

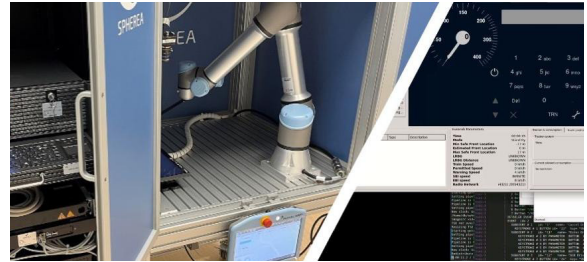
ETCS-Labor

Hardware-in-the-Loop Testing as an Alternative to On-Track Testing

The European Train Control System (ETCS) is a Europe-wide train control system designed to replace the numerous national signalling systems and facilitate cross-border rail operations.

The required ETCS System Compatibility (ESC) tests verify the technical compatibility between onboard ETCS equipment and trackside ETCS infrastructure. Today, the execution of these tests depends heavily on the availability of suitable test track capacity. As only a limited number of ETCS-equipped lines are currently available in Germany, conflicts and long waiting times frequently occur.

With the growing acceptance of Hardware-in-the-Loop (HiL) testing, the need for on-track testing is decreasing. Many ESC tests currently conducted on operational railway lines can already be performed in an ETCS laboratory that realistically replicates the relevant trackside equipment and operating conditions.



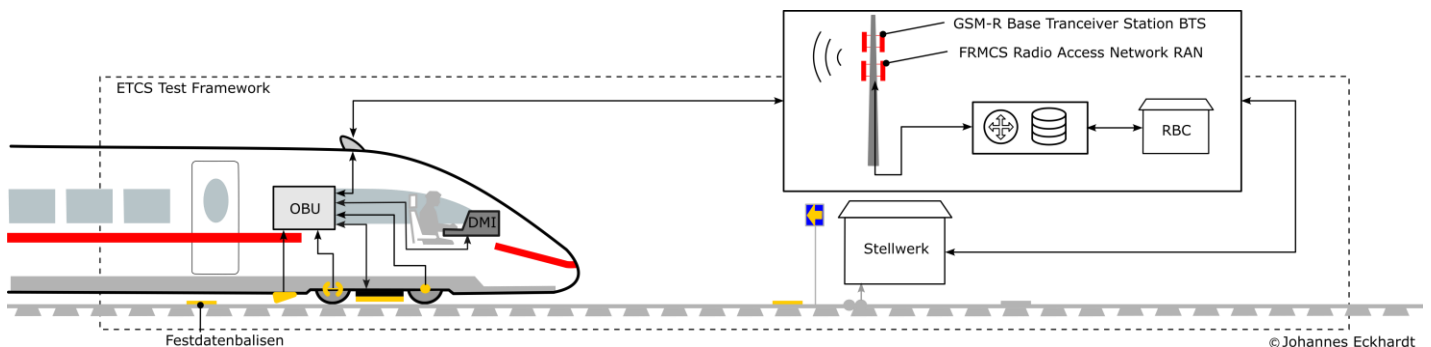
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Our services

- Hybrid test execution in the laboratory and on operational railway lines
- Transfer of selected ESC tests to the ETCS laboratory
- Testing with simulated and real Radio Block Centres (RBC)
- Digital replication of selected real-world ETCS lines
- Analysis and evaluation of test results

Your advantages

- Reduced time and costs through fewer on-track tests
- Modern test environment based on ETCS System Version 2.2 (Baseline 4)
- Detailed fault analysis and qualified feedback on improvement opportunities
- Dedicated personal customer support



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