

Seven Wastes

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*Contents included in the presentation are informed by our study of the Toyota Production System

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Workshop Definition

- To give practical help to see waste hiding in plain sight. Waste can appear in several forms and often it looks like useful work!
- In a Lean culture, waste is defined as anything that doesn't add value to your customer.

How well do you know your wastes?

Agenda

- What is your customer willing to pay for?
- Environmental Conditions of Waste
- 7 Wastes
- Lean Solutions
- Questions



What is your Customer Willing to Pay For?

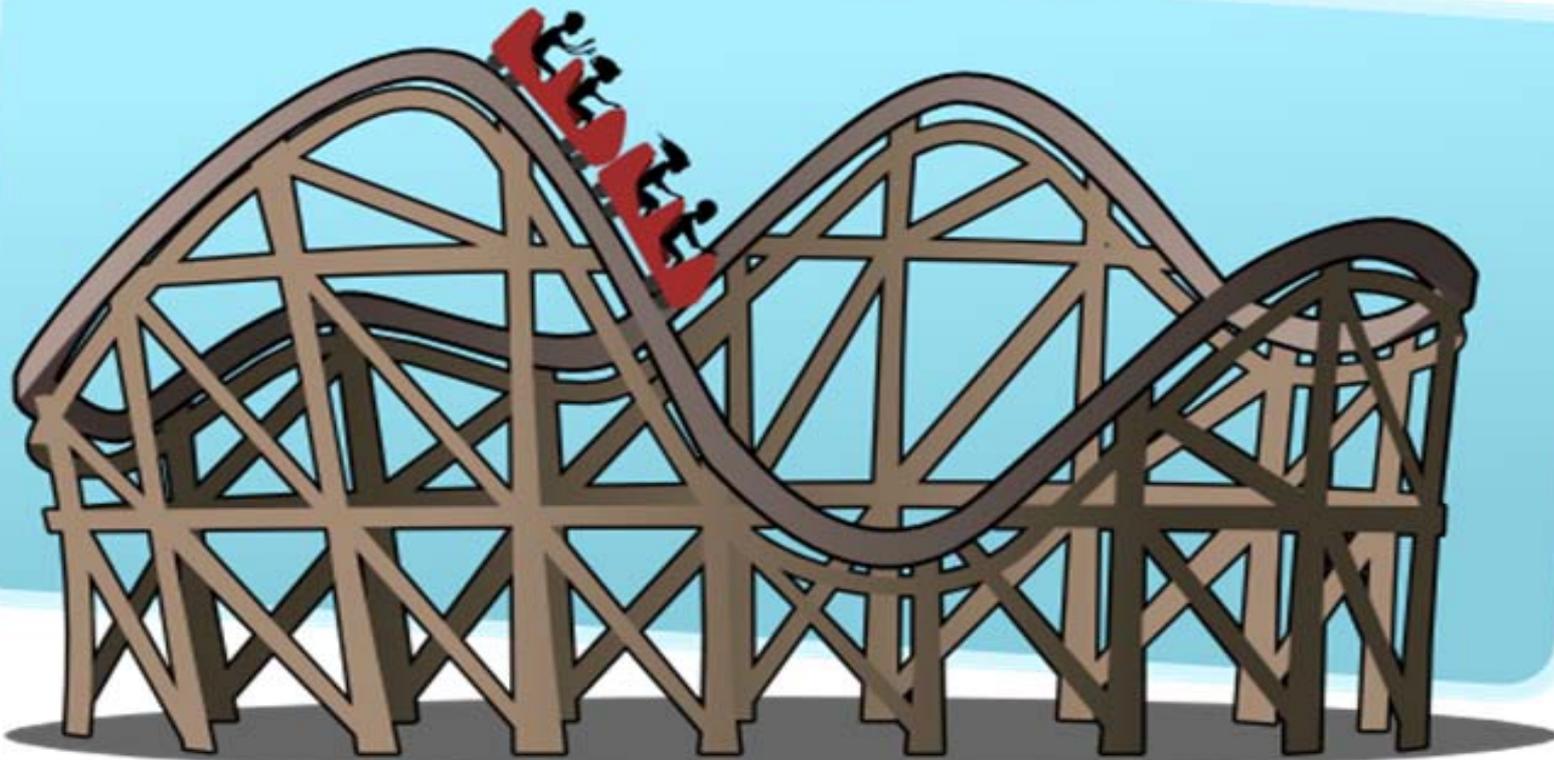
- Value Add work
- Non Value Add work
 - **Necessary**
 - **Unnecessary**

