

PRESS RELEASE



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4 September 2013

Funding awarded for low carbon waste heat powered microwave fuel reformer research

- **Ricardo and QinetiQ will be joined by the University of Brighton in the next phase of their Technology Strategy Board supported 'HeatWave' research**
- **Previous feasibility study demonstrated the potential of a microwave diesel fuel reformer system driven in part by waste engine heat, to deliver a cost-competitive five percent economy improvement**
- **The HeatWave II project announced today seeks to address key development risks and take the system a crucial step forward towards commercialization**

HeatWave is based on technology developed by QinetiQ for aerospace APU applications, to assess its development potential as a low carbon vehicle technology. It combines an innovative fuel reforming concept that is applicable to the global on-highway transport market, generating syngas from diesel fuel to improve overall engine efficiency, while using waste engine heat to offset part of the reformer's power requirement. This novel system architecture deploys technological building blocks which were shown in the original Ricardo-led feasibility project, commenced in 2011, to provide a fuel economy benefit of around five percent in heavy duty vehicles – and at a competitive cost in comparison with other fuel saving technologies.

The 'HeatWave II' project announced today will produce the next level of system validation to deliver a proof of concept demonstration of the technology. To deliver this validation, the partners will focus upon: development of the reformer process in



order to demonstrate it at a suitable scale; validation of the effect of reformat syngas on engine performance through engine testing, and development of vehicle systems.

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“Following the very promising results of our original HeatWave feasibility study, Ricardo is pleased to be leading the HeatWave II project announced today in which we will join with QinetiQ and the University of Brighton to further research this exciting fuel saving technology,” commented Ricardo chief technology and innovation officer Professor Neville Jackson. “The microwave-based reformation of diesel fuel, harnessing heat that would otherwise be wasted, is a potentially attractive and cost-competitive means of improving the fuel consumption of heavy duty vehicles and hence reducing the carbon footprint of road-based long haul logistics.”

The HeatWave II project is supported by funding from the UK’s innovation agency the Technology Strategy Board, with balancing contributions from the project partners.

Ends



NOTES TO EDITORS:

Ricardo plc is a global, world-class, multi-industry consultancy for engineering, technology, project innovation and strategy. With almost a century of delivering value, we employ over 2300 professional engineers, consultants and staff. Our people are committed to providing outstanding value through quality engineering solutions focused on high efficiency, low emission, class-leading product innovation and robust strategic implementation. Our client list includes the world's major transportation original equipment manufacturers, supply chain organizations, energy companies, financial institutions & governments. Guided by our corporate values of respect, integrity, creativity & innovation and passion, we enable our customers to achieve sustainable growth and commercial success. For more information, visit www.ricardo.com.

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.

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