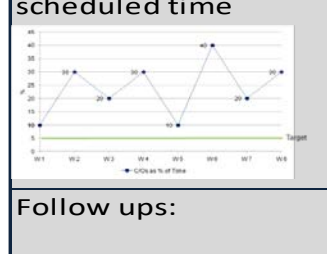
## Unplanned DT as % of scheduled time



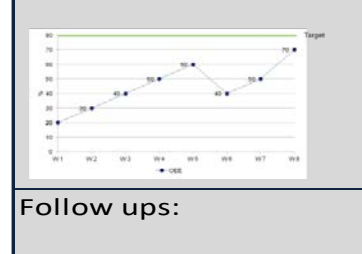
## Planned DT as % of scheduled time



## C/O as % of scheduled time



## OEE



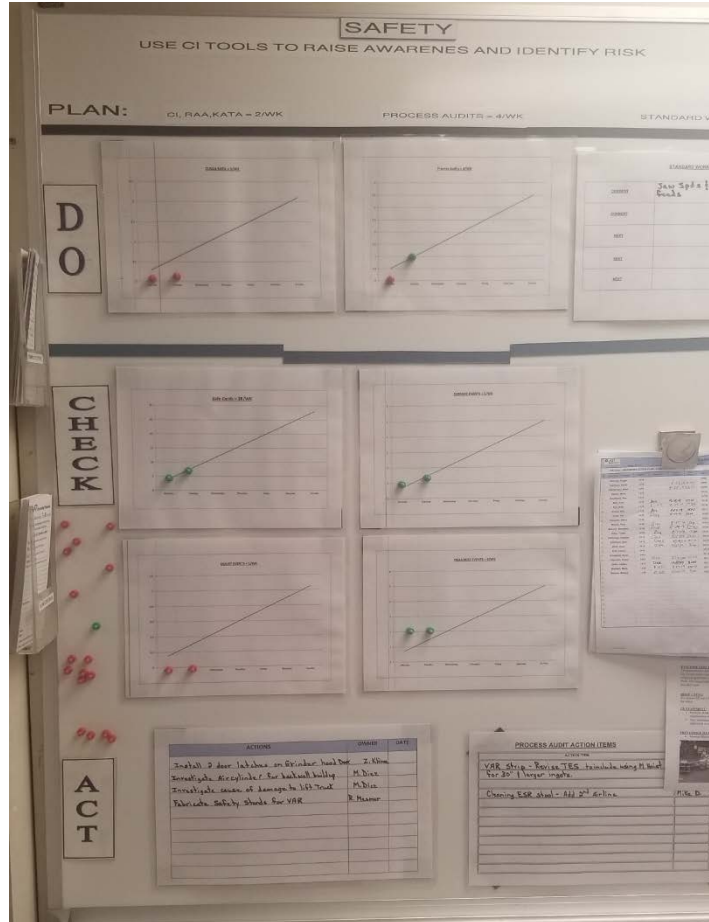
Output

# Dashboard records historical data for key metrics and tracks progress toward meeting targets

Line 1 Metric Dashboard									
Week			1	2	3	4	5	6	
Week Ending			1/4/2015	1/11/2015	1/18/2015	1/25/2015	2/1/2015	2/8/2015	
<b>In Process Measures</b>		<b>Units</b>	<b>Target:</b>						<b>Comments:</b>
Time Spent on Changeovers	hours	Standard Hours		38	25	42	4	44	Completed 5 changeovers and an allergen clean.
Time Scheduled for Changeovers (Standard Hours)	hours			32	21	36	4	38	
Time Scheduled for Changeovers (Using 2014 Avg durations)	hours			51	36	56	5	62	
Defects Found	count			37	28	20	22	9	Notifications entered for fixing remaining defects.
Defects Fixed	count	Defects Found		9	19	13	11	6	
% of Defects that were Fixed	%	100%		24%	68%	65%	50%	67%	
% CILs Completed	%	100%		69%	89%	81%	90%	100%	CILs scheduled at standard times on each shift.
% Centerlines Checked	%	100%	60%	97%	100%	85%	92%	84%	Scheduling huddles to discuss CL completion in the first hour of production. This will help avoid misses on short runs.
% Centerlines on Target	%	100%	48%	72%	93%	95%	90%	88%	
<b>Output Measures</b>		<b>Units</b>	<b>Target:</b>						<b>Comments:</b>
MTBF Wrapping	min	TBD	1.97	1.90	3.08	3.51	2.62	2.46	MTBF was driven down by the large number of changeovers and start-ups.
MTBF Molding	hours	TBD		2.60	2.00	3.36	2.72	1.09	
# Breakdowns	count	0		21	7	4	8	5	Top breakdown was wrapper #3 date coder.
OEE 2	%	62%	65.8%	54.7%	48.9%	48.5%	66.4%	34.5%	Lower OEE driven by weather related downtime and changeovers.
Line Efficiency	%	>100%	86.5%	112.0%	94.0%	107.2%	94.4%	111.2%	
<b>Training Progression - % Complete</b>		<b>Units</b>	<b>Target:</b>						<b>Comments:</b>
Defect Handling	%	100%				63.0%	67.0%	69.0%	
CILs	%	100%				47.0%	49.0%	49.0%	
Centerlines	%	100%				55.0%	69.0%	69.0%	
