



Supplier Quality Management

Process Mapping

AQDT – Advanced Quality Team | Q3 2026

Agenda

- Review Supplier Performance
- Process Mapping/Flow Chart Diagram Overview
- Purpose of Process Map
- Resources

Supplier Performance Review

NOTE: This slide to include “Supplier Performance Specific Data Only”, not LMPI data/information.

Process Mapping

What is it

- Mapping the process is vital to understanding the process
- A process map is visual illustration of the steps for a process
- Also called a process flow or flow chart diagram

When to use it

- Once the preliminary design is released
- Prior to initiating the PFMEA
- To evaluate the current state and/or future state of the process

Benefits of Process Mapping

- Enhance the common understanding of a process
- Describes the process required to receive, make, inspect, test, protect, store and ship product
- Identifies where Key Characteristics are created and can be affected

Process Mapping

A process map is created by using shapes to represent each step of the process

Symbol	Name	Function
	Start/End	Indicates the start or end point of the process.
	Process	Describes a specific action or task to be performed within the process.
	Decision	Denotes a question or condition to be evaluated. Also, the different output options based on the answer.
	Connector	Used to connect different parts of the diagram that are in separate places.
	Flow arrow	It represents the direction of the process flow, indicating the order in which actions are carried out.
	Input/Output	It is the material or data entering or leaving the system.
	Document	Refers to an external document or file
	Multi-document	Indicates several printed documents or reports
	Preparation	Marks an adjustment to another step in the process.

Process Mapping

Seven Steps to Create a Process Flow Diagram

1. **Define the Purpose and Boundaries:** Determine what process you are mapping. Establish exactly where the process begins, where it ends, and how much detail you want to include.
2. **Gather Information:** Talk to the people who perform the process or observe it in action. List out every action, input, and decision involved.
3. **List the Steps in Order:** Write down all the steps in chronological sequence. Include both tasks performed by users and responses from systems.
4. **Choose Your Formatting Tool:** Select a platform to draw your diagram. You can use pen and paper, or applicable software.
5. **Apply Standard Symbols:** Place the steps into your diagram using universally recognized flowchart shapes.
6. **Connect the Steps:** Use directional arrows to link your shapes, illustrating the exact progression of the workflow.
7. **Review and Refine:** Walk through the diagram with stakeholders and workers. Update any missing information, eliminate bottlenecks, and ensure the diagram is easy to understand.

