

# Navigating the Skies of Uncertainty - Leveraging Lean and a Business System Approach in Aerospace Warehousing, Logistics, and Distribution

*Driving value creation through the  
execution of a well-developed plan and  
the relentless pursuit of waste elimination  
in operational, commercial and  
administrative business process  
enterprise wide*



# Eric Lussier

Principal – NEXT LEVEL Partners, LLC



- 32+ years Global Business Experience
- Automotive, Aerospace, Medical, Finance, Diversified Industrial
- 5 Years with NLP / 12 Years with Steel Partners (Private Equity) / 10 Years Sequa / 5 Years AlliedSignal
- Public and Private Equity
- Senior VP Business System / Operational Excellence, Global Procurement, New Product Development, Quality
- Consulting – Industrial, Aerospace, Energy, Financial Services, Healthcare
- Education:
  - Master of Science, Industrial and Systems Engineering – University of Alabama Huntsville
  - Master of Science, Industrial Engineering / Engineering Management – University of Tennessee
  - Bachelor of Science, Industrial Engineering – University of Tennessee

# Our History

**1950s** The Toyota Production System (TPS) was the precursor to what we now call Lean Manufacturing. It has evolved over the last half-century.

**1987** Danaher was one of the first domestic companies to adopt the Toyota-based “Lean” philosophy. Trained by original developers of the Toyota Production System. DBS was eventually expanded to include more than just manufacturing.

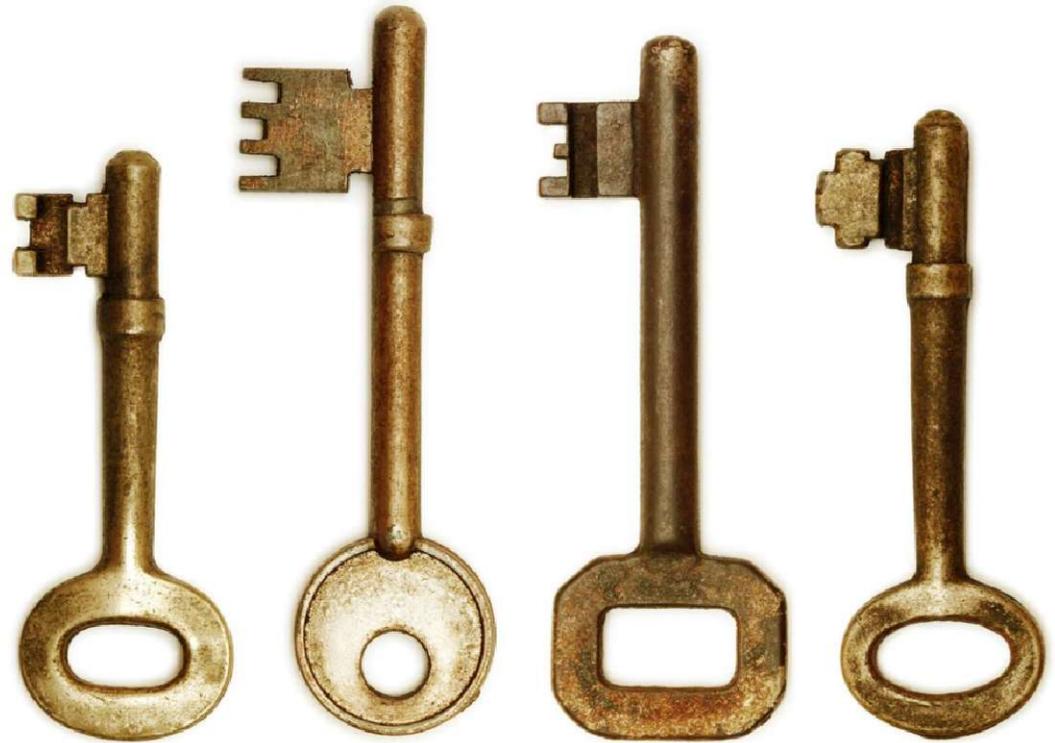
**2003** NLP was founded in 2003 by original architects and practitioners of the Danaher Business System (DBS)



*Our skills and experience connect directly back to the original zealots of the [Toyota Production System](#) and to our renowned transformational work done while at [Danaher Corporation](#)*

# 4 Key Topics

- Strategy Deployment
- Value Stream Mapping
- Kaizen Events
  - President's Kaizen
- Lean Daily Management



# Business System Approach works in All Types of Industries



*Private Equity Partnerships and Portfolio Support*



*Healthcare*



*Food and Beverage*



*Distribution and Logistics*



*Energy*



*Hotels and Resorts*



*Entertainment*



*Industrial*



*Medical Devices*



*Finance, Banking, Insurance*



*Technology*



*Retail*

# Safety / Quality / Delivery in the news...



## Industry Coalition Report:

Aviation Supply Chain Integrity Coalition recommends measures to prevent unapproved parts.

## Proposed Actions:

- Enhance vendor accreditation processes
- Digitize documentation for better traceability
- Adopt best practices for receiving, inspecting, and scrapping parts

## Background Incident:

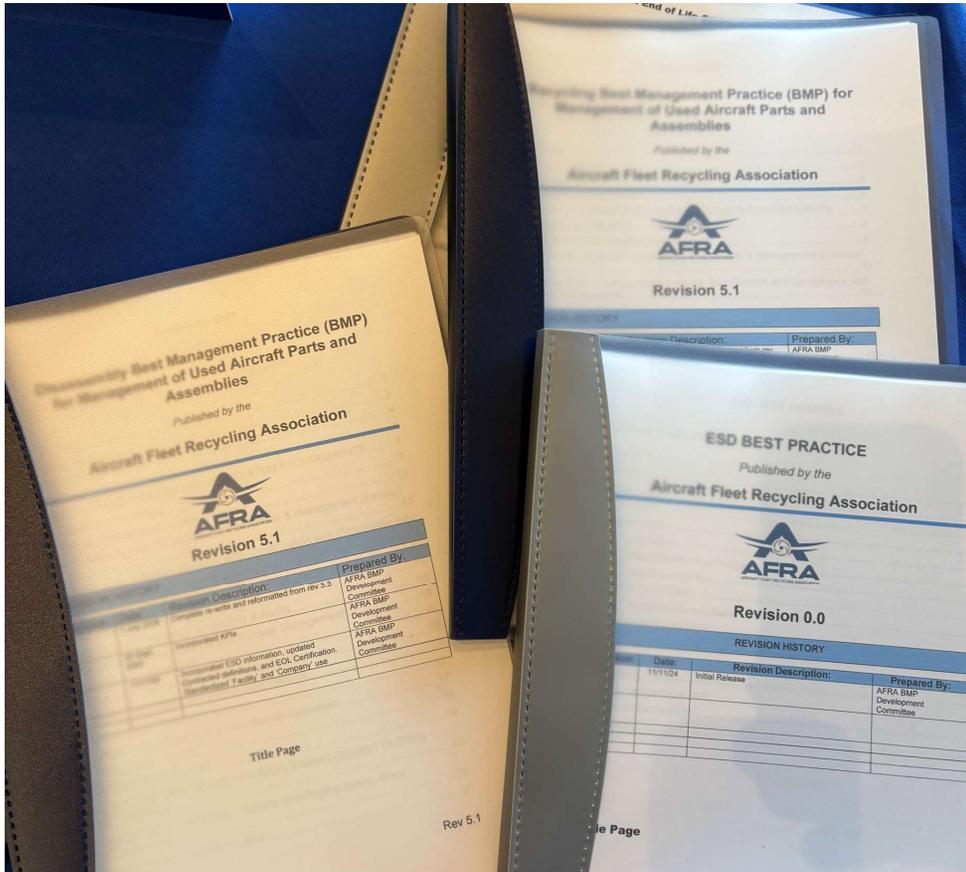
CFM International reported engine components sold with forged paperwork by AOG Technics.

## Industry Response:

Major players like GE Aerospace, Boeing, Airbus, and leading airlines participated in forming the coalition.

