PROJECT

Thomson Controller

The Thomson Controller is a fully pre-programmed vehicle and chassis smart control module designed to provide energy efficient and safe supervisory control to an electric vehicle powertrain.

Funding: European (Horizon 2020)

Duration: Jun 2016 - Sep 2016

Status: Complete

Total project cost: €71,429

EU contribution: €50,000

CORDIS RCN : 205006

Objectives:

Heavy-duty vehicles - trucks and buses - are responsible for about a quarter of CO2 emissions from road transport in the EU and for some 6% of total EU emissions. While the noise level on a typical city street with automobile traffic averages 60-65 dB, larger vehicles like heavy trucks and diesel buses cause noise peaks ranging up to about 90 db. Every few years the European Commission applies newer and stricter regulations concerning GHG emissions, to decarbonise and modernise European transport.

This impacts transit agencies' and local governments' budgets since due to the new European regulations, many diesel buses will have to be replaced before the end of their useful life. Acquiring new technology low-emission buses is currently a big burden for transit agencies; a modernisation of their fleets would require a serious amount of capital, as a new, purely electric bus costs in the order of €850k.

Thomson Power Europe's service retrofits existing diesel buses by replacing the conventional powertrain (engine, transmission etc.) with the Thomson Drive, turning them into green, zero emission buses with half the cost of buying a new hybrid diesel bus (or one third in the case of acquiring a pure electric bus), significantly decreasing operating costs for transport stakeholders, exploiting their existing fleet and creating significant environmental benefits. The Thomson Controller, a patented technology of Thomson Power Europe, combined with the electric drive, creates additional fuel savings and emission reduction through smoothing the acceleration curve, regenerating power from braking and by controlling and optimising the behaviour of the bus's auxiliary systems (steering, air-conditioning etc.).

The Phase 1 project will be focused on establishing a complete supply chain, a sound business model and commercialization strategy, as well as a planning of all activities for deploying a pilot in-field test with a retrofitted bus.

Parent Programmes:

H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Lead Organisation:

Thomson Power Europe Ltd

Address:

GREAT SUFFOLK STREET 72
LONDON
SE1 0BL
United Kingdom

EU Contribution: €50,000

Partner Organisations:

Schiaffini Travel Societa' Per Azioni

Address:
VIA STRELITZIE 36
00134 ROMA RM
Italy

EU Contribution: €0

Technologies:

Noise testing, modelling and reduction
Tools for noise and vibration reduction

Development phase: Validation

STRIA Roadmaps: Transport electrification

Transport mode: Road transport

Transport sectors: Passenger transport, Freight transport

Transport policies: Environmental/Emissions aspects

Geo-spatial type: Other