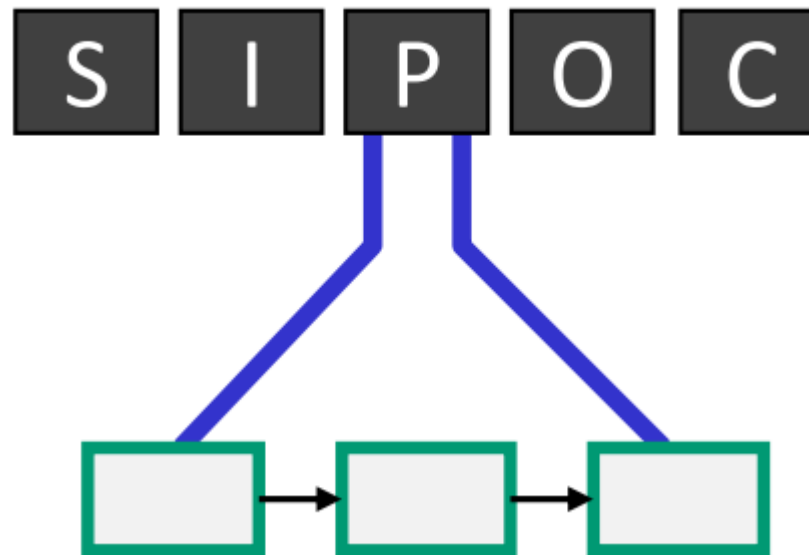
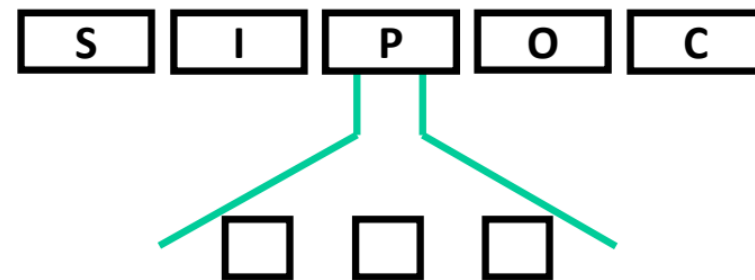


SIPOC Mapping



SIPOC Mapping

- A High-level map which 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 process improvement initiatives.
 - Helps identify relevant information before beginning a project



SIPOC Mapping

When to use it...

- When it's important that 'everyone' understands the core process.
- Used in defining and designing new processes.
- Used at the beginning of a process improvement initiative:
 - DMAIC and Kaizen events.
- When you need to allow other stakeholders to agree on the project scope.



SIPOC Mapping

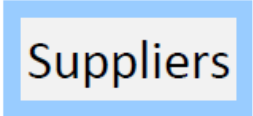
Benefits:

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



SIPOC Mapping

- A **SUPPLIER** is an individual or a company which supplies inputs



Suppliers

SIPOC Mapping

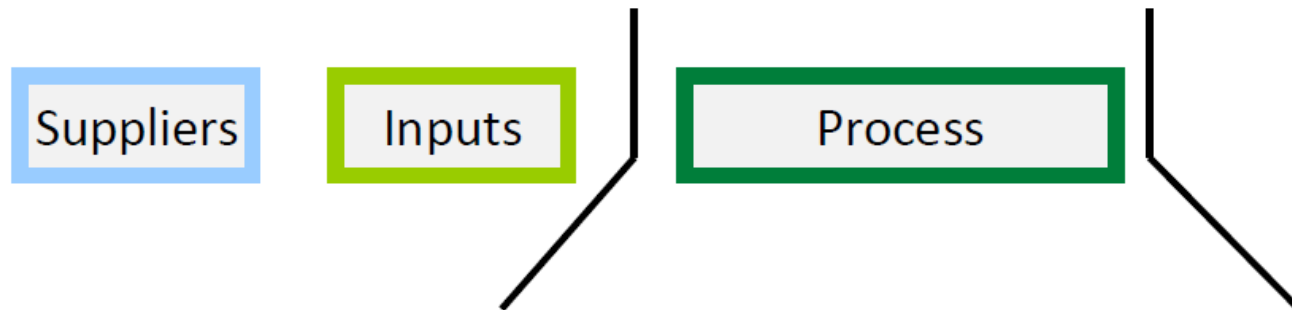
- A **SUPPLIER** is an individual or a company which supplies inputs
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Suppliers

