



Choose certainty.
Add value.

Urban rail system services

Verifying the safety and reliability of your metro and light rail systems.

Your challenges

To meet growing demand, urban rail systems need more trains equipped for greater capacity, higher speeds and shorter headway. In turn, these expansions require sophisticated signalling systems and place pressure on other subsystems at a time when customers have rising expectations for comfort and reliability. Travellers are demanding sophisticated and tech-savvy transportation, with air conditioning and full information / communication access, all at lower cost.

At the same time, increasing energy prices and the trend towards a green environment necessitate new equipment and intelligent operation principles. Operators and rail authorities are in need of a high level of technical expertise, not only to meet these challenges with new equipment, but also to replace or modernise ageing assets. Longer hours of operation and higher availability means fewer hours for maintenance.

What services does TÜV SÜD provide for the urban rail sector?

TÜV SÜD provides services to help operators, rail authorities and manufacturers adapt to the changing requirements of the urban rail system. We support you with expertise in evaluating system requirements and moderation of risk analysis, design reviews, monitoring of manufacturing and installation of subsystems, acceptance tests, evaluation of operational procedures, and energy-efficiency solutions.

How do these services benefit your business?

Urban public transport companies can ensure safety and reliability, passenger satisfaction and sustainability without sacrificing performance and cost efficiency. Rail authorities can be assured of technical expertise, a comprehensive view and formal correctness by shifting technical responsibility to third-party technical services. Our services also benefit manufacturers by ensuring reliable processes

in design, manufacturing and commissioning, while also providing independent verification.

How can we help you?

TÜV SÜD is internationally recognised for its extensive experience in the rail sector. Our specialists understand the complex needs of the rail business and provide deep knowledge and expertise for customers, supported by state-of-the-art testing facilities. In addition to providing third-party testing and certification, we offer TÜV SÜD certification marks that are globally recognised and synonymous with quality and safety.

Our urban rail system services

▪ **Evaluation of system requirements and moderation of risk analysis**

TÜV SÜD's experts analyse specific operational conditions and customer specifications for plausibility and check them against technical standards for completeness. We provide moderation of the (joint) risk analysis for both operators and manufacturers.

▪ **Detailed design review of technical documentation**

We review the technical documentation for the new or re-designed system to verify it before production commences. By starting the review at an early phase, we can identify possible weaknesses before they can become an issue.

▪ **Monitoring of manufacturing and installation of subsystems**

Our experts conduct spot checks on production to verify the quality of workmanship and monitor the sustainability of the manufacturing and installation process, from a technical and practical point of view.

▪ **Acceptance tests**

We carry out independent inspection on the final product and functional tests for new or re-designed equipment, such as infrastructure installations and rolling stock, to supplement the manufacturer's commissioning tests.

▪ **Evaluation of operational procedures**

Our experts check operational procedures, including maintenance, and audit the processes. We discuss possible optimisations with the operator's staff and monitor their implementation.

Your business benefits

- **Minimise risk** – by identifying possible weaknesses at an early stage through independent evaluation of

documents and processes.

- **Gain a competitive edge** – by meeting safety, reliability, sustainability and cost requirements to achieve market success.
- **Engage an expert partner** – with an integrated system safety approach that adds value to the processes of operators, authorities and manufacturers.
- **Benefit from a green image** – by achieving your environmental targets for energy efficiency and achieving cost savings at the same time.

Why choose TÜV SÜD?

TÜV SÜD is an independent third-party service provider with more than 40 years of experience in the rail business. We ensure transparency and neutrality for your projects, adding value to your enterprise. Furthermore, the testing and evaluation solutions we provide strengthen your confidence in your systems.

Leveraging our international presence, we apply global expertise and local knowledge to your business in key markets. Our multidisciplinary experts offer world-class insight and expertise based on best practices and foresight knowledge. Through our close collaboration with railway authorities and other stakeholders, we keep you up to date with regulatory requirements, industry trends and changes.

Choose certainty. Add value.

TÜV SÜD is a premium quality, safety and sustainability solutions provider that specialises in testing, inspection, auditing, certification, training and knowledge services. Represented in over 800 locations worldwide, we hold accreditations in Europe, the Americas, the Middle East, Asia and Africa. By delivering objective solutions to our customers, we add tangible value to businesses, consumers and the environment.

Related services

TÜV SÜD provides the following related services:

- Signalling services
- Embedded system services
- Infrastructure services
- Rolling stock services
- Railway energy services