Gloucestershire Hospitals NHS
NHS Foundation Trust

An Introduction to Process Mapping

Programme Management & Service Improvement

Purpose:

- Provides a brief overview of process mapping techniques and how to apply them in Rapid Improvement Events and individual interviews

Contents

An Introduction to Process Mapping

What is Process Mapping?

Process mapping is a workflow diagram to bring forth a clearer understanding of a process or series of parallel processes. It is a visual representation of the individual actions and tasks performed that together compose a business process.

What is Process Mapping used for?

Process mapping is typically used to analyse how work is undertaken in order to identify operational change to deliver improved benefits or efficiency gains. Process Mapping can also be used to design and create efficient and effective processes.

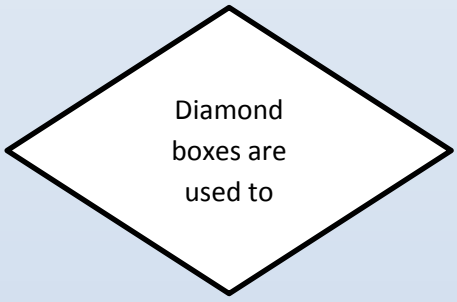
Process Mapping Essentials

There are many different techniques, tools and approaches to process mapping. However all should conform to the following guiding principles of process mapping:

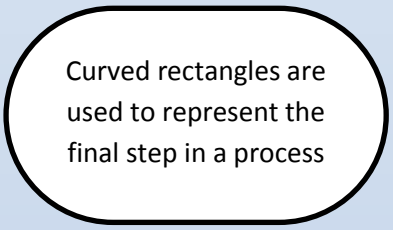
Rectangular boxes are used to represent an individual task.

Task boxes may have more than one arrow leading to them but must only have one flowing out.

Arrows are used to denote the sequencing of tasks. Whilst some arrows may direct the process to a previous step, the general direction of travel should either be top-bottom or left-right.



Decision boxes should be phrased as a question. There may or may not be more than one arrow leading to a decision box, but there must be at least two flowing out to represent the outcome of the decision being made.



Process mapping – Rapid Improvement Event (RIE) / Workshop

Top tips:

- Ensure you are fully prepared for the event to get the most out of it. Conduct individual interviews to capture the existing 'as is' process in advance of the workshop
- Prepare expectations for a RIE by sharing as much information as possible in preparation for the event
- Create a large copy of the pathway and affix to the wall. A facilitator can then walk the entire group through the pathway to identify errors, areas for improvement, elements of the process that are problematic, and to discuss potential change
- Start the session by seeking agreement on the principles of change (why change, what are we seeking to improve, 'the group agrees that…')
- Have a couple of facilitators to allow one to walk the group through the process and another to capture comments and suggestions
- Walk the group through the process and use post-its to identify issues, challenges, areas requiring improvement and opportunities.

When to use RIE approach

Pros

Capture multiple perspectives, resolve queries, complete process analysis (not initial capture) in a single session, acquire consensus for change

Cons

Requires all stakeholders to be available, requires assertive facilitation to ensure session remains within scope, will not produce equal participation

How to identify stakeholders for a RIE?

All those with any direct involvement in the pathway, anyone who receives the product output or provides the input to the process (either side of the process start and end), consider customers, anyone who will be affected by any change in the existing process

Process mapping – Individual interviews

Top tips:

- Always validate the pathway with several stakeholders to ensure process variations are identified and assumptions do not lead to inaccurate pathway maps
- When interviewing stakeholders to identify the process pathway ensure you drill down to the detail of the pathway, always asking "what happens next?"
- Ensure you capture all relevant information by asking questions such as 'Where is that data stored?', 'How does that information get from X to Y?', 'What informs that decision?' and 'Does this process ever vary?'…
- Schedule several interview sessions with key stakeholders to revisit and query pathways with fresh eyes

When to use individual interviews

Pros

Highlights importance of each stakeholder, encourages more focused discussion, more comfortable environment, ensures engagement from all process stakeholders

Cons

Can lead to inaccurate assumptions, time-consuming to meet separately with all stakeholders, may end up with a 'wish list' from a single perspective, difficult to acquire consensus for change, easy to miss process variation

Test your process mapping!

