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# Ebook: A Guide to Lean Manufacturing

An educational manual  
as to how lean production  
methods save time,  
money and drives  
company culture

# A GUIDE TO LEAN MANUFACTURING AND REDUCING WASTE

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What is lean manufacturing?

*Focus on reducing waste and eliminating activities that use up resources without adding value.*

**D**

4

**Defects**

caused by rework,  
scrap, incorrect info

**O**

8

**Overproduction**

Production that is  
earlier/more than needed

**W**

2

**Waiting**

Wasting time waiting for  
next step in the cycle

**N**

6

**Non-Utilized Talent**

Unused potential in  
people's skills, talents  
and knowledge

*8 wastes that contribute to  
low customer value*



**T**

6

### **Transportation**

Unnecessary movements of products and materials

**I**

9

### **Inventory**

Extra product and materials not being processed

**M**

2

### **Motion**

Wasted/ inefficient movements by people

**E**

12

### **Extra-Processing**

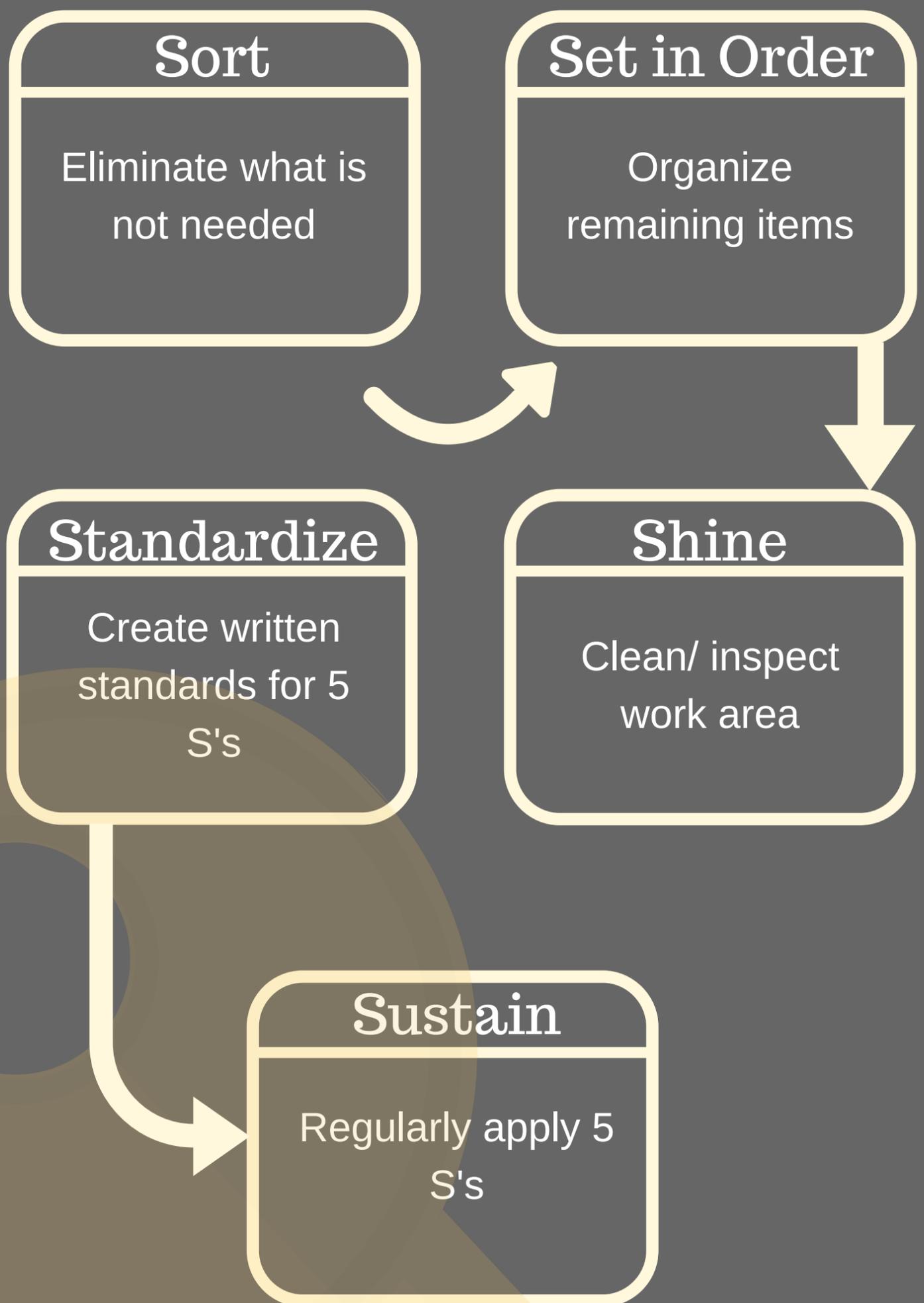
More work or higher quality than required for job





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Organize the workplace using  
the 5 **S**<sub>4</sub> framework



The 5-S framework will help reduce *wasted time* by creating an organized and standardized workplace!



