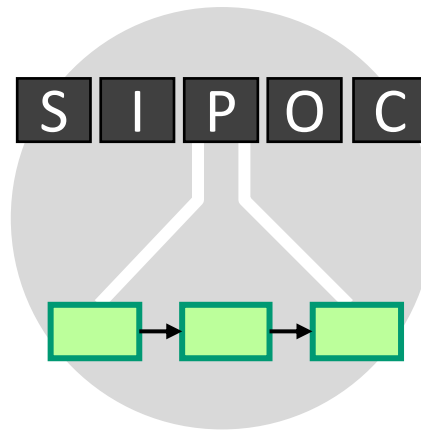


Continuous Improvement Toolkit

SIPOC Analysis



The Continuous Improvement Map



SIPOC Analysis

A **high-level summary** of the process

Allows to provide an **overview of a process** at a glance



SIPOC Analysis

SIPOC analysis **provides a big picture** view of the important elements of the process to better understand the context in which it operates



SIPOC Analysis

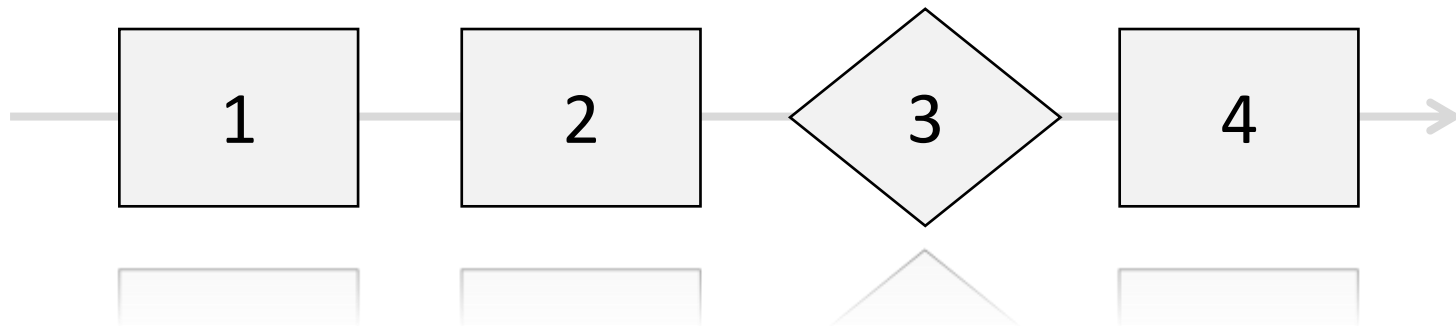
A **data collection tool** for gathering information related to a process including customers, suppliers, inputs and outputs



Represents the **main components** of the process

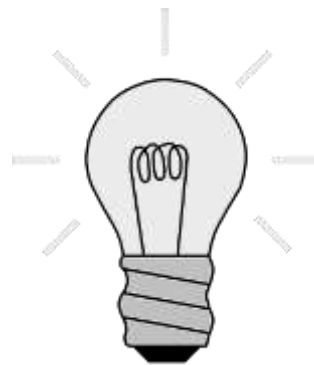
SIPOC Analysis

Widely used in process design and improvement initiatives (such as Six Sigma) to define the **scope** of a project when it is too early for a detailed process mapping

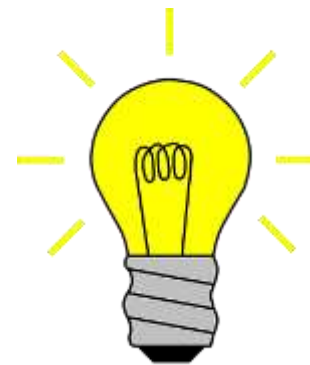


SIPOC Analysis

Used to identify important elements of a process
before starting a **project**



DMAIC

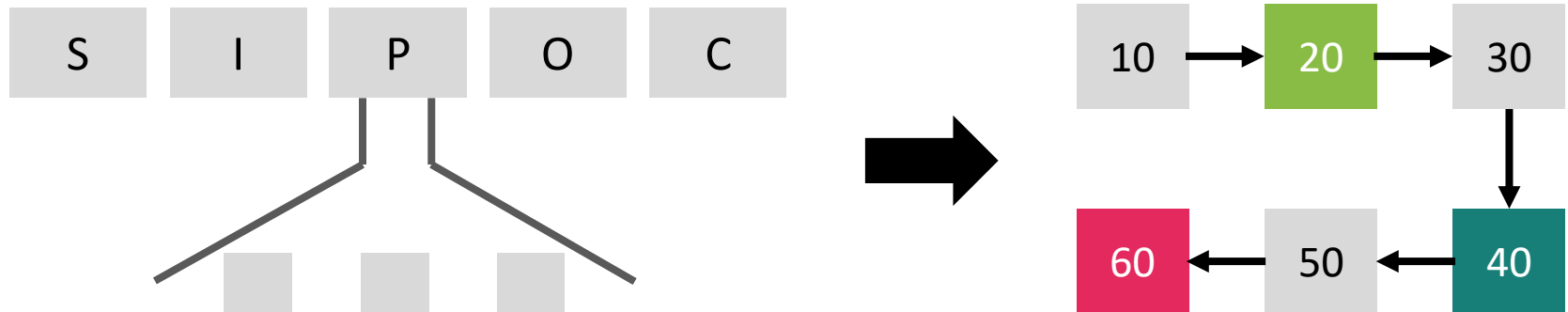


Kaizen Events

Also used when defining and **designing new processes**

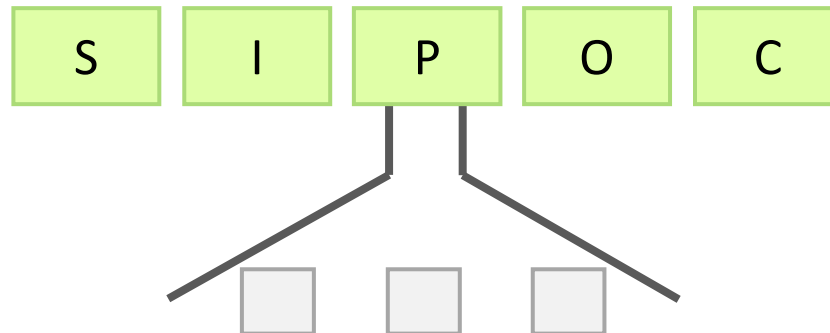
SIPOC Analysis

SIPOC analysis can be used **before drawing a process map or a flowchart** as it helps gather relevant information about the process



SIPOC Analysis

SIPOC analysis can also be used when **investigating a process** to present the collected information on an easy-to-view format



