

KORN CONSULT

Consulting - Training - TQM



KORN CONSULT GROUP

Quality is not accidental,
it is the result of effective business processes™



About us

- ✓ Practical Experienced Team in the Automotive Industry
- ✓ OEM's Representatives related to Supplier Development Projects
- ✓ OEM's Specific Requirements & Expectation Knowledge
- ✓ Technical Background regarding Manufacturing Processes
- ✓ Language Diversity and Culture



Our philosophy

PRODUCT

... understanding it
from customer expectation view
in relation
to manufacturing capabilities

PROCESS

... analyzing it
from customer requirement view
and
making it effective

METHODS

... implementing them
with practical approach
and tailored
to customer's needs

MANAGEMENT

... involving it
to succeed through leadership
and
focusing on target

Our history

2006



Foundation of
KORN CONSULT

2007



Office Opening in
Timisoara - RO

2008



Accepted Provider by
Daimler AG

2010



Office Opening in
Prague - CZ

2011



Office Opening in
Budapest - HU & Barcelona - ES

2011



Accepted Provider by
Porsche AG

2012



JV - Office Opening in
Northville - US & Curitiba - BR

2012



Accepted Provider by
BMW Group AG

2013



Awarded - Management
"TOP CONSULTANT"

2014



Office Opening in
Shanghai - CN

2014



Accepted Provider by
VW AG

2015



Office Opening in
Wroclaw - PL & Mexico City - MX

2015



Awarded - Management
"TOP CONSULTANT"

2015



Accepted Provider by
AUDI AG



Our leading team



Holger KORN
Executive Consultant
CEO / Managing Director



Christian HAART
Executive Consultant
COO / Managing Partner



Markus SCHÄFER
Executive Consultant
Lead Project Management



Werner MANN
Executive Consultant
Regional Manager Asia



Ovidiu BISTRICEANU
Senior Project Manager
Regional Manager East Europe



Christian KORN
CFO



Ulrike FREUND
Assistant

Our East Europe team



Ovidiu BISTRICEANU
Senior Project Manager
Regional Manager East Europe



Florentin BOMBITA
Senior Consultant
Office - RO



Traian ROSUT
Senior Consultant
Office - RO



Andreea DIANCOV
Project Controlling
Office - RO



Anca TRIF
Marketing & Design
Office - RO



Martina HRABETOVA
Senior Consultant
Office - CZ



Petr CULEK
Senior Consultant
Office - CZ



Attila IVACSON
Senior Consultant
Office - HU



Pawel KOSTECKI
Senior Consultant
Office - PL



Our services (extras)



Management Consultancy

- Introduction of Automotive Methods & Operational Application
 - Start-up, Rump-up & Relocation Process Support
 - Task Force, Capacity & Crisis Management
 - Supply Chain Assessment & Development



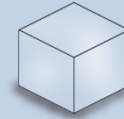
Interim Management

- Plant & Production Management
- Logistic & Procurement Management
- Quality & Supply Quality Management
- Product Development & Project Management



Engineering Services

- Project Management
- Project Quality Planning
- Production Launch Support
- Production Process Control Support



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Consulting - Training - TQM



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Quality as Forecast

Concept Introduction



The added value

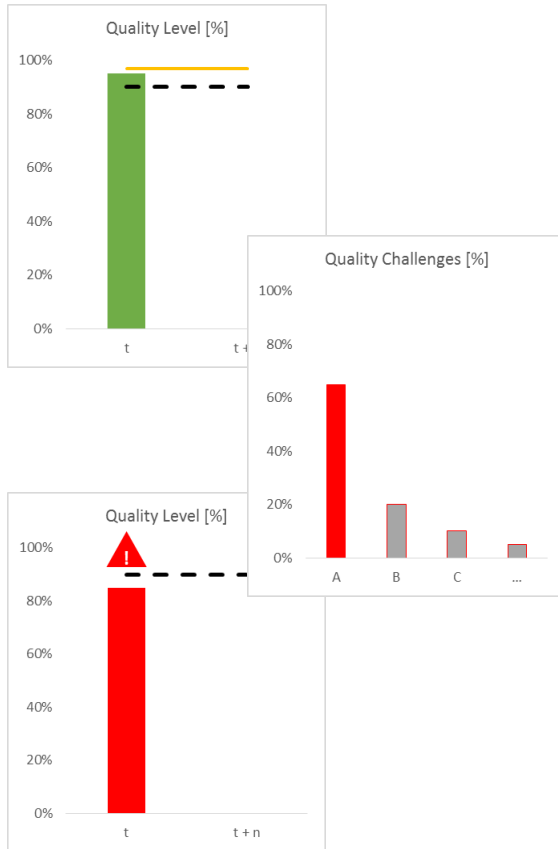
- ⇒ **Challenge the team & management team**
to have a deep understanding of the quality challenges & contributors
- ⇒ **Set the appropriate methodologies to address effectively**
the quality contributors and the required activities
- ⇒ **Provide a “forecast” view of the achievable objectives**
based on the proposed activities and decisions for quality challenges
- ⇒ **Measurable “visibility” of performed activities**
based on the effect and “pop-up” quality challenges & contributors



A view on the “classical” model

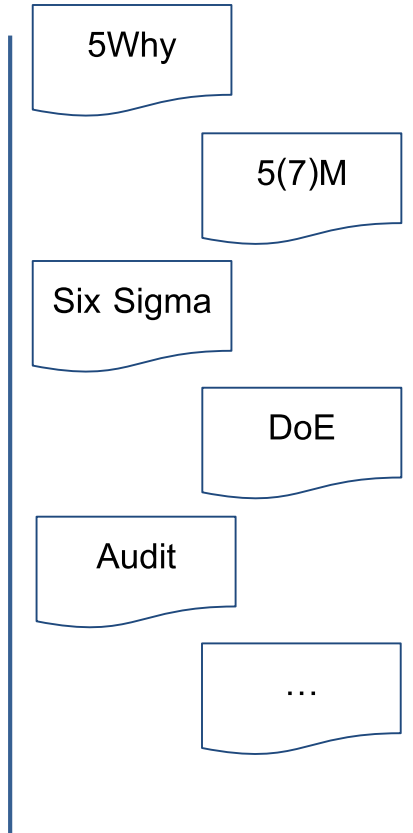
PLAN

point of time “t”



DO

point of time “t+1+...”



