

# LowCVP News Release

17 May 2011

# LowCVP to showcase British engineering excellence in low carbon technologies at Challenge Bibendum, Berlin

The LowCVP is coordinating an exhibition to showcase some of the best examples of British engineering innovation for cutting road transport carbon emissions at Michelin's Challenge Bibendum, to be held in Berlin from 18-22 May. The LowCVP is working with partner organisations - mainly SMEs - to help nurture the UK's low carbon supply chain.

Challenge Bibendum is a major international event, drawing a global audience to share knowledge and experience in the environmental aspects of road transport.

The LowCVP 'British engineering excellence' stand at Challenge Bibendum will present a range of innovative approaches including: rapid, lightweight electric turbo-charging; hybrid and electric vehicles and battery management; advanced electric motors and generators; HCCI combustion control; and economy optimised throttle control.

The companies and organisations represented on the LowCVP stand include: Aeristech, Ashwoods Automotive, Coventry University, Oxford YASA Motors, Oxy-Gen Combustion and Zeta Automotive. The companies involved are all former winners of LowCVP innovation awards or challenges.

An important part of the LowCVP's work programme is aimed at encouraging innovation in small and medium enterprises and in nurturing an effective low carbon supply chain. The Partnership has run two successful 'technology challenges' which have brought the best innovations for cutting carbon from road transport to the attention of the major motor companies and other potential developers. The LowCVP has a very active innovation working group which has delivered a range of events and initiatives to help ensure British industry is well placed to benefit from the low carbon transition. Recent work included developing a series Technology and Manufacturing Readiness Levels that define a common language for UK SME's and automotive manufacturers to communicate launched by the UK Government in February.

The LowCVP Managing Director, Greg Archer said: "The UK has some outstanding entrepreneurs and engineers developing cutting edge technologies to decarbonise transport. Britain needs to stay at the forefront of developments, nurturing the talent in our small cleantech businesses. By attending the Bibendum event LowCVP hopes to provide

these companies with new opportunities to attract international customers, partners and investors." The UK innovators demonstrating engineering excellence at Challenge Bibendum, Berlin (also members of the LowCVP) include:

#### Aeristech

Aeristech has developed the world's most compact, electrically efficient (>98%), power dense (56kW), rapidly accelerating (up to 150,000 RPM in 0.5 seconds) high speed motors and generators that materially enhance vehicle efficiency. Applications include greater engine downsizing by utilising full electric turbocharger technology on internal combustion engines, reducing particulates emissions through enhancing combustion, recycling power more efficiently through turbo generation, and enhancing performance on hybrid vehicles.

#### **Ashwoods Automotive**

Ashwoods Automotive Limited has grown rapidly to become the UK's largest supplier of hybrid commercial vehicles and one of the best known names in emission reduction technologies and components. Ashwoods has developed, proven and commercialised its product range and is now supplying customers with innovative components and complete vehicle solutions. Most recently, Ashwoods was ranked the fastest growing Cleantech Company in Europe

## **Coventry University**

Coventry is the birthplace of the British motor industry and in its heyday hosted over 130 motor manufacturers including Austin, Morris, Rover, Triumph, Daimler and Jaguar. More recently, Coventry has begun to re-establish itself as a centre of expertise for niche and high performance automotive engineering. Coventry University works in a broad range of transport fields including automotive design, automotive engineering, ergonomics and automotive journalism. The University has and growing research portfolio in the areas of Low Carbon Vehicles and Integrated Transport & Logistics.

#### **Oxford YASA Motors**

The 'Yokeless And Segmented Armature' (YASA) motor is a compact and lightweight axial-flux topology that has double the torque density of other market leading motors. At the heart of the YASA technology is an efficient axial flux motor that has a higher torque-to-weight (up to 40Nm/kg) and power-to-weight (up to 10kW/kg) ratio than any other EV motor in the world.

# **Oxy-Gen Combustion**

Homogeneous Charge Compression Ignition (HCCI) and Controlled Auto-Ignition (CAI) have been widely touted as a key technology in the future road map of the automotive industry. Engines that can simultaneously reduce fuel consumption by up to 30% and significantly

reduce other emissions but unlike hybrids do not require a change in the vehicle or engine architecture. Oxy-Gen Combustion can deliver these emissions and fuel savings through its enabling emissions pre-treatment system for HCCI and CAI combustion.

### **Zeta Automotive**

Zeta Automotive's EconoSpeed is an electronic control module sitting between the accelerator pedal and the engine's ECU computer and can be fitted to any vehicle with an electronic throttle pedal. It limits a vehicle's maximum rate of acceleration to simulate that of a partially laden vehicle, and by also limiting the maximum RPM and maximum road speed, it mimics the way an economical driver would drive.

Challenge Bibendum takes place in from May 18-22 in Berlin, Germany. For more information about the event, please follow the associated links.

#### **Notes to Editors**

The LowCVP (www.lowcvp.org.uk) was established in 2003 to take a lead in accelerating the shift to low carbon vehicles and fuels in the UK and to help ensure that UK business can benefit from that shift. It has approaching 200 organisations from the automotive and fuel industries, the environmental sector, government, academia, road user groups and other organisations with a stake in the low carbon vehicles and fuels agenda.

Further details: <a href="http://www.lowcvp.org.uk">http://www.lowcvp.org.uk</a>

Challenge Bibendum website: <a href="http://www.michelinchallengebibendum.com/en/Challenge-Bibendum">http://www.michelinchallengebibendum.com/en/Challenge-Bibendum</a>

LowCVP page on Bibendum website:

http://www.michelinchallengebibendum.com/en/Berlin-2011/The-participants-at-Challenge-Bibendum-2011/Low-Carbon-Vehicle-Partnership

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