THE POLISH RAILWAY MARKET

2020/2021

Kingdom of the Netherlands

Prepared by: Jana Pieriegud, PhD

Commissioned by: Economic and Commercial Department
Embassy of the Kingdom of the Netherlands in Poland

ul. Kawalerii 10, 00-468 Warsaw
e-mail: war-ea@minbuza.nl

Warsaw, August 2021

Front cover photo: Adam Kupniewski

CONTENTS

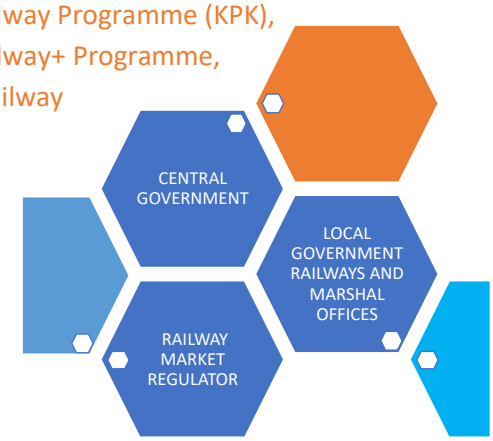
LIST OF ACRONYMS AND ABBREVIATIONS

CEE	Central and Eastern Europe
CEF	Connecting Europe Facility
CF	Cohesion Fund
CPK	The Solidarity Transport Hub – Central Communication Port
CUPT	Centre for EU Transport Projects
DMU	Diesel Multiple Unit
EC	The European Communities
EFICE	European Funds for Infrastructure, Climate and Environment Programme
ERDF	European Regional Development Fund
ETCS	European Train Control System
ERA	European Railway Agency
ERTMS	European Rail Traffic Management System
EU	The European Union
EMU	Electric Multiple Unit
JTF	Just Transition Fund
HMU	Hybrid Multiple Unit
HSR	High-Speed Rail
GSM-R	Global System for Mobile Communications – Railway
GZM	Upper Silesian and Zagłębie Metropolis
KPK	National Railway Programme
KPO	National Recovery Plan
MFF	Multi-annual Financial Framework
NIK	Supreme Audit Office
OPI&E	Infrastructure and Environment Operational Programme
OPEP	Operational Programme Eastern Poland
PSC	Public Service Contract
PKP LHS	PKP Linia Hutnicza Szerokotorowa Sp. z o.o.
PKP PLK	PKP Polskie Linie Kolejowe S.A.
ROP	Regional Operational Programme
ROSCO	Rolling Stock Pool Entity
RRF	Recovery and Resilience Facility
TEN-T	Trans-European Transport Network
TEU	Twenty-foot Equivalent Unit
tkm	tonne-kilometre
TSI	Technical Specification for Interoperability
Tri-city	Gdynia – Gdańsk – Sopot
UOKiK	Office of Competition and Consumer Protection
UTK	Office for Railway Transport

EXECUTIVE SUMMARY

The Polish railway market is one of the largest in the European Union with the various stakeholder groups:

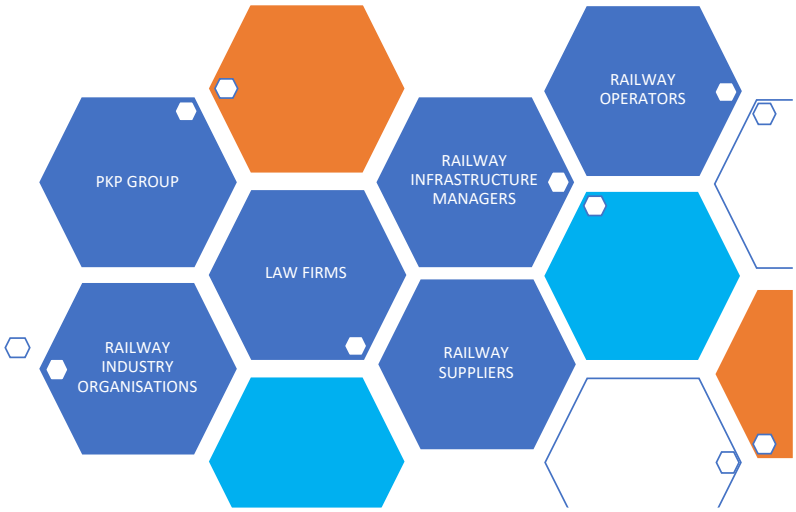
- The central administration makes strategic decisions about the scope and amount of investment in the public railway infrastructure with the involvement of: Ministry of Infrastructure, Ministry of Economic Development and Technology, Ministry of Finance, and Ministry of Funds and Regional Policy. The lists of key projects are defined in the government programmes adopted by the Council of Ministers: The National Railway Programme (KPK), The Railway Station Investments Programme, The Railway+ Programme, The Programme for the Construction/Upgrading of Railway Stops.



- In the current structure of public administration, Minister of Infrastructure is responsible for the national public transport, 16 regional authorities (voivodeship marshals) organise public transport at the regional level, and county and local authorities (city mayors) – local public transport.
- The Office of Rail Transport (UTK) regulates, licenses and monitors the Polish railway market. In August 2021, 123 railway undertakings held a valid licence to operate in Poland.
- In passenger transport, 16 out of 30 carriers operated scheduled rail services in 2020. The two largest rail passenger carriers – PKP Intercity and POLREGIO – operate country-wide. While PKP Intercity specializes in commercial long-distance transport, POLREGIO conducts low-cost inter-regional trains as well as regional trains within the voivodeships (with the exception of Masovia and Silesia regions). In six voivodeships there are also trains of other regional passenger carriers.
- In freight transport, 71 out of 111 licensed railway operators performed services in 2020. The main freight operators were: PKP Cargo, Lotos Kolej, DB Cargo Polska, PKP LHS, CTL Logistics, and Freightliner. Additionally, in the segment of intermodal transport, other players with a significant market position included: PCC Intermodal, Captrain Polska, Ecco Rail, Metrans (Polonia), LTE Polska.
- The PKP Group is a capital group operating since 2001 after restructuring of the Polish State Railways. It remains the biggest player on the market.

- PKP Polskie Linie Kolejowe S.A. (PKP PLK) is responsible for the management of the national railway infrastructure providing access to licensed operators. PKP PLK is a key decision maker in the settlement of tenders for the upgrading railway infrastructure in Poland. Around one hundred contractors actively seek contracts for the upgrade of railway infrastructure. BUDIMEX, TRAKCJA, ZUE and TORPOL groups are the leaders of the Polish railway construction market.

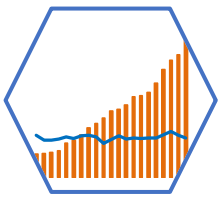
- The railway industry in Poland has a long tradition and covers all main segments: rolling stock, rail track components, train control-command and signalling systems. Both global (Alstom, Siemens, Stadler, Thales, TINES, Vossloh) and local players are located here. The two largest Polish manufacturers of rolling stock – PESA and NEWAG – hold a strong market position.



- Domestic as well as international law firms provide legal services to companies from the railway industry. The largest entities (such as DZP, JDP, CMS) usually serve large infrastructure projects, financing, as well as restructuring companies and acquisition processes. Medium and small entities specialise in serving operating activities (licensing, safety authorisations, certificates, access charges).

- Railway industry organizations and associations play an important role in promoting the development of rail transport, making recommendations to the public administration as well as representing the interests of railway sector. The most active and influential are Land Transport Chamber of Commerce (IGTL) and Railway Business Forum (RBF).

The three most important traffic trends in the Polish rail transport between 2010 and 2020 were:

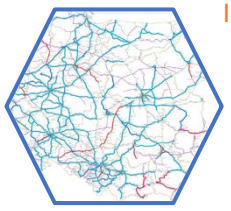


- a decline in volumes and in the share of rail freight in modal split (from 19% in 2010 to 10% in 2020);
- a significant growth in volume of rail container transport, reaching 2.7 million TEU in 2020;
- an increase in rail passenger transport (from 269 million in 2014 to 336 million passengers in 2019), interrupted during the COVID pandemic in 2020.

These trends are likely to continue in the coming years.

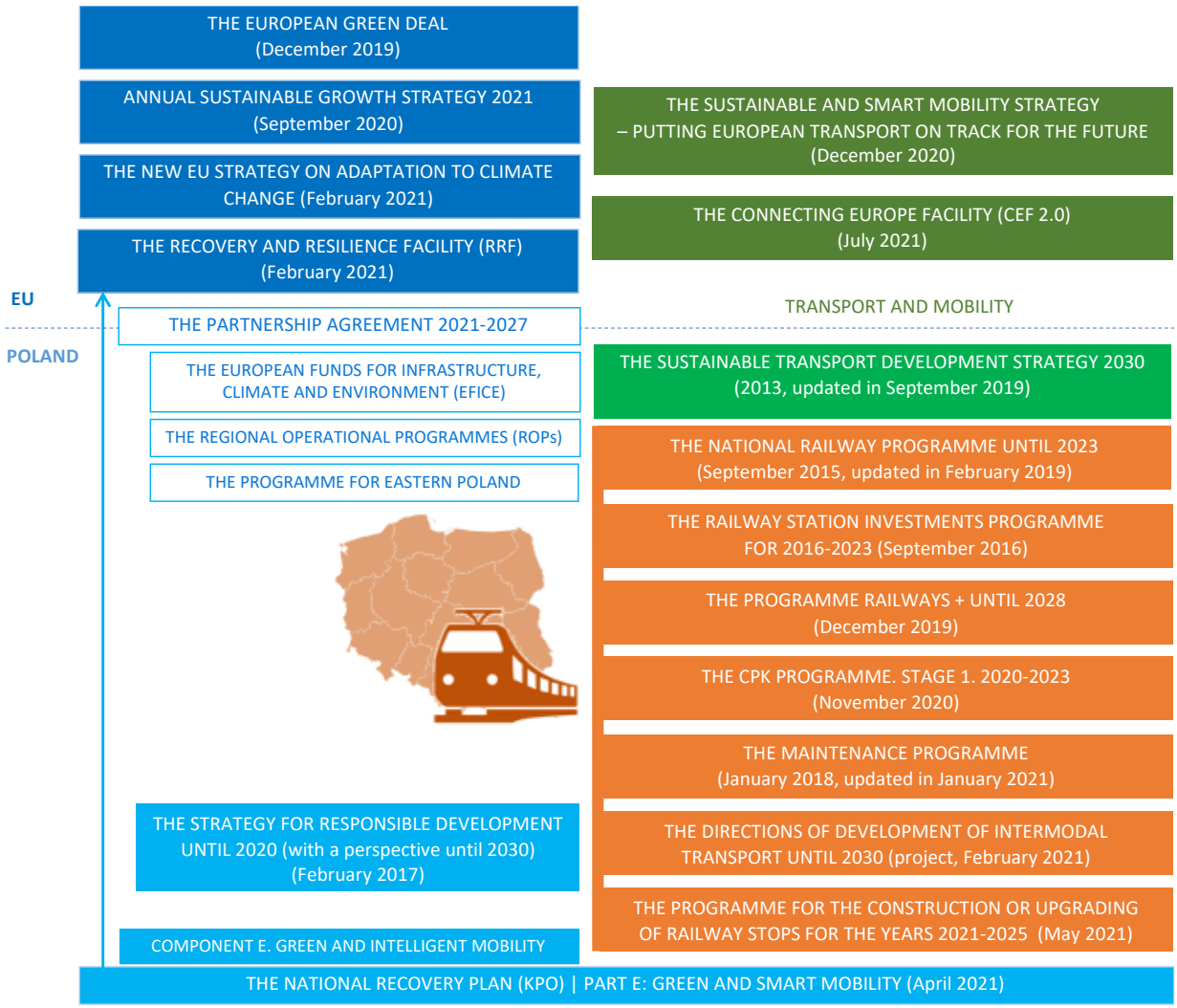
Investments in railway infrastructure in Poland increased significantly from EUR 0.5 billion in 2010 to EUR 2.4 billion in 2020. The National Railway Programme is the largest initiative for the development of railway infrastructure in Poland to date. It includes about 230 projects (9,000 km of tracks), which are co-funded by the EU from the Multi-annual Financial Framework 2014–2020. The Ministry of Funds and Regional Policy is the managing authority of the EU funds implementation process. The governmental Centre for EU Transport Projects (CUPT) supports

beneficiaries in the preparation and implementation of investment projects and ensures the rational and effective utilization of the EU funds.



