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## Press Release

### Pilot system for wireless charging of e-taxis in urban environments

Waiting times become charging times

**Hamburg, 25.05.2022:** The opening of Germany's first wireless charging taxi waiting lane in Cologne has been the culmination of the TALAKO project, with several project partners involved and subsidised by the German Government. Six vehicles and six charging stations at the main train station in Domprobst-Ketzer-Street in Cologne have been equipped by INTIS with wireless charging technology.

A positioning assistant as implemented by INTIS starts automatically when the vehicle is near the charging stations, supporting the driver to park over the coil embedded in the road. While waiting for passengers the taxi charging process can be started by pushing a button. Waiting times become charging times. Charging can also be stopped by pushing again a button on the HMI, at which point the driver can move the vehicle to the next charging spot.

The charging efficiency is more than 90 % at nominal power transfer. The positioning assistant from INTIS is supported by a vehicle localisation system using a camera and a pattern recognition system which was developed and provided by the University of Duisburg-Essen NES.

A coil system with an alignment tolerance of 60 cm in driving direction has been implemented already, accommodating the INTIS roadmap to semi-dynamic wireless charging solutions.

The roadside coils are very robust, mechanical loads from heavy duty trucks up to 40 t will not cause any damages. Magnetic fields are well below ICNIRP reference values relevant for public areas.

#### **About INTIS:**

INTIS Integrated Infrastructure Solutions GmbH was founded in 2011. It is a 100 % subsidiary of IABG mbH. The company is headquartered in Hamburg. All development facilities, laboratories and workshops are located at the site of the former Transrapid test facility Emsland (TVE) in Lathen, Emsland.

INTIS specializes in the development and sales of integrated solutions for the power supply of vehicles with electric powertrains. One of the focal points is non-contact, wireless power transfer systems (chargers) for road vehicles, micro mobility vehicles (e-bikes, cargo bikes, e-scooters), industrial vehicles and maritime applications.

For development work, prototypical realizations, experimental validations/tests, product transfer and qualification as well as for contributions to the standardization of inductive energy transmission systems, the INTIS experts are using their own simulation tools, test facilities and workshops at their disposal. In addition, INTIS has access to the development expertise and test facilities of its parent company (IABG mbH).

Since 2012, a wide variety of systems for inductive charging of vehicles have been delivered. In addition to stationary energy transmission solutions (wireless charging for vehicles in parking spaces), the service and delivery portfolio also includes solutions for vehicle charging while driving as well as combined charging (cable charging and wireless charging in a charging station).

The solutions supplied by INTIS today already largely meet requirements of existing or upcoming standards. INTIS provides a German representative for standardization at the International Electrotechnical Commission (IEC).

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