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# Industrial

**Dr. Stefan Spindler** CEO Industrial **1** Overview

# **2** Program CORE

- **3** Flagship initiative "Industry 4.0"
- **4** Summary and key statements

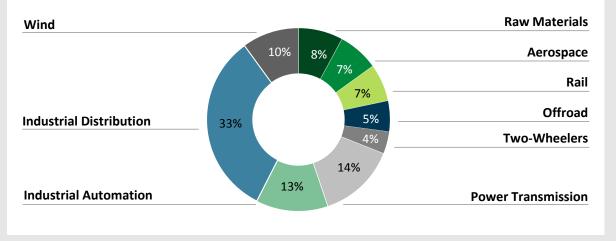
#### <sup>1 Overview</sup> Schaeffler Industrial – Bearing solutions for 8 sector clusters and distribution

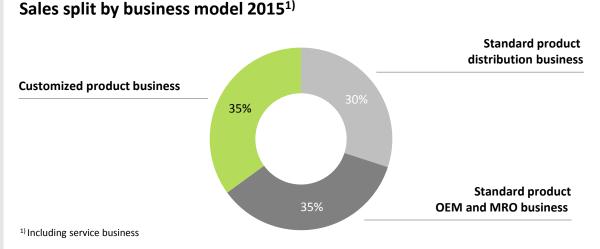
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# Sales split by region 2015 <u>Americas</u> <u>Greater China</u> <u>Lisó</u> <u>Asia/Pacific</u>

#### Sales split by sector cluster & distribution channel 2015





Capital Markets Day London 2016 | © Schaeffler 2016

#### <sup>1</sup> Overview Broad range of standard and customized products

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	3 Schaeffler USPs in Industrial	14,000 customers 40,000 catalogue prod ndustry 4.0
Strong customer relationship	Manufacturing expertise	Systems expertise
We serve clients in 8 sector clusters and 36 sectors which provides us with significant cross-selling opportunities going forward (e.g. GenC initiative, Service and Industry 4.0 business).	We have an integrated manufacturing system combining industrial and automotive production technologies. This enables us to produce at highest efficiency and to generate high level of internal value add.	With around 600 engineers we are a solution provider for our customers. We understand systems and components down to the last detail.

### <sup>2</sup> Program CORE **Targeting sustainable margin recovery in Industrial business**

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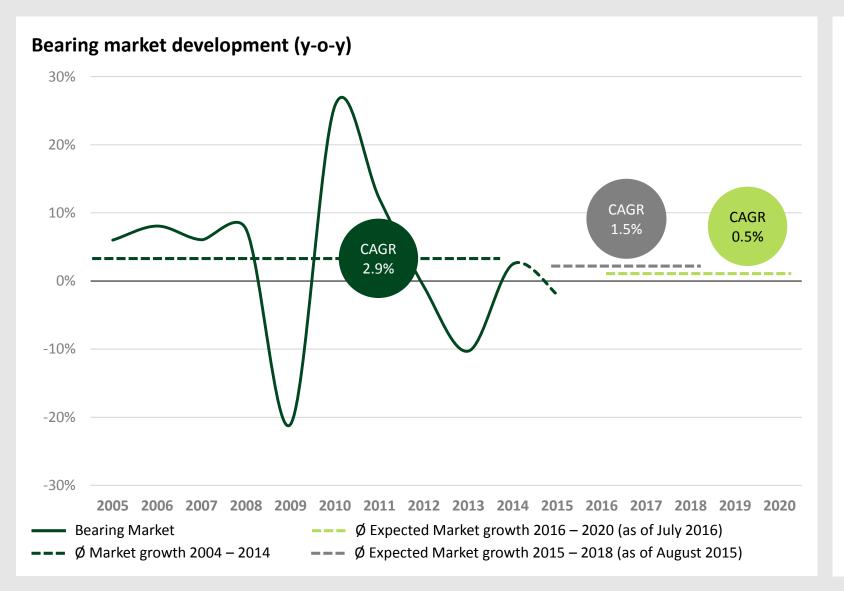
ey elements	Key actions	Strategic targets set in
Cost savings and efficiency improvements	<ul> <li>Reduce indirect workforce by 500 people</li> <li>Re-dimension central departments</li> <li>Drive cost saving program including material cost, efficiency gains and overhead reduction</li> </ul>	August 2015 Industrial business contributes 25% to group sales by 2020
High delivery performance	<ul> <li>Establish European distribution centers (EDC) to ensure immediate product availability</li> <li>Increase level of standardization</li> <li>Implement high runner program with 24/48h delivery time</li> </ul>	Re-energizing the Industrial business by Program CORE
Clear customer focus	<ul> <li>Strengthen sales organizations in the regions</li> <li>Strengthen regional engineering / customer support centers</li> <li>Establish dedicated global key account management</li> </ul>	
Optimized product and service portfolio	<ul> <li>Strengthen standard product business</li> <li>Balance customized product business / engineering solutions</li> <li>Enforce market penetration of service / digitalization</li> </ul>	