Changeovers	%	100%				63.0%	63.0%	63.0%	
<b>Business Impact</b>		<b>Units</b>	<b>Target:</b>						<b>Comments:</b>
Waste	USD		\$195	\$4,978	\$2,496	\$112	(\$19,331)	\$12,260	Large waste positivity due to running Canadian items. We continue to trend very well on OW%.
Overweight	USD		\$583	\$1,031	\$2,982	\$2,300	\$2,591	\$1,572	
Direct Labor Efficiency Variance	USD		(\$1,569)	\$1,442	(\$1,140)	\$2,323	(\$1,803)	\$1,393	
Changeover Time Reduced vs. Standard	USD			(\$1,515)	(\$1,176)	(\$1,325)	\$0	(\$1,416)	
Changeover Time Reduced vs. 2014 Average <sup>1</sup>	USD			\$3,448	\$3,109	\$4,117	\$220	\$4,824	
<b>Total</b>	<b>USD</b>		<b>(\$791)</b>	<b>\$5,936</b>	<b>\$3,162</b>	<b>\$3,410</b>	<b>(\$18,543)</b>	<b>\$13,809</b>	
<b>Cumulative Total YTD</b>			<b>(\$791)</b>	<b>\$5,145</b>	<b>\$8,307</b>	<b>\$11,717</b>	<b>(\$6,826)</b>	<b>\$6,983</b>	

# Safety PDCA

- Near misses, Unsafe observations





Theme	Indicator	Target	Actual		Cause	Countermeasure	Who	When
Health, Safety & Environment	Significant Incidents	0	0	●				
	PSI Completion	3 p/m	0	●				
	Hazard Reporting	1 p/m	0	●				
Financial	Operations	ON BUDGET	OVER	●	Effluent, extra 1mil Fortleigh		HB	6.12
	BSC	ON BUDGET	on budget	●				
	Unutilised Facilities	> \$10m	61.67m	●				
	Cash	< 19.74%	28.76%	●	EXTERNAL FORECASTS	MONITOR - IMPROVED AGAIN THIS WK		
Customer	4 Weekly Cash Position	> \$75m	\$20.13m	●				
	Accounting Services Index	0	0	●				
	Payroll Index	< 20	23	●	BANK FILE NOT PROCESSED	54	KP	9/12
	Accounts Payable Index	< 30	33	●	EFT BUN PAYING NOVEMBER INVOICES	REVERSED PROCEDURE TO BE WRITTEN UP	KP	9/12
Internal Process	Front of Office Index	< 14	12	●				
	5S Score	> 105	132	●				
	Int. Audit Compliance	> 50%	24%	●		review outstanding tasks	ALL	13.12
	Statutory Task List	ON SCHEDULE	ON	●				
	Timetable Compliance	ON SCHEDULE	100%	●				
Learning & Growth	Reporting Compliance	ON SCHEDULE	ON	●				
	OE Sustainability Index	0	0	●				
	OE Implementation Progress	36	32	●	PROJECTS BEHIND TARGET	DEDICATE 2 HRS / WEEK	ALL	30/12
	Training	52	81	●				

