Facts & Figures of the ZF Group
ZF Shapes the Future in Four Technology Domains

- Vehicle Motion Control
- Automated Driving
- Electric Mobility
- Integrated Safety
Urban Mobility of the Future

Next Generation Mobility – Individual Solutions for People and Freight
Financial Overview 2018

- EUR 2.1 billion adjusted EBIT
- EUR 2.5 billion Research & Development
- EUR 1.6 billion investments in property, plant, and equipment
- EUR 36.9 billion sales
- EUR 1.4 billion reduction of gross debt
- 148,969 employees
ZF Achieved Above-Average Growth – Organically and Inorganically

Sales development 2014–2018 in EUR million

<table>
<thead>
<tr>
<th>Year</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales development</td>
<td>18,415</td>
<td>29,154</td>
<td>35,166</td>
<td>36,444</td>
<td>36,929</td>
</tr>
</tbody>
</table>

+6%*

Employees 2018 (end of the year)

<table>
<thead>
<tr>
<th>Region</th>
<th>Employees</th>
<th>of which in Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>86,388</td>
<td>50,800</td>
</tr>
<tr>
<td>North America</td>
<td>36,762</td>
<td></td>
</tr>
<tr>
<td>South America</td>
<td>5,509</td>
<td></td>
</tr>
<tr>
<td>Asia-Pacific</td>
<td>19,376</td>
<td></td>
</tr>
<tr>
<td>Africa</td>
<td>934</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>148,969</td>
<td>17,100</td>
</tr>
</tbody>
</table>

Key Figures – Locations

Worldwide Presence – Production, Development, Sales and Service

230 locations in 40 countries

20 main development locations in 8 countries

120 service locations

Over 650 service partners worldwide
Key Figures – Research & Development

2018 at a glance

Initial patent applications:
1,350
ZF is one of the top patent applicants in Germany.

Expenditures:
EUR 2.5 billion

R&D employees:
17,100
## Board of Management

<table>
<thead>
<tr>
<th>DIVISIONS</th>
<th>REGIONAL &amp; FUNCTIONAL RESPONSIBILITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WOLF-HENNING SCHEIDER</strong>&lt;br&gt;CEO</td>
<td><strong>Corporate Research &amp; Development</strong>&lt;br&gt;<strong>Corporate Sales</strong></td>
</tr>
<tr>
<td><strong>DR. KONSTANTIN SAUER</strong>&lt;br&gt;CFO</td>
<td><strong>Finance, IT, M&amp;A</strong></td>
</tr>
<tr>
<td><strong>SABINE JASKULA</strong></td>
<td><strong>Human Resources and Legal Affairs</strong>&lt;br&gt;<strong>Director of Labor Relations</strong></td>
</tr>
<tr>
<td><strong>MICHAEL HANKEL</strong></td>
<td><strong>Corporate Production</strong>&lt;br&gt;<strong>Key Account Mgmt.</strong>&lt;br&gt;<strong>Passenger Car Customers, Europe &amp; North America</strong></td>
</tr>
<tr>
<td><strong>WILHELM REHM</strong></td>
<td><strong>Commercial Vehicle Technology</strong>&lt;br&gt;<strong>Industrial Technology</strong></td>
</tr>
<tr>
<td><strong>DR. MARTIN FISCHER</strong></td>
<td><strong>Electronics and ADAS</strong>&lt;br&gt;<strong>Passive Safety Systems</strong>&lt;br&gt;<strong>Active Safety Systems</strong></td>
</tr>
<tr>
<td><strong>DR. HOLGER KLEIN</strong></td>
<td><strong>Car Chassis Technology</strong>&lt;br&gt;<strong>Aftermarket</strong></td>
</tr>
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<th><strong>FUNCTIONS</strong></th>
<th><strong>REGIONS</strong></th>
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<tr>
<td><strong>Human Resources and Legal Affairs</strong></td>
<td><strong>North America Region</strong>&lt;br&gt;<strong>South America Region</strong></td>
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<td><strong>Corporate Production</strong>&lt;br&gt;<strong>Key Account Mgmt.</strong>&lt;br&gt;<strong>Passenger Car Customers, Europe &amp; North America</strong></td>
<td><strong>Materials Management</strong></td>
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<td><strong>Corporate Quality</strong></td>
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<tr>
<td><strong>Key Account Mgmt.</strong>&lt;br&gt;<strong>Passenger Car Customers, Asia-Pacific &amp; India</strong></td>
<td><strong>Asia-Pacific Region</strong>&lt;br&gt;<strong>India Region</strong></td>
</tr>
</tbody>
</table>
Corporate Structure of ZF Friedrichshafen AG
Shareholders: 93.8% Zeppelin Foundation and 6.2% DR. JÜRGEN AND IRMGARD ULDERUP FOUNDATION

