



BRI Pulse

Europe's first 5G Rail Port

In early October, the Hungarian subsidiaries of Huawei (China) and Vodafone (UK) signed an East-West Gate Station cooperation agreement with East-West Logistics Company (Hungary). The hardware for development will be provided by Huawei while the platform and network support will be provided by Vodafone Hungary. The two parties have been studying this possible 5G collaboration for the past two years.

The East-West Gate (EWG) Intermodal Combi Terminal project covers 85 hectares in Fenieshlitke, in northeast Hungary. Once completed, it will become Europe's largest intelligent multimodal railway hub and the first railway port to use a 5G private network for internal communication as well technical equipment networking management.

This is the example of Huawei using 5G technology in Europe to upgrade the traditional railway logistics industry and realize remote control of gantry cranes through 5G technology. With 5G technology's high-speed, low-latency, and large-capacity technical advantages, staff can work remotely by sitting in a central control room with the help of 5G back-transmitted high-definition video. Not only is the working environment improved, but so is the work efficiency. Once it is operational, scheduled for Q1 2022, it is designed to handle 1 million standard containers per year.

The Hungarian federal government is paying particular attention to commercial options based mostly on 5G expertise, with a near term focus on logistics. "We hope that within the close future, Hungary will use essentially the most superior digital expertise for extra revolutionary developments, thereby additionally enhancing home competitiveness. For this reason, the federal government is an associate of any high-tech firm that develops, companies, or functions that assist strengthen the home economic system," stated Dr. Károly Balázs Solymár, Deputy Secretary of State for Digitization. The Government believes that the East-West Gate will totally change into a railway logistics hub within the twenty first century. It is going to be the primary terminal in Europe to make use of its personal 5G community for inner communication and to drive its technical functions.

The CEO of East-West Intermodal Logistics said that with the construction of east-west gates, Hungary will return to the international railway logistics landscape and will once again have the opportunity to actively participate in the rail freight business between Asia and Europe.

From the Chinese perspective, while the use of 5G in railways and/or ports might be new in Europe, it has already been in use in China for some time – albeit at the passenger rail level. Shanghai Hongqiao Railway Station, which handles over 60 million customers/year, became the world's first 5G railway station in 2019 with technology provided by Huawei. In early 2020, the Guangzhou-Shenzhen-Hong Kong Express Rail Link, a line that stretches 141 kilometers and serves seven stations, became China's first high-speed railway with full 5G wireless coverage.

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AI/5G is still in the planning stages at the freight level. China State Railway is planning to accelerate the development of a high-speed freight network in the hope of bolstering the e-commerce network.

In August 2020, a 15-year development plan was published which also included plans to further expand the passenger network and build an advanced control system that will integrate home-grown technologies such as 5G telecommunications, the Beidou satellite navigation system (the Chinese equivalent of the USA's GPS system) and AI. China, already the world leader in the amount of HSR rail track, is keen to extend this leadership. In August 2020 the Ministry of Transport indicated that it would redouble its efforts to develop a network of maglev trains, which can reach speeds of up to 600km an hour (370 mph).

Increasing speeds is also a step in addressing China's gap in logistics with other major economies. China's cost of domestic freight transport is currently estimated to be around 15% of its GDP, almost double those of the USA, EU and Japan. It is commonly agreed that high logistical costs in China are one of key factors behind the relatively low usage of railway for cargo - a gap China is focussed on reducing.

In the interim, Eurasian countries which are actively looking at upgrades in rail freight via the use Huawei 5G technology can leap ahead of those countries still struggling with US opposition to this technology. In this regard, we expect near term 5G/AI rail launches in Greece, Bulgaria, Austria and Serbia to name just a few countries along the southern Eurasian rail route and Russia, Kazakhstan, Belarus and Ukraine along the northern Eurasian rail route.

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