

STOP-START TECHNOLOGY

Cummins Receives Funding To Develop New Stop-Start Technology

Cummins has been successful in its application for funding to support the development of new stop-start engine capabilities, improving commercial vehicle fuel efficiency and reducing CO₂ emissions.

The UK's innovation agency, the Technology Strategy Board is awarding £4.9 million of a total £9.9 million project to a Cummins led consortium to introduce this technology. The funding supports the Advanced Propulsion Centre's initiative to build UK manufacturing strength in low carbon vehicles.

Named FIRST™ for Frequent Integrated Soft Stop Start Technology, the 36 month project is a collaboration of engineers from three of Cummins' UK businesses including Cummins Generator Technologies.

Prof. Neil Brown, Cummins Technical Project Leader for FIRST™ stated "Our engine customers are demanding improved efficiency. For those operations with frequent stop-start duty cycles, such as buses and delivery trucks, there is an opportunity for fuel savings by switching off the engine when stationary. Present solutions have limitations, so the funding enables Cummins to deliver a capable and durable technology to the market in a timely manner."

Business Secretary Vince Cable at Ford in Dunton, Essex with the consortia led by Ford, GKN, Cummins and JCB who received funding for projects to improve fuel efficiency and reduce carbon emissions.

To complete the project Cummins will work with a number of partners. Dynex, who produce high power semiconductor devices and assemblies, will develop a new inverter technology for application across the global automotive supply chain. Castlet are designers and packagers of power electronic and control systems. The University of Nottingham's electronics research will ensure the project delivers the most advanced power electronic controller in the market.

"Current low carbon solutions such as diesel-electric hybrids are dependent on government subsidies due to the long payback period. This solution represents a significant opportunity to the wider bus fleet with rapid payback on investment" added Brown.

Paul Taylor, Dynex CEO, commented "Dynex is a key player in electric motor drives, and we are delighted to have the opportunity to join forces with Cummins and contribute our expertise to this project."

Prof. Christopher Gerada, Professor of Electrical Machines at The University of Nottingham, said "We are very pleased to be part of the exciting Advanced Propulsion Centre initiative. The Cummins Innovation Centre at The University of Nottingham is a UK centre of excellence in Electrical Machines and related technologies which focuses on both fundamental and applied research."



Ian Melton, Castlet Managing Director commented “Castlet Ltd is delighted to be given the opportunity to work alongside Cummins on such an exciting new project and to be able to contribute towards the development of FIRST, which will make a huge difference to transport as we know it.”

Prof. Neil Brown concluded “We are planning on developing an engine centric hybrid solution that is interchangeable with existing engine platforms at very low cost. The aim of project FIRST™ is to break down technology cost barriers by using a unique technical approach that will in my opinion become a game changer in the industry. Cummins studies have shown that a city bus will have 50 stops per hour; with over 30% of time at idle. This gives the project significant opportunity for efficiency improvements.”

About The Technology Strategy Board

The Technology Strategy Board is the UK's innovation agency. Its goal is to accelerate economic growth by stimulating and supporting business-led innovation. Sponsored by the Department for Business, Innovation and Skills (BIS), the Technology Strategy Board brings together business, research and the public sector, supporting and accelerating the development of innovative products and services to meet market needs, tackle major societal challenges and help build the future economy. For more information please visit: www.innovateuk.org

