dcm | Member Event

What's Coming Up?

Delivered Live via Zoom   All Sessions Recorded   Free and unrestricted for DCM Members

10am

July
1st

Making Lean Work For Your Organisation

10am

Aug
2nd

Problem Solving & Eliminating of Wasteful Procedures

10am

Sept
2nd

Measuring & Continual Improvement

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Session Content

▶ **Recap**

▶ **Problem Domains**

▶ **Continuous Improvement**

▶ **Kaizen, A3, DMAIC**
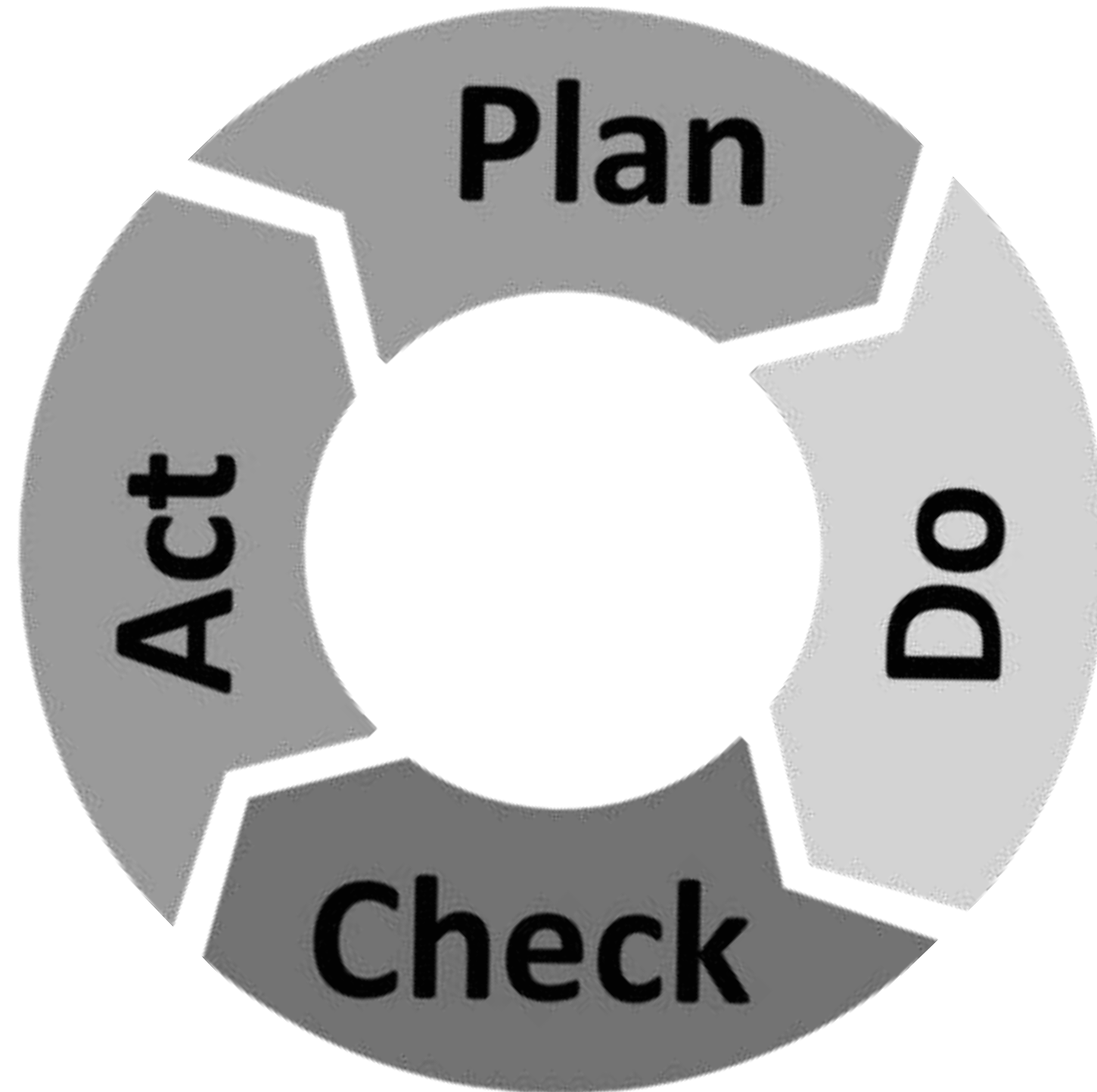
▶ **Problem Statements**
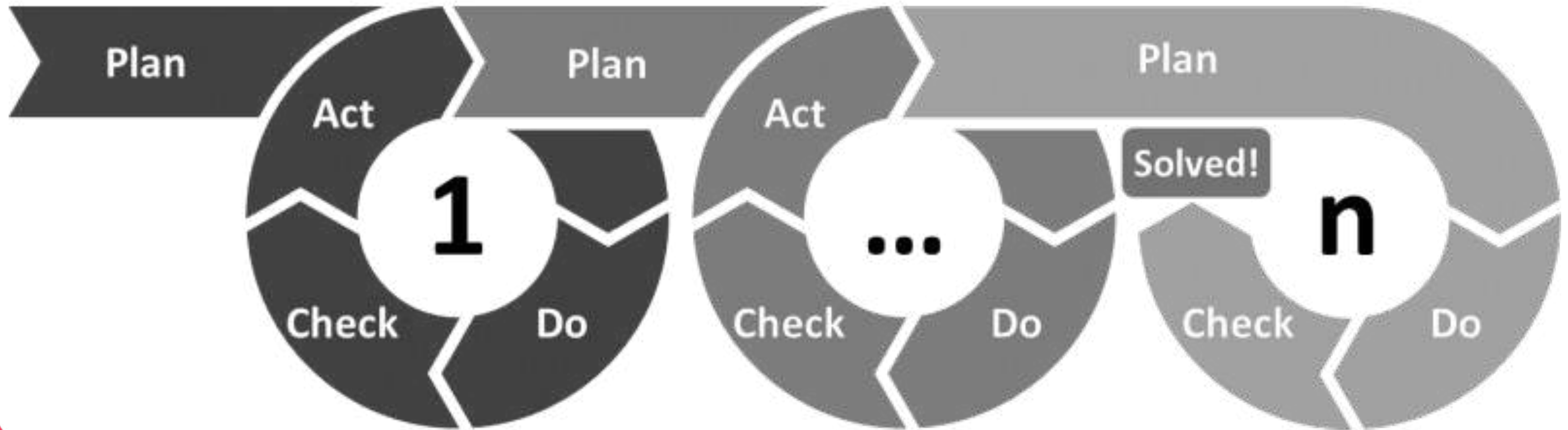
▶ **Process Mapping**

