

Business Process Mapping

'How To' Guide

The Ideas Distillery





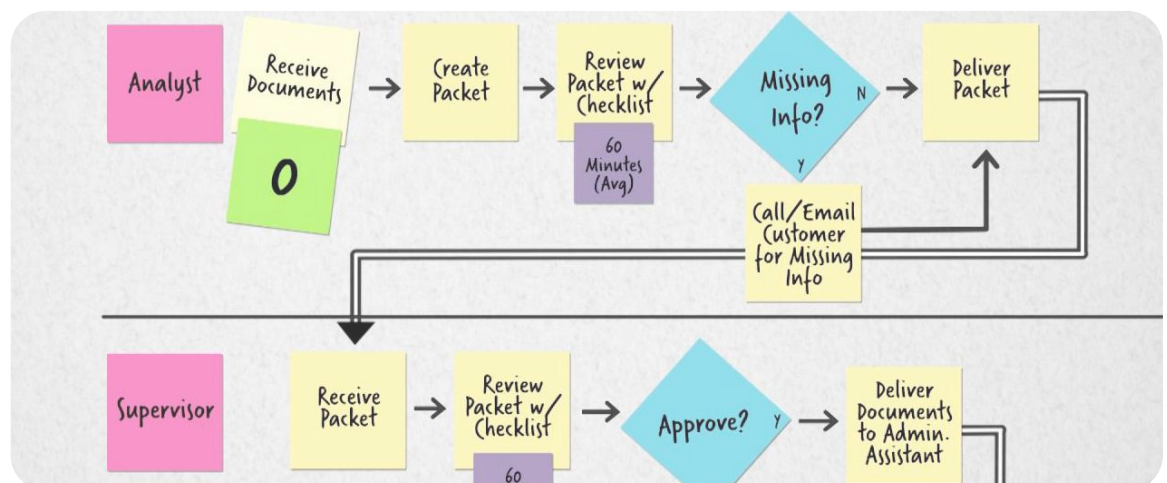
What Is Business Process Mapping?

Business process mapping, a part of Business Process Management (BPM), is a framework used to create visual representations of work processes.

Business process maps show the relationship between the steps and inputs to produce an end-product or service, such as when a product goes through packaging or when an employee's leave is approved.

This process of documentation is concerned with what a business does, why it does what it does, what the standard is for success, who is responsible, and when and where different steps will occur.

Business process mapping promotes transparency, not only for those within the company but for all stakeholders, especially those involved in compliance. They can be expressed in flowcharts and in Business Process Modelling and Notation (BPMN) symbols.



Business process mapping is often mistaken for business process modelling. When professionals perform business process modelling, they are more interested in how the processes are performed, and who (or what department) is performing them.

In this way, they focus on analysing and optimising the business process architecture through reviewing the processes and considering the company's goals and requirements.

A business's process architecture details the entire enterprise's set of processes. Often termed a "blueprint," the architecture is typically used to align the company's processes with their objectives.

Modelling is more about how processes flow, while mapping is about what is in existence.



The Scope and Purpose of Business Process Modelling

Business process mapping is part of project planning for a range of project types, from improvement projects to more intensive business process re-engineering projects. Business process reengineering is the drastic redesign of the entirety of the enterprise's processes. Some businesses chose to map their processes because they are conducting strategic planning, or are developing metrics for reporting.

Process maps inspire professionals to consider how to make their organisation more effective by thinking through their workflows. When you map a process, you must diagram it out in a way that achieves a shared understanding. The scope of business process mapping will show end-to-end activities, inputs such as materials or labor, and the linkages. A process map can cut across different departments and teams, and could even include external partners. It all depends on the process.

