

A vertical decorative bar on the left side of the slide, consisting of a light green upper section and a dark blue lower section.

# Introduction of the Energy Management System according to ISO 50001

Speaker                      Dietrich Deutschmann

5<sup>th</sup> International Conference for European EnergyManagers  
14<sup>th</sup> - 15<sup>th</sup> May 2014, Vienna



# RHI at a glance



- Vertrieb
- Produktion
- Headquarters
- Technology Center
- Bergbau und Rohstoffproduktion
- Produktionstandort in Bau

## Eckdaten

- Schwerpunkt auf Produktion, Verkauf und Installation von hochwertigen Feuerfestprodukten
- 2012: Umsatz von € 1.835,7 Mio. und EBIT von € 167,6 Mio./3. Quartal 2013: Umsatz von € 427,4 Mio. und EBIT von € 30,7 Mio.
- 33 Produktions- und über 70 Vertriebs- und Service-Standorte mit 8.400 Mitarbeiterinnen und Mitarbeitern
- Globaler Partner für über 10.000 Kunden in mehr als 180 Ländern
- Technologieführerschaft mit marktnahen F&E-Einrichtungen und maßgeschneiderten Produkten

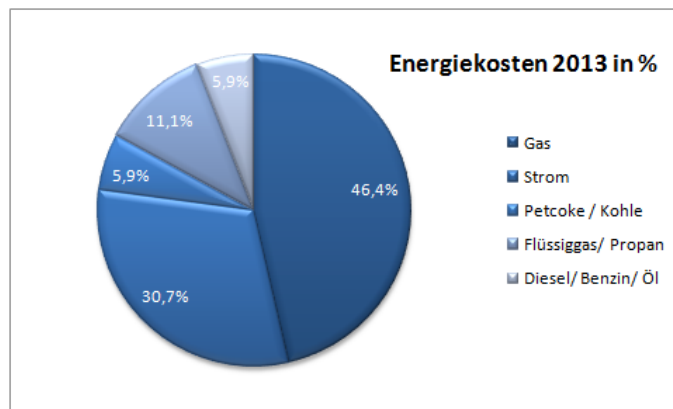
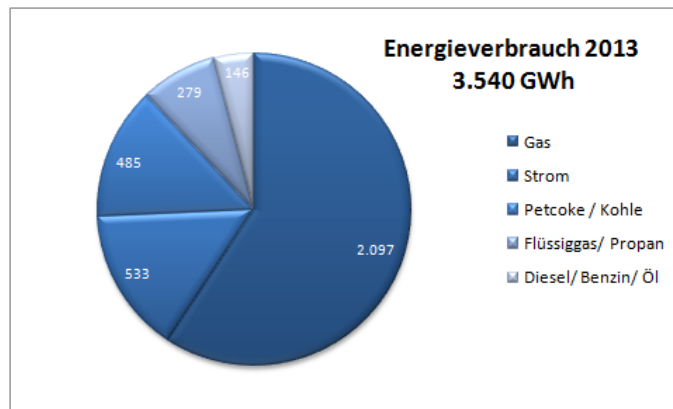
## Zertifizierungen

- ISO 9001:2008
- ISO 14001:2004
- BS OHSAS 18001:2007
- ISO 50001 : 2011

# Why is EnMS important for RHI?



## Energy consumption 2013: 3.540 GWh



# Launch of the EnMS as per ISO 50001



## ■ 1st Goal: Lean and simple

- 12 overriding documents
- 8-9 local documents
- Goal for documentation:  
max. 1 page