**“It is not enough to do your best, you must know what to do, and then do your best.” — Dr. W. Edwards Deming**

# Aligning with AFRA Best Management Practices



- A Business System Approach becomes the “HOW” to execute Standard Work (BMPs)
- A Culture of Continuous Improvement and Problem-Solving is created
  - Make Problems Visible
  - Daily Problem-Solving using LDM
  - VSM for Intentional Transformation
  - Kaizen to Engage Employees
  - Process-Focused
- Improvements to:
  - Safety
  - Quality
  - Delivery / Turnaround Time
  - Inventory
  - Cost / Productivity

# Aligning Lean & Business Systems focused on Operational Excellence with AFRA's Best Management Practices (BMP)

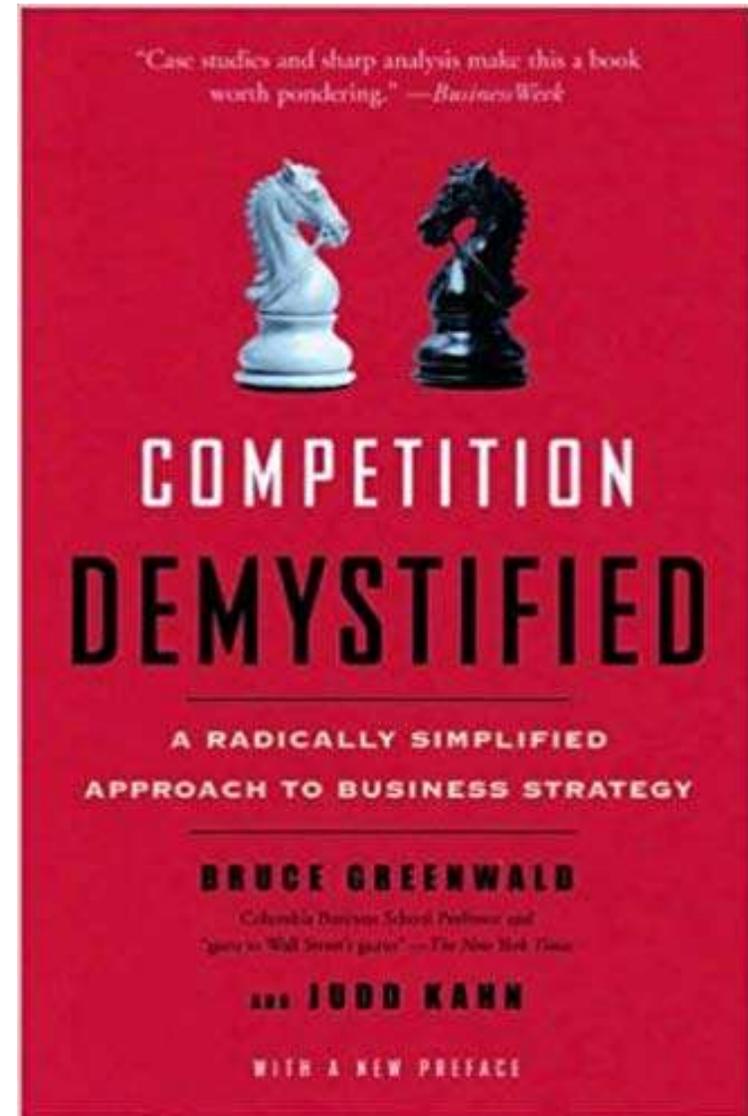


AFRA BMP Area	Lean / Operational Excellence Connection	Resulting Value
Facility Management & Infrastructure	5S, Visual Management, Standard Work	Safer, more efficient workspaces; faster audits
Training & Competency	Leader Standard Work, Daily Management, PDCA	Cross-functional training and sustained capability
Documentation & Record-Keeping	Visual Process Mapping, Digital Dashboards, A3 Thinking	Real-time traceability, reduction in errors
Tooling & Equipment	TPM (Total Productive Maintenance), Standard Work	Improved uptime, reduced risk of equipment failure
Parts & Materials Management	Kanban, Pull Systems, Inventory Right-Sizing, Point-of-Use Storage	Improved flow, reduced waste, enhanced traceability
Environmental Protection	Waste Elimination (Muda), Value Stream Mapping (carbon/material flow)	Reduced footprint, regulatory alignment
Customer Accountability	Strategy Deployment Process (Hoshin Kanri), Visual Performance Boards, NPS Tracking	Transparent progress tracking, aligned expectations

# Why should you consider a Business System Transformation?

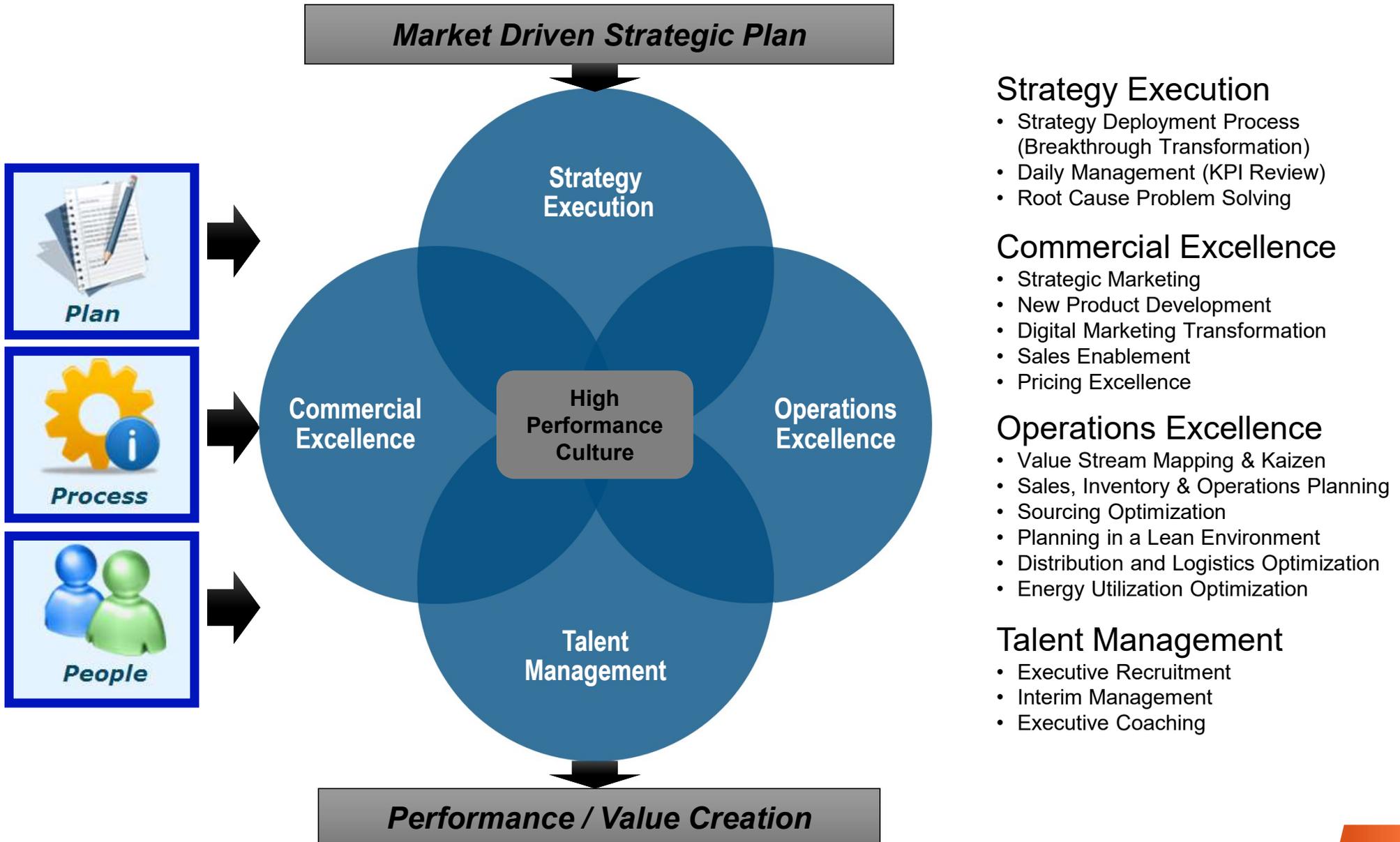
## Key Takeaways

- Build a Wider Operational Moat
  - Focus on Quality, Speed (Turnaround Time), and Cost
  - Minimize risk
  - Improve processes impacting customers, at the gemba where teams can drive change where they have influence
- Focus on Operational Excellence
  - Highest return on investment
  - Lowest risk



# NLP Business Transformation Model

Customized implementation and training partnerships to meet your needs



# Creating a Problem Solving Culture

## Strategic Breakthrough

<Company Name> Top Level "X" Matrix <Year>

NEXT LEVEL Partners LLC 2020 KPI Bowling Chart														
KPI	2019 ACT	YTD	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
REVENUE	\$103.8	\$47.10	Target	\$10.00	\$11.00	\$11.00	\$14.50	\$14.50	\$15.00	\$15.00	\$17.00	\$17.00	\$17.00	\$14.50
PROFITABILITY	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
SAFETY	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
QUALITY	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
PRODUCTIVITY	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
WORKING CAPITAL	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
PRODUCTIVITY/COST	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
SG&A % of Sales	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
SG&A % of Sales	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
SG&A Overhead % of Sales	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual

TTI Gaps

## Daily Management

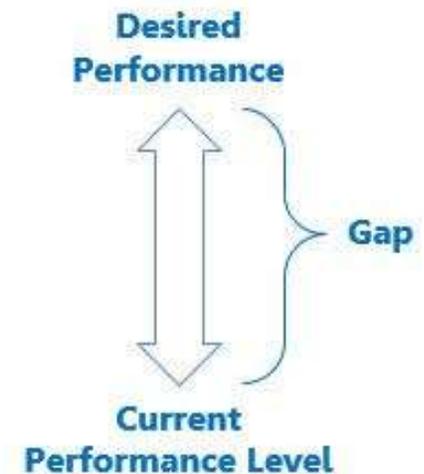
NEXT LEVEL Partners LLC 2020 KPI Bowling Chart														
KPI	2019 ACT	YTD	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
REVENUE	\$103.8	\$47.10	Target	\$10.00	\$11.00	\$11.00	\$14.50	\$14.50	\$15.00	\$15.00	\$17.00	\$17.00	\$17.00	\$14.50
PROFITABILITY	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
SAFETY	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
QUALITY	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
PRODUCTIVITY	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
WORKING CAPITAL	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
PRODUCTIVITY/COST	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
SG&A % of Sales	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
SG&A % of Sales	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
SG&A Overhead % of Sales	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual