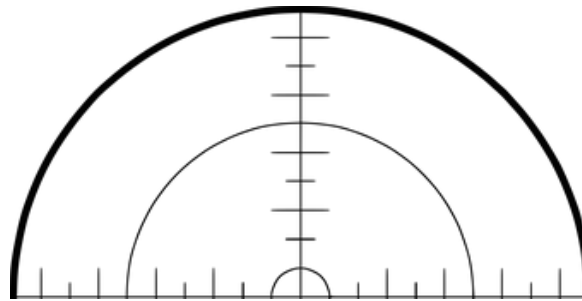
SIPOC Analysis

It is a practical way of making sense of the
Voice of the Customer



SIPOC Analysis

Benefits



Help ensure **everyone understands** the core process

Helps **communicate** information about the process to other stakeholders

Helps define the **scope** of work for a project

Helps identify the areas that are **within or beyond** the control of the team

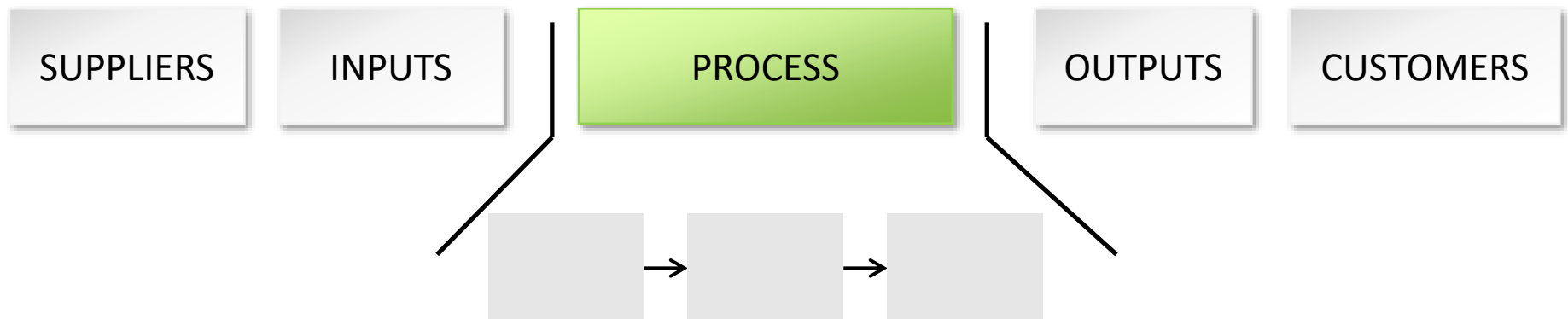
Helps understand the **relationships** between the inputs and outputs

Helps to begin thinking in terms of **cause and effect**

SIPOC Analysis

SIPOC Map

Helps specify the **main activities of the process** and identify the potential suppliers, inputs, outputs, and customers



SIPOC Analysis

SUPPLIERS

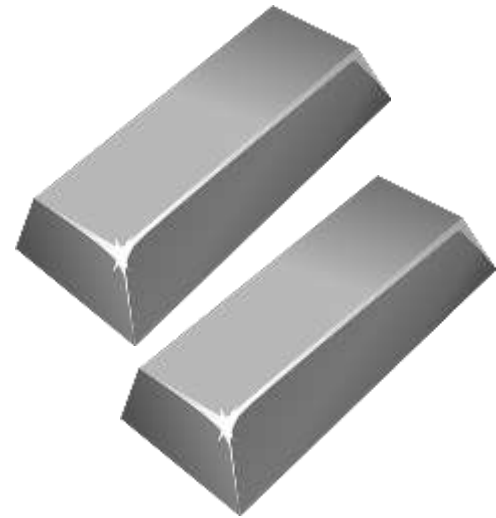
Any person or company that
supplies inputs



SIPOC Analysis

INPUTS

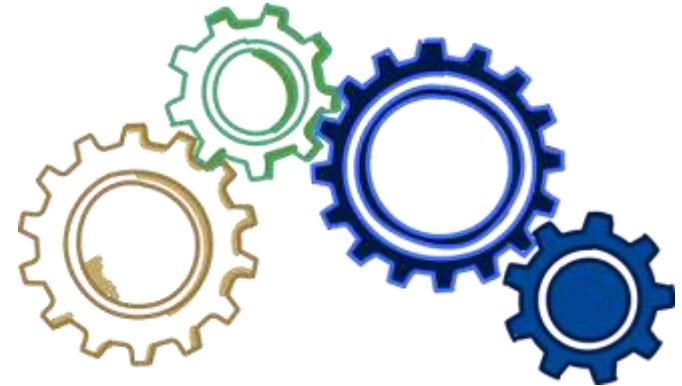
The materials, energy, information, people, customer requirement, customer feedback, and financial resources which are needed to execute the process



SIPOC Analysis

PROCESS

The collection of activities that together transform inputs into outputs that is of value to the customer

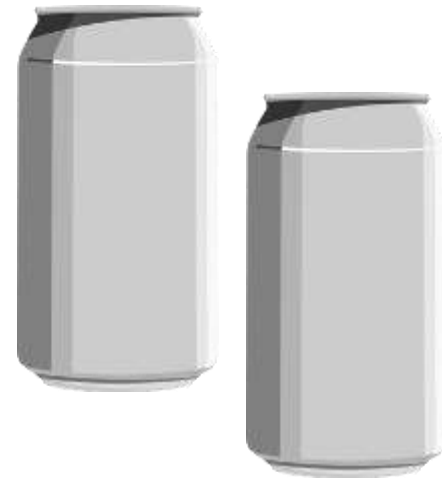


These are just the **major high-level** process activities

SIPOC Analysis

OUTPUTS

The tangible product or service that results from the process

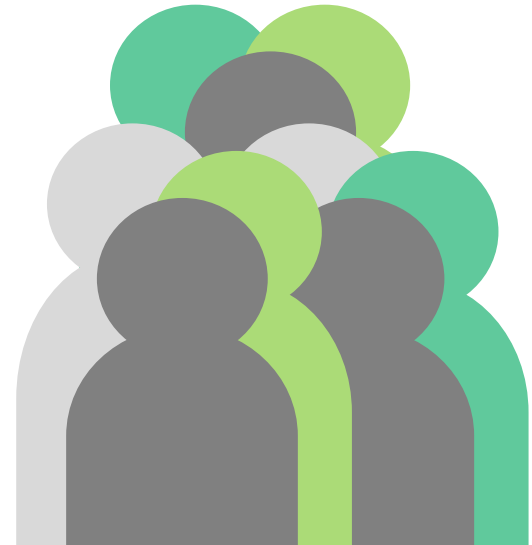


Outputs can be goods, services, information, reports, decisions, ...