Environmental Conditions of Waste

- Unevenness (*Mura*)
- Overburden (*Muri*)
- Waste (*Muda*)

Unevenness

- Seasonality, market-driven, cyclic fluctuation



Overburden

- Overburden creates a sense of crisis which causes us to protect ourselves



Customers are NOT willing to Pay for Waste

- Does not add value to the product or service



7 Wastes

1. Overproduction
2. Inventory
3. Time/Waiting
4. Transportation
5. Processing
6. Motion
7. Defects

* 7 Wastes as identified by Taiichi Ohno

7 Wastes: Overproduction

- Producing more than your customer is requesting or before they request it



- 1. Overproduction**
2. Inventory
3. Time/Waiting
4. Transportation
5. Processing
6. Motion
7. Defects

7 Wastes: Inventory

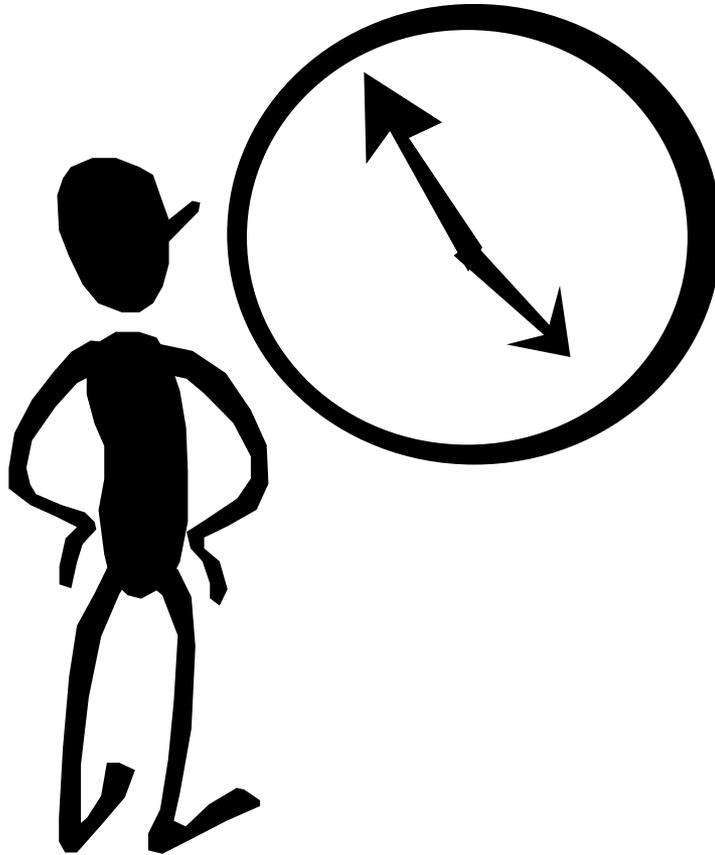
- More materials or information than is required



1. Overproduction
- 2. Inventory**
3. Time/Waiting
4. Transportation
5. Processing
6. Motion
7. Defects

7 Wastes: Time/Waiting

- Waiting done by customers or by employees



1. Overproduction
2. Inventory
- 3. Time/Waiting**
4. Transportation
5. Processing
6. Motion
7. Defects

7 Wastes: Transportation

- Unnecessary conveyance of products, from one location to another, or handoff from one employee to another



