Continuous Improvement Toolkit

SIPOC Mapping



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The Continuous Improvement Map

Managing	D	Deciding & Selecting			Planning & Project Management*		
Risk PDPC	Decision Balance	e Sheet Impo	ortance-Urgency	/ Mapping D	aily Planning	PERT/CPM	
FMEA RAID Log	* Force Field Analys	is Cost	Benefit Analysis	s <u>MOST</u>	RACI Matrix	Activity Networks	
Risk Assessment*	Break-even Analysi	s Voting	TPN Analy <mark>sis</mark>	SWOT	Analysis Stal	<u>keholder Analysis</u>	
Fault Tree Analysis	Decision Tree Pic	k Chart Fo	our Field Matri <mark>x</mark>	Project Ch	arter Impro	vement Roadmaps	
Traffic Light Assessme	ent Critical-to Tree	QFD Port	tfolio Matrix	PDC	A Policy Deploy	ment Gantt Charts	
Lean Measures	Kano Analysis Matrix D)iagram Paireo	d Comparison	DMAIC Kaiz	en Events Co	ntrol Planning	
Bottleneck Analysis**	Cost of Quality* Pugh	Matrix Prioritiz	zation Matrix	A3 Thinking	Standard work		
Dettienceit/marysis	OEE <u>KPIs</u> Paret	o Analysis C	&E Matrix			Implementing	
Process Yield	Descriptive Statistics	NOVA Chi-S	iquare Caus	erstanding		Solutions**	
Capability Indices	Probability Distributions	Hypothesis T	esting Docide	e & Lilect	Mistake Proofi	ng Ergonomics	
Gap Analysis* H	stograms & Boxplots	Multi vari Studie	S Confidenc		mulation TPM	Automation	
Reliability Analysis	Graphical Analysis Sc	atter Plots			Pull Flow	Just in Time	
Understanding	ISA Run Charts 5 V	√hvs Root Cai	use Analysis r		Visual Manage	ment 5S	
Performance	Control Charts	shhone Diagram			Waste Analysis	Quick Changeover	
Benchmarking	* Sampling Morpho	Indical Analysis		SIPOC*	ress Redesign	Time Value Map	
Data collection plannel	Resinctorming		How-How Dia	agram^^	Valu	e Stream Mapping	
Check Sheets Interv			Attribute Analy	/sis spagnett	n Diagraffi	Service Blueprints	
Questionnaires For	cus Groups	yrann Kela	uonsnip wappir	Elowcharting		rocess Mapping	
Collection Obs	ervations		ting Ideas	Decig	ning & Analyz	ing Processes	
	Suggestions	ystems Cicat	ing lucas	Desig	ing & Analyz	ing ribcesses	

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- A high-level process map that defines the scope of a process and its inputs, outputs, suppliers and customers.
- Represents the flow of the process and its key elements in a table format.
- □ Widely used in process design and improvement initiatives.
 - Helps identify relevant information before starting a project.



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When it is Used?

Used to help ensure everyone understands the core process.

- When it is too early for a detailed process mapping.
- Used in defining and designing new processes.
- □ Used at the beginning of a process improvement initiative:
 - DMAIC and Kaizen events.
- Allow other stakeholders to agree on the project scope.



Benefits:

- Helps define the scope of work for a project
- Identifies areas that are within or beyond the control of the team.
- Helps identify potential gaps such as:
 - Unnecessary inputs.
 - Outputs that customers don't want.
 - Process steps that add no value.
- Helps to begin thinking in terms of cause and effect.
- Helps to see the relationships between the inputs and outputs of the process.



- □ A **Supplier** is a person or company that supplies inputs.
- An Input is the material, energy, information, manpower, and financial resources which are needed to execute the process.
- A Process is a collection of activities that take one or more inputs to create an output that is of value to the customer.
- □ An **Output** is the product or service results from the process.
- A Customer is the person or company that receives the outputs of the process.



How to Create a SIPOC Map:

- □ Clearly explain the purpose for creating the SIPOC map.
- Emphasize that the map must represent the situation as it exist.
- Hang out five large flip-charts.
- □ Allow you team to provide input on each of the five categories.
- Begin with the process by writing the key highest-level steps.
- □ Identify the primary outputs of the process.
- □ Identify customers who will receive outputs.
- Identify the inputs required for the process to function properly.

- □ Identify the suppliers of those inputs.
- Discuss the SIPOC map with key stakeholders to verify accuracy.

Example – A Car Purchasing Process:

Suppliers Inputs **Process Outputs Customers** Dealers - Determine car • Car Individuals Models Option • Payment Individuals • Specifications • Companies - Review specs. • Paperwork • Price & test drive • Service contract • Availability - Negotiate price & delivery date Delivery date - Sign paperwork - Collect the car

Example – A Car Purchasing Process:



The process is expanded at the bottom of the table to present it in a process map format

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Further Information:

- Sometimes it is useful to display on the SIPOC map the requirements that are important to the customers.
- The IPO (inputs-processing-outputs) is a simpler model that represents the most basic structure for describing a process.
- It is widely used in software engineering and systems analysis and can equally be useful in both process design and process improvement efforts.