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## Gemba (The Real Place)

*Gemba (Gemba walks) is a philosophy that encourages observation where the work is being done (like a warehouse or MFC plant).*

Gemba stresses 3 key ideas:



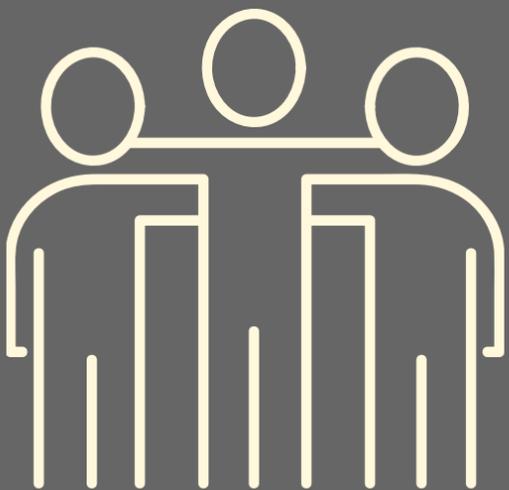
### **Observation**

In-person observation



### **Value-added location**

Evaluating at the source of production/ problem



### **Teaming**

Interacting with people and the process for change for better

***Gemba is not*** a chance to find fault in others nor a time to enforce policies and induce punishments



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## Kaizen

### (Continual Improvement)

*Kaizen is a strategy where employees at all levels of a company work together proactively to achieve regular, incremental improvements to the manufacturing process.*

### Part Action Plan, Part Philosophy

#### Action Plan

*Organize events focusing on improving specific areas of the company.*

#### Philosophy

*Build a culture of actively engaged employees in suggesting and implementing improvements to the company.*

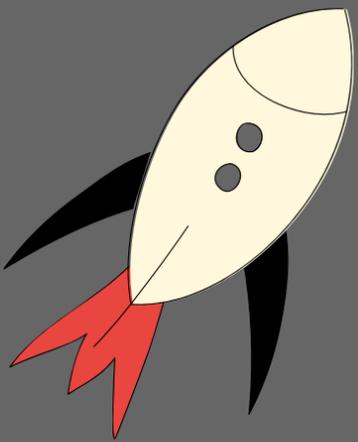


**Involve everybody at any level, especially production floor workers and managers!**



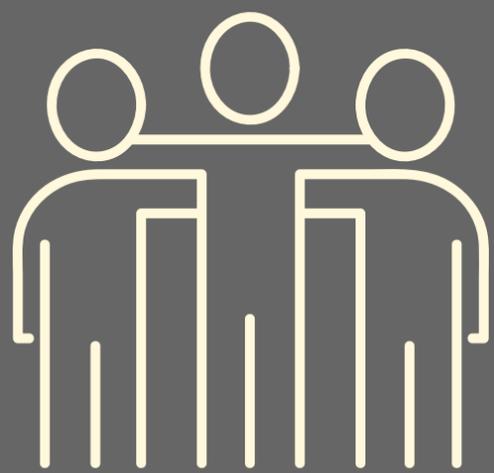
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How PPT has used lean manufacturing and six-sigma to drive success

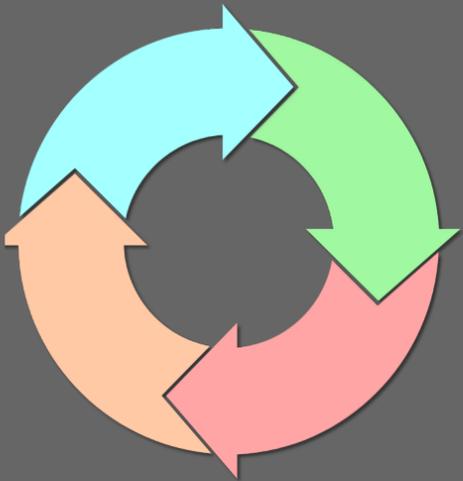


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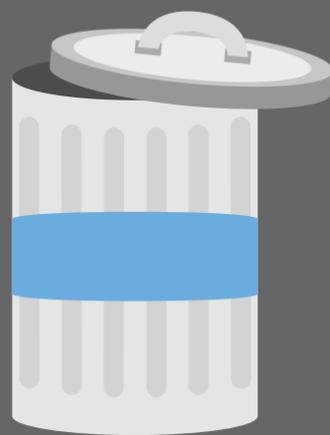
launched lean campaign



12-month entire staff training



Redesign process for new molded parts & packaging assembly



Identified and reduced impact of the 8 wastes present



Just-In-Time (JIT) cut costs, helped make more precise orders



Increase amount of work that is value added



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Questions?

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[www.plasticsplus.com](http://www.plasticsplus.com)

