

Improving the Good

- Ninja Services
- Input-Output Check (SIPOC)
- Questions & Answers



Interdisciplinary Business Excellence. 10+ years in Asia. Greenfield Experiences.

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Ninja Services
What is it?



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#### **Goals of this presentation**

- Create a basic understanding: Familiarize yourself with SIPOC as a method of process representation and differentiate it from traditional flow plans.
- Demonstrate benefits: Contribute to transparency, efficiency and securing knowledge through clear interface analysis.
- **Explain structure**: Structure: Supplier, input, process, output, customer compact and clear.
- **Specify areas of application**: Application in lean, CIP / KAIZEN, six sigma, audits relevant for teams, managers and process owners.
- Convey quality characteristics: What makes a good SIPOC – and which typical mistakes need to be avoided?
- **Promote motivation**: Why it's worth your while and how teams can be actively involved.



# KAIZEN Method Mix / Solution Methods

#### **SIPOC**

#### **Definition**

SIPOC is an analysis tool for the clear presentation of a process with a focus on its environment. It shows the most important elements: suppliers (**Supplier**), inputs (**Input**), process steps (**Process**), results (**Output**) and recipients (**Customer**). SIPOC serves as a structured introduction to process analysis.

#### **Significance**

SIPOC diagrams are particularly useful in lean, CIP / KAIZEN, six sigma and audits. They create clarity over interfaces, promote a common understanding and facilitate communication between the units involved – especially in early project phases or in complex processes.

#### Goals

- Understand processes in the context of their inputs and outputs
- Make interfaces, roles and responsibilities visible
- Understand customer requirements and supplier contributions
- Create the basis for in-depth process analyses and improvement measures
- Raise awareness and activate teams for holistic process thinking

## **KAIZEN Method Mix / Solution Methods**



#### **Visualization & Management**

#### > Team Board

The team board serves as a communication tool for the team leader. Employees are informed at regular meetings and have the opportunity to make improvements.

#### ➤ GEMBA Walk / GEMBA Talk

The GEMBA Walk enables managers to observe the actual work process, to get in touch with employees, to gain deeper firsthand knowledge about the work process and to discover practical opportunities for continuous improvement.

#### > 5S & Waste

The 5S method is a structured approach to improve workplace organization. It aims to avoid disruptions in the workplace, lengthy searches, long transport routes, and waiting times, for example. Wastes in production and administration form the basis for practical ideas for improvement.

#### KAIZEN Maturity Level

The KAIZEN maturity level includes the implementation of the KAIZEN as a whole and is determined by these modules: Goals (solution methods), topics (dialogue), 5S audits and level of fulfilment (solution methods).

#### **Problem Solving & Process Quality**

#### Improvement Card

The card is a tool for capturing and placing changes within the company. It will be reviewed and discussed on the team board.

#### Problem-Solving Story (PSS)

The problem-solving story is suitable for <u>problems for which the cause is</u> <u>not known</u>. The specific root cause analysis is used to avoid wrong decisions and to define measures.

#### Process Mapping (PM)

Process mapping involves analysing an <u>entire process</u>. Using KAIZEN flashes, wastage / problems are identified, a target process and a plan of measures are defined.

#### > Input-Output Check (SIPOC)

The SIPOC method highlights <u>process steps</u> with their inputs and outputs. Supplier and customer are included in the analysis, asking: What are the demands, what are the customer's wishes?

#### Activity Structure Analysis (ASA)

The ASA is primarily used in the administrative area to analyse activities and eliminate waste in the process (waiting time, search time, etc.).