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### 2 Program CORE High volatility in the global bearing market

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#### **Key aspects**

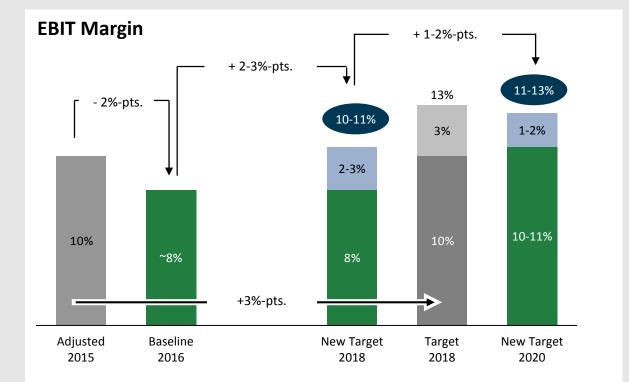
- From 2004 to 2014 global bearing market grew by CAGR of 2.9%
- When we initiated CORE in August 2015, we had expected bearing market growth of 1.5% in 2015 - 2018
- In Q1 2016, our Industrial sales was down 6.9% y-o-y

### **Going forward**

- We expect bearing market growth of 0.5% CAGR in 2016 – 2020
- We expect volatility to continue in the coming years

### <sup>2</sup> Program CORE Ambition to bring EBIT margin back to 13% remains in place

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- Project CORE to revitalize Industrial division further strengthened and enforced
- EBIT margin target 13% not achievable until 2018 due to further market decline in 2016

#### Key aspects

- EBIT margin improvement plan assumes stable market conditions<sup>1</sup>) with moderate growth
- 3 main profitability drivers (EBIT margin) remain in place (2018)
  - $\longrightarrow$  Growth+ 0.25 0.5%-pts. $\longrightarrow$  Production cost+ 0.75 1.25%-pts. $\longrightarrow$  Overhead cost+ 1.0 1.25%-pts.
- Execution of Program CORE on track

Ambition to bring Industrial division back to 13% remains in place, achievable 2020

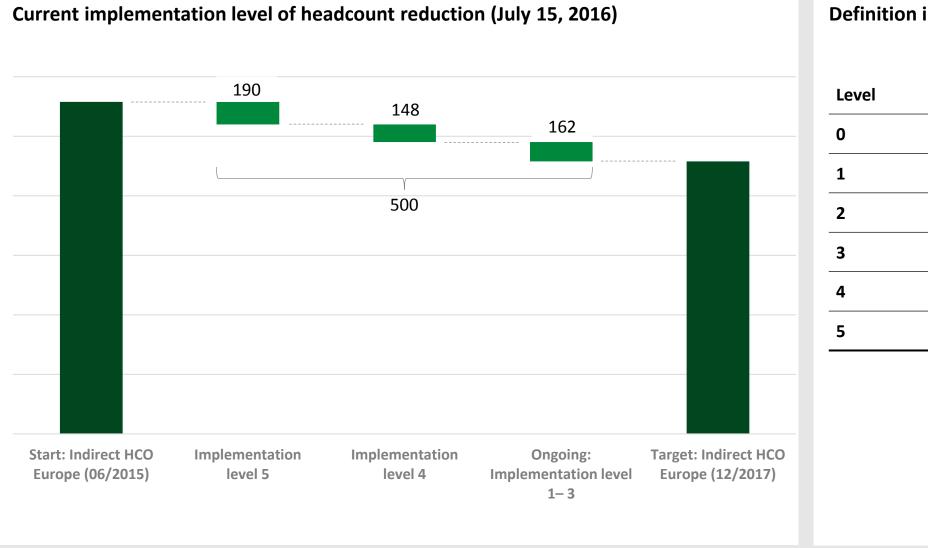
 $^{\mbox{\tiny 1)}}$  Regarding pricing, material prices and FX

#### 2 Program CORE

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## **Cost savings and efficiency improvements**

