

3.05/ Number of Failure Mode Effects and Criticality Analysis (FMECA) and impact

1/ Definition

The number of FMECA and their impact permit to :

- Check that the feedback and the continuous improvement loop is well done
- Check if the feedback and the continuous improvement loop has a utility
- Verify the impact of the actions taken after the FMECA

2/ Objective / Target

The goal is to have actions which have an impact on the problems detected thanks to the FMECA

An action without impact on an identified problem after a FMECA analysis should be record in order to improve the FMECA sessions.

3/ Formula

See 5/ Calculation example

4/ Frequency

Monthly

5/ Calculation example

This indicator is calculated manually thanks to the excel file below (figure 1).

As a example, Rheinberg decided to create its own calculation rules (see figure 2) which permit to fill the excel file.

Then it's displayed in MECANO (see figure 3).

Current Year :		2016					
Update only yellow cells		Effetiveness					
RHEINBERG		1.10. curr	3.6. Nb	3.6. Nb	3.13. Nb	3.13. Nb	
SITE CODE	YEARMONTH	Spend versus budget	Number of problem solving studies (Focused improvement)	Number of problem solving studies (Focused improvement) Target	Number of critical analysis with an FMECA analysis	Number of critical analysis with an FMECA analysis Target	
RBG	Unit	€	Nb	Nb	Nb	Nb	
RBG	Relevant to the site (Y/N) ?	Y	Y	Y	Y	Y	
RBG	201601		8	0,01	42,5	40	
RBG	201602		23,5	20,01	45	55	
RBG	201603			40,01	71,25	70	
RBG	201604			60,01		85	
RBG	201605			80,01		100	
RBG	201606			100,01		115	
RBG	201607			120,01		130	
RBG	201608			140,01		145	
RBG	201609			160,01		160	
RBG	201610			180,01		175	
RBG	201611			200,01		190	
RBG	201612			220,01		205	

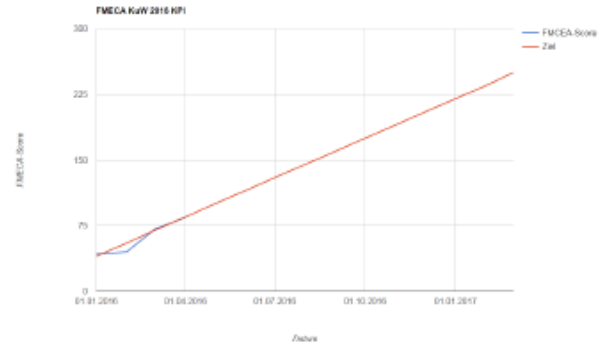
Figure 1

Implementation of suggested KPI's for the tracking of the activities

FMECA-Score = sum (Effort) + 20% bonus in case of replication
(3.13 in MECANO-Catalogue)

Effort for the steps of each FMECA (man-hours):

- Preparation
- FMECA-session
- Post processing



Übersicht der FMECA für den Bereich KUV										FMECA-score	84,25
Sektor	Bereich	P&I	Starttermin	Endtermin	Status / %	Anzahl der bearbeiteten Blätter	Gesamtzahl der Blätter	Anzahl der bearbeiteten Equipments	Anzahl der Sitzungen	Anzahl der Mannstunden	Arbeitsblatt
GN3	Rauchgassystem	Rb 0107429	28.09.15	01.12.15	100,00%	1	1	2	3	9	FMECA GN3 Rauchgassystem
GN3	Gas Luft	Rb 0107432	01.12.15	03.02.16	100,00%	1	1	5	4	42	FMECA GN3 Gas Luft
GN3	Speisewasser: Schläve 1+2	Rb 0107431	04.02.16	10.02.16	100,00%	1	1	3	3	11,05	FMECA GN3 Speisewasser: Schläve 1
GN3	Ue1, Ue2, Dampfnetz	Rb 0107438	01.12.15	04.03.16	100,00%	1	1	5	3	6,5	FMECA GN3 Ue1, Ue2, Dampfnetz
GN3	Trommel	Rb 0107437	01.12.15	10.02.16	100,00%	1	1	3	3	9,2	FMECA GN3 Trommel

Figure 2



Figure 3