KPI Gaps

## Stakeholder Crisis

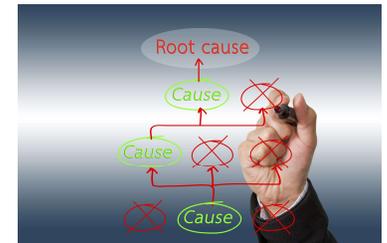
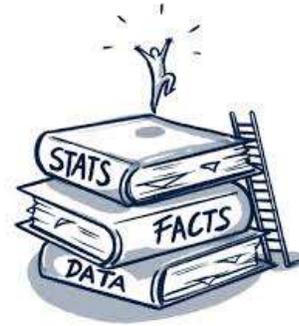
- Customer Problem
- Financial Crisis
- Safety Issue
- Compliance Issue

1. Gap Between Desired State (Target) and Current State (Actual)
2. High Impact to Stakeholders
3. Desire to Fix Problem Permanently - Sustainably



# Problem Solving Culture

- Data & Facts vs. Opinions
- “Go See” / “Go To Gemba”
  - Voice of Customer
  - Voice of Process
- Transparency / Expose Problems
- Focus on Changing Process / Not Blaming People
- Sustain via Leadership and Daily Management Process



## Foundational Concepts of Business Systems

---

Businesses are composed of:

**Processes**

Map

Measure

Improve



“If you can’t describe  
what you are doing as a  
*process*, you don’t know  
what you are doing.”  
- W. Edwards Deming

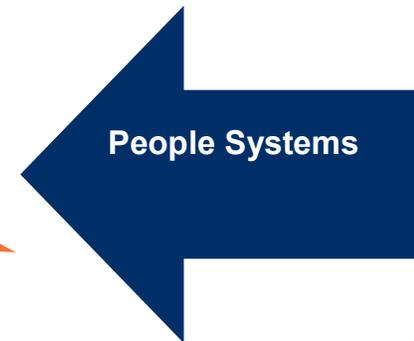
## Process Focus

*“85% of the reasons for failure to meet customer requirements are related to deficiencies in systems and processes... rather than the employee. The role of management is to **change the process** rather than badgering individuals to do better.”*

*- W. Edwards Deming*



# Processes highlight Problems... People Solve Them



## Key Concepts

- 5S+S
- Visual Management / QDIP
- Metric Driven
- Flow, Pull, Takt
- Waste Elimination
- Standard Work
- Daily, Weekly, Monthly Checks
- Cycle time reduction
- Root Cause / Countermeasure

## Key Concepts

- Leader Standard Work
- Lean Daily Management
- Leader Standard Work
- Lead by Example
- Long term thinking
- Organization design
- Leaders as coach
- Gemba – Go See

# Steps of A Customer Centric Culture Change

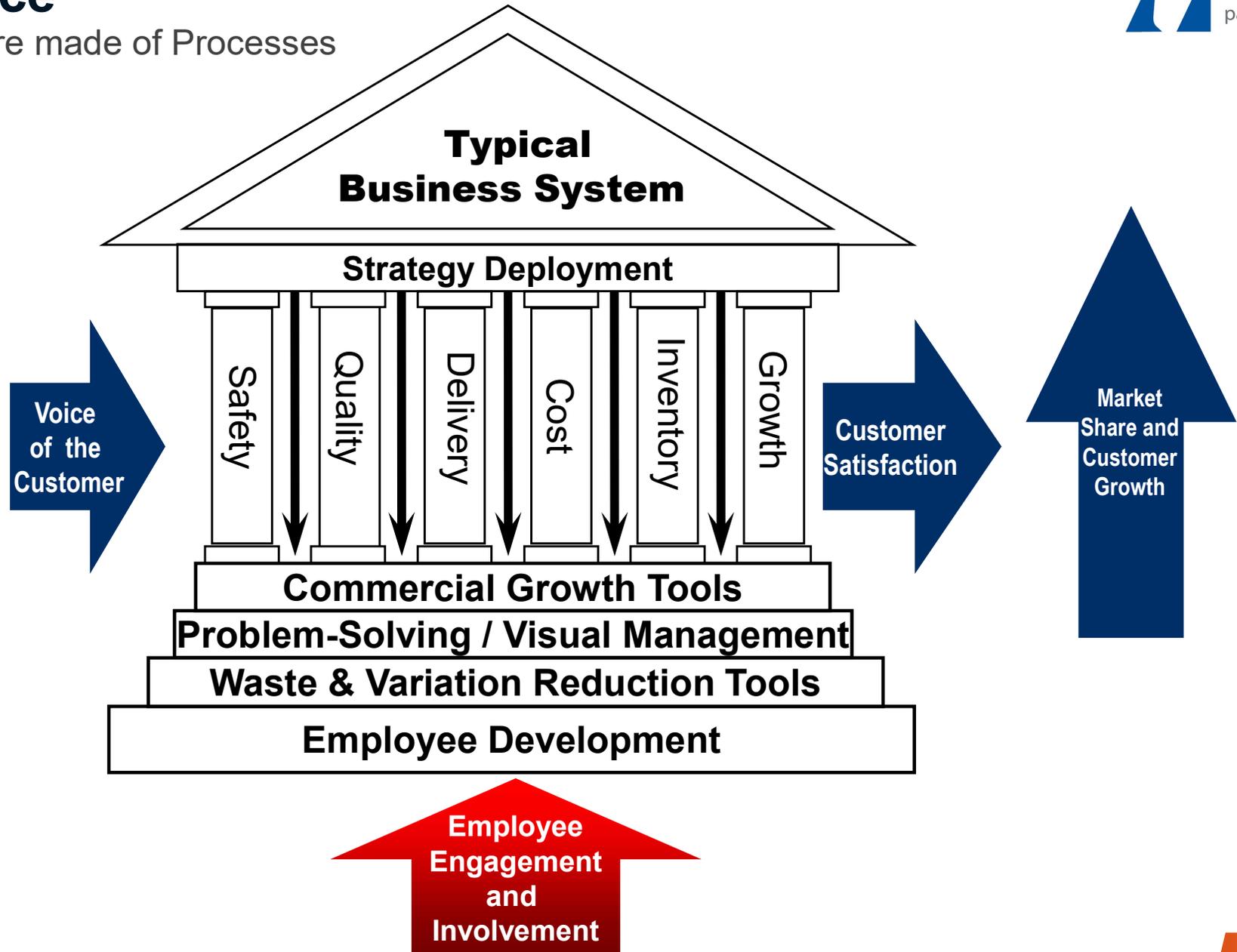
Change the  
Processes

Change the  
Thinking and  
Behaviors

Change the  
Culture

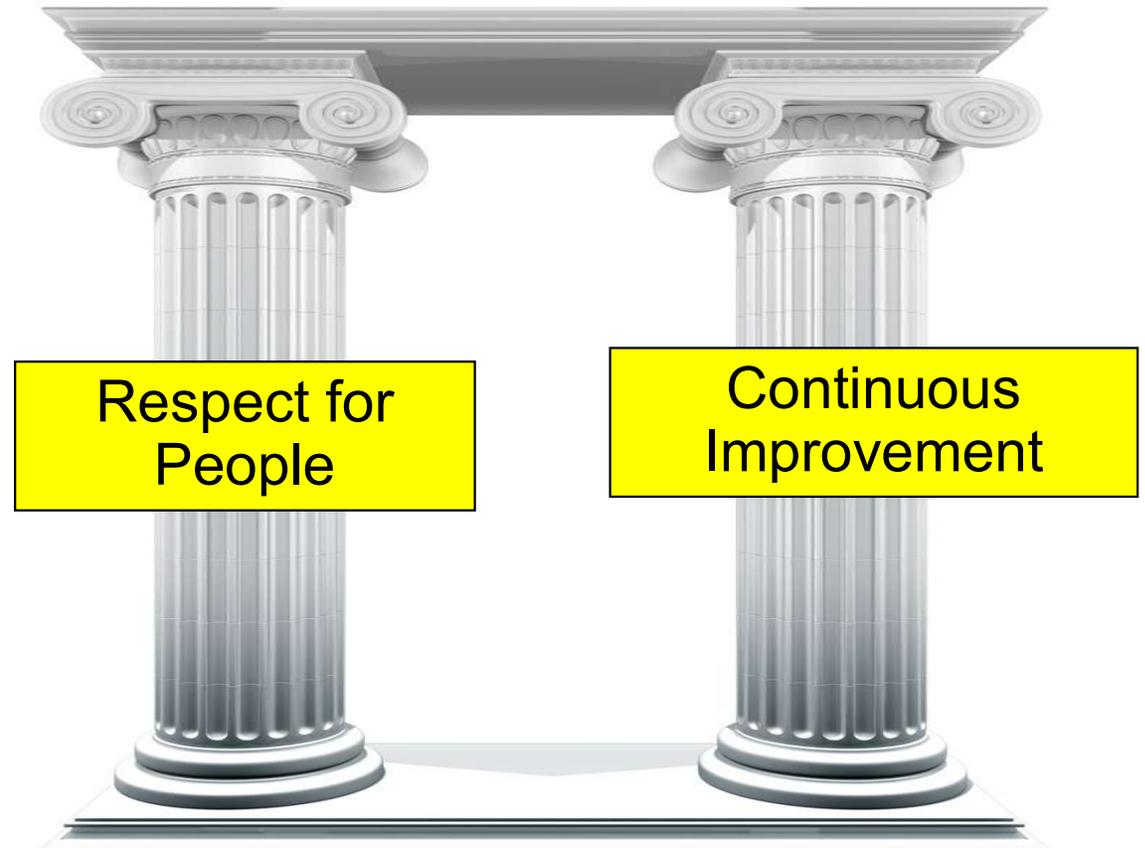
# Business System Approach to Operational Excellence

