



«Supplier QUICK RESPONSE QUALITY CONTROL» Basics



What is QRQC?

Conclusion QRQC : A MINDSET

QRQC is a concept based on the mindset to welcome problems in order to improve every day.

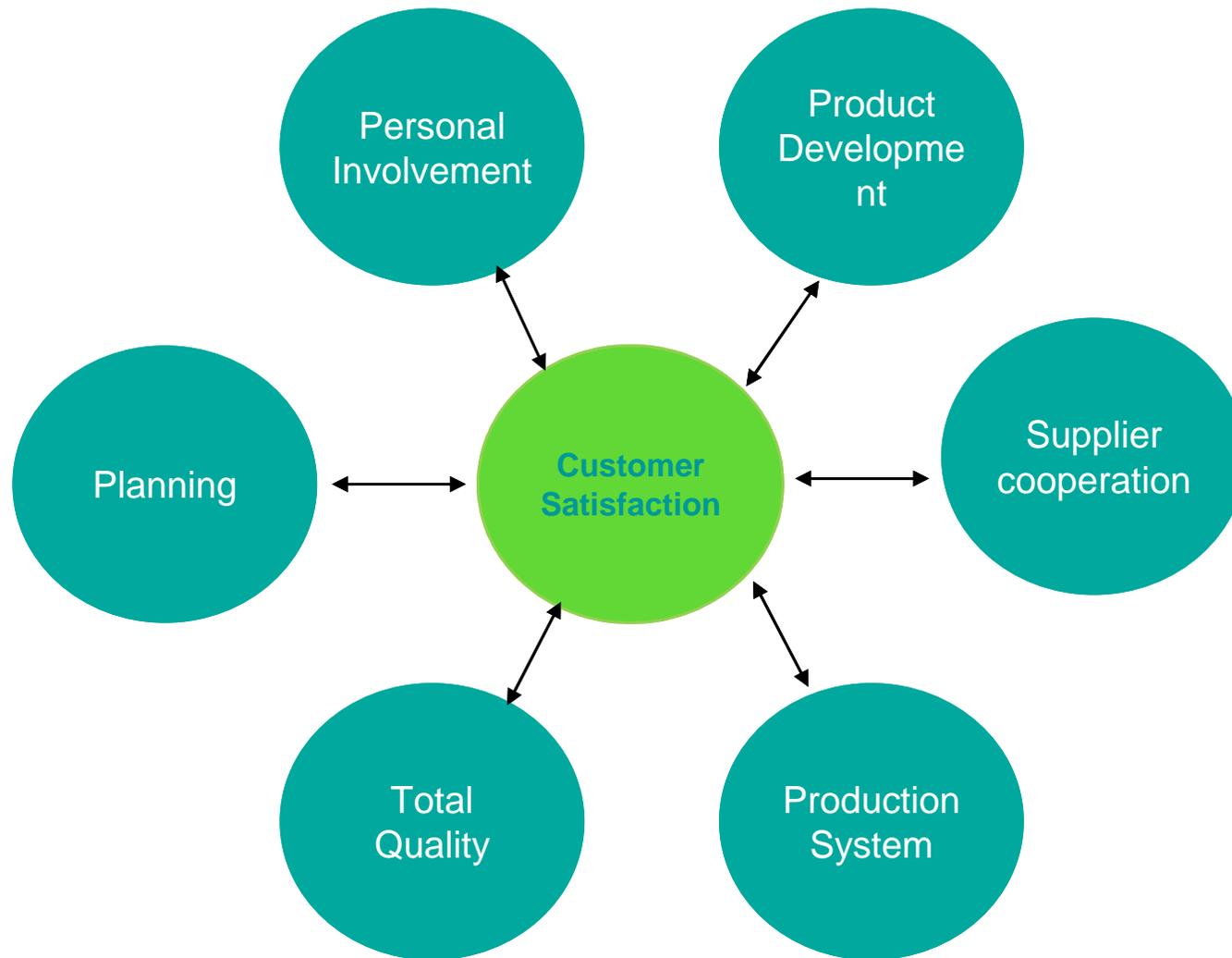
Ask yourself everyday,

Which of my own problems did I detect yesterday?

Then,

What did I improve yesterday?

