Clean Transit in Europe's Cities

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Ambitious goals, many participants, and considerable funding are characteristics of ZeEUS. The abbreviation stands for Zero Emission Urban Bus Systems, which is the header of a new EU project: In total, 40 partners test and demonstrate different electric bus concepts in eight European cities.

Within the Seventh Framework Programme, FP7, 13.5 million euros have been granted to support the introduction of electric buses at different sites including Barcelona, Bonn, Glasgow, London, Münster, Plzen, one city in Italy, and Stockholm.

The project is guided by the International Association of Public Transport, UTIP, and accompanied by prestigious establishments like VDV, Fraunhofer Association, VDL, and many others. RWTH Aachen University is involved in several work packages in two areas:

Demonstration in Münster
The Institute for Power Electronics and Electrical Drives, ISEA, is leading the demonstration in Münster. An entire busline will be operated by electric buses. Five vehicles and two fast charging stations on route and an additional charging station in the bus depot are part of the concept. A unique fast charging power level of up to 500kw reduces the charging time to four to six minutes and facilitates the integration into the existing bus line time schedules.

The innovative coupling technology, connecting the bus battery to the charging infrastructure at the bus station is developed by the Institute of Fluid Power Drives and Steering, IFAS, at RWTH Aachen University.

Battery System Technology Research Group
The research group of ISEA RWTH Aachen, accompanies the ZeEUS project scientifically. It is the largest university working group in the field of battery system technology in Germany – where the topic of electric buses is becoming increasingly important.

ISEA develops the technical evaluation concept and brings in technical expertise to support the evaluation of the eight European demonstration projects. At the end of the project in mid-2017, the research results will be made accessible to all related parties, such as bus manufacturers, bus operators, municipalities, or politicians in transport and finance.