



**“Ducktrain is the automated vehicle technology platform for future urban last-mile helping our customers to save more than 30% of costs of last-mile.”**

Imagine, "Future Mobility" would not only mean the electrification of vehicles, but a real change on our roads and in our cities. Imagine a city centre where the streets are not blocked by parked delivery vehicles and therefore the roads can be used for what they were invented for: to drive. We believe that it is worth thinking about such a future. With Ducktrain, we have developed an electrical, automated logistics device that elevates light vehicle-based logistics to a new level of efficiency, eliminating the need for conventional delivery vehicles in cities. A Ducktrain is a combination of any leading object (leader vehicle or person) and one or more automated light electric 4-wheel vehicles - called "Ducks" - which automatically follow the leading object. Each duck is equipped with sensors to detect the leading object and virtually couple it to the duck. This creates a train of light vehicles without physical connection between the parts of the train.

In a further development step (approx. 2024), the Ducks will be able to drive parts of the route (in particular the approach from the last hub into the district) fully automatically. This function will be retrofitted via a software update: Our vehicles are already prepared for this update today.

For our customers, cities and citizens, Ducktrain has a unique set of features:

- **Ducktrain is 100% electric:** locally emission free logistics.
- **Ducktrain fits seamlessly into dense urban areas:** Zero exhaust, quiet, narrow, 300 kg payload and 2m<sup>3</sup> storage volume per unit while the use of footpaths and cycle paths is possible. When using Ducktrain, there is no street congestion and there are no inner-city entry barriers like pedestrian zones, bollards or small alleys.
- **Ducktrain enables delivery cost reduction:** Using Ducktrain results in reduced deliver cost per parcel.
- **Ducktrain offers driver assistance** such as collision avoidance and slightly path correction for a high safety level and potential reduction of minor damages.
- **Ducktrain is flexible:** The virtual coupling enables a coupling with any leading object and an automated platooning of Ducktrain. Our modular container systems fits to every use-case.
- **Ducktrain facilitates workforce onboarding:** no driving licence required.