01\_Energiepolitik und Verantwortlichkeiten

02\_Bewertung des IST-Prozesses

03\_Messsystemanalyse

04\_Energieplanung und EnPI's

05\_Relevante Prozesse

06\_Rechtssicherheit

07\_Dokumentenmanagement

08\_KVP

09\_Kommunikation

10\_Trainings

11\_Audits and Reviews

# Launch of the EnMS as per ISO 50001



## ■ 2nd Goal: Utilisation of the available structure

- 12 overriding documents
- 8-9 local documents
  
- Goal for documentation:  
max. 1 page

01\_Energiepolitik und Verantwortlichkeiten

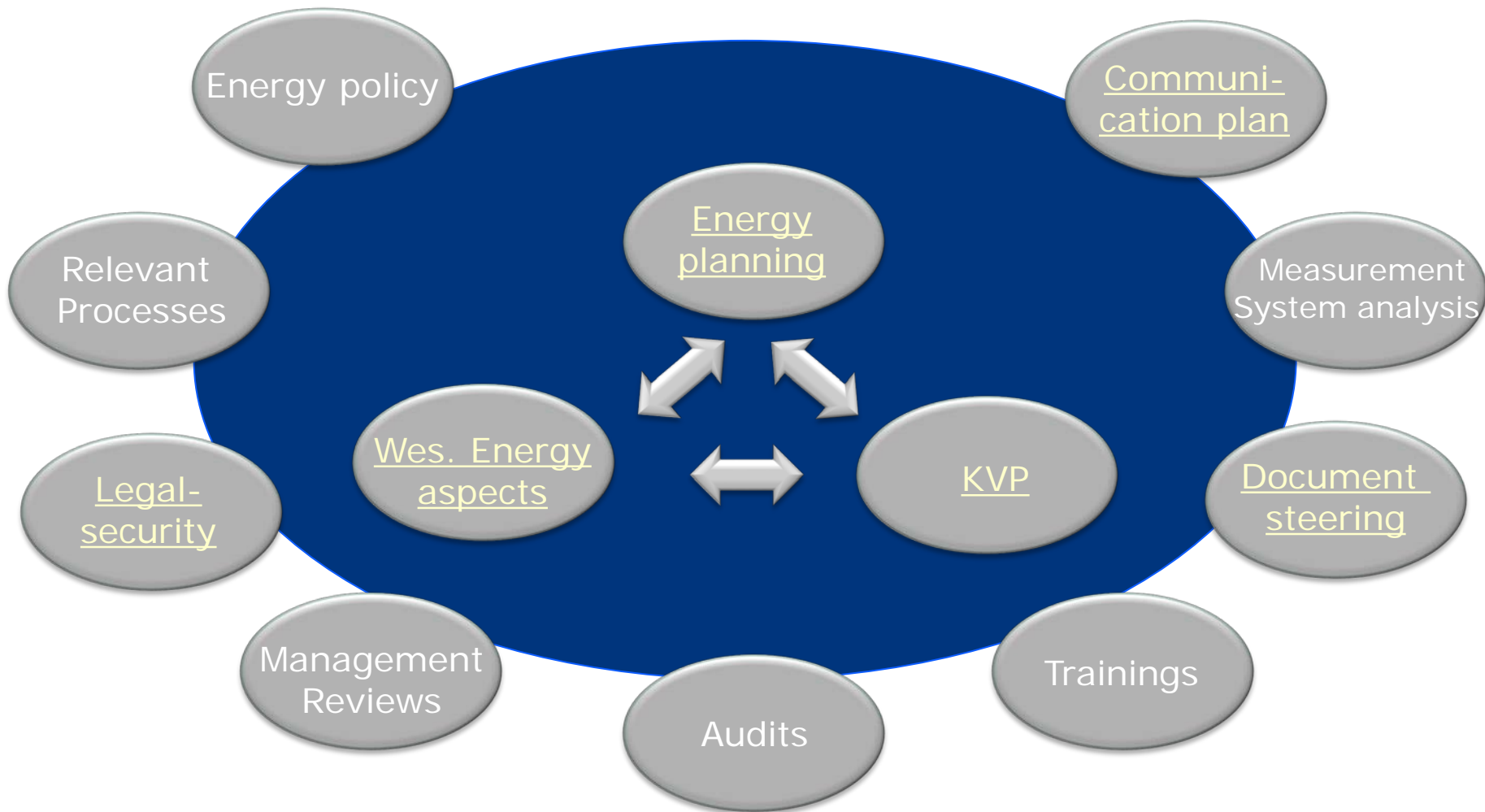
02\_Bewertung des IST-Prozesses

04\_Energieplanung und EnPI's

09\_Kommunikation

10\_Trainings

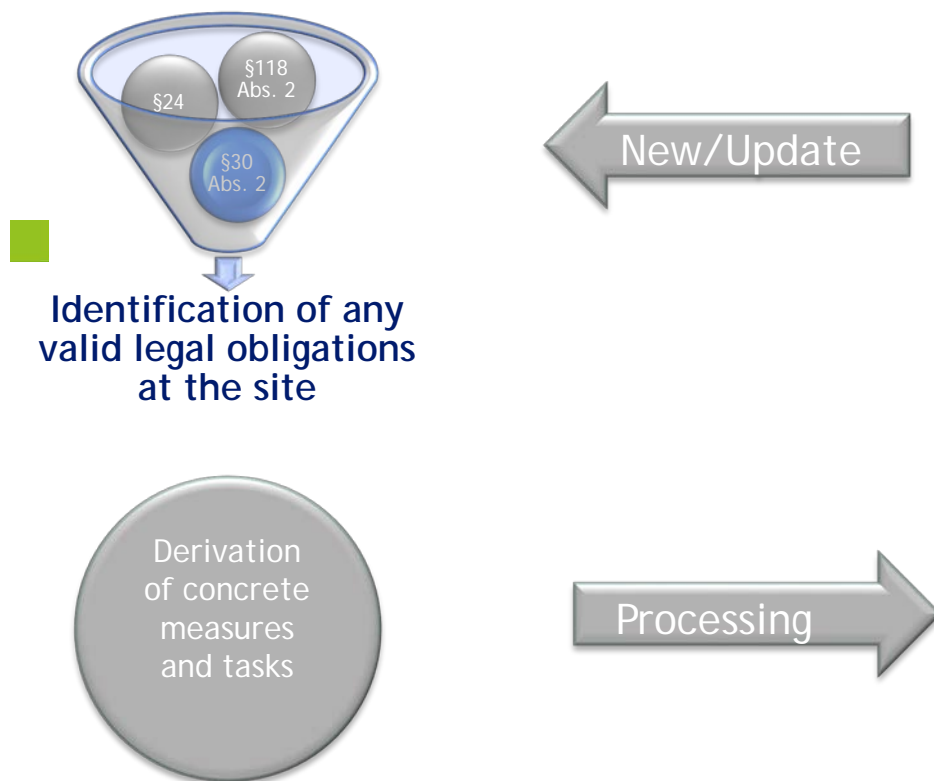
# Elements of the ISO 50001



# Energy management

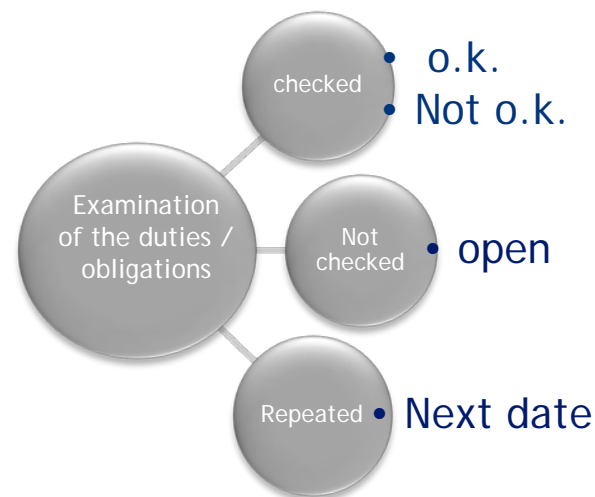
...there is always something to do!

# Legal security



## Laws and Regulations

- Austrian Federal Economic Chamber or IV-Newsletter
- Legal Information System RIS
- Information events
- External legal advisor



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# Document Control



- Ensuring that the current document is always available where required.

Dokumentenlenkung Energiemanagement							
Dok.Nr.	Revision	Status	Dokumententitel	Erstellt von	Freigabedatum	In Verwendung (Bereich)	Empfänger
2	00/01.2014	archiviert	EnMS Ablauflenkung	Max Mustermann	29.01.2014	Produktion, Instandhaltung, Einkauf	Alle Fert.-Linienleiter alle Bereichsleiter IMS-Team Einkauf
2	01.02.2014	freigegeben	EnMS Ablauflenkung	Maria Österreicher	04.02.2014	Produktion, Instandhaltung, Einkauf	Alle Fert.-Linienleiter alle Bereichsleiter IMS-Team Einkauf

