



High Speed Railway Development in Poland

WAWRZYNIEC WYCHOWAŃSKI, BENG. PHD.

POLISH ASSOCIATION FOR TRANSPORT ENGINEERS & TECHNICIANS
NATIONAL BOARD, GENERAL SECRETARY

Union Europäischer Eisenbahn-Ingenieur-Verbände
Union of European Railway Engineer Associations
Union des Associations Européennes des Ing. Ferroviaires





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of the European Railway
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...a platform for knowledge exchange
and transfer
to Railway Engineers

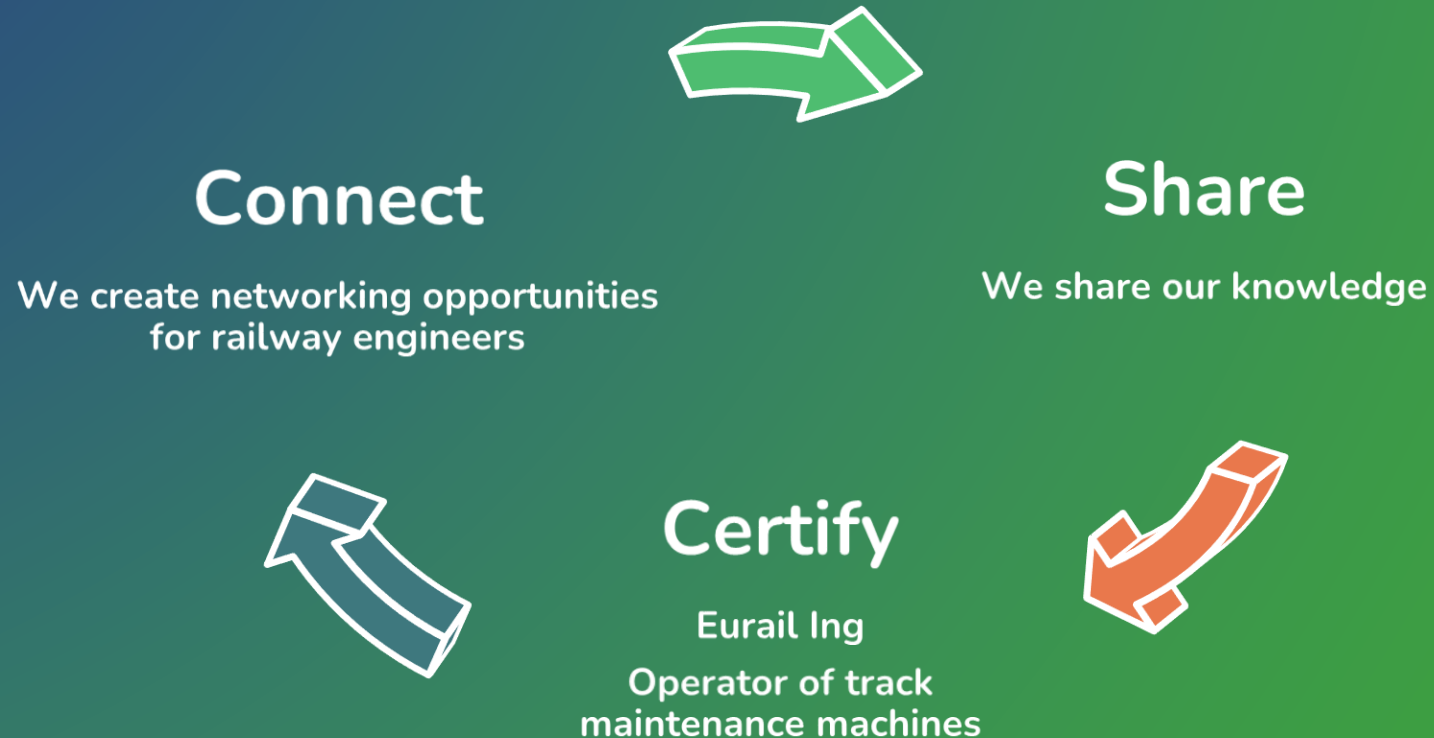


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We certify European Railway Engineers & Operators of Track Maintenance Machines



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Der Präsident / Le Président / The President

verleiht auf der Basis EN 45013 das Zertifikat
décerne conformément à la norme EN 45013 le certificat
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★ ★ ★