In the years 2021–2027, the total value of investments in Polish rail transport is roughly estimated at EUR 16 billion. The railway projects will be co-funded by the Recovery and Resilience Facility (RRF)/the National Recovery Plan (KPO) and the Cohesion Fund (CF), including the European Funds for Infrastructure, Climate and Environment Programme (EFICE) and Regional Operational Programmes (ROPs). Railway infrastructure upgrading along the TEN-T Core Network Corridors and Railway Freight Corridors (RFC5 Baltic – Adriatic Corridor; RFC8 North Sea – Baltic Corridor, and RFC11 Amber Corridor) will be also supported by the Connecting Europe Facility (CEF 2.0). The recent initiative of a greenfield project of a new central Polish airport, the so-called Solidarity Transport Hub or CPK, will have a major significance for the long-term prospects for the railway construction industry in Poland.

THE STRATEGIC FRAMEWORK FOR THE DEVELOPMENT OF RAIL TRANSPORT IN POLAND BY 2027



A SWOT analysis confirms that Poland is a significant market for foreign railway-industry investors because of its large demand for rail track components, train control and signalling systems, as well as passenger and freight rolling stock. Importantly, Poland's economy forecasts are favourable. Regional and local authorities declare demand for rail investments. A large proportion of the existing railway lines and stations still need upgrading. This is reflected in governmental multi-annual development programmes, including significant investments in new high-speed railway lines as a part the CPK Programme. The cost of its railway component is estimated at ca. EUR 10 billion for the years 2024–2027. It will also generate demand for a new rolling stock.

The entire envisaged investment in railway infrastructure totalling about EUR 14.3 billion, in passenger rolling stock – EUR 1.1 billion, and in freight locomotives and wagons – EUR 550 million presents major opportunities for prospective tender participants. Additional demand for passenger rolling stock worth approximately EUR 2.5 billion has not been secured financially. Masovia and the Lesser Poland Voivodeships declare the highest demand. Regional authorities and passenger railway operators are particularly interested in hybrid and hydrogen-powered multiple units, and double-decker units for push-pull trains. Freight operators intend to purchase electric locomotives equipped with on-board European Train Control System (ETCS), and intermodal platforms.

However, tender participants are likely to face instability of public procurement on the railway market, and bureaucracy resulting in extended tender time frameworks, also caused by an insufficient cooperation between local and central authorities. Regions purchase rolling stock of various classes and types, and the locally-based manufacturers of rolling stock as well as infrastructure components and signalling systems hold an important market position. Additionally, potential and unpredictable amendments to national policies create risks, for example, the implementation of the largest domestic infrastructure programme, the CPK.

Consistent monitoring of national development programmes is necessary to prepare for upcoming announcements of tendering procedures. Local industry events (such as: the International Railway Fair TRAKO, the European Rolling Stock Forum, and the RailFreight Summit Poland) provide multiple opportunities to keep up to date with the present challenges of the Polish market.

1. THE INSTITUTIONAL AND LEGISLATIVE FRAMEWORKS OF RAIL TRANSPORT IN POLAND

1.1. The central and local government administration

The institutional framework of the Polish railway market results from the system of government of the Republic of Poland (legislative, executive and judicial powers) as well as the model of railway transport transformation adopted in 2001.

Legislative power is vested in the *Sejm* (the lower chamber of the Polish Parliament) and the *Senat* (the upper chamber), executive power – in the President of the Republic of Poland and the **Council of Ministers** (*Rada Ministrów*), and judicial power is exercised by a hierarchy of courts and tribunals. As of 15 August 2021, there were **15 ministries** in Poland. In addition, the status similar to a ministry has the **Chancellery of the Prime Minister** (*Kancelaria Prezesa Rady Ministrów*). Each ministry is headed by a governmental minister nominated by the Prime Minister.

The Council of Ministers/ Prime Minister

15 ministries

The Chancellery of the Prime Minister

The voivode is responsible for the implementation of the policy of the Council of Ministers in the voivodeship. The voivode's duties include the supervision of the government administration in the region and county and the supervision of local self-government units with regard to legality.

The activities of government administration bodies are controlled by The Supreme Audit Office (*Najwyższa Izba Kontroli* – NIK). Also, in order to enforce competition on the market, protect business entities exposed to monopolistic practices and protect consumer interests, the Office of Competition and Consumer Protection (*Urząd Ochrony Konkurencji i Konsumentów* – UOKiK) operates.

The **local government** organised at three tiers: **16 voivodeships (*województwo*), 314 counties (*powiat*) and 2,477 municipalities (*gmina*).** The executive bodies of the voivodeship, the county, and the region are, respectively:

- the voivodeship executive board (*zarząd województwa*) led by the marshal (*marszałek województwa*) who organizes the work of the board and the marshal's office and manages the current affairs of the voivodeship;
- the county executive board (*zarząd powiatu*) led by the *starosta*;
- the *wójt* (in case of rural municipalities), the mayor (*burmistrz*; in case of urban and urban-rural municipalities), or the president (*prezydent;* in case of urban municipalities above 100,000 inhabitants or urban municipalities led by a president before 1990).

Fig. 1.1. Administrative divisions of Poland (voivodeships and powiats)

Central administration is responsible for national public transport, regional authorities (the voivodeship level) – for public transport at the regional level, county authorities – for public transport in the *powiat*, and local authorities – for local public transport (in the *gmina*). Departments of communication and transport in marshal offices are responsible for planning, organizing and financing passenger rail transport within voivodeships. Additionally, these activities are supplemented by the metropolitan area authorities, such as Metropolis GZM in Silesia (*Górnośląsko-Zagłębiowska Metropolia* – GZM) and Gdańsk-Gdynia-Sopot (the so-called Tri-city) Metropolitan Area (*Obszar Metropolitalny Gdańsk Gdynia Sopot*).

1.2. Legal insights into the Polish railway market

The principal acts of law governing railway transport in Poland include:

- the Act of 28 March 2003 on railway transport (consolidated text: Journal of Laws 2020, item 1043);
- the Act of 16 November 2016, amending the Act on railway transport and certain other acts (Journal of Laws 2016, item 1923);
- the Act of 16 December 2010 on public transport (consolidated text: Journal of Laws 2019, item 2475);
- the Act of 30 August 2002 on the conformity assessment system (consolidated text: Journal of Laws 2019, item 155);
- the Act of 13 April 2016 on conformity assessment and market surveillance systems (consolidated text: Journal of Laws 2021, item 514);
- the Regulation of the Minister of Infrastructure and Development of 13 May 2014 on the admission to use of certain types of structures, devices and railway vehicles (consolidated text: Journal of Laws of 2020, item 1923).

The following **legal acts define technical specifications for interoperability of the railway system (TSIs) and safety requirements**:

- the Regulation of the Minister of Infrastructure and Construction of 21 April 2017 on the interoperability of the rail system (Journal of Laws of 2017, item 934);
- the Regulation of the Minister of Transport, Construction and Maritime Economy of 27 December 2012 on the list of relevant national technical specifications and standardization documents, the application of which enables meeting the essential requirements for the interoperability of the rail system (Journal of Laws of 2013, item 43);
- the Regulation of the Minister of Transport of 19 March 2007 on the safety management system in rail transport (consolidated text: Journal of Laws 2016, item 328);
- the Regulation of the Minister of Transport of 5 December 2006 on the requirements for obtaining a safety certificate (Journal of Laws of 2006, No. 230, item 1682);
- the Regulation of the Minister of Infrastructure and Development of 6 February 2015 amending the regulation on the requirements for obtaining a safety certificate (Journal of Laws of 2015, item 232);
- the Regulation of the Minister of Infrastructure and Development of 25 September 2015 on the conditions and procedure for issuing, extending, changing and withdrawing safety authorisations, safety certificates and safety attestations (Journal of Laws of 2015, item 1548);
- the Regulation of the Minister of Infrastructure of 12 October 2005 on general technical conditions for the operation of railway vehicles (consolidated text: Journal of Laws of 2016, item 226);
- the Regulation of the Minister of Infrastructure and Development of 28 February 2014 on the national register of railway infrastructure (Journal of Laws of 2016, item 63);
- the Regulation of the Minister of Infrastructure of 7 June 2021 on interoperability (Journal of Laws of 2021, item 1042).

The full list of legal acts is available on the Polish railway market regulator's website (www.utk.gov.pl).

2. MAIN STAKEHOLDERS AND DECISION MAKERS

2.1. Public administration as a decision maker

From the point of view of doing business on the Polish railway market, the activities of the following public administration bodies are important in making strategic decisions on rail transport development and its funding (**Figure 2.1**): Ministry of Infrastructure, Ministry of Economic Development and Technology, Ministry of Finance, Ministry of Funds and Regional Policy, Ministry of Climate and Environment, as well as the Office of Rail Transport (UTK) and the Centre for EU Transport Projects (CUPT).

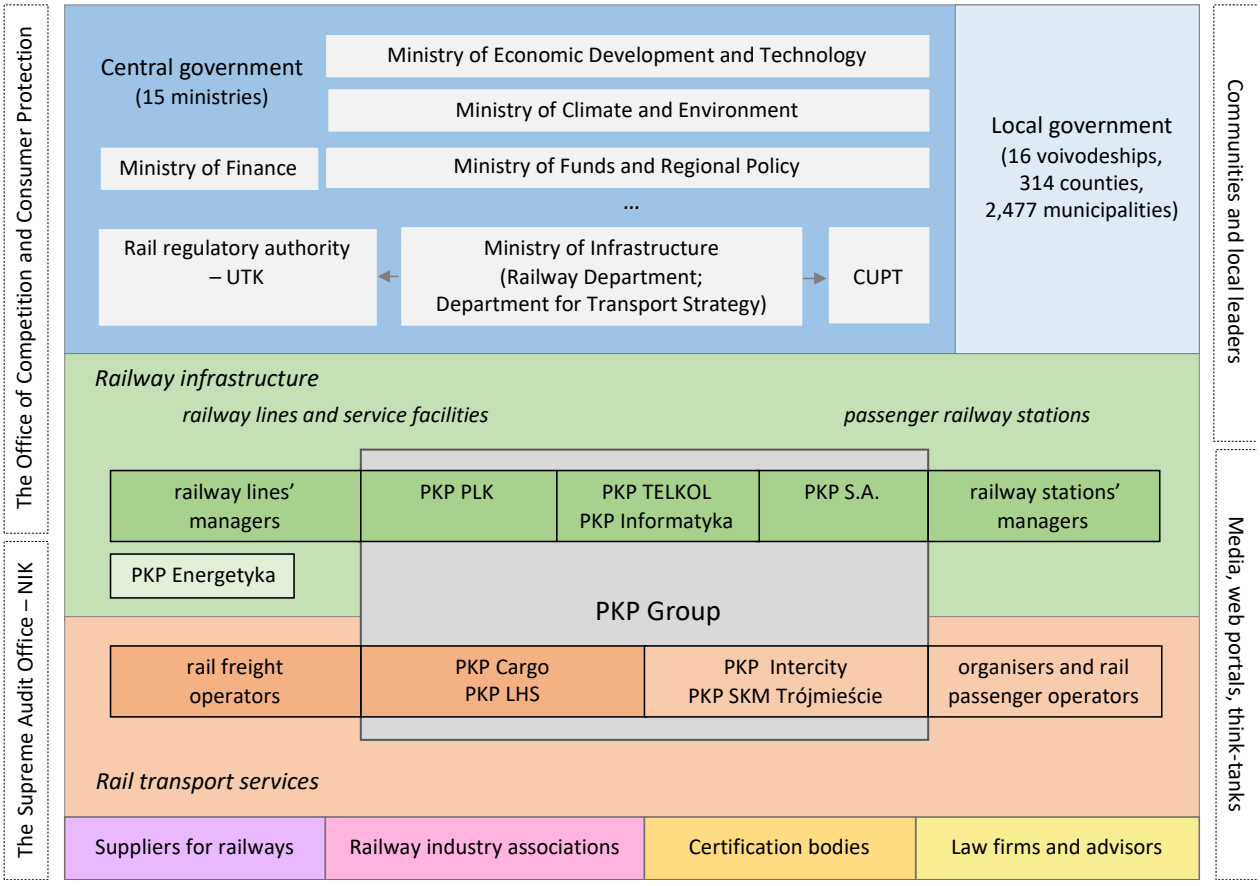


Fig. 2.1. The institutional framework of rail transport in Poland – the main stakeholders and decision makers

The Ministry of Infrastructure is the central government body responsible for transport strategy and the supervision of the implementation of transport development programmes and plans. These strategic documents are prepared by the Department of Transport Strategy. The currently binding long-term governmental programme is The Strategy of Sustainable Transport Development until 2030[1]. The Railway Department is responsible for the priorities of the national railway policy and the models for the development of the railway transport market. It also prepares and supervises the implementation of programmes for the development of railway transport, in particular:

- **The National Railway Programme until 2023** (*Krajowy Program Kolejowy* – KPK)[2], which is multi-annual programme covering investments in railway lines financed by the Ministry of Infrastructure;
- **The Railway Station Investments Programme for 2016–2023** under which a total of around 200 stations will be build or modernized[3];
- **The Railway+ Programme** which aims to supplement until 2028 the existing railway infrastructure in the regions[4];
- **The Programme for the Construction or Upgrading of Railway Stops for the years 2021–2025**[5];
- The programme entitled **Assistance in Financing the Costs of Railway Infrastructure Managers, including its Maintenance and Repairs until 2023**[6] (the so-called **The Maintenance Programme**).