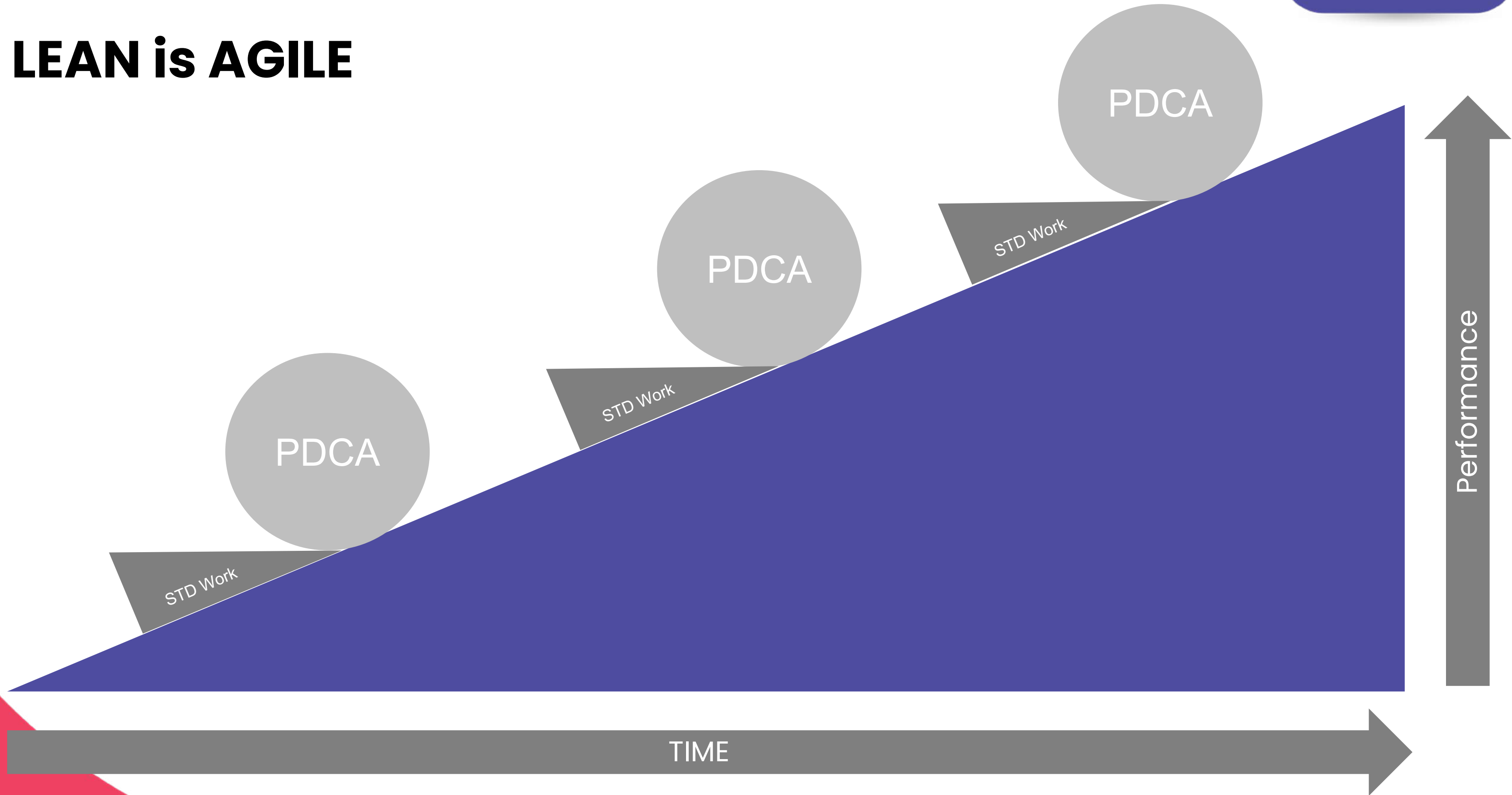RECAP

Continuous Improvement

What is Waste

Problem Domains

The Deming Cycle

The Deming Cycle

LEAN is AGILE

PDCA

PDCA

PDCA

STD Work

STD Work

STD Work

Performance

TIME

The nature of "FLOW"

Step 1

Step 2

Step 3

LEAN PRINCIPLES

LEAN Principles
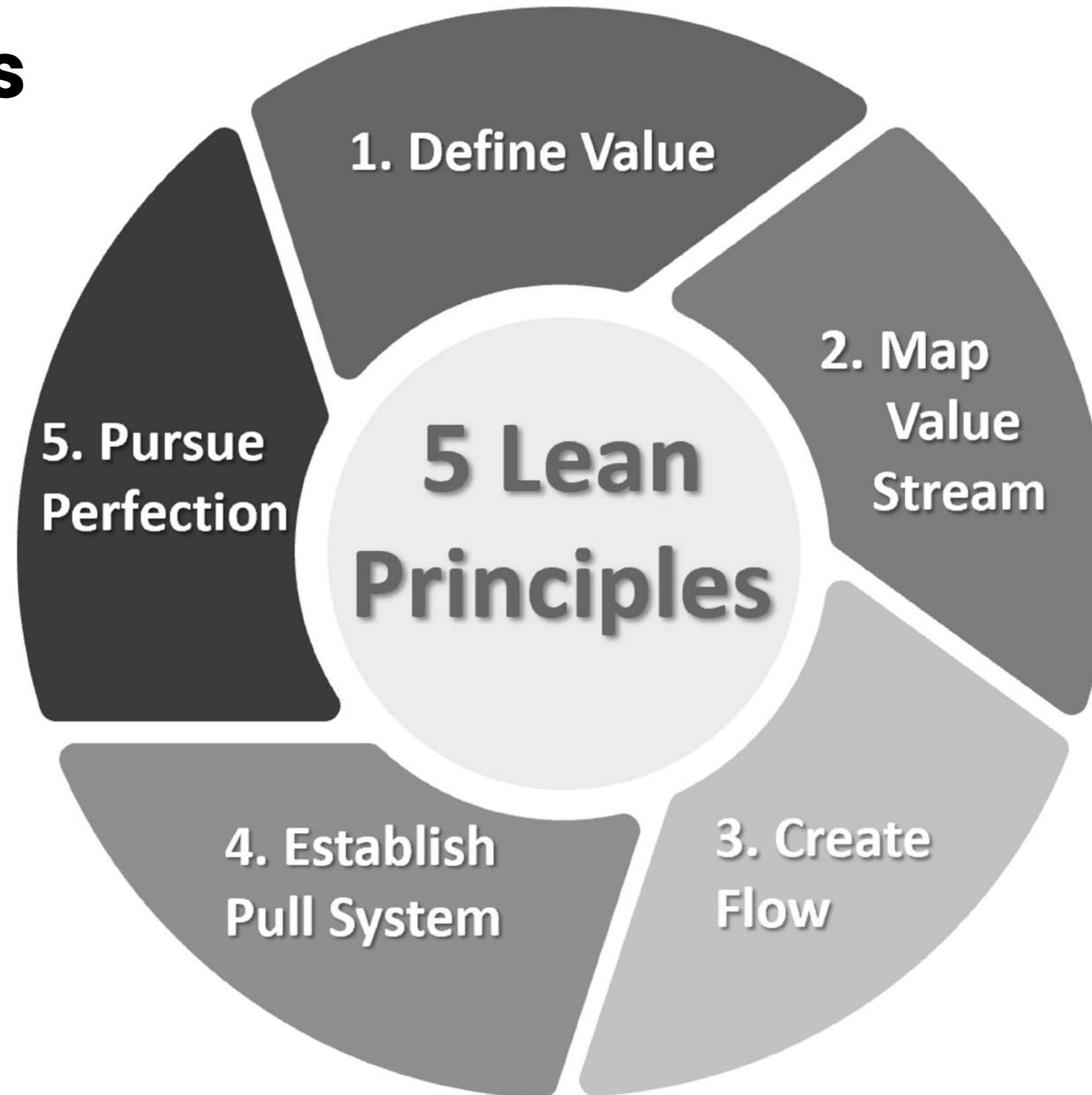
What is waste

Customer Types

The 8 Muda (Wastes)