Red Green Black White

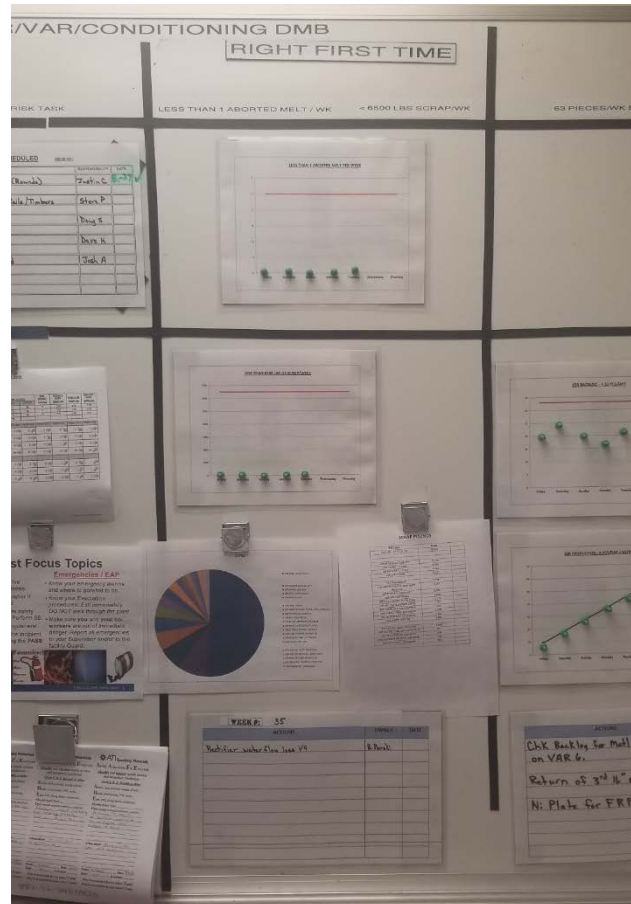


# How do I audit the DMB?

- Do actions specifically close the gap between actual & plan?
- Are metrics presented in a visual way & can be understood by someone outside the department?
- Are the metrics relevant to the problems and aligned through to all the process owners?
- Do employees from upstream/downstream attend the DMB check?
- Does peer coaching or teaching occur?
- Are countermeasures included in standards and communicated?

