

SUSTAINING DIFFERENTIATION



WABCO INDIA LIMITED

INVESTOR DAY 2018

MUMBAI

June 19 2018



YOUR WABCO HOSTS



M Lakshminarayan
Chairman



P. Kaniappan
Managing Director



R.S. Raja Gopal Sastry
Chief Financial Officer



SAFE HARBOR STATEMENT

Statements in this document describing the Company's objectives, projections, estimates and expectations may be "forward looking statements" within the meaning of applicable securities laws and regulations. Actual results could differ materially from those expressed or implied due to many factors. Important factors that could make a difference to the Company's operations include, among others, economic conditions affecting demand / supply and price conditions in the domestic and overseas markets in which the Company operates, changes in the Government regulations, tax laws and other statutes and incidental factors. The Company does not undertake any obligation to update such forward-looking statements. All market and industry data are based on Company estimates.



ABOUT WABCO: THE INDUSTRY'S TECHNOLOGY INNOVATOR

In 2017:

\$3.3B
Annual revenues

~15,000
Employees in 40 countries

15 Industry technology firsts introduced during the last 5 years

No.1
in all BRIC markets

10 Years NYSE listing

2,900
Service Partners

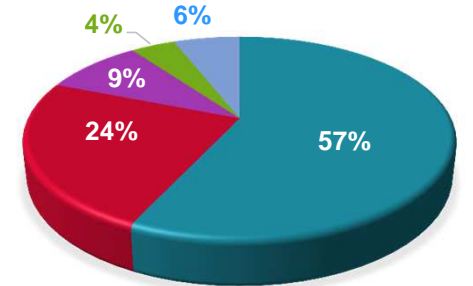
27
Factories

2,600
Engineers worldwide

\$465m
Performance EBIT
(14.1% Margin)