## KAIZEN SIPOC

- An Example
- The Benefits
- The Method
- The Profile
- SIPOC Template
- Tracking List

## **An Example**



		Tea Preparation Exampl	e	
Suppliers	Input	Process	Outputs	Customers
Tea supplier Energy supplier Water supplier	Tea bag Sugar Water Cup Saucer Kettle Electricity Teaspoon	Boil water  Pour tea bags and water into the cup  Leave to draw for 5 minutes  Remove tea bags  Place the teaspoon and sugar on the saucer	Cup of tea Spent tea bag	Tea drinker Dustbin

## **The Benefits**



#### Clear overview of the process context

• SIPOC not only shows the process itself, but also its most important interfaces: suppliers, inputs, outputs and customers.

#### An early start to process analysis

Ideal for the define phase in Six Sigma or as preparation for detailed process mapping.

#### **Promotion of transparency and understanding**

Everyone can see at a glance who delivers what, what is needed and who benefits.

#### **Identification of weak points and bottlenecks**

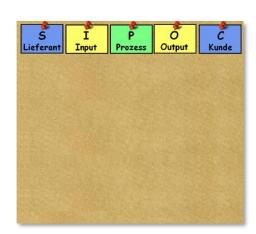
• SIPOC helps to identify incomplete inputs, unnecessary outputs or unclear customer requirements at an early stage.

#### **Basis for optimization and standardization**

 The structured presentation makes it easier to derive improvement measures and define standards.

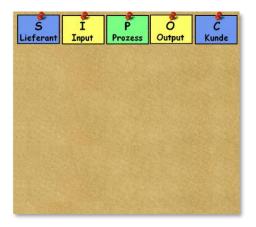
#### Team activation and communication

• SIPOC is easy to create, easy to understand and promotes interdisciplinary collaboration.

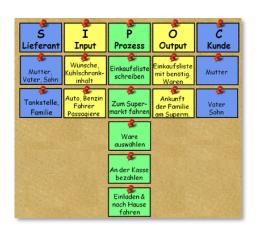


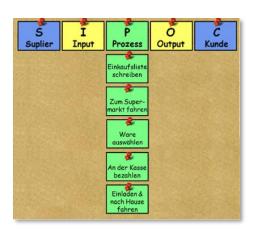
## The Method



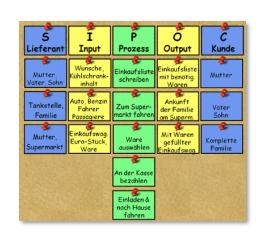


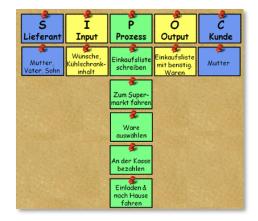
Step 1 Headings
 → SIPOC headings are first written on cards and affixed to a metaplantic panel.





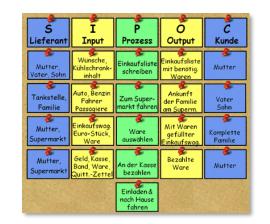
→ The most important process steps are then determined and placed in the process column.





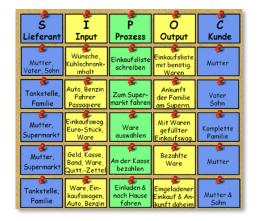
#### Step 3 Information

→ Determine these line by line in the order of output, customer, input and supplier.



#### Conclusion:

The various main process steps can be visualized within a short time using the SIPOC method. A good tool for gaining a good overview and creating a common understanding quickly!



## The Method



#### Procedure for the SIPOC Method



#### What does SIPOC mean?

- ➤ S Supplier
- ➤ I Input (input variable)
- ➤ P Process
- ➤ O Output (results)
- C Customer

"SIPOC is a method of process analysis in which a process is divided into five categories: Suppliers, Inputs, Process, Outputs and Customers

#### What does the Method involve?

 A SIPOC diagram shows a snapshot of a process, captures its steps or the overall process and delineates processes in process chains, with the output of one process becoming the input of the next.