SIPOC Analysis

CUSTOMERS

The person or company that receives the outputs of the process



Customers have requirements to be fulfilled

SIPOC Analysis

CUSTOMERS

There may be many **stakeholders** who have something at stake in the success of the process. They don't have to be actual customers of the process



Obtain input from the primary users/recipients of the process

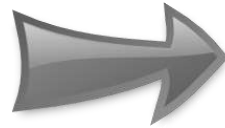
SIPOC Analysis



Suppliers

Resource suppliers

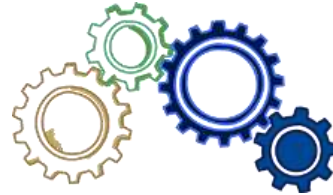
The provider of the necessary inputs that directly contribute to creating the outputs



Inputs

Resources needed by the process

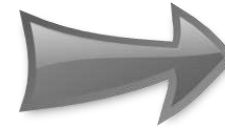
Materials, people, information, and other resources required to execute the process



Process

Macro description

The sequenced activities that transform the input into value-added outputs to customers



Outputs

Process outputs

The product or service results from the process (wanted and unwanted)



Customers

Process customers

The users / recipients of the outputs

SIPOC Analysis

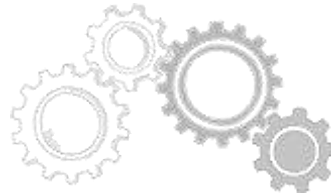
Suppliers and customers may be **external** or **internal** to the organization or department



Suppliers



Inputs



Process



Outputs

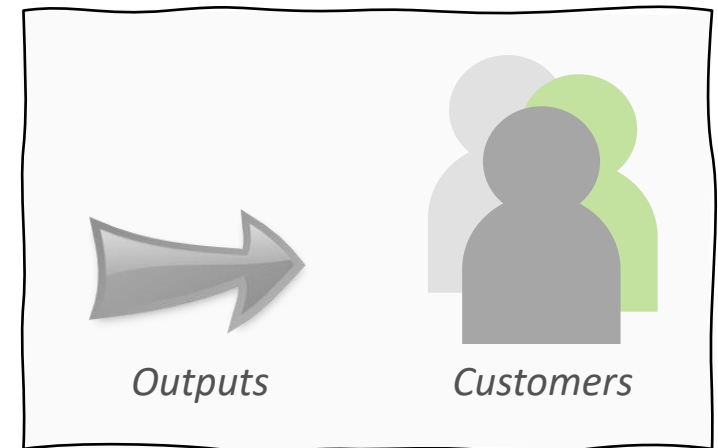
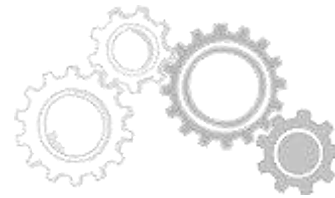
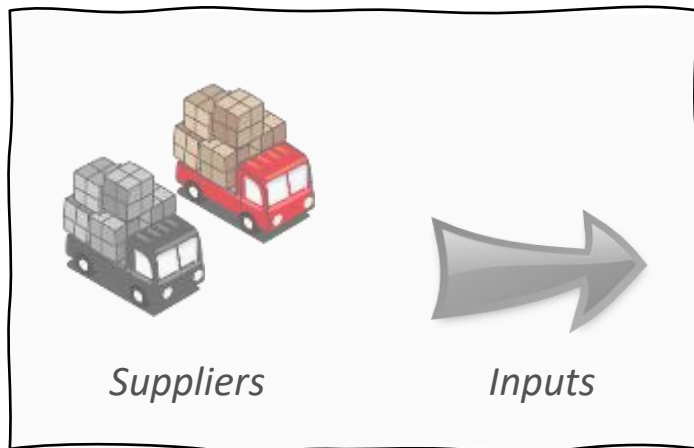


Customers

You receive inputs from your **internal suppliers** and send outputs to your **internal customers**

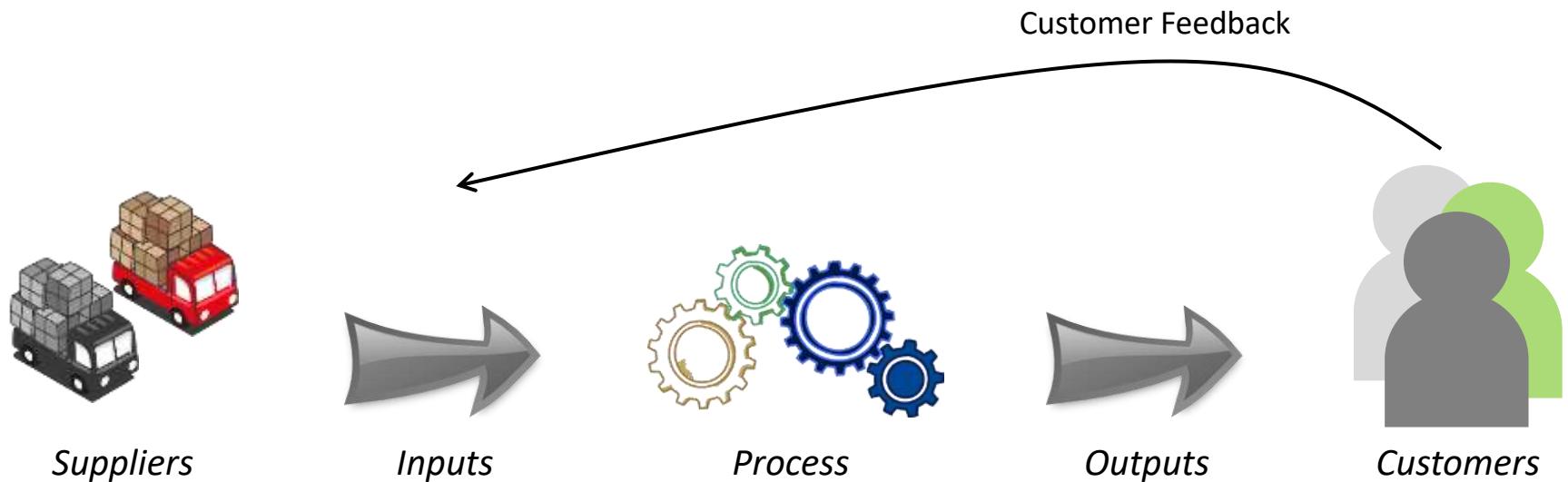
SIPOC Analysis

SIPOC doesn't ask to provide **links** between suppliers and inputs, or customers and outputs



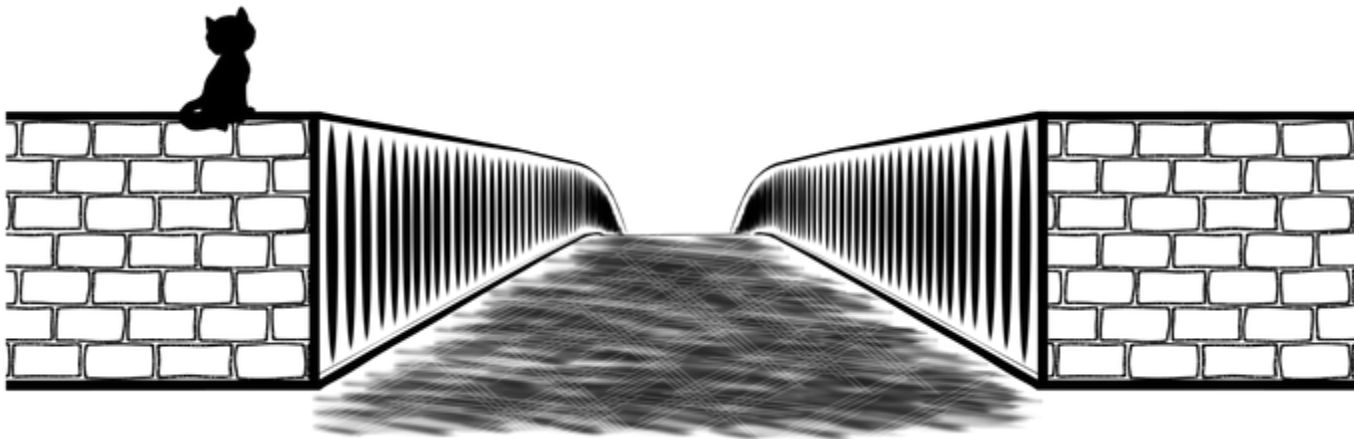
SIPOC Analysis

Process inputs can be reviewed based on the **voice of the customer** feedback on whether the outputs met their requirements



