

# Annual Forum

# TPM & Lean / CI in Action

## Developing Leadership Thinking for TPM & Lean / CI



Presentation by:  
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**President CTPM**



***Moving Leadership thinking from  
traditional Budget driven, Short Term thinking to  
Total Cost, Long Term thinking  
has been one of the great challenges faced by many sites  
trying to sustain their TPM & Lean / CI journey***



# Time Perspective

*the most successful people, companies and countries  
have the longest time perspective*

**Brian Tracy – The Physiology of Selling**



# Time Perspective

**The 14 Management Principles, which create the ‘Toyota Way’:**

**Jeffrey K Liker – The Toyota Way**

*Long Term Philosophy*

*The Right Process will produce the Right Results*

*Add Value to the Organisation by Developing your People and Partners*

*Continuously Solving Root Problems Drives Organisational Learning*



# Time Perspective

**The 14 Management Principles, which create the ‘Toyota Way’:**

## *Long Term Philosophy*

Base your management decisions on a long-term philosophy, even at the expense of short-term financial goals





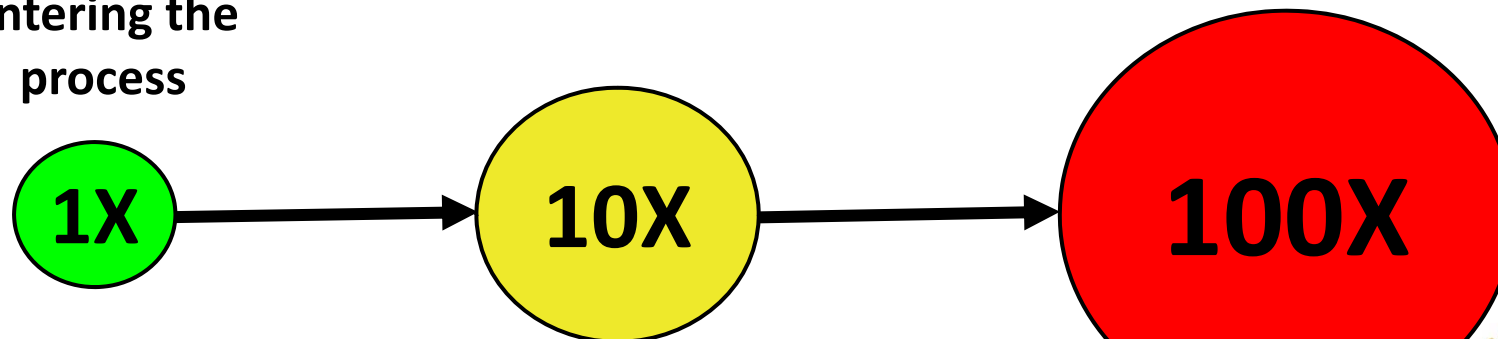
# History of TPM & Lean / CI

## Dr W Edwards Deming's 3 Key Points regarding Quality

1. Focus on the Process, not just the activity
2. Apply 'Prevention at Source' for the Process
3. Recognise the 'Tyranny of Time' when addressing problems

## The cost of Product Defects when they are:



Prevented from entering the process      Internally Detected      Customer Detected



*finding problems at the earliest possible time*



# 7 Comparisons of Leadership Thinking

	2. Mass Production	3. Lean Production
<b>Timing</b>	Developed in 1913 	Developed in 1970 
<b>Location</b>	USA	Japan
<b>Who</b>	Ford	Toyota
<b>1. Focus</b>	Output Driven	Customer Focus Driven
<b>2. Technology</b>	Inter-changeability of Parts	Process Control
<b>3. People</b>	Specialisation of Labour	Team Flexibility
<b>4. Cost Control</b>	Dept Budget Driven	Total Cost Driven
<b>5. Quality</b>	Control by End of Line Inspection <i>Don't Stop the Line</i>	Control by Process Responsibility <i>Stop the Line</i>
<b>6. Management</b>	Autocratic	Engagement
<b>7. Improvement</b>	Specialists	Everyone