Use observation to test the accuracy of a process flow and identify potential variation. Observation can also be used to collect cycle-time data

Roles and Responsibilities

PMSI Facilitated Rapid Improvement Events (RIE)

For any requests to PM&SI to run Improvement Events the following responsibilities are suggested:

- The requestor will take ownership for the Improvement Event, being responsible for ensuring the right staff attend sessions and working with the PM&SI team as further detailed below.
- The PM&SI team will book rooms, facilitate meetings, document the process during the RIE, record actions and issue alerts for action due dates to the requestor.
- The PM&SI team will store and retain documents & communications regarding a RIE and subsequent actions.
- The requestor will take ownership of implementing the agreed recommendations and actions resulting from the RIE and will be responsible for delivery and benefit realisation.

In partnership the PM&SI team and the requestor will determine the following:

1. Terms of reference
2. Stakeholders for the RIE team
3. Reason for the improvement (current problems)
4. Define & agree the scope
5. Agree “as is” process prior to the RIE
6. Target state – realistic and achievable
7. Identify & document key problems
8. Undertake the Rapid Improvement Event
9. Document (PM&SI) and implement (requestor) any identified “quick wins”
10. Process map (PM&SI) & agree via RIE “to be” (RIE attendees)
11. Define level of budgetary control – if any
12. Action plan to implement and measure medium/long term improvement – identify completion dates and responsible leads.
13. Next steps

Process mapping guidance

Methodology options

	Team	Service	Divisional	Trust
Basic process flow	M	M	M	M
Swim lane process flow	O	O	O	O
Deployment diagram	-	O	O	O
High level to detail process flow	-	O	O	O
Value stream (LEAN) analysis	-	O	O	O
Cycle time analysis	O	O	O	O
SIPOC assessment	-	O	O	O

M=mandatory | O = optional

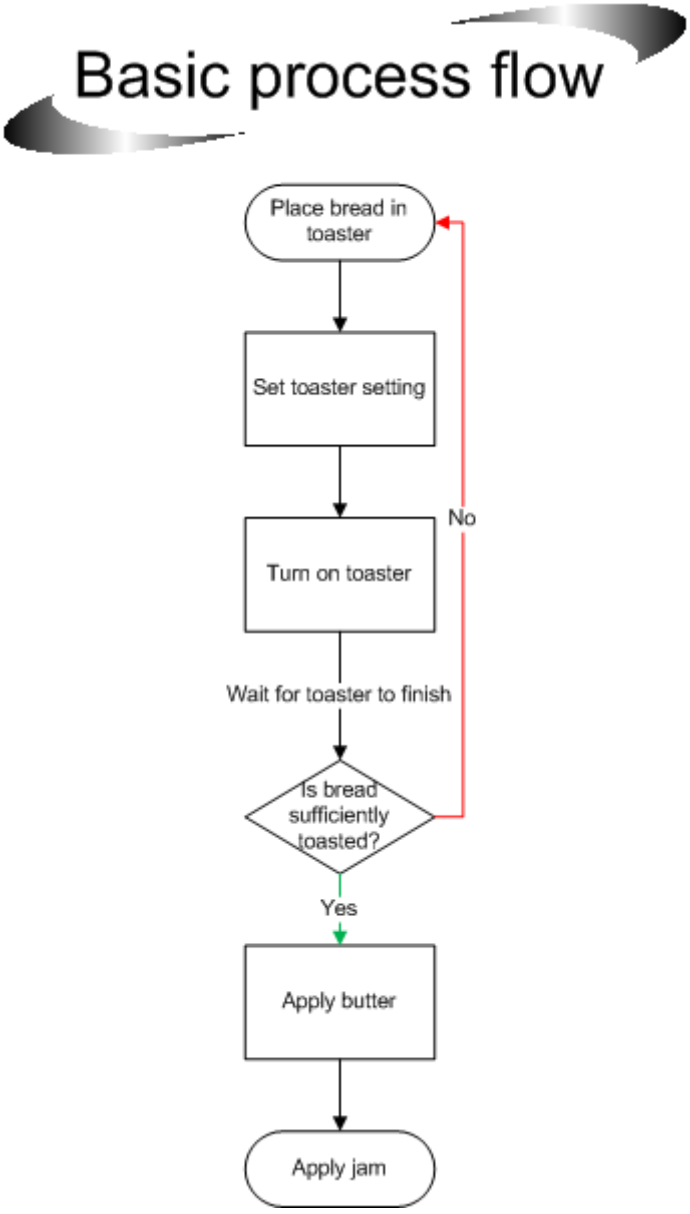
How to select a process to improve?

