

Press Release

Dresden
August 23rd, 2012

World's longest bus premieres in Dresden

On August 22nd, 2012, the new AutoTram[®] Extra Grand was presented to the public for the first time in the historic city center of Dresden. The premiere of »the world's longest bus« attracted many visitors and press. Earlier in the afternoon, politicians and researchers visited the vehicle, including the German Minister of Education and Research Prof. Anette Schavan, the Saxon Prime Minister Stanislaw Tillich and Prof. Reimund Neugebauer, director of the Fraunhofer Institute for Machine Tools and Forming Technology IWU.



Journalists and visitors from Dresden and beyond visited the premiere of the vehicle in front of Dresden's beautiful baroque silhouette.

The multi-unit vehicle with rubber tires is more than 30 meters long and has a capacity of 256 passengers. It has been developed and constructed within the »Innovative Regionale Wachstumskerne« research program, which was initiated by the German Federal Ministry of Education and Research (BMBF).

The AutoTram[®] technology is based on a vehicle concept developed by the Fraunhofer IVI, combining the advantages of rail and road-bound transport systems. So far, the concept had only been used for research purposes, but is now applied in practice. The innovative public transport vehicle has been developed in joint research with the Institute of Electrical Power Engineering, TU Dresden, and Wittur Electric Drive GmbH, who were in charge of developing the high efficient drive engines, as well as the Dresden-based M&P motion, control and power electronics GmbH, who contributed power electronics, the vehicle computer and

Press Release

supercapacitors. The Dresdner Verkehrsbetriebe (DVB) AG were responsible for consulting in transportation and traffic sciences. The type approval was carried out by the DEKRA and the AutoTram® Extra Grand was constructed by bus manufacturer Göppel Bus GmbH in Thüringen.

Due to its high transport capacity, the AutoTram® Extra Grand bridges the gap between conventional city buses and trams, offering new possibilities for an environmental friendly public transport. The vehicle is perfectly suitable for the use in BRT (Bus Rapid Transit) systems. These can be found in many cities in Asia and South America, where rail-bound solutions are often not realistic due to high costs, space or time restrictions.

Another significant technical feature, apart from the vehicle's dimensions, is the train-like guidance of the vehicle. The AutoTram® Extra Grand has four guided axles, three of which can be controlled by means of a secure electrohydraulic actuator system. With the multi-axle steering system, the vehicle can be maneuvered like a 12-meter bus both forward and reverse. Fraunhofer IVI developed the control algorithms and the battery storage system, enabling all-electric operation for a distance of 8 kilometers. With the compact range extender, batteries can be recharged on route. By means of a predictive energy management, energy-efficient operation is guaranteed.

The AutoTram® Extra Grand is not only the world's longest bus today, but it also represents a future-oriented public transport system in large city areas.



Contact

Fraunhofer Institute for Transportation and Infrastructure Systems IVI

Dr. Matthias Klingner
Director

Phone +49 (0)351/ 46 40-640
matthias.klingner@ivi.fraunhofer.de
www.ivi.fraunhofer.de

Elke Sähn
Public Relations and Press

Phone +49 (0)351/ 46 40-612
presse@ivi.fraunhofer.de