

# Daimler reveals hybrid and electric Citaro plan

Daimler Buses used the *Busworld* show in Kortrijk to announce a hybrid version of the Citaro and set out its plans for an electric version from 2019

## VEHICLES

► German bus and coach manufacturing giant Daimler used last month's *Busworld* show in Kortrijk, Belgium, to reveal a 'mild-hybrid' version of its best-selling Mercedes-Benz Citaro citybus.

The vehicle aims to keep the costs of its hybrid solution low by utilising a hybrid system derived from the Mercedes-Benz S-Class car. Meanwhile, Daimler has chosen to dispense with batteries to store energy from the hybrid system in favour of double-layer capacitors, also known as 'supercaps'.

Daimler says these electricity storage units are characterised by a high power density. They are resistant to high power peaks and have a long life. Unlike batteries, supercaps are ideally suited to



the continuous quick changeover between charging and discharging that occurs when stopping and pulling away again in typical city bus operation.

"Braking to a stop from a speed of 50 km/h just once is enough to recharge the power storage

units in the Citaro hybrid," claims Daimler.

Meanwhile, speaking at the show, Harmut Schick, head of Daimler Buses, confirmed plans for production of an electric version of the Citaro. He said that Daimler is currently on track to

test prototype electric Citaros with customers from next year with serial production planned at Daimler's Mannheim plant from 2019.

Responding to claims that Daimler was late to the market with plans for an electric Citaro, Schick said that the manufacturer was aiming to meet demand from large volume tenders from major operators seeking electric vehicles from 2020 onwards.

The vehicles will be an entirely new product too. "It has nothing to do with a diesel bus anymore," said Schick. "The axles are different, the drive, all auxiliaries are electric and so on. Only the shell remains the same."

Daimler is also planning a new 'mobility solutions' department that will support the electric Citaro. This operation will look at charging and infrastructure solutions, such as smart charging.

Meanwhile, Daimler is hoping to leverage economies of scale, as with the use of the S-Class hybrid system in the Citaro Hybrid, by building its own battery factory to supply batteries for vehicles across the various Daimler business units. ■

## ABB CHARGING PLANS REVEALED

Smart charging solution for bus depots offered

### ELECTRIC BUSES

► Swedish-Swiss engineering firm ABB used last month's *Busworld* show in Kortrijk, Belgium, to reveal a new depot-based smart charging solution for electric buses. The result of 12 years' research, the design aims to be both modular and future-proof. Each 50kW station, which can be expanded to 100kW or 150kW, can be paired with up to three charge boxes. Vehicles are charged one by one in order to maximise availability. ■



The smart charging system aims to complement ABB's pantograph-based opportunity charging solution