



### Why Process Map?

- Create a visual diagram of a process
- Establish a common language
- Assist in discussing improvement
- Provide a blueprint for implementing the process

### Who is the customer(s) for this process?

- Who benefits from this process?
- Always keep the customer in mind
- There can be multiple customers at different points within the process

### Process Selection

- A work process is a set of steps, tasks, or activities that have a beginning and an end
- Inputs → Process → Output

### Appropriate Team Selection

- Ideally 5-8 people – majority of the team should be those that do the work.
- Ask for volunteers
- Customers – when appropriate
- Team facilitator – someone with experience in facilitation and not responsible for the process to be improved.
- Team empowerment – a sponsor (ie, manager, director) someone who does not sit in but supports the improvement.

### Level of Process Mapping

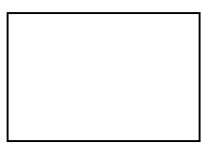
Process can be mapped at any level but different levels should not be combined.

- Macro
  - High level overview of entire process (1 page)
- Mini
  - Each step is an activity which consists of many tasks (mid)
- Micro
  - Detailed analysis of work function, steps one person follows to complete task (lowest)

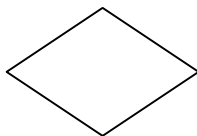
### Standard (Linear) Flowcharts

- Sequence of work steps only

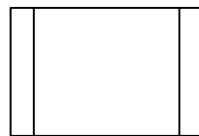
### Common Flowcharting Symbols



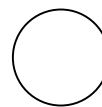
Process Step



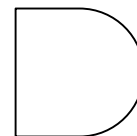
Decision



Pre-Defined Process



Connector,  
process cont'd  
elsewhere



Delay



Document  
Generated

## Process Steps

Step 1 – Determine Boundaries (one rectangular post-it note – same color)

- Where does the process start? (beginning step)
- Where does it end? (last step)

Step 2 – Who are the customers for this process?

- Always keep the customer in mind
- Can be internal or external
- There can be multiple customers at different points within the process

Step 3 – Map out the “AS IS” Process

- Current state of the process
- Write one step of the process on each rectangular post-it note
- Place these on the map in chronological order (working from left to right or top to bottom)

Step 4 – Analyze the “AS IS” Process

- Note all the Queues
  - ★ Places where work can pile up
    - Note the areas and potential areas where the process queues (waiting time/holds) with a large “Q” on the small square post-it notes.
    - Place these on the map between the steps (or on the steps) where the process queues
    - Document all the ideas of how to improve the process
- Note all the Checks/Reviews
  - ★ Steps that involve a review/check
    - Place a √ on the steps that require a check/review
  - Note all the Forks
- Additional Tips for “AS IS” Process Mapping
  - ★ Draw a macro-level flowchart first (get the big picture)
  - ★ If possible, walk through the current process – physically follow the movement.
    - Follow a document, or a patient, etc.
  - ★ Consider timing steps during walk through to add a level of detail
  - ★ There are bound to be variations; record what happens 80% of the time
- Analyze the “AS IS” Process
  - ★ Count the number of:
    - Steps
    - Queues
    - Handoffs
    - Checks
    - Forks

Step 5 – Create the “TO BE” Process

- What is the “Ideal” process?
- Remove or eliminate wastes (see hints to follow)

## Improving a Process and Eliminating Waste (based on LEAN methodologies)

### ■ Types of Waste

- Processing: Redundant and unnecessary process steps, excess processing, excess checking and inspection. Excess use of energy of all types.
- Correction (Defects): Re-do’s, fix-ups, returns, mark-downs, managing complaints.

- Types of Waste (continued)
  - Inventory (Over-productions): Idle in-progress of finished materials, ingredients, supplies or information.
  - Wait: Delays and queues of all types.
  - Search Time (Movement): Time spent looking for information, people, supplies, and equipment.
  - Transportation: Multiple handling steps and needless movement of material and information.
  - Space (Storage): Storage of unneeded items, excess inventory or the general “mess” that builds up over time. Excess space required due to inefficient process flow.
  - Complexity: Complex process flows. Confusing product and service choices. Organization boundaries, which introduce inefficiencies and frustrate any sense of accomplishment.

### **Strategies for Reducing Waste:**

- Ideas for reducing waste in processes (ideas should not be limited to those on this list)
  - Simplify and standardize processes
  - Identify and eliminate work arounds, loop-backs
  - Decrease Total Steps
  - Rearrange Steps
  - Combine Steps
  - Decrease Total Queues
  - Decrease Total Handoffs
  - Decrease Total Checks
  - Decrease Total Forks
  - Smooth out for Continuous Flow (work is processed and moved immediately to the next step)

### **Questions to think about when creating your “TO BE” process**

- Can any steps be eliminated?
  - As unnecessary
  - By new equipment?
  - By changing the place where it is done or kept?
  - By changing the order of work?
  - By changing the product design?
  - By changing the specification of the incoming supply?
- Can any steps be combined with another?
  - By changing the specification of supplies?
  - By changing the design of the product?
  - By changing the order of the steps?
  - By changing the equipment used?

### **Mapping out the improved “TO BE” Process**

- Count the number of:
 

● Steps	● Checks
● Queues	● Forks
● Handoffs	