



## **Manufacturers Alliance Seminar** **Lean for Custom Manufacturers**

Practical experiences from practitioners on how custom and job shop manufacturer can benefit from Lean

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Lean will not work in  
our business...



*... because we don't  
mass produce parts.*

## We Say We Can't Do...

- Continuous Flow
- Workload Leveling
- Pull Systems

## Keep Improving

**Keep Learning**

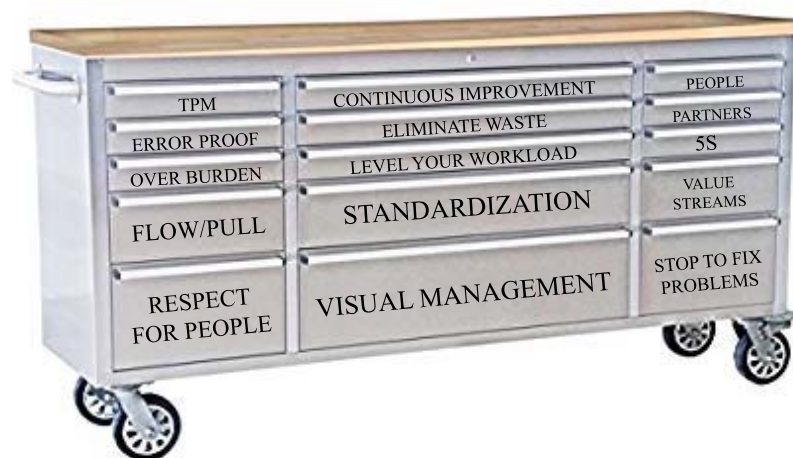
- Your Employees
- Your Leaders
- Your Processes
- Your Equipment
- Your Partners

*Dependability | Reliability | Consistency*

## Respect For People

### Strategies

- Eliminate Waste in Your System
- Think Long Term
- Make Decisions Slowly
- Stop to Fix Problems
- See the Process for Yourself
- Standardize Tasks
- Make Things Visual





“All we are doing is looking at the time line from the moment the customer gives us an order to the point when we collect the cash. And we are reducing that time line by removing the non-value-added wastes”

*Taiichi Ohno*  
*Founder of TPS*

# “Time is the shadow of waste”

*Simon Nagota*  
*Former Toyota VP of Supply Management*

“Everyone knows that time is money,  
but time is actually a lot more  
money than most managers realize”

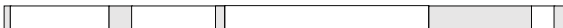
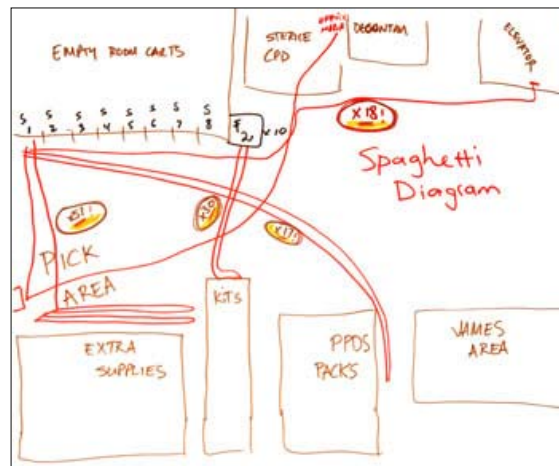
*Rajan Suri*  
*Founder of Quick Response Manufacturing*



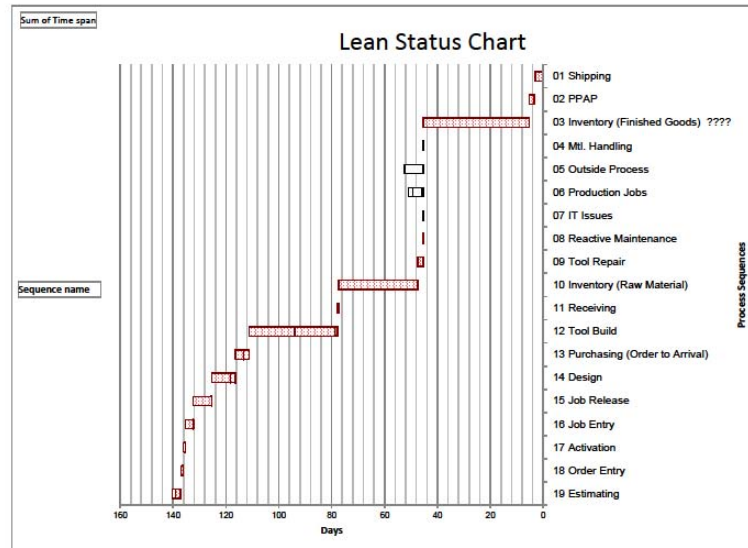
## Find the Time Waste!

Use the tool that you are comfortable with...

- Value Stream Maps
- Flow Charts
- Spaghetti Diagrams
- Swim Lane Diagrams
- Pareto/Histograms
- **Simple Timeline**



*Make it Visual, not pretty*



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## Continuous Flow - Setup Reduction

NEVER be content with your setup time. Continually try to get better

Allows for reduced batch sizes and better flow with other equipment

Start with your bottlenecks



The Setup Circle



## Continuous Flow – Create Cells



## Workload Leveling - Excess Capacity

Have at least 10-20% spare capacity (employees and machines)





## Pull Systems - Kanban Time/Space



MSD Printing Company POLCA Card

**D1 / R1**

Originating Cell: DTP Cell 1  
Destination Cell: Pre-press Cell 1

Card Serial Number D1/R1-007



## Thank You

### Summary

1. Know the biggest waste in your lead time
2. Use tools to reduce that waste
3. Repeat



**Manufacturers Alliance**  
Thank you for joining us!

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