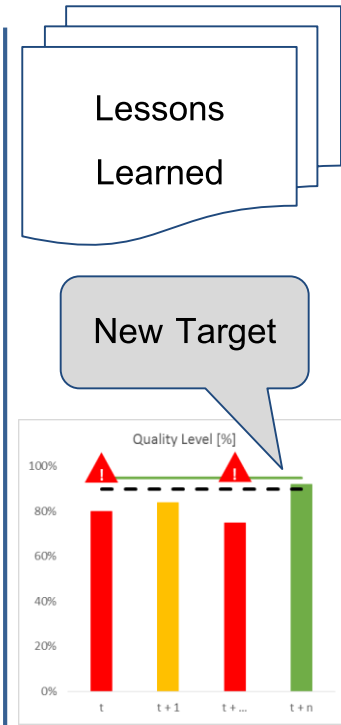
CHECK

point of time “t+1+...+n”



ACT

point of time “t+n”

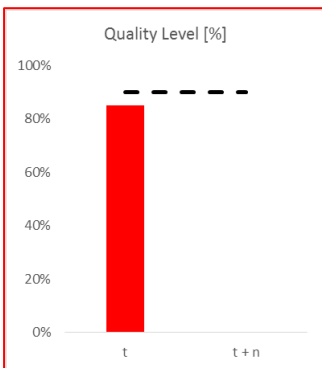
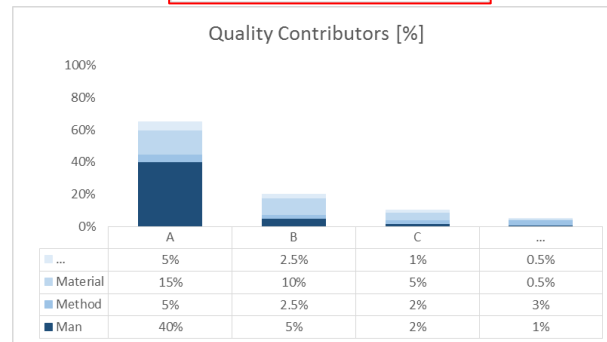
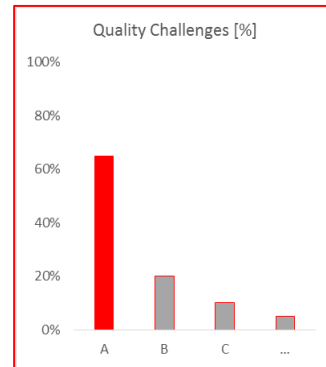
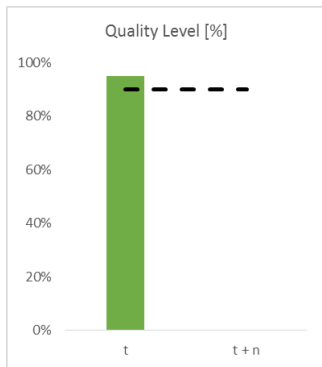




“Quality as Forecast” model [1.1/3]

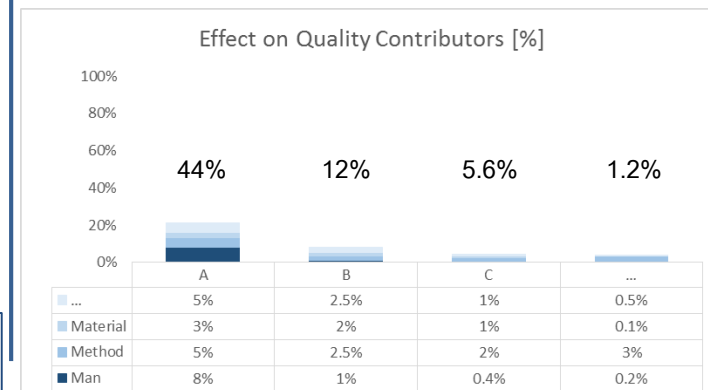
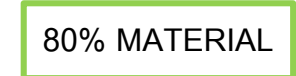
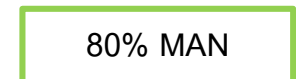
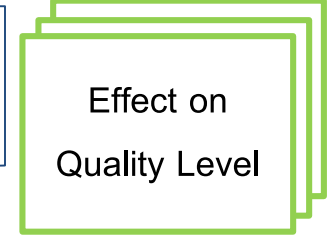
PLAN

point of time “t”



DO

point of time “t+1”



“Q” Contributor

MAN

Audit

“Q” Contributor

MATERIAL

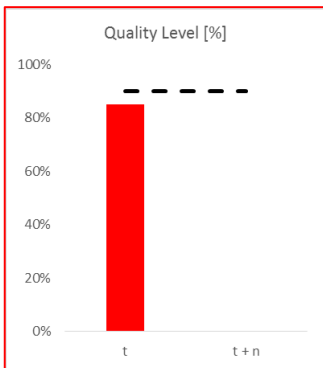
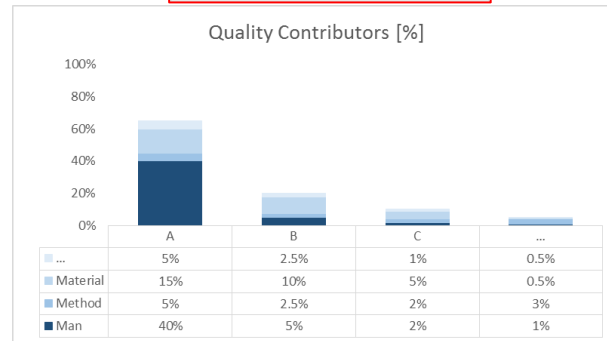
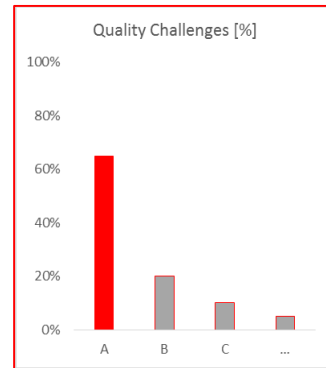
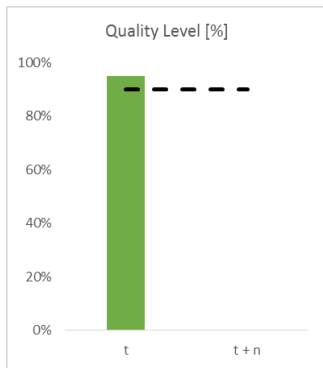
DoE



“Quality as Forecast” model [1.2/3]

PLAN

point of time “t”



“Q” Contributor

MAN

Audit

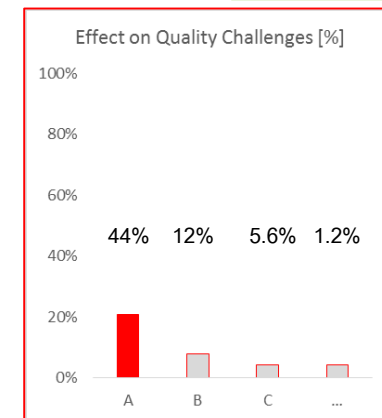
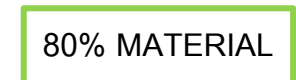
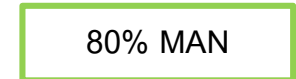
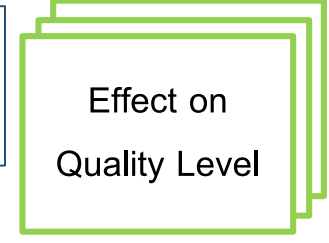
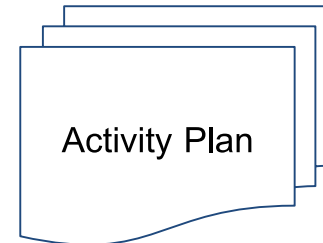
“Q” Contributor