The list of investment needs for the development of the railway infrastructure in the regions is prepared by the local government (city mayors, commune offices, voivodeship and metropolitan area offices) after consultation with the communities, carriers, infrastructure managers and railway industry associations.

Poland is the biggest beneficiary of the EU Cohesion Policy. The development of railway transport until 2023 is supported by the following programmes:

- **The Infrastructure and Environment Operational Programme 2014–2020 (OPI&E);**
- **The Operational Programme for Eastern Poland (OPEP) – Priority III Supraregional Railway Infrastructure;**

---

[1] *Strategia Zrównoważonego Rozwoju Transportu do 2030 r.*, https://www.gov.pl/attachment/8ca82ea2-ddf5-4cff-8bfc-b7d7bfb1237b.

[2] Uchwala nr 162/2015 Rady Ministrów z dnia 15 września 2015 r. w sprawie ustanowienia Krajowego Programu Kolejowego do 2023 roku, https://www.gov.pl/attachment/2a9d1452-3eef-42a6-8bcf-73b0fe2914cf; Aktualizacja KPK – Uchwala nr 86/2021 Rady Ministrów z dnia 20 lipca 2021 r., https://www.gov.pl/attachment/98ca383a-9f1a-4b70-8fb0-5b4a55367b43.

[3] http://zmieniamydworce.pkp.pl.

[4] Uchwała nr 151/2019 Rady Ministrów z 3 grudnia 2019 r. w spawie ustanowienia Programu Uzupełniania Lokalnej i Regionalnej Infrastruktury Kolejowej – Kolej + do 2028 roku, https://www.gov.pl/attachment/95d651ac-6792-4ede-893f-f0650a2e7fdf.

[5] Uchwała nr 63/2021 Rady Ministrów z dnia 19 maja 2021 r. w sprawie ustanowienia programu budowy lub modernizacji przystanków kolejowych na lata 2021–2025, https://www.gov.pl/attachment/863f5a71-e280-48b9-a114-5ba19ef03cc4.

[6] Uchwała nr 7/2018 Rady Ministrów z dnia 16 stycznia 2018 r. w sprawie ustanowienia programu wieloletniego „Pomoc w zakresie finansowania kosztów zarządzania infrastrukturą kolejową, w tym jej utrzymania i remontów do 2023 roku", https://www.gov.pl/attachment/ca786920-2db1-4948-9776-1a2a1666e9c3; Uchwała nr 1/2021 Rady Ministrów z 5 stycznia 2021 r. zmieniająca uchwałę w sprawie ustanowienia programu wieloletniego „Pomoc w zakresie finansowania kosztów zarządzania infrastrukturą kolejową...", https://www.gov.pl/attachment/0e6ac733-473f-47e5-90e3-14927fabf7e8; Załącznik do uchwały nr 1/2021, https://www.gov.pl/attachment/1e019639-2c47-4c02-82e3-cdb072871794.

- **The Regional Operational Programmes 2014–2020 (ROPs);**
- **The Connecting Europe Facility (CEF).**

The Ministry of Funds and Regional Policy is the managing authority in the system of the EU funds implementation. The governmental **Centre for EU Transport Projects** (*Centrum Unijnych Projektów Transportowych* – CUPT) supports beneficiaries in the preparation and implementation of investment projects and ensures the rational and effective utilization of the EU funds. Ministry of Infrastructure is the supervising body of CUPT (**Figure 2.2**).

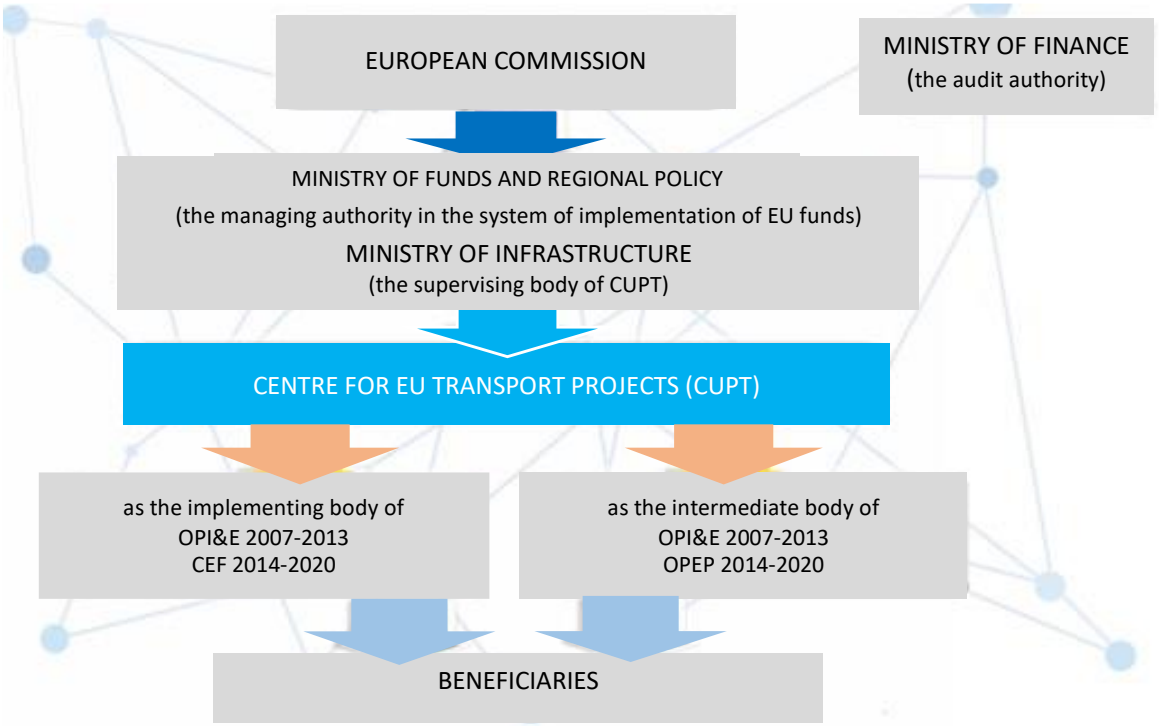


Fig. 2.2. The system of distribution of the EU funds for transport in Poland

Source: based on CUPT's materials.

2.2. Rail transport regulator

The Office of Rail Transport (*Urząd Transportu Kolejowego* – UTK) is responsible for the regulation and monitoring of the Polish railway market. It was established on 1 June 2003 and its main goal is to ensure the cohesion of the rail system by supervising the technical solutions that influence rail traffic and rail system safety.

The President of the Office of Rail Transport is a regulator with jurisdiction over:

- regulating the rail transport market,
- licensing rail transport,
- technical supervision of the use, operation and maintenance of railway lines and vehicles,
- rail traffic safety,
- supervising the observance of passenger rights in rail transport,

- train driving licences and certificates,
- monitoring of the railway market.

The President of UTK combines the functions of (**Figure 2.3**):

- National Safety Authority (as stipulated by Directive 2004/49/EC),
- National Regulatory Body (pursuant to Directive 2001/14/EC),
- National Enforcement Body for Passenger Rights (in accordance with Regulation 1370/2007).

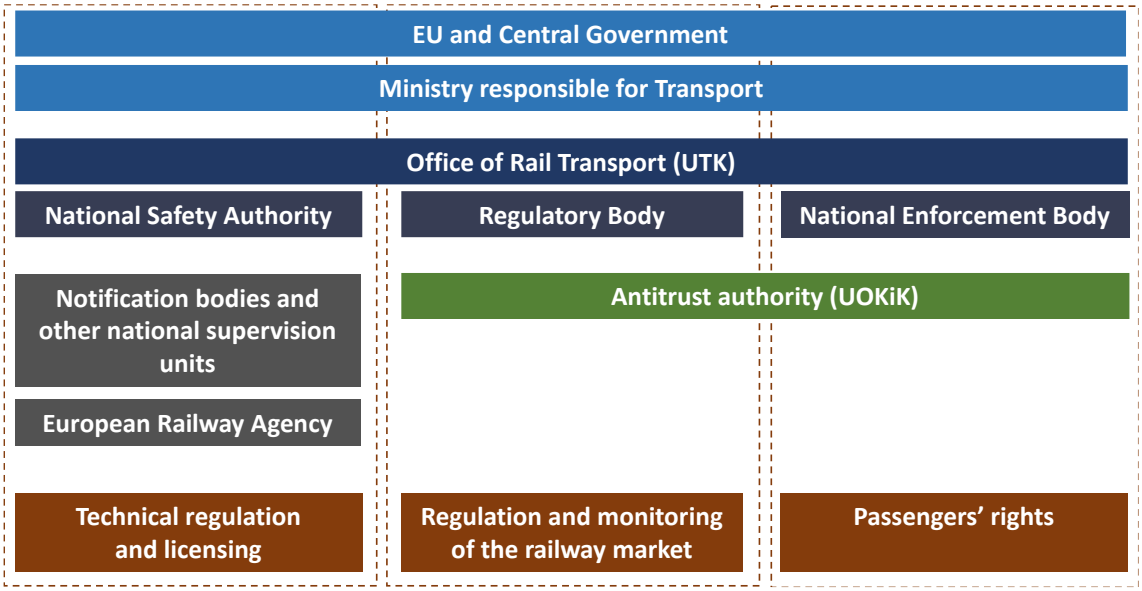


Fig. 2.3. Functions and competencies of UTK

The tasks of the President of UTK in the field of technical supervision over the operation of railway lines and rail traffic safety include:

- issuing, extending, amending and revoking safety authorisations, certificates and attestations, and also keeping registers of these documents:
  - censuring the conformity of activities performed by infrastructure managers and railway undertakings with Community and national laws in the field of safety;
  - authorising of the placing in service of new or heavily modified rolling stock;
- issuing type approvals for structures and equipment intended for rail traffic management and type approvals for railway vehicles, and keeping a register of these approvals;
- controlling the performance of obligations by managers, railway undertakings and side-track users in respect of rail transport safety, and especially the observance of rules of rail traffic management and signalling, and technical requirements for railway vehicle operation;
- supervising the observance of safety rules in rail transport and the correct maintenance and operation of railway lines and side tracks;
- monitoring, promoting, implementing and expanding the scope of safety regulations, including the national safety rule system;
- maintaining the National Vehicle Register;

- supervising centres that provide training for advisers in the transport of dangerous goods by rail;
- appointing examination boards and granting powers to advisers on the transport of dangerous goods by railways;
- supervising the implementation of post-accident recommendations issued by the National Railway Accident Investigation Committee;
- preparing annual assessments of rail traffic safety to be submitted to the Minister of Infrastructure and the European Railway Agency (ERA).

