More inside.

The Future of the **Railway Sector**

Driven by **climate targets, changing mobility needs and technological innovations**, rail is once again taking centre stage in transport policy and economic development. In recent years, the EU has pushed ahead with the liberalisation of passenger and freight transport in order to promote greater competition, innovation and customer focus.

To keep pace with these developments, TÜV AUSTRIA is continuously strengthening its position in the rail sector. With the establishment of TÜV AUSTRIA RAIL GmbH, based in Berlin, another strategic milestone has now been reached, expertise has been pooled and a high-performance platform for national and cross-border rail projects has been created. The close collaboration between experts from a wide range of technical disciplines within the TÜV AUSTRIA Group enables comprehensive services across the entire life cycle of rail projects, such as

- ✓ Safety and reliability assessments (e.g. as an Independent Safety Assessor),
- ✓ strength tests on infrastructure and rolling stock components,
- ✓ LCC and RAMS studies,
- ✓ cyber security and functional safety (FuSi),
- ✓ and monitoring of bridge structures.

CONSULTANCY

Our rail vehicle experts support **vehicle manufacturers, vehicle owners and operators** with comprehensive expertise in strategic life-cycle management (asset management).

ENGINEERING SUPPORT

Our engineering support for rail vehicles encompasses the **technical analysis, assessment and optimisation of vehicles and their systems throughout their entire life cycle.** Our experienced team supports you in resolving complex technical challenges and supports you every step of the way – from development through to procurement and type approval, right through to maintenance, modernisation, decommissioning and recycling. Our team also includes experts who can prepare expert reports and carry out accident analyses on your behalf.

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TÜV AUSTRIA RAIL GMBH

OUR SERVICES

- **Tender & Bid Support**
  Support with drawing up a tender or with taking part in competitions.
- **Technical Project Monitoring**
  Monitoring whether technical requirements set out in the specifications, standards and approval criteria are met.
- **Risk management**
  Preparation of pre-engagement and materiality analyses. Identification of technical risks and management of measures to minimise risk.
- **Project management**
  Focused on ensuring compliance with cost, deadline, performance and quality requirements.
- **Technology & Innovation Management**
  Assessment of new technologies, products and business ideas; identification of market potential; support with pilot projects; support during the roll-out of new technologies.
- **Documentation management**
  Review of technical documentation, e.g. as part of the approval process.

OUR ENGINEERING SUPPORT SOLUTIONS

- **Technical Analysis & Assessment**
  Assessment of vehicle concepts, support with the design and integration of vehicle components, interface analyses for conversions and modernisations (e.g. technical feasibility studies, weakness analyses, proposals for optimisation).
- **Requirements & Change Management**
  Analysis of technical requirements, assessment and management of changes (change management) as well as technical coordination with manufacturers and suppliers.
- **Maintenance & Lifecycle Engineering**
  Technical support with the development and evaluation of maintenance plans, the optimisation of maintenance strategies, obsolescence management, and the evaluation and management of suppliers and spare parts.
- **Production monitoring, commissioning and testing support**
  Support during tests and test runs, analysis of fault patterns, and assistance with troubleshooting and optimisation. Quality monitoring during the manufacture, modernisation and conversion of rail vehicles, as well as support during commissioning.
- **Approval & Documentation Support**
  Technical documentation, support with providing evidence during the approval process, and assessment of compliance with standards and regulations.
- **Vehicle valuation & technical due diligence**
  Condition assessments and technical support for the purchase, leasing or takeover of vehicles, as well as assessment of remaining useful life and investment requirements.

OUR CONTACTS

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