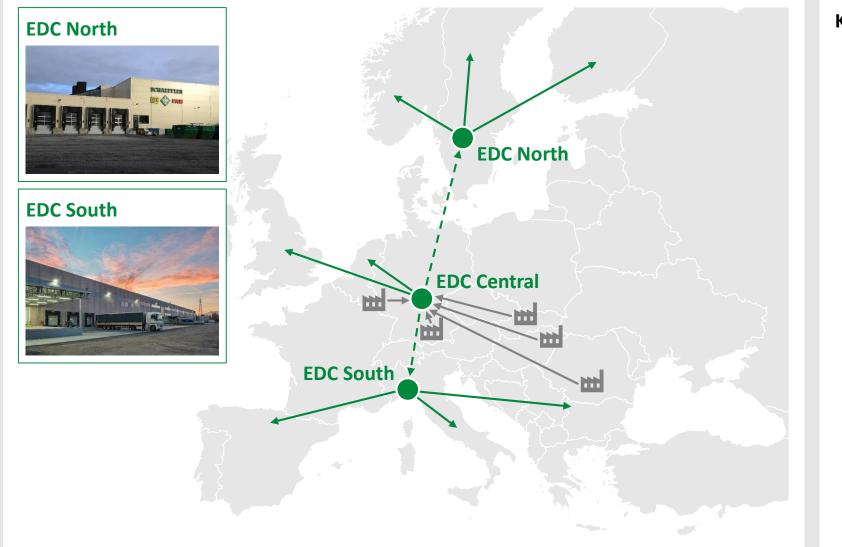
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#### **Definition implementation level**

Level	Meaning
0	in planning
1	identified
2	addressed
3	agreed
4	signed
5	left payroll





#### Key aspects

Ramp-up of European Distribution Centers helps to secure availability and delivery performance

EDC North live since 03/15

- EDC South live since 10/15
- In both regions our delivery performance has increased significantly since then
- EDC Central planned to go live in 07/18



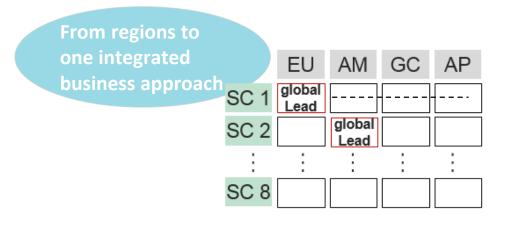
Phase 1 from January 1<sup>st</sup>, 2016

- ► 4 Regions become primary steering dimension
- ► 8 Sector clusters defined plus Industrial Distribution



Phase 2 from July 15<sup>th</sup>, 2016

- 3 types of business(standard / customized / service)
- ► Focused GKAM approach with 12 selected GKAMs
- Global network of sector clusters (SC) with clearly defined "global leads"
- Sector Management and Application Engineering integrated on a regional basis





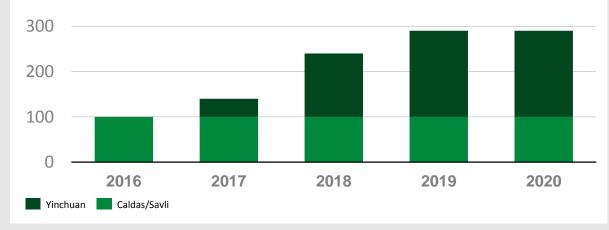
**Optimized product and service portfolio – Standard product business; example "GenC"** 

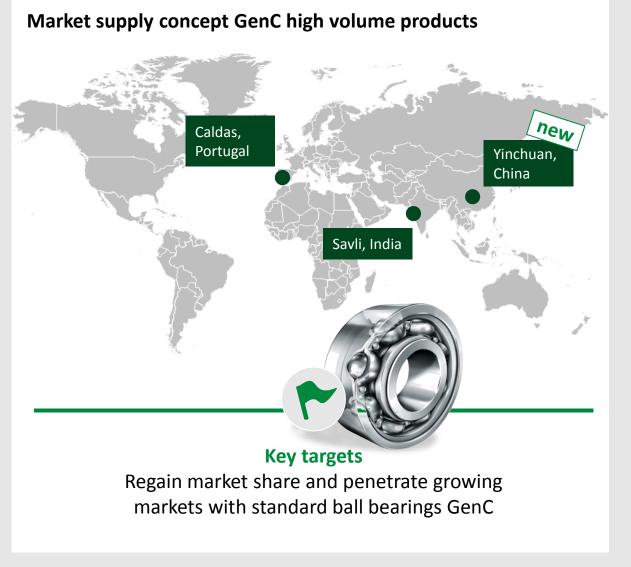
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#### Market penetration with high-volume standard ball bearings

- Serving demand of local customers for standard types via dedicated sales force and 4,000 authorized distributors
- GenC as platform to enter high-volume business with lean overhead cost structure
  - Standard (deep grove) ball bearing in 12 different diameters for high-volume customer applications
  - Ramp-up DGBB starts from Q2 2017 (12 production lines, production in China, continue sales from Portugal and India)