SIPOC Analysis

SIPOC analysis helps the team to identify **potential gaps** such as unnecessary inputs, outputs that customers don't want, and process steps that add no value



SIPOC Analysis

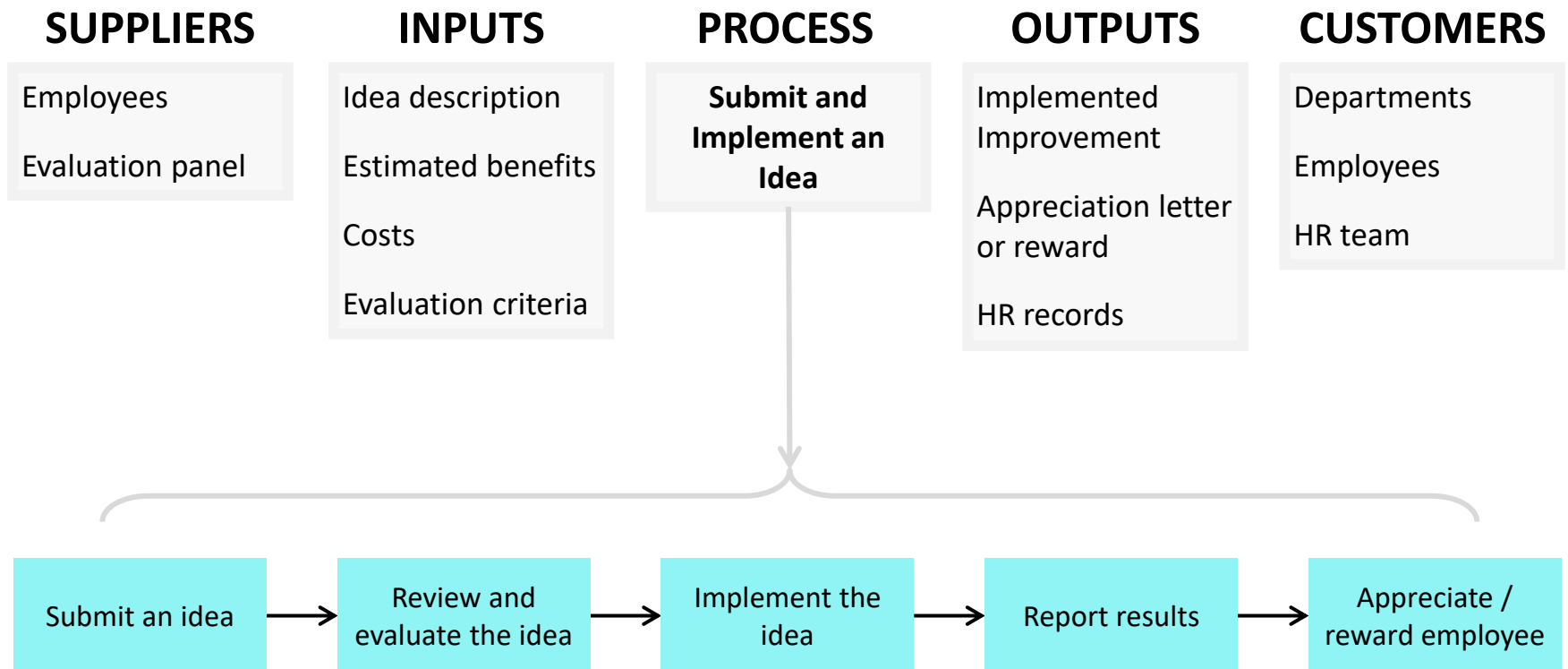
EXAMPLE – Submit and Implement an Idea Process

SUPPLIERS	INPUTS	PROCESS	OUTPUTS	CUSTOMERS
Employees Evaluation panel	Idea description Estimated benefits Costs Evaluation criteria	Submit an idea Review and evaluate the idea Implement the idea Report results Appreciate / reward employee	Implemented Improvement Appreciation letter or reward Records	Departments Employees HR team

Representing the process and its key elements in a **tabular format**

SIPOC Analysis

EXAMPLE – Submit and Implement an Idea Process



SIPOC Analysis

EXAMPLE – Purchase a Car Process

SUPPLIERS

Dealers
Individuals

INPUTS

Models
Specifications
Price
Availability

PROCESS

Determine car
option
Review
specifications
Test drive
Negotiate price
Sign paperwork
Collect car

OUTPUTS

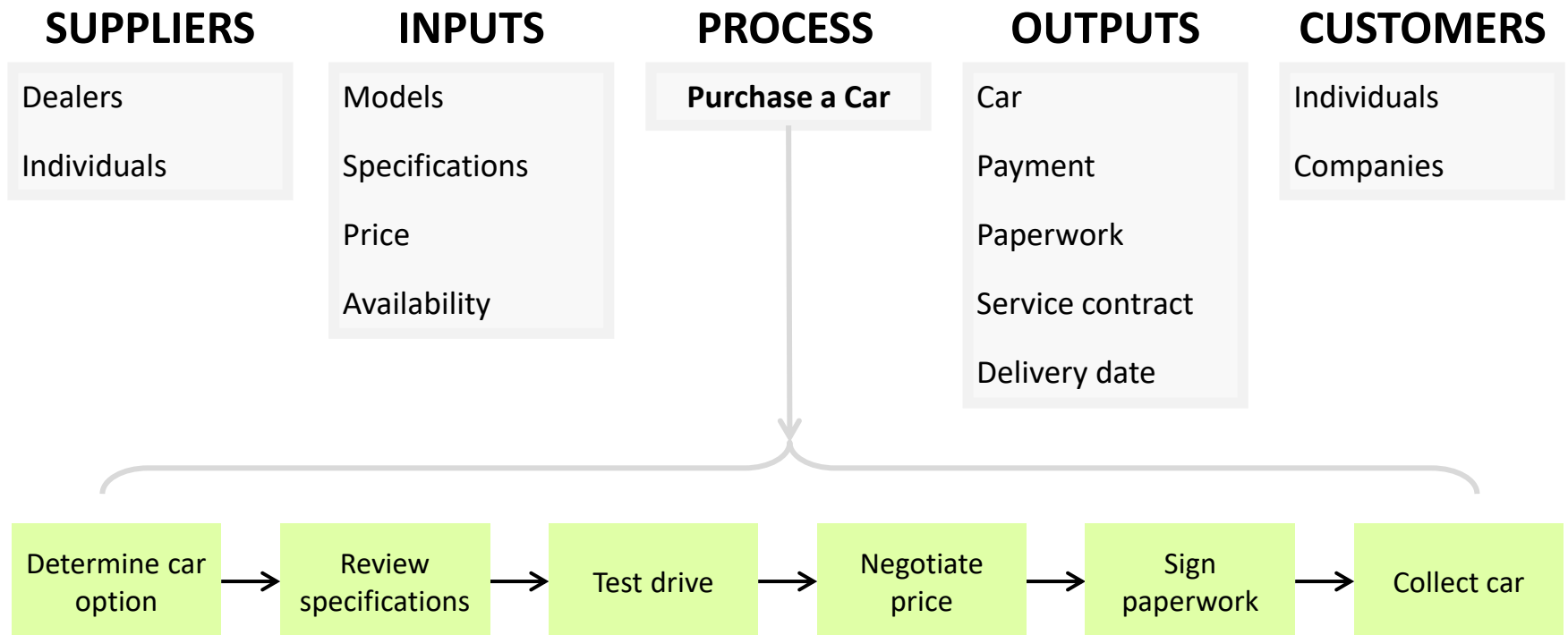
Car
Payment
Paperwork
Service contract
Delivery date

