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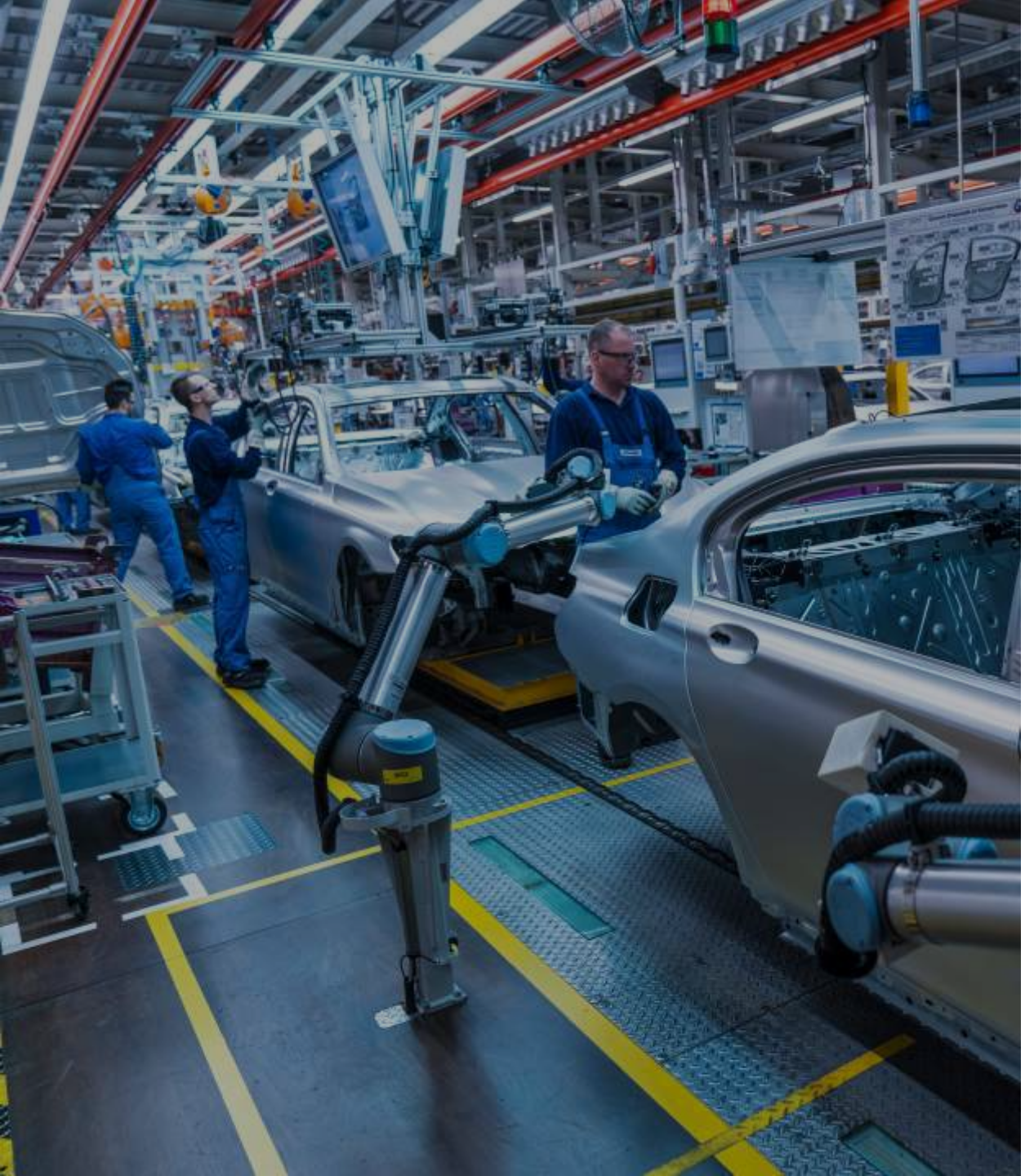