The President of UTK, under his supervision, by way of a decision, can:

- suspend or limit the rail traffic on a railway line or its section in the event of identifying any risk to rail traffic safety;
- withdraw a railway vehicle from operation or limit its operation, if it ceases to meet technical requirements.

The tasks in the field of rail transport regulation covers:

- authorising and coordinating charges for the use of allocated paths as part of the rail infrastructure, in respect of their conformity with the rules of setting these charges;
- supervising the provision of non-discriminatory access to the railway infrastructure for railway undertakings, including carriers with their registered offices in Member States;
- supervising the equal treatment of all railway undertakings by infrastructure managers, especially in respect of examining applications for the provision of paths and calculation of charges;
- supervising the correctness of the calculation of basic charges for using the railway infrastructure and additional charges for providing supplementary services;
- examining complaints by railway undertakings in respect of the rules and regulations, allocating paths and imposing charges for using the railway infrastructure;
- collecting and analysing information on the rail transport market;
- assessing drafts of transport plans in terms of passenger transport by railways;
- assessing drafts of public service agreements;
- supervising the termination of agreements on the provision of railway infrastructure;
- cooperating with the relevant bodies in respect of preventing railway managers and railway undertakings from using monopolistic practices, and in respect of coordinating the operation of the rail transport market and respecting passengers' rights;
- imposing fines in line with the Act of railway transport;
- making decisions on open access;
- managing the cases of non-scheduled passenger transport.

Main area of activities	Key decision makers	Contact details
Ministry of Infrastructure (*Ministerstwo Infrastruktury*)		
The Minister of Infrastructure is responsible for: - transport, - inland waterways, - maritime transport, - water management. The Department of Transport Strategy prepares development programmes for railways, railway stations, sea ports, air transport and intermodal transport. The Railway Department: - defines the priorities of the national railway policy and the concept of the development of the railway transport market; - developing and supervising the implementation of programmes and plans for the development of railway infrastructure, in particular the National Railway Programme and the railway infrastructure management and maintenance programme; - adapting railways to the required national and EU standards, including rail transport emissions.	Andrzej Adamczyk Minister of Infrastructure Marcin Horała Secretary of State, government plenipotentiary for the Central Communication Port for the Republic of Poland (CPK) Rafał Weber Secretary of State Responsible for road transport, public roads and road safety Andrzej Bittel Secretary of State, responsible for counteracting communication exclusion Marek Gróbarczyk Secretary of State Responsible for water management and implementation of investments in the maritime and water management sector Grzegorz Witkowski Undersecretary of State Małgorzata Kuźma The Director-General	e-mail: kancelaria@mi.gov.pl ul. Chałubińskiego 4/6 00-928 Warszawa Secretariat of the Minister Andrzej Adamczyk tel. +48 22 630 11 00 sekretariataadamczyka@mi.gov.pl The Department of Transport Strategy Director: Adrian Mazur Deputy Director: Monika Michalska tel. + 48 22 630 11 60 sekretariatDST@mi.gov.pl The Railway Department Director: Tomasz Buczyński Deputy Directors: Jakub Kapturzak Tomasz Rurka Marcin Piwowarski tel. +48 22 630 13 00 sekretariatDTK@mi.gov.pl www.gov.pl/web/infrastruktura/departament-kolejnictwa-dtk www.gov.pl/web/infrastruktura
Ministry of Economic Development and Technology (*Ministerstwo Rozwoju i Technologii*)		
The areas of the activity are: - economy, - construction, - spatial planning, - housing, - tourism. The Department of Innovation and Industrial Policy is responsible for the development and coordination of the implementation of strategies and policies for economic development, designing the cohesion policy and conducting international cooperation in the field of: innovation policy, technological policy, and industrial policy.	Mateusz Morawiecki Prime Minister, performing the duties of the Minister of Economic Development and Technology Responsible for the national economic policy (entrepreneurship, industrial policy, innovation and technology, digital transformation, green economy and international economic relations) Andrzej Gut-Mostowy Secretary of State, responsible for the promotion of the Poland as a brand Grzegorz Piechowiak Secretary of State, Government Plenipotentiary for Foreign Investments	tel. +48 22 250 01 23 e-mail: kancelaria@mr.gov.pl pl. Trzech Krzyży 3/5, 00-507 Warszawa Secretariat of the Minister tel. +48 22 411 98 55 SekretariatBM@mrpit.gov.pl Secretariat of the Secretary of State Andrzej Gut-Mostowy tel. +48 22 411 97 71 SekretariatAGuta-Mostowego@mr.gov.pl Secretariat of the Secretary of State Grzegorz Piechowiak tel. +48 22 411 99 09 SekretariatGPiechowiaka@mrpit.gov.pl

Main area of activities	Key decision makers	Contact details
The Department of Digital Economy is responsible for the implementation of tasks related to regulations in the field of e-economy; preparation, implementation and monitoring of activities in the field of e-economy policy; implementation of projects co-financed by the EU. Department of Tourism covers: tourist development of the country, tourist market, regulation mechanisms.	Piotr Uściński Secretary of State Olga Ewa Semeniuk Undersecretary of State Marek Niedużak Undersecretary of State A legal advisor specializing in civil and commercial law Katarzyna Szweda General Director	Secretariat of the Undersecretary of State Olga Semeniuk tel. +48 22 411 98 80 SekretariatOSemeniuk@mr.gov.pl The Department of Trade and International Cooperation: +48 22 411 92 70 sekretariatDHM@mrpit.gov.pl The Department of Innovation and Industry Policy tel. +48 22 411 95 31 sekretariatdip@mrpit.gov.pl www.gov.pl/web/development-technology
Ministry of Funds and Regional Policy (*Ministerstwo Funduszy I Polityki Regionalnej*)		
The Ministry is responsible for management of the system for implementation of the EU funds. Specific tasks include regional development. The Department of Strategy The Regional Development Department includes tasks on programming and coordination of development policy and management of the EU funds system. The Department of Regional Operational Programmes The Department for Coordination of EU Funds Implementation is responsible for shaping and coordinating processes of the implementation system for EU funds. It drafts national-level legal regulations concerning the use of Cohesion Policy funds. The Department for Innovation and Development Support Programmes is responsible for financing of innovation and R&D projects, acting as a Managing Authority for the Smart Growth Operational Programme 2014-2020. The Department of Infrastructural Programmes is responsible for the tasks of the Managing Authority for the Infrastructure and Environment Operational Programmes 2007-2013 and 2014-2020 and the tasks	Tadeusz Kościński Minister Małgorzata Jarosińska-Jedynak Secretary of State Jacek Żalek Secretary of State Waldemar Buda Secretary of State Marek Redźko Director General Radosław Antoszek Director of the Department for Coordination of EU Funds Deputy Directors: Katarzyna Kromke-Korbel Grzegorz Żmuda Daniel Kotkowski Małgorzata Szczepańska Director of the Department for Innovation Deputy Directors: Katarzyna Kaczkowska Anna Świebocka Patrycja Zeszutek Jarosław Orliński Director of the Department of Infrastructural Programmes	Wspólna 2/4, 00-926 Warszawa Secretariat of the Secretary of State Małgorzata Jarosińska-Jedynak tel. +48 22 273 70 10 sekretariatMJarosinskiej@mfipr.gov.pl Secretariat of the Secretary of State Jacek Żałek tel. +48 22 273 70 60 sekretariatJZalka@mfipr.gov.pl Secretariat of the Secretary of State Waldemar Buda tel. + 48 22 273 70 30 sekretariatWBudy@mfipr.gov.pl Secretariat of the Director General Marek Redźko Director: Grzegorz Borowiec tel. +48 22 273 70 70 sekretariatDG@mfipr.gov.pl The Department for Coordination of EU Funds Implementation tel. +48 22 273 79 04 sekretariatDKF@mfipr.gov.pl The Department for Innovation and Development Support Programmes tel. +48 22 273 81 01 sekretariatDIR@mfipr.gov.pl The Department of Infrastructural Programmes

Main area of activities	Key decision makers	Contact details
of the Member State within financial support under the CEF. Public-Private Partnership Department acts as a central coordinating and management unit for public-private partnerships in Poland. It also coordinates the Investment Plan for Europe.	Deputy Directors: Barbara Baka Paweł Buc Paweł Szwajgier Marcin Szymański Anna Tołubińska Katarzyna Zielińska-Heitkotter	tel. +48 22 273 77 01 sekretariatDPI@mfipr.gov.pl
	Lilianna Bogusz Director of PPP Department Michał Piwowarczyk Deputy Director	The Public-Private Partnership Department tel. +48 22 273 79 50 sekretariatDPA@mfipr.gov.pl www.gov.pl/web/funds-regional-policy
The Centre for EU Transport Projects (*Centrum Unijnych Projektów Transportowych* – CUPT)		
CUPT supports beneficiaries in the preparation and implementation of investments financed by the EU Funds and CEF. CUPT's departments: - Transport Analysis and Programming Department - Railway Projects Department - Road Project Department - Urban Projects Department - Multi-Branch Project Department - Monitoring and Technical Assistance Department	Joanna Lech The Acting Director	Plac Europejski 2, 00-844 Warszawa tel. + 48 22 26 20 500 e-mail: cupt@cupt.gov.pl
	Sylwia Cieślak-Wilk Deputy Director	tel. +48 22 262 0502 e-mail: Scieslak-Wilk@cupt.gov.pl
	Krzysztof Rodziewicz Director of the Transport Analysis and Programming Department	tel. +48 22 375 04 46 e-mail: Krodziewicz@cupt.gov.pl
	Ewa Karasińska Director of the Railway Projects Department	tel. +48 22 375 04 46 e-mail: Ekarasinska@cupt.gov.pl www.cupt.gov.pl
Office of Rail Transport (*Urząd Transportu Kolejowego* – UTK)		
The President is responsible for rail transport regulation and the technical supervision over the operation of railway lines and rail traffic safety. UTK's departments: - Legal Service Department - Passenger Transport Department - Market Regulation Department - Department of Technology and Products - Planning and Supervision Department - Monitoring and Security Department	Ignacy Góra President	tel. +48 22 749 14 00 e-mail: utk@utk.gov.pl Al. Jerozolimskie 134, 02-305 Warszawa
	Marcin Trela Vice-President	Director of UTK President's Office: Katarzyna Szadkowska Vice-Director: Paweł Rafalski tel. +48 22 749 14 35
	Kamil Wilde Vice-President	
	Małgorzata Kalata Director General	Director General Office: Director: Krzysztof Kulka Vice-Director: Wacław Czarnota Vice-Director: Katarzyna Połaska tel. + 48 22 749 15 40
	Jan Siudecki Director of the Department of Technology and Products	
	Alicja Kozłowska Director of the Market Regulation Department	Director of the Market Regulation Department: tel. + 48 22 749 15 50 www.utk.gov.pl

2.3. Railway undertakings

At the end of August 2021, valid licences were held by 123 railway undertakings, of which most in the transport of goods (**Figure 2.4**).

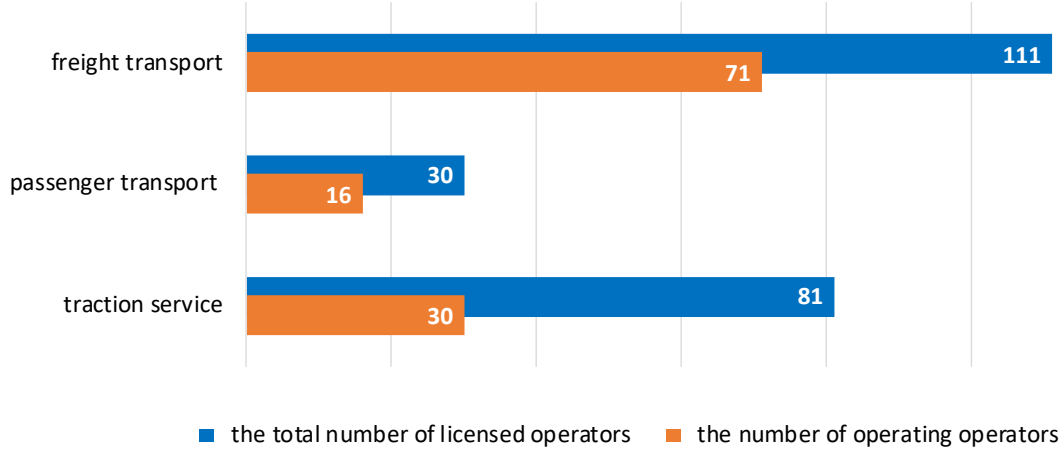


Fig. 2.4. The number of licensed railway undertakings in Poland (August 2021)

Source of data: UTK.