Organisations use business process modelling for different reasons, but primarily it's a formal approach to quality management. Overall, businesses want to become more effective, so when all of the company objectives are measured and compared, it becomes possible to align them with your company's values and capabilities. With aligned objectives, your organisation can behave as a single entity with interconnecting parts, which significantly increases the value of your end-product or service. Other purposes of building business process maps include:

- ✓ Process standardisation
- ✓ Employee onboarding and training
- ✓ Process improvement
- ✓ Communication
- ✓ Compliance with regulating agencies (e.g. International Organisation for Standardisation, 2002, Sarbanes-Oxley Act)
- ✓ Internal auditing

The History of Business Process Mapping

Business Process Mapping came about through The American Society of Mechanical Engineers (ASME). In 1921, Frank and Lillian Gilbreth introduced the "flow process chart" in a presentation that they gave called, Process Charts, First Steps in Finding the One Best Way to Do Work. The tools that they presented quickly became engineering standards and continued to be shown through the 1940s, having been sanctioned by the American Society of Mechanical Engineers (ASME). And in 1947, the ASME adopted a symbol system for consistency in this type of chart.

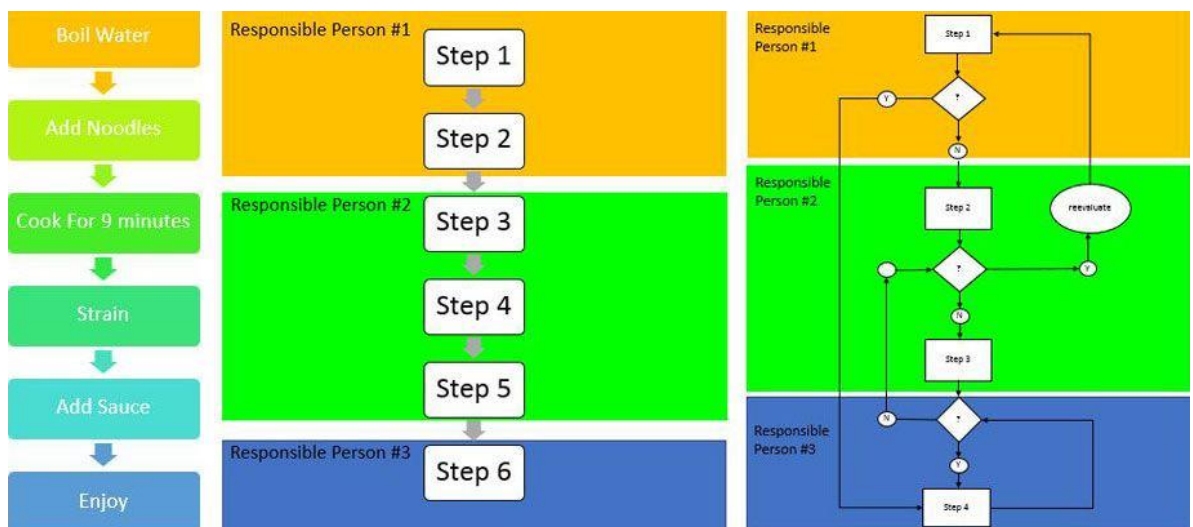
The manufacturing industry also adopted process maps to identify value-add activities and inefficiencies. These maps often took days to create and were static. More recently, business process mapping has evolved with software development. Businesses can use software tools to create their maps quickly, evolve them over time, and make them accessible to all team members, facilitating a culture of improvement. Most business process mapping software integrates with business process management software systems, so that you can draw the maps and have them come to life within your business.