Inputs

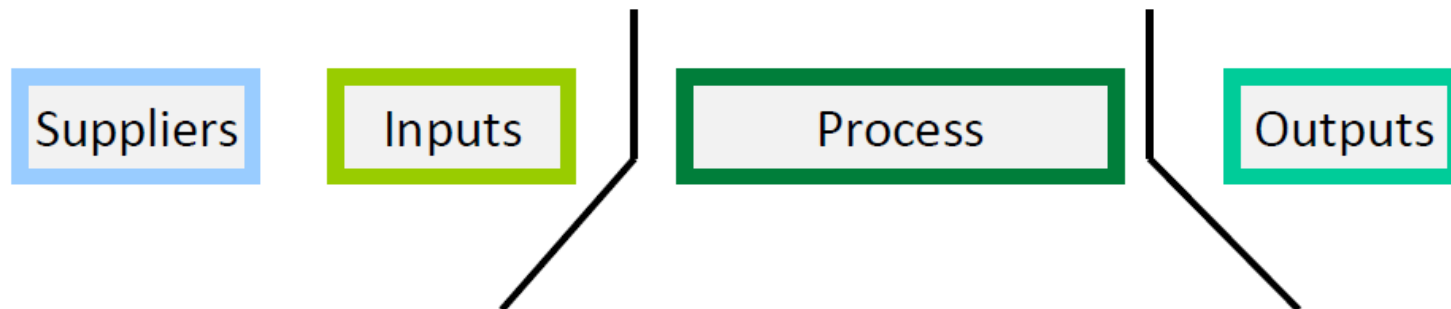
SIPOC Mapping

- A **SUPPLIER** is an individual or a company which supplies inputs
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- A **PROCESS** is a collection of activities which take one or more inputs to create an output which is of value to the customer



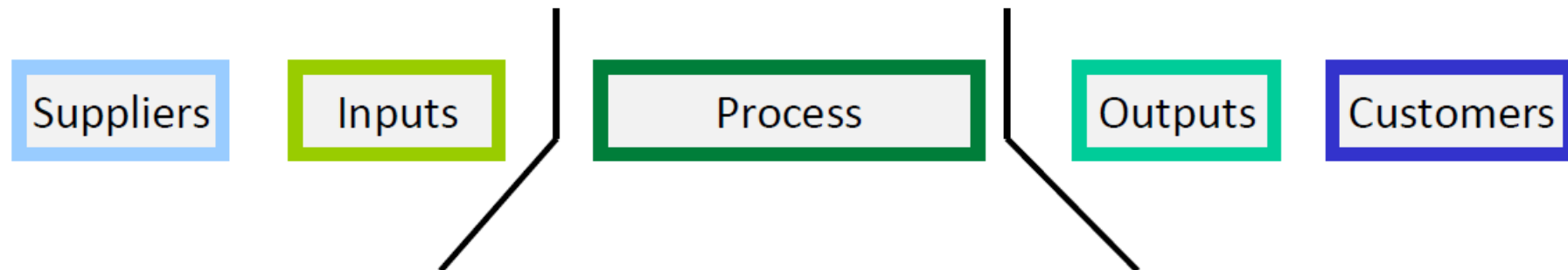
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- A **PROCESS** is a collection of activities which take one or more inputs to create an output which is of value to the customer
- An **OUTPUT** is the product or service produced by the process
- A **CUSTOMER** is the individual or company which receives the outputs of the process.



