

Your Local Partner for
Digital Rail
- Anywhere in the World

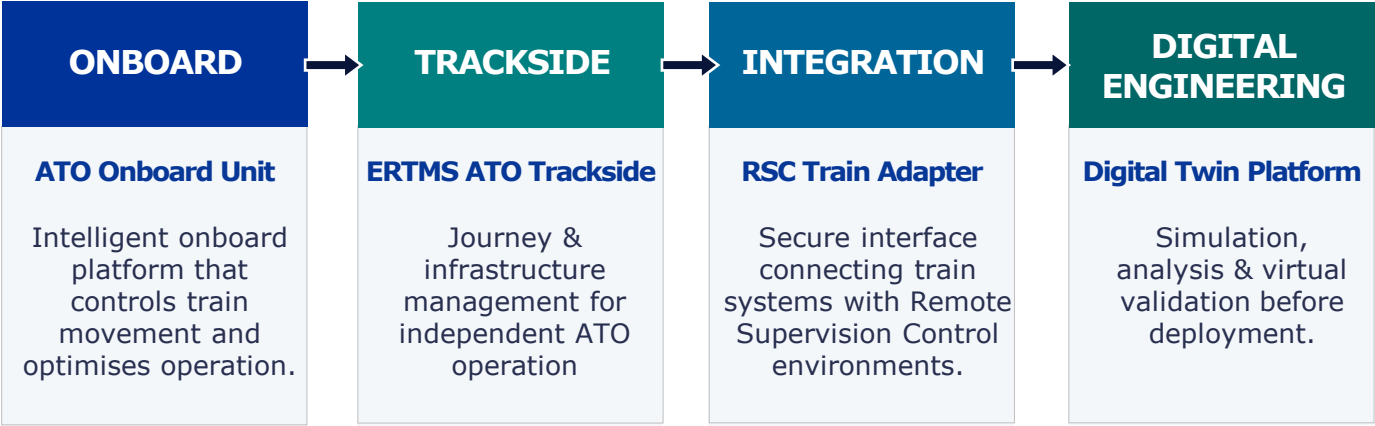


*The Engineering Behind
Automated Rail Operation*

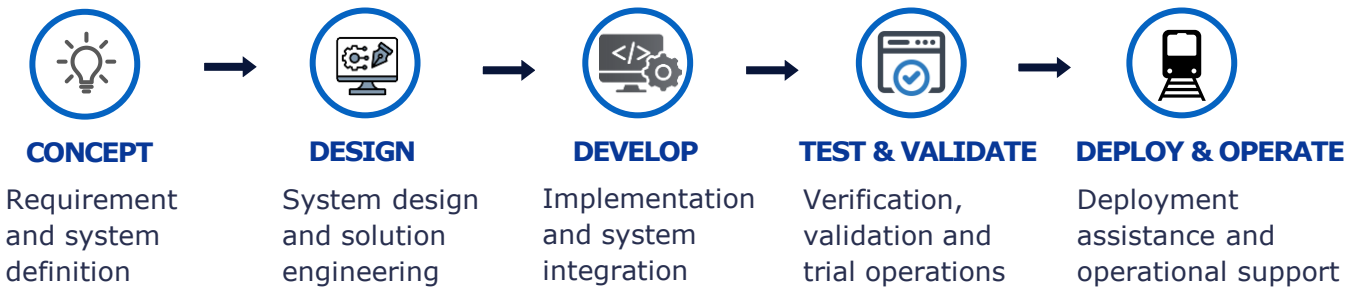
OUR COMPLETE AUTOMATIC TRAIN OPERATION SOLUTION

RSE combines onboard automation, trackside systems, train integration and digital engineering to support the development and deployment of Automatic Train Operation.

ONE INTEGRATED ATO ENVIRONMENT



SUPPORTING ATO DEVELOPMENT



RSE provides the technology and engineering capability to support ATO across the development lifecycle.

ATO Onboard Unit

Intelligent Train Automation for Mainline Railways

ERTMS compatible modular onboard ATO platform that converts timetable, route and train data into controlled driving profiles for consistent, efficient and automated train operation. It manages train movement through traction and braking interfaces while maintaining interaction with the driver and surrounding railway systems.



CORE CAPABILITIES

- Automatic train operation supporting GoA2
- Journey and Segment Profile processing
- Continuous running-profile calculation
- Traction and braking control interfaces
- Driver-machine interface integration
- Operational Data Management and Diagnostics

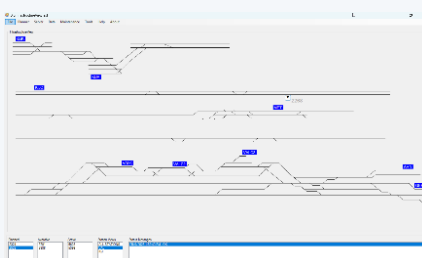
OPERATIONAL VALUE

- ✓ More consistent train operation
- ✓ Improved timetable adherence
- ✓ Reduced driver workload during ATO operation
- ✓ Platform for future railway automation development

ERTMS ATO Trackside

Independent Trackside Support for ATO Operations

A connected or stand-alone ERTMS ATO Trackside solution that prepares and manages the journey and infrastructure information required for ATO-equipped trains.