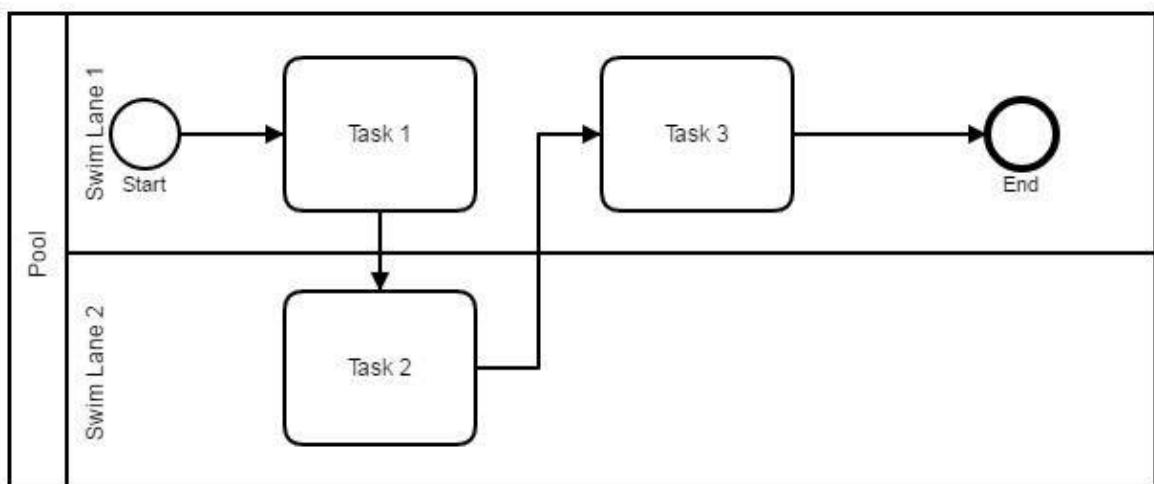
The History of Business Process Mapping

Many different types of business process maps exist, and range from planning activities, details, documents, products, roles, locations, strategies, and interactions. Also, various levels of detail are available for mapping. The following are some examples of map types for business processes.

Flowcharts: These are graphic illustrations of your process. Three types of flowcharts are popular: top-down flowcharts, deployment flowcharts, and detailed flowcharts. Top-down flowcharts show the steps of a process, clustering them together in a single flow. Deployment flowcharts are a top-down flowchart expanded to include who is performing each task. Detailed flowcharts are an expansion of both the top-down and deployment flowcharts, showing as many details as possible.

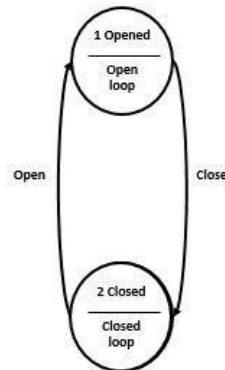


Swimlane Diagrams: These diagrams, also known as cross-functional maps, detail the sub-process responsibilities in a process.

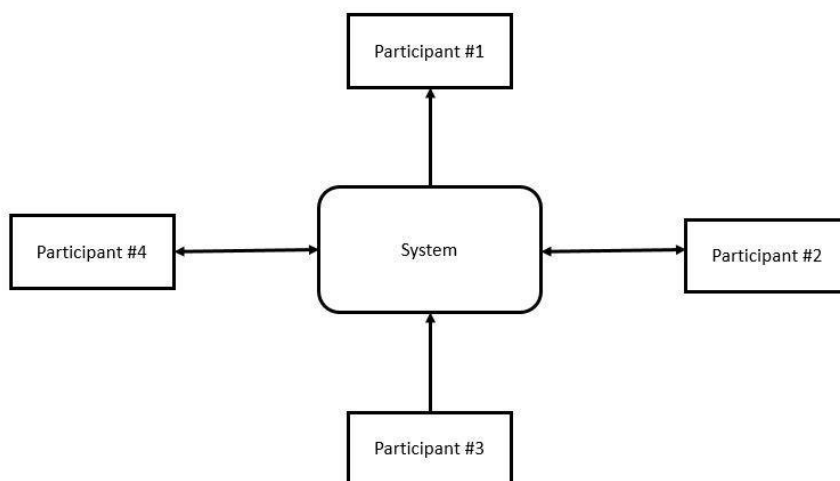




State Diagrams: These diagrams show the behaviour of systems in the Unified Modelling Language (UML), describing the states of component.



Data Flow Diagram: Similar to a flowchart, this diagram focuses solely on the data that flows through a system.