Businesses are made of Processes



# Pillars of a Business System

- Equally Balanced



# Theory X versus Theory Y



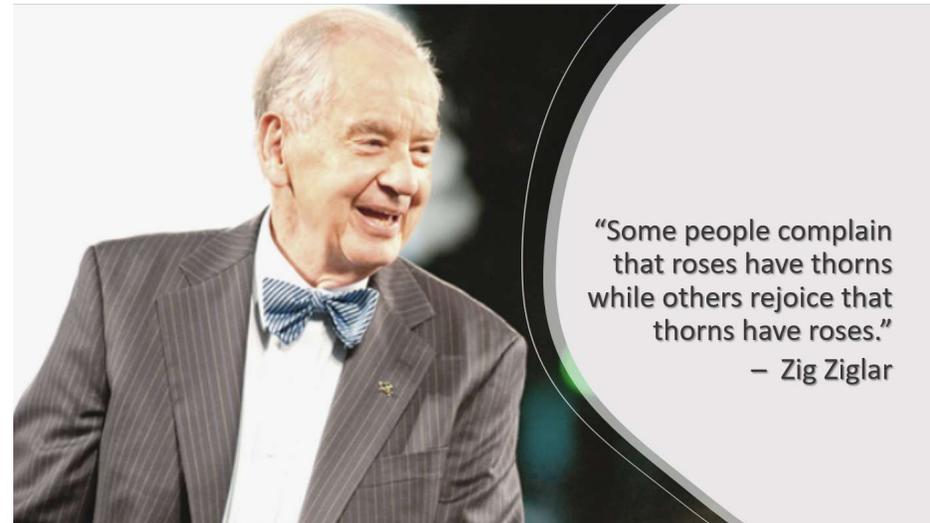
## Comparing Mental Models in Leadership

### Theory X Management Style

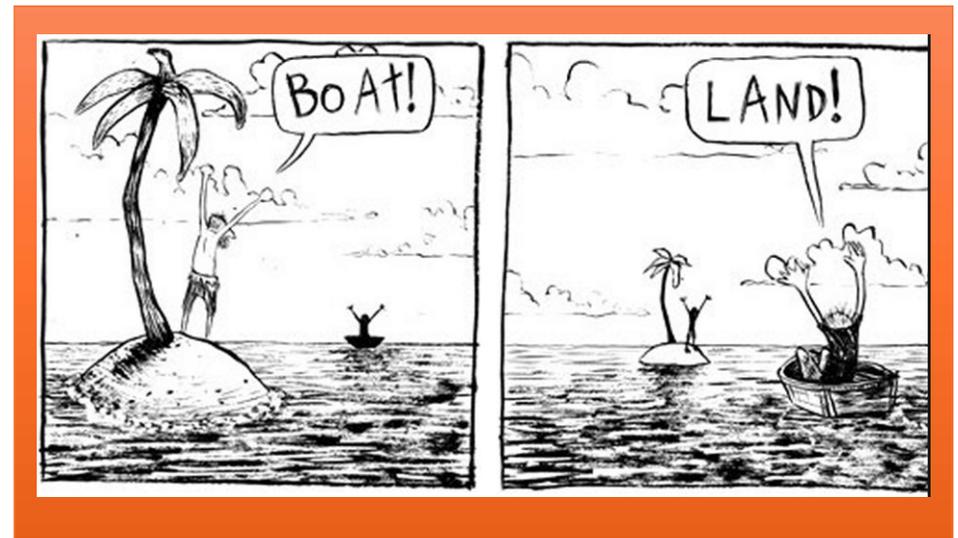
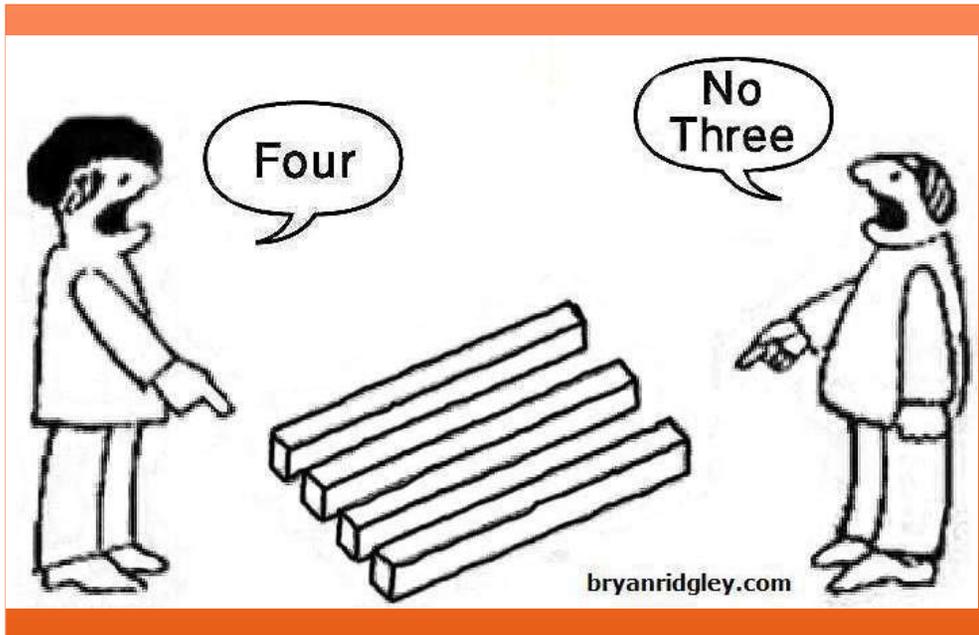
- People must be controlled
- People are passive and must be bribed or coerced into working
- People are basically lazy
- People will avoid responsibility
- People are self-centered
- People resist change at all costs
- People are gullible and not very bright

### Theory Y Management Style

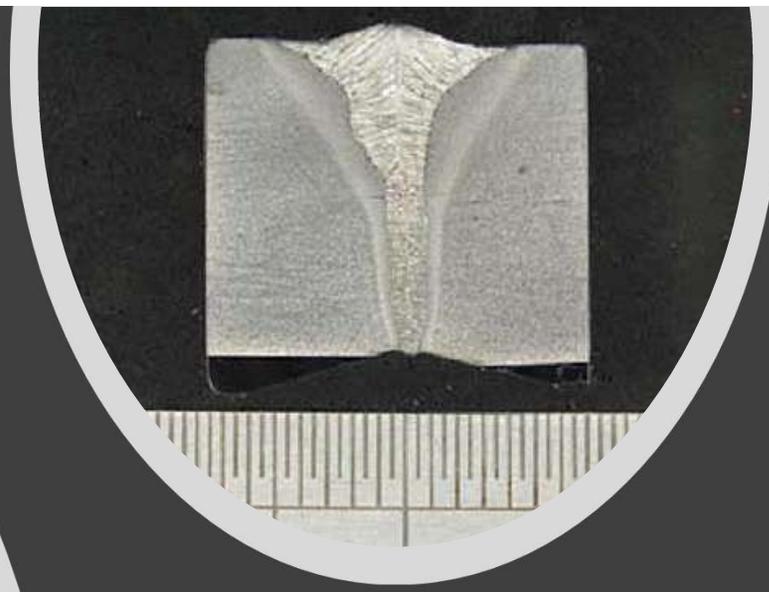
- People will actively participate and regard mental work as natural as rest or play
- People will seek out responsibility
- People are self-directed
- People want to grow and learn
- People are generally under-utilized



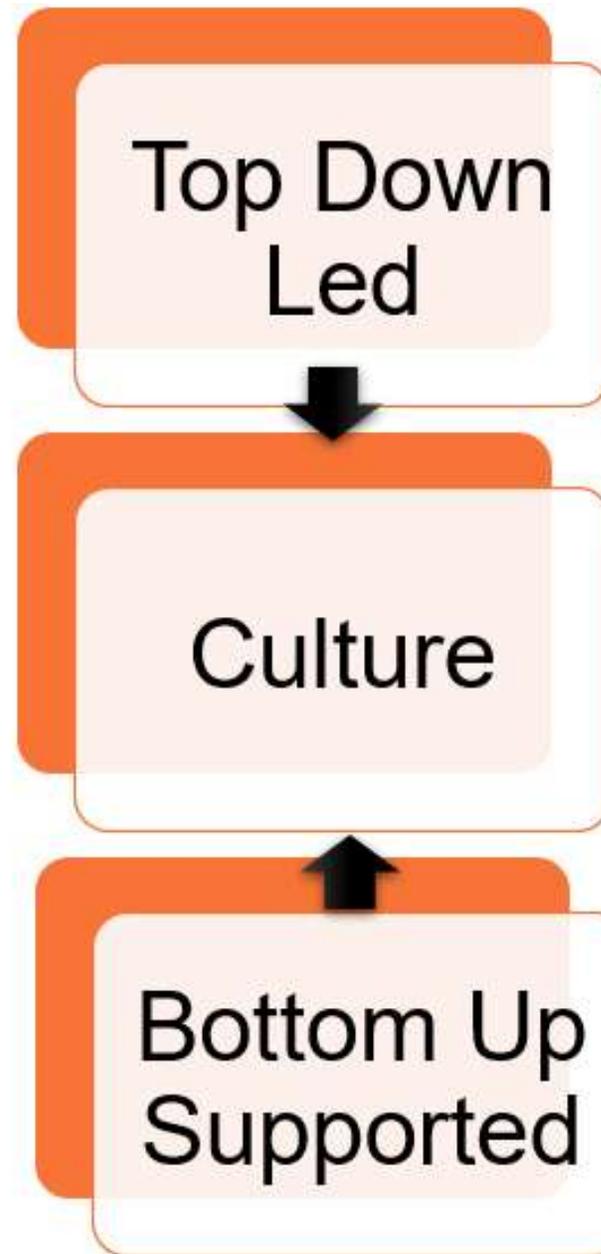
# Respect Different Perspectives



Go See for yourself (Go to the Gemba)