CUSTOMERS

Individuals
Companies

SIPOC Analysis

EXAMPLE – Purchase a Car Process



SIPOC Analysis

EXAMPLE – Conduct a Job Interview Process

SUPPLIERS

Job agencies
Job applicants

INPUTS

Interview purpose
Applicant profile
Interview place
Time and date

PROCESS

Notify applicant of schedule
Notify interview panel
Prepare questions
Arrange room
Meet applicant
Ask questions
Close interview

OUTPUTS

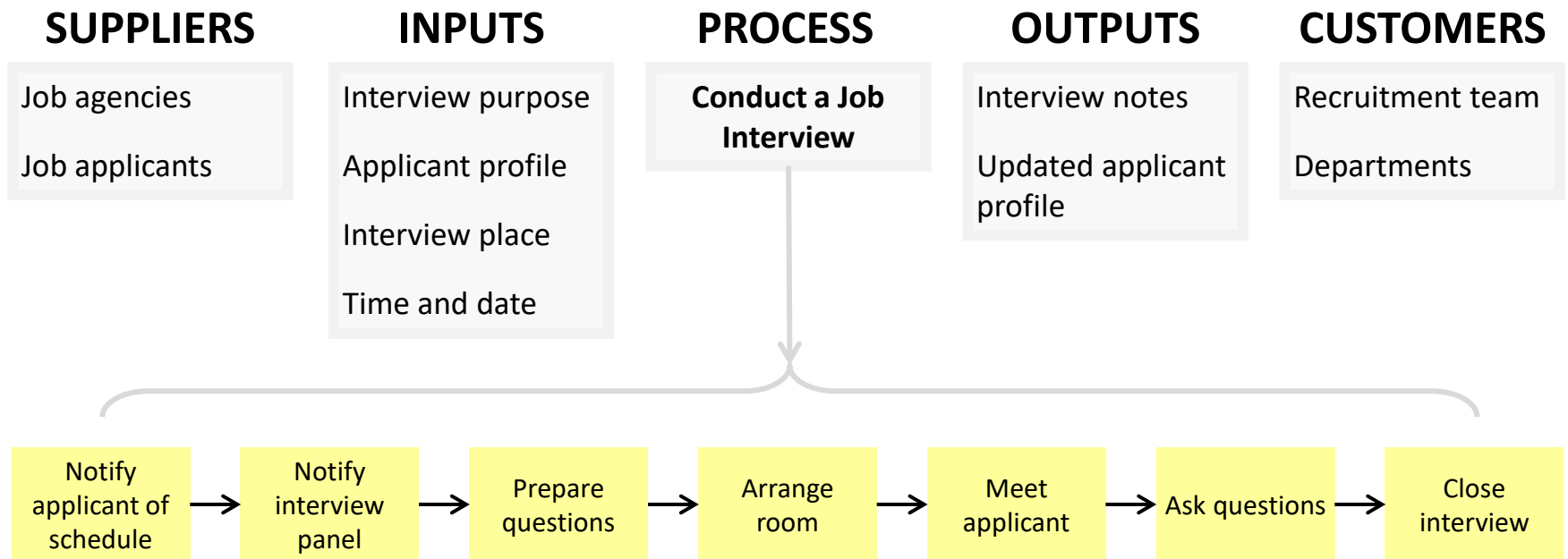
Interview notes
Updated applicant profile

CUSTOMERS

Recruitment team
Departments

SIPOC Analysis

EXAMPLE – Conduct a Job Interview Process



If there are more than **seven steps**, then the process is too detailed!

SIPOC Analysis

How to Construct a SIPOC Map

Clearly explain the **purpose** for creating the SIPOC map

Emphasize that the map must represent the situation as it exist, now how it should be

