PRESSRELEASE

chargeBIG: MAHLE's intelligent charging system for Stuttgart Airport

- In the future, up to 110 charging points will be available for electric cars on the apron and in the internal vehicle fleet
- Substantially reduced costs compared with conventional charging concepts

Stuttgart, April 17, 2019 – By purchasing a chargeBIG charging system, Stuttgart Airport has opted for a low-cost solution from MAHLE for the electrification of its employee and vehicle fleet parking spaces. It is thus making optimal use of its existing infrastructure rather than needing to invest extensively in the expansion of its network. chargeBIG is a corporate start-up from MAHLE with the specific objective of decreasing bottlenecks in the power supply and enabling the rapid development of an extensive charging infrastructure.

The basic idea of chargeBIG is a centralized, scalable charging infrastructure concept for short-term parking lot users and fleet operators. "The bottlenecks in the charging process are caused by spikes in power delivery rather than the energy that is actually available. We use intelligent load distribution to take advantage of this situation," explains Sebastian Ewert, head of project management Europe at MAHLE and a member of the chargeBIG team.

The installation of the 110 charging points at Stuttgart Airport together with MAHLE's partner eliso is well underway. The external area and parking facilities have already been developed, and the charging points are currently being fitted to wall and column mountings on the apron.

The chargeBIG charging concept for single-phase AC destination charging with charging outputs of between 2.3 and 7.2 kilowatts comprises a central, intelligent control unit with permanently mounted cables and connector plugs instead of charging columns in the parking lot. Thanks to the intelligent charging system and design-to-cost approach, there is no need to invest in expanding the network connection, resulting in substantial cost and time savings during the development of the charging infrastructure.

A central control unit distributes the available charging capacity across the parked vehicles using dynamic, phase-specific load management. This prevents unbalanced loads in the power supply. chargeBIG responds flexibly to other consumers on the network and uses the electric vehicles as a controllable load. This ensures optimal utilization of the available power supply. There are two other benefits: The chargeBIG solution is more convenient to install and look after than alternative systems as the charging points can be maintained very easily via the central electronics. The charging points are also de-energized when they are not in use—a clear advantage from a safety perspective.

The concept is ideally suited to an application with around 20 to 100 electrified parking spaces and is infinitely scalable—the perfect solution for locations with a large number of electric vehicles that are parked for long periods of time, such as businesses, airports, and park and ride schemes.

About MAHLE

MAHLE is a leading international development partner and supplier to the automotive industry as well as a pioneer for the mobility of the future. The MAHLE Group is committed to making transportation more efficient, more environmentally friendly, and more comfortable by continuously optimizing the combustion engine, driving forward the use of alternative fuels, and laying the

foundation for the worldwide introduction of e-mobility. The group's product portfolio addresses all the crucial issues relating to the powertrain and air conditioning technology—both for drives with combustion engines and for e-mobility. MAHLE products are fitted in at least every second vehicle worldwide. Components and systems from MAHLE are also used off the road—in stationary applications, for mobile machinery, rail transport, as well as marine applications.

In 2017, the group generated sales of approximately EUR 12.8 billion with about 78,000 employees and is represented in more than 30 countries with 170 production locations. At 16 major research and development centers in Germany, Great Britain, Luxembourg, Spain, Slovenia, the USA, Brazil, Japan, China, and India, around 6,100 development engineers and technicians are working on innovative solutions for the mobility of the future.

For further information, contact:

MAHLE GmbH
Christopher Rimmele
Corporate Communications/Public Relations
Pragstraße 26–46
70376 Stuttgart/Germany
Phone: +49 711 501-12374
Fax: +49 711 501-13700
christopher.rimmele@mahle.com