

MAHLE Powertrain and Metier to show diesel-to-hydrogen conversion solution

The companies want to demonstrate technologies that enable the rapid conversion of diesel trucks to run on hydrogen fuel.

[David Leggett](#) August 18, 2025



MAHLE Powertrain and [Metier Technologies](#) will showcase a newly developed hydrogen-powered commercial vehicle at CENEX Expo in the first week of September.

They say it will demonstrate how their joint technologies enable the rapid conversion of existing diesel trucks to run on 100% hydrogen fuel. The demonstration vehicle features a 6.7-litre, 6-cylinder engine in a DAF LF220 platform, converted to hydrogen technology through the partnership.

“This project will demonstrate what can be achieved when engineering expertise meets urgent environmental needs,” said James Budgett, Managing Director of Metier Technologies. “Working with MAHLE Powertrain’s established control technology, we’ve proven that existing diesel trucks can be rapidly converted to hydrogen power, offering depot-based fleet operators a practical, commercially viable pathway to zero-emission transport without waiting for entirely new vehicle platforms.”

The Metier project leverages MAHLE Powertrain’s Flexible ECU (MFE) engine control software platform, which has been developed for a wide range of internal combustion engine applications and provides the foundation for rapid hydrogen conversion. MAHLE Powertrain’s control system enables the precise mapping and calibration required for hydrogen combustion, whilst its ECU technology ensures optimal performance and safety.

Mike Bassett, Engineering Director at MAHLE Powertrain, will touch upon the project as he presents on hydrogen ICE design, including combustion CFD and MAHLE Jet Ignition® (MJI), at CENEX Expo.

It is claimed that Metier’s hydrogen internal combustion engine solution offers superior total cost of ownership compared to battery electric and fuel cell alternatives, as well as enhanced capability for longer duty cycles and heavier payloads and zero emissions operation, enabling access to city centres.

The company's UK regional approach targets established hydrogen ecosystems in Scotland and the Southwest, working with selected hydrogen providers and synchronising with government hydrogen production commitments through 2030.

The transformation process involves integration of specialised hydrogen injectors, comprehensive engine mapping using MAHLE Powertrain's MFE platform, and new safety systems.

MAHLE Powertrain's new heavy-duty hydrogen test bed facility in Northampton has enabled the engine mapping and performance optimisation to be completed ahead of CENEX Expo, it says.

Following the CENEX event, Metier plans proof-of-concept work with targeted fleets by mid-2026, with volume deployment scheduled for early 2027. Metier is developing partnerships with hydrogen suppliers, fleet operators, and leasing companies to create a complete commercial ecosystem.

CENEX Expo takes place from 3-4 September 2025 at UTAC Millbrook in Bedfordshire, UK.

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