Guide to Process Mapping

Where to start… where to end…

UCD Agile
UCD Inniúil

Key Process Mapping Concepts

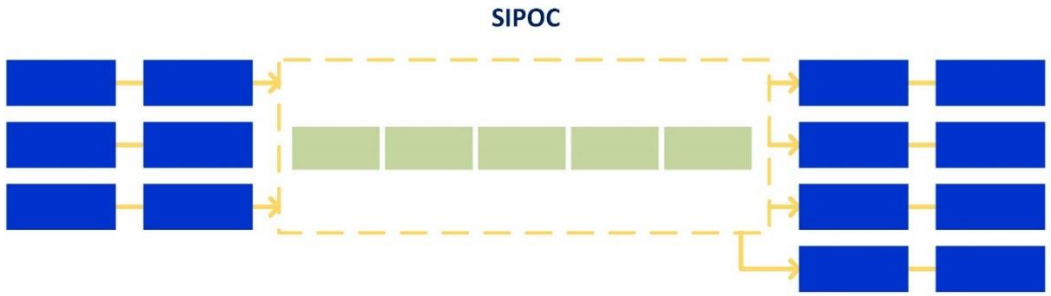
Why map a process?

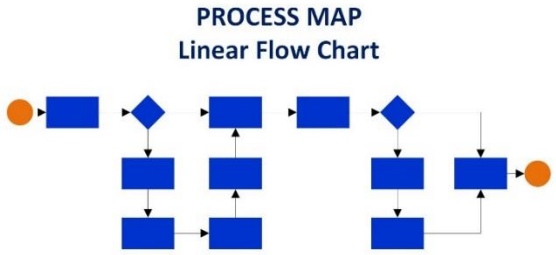
How do you begin to map a process?

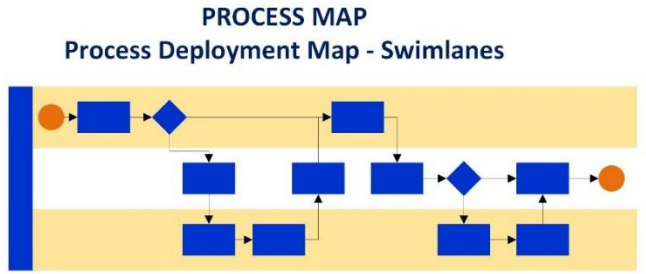
What do you use process maps for?

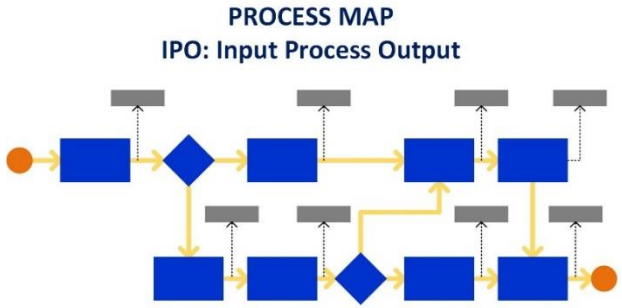
This document looks at five key process mapping concepts.

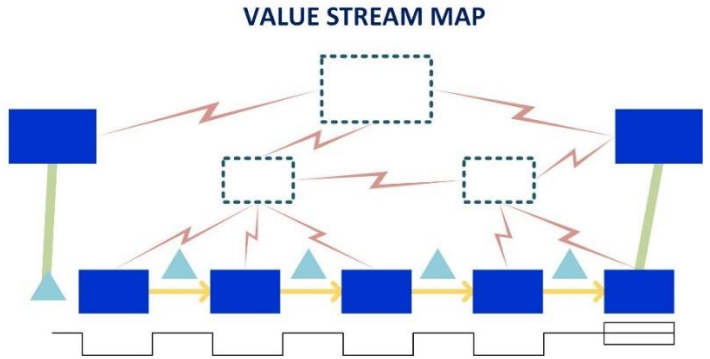
Which ones you might use depends on why you are mapping.









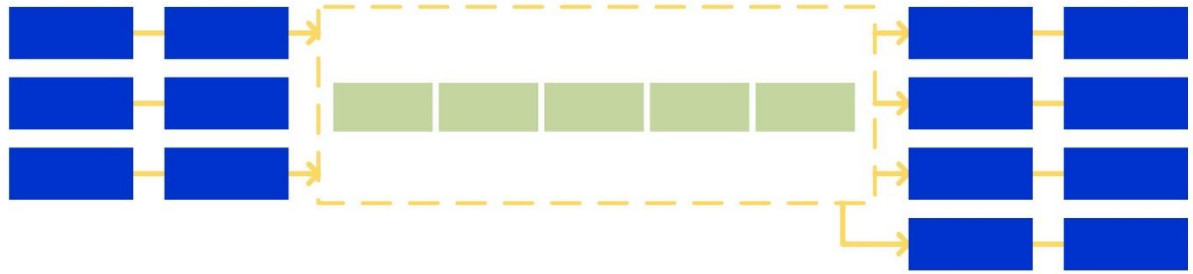


This guide does not cover each of the process mapping techniques in detail or what software you might use. For more information get in touch or check out Our services page. There are also more general resources available online.

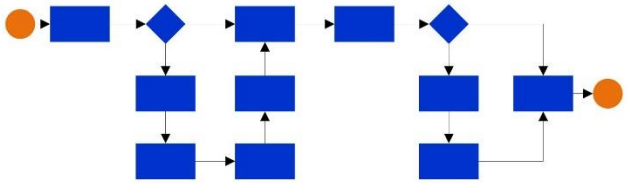
Why map a process?

