

PRESS RELEASE



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Ricardo presents successful results of high fuel-efficiency truck engine research

- **The final results of the multi-partner CORE research project will be presented by Ricardo at the 25th Aachen Colloquium on Automobile and Engine Technology, to be held between the 10th to 12th of October**
- **CORE research has identified realistic routes to achieving substantial CO₂ reduction in future commercial vehicles via improved fuel efficiency**

Heavy duty vehicles, such as long haul trucks, represent a significant challenge in terms of the reduction of carbon dioxide (CO₂) emissions. This subject has been the focus of the European Commission supported 'CO₂ REduction for long distance transport' (CORE) project, a four-year research collaboration in which Ricardo has been working with project coordinator Volvo and a range of other industrial and academic partners, including Daimler, CRF and IAV.

In a presentation to be made at the Aachen Colloquium on 11th October by Ricardo global technology director, Dr Simon Edwards, the final results of the CORE project will be unveiled for the first time. The paper will show that the project team has achieved its stated targets in highlighting achievable pathways to CO₂ reduction for future commercial vehicles. Taking into account the recalibration of a Euro V engine to Euro VI, vehicle simulations have demonstrated four different CORE powertrain concepts, delivering CO₂ reductions of between 11 to 18 percent compared to current production Euro VI vehicles.

The results of the project show that the relative benefits of each of the technologies incorporated on the four powertrain concepts depends upon the vehicle application and



its duty cycle. Engine down-speeding, coupled with boosting system improvements and friction reduction, was seen to be beneficial in all cases. Similarly, aftertreatment technology improvement was consistently beneficial but at a relatively lower rate. The significance of the benefits of hybridization and whether the application of VVA is beneficial depends on engine type, vehicle and duty cycle, with hybridisation particularly beneficial for medium-duty operation.

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“Heavy duty trucks are a significant and essential element of the freight transport fleet in any modern, industrialized society,” commented Dr Simon Edwards. “Reducing the carbon dioxide emissions of this class of vehicle must be an imperative if national and European level emissions targets are to be met. The CORE project team set some very ambitious goals but as the presentation will show, this four-year research project has delivered in defining practical, fuel-efficiency driven paths towards CO₂ reduction for future commercial vehicles.”

In addition to the paper presentation, Ricardo will also be exhibiting (booth No. 19) at the Aachen Colloquium on Automobile and Engine Technology, 10th to 12th October.

Ends



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NOTES TO EDITORS:

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