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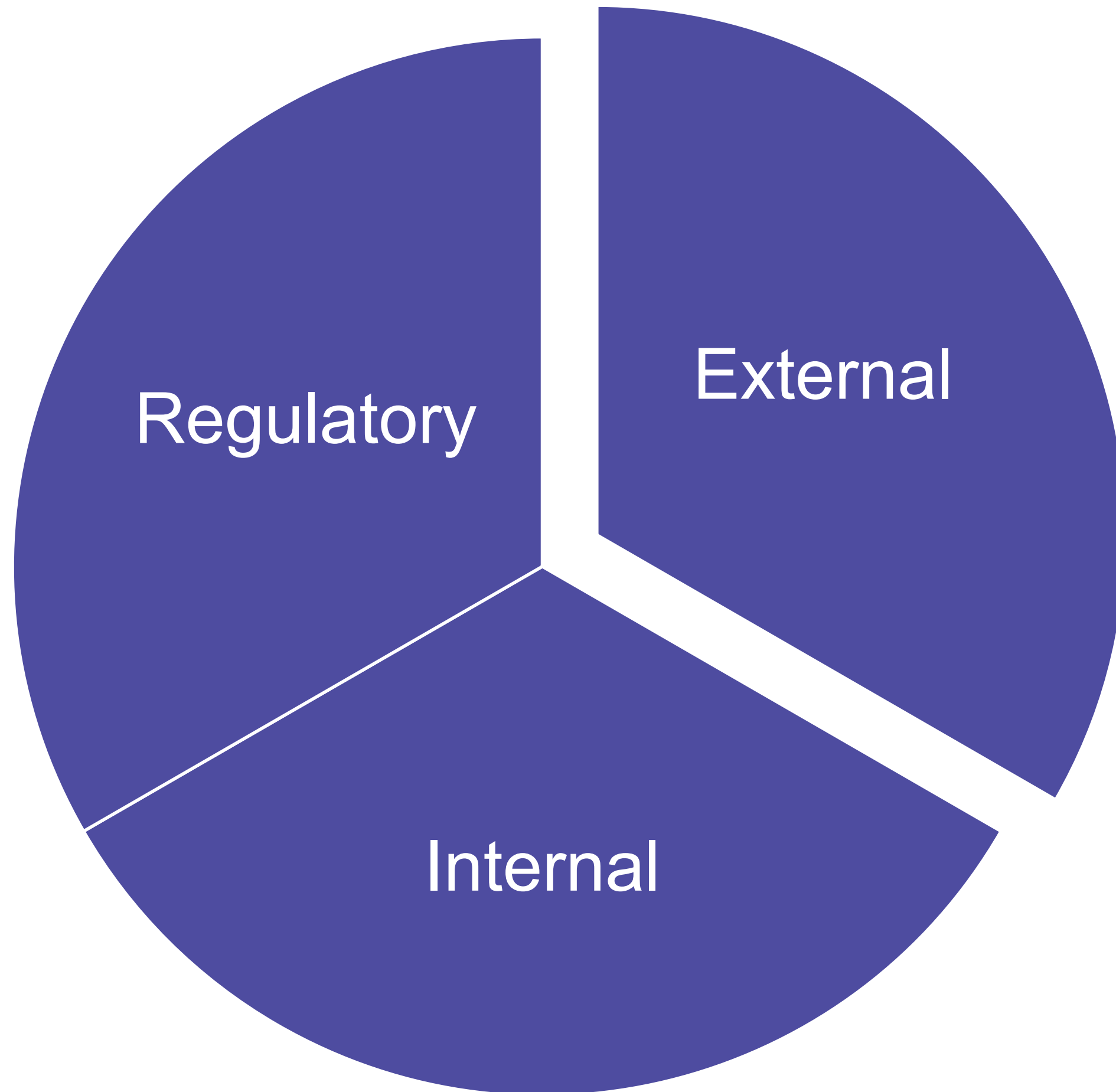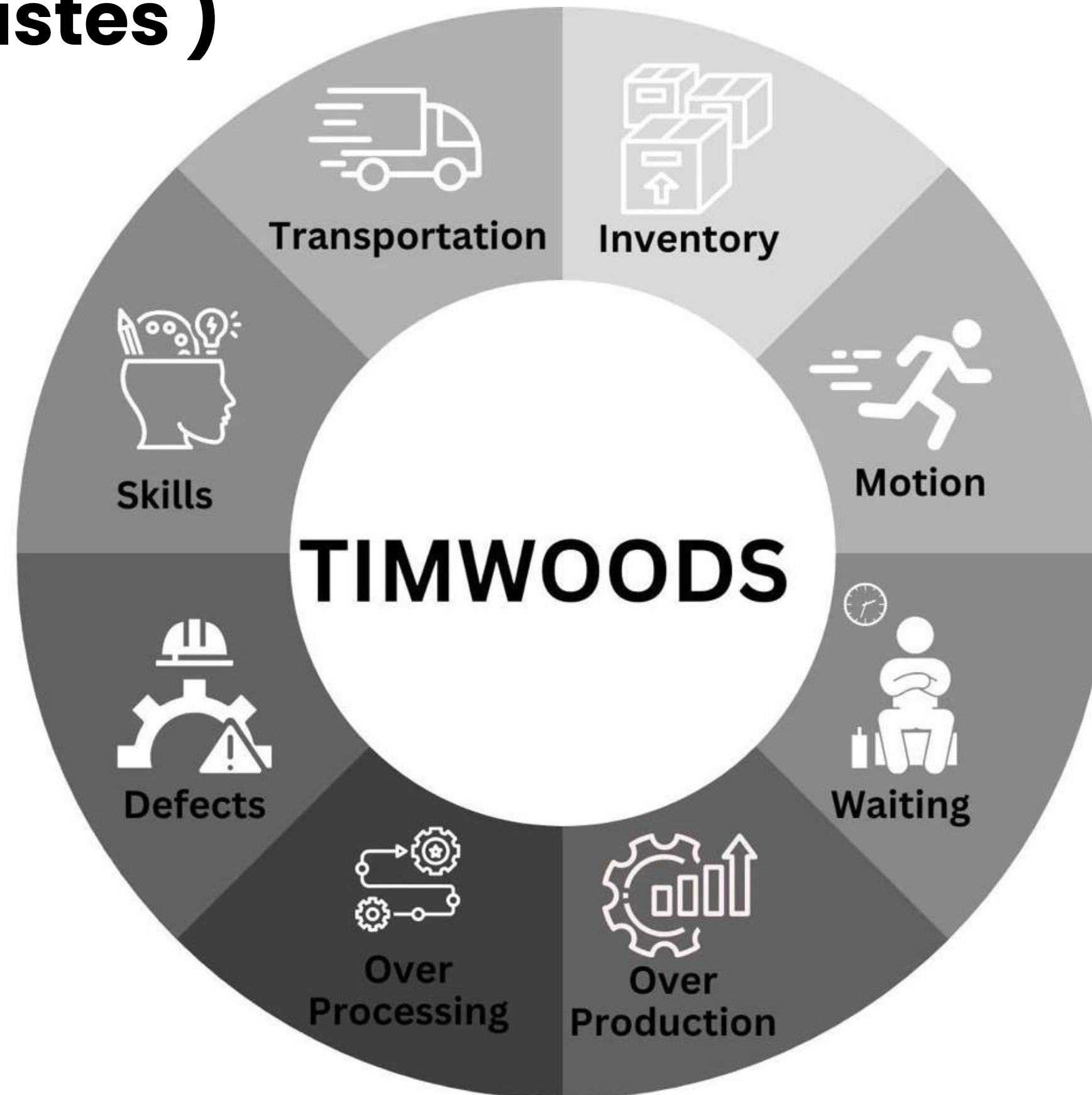
PROBLEM DOMAINS

