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## **PRESS RELEASE**

## **AECC DEMONSTRATES DIESEL IS FUTURE-PROOF**

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AECC, the Association for Emissions Control by Catalyst, is today demonstrating that it is possible to achieve consistent ultra-low diesel NOx emissions across a wide range of driving conditions using existing technologies. This achievement is a result of a rigorous technical programme co-funded by the International Platinum Group Metals Association (IPA), and undertaken at engineering company IAV in Germany.

Using a Euro 6b 1.5 litre C-segment mild-hybrid diesel car as the base, the organisations adapted the emissions control system by adding catalysts suited for different parts of the duty cycle and different driving conditions. Engine and aftertreatment control was also upgraded to provide improved functionality.

In slow urban driving and at high speeds on the motorway, the smart combination of technologies was shown to consistently bring down NOx to less than half of the Euro 6 limit. In real-driving conditions in cities, an average value of less than 30 mg/km was achieved, demonstrating that diesel car emissions can be low everywhere.

NOx reduction above 95% from engine-out levels was measured, including at speeds up to 160 km/h on German motorways.

In these conditions, all of the catalyst elements – Lean NOx Trap (LNT), close-coupled and underfloor Selective Catalytic Reduction (SCR), and SCR on DPF (Diesel Particulate Filter) – all commercially available, were brought into action. The 48V mild-hybrid system was also used for thermal management, enabling low urban emissions.



Source: IAV GmbH

At a time when the future of diesel vehicles is being discussed, these results clearly show that it is possible to continue to reduce their emissions to levels also achieved by petrol cars, and that diesels can carry on evolving for many years to come while maintaining their inherent  $CO_2$  advantage.

This ultra-low emission diesel demonstrator car is being presented on 16-17 May 2019 and is available for driving at the Vienna Motor Symposium.

A fact-sheet is available at <a href="https://www.aecc.eu/wp-content/uploads/2019/05/190516-AECC-Ultra-Clean-Diesel LEAFLET.pdf">www.aecc.eu/wp-content/uploads/2019/05/190516-AECC-Ultra-Clean-Diesel LEAFLET.pdf</a>.

<u>Reference</u>: "Integrated Diesel System Achieving Ultra-Low Urban and Motorway NOx Emissions on the Road", J. Demuynck, et al.; 40<sup>th</sup> International Vienna Motor Symposium, 15-17 May 2019, <a href="https://www.aecc.eu/wp-content/uploads/2019/04/190516-AECC-IAV-IPA-Integrated-Diesel-System-achieving-Ultra-Low-NOx-on-the-road-Vienna-Symposium.pdf">www.aecc.eu/wp-content/uploads/2019/04/190516-AECC-IAV-IPA-Integrated-Diesel-System-achieving-Ultra-Low-NOx-on-the-road-Vienna-Symposium.pdf</a>.



AECC is an international non-profit scientific association of European companies engaged in the development, production and testing of catalyst and filter-based technologies for vehicle and engine emissions control. This includes the research, development, testing and manufacture of autocatalysts, substrates and speciality materials incorporated into the catalytic converter and filter and catalyst-based technologies to control engine emissions. Members' technology is incorporated in the exhaust emission control systems on new cars, commercial vehicles, buses, non-road mobile machinery and motorcycles in Europe.

AECC's members are: BASF Catalysts Germany GmbH, Germany; Ibiden Europe B.V. Stuttgart Branch, Germany; Johnson Matthey PLC, United Kingdom; NGK Europe GmbH, Germany; Solvay, France; and Umicore AG & Co. KG, Germany.

AECC is registered in the EU Transparency Register under n° 78711786419-61 and has consultative status with the UN Economic and Social Council (ECOSOC).

More information on AECC can be found at www.aecc.eu.

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