#### Production capacities 2016 – 2020 (indexed 2016 = 100)





#### 2 Program CORE

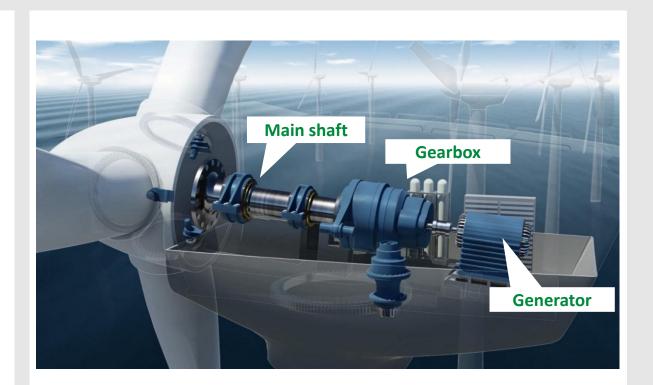


## **Optimized product and service portfolio – Customized product business; example "Wind"**

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### **Business model Wind**

- Tailor-made engineering solutions
- High level of system understanding and high level of application engineering expertise
- Comprehensive material-, surface technology- and tribology know how
- R&D simulation and testing facilities
- Wind Power Standard "WPOS" established in the market by Schaeffler
- Partner of leading wind turbine and gearbox manufacturers
- Proven service solutions
- Trend towards higher MW classes and repowering offers additional market potential





#### 3 Flagship initiative "Industry 4.0" Digital service solutions – Bringing service to the next level

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#### Challenge

Bearing damage and gear failures in propulsion of oil platform (thrusters) are extreme costly as oil production may have to be stopped completely for repair work.

### Solution

- Additional sensor at each bearing location as well as special seals for sensors and sensor cables
- Recorded data are analyzed via remote access (Online Condition Monitoring)

### Benefits

Thanks to the permanent monitoring of the thrusters, emerging damage can be detected at an early stage



### FAG Smart Check

Condition monitoring plug & play product FAG Smart Check successfully introduced for broad range of aggregates and production processes



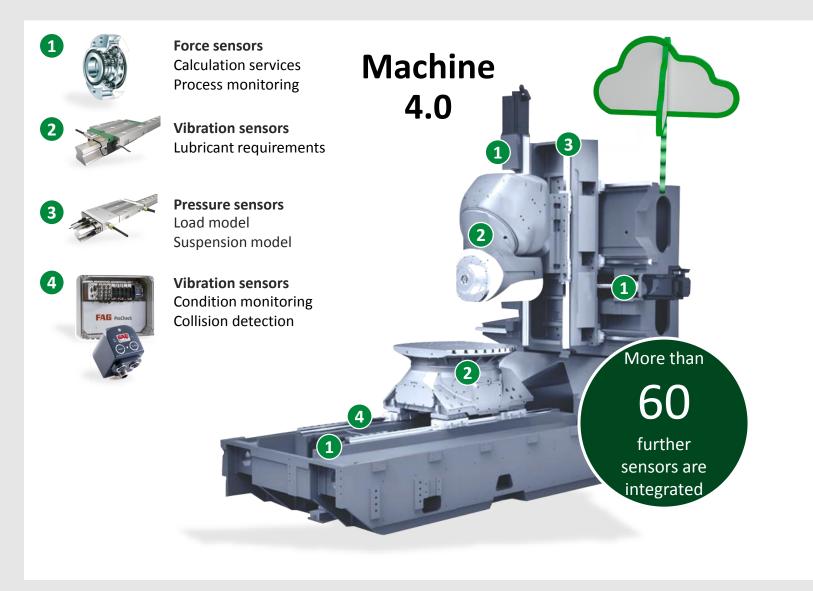
# Smart Check

Condition monitoring products are a key enabler for the digitalization of production processes (Industry 4.0)



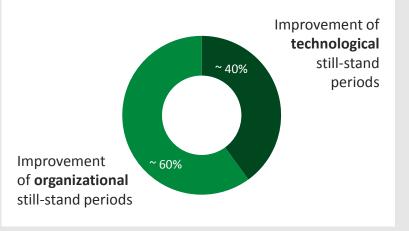
### 3 Flagship initiative "Industry 4.0" **Digitalization in operations**

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#### **Key aspects**

- Machine 4.0 combines existing technology with new digital components from sensor to cloud
- Almost all bearings are equipped with sensors for measurement of vibrations, temperature, pressure and power – bearings become data suppliers
- Partner innovation project started with DMG Mori in 2015



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We accelerate program CORE to stabilize our business in a weak environment – Ambition to bring division back to 13% remains in place, achievable 2020



We optimize our portfolio with **customized products, standard products** as well as **service products** and solutions

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Our **manufacturing and systems expertise** enables us to develop superior products and new business within Industry 4.0

RE-ENERGIZE INDUSTRIAL BUSINESS



Industrial business contributes 20% to group sales by 2020