Rapid impact, significant impact, existing difficulties, variation, change in legislation/pressures, goal-driven directive (e.g. reduce N:FU, reduce clinical typing, etc.)

Clearly define scope – don't make scope too large, identify constraints and political issues, process dependencies and relationships

Key Considerations when process mapping and changing existing processes:

- Bottlenecks
- Sources of delay
- Errors being fixed instead of prevented (rework)
- Role ambiguity (we did not know who…)
- Duplications
- Unnecessary steps
- Cycle time

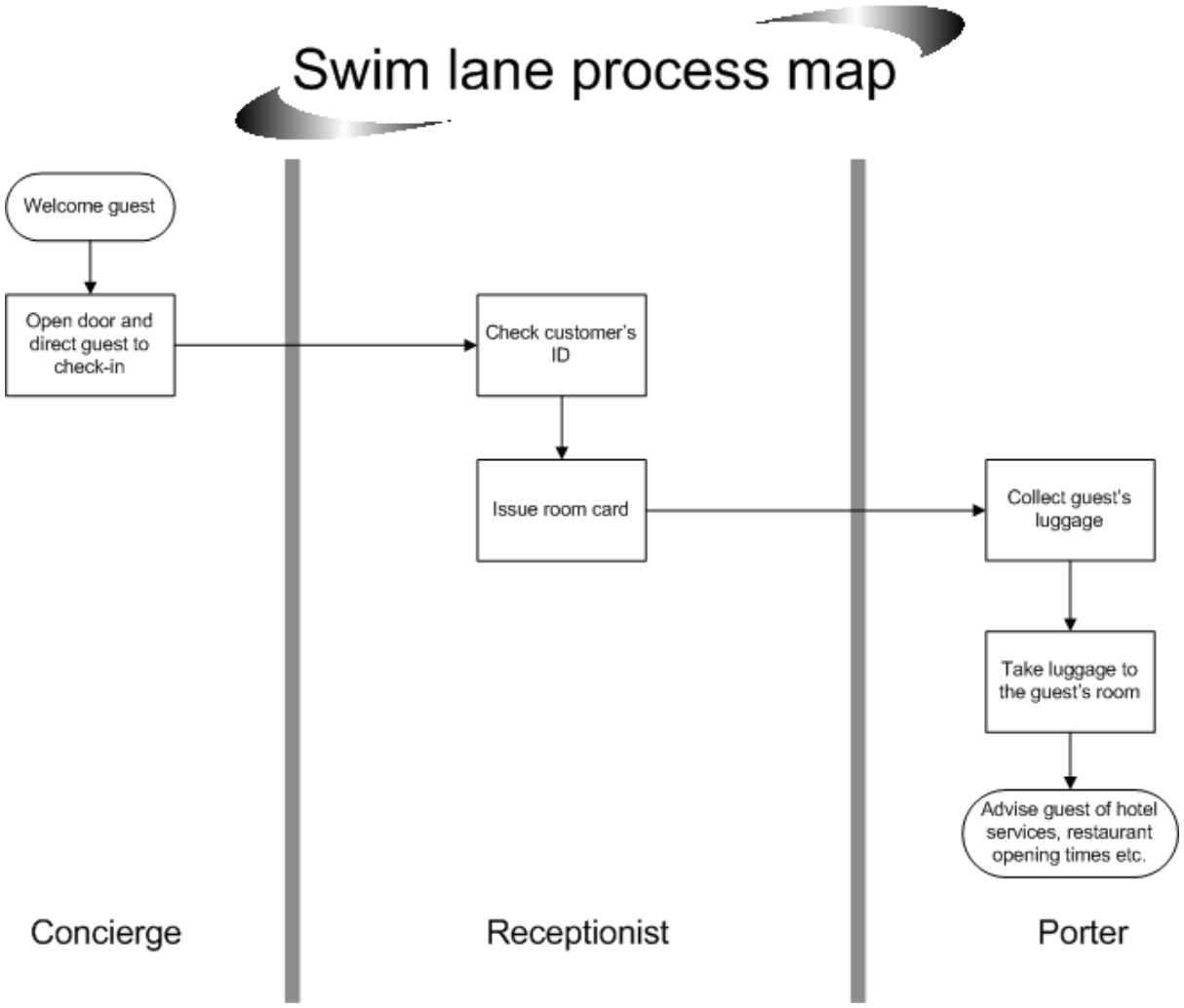


When to use

- Initial process capturing
- Simple processes

Limitations

- Provides little data concerning ownership, timing of tasks, identifying added value/waste



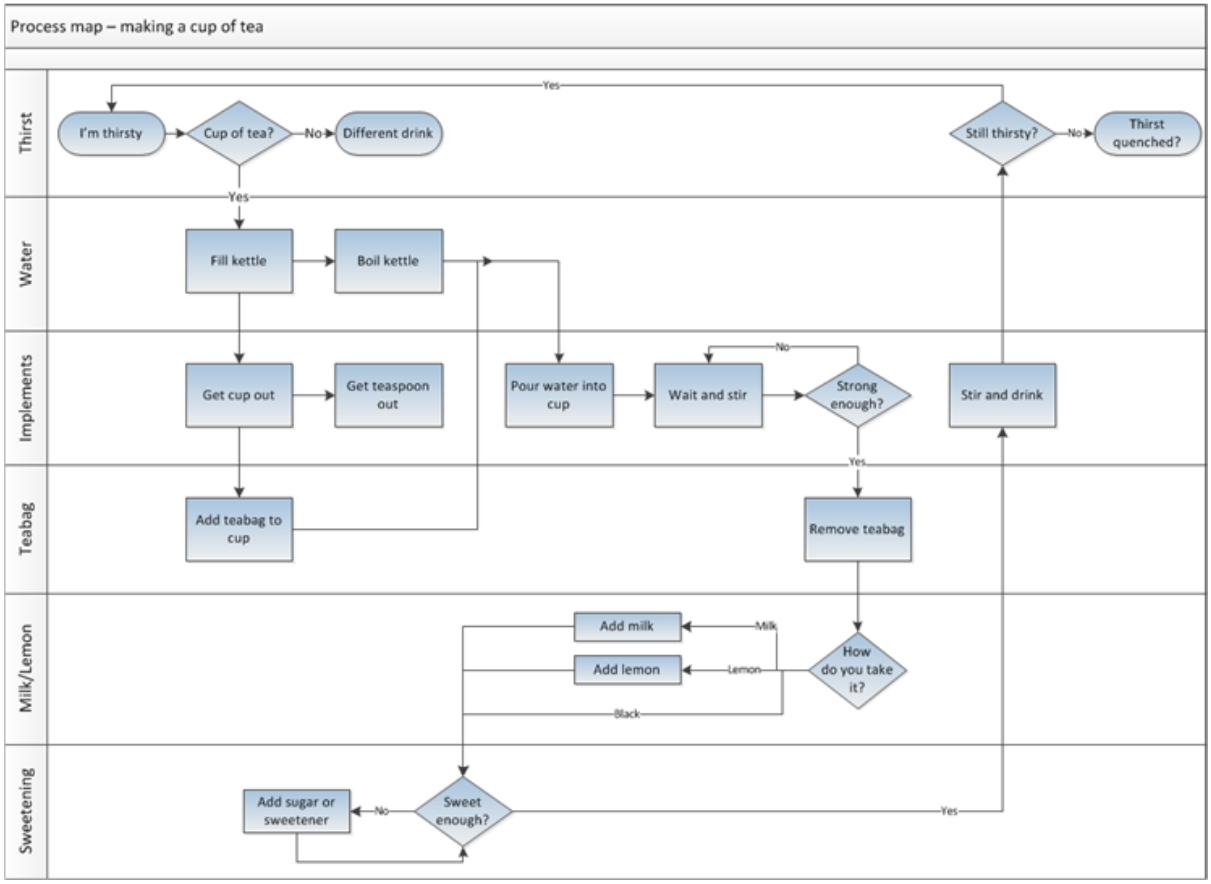
When to use

- To identify handover points and dependencies with other teams, services, etc.
- Useful tool to identify waste through repeated 'back and forth' and identify 'pinch points'
- To show the relationship between business processes and the functional units (such as departments, teams, etc.) that conduct them.