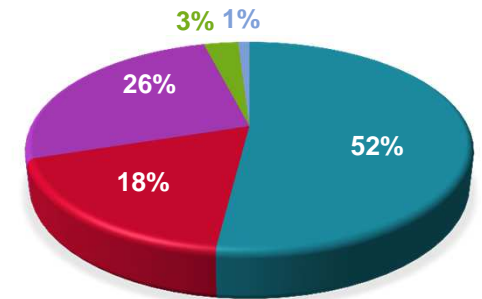
383
Patents granted

SALES BY CUSTOMER TYPE



■ OE Truck & Bus
 ■ Aftermarket
 ■ Trailer
 ■ Off-Highway
 ■ Car

SALES BY REGION

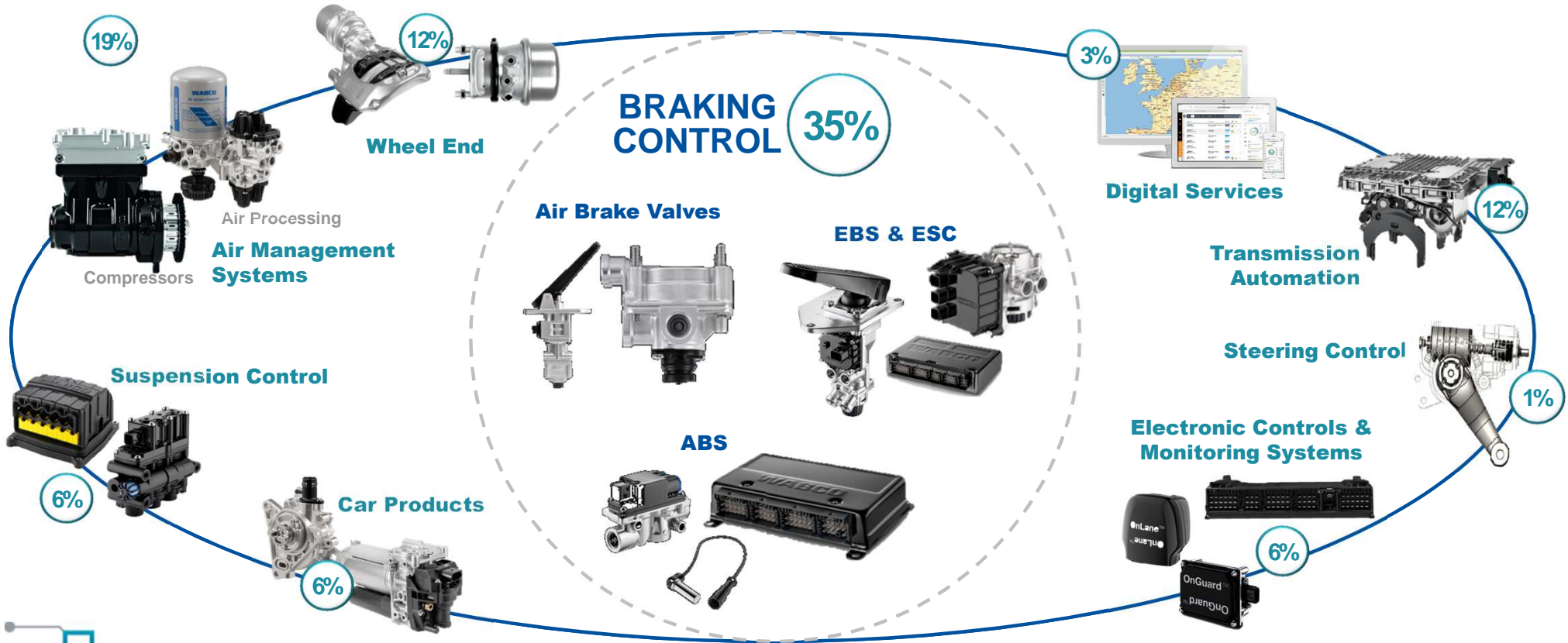


■ Europe
 ■ North America
 ■ Asia
 ■ S.America
 ■ Other