CORE CAPABILITIES

- Journey Profile creation and management
- Segment Profile / infrastructure data handling
- Temporary constraint management
- ATO-TS Planner graphical interface
- Train communication using Subset-126
- Train and system status monitoring
- Infrastructure Data Management and Concepts

OPERATIONAL VALUE

- ✓ Independent ATO trackside capability
- ✓ Supports backup, test and controlled operating scenarios
- ✓ Operator visibility of journeys and train status
- ✓ Greater flexibility for ATO development and deployment

RSC Train Adapter

Connecting Train Systems to Remote Supervision

An onboard integration platform that connects train systems with the Remote Supervision Control environment, enabling controlled exchange of operational data and commands across railway interfaces.



Developed by the REMOOT consortium, the RSC Train Adapter enables seamless communication and control between autonomous trains and the RSC network.

CORE CAPABILITIES

- Bidirectional train-to-RSC data exchange
- Train and RSC network interfacing
- Protocol and data adaptation
- Multi-interface communication
- Connection and system-state monitoring
- Train-specific integration capability

OPERATIONAL VALUE

- ✓ Simplifies integration between train and remote systems
- ✓ Provides a controlled interface boundary
- ✓ Supports remote-supervision applications
- ✓ Enables adaptation to different train architectures

Digital Twin Platform

Bridging Real and Virtual Worlds

A digital railway environment combining infrastructure, operational and train models to support simulation, system integration, engineering analysis and virtual validation before deployment.

CORE CAPABILITIES

- Railway infrastructure and operational modelling
- OpenTrack simulation integration
- Train movement and timetable simulation
- ATO interface integration
- Virtual system and scenario testing
- Engineering and operational analysis

OPERATIONAL VALUE

- ✓ Test concepts before field deployment
- ✓ Reduce dependency on physical test trains
- ✓ Identify integration issues earlier
- ✓ Evaluate operational scenarios safely and repeatedly

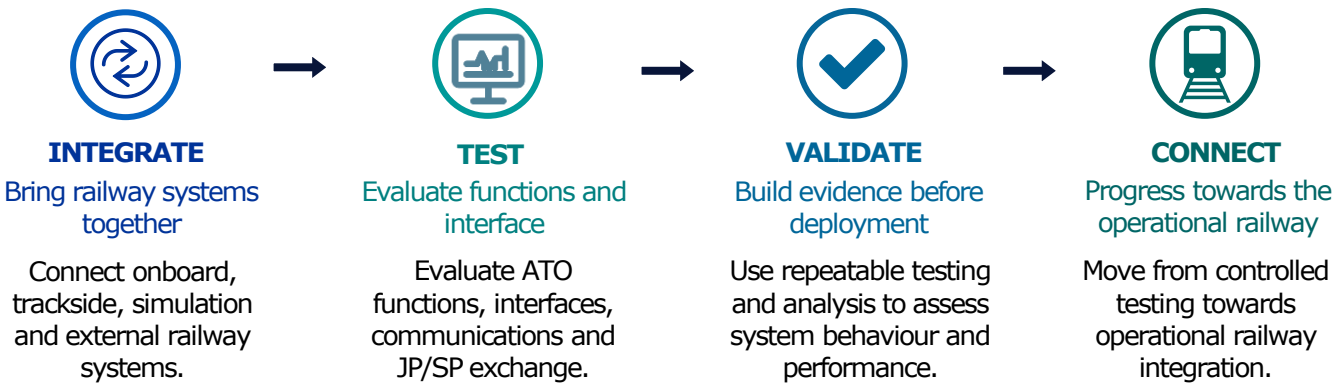
ERTMS Automated Rail Systems Hub and Lab

Driving the Future of Rail with ATO



A dedicated environment for **testing and validating ATO onboard and trackside products, functions, and data**, from controlled in-house testing to integration with **operational railway systems**.

HOW THE HUB SUPPORTS YOUR ATO DEVELOPMENT



TEST & INTEGRATION ENVIRONMENT

Digital Twin & OpenTrack Simulation Simulation and scenario analysis.	ATO Onboard & Trackside Systems Integration and testing of ATO system.	Hardware / System Integration Hardware-in-the-loop and interface testing.	Remote Supervision & External Interfaces Connectivity to RSC, TMS and external systems.	Operational Railway Connectivity Integration with operational railway environments.
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TEST CENTRE AS A SERVICE

Bring your technology into RSE's railway automation environment for integration, interface testing and validation.

Secure & controlled environment

Flexible test setups

Expert engineering support

Faster validation. Lower risk.

BUILT FOR COLLABORATION

Railway Operators

Infrastructure Managers

Rolling Stock Suppliers

Signalling & ATO Partners

Technology Developers

We bring your railway operation to the next level



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Railway Data Management