1. Overproduction
2. Inventory
3. Time/Waiting
- 4. Transportation**
5. Processing
6. Motion
7. Defects

7 Wastes: Processing

- Unnecessary manual work that does not contribute value to the product



1. Overproduction
2. Inventory
3. Time/Waiting
4. Transportation
- 5. Processing**
6. Motion
7. Defects

7 Wastes: Motion

- Unnecessary physical or mental motion often associated with searching



1. Overproduction
2. Inventory
3. Time/Waiting
4. Transportation
5. Processing
- 6. Motion**
7. Defects

7 Wastes: Defects

- A mistake which reaches the customer



1. Overproduction
2. Inventory
3. Time/Waiting
4. Transportation
5. Processing
6. Motion
- 7. Defects**

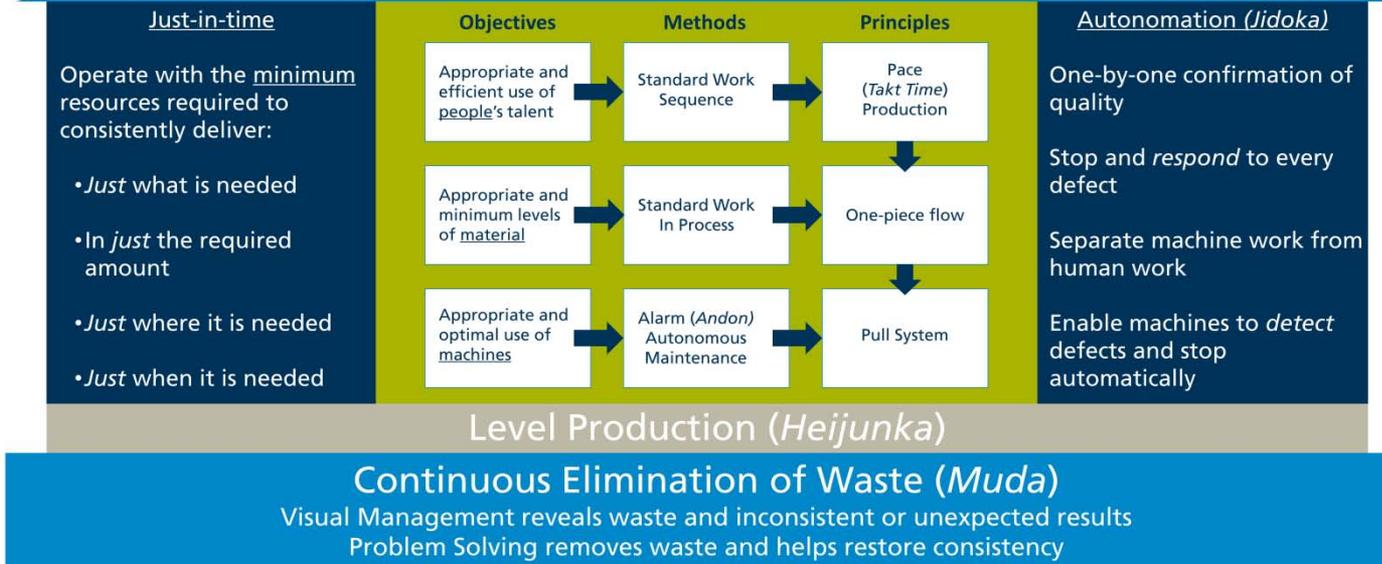
7 Types of Waste

1. Overproduction