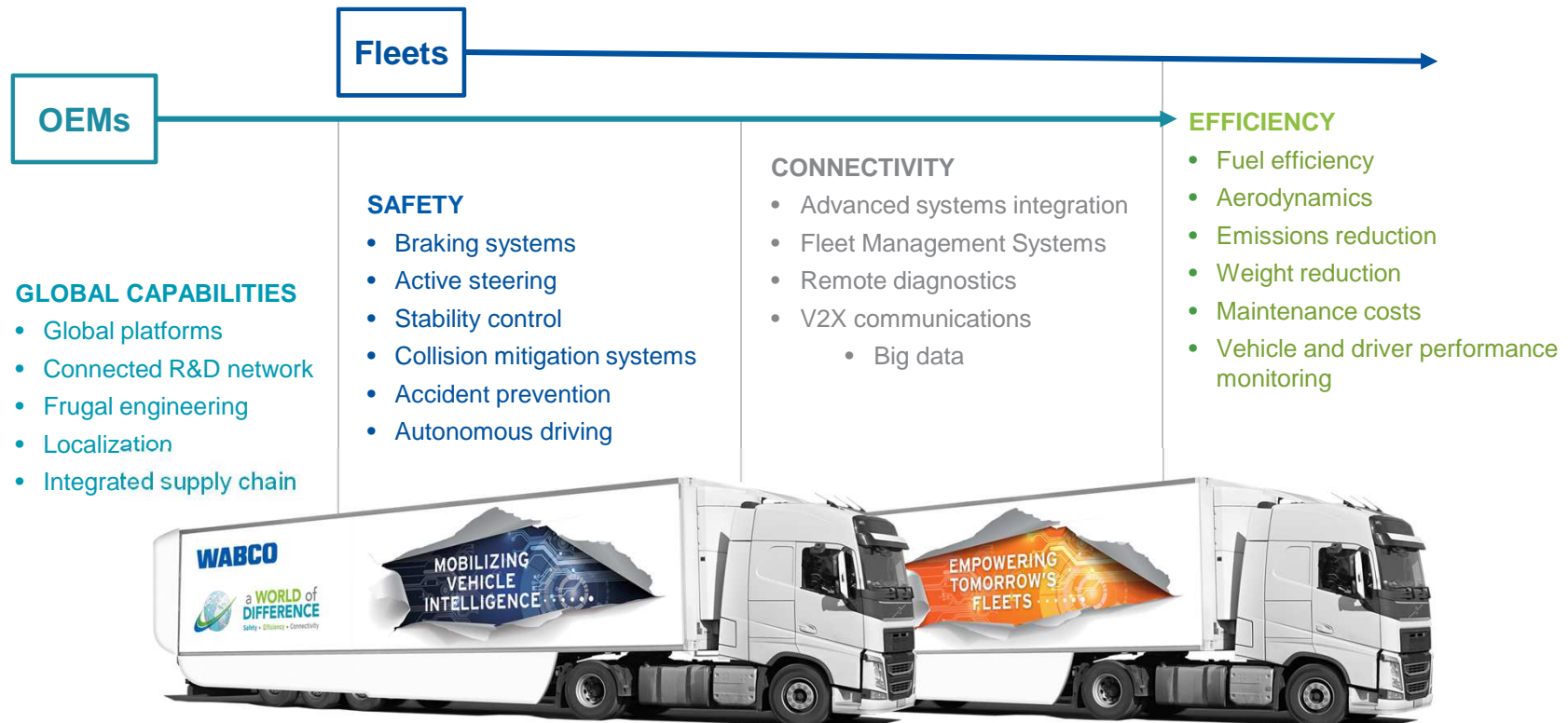
A RICH PORTFOLIO OF TECHNOLOGIES

X% AS PERCENTAGE OF WABCO 2017 SALES



OUR VALUE CREATION PROPOSITION

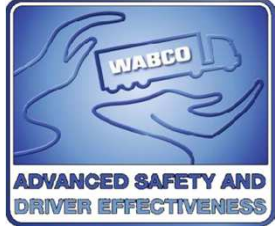
We apply advanced technology and services to support commercial vehicle OEM and fleet needs