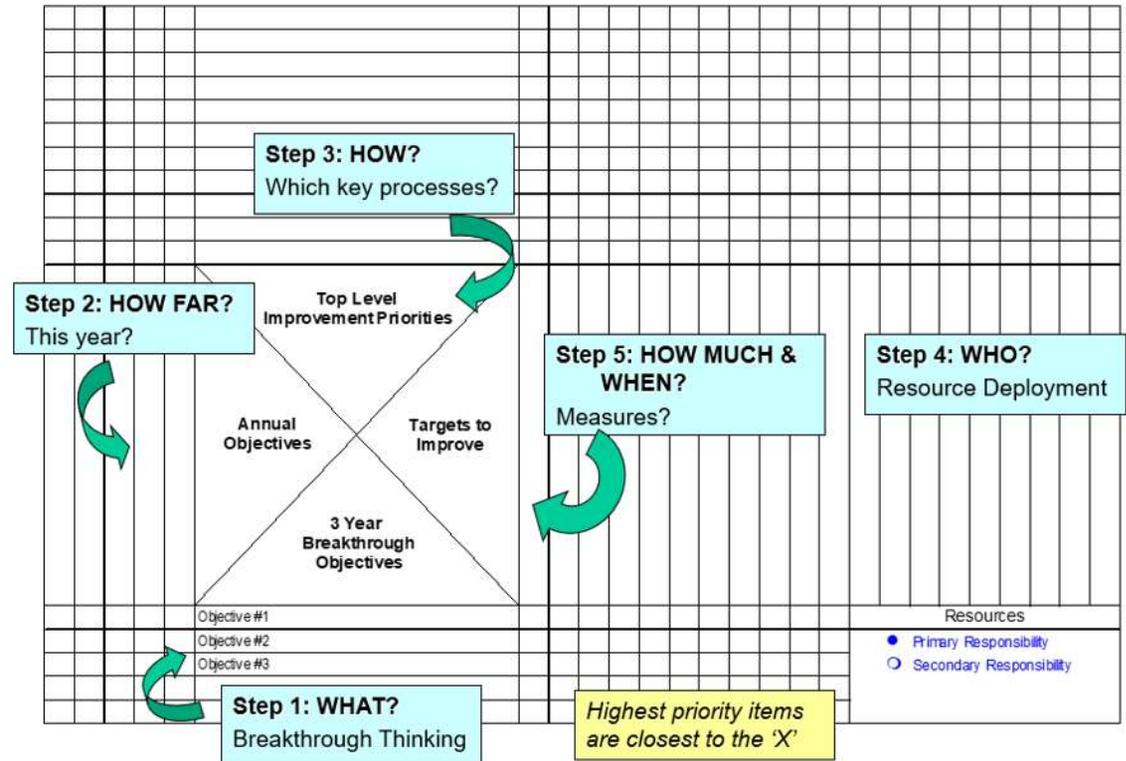
# Respect for People – The Story of Fran



# Strategy Deployment

- “Having a vision for what you want is not enough... Vision without execution is hallucination.”  
- Thomas Edison

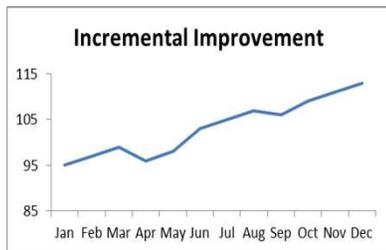
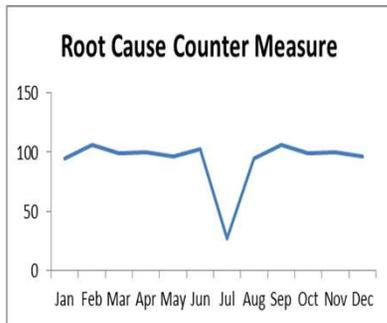
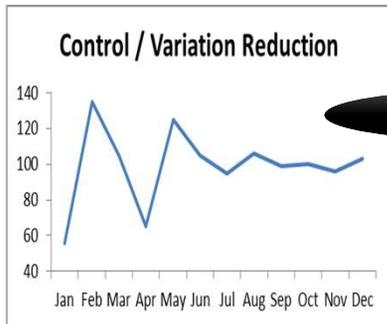
Top Level Strategy Deployment



# Leadership Improvement Processes

## 2 Different Processes / Approaches

### Daily Management



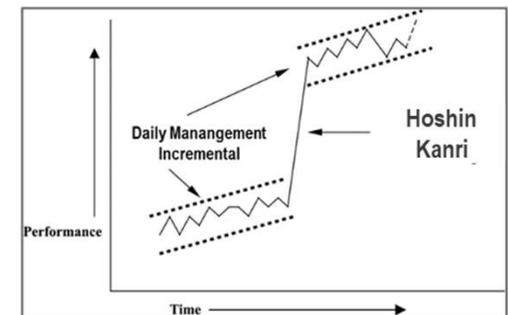
### Breakthrough



**Root Cause Problem Solving**

**Kaizen**

### Both Working Together



### Daily Management

**Balanced Scorecard  
All Core Processes  
Key Performance Indicators (KPIs)**

### Strategy Deployment

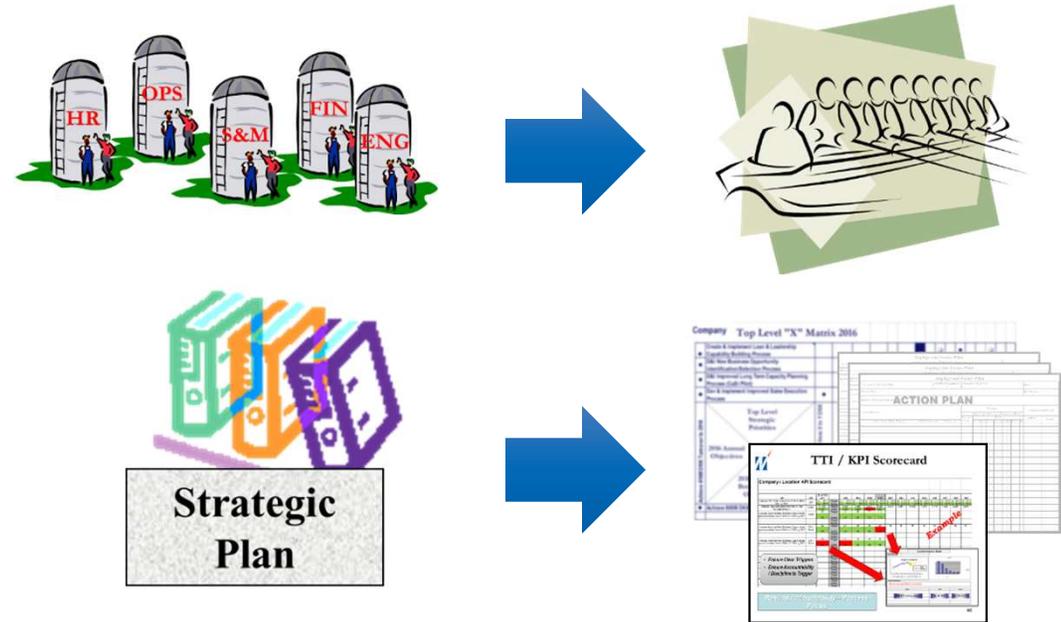
**Vital Few  
Strategic Priorities  
Targets to Improve (TTIs)**

# Why use the Strategy Deployment Process (SDP)?

Creates Focused Alignment  
Ensures Rigorous Execution  
of Strategic Breakthroughs