In freight transport, 71 out of 111 licensed railway undertakings performed services in 2020. Also, 30 entities provided **traction services**. The regulations in Poland regarding the traction service differ from the regulations in most other European countries, where the traction service is provided under a license for transport services. Carriers providing traction services in Poland use three business models. The first one is the provision of the work of the train drivers themselves, the second is the provision of traction vehicle services together with the drivers, the third model is mixed. The leaders in this segment are: Cargo PTT, EccoRail, Cargo Master, Orion and Lokotrain, which has a license for freight transport issued in the Czech Republic.

In passenger transport, 16 out of 30 railway undertakings operated scheduled rail services in 2020. These services are currently performed as public services for 18 organisers of public transport under public service contracts (PSC), i.e. for the minister in charge of transport, for voivodeship marshals, and for the Mayor of Warsaw.

The two largest passenger operators – PKP Intercity and POLREGIO (formerly Przewozy Regionalne)[7] – operate country-wide. PKP Intercity specializes in commercial long-distance transport by high-class express trains (Express InterCity Premium and Express InterCity), and in the economy segment – by express trains under the IC and TLK brands. POLREGIO conducts low-cost inter-regional trains (interREGIO and superREGIO trains) as well as local regional trains in the voivodeships (REGIO trains), with the exception of Masovia and Silesia (**Figure 2.5**).

[7] In November 2015, Polregio was taken over by Industrial Development Agency JSC (*Agencja Rozwoju Przemysłu* – ARP). In April 2021, the European Commission issued a positive decision regarding the co-financing of the company by ARP.

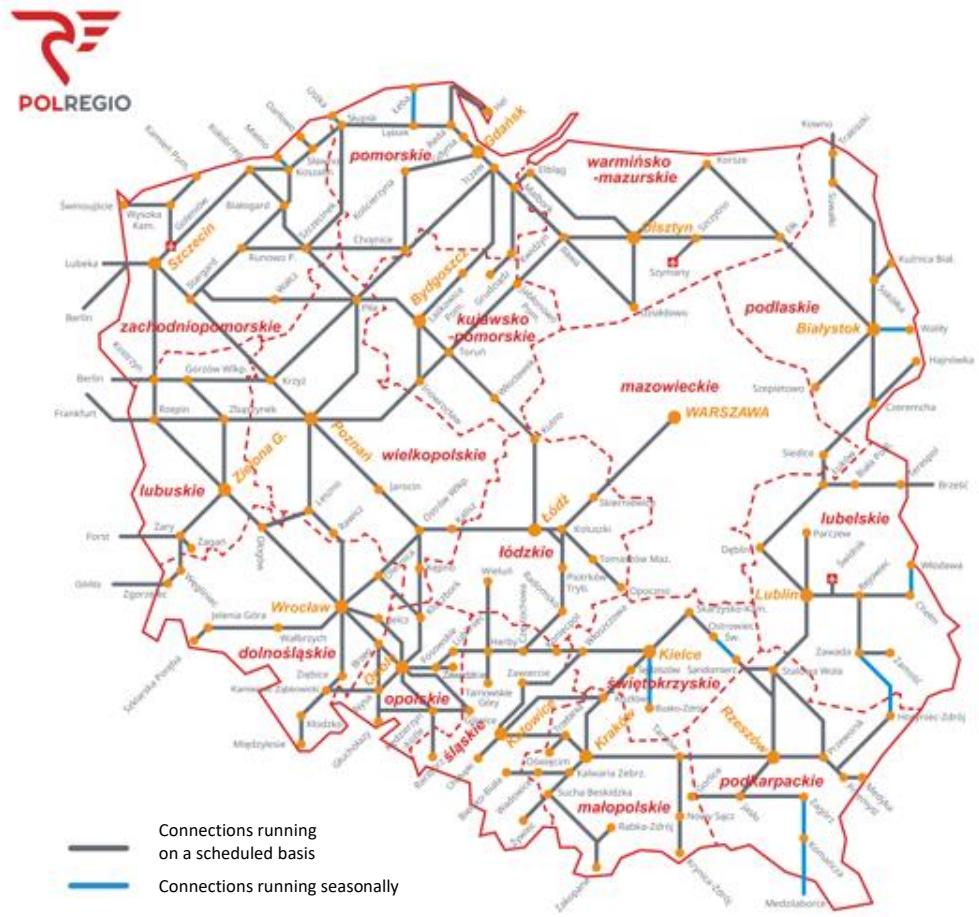


Fig. 2.5. POLREGIO train routes (2020) Source: POLREGIO.

In six voivodeships there are also trains of other regional carriers: Koleje Dolnośląskie, Koleje Małopolskie, Koleje Śląskie, Koleje Wielkopolskie, Łódzka Kolej Aglomeracyjna and Arriva RP. Koleje Mazowieckie, Warszawska Kolej Dojazdowa (WKD) and Szybka Kolej Miejska (SKM) run trains in the Warsaw metropolitan area, as well as PKP Szybka Kolej Miejska w Trójmieście in the Pomeranian Voivodeship. There are also three carriers in the Lesser Poland Voivodeship: Koleje Małopolskie, POLREGIO and Koleje Śląskie. The scope and duration of such contracts is individually determined by the respective local authorities. In 2019–2020, as many as 21 long-term contracts (for a period of five to ten years) were signed for the provision of public rail services. The only two one-year contracts were concluded with Arriva RP and POLREGIO in the Kuyavia-Pomerania Voivodeship.

In addition to public service transport (based on the PSCs), the operators may perform commercial transport services upon decisions granting open access. This involves transport services along paths which are not co-financed if the revenue from ticket sales is insufficient. The provision of commercial transport services on domestic and international paths requires the President of UTK's decision to grant open access. The railway undertaking receiving such a decision may apply for access to railway infrastructure to the infrastructure manager of the indicated path. These regulations do not apply to connections for which a contract has been signed with the organiser of public transport. Decisions granting open access in 2020 were issued for: POLREGIO (8 routes), Leo Express Global (1 route), Leo Express (1 route), Koleje Dolnośląskie (1 route), Koleje Mazowieckie (1 route), PKP Intercity (1 route) and RegioJet (1 route).

Useful information

ORGANISERS AND OPERATORS IN RAILWAY PASSENGER SERVICES

Organiser of passenger transport	Rail passenger operator

Minister of Infrastructure

Andrzej Adamczyk

ul. Chałubińskiego 4/6,
00-928 Warszawa
e-mail: kancelaria@mi.gov.pl
www.gov.pl/web/infrastruktura

PKP InterCity

President of the Management Board:
Marek Chraniuk

Al. Jerozolimskie 142 A, 02-305 Warszawa
tel. +48 22 47 45 500
e-mail: sekretariat@intercity.pl
www.intercity.pl/en/

Marshal of the Masovia Voivodeship

Adam Struzik

ul. Jagiellońska 26
03-719 Warszawa
tel. +48 22 59 79 100
e-mail:
urzad_marszalkowski@mazovia.pl

www.mazovia.pl/en/

Koleje Mazowieckie – KM

President of the Management Board:
Robert Stępień

ul. Lubelska 26, 03-802 Warszawa
tel. +48 22 47 38 716
e-mail: sekretariat@mazowieckie.com.pl

www.mazowieckie.com.pl

Warszawska Kolej Dojazdowa

President of the Management Board:
Michał Panfil

ul. Stefana Batorego 23
05-825 Grodzisk Mazowiecki
tel. +48 22 755 55 64
e-mail: wkd@wkd.com.pl

www.mazowieckie.com.pl/en/

Organiser of passenger transport	Rail passenger operator

The Mayor of Warsaw

Rafał Trzaskowski

pl. Bankowy 3/5
00-950 Warszawa
tel. +48 22 443 10 26
e-mail:
sekretarzmiasta@um.warszawa.pl

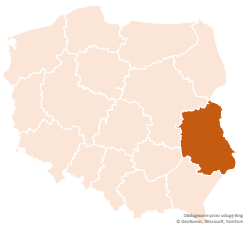
www.um.warszawa.pl

Szybka Kolej Miejska

President of the Management Board:
Alan Beroud

Al. Jerozolimskie 125/127
02-017 Warszawa
tel. +48 22 699 72 35
e-mail: biuro@skm.warszawa.pl

www.skm.warszawa.pl/en/



Marshal of the Lublin Voivodeship

Jarosław Stawiarski

ul. Artura Grottgera 4,
20-029 Lublin

tel. +48 81 44 16 600

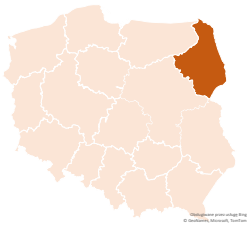
www.lubelskie.pl/?lang=en

President of the Management Board:
Grzegorz Martyniuk

Headquarter:
ul. Kolejowa 1, 01-217 Warszawa
tel. +48 22 439 6052
e-mail: info@p-r.com.pl
https://polregio.pl/en/

POLREGIO Lublin Branch

ul. Gazowa 4, 20-406 Lublin
tel. +48 722 349 302
e-mail: sekretariat.lublin@p-r.com.pl



Marshal of the Podlaskie Voivodeship

Artur Kosicki

ul. Kardynała Stefana Wyszyńskiego 1,
15-888 Białystok
tel. +48 85 66 54 549

e-mail: kancelaria@wrotapodlasia.pl

www.wrotapodlasia.pl

POLREGIO Białystok Branch

ul. Kopernika 60, 15-397 Białystok
tel. +48 782 450 851
e-mail: sekretariat.bialystok@p-r.com.pl

Marshal of the Warmia-Masuria Voivodeship

Gustaw Marek Brzezin

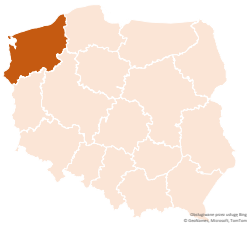
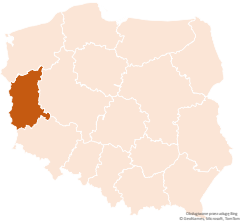
ul. Emilii Plater 1, 10-575 Olsztyn
tel. +48 89 521 91 00

e-mail: marszalek@warmia.mazury.pl

https://warmia.mazury.pl

POLREGIO Olsztyn Branch

ul. Lubelska 46, 10-409 Olsztyn
tel. +48 89 677 53 09
e-mail: sekretariat.olsztyn@p-r.com.pl

Organiser of passenger transport	Rail passenger operator
 **Marshal of the Subcarpathia Voivodeship** Władysław Ortyl al. Ł. Cieplińskiego 4, 35-010 Rzeszów tel. +48 17 850 17 00 e-mail: urzad@podkarpackie.pl www.podkarpackie.pl	**POLREGIO Rzeszów Branch** ul. Obszar Kolei 1, 35-201 Rzeszów tel. +48 17 711 13 00 e-mail: sekretariat.rzeszow@p-r.com.pl
 **Marshal of the West Pomerania Voivodeship** Olgierd Geblewicz ul. Korsarzy 34, 70-540 Szczecin tel. +48 91 480 72 43 e-mail: marszalek@wzp.pl http://wzp.pl	**POLREGIO Szczecin Branch** ul. Czarnieckiego 9, 70-221 Szczecin tel. +48 91 471 55 10 e-mail: sekretariat.szczecin@p-r.com.pl
 **Marshal of the Lubusz Voivodeship** Elżbieta Anna Polak ul. Podgórna 7, 65-057 Zielona Góra tel. +48 68 456 52 00 e-mail: kancelaria.ogolna@lubuskie.pl www.lubuskie.pl	**POLREGIO Zielona Góra Branch** ul. Ułańska 3, 65-033 Zielona Góra tel. +48 665 915 516 e-mail: sekretariat.zielonagora@p-r.com.pl
 **Marshal of the Opole Voivodeship** Andrzej Buła ul. Piastowska 14, 45-082 Opole tel. +48 77 54 16 510 e-mail: marszalek@opolskie.pl www.opolskie.pl/opole-voivodeship/?lang=en	**POLREGIO Opole Branch** ul. Krakowska 48, 45-075 Opole tel. +48 77 554 15 18 e-mail: sekretariat.opole@p-r.com.pl
 **Marshal of the Świętokrzyskie Voivodeship** Andrzej Bętkowski al. IX Wieków Kielc 3, 25-516 Kielce tel. +48 41 342 18 78 e-mail: kancelaria@sejmik.kielce.pl www.swietokrzyskie.pro/en/	**POLREGIO Skarżysko-Kamienna Branch** Al. Niepodległości 90, 26-110 Skarżysko-Kamienna tel. +48 782 555 700 e-mail: sekretariat.kielce@p-r.com.pl