CONSTANTLY INVADING NEW TECHNOLOGY SPACES

TECHNOLOGY STRATEGY EVOLUTION

INDUSTRY VISION



Braking System Platform



Stability Control



OnGuard



OnLane

OnCity



ProView

Evasive Maneuver Assist
Lane Keep Assist
Maneuvering



Transmission Automation



MAXX™ Air Disc Brakes



c-comp™ Clutch Compressor



OptiFlow



FuelGuard™ E-APU



e-comp™ Electrically Driven Compressor



Telematic units



Hybrid EBS



OptiTire™



Big Data Analytics



V2V

Fleet Management Systems



Mechanics
Electromechanics



Electronic Systems



Digital Systems



ANTICIPATING THE EVOLUTION OF OUR INDUSTRY

Mega Trends




Population Growth, Urbanization & Smart Infrastructure



Regulatory Push for Greener Environment



Increasingly Complex Customer Needs




Exponential Growth of New Technologies

Commercial Transportation Requirements

Segmentation of Commercial Vehicles



Long Haul Transportation



Urban / Suburban Transportation



Off-Highway Application

Impact on Commercial Vehicles Requirements



AUTONOMOUS



ELECTRIC



CONNECTED

DRIVING VEHICLE EFFICIENCY & SUSTAINABILITY



Fuel Efficiency



Trailer Aerodynamics



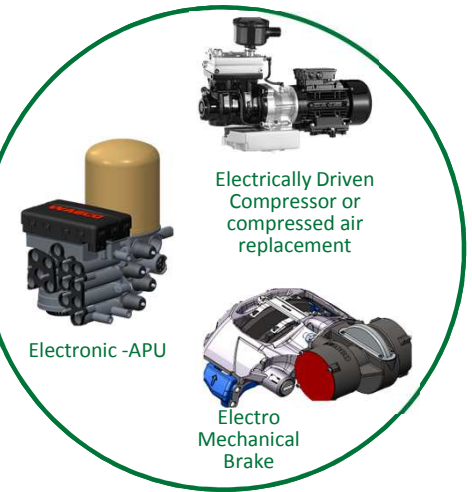
Weight Reduction

Energy Recuperation

EBS Brake Control



Electric Vehicles



CONNECTIVITY: MOBILIZING VEHICLE INTELLIGENCE

WABCO uniquely offers insights on truck, trailer and driver performance



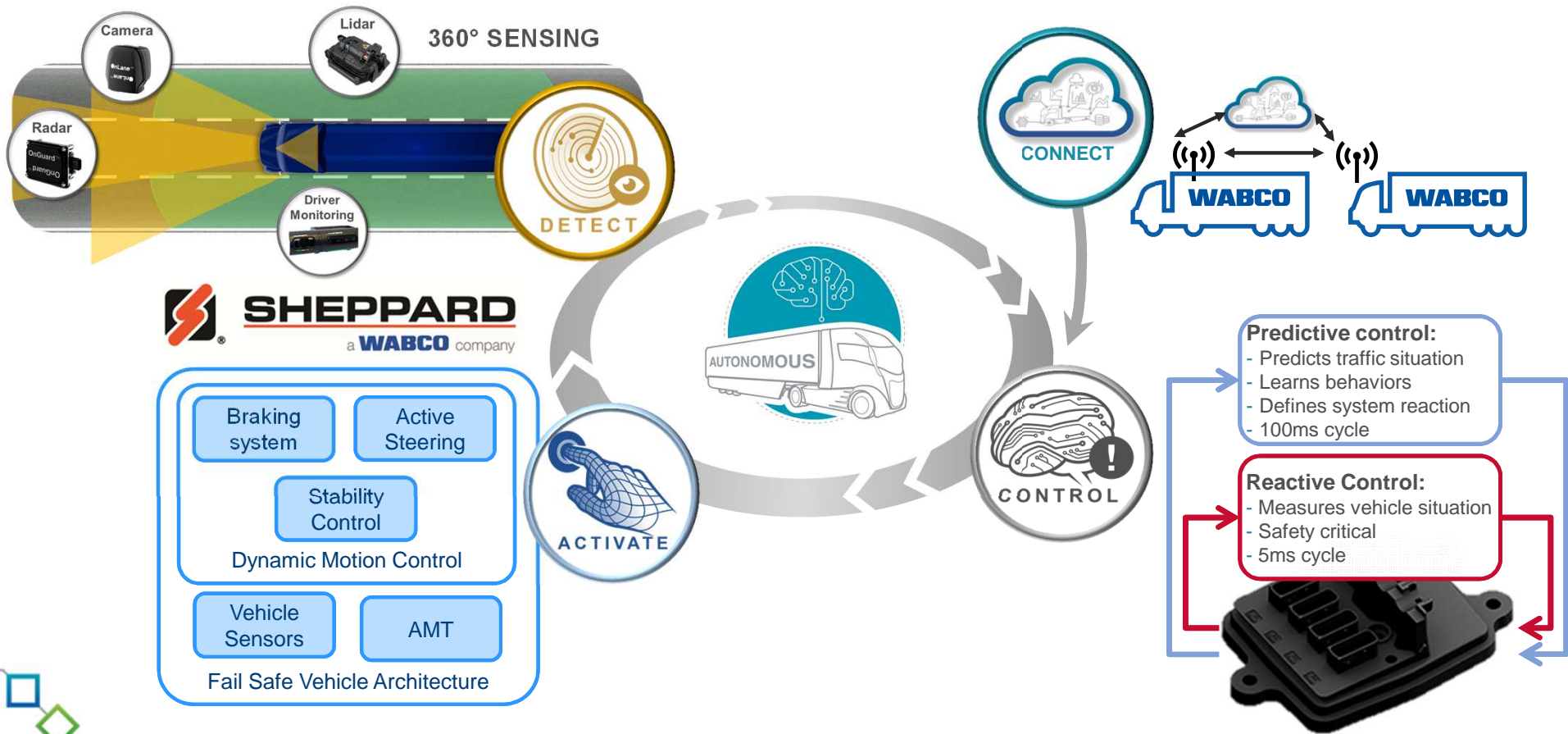
Provide a Broad Spectrum of Vehicle Systems Data



Platooning (V2V)



WABCO BLUEPRINT FOR AUTONOMOUS DRIVING



THE DNA OF OUR INNOVATION LEADERSHIP

Advanced Development Organization

seeds innovation, leads technology screening and concept validation for rapid prototyping