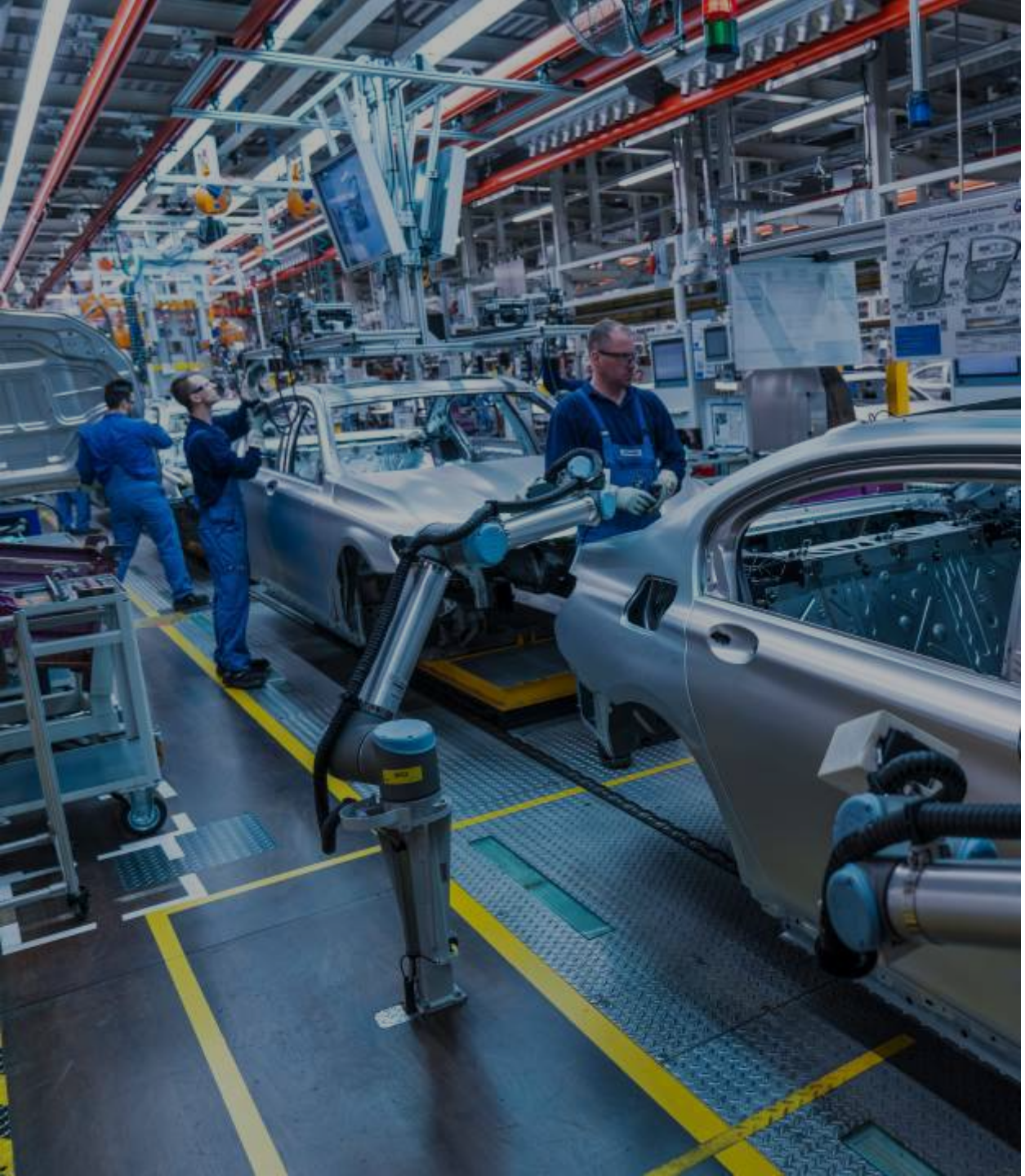
ATE for ACU Testing (Automotive Industry)