Limitations

- Provides little data concerning timing of tasks, identifying added value/waste steps in the process

Deployment process map



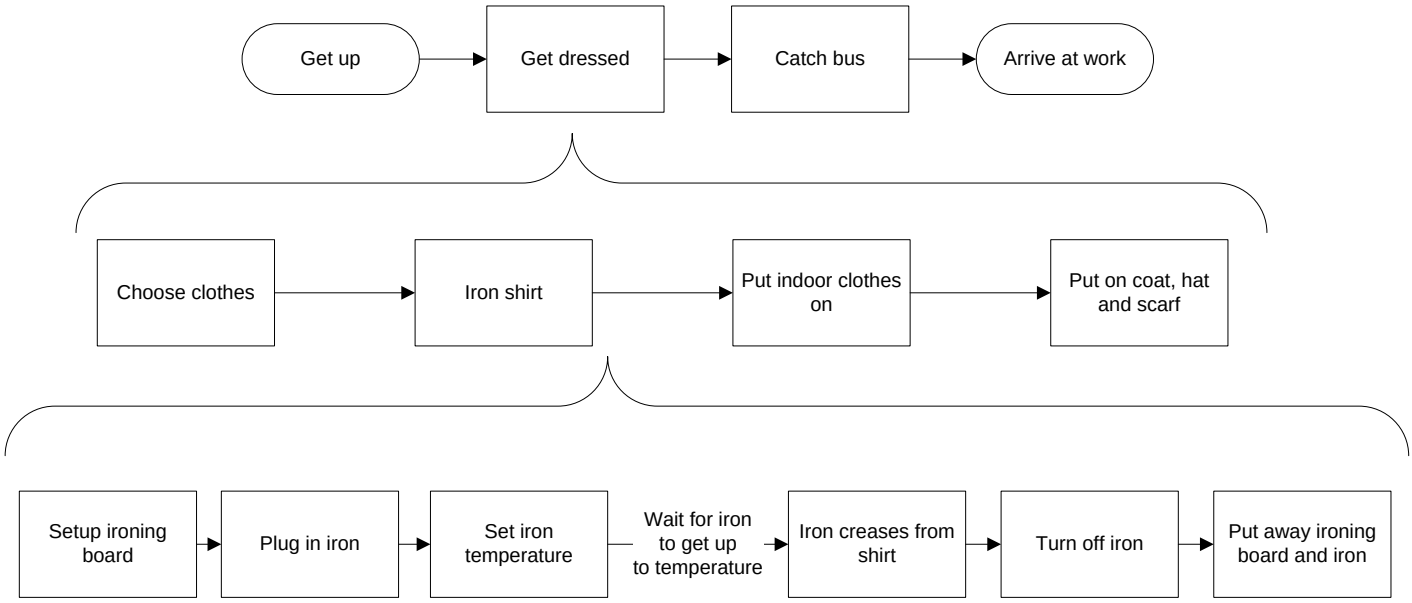
When to use

- To identify task drivers and stakeholder interests.
- To show the relationship between business processes and the functional units (such as departments, teams, etc.) that conduct them.
- Useful tool to identify waste through repeated ‘back and forth’ and identify ‘pinch points’

Limitations

- Provides little data concerning timing of tasks, identifying added value/waste steps in the process

