

Bydgoszcz before the revision of the TEN-T network Technical conditions of the infrastructure passing through Bydgoszcz Logistic Node in view of the Regulation 1315/2013 of the European Parliament and of the Council

Introduction

The European Parliament adopted Regulation 1315/2013 on 11 December 2013, with a plan to revise the regulation in 2023. For nearly 8 years, a lot has changed when it comes to the infrastructure running through the Bydgoszcz Logistics Junction (using the nomenclature from the Strategy for the Development of the Kuyavian-Pomeranian Voivodeship until 2030), but also in the vision of the Bydgoszcz node itself. Looking at the provisions of the Voivodeship Development Strategy adopted in 2013, which was valid until the end of 2020, there was no concrete vision of a logistic hub that could function before 2030 (implementation framework according to Regulation 1315/2013 of the TEN-T core network). Only in recent years the concept of a terminal in Emilianów appeared, where it was even assumed the readiness of transshipments at 80 TEU in 2026. This infrastructure already plays an important role in the new Strategy for the Strategy of Voivodeship Development of December 2020.

Recent years have also seen a number of state investments, largely funded by the European Union, which are changing the status of key infrastructure from the point of view of the Bydgoszcz Logistics Junction.

Relevant concepts

TEN-T core network - "The core network should constitute the basis for the development of a sustainable multimodal transport network and stimulate the development of the entire comprehensive network" - quoting from regulation 1315/2013. The core network is, simply terms, a development priority that should be implemented by 2030.

TEN-T comprehensive network - The comprehensive network is to be implemented by 2050. It therefore cover tasks with a lower priority than the core network.

ERTMS - European Rail Traffic Management System. Unified traffic control system for the entire EU.

1. Current Regulation 1315

a) Multimodal junction

In Annex II of Regulation 1315/2013 Bydgoszcz is indicated as a node of the comprehensive TEN-T network: road-rail and air (CARGO).

	Core network	Comprehensive network	None
Road-railway		X	
Seaport			X
Inland port			Х
Cargo lotnicze		Х	

b) TEN-T core network infrastructure in the node route

Railway line no 131

c) Infrastructure of the TEN-T comprehensive network in the course of the junction

Railway line no 201 Route Gdynia – Leg – Bydgoszcz – Emilianowo terminal – Nowa Wieś Wielka

S-5 expressway

Route Nowe Marzy (A1 motorway junction) - Bydgoszcz - Poznań - Wrocław

S-10 expressway

Route Szczecin - Wałcz - Piła - Bydgoszcz - Toruń - Warsaw (conceptual work is still in progress for the section from Toruń to the east, the preferred option assumes a common route with the A1 motorway between Toruń and Włocławek and further east of Włocławek)

d) Infrastructure outside the TEN-T network - important for the Bydgoszcz node

Railway line no. 18 and 203 - route to Gorzów Wielkopolski and Szczecin

Waterway E-40 Between Gdańsk and Bydgoszcz

2. Situation two years before the revision

a) Węzeł multimodalny – Węzeł Logistyczny Bydgoszcz

Two elements have the most important influence on the rank of a node in the context of EU regulations - the amount of reloading and the rank of the infrastructure running through the node.

Article 27 of Regulation 1315/2013 provides that the TEN-T terminal should handle 800,000 tonnes per year. While Bydgoszcz, looking from the perspective of 2013, planned to reach this goal by 2050, today we have a plan to launch the first stage of the terminal in Emilianów by 2026, with the capacity of 80 thousand TEU, which allows to transship even 1.6 million tons per year. The development of the terminal is planned in several stages, so even before 2030 the transshipments may be even greater, while the requirement of Regulation 1315/2013 will be fulfilled several times over.

b) Railway line 201

In December 2013, when the TEN-T regulation was adopted, railway line 201 did not fulfil three important requirements for the TEN-T network:

- full electrification

- a speed for freight trains of at least 100 km/h
- the implementation of ERMTS

In connection with the project called "Works on the alternative transport route Bydgoszcz - Tri-

City", which has been implemented since 2016, the aim of which is to adapt the infrastructure on the section Maksymilianowo - Gdańsk Osowa to the double-track standard and speed for goods trains of 120 km/h., this project assumes the electrification of the section, the investments also include the adaptation of the station to handle trains with a length of 750 meters (the EU requirement is 740 m.). The tasks should be completed by 2025.

