



Acceleration of Electric Vehicle Manufacturing with Standardization & Implementation of Automotive Testing Framework



Insight

A premium smart electric vehicle manufacturer eyeing to produce innovative, high-quality, and defect-free vehicles was in dire need of a robust automotive testing infrastructure.

Forsys offered test engineering services to the client, which included designing the test specifications (in ECU-test), integrating the test specifications into the hardware-in-the-loop (HIL) framework, and verifying and validating the test executions. As a result, the client standardized the automation framework, implemented simulation engineering, achieved vehicle refinement, and recorded energy efficiency.



Industry

Motor Vehicle Manufacturing



Revenue

\$5+ B



Employees

15k+



Headquarters

Shanghai, China

Business Challenge

The client was looking to build a test framework, an automotive testing infrastructure, and perform tests on all their application components.

The challenges encountered:

- ✓ Designing test specifications (in ECU-test)
- ✓ Integration of test specifications into the existing HIL framework
- ✓ Verification and validation of test executions

Transformation Journey

Forsys' E2E expertise in designing and implementation of the testing engineering solutions enabled the client to speed up their manufacturing process.

The key highlights of the approach to solution:

- Designing and maintenance of automated hardware in the loop test setup
- Creation of hands-off E2E test automation (auto trigger, execution, evaluation, and reporting).
- Extraction of test specifications and execution of regression testing.



Impact

After the project went live, the client:

Improvement in user experience



Accelerated product development



Reduction in time to market



About the Client

The client is a pioneer and a leading company in the premium smart electric vehicle market. Founded in November 2014, it aims to build a community starting with smart electric vehicles to share joy and grow together with users. It designs, develops, jointly manufactures, and sells premium smart electric vehicles, driving innovations in next-generation technologies in autonomous driving, digital technologies, electric powertrains, and batteries.

Solution Components

JIRA