Operating System



QRQC to be applied everywhere

4 rings of QRQC Steps



Step 1

Problem Solving

Step 2

Problem Prevention

Step 1 + Lesson Learned Card

Step 3

Process Robustness

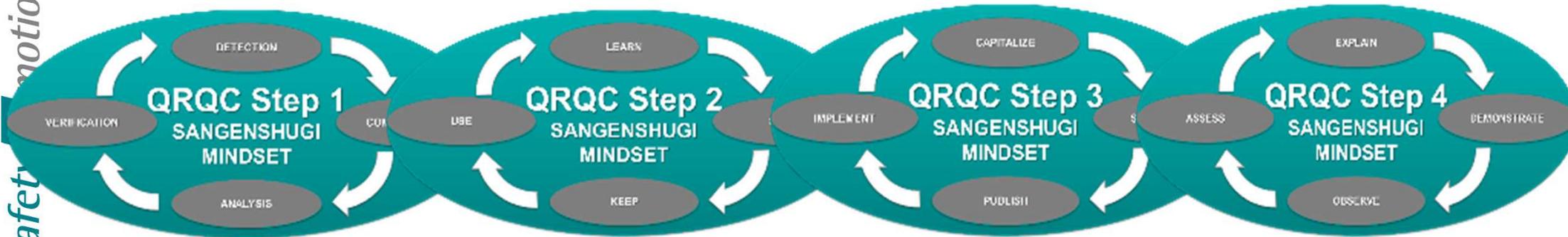
Step 2 + Standardization

Step 4

Coaching

Step 3 + On Job Trainings

safety motion™



Quick Response Means...

➤ **Immediate Actio. :**

Immediate reaction from the moment problem occurs

➤ **Quick Respo. se Activity:**

Characterization of the Problem (5W2H)

Protect the client/human/environment

Sorting / Stock Review with containments

KEY = «CUSTOMER / HUMAN / ENVIRONMENT» PROTECTION IN A MAXIMUM OF 24 HOURS

➤ **A. alysis:**

Root cause identification

Factor Analysis Tree (FTA), 5 Why, reproduction of the defect, definition of countermeasures

