IAA Premieres: ZF sets the pace for sustainable mobility

- **World premiere: At IAA Mobility, ZF presents the Modular eDrive Kit, which reduces the development time for new e-drives by up to 50 percent.**
- **European premiere: ZF ProAI, the most flexible and powerful supercomputer for the automotive industry, defines ZF as a provider of hardware and software solutions as well as digitized complete systems**
- **ZF is robustly driving sustainability in mobility - from production and supply chain through product offerings and solutions - to mobility offerings for employees**

Munich. At IAA Mobility in Munich, ZF, as a comprehensive system provider for sustainable mobility, presents its innovations - setting the tone for e-mobility and powerful central computers.

"Next Generation Mobility. NOW." - Seldom has a ZF motto been so fitting as is it is for IAA Mobility 2021 in Munich - when society's mobility needs are in a state of upheaval. However, ZF sees great potential for the future of mobility. The technology group is therefore focusing on sustainable and comprehensive new mobility and driveline concepts. The technologies for these are already available. Under the auspices of IAA, ZF presents both a world premiere and a European premiere.

"Sustainable mobility is becoming tangible for people. With its products and solutions, ZF is helping to establish this in society, making it increasingly visible in everyday life," says ZF CEO Wolf-Henning Scheider at IAA Mobility. "Never before has an IAA been better suited to talk about mobility as a whole. This suits us at ZF very well, because we are at home in almost all areas of mobility."

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World premiere: Modular eDrive Kit

The world premiere of the Modular eDrive Kit shows just how powerful ZF is in the e-mobility arena. It bundles the entire expertise of ZF's e-mobility team into systems solutions, components and software control in a flexible platform. All new e-drives of the Modular eDrive Kit offer significant improvements in power density, weight, and efficiency. Optimized transmissions, as well as highly efficient cooling and lubrication concepts, reduce mechanical losses by up to 70 percent. To achieve this, ZF draws on its particular expertise in the field of transmissions. In addition, patented innovations in power electronics are included in the modular system. This offers tangible advantages for the automotive industry: "Among all the key figures of our Modular eDrive Kit, one is most important to us: The 50th percentile. Because we reduce the development times for new e-drives by up to 50 percent. We achieve this through a common technical base and cross-platform development of the components, through synergy effects and with a higher degree of maturity from the very beginning," explained Scheider.

ZF's Modular eDrive Kit also gives manufacturers a great deal of leeway in the design priorities between maximum performance and efficiency because it offers the widest possible spread - from compact cars to the premium segment: Configurations from 75 to 400 kW of power and from 350 to 540 Nm of torque are possible. The consistent modular approach of the Modular eDrive Kit serves as an optimal complement to the platform strategies for ZF customers: from established vehicle manufacturers to new automotive customers and tech companies. As a result, ZF now offers the exact foundation automotive manufacturers need for the next generation of battery electric vehicles.

European premiere: most flexible and powerful supercomputer for the automotive industry

Automated and autonomous vehicles require the computing power of supercomputers on wheels. The heart of future vehicles is therefore the central computing unit because this enables new functions with appropriate performance - for the benefit of safety, efficiency and comfort.

ZF has therefore developed a high-performance computer as a base - the ZF ProAI. The latest generation of the ZF ProAI is celebrating its European premiere at IAA Mobility. It is currently the most flexible and powerful supercomputer for the automotive industry. In combination with a high proportion of standardized components, ZF offers a unique combination of the most important factors for such a system with this solution.

Up to 66 percent stronger, up to 70 percent more efficient

The ZF ProAI is available in scalable performance levels from 20 to 1,000 TeraOPS. Compared to the previous version, ZF has increased performance by up to 66 percent and reduced energy consumption by up to 70 percent. This results in an outstanding energy efficiency of three TeraOPS per watt. At the same time, all variants of the ZF ProAI have been implemented on a uniform platform measuring only 24 x 14 x 5 cm. This means it takes up less floor space than an iPad. The ZF ProAI is suitable for every vehicle type and for all levels of automated or autonomous driving: from Level 2 to Level 5.

"ZF placed its strategic focus consistently on technologies for next-generation mobility years ago. This is now paying off: We are not showing ideas for the future at the IAA, but production-ready solutions that our customers can order and that will soon be shaping people's mobility on the road," said Wolf-Henning Scheider. "In our estimation, autonomous driving after Level 4 or 5 will become established in the commercial vehicle segment initially, and urban passenger transport. We are already active in the market for autonomous shuttle systems, among others."

Green Power Roadmap: Climate neutral ten years earlier

ZF has secured, in a Green Power Roadmap, how all ZF activities will become climate-neutral by 2040 - ten years earlier than envisaged in the Paris Climate Agreement.

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Sustainability is an obligatory criterion for ZF - as an important milestone, CO2 emissions at ZF locations are to be reduced by 80 percent by 2030 compared to 2019. ZF also assumes responsibility for its supply chain and the use phase of its products. The goal: to reduce, by 2030, the so-called Scope 3 emissions by 40 percent compared to 2019.

And employees can also play a pioneering role: Already, 80 percent of newly ordered company cars at ZF in Germany are electrified. In addition, ZF subsidizes the installation of private charging facilities for company cars. Furthermore, there will be workplace charging facilitites at every ZF location, worldwide, by the end of 2021. In Germany, more than 50,000 employees can also lease through ZF, a bicycle or e-bike.

"And that's not all: we are also playing a major role in shaping the generation of energy from renewable sources," said Wolf-Henning Scheider. "Today, 25 percent of all wind turbines already contain a ZF transmission. These turbines alone can supply up to 100 million households with renewable energy - and another million are added every month."

You will find ZF at the IAA Mobility 2021 in Munich:
Booth A1.B80

Captions:

1. At IAA Mobility in Munich, ZF, as a comprehensive system provider for sustainable mobility, presents its innovations - setting the tone for e-mobility and powerful central computers.
2. A World First at IAA: ZF's "Modular eDrive Kit", a new modular platform of e-drives. ZF anticipates the increasing demand for purely electrically driven vehicles. With this technology, ZF reduces the time between new development and series production readiness by up to half.
3. Currently the most flexible and powerful supercomputer for the automotive industry: ZF has received major orders for the latest

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generation of the ZF ProAI, with production scheduled to start in 2024.

4. Great leverage for new mobility concepts: For the supply and operation of autonomous shuttle systems, ZF has all competencies on board.
5. Wolf-Henning Scheider, ZF Chairman and Chief Executive Officer.

Photo credits: ZF

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About ZF

ZF is a global technology company supplying systems for passenger cars, commercial vehicles and industrial technology, enabling the next generation of mobility. ZF allows vehicles to see, think and act. In the four technology domains of Vehicle Motion Control, Integrated Safety, Automated Driving, and Electric Mobility, ZF offers comprehensive product and software solutions for established vehicle manufacturers and newly emerging transport and mobility service providers. ZF electrifies a wide range of vehicle types. With its products, the company contributes to reducing emissions, protecting the climate and enhancing safe mobility.

In fiscal year 2020 ZF reported sales of €32.6 billion. The company employs more than 150,000 associates at approximately 270 locations in 42 countries.

For further press information and photos please visit: www.zf.com