

Supplier Training



Root Cause Corrective Action (RCCA) Overview

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Objective

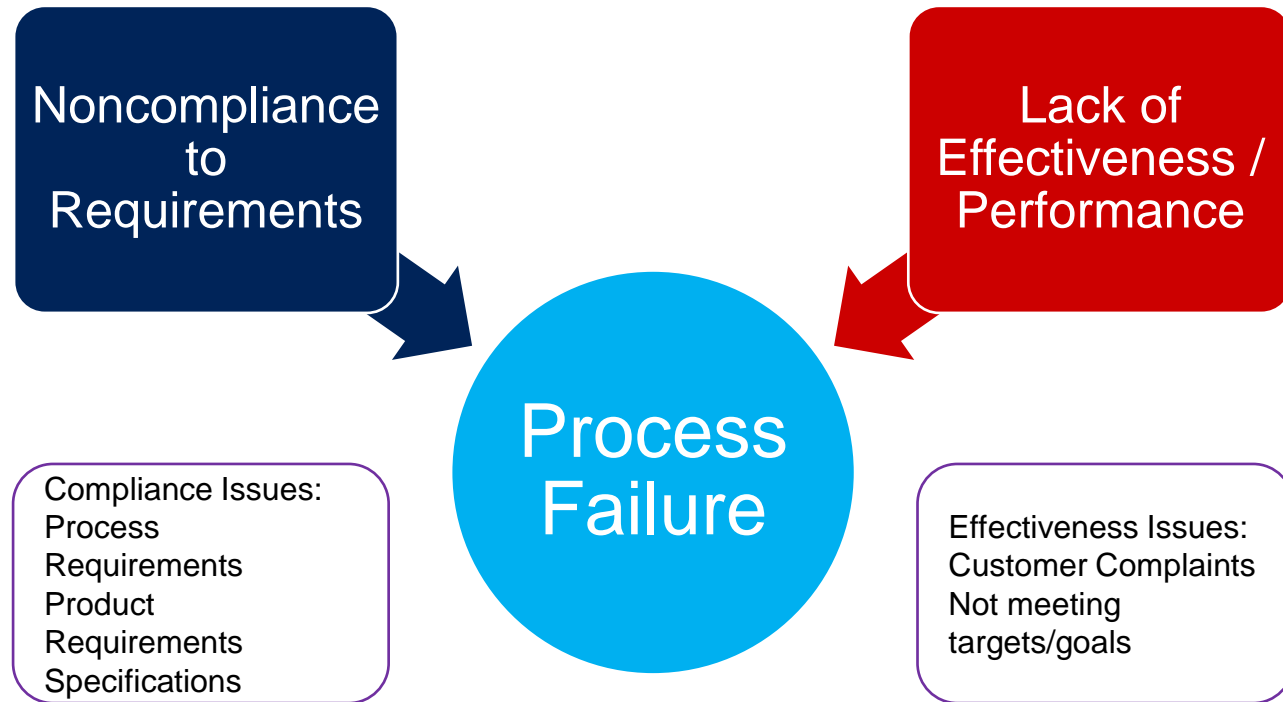
- To provide guidance to carry out proper RCCA with suitable quality tools
- To ensure responded SCAR meets MEC expectation

Introduction

Supplier Corrective Action Request (SCAR) is a systematic approach to request investigation of a problem that already happened and request root cause analysis and resolution from supplier to prevent recurrence.

Nonconformity

All problems can be linked to a process.