➤ **Corrective Actio. s:**

Implementation of countermeasures

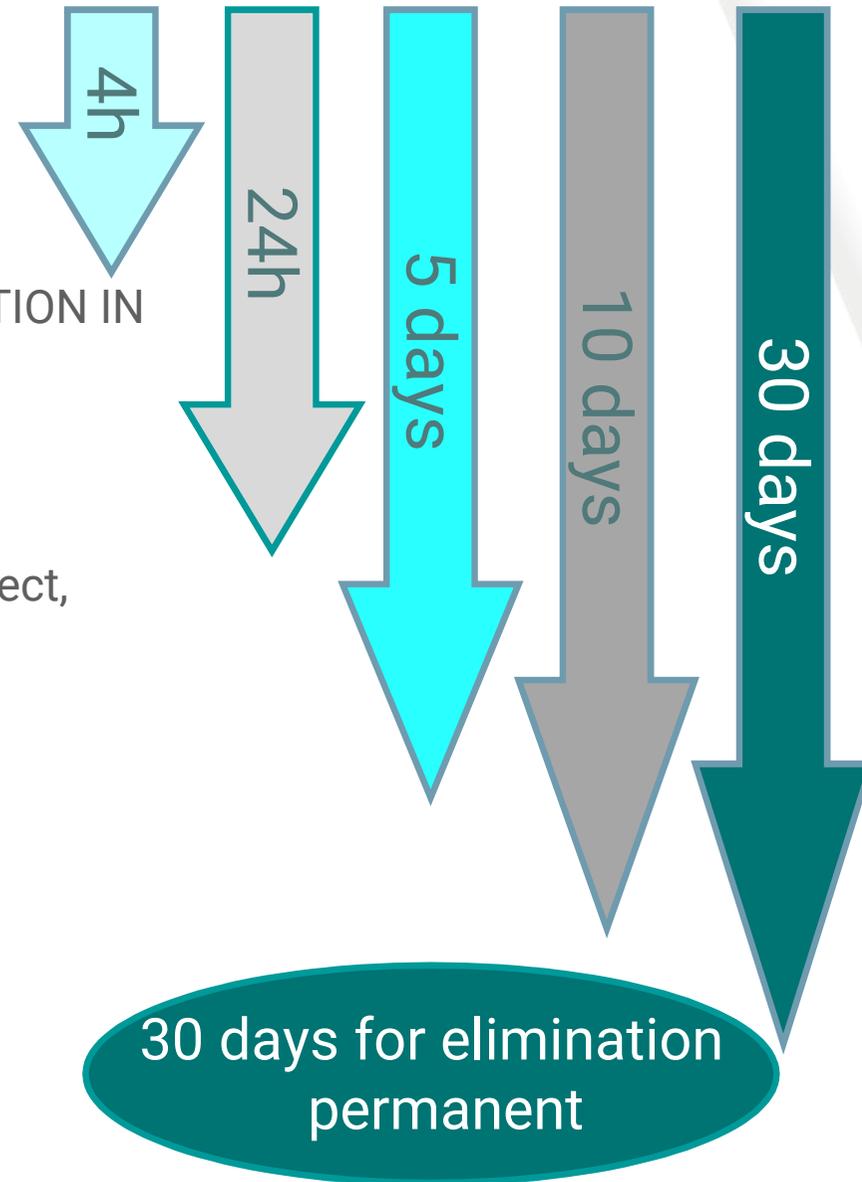
➤ **Verificatio. a. d Validatio. :**

Validate the relevance of analysis

Conform corrective and preventive actions

GET BACK to the **A. alysis** if necessary in the , event of a new FAULT

TIME FRAME (MANDATORY):



QRQC IS;
BASED UPON THE **SAN GEN SHUGI** ATTITUDE

IN OTHER WORDS...
THERE CANNOT BE QRQC WITHOUT SAN GEN SHUGI



What is SAN GEN SHUGI?

What is the methodology to make a Real QRQC?



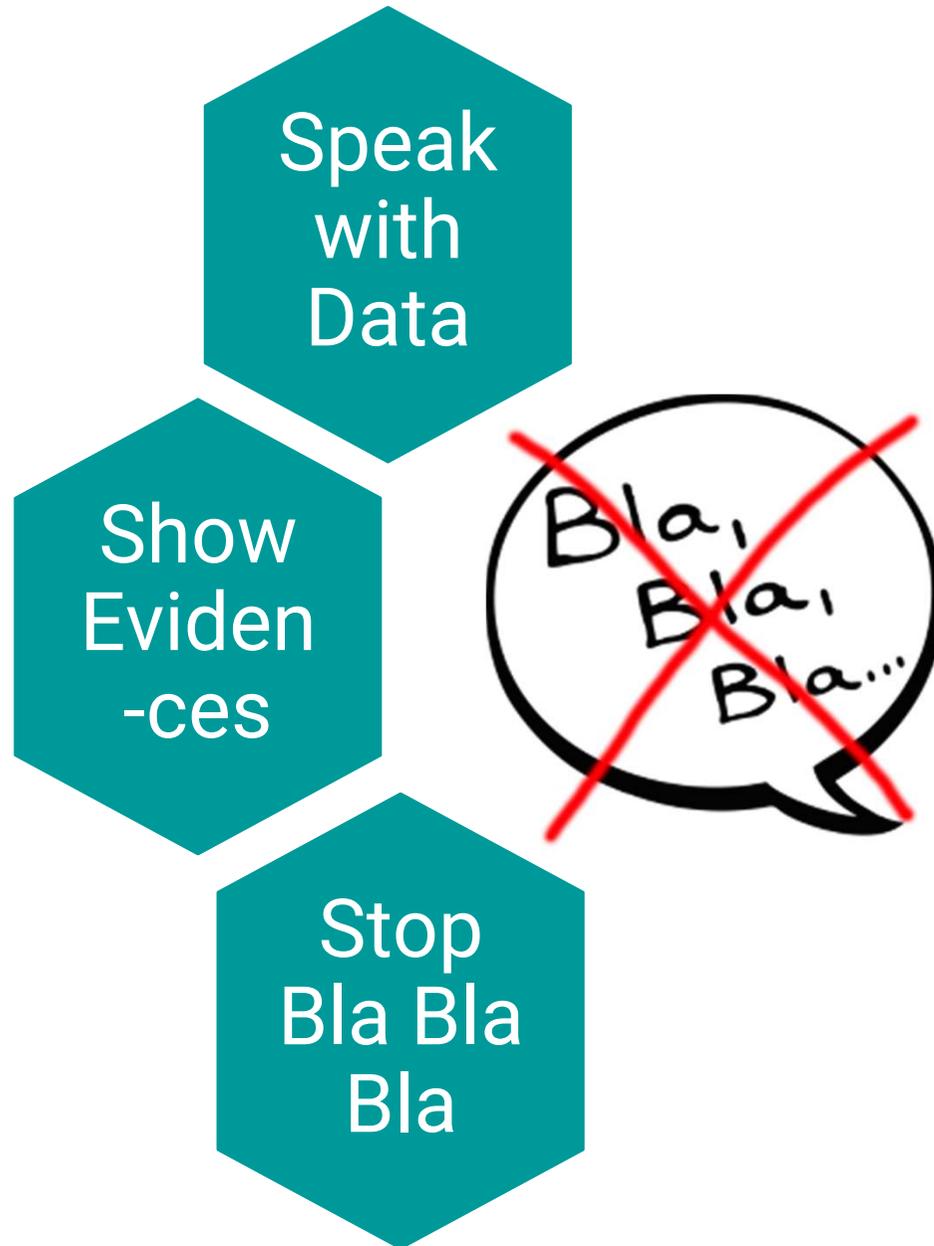
Change Our Attitude: LEGS and EYES!
Kazuo Kawashima