Cynefin Model

Simple Problems

Known
Knowns   OBVIOUS

Chaotic Problems

Unknowable's   NOVEL
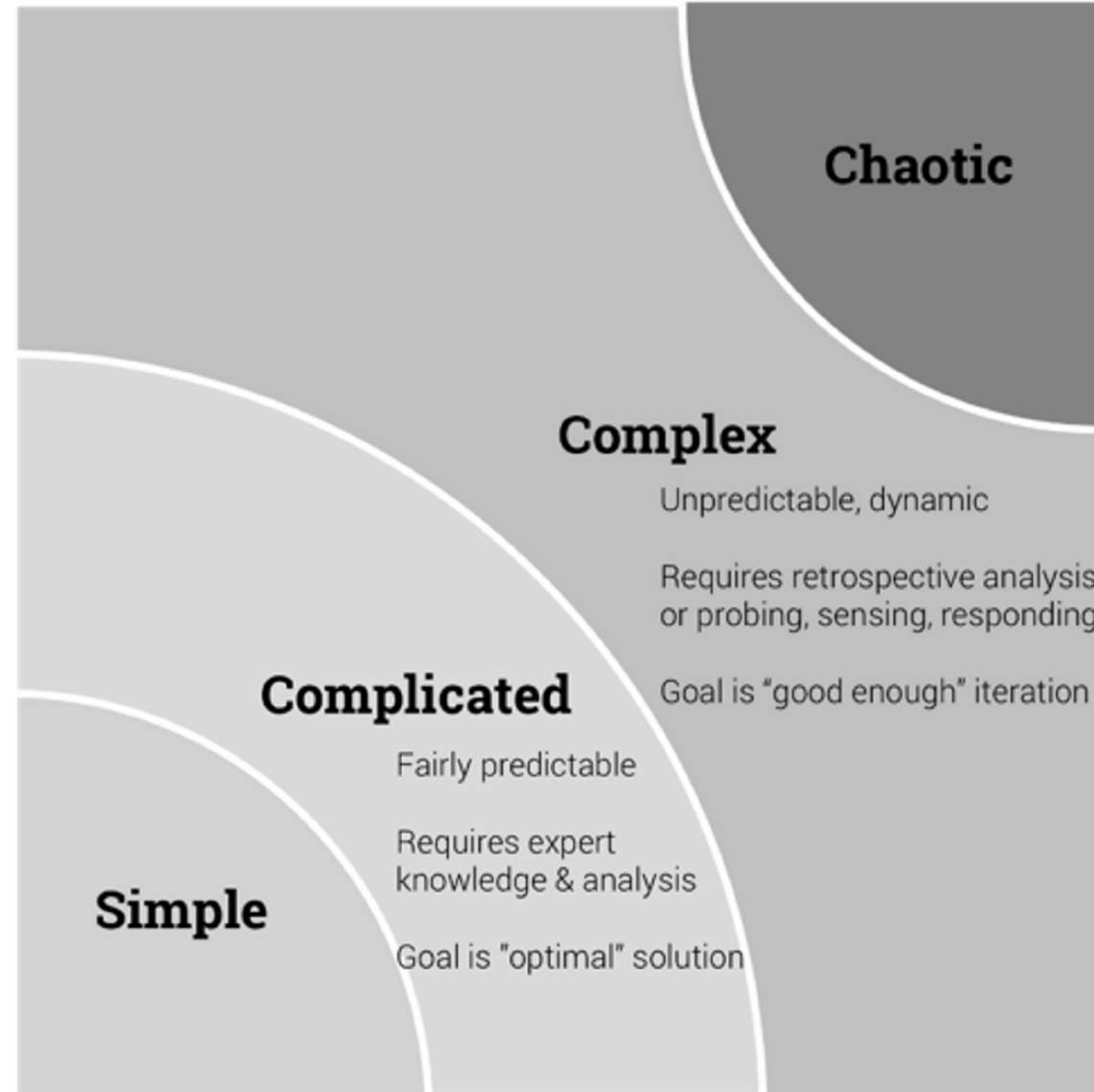
Complicated Problems

Known
Unknowns   BEST Practise
                  Experts

Complex Problems

Unknown   PROBE / SENSE
Unknowns   AGILITY

Cynefin Model

No agreement

No certainty

Problem Solving

What do we KNOW

What don't we KNOW

How do we Find Out

- Observe ?
- Interview ?
- Measure ?
- Test ?
- Experiment ?
- Trial ?
- Exchange ?
- Reproduce ?
- Dis-assemble
- De-construct
- Consult

