

Rail services

At SGS, we offer a complete range of services to support rail operations, ensuring safety and performance across the supply chain.

As rail systems grow in complexity, involving subsystems like rolling stock, signaling, and infrastructure, we provide the expertise needed to navigate these challenges efficiently, from design through to maintenance.

SGS – Your rail operations experts

For railway systems to function effectively and safely, they must meet specific performance levels under strict cost limits. RAMS processes ensure that these goals are met by analyzing and controlling system dependability, which is influenced by the reliability, availability, maintainability, and safety of all subsystems. Compliance with standards such as CENELEC EN 50126 and EU Regulation No. 402/2013 ensures railway systems meet the highest safety and quality standards throughout their lifecycle.

**RELIABILITY,
AVAILABILITY,
MAINTAINABILITY,
& SAFETY (RAMS)**

As the rail industry embraces automation and digitalization, cybersecurity has become critical. Systems such as signaling and communication are vulnerable to cyber threats, with risks like malware, data breaches, and hacker attacks increasing. SGS helps mitigate these risks by implementing cybersecurity standards, including IEC 62443, which protects industrial control systems against potential attacks. We ensure your rail systems are secure, reliable, and resilient against evolving cyber threats.

CYBERSECURITY

Railway systems must adhere to strict functional and technical requirements. At SGS, we conduct comprehensive testing and inspections to verify that all components, equipment, and systems comply with technical specifications, safety standards, and regulations. Our global network of laboratories and extensive expertise allow us to offer testing services for everything from individual components to complete systems, ensuring their reliability and safety throughout their operational lifespan.

**TESTING &
INSPECTION**

Efficient supply chain management is vital to successful rail projects. Miscommunication between suppliers and operators can lead to budget overspends, delays, and safety risks. SGS helps bridge this gap by offering supplier performance monitoring, development, and approval processes. Our solutions ensure a seamless supply chain, reducing inefficiencies and fostering long-term partnerships between clients and suppliers.

**SUPPLY CHAIN
MANAGEMENT**

To operate across European rail networks, systems must comply with the EU's Interoperability and Safety Directives. As a Notified Body (NoBo) and Designated Body (DeBo), SGS is authorized to assess railway systems and products for compliance with European Technical Specifications for Interoperability (TSI) and National Technical Rules (NNTRs). This certification ensures the smooth and safe operation of rail systems across borders, enhancing the competitiveness and mobility of goods and people within the EU.

**RAILWAY
TECHNICAL
CERTIFICATION
(NOBO/DEBO)**

Railway safety is crucial throughout the entire system lifecycle, from initial design to final decommissioning. At SGS, we conduct Independent Safety Assessments (ISA) and evaluations, ensuring compliance with CENELEC safety standards and EU Regulation 402/2013. Our assessments are critical to ensuring that new developments and modifications meet the required safety standards before commercial operation. With SGS as your safety partner, you can trust that your rail systems will comply with stringent safety requirements, ensuring safe and efficient operation.

**RAILWAY SAFETY
CERTIFICATION
(ISA/ASBO)**



By partnering with SGS, you benefit from our vast experience, ensuring your rail projects are safe, compliant, and ready for commercial operation.

Our rail transportation services

CONCEPTION ENGINEERING DESIGN

- Project management
- Technical assistance
- Design conformity review
- RAMS safety management
- Project quality management
- Verification and validation
- Cybersecurity

MANUFACTURING PROCUREMENT

- Supply chain assurance
- Productivity and operations improvement
- Advanced supplier management
- Product conformity

INSTALLATION TESTING COMMISSIONING

- Equipment and materials lab testing
- Shop inspection – First Article Inspection (FAI)
- Acceptance tests – Final Acceptance Test (FAT)/Safety Awareness Test (SAT)
- Installation supervision
- Functional testing
- System integration testing
- Commissioning and acceptance

OPERATION AND MAINTENANCE

- Safety management system
- Asset integrity management
- Maintenance management system
- Operative and maintenance plans
- Risk management
- RAMS operational key indicators
- Life cycle costs

CERTIFICATION

- Railway technical certification: Notified Body (NOBO)/ Designated Body (DEBO)
- Railway safety certification: Independent Safety Assessment (ISA)/Assessment Body (ASBO)

Why **SGS**?

Gain specialized testing, inspection, operation, and maintenance support
SGS is a trusted global leader in testing, inspection, and certification
for the rail industry.

- Access comprehensive solutions tailored to your specific railway project needs
- Benefit from our broad service portfolio covering the entire lifecycle of railway projects
- Achieve technical and safety conformity, along with Reliability, Availability, Maintainability and Safety (RAMS) analysis
- Optimize supply chain services, QA/QC, and manufacturer supplier control

With our unparalleled expertise and commitment to quality, sustainability, and safety, we work with major rail manufacturers, operators, and suppliers worldwide. Accredited to EN ISO/IEC 17020 and 17065, we are recognized by the Railways Safety Authorities to assess the safety and technical compliance of railway systems, products, and services.

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When you need to be sure