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Frankfurt a. M., 08.04.2000

Präsident / Président / President

Leiter des Lenkungsremiums
Responsable du groupe de direction
Head of the steering committee

Urkunden-Nr. / Certificat N° / Certificate N°: D 000/99

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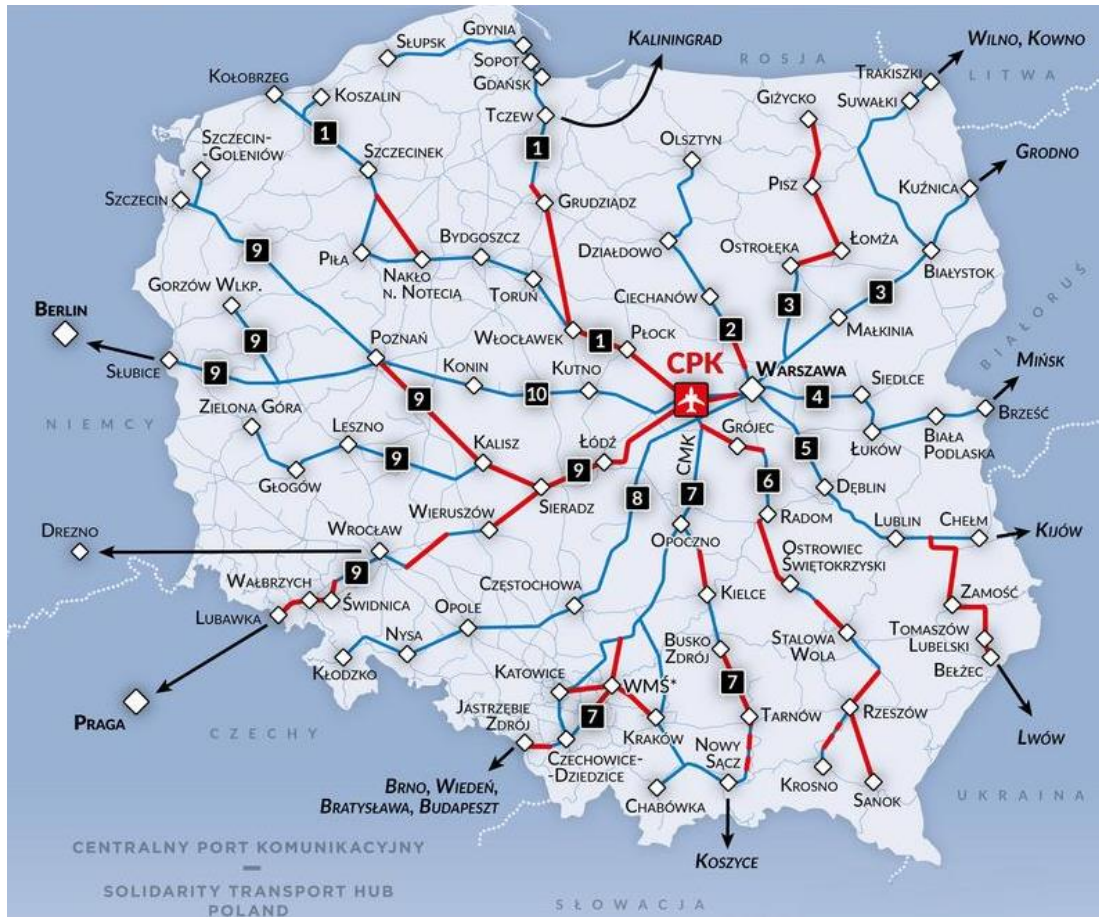
SITK-RP National Board



Polish Association of Transport Engineers & Technicians (SITK) - a scientific and technical organization associating engineers and technicians specializing in road and rail transport.



High-Speed Rail Program (1)



Completion of the HSR program is one of the biggest ongoing engineering projects in Central Europe.

The HSR Program consists of a total of 12 railway routes. In total, there are 30 investment tasks and 1,981 km of new railway lines, the investor of which is CPK.

The entire program will be implemented in the years 2020-2034.



High-Speed Rail Program (2)



The planned Warsaw – Łódź – Sieradz – Wrocław / Poznań "Y" line is part of the Trans-European Transport Network TEN-T.