High level to detail process



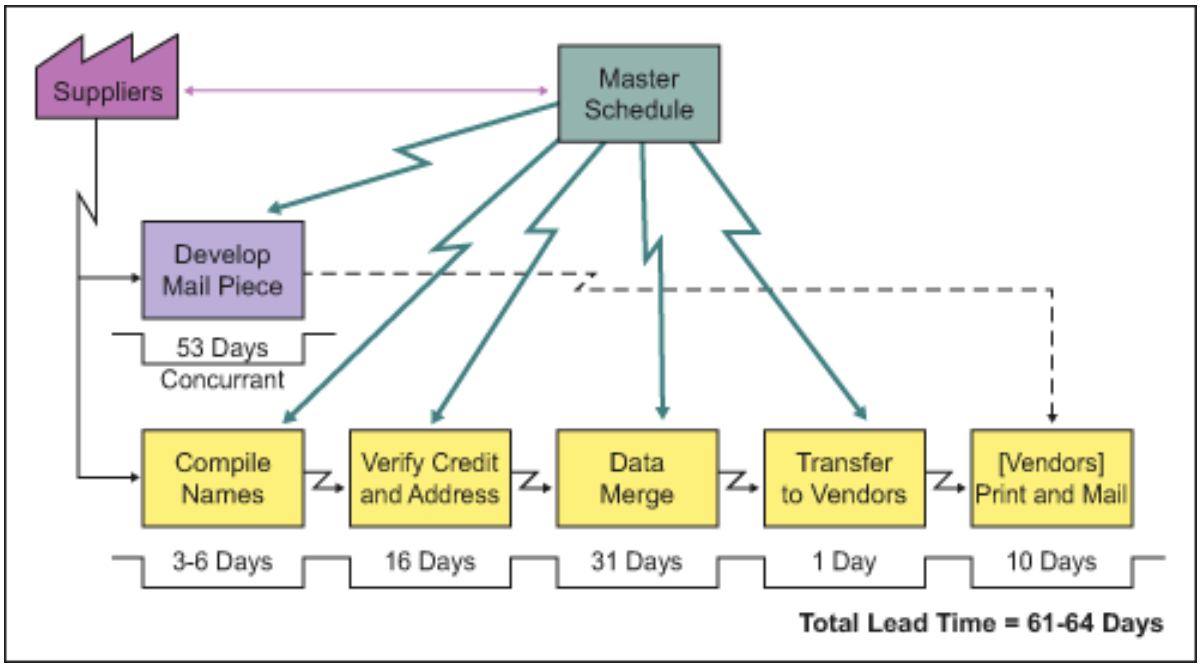
When to use

- Where granular detail is required.
- Allows better understanding of the individual steps that comprise the activities within a process.

Limitations

- Provides little data concerning ownership, timing of tasks, identifying added value/waste

