## Railway Technology

# Infrastructure

The constructional railway infrastructure in the category track line and node comprises all stationary railway installations of upgraded and newly built lines, existing lines as well as service facilities. This includes freight depots, terminals, ports, passenger stations and shunting yards, train formation facilities, sidings, maintenance facilities, fuel stations as well as loading sites.

TÜV NORD will support you with the planning, construction, operation, maintenance, inspection, approval and commissioning of railway infrastructure installations in the specialist trades civil engineering, substructure, superstructure, driving dynamics, track geometry, structural engineering, underground cable works and signalling systems. In addition to the classic railway track infrastructure, we are also specialised in railway structures, train stations, workshops and level crossings.

Our inspections are based on national, European and international regulations and standards. Within the national category, we have additionally specialised in the regulations and standards of the non-government railways (NG railways), incl. the public and non-public works and feeder line railways, and also cover national as well as international regulations and standards of trams, underground railways, metros and urban railways.

Here, expert teams offer efficient solutions for interdisciplinary assignments. The EC verification of subsystems is carried out by us as the Notified Body.

Our railway experts apply a holistic approach when verifying your systems, i.e. they duly consider the technical equipment, employees, other users, procedures and the environment. Recognised experts (German Federal Railway Authority (EBA, LEA)) will provide you with comprehensive inspection services and expert reports on the technical safety of railway systems including the assessment of operator regulations and residual risks for passengers.

TÜV NORD - Making the world safer.



### Infrastructure

## Our services

- EC conformity assessment according to European interoperability regulations and standards (TSI INF, PRM, SRT)
- Conformity assessments in accordance with national and international regulations and standards
- Performance of inspections and preparation of inspection reports
- Preparation of expert reports / damage reports
- Product and component inspections and/or tests in the testing laboratory
- Consultations on the interface between infrastructure and railway vehicle
- Condition assessments and functional checks of structural engineering installations
- Superstructure inspections of tracks and points
- Inspections of structural engineering works (bridges, noise barriers, ...)
- Periodic tests of level crossings
- Provision of support for discussions with supervisory and approval authorities
- Consultations to railway companies and railway infrastructure companies
- Specialist technical plan and on-site inspections
- Performance of training courses on EC conformity assessments
- Evaluation of externally acquired test results
- Railway technology consultations at an early project development stage
- Independent defect assessments for quality assurance / quality standard compliance
- Infrastructure-related expert reports on fire protection / evaluation of evacuation plans
- Inspections of operational facilities as competent authority according to Sect. 5 BOStrab (Tram Construction and Operation Ordinance)
- Evaluation of the safety management (ISA, CSM)

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### The benefit to you:

- Protection of persons and the environment
- Planning reliability
- Avoidance of bad investments by timely consideration of individual subsystems
- Expertise of a single-source provider across all systems
- Independent inspection services based on the current status of national and international requirements

#### Our competence:

- Independence and neutrality
- Specialist independent experts with long-standing experience
- Assessors with EBA-recognition
- Accredited inspection body according to DIN EN ISO/ IEC 17020 (DAkkS)
- Notified Body (NoBo)
- Designated Body (DeBo)
- Assessment Body (AsBo)
- Partner of country and municipal authorities (Landeseisenbahnaufsicht (LfB, TAB))
- Associated partner of the German notified body

We look forward to sharing our expertise with you. Why not contact us.

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**TÜV NORD GROUP**