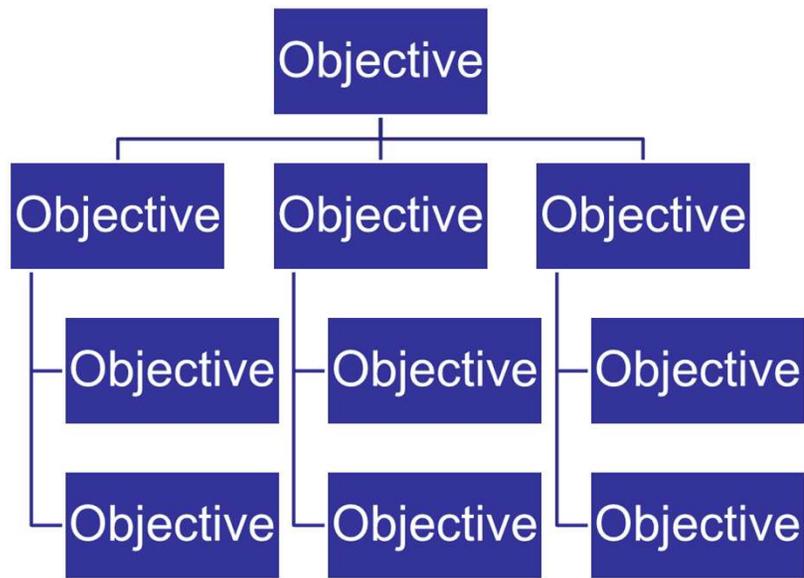
- ▶ Discipline
- ▶ Rigor
- ▶ Accountability

Builds New Processes &  
Capabilities Turning  
Breakthrough Into Daily  
Management - Driving  
Sustainability



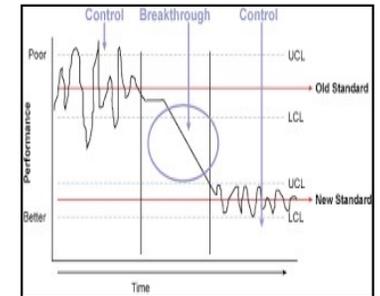
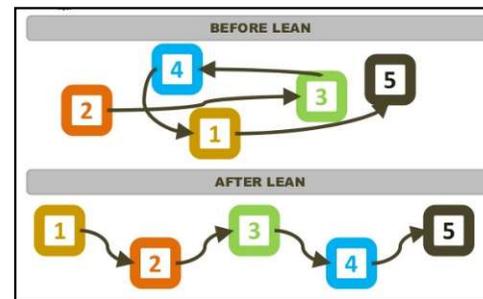
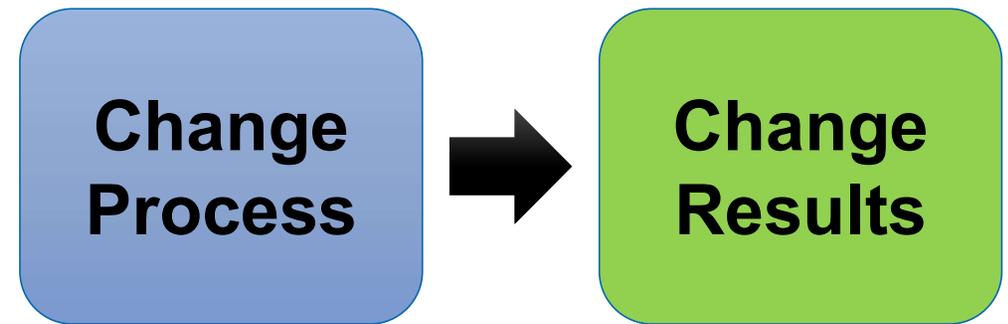
# SDP vs. MBO

## Management by Objective



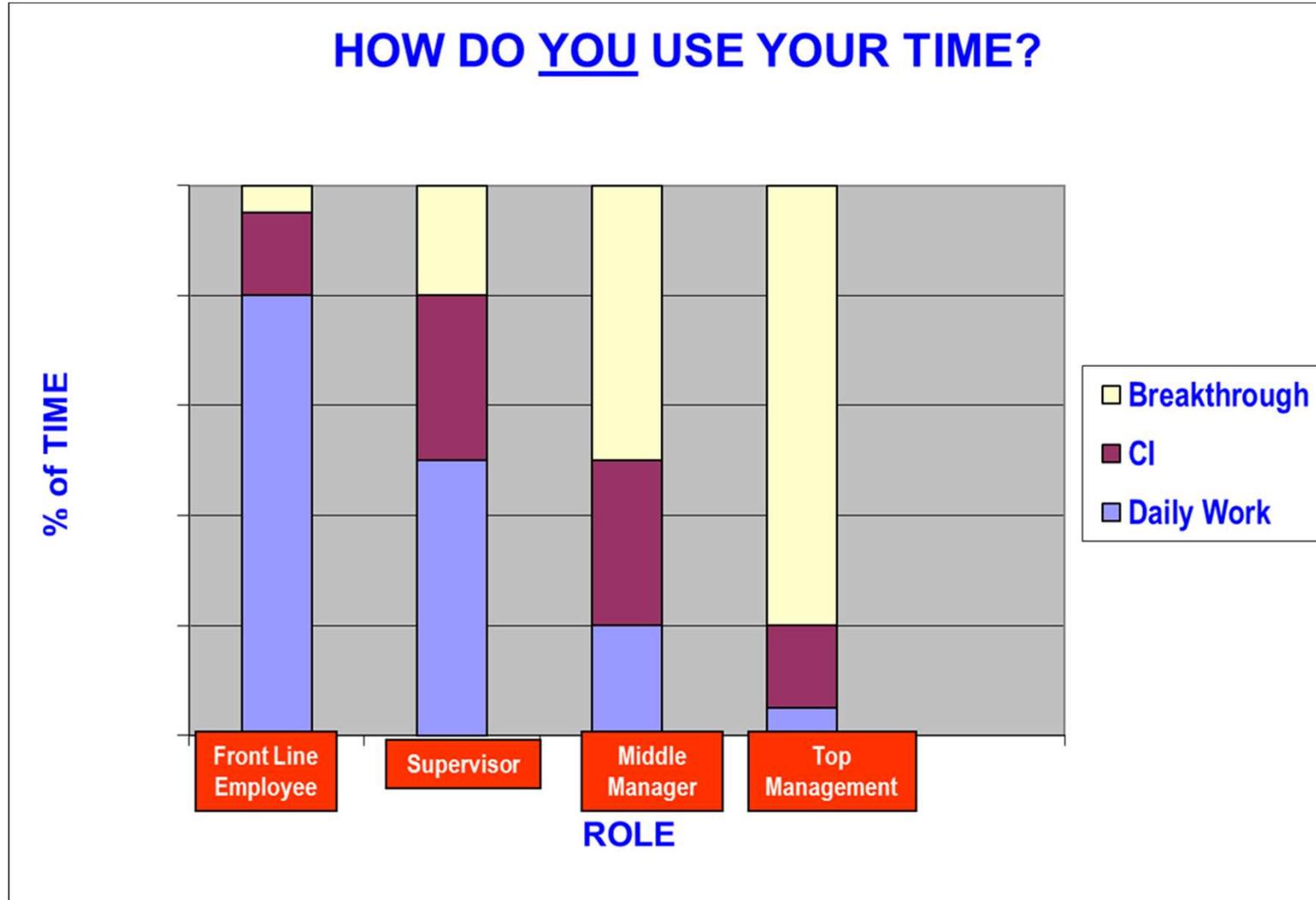
Focus is on Results Only

## Strategy Deployment Process



***Developing New Capabilities that Lead to Sustainable Results***

# Where do you spend your time?



*What stops us from spending more time on Breakthrough Change?*

# Key Principles for Business System Implementation

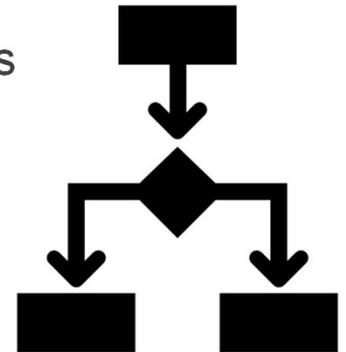
- Gemba Focus (where work is done)
- Focus on the Value Stream (not isolated projects)
- Change the Processes....to Produce the Results
- Hear / See / Do – Just In Time Training
- Coach and Mentor the Culture Change
- Engage Work Force with Lean Daily Management, Visual Management, and Kaizen

“Lean management is very much about asking questions and trying things or encouraging others to try things. Lean management itself is not much about providing the right answers but it is very much about asking the right questions.”

– John Shook

# Typical Processes and Value Streams

- New Product Development / Innovation - Concept to Launch Processes, Rapid Innovation Process
- Supply Chain - Procure to Pay Processes
- Human Resources- Recruit to Retain Processes
- Finance - Record to Report Processes, Accounts Receivables / Accounts Payable Processes
- Sales & Operations Planning
- Engineering - Capital Expenditure Processes
- Strategic Planning Processes
- Customer Service - Inquiry to Order Processes
- Operations / Warehouse / Logistics / Distribution - Order to Ship Processes



# Kaizens – Practical Problem-Solving

---

“Leaders learn by leading,  
and they learn best by  
leading in the face of  
obstacles. As weather  
shapes mountains, problems  
shape leaders.”