SIPOC Mapping

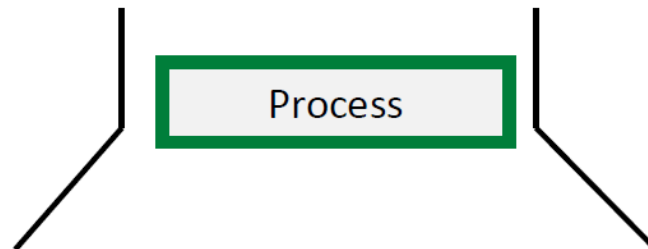
Recommended procedure/sequence for creating a SIPOC Map:

- Clearly explain the purpose for creating the SIPOC map.
- Emphasize that the map must represent the situation as it exists.
- Use large flip charts or use an electronic template (with a large screen).
- Allow your team to provide input on each of the five categories.

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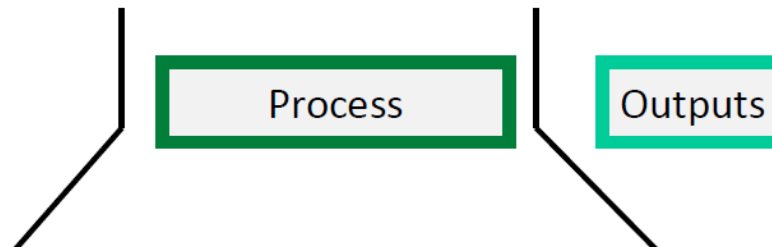
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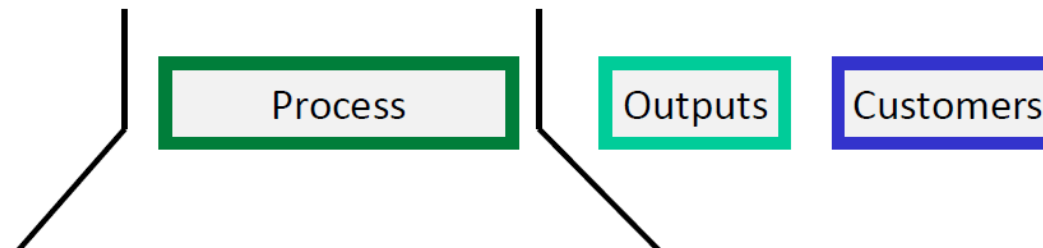
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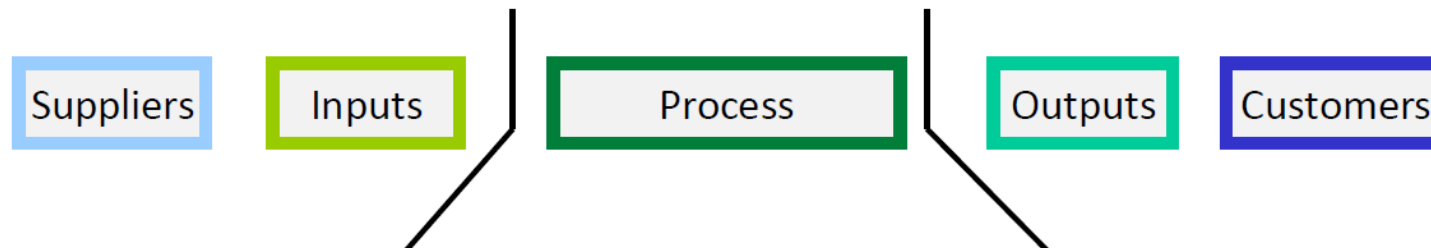
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- Identify the **INPUTS** required for the process to function properly.



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- Begin with the **PROCESS** by writing the 'key' highest-level steps.
- Identify the primary **OUTPUTS** of the process.
- Identify **CUSTOMERS** who will receive the 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 and completeness.



SIPOC Mapping

Example – A Car Purchasing Process

Remember:

1. Process
2. Outputs
3. Customers
4. Inputs
5. Suppliers

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

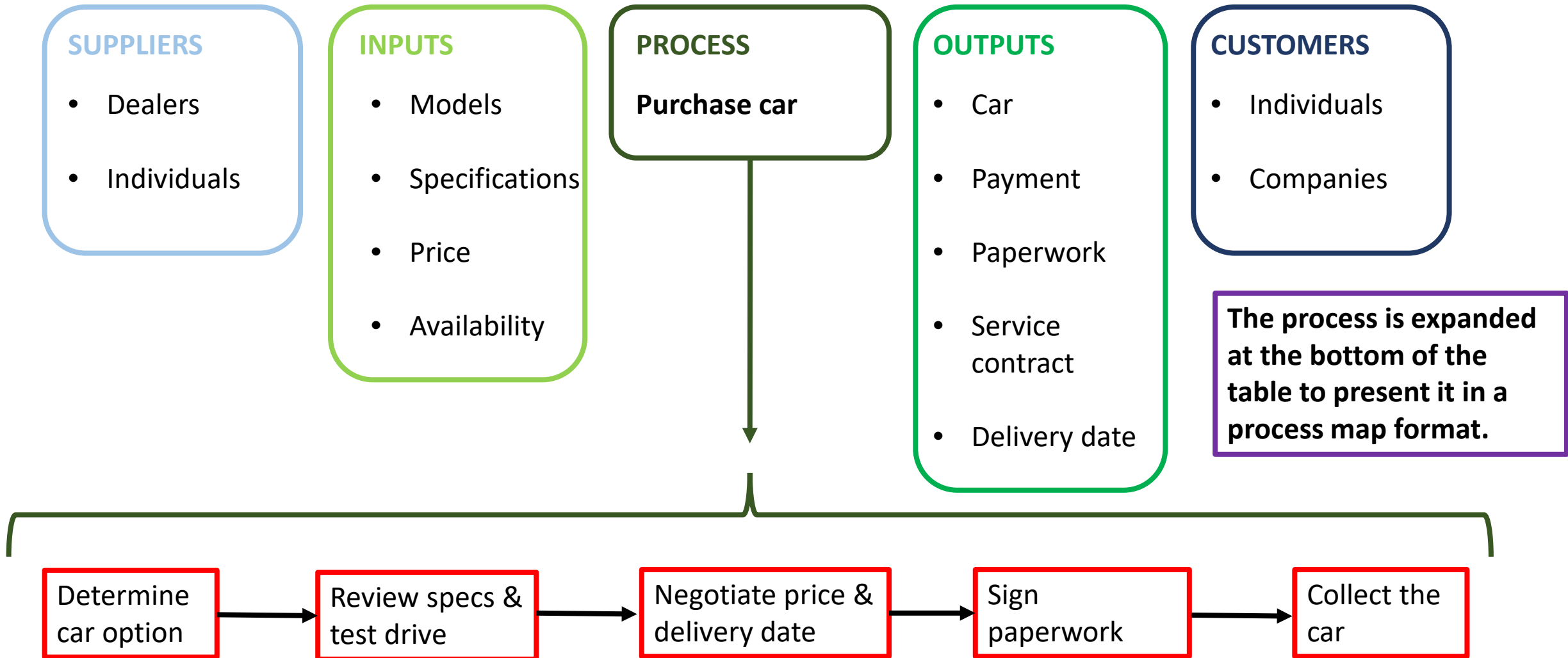
- Car
- Payment
- Paperwork
- Service contract
- Delivery date

CUSTOMERS

- Individuals
- Companies

SIPOC Mapping

Example – A Car Purchasing Process



Process Description: DC Armature winding
(excludes motor assembly)

SIPOC Diagram

Suppliers	Inputs	Processes	Outputs	Customers
Who supplies the process inputs?	What inputs are required?	What are the major steps in the process?	What are the process outputs?	Who receives the outputs?

Note: Information is not linked across rows

SIPOC Mapping

Further Information

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

SIPOC vs COPIS

SIPOC is often reordered to COPIS for the development of **new processes or teams**.

Buy why **C**ustomers, **O**utputs, **P**rocesses, **I**ntputs, **S**uppliers?

- It begins with the **CUSTOMER**, not with assumptions around what the team *thinks* is important to the customer. Never assume to know your customer's CTQ's
- Once customers are identified, the team can ask what **OUTPUTS** the customers are looking for, without making any assumptions.
- The resulting **PROCESSES** are then defined to deliver those outputs.
- Once the processes are defined, required **INPUTS** and **SUPPLIERS** are relatively easy to determine.

For existing processes, the usual SIPOC approach is preferred since it defines the current state (always the first step in process improvement), rather than a theoretical ideal state.