7 Wastes

Problem
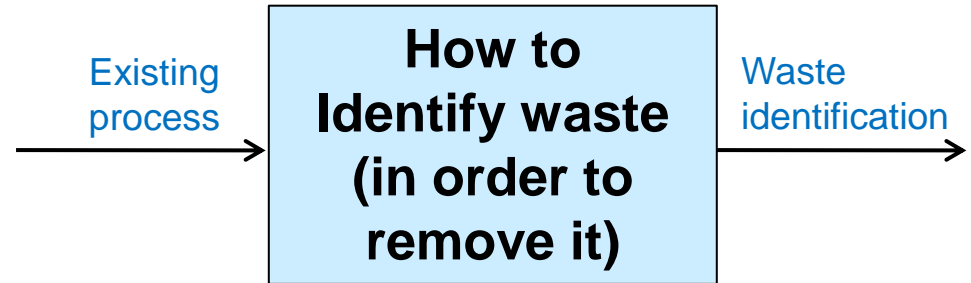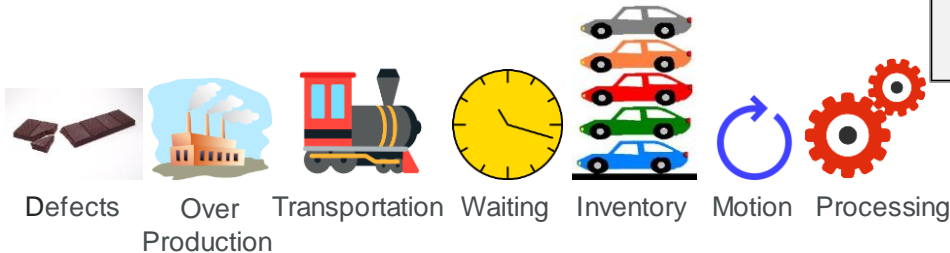How to determine what types of waste are present?

Difficulty
Easy to use

A **value-added task** meets 3 criteria:
1. The customer cares
2. Something changes
3. The task is done right the first time

Everything else is **waste**.
There are **7 classic types of waste**.
(Non-utilized talent is a new 8th waste.)

Existing process →

How to Identify waste (in order to remove it)

Waste identification →

1. **Defects** – Products (or services) that must be corrected
2. **Over Production** – Producing too much of a product.
3. **Transportation** – Moving items unnecessarily
4. **Waiting** – Waiting for the previous step to complete.
5. **Inventory** – Inventory or information not being used
6. **Motion** – Motion not required for process
7. **Processing** – Activities not required for process
8. *Non-Utilized Talent* – Employees not effectively used

1. Review process looking for the 7 types of waste (use acronym **DOTWIMP**)
   1. **D**efects (Rejects, Repair, Rework)
   2. **O**ver Production
   3. **T**ransportation
   4. **W**aiting
   5. **I**nventory
   6. **M**otion
   7. **P**rocessing (Excess or Unnecessary)
2. Once waste is identified, try to remove it

Defects Over Production Transportation Waiting Inventory Motion Processing

FIGURES
- https://commons.wikimedia.org/wiki/File:Cooking_chocolate,_broken_bar.jpg
- https://commons.wikimedia.org/wiki/File:Factory_1b.svg
- https://commons.wikimedia.org/wiki/File:Fxemoji_u1F682.svg
- https://commons.wikimedia.org/wiki/File:GSSA_Golden_Clock.svg
- https://commons.wikimedia.org/wiki/File:Vert_queue.JPG
- https://commons.wikimedia.org/wiki/File:Circular_arrow-blue_01.svg
- https://commons.wikimedia.org/wiki/File:Red_Silhouette_-_Gears.svg

7 Wastes – Examples – Two Different Environments

	Manufacturing environment	Office environment
Defects (Rejects, Repair, Rework)	Over producing to allow for expected defects.	Order entry errors. Lost files or records. Adding extra checks or inspection steps into a process.
Over Production	Using more expensive high capacity equipment when low capacity equipment is good enough	Producing reports that no one reads or needs. Duplicating data in multiple places. Creating extra copies. Sending information using multiple medium (e.g., email, post, fax).
Transportation	Reorganizing warehouses. Moving products in and out of storage.	Unnecessary movement of paperwork or information.
Waiting	Waiting for late deliveries to arrive to stock a warehouse.	Waiting for approvals or signatures. Attendees late to meetings. Using slow computers and IT systems.
Inventory	Having stock damaged from it being stored for so long.	Excessive office supplies.
Motion	Switching tasks excessively, resulting in moving between locations.	Searching for files on computer. Re-entering data. Poorly designed work stations resulting in more bending and reaching.
Processing (Excess or Unnecessary)	Including too many layers of packaging.	Obtaining unnecessary approvals on an activity or output.

When including non-utilized talent, use the acronym "**DOWNTIME**"

- D = Defects
- O = Overproduction
- W = Waiting
- N = Non-Utilized Talent

- T = Transportation
- I = Excess Inventory
- M = Motion
- E = Extra Processing

7 Wastes – Notes

Slide 1

1. Using the three value-added task criteria is an easy way to identify waste.
2. Not all {Transportation, Inventory, Motion, Processing} activities are waste; they are waste only when they are not part of a value-added task.
3. There are 7 classic types of waste – the eighth (non-utilized talent) is new.

Slide 2

1. It is easy to find examples of waste in different types of environments.

Recommended web sites for more information
- https://goleansixsigma.com/8-wastes/
- https://sixsigmadsi.com/8-wastes-of-lean/