**“I have only two methodologies: my eyes
and my legs.**

**These are all I need to see, to judge, to
consider, to decide.**

This is the basis of Sa. Ge. Shugi.”



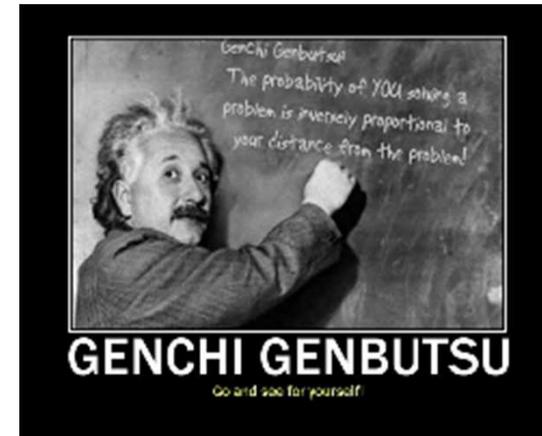
THE KEY ROLE OF MANAGERS IS...

COACHING & PROMOTION OF SAN GEN SHUGI

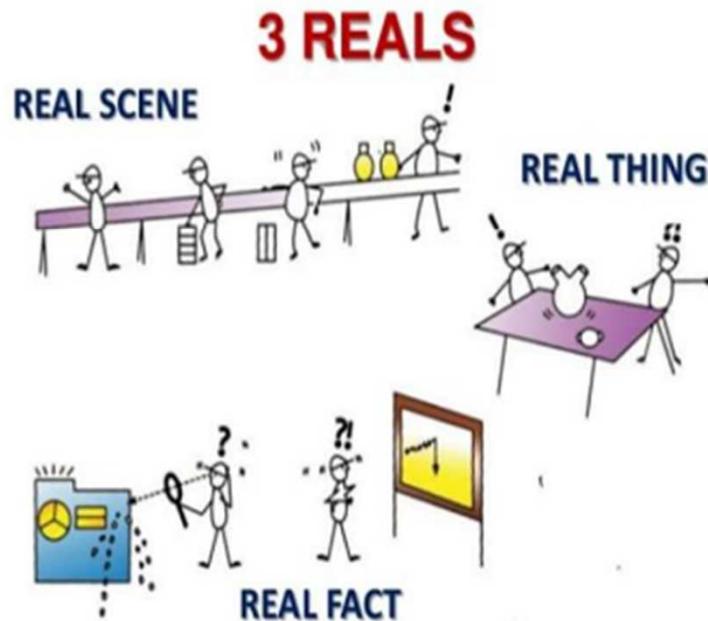
The Real 3 Principles

- **Sa.** means "3"
- **Ge.** means "real" or "actual"
- **Shugi** means «principles»

Attitude above «The 3-Real Principle»



to ask «The 3-Real Question»



- **Gen-ba** means «The Real Place»
- **Gen-butsu** means «The Real Parts»
- **Gen-Jitsu** means «The Real Data/facts»