MATERIAL

DoE

DO

point of time “t+1”

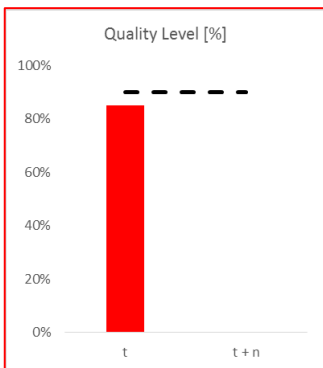
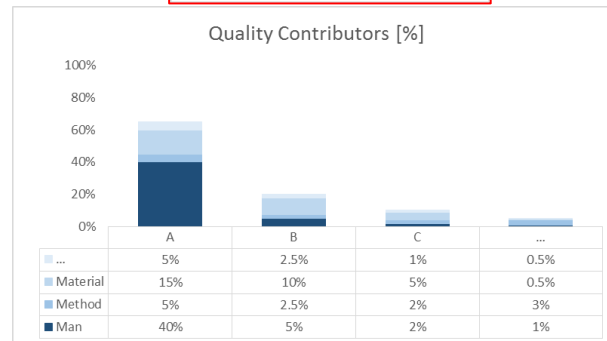
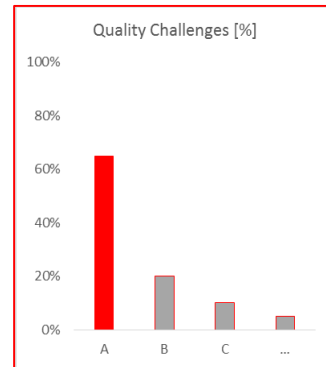
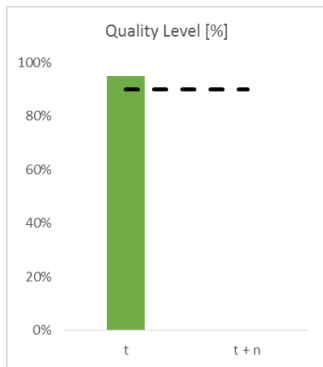




“Quality as Forecast” model [1.3/3]

PLAN

point of time “t”



“Q” Contributor

MAN

Audit

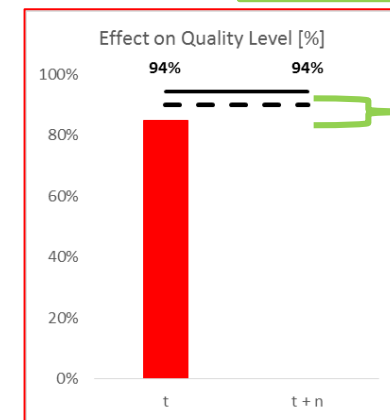
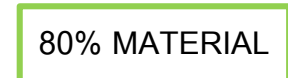
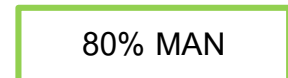
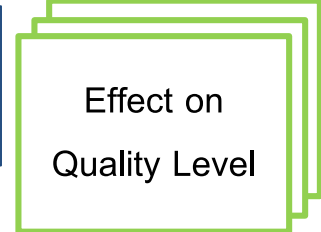
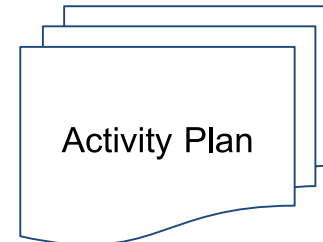
“Q” Contributor

MATERIAL

DoE

DO

point of time “t+1”



9%
Overall Effect



“Quality as Forecast” model [2/3]

CHECK “Best Case Scenario”

point of time “t+1+...+n”

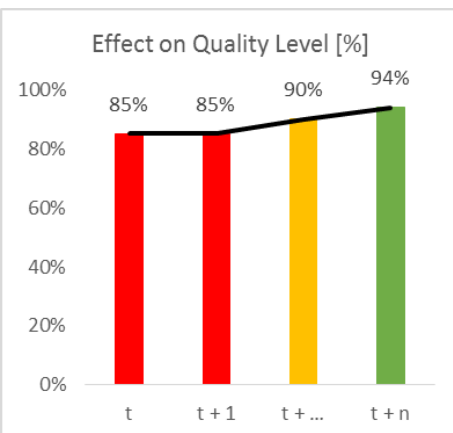
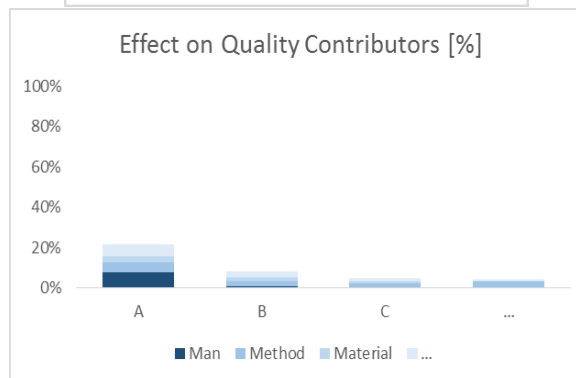
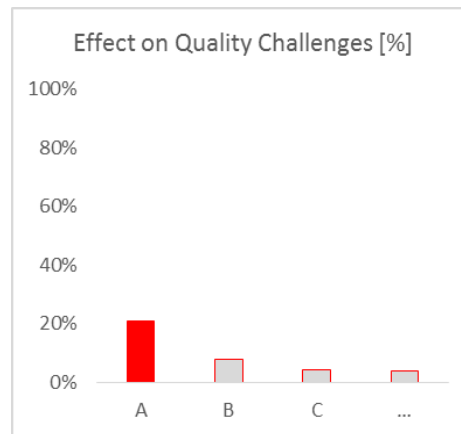
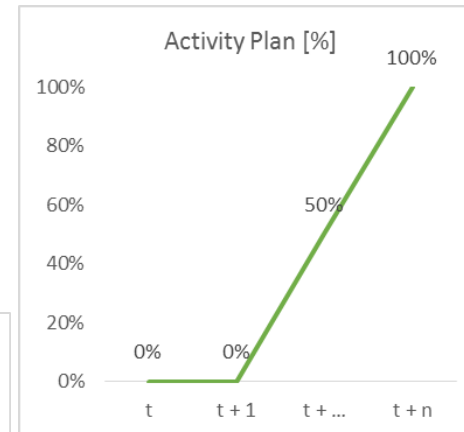
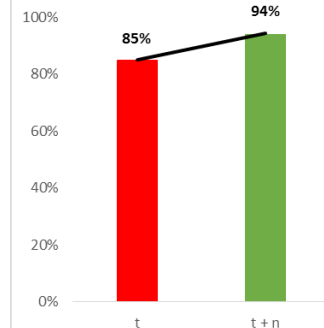
ACT

point of time “t+n”