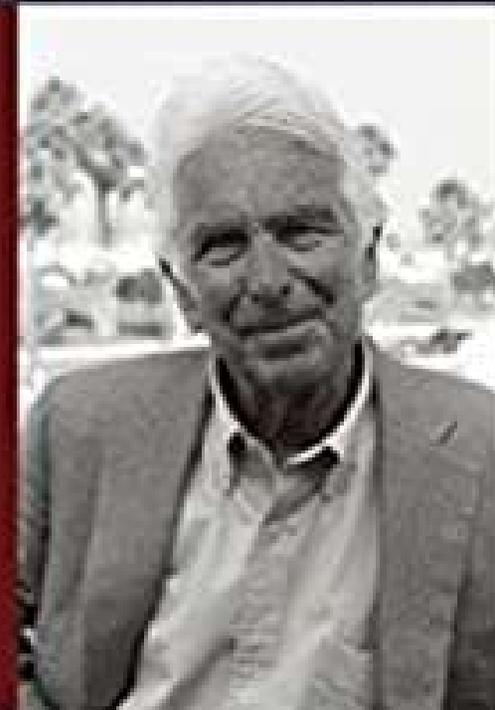


# ON BECOMING A LEADER

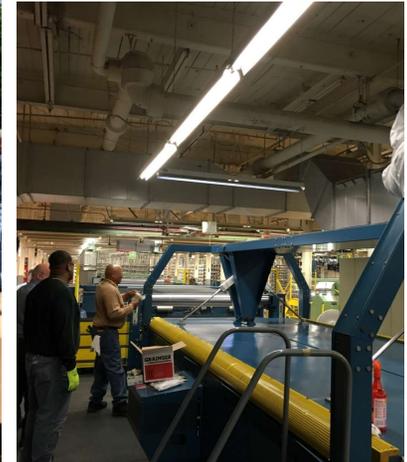
THE LEADERSHIP CLASSIC

WARREN  
BENNIS

UPDATED & EXPANDED



# Engage People With Kaizen Events



## Classroom Training

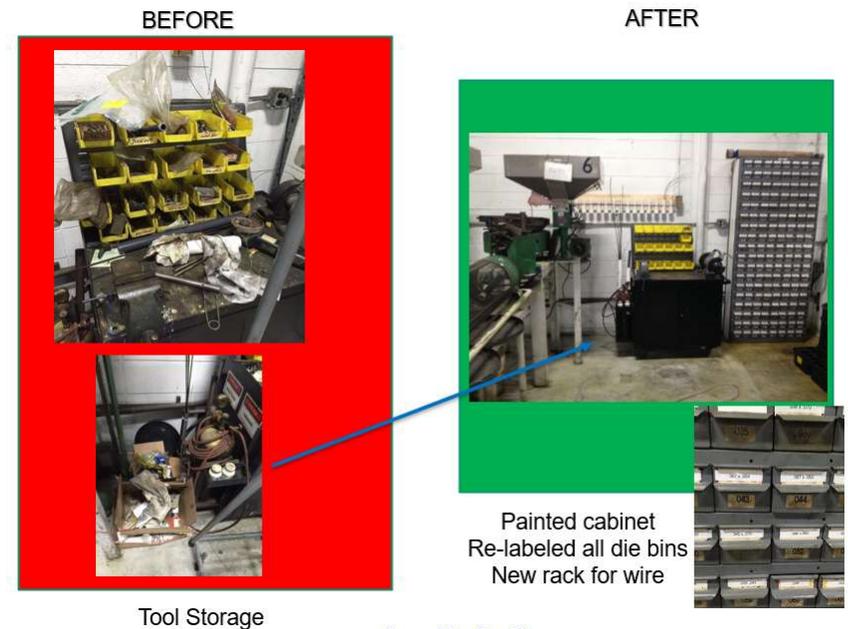
- Solve Real SQDCI Issues
- Teach and Apply Lean Tools
- Planning
  - Teams are created to focus and solve problems with specific goals
  - Employees are empowered to make decisions and take action
- Implementation
  - Activities include cleaning, physical rearrangement, documentation, etc.
  - Transformation occurs over a 5 day period
- Report-Out
  - Teams prepare presentations of activities conducted during kaizen week
  - Teams share experiences and knowledge with all other plant employees



# President's Kaizens

- Establishes “Tone at the Top”
- Sets the Example for Others
- Improves Communication and breaks down “perceived” barriers
- Delivers meaningful results
  - 78% Reduction in Changeover time
  - 5S improvements
  - Ergonomic / Safety
  - Standard work creation

**Kaizen Team Members**



# President's Kaizen – MEC (Linked In Post)



MEC (Mayville Engineering Company, ...)

9,426 followers

3w •



In September 2022, we launched MEC Business Excellence (MBX), driving continuous improvement and lean initiatives company-wide. Led by our President & CEO, **Jag Reddy**, MBX reflects our commitment to lean manufacturing as a core principle to drive continuous improvement and pursue lean initiatives in every facet of our company.

A key part of MBX is the quarterly President's Kaizen—four-day "in the Gemba" events where Jag and the Executive Team collaborate with engineers, supervisors, and associates. Since Q4 2022, we've completed eight events, 34 kaizens, and engaged 305 participants.



In August, we focused on manufacturing cycle time improvements in Defiance, OH, optimizing planning, changeovers, and reducing material handling and inventory.

President's Kaizens are integral to MEC's journey towards operational excellence and creating shareholder value.

[#MEC](#) [#MBX](#) [#Leadership](#) [#ContinuousImprovement](#)  
[#Lean](#) [#Gemba](#) [#Kaizen](#) [#OneMECOneMission](#)

  You and 100 others

6 comments · 2 reposts



Like



Comment



Repost



Send

# The Kaizen event

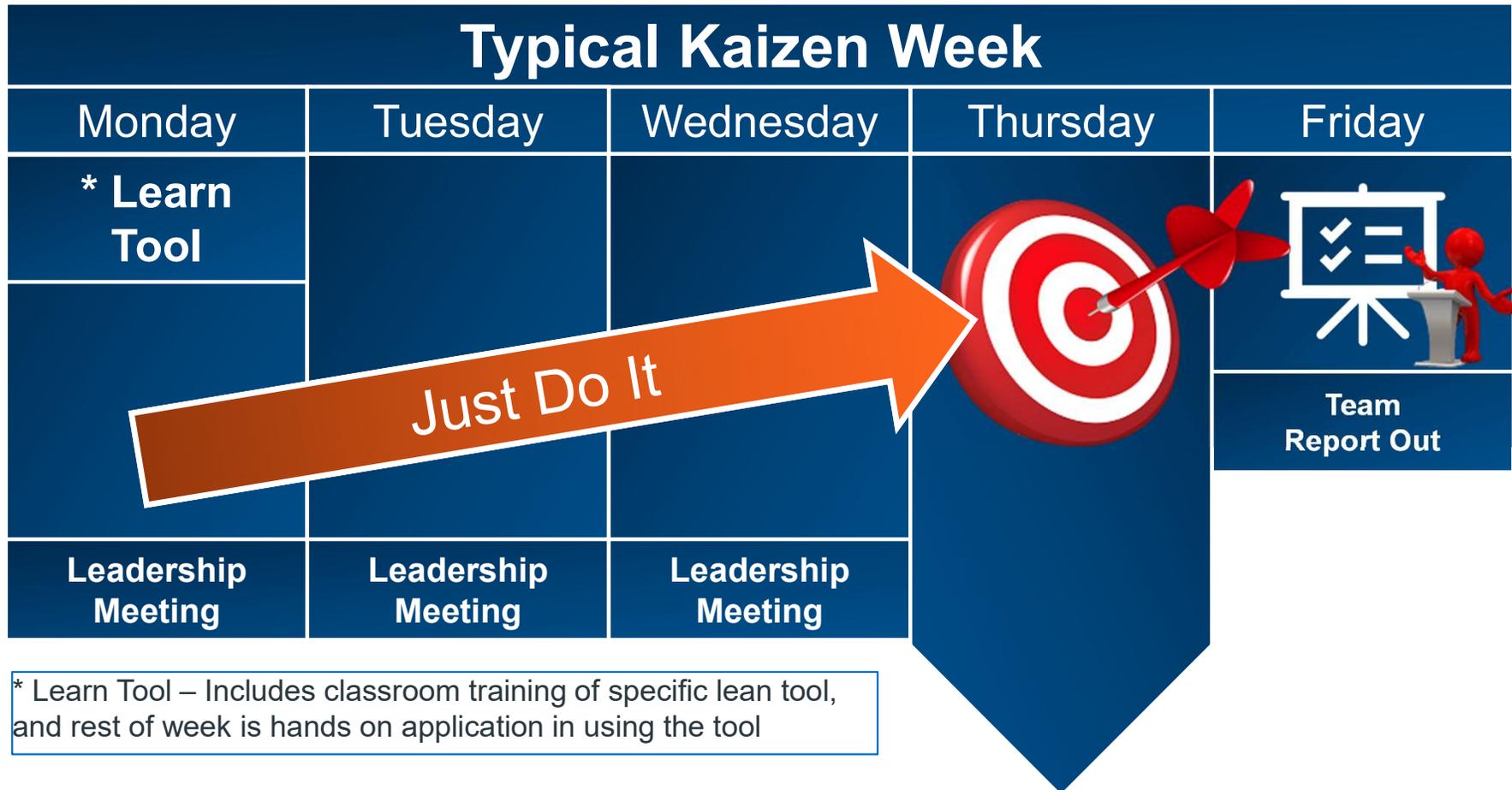
## A Kaizen Event is a Short Burst of Activities:

- Focused 4-5 Day Process Improvement
- 90% of Process Changes Occur During the Event
- Engages People From the Process – Empowers them to Change Their Own Process Guided by the Tools
- Preparation to Ensure Resources Needed to Succeed
- High Level of Leadership Visibility / Support
- Sustainability Ensured by Ongoing Measurement & Leadership Follow Up