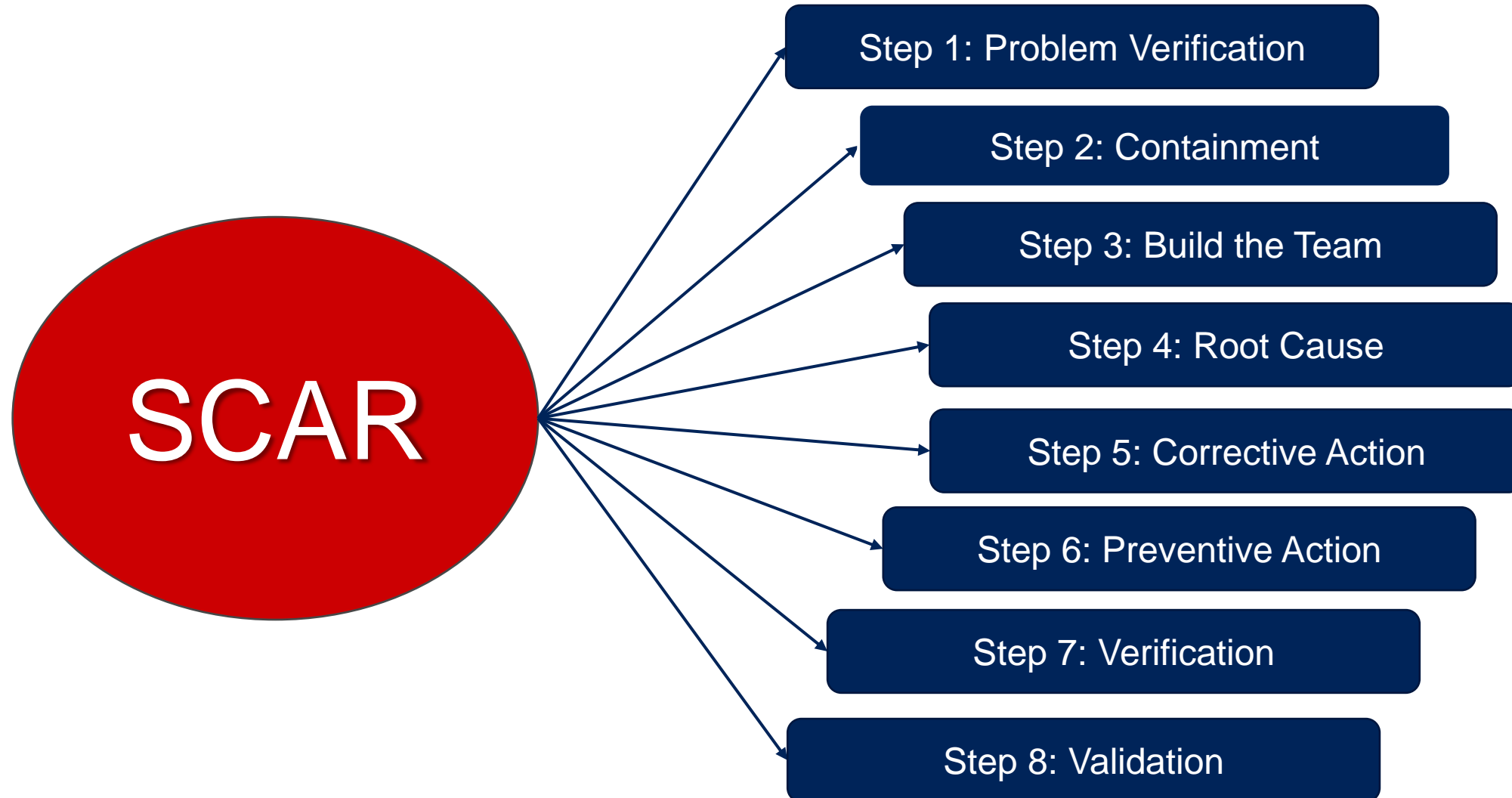
Mindset: Differences in Approach

- Quick Fix
 - Not taking enough time for analysis
 - Going from one crisis to another
 - Look for the guilty party. “Who did that?”
 - Generate laundry list of solutions to firefight the symptoms.
 - Focus on performance metrics (e.g. sales and profits) and hope processes improve.
- Seek total understanding of the process:
 - “How did that happen?”
 - Take time to understand the big picture, to dialogue, and to elicit diverse perspectives, to apply the solution.
 - Focus on improving processes that actually effect performance metrics.
 - Fix and improve performance

Reactive Approach

Process Approach

SCAR Key Elements



Step 1: Problem Verification

Problem verification is the first step of problem investigation.