However, there are currently no plans to implement ERMTS on the entire section. In the National Plan for Implementation of the Technical Interoperability Specification "Control" adopted in 2016, only two sections of line no. 201 are planned to be implemented before 2030:

- Nowa Wieś Wielka Maksymilianowo (Bydgoszcz section)
- Gdynia Główna Gdynia Port

Changing these assumptions may prove to be crucial in seeking TEN-T core network line status.

PKP PLK recommends to the Polish government to submit line no. 201 for revision to the core network.

b) S-5 expressway

Looking from the perspective of December 2013, in the case of the S-5 expressway in the Kujawsko-Pomorskie voivodeship not even the first shovel had been driven in. As for today, some sections have already been completed, while according to the current schedule, the last section Nowe Marzy - Dworzyskowo is to be commissioned at the end of August 2023. Regulation 1315/2013 requires road elements of the TEN-T network to establish service points for travellers and the availability of alternative fuels every 100 km. Expressway traffic must also be separated from rail traffic. It seems that Polish standards of construction of this type of infrastructure meet this requirement.

The inclusion of the S-5 expressway in the TEN-T network seems important in view of its international potential, whether towards the Czech Republic, Germany or, in the future, the Baltic countries.

c) S-10 expressway

From the logistic point of view, this road will be important for Bydgoszcz due to the location of one of the planned junctions at the terminal in Emilianowo. The section Emilianowo - Toruń/A1 Motorway and Emilianowo - Szczecin are also important due to the possibility of cooperation between the terminal and sea ports in Szczecin and Świnoujście. The Bydgoszcz - Torun section is planned to be completed by the end of May 2025, while Bydgoszcz - Szczecin in 2028.

d) Bydgoszcz - Pila - Krzyz railway line

This route, which enables ports in Szczecin and Świnoujście to be served by the Bydgoszcz Logistic Node, is not included in the TEN-T network. In recent years, a study was prepared on behalf of PKP PLK for "Works on railway lines 18, 203 on the section Bydgoszcz-Piła-Krzyż-Gorzów Wlkp.-Kostrzyn". The variant selected for implementation assumes a freight train speed of 120 km/h between Bydgoszcz and Piła and electrification of the Piła - Krzyż section, where the lack of electrification complicated logistics.

As of today, however, there is no set deadline for the implementation of the above investment measures. This intention is included in the perspective of PKP PLK investments until 2040.

However, in the document on the implementation of ERMTS - the National Plan for Implementation of Technical Specification for Interoperability "Control" - both line no. 18 on the Bydgoszcz - Piła section and line 203 from Piła through Krzyż to Gorzów Wielkopolski are not included in the perspective to 2050.

e) E-40 waterway

The E40 waterway is currently not part of the TEN-T network. The key requirement of Regulation 1315/2013 is the status of Class IV navigability and the implementation of the RIS information system. The E40 waterway, currently, exceeds the Class IV parameter only between Plock and Włocławek (Class Va). In the section from the Baltic Sea to Tczew it is 3rd class, further on in the section to the area of the Aleksandrów district it is 2nd class (approx. 190 km section), then the section to the barrier in Włocławek it is only status Ib.

Preliminary estimates indicate that in order to achieve Class V navigability (Baltic - Warsaw section) construction of 9 new water stages would be necessary. The exact answer to this question is to be provided by the commissioned study entitled "Feasibility study for comprehensive development of international waterways: E-40 for the Vistula River on the section from Gdańsk to Warsaw, E-40 from Warsaw to the Polish-Belarusian border (Brest) and E-70 on the section from the Vistula River to the Vistula Lagoon (Elbląg)", which has not been developed yet. Practice shows that achieving this goal by 2050 may be difficult.

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