

# 7 WASTES OF LEAN MANUFACTURING

Lean manufacturing attempts to focus on value by reducing waste (known as “muda” in Japanese).

In the early days of the Toyota Production System (TPS), which came to be what we know as lean manufacturing, Toyota engineer Taiichi Ohno developed a list of 7 types of wastes.

This list is still used today to decrease waste from the value stream in lean manufacturing efforts.

## 1. OVERPRODUCTION

Producing more than demand.



## 2. WAITING

Waiting for the next production step.

## 3. TRANSPORTING

Moving products not required for processing or moving them more than necessary.

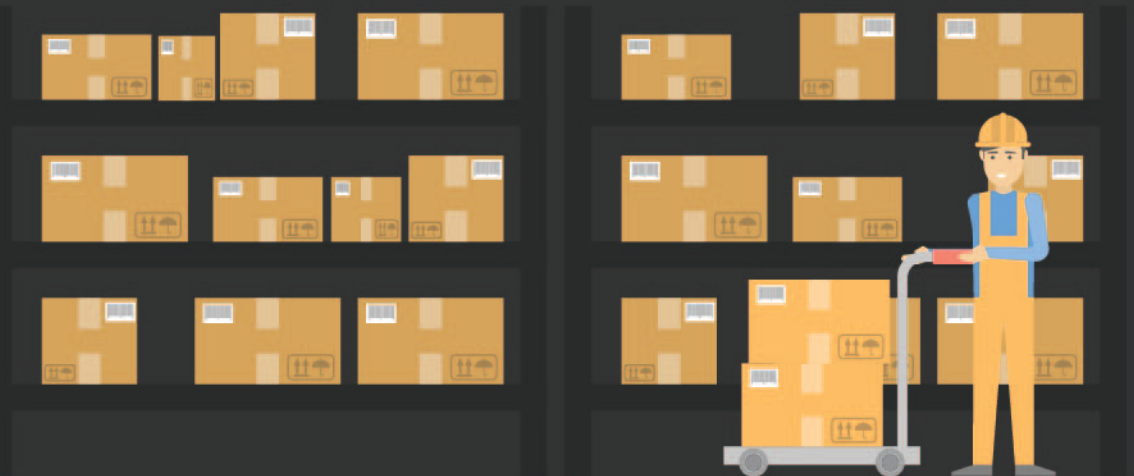


## 4. OVERPROCESSING

Resulting from poor work process or tool design.

## 5. INVENTORY

Including work in progress and finished product not being processed.

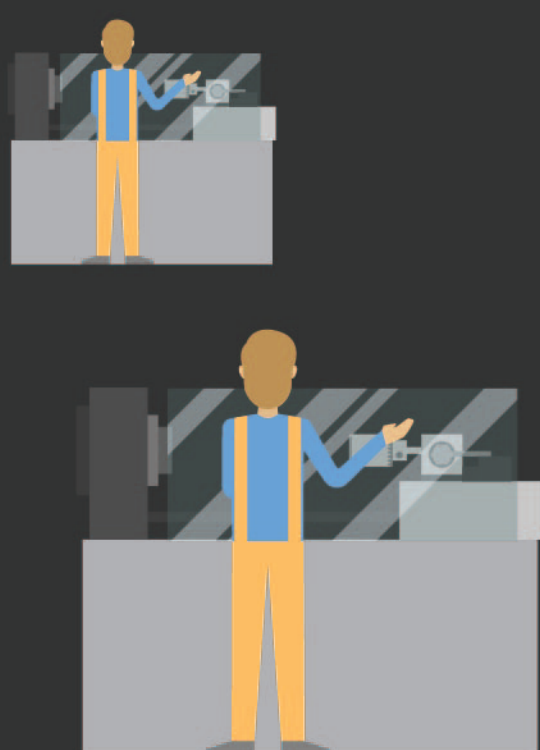


## 6. MOTION

People or equipment moving more than necessary for production

## 7. DEFECTS

Includes effort looking for defects and correcting them.



## TALENT

Although this was not one of Ohno's original 7 wastes, many have added this as an eight waste. This can include workers not working, workers not using all of their skills, and workers working in silos and not sharing their knowledge/skills with others.

## Remembering The Original 7 Wastes



Some people use the acronym **TIMWOOD** to help them remember the original 7 wastes (**T**ransportation, **I**nventory, **M**otion, **W**aiting, **O**verproduction, **O**verprocessing, and **D**efects).