There are 3 main activities:

- a) Verify the problem
- b) Collect information
- c) Describe the problem

Step 2: Containment

Containment action is to limit a problem until the root cause is defined and a corrective action is implemented

Typical immediate containment actions may include:

- Immediate stop of production or shipments
- Inventory check and segregation of defective parts
- Inform operators about the problem
- Check on similar product or processes for similar risk
- Over inspection
- Recall product

Step 3: Build the Team

Identify representatives from functions that may contribute to the corrective action process, including identification of the root cause. Don't forget to include Subject Matter Experts and those performing the job (operations, inspections, etc.)

The composition of the team is not fixed and may evolve depending on the analysis results and the needed actions.

Step 4: Root Cause

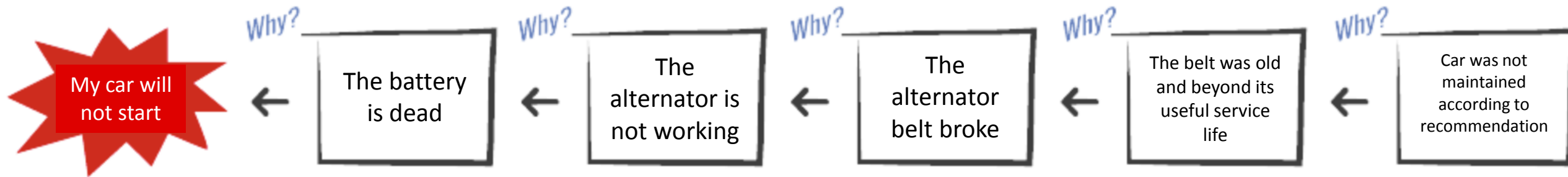
Root Cause Analysis is a systematic approach to identifying the actual root causes of a problem. Identification of root causes must be supported by objective evidence based on proven tools.

Tools to consider:

- 5-Why
- Cause Map

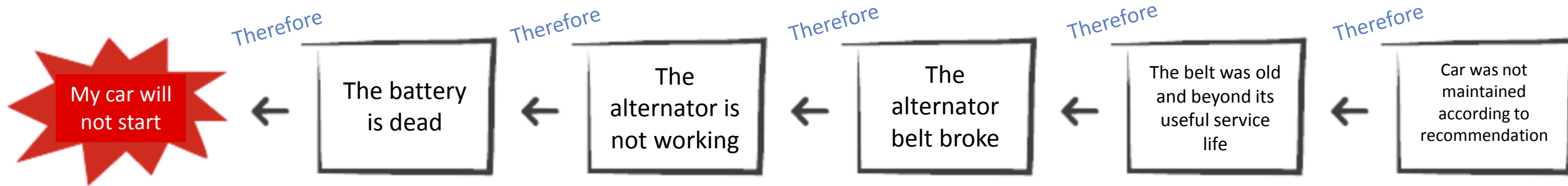
Step 4: Root Cause – 5-Why

A simple example:



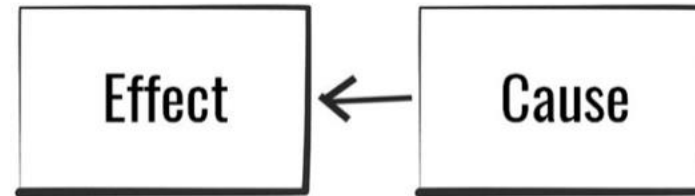
Step 4: Root Cause – 5-Why

Check your logic. Begin with the last Why, read it, say the word “therefore”, and continue backward to the first Why.

