

NEWS RELEASE

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LowCVP Technology Challenge winners present eco-innovations to car industry leaders

Six small businesses at the leading edge of low carbon innovation in the automotive sector today have the undivided attention of senior executives from global car companies at a LowCVP event chaired by Richard Parry-Jones, co-chair of the new Automotive Council.

Axon Automotive, Brunel University, Controlled Power Technologies, EVO-Electric, Libralato and Oxy-Gen Combustion are today announced as the Winners of LowCVP's Technology Challenge. Winning the Challenge provides these up-and-coming companies with the unique opportunity to pitch their ideas directly to industry leaders.

Demonstrating serious interest in sourcing low carbon car solutions are senior executives from Nissan, Jaguar Land Rover, Ford, Tata Motors, General Motors, McLaren Automotive, Modec, Alexander Dennis, SMTc UK, Denso, GKN, Kautex-Unipart, Shell International and TRW.

"The Technology Challenge provides a unique opportunity for some of the best of the low carbon automotive technology companies to access potential partners and customers and to learn more about some very innovative technologies" says LowCVP's Managing Director Greg Archer. "The strong support from major vehicle manufacturers and component suppliers is an indication of their commitment to finding solutions to reduce CO₂ emissions from passenger cars and confidence in UK companies' ability to deliver these solutions."

The LowCVP challenged emerging businesses to help manufacturers achieve less than 80g/km of CO₂ from their conventional, internal combustion passenger cars.

The event aims to provide an opportunity for collaboration between the developers of new technology and the mainstream automotive industry, in line with one of the recommendations of the New Automotive Innovation and Growth Team (NAIGT) and the activities of the new Automotive Council.

Richard Parry Jones* said: "Greater collaboration and cooperation between Tier 1s and vehicle manufacturers and new technology companies will speed technical innovation and cut carbon emissions more quickly."

"Bringing new technology to the attention of the automotive supply chain can be a tricky process for small companies like these Technology Challenge winners. Likewise, many larger companies can be inundated with ideas of little real substance."

The six winning entrants** of the Technology Challenge were selected on a competitive basis from seventeen entries covering a variety of eco-innovations. Their selection by an expert panel was based on the merits and impacts of their technology for reducing vehicle CO₂ emissions, alignment with the NAIGT technology roadmap, commercial viability and ease of integration.

"Invention is a good idea but if you want innovation you need to implement it" says Roy Williamson of the LowCVP. "This is what these winning product developers are

doing - introducing near-term, strategically viable options to reduce carbon emissions from mainstream passenger cars”.

Notes to Editors

*The event chair, Richard Parry-Jones, was previously chief technical officer of Ford Motor Company. He was recently appointed by the UK government to chair the Automotive Council alongside Lord Mandelson.

**The six winners of the LowCVP's Technology Challenge are:

[Axon Automotive](#) has a lightweighting solution for vehicles structures. Usually limited to use as panels, the company has developed a unique process for creating structural components from carbon fibre. They have also designed a 100mpg plug-in hybrid scheduled for production in 2011. Formed in 2006, the company is a spin-out from the Honda Ecotechnology Centre at Cranfield University. It comprises materials experts and vehicle designers as well as body and powertrain engineers.

[Brunel University](#) has a novel regenerative engine braking technology known as 'RegenEBD' which utilises a vehicle's engine under braking to compress air for energy storage, engine stop-start and boost assist. Suitable for cars, buses and commercial vehicles, the technology's development has been led by Professor Hua Zhao, director of the University's Centre for Advanced Powertrain and Fuels at the University's School of Engineering and Design, Uxbridge.

[Controlled Power Technologies'](#) engine boosting and power regeneration system known as 'RegEnBoost' combines three complementary technical developments: VTES (variable torque enhancement system) electric supercharger; SpeedStart belt-driven starter generator; and TIGERS (turbo-generator integrated gas energy recovery system). The technology facilitates radical downsizing of conventional engines without compromising vehicle performance. The company, based at Laindon in Essex was formed in 2007.

[EVO Electric Limited](#), is a 2007 spin-out from Imperial College London to develop advanced electric machines and drive systems based on its proprietary axial flux technology. Axial Flux motors and generators are characterised by very high torque and power density. Based in Woking their flagship product, the Axial Flux Motor, is designed to meet the requirements of electric and hybrid vehicles with the technology applicable to all vehicle classes.

[Libralato Engines](#) is commercialising a compact, optimised type of rotary engine, ideally suited to operate in hybrid electric vehicles. Having unique, asymmetrical compression and expansion geometry, the Libralato engine has only four moving parts and is primed to deliver a step change in thermal efficiency.

[Oxy-Gen Combustion](#) delivers a solution to real deployment of Homogeneous Charge Compression Ignition (HCCI) engines and Controlled Auto-Ignition (CAI), technologies which have been widely touted in the future road map of the automotive industry for their low emission and fuel savings characteristics. Unlike hybrids these technologies do not require a change in the vehicle or engine architecture.

The [Low Carbon Vehicle Partnership](#) is an action and advisory group, established in 2003 to take a lead in accelerating the shift to low carbon vehicles and fuels and to help ensure that UK business can benefit from that shift. The partnership of over 350 organisations is drawn from the automotive and fuel industries, the

environmental sector, government, academia and road user groups as well as other organisations with a stake in the low carbon vehicles and fuels agenda.

Links: Technology Challenge winners brochure download:

<http://www.lowcvp.org.uk/assets/reports/LowCVP%20TECHNOLOGY%20CHALLENGE%20Brochure.pdf>

Technology Challenge microsite: <http://www.lowcvp.org.uk/technologychallenge/>

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