Organiser of passenger transport	Rail passenger operator

Marshal of Greater Poland Voivodeship

Marek Woźniak

Al. Niepodległości 34
61-714 Poznań

tel. +48 61 626 66 00

e-mail: marszalek@umww.pl

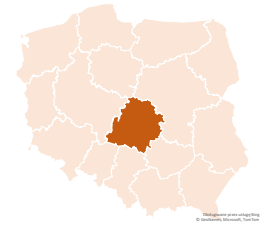
www.umww.pl

Koleje Wielkopolskie

President of the Management Board:
Włodzimierz Wilkanowicz

ul. Składowa 5, 61-897 Poznań
tel. +48 61 27 92 700
e-mail: biuro@koleje-wielkopolskie.com.pl
https://koleje-wielkopolskie.com.pl

POLREGIO Poznań Branch
ul. Kolejowa 5, 60-715 Poznań
tel. +48 61 633 5780
e-mail: pr.poznan@p-r.com.pl



Marshal of the Łódź Voivodeship

Grzegorz Schreiber

ul. Piłsudskiego 8
90-051 Łódź

tel. +48 42 663 30 26

e-mail: kancelaria.marszalek@lodzkie.pl

www.lodzkie.pl

Łódzka Kolej Aglomeracyjna

President of the Management Board:
Tomasz Tulejski

Al. Piłsudskiego 12, 90-051 Łódź
tel. +48 42 236 17 00
e-mail: biuro@lka.lodzkie.pl

https://lka.lodzkie.pl

POLREGIO Łódź Branch
ul. Tuwima 22/26, 90-002 Łódź
tel. +48 722 355 305
e-mail: sekretariat.lodz@p-r.com.pl

Organiser of passenger transport	Rail passenger operator

Marshal of the Kuyavia-Pomerania Voivodeship

Piotr Całbecki

Pl. Teatralny 2
87-100 Toruń

tel. +48 56 621 86 00

e-mail: mw.sekretariat@kujawsko-pomorskie.pl

https://kujawsko-pomorskie.pl

Arriva RP

President of the Management Board:
Damian Grabowski

ul. Dąbrowskiego 8/24, 87-100 Toruń
tel. +48 56 621 22 22

ul. Żwirki i Wigury 16a, 02-092 Warszawa
e-mail: sekretariat@arriva.pl

www.arriva.pl

POLREGIO Bydgoszcz Branch
ul. Dworcowa 104-108, 85-010 Bydgoszcz
tel. +48 52 322 11 22
e-mail: sekretariat.bydgoszcz@p-r.com.pl

Marshal of the Pomerania Voivodeship

Mieczysław Struk

ul. Okopowa 21/27
80-810 Gdańsk

tel. +48 58 32 68 502

e-mail: m.struk@pomorskie.eu

https://pomorskie.eu

PKP Szybka Kolej Miejska w Trójmieście

President of the Management Board:
Maciej Lignowski

ul. Morska 350A, 81-002 Gdynia
tel. +48 58 721 29 11
e-mail: skm@skm.pkp.pl

www.skm.pkp.pl

POLREGIO Gdynia Branch
ul. B. Krzywoustnego 7, 81-035 Gdynia
tel. +48 722 341 338
e-mail: sekretariat.gdynia@p-r.com.pl

Organiser of passenger transport	Rail passenger operator

Marshal of the Lesser Poland Voivodeship

Witold Kozłowski

ul. Racławicka 5630-017 Kraków
tel. +48 12 63 03 520
e-mail:
sekretariat.dg@umwm.malopolska.pl
www.malopolska.pl

Koleje Małopolskie

President of the Management Board:
Tomasz Warchoł

ul. Racławicka 56/416, 30-017 Kraków
tel. +48 12 30 71 714
e-mail:
sekretariat@kolejemalopolskie.com.pl
www.malopolskie.pl

POLREGIO Kraków Branch

Al. Płk. Wł. Beliny-Prażmowskiego 6A,
31-514 Kraków
tel. +48 782 556 696
e-mail: sekretariat.krakow@p-r.com.pl

Koleje Śląskie

President of the Management Board:
Patryk Świrski

ul. Raciborska 58, 40-074 Katowice
tel. +48 727 030 000

e-mail: sekretariat@kolejeslaskie.com
www.kolejeslaskie.com/en/

Marshal of the Silesia Voivodeship

Jakub Chełstowski

ul. Ligonia 46
40-037 Katowice

tel. +48 32 207 82 90

e-mail: marszal@slaskie.pl

www.slaskie.pl

Organiser of passenger transport	Rail passenger operator

Marshal of the Lower Silesia Voivodeship

Cezary Przybylski

Wybrzeże Słowackiego 12/14
50-411 Wrocław

tel. +48 71 776 90 53

e-mail: umwd@dolnyslask.pl

https://umwd.dolnyslask.pl

Koleje Dolnośląskie

President of the Management Board:
Damian Stawikowski

ul. Kolejowa 2, 59-220 Legnica
tel. +48 76 850 65 11
e-mail:
biuro.zarzadu@kolejedolnoslaskie.eu

https://kolejedolnoslaskie.pl

POLREGIO

POLREGIO Wrocław Branch
ul. Małachowskiego 9, 50-984 Wrocław
tel. +48 71 717 55 00
e-mail: sekretariat.wroclaw@p-r.com.pl

Photo: Bartosz Jankowski

2.4. The PKP Group

The PKP Group was established in 2001 as a result of the restructuring of the Polish State Railways (Polskie Koleje Państwowe) state enterprise. The purpose of these changes was to separate railway transport from the management of railway lines and to establish independent commercial entities which could render services not only on the railway market. The PKP Group comprises PKP S.A., the parent company, and ten companies that provide services, among others, on railway transport, energy and ICT markets.

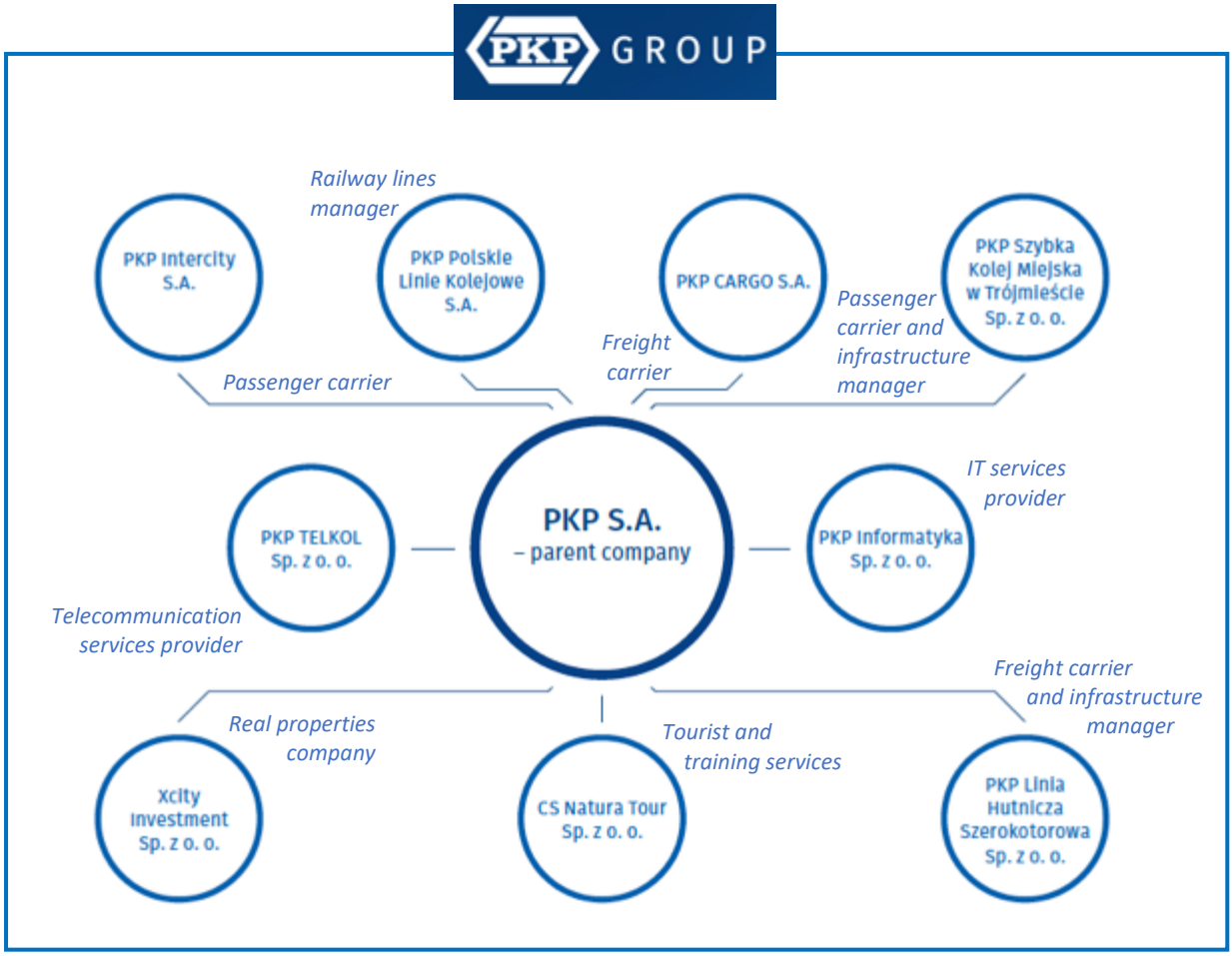


Fig. 2.6. PKP Group structure

Source: based on PKP S.A. materials.

The activities of the Group companies are supervised and coordinated by PKP S.A. – it sets objectives for the companies and ensures that they are implemented. The PKP S.A. activity is focused also on property management. It manages about 2,500 railway stations in Poland.

PKP Polskie Linie Kolejowe S.A. (PKP PLK) is responsible for the management of the national railway infrastructure and provides access to that infrastructure to licensed rail operators. In the case of building new infrastructure, it deals with its construction as the project owner. PKP PLK's main role is to increase performance and efficiency of railway transport in Poland by implementing a broad investment programme involving the upgrade of numerous railway lines (within The National Railway Programme).

PKP PLK is a key decision maker in the settlement of tenders for the upgrading railway infrastructure in Poland. In order to communicate with the railway industry, the PKP PLK's Investment Forum Council operates. Effects of its activities are changes in the base documents of PKP PLK as the ordering party, including the order requirements and standards (SIWZ), contract templates, tender selection and evaluation criteria, as well as technical standards, internal procedures and formal requirements related to securing and financing contracts.

PKP Linia Hutnicza Szerokotorowa (PKP LHS) is a company of the PKP Group, which combines the function of the exclusive railway infrastructure manager and carrier on the 365 km long 1520 mm-gauge line dedicated to freight transport. PKP LHS was excluded from the provisions of the 4th Railway Package, which requires the separation functions of infrastructure management and transport services.

