

The 8 wastes



wastes

Description:

The activities of a process are of 3 types:

- value-added (VA) activities for the customer
- non-value added (NVA) activities for the customer but necessary for the company
- activities without any added value (AVA) for the customer

Prerequisites for attacking wastes - mastering:

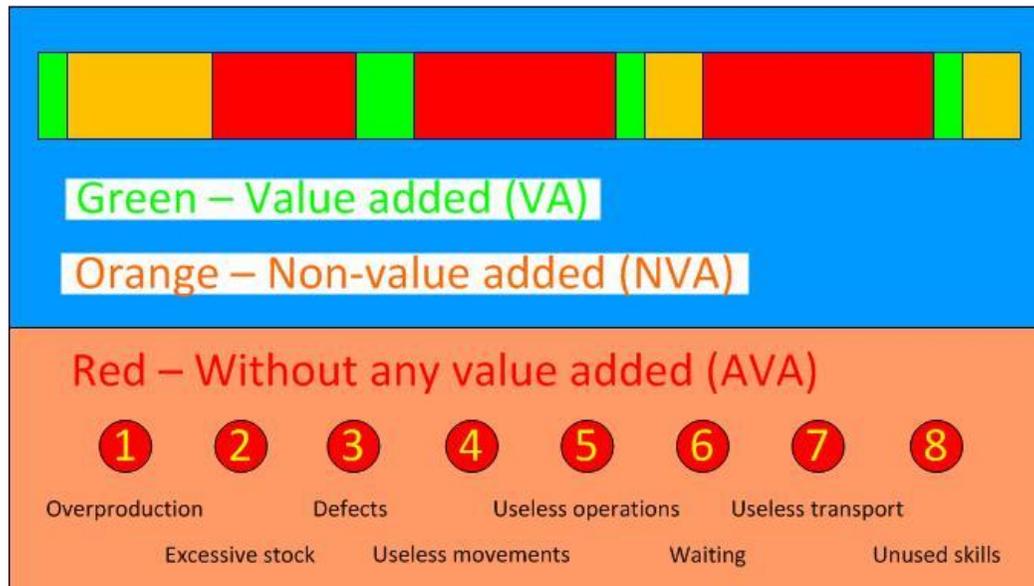
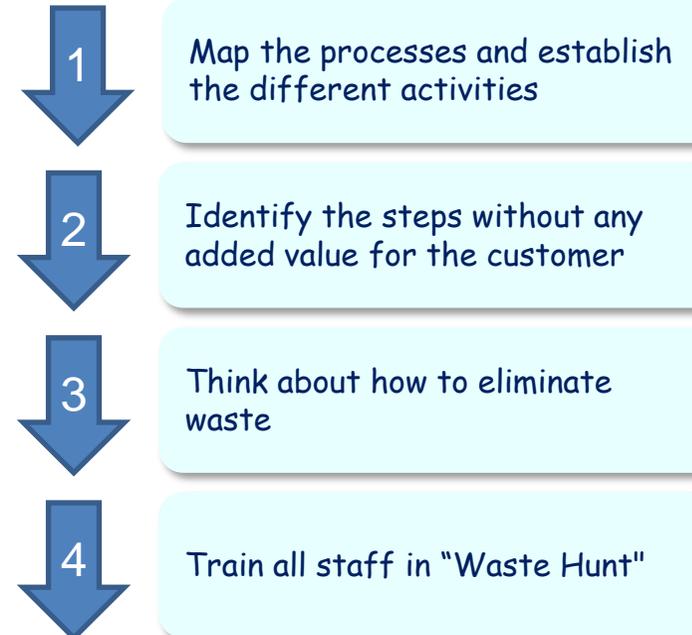
- variability, instability (Mura) and
- the extra difficulty, overload (Muri)

Any activity that consumes resources without creating any added value is always a waste (in Japanese, Muda). This is the (private) enemy # 1! An example below shows activities with and without added value.

Interests:

- Develop eyes to see wastes
- Do not lose:
 - raw material
 - money
 - time
 - energy

Methodology:



1 Overproduction



wastes

Principles:

Produce too early, too fast, too much. Willingness to ensure the presence of a security stock in case:

- a machine fails
- there are a lot of nonconformities
- an urgent order arrives

Generate all other types of wastes



Effects:

- extended lead time
- sleeping money (financial immobilization)
- too much shopping too early
- stocks likely to become obsolete
- unnecessary expenses (materials, energy)
- hidden poor quality

Causes:

- produce without considering the customer's request
- poor management of scheduling priorities
- lots too big (long change of tools)
- machine capacity too large
- lack of visibility on products in store
- large storage area

Tools to use:

- Kanban
- pull flow
- SMED
- value added for the customer
- tact time

Examples:

- lot size too big
- production to "make profitable" the capacity of a machine
- "economic" series
- activities carried out before confirmation of the order
- redundancy of the production order
- reserve stock higher than future consumption
- useless information
- unnecessary copies
- send the same document (file) twice

2 Excessive stock



wastes

Principles:

Excessive stock is a larger than necessary quantity of purchases, semi-finished and finished products resulting from overproduction.

Excessive stock requires extra effort for storage and management.



Effects:

- financial immobilization (value of the stock)
- increased turnaround time
- lack of storage space
- stocks likely to become obsolete
- disposable products (expiry date exceeded)
- hidden poor quality

Causes:

- unreliability of sales forecasts
- poorly ordered logistics (push flow)
- lots too big
- overproduction or waiting
- produce without considering the customer's request
- unreliability of suppliers or production

Tools to use:

- Kanban
- pull flow
- SMED
- added value for the customer
- A 3
- fault tree analysis

Examples:

- high stock of material and components
- high stock in progress and semi-finished products
- finished product stock without sales order
- stock from poor sales forecasts
- stock pending decision
- unnecessary information
- documents awaiting signature
- obsolete equipment
- obsolete (not updated) documents (files)
- information arrived too late