Client Background

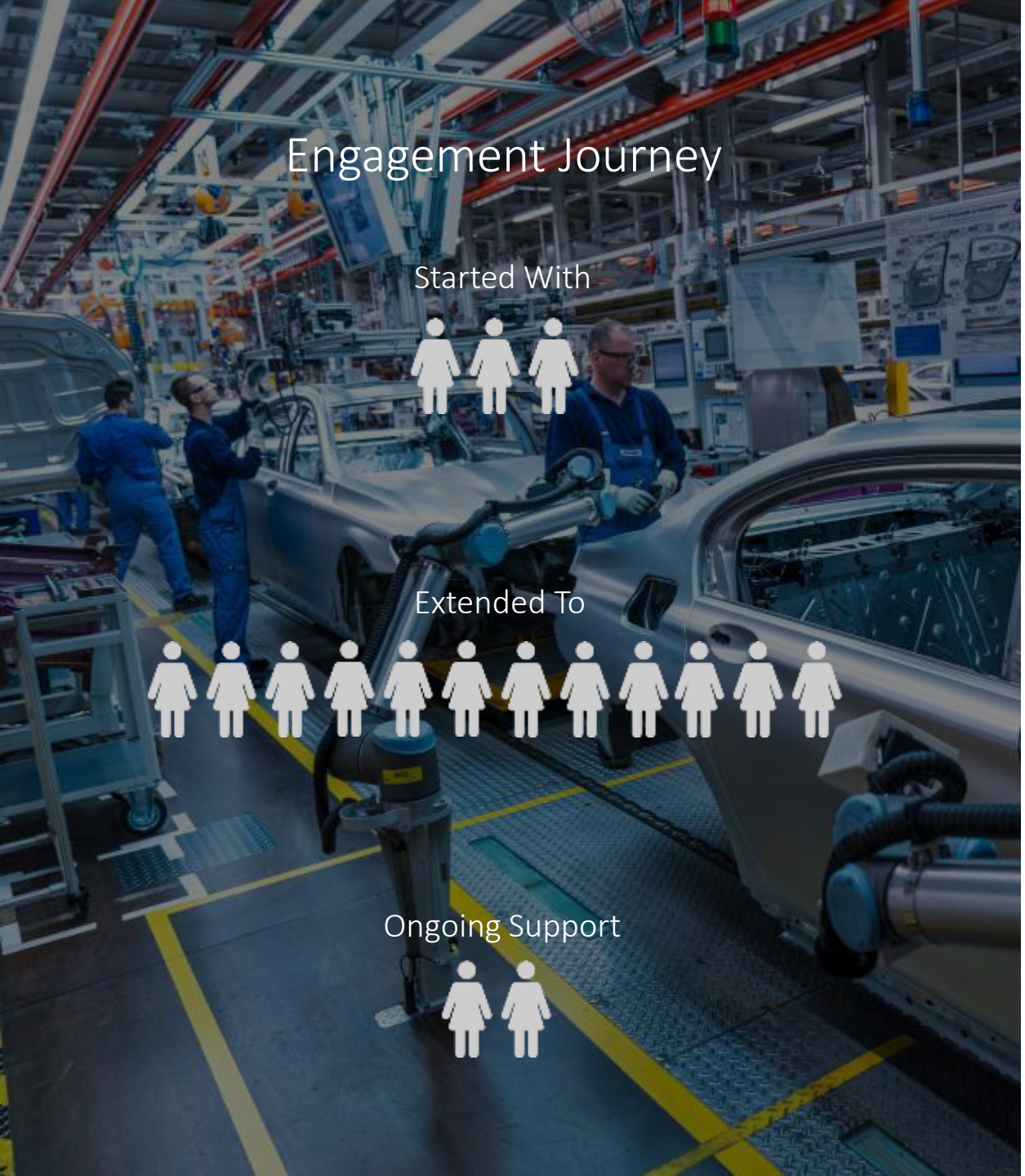
Client is a leading supplier of technology and services in the areas of Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology.

The project involves developing an Automated Test Equipment (ATE) system for Airbag Control Unit (ACU) testing at the client's Bangalore facility. The ATE system is designed to ensure high-quality assurance by incorporating advanced hardware and software components. The system will perform comprehensive testing and validation of ACUs to meet international standards.