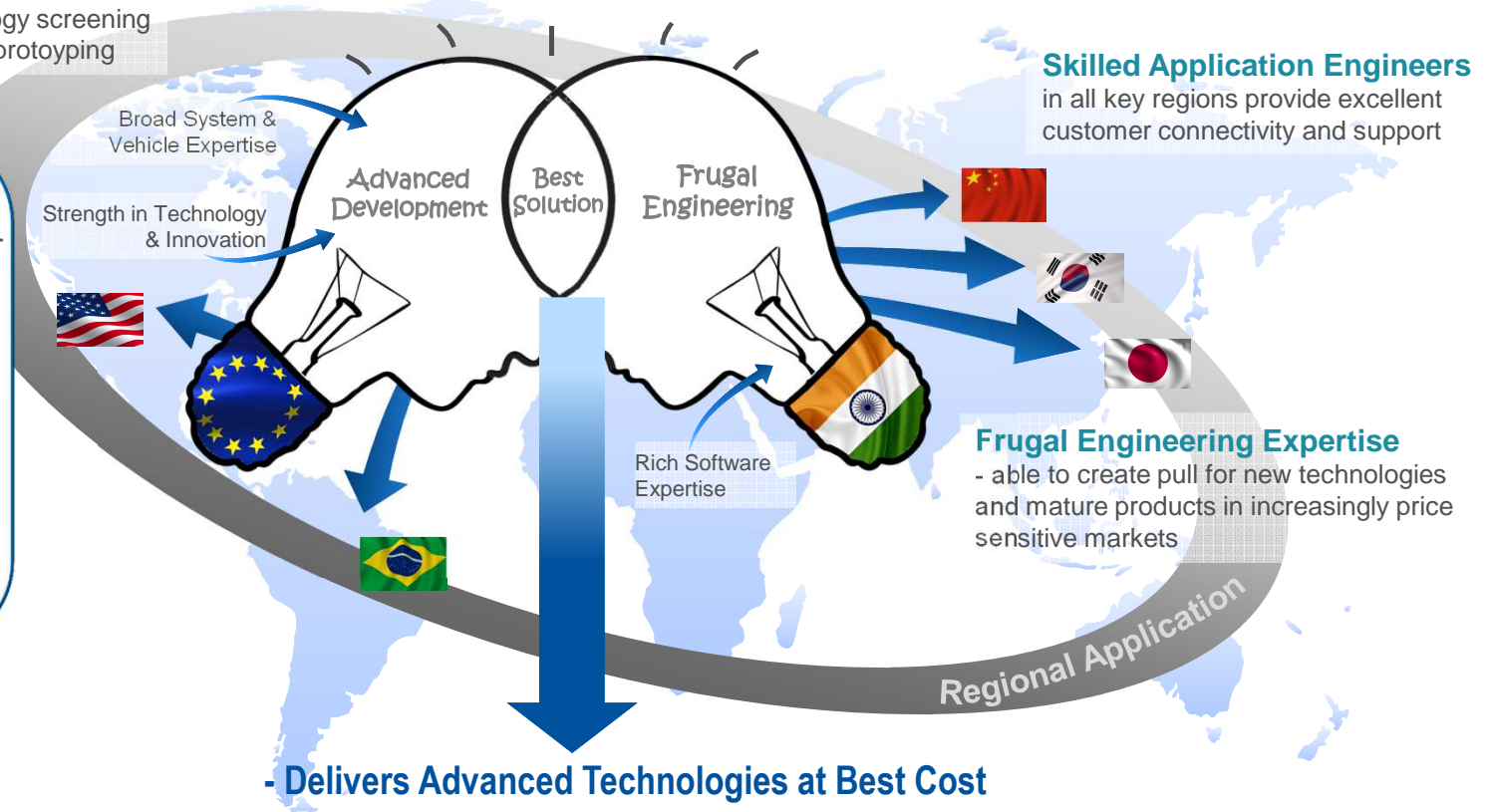
During the last decade:

100% Increase in number of engineers
>30% Increase in R&D investment

On an annual basis:

>380 Patents granted*
>900 Products released*

A Globally Integrated Product Development Team

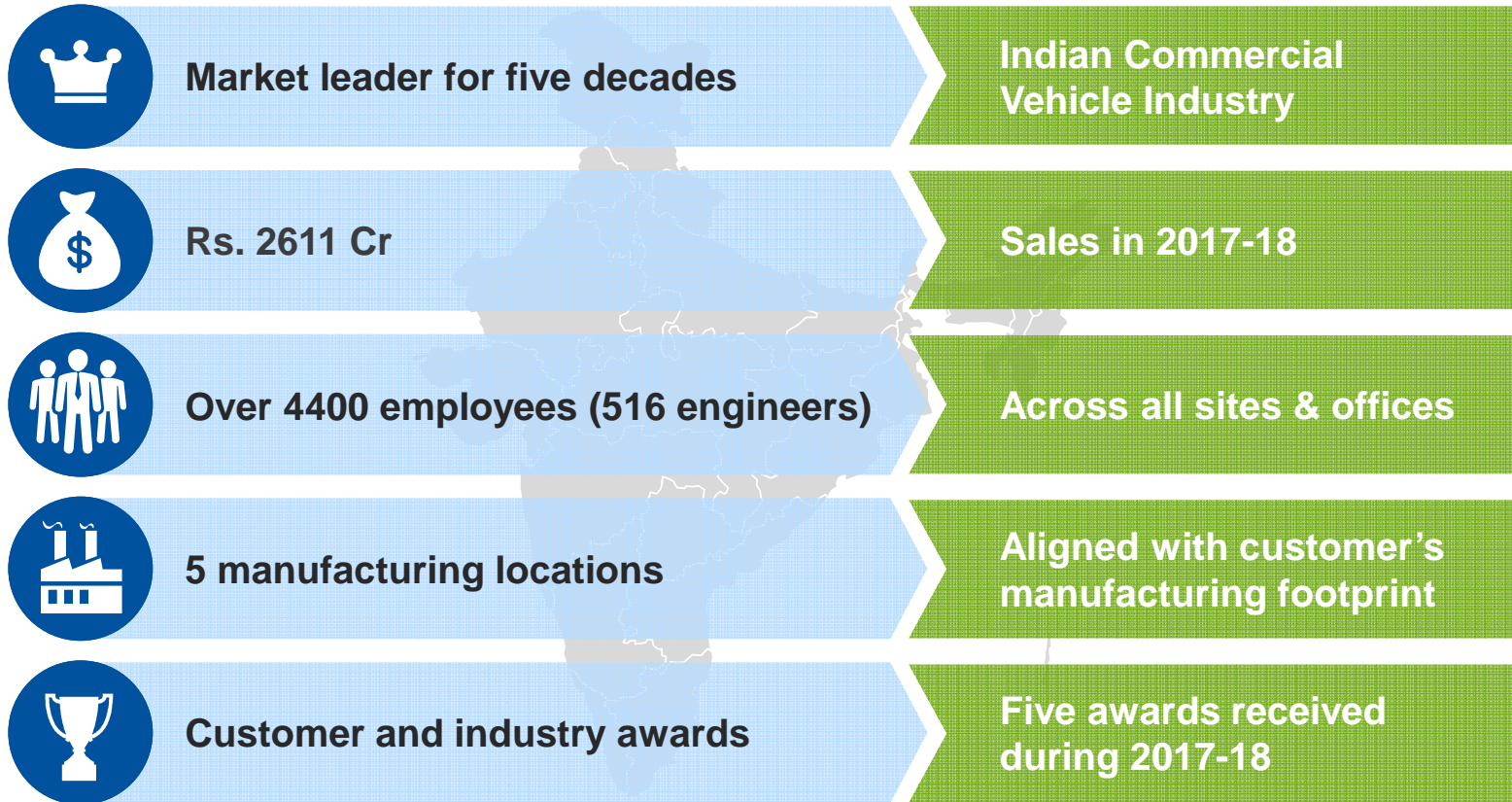


* As of December 2017



WABCO INDIA

A LEADING SUPPLIER OF TECHNOLOGIES AND SERVICES TO THE INDIAN CV INDUSTRY



INDIA LEGISLATION – STATUS AND FORECAST

Legislation requires installation of products enhancing Efficiency, Safety and Connectivity

Red = in discussion

Type	Status (January 2018)	2016	2017	2018	2019	2020	2021	2022	2023	
Emission / Efficiency	BS IV BS VI		BS IV (Nation wide)			BS VI (Nation wide)				
Safety	100% ABS for TB&C, Trailer & 2 Wheeler	ABS for M3 / N3	Trailer ABS	ABS for M1 / M2 & 2 Wheeler ABS						
		Speed Governor		N1 / N2 ABS Regulation						
		Trailer Code		ESC & ADAS for all T&B						
			Truck Code – AC / Cabin ventilation system			AEBS System				
		Bus Body Code	Bus Body Code – Phase 2							
		Agricultural Trailer Brakes – On hold till further notice								
		RPAS / Additional safety requirements for M1 & N1 – AIS 145								
Connectivity				Intelligent Transport Solutions						
				Vehicle location tracking and emergency button						
			FASTag							
Electrification & Others	E Vehicles End of Life Scrapping Policy	FAME – Phase 1		FAME – Phase 2						
								Automated Manual Transmission		
								E Vehicles / Hybrid Vehicles for T&B		
								End of Life Scrapping Policy		

PENETRATION OF GLOBAL PRODUCTS / ADVANCED TECHNOLOGIES

ESC – Electronic Stability Control

Automatically intervenes to improve stability Prevents vehicle from rolling over, skidding & jack-knifing when driven too fast through a curve



AMT

Automated Manual Transmission

Euro IV & GST increased the AMT applicability
Upcoming FE norms and shortage of skilled drivers to drive AMT Sales
Work with OEMs to applicate in major Truck models

ADB – Air Disc Brake

Increasing interest for ADB introduction in Buses, Export models and Trucks to improve vehicle performance & efficiency
OEMs planning for introduction in BS6 platforms (SOP: Q1 2020)



EXPAND PRODUCT PORTFOLIO HORIZONTALLY

DOOR CONTROL SYSTEMS

Globally proven design : ECU & integrated flow control valve
Control valves meeting automotive specifications
Built in emergency and damping function is available



STEERING

This **active steering** supports all truck platform axle load
Natural steering feel, No change in diameter
Low integration effort, Low weight
Low power consumption



