

Media release

At busworld Europe in Belgium:

Leclanché launches a "full-electric" bus

- Last Saturday, in the city of Bruges, Belgium, Leclanché unveiled its first allelectric bus, in partnership with Van Hool, the bus manufacturer and Bombardier, one of the world leaders in the transportation industry.
- In line with Leclanché's growth strategy, this project is a solid proof point of Leclanché' comprehensive range of solutions for Hybrid and Electric Bus comprised of on-board Battery Packs; Integrated Electric Drive Train; Charging Systems; and Cloud-based Fleet Operations Software.

Yverdon-les-Bains, Switzerland, October 19, 2015 – Leclanché S.A. (SIX Swiss Exchange: LECN),

a group specialised in Battery-based Energy Storage Systems, is going from strength to strength. This Saturday in Bruges, Belgium, Leclanché introduced its first all-electric bus to coincide with busworld Europe, the biggest trade show for public road transport professionals. Three buses were handed over to the Flanders public transport company, De Lijn.



Flemish Minister for mobility **Mr. Ben Weyts** made following statement: "I will continue to invest in to the fleet of "De Lijn". With modern, fast and comfortable vehicles we can seduce more Flemish people to use our public transport. The electric busses are not only the cleanest, but also the most quiet of the country. This is really an investment in the future."

Jan Van Hool, director of the Van Hool company, commented: "We value this partnership especially as the battery system has such exceptionally good specifications and are tailor-made to fit our vehicles. Furthermore, the remote management system will be a great benefit when the vehicles go on the road."

Anil Srivastava, Leclanché's CEO underlines the importance of this project: "Bus operators around the world are actively addressing the dual challenge of reducing harmful emissions and at the same time reducing cost of fleet operations. Thanks to a series of innovations and cost reduction, hybrid and full-electric buses are competitively addressing both these challenges. We wish to thank Van Hool and De Lijn for giving us this opportunity. Building these credible references is crucial for Leclanché to capture this fast growing market with a projected global need of 2.7GWh in battery systems by 2020¹.

Stefan Louis, Leclanché's Chief Strategy Officer, highlights the advantages of Leclanché's offer to the transport sector which helps optimize the cost of fleet operations through better energy management and safer operations:

- Dynamic route simulation and system planning programs supporting clients to design optimized fleet operations and remote monitoring of all system components via a cloud service.
- Complete system solutions including latest-generation, made-to-measure lithium-ion battery packs
 with thermal management, infrastructure such as chargers and connectivity up to fully integrated
 electric drive trains through its strategic partnership with Visedo.
- Leasing and financing services, to accelerate the introduction of new technologies without heavy investments.

The project was part of the 'living lab for electric vehicles program', initiated by the Flemish ministry for innovation and subsidised by the Flemish agency for innovation in science and technology (IWT). It was completed in partnership with the bus constructor, Van Hool, and Bombardier for the inductive charging system at the bus depot. Leclanché provided the fast-charge battery system, the battery management software including remote management and conductive chargers.



The bus travelled through the streets of Bruges during the weekend with many of the professional visitors to the *busworld Europe* show as passengers. This vehicle and its proven technical innovations have already attracted interest from a number of Europe's major cities.

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¹ Frost & Sullivan "Strategic analysis of global hybrid and electric heavy-duty transit bus market".

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About Leclanché

Founded in 1909, Leclanché is a solid partner in the technologies of energy storage in batteries. In a

tradition that goes back to Georges Leclanché, inventor of the dry-cell battery, the group has built up

an impressive portfolio of energy storage systems, ranging from purpose-designed batteries to the

sector's leading lithium-ion solutions.

The integration of the Fraunhofer-Gesellschaft (Germany) spin-off in 2006 propelled Leclanché from

a supplier of traditional batteries to European leadership in the production lithium-ion cells.

Leclanche's storage solutions have been optimised for numerous applications, notably the

integration of renewable energy sources, the reduction of diesel consumption, connected auxiliary

services, peak-clipping energy consumption for heavy industry as well as for high-capacity road, rail

and maritime transport.

Leclanché's products are noted for their high cycle stability (cells with lithium-titanate anodes) and their

long lifespans. Its patented ceramic separator technology — an essential element of lithium-ion cells with

lithium-titanate -anodes — enable Leclanché to mass-produce cells with excellent safety features. These

are produced in an entirely automated lithium-ion cell manufacturing facility with an annual capacity of

160MWh or one million cells.

Leclanché also offers several specialised storage systems, notably those purpose-built for military or

medical applications. In addition, the company distributes primary and secondary batteries as well as

accessories from other manufacturers.

The Leclanché company is listed on the SIX Swiss Exchange (LECN).

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