

# Workshop

## The 8 wastes



**BLEAN**

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## Introduction to Lean Six Sigma

Lean Six Sigma is the application of two concepts:

### Lean

It aims at eliminating no value-added tasks, wastes, simplification of processes by increasing fluidity, flexibility, agility with the goal of increasing the value set by the customer and thus contribute to the improvement of the company's performance.

### Six Sigma

It aims to reduce the variability of processes in order to make them more reliable, stable and predictable, ensure the "perfect" reproducibility of the process to tend to zero default and customer satisfaction.

**Lean Six Sigma: it's the fusion of concepts that connect the concepts of productivity (Lean) and quality (Six Sigma)**

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## Lean six sigma

By focusing on strategic processes and priorities, Lean Six Sigma makes it possible to:

1. Focus on defined expectations, expected by the customer (Voice of the Customer).
2. Focus on the expectations set by the company (Voice of the Business).  
-Simplify the processes.
3. Eliminate malfunctions
4. Increase flexibility and respond quickly to customer needs.
5. Increase flow by managing load and capacity aspects.
6. Reduce the dispersion of the performance of key processes
7. Improve operational performance daily.
8. Make teams work together from different departments and services.
9. Give operational staff the means and tools for continuous improvement.

### Lean function

1. Clean up the processes.
2. Identify value-added activities.
3. Eliminate waste.

### Value added activities for the customer

Waste means all activities that the client does not wish to pay for and that does not add additional value to the product or service.

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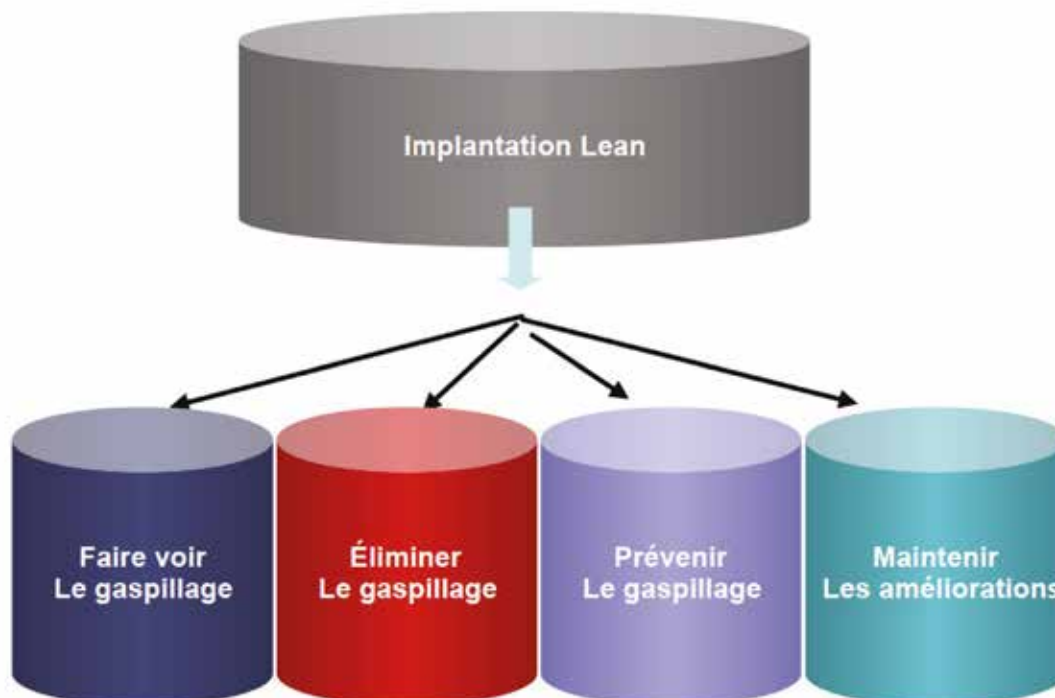
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## Lean

The origins of the method go back well before the 20th century, the term Lean comes from studies and research by Japanese car manufacturers.

The main purpose of Lean is to identify "waste" and / or "activities without added value" from the customer's point of view. It will then tend to eliminate or reduce these wastes with the precious aid of the tools associated with the Lean method.



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## The seven wastes

Taichi Ohno, founding father of the Toyota Production System, defined three families of waste:

- Muda (task without added value, but accepted)
- Muri (excessive task, too difficult, impossible)
- Mura (irregularities, fluctuations, variations)



A muda is therefore an unproductive activity, which does not bring value to the customer. Everyone accepts and still practices this activity, without questioning it. Obviously, some non-value-added tasks are required (archiving, backup, etc.).

Lean thinking suggests that to effectively create value, it is essential to identify wastes and eliminate or reduce them in order to optimize the processes of the company. Despite being an industry event, "muda" can be easily transposed into all types of activities (services, IT, health, training, logistics, finance, etc.)

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## The seven wastes (muda)



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## 1. Overproduction

**Produce more than the customer needs.**

- Producing before an order.
- Perform a task that does not meet any request or customer requirement.
- The worst waste because it is a source of other waste.
- Causes a deceleration or even a standstill in the flow.