## 1. Focus

# Output Driven Vs Customer Focus Driven

**Safety**  
**Output**  
**Cost**





We offer three kinds of service:  
**GOOD - CHEAP - FAST**  
You can pick any two  
**GOOD** service **CHEAP** won't be **FAST**  
**GOOD** service **FAST** won't be **CHEAP**  
**FAST** service **CHEAP** won't be **GOOD**

## 1. Focus

# Output Driven Vs Customer Focus Driven

$$\text{Customer Value} = \frac{\begin{array}{c} \uparrow \\ \text{Quality} \end{array} \times \begin{array}{c} \uparrow \\ \text{Service} \end{array}}{\begin{array}{c} \text{Cost} \\ \downarrow \end{array} \times \begin{array}{c} \text{Delivery Time} \\ \downarrow \end{array}}$$



## 1. Focus

# Output Driven Vs Customer Focus Driven

## Leadership Training at Toyota

*Recognise that Safety First is a given, and that perfect quality and customer satisfaction are the most important focus of the company after safety*

*Understand and re-enforce that quality is never sacrificed for cost or expediency.*



## 1. Focus

# Output Driven Vs Customer Focus Driven

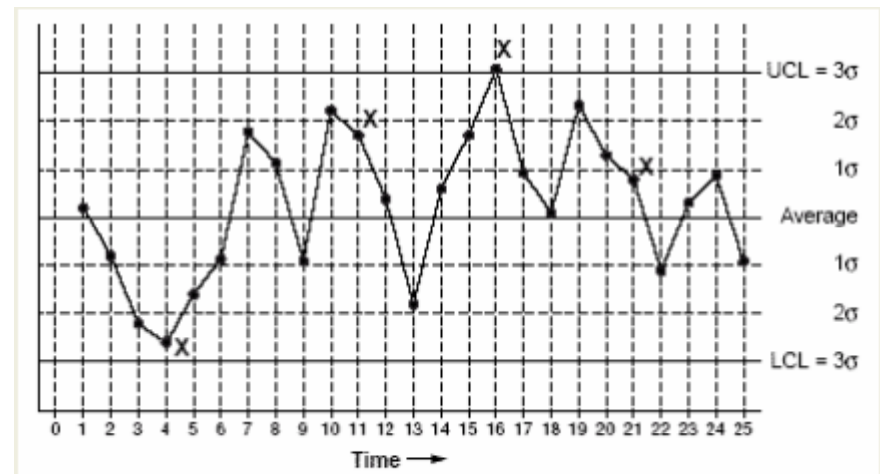
**Safety**  
**Output**  
**Cost**

**Safety**  
**Quality**  
**Customer Satisfaction**  
**Plant & Equipment**  
**People**  
**Suppliers**  
**Inventory**  
**Cost**