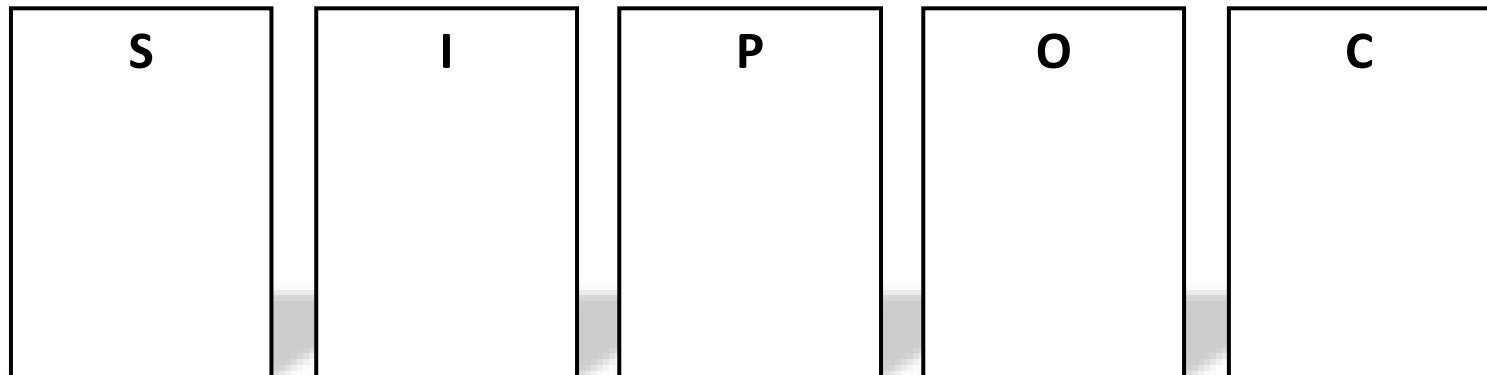


SIPOC Analysis

How to Construct a SIPOC Map

Hang out five flip-charts representing the five SIPOC categories

Allow the team to provide inputs on each of the five elements

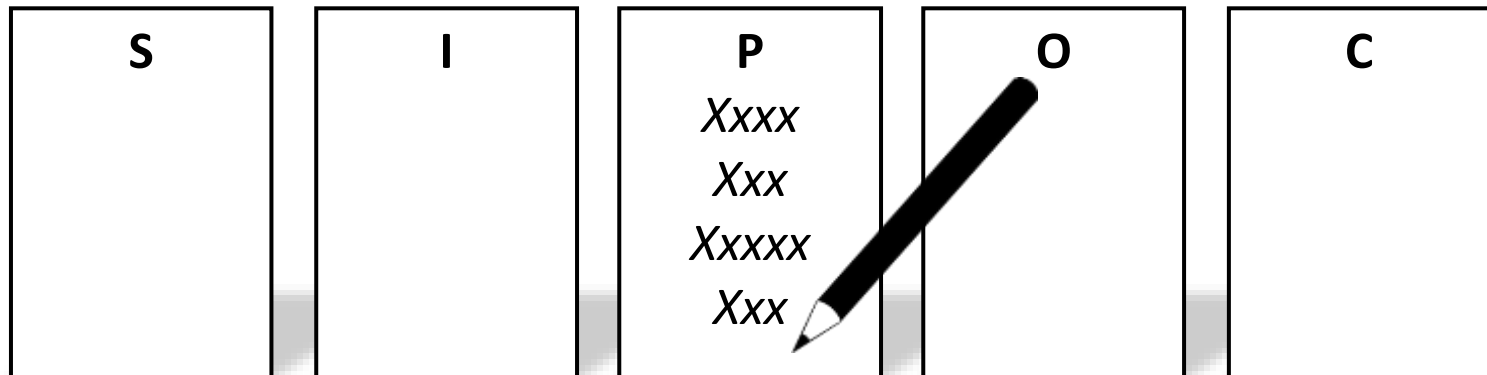


SIPOC Analysis

How to Construct a SIPOC Map

Begin with the process by listing the key highest-level steps

Start with verbs whenever possible

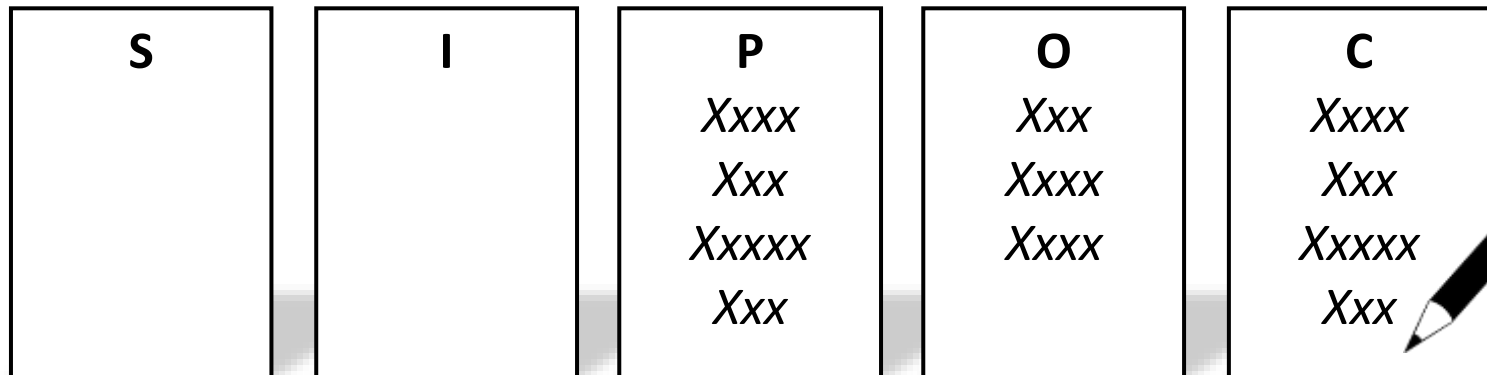


SIPOC Analysis

How to Construct a SIPOC Map

Identify the primary **outputs** of the process

Identify **customers** who will receive outputs

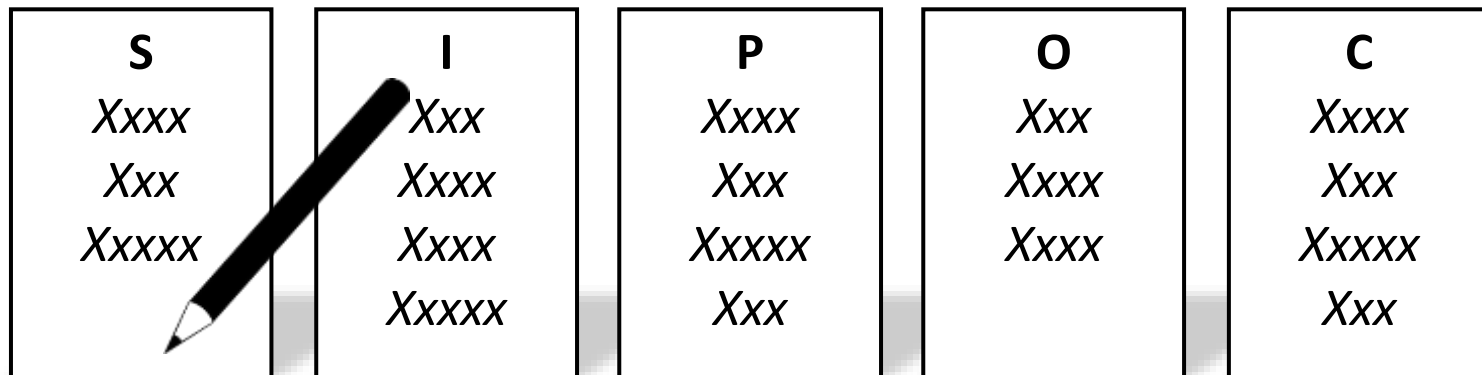


SIPOC Analysis

How to Construct a SIPOC Map

Identify the **inputs** required for the process to function properly

Identify the **suppliers** of those inputs

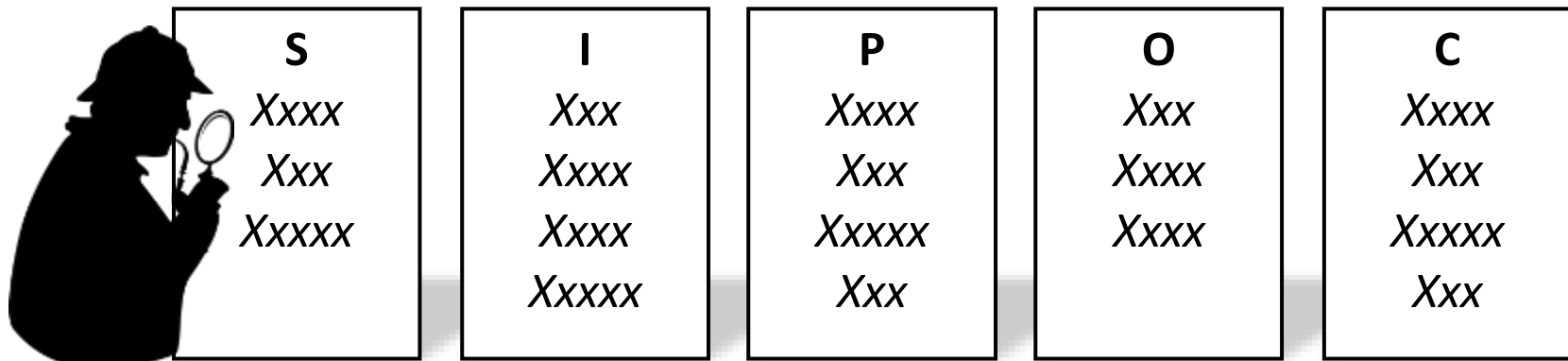


SIPOC Analysis

How to Construct a SIPOC Map

Take time to **ensure** the appropriateness and completeness of the recorded information