- To document a process
- To assimilate knowledge
- To help understand a process
- To help improve a process
- To identify the ‘hidden factory’ in a process
- To find and focus on problem areas

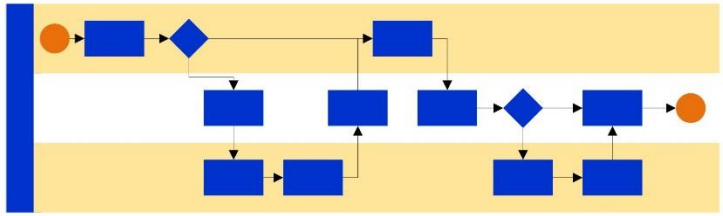
SIPOC



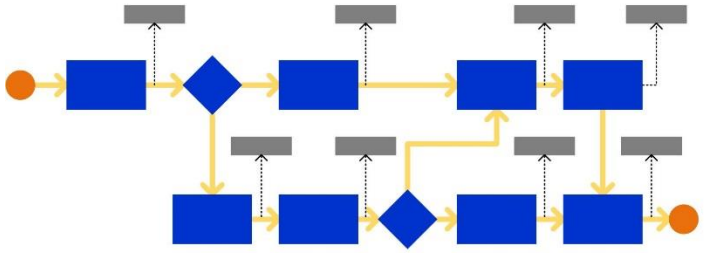
PROCESS MAP
Linear Flow Chart



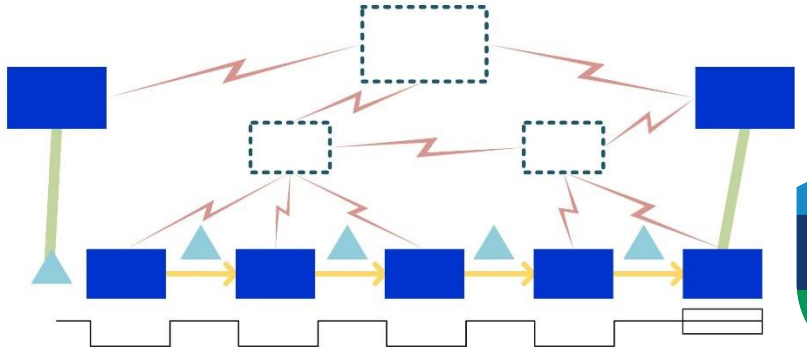
PROCESS MAP
Process Deployment Map - Swimlanes



PROCESS MAP
IPO: Input Process Output

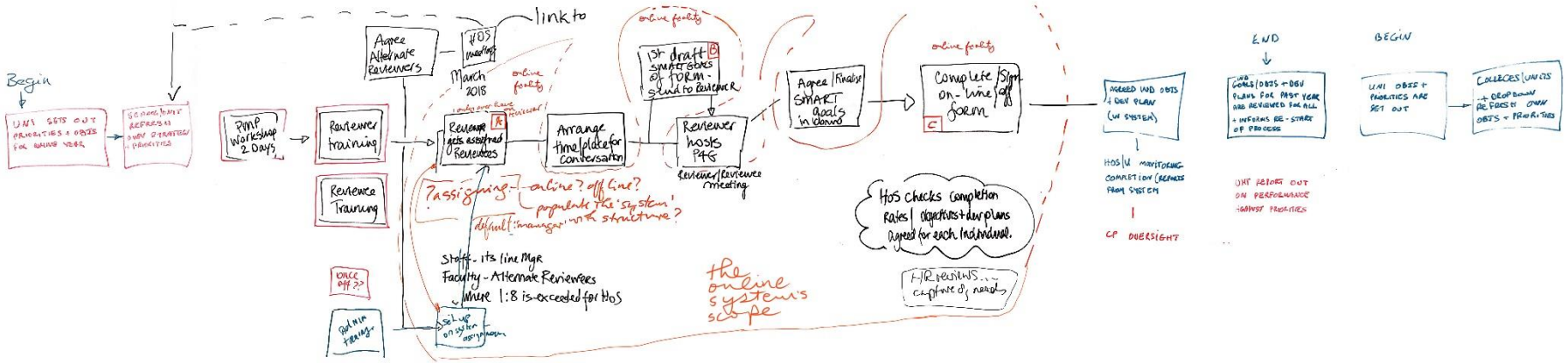


VALUE STREAM MAP



The initial brain dump – just what process are we talking about?

- Where does the process actually start?
- What do we see the end point to be?
- What does it depend on?
- Who is involved?
- What's the mega scope of which this process is just a part?
- Just what do we want to be in scope?

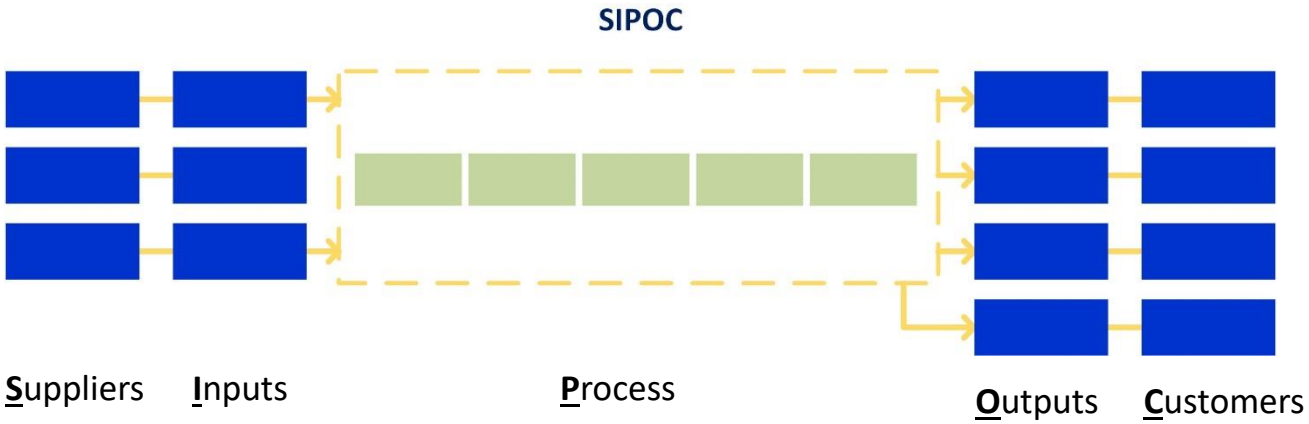


- You start with an idea of the process and flesh it out…
- and further flesh out the fleshing out…
- and look at what's important and what's achievable…
- then define the scope boundary…
- with the bigger context now clearly in mind.

