# Identifying and Removing Process Waste

**The first step - and sometimes the most difficult - is seeing the waste!**

## Defects
The effort involved in inspecting for and fixing defects, errors, and mistakes.

### Examples
- Data errors, typos & lost records
- Delivering information or materials to the wrong location
- Missing or incomplete information on forms

### Typical Causes
- Missing and incorrect information
- Unclear or complex process
- Unclear roles and responsibilities
- Confusing instructions or req.
- Voice of the customer absent
- Poor or inappropriate equipment, materials or supplies

### Solutions
- Apply problem solving tools
- Verify customer requirements
- Create standard work
- Error proof (poka-yoke)
- Apply “Plain Language”
- Automate forms - put in hard stops that don’t allow partial information
- Require all information up front
- Track & share accuracy measures

## Overproduction
Producing more products or services than the customer needs or downstream process can use right away.

### Examples
- More staff working or attending meetings than is needed
- Doing work not required
- Sending unnecessary emails
- Batching and bottlenecks

### Typical Causes
- Unclear customer requirements
- Uneven work flow
- Poor workflow process
- Poor worker distribution
- Different staff skills, productivity, or work difficulty

### Solutions
- Verify customer requirements and align process with req.
- Use one step process flow
- Use “Effective Meetings” tool
- Apply “Plain Language”
- Revise process schedule to even out workload
- Assign more staff or shift roles and responsibilities at peak times

## Waiting
Idle time created when material, information, people, or equipment is not ready.

### Examples
- Approval queues
- Waiting for decisions or services
- Waiting for customer information, supplies or copies

### Typical Causes
- Missing and incorrect information
- Unclear or confusing process
- Unclear roles and responsibilities
- "System" downtime
- Signature requirements
- Not leveraging technology
- Lack of workers/service providers

### Solutions
- Require all information up front
- Combine tasks or functions to eliminate handoffs and waits
- Use concurrent process
- Apply 5S
- Co-locate work to minimize wait due to transportation/motion
- Eliminate non-value added steps
- Maintain equipment and machinery

## Non-utilized Staff Talent
Not adequately leveraging peoples’ skills, creativity and talents.

### Examples
- Staff hired to do “x”, but spending time on “y”
- Lack of innovation
- Not involving staff in solving problems and ensuring CI

### Typical Causes
- Lack of awareness of CI principles, approaches, and tools
- Unclear or confusing process
- Not delegating work
- Unclear or inappropriate job descriptions or duties

### Solutions
- Set clear performance expectations
- Coach and train employees
- Provide tools and resources
- Ask staff “What can I do to support your work and remove barriers to improvement?”
- Engage staff in a CI project
- See where the work is done, ask questions, & learn (go to Gemba)
<table>
<thead>
<tr>
<th><strong>Transportation</strong></th>
<th>Moving products, equipment, materials, information, or people from one place to another.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inventory/Storage</strong></td>
<td>Unnecessary storage of information and materials or more information and materials than is needed.</td>
</tr>
<tr>
<td><strong>Motion</strong></td>
<td>Unnecessary movement of workers and tools that takes time, uses energy, and may create health and safety issues.</td>
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<tr>
<td><strong>Extra Processing</strong></td>
<td>Process steps that do not add value to the product or service, including doing work beyond a customer's specifications.</td>
</tr>
</tbody>
</table>

### Examples
- Routing documents
- Paperwork hand-offs
- Carrying or retrieving files
- Transporting patients
- Site inspections
- Trips to copier
- Looking through cabinets for needed supplies
- Walking to find people
- Extra computer clicks
- Storing the same document in many places
- Backlog (work in process)
- Obsolete databases/files/folders
- Unread or undeleted emails
- Supplies you do not use

### Typical Causes
- Transportation not viewed as a waste
- Distance and physical structure
- Staff turnover/relocation
- New or replaced equipment
- Poor planning and communication
- Past practices; culture does not question the status quo
- Standard work is not aligned with the voice of the customer
- Lack of trust/control issues
- Poor communication
- Not leveraging technology

### Solutions
- Leverage technology (allow staff to telecommute)
- Only order what you will use
- Collect data to understand transportation problems (spaghetti map)
- Analyze data to determine root causes before defining solutions
- Leverage technology
- Use concurrent process
- Apply 5S
- Co-locate work
- Clarify process requirements for those upstream and downstream
- Move people closer together to enhance communication and collaboration
- Identify customer requirements and align work with req.
- Delete or automate signature requirements
- Know which process steps add value and eliminate non-value added steps (Quick Hits)
- Apply “Plain Language”
- Automate where appropriate