2. Inventory
3. Time/Waiting
4. Transportation
5. Processing
6. Motion
7. Defects

* 7 Wastes as identified by Taiichi Ohno

Lean Solutions

Premera Production System *Deliver Only What Customers Value*



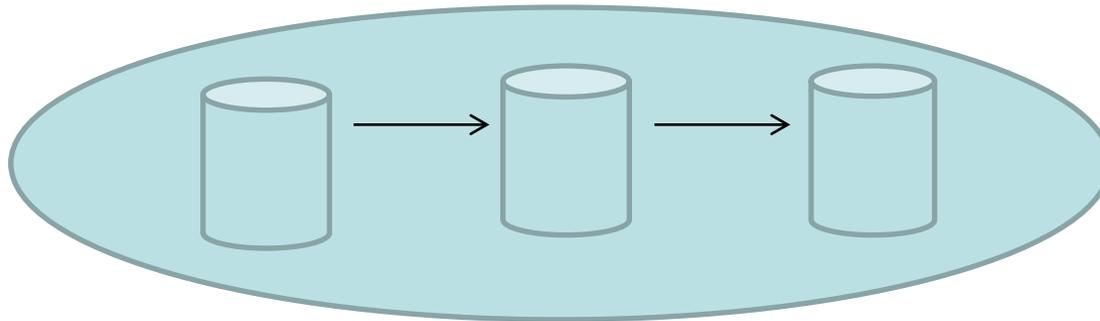
Lean Solutions

- First you must see it – **MAKE IT VISIBLE!**

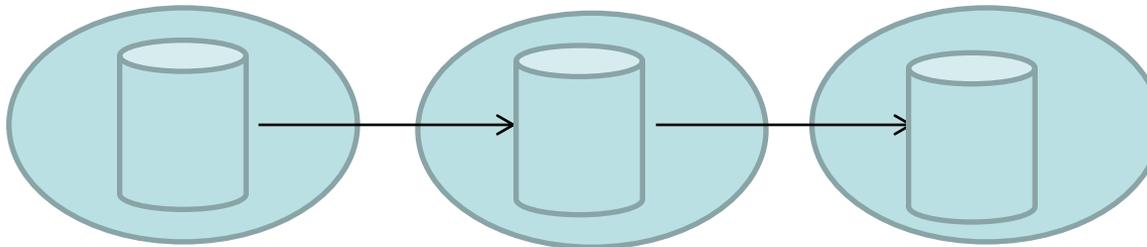


Lean Solutions - Value Stream Mapping

You can **See** and **Identify Waste** as you connect your processes from start to finish

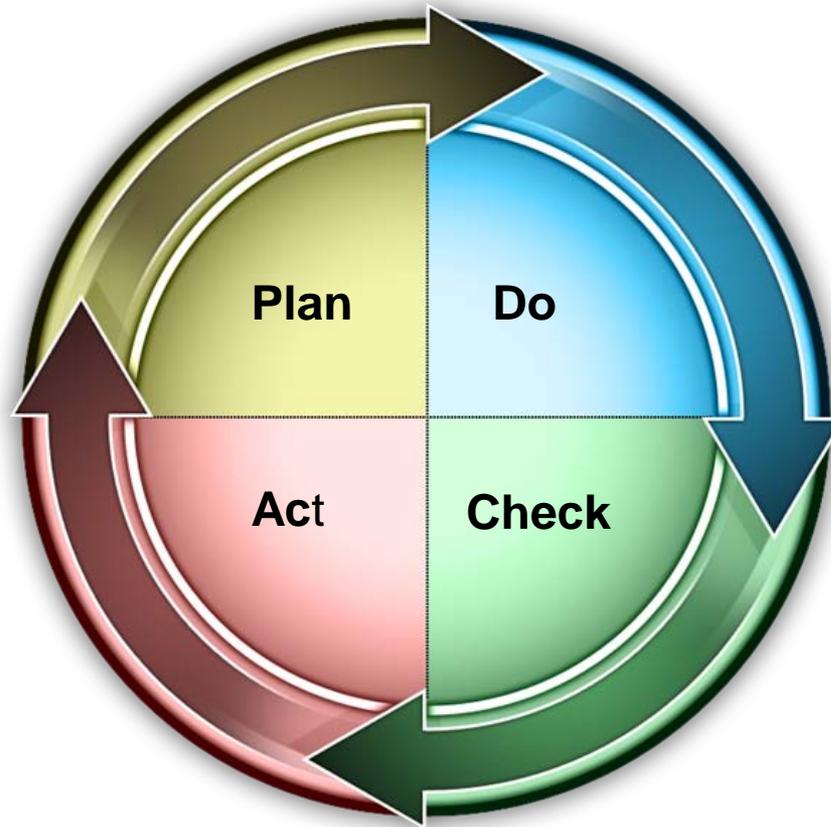


Verses a **Silo Approach**



Lean Solutions

- Problem Solve



Lean Solutions

- Keep watching



Challenge

- Do you reward firefighting?
- Do you wait until there's time-pressure to plan?



Questions