# Quality - Right First Time PDCA

- Defects, Yield, Scrap, Errors



### Right the First Time

#### Plan - Less than 2 Drums of wet material

Day	Actual	Goal
Fri	1	2
Sat	1	2
Sun	1	2
Mon	1	2
Tue	1	2
Wed	1	2
Thu	1	2
Fri	2	2

#### Plan - Less than 1 Unplanned Turn Arouds

Day	Actual	Goal
Fri	0	1
Sat	0	1
Sun	0	1
Mon	0	1
Tue	0	1
Wed	0	1
Thu	0	1
Fri	1	1

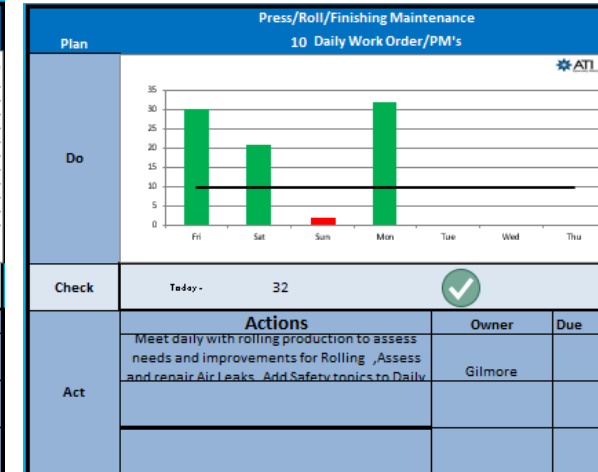
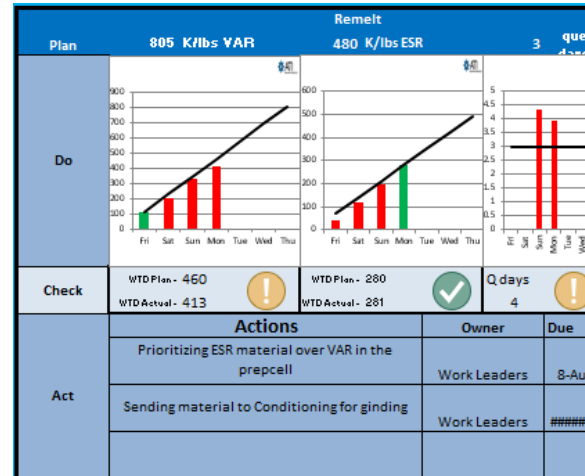
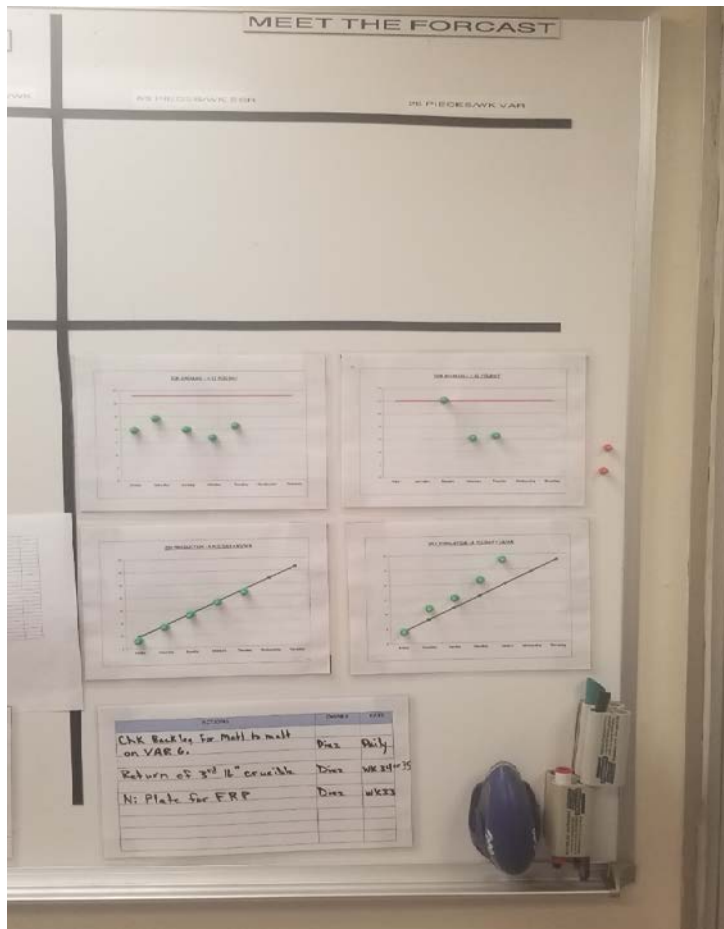
#### Do - Less than 4 Stopper Rod DDR's per week

Day	Actual	Goal
Fri	1	4
Sat	1	4
Sun	1	4
Mon	1	4
Tue	1	4
Wed	1	4
Thu	1	4
Fri	2	4
Sat	3	4
Sun	3	4
Mon	3	4
Tue	3	4
Wed	3	4
Thu	3	4
Fri	4	4

# Customer Service PDCA

Productivity, Changeovers, Schedule Adherence

- Connects status of product throughput vs. plan

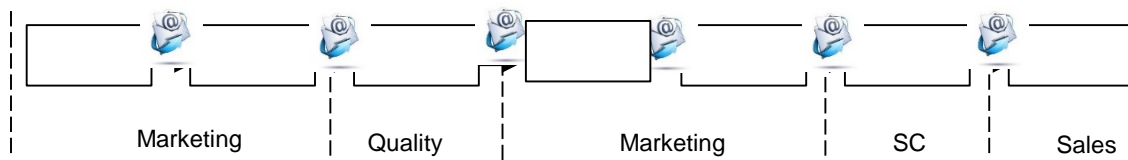


## Non-Ops Examples:

- Finance – Good management of cash
- Human Resources – Open positions filled to meet staffing requirements
- Engineering – Capital projects closed on time to budget

# Lean Improvements in Marketing

- Streamline the promotional events process
- Improve export campaign's efficiency and effectiveness