Value Stream Mapping: Part of Lean Manufacturing principles, value stream mapping demonstrates the current state and helps to design the future state of a process, focusing on taking products and services from their beginning to their completion.





The Reasons Why We Map Processes

There are many reasons that companies choose to map their business processes. The benefits, especially today in the age of software development, are numerous. The following are some reasons your organisation would want to map processes:

- ✓ Enables everyone to see the process in the same way.
- ✓ Decreases errors of procedure.
- ✓ Builds understanding between areas that are cross-functional.
- ✓ Helps everyone to see the “current state.”
- ✓ Enables development of metrics.
- ✓ Decreases waste by identifying gaps and excess.

The Principles of Business Process Mapping

To properly transform your organisation into a sustainable one, you must understand how we begin to map business processes. These following principles should be present in every mapping project:

- ✓ Define the scope of the project itself, with the boundaries, start, and end points.
- ✓ Look at the big picture - the intent of the process.
- ✓ Define each step clearly.
- ✓ Get feedback from everyone in your organisation who is involved in the process.
- ✓ Strive to be complete in your accuracy, especially with the map of the “as-is” process.
- ✓ Strive to keep the sub-processes simple.
- ✓ Test the process with accepted metrics. Metrics should measure the time, volume, rates/costs, equipment, and any added value.
- ✓ Work from output to input, backward.
- ✓ Create ownership with single points of contact where feasible.
- ✓ Redesign processes to be customer-centric.
- ✓ Use technology to enable your processes.
- ✓ Decrease inefficiencies in the hand-offs.

The Framework of Business Process Mapping

You may now be asking how exactly you go about mapping your business processes. To do it right, you want a formal procedure. The following is a useful framework.

1. **Identify your organisation’s best practices:** As in the principles of good business process mapping, your organisation should agree on what is mapped and the scope of each. The process should be easily understood as mapped by someone who is not close to it. Each process should also have a series of questions posed to it that answer why it is being done and what goes into each detail of it. Finally, apply metrics as a basis for measuring the success of each process.



2. **As-is in process design:** Specifically define the purpose of mapping the process. Ask where the process initiates and ends, and determine what the opportunity of fixing it could become. After selecting a process, determine all the steps in it, as well as inputs and outputs. Establish the systems, roles, and time involved. Select a mapping technique. Interview the contributors for the roles they play in the process, looking at every duty and decision point.

The following are the specific criteria that you are looking for in every process:

- Responsibilities
 - Objectives
 - Activities
 - Inputs
 - Outputs
 - Customers
 - Risks and controls
 - Key performance indicators
3. **Analyse and evaluate:** Review your process map. You are looking for processes that are redundant, delays and unnecessary steps, vagueness, bottlenecks, points of rework, and flows that continually pass back and forth between certain people. Determine a measure for each segment, and where exactly to implement it. Identify the appropriate people to review the map. Select a process improvement plan. Process innovation analyses should consider Steven Shapiro's 7 R's of process innovation:
 - Rethink
 - Reconfigure
 - Resequence
 - Relocate
 - Reduce
 - Reassign
 - Retool
 4. **To-be in process design:** Document the process, emphasising any problem areas. Using the best practices developed in Step 1, document the differences in the existing and new processes. Use a root cause analysis to ferret out potential problems.

The Current State of Business Process Mapping

Businesses today are more focused than ever on sustainable improvement. Even with measurable operational improvements, it may be difficult to hold onto the enhancements made. Many businesses still have inefficient processes, and they view technology as a magic bullet that can solve their woes in one shot.


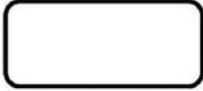

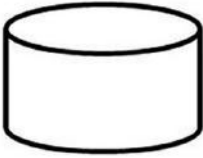


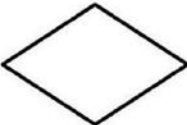
Experts say that these technologies can certainly help, but judicious use of them is required in a systematic review of the processes and in the development of maps. This way, business and process improvement sustainability is possible.