## 2. Technology

# Inter-changeability of Parts Vs Process Control



Control Chart with 'out-of-control' signals

Focus on Numbers

Focus on Trends

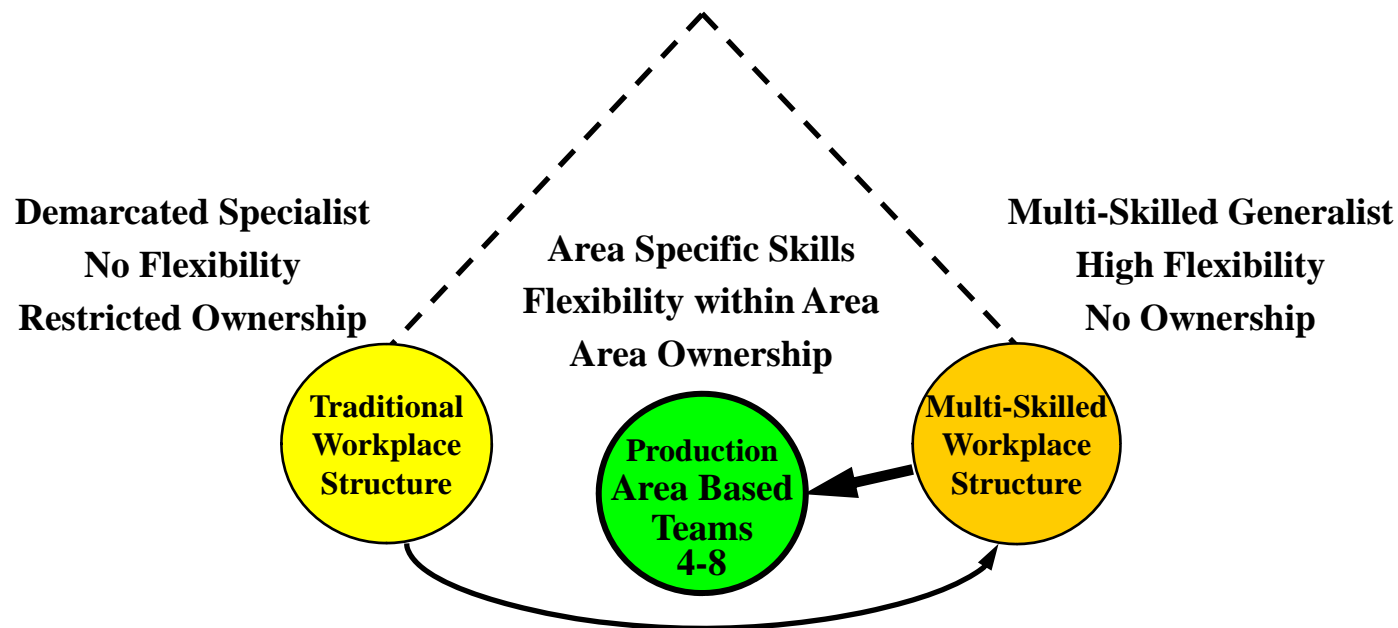




### 3. People

## Specialisation of Labour Vs Team Flexibility

### The Pendulum of Change

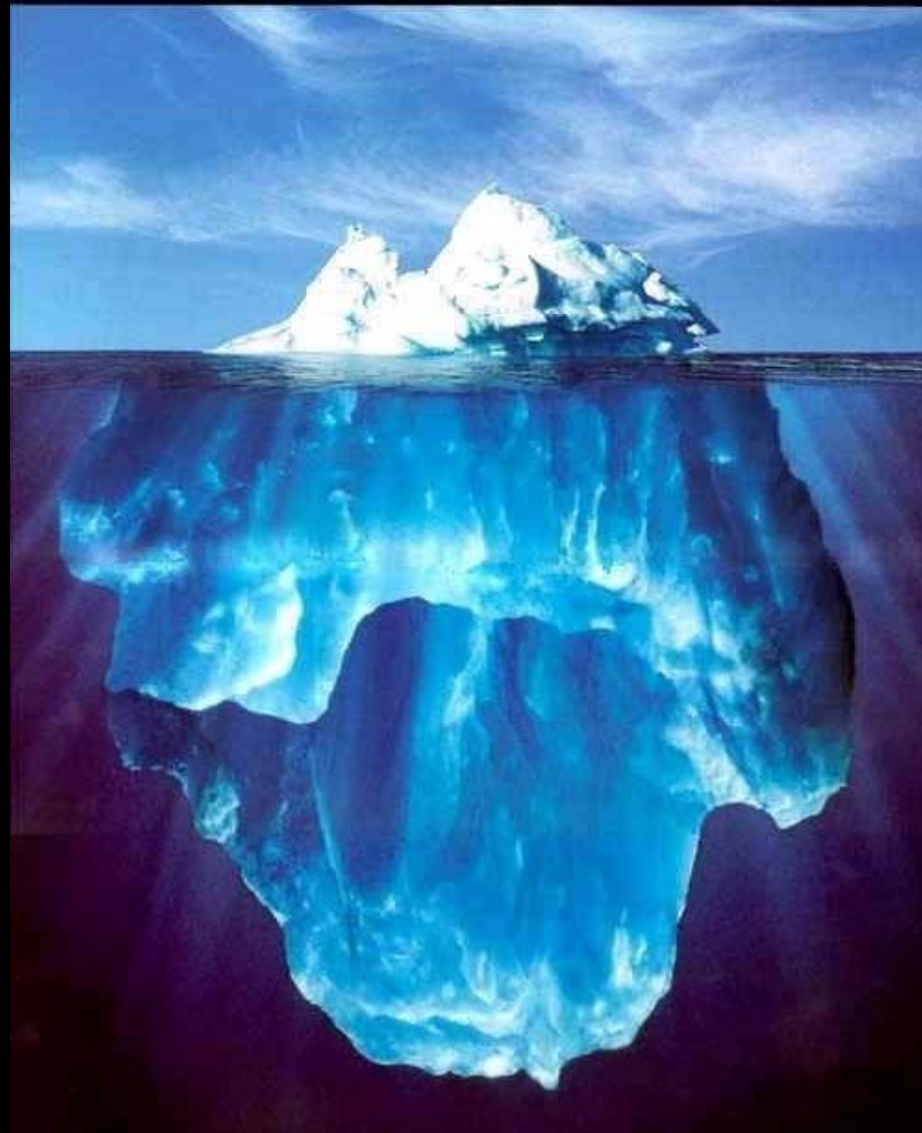


*Properly established Production Area Based Teams of 4-8 with dedicated Team Leader create an ownership environment that has flexibility though Base Skills across the team*



## 4. Cost Control

# Dept Budget Driven Vs Total Cost Driven





## 4. Cost Control

# Dept Budget Driven Vs Total Cost Driven



**The Hidden Cost of Poor Equipment Effectiveness**



## 5. Quality

# Control by Inspection Vs Control by Responsibility

**Don't stop the Line**

**Stop the Line**

*I expect my workers to come  
to work and if necessary,  
'pull the cord'*



## 5. Quality

# Control by Inspection Vs Control by Responsibility

## 3 Key Tasks

In a quality focused organisation all personnel have 3 key tasks:

1. Inspect their inputs to ensure they are to required standard and if not correct reject them (zero defects accepted or red bin quality concept).
2. Ensure their process is capable (Process Capability) and they follow Standard Operating Procedures and produce quality output.
3. Ensure what they pass onto the next workstation / process is to the required quality standard.



## 5. Quality

# Control by Inspection Vs Control by Responsibility

	Question	Evidence
