“Mobilizing Commercial Vehicle Intelligence”
Uniting Two Divisions in a Singular Customer-Centric Focus

Commercial Vehicle Control Systems
Fredrik Staedtler
- Vehicle Dynamics & Control
- Automated Driving
- Suspension, Powertrain & Axle Solutions
- Vehicle Energy Management Systems
- Fleet Solution
- Trailer Systems
- Off-Highway Solutions
- CAR Systems

Commercial Vehicle Technology
Andreas Moser
- Chassis Technology
- Steering Systems
- Powertrain Modules
- Truck & Van Driveline Technology
- Axle & Transmission Systems for Buses & Coaches
- Project House ADAS/AD
- Project House eMobility
- Project House Digital Products
Mobilizing Commercial Vehicle Intelligence
ZF Strategy

Next Generation Mobility

Urban Mobility

Mid-Range Transportation

Long-Range Transportation
ZF Shapes the Future in 4 Technology Domains

- Vehicle Motion Control
- Automated Driving
- Electric Mobility
- Integrated Safety

Software
Digitalization
The Perfect Match
Mobilizing Commercial Vehicle Intelligence
“ZF is an integrated systems supplier for commercial vehicles.”
Bringing Customer- and Market-oriented, Cost-optimized Solutions to Market Quickly

Solving the Industry’s Key Challenges

**Focused on Efficiency**
Product and system solutions for the reduction of operational costs (TCO) as well as lower CO2 emissions

**Focused on Safety**
Assistance systems (ADAS) for the protection of road users, driver comfort and cargo integrity

**Focused on Digitalization**
Connectivity and software solutions for efficient processes (fleet mgmt. predictive maintenance, digital applications)
“ZF electrifies everything.”
eTrailer Solution

Up to 16% less fuel consumption

less noise, less wear

Improved traction

Electric trailer turns truck-trailer combinations into hybrids.
LFT
Lightweight Future Truck with OptiFlow™
Lightweight Future Truck with OptiFlow™

Aerodynamic optimization solutions: 7% fuel saving

Lightweight construction systems: 150 kg savings

Combining weight and air drag reduction for maximum efficiency.
“Commercial Vehicles that care.”
Focused on Safety: Vehicle and Operational Safety Through Intelligent Systems
A Complete Portfolio of ADAS/Safety Components and Systems

Software Solutions – ADOPT, OnGuardMAX™

see. think. act.
Advanced Reversing Assist
for easy Truck-Trailer
Reversing Maneuvers
Advanced Reversing Assist

Improving **Safety** and **Efficiency** of reversing maneuvers.

Innovative Camera based ADAS system to assist the driver in truck-trailer reversing maneuvers.
Automatic Coupling Assist

Industry’s first fully Automated Coupling Assist System
Automated Coupling Assist

50% Reduction of coupling time
Increased Safety
Support for less experienced drivers

Industry’s first fully automated coupling assist system for a heavy-duty tractor-semitrailer combination.
Providing intelligent autonomous vehicle chassis control with Autonomous Driving Open Platform Technology.
“It’s all about software.”
Focused on Digitalization - Deal with a Connected, Digitized World
Fleet Management Systems for Truck and Bus Fleets

Helping transport companies to solve key industry requirements.
ZF Answers Automotive Software Challenges

**OUR MISSION**

NEXT GENERATION MOBILITY

**Market**
- New players
- Consumer centric perspective
- Norms & regulations

**Competition**
- Time to market
- Development cost
- Product quality
- International footprint

**Software Development**
- New functions & architectures
- New development paradigms
- New collaboration models

As an industry leading mobility system provider we master world-class software development, deployment and operation.
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Global Footprint Commercial Vehicle Business

Rooted in all key markets – a global network of development, manufacturing and distribution operations
Aftermarket & Fleet Solutions: Striving to enable zero downtime!

- More than **9,000 employees**
- Serving a diverse customer landscape in over **115 countries**
- Global service network of more than **10,000** workshop partners
- Leading Commercial Vehicle connectivity with over **160,000** vehicles online

Together we shape the Next Generation Mobility through Aftermarket & Fleet Solutions
ZF’s Commercial Vehicle Business at a Glance

**Sales 2019**
- $3.4 bn WABCO
- €3.7 bn ZF

**Employees in Commercial Vehicle Business**
- 30,000

**Sites in Commercial Vehicle Business**
- 61

**Countries Presence**
- 28

**Revenue Composition ZF in 2019**
- 12%

**Sales ZF 2019**
- €36.5 bn
“Mobilizing Commercial Vehicle Intelligence”