Board of Management of ZF Friedrichshafen AG

Wolf-Henning Scheider – Chief Executive Officer, Corporate Research & Development, Corporate Sales


Car Powertrain Technology Division
Stephan von Schuckmann

Car Chassis Technology Division
Dr. Peter Holdmann

Commercial Vehicle Technology Division
Fredrik Staedtler

Industrial Technology Division
Dr. Klaus Geißdörfer

E-Mobility Division
Jörg Grotendorst

Aftermarket Division
Helmut Ernst

Electronics and ADAS Division
Christophe Marnat

Passive Safety Systems Division
Rudolf Stark

Active Safety Systems Division
Richard Wolfe

Automatic Transmissions
Manual Transmissions/Dual Clutch Transmissions
Powertrain Modules

Chassis Systems
Chassis Components
Suspension Technology

Truck & Van Driveline Technology
Axle & Transmission Systems for Buses & Coaches
CV Chassis Technology
CV Powertrain Modules
CV Steering Systems

Off-Highway Systems
Industrial Drives
Marine & Special Driveline Technology
Test Systems
Aviation Technology
Wind Power Technology

Electronic Systems
Electric Traction Drive
Axe Drives
Electronic Interfaces
System House

Independent Aftermarket
Original Equipment Service/Specific Original Equipment Manufacturing
Friction Materials Group

Advanced Driver Assistance Systems (ADAS)
Safety Electronics

Inflatable Restraint Systems
Seat Belt Systems
Steering Wheel Systems

Foundation Brakes
Brake Controls
Rack Drive
Column Drive

Corporate functions/regions

Car Chassis Technology Division

Chassis Systems

Chassis Components

Suspension Technology

Commercial Vehicle Technology Division

Truck & Van Driveline Technology

Axle & Transmission Systems for Buses & Coaches

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Corporate functions/regions
# Milestones

## Corporate Development – ZF Group

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<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tr>
<td>1915</td>
<td>Foundation of Zahnradfabrik GmbH in Friedrichshafen by Luftschiffbau Zeppelin GmbH</td>
</tr>
<tr>
<td>1919</td>
<td>Market introduction of passenger car and commercial vehicle transmissions</td>
</tr>
<tr>
<td>1984</td>
<td>Majority shareholding gained in Lemförder Metallwaren AG, Chassis Technology</td>
</tr>
<tr>
<td>2001</td>
<td>Acquisition of Mannesmann Sachs AG, Powertrain and Suspension Components</td>
</tr>
<tr>
<td>2011</td>
<td>Merger of the major German ZF companies, all united under the designation of ZF AG</td>
</tr>
<tr>
<td>2011</td>
<td>Acquisition of Hansen Transmissions Int. NV, Wind Turbine Gearboxes</td>
</tr>
<tr>
<td>2015</td>
<td>100 years of ZF Friedrichshafen AG</td>
</tr>
<tr>
<td>2015</td>
<td>Acquisition of TRW Automotive Holdings Corp.</td>
</tr>
<tr>
<td>2015</td>
<td>Acquisition of large gearbox segment from Bosch Rexroth AG</td>
</tr>
<tr>
<td>2016</td>
<td>Founding of Zukunft Ventures GmbH, the venture capital company of the ZF Group</td>
</tr>
<tr>
<td>2016</td>
<td>Official opening of the new Group headquarters building in Friedrichshafen</td>
</tr>
<tr>
<td>2017</td>
<td>Official opening of new production locations in Częstochowa (Poland), Pančevo (Serbia), and La Laguna (Mexico)</td>
</tr>
<tr>
<td>2018</td>
<td>Cooperation with Nvidia</td>
</tr>
<tr>
<td>2018</td>
<td>Investments in ASAP Holding GmbH and the Indian IT service provider AVIN Systems</td>
</tr>
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</table>