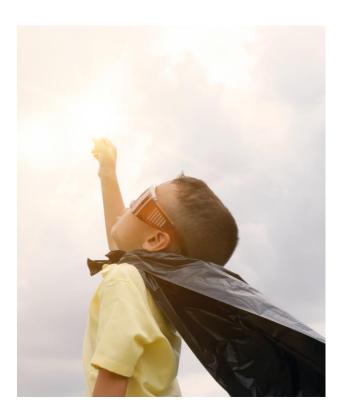


LİVRE ENGINEERING & CONSULTING COMPANY PROFILE





About Us



- LivRE was established in June 2020 in Ankara to provide engineering and consultancy services for the railway industry as LivRE Mühendislik Danışmanlık San. ve Tic. Limited Şirketi.
- Parallel to the structural reforms in the European Railway sector, Turkey
 has taken steps towards a liberal railway market that revealed the need
 for services such as technical conformity assessment, independent
 safety and risk assessment, certification against various standards/
 regulations and consulting.
- In this regard LivRE started its journey in order to meet changing needs of particularly local clients blending various personal technical expertise in different transport modes, primarily railways, within its organization.



About Us

LivRE blends various complex technical expertise that are increasingly needed with the developing railway industry.





Technical Conformity Assessments against TSIs Technical Specifications for Interoperability

 LivRE is able to carry out the technical conformity assessment process starting from module selection, document preparation up to conformity assessment and certification stages in one hand according to technical specifications for interoperability, which are mandatory for all railway systems across Europe and for the rolling stock sub-system in Turkey.



 With LivRE expertise, you can carry out all the technical and bureaucratic procedures required for newly designed railway vehicles and components to be approved by the National Safety Authority, or for approved designs to be produced by any other manufacturer.



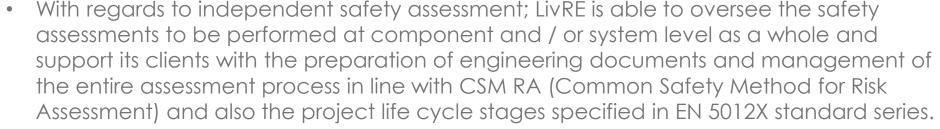


Independent Safety Assessment against **CSM RA** and EN 5012X Standard Series





Although the legislative framework in this field is yet to be completed in Turkey, independent safety assessments have started to be on the agenda of the operators, especially with the start of High Speed Rail operations.

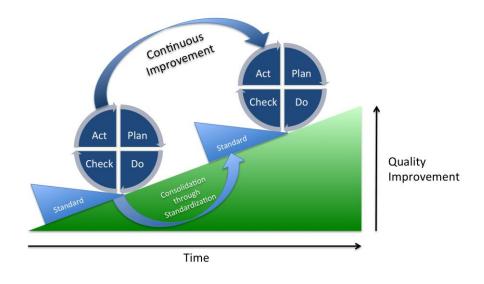






Consultancy Services for Urban / National Train Operators/Infrastructure Managers on Safety Management System

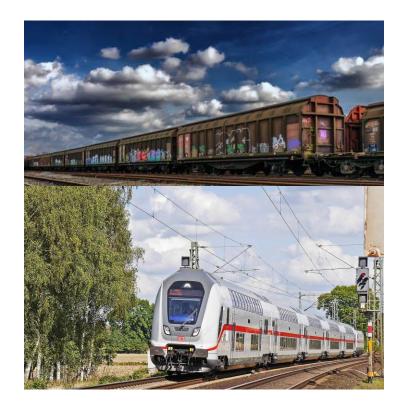
- Currently, both in Europe and in Turkey, train operators and infrastructure managers are obliged to carry out their activities in line with a safety management system established within their organizations. In this context, National Safety Authorities perform audits periodically and authorize operators.
- Within the context of the establishment and improvement of this management system, which hinges on the quality management system and ensures that the organization meets the minimum safety requirements in its activities, LivRE can carry out a series of activities such as document preparation, document improvement, training for the development of safety culture, and provides important support services that will contribute to the safety performance of operators.





Certification and Consultancy Services for the **Entities in Charge of Maintenance** (ECM)

- In accordance with the current EU regulation 2019/779 in all EU member countries and in accordance with the railway safety regulation adopted in Turkey; organizations that provide maintenance services for railway vehicles are obliged to establish a maintenance management system and obtain Entity in Charge of Maintenance certification.
- You can not only benefit from LivRE's expertise in the execution
 of the entire certification process with certification bodies but
 also in developing the maintenance management system
 and preparation/improvement of a series of instructions and
 procedures that should be prepared and implemented
 exclusively for the maintenance activities performed.





Key Services with respect to Railway Sub-Systems









Infrastructure

- EC Verification (TSI INF, PRM, SRT)
- ISA
- Test Witnessing (Track geometry, wheel-rail interaction)
- Product Approval (rail, sleeper, rail fastening system)
- Trainings for operation and maintenance

Energy

- EC Verification (TSI ENE, SRT)
- Independent Safety Assessment
- Test Witnessing (uplift, catenarypanto interaction)
- Trainings for operation and maintenance

Control-Command-Signalling

- EC Verification (TSI CCS, SRT)
- Independent Safety Assessment
- Test Witnessing (ERTMS, ATS)
- Product Approval (ETCS on-board, RBC, Eurobalise)
- ERTMS trainings

Rolling Stock

- EC Verification (TSI Loc&Pas, Noi, PRM, SRT)
- Independent Safety Assessment
- Approval Management
- ECM Certification
- Product Approval (bogie, wheel etc.)
- Trainings for operation and maintenance

LivRE provides engineeringconsultancy services for all processes in this summary table and can carry out all the testing, certification and approval management processes at component or system level.



Contact



Please get in touch with us to learn more about our services specific to your needs. www.livremd.com

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