Important: All old documents must be confiscated

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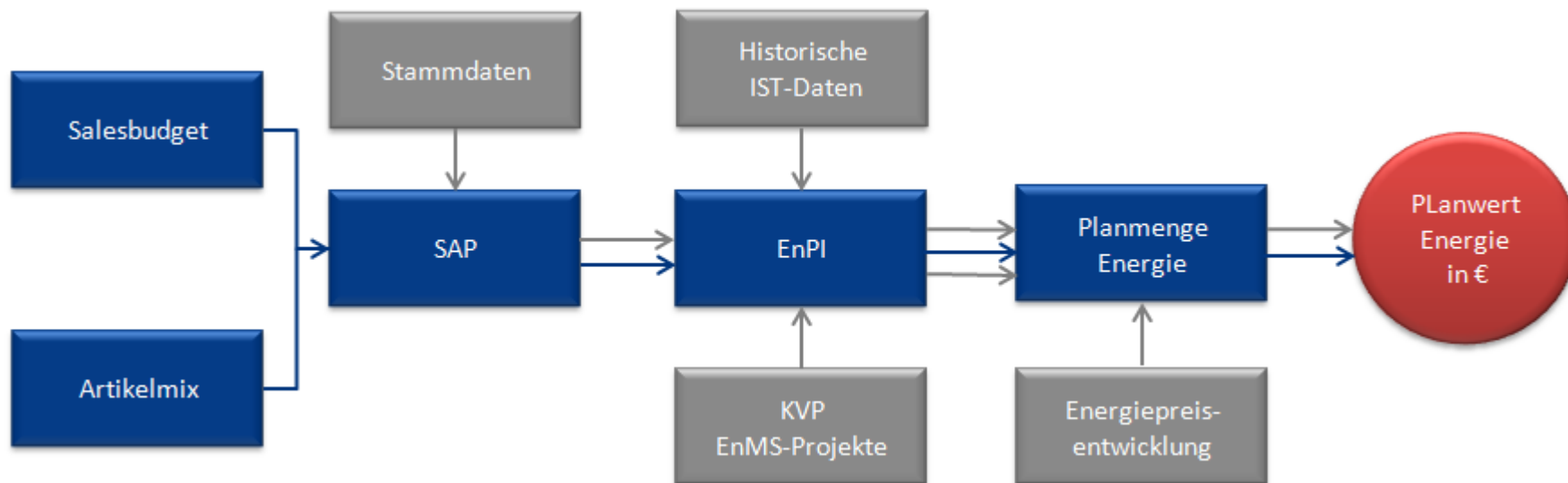
# Communication Plan



Kernbotschaft / Inhalt	Anmerkung	Zielgruppe	Medium / Kanal	Häufigkeit	Owner	Timeline
Ziele / Zweck / Inhalte / Organisation	Info über den Stand der EnMS-Einführung	Clustermanager	Präsentation im PC-Meeting	quartalsweise	WL	laufend
		F-Team	F-Team	monatlich	EnMS-Beauftragter	laufend
		Betriebsrat	Werksteam	monatlich	WL	laufend
(Projekt) Ergebnisse	Projekterfolge	Clustermanager	Präsentation im PC-Meeting	quartalsweise	WL	laufend
		Werkscluster (WL, MCC, Controlling, HR)				
	Update aus Projekten	Führungskreis Werk	Lenkungsausschuss	alle 4 Wochen	EnMS-Beauftragter	laufend
		Teammitglieder				
Betriebsrat						
Projekterfolge, Energieleistung (Trends, etc.)	alle Mitarbeiter	Betriebsversammlung, Werkszeitung, Info-Bildschirme	bei Bedarf			
Ausbildung und Schulungen	EUREM oder vergleichbar	EnMS-Verantwortliche	IHK Deutschland, TÜV, etc.	einmalig	EnMS-Beauftragter	2014
	Schulung nach Ausbildungsmatrix	alle Mitarbeiter	spez. Trainings im Werk lt. Schulungsmatrix	einmalig	EnMS-Beauftragter	2014
	Awareness		Betriebsversammlung	erledigt	WL	01.07.2013
			EnMS-Flyer	einmalig	EnMS-Beauftragter	08.11.2013
			UWEB	jährlich	IMS-Beauftragter	ab 01.01.2014
			Infobildschirm	laufend	EnMS-Beauftragter	ab 01.01.2014

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# Energy Planning Process



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# Significant Energy Aspects (WEA)