Lessons
Learned

New PDCA

Effect on Quality Level [%]

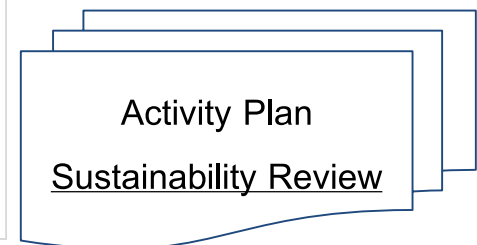
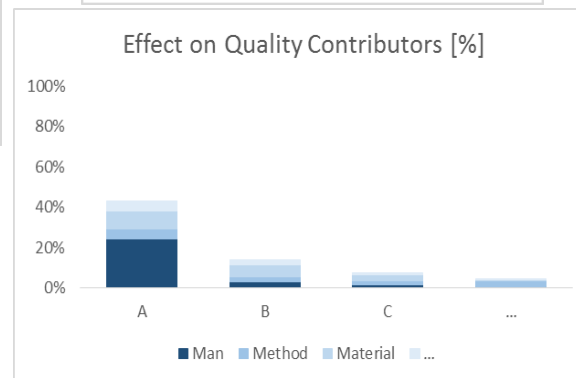
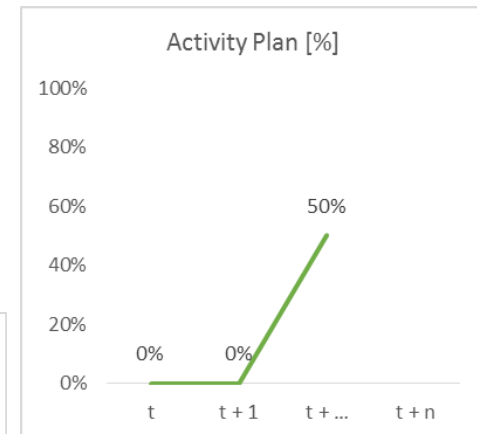
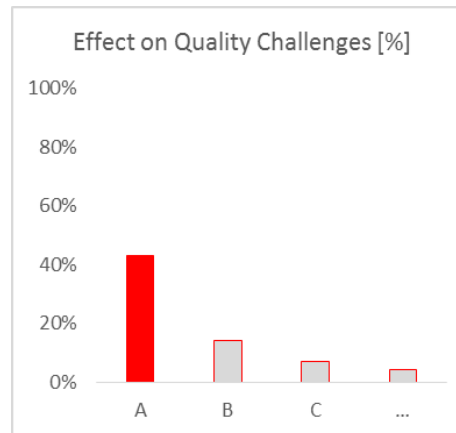
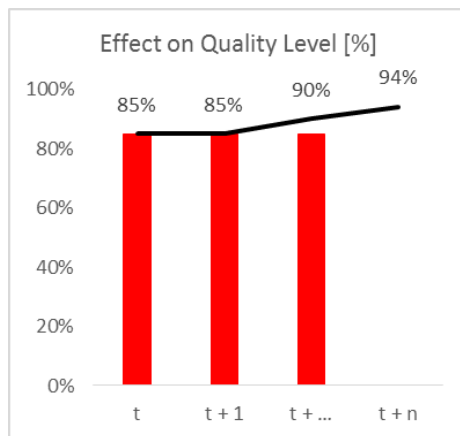




“Quality as Forecast” model [3.1/3]

CHECK “Challenge Case Scenario 1”

point of time “t+1+...+n”

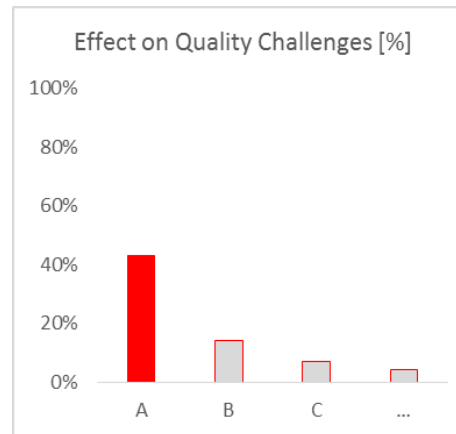
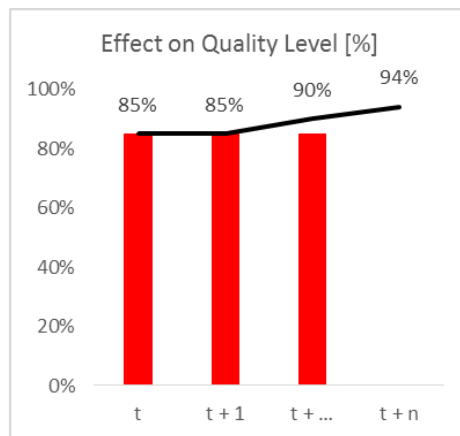




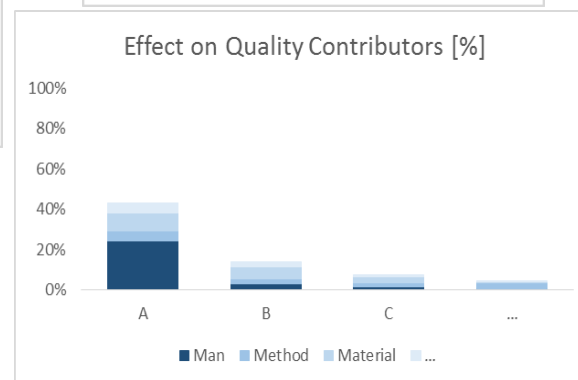
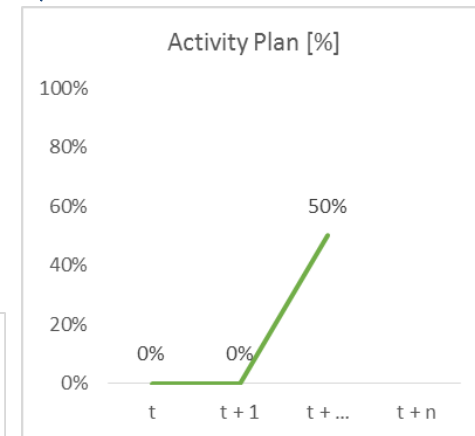
“Quality as Forecast” model [3.2/3]

CHECK “Challenge Case Scenario 2”

point of time “t+1+...+n”



NEW Quality Challenge



NEW Quality Contributor



“Quality as Forecast” model [3.3/3]

CHECK “End Case Scenario 1/2”

point of time “t+1+...+n”