• From Current State

• To Future State

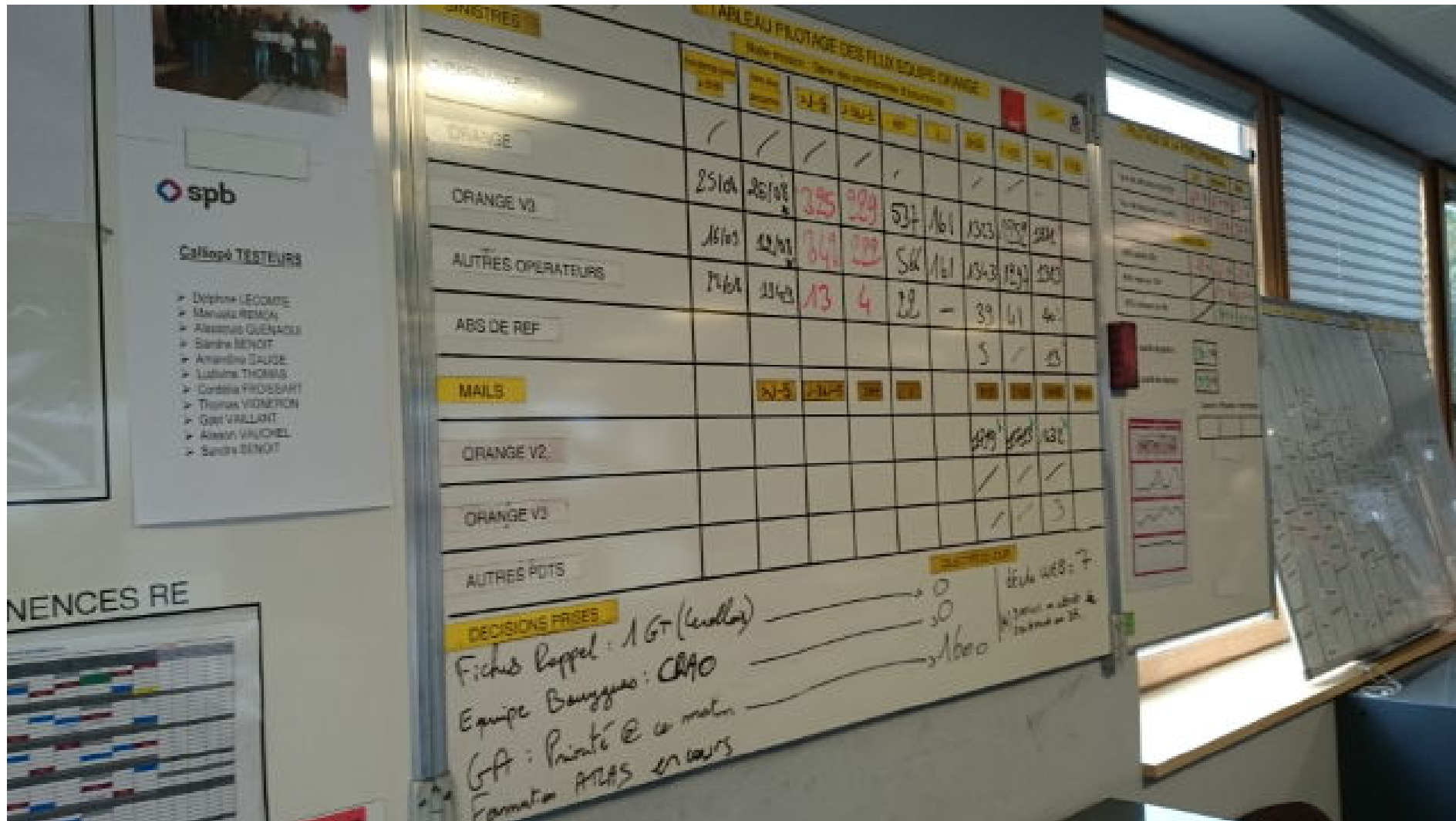


Leadtime reduction from 3 weeks to 4 days for simple promotional packs

+ 2 major marketing campaigns/year

A new annual Marketing / Sales Calendar

Daily Management can be implemented in each Department: Customer Service – Laboratory – Marketing and Sales – HR – Finance ...



# Lean Daily Management in Laboratory

- Improve our Service to direct customers:
  - Improve overall efficiency in Chemical and Microbiological labs



Leadtime reduction from 20/30-days to 7-days

Released extra capacity in Lab eliminating outsourcing

Reduction of personnel turnover

Positive environment

# Operational Excellence in Sales

- Review the Tender Process (Sales, Marketing, Finance, Quality) for Private Labels
- Optimize Product Development for Private Label products (R&D, Quality, Marketing and Sales)
  - Ongoing project

Leadtime reduction  
from 4-weeks to 2-  
weeks

Conversion Rate:  
+40%

# Lean in HR

- > The Challenge: reduce time spent in administrative activities (from beginning to the end of employee contract) to increase time available for Business and managers support.