Starting mapping at a high level – the SIPOC

Process mapping starts with a high level understanding – the SIPOC

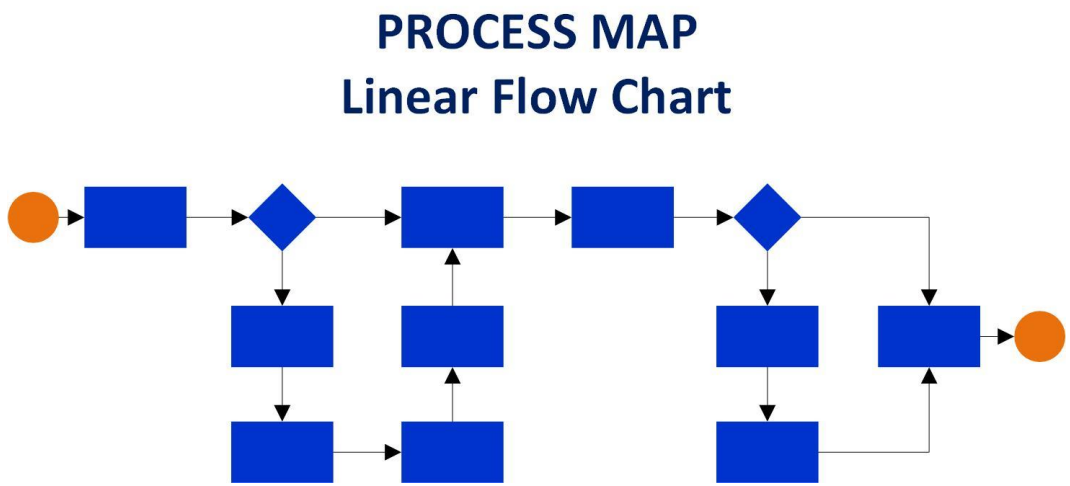
- Enables developing a common understanding of the process at a high level.
- Identifies process beneficiaries ('customers') and their requirements.
- Identifies suppliers, process owners, dependencies and other stakeholders.
- Helps process analysis through:
  - Identifying gaps in requirements and the process outputs or inputs responsible.
  - Identifying data collection needs.
  - Validating goal alignment and metric alignment from customer to supplier.



- Customers' requirements determine the outputs.
- Outputs determine the process which must produce them.
- The process places requirements on the inputs and the suppliers which provide them.

Process mapping detail – the liner flow chart

- Build the detailed sub-process map which underlies the process in the SIPOC
- The three ‘actuals’ process mapping
  - Go the to actual place and talk to the people
  - Observe the actual process or service
  - Gather the actual facts
- Use this to map the flow of the process from trigger to (one or more) outcomes.

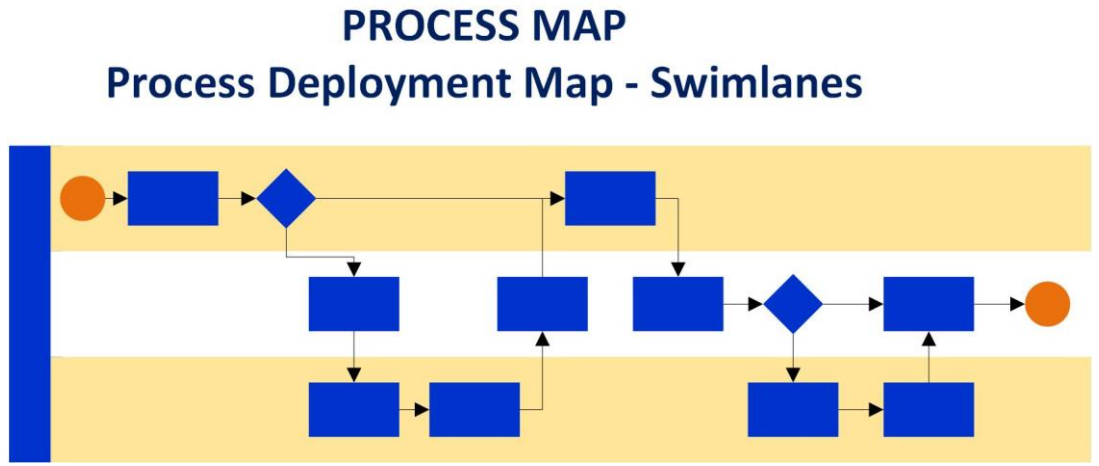


Linear flow charts

- Document the task or process
- The actions, decision points and delays
- Support the analysis of (relatively) simple processes

Process mapping - process deployment map

- For long or complex processes which involve multiple functions rather than flowing in one area.
- Information flow mapping (where the process is invisible)
- Identifying functional responsibilities (each function in its own ‘swimlane’).
- Highlighting process handover points between swimlanes (potential failure/complexity points).
- Helping highlight waste.

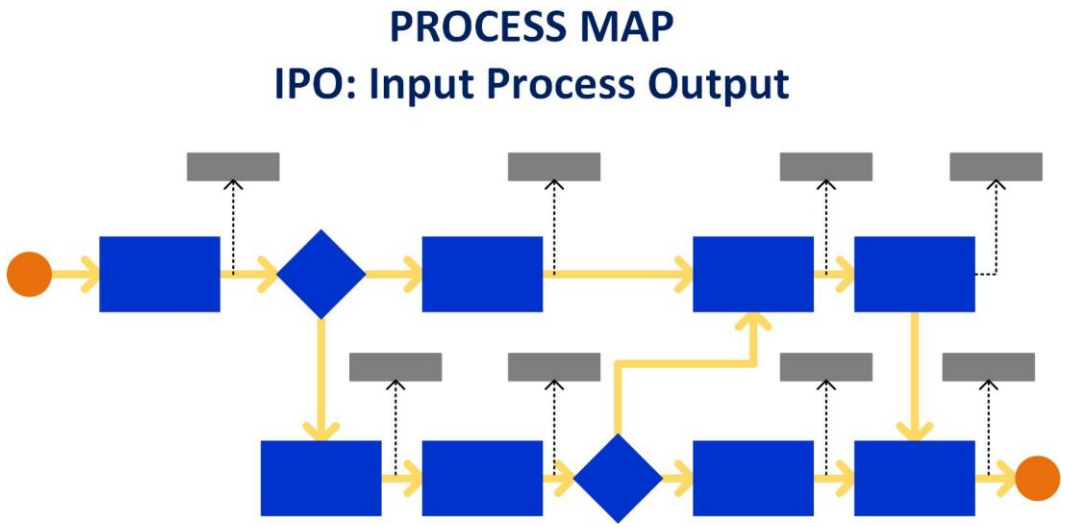


- You might start with a linear flow chart before spotting its complexity.
- You might recognise the complexity of the process from the SIPOC.
- You might begin deployment mapping because you know the issues are with multiple functions in the one process.

Process mapping – detailed (IPO) process map

This is the most specific process map.