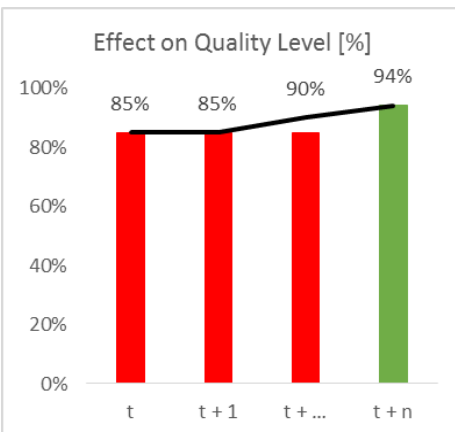
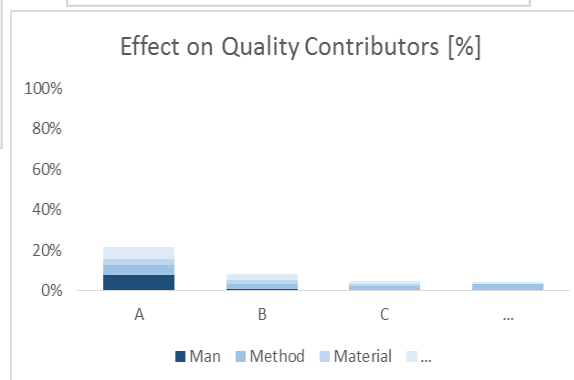
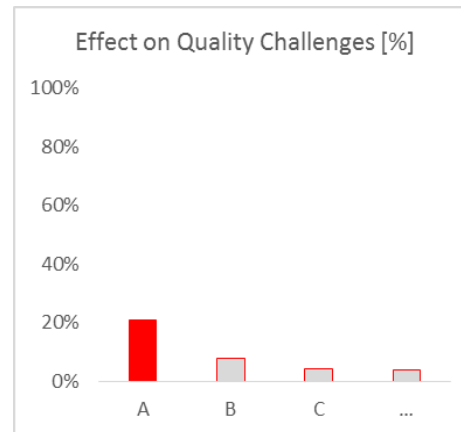
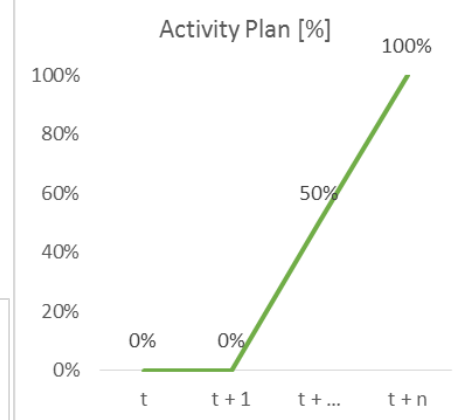
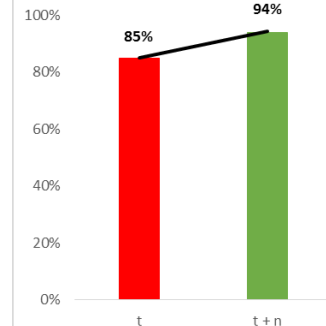
ACT

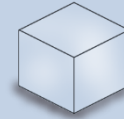
point of time “t+n”

Lessons
Learned

New PDCA

Effect on Quality Level [%]





KORN CONSULT

Consulting - Training - TQM



KORN CONSULT GROUP

Quality as Forecast

Experienced Project

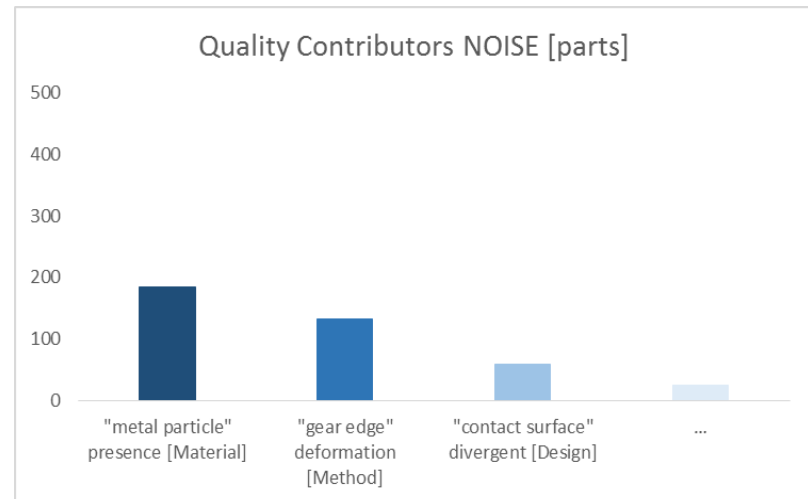
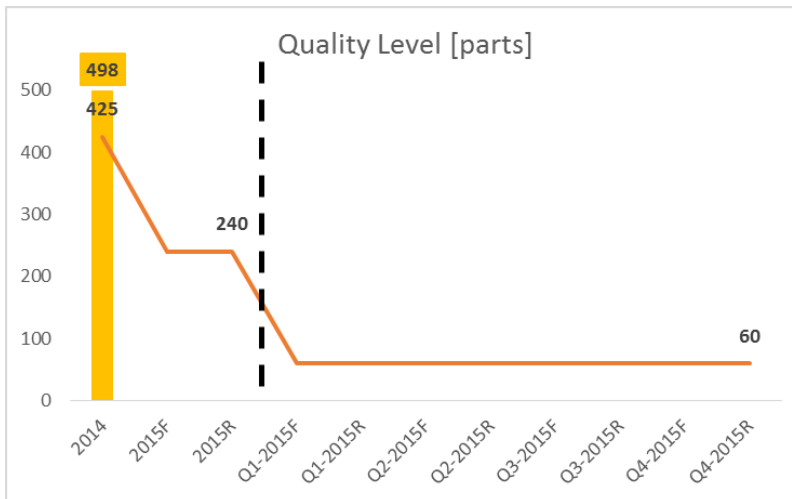
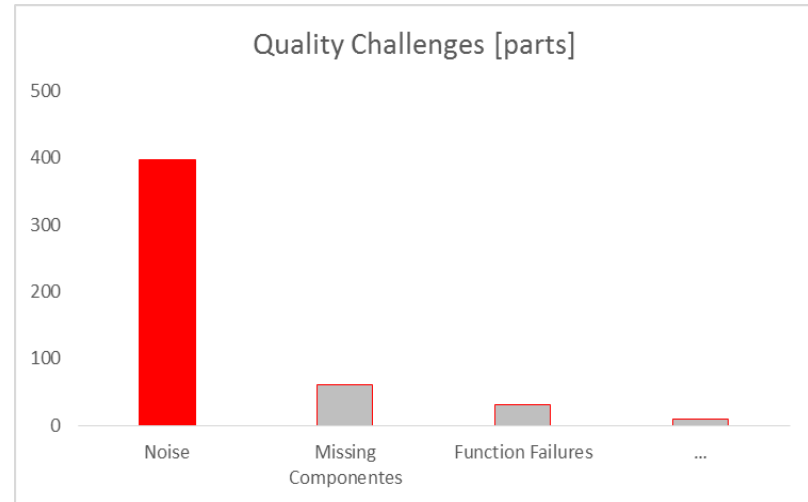
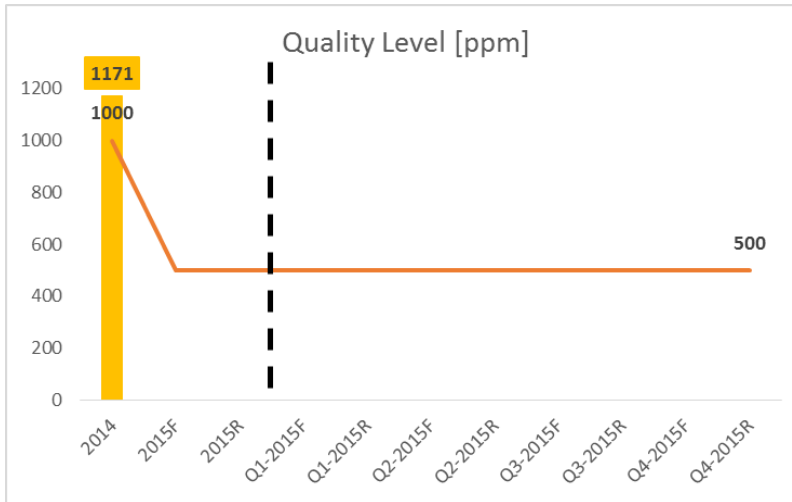