Challenge

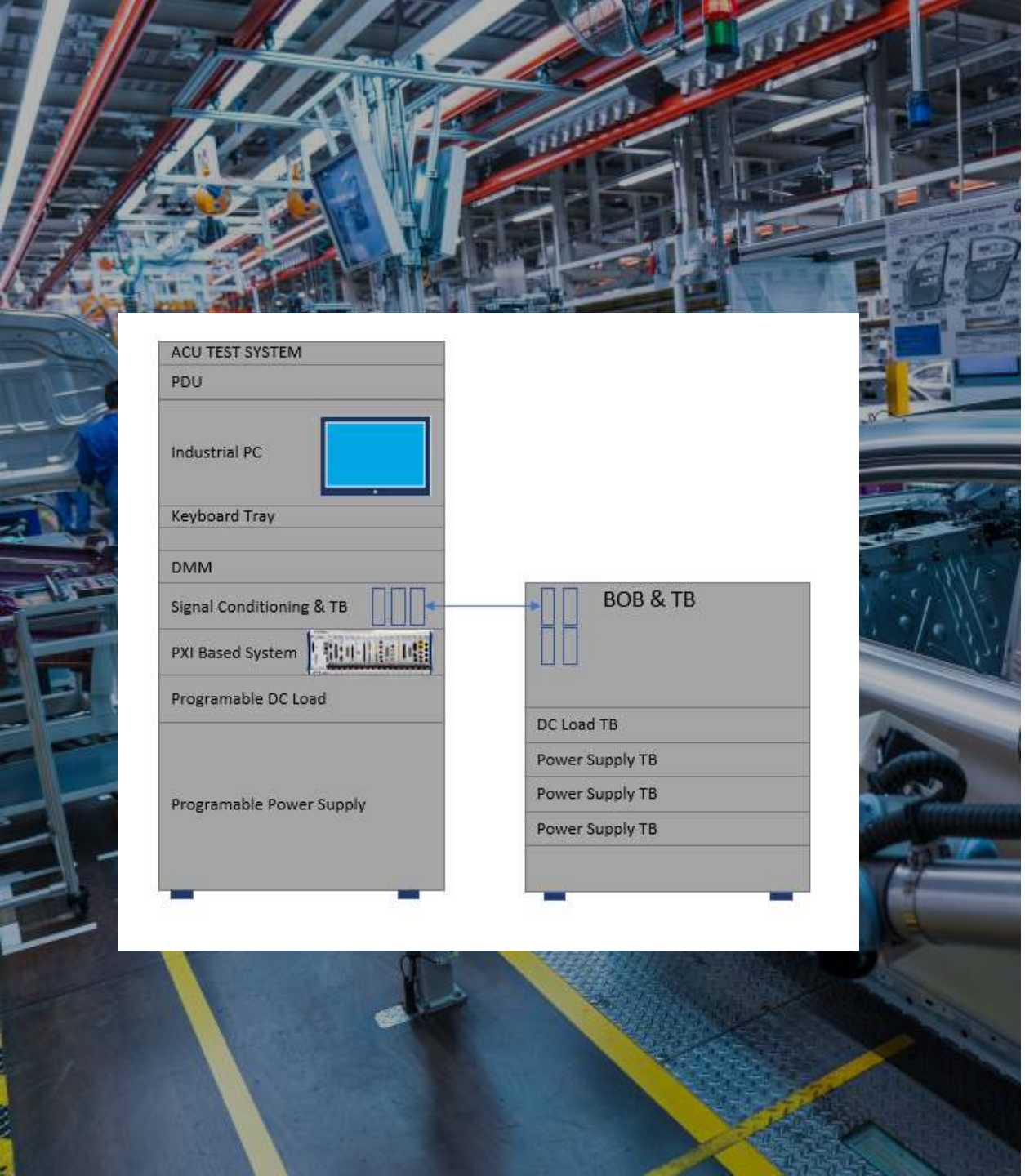
The client required an advanced ATE system to efficiently test and validate their ACUs. The system needed to integrate various hardware components, handle complex testing procedures, and provide reliable results. Additionally, the system had to be user-friendly, ensuring easy operation and configuration by the engineering team. The challenge was to design and implement a robust system that could seamlessly integrate multiple components and provide accurate test results.