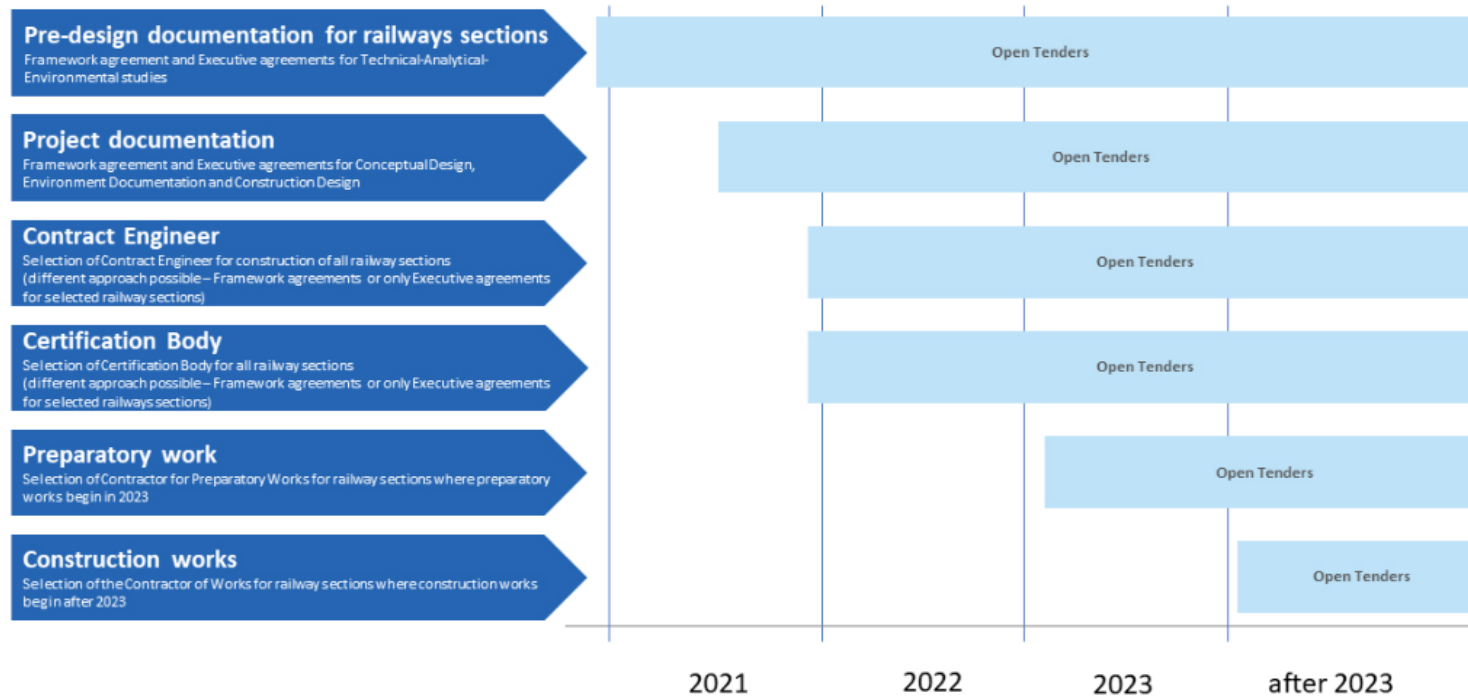
In 2021, the CPK company obtained over 108 million PLN in subsidies for the construction of the CPK tunnel project in Łódź and feasibility studies for the sections: Warszawa - Łódź, the CPK junction and Sieradz - Poznań.



High-Speed Rail Program (3)



Tentative schedule of CPK tender procedures - railways



- Designed speed of up to **350 km/h**.
- Operational speed of **≥250 km/h**.
- **25kV 50Hz AC** electrification of the core HSR network.
- **Full interoperability** and compliance with all modern EU rail traffic control standards.
- **Full connectivity** with the existing railway system.



Study Phase - Framework



The contract, which was signed by the company and a group of contractors, is a framework agreement for the so-called STES-Extended.

Among the selected entities, there are 8 (13 companies in total) consortia associating the best design companies.

This formula consists in covering several elements of preparatory work with one order: natural inventory, technical, economic and environmental study, program and spatial concept and decision on environmental conditions.