“Quality as Forecast” project

- Customer Location: Czech Republic
- Customer Industry: Non-Automotive
- Customer Product: R&D and Manufacturing of Electric Engines
Assembly of Electric Engines on Gearbox
- Customer Project: PPM Reduction from 1200 PPM/y (500 Parts) to 500 PPM/y
Without Product Design Modification
Top Quality Challenge: NOISE
- KCG Team: Lead – Office RO + Team Member – Office CZ
- KCG Approach: Weakness Analysis of Manufacturing & Assembly Processes
PPM Reduction “Forecast” based on Feasible Activities



Project point of time "Jan.2015"



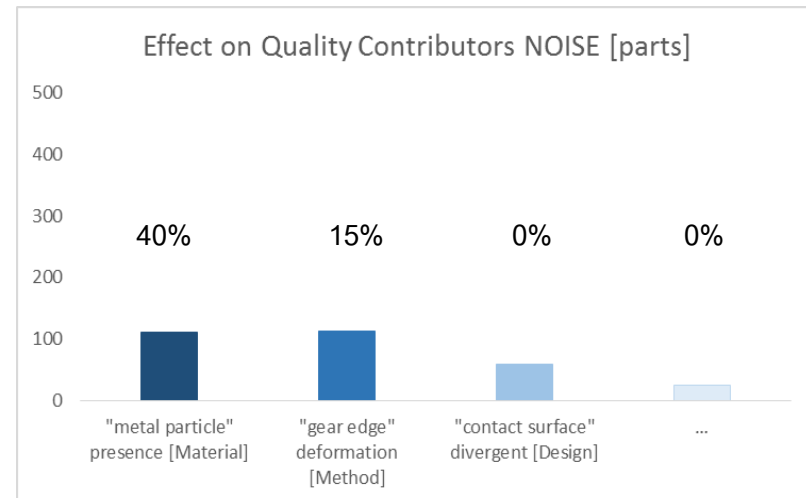
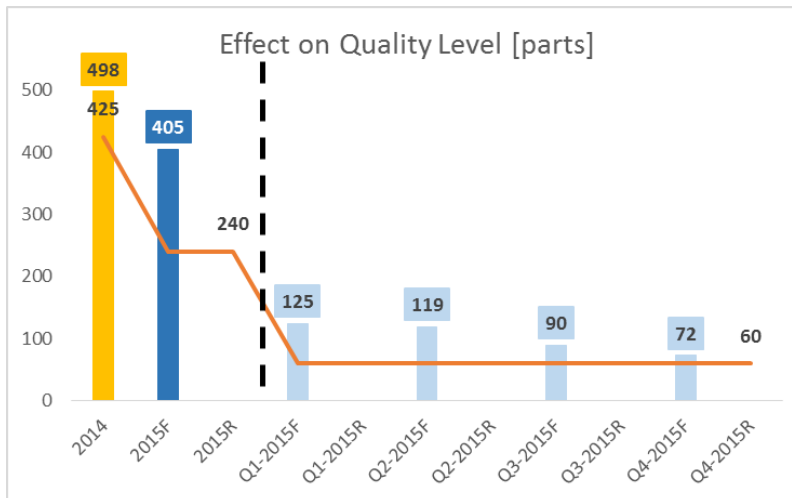
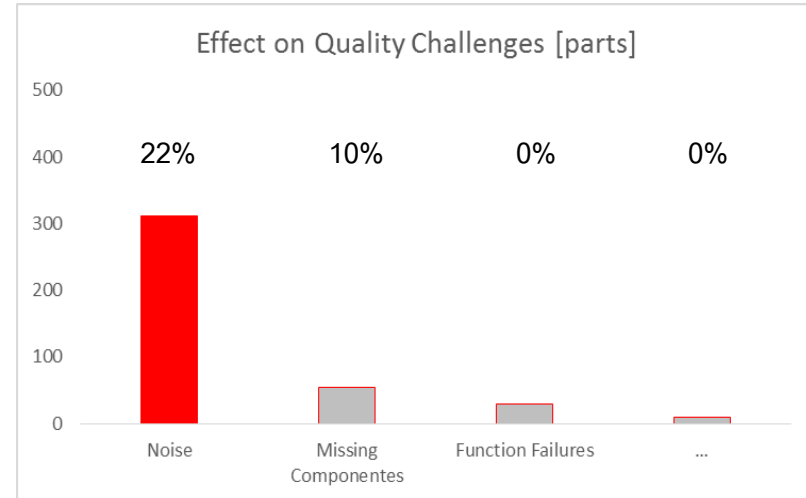
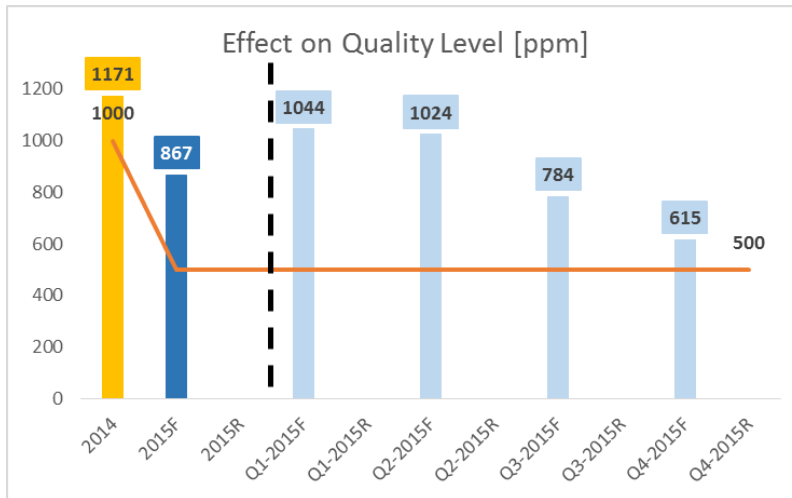


