



Brittany - Pays de la Loire High-Speed Line (2011 - 2017)



Brief project description:

The Brittany Pays de la Loire (BPL) project involved the construction of a new 214 km high-speed rail line between Le Mans and Rennes, France. High-speed trains run at speeds of 320 km/h on this new high-speed line, which also has eight junctions with the conventional rail network. The design was in accordance with the EU technical specifications for interoperability relating to the 'energy' subsystem.

This €2.5 billion project was launched as a PPP (public-private partnership) in the form of a 25-year partnership for the design, construction and maintenance of the line.

TUC RAIL's mission

TUC RAIL was responsible for the detailed design of the catenary system, including the planning and phasing of

these works, and the management and supervision of the works until the acceptance of the new installations. The studies also included the FDMS (Reliability, Availability, Maintenance and Safety) aspects of the Fixed Electric Traction Installations.

To improve competition in the procurement of works, TUC RAIL designed the catenary system with "open" technical specifications in compliance with all the technical and operational requirements as defined by the customer. This design allowed French, German, Spanish and even Belgian catenary system suppliers (i.e. licenced catenary systems) to participate in the call for tenders for the supply of the catenary system. This strategy had a positive impact of approximately 20% on the initial cost estimates.

TUC RAIL also won a second contract on this project, for the management of the rail traffic of the work trains and the management of the Laval work base.

Simplified temporary signalling was put in place and movement authorisations were given using radio dispatches. The MANTRA Real software, developed by TUC RAIL, makes it possible to manage the circulation of work trains with the assistance of a GPS geolocation system. The TUC RAIL team installed 20 GPS beacons in the majority of the work trains.

TUC RAIL provided its MANTRA work train management software, the MANTRA server and PROXY, the UPS power supply.