Gemba Walks

Go to Gemba

REAL WORLD

LEAN TEAMS

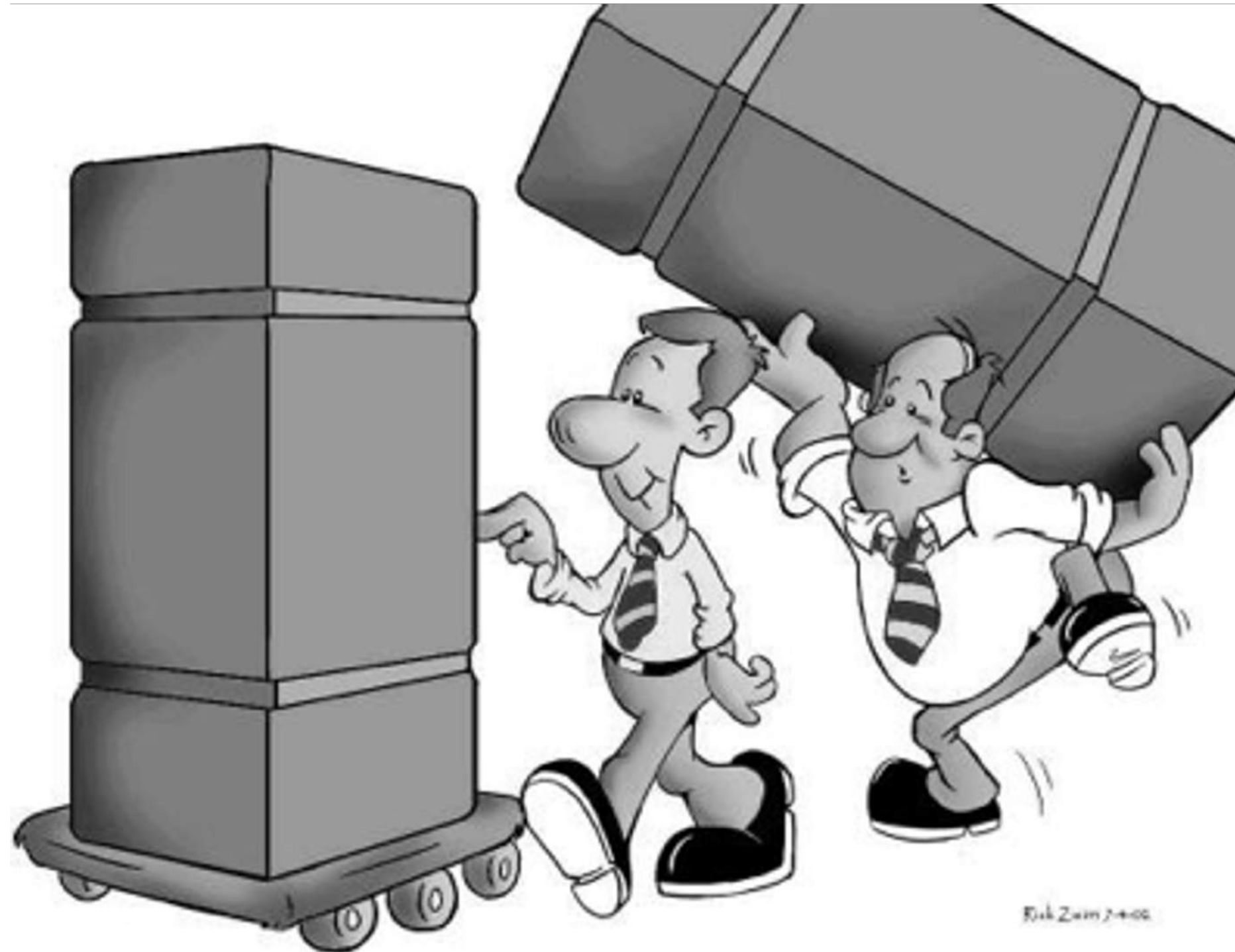# LEAN Teams Options

KAIZEN Teams

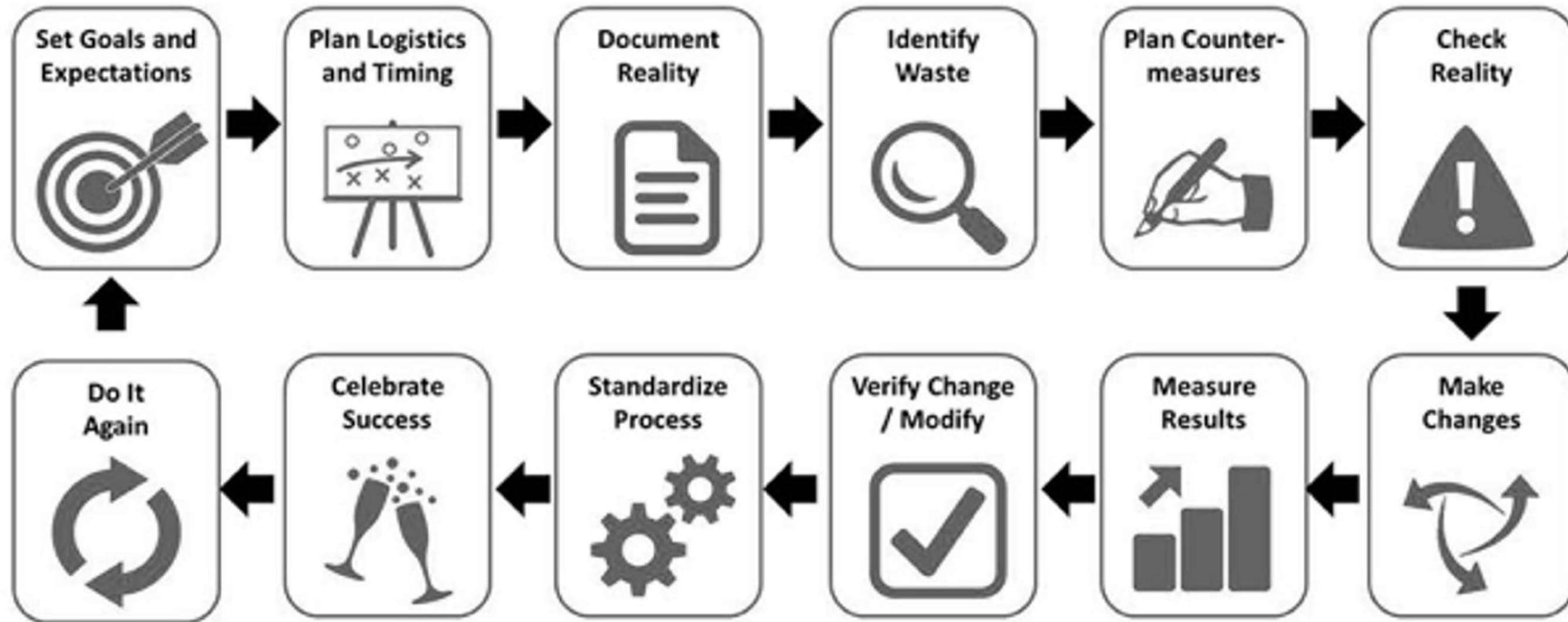A3 Teams

DMAIC Teams

KAIZEN

KAIZEN

KAIZEN

A3

Example of completed problem-solving A3 / ONLINE FIGURE 1

A3

Project Lead Time

Plan   Do   Check   Act

Project Lead Time

A3

	Step 1	Subject/Background/History	Step 5	Countermeasures/Suggested Actions/Changes			Do

Plan

Step 1 — Subject/Background/History

What are we trying to achieve with this process?
What is the Background to the problem (be as specific as possible)
Give an explanation which helps people to better understand the problem
State the importance of the problem

Step 2 — Current Condition

Draw a diagram of current condition
Highlight the problem
Use data to explain the size of the problem

Step 3 — Root Cause Analysis

Collect and analyse data to identify root cause
Use 5 Whys, Fishbone diagrams, Pareto charts

Step 4 — Target Condition/Future State/Desired outcome

Draw a diagram of what the new process will look like
Identify WHERE the Root Cause is being eliminated
Define target to support proposed improvement

Step 5 — Countermeasures/Suggested Actions/Changes

What specific actions are needed to eliminate the problem?

Step 6 — Implementation

What	When (date)	Whom

Step 7 — Evaluation

Check the results
Did the improvement work?
Did it work as well as we predicted?
Collect data and compare before and after

Step 8 — Follow-up

What actions must we do in future to sustain the improvement?
Schedule meetings @ 7/30/90 days
Did we achieve @ 7/30/90 days what we wanted?
Is the problem eliminated and and does the process show measurable improvement?
Can we close this Problem Solving process and archive it as Complete/Closed?

Do · **Check** · **Act**

A3

A3 & PDCA Cycle

Background & Support Data
(PLAN)

Describe the Current state
What are we trying to solve.
(PLAN)

Set Goals and Targets.
Define what success looks like
(PLAN)

Perform Root Cause Analysis
(PLAN)

Design Counter Measures
(PLAN)

Implement the Countermeasures
(DO)

Follow UP (Check)

Follow UP (Act)

DMAIC

DMAIC v's PDCA

Define	Plan
Measure	
Analyse	
Improve	Do
Control	Check
	Act

DMAIC
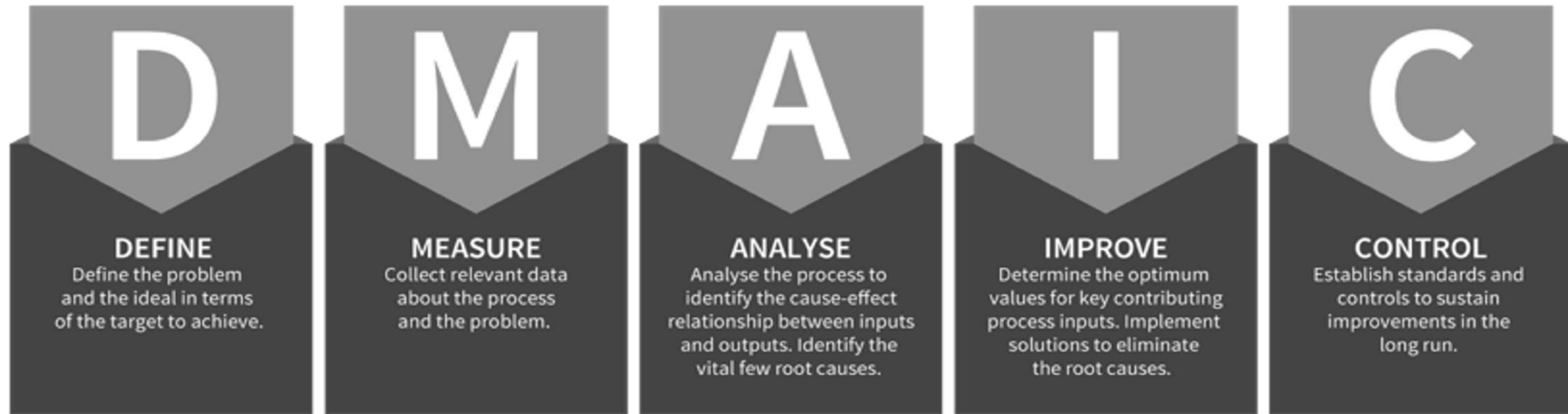
PROBLEM STATEMENTS

What is a Problem

- Undesired situation

- A matter or situation regarded as unwelcome or harmful and needing to be dealt with and overcome.