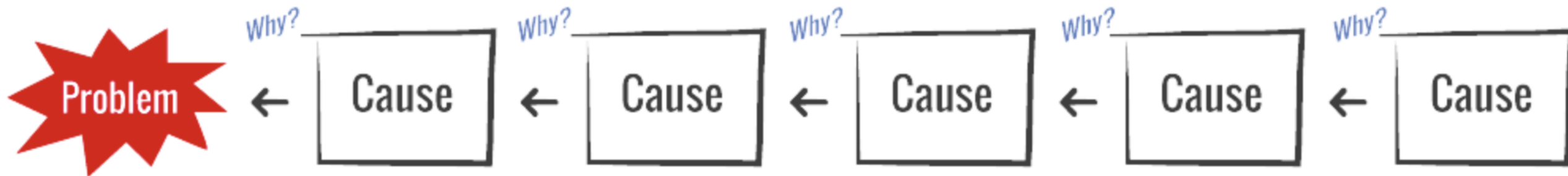


Step 4: Root Cause – Cause Map

A Cause Map builds on the cause and effect approach of a 5-Why.

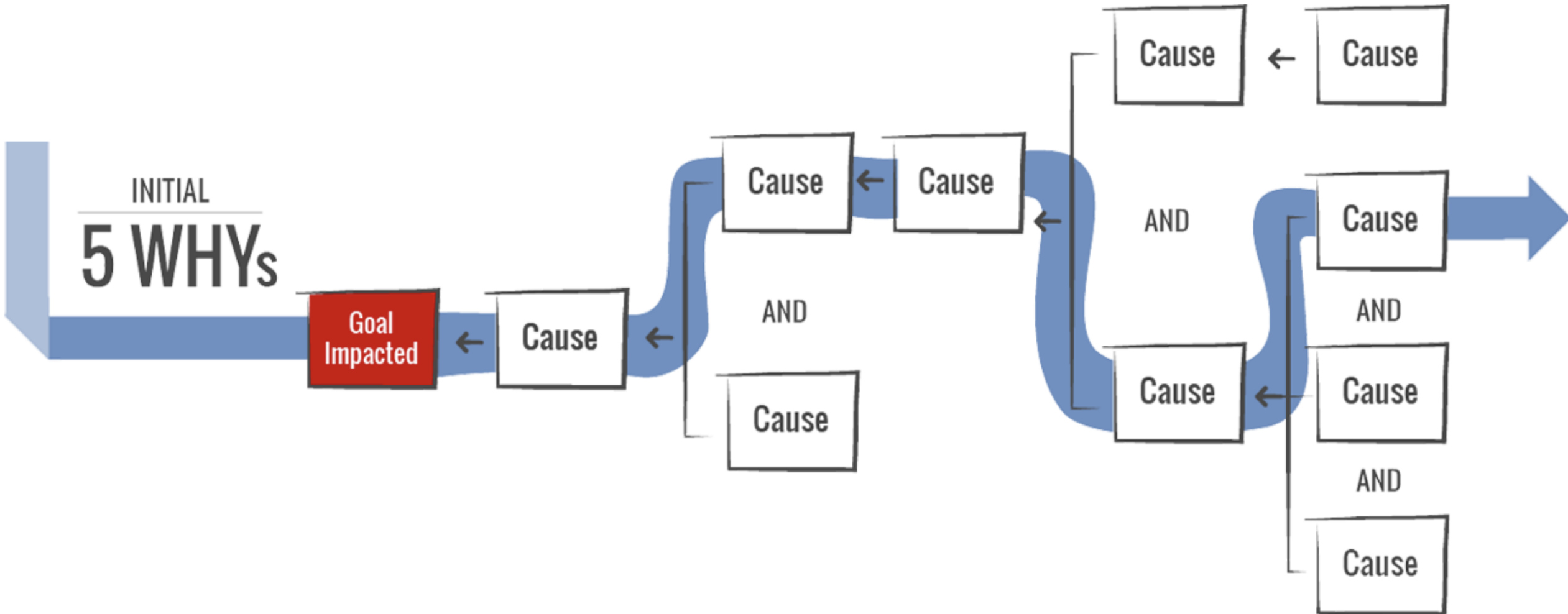


Cause-and-Effect Relationship
"Building Block"



Sometimes referred to as “5-Whys on Steroids.”

Step 4: Root Cause – Cause Map



Step 4: Root Cause – Cause Map

In addition to *Why*, a Cause Map asks, “What was required to produce this effect?” This question, “What was required?” allows you to build a detailed Cause Map that provides a more complete representation of the actual issue.

