LEAN Accelerator

Lean Flowcharts

Define
Measure
Analyze
Improve
Control

What are Lean Flowcharts?

A flowchart is a type of diagram that represents a process, showing the process steps or tasks as boxes, and their order by connecting them with arrows. Flowcharts are used in Lean to analyze, design, document or manage a process.

When are Lean Flowcharts Used?

Lean Flowcharts are usually created in the Define and Measure phases to better understand the process and to provide a basis for analysis and improvement, and in the Improve and Control phases as part of the designed to-be process.

Root Cause Analysis - 5 Whys

1 Drop down below the level of the Value Stream Map to clarify/give more detail to a process.

2 Visually documents a process, clarifying relationships between departments and activities.

3 Provides a fact-based process description as basis for understanding and analyzing as-is situation and quickly see improvement opportunities.

4 Helps teams see how a process should work (to-be process) once waste has been eliminated.

5 Helps to give a common understanding and to communicate inside and outside an organization.

How to Create a Lean Flowchart?

Review the process and its scope as defined for your project.

Identify the type of flowchart you want to create.

Have participants identify the steps in the process.

Working as a team, arrange the steps in order:

1 *Eliminate duplicates and combine similar ideas.*

2 *Maintain a consistent level of detail.*

3 *Keep the process moving in one direction.*
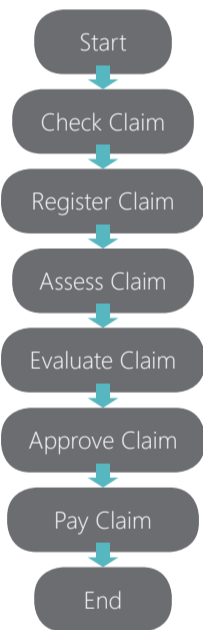
4 *Discuss the results – adjust as needed*

Transfer completed map to paper or, better, computer.

Types of Lean Flowcharts

Block Diagram

The simplest type of flowchart is a block diagram which gives a high level overview and shows everything as a linear flow. Here's one describing a simple claims process.
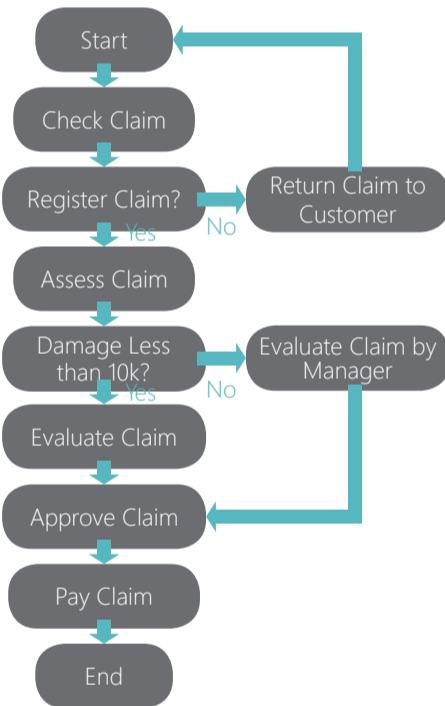
Block diagrams are typically used for higher level, less detailed process maps that are intended to clarify general concepts without concerns for the details of the implementation.

Start → Check Claim → Register Claim → Assess Claim → Evaluate Claim → Approve Claim → Pay Claim → End
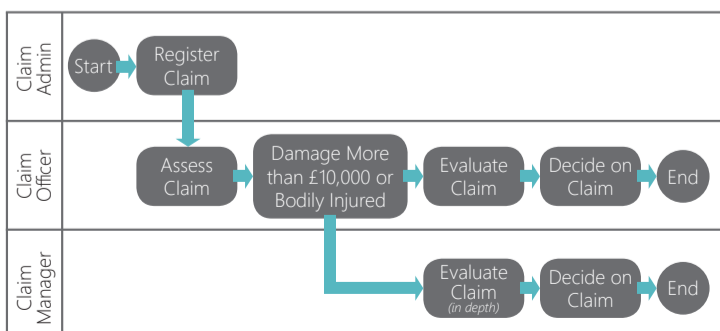
Linear Flowchart

In reality there tends to be some recycling and decision making between activities. We can deal with these using a linear of basic flowchart, a slight extension of the block diagram.

Here we have a decision box where we consider whether the claim is complete and if not we return the claim to the customer. Claims above a certain value need to be evaluated by a Claims Manager.

Start → Check Claim → Register Claim? — No → Return Claim to Customer; Yes → Assess Claim → Damage Less than 10k? — No → Evaluate Claim by Manager; Yes → Evaluate Claim → Approve Claim → Pay Claim → End

Swim Lane (Deployment) Flowchart

A particularly useful form of flowchart uses swimlanes, shown either vertically as columns or horizontally as rows. It is known as an integrated, deployment or (cross-) functional flowchart, and emphasizes the 'who' in 'who does what'. Swim lane flowcharts make it easy to study handovers between actors and organization units, and are especially useful with administrative processes.

Claim Admin: Start → Register Claim
Claim Officer: Assess Claim → Damage More than £10,000 or Bodily Injured → Evaluate Claim → Decide on Claim → End
Claim Manager: Evaluate Claim *(in depth)* → Decide on Claim → End

BPMN 2 Diagram

BPMN 2 (Business Process Model and Notation) is the de-facto standard for business process modeling, based on the swim lane flowcharting technique.

Customer

Claim Admin: Check Claim — No / Yes → Register Claim in Claim Management System. Claim Completed?

MTT Insurance

Claim Officer: Damage More than 1000GBP or Bodily Injured? → Assess Claim → Evaluate Claim → Pay Out? — No → Forward Decision to Customer; Yes → Get Double Signature if more than 5000 GBP → Send Payment Order to Accounting

Claim Manager: Evaluate Claim *(in depth)* → Pay Out? — No → Forward Decision to Broker; Yes → Get Signature from Senior Management → Send Payment Order to Accounting