#### SIPOC Diagram

Supplier	Input	Process	Output	Customer
Supplier (internal / external supplier, upstream department)	Input variable (what the previous process delivers)	Process step	Result (what the process step delivers)	Customer (internal / external customer, downstream department)

**Customer-Orientated View** 

 The table can be filled in from both sides. To support a customerorientated view, the table is filled in from right to left. In a brainstorming session, the content is often collected without this restriction.

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#### Procedure for the SIPOC Method



#### 1. Prepare SIPOC Workshop

Participants in the process under consideration should participate in the workshop. Prepare SIPOC diagram: attach five presenter cards with the terms "suppliers", "inputs", "process", "outputs" and "customers" to the pinboard to obtain the SIPOC diagram.

#### 2. Describe the Process

The focus is on the defined process (process step). The boundaries of this process are a start and an end point.

Brainstorming on the process step. Only one process step should be noted on each card. As a rule of thumb, processes should not consist of more than ten process steps. Otherwise, it makes sense to question the entire process.

#### 3. Determine Process Customers

In the next step, the customers of the process to be assessed are defined. These may be external customers, e.g. the potential customers and users of the services, but also internal departments.

A process usually has not just one but several customers who pursue different interests – interests that may also conflict with one another in individual cases.

#### 4. Determine Output

The output, the result from the respective process, is described together with the participants. An output is always a contribution to the end product (tangible / intangible output)

#### 5. Disclose Input

The input for the individual process steps is now defined. This is either consumed in the process or processed further. Possible inputs are queries, orders, incoming data, information, documents, etc.

#### 6. List Suppliers

Determine the relevant supplier. Which supplier contributes which input.

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## The Profile



The "Profile" for KAIZEN workshops is a compact document that summarizes the most important information in a clear way. It fulfils several key functions:

#### Purpose of the profile

- It provides clear guidance for all participants and shows at a glance what the workshop is all about.
- It defines the organizational framework: goals, procedure, responsibilities and expected results.
- It facilitates communication in advance, such as during invitations, votes or internal approval.
- It creates commitment by providing precise information on the time, place, target group and methodology.
- Last but not least: It also serves as an internal order.

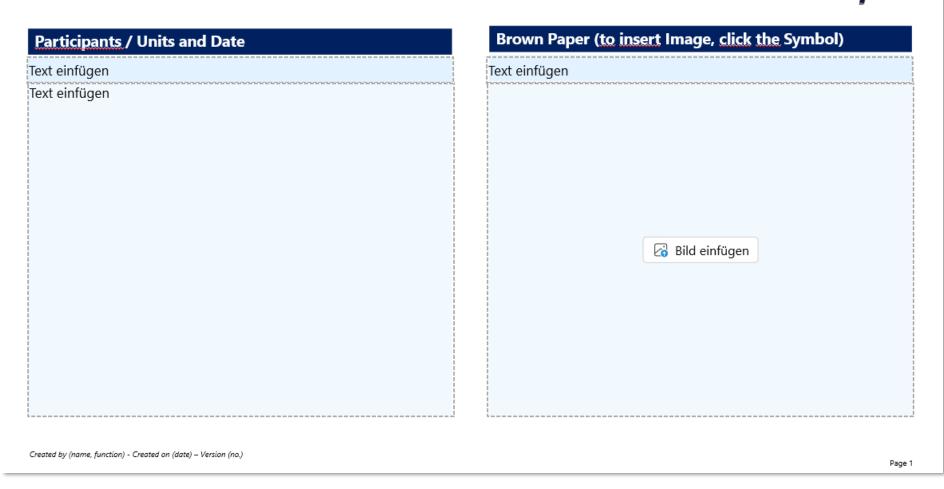
#### Advantages of the profile

- It saves time on preparation and coordination.
- It ensures transparency, as all parties involved have the same level of information.
- It can promote motivation and commitment if it is formulated in an appealing and clear way.
- It serves as documentation and reference for subsequent evaluations or followup workshops.