Creation of shared standards

Reduction of anomalies and leadtime on payrolls

Introduction of new software

Full compliance to legislation for all contracts

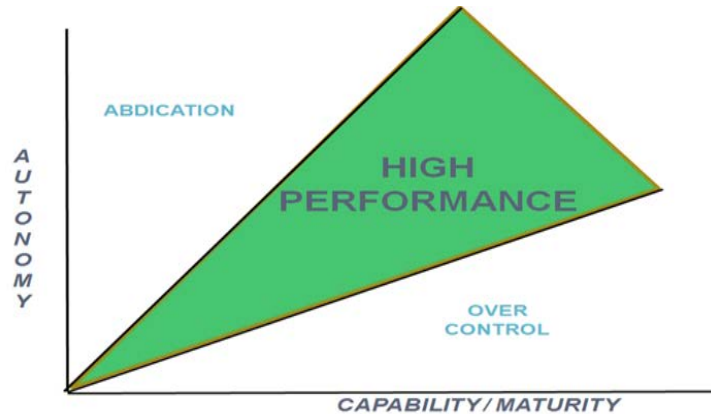
HR backup teams between sites...

# Role of Leadership ....

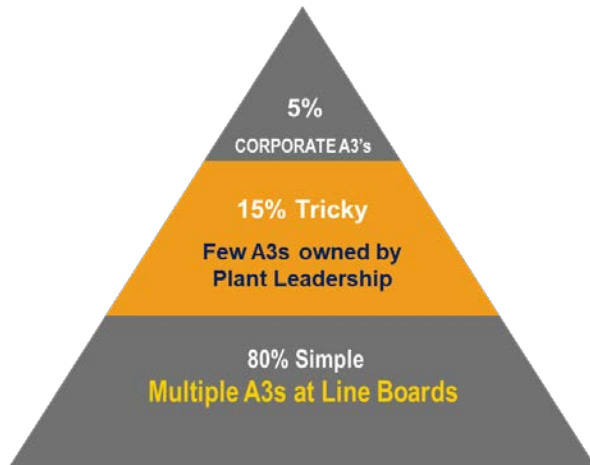
- Understand the customer, their needs for the foreseeable future
- Declare a “Compelling Business Need” with aggressive 2-3 year goals for improvement (Safety, Quality, Service, Cost, Employee Engagement)
- Cascade these goals as the only goals with which to measure organizational performance
- “Front load” top talent, \$\$, capital at every site to assist / deploy the methodologies
- Be accountable to the results, metrics directly linked to Lean results
- Institutionalize tools and terminology and apply them in daily work

# Leadership behaviors .....

Build a Problem Solving culture of process excellence



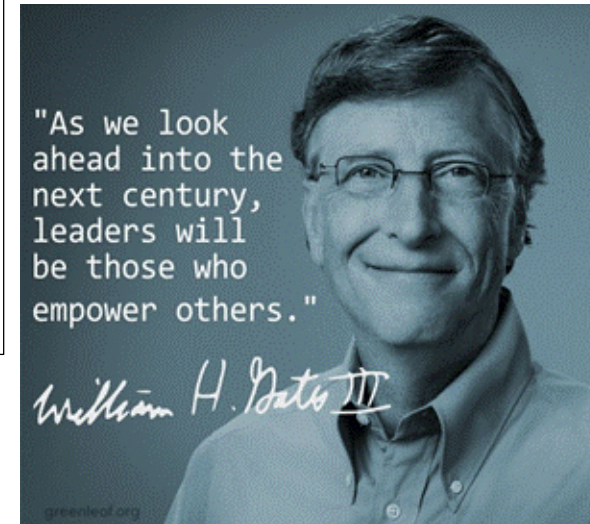
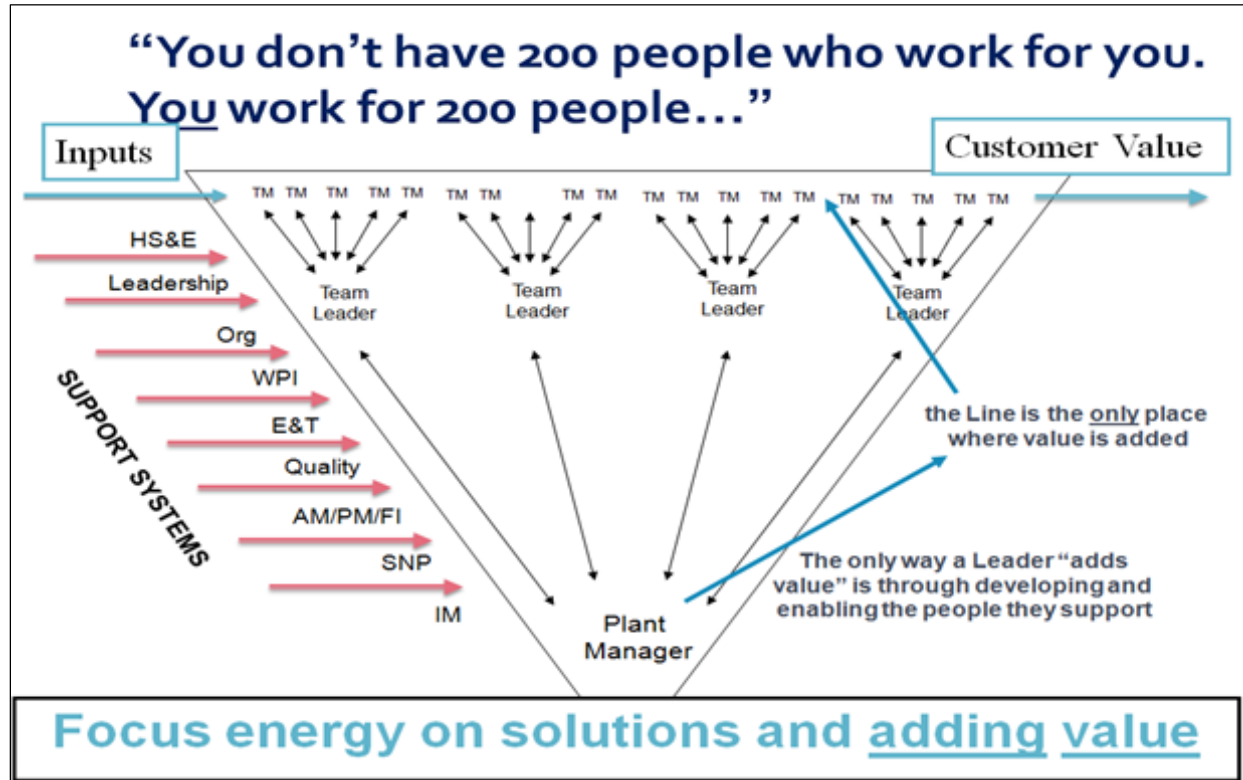
The “right thing” to do?  
Leadership in the field  
Leaders as coaches, Servant Leadership  
Growing and developing people



