

Multitel

INNOVATION CENTER



Atkins Limited (Part of the SNC Lavalin group of companies), in conjunction with Multitel, the global leader in European Train Control System (ETCS) test equipment, has been awarded a contract by Network Rail to design, deliver and operate the UK's national ETCS Test Verification, Validation and Integration Laboratory (Test Facility) for 10 years.

Multitel is the main technological provider for the Test Facility. Atkins is the leading independent signalling systems integrator and testing services provider in the UK. This first of a kind facility will extend the two companies' UK Rail industry integration services which ranges from operational signalling fault diagnostics, product acceptance and systems integration of ETCS signalling deployments in the UK.

The Test Facility aims to enable the deployment of the European Rail Traffic Management System (ERTMS) across the UK and enhance interoperability of the deployment programme.

The Test Facility is mainly based on Multitel's System Integration Lab (M-SILAB), provided by Multitel. The M-SILAB proposes a harmonised process and test tools for system level tests using automation (which reduces human factors and errors), standardised trials (standardised protocols) and an operational monitoring system.

The current version of ETCS System Compatibility Test (ESC) which is applied in several European countries is regarded as insufficient due to lack of harmonisation. The M-SILAB, through its Subset-ESC proposed by Multitel, will cover much wider test ranges than the IOP (Interoperability testing) principles (Subset-110, Subset-111 and Subset-112). The Test Facility is also flexible enough for new updates or upgrades, so it is compatible with the next generation of digital signalling technology (FRMCS, ATO and C-DAS). This is a key advantage of Multitel's test solution.

Multitel's ETCS test solutions have been widely used in Europe and worldwide (Unisig and non-Unisig suppliers and railway infrastructure managers). Multitel's test solutions are not limited to ERTMS standard. They have been adapted for use in Korea (Korean Train Control System) and China (Chinese Train Control System).

Multitel is an ISO17025 accredited laboratory by BELAC (427-TEST) for a series of ETCS test:

- Subset-076, Subset-094 (European Vital Computer test),
- Subset-085 and Subset-116 (Eurobalise/Balise Transmission Module test)

In September 2021, Multitel successfully passed the audit by BELAC for the following new scopes:

- Subset-103 (Loop Transmission Module test),
- Subset-RBC (Radio Block Centre test),
- Subset-ESC (ETCS System Compatibility test) using M-SILAB solution (test bench and test methodology)
- Subset-KMC (EVC test following Subset-137)

The extension of ISO17025 accreditation for these new Subsets will become official by December 2021. This demonstrates the commitment of Multitel to extend extensive experience in testing onboard solutions to the trackside and the onboard-trackside integration and operation.

ABOUT MULTITEL

Located in Mons, Belgium, Multitel is a research centre specialized in Information and Communications Technology (ICT). Multitel's activities focus in applied photonics, signal processing, embedded systems, optimisation, computer vision, network management and railway certification. Multitel enlarges its activities to new applications: Smart Cities, Industry 4.0, Intelligent Transport Systems. The Railway Certification is an ISO17025 accredited laboratory by BELAC (427-TEST). Multitel has more than 10 years of experience in providing ERTMS testing services, ERTMS test tools and test solutions. Multitel participates actively in European projects, Consortiums, Programmes that aim at improving ERTMS standard.

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