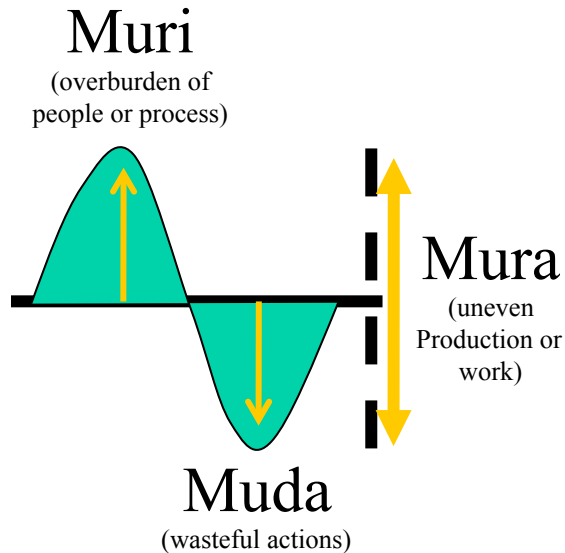


# Using TIMWOOD as a Model

Category of Waste	Learning Process	Common Solutions
<p><b>T</b> → Transportation</p> <p><b>I</b> → Inventory</p> <p><b>M</b> → Motion</p> <p><b>W</b> → Waiting</p> <p><b>O</b> → Over Processing</p> <p><b>O</b> → Over Production</p> <p><b>D</b> → Defects</p>	<ul style="list-style-type: none"> <li>❖ Thinking lean</li> <li>❖ Learn to expose waste</li> <li>❖ Apply clear steps:               <ol style="list-style-type: none"> <li>1.Understand the waste</li> <li>2.See / experience it</li> <li>3.Evaluate it (think benefit + cost)</li> <li>4. Reduce or eliminate it</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>❖ The purpose of lean is always about reducing / eliminating waste.</li> <li>❖ 5 Common ways:               <ol style="list-style-type: none"> <li>1.Connecting upstream processes</li> <li>2.Point kaizen</li> <li>3.Create standard work</li> <li>4. Combine or simplify steps</li> <li>5.Stop doing the process at all</li> </ol> </li> </ul>

# Quality First Thinking: Managing Muda

## Focus on 3 Mu's



## Maximizing ERCA

**E** → Eliminate

**R** → Reduce

**C** → Combine

**A** → Automate or Simplify

## 7 Wastes (Muda)

**T** → Transportation

**I** → Inventory

**M** → Motion

**W** → Waiting

**O** → Over Processing

**O** → Over Production

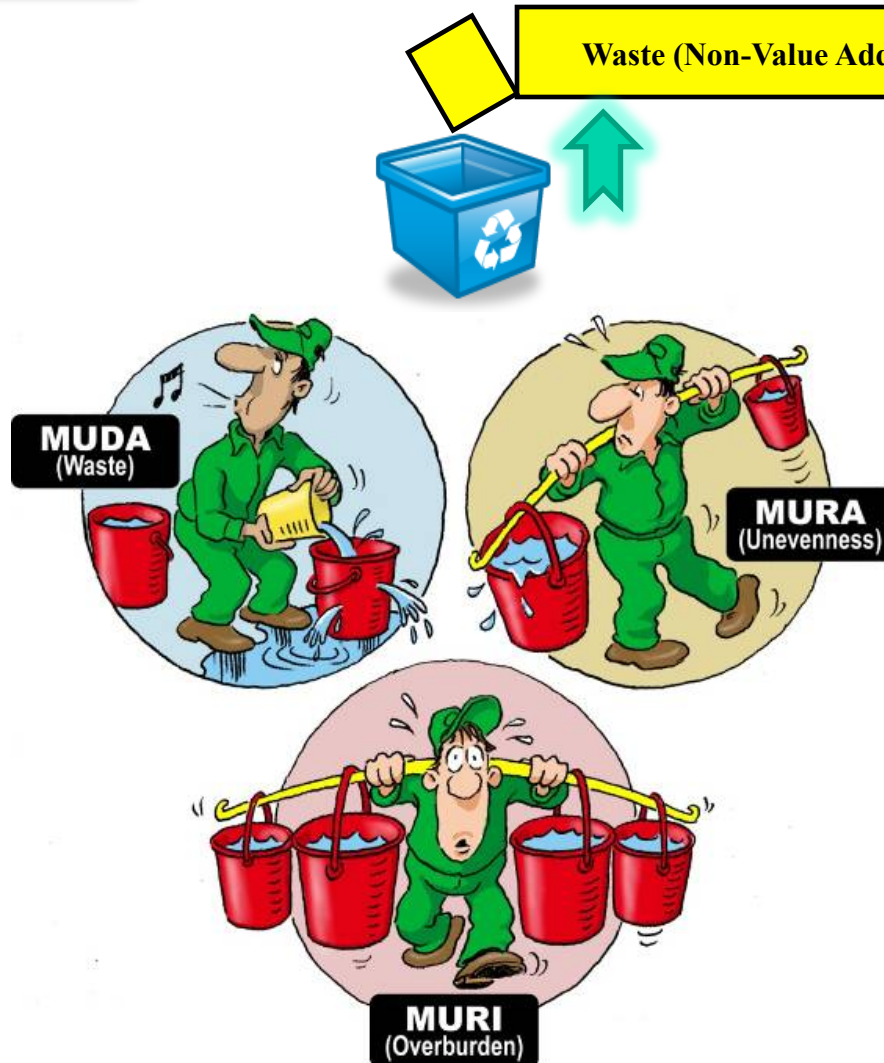
**D** → Defects

### Critical Thinking for Stopping & Impacting Muda:

- 1<sup>st</sup> – We NEVER pass muda (waste) or problems onto the next process
- 2<sup>nd</sup> – Don't accept poor quality
- 3<sup>rd</sup> – In-process checks to avoid making poor quality

# Muda Elimination: Understanding Muda

## *“Our Focus”*



“The most dangerous kind of waste is the waste we do not recognize.”

– Shigeo Shingo (Toyota)

# Dealing with People Systems

“Remember true behavioral and cultural change occurs at the **emotional level**, not the intellectual level.”

Senn & Childress, 1999

**20%**

Come along  
Right away

**60%**

Watch from the  
sidelines to see who  
will win

**20%**

Resist no  
matter what