What is a Problem

Above the surface you see the
Symptoms
of the problem

Dig deeper to find the
Root Cause
of the problem

Symptoms V's Root

- Symptoms (what we see)

- Root Cause (trigger / enabler)

Symptom

Problem (s)

Cause (s)
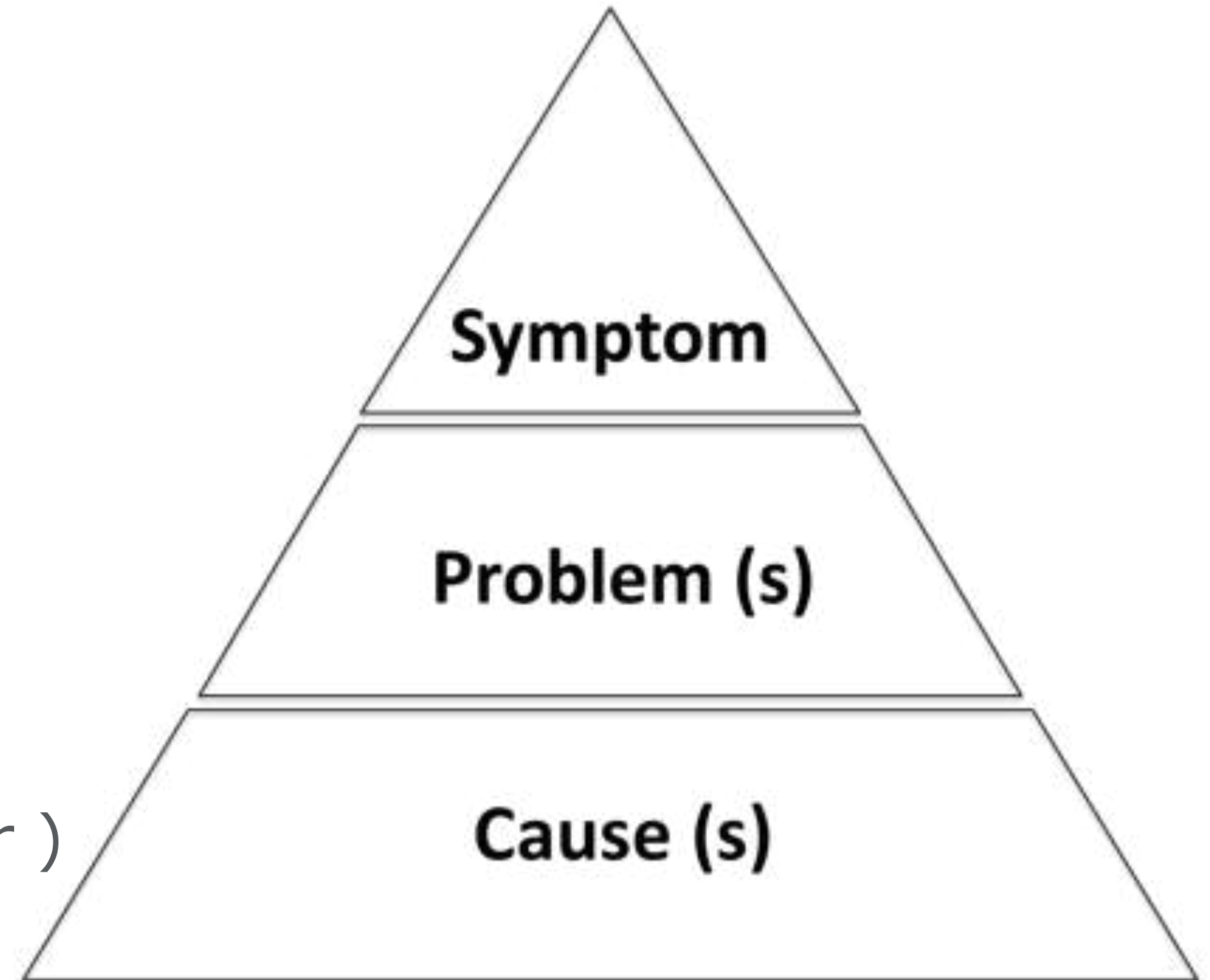
Barriers

- Confirmation Bias

- Rigid Mentality

- Functional Fixedness

- Unnecessary constraints

- Irrelevant Information

What is a Solution

- Implement(ed) Counter Measure(s)

- The most effective arrangement of Tasks, Actions and resources to overcome the problem permanently.

Problem Solving

RCA Tools

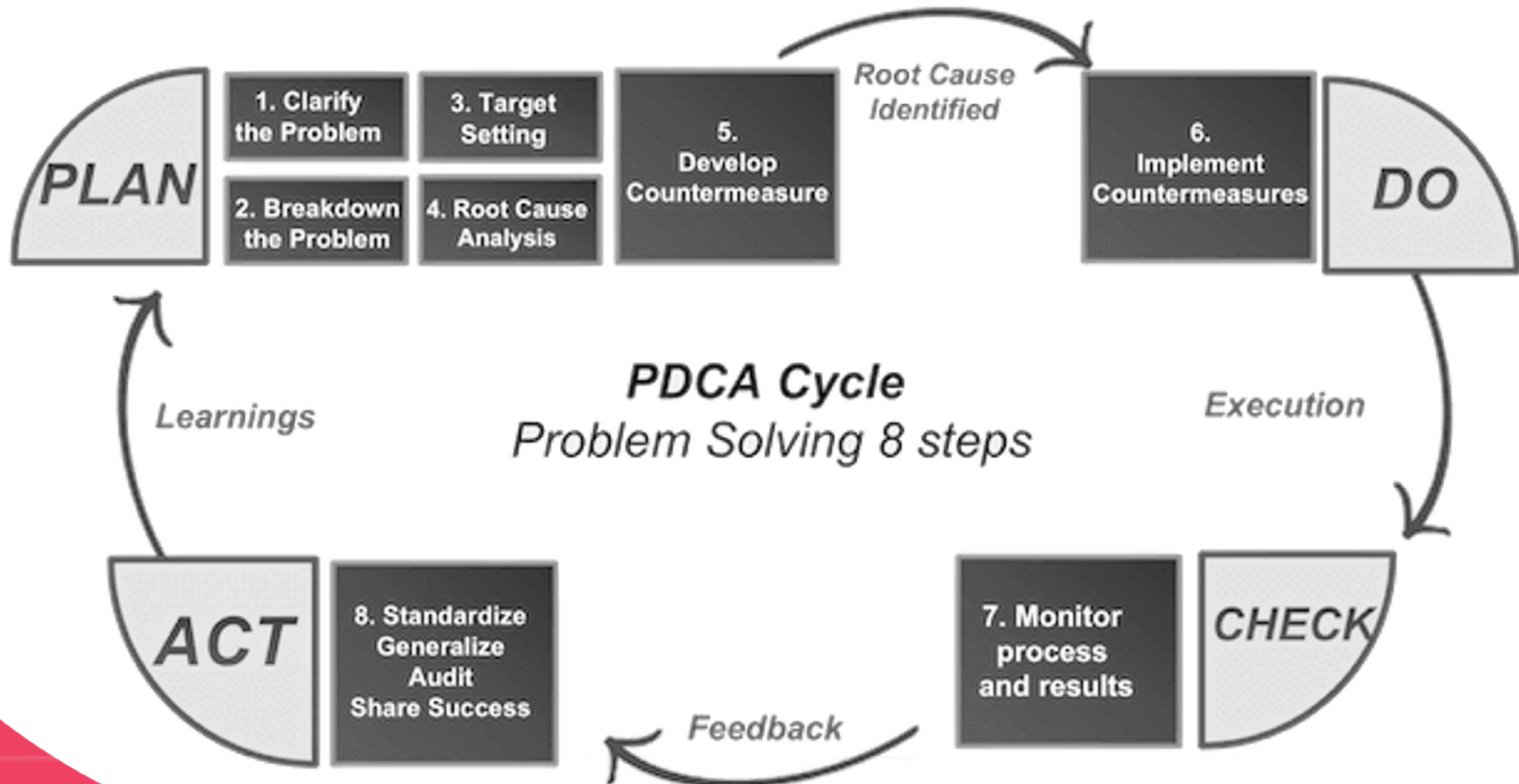| Soft Tools	Hard Tools
• Brainstorm • Mindmaps & Process maps • 5 Why's • W5H • Fishbone Analysis • Workshops • 6 Hats Thinking • Kepner- Tregoe • FMEA	• Hypothesis Testing • Design of Experiments • MultiVary Studies • Taguchi Analysis • Pareto Analysis • Regression Analysis • SPC • ANOVA • AI Models

Construct a Statement

- Problem Statement

- A GOOD Problem Statement should

    - State the current undesired situation
    - Quantify the problem

- A GOOD Problem Statement should NOT

    - Assume the cause
    - Assume the solution
    - Assume any blame

Construct a Statement

- A GOOD Problem Statement (example)

  – During the period 1st Jan 2023 until June 30th 2023, >15% of customer queries were not resolved first time leading to 250hours of overtime to handle the escalations costing €12,500