Useful information

Key decision makers	Contact details
PKP POLSKIE KOLEJE PAŃSTWOWE Spółka Akcyjna **The Management Board:** President: Krzysztof Mamiński Board members: Andrzej Antoni Olszewski, Krzysztof Golubiewski, Rafał Zgorzelski	Al. Jerozolimskie 142A, 02-305 Warszawa e-mail: kontakt@pkp.pl Spokesman: Michał Stilger tel. +48 798 962 993 tel. +48 601 261 150 e-mail: media@pkp.pl www.pkp.pl/pl/serwis-korporacyjny
PKP POLSKIE LINIE KOLEJOWE S.A. **The Management Board:** President: Ireneusz Merchel Vice-Chairman: Marek Olkiewicz Board members: Director for Investment: Arnold Bresch Director for Infrastructure Maintenance: Piotr Majerczak Finance Director: Radosław Celiński Director for Development: Robert Sobczak Director for Operations: Grzegorz Kurdziel	ul. Targowa 74, 03-734 Warszawa Secretariat of the President of Board tel. +48 22 473 20 00 e-mail: sekretariat.iif@plk-sa.pl Secretariat of the Director for Investment tel. +48 22 47 320 07 e-mail: sekretariat.iwik@plk-sa.pl The Investment Projects and Monitoring Department tel. +48 22 473 34 93 https://en.plk-sa.pl

2.5. Railway industry organisations and associations

Railway industry organisations and associations are an important stakeholder group which promotes the development of rail transport, makes recommendations to the public administration regarding new regulations of the Polish railway market as well as represents the interests of railway business. The oldest of them was established 75 years ago (SITK RP). As far as structural changes and the needs of new entities operating in the railway market new associations were created. Most of the railway industry associations were established in the second half of the 1990s, when competition in rail transport emerged. Two of them – IGTL and RBF – are the most active and influential nowadays. In the same time, some organisations have been operating for only a few years, such as associations representing local government carriers. The table below lists the organisations operating in Poland – from the most active to the least active. The scope of activities of various rail associations partially overlaps. One of the organisations focuses on the development of railways only in the Silesian region (*Kolej na Śląsk*).

RAILWAY INDUSTRY ORGANISATIONS AND ASSOCIATIONS

Organisation | Main areas of activities	Key person | Contact details
Railway Business Forum (RBF) The largest industry association of employers, operating on the Polish market for over 20 years and associating about 100 companies. The primary goal of RBF is to carry out all activities related to the development of rail transport in Poland by presenting their opinions, conclusions and postulates to authorities and state administration, the public through the media and participants of the railway market in Poland.	Chairman of the Board: Adrian Furgalski Vice-chairman: Grzegorz Bogacki, Izabella Wałkowska, Krzysztof Niemiec Board members: Wojciech Trojanowski, Damian Grabowski, Edward Kwarciak, Robert Stępień Office director: Piotr Faryna mob. +48 606 471 395 e-mail: piotr.faryna@rbf.net.pl https://rbf.net.pl ul. Sielecka 35, 00-738 Warszawa
Land Transport Chamber of Commerce (IGTL) **(*Izba Gospodarcza Transportu Lądowego*)** The Chamber was established in 1995 in order to create a platform for formulating postulates of the railway industry and representing the interests of member companies towards Polish and EU administration as well as national and international organisations influencing the railway sector. It actively cooperates with national and European institutions in the field of regulations concerning rail transport and infrastructure funding. IGTL is a member of ERFA.	Chairman: Marita Szustak Vice-chairman: Przemysław Korwiel, Piotr Macioszek, Wiesław Nowak, Wojciech Jurkiewicz, Ryszard Leszczyński, Henryk Pińkowski Office Director: Maciej Gładyga mob. +48 601 370 359 e-mail: maciej.gladyga@igtl.pl tel. +48 22 654 09 42 e-mail: igtl@igtl.pl https://igtl.pl/ Aleje Jerozolimskie 125/127 02-017 Warszawa

Organisation | Main areas of activities	Key person | Contact details
The Polish Chamber of Railway Equipment Producers and Railway Service Providers (*Polska Izba Producentów Urządzeń i Usług na Rzecz Kolei*) The Chamber was established in 1999. It is a self-government and a non-profit institution which encompasses business entities connected with the railway market. The Chamber's principal goal is to represent, protect the interest of our members as well as inspire and promote development of rail transport in Poland. It associates 266 member companies.	Chairman of the Council: Sławomir Jankowski Vice-chairman: Magdalena Sakowska, Adam Nowak The Director-General: Adam Musiał Director: Dorota Markiewicz Director's Assistant: Agnieszka Jedwabińska mob. +48 515 454 183 tel. +48 52 324 93 80 e-mail: sekretariat@izbakolei.pl www.izbakolei.pl/en ul. Jana Karola Chodkiewicza 17, 85-065 Bydgoszcz
Pro Kolej Foundation (*Fundacja Pro Kolej*) The Foundation was established in 2013. Its purpose is to expand opportunities and support the development of rail transport; improving the image of the Polish railway market; public presentation of the potential and needs of the rail transport sector, supporting and undertaking initiatives to improve the quality of railway law in Poland.	The Foundation Council consists of representatives of companies: Agat, Alstom, Arriva RP, CTL Logistics, DB Cargo Polska, Infra Silesia, PKP Energetyka, Siemens Mobility, Stadler Polska Chairman: Jakub Majewski e-mail: j.majewski@prokolej.org tel.: +48 882 099 050 e-mail: fundacja@prokolej.org tel.: +48 22 243 81 37 www.prokolej.org ul. Wspólna 47/49, 00-684 Warszawa
Association of Experts and Managers of Rail Transport (Stowarzyszenie Ekspertów i Menedżerów Transportu Szynowego – SEIM-TSZ) It has been operating since 2012 and has 125 members. The Association consults and makes recommendations regarding new legal acts and amendments to the existing regulations on rail transport, metro and trams. The Association cooperates with the Parliamentary Infrastructure Committee, the Parliamentary Legislative Office, The Office of Rail Transport and the National Chamber of Commerce. The association integrates market experts and rail transport managers.	Chairman: Józef Marek Kowalczyk mob. +48 603 552 277 Vice-chairman: Franciszek Adam Wielądek mob. +48 601 200 858 e-mail: biuro@seim-tsz.pl http://www.seim-tsz.pl ul. Trębacka 4, 00-074 Warszawa

Organisation | Main areas of activities	Key person | Contact details

The Federation of Independent Rail Operators (ZNPK)
(*Związek Niezależnych Przewoźników Kolejowych*)

It was established in 2009. It is an association of railway and logistics companies. Its aim is to promote the optimal model of the ownership structure of railway infrastructure and regulation of the rail market, promoting liberalization and increasing the competitiveness of rail freight market. It associates 12 companies.

The Director-General: Michał Litwin
tel. +48 515 00 44 18
e-mail: michal.litwin@znpk.org

www.znpk.org

ul. Lwowska 6/2
00-658 Warszawa

Association for the interoperability and development of rail transport (SIRTS)
(*Stowarzyszenie na rzecz interoperacyjności i rozwoju transportu szynowego*)

Its aim is to promote the development of rail transport and its interoperability, including collecting and sharing technical and legal information; developing cooperation with national and international standards, research and legislative organisations and institutions; co-organising of congresses; participating in standardization and legislative organisations.

Chairman of the Board: Janusz Kućmin

Board members: Rafał Cichy, Marek Pawlik, Andrzej Stelmasiewcz

Chairman Board's Director:
Karolina Hendler-Michalak
e-mail: k.hendler@sirts.pl, sirts@sirts.pl

mob. +48 665 674 880
www.sirts.pl

ul. Chłopickiego 50
04-275 Warszawa

Association of Local Government Railway Carriers
(*Związek Samorządowych Przewoźników Kolejowych*)

The association was established in 2016. It associates ten local government carriers. The aim is to share experience and represent the common interests of regional carriers. The main achievement was the development of a single local government ticket, which was available for sale from August 1, 2017. In November 2018, a letter of intent was signed on cooperation with the British Embassy Warsaw.

Chairman of the Board: Dariusz Grajda

Board members: Włodzimierz Wilkanowicz, Krzysztof Kłak

Council: Jolanta Dałek, Marek Dawidowicz, Piotr Halupczok, Wojciech Zdanowski, Bogdan Kondratowicz, Jan Kotynia, Aleksander Drzewiecki

http://zspk.com.pl

ul. Lubelska 26
03-802 Warszawa

Organisation | Main areas of activities	Key person | Contact details
Luxtorpeda 2.0 Cluster (*Klaster Luxtorpeda 2.0*) The main goal is a creation of solutions accelerating the modernisation and competitiveness of railways in Poland. It associates 33 companies.	Chairman of the Cluster Council: Czesław Warsewicz Council members: Włodzimierz Wilkanowicz, Adam Musiał Project coordinator: Tomasz Budzik Office Director: Mateusz Izydorek vel Zydorek mob. +48 662 908 370 e-mail: biuro@klasterluxtorpeda.pl www.klasterluxtorpeda.pl ul. Solec 63b lok. 7, 00-409 Warszawa
Association of Communication Engineers and Technicians of the Republic of Poland (SITK) (*Stowarzyszenie Inżynierów i Techników Komunikacji RP*) It has been operating since 1946. Its main goal is to promote and support the innovativeness of Polish transport. The structure includes national sections, committees, committees and clubs as well as local branches. The association organizes technical congresses, seminars, fairs and competitions.	Chairman: Janusz Dyduch Vice-chairman: Wojciech Ślączka, Mariusz Szałkowski Board members: Andrzej Cholewa, Jan Firlik, Hanna Kołodziej, Marek Krużyński, Jarosław Zaborski, Władysław Rawski, Wojciech Rybak The Secretaty-General: Waldemar Fabirkiewicz tel. +48 22 827 02 59 e-mail: fabirkiewicz@op.pl, zarzad@sitkrp.org.pl National Board Office: Hanna Kwiatkowska mob. +48 506 117 018 e-mail: hanna.kwiatkowska@sitkrp.org.pl www.sitkrp.org.pl ul. Czackiego 3/5, 00-043 Warszawa
Regional organisation:	
Association of the Silesian Movement for the Development of Railways (*Kolej na Śląsk*) (*Stowarzyszenie Śląski Ruch na Rzecz Rozwoju Kolei*) The Association operating since June 2014 to promote public transport in Silesia region by voicing opinions on government documents, publishing papers and organising exhibitions and various events.	Chairman of the Board: Łukasz Bordo Vice-chairman: Wojciech Dinges, Jerzy Gościński e-mail: kolejnaslask@gmail.com http://kolejnaslask.pl FB: KolejNaSlask ul. Szkolna 22, 47-400 Racibórz

2.6. Legal advisers serving the railway market

The most famous and experienced law firms located in Poland and providing services to companies from the railway industry are presented below. They are ordered by size into three categories. The largest entities usually deal with serving large infrastructure projects, financing, as well as restructuring companies and acquisition processes. Medium and small entities specialise in serving operating activities (such as: licensing, safety authorisations, certificates, access charges).

