

## Alexander Dennis autonomous bus trial, using the next-generation battery-electric Enviro100AEV, extended through CAVForth2

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NFI Group - Alexander Dennis Enviro100AEV for CAVForth2



NFI subsidiary Alexander Dennis announces: autonomous bus trial, using the next-generation battery-electric Enviro100AEV, extended through CAVForth2



LARBERT, United Kingdom, Feb. 01, 2023 (GLOBE NEWSWIRE) -- (TSX: NFI, OTC: NFYEF, TSX: NFI.DB) NFI Group Inc. ("NFI" or the "Company"), a leading independent bus and coach manufacturer and a leader in electric mass mobility solutions, subsidiary Alexander Dennis Limited ("Alexander Dennis") today announced that it will continue development of autonomous bus technology in the CAVForth2 project, led by Fusion Processing Ltd and supported by the UK Government.

CAVForth2 is jointly funded by the UK Government's Centre for Connected and Autonomous Vehicles and project partners Fusion Processing Ltd, Stagecoach, Alexander Dennis, Edinburgh Napier University, and the University of West of England.

This project will see Stagecoach, the UK's largest bus operator, extend the 14-mile route of the existing CAVForth autonomous bus service from Edinburgh Park station across the Forth Road Bridge – poised to launch to the public this spring after extensive testing – on to Dunfermline city center. The additional five-mile section of the route will take in more complex autonomous driving scenarios on busy category A and B roads, mixing with city center traffic.

Capability to accomplish this challenging driving will come from an upgraded version of the CAVStar® ADS (Automated Drive System) that will be developed and supplied by Fusion Processing Ltd during the project.

CAVForth2 will utilize an autonomous version of the next-generation Enviro100EV electric bus from Alexander Dennis, also fitted with Fusion's CAVStar® ADS. This Enviro100AEV will operate alongside five existing autonomous Alexander Dennis Enviro200AV buses from the original CAVForth project.

Alexander Dennis's Head of Concepts and Advanced Engineering, Jamie Wilson, welcomed the confirmation of UK Government funding: "This renewed support from the Centre for Connected and Autonomous Vehicles builds on our achievements in the CAVForth project and will allow us to further develop autonomous bus technology here in the UK. This ensures the British bus industry remains at the forefront of global trends and helps secure jobs in the automotive industry. Our new Enviro100AEV will demonstrate another use case for our extremely versatile next-generation electric bus as Alexander Dennis continues to lead the transition to zero-emission mobility."

Automated driving offers potential advantages over manually driven buses in fuel savings and reduced brake and tire wear. There can be a 20% variance in fuel consumption across different bus drivers in a fleet. Fusion Processing will map the automated drive system to accurately match the best driver, optimizing acceleration so it is smooth and efficient. The Fusion system also interrogates the traffic lights and adjusts the vehicle's speed to ensure they arrive on green, further reducing tire and brake wear.

The buses will continue to be staffed by specially trained 'Autonomous Bus Professionals' recruited by Stagecoach from across its East Scotland business. These experienced bus drivers will act as safety drivers and monitor the autonomous system alongside a bus 'Captain' who will move around the vehicle, talking to passengers about the service and answering any questions they may have.

"CAVForth2 builds on our extensive experience in developing a fleet of five full size SAE Level 4 autonomous buses, engineered to operate safely on public roads and extends the route by a further five miles into a more complex urban environment," said Jim Hutchinson, CEO, Fusion Processing Ltd. "We have every confidence that the next generation of our CAVStar® Automated Drive System which combines a range of Radar, LiDAR and optical sensors with state-of-the-art artificial intelligence processing unit will be up to the task."

"We're very proud to be pioneers of this technology with our plans to roll out the UK's first full-sized autonomous bus service in Scotland in the spring," said Carla Stockton-Jones, UK Managing Director, Stagecoach. "The government funding announced today means that we can build further on this achievement by advancing the technology as we extend our Scottish bus trial to cover a longer route. We look forward to working with our partners across the country to roll out CAVForth2 and the other autonomous projects awarded funding today, which will all help to ensure that the UK remains firmly on the map for its advancements in autonomous technology."

NFI is a leader in low- and zero-emission mobility, with vehicles operating in 13 countries, moving millions of people every day. NFI offers the widest range of vehicles including clean diesel, compressed natural gas, diesel electric hybrids, and zero-emission battery- and fuel cell-electric buses and coaches.

High resolution images are available for download from the Alexander Dennis website at alexander-dennis.com/media/news.

## About NFI

Leveraging 450 years of combined experience, NFI is leading the electrification of mass mobility around the world. With zero-emission buses and coaches, infrastructure, and technology, NFI meets today's urban demands for scalable smart mobility solutions. Together, NFI is enabling more livable cities through connected, clean, and sustainable transportation.

With 7,500 team members in nine countries, NFI is a leading global bus manufacturer of mass mobility solutions under the brands New Flyer<sup>®</sup> (heavy-duty transit buses), MCI<sup>®</sup> (motor coaches), Alexander Dennis Limited (single- and double-deck buses), Plaxton (motor coaches), ARBOC<sup>®</sup> (low-floor cutaway and medium-duty buses), and NFI Parts<sup>™</sup>. NFI currently offers the widest range of sustainable drive systems available, including zero-emission electric (trolley, battery, and fuel cell), natural gas, electric hybrid, and clean diesel. In total, NFI supports its installed base of over 105,000 buses and coaches around the world. NFI's common shares trade on the Toronto Stock Exchange ("TSX") under the symbol NFI and its convertible unsecured debentures trade on the TSX under the symbol NFI.DB. News and information is available at www.nfigroup.com, www.newflyer.com, www.newflyer.com, www.neicoach.com, www.alexander-dennis.com, www.arbocsv.com, and www.carfaircomposites.com.

## **About Alexander Dennis**

Alexander Dennis Limited ("Alexander Dennis") is a global leader in the design and manufacture of double deck buses and is also the UK's largest bus and coach manufacturer. Alexander Dennis offers single and double deck vehicles under the brands of Alexander Dennis and Plaxton, and has over 31,000 vehicles in service in the UK, Europe, Hong Kong, Singapore, New Zealand, Mexico, Canada, and the United States. Further information is available at <a href="http://www.alexander-dennis.com">www.alexander-dennis.com</a>.

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