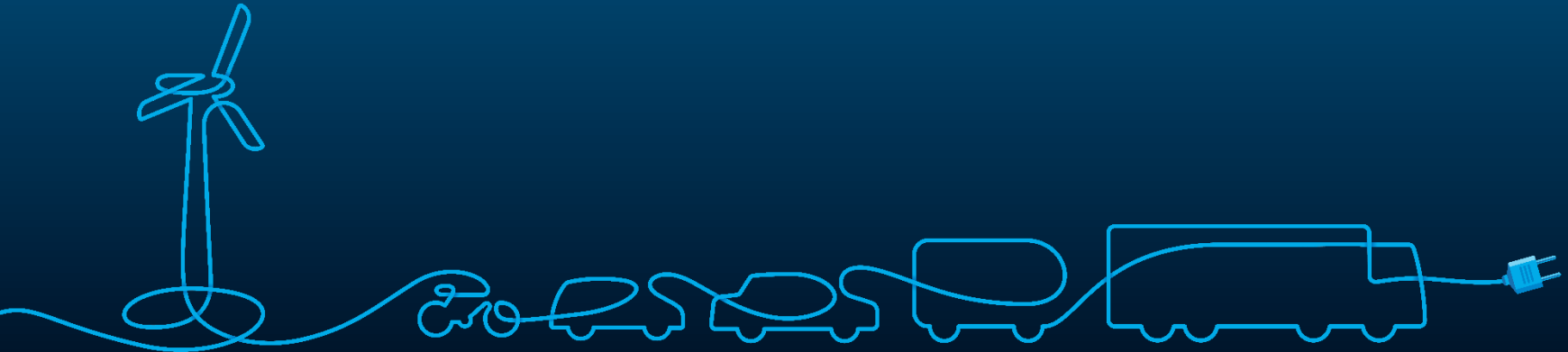




Sustainability @ ZF Friedrichshafen AG

Meike Hahn | Sustainability Manager Operations | Division Electrified Powertrains



Financial Overview 2020



EUR 32.6 billion
sales



153,522
employees



EUR 2.5 billion
Research &
Development



EUR 1.0 billion
adjusted EBIT

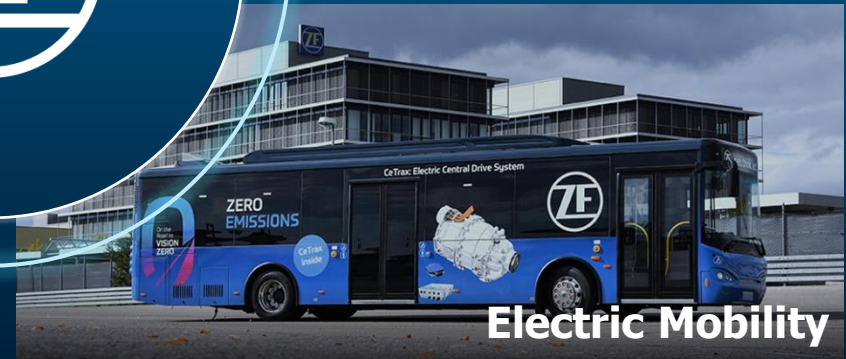
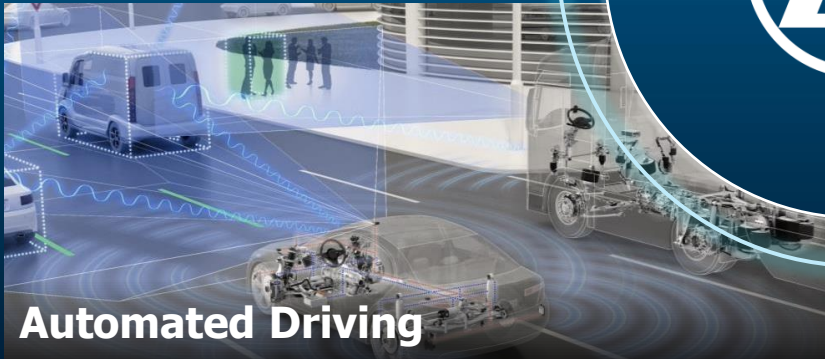
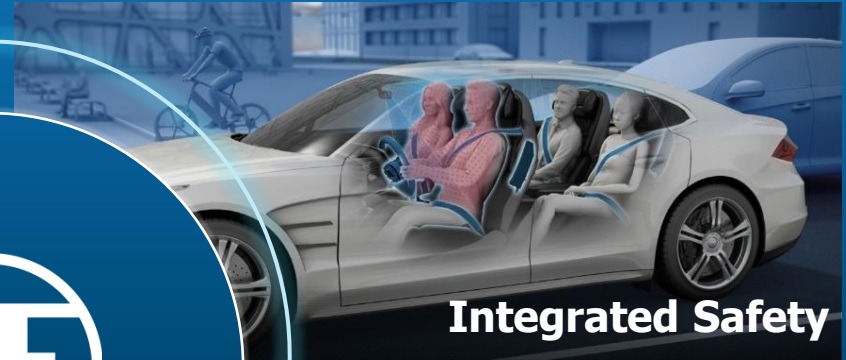