Know / understand the issues  
Build standardized processes  
Dedicate resources to problem solving  
Focus on standard work  
Linkage of all work to chronic losses

# Leadership Behaviors - Servant Leadership

Invert the Org Chart, Build a Problem Solving culture



# Leadership Behaviors - Daily Management

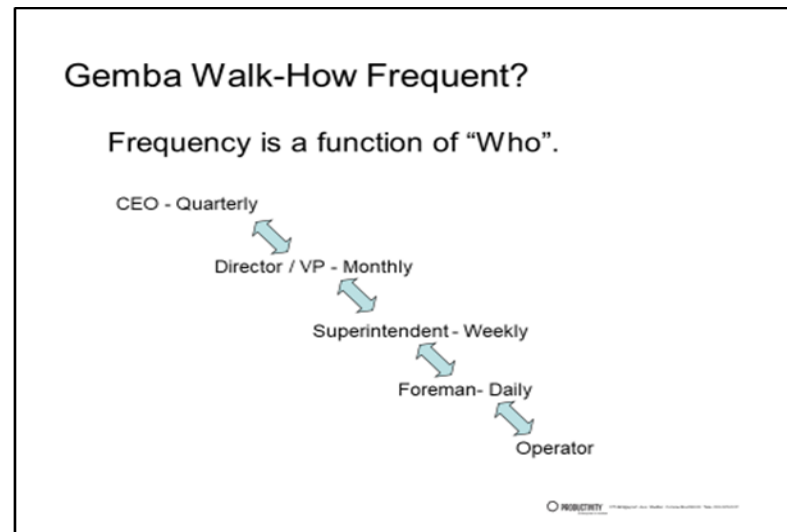
Leadership must show daily routines that take care of the people who take care of the customers

Leaders as teachers, going into the workplace with purpose

Daily rigor, structured communication, and ever evolving standard work

Ensure that leadership aspirations are directly aligned with daily work

Translation  
Gemba: *the real place.*



# Leadership On the Floor – What should you do when you're there?

## Re-enforce & Improve the Standards

### Know the operation

- a) Process flow and value-added transformations
- b) Safe Behavior & Conditions
- c) Operating Procedures or Standardized Work
- d) CL's & Process documentation standards
- e) Sampling & Testing procedures
- f) Appearance Standards

## Help People Grow & Be Successful

### Know the people

- a) Experience and skill level
- b) Equipment or Work Process ownership
- c) Team leadership areas
- d) Key strengths or unique gifts
- e) Aspirations or Success Measures

Gain  
Requisite  
Knowledge

**Observe the  
Operation**

Are conditions & behaviors at "the should"?  
Does anything appear wasteful to you?  
What is "going on" in chronic problem areas?