Thanks to the conclusion of the framework agreement, it is possible to significantly accelerate the work on the selection of contractors by carrying out individual partial orders. The entire contract amounts to ~1.2 bilion PLN



Design Phase - Framework



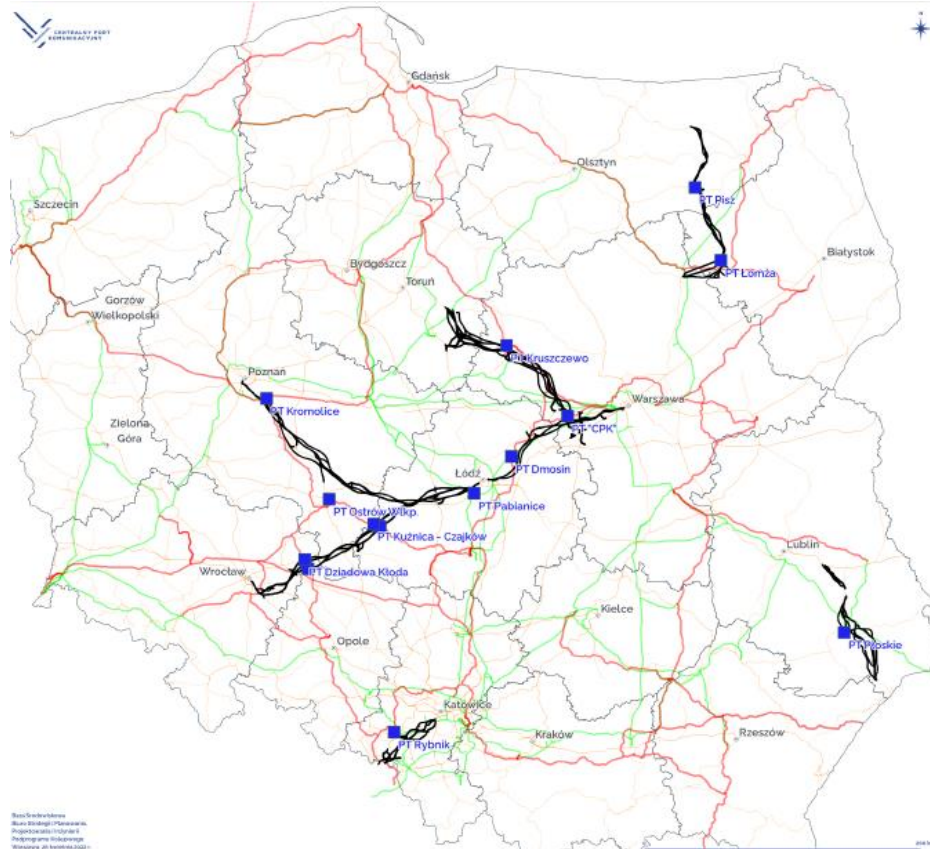
In tender, CPK selected companies to which will be able to commission design tasks in a simplified procedure of executive proceedings for 8 years.

Among the selected entities, there are 11 consortia associating the best design companies (27 companies in total) from Poland, Spain, France, Germany and Korea.

The estimated net value of all orders is over 7 billion PLN. It is currently the largest framework contract in Europe for this type of work.