Inputs	<i>Q: How do you know you are using quality input materials?</i>	Quality Standards for Inputs
Process	<i>Q: How do you know how to produce the output correctly?</i>	Standard Operating Procedures
Outputs	<i>Q: How do you know you have produced quality output?</i>	Quality Standards for Outputs



## 6. Management

# Autocratic Management Vs Engagement

## Pull Culture Change

addressing the

*what's in it for me*

through

*emotive questions*

that promote and encourage everyone to be responsible (ownership) and accountable (agreed expectations) for workplace improvements.



## 7. Improvement

### Specialists Vs Everyone

The cost of Product Defects when they are:

Prevented from  
entering the  
process

1X

Internally Detected

10X

Customer Detected

100X

*finding problems at the earliest possible time*



# In Summary: The Challenges for Leadership Thinking

1. Safety First is a given, however Quality before output and cost
2. Identify problems at the earliest possible time
3. Create a structure and rosters that support development of entire workforce
4. Total Cost rather than just the department budget impact
5. Control Quality through Responsibility rather than just inspection
6. Engage the workforce by asking questions
7. Get everyone involved in improvement rather than a select few



*Think Long Term*





# Final Work

*education alone is not enough,  
there needs to be a structured development plan  
to allow leadership at all levels to experience the benefits  
and means to achieve the required new thinking  
for an Operational Excellence workplace*