Project point of time "Feb.2015" [1/2]

Topic / Subject Description	Risk / Root Cause Description	Task / Action Description	Plan Date Finish	Real Date Finish	KC Effective Date	Key Performance / Achievement	Effect Plan Date
The tools used in the assembly flow (Shaft-Rotor Assembly and Motor Assembly) are full of metal chips which may contaminate the Motor-Shaft gearwheel.	<p>Risk: possibility of contamination while Assembly the Motor into Gearbox.</p> <p>Root [MAN]: cleaning schedule of tools is not followed by the responsible functions "after each planned break".</p>	<p>REC 1: introduce in the process release checklist also the "visual control of tools conditions".</p> <p>REC 2: introduce "protection caps" from Supplier on the gearwheel of the Motor-Shaft [same standard as by Gearbox Supplier].</p>	Q2	Q2	Q2	20% "metal particle" presence [Material] on NOISE	Q3
The "ZERO Point" Alignment between the Motor-Shaft gearwheel and the Gearbox gearwheel is not considered in the Assembly Process to minimize the "gearwheel edge" damage risks in the "marriage" phase.	<p>Risk: possibility of damaging teeth "contact edges" while installing Motor into Gearbox.</p> <p>Root [METHOD]: the gearwheels are blocked and not pre-aligned between Gearbox and Motor before "marriage" phase.</p>	<p>REC 1: mount brake-unit of the Motor after "marriage" phase.</p> <p>REC 2: use brake-unit release/unlock of the Motor to handle gearwheels engagement.</p> <p>REC 3: use plastic fixture to help alignment of the gearwheels before "marriage" phase.</p>	Q2	Q2	Q2	10% "gear edge" deformation [Method] on NOISE	Q3

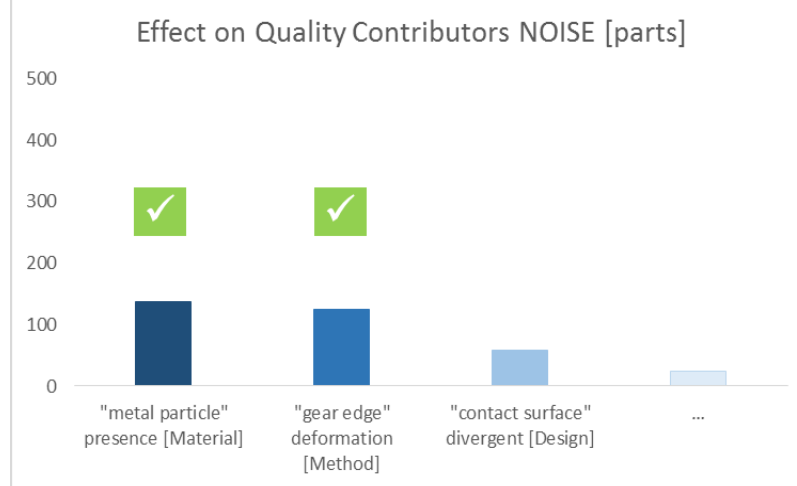
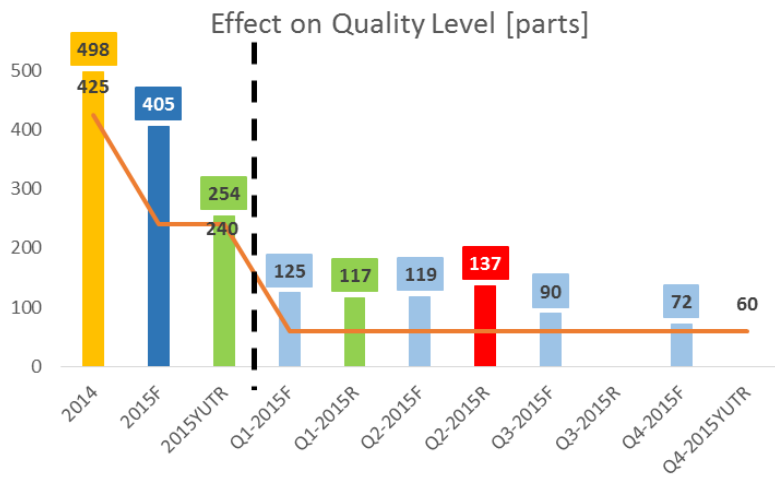
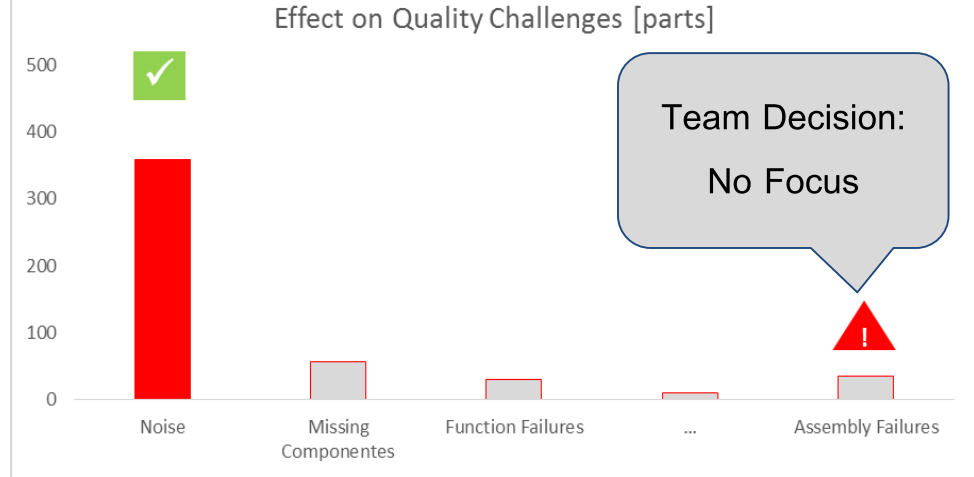
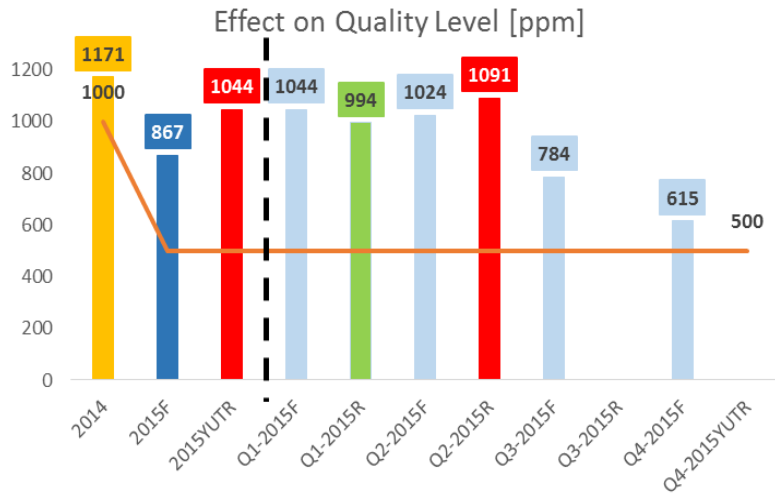


