

ERTMS DEPLOYMENT IN SUB-SAHARAN AFRICA

A major area of the World that has shown few signs or ambitions to introduce ERTMS into the operational railways has now suddenly and emphatically moved into the world of ERTMS with 3 projects to introduce ERTMS being announced in a relatively short time. The three countries involved are Zambia, Ethiopia and Nigeria who have led this move which, it is expected, will be the vanguard of a railway renaissance in Sub-Saharan Africa.

The state of the railways in these areas has been a story of decline due to lack of investment and poor or almost no maintenance. However, the pressure for growth to cope with growing populations and growing economies makes these railway initiatives more important and ERTMS is in a position to fully address the different circumstances of each country working with a stable and fully supported set of standards and solutions with different ERTMS Level variants that can match the varying operational ambitions of each country.

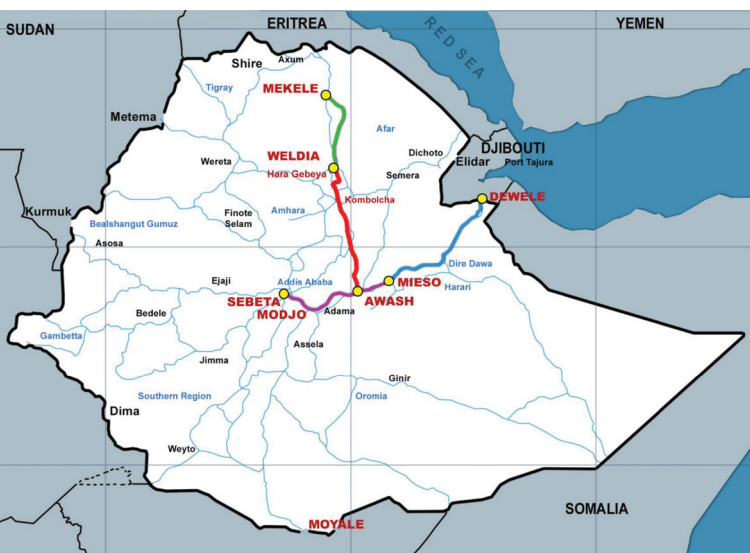


Zambia

Under a consortium arrangement consisting of 3 key players, a contract has been put in place to deploy an ERTMS Regional solution which in June 2015 is still in a preliminary state regarding specification and implementation and represents the idea of ERTMS Level 3 over a 980 km route passing 42 stations on the line from Livingstone at the southern border up to Chingola in the Copperbelt area of the country. This historic line will be upgraded over 500 km of its length to double tracking and an operational speed of 80km/h will become possible.

The Zambian Railway's aim is to support economic diversification by promoting tourism, support agriculture and improve distribution and support the mining industry by offering the seed for a modal shift of freight transport from road to rail. The existing 2166km of national rail handles less than 20% of Zambia's freight. The target is to secure a 50% freight share for rail. The project is due for operational readiness by 2016.





Ethiopia

Under a turnkey consortium arrangement, Ethiopian Railways have committed to deploy an ERTMS Level 1 line from Awash to Weldia. This 389 km route will be a single track, standard gauge line with electrification. This route has been under preparation since 2012 but the signalling etc. will be commissioned ready for service during 2015.

The line is intended to enhance the links between the Northern, Central and the Eastern areas of Ethiopia and to capture a larger percentage of the growing road freight market as well as and at the same time being highly environmentally positive.



Nigeria

Following many years of decline of the national rail network, there is now a new determination by the Nigerian Government to reinvigorate the railway system not least because Nigeria has the largest population of Africa and also the largest economy of Africa and the reasons for an available, reliable and safe railway system is self-evident.

A series of new contracts have been placed to provide an ERTMS Level 2 route supported by radio communications, connecting Itakpe through Ajaokuta to the port at Warri over a total route length of 328km. The route will be designed to operate up to 150km/h with the initial intention of linking iron ore mines to Warri port.

With the economic growth being witnessed in Nigeria and the need also to encourage a modal shift of freight from road to rail the success of this line assumes great importance. The demands of 167 million people and the now largest economy in Africa must be addressed quickly and effectively.

Conclusions

The selection by these 3 countries for ERTMS in various levels of capability is clear evidence that the tested and stable ERTMS technology with inherently very high levels of safety is the most obvious technological choice for Infrastructure Managers and Railway Undertakings. The offer of a migration growth path to the railway companies and an open and competitive supply market situation adds to the attraction of ERTMS.

As has been seen in other countries the potential of introducing ERTMS will provide opportunities for system expansion and capacity growth coping with mixed traffic scenarios but also offering solutions linked to the operator's available financial resources – but always with safety in mind.

Sub-Saharan Africa is on the verge of an explosion of rail growth and revival with ERTMS technology leading the way – as no other signalling solution can. Other countries can be expected to follow.



SUPPLIERS

ALSTOM



AnsaldoSTS



PRAHA

BOMBARDIER

CAF

MERMEC

SIEMENS

THALES