



factsheet # 13



ERTMS DEPLOYMENT IN NETHERLANDS



The Netherlands has a long-standing railway tradition and has massively invested to develop a modern rail network in recent years. ERTMS will play a major role. The Netherlands (with Belgium) were one of the first railway owners/operators to achieve a High-speed ERTMS Level 2 cross-border connection in revenue service since the end of 2009 and The Netherlands continue to plan the expansion of both passenger and freight services utilising ERTMS.

National Railway Infrastructure Company – Nederlandse Spoorwegen

The national rail infrastructure is managed and maintained by the government agency ProRail. This is a dense railway network which connects nearly all major towns and cities.

System length 3223km route km (6,830 track kilometres) of which 1982 Km route is double track and 2321km route electrified, operating at 3Kv DC. There is a dedicated freight route of 158.5km and a dedicated High Speed route of 125km both operating on 25Kv AC.

All track is operating on a standard gauge track of 1,435 mm (4 ft 8 1/2 in)

Safer rail transport with ERTMS.

The two most recent connections to Germany (HSL3) and the Netherlands (HSL4), are already running in commercial service with ERTMS level 2:

Different scenarios for installing ERTMS in the Netherlands were thoroughly investigated before a decision was taken. Between now and 2022, ERTMS will be installed on all Dutch trains, so they can run flexibly on ERTMS-equipped tracks.

The Dutch Ministry of Infrastructure and Public Works in 2018 has tasked ProRail with managing and implementing ERTMS.

Dutch railways include some of the world's most intensively used stretches of track. The Netherlands is introducing the European Rail Traffic Management System (ERTMS) in a gradual transition to reduce and manage inconvenience to passengers. The current control and safety is very dated is rapidly aging, is difficult to maintain and offers little scope for the future expansion. The government has budgeted €2.5 billion for ERTMS installation and maintenance. ERTMS features are expected to improve interoperability and reliability, enhance rail safety and increase network capacity and overall operational speeds.

The migration strategy to be adopted is that rolling stock will first be equipped with ERTMS and then ERTMS Level 2, only (Baseline 3) will be installed in the infrastructure as laid down in European Commission Decision 2012/88/EU.

Rail lines already ERTMS-equipped

ERTMS is already deployed on the following tracks

- the Betuweroute, part of the Havenspoorlijn; the Havenspoorlijn - operating since July 2007 with ERTMS level 2 without any fallback system - the new railway link connecting the and Port of Rotterdam (Europoort) with Germany is fitted with ERTMS level 1.
- Amsterdam to Utrecht (30 km, 4-tracks). (which is also equipped with the current safety system "ATB" – the line is now operated with ERTMS level 2. (ATB - Automatische TreinBeïnvloeding – Automatic Train Control system).



- the High Speed Rail Link South; HSL Zuid
- the Hanze line – the “Hanzelijn” between Lelystad to Zwolle - is fully equipped with ERTMS level 2 and in operation since the end of 2012. (the line is also equipped with the current safety system - ATB (Automatische TreinBeïnvloeding – Automatic Train Control system)).

Benefits of ERTMS

The introduction of ERTMS in the Netherlands will mean that the country will be ready for the future. It is forecast that the number of rail passengers will dramatically rise in the coming years. ERTMS introduction will set the programme to increase track capacity to increase in line with this expected demand.

Further benefit of ERTMS will be realised with Europe having one standard for train protection allowing passenger and freight trains to cross international borders more easily. ProRail will closely liaise with goods transporters, contractors, local authorities and others to implement the ERTMS technology.

Future beyond ERTMS Level 2 Baseline 3 to Hybrid ERTMS Level 3

ProRail is actively working with Network Rail and five ERTMS suppliers developing the ‘hybrid ERTMS level 3’ variant. This would allow existing physical blocks on the line to be virtually divided into smaller blocks. Even more trains can run on existing track in the future. Less technology is needed, improving reliability and providing maintenance advantages.

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