Solution

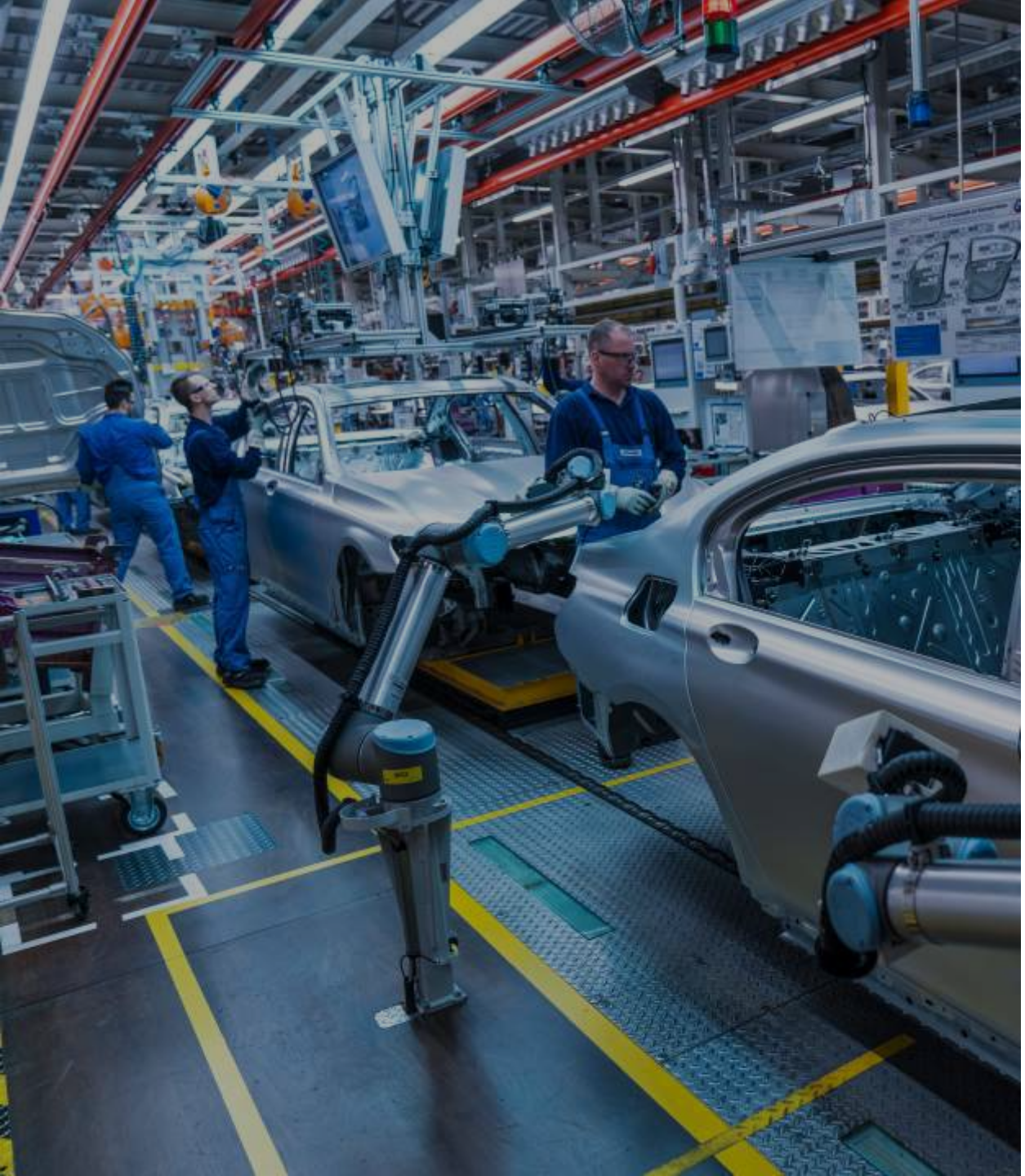
Optimized Solutions Ltd. (OSL) engineered, designed, manufactured, and supplied the ATE system for ACU testing. The solution included an industrial PC with high processing power, various NI and Keithley hardware components, and a custom-built ATE rack/panel.

The ATE system features a user-friendly graphical interface for configuring test parameters, conducting tests, and analysing results. It supports automatic and manual testing modes, allowing users to select parameters and perform tests with ease. The system also includes calibration and compliance certificates, ensuring accurate and reliable testing.



Solution

The installation and commissioning process included cable termination, system calibration, and comprehensive training for the customer's team. OSL provided detailed electrical drawings and system layout documentation, ensuring smooth operation and maintenance of the ATE system.