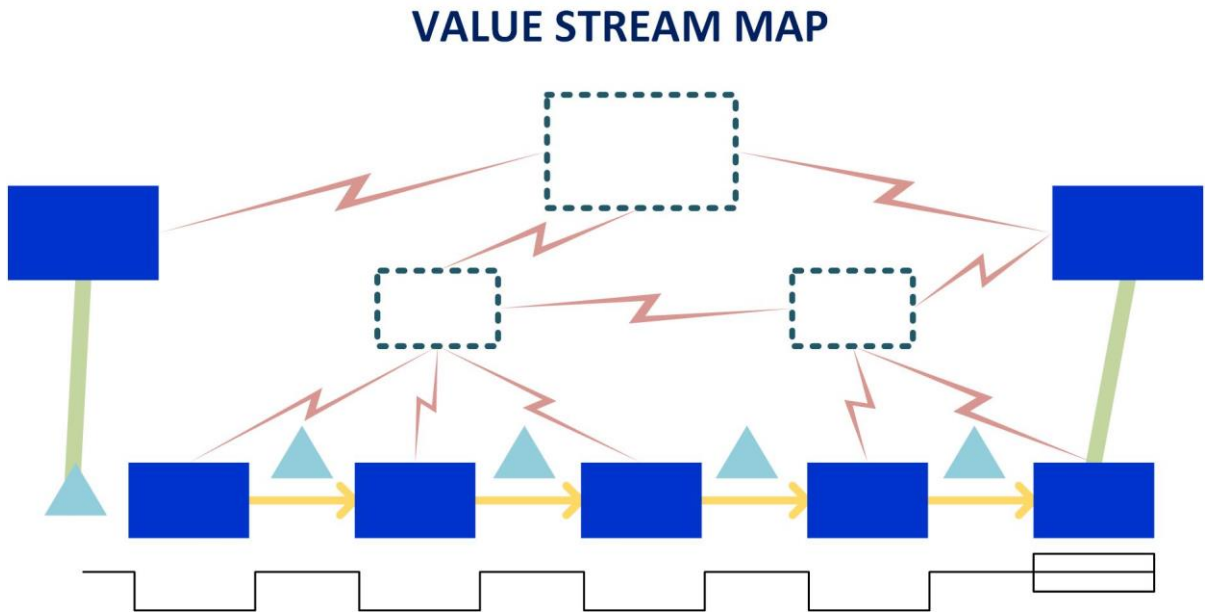
- Identifies not just process flow but input and output variables in the process
- Effective in investigating variation or identifying risks in the process
- Generally only needed in focused areas of the process where variation is high.
  - Identifying intermediate outputs is often useful in isolating causes of variation



- Identify the outputs ‘y’ of a given step
- Brainstorm the inputs ‘x’ which can cause variations in ‘y’
- Classify the inputs
- Identify the critical inputs

Process mapping – the value stream

- Value Stream Mapping (VSM) is the identification of all activities that create and/or do not create value in the process, from the supplier of the product or service to the customer
- It follows a ‘product’ or ‘service’ from beginning to end and maps every process in the material and information flow.
- VSM looks at
  - Information flow
  - Process flow
  - Timelines
- The key perspective is time
  - Process time - the time taken to do the work
  - Lead time - the time from start to finish



- As with the IPO process map, value stream mapping is primarily an analysis tool rather than simply recording a process.
- The VSM begins with the ‘as is’ of the process and so is a detailed record of the process.

Process Mapping: Tools and Techniques

Process Mapping: Tools and Techniques

What is process mapping?

- process mapping is the task of defining what exactly a business does, who is responsible, and what is the standard by which the success of a business process can be judged.

- http://www.appian.com/about-bpm/process-mapping-versus-process-modeling/

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Process Mapping: Tools and Techniques

Why is process mapping important?

- **Onboarding new employees.** Having a set of documented processes for new employees to follow can shorten training time, put less strain on other staff members, and help to ensure consistency and continuity of output.

https://www.smartdraw.com/business-process-mapping/

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Process Mapping: Tools and Techniques

Why is process mapping important?

- **Communicating processes to others.** At times it is necessary to be able to show a process to others. The visual structure of a business process map makes it easier to understand the process without having to read (and try to comprehend) a long, narrative description.

https://www.smartdraw.com/business-process-mapping/

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Process Mapping: Tools and Techniques

Why is process mapping important?

- **Process improvement and re-engineering.** Once a process is documented and understood, it can be analyzed to improve efficiency.

https://www.smartdraw.com/business-process-mapping/

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Process Mapping: Tools and Techniques

Steps Involved in Business Process Mapping

- Identify the process you want to document
- Gather information from process participants via interviews or observations
- Identify the start and end points of your process
- Break the process into distinct tasks and decision points

- https://www.smartdraw.com/business-process-mapping/

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Process Mapping: Tools and Techniques

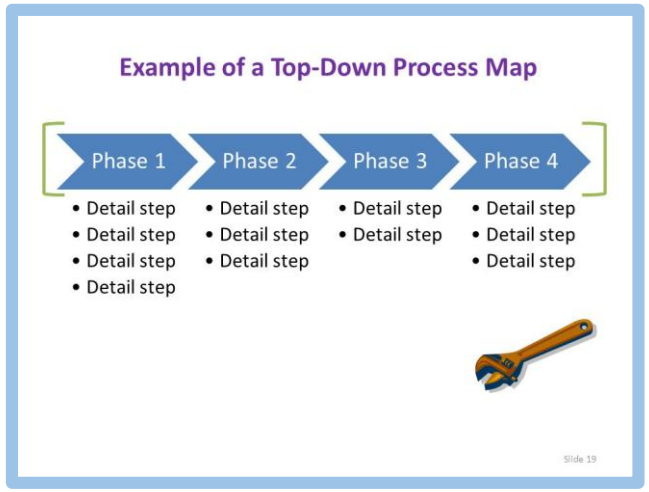
Basic Components of Business Process Mapping

- **Process.** The overall workflow from a starting point to its successful completion.
- **Tasks or Activities.** Something performed by a person or a system.
- **Flows.** This is indicated on the process map by connecting lines and arrows.
- **Events.** These are triggers that cause a process to begin, end, or may redirect a process to a different path.
- **Gateways.** Decisions that can change the path of the process depending on conditions or events.
- **Participants.** Specifically naming the people or systems that perform the tasks or activities.