### Kaizen Event Structured Approach



# Typical Kaizen Week



# Lean Daily Management

Daily review by management at the source of the work

Key support functions there

Management's job is to support the people producing the work

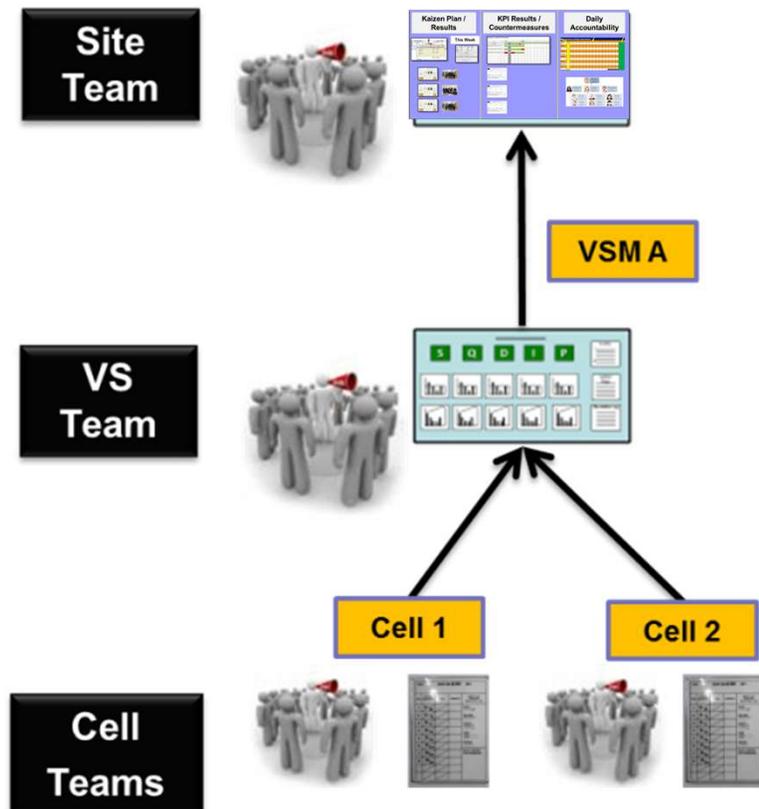
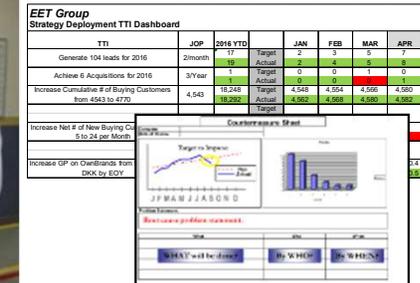
Did we hit targets? What were the issues? Root Cause(s)? What can we do to fix them? Who? When?

Hourly-Daily-Weekly-Monthly Wins!

**Front Line Leader Standard Work  
Driving Employee Engagement in  
Continuous Improvement**



## MOR / KPI Scorecard



# Why Do Lean Daily Management?



## Leader Issues

- ▶ Spend Too Much Time “Fire Fighting”
- ▶ No Time to Plan or Work on Strategic Projects
- ▶ Same Problems Repeat Over and Over
- ▶ Never Know if We Will Hit Targets
- ▶ No “Bench Strength”

## Team Members Issues

- ▶ Don't Have What We Need to Do a Good Job
- ▶ Constantly Having to Do “Work-a-Rounds”
- ▶ Not “Set Up to Win”
- ▶ “They don't value what I know about the process, my ideas”

Improve Quality of  
Front Line Leadership

Engage Every  
Employee in  
Continuous  
Improvement

Free Executive  
Leaders to Focus  
on Strategic  
Breakthrough

# Why Do Lean Daily Management?

*How did we do last quarter?*



*How did we do last month?*



*How did we do yesterday?*



*How did we do last hour?*



## Solve Problems / Make Improvements

- Sooner
- At Gemba – Where They Occur
- With Fewer Recurrences
- With Increased Rate of Improvement

*To Make Every Quarter...Make Every Hour  
Engage Everyone in Continuous Improvement*

## Visual Management Guidelines

### Daily Management

- Objective is NOT to make the scoreboard metrics “green”
  - ▶ Instead, leadership’s role is to help people become strong problem solvers – not only leaders and managers
    - ▶ Focus on processs...rather than results
      - ▶ Process is sustainable
  - ▶ Identify Target Condition
  - ▶ Quickly report the “score of the game”
  - ▶ Improves communication, feedback and daily accountability
  - ▶ + for Safety is first and foremost for a reason
  - ▶ Allow for coaching and developing people
  - ▶ Develop a culture of problem-solving!

# Quick Question – 5 second rule

## What are main issues in this area?



# +QDIP Across the World

Visual  
Standards  
Promote  
Common  
Language  
and  
Intelligent  
Questions



France



USA

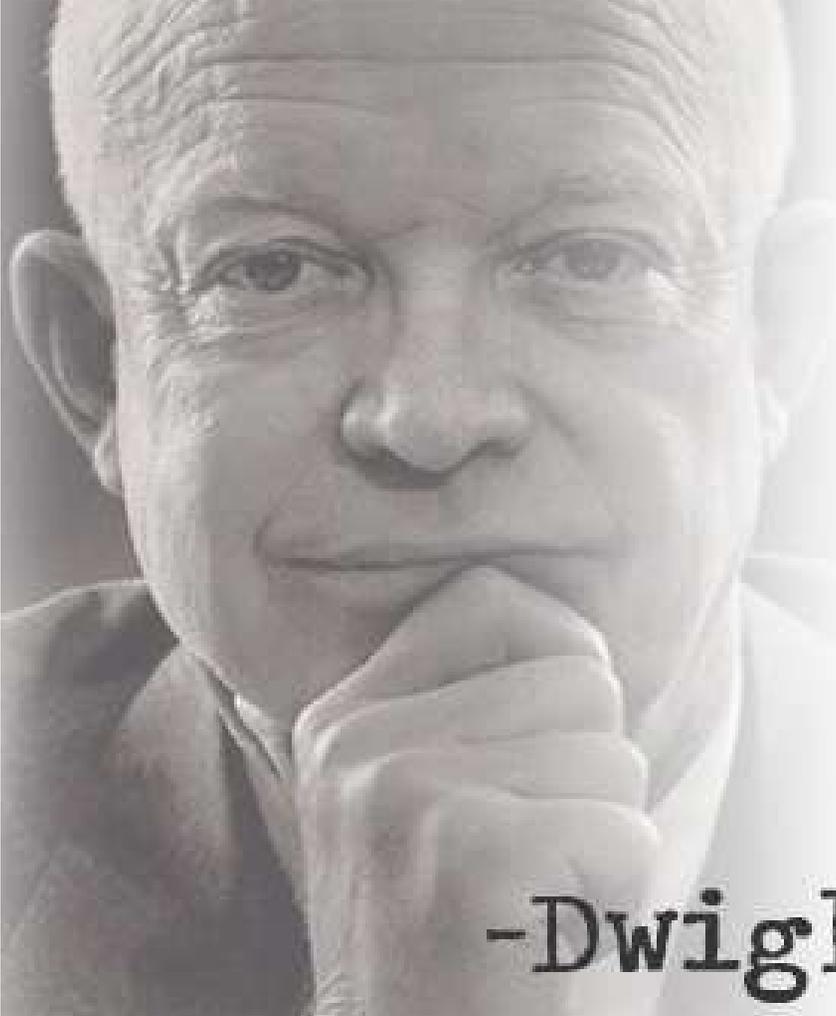


Poland



Mexico

# Something to think about...



"Farming looks  
mighty easy when  
your plow is a  
pencil and you're a  
thousand miles from  
the corn field."

**-Dwight D. Eisenhower**

# Impacts of a Business System

## Employee Engagement

- Involve all employees in transformation and problem-solving

## Culture of Continuous Improvement

- Talk about the culture you want to create

## Flow Value to the Customer

- Eliminate and Identify Waste

## Strategy Deployment

- Create Alignment and Focus on Rigor, Discipline, and Execution

Improve morale

Reduce lead time to the customer

Improve market share, productivity, quality, and safety

Reduce working capital and Capex

Create a competitive Advantage

Increase Shareholder Value

# Practical Steps to Create the Culture



Dedicated  
Resources



Executive and Site  
Level Lean  
Orientation



Visual Management  
and Lean Daily  
Management



Model cell



Value Stream Map  
with Prioritized /  
Monetized Roadmap



Kaizen, Just Do It,  
Projects



Coaching &  
mentoring

# Final Thoughts

- Culture change takes time
- Constancy of Purpose / Consistency
- Celebrate / Recognize Success
- Value Stream Map and Prioritize for Early Wins – Momentum!
- Change the Process...to Change the Results
- Develop People and Respect Them!
  - People APPRECIATE in value...other assets Depreciates
- Communicate, communicate, communicate
- Theory Y leadership style is a choice of how you view others
- Lead by example...Follow Me!
- Teach people how you want them to lead / manage – Leader Standard Work
- Engage people in improving their own processes
  - It's uplifting to kaizen....but traumatizing to be “Kaizened”



**PRINCIPAL  
CONTACT  
INFORMATION:**

**Eric Lussier**

e-Mail: [elussier@nextlevelpartners.com](mailto:elussier@nextlevelpartners.com)

Mobile: (865) 323-1935