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Press Release

Decarbonising Rail Transport in India

July 17, 2026

TÜV SÜD collaborates with MEDHA and INDIAN RAILWAYS on Hydrogen-powered Rail Vehicles

Pune / Hyderabad. TÜV SÜD, MEDHA and Indian Railways are strengthening their collaboration on hydrogen-based rail vehicle technologies. TÜV SÜD and MEDHA have agreed to this in a Memorandum of Understanding. The MoU follows the successful completion of a flagship project under which the first hydrogen train developed in India was approved for operation by Indian Railways. The train is inaugurated on 17 July 2026.



From 2024 to 2026, TÜV SÜD, MEDHA and Indian Railways have successfully collaborated on a lighthouse project, which resulted in the first hydrogen-electric multiple unit developed in India and an associated hydrogen production and refuelling station being approved for operation by Indian Railways. MEDHA was responsible for integrating the fuel cell-based drive system into a Diesel Electric

Multiple Unit-vehicle platform, as well as for the static and dynamic tests and the oscillation and performance trials, whilst TÜV SÜD carried out the Independent Safety Assessments (ISA) of the hydrogen and the traction battery systems of the hydrogen-electric multiple unit and the associated hydrogen production and refuelling station.

TÜV SÜD is one of the world's leading providers of independent testing, inspection, and certification services, which are performed in accordance with international standards as well as additional compliance requirements set by clients. MEDHA is in the business of designing manufacturing and supplying various high tech engineering equipment and products for application in railways and electric vehicles, apart from its other business in India and abroad. Building on their successful collaboration on this lighthouse hydrogen project, both companies have now signed a Memorandum of Understanding (MoU) to further expand their cooperation in the field of hydrogen-powered rail vehicles and Independent Safety Assessments (ISA) for the Indian rail sector.

“The successful approval of India's first hydrogen-powered train is an important milestone in the country's transition towards cleaner, more sustainable mobility. At TÜV SÜD, we believe innovation can only succeed when it is underpinned by safety, reliability and public trust. We are proud to have supported this pioneering project through our independent safety expertise and look forward to continuing our collaboration with MEDHA and Indian Railways as hydrogen technologies become an increasingly important part of India's transport future,” says Simon Lemin, CEO TÜV SÜD South Asia.

“The safety requirements for hydrogen applications in the rail sector are extremely complex and challenging,” says Sumit Singhal, Senior Vice President TÜV SÜD South Asia. “We are honoured that MEDHA and Indian Railways have placed their trust in our Independent Safety Assessments for this project and that we will further strengthen our collaboration in the future.”

TÜV SÜD rail services

TÜV SÜD is one of the world's leading providers of Testing, Inspection and Certification (TIC) services. The Rail Business Unit supports manufacturers, operators, authorities and turn-key-contractors with internationally recognized testing, inspection, and certification services across the entire rail lifecycle with a strongly connected international network of more than 550 inhouse rail experts, backed by years of experience in high-speed, conventional, urban rail and metro. They support the safe and risk-based integration of complete railway systems and ensure that complex sub systems work together seamlessly. While its core lies in the accredited and non-accredited TIC business, the rail unit of TÜV SÜD provides tailored advisory services in selected markets. tuvsud.com/rail

Note for editorial staff: The press release and the photo are available on the Internet at: tuvsud.com/newsroom. (Picture credits: MEDHA)

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