3.2%
adjusted
EBIT margin



EUR 1.4 billion
investments in
property, plant,
and equipment

ZF Friedrichshafen AG – main fields of technology



Technological mobility trends are interlinked with sustainability

Radical changes in the automotive industry

Changes in **mobility behavior**



Diffusion of advanced technology



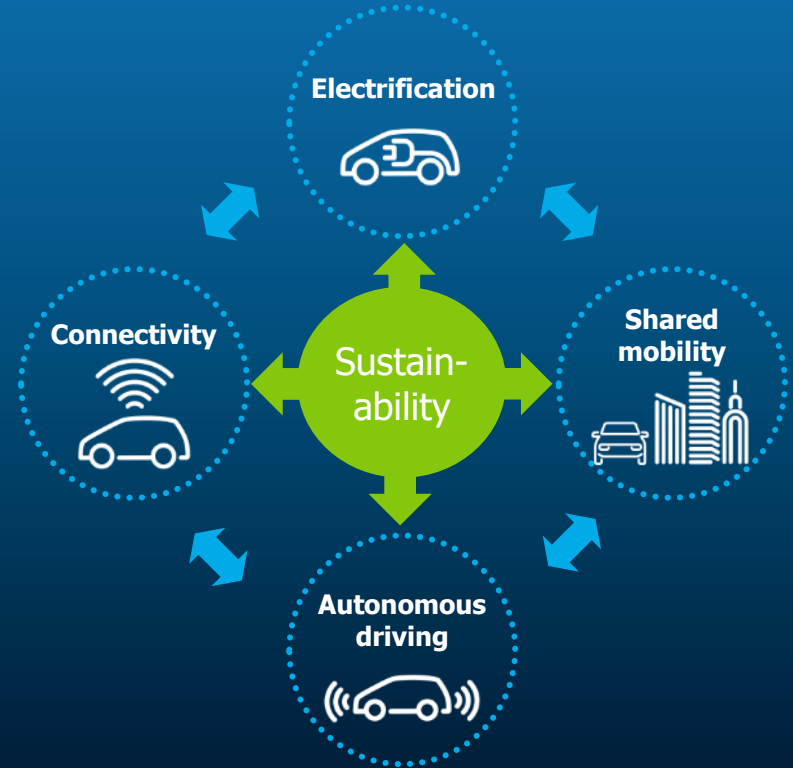
New competition and cooperation



Shifting markets and revenue pools



Digitalization in **products & processes**



Sustainability & CO₂¹⁾ are business critical for automotive suppliers

1 Employees & Stakeholders



- Credible **sustainability strategy** is a precondition for talent attraction
- **Public and stakeholders** put higher emphasis on CO₂

2 Investors & Rating Agencies



- CO₂ **core criterion** for rating agencies
- Sustainability as prerequisite for **good financing conditions**
- Relevant also for „**foundation-owned**“ company

3 Customers & Competitors



- Customers set climate targets as **mandatory sourcing requirements**
- Balancing CO₂ and cost effectiveness provides **competitive advantage**
- Opportunities in **new technology fields**