https://www.smartdraw.com/business-process-mapping/

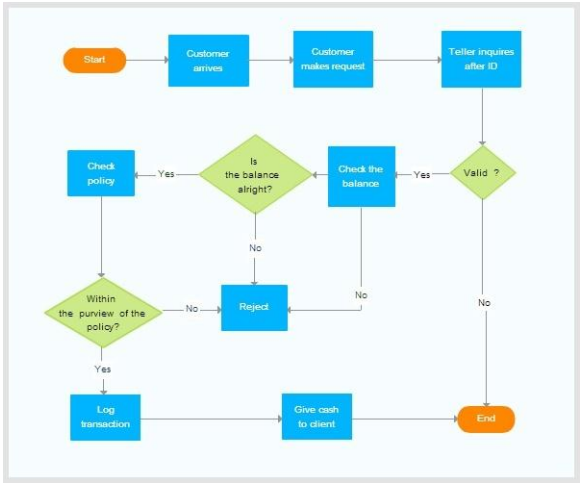
Process Mapping: Tools and Techniques

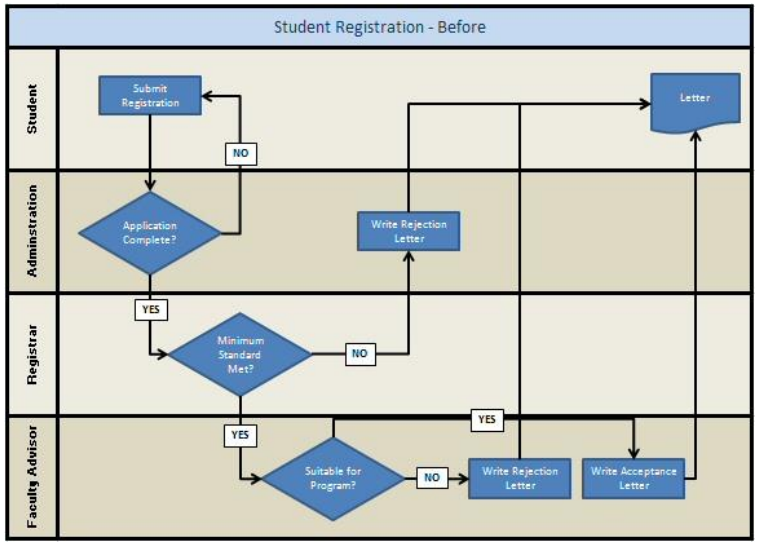
Primary Objective of Process Mapping: Visually display what happens in a process.



Top Down Flow Chart

Simple Process Flowchart





Swim Lane Flow Chart

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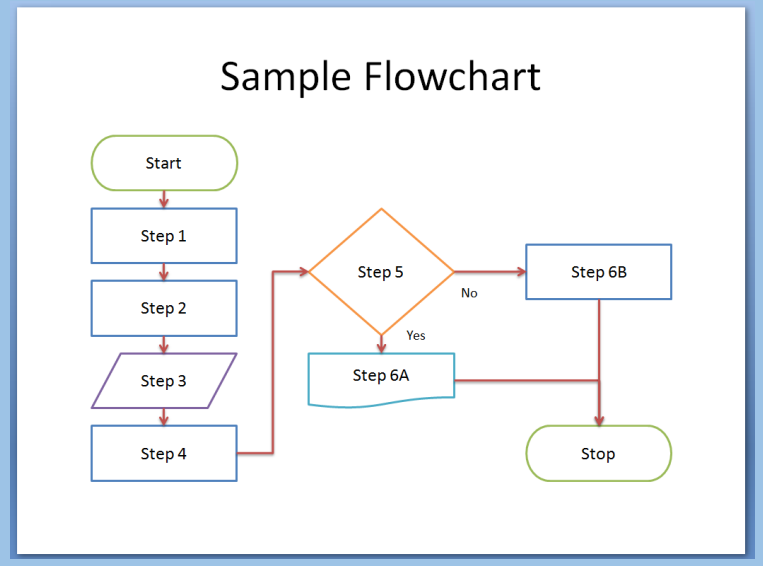
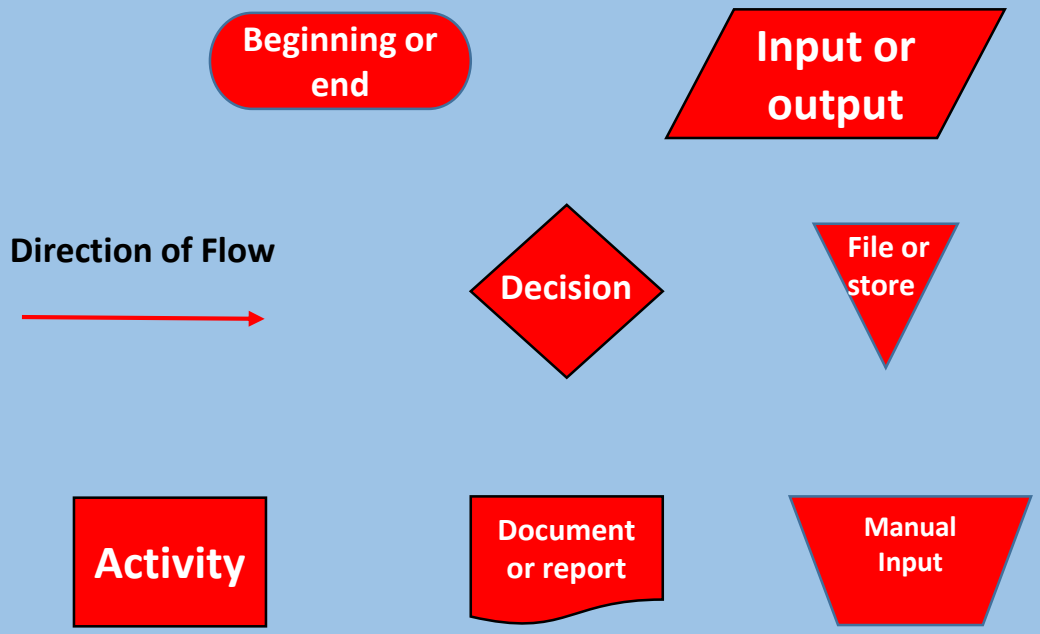
Process Mapping: Tools and Techniques

Graphic symbols represent the nature and the flow of the steps in a process:





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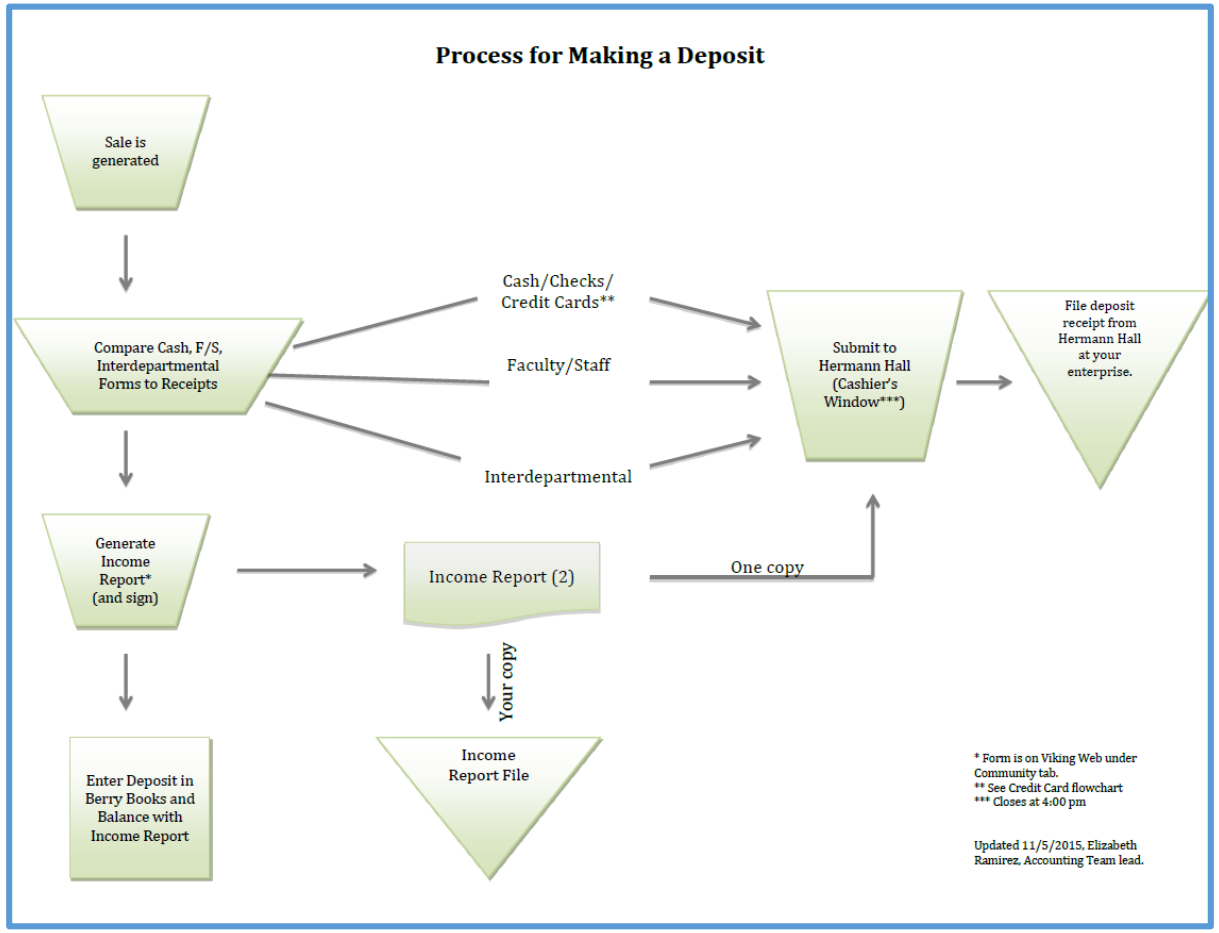
Process Mapping: Tools and Techniques

Enterprise Process Map for making a deposit using graphic symbols:



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Process Mapping: Tools and Techniques

Top Down mapping generally does not use graphic symbols and is defined by starting and stopping points, milestones and the how to of the process.

- **Procedure:**
- 1st: Define your starting and stopping points.
- 2nd: Define the milestones (the what's)
- 3rd: Complete your drill down (the how's)

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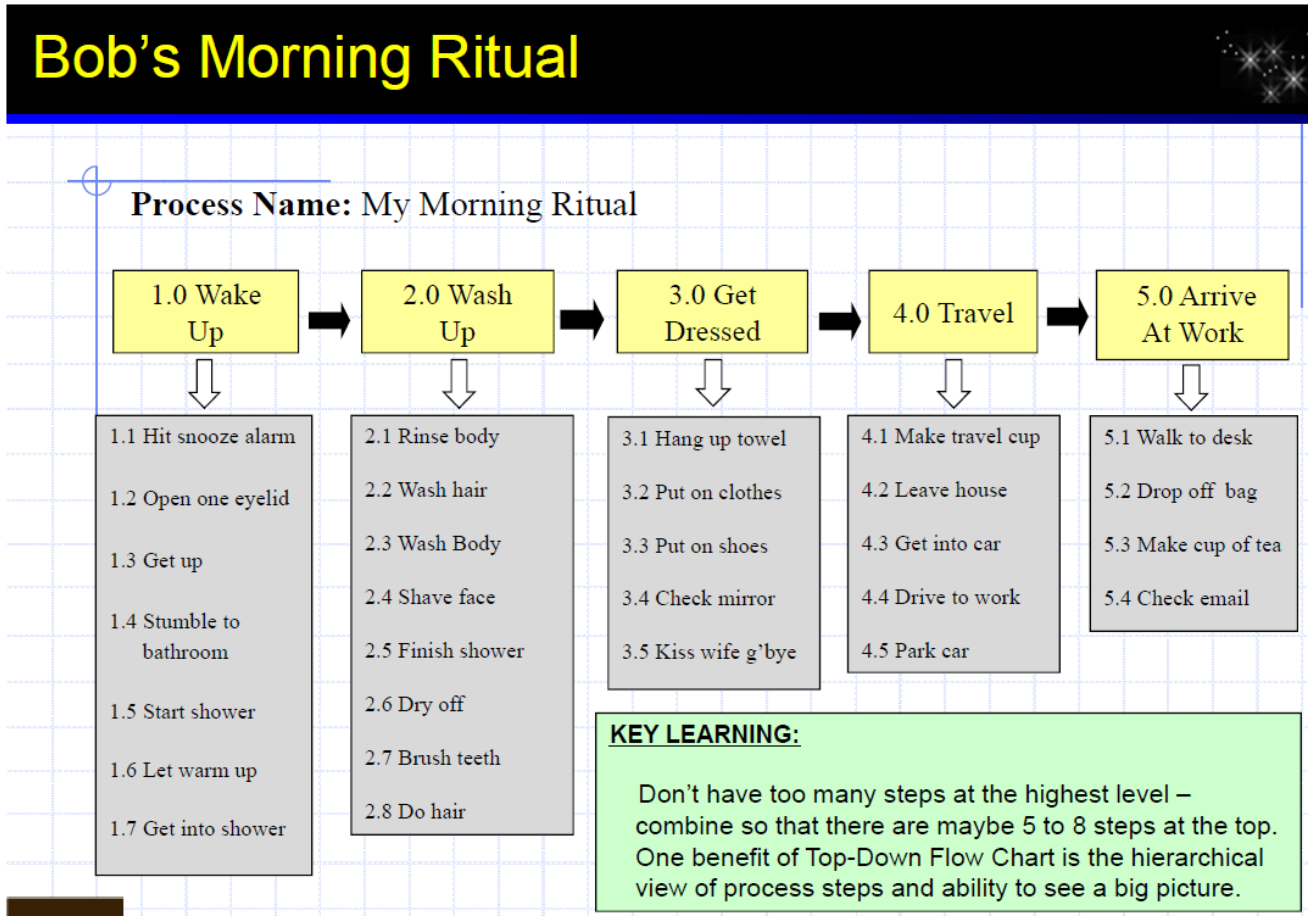
Process Mapping: Tools and Techniques

Example of a Top Down Process Map:



Process Mapping: Tools and Techniques

Top Down Mapping does not:

- Show who does what when.
- Does not show activity processing time.
- Does not answer what if's.