The 3 Real Questions

Ge. ba → Real Place



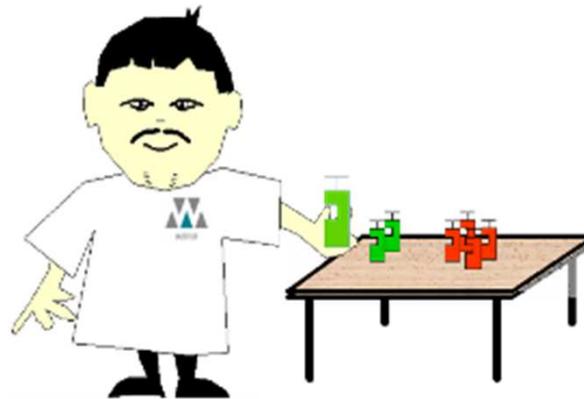
ATTITUDE:

- USE YOUR LEGS AND YOUR EYES !
- I. **terview** of the actors of the problem

BENEFIT:

- NO PLACE FOR IMAGINATION
- **OBSERVE AND UNDERSTAND**
- Be able to **ANALIZE**

Ge. butsu → Real Parts



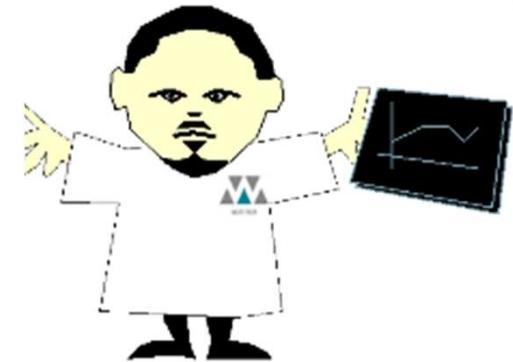
ATTITUDE :

- COMPARE **GOOD** AND **BAD**, **OK** a. d **NOK** (parts, situations...)
- **COMPARE** versus **STANDARD** (drawings, technical specifications...)

BENEFIT :

- Detect the **DIFFERENCES**
- Detect the **DEVIATIONS** versus the Standard
- Identify **RELEVANTS FACTORS**

Ge. jitsu → Real Data



ATTITUDE :

- Speak with **FACTS** and **DATA**
- Ask for **EVIDENCES** and data
- Forbid the words as "I think", "Maybe", "Perhaps" ...

BENEFIT :

- Be **PRECISE**
- Be **CONVINCED** and be **CONVINCING**
- Earn time, Avoid time loss

QRQP: QUICK RESPONSE & ACTION PLAN



5 2 H		QRAP (Quick Response & Action plan)					WITTUR	
Type	Code	Dept	Process	Edition	Issue date	Language		
No: Part.N°: Drawing n°:		Subject / Note		Date: Plant: Area: Workstation:				
Origin of the issue	Quality (Q)		Production (P)		HSE			
	<input checked="" type="checkbox"/> Customer Claim (Product - CCR) <input type="checkbox"/> Customer Claim (Service - OTD)		<input type="checkbox"/> Supplier NC <input type="checkbox"/> Internal NC (Product) <input type="checkbox"/> Internal NC (Process)		<input type="checkbox"/> Internal NC (HSE - Near Miss) <input type="checkbox"/> Internal NC (HSE - Unsafe Condition / Behaviour) <input type="checkbox"/> Internal NC (HSE - Environment)			
WHAT IS THE PROBLEM? Use 5W2H to know what is the Current Situation.								
CUSTOMER VIEW / OPERATOR VIEW (For all cases)				MANUFACTURER VIEW (WITTUR / SUPPLIER) (Not for HSE)				
1) What is the problem?				1) What symptom do we see on our part? What is the difference between good and bad part?				
Description (Free Text)		DEFECT LIST <input type="checkbox"/> Damaged in machine <input type="checkbox"/> Damaged when handling <input type="checkbox"/> Folding error <input type="checkbox"/> Design error <input type="checkbox"/> Dimensional error <input type="checkbox"/> Material defect <input type="checkbox"/> Strike / Stripe / Bun		DEFECT LIST <input type="checkbox"/> Missing parts <input type="checkbox"/> Missing spare parts <input type="checkbox"/> Defective packaging <input type="checkbox"/> Unidentified pieces <input type="checkbox"/> Wrong parts <input type="checkbox"/> Can not ride <input type="checkbox"/> Label not legible		Description (Free Text)		
2) Why is it a problem?				2) Was part produced in the standard process? Was part Reworked?				
Description (Free Text)		PROBLEM DESCRIPTION: <input type="checkbox"/> Cannot assembly <input type="checkbox"/> I can not continue working (line stop) <input type="checkbox"/> Does Not Work <input type="checkbox"/> Aesthetic defect <input type="checkbox"/> Other: _____		Description (Free Text)				
3) When detected?				3) When was it detected?				
Description (Free Text)		DATE: HOUR: SHIFT:		Description (Free Text)				