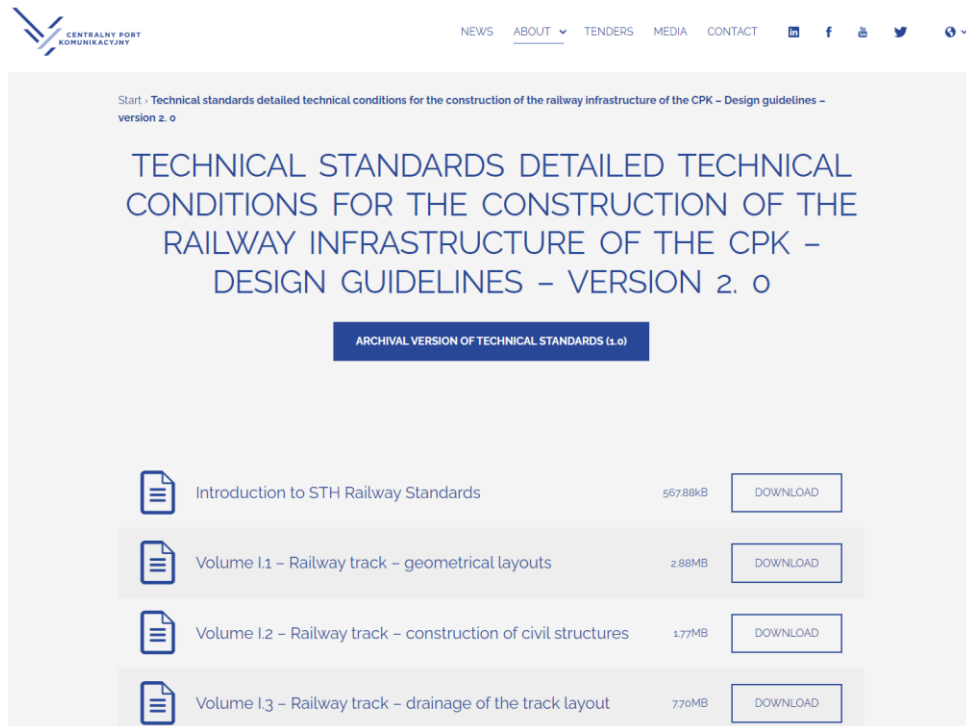
Traction power supply for HSR - 2x25kV



- Design concepts of the substation along with the connection:
 - with the power station from which PT is supplied,
 - with a railway line (cable).
- Submitting applications for connection, leading to the conclusion of connection agreements.
- Development of tender materials, including FUP) for the implementation of construction works in the "Design and Build" mode.
- **The subject of the order covers 13 Traction Substations of the 2x25 kV system, along with the connection to the National Power System and the railway line, with 7 Substations generally covered by the Basic Order.**



HSR Standards







Start - Technical standards detailed technical conditions for the construction of the railway infrastructure of the CPK – Design guidelines – version 2.0

NEWS ABOUT TENDERS MEDIA CONTACT

TECHNICAL STANDARDS DETAILED TECHNICAL CONDITIONS FOR THE CONSTRUCTION OF THE RAILWAY INFRASTRUCTURE OF THE CPK – DESIGN GUIDELINES – VERSION 2.0

ARCHIVAL VERSION OF TECHNICAL STANDARDS (1.0)

	Introduction to STH Railway Standards	567,88kB	DOWNLOAD
	Volume I.1 – Railway track – geometrical layouts	2,88MB	DOWNLOAD
	Volume I.2 – Railway track – construction of civil structures	1,77MB	DOWNLOAD
	Volume I.3 – Railway track – drainage of the track layout	770MB	DOWNLOAD

CPK in cooperation with the Railway Research Institute developed Technical Standards Detailed Technical Conditions for The Construction of the Railway Infrastructure of the CPK

The standards are available at:

<https://www.cpk.pl/en/sth-railway-standards>



Source: www.cpk.pl

Rolling stock for HSR



10 companies take part in preliminary market consultations for rolling stock manufacturers, conducted by the CPK company.

The objective of the initial market consultations for rolling stock manufacturers is to obtain information necessary to announce - if only a decision is made - the procedure for the purchase of rolling stock to service the CPK by the entity selected for this task.

