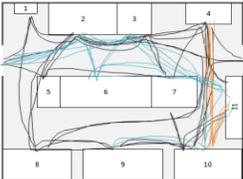
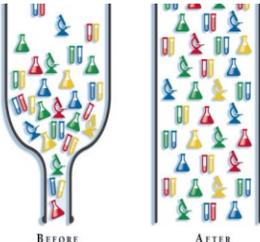


The Seven Wastes + 1



| Wastes “Muda” | Definition | Examples |
|--|--|---|
| <p>1. Transportation</p>  | <p>Moving products, equipment, materials, information, or people from one place to another. Transportation waste may be the result of a non-Lean layout.</p> | <ul style="list-style-type: none"> • Routing documents • Paperwork hand-offs • Carrying or retrieving files • Transporting patients or prisoners • Getting signatures |
| <p>2. Inventory / Storage</p>  | <p>Unnecessary storage of information/materials or more information/materials than is needed.</p> | <ul style="list-style-type: none"> • Storing the same document in many places • Backlog of work (work in process) • Obsolete databases/files/folders • Too many office supplies • Batching transactions • Unread emails |
| <p>3. Motion</p>  | <p>Unnecessary movement of workers and tools. Wasted motion takes time and uses up energy. Wasted motion may also create health and safety issues.</p> | <ul style="list-style-type: none"> • Trips to printer/copier • Reaching to answer your phone • Unnecessary movement to find supplies • Walking to find people • Searching for files • Extra clicks or key strokes |
| <p>4. Waiting</p>  | <p>Idle time created when material, information, people, or equipment is not ready.</p> | <ul style="list-style-type: none"> • Approval queues; waiting for decisions • Waiting for information or supplies • Waiting for copies to print • "System" downtime • Waiting for a customer's response |
| <p>5. Overproduction</p>  | <p>Producing more products or services than the customer needs or the downstream process can use right away. Overproduction results in bottlenecks and creates or hides other waste types, so is considered to be the worst of the “Seven Wastes”.</p> | <ul style="list-style-type: none"> • More staff working than needed to provide quality services • Excess email messages • Doing work not requested • Purchasing items before they are needed • Processing paperwork before the next process is ready for it • Providing more information than needed • Creating reports no one reads |

The Seven Wastes + 1



| Wastes “Muda” | Definition | Examples |
|---|---|--|
| <p>6. Over-processing</p>  | <p>Any process step that does not add value to the end product or service, including over-processing beyond a customer’s specifications, and using elaborate or expensive equipment when more simple options exist.</p> | <ul style="list-style-type: none"> • Preparing a glossy report when a simple table or bulleted items will do • Forms/tables with information that is not used • Too many signatures • Taking 30 minutes to prepare an email when a 1 minute phone call will do • Unclear job descriptions • Re-entering or rechecking data • Adding unnecessary details in an expense report • Repeated manual entry of data |
| <p>7. Defects (Errors)</p>  | <p>The effort involved in inspecting for and fixing defects, errors and mistakes. Every defect is caused by an error in a process.</p> | <ul style="list-style-type: none"> • Delivering information/materials to the wrong location • Data errors • Missing or incomplete information/forms • Confusing instructions or requirements • Typos • Missed specifications • Lost records |
| <p>8. Underutilized Staff Skills</p>  | <p>Not adequately leveraging peoples’ skills, creativity and talents.</p> | <ul style="list-style-type: none"> • Staff hired to do “x”, but spending time on “y” • Leaders who do not appropriately delegate work • Unclear or inappropriate job descriptions/duties • Leaders who do not ask employees for feedback on work challenges, and for ideas to address challenges and improve service quality and efficiency |

Additional wastes to look for and eliminate:

- Unsafe work places/environments
- Lack of information sharing – poor information flow
- Equipment breakdown – poorly maintained equipment

Tips

- Don’t accept or tolerate waste!
- Don’t spend more than a few seconds trying to categorize waste. The key is identifying it.
- Don’t waste time identifying waste if you aren’t going to try and eliminate it.