Lean Poster Series #4
8 Types of Lean Waste
by Jonas Hulstaert

Good e-Learning

What is Waste?

A key concept in Lean is waste, or muda, which can be defined as anything that doesn't add value to the customer. There are 8 types of Waste (7 original wastes identified at Toyota + 'un-utilized people').

Importance of Waste

The ultimate objective of Lean is the reduction, or even elimination, of waste in all business operations. With reduced waste comes reduced costs and improved operational efficiency.

Define what the customer needs

It is key to know what the customer needs and values in order to know what is waste. To do so one needs to:

1. Collect data via surveys, focus groups, feedback-gathering tools and social media.

2. Structure and present the data received in relationships charts or affinity diagrams.

A very useful Lean technique is Voice of the Customer to get a clear, structured and agreed view on the voice of the customer (VOC) and voice of the business (VOB).

Define what the customer needs - Types of Lean Waste

TRANSPORT

Transport is all about unnecessary movement of work or material, usually caused by poor process design or workplace layout. The waste is constituted by lost time and cost of transport. Examples are sequential process steps not co-located, or files being transported from one location to the other.

INVENTORY

Inventory is about holding information and material longer than required, for examples piles of unprocessed work, un-read emails or overstocked marketing materials. Besides consuming expensive floor space it can hide safety hazards and operating performance issues.

MOTION

Motion is the non-value-added movement of people such as unnecessary meetings or walking to copier and printer, but also the steps required to perform a task. Templates and work instructions are very important in reducing this type of Lean waste.

WAITING

Waiting causes delays or stoppages. Waiting for instructions and approval signatures, waiting for the next production step, slow computers are all part of it. This is one of the most common types of waste and its cost is rarely captured.

OVER-PRODUCTION

Overproduction is the unnecessary effort producing work in excess or ahead of customer requirements. Think of printing paperwork before it is needed or processing items before they are required in the next process step. The waste is constituted by the cost to produce, store, protect, insure and move it.

OVER-PROCESSING

Overprocessing is the unnecessary activity due to complex or poorly designed processes and systems, such as too many approvals and reviews or an application form where the same data is needed in different places.

DEFECT

A Defect is the effort involved in inspecting for and fixing defects, such as data entry errors, incorrect paperwork and damaged products. In manufacturing a defect at least triples the cost; cost of the damage, the repair and opportunity loss for working on another product.

UN-UTILIZED PEOPLE

Un-utilized People is the improper utilization of employee's knowledge, skills and abilities, covering aspects such as improvement ideas by people on the floor not captured or restricting employee's responsibility to make routine decisions.

Lean Technique - Process maps can be used to localize and analyze waste in a process.
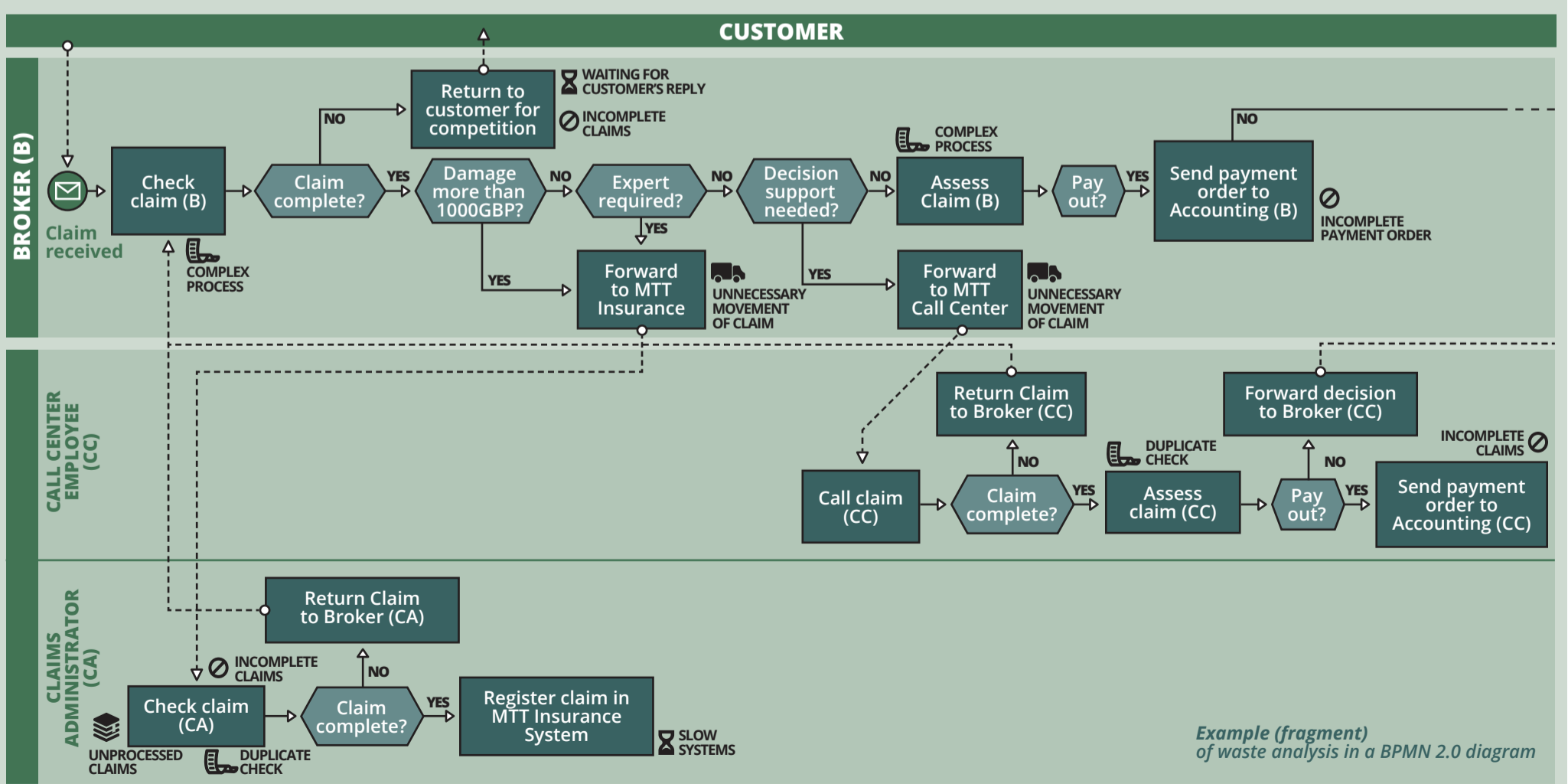
Example (fragment) of waste analysis in a BPMN 2.0 diagram