Volvo Introduces Its First All-Electric Urban Truck

GOTHENBURG: Volvo Tru-cks has introduced its first all-electric truck for commercial use - the Volvo FL Electric for urban distribution and refuse operations, among other applications. Sales and series production of the new model will start in Europe next year. With this introduction Volvo Trucks takes the lead in solutions for electrified goods transport in cities.

"We're immensely proud to present the first in a range of fully electrically-powered Volvo trucks ready for regular traffic. With this model we are making it possible for cities that aim for sustainable urban development to benefit from the advantages of electrified truck transports," says Claes Nilsson, President Volvo Trucks.

With better air quality and less noise in the city, it is possible to plan for housing and infrastructure more freely than at present. An electric truck without any exhaust emissions can be used in indoor terminals and environmental zones. Their low noise level creates opportunities for doing more work at night, thus reducing the burden on the roads during the day.

There is considerable market interest in electric trucks. Many potential customers have questions about the opportunities generated by the new technology and how it can impact their operations.

"In order to make the transition secure and smooth, we will offer holistic solutions based on each customer's individual needs regarding driving cycles, load capacity, uptime, range and other parameters. Such a solution may encompass everything from route analysis and battery optimisation to servicing and financing. Volvo Trucks works closely with several suppliers of charging equipment. The aim as always is to offer customers high uptime and productivity," says Jonas Odermalm, head of product strategy Volvo FL and Volvo FE at Volvo Trucks.

Backing the Volvo Trucks offer is the Volvo Group's accumulated expertise in electrified transport solutions. Sister company Volvo Buses has sold more than 4000 electrified buses since 2010. The technology used for propulsion and energy storage in the Volvo FL Electric has been thoroughly tried and tested from the outset and is supported by Volvo Trucks' far-reaching network for sales, service and parts supply.

"From experience we know how important it is that cities, energy suppliers and vehicle manufacturers cooperate in order for large-scale electrification to become a reality. With attractive incentives, agreed standards and a long-term strategy for urban planning and expansion of the charging infrastructure, the process can go much faster," explains Jonas Odermalm.

Volvo Trucks believes that it is essential to take a holistic view of electrification of the transport sector to handle the ongoing challenges in areas such as electricity generation and batteries.

"For instance, in order to ensure that raw materials for the batteries are extracted in a responsible way, the Volvo Group works with the Drive Sustainability network, which has a special function that monitors this issue. The Volvo Group is also involved in various projects where batteries from heavy electric vehicles get a second lease of life, reused for energy storage. All the questions about handling of batteries have not yet been solved, but we are working actively both within the Group and together with other actors to drive development and create the necessary solutions," says Jonas Odermalm.

The first trucks in the Volvo FL Electric range are now entering regular operation with customers in Gothenburg, the home of Volvo Trucks.

Facts:

• Fully electrically-powered truck for distribution, refuse collection and other applications in urban conditions, GVW 16 tonnes.

• Driveline: 185 kW electric motor, max power/130 kW continuous output, two speed transmission, propeller shaft, rear axle. Max torque electric motor 425 Nm. Max torque rear axle 16 kNm.

• Energy storage: 2-6 lithium-ion batteries, totalling 100-300 kWh.

• Range: Up to 300 km.

• Charging: AC charging via the mains grid (22 kW) or DC fast charge via CCS/Combo2 for up to 150 kW. - CNW

Fully Autonomous Vehicles Closer to Fruition

LONDON: In 2018, Frost & Sullivan expects the autonomous vehicle sector to witness the rise of virtual voice assistance; centralised domain architectures; improved vision and depth-sensing solutions; artificial intelligence powering development, testing and validation; and the rise of shared mobility platforms.

The global autonomous driving market is expected to grow to $173.15 billion by 2023, with shared mobility services contributing 65.3%.

In the near future, the combination of autonomous driving and shared mobility solutions will result in the convergence of e-hailing and car-sharing business models that will drive new growth opportunities and transform the mobility experience.

"2018 is expected to be the year of L3 automated vehicles for highway use and L4 testing and implementation of autonomous vehicles for limited, controlled and well-defined scenarios," said Anirudh Venkitaraman, Mobility Senior Analyst at Frost & Sullivan.

"In the future, customer-centric products will be at the core of innovation with artificial intelligence playing a key role, especially with customer-intuitive applications and real-time, path-planning algorithms driving new growth opportunities."

Frost & Sullivan's recent analysis, Global Autonomous Driving Market Outlook, 2018, identifies the prevalent factors contributing to market growth, challenges serving as barriers to success, technology and market trends, leading players, and technology progression of sensor suites for fully autonomous driving.

For non-automotive technology companies to enter the autonomous driving value chain, Venkitaraman recommends they focus on untapped entry opportunities in the areas of in-vehicle infotainment systems, cloud services, and open operating systems development.

Six trends driving transformational change in the autonomous vehicles sector include:

1. Autonomous shared mobility solutions;
2. Collective intelligence for fleet management;
3. Cybersecurity of autonomous cars;
4. Convergence of artificial intelligence with autonomous cars;
5. Domain controllers; and
6. Driver monitoring systems.

"There are numerous hurdles, both quantitative and qualitative, that the industry will need to tackle if autonomous driving is to have a lasting impact on making safe, clean and lean transportation a reality," noted Venkitaraman. "Currently, the biggest hurdle is the lack of clear regulatory frameworks that define how these products can be made available to consumers." Pic: BMWblog