Step 5: Corrective Action

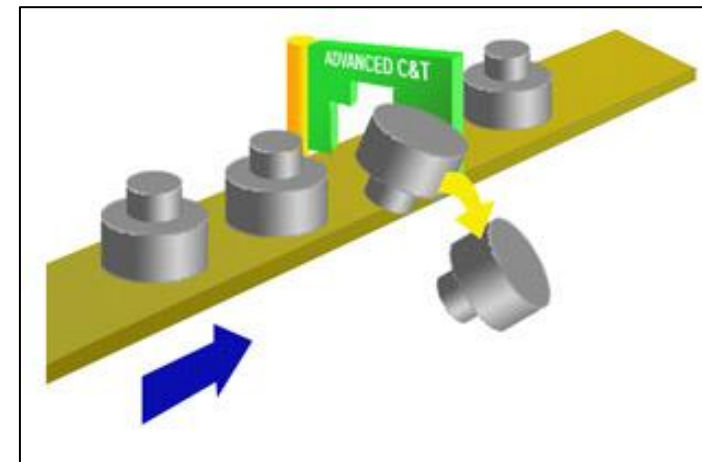
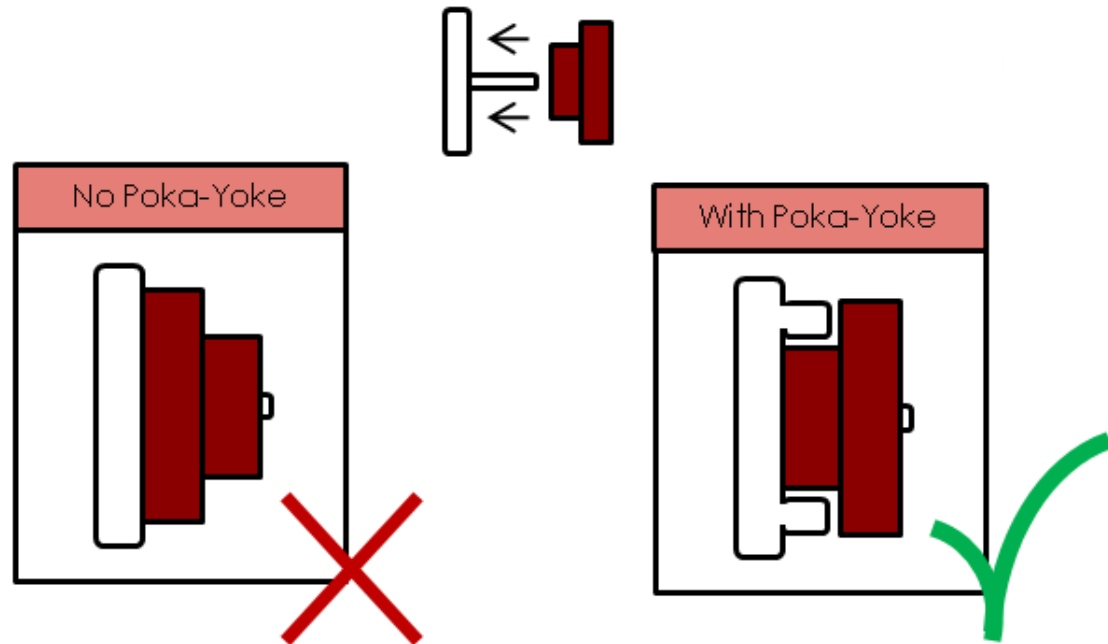
Corrective action(s) will remove the identified root/primary causes and prevent the problem from happening again.

Consider for each solution:

- The risk of creating a new or worse problem
- The difficulty of implementation
- The stability over time
- Is it systemic to prevent the problem at the process level?