**For example :**

- Unsuitable batch size, producing too many pieces that will end up in stock or even in the trash!
- Produce an unnecessary document or report.
- Double entry of indicators.
- Develop an IT tool that is too complex to meet the needs of the client.
- Prepare training that is too complicated, too long compared to the target population.
- Drugs sold in a box (fixed quantity), not retail.



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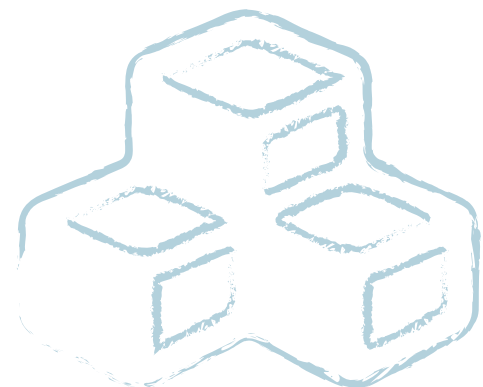
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## 2. Overstocking

- Everything that is not essential to the accomplishment of the task, at the right time.
- Caused by overproduction, but also poor planning.
- Caused by unmaintained wait times.
- Capital locked up.
- Hides and prevents problem solving.

### For example :

- Dead stocks due to poor sales forecasts.
- Files that are pending, often because of a multitasking organization.
- Invoices, pending expense reports.
- IT features not finalized.
- Printing of training materials greater than the number of participants.
- Stocks of medical equipment in hospitals, for fear of not having enough



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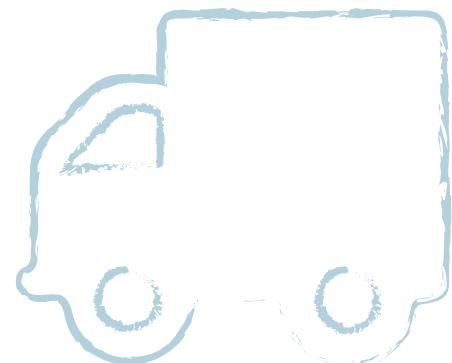
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### 3. Unnecessary travel or transport

- Moving materials, parts, products, documents or information that does not add value to the customer.
- Resource and time consuming.
- Risk of damage.

#### For example :

- Going on empty trips
- Intermediate storage that requires two transports.
- Send an email to a large distribution list, even when it is intended to a few people
- Document signing path for validation.
- Training, meeting in a place far from where the participants usually work
- Moving patients to a hospital.



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### 4. Unnecessary treatments

- Tasks, steps done for nothing.
- Process too complex compared to the selling price.
- Too much quality, too much material, too much information ...
- Lack of clear and standardized instructions or specifications.

#### For example :

- Too much control in the manufacturing process.
- Use two packages instead of one.
- Reports too long, too complete, too perfect ...
- Unnecessary meetings, with a lot of blah blah.
- Validation process requiring too many signatures.
- Computer programs too long and complicated to use.
- Dashboards with too many unnecessary flags.



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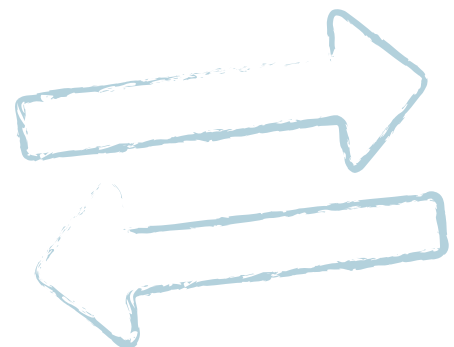
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## 5. Unnecessary movements

- Movement of unnecessary natural persons who do not bring value to the customer.
- Caused by poor ergonomics of the work environment.
- Bad storage, mess, disorganization.
- Material or information listed incorrectly

### For example :

- Incomplete toolbox, requiring multiple roundtrips of the service technician
- Lack of printers or photocopiers and poor positioning that require movement of the user.
- Computer directories badly organized, not up to date.
- Need to move to collect information.
- Outlying nurses' offices.



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## 6. Errors, defects and rejects

- Do it right the first time!
- Faults that require retouching, additional control, scrap, customer dissatisfaction ...
- Customer feedback.
- Loss of time, money and the risk of not being able to provide the customer.
- Loss of credibility.

### For example:

- Product not conforming to the customer's requirements (aesthetics, use, breakage, etc.).
- Errors in data entry.
- Damage, accidents.
- Computer bugs.
- Lack of hygiene in a hospital.



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## 7. Waiting

- Products or people who have no choice but to wait between two tasks or steps.
- Inactive operator while the machine is running or during an interruption.
- Speed of machines slowed down.
- Time of set up between to productions is too long.
- Incorrectly synchronized steps.
- Bottlenecks.

For example :

- Inactive operators during a machine failure due to lack of training or specific instructions.
- Time required to recycle a part.
- Sending and receiving mail to validate a decision.
- Time to process calculations.
- People late for appointments.
- Administrative tasks impacting the management of patients.



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## The eighth waste

We add to the seven original wastes, an eighth waste:

### Underutilization of skills

- Lack of training, rigid and authoritarian management, little motivation, recognition and involvement lead to an underutilization of skills employees.
- Serious nuisance to creativity and team spirit!