Project point of time "Feb.2015" [2/2]



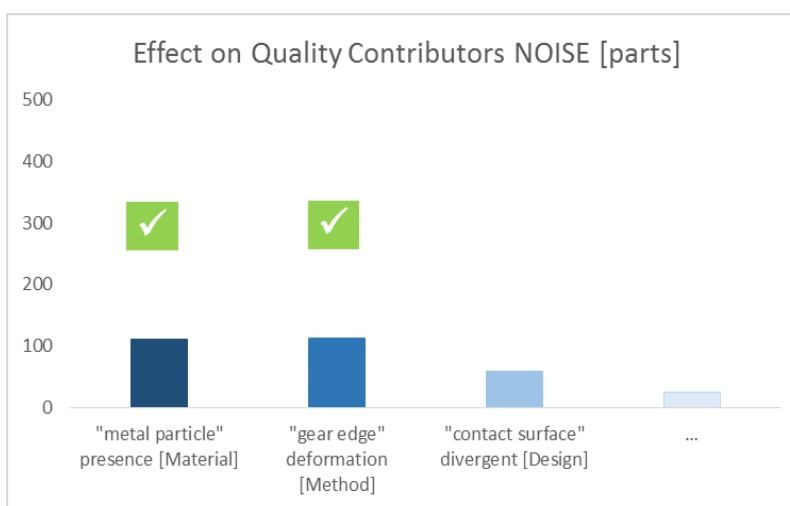
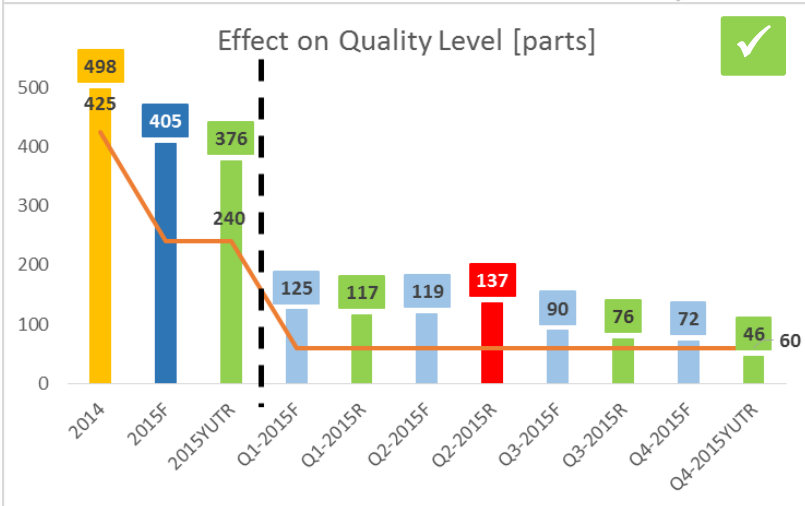
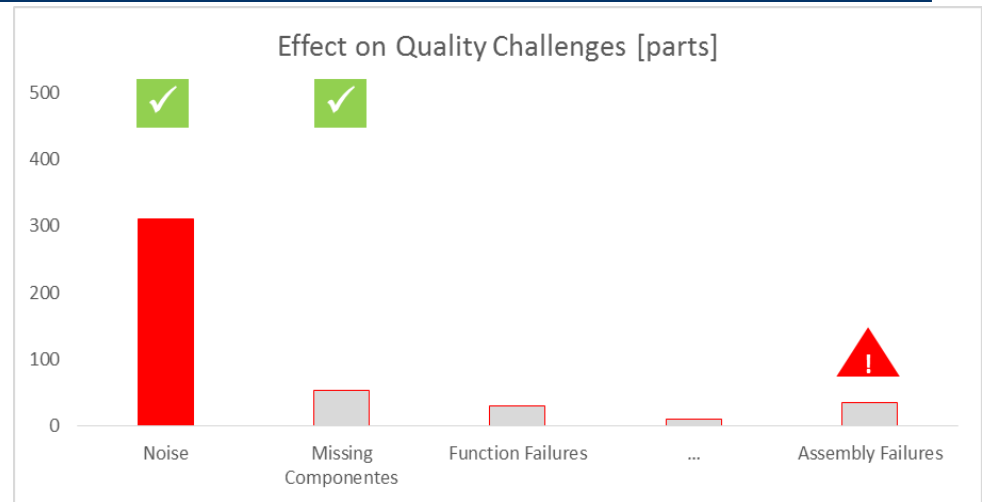
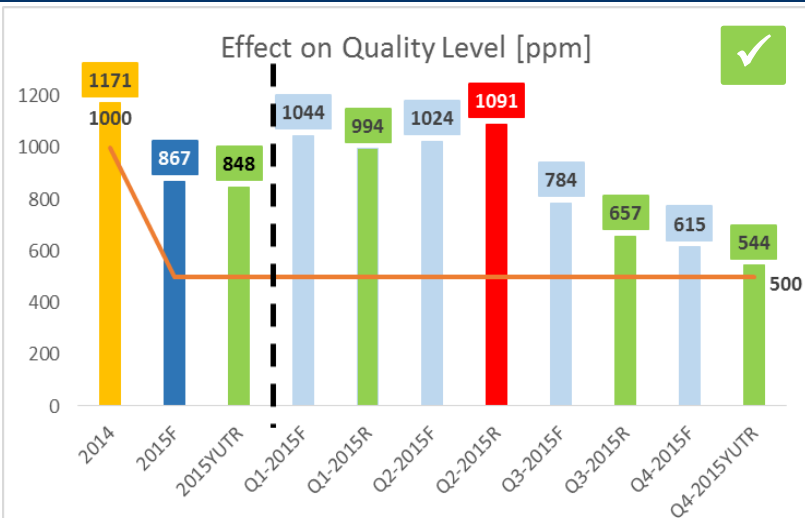


Project point of time "May 2015"





Project point of time "Nov.2015"





Our customer feedback:

- ✓ ... a pro-active thinking about how to act on Quality!
- ✓ ... the right mind set to think ahead,
on the effect of what we intend to do!



Our consideration

Quality is not accidental,
it is the result of effective business processes™

Ovidiu BISTRICEANU

Senior Project Manager

Regional Manager East Europe

Ovidiu.Bistriceanu@kc-partner.ro

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