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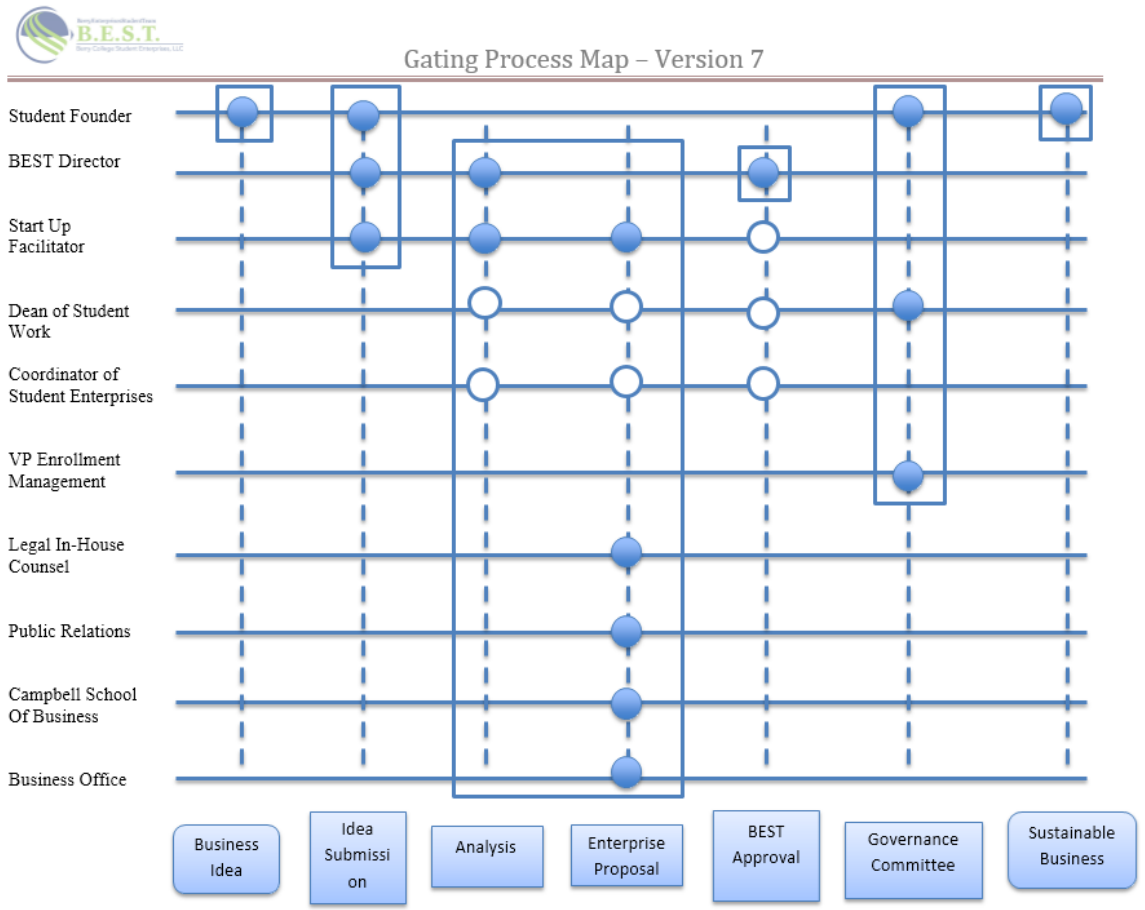
Process Mapping: Tools and Techniques

Example of Swim Lane Process Map- Enterprise Gating Process



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Process Mapping: Tools and Techniques

A swim lane process map sometimes called a **cross-functional diagram**, is a process flowchart that provides more information on who does what than a top down. It can also be expanded to show times—when tasks are done and how long they take.