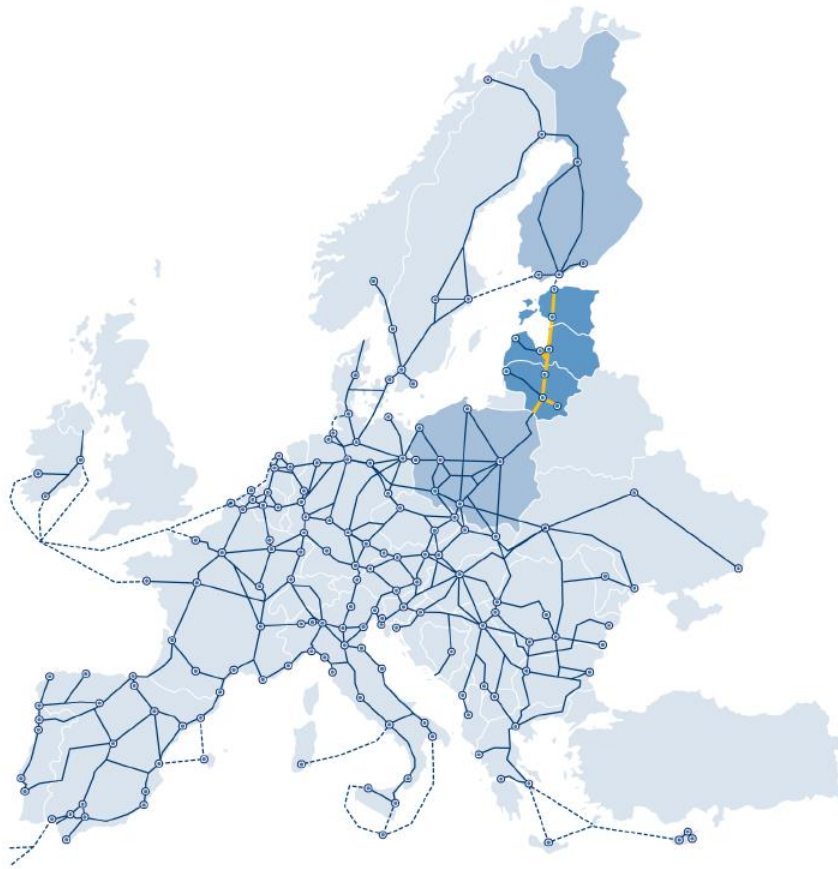


Budowa tunelu dalekobieżnego w Łodzi w ciągu linii kolejowej nr 85 wraz z włączeniem w linię kolejową nr 14

Portal tunelu od strony toru nr 3

Source: Biuro Projektów „Metroprojekt” sp. z o.o.

Rail Baltica railway line

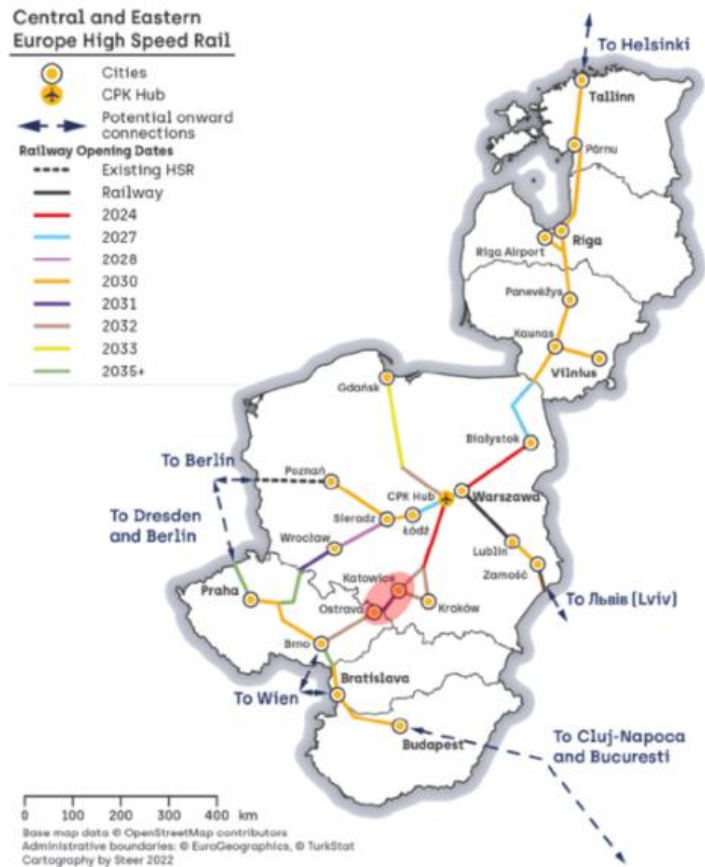


Rail Baltica is part of the trans-European corridor that will connect Germany, Poland, Lithuania, Latvia, Estonia and, in the future, Finland.



Source: www.railbaltica.org

The Three Seas Initiative



Almost 4,500 km of High Speed Rail lines are planned in the Three Seas countries. Thanks to joint investments, for example, the connection Tallinn - Warsaw - Katowice - Budapest (1700 km) and Tallinn - Warsaw - Wrocław - Praga (1500 km, including 400 km No. 9 of the CPK) will be created.

Rail Baltica cross-border corridor should be built in Estonia, Latvia and Lithuania by 2030, from Tallinn through Riga and Kaunas (with a branch to Vilnius) to the Polish border, and its first sections will be launched from 2027.

A section of the V4 high-speed line between Prague, Brno, Bratislava and Budapest will also be built at that time. In the following years, further sections from Poland will be added to the V4 line: Katowice - Ostrava and Malopolska-Silesian Junction.





Thank you for your attention!

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