  - **Provides the facts**
  - **Provides timescales and impact to the business**
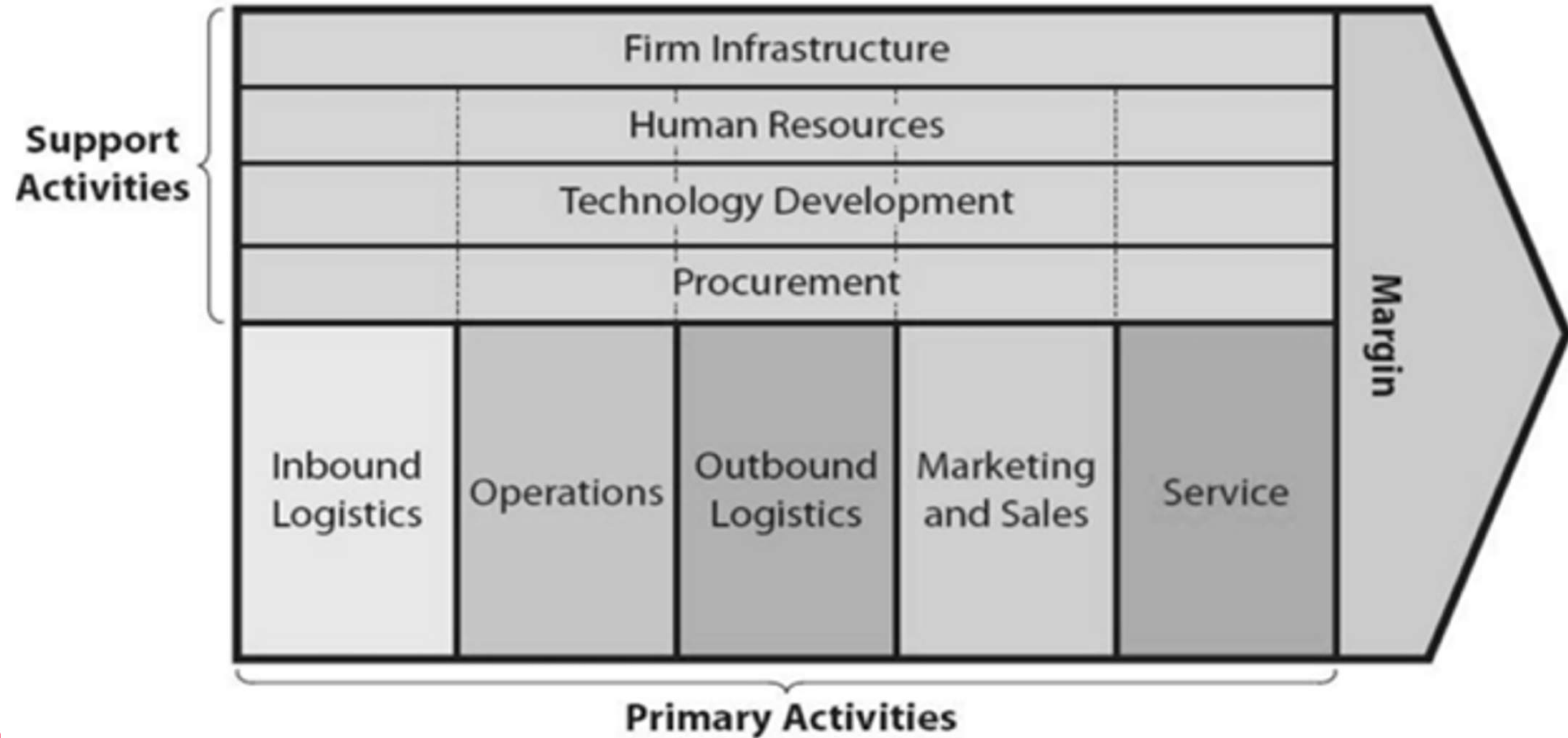 - **Clear and concise – non objectionable**

Construct a Statement

- A GOOD Problem Statement - structure

(Item) is a problem because it affects (Case / impact) and we have established the (evidence).

