



PRESS RELEASE

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Ricardo to launch VR app for global engineering collaboration at Vienna Motor Symposium

At the prestigious International Vienna Motor Symposium to be hosted on 15-17 May – one of the world’s foremost automotive engineering conferences – Ricardo will be showcasing its advanced immersive Virtual Reality (VR) app enabling collaborative simultaneous engineering design reviews to be carried out by multiple users in different geographical locations

With complex automotive engineering programmes being carried out to unprecedentedly tight timescales and to ever higher levels of design optimization, the process of formal gateway-based design reviews is crucial to the achievement of performance targets, design for manufacture and assembly, and ultimately, to market success. This challenge is further compounded by the almost universal requirement for collaboration of different specialist teams on an international basis as automakers seek to develop platforms applicable to multiple markets, as well as drawing on their own engineering resources from multiple locations.

As a leader in state-of-the-art and highly complex engineering programmes involving collaboration with clients around the world, Ricardo has invested in the development of advanced immersive VR capabilities to promote effective and efficient design optimization by geographically dispersed teams. This technology – in the form of the Ricardo VR Engineering Design Review app to be showcased for the first time to delegates at the Vienna Motor Symposium – enables users to investigate complex CAD

designs, at full scale, in a shared immersive VR session, connecting interdisciplinary teams, customers and suppliers across the world in a 3D virtual environment.



Reflecting the focus of the Vienna Motor Symposium, the live demonstration of the Ricardo VR Engineering Design Review app is based on an engine CAD model in which users will be able to manipulate and examine individual components as well as show, hide and isolate sub-assemblies. The dynamic cross-sectioning tool also allows users to visualize the inner-most components – something that would not be possible even with physical prototypes – while also assessing the potential for component clashes, manufacturability and ease of assembly. In manipulating the model, users can also take measurements, add 3D annotations, and record screenshots and voice memos.

This new collaborative VR engineering capability integrates well with Ricardo's systems engineering capability for hybrid and other complex powertrain architectures, known as Integrated Model Based Development (IMBD), which will also be featured at the Ricardo booth at the Vienna Motor Symposium.

In addition to these advanced design technologies, Ricardo will also present the paper *A New-Generation Lean Gasoline Engine for Reduced CO₂ in an Electrified World* outlining some of the results of the company's work on the PaREGEn (Particle Reduced, Efficient Gasoline Engines) project. Supported by the EU Horizon 2020 framework programme, PaREGEn is a seventeen-partner research activity which, through the use of state-of-the-art development techniques and the application of novel engine componentry, is identifying the optimal trade-off between cleanliness and efficiency in the next generation of gasoline engines. In particular, the project seeks to develop the capability for designing future gasoline engine technologies for mid- to premium-sized passenger cars that demonstrate a fifteen percent reduction in CO₂ emissions under Euro 6d RDE legislation, and control of particle number emissions measured down to 10 nanometres.

"Ricardo is pleased to be participating again at this year's Vienna Motor Symposium both with a paper highlighting some of our latest research into clean and efficient powertrain technologies, as well as demonstrating some of the latest thinking in engineering design with the launch our new VR Engineering Design Review app," commented Markus Doerr, MD of Ricardo Automotive. "We look forward to what I am sure will be a highly informative and interesting event, at which we are able to discuss these new technologies with our peers in the international automotive industry."

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NOTES TO EDITORS:

Ricardo plc is a global, world-class, multi-industry consultancy for engineering, technology, project innovation and strategy. 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. With a century of delivering excellence and value through technology, our client list includes the world's major transportation original equipment manufacturers, supply chain organizations, energy companies, financial institutions and governments. Guided by our corporate values of respect, integrity, creativity & innovation and passion, we enable our customers to achieve sustainable growth and commercial success. Ricardo is listed in the FTSE4Good Index, which identifies global companies that demonstrate strong environmental, social and governance (ESG) practices. For more information, visit www.ricardo.com.



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