Complete system solution with **ECAS**

Lightest “Air Suspension” in India market

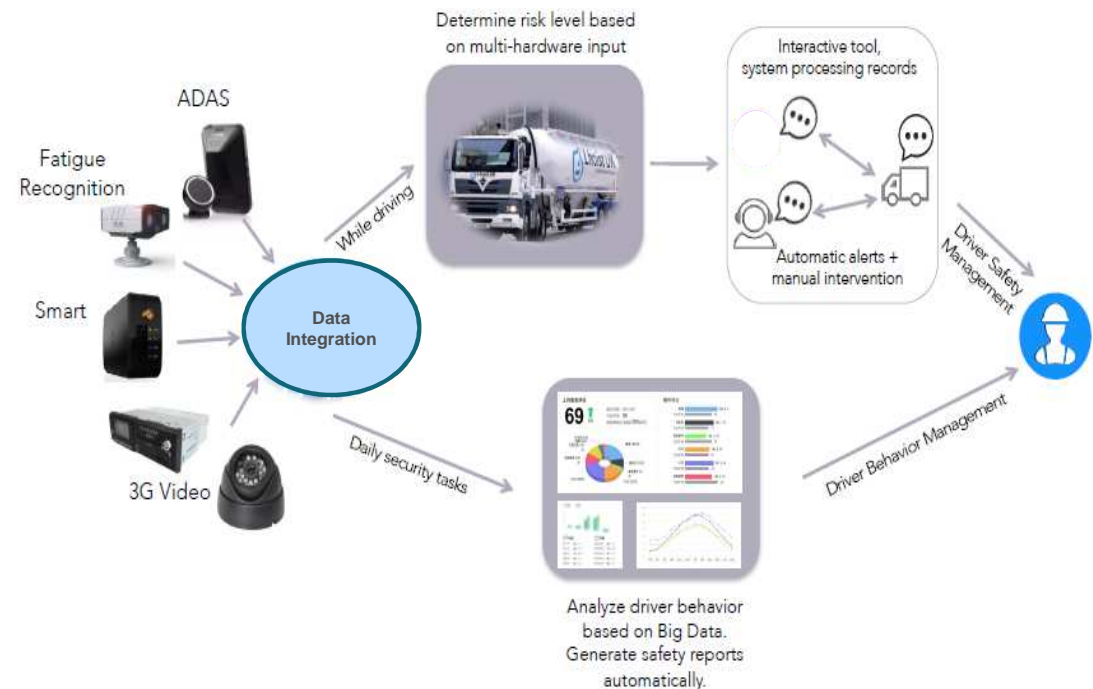
Improvement in fuel efficiency and tyre life saving



DRIVE GROWTH OF SMART DIGITAL SOLUTION BUSINESS

- Government regulation on safety will drive FMS in bus segment
- OEMs will offer as a standard solutions
- Emergence of larger fleets
- Euro 4 has facilitated CAN based solutions
- FMS with CAN based diagnostics will support AM workshops to overcome skill shortage

FLEET MANAGEMENT SYSTEMS



WABCO TECHNOLOGY FOR ELECTRIFIED VEHICLES

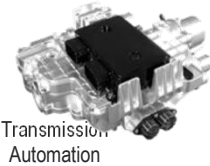


FUEL Powered Trucks

Air Generation



Air Actuation



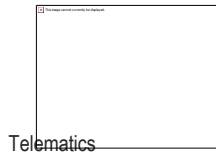
Brake & Vehicle Control



Electrification

ELECTRIC Powered Trucks

ADAS & Telematics



Several million trailers in use today need air to be operated

Electronic air suspension control



Energy recuperation and brake blending requires electronic braking system



More telematics required to operate electric fleets

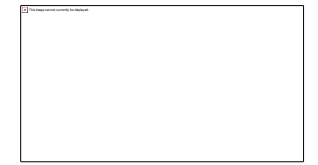
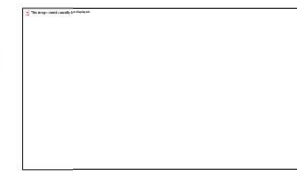


MAHINDRA WORLD CITY PLANT

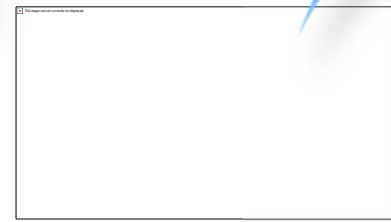
Area Wise Sales



Mahindra



WE DELIVER ALL ACROSS THE GLOBAL MARKET



CRANKSHAFT



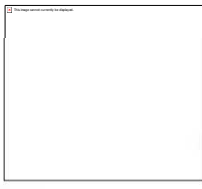
CRANKCASE



ACTUATORS



VALVES



AIR SUPPLY UNITS



COMPRESSORS



WABCO TECHNOLOGY CENTER INDIA

INCREASING RESPONSIBILITY

- Primary responsibility for modular Braking System Platform (MBSP) software development
- Application engineering- ABS, ADAS
- Automated Manual Transmission roll-out in India