Further, the organisation must make cultural improvements, since the development of technology for developing process maps has far surpassed most organisation's ability to implement them. Without cultural shifts, the people who are involved in the process can easily sink the improvements before they even take hold.



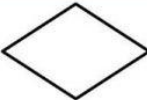



The Symbolology of Business Process Mapping

There is standardised notation used for creating process maps. You can use Business Process Modelling and Notation (BPMN) symbols, but there are more simple versions if BPMN is not preferred. Also, Microsoft PowerPoint and Visio support the simpler symbols, so no special software is necessary. These symbols include the following:

Process Step	
Start	
End	
Database	
Document	
Page Connector	
Decision Box	



Business Process Modelling and Notation (BPMN) is a different matter, however. BPMN is a much more formalised approach to mapping and modelling. Special software is required, and there is a learning curve in the use of BPMN. It is an extremely regulated language of notation, with specified symbols for almost any scenario. Mainly professionals who produce a lot of process models use BPMN. Across industries, countries, and languages, BPMN acts as a consistent way to identify the steps in processes. Some basic symbols of BPMN are included in the chart below:

Type	Symbol	Purpose
Events		What happens during a process. There are three main events: Start, Intermediate, and End. An event is also what is happening during a process. For example, an event could be that "a message is sent," "an error occurred," or "cycle is completed."
Activities		Work performed in a process, also known as tasks.
Gateways		These determine the sequence flow path in a process. Gateways have internal markers (marks inside the element that gives additional detail) to show the control of the flow. These are decision points in a process.
Flows		Flows connect objects.
Artifacts		Use these are to give extra detail about the process. The two standardized artifacts are groups and text annotations.
Swim lanes		Lanes do not have semantics in BPMN; they are just a partitioning concept. you can arrange swimlanes either vertically or horizontally. Lanes are optional, and may be nested.



Steps in Business Process Mapping

The main high-level steps in crafting a process map include the following:

- ✓ Identify the process
- ✓ Gather the information
- ✓ Develop the process map
- ✓ Analyse the map
- ✓ Develop new, better steps
- ✓ Manage the process

Performing the Business Process Mapping

The Pareto Principle, better known as the 80-20 rule, is an observation that states that about 80% of effects come from about 20% of the causes. In business process mapping, this can be applied to read that about 20% of your processes will deliver an advantage that matters.

Therefore, it matters which processes you choose to map and subsequently improve. Map and improve the remainder of the processes, but their improvement may be minuscule and only have a mere ripple within your business. Three approaches to take when you choose a first process or batch of processes follow:

1. **Group your processes based on their effect on your customer:** These processes are core, enabling, and guiding processes. Core processes reflect the reason that the business exists, and have a direct effect on your clients. Enabling processes are those used in the management of the business. Guiding processes are those used in the planning and governance of the business. It is recommended in a process improvement project to start with either an enabling or guiding process so as you fine-tune your improvement method and do not impact your customers.
2. **Link your overarching strategy with your process and tasks:** This starts with identifying your organisation's strategic goals. Once complete, you can form a process architecture based on it for your current processes. In this, you are determining what processes are most relevant to achieving your company's strategy, and in what order to improve them to most keep in line with it and create a future agenda of improvement.
3. **Forced improvement:** Less about a planned approach, this is more about reacting by necessity. For example, a failed audit or a management mandate can force a process improvement initiative. In this case, the required processes are targeted and mapped.



What Is Process Documentation and How Does Business Process Mapping Fit In?

Process Documentation includes any documents (everything from process maps to policies and procedures) that support or delineate a process. This internal ongoing documentation acts as a roadmap for your organisation, capturing not just the end-products of your process improvement project, but how you got there. Business process maps are merely a portion of your process documentation.

