



E-mobility for Heavy Commercial Vehicles: HyFleet Project Launched

- **Project objective: volume-production capability of fuel cells for coaches**
- **ZF contributes expertise for commercial vehicle electric drives including power electronics and energy management system**
- **Project "HyFleet" has a term of three years**

Friedrichshafen (Germany). In cooperation with Freudenberg, Flixbus and the climate NGO Atmosfair, ZF is participating in a project for fuel cell technology. The objective of the "HyFleet" project is to design and test a purely electrically powered coach. The project is scheduled to run for three years and aims to identify important findings for the optimum design of fuel cells in coaches.

"ZF's broad technology portfolio and knowledge of the electrified driveline as well as the associated systems are already facilitating vehicle manufacturers' transition to e-mobility. In the future, the fuel cell will play an important role in e-mobility for heavy commercial vehicles due to its range and fast refueling times," says Wilhelm Rehm, member of the ZF Board of Management responsible for Commercial Vehicle Technology and Control Systems. "We have always pursued electrification with an open-minded approach to technology – the fuel cell has also played an important role as a drive solution for us from the very beginning."

"Freudenberg will contribute to the project its decades of fuel cell expertise at component and system level," explains Claus Möhlenkamp, CEO of Freudenberg Sealing Technologies. "We want to significantly develop both the durability and efficiency of the technology and thus set standards for total cost of ownership."



PRESSE-INFORMATION
PRESS RELEASE

Page 2/3, 2021-11-10

Fuel cell: Path to heavy commercial vehicle electrification

The feasibility study will make it easier in the future to optimally design fuel cell drives for heavy commercial vehicles. Specifically, this involves the respective dimensioning of the battery and fuel cell, the system's cooling concept and the load peaks to be considered when operating the drive system. In this context, ZF is contributing its expertise for the purely electric commercial vehicle drive – including power electronics and software-based control of all energy consumers. The consortium also benefits from the know-how of the ZF Group in numerous e-mobility series projects for commercial vehicles. The German Federal Ministry of Transport and Digital Infrastructure has already provided a non-binding letter of intent for funding the project.

The consortium is managed by Freudenberg Fuel Cell e-Power Systems GmbH, a subsidiary of Freudenberg Sealing Technologies; other partners are the mobility provider Flixbus and the climate protection organization Atmosfair. The "HyFleet" project focuses on a high practical benefit of the fuel cell drive. In addition to the energy efficiency of the drive, this also includes driving characteristics and handling, for example in hydrogen refueling.

In addition to the HyFleet project, ZF and Freudenberg are jointly investigating further applications for the development of fuel cell solutions for mobility and industrial use.

Captions:

1-3) With the project "HyFleet", ZF cooperates with Freudenberg, Flixbus, and Atmosfair to explore how a fuel cell can be optimized for use in coaches.

Images: ZF, Freudenberg, Flixbus, Atmosfair

Press contacts:

Frank Discher, Commercial Vehicle Technology, Fleet Management Solutions and Electromobility,

Phone: +49 7541 77-960770, e-mail: frank.discher@zf.com



PRESSE-INFORMATION
PRESS RELEASE

Page 3/3, 2021-11-10

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.

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

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