Value stream

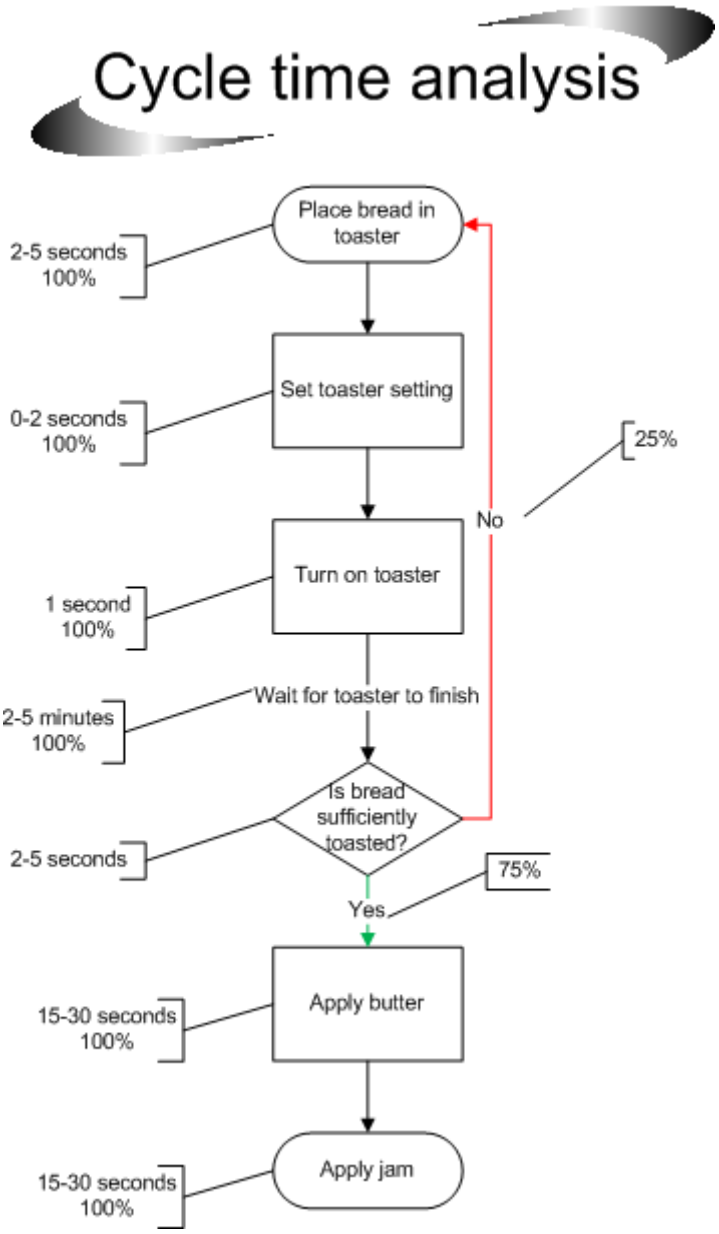


When to use

- Provides detailed information to allow analysis of downtime, pinch points, process flow, time taken to complete activities and frequency/volume of each activity.
- Provides most detailed information to allow application of LEAN and SixSigma methodology

Limitations

- Provides little data concerning ownership of tasks
- Time consuming to construct
- Value is greatly diminished where process variation exists.

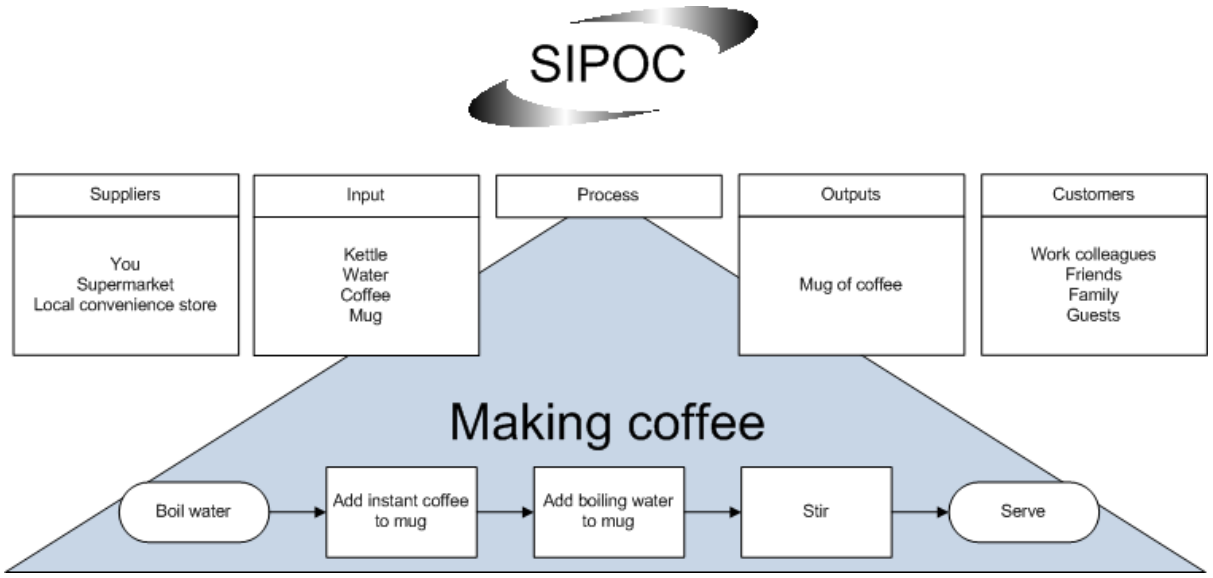


When to use

- To identify the true cost of a process and create a baseline to compare against any revisions or new pathways
- To capture waste element and help to identify tasks to remove or improve

Limitations

- Value is greatly diminished where process variation exists
- Inaccurate timings can lead to poorly informed decision-making



When to use

- To identify key stakeholders, inputs, outputs and customers
- To identify task drivers and stakeholder interests.

Limitations

- Most effective for simple / high level process mapping
- Provides little data concerning ownership, timing of tasks, identifying added value/waste