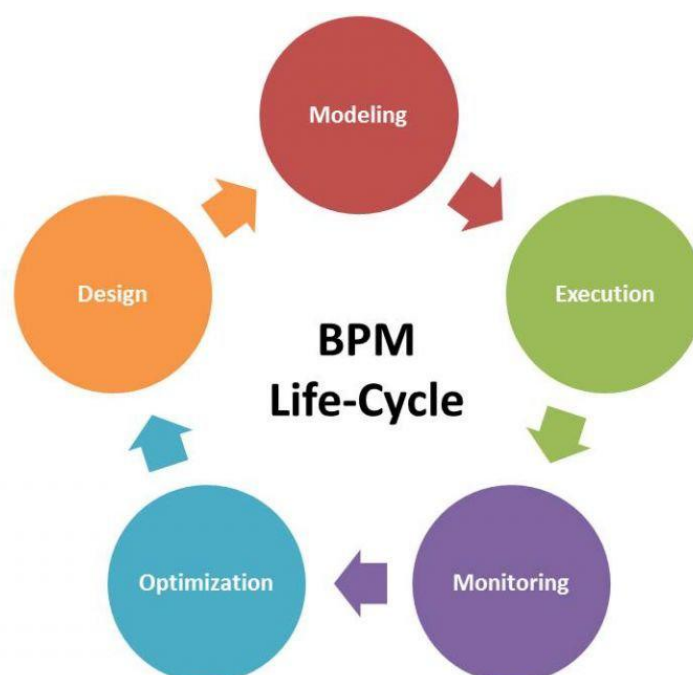
They show a visual way that you perform your processes, but the documentation should have the supporting policies as well. For example, delineate how often those process maps will be improved, and who will be initiating new improvement projects.

Lastly, a big component of process documentation is the software documentation. Encourage users of all levels to use the software for the intended processes.

Business Process Management Life Cycle

Business Process Management (BPM) is a discipline that systematically improves business processes. It is a cohesive agenda for advancement of people and information with many components including software.

A BPM life cycle is a way to visualise the phases that BPM programs undergo. A full BPM program, made up of unique business process improvement projects that include business process mapping goes through the same cycle. The cycle includes five phases: Design, Modelling, Execution, Monitoring, and Optimisation. A business process mapping exercise falls into the first phase: Design.





Tips for Business Process Mapping

The following are tips on business process mapping:

- **Apply business process mapping to the right types of processes.** Processes that reflect how decisions are made may not be the best processes to map because they are limited in steps, and may not offer the most impact for your time.
- **Be clear about the focus of your process mapping.** Sometimes the inefficiencies in your processes are outside of the process itself. It then becomes critical that you review any intersecting (secondary) processes as well.
- **Aim for good.** There is no perfect. Enough said.
- **Use care in cross-party responsibility process maps.** These types of process maps are not the ideal, as the leading party is difficult to show graphically. Take care in the analysis to differentiate the leader when the process crosses boundaries.
- **Get someone skilled to map your processes.** Consider outside help if you do not have someone currently trained in mapping.
- **Validate your maps.** Right after you draw them, review them with the process participants so that you ensure they are correct.
- **Be constantly aware of your assumptions.** Your assumptions and those of your staff can get you into trouble. Keep asking the questions that reveal your biases.
- **Don't fix your processes until they are fully mapped.** Define your 'as-is' state completely, ensuring that you see the whole picture and changes are then better informed.
- **Remember that there are always exceptions and errors.** Capture these, but remember that they may not be the norm and may not reflect the real as-is situation.
- **The people who use the processes are the experts.** It is critical that you have an appropriate overview because some people may be too close to change the processes, but they will be able to tell you whether the postulated changes have a chance of working.
- **Collect all the documents from your improvement process.** Improvement projects are not just about the map. Sure, it is important, but you may have to create it again.

The Ideas Distillery



Phone	029 2196 1066
Email	info@ideasdistillery.co.uk
Website	www.ideasdistillery.co.uk
Address	3B Westfield Road, Cardiff, CF14 1QQ