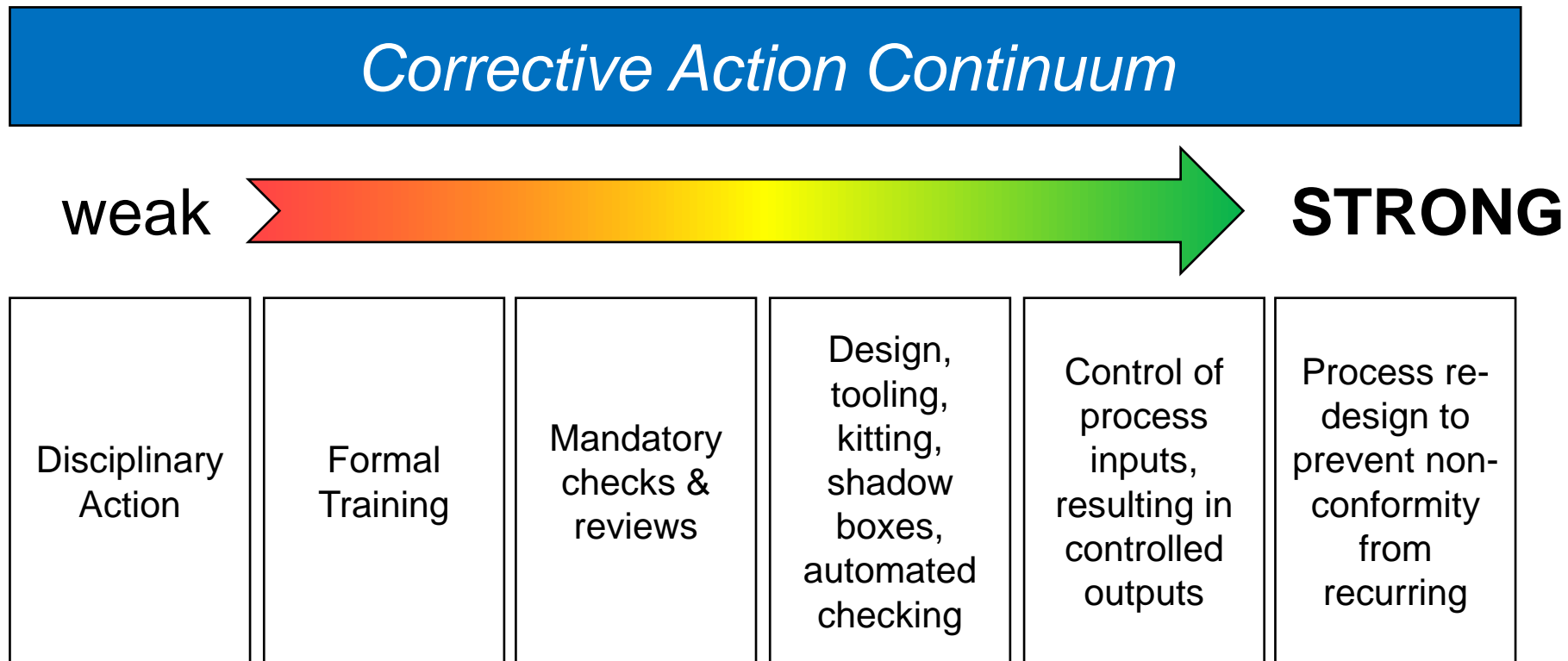
Step 5: Corrective Action

Poka-Yoke may be implemented at any step of a process where something can go wrong, or an error can be made. For example, a jig that holds pieces for processing might be modified to only allow pieces to be held in the correct orientation.



Step 5: Corrective Action

Illustration of degrees of Corrective Action Strength



Step 6: Preventive Action

Preventive Action are proactive and focused on a potential problem in the future. They improve a process to remove causes for a potential problem and prevent it and related problems from happening.

Step 7: Verification

After the corrective/preventive actions are implemented, the action implementation should be verified. Verification is the process of confirming with objective evidence that the actions were implemented as planned. Objective evidence may include records, procedures, data, measurements, test, travelers, etc.

Step 8: Validation

After verification, the effectiveness of the implemented actions should be validated. Validation may include process audits, product monitoring, and trend analysis. Remember to collect objective evidence.

If actions are found to be ineffective, return to the root cause step and revisit the analysis process.