- Item : is a condition, procedure, hardware, equipment or process
- Case / impact : is quality, cost, service and or frequency
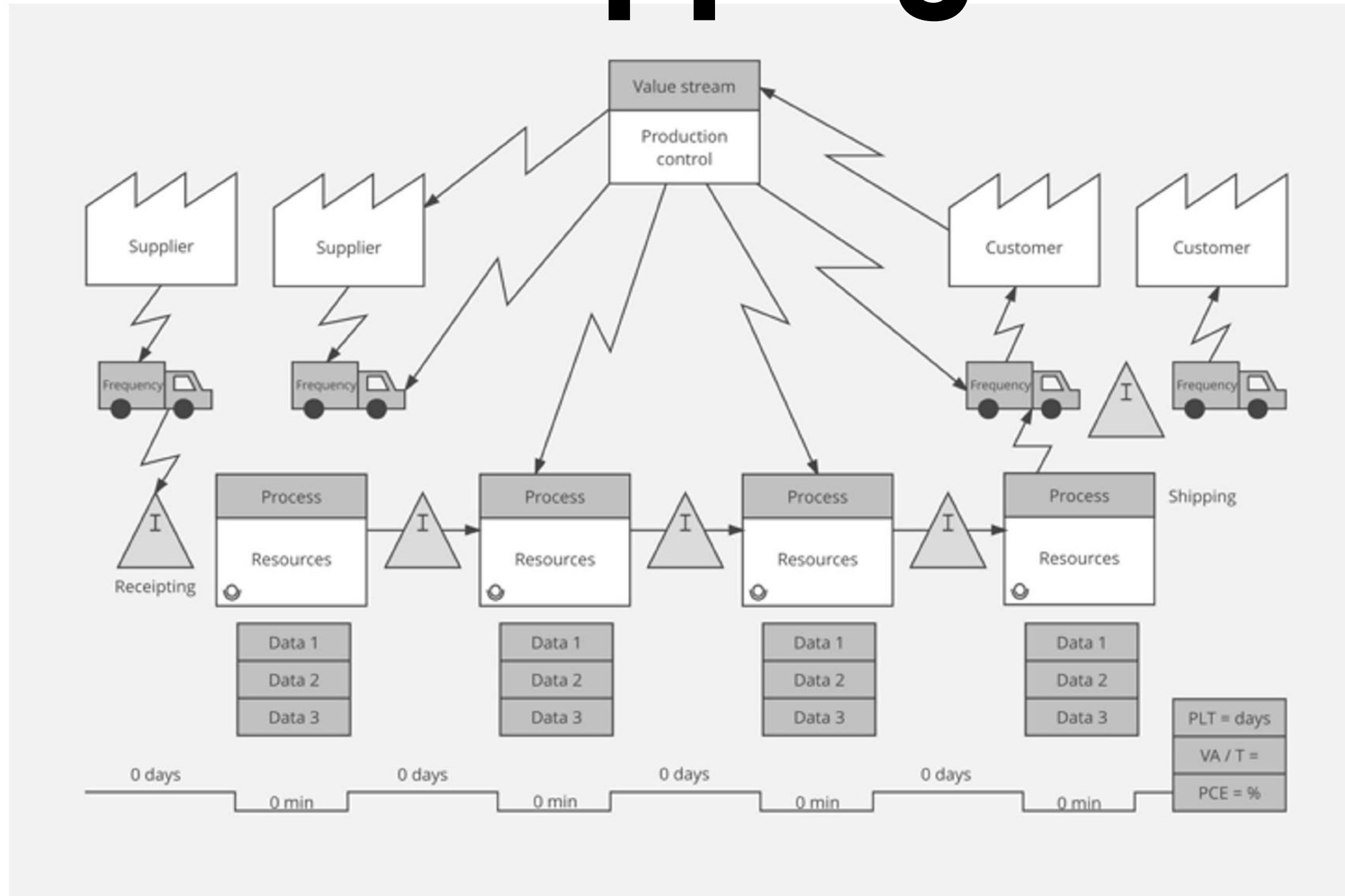- Evidence : is a symptom(s) or data collected
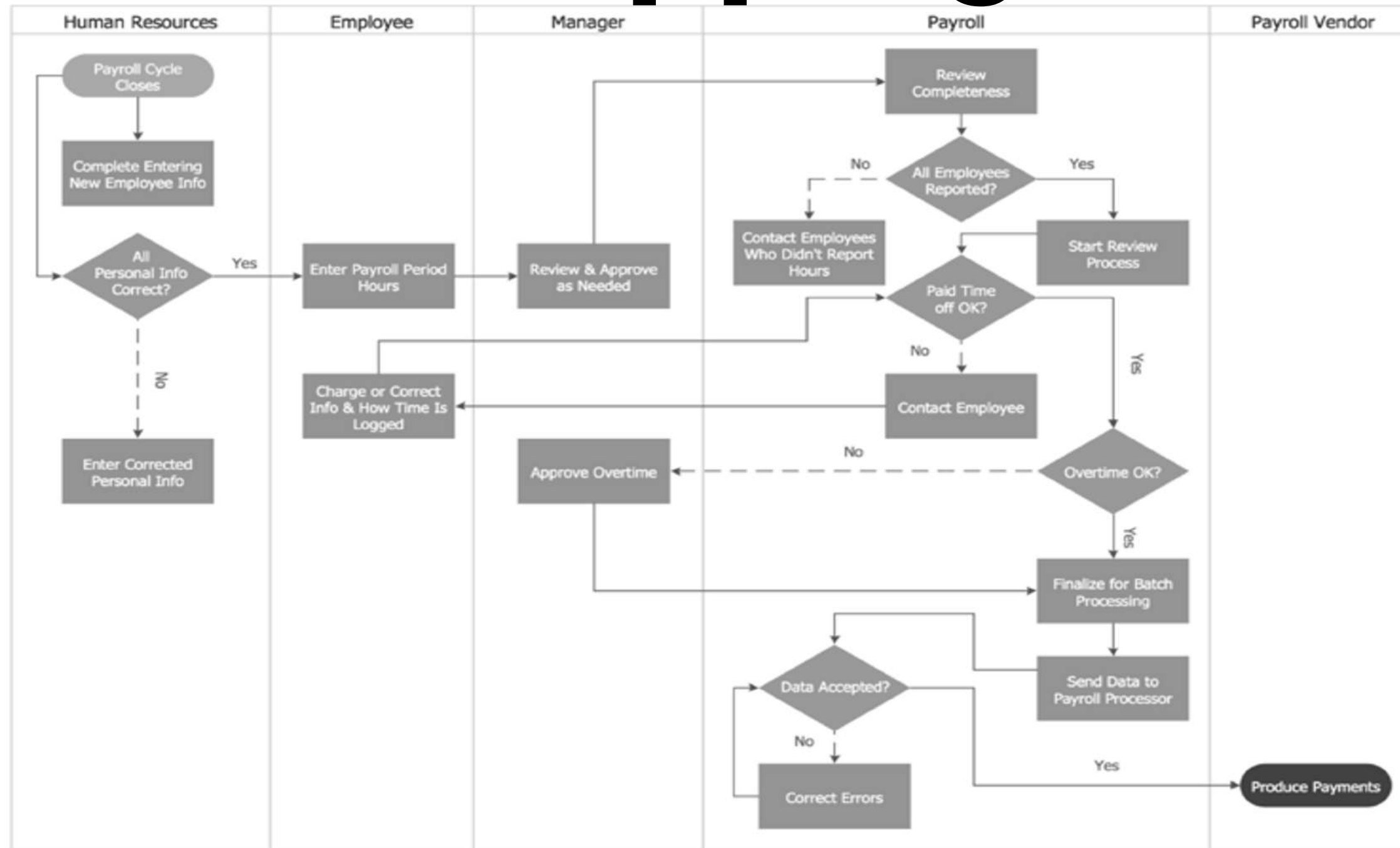
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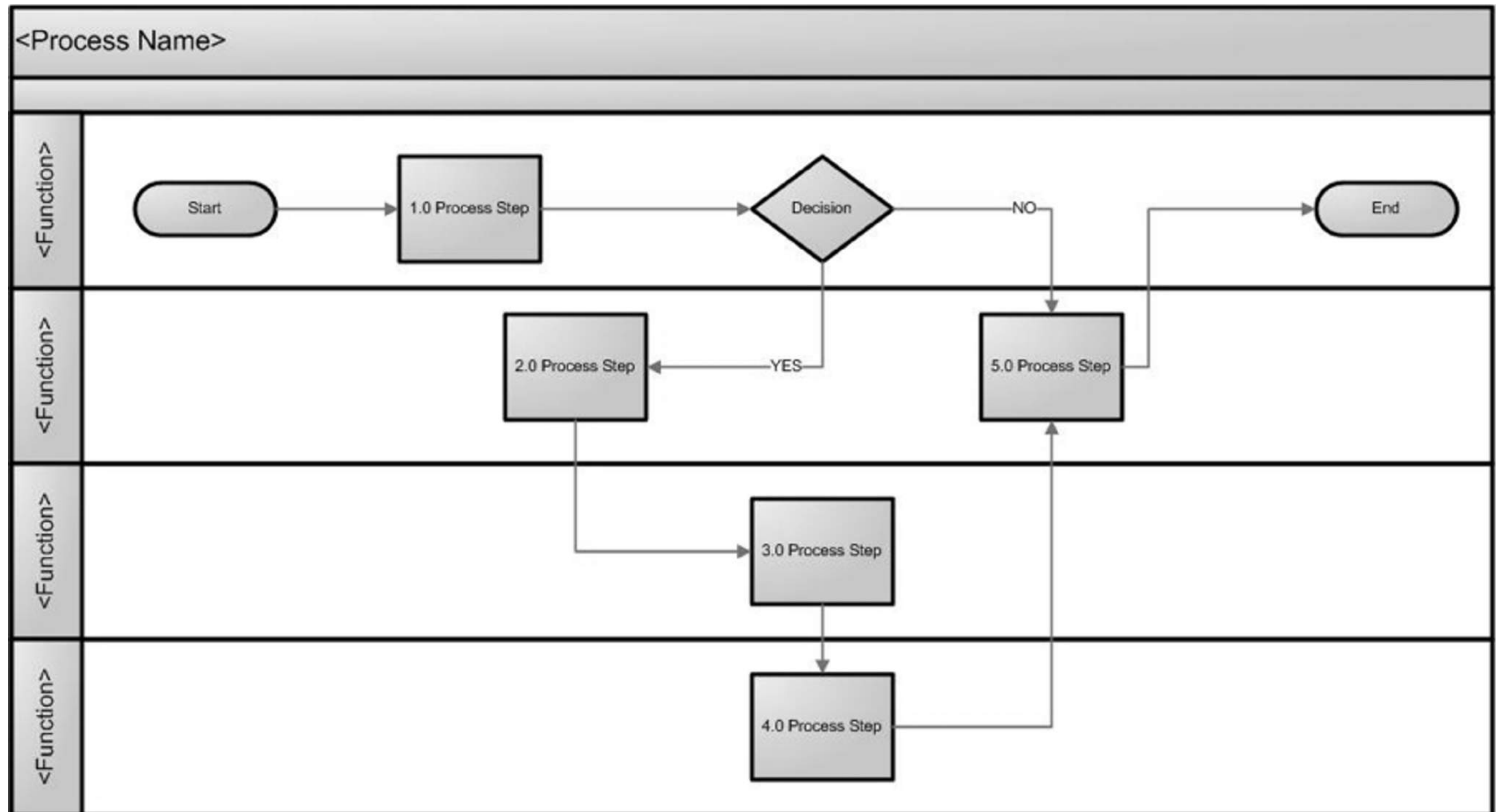
PROCESS MAPPING

Process mapping

Process mapping

What you
THINK it is..

What it ACTUALLY is..

What it
SHOULD be..

Process mapping

Process mapping

Process mapping

Process mapping