Process Mapping

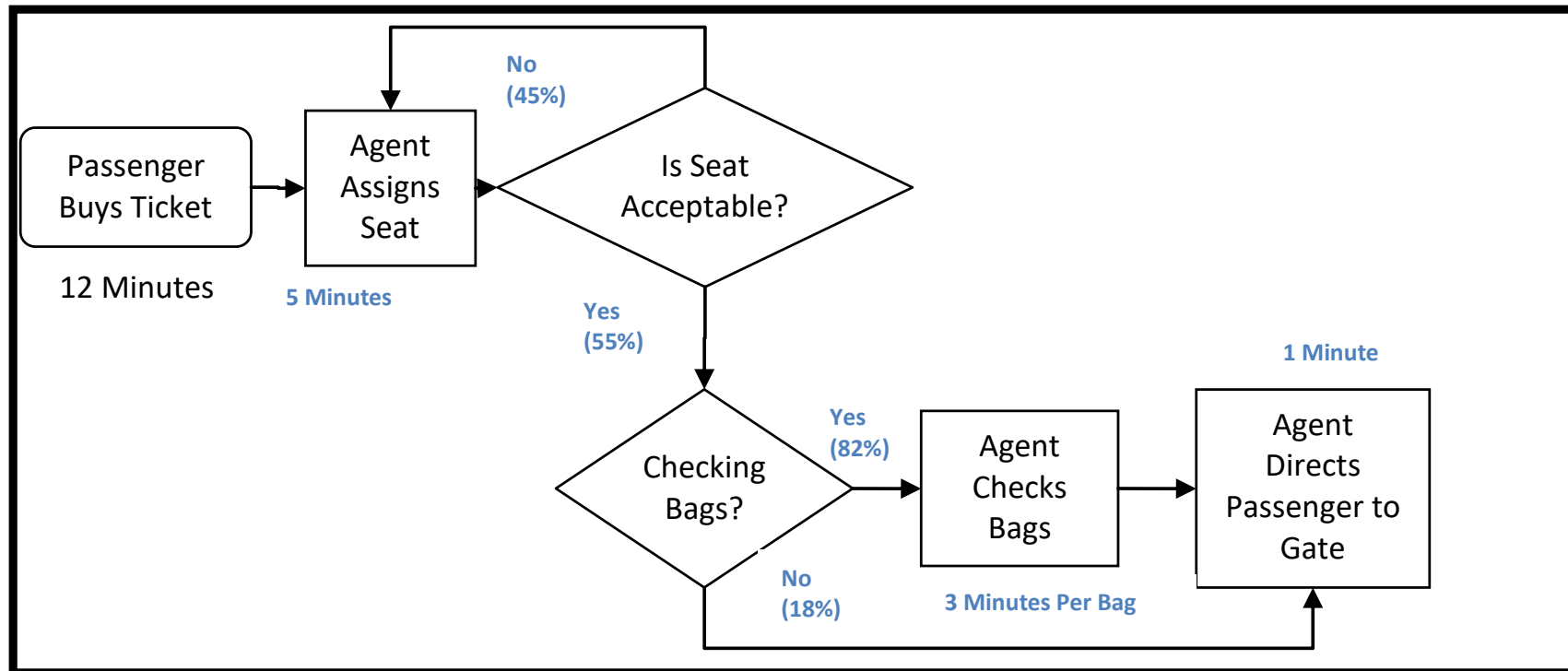
Linear Process Map

- Represents a linear chain of inputs, activities, decisions, and outputs
- It shows the flow of activity and may include data about the process
- Lines connect each of the steps, showing the relationship between the actions

Linear Process Map

Example

- A traveler checks in at an airport to buy a ticket, get a seat assignment and possibly check some bags

