Continuous Improvement Toolkit

SIPOC Mapping

![SIPOC Diagram]
- SIPOC Mapping

- 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.
- SIPOC Mapping

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.
- **SIPOC Mapping**

- 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.
- SIPOC Mapping

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**
  - Dealers
  - Individuals

- **Inputs**
  - Models
  - Specifications
  - Price
  - Availability

- **Process**
  - Determine car Option
  - Review specs. & test drive
  - Negotiate price & delivery date
  - Sign paperwork
  - Collect the car

- **Outputs**
  - Car
  - Payment
  - Paperwork
  - Service contract
  - Delivery date

- **Customers**
  - Individuals
  - Companies
Example – A Car Purchasing Process:

**Suppliers**
- Dealers
- Individuals

**Inputs**
- Models
- Specifications
- Price
- Availability

**Process**
- Purchase a Car

**Outputs**
- Car
- Payment
- Paperwork
- Service contract
- Delivery date

**Customers**
- Individuals
- Companies

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.