WITTUR MUST FILL IN

MUST FILL IN

Electronic Document
Sinergest Access

safety in motion™

Detection & Communication →



Characterizatio. (defi. itio.) of the PROBLEM

Common Approach

Common Answers

-What happened?

-Why is it a problem?

-When it happened?

-Who detected?

-Where detected?

-How detected?

-How many ?

1. Customer effect (Effect on lift, difficulty to install, logistic, missed information), nearmisses, unsafe conditions and behaviours, environmental issues, accidents
 2. Consequences: How does it affect the problem (elevator can not lift, could not be installed), the human and the environment, the property
 3. Date and exact time of each detected part, issues
 4. Customer, consumer, operator, logistic
 5. Step of processes / work stations / tasks
-
1. During normal operation, normal inspection, sampling, near misses, LPA, audits etc
 2. Bad parts / situations / cases ?



Detection & Communication →

Characterizatio. (defi. itio.) of the PROBLEM

WHAT IS THE PROBLEM ? > Use 5W + 2H to know what is the Current Situation (C/S) ?

MANUFACTURER VIEW (WITTUR/SUPPLIER)	COMMON ANSWERS
-What symptom do we see on our part/process/workstation?	Surface damage, dimension out tolerance, functional problems
- Was part reworked by <i>customer</i> ? What is the issue?	Check reworking history if available – Description of the issue
-When was it manufactured at Supplier?	Date of Production, Shift #, Production Order
-When was occurred?	
- Who manufactured? Who detected?	Machine#, Operator, Quality Inspector,
-In which other customer sites is this product delivered?	Customer factories involved
-In which other areas is this issue occurred?	Check other similar production line or machines
-Are we capturing the defect when re-injecting product in normal process?	Is the defect detectable in the current process flow
-Did a similar problem happen previously at customer or internally?	Check problem history at customer or internally
-Did a similar issue, aciident, nearmiss happen previously internally?	
--Which WITTUR site(s) must be warned?	Customer factories involved in the issue

Detection & Communication → SORTING



What was learned from the physical sorting activity:

date or shift related

person related

product family specific

tooling specific

machine specific

material specific

random / consecutive

symptom is repetitive or varies in form

Analysis → after SORTING

What was learned about the situation:

Events which occurred during the production period of the NOK parts eg. maintenance action, new batch of a component, new equipment or tooling, untrained person on the line, power failure, temperature, customer visit....

Review of PFMEA / DFMEA:

Is the risk identified in the FMEA?

Which control method is defined in the FMEA? Is it still working as expected?

Which lessons learned (one point lesson) have already been written for similar problems?

Is there any lessons learned related to a similar problem that has happened before, in your Plant, in the Group?

Analysis → ROOT CAUSE DETERMINATION

“To identify and correct the root causes of events, rather than to simply address the symptomatic results”.

The focus on the correction of the root causes has the goal of entirely preventing problem recurrence.

Proposed Instrument:

- ✓ Ishikawa (Fishbone Diagram)
- ✓ 5 WHYs



Analysis → RULES for Root Cause Analysis

RULES for root causes analysis

- ✓ Don't jump to conclusion without facts
- ✓ Compare Good/ bad/ Standard
- ✓ Verify after each why, based on fact test data
- ✓ Involve Operators and all related persons in the analysis
- ✓ Follow the PDCA standard formats: you don't need anything else!



Analysis → HOW to REPRODUCE the DEFECT

Asking Operator to create defective parts having same signature than «**Bad**» parts

Observation of process to capture facts when **similar problems** appears

Exchange of components shows that problem follows one component (Shanin technique: **compo. e. t search**)

Parts manufactured with same characteristics than «**Bad**» parts show similar signature (Shanin technique: **parameter search**)

Parts manufactured with slightly amplified deviation on suspected process parameter show **similar sig. ature**

NC Management Timeline