PRODUCTIVITY

- Software test automation
- Equipment Exports to WABCO Germany

CREATIVITY

- ADAS re-simulation – Significant savings per release
- Dual use of Hardware in Loop test for mBSP and ABS-E8

SOFTWARE DEVELOPMENT FOR mBSP



Application Engineering



SOFTWARE DESIGN
ANNUAL PRODUCTIVITY GAINS

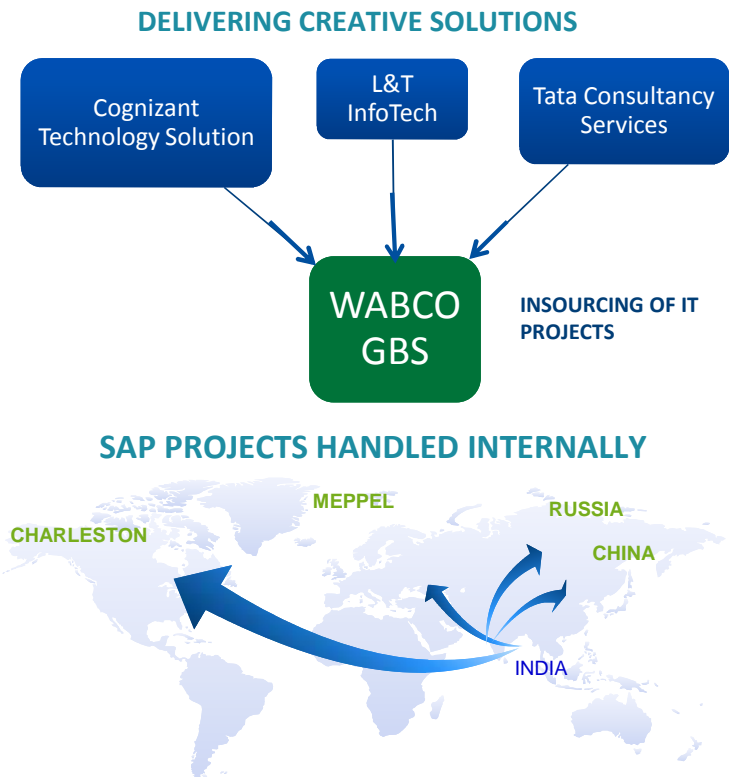


GLOBAL OPEX EFFICIENCY :GLOBAL BUSINESS SERVICES

- Cross functional organization
- Infrastructure application services related to IT and business services - TRAMO, HR, OE sales , Sourcing & Purchasing, Product Engineering, Finance
- Central Command Centre
- Hub for mobile Apps development

VALUE PROPOSITION

- Cost : Leveraging BCC
- Professionals : Advanced education
- Quality : Focus on service improvement
- Innovation : Complementing skills contribute to systems and process improvements



SHAREHOLDER VALUE CREATION



Source: National Stock Exchange

AWARDS AND ACCOMPLISHMENTS

“Best Supply Chain Transformation” award from Cummins India – Aug’17



Second prize in National Productivity Championship competition conducted by IMTMA – Aug’17



AWARDS AND ACCOMPLISHMENTS

Recognition of excellence through awards



First prize in SAE computer aided engineering (CAE) Finite element analysis (FEA) competition – PE team – Feb 2018



Platinum and Gold awards in NIQR Six Sigma competition – Jan 2018



Platinum awards in AOTS competition for maintenance engineers – PAM team (WINC and WINM) – Mar 2018



EVENTS



Launch of Intelligent Trailer Program

Mar 28



Expansion of GBS

Mar 28



Demonstration of ADAS Technology to Mr. Girish Wagh

Mar 29



IN CLOSING

STRONG FUNDAMENTALS

- Five decades of market leadership and customer value through unique positioning towards tapping potentials from emerging trends
- Strong cost competitiveness across the value chain
- Customer focused, TQM-driven, Lean organization
- Well- established Aftermarket network

SERVING OEM CUSTOMERS – DOMESTIC AND GLOBAL

- Uniquely positioned to offer advanced technology, global operating standards engineering excellence & cost competitiveness
- Enriching product portfolio through local innovation

CONTRIBUTING TO WABCO's GLOBAL SUCCESS

- Frugal mindset well embedded in product development and supply chain
- Preferred supplier for domestic and global OEMs
- Preferred location for WABCO global services through WTCI & GBS



DISCUSSIONS



THANK YOU



a **WORLD** of
DIFFERENCE

Safety • Efficiency • Connectivity