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#### **SIPOC - Frame**





#### **SIPOC – Initial Situation**



CURRENT Situation – incl. FDF  xt einfügen  CARGET Situation – Target incl. FDF  xt einfügen  tt einfügen  att einfügen	Problem - Distinction	
CURRENT Situation – incl. FDF  xt einfügen  tt einfügen  TARGET Situation – Target incl. FDF  xt einfügen  tt einfügen  att einfügen	ext einfügen	
xt einfügen    CARGET Situation – Target incl. FDF	ext einfügen	
xt einfügen    CARGET Situation – Target incl. FDF		
xt einfügen    CARGET Situation – Target incl. FDF	CURRENT Situation in all EDE	
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### SIPOC - Process Steps

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S Supplier / Lieferant	l Input	P Process Step	O Output	C Customer / Kunde
ext einfügen	Text einfügen	Text einfügen	Text einfügen	Text einfügen
Fext einfügen	Text einfügen	Text einfügen	Text einfügen	Text einfügen
Fext einfügen	Text einfügen	Text einfügen	Text einfügen	Text einfügen
Fext einfügen	Text einfügen	Text einfügen	Text einfügen	Text einfügen
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#### **SIPOC – Measures and Deadlines**



Number SIPOC Flash	Error	Measure	Lead and Deadline	Status
Text einfügen	Text einfügen	Text einfügen	Text einfügen	Text einfügen
Text einfügen	Text einfügen	Text einfügen	rennennennennennennennennen Text einfügen	Text einfügen
	Text einfügen	Text einfügen	Text einfügen	Text einfügen
Text einfügen	Text einfügen	Text einfügen	Text einfügen	Text einfügen

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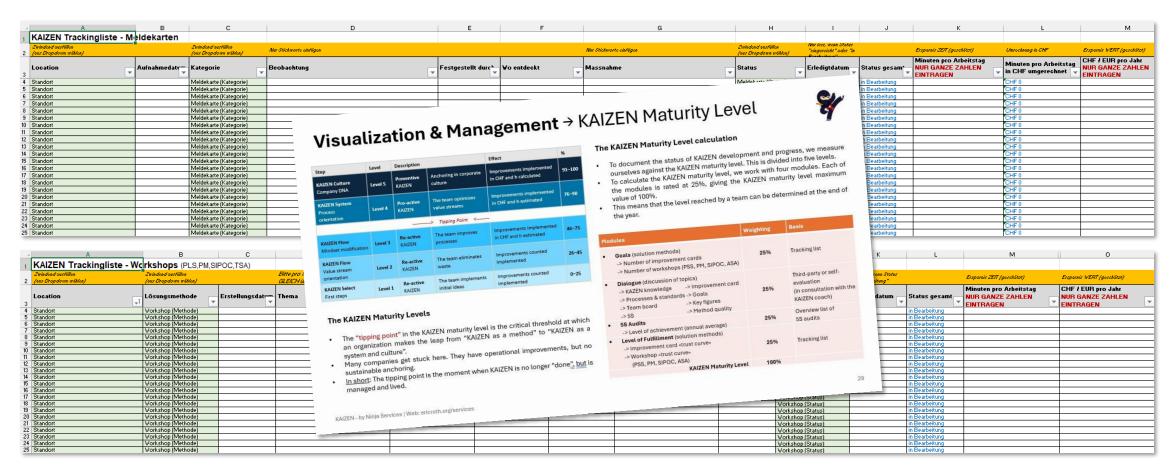


Savings – FDF (Time / Costs)	1. Follow-Up (Date)
Text einfügen	
Text einfügen	Degree of Achievement %
	2. Follow-Up (Date)
Ensuring Sustainability	Degree of Achievement %
Fext einfügen	
Text einfügen	3. Follow-Up (Date)  Degree of Achievement %