Do people appear to be frustrated or distracted?  
Are people interacting appropriately?

**Ask Questions  
for Understanding**

Is there some reason why XYZ standard is not followed?  
What's hard about doing ABC?  
Why do people do things this way? Is there a "right" way?  
What could we improve about our "standard" approaches?  
Can you think of a better way to.....?  
What would you like to change about.....?

How are you feeling today?  
Show me what you're doing on your equipment/system?  
What is frustrating to you about your job right now?  
Can you think of a better way to.....?  
What are you getting better at?  
What would you LIKE to get better at?

**Collaborate on  
Next Steps**

What can we do about this loss or opportunity?  
Who will talk to the XYZ system/equipment owner?  
Who else should we involve in this?  
Have we ever tried ABC? Would that work?  
When/how should we re-connect on this?

What development or skills would you find most valuable?  
What does help look like to you?  
Who can you learn from? Who does this best?  
Who are you training as your back-up?  
What prevents you from growing?

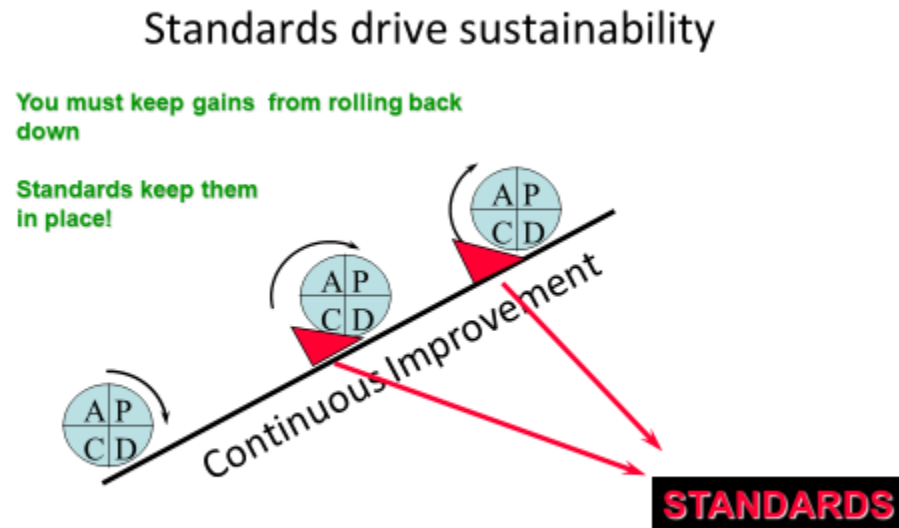
Document as necessary to facilitate follow-through  
and capture themes systemically

# Process Excellence & Importance of Standards

Why improvements don't stick?

What is a Standard? (or lack thereof)

A current best way to perform a task or deliver a service



*“Without standards, there can be no improvement”*

*“Standards should not be forced down from above but rather set by working with the production workers themselves.”*

*-Taiichi Ohno*

*(founding father of the Toyota Production System)*

# Employee Engagement

There is a near perfect correlation between the performance of an organization and the demonstrated competence of the people in the roles to which they are assigned

Put your best people in charge of leading your transformation process

Carefully manage building capabilities in this changing environment

## Employee Pulse check ... are we solving the right problems?

Pulse Check					
Please indicate the degree to which you agree or disagree with each statement: <i>(Please check appropriate response)</i>	Strongly Agree	Somewhat Agree	Neither Agree or Disagree	Somewhat Disagree	Strongly Disagree
I understand the priorities & action plan for the entire line and the tasks I need to complete during my shift					
I receive sufficient support & guidance from my supervisors to accomplish my tasks					
I feel part of a team: I have time to work with my peers and my supervisors to meet our Unit goals					
I have the tools and training I need to operate and maintain my equipment					
I know the primary causes of stops on my equipment and have a plan to address them					
I understand the Lean program and how it affects me					
How much exposure have you gotten to the Lean program? <i>(Please circle appropriate response)</i>	Significant – I have been actively involved in program activities		Some – I'm familiar with it but have not been actively involved		None – I am not familiar with it
Comments:					
What shift do you typically work on?			Which line do you typically work on?		

Example



# Q&A