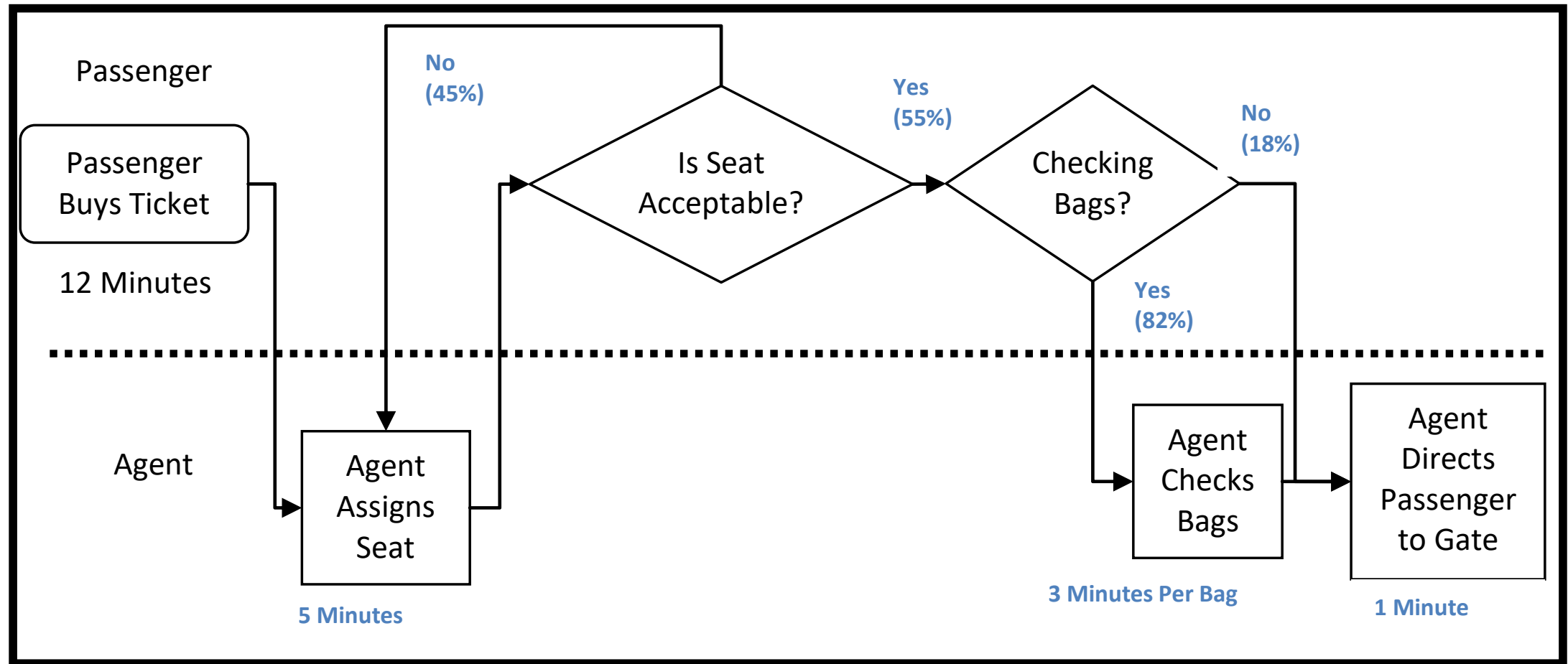


Process Mapping

Swim Lane Process Map

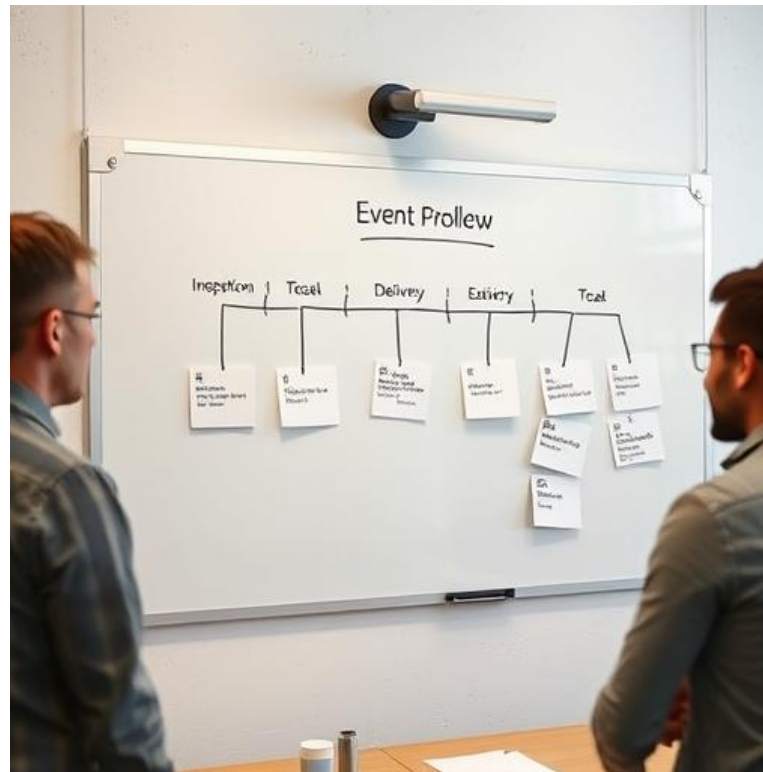
- Same information as a linear process map but put into lanes
- A lane can be a person, role, group, sub process, or function
- Organizes activities into separate visual categories in order to illustrate different functional responsibilities
- Answers the question “Who does what”?

Swim Lane Process Map



Purpose of a Process Map is to...

enable teams to **graphically** identify the actual sequence of events for a product or service process flow.



Purpose of a Process Map is to...

allow the team to **see** exactly how their process functions.



Purpose of a Process Map is to...

establish a **common** understanding between team members of what is done during the process.



Purpose of a Process Map is to...

show *who* is doing *what*, with *whom*, when, and for how long.



Purpose of a Process Map is to...

connect performance metrics to activities.



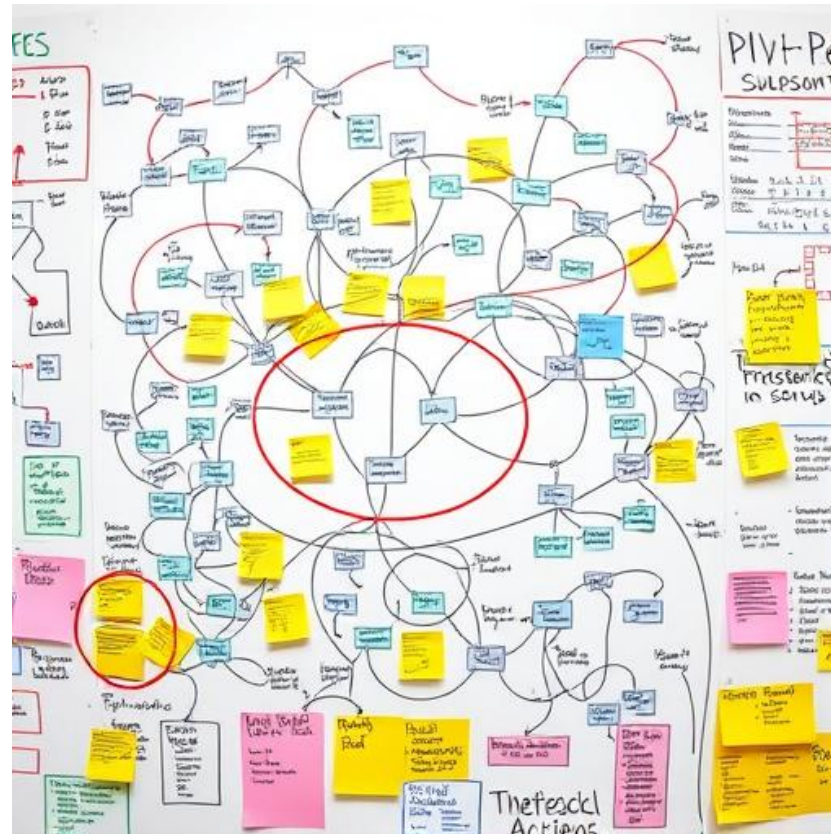
Purpose of a Process Map is to...

examine which activities **impact** the process performance and the delivery of **value** to the customer.



Purpose of a Process Map is to...

highlight problem areas, inconsistencies, and where simplification and standardization may be possible.



Resources

- The Black Belt Memory Jogger
- ASQ – Flow Chart
- University of Oxford - Process Flow Diagram