- Representation of the status quo
- Influencers
- Information

# Significant Energy Aspects (WEA)



## ■ The Status Quo

- Volume balance of all major energy flows
- Current cost centre / production area
- Annual consumption
- ENPI's
- Specific consumption based on the ENPI's
- Amount of energy consumption in total consumption in%

# Significant Energy Aspects



- Influencing factors:
  - Fluctuations in consumption
  - Running time of the plant/  
power unit
  - Interruptibility
  - Planning
  - Process and production parameters

# Significant Energy Aspects

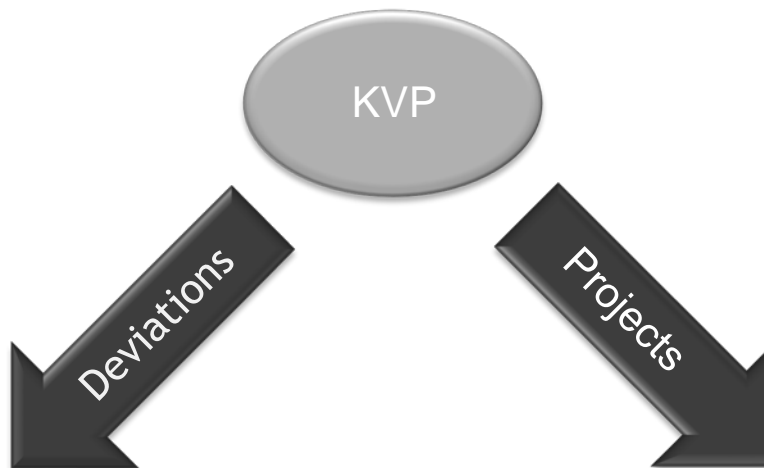


## ■ Information

- Measuring system analysis
- Deviations from the benchmark
- Possible savings
- Possible ideas
- Procedural instructions for consumers with significant energy aspects

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# KVP



CONTINUOUS IMPROVEMENT PROCESS - KONTINUIERLICHER VERBESSERUNGSPROZESS

Deviation/Incident applicable for deviations from operational safety & non-compliance, corrective and preventive measures  
 Abweichung/Incident: Anwendung für Abweichungen von sicherheitstechnischen Anforderungen, Korrektur- und Vorbeugungsmaßnahmen

No.	Date	Origin	Description	Category	Priority	Responsible	Status	Start	End	Cost	with cause analysis and corrective / preventive action		verification of effectiveness	
											Investigation	Corrective/Preventive Action	Verification	Effectiveness
1	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
2	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
3	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
4	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
5	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
6	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
7	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
8	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
9	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
10	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
11	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
12	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
13	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
14	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
15	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
16	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
17	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
18	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
19	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
20	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
21	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
22	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
23	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
24	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
25	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
26	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
27	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
28	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
29	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...
30	27.08.2010	...	...	...	...	...	...	...	...	...	...	...	...	...

Dev-List\_V0

PID

Name des Projektes	Datum
Business Case	Involvierte Bereiche
	Abhängigkeiten
Problem Statement (Problemdarstellung)	Zielvorgabe (Zieldarstellung)
Project Scope (Projektumfang)	Projektverantwortliche
	Sponsor
	Timeline: Start: End:

No ideas contest! Hard work based on facts and figures

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# Deviations Analysis Tool

deviation, non-conformity <i>Abweichung, Nichtkonformität, Fehler</i>				root cause analysis and corrective / preventive action <i>Ursachenanalyse und Korrektur-/Vorbeugungsmaßnahme</i>									verification of effectiveness <i>Wirksamkeitsprüfung</i>		
ID	date <i>Datum</i>	origin <i>Quelle</i>	process / area <i>Prozess / Bereich</i>	description of deviation <i>Abweichung, Nichtkonformität, Fehler</i>	description of cause <i>Beschreibung der Ursache</i>	responsibility <i>Verantwortung</i>	priority <i>Priorität</i>	immediate action <i>Sofortige Korrektur</i>	closing date <i>erledigt am</i>	(longterm) action <i>(Langfristige)</i> <b>Maßnahme</b>	close till <i>erledigen bis</i>	closing date <i>erledigt am</i>	responsibility <i>Verantwortung</i>	verification, conclusion <i>Prüfung, Feststellung</i>	date <i>Datum</i>

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