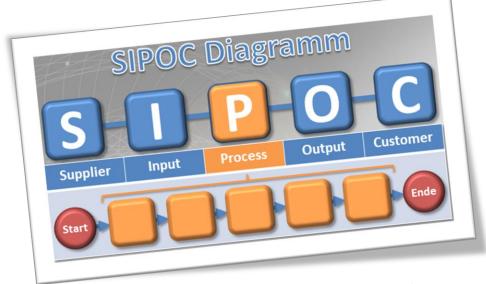
## **Tracking List**



It is advisable to record the **improvement cards** as well as **measures from KAIZEN workshops** and also the results of **5S audits** in tracking lists and to always keep them up to date centrally. There are many reasons for this: a) It contributes to the calculation of the KAIZEN maturity level, b) It provides an overview and completeness, e.g. also for effectiveness monitoring, etc.



KAIZEN SIPOC Exercise



**Exercise** 

## **SIPOC Exercise**



#### Task

#### Create a SIPOC for the "Weekly Supermarket Shopping" process

#### Process information:

- Process participants:
  - Father, mother, son, other



- Main activities:
  - Write a shopping list
  - Go to the supermarket
  - Select goods
  - Pay at the checkout
  - Invite and drive home



## **SIPOC Exercise**



## **Template for Solution**

<b>S</b> Supplier	<b>I</b> Input	<b>P</b> Process	<b>O</b> Output	<b>C</b> Customer

## **SIPOC Exercise**



## **Proposed Solution**

<b>S</b> Supplier	<b>I</b> Input	<b>P</b> Process	<b>O</b> Output	<b>C</b> Customer
Mother, father, son	Preferences, fridge contents	Write a shopping list	Shopping list	Father
Petrol station, family	Car, petrol, driver, passengers	Go to the supermarket	Arrival at supermarket	Family
Supermarket, son	Shopping cart, goods	Select goods	Shopping cart full	Family
Mother, supermarket	Money, goods, prices, checkout	Pay at the checkout	Paid goods, sales receipt	Mother
Petrol station, family	Goods, car, petrol	Load the goods and drive home	Loaded goods, arrival at home	Family

## • Communication

Conflict Management

## KAIZEN Communication



## Communication



#### Perception

I've seen...
I heard...

#### **Effect**

That's what made me...
This makes me feel...

#### Wishes

I hope that...



Communication component	Description	Impact in%
Body language	Gestures, facial expressions, breathing, clothing	> 50%
Voice	Quiet, loud, listless	> 30%
Factual statement	Message content	< 20%

Gestures and facial expressions have a significant impact on the feedback!

Non-verbal communication = **80**%



"It's the tone that makes the music"
"How to call into the forest, so it comes back"



## **Communication** → Conflict Management



#### **Typical forms of conflict**

Conflict type	Description
Conflict of interest	Conflicting goals hinder cooperation
Valuation conflict	Differing opinions, values, and norms lead to disagreement
Distribution conflict	Dispute over resources such as time, money, tasks
Conflict of relations	Personal injuries, misunderstandings, lack of appreciation
Role conflict	Unclear responsibilities, hidden power issues
Conflict of power	Competitive behaviour towards line managers or colleagues
Conflict of values	No common basis for views, moral tensions

#### Why are conflicts so difficult?

- Emotional conflicts often operate below the surface
- Particularly sensitive during phases of life such as puberty, mourning or pregnancy
- Objective solutions do not apply to personal injuries
- Lack of communication exacerbates momentum.

#### **Dealing with conflicts**

- Identifying and naming conflicts early on
- Treat causes instead of symptoms
- Clarify roles and responsibilities
- Create a common value base
- Use moderation or external support

#### **Conflicts are part of KAIZEN**

KAIZEN stands for continuous improvement – but change brings friction. Tensions can be triggered by new processes, allocation of roles or transparency. **Conflict management is therefore not a secondary issue, but an integral part of KAIZEN.** Sustainable improvements can only be achieved by recognizing and addressing conflicts and resolving them constructively.

# Questions & Answers