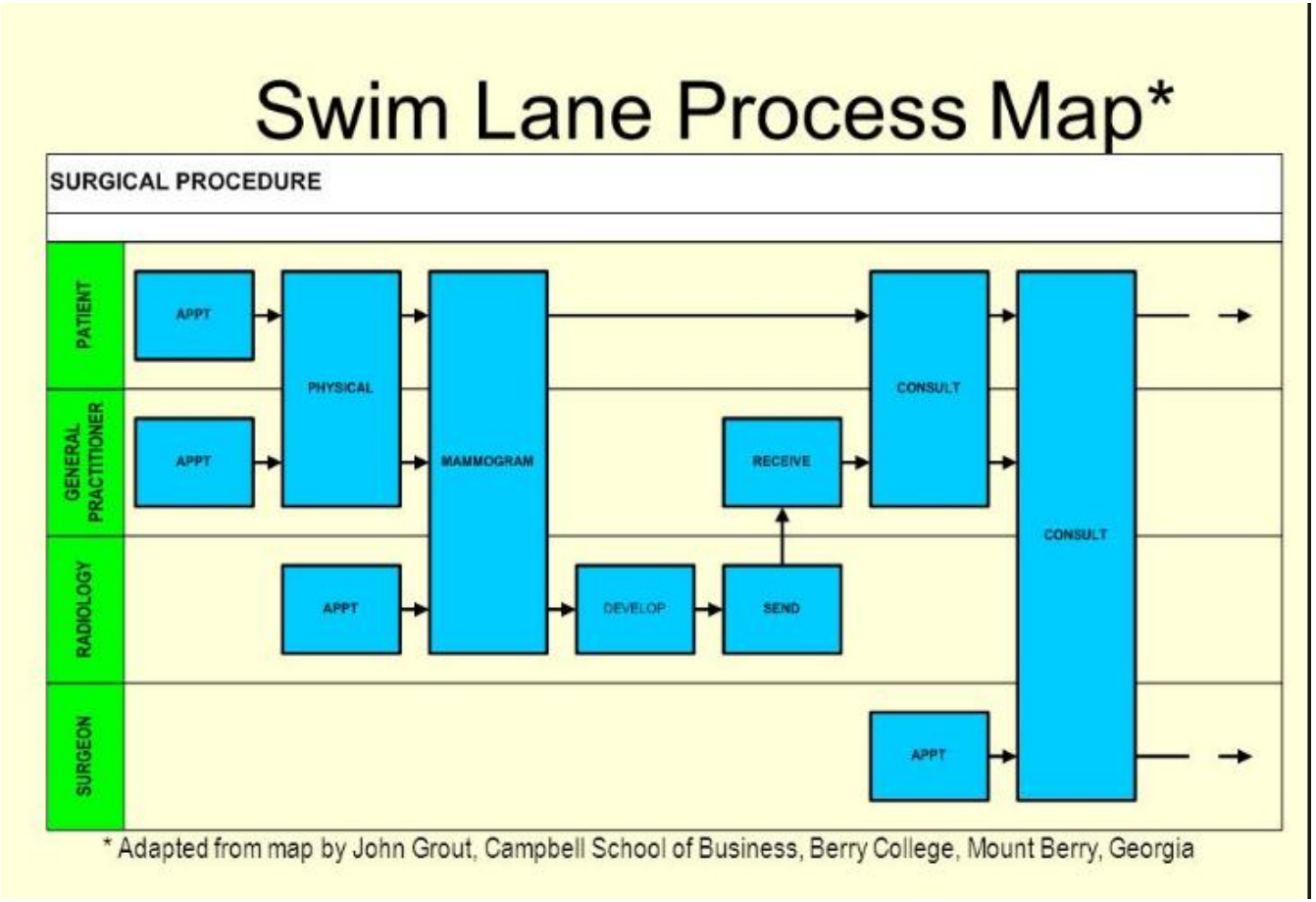
Process Mapping: Tools and Techniques

In a **Swim Lane** processes are grouped by placing them in lanes.

1. Lanes can be either horizontal or vertical, depending on the process flow diagram.
2. Each lane is allocated to an actor or group of actors.
3. Process steps which are performed by one an actor or group are drawn in that person's lane.
4. Arrows provide directions for hand off from lane to lane.

Process Mapping: Tools and Techniques

Example of Swim Lane Map, Dr. John Grout, Campbell School of Business



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Process Mapping: Tools and Techniques

Swim lane maps take more time to develop.

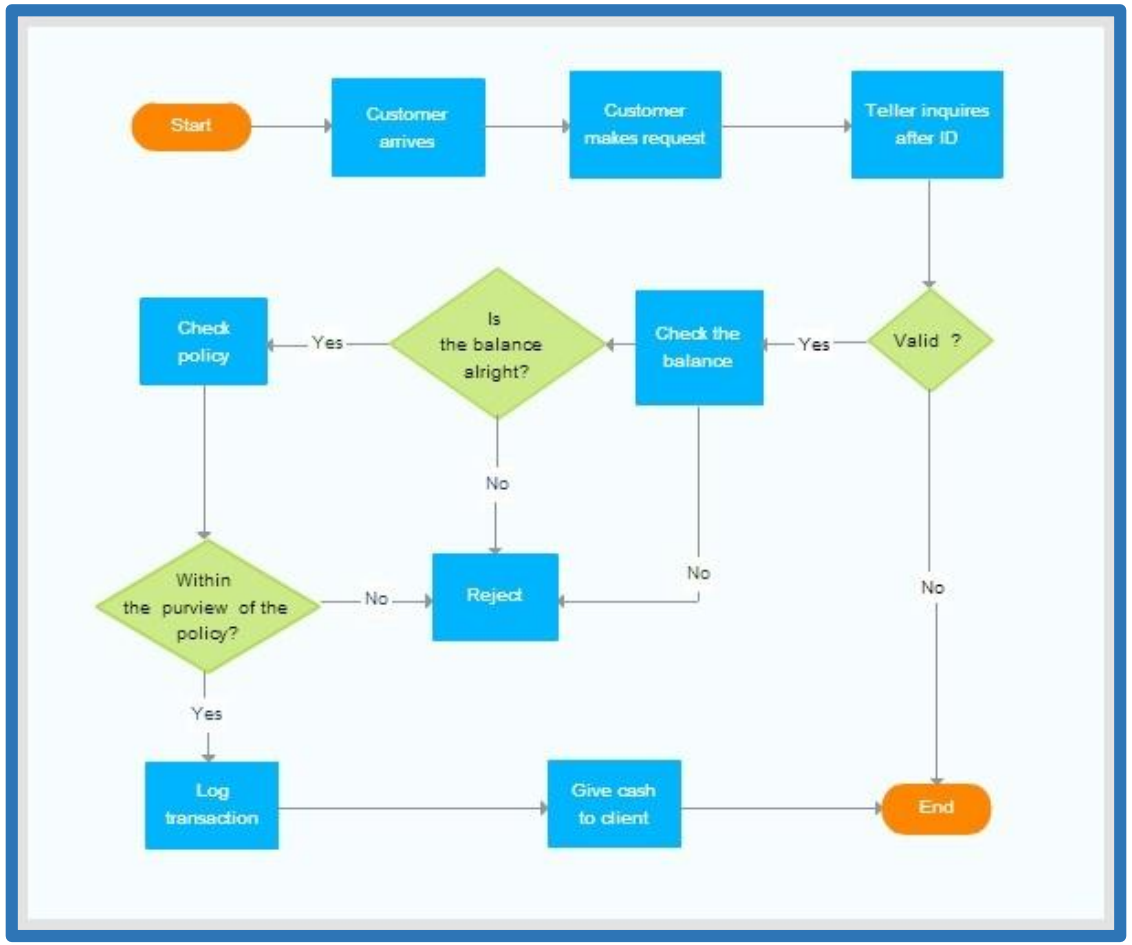
- Help identify time traps—which processes take the longest—as well as capacity constraints, or which resources get bogged down because of work.
- Ideally, after identifying the current process, teams should try to map out a better process, based on the information provided in the diagram.

Process Mapping: Tools and Techniques

- **A simple process flowchart** is probably the most versatile of the commonly used flowchart types and can be applied to virtually anything.
- **A simple process flowchart** shows inputs, activities, decisions and outputs of a process, partial process, or even a single process step. These are shown in a successive manner without denoting all the different functions within the concerned process.

Process Mapping: Tools and Techniques

Example of a Simple Process Flowchart: Cashing a Check



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Flowchart

Definition

A flow diagram of an algorithm or a process

Example

Fix the lamp