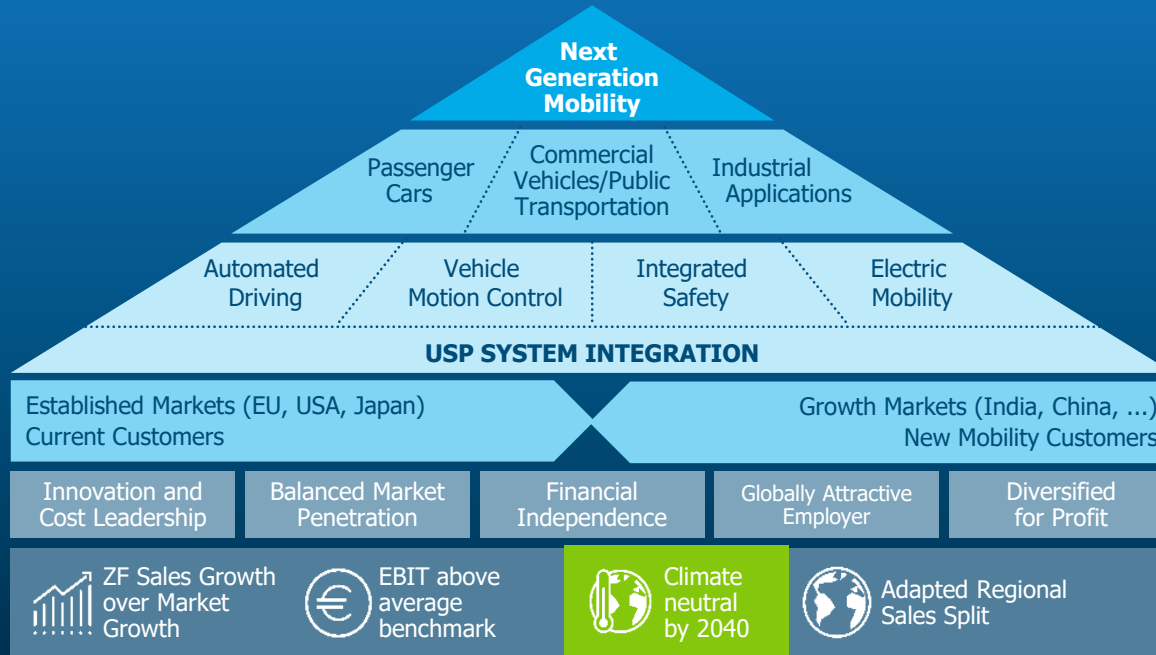
4 Laws & Regulations



- Tightening **worldwide regulations** on CO₂
- EU **Green Deal** as accelerator
- **Supply Chain Legislation**

1) Including all greenhouse gas emissions (CO₂ equivalents) according to the Greenhouse Gas (GHG) Protocol

Climate Neutrality is an integral part of ZF's business strategy



Reaching net zero by 2040 in all emission scopes

Decarbonization is required on all levels of the value chain

1

Direct CO₂ emissions (Scope 1)

- Reduce ZF overall energy consumption
- Increase energy efficiency in ZF operations

2

CO₂ emissions from energy consumption (Scope 2)

- Maximize green power purchasing
- Expand on-site generation of green power

3

Emissions in ZF supply chain (Scope 3 upstream)

- Reduce carbon footprint of purchased parts (e.g. steel, alu, electronics)
- Increase use of secondary material

Emissions during use phase (Scope 3 downstream)

- No new R&D projects for internal combustion engine drives;
- Increase CO₂ efficiency in product use phase



Success factors for our climate journey

2030: Achievement of
interim targets in all scopes

2040: Climate Neutral
all scopes



Today



Today:

CO₂ transparency on corporate and
product level

Science based targets in all scopes

CO₂-reduction roadmaps in all
business units and key functions



Climate: Setting Course for Net Zero with clear 2030 Targets



-80%

**CO₂ emissions
from ZF plants**

(Scope 1&2,
absolute CO₂e, 2030 vs. 2019)



-40%

**CO₂ emissions from
supply chain &
product use**

(Scope 3, CO₂e per sales, 2030 vs.
2019)

Measures in Focus to Achieve 2030 Targets



ZF Plants



Supply Chain



Products



+20% energy efficiency
in 10 years



90% of European steel
from electric arc furnace



>40% fully electrified
powertrain



100% green power
in all ZF Locations
worldwide



50% CO₂ neutral
road transport
in ZF logistics network



50% recycled materials
in ZF products



Initiative Idea – “Zero Emission Factory Klášterec”

Target: Carbon Neutrality 12/2022 Scope 1&2

Main actions for Zero Emission Plant



Energy efficiency measures



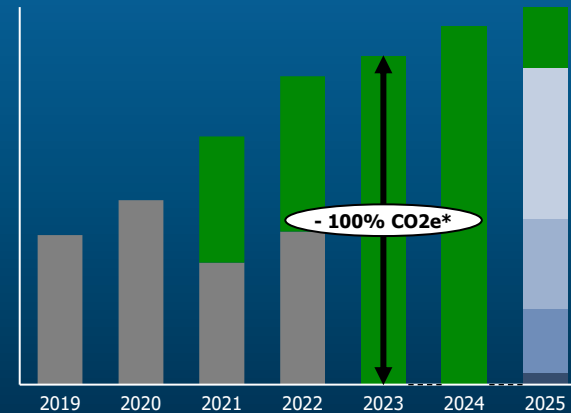
Green energy supply



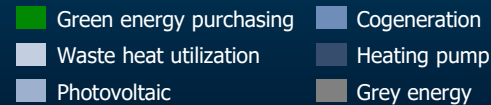
On-site renewable energy production

Expected Energy Mix 2019-2025:

Energy Consumption



*10% allowance for process gases



- Q1/2021 **Kick-off Workshop**
- Q1/2021 **Roadmap**
- Q2/21 **Feasibility Study**
- Q2/21 **Best Practice Sharing**
- Q3/21 **Invest Approval**
- start Q1/22 **Implementation**
- 12/2022 **Zero Emission**

Thank You for Your Attention

Meike.Hahn@zf.com