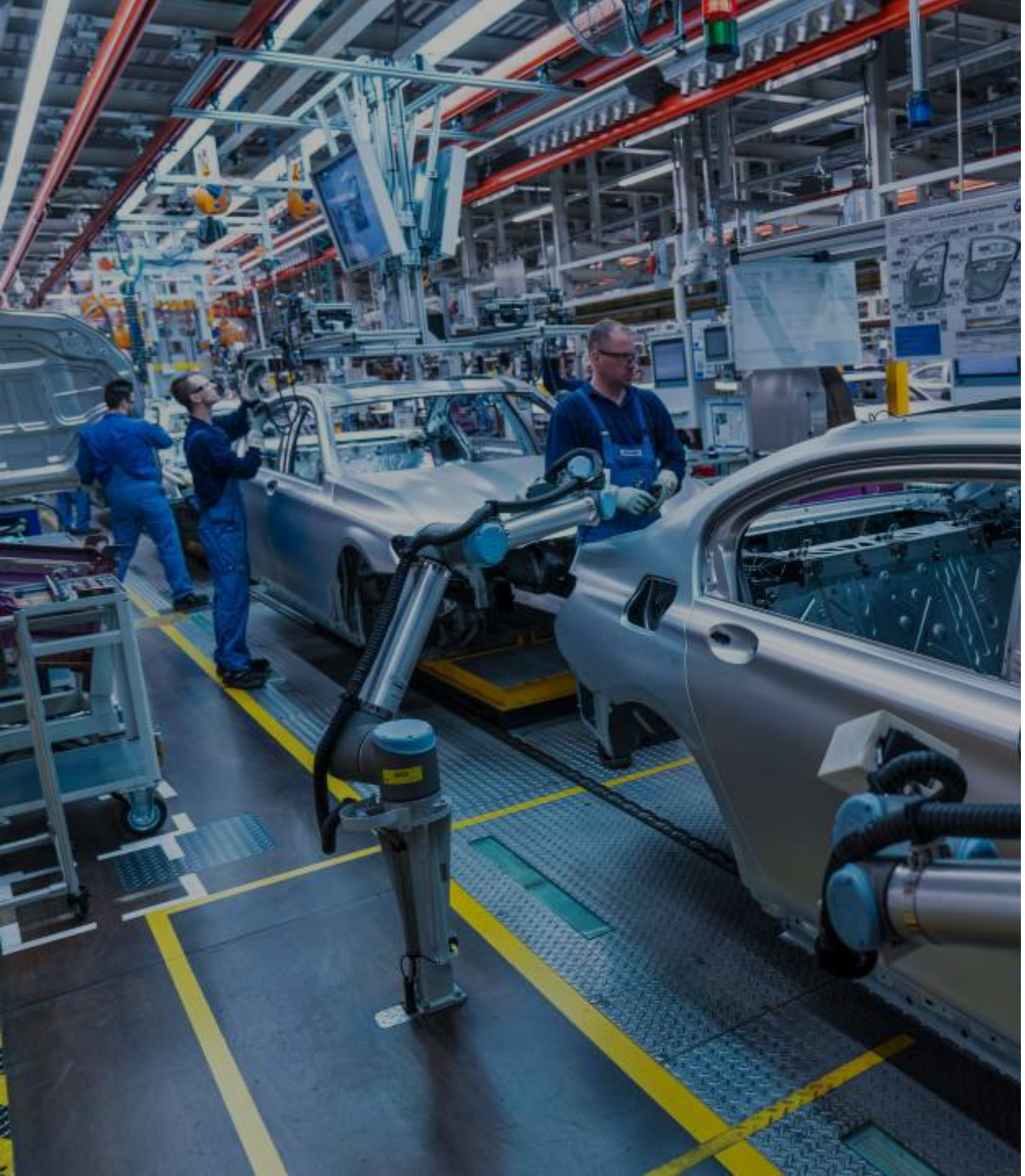


Benefits

1. Efficiency: The ATE system automates complex testing procedures, reducing the time and effort required for ACU testing.

2. Accuracy: Calibration and compliance certificates ensure accurate and reliable test results, meeting international standards.

3. User-Friendly: The graphical interface simplifies the configuration and execution of tests, making it easy for engineers to operate the system.

