

Technology leaders are testing the innovative FRMCS railway system

Alstom, Ericsson, NetWorks! and the Polish Railway Institute have officially confirmed their cooperation by signing a letter of intent regarding the implementation and testing of the Future Railway Mobile Communication System (FRMCS) in Poland.

FRMCS is an advanced communications standard meant to replace the currently used GSM-R system. Its main goal is to increase the capacity of the existing railway networks and optimise their costs of operation. It has been designed by the International Union of Railways (UIC), in cooperation with key representatives of the railway sector, and represents an important step towards a full digitalisation of rail transport.

As part of the newly announced cooperation, the signatories of the Letter of Intent will engage in joint research and development projects, verify requirements and solutions in actual railway conditions, i.e. on a full-size track, and create and develop training models and certifications for the FRMCS system.

Based on the Letter of Intent:

- Alstom will provide a modern control subsystem for vehicles.
- Ericsson will provide a radio telecommunications network for the FRMCS pilot implementation.
- NetWorkS! will provide competences in telecommunications solutions for the railway sector, as well as the construction and maintenance of the FRMCS test network.
- The Polish Railway Institute will provide the necessary research infrastructure where the FRMCS system will be tested.

"The digitisation of the Polish railway sector is a significant challenge facing all market participants, including rolling stock and technology suppliers and research institutions. As the Polish Railway Institute, we wish to use our many years of experience, unique know-how and access to infrastructure to ensure that the process of testing, certifying and implementing FRMCS on Polish tracks goes as smoothly and quickly as possible. We are happy to cooperate in this area with distinguished partners whose experience will be of great value in the development of new FRMCS tools in Poland," declared Andrzej Massel, the Head of the Polish Railway Institute.

"At Alstom, we work every day to make mobility smart and sustainable, both when it comes to rolling stock and signalling solutions. The new FRMCS standard is necessary due to the need for further digitisation, unification at the international level and increasing the safety and capacity of the railway network. We are glad that Alstom's FRMCS product development and experience gained over the years, in various conditions around the world, combined with the expertise of our Polish team will contribute to the development of safe solutions for Polish railways," commented Sławomir Cyza, the Managing Director of Alstom in Poland, Ukraine and Baltic States.

"Critical networks are becoming increasingly important across all industrial sectors, especially in the railway industry where they deliver the expected levels of safety, reliability and performance. Ericsson is pleased to be a partner in the Polish FRMCS pilot and, through its experience, to demonstrate and test 5G networks in applications specific to infrastructure and rolling stock," said Martin Mellor, the CEO of Ericsson in Poland.

Maciej Zengel, the CEO of NetWorkS!, commented on his company's decision: "NetWorkS! specialises in planning, building and maintaining wireless networks in Poland. Our participation in the FRMCS project is a natural step towards expanding our activities. We are proud to co-create the future of rail transport in our country."

About the signatories of the Letter of Intent

• mobility by nature •

The Polish Railway Institute conducts scientific and R&D activities for the railway transport in such fields, as railroads, power supply systems and devices, traffic and driving control, as well as communication systems. The Institute is involved in the processes of defining requirements as a part of legislative and standardisation work. It evaluates technical solutions for railroads, power, control and communication systems, as well as railway vehicles. It operates a testing track that can be used not only to verify new wireless communication solutions in actual railway conditions, but also to solve the challenges of migration to FRMCS, e.g. in terms of interference between various communication systems.

Alstom commits to contribute to a low carbon future by developing and promoting innovative and sustainable transportation solutions that people enjoy riding. From high-speed trains, metros, monorails, trams, to turnkey systems, services, infrastructure, signalling and digital mobility, Alstom offers its diverse customers the broadest portfolio in the industry.

Ericsson enables communications service providers to realize a full potential of connectivity. The company's portfolio includes various business areas: networks, software and cloud services, wireless solutions for enterprises, as well as technologies and new business models. The goal is to help clients in the areas of digitalization, increase efficiency and find new sources of income. Ericsson's investment in innovation brings mobility and mobile broadband benefits to billions of people around the world. Ericsson's shares are listed on the Stockholm and New York Nasdaq stock exchanges.

NetWorkS! specialises in planning, building, maintaining and operating telecommunications networks and their infrastructure. As the largest provider of radio access network (RAN) solutions in Poland, it implements prestigious projects for the leading telecommunications operators, contributing to the construction of highly effective mobile networks. It has enormous competences, resources and trusted suppliers, which – combined with the latest technologies and outstanding specialists – makes it a company with unrivalled potential in the telecommunications industry in Poland.



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For more information, please visit www.alstom.com

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