



Technical Assistance for Infrastructure Management and Operations for North-South Railway



Project

Technical Assistance for
Infrastructure Management and
Operations for North-South Railway

Client

Saudi Railway Company (SAR)

Location

Kingdom of Saudi Arabia

Start Date

November 2014

End Date

November 2019

Duration

60 Months

Services Provided

Business planning, organisational
change & transformation
management, operational
infrastructure planning &
optimisation, asset management
plan development, timetabling, risk-
based maintenance

Background

The Saudi Railway Company (SAR) is constructing the North-South Railway, a nationally important infrastructure project supporting the growth and diversification of the Saudi Arabian economy. Much of the railway infrastructure is already completed, and the locomotives and most of the rolling stock procured. Some freight services are already in operation, with passenger services due to start in 2017. SAR is the licensed operator of the railway.

Due for completion by 2020, it will provide a mixed traffic railway consisting of a heavy haul freight network for the movement of bulk minerals (principally sulphur, bauxite and phosphate) and freight (containerised and general), together with long distance passenger services.

In summary, the railway comprises :

- ▶ 2,750 km's total network length built or under construction
- ▶ 11 intermodal freight terminals
- ▶ 6 passenger stations
- ▶ Maintenance facilities - 1 main workshop, 8 depots, 15 sub-depots
- ▶ Maximum axle loads - static 32.5 tonne and dynamic 47.9 tonne
- ▶ Train Control; ERTMS, ETCS level 2
- ▶ Design speeds of 100 km/hour for bulk minerals trains, 120 km/hour for freight trains and 200 km/hour for passenger services.

The North South Railway will be integrated with other rail projects in Saudi Arabia, notably the Saudi Landbridge, currently under construction.



Scope of Works

With much of the construction of the project and procurement completed or well under way, SAR's challenge was to develop the capacity for world class railway operations. SAR looked to experienced international partners to assist them on their journey of business growth and organisational development. A key requirement was close, collaborative working between the international partner and SAR.

In 2014, SAR commissioned a UK consortium comprising Network Rail Consulting, SERCO and Freightliner to provide technical assistance in managing and operating the railway, initially for a five year period.

Network Rail Consulting's role is to provide managerial and technical assistance with regard to infrastructure management, operations and maintenance. In addition, we provide high level advisory services to support organisational growth and change management. Our scope extends to the development of infrastructure

management systems and business processes; technical assistance and interim management and the delivery of a comprehensive training programme.

The role of SERCO and Freightliner is to provide managerial and technical assistance in relation to the operation of freight and passenger services.

Key Project Outputs

Network Rail Consulting is able to draw on Network Rail's extensive experience and success in owning, operating and maintaining the UK's rail network. A highly skilled multi-disciplinary team from Network Rail Consulting has been deployed to Saudi Arabia on a long term basis to work closely with SAR to help it achieve their vision and goals.

The key outputs of the project are:

- ▶ Technical content - the delivery of all management systems, business processes and technical procedures
- ▶ Provision of key staff for technical assistance and interim management

roles in support of SAR's operations, maintenance and organisational growth

- ▶ Training - the delivery of a comprehensive package of competency management and training programmes for infrastructure operations and maintenance.

Network Rail Consulting worked closely and collaboratively with SAR, sharing our knowledge and expertise in the following fields:

- ▶ Safety and assurance
- ▶ Network planning
- ▶ Network operations
- ▶ Network maintenance
- ▶ Asset management.