

Moving people in driverless shuttles

In Las Vegas, Bosch presented its concept electric people mover. It uses embedded CAN networks.

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People mover will soon be a common sight on our city streets (Photo: Bosch)

Bosch provides devices and sub-systems for automating, connecting, and electrifying the shuttles. In the future, the company will offer mobility services, too – bundling them into a seamlessly connected ecosystem. That will include booking, sharing, and networking platforms, parking and charging services, and software solutions for managing and maintaining the vehicles, as well as infotainment during the journey. “Bosch is developing a unique package of hardware, software, and mobility services for shuttle mobility of the future,” said Dr. Markus Heyn, member of the board of management of Robert Bosch.

People movers and shuttles are a new kind of vehicles that will populate our cities. First providers are already on the market. [Easymile's](#) EZ10 driverless shuttle has already been deployed in 25 countries. In addition to the founders, Alstom and Continental are shareholders. One of these driverless electric shuttles that can transport up to 15 people is used in Minnesota. It has no steering wheel, and operates on pre-mapped routes. This vehicle has already transported over 320 000 people and logged more than 250 000 miles around the world. This is the first use of this vehicle in Minnesota and Easymile's first official test in a harsh winter weather environment.

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EZ10 driverless shuttle running on the corporate campus (Photo: Easymile)

For the last two months, Easymile has been running a fully driverless shuttle service on a corporate campus, demonstrating the maturity of the technology for local mobility needs. While most “driverless” operations include one or two “operators” on board the vehicle, this is one of the first deployments that is relying upon a remote “operator.” In France, at the Sorigny factory of TLD Group, the EZ10 shuttle drives employees to the cafeteria and back four days per week at lunchtime for a 1,5-km journey round-trip. Up to 50 % of the TLD factory employees use the driverless service daily. The service has been running very smoothly for the past two months.

“The EZ10 has proven to be a safe, reliable service around our campus. Employee feedback is very positive, especially in case of inclement or hot weather! TLD is proud to be involved in such an important milestone both for Easymile and for mobility in general,” said Nicolas Verin, CEO of TLD Europe. During 2019, Easymile plans to progressively deploy this fully driverless service to other private sites, in coordination with clients, transport operators, and the authorities.

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The autonomous shuttle operation in Luxemburg is part of the European Horizon project, which is also supported by the cities of Lyon, Copenhagen, and Geneva (Photo: Navya)

[Navya](#) is another autonomous shuttle supplier. Since September 2018, two of these vehicles serves in the city of Luxemburg. The autonomous shuttles run free-of-charge every 15 minutes between the Pfaffenthal lift and the funicular to the “Val des Bons Malades” cemetery. The people mover is used also on airports, campuses, resorts, hospitals, and in theme parks as well as on industrial sites.

All these people movers and shuttles are battery-powered. They use ECUs and sensors, which are partly connected via CAN networks. Unfortunately, details on the CAN communication are not yet available.

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