LAW FIRMS SERVING THE POLISH RAILWAY MARKET

Firm | Main areas of law services for railways	Key person | Contact details
Large law firms	
Kancelaria Domański, Zakrzewski Palinka sp.k. Large infrastructure projects, purchase of rolling stock, public aid, EU funds, PPP, mergers and acquisitions Clients: PKP Intercity (purchase of rolling stock), POLREGIO (restructuring of company)	Anna Glapa, Partner tel. +48 22 557 76 83 e-mail: anna.glapa@dzp.pl Tomasz Zielenkiewicz, Senior Associate tel. +48 22 557 76 78 e-mail: Tomasz.Zielenkiewicz@dzp.pl tel. +48 22 557 76 00 e-mail: dzp@dzp.pl www.dzp.pl Rondo ONZ 1, 00-124 Warszawa Other offices: Poznań, Wrocław
JDP DRAPAŁA & PARTNERS Sp. j. Legal services for companies from the railway construction industry: public procurement law, negotiations and preparation of construction contracts, ongoing advice for general contractors and private investors, relations with subcontractors, relations between consortium members Clients: BUDIMEX, PORR, PESA Bydgoszcz	Przemysław Drapała, Partner tel. +48 22 246 00 30 e-mail: przemyslaw.drapala@jdp-law.pl tel. +48 22 246 00 30 e-mail: office@jdp-law.pl https://jdp-law.pl North Gate Tower, ul. Bonifraterska 17, 00-203 Warszawa
CMS Cameron McKenna Nabarro Olswang Pośniak i Bejm sp.k. Large infrastructure projects, public procurement, PPP Clients: TORPOL, TRAKCJA	Marcin Bejm Head of Infrastructure & Project Finance tel. +48 22 520 56 67 e-mail: marcin.bejm@cms-cmno.com https://cms.law/en/pol/ Warsaw Financial Centre ul. Emilii Plater 53, 00-113 Warszawa

Firm | Main areas of law services for railways	Key person | Contact details
Kancelaria Wardyński i Wspólnicy sp.k. Representing infrastructure managers and railway carriers in proceedings before the Office of Rail Transport (licenses, certificates, conditions for access to railway infrastructure, list of access charges); investments on land along the railway lines	Tomasz Wardyński e-mail: tomasz.wardynski@wardynski.com.pl tel. + 48 22 437 82 00, +48 22 537 82 00 e-mail: warsaw@wardynski.com.pl www.wardynski.com.pl Al. Ujazdowskie 10, 00-478 Warszawa Other offices: Kraków, Poznań, Wrocław
Ślązak, Zapiór i Partnerzy Legal services for railway carriers, infrastructure managers, intermodal terminals' managers, producers of rolling stock. Clients: CTL Logistics, Euroterminal Sławków, PESA	Krystian Ślązak, Partner e-mail: kslazak@kancelaria-szip.pl tel. +48 32 783 88 00 e-mail: kontakt@kancelaria-szip.pl www.kancelaria-szip.pl/en ul. Modelarska 25 40-142 Katowice
Medium-sized law firms	
HANTON Szalc Zięba & Partnerzy Adwokaci i Radcowie Prawni sp.p. Proceedings for obtaining: safety certificates, authorizations for railway vehicles, rail carrier licences; safety certificates for users of railway sidings, security authorization, ERTMS pre-authorisation; open railway access decision. Advice on investment and restructuring projects, mergers and acquisitions Clients: POLREGIO, PKP Energetyka, PESA, Siemens	Michał Zięba mob. +48 508 060 005 tel. +48 22 490 49 31 e-mail: biuro@hanton.pl www.hanton.pl ul. Fabryczna 5A, Riverside Park, 00-446 Warszawa
Pawełczyk Kancelaria Radcy Prawnego Legal services for carriers, infrastructure managers, manufacturers and suppliers of rolling stock and equipment; proceedings before regulatory authorities, comprehensive legal services related to the preparation and implementation of infrastructure investments	Mirosław Pawełczyk tel. +48 22 749 11 60 e-mail: biuro@pawelczyk.pl ul. Poznańska 13/15, 00-680 Warszawa tel. +48 32 253 84 40 e-mail: sekretariat@pawelczyk.pl ul. 3-go maja 24/4, 40-096 Katowice www.pawelczyk.pl
BSSK Kancelaria Radców Prawnych Brudkiewicz, Suchecka S.K.A. Legal services for companies from the railway construction industry: public procurement law, negotiation and preparation of construction contracts, implementation of infrastructure investments Clients: IGTL, Bombardier	Agnieszka Suchecka tel.+48 61 853 21 50 e-mail: kancelaria@bssk.pl ul. Tylne Chwaliszewo 25, 61-103 Poznań tel. +48 22 256 40 01 Al. Jerozolimskie 92, 00-807 Warszawa www.bssk.pl

Firm | Main areas of law services for railways	Key person | Contact details
Kancelaria Prof. Marek Wierzbowski & Partnerzy – Adwokaci i Radcowie Prawni Advice on: access charges for railway infrastructure and railway infrastructure facilities; licensing, safety authorisation, safety certificates; permits for railway vehicles; railway real estate Clients: PKP PLK S.A., PKP S.A.	Marek Wierzbowski Mariusz Rypina tel. + 48 22 312 41 10 e-mail: office@wierzbowski.com https://wierzbowski.com ul. Mokotowska 15 A lok. 17 00-640 Warszawa
Elżanowski & Partnerzy Adwokaci i Radcowie Prawni sp.p. Legal services for railway carriers, infrastructure managers, producers of rolling stock and infrastructure elements, entities responsible for the maintenance of railway vehicles. Proceedings conducted before the President of UTK, ERA and other national safety authorities regarding vehicle approval, TSI, ERTMS pre-authorisation	Marek Kowalski, Partner marek.kowalski@elzanowski.pl tel. +48 22 525 02 37 e-mail: kancelaria@elzanowski.pl https://elzanowski.pl ul. L. Kruczkowskiego 8 00-380 Warszawa
Rymarz, Zdort, Gasiński, Her, Iwaniszyn, Miklas, Uziębło I Wspólnicy sp.k. Handling local and international matters related to railway infrastructure; M&A, PPP.	Paweł Rymarz, Managing Partner e-mail: pawel.rymarz@rymarz-zdort.com tel. +48 22 520 40 00 ul. Prosta 18, 00-850 Warszawa https://rymarz-zdort.com/en/
Small law firms	
JZP Kancelaria Adwokacka Legal services for rail passenger carriers, infrastructure managers (including the EU co-funded projects) Clients: Koleje Śląskie, PKP PLK, Tramwaje Śląskie	Joanna Jarosz-Zugaj, Partner e-mail: kslazak@kancelaria-szip.pl tel. +48 32 202 52 60 e-mail: jzp@jzplegal.com www.jzplegal.com ul. Sienna 10/4 40-544 Katowice
Kancelaria DW LEGAL Duda Wasilewska Adwokaci sp. p. Representation of railway companies (including carriers) in the course of control proceedings (UTK, NIK, UOKiK, UZP), contracts for access to railway infrastructure; Documentation of the Maintenance System and the withdrawal of railway vehicles from operation; railway accidents	Anna Wasilewska Piotr Duda tel. +48 22 612 76 24 e-mail: kolejnaprawo@dwlegal.pl www.dwlegal.pl ul. Dąbrowiecka 27B 03-932 Warszawa
Kancelaria Adwokacka Monika Laske Project management, railway access charges, court trials administrative proceedings Clients: Freightliner PL	Monika Laske +48 22 628 02 10 www.laske.com.pl ul. Lwowska 6/2, 00-658 Warszawa

Firm | Main areas of law services for railways	Key person | Contact details
Adam Kuczyński Kancelaria Radcy Prawnego Service contracts; charges for access to railway infrastructure; railway accidents; passenger rights, charges for the use of railway stations	Adam Kuczyński mob. + 48 506 467 523 e-mail: a.kuczynski@ak-legal.pl http://ak-legal.pl
Kancelaria Adwokacka adw. Tomasz Piotr Chudzinski Advising and representing railway carriers, infrastructure managers, users of railway sidings, operators of service facilities, manufacturers of rolling stock and other equipment manufactures	Tomasz Piotr Chudzinski mob. +48 661 150 601 e-mail: kancelaria@adwokatchudzinski.pl http://adwokatchudzinski.pl Aleje Jerozolimskie 100, bud. Equator IV 00-807 Warszawa
Kancelaria Prawnicza Agnieszka Kowalczyk Advising on railway law, legal opinions and interpretations	Agnieszka Kowalczyk mob. +48 881 933 022 e-mail: kancelaria@agnieszka-kowalczyk.com ul. Cisowa 9, 20-703 Lublin
Karolina Wojciechowska Kancelaria Prawna Due diligence audits; legal opinions and interpretations; representation before courts and administrative bodies	Karolina Barbara Wojciechowska mob. +48 605 866 288 tel. +48 22 300 11 62 e-mail: kancelaria@karolinawojciechowska.pl https://karolinawojciechowska.pl ul. Hlonda 10D/103, 02-972 Warszawa

2.7. Rail media groups

Mass media have become increasingly important in the socio-economic life, marketing communication and public relations of companies. The most recognisable media group dealing with rail transport is TOR Wydawnictwo belonging to ZDG TOR Consulting. This media group supports the activities of Rail Business Forum by a monthly magazine *Rynek Kolejowy* and two websites dedicated to rail transport (www.rynek-kolejowy.pl and www.rynekinfrastruktury.pl). Three other well-known websites are: https://kurier-kolejowy.pl, www.nakolei.pl and https://kolejowyportal.pl. The Polish Chamber of Railway Equipment Producers and Railway Service Providers is the publisher of *Raport Kolejowy* and has its own website. In addition, NBI media provides publishing services which covered railway infrastructure construction.

RAILWAY MAGAZINES, WEB PORTALS

www.rynek-kolejowy.pl

www.rynekinfrastruktury.pl

www.nakolei.pl

https://kurier-kolejowy.pl

https://raportkolejowy.pl

https://kolejowyportal.pl

www.nbi.com.pl

The events taking place periodically in Poland which are important from the point of view of the railway market are presented in the next section. One the largest rail industry meeting in Poland as well as in Central and Eastern Europe is the International Railway Fair TRAKO, which takes place every two years in Gdańsk.

CONFERENCES AND FAIRS IN POLAND

Event | date | website	Main groups of participants
infraMOST 18-20 May 2021, Gliwice https://inframost.info	Design and construction companies Road and railway infrastructure managers Public administration
Transport Development Congress (*Kongres Rozwoju Transportu*) 29-30 June 2021, Łódź http://kolejnazmiany.pl	Public administration Railway business Chambers of commerce and industry
RailFreight Summit Poland 1-2 September 2021, Łódź https://events.railfreight.com/railfreight-summit-2021/	Rail freight industry Public administration Chambers of commerce and industry
International Railway Fair TRAKO 21-24 September 2021, Gdańsk http://trakotargi.amberexpo.pl/title,Jezyk,lang,2.html	Railway business Chambers of commerce and industry Public administration
European Economic Congress, sessions on infrastructure and rail transport 20-22 September 2021, Katowice/online https://www.eecpoland.eu/en/	Public administration Business Chambers of commerce and industry
European Rolling Stock Forum 2 September 2021, Warszawa https://europeanrollingstockforum.eu	Public administration Railway business Chambers of commerce and industry
Public Transport and Intelligent Cities Congress (*Kongres Transportu Publicznego i Inteligentnego Miasta*) 13 October 2021, Warszawa/online https://kongrestransportupublicznego.pl	Public administration Business Chambers of commerce and industry
Railway Congress (*Kongres Kolejowy*) 18-20 November 2021, online https://kongreskolejowy.pl	Public administration Railway business Chambers of commerce and industry
Events as part of the European Year of Railways: https://utk.gov.pl/pl/europejski-rok-kolei/wydarzenia-europejskieg	

3. RAILWAY INFRASTRUCTURE

3.1. Main characteristics of the Polish railway network

As of January 2020, the length of the railway lines operated by all infrastructure managers totaled 19,503 km (including 1435 mm and 1520 mm-gauge lines).

PKP Polskie Linie Kolejowe S.A. (PKP PLK) is the manager of the national railway infrastructure of 18,680 km of railway lines (35,951 km of tracks), including 27,244 km of route tracks and main principal tracks at stations and 8,707 km of station tracks. The usage of the infrastructure in 2019 is described below:

- 104 railway operators, including 17 offering passenger services (of which 11 are regular scheduled services), 71 freight services and 3 passenger-and-freight services;
- a total of 2,571,494 train journeys were operated, including 1,773,213 train journeys (69%) scheduled in the PKP PLK's Annual Timetable and 798,281 train journeys (31%) on demand;
- operational performance of 246.39 million train-km was achieved, including 167.2 million train-km in passenger services (68%) and 79.2 million train-km in freight services (32%);
- 192,985 journeys of international trains took place, of which 85,800 for freight traffic: journeys across German border accounted for 43% of international rides, the Czech border – 34%, Belarusian border – 13%, Ukrainian border – 4% (6,786), Slovakian border – 3% (5,144), Russian border – 2% and Lithuanian border – 1%; international transport services in cross-border traffic were performed by 65 operators;
- four main border crossing railway stations were used for freight traffic: Kunowice (Poland – Germany), Zebrzydowice (Poland – the Czech Republic), Terespol (Poland – Belarus) and Chałupki (Poland – the Czech Republic); and four key border crossing railway stations were used for passenger traffic: Kostrzyn (Poland – Germany), Zgorzelec (Poland – Germany), Chałupki (Poland – the Czech Republic), Cieszyn Marklowice (Poland – the Czech Republic).

According to PKP PLK, at the end of 2019, the length of railway line tracks rated as 'in a good