

# Value Stream Map

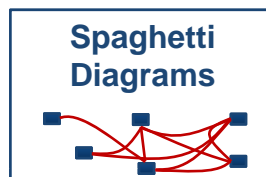
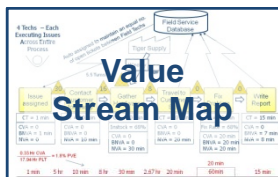
## When to Use

- Use a Value Stream Map to obtain a clear 'current state' picture of process flow and to identify opportunities for improvement

## Helpful Hints

- Always travel to Gemba (where the work gets done) to confirm that what is mapped reflects reality
- Ensure that what is mapped reflects what 'Is', not what 'Should Be'
- Keep it low-tech. Post-It® notes are preferred over software when working with team. Take digital pictures and transfer to software later if needed

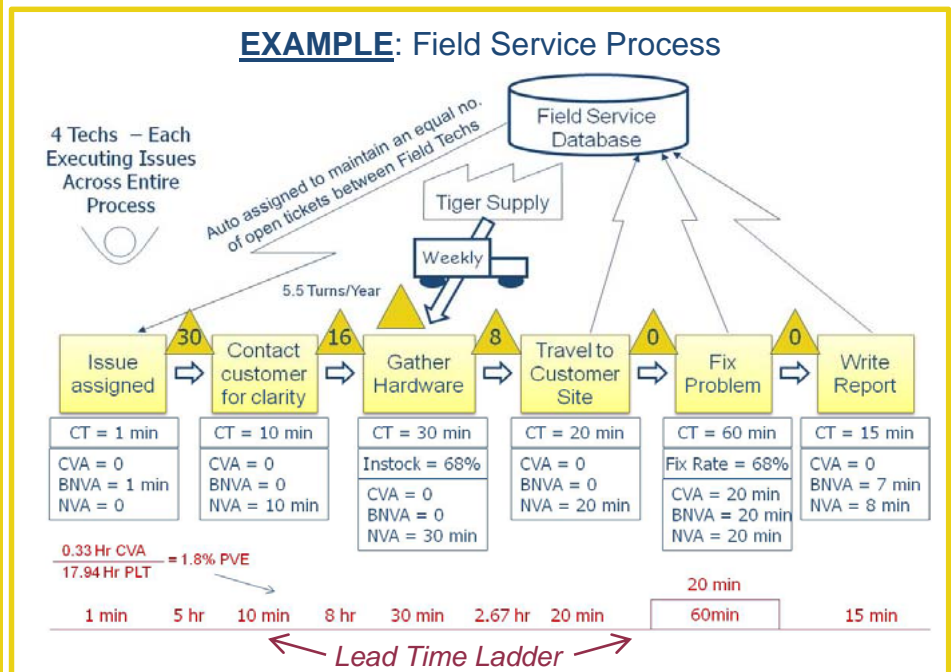
## Related Tools



Use a combination of all three tools to obtain a thorough and clear 'current state' picture of flow complexity and waste in a process

## Description

- A Value Stream Map is simply a data rich process map
- It is one of the most powerful Lean Six Sigma tools
- It allows you to "see the true process", makes waste visible, and serves as a foundation for prioritizing improvement efforts
- Note: See the 'Value Stream Map Symbols Template' for a visual list of commonly used symbols



# Value Stream Map (Cont.)

## Step by Step Instructions

1. Select Family to Map
  - Select a family of products or service offerings, with common process flows
  - A general rule of thumb, is that at least 70% of the process steps should be shared to be considered part of a family
2. Draw the Process Flow
  - Start by drawing the customer and then map the flow backward from them. This reduces the risk of mapping and making improvements to activities not linked to customer needs
  - Define each process step in 'verb-noun' format (e.g. Review Document, Connect Harness, Check Blood Pressure, etc.)
3. Draw the Material Flow
  - Map the material flow from left to right according to process steps, not according to plant or office layout
  - Add inventories and incoming consumable streams
4. Add the Information Flow
  - Draw the information flow in the space on the upper part of the map from right to left
  - This step provides a picture of:
    - WHAT information triggers work (and HOW MUCH)
    - WHERE in the process info is received
    - WHERE in the process signals of work completion are sent
5. Add the data collection boxes (under each step)
  - Tailor the data boxes to your processes' needs
  - Common pieces of data collected include:
    - Trigger
    - Completion Criteria
    - C/T (cycle time)
    - Takt Time
    - WIP Pieces (or items in inbox)
    - Number of approvals
    - Number of iterations (cycles)
    - Number of databases
    - Number of people
    - C/O (changeover time)
    - D/T (downtime)
    - Rate of reject parts
    - Number of operators
    - Number of product types
    - Lot sizes
    - Working time and breaks
    - Scrap/Rework rate
    - Distance Traveled
    - All other important data
6. Conduct Non-Value-Added (NVA) Analysis
  - Identify which steps are total NVA (Waste) and the percent of NVA in the remaining steps
7. Add the Lead Time Ladder (*See the Example on the previous page*)
  - Provides a picture of the distribution of Customer-Value-Added (CVA) work across the process
8. Verify the Current State Map in Gemba
  - Gemba is the Japanese word for "real-place", but has evolved to take on the meaning of "workplace" – or where value gets added
  - This step ensures the map represents reality
9. Analyze the Value Stream Map
  - Identify and prioritize the key improvement opportunities