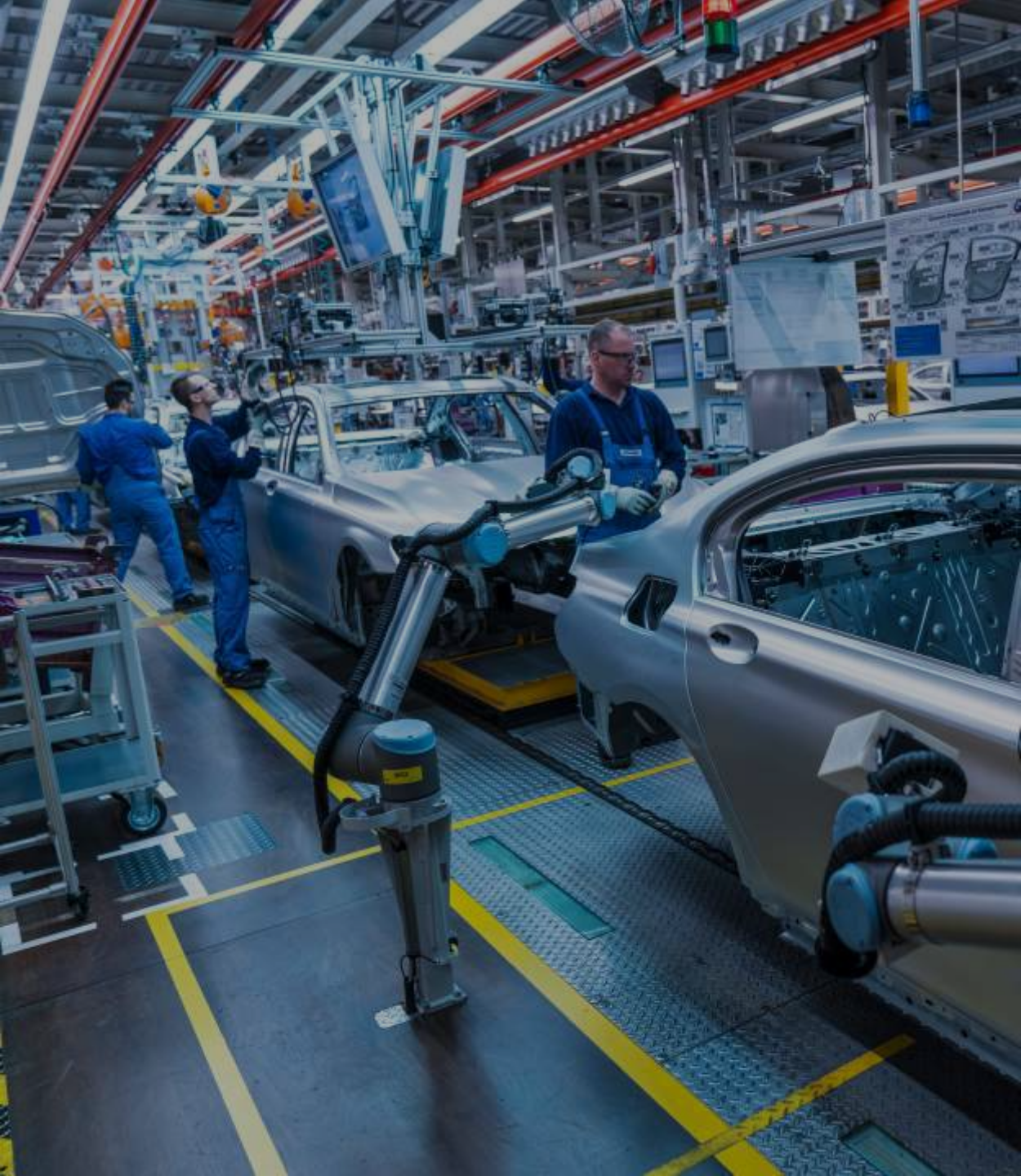


Benefits against alternatives

1. Integration: The ATE system integrates multiple hardware components seamlessly, providing a comprehensive testing solution compared to standalone equipment.

2. Customization: The system is tailored to meet client's specific requirements, offering greater flexibility and precision than off-the-shelf solutions.

3. Support: OSL's detailed documentation, training, and support ensure that client's team can efficiently operate and maintain the system, minimizing downtime and maximizing productivity.



Value Proposition

The ATE system for ACU testing offers a robust and efficient solution for ensuring the quality and reliability of airbag control units. Its advanced hardware integration, user-friendly interface, and comprehensive support make it an invaluable tool for the client , enabling them to meet international standards and deliver high-quality products to their customers. The system's automation and accuracy enhance testing efficiency, providing them with a competitive edge in the automotive industry.