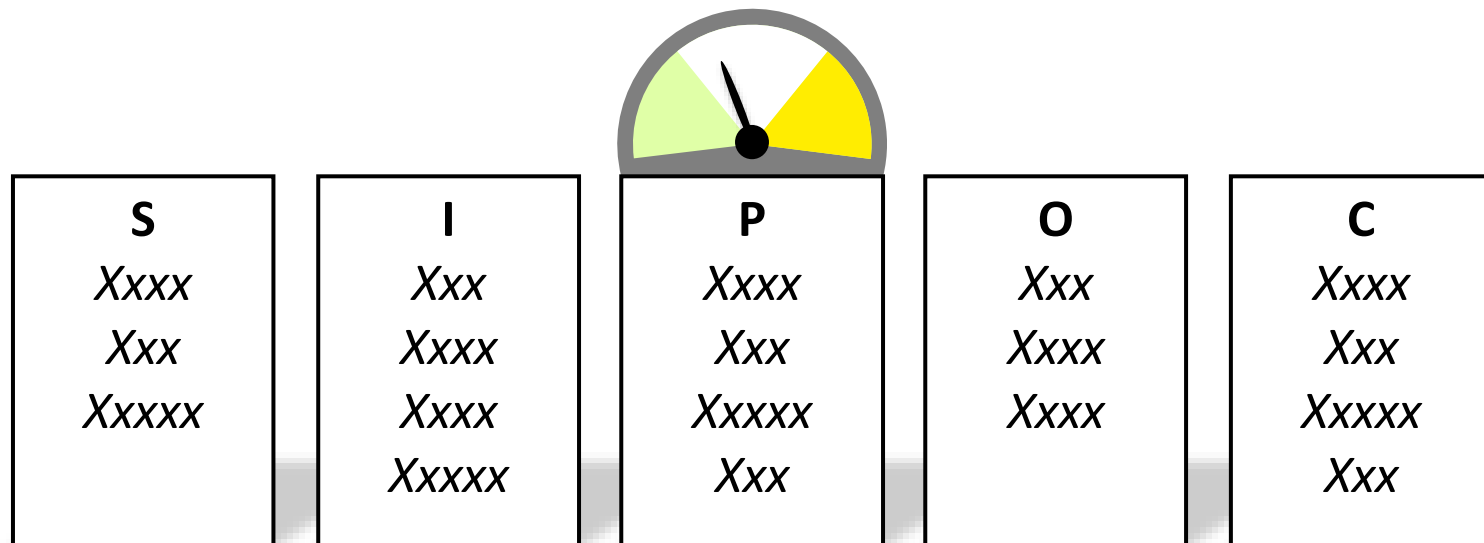
Discuss the SIPOC map with key stakeholders to verify accuracy



SIPOC Analysis

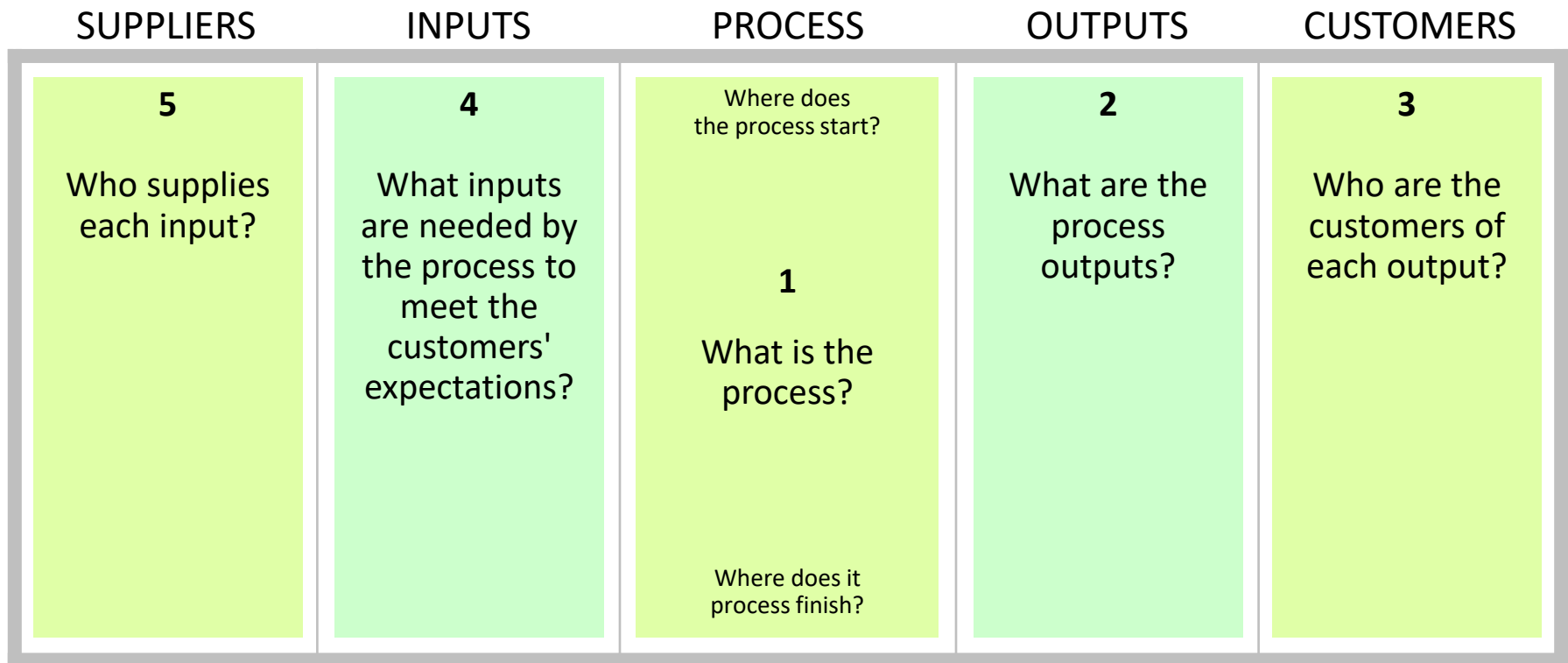
How to Construct a SIPOC Map

Identify **KPIs** to ensure the capability of the process to deliver an output that meets customer requirements



SIPOC Analysis

How to Construct a SIPOC Map



SIPOC Analysis

Useful Questions

SUPPLIERS

- ❖ Where does the inputs of the process come from?
- ❖ How do you communicate requirements to the suppliers?

INPUTS

- ❖ Identify what is needed for the process?
- ❖ What effect do the inputs have on the process and on the outputs?
- ❖ How do they affect the process flow?
- ❖ What are the requirements for each input?

PROCESS

- ❖ What are you producing with the process?
- ❖ At what points does the process start and finish?
- ❖ How can you summarize the process in few steps (seven steps or less)?
- ❖ Does the process feed into another process?

OUTPUTS

- ❖ What product does the process make?
- ❖ What other outputs does the process make?

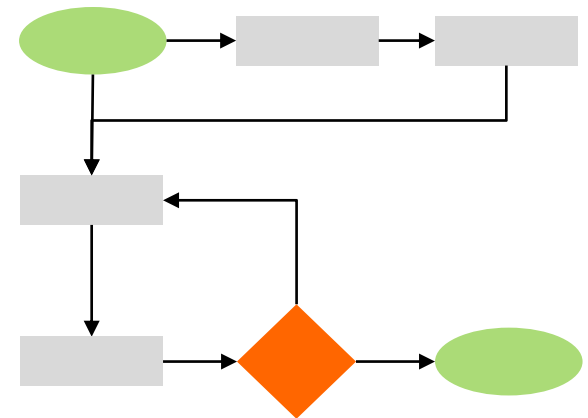
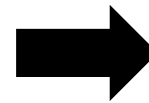
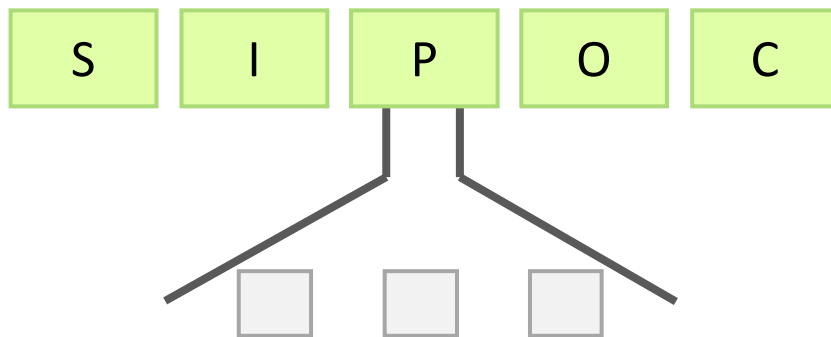
CUSTOMERS

- ❖ Who are the customers of these outputs?
- ❖ Are they individuals, departments, other processes?
- ❖ What are the customers needs & requirements?
- ❖ What do the customers expect from each output?

SIPOC Analysis

Further Information

In your SIPOC analysis, you have created a top-level process map showing the basic steps of the process

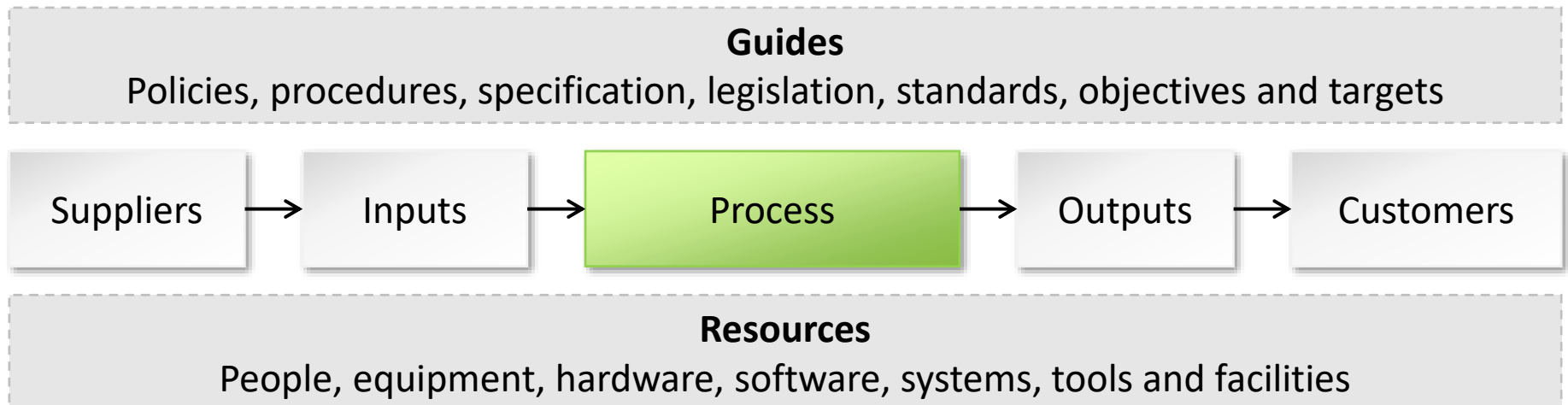


You may add the details to the **process map** that you will draw later

SIPOC Analysis

Further Information

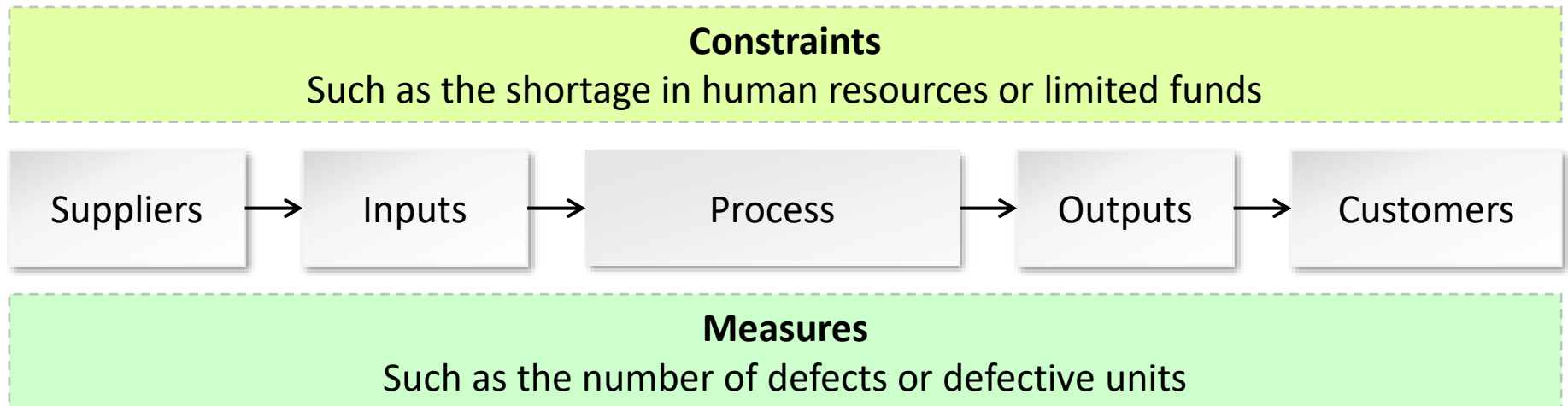
Sometimes it is useful to display on the SIPOC map **guides** to describe the process, and the **resources** that are required to transform the inputs into outputs



SIPOC Analysis

Further Information

Another SIPOC model is the **SIPOC+CM**
C stands for the constraints facing the process
M stands for the measures being used



SIPOC Analysis

Further Information

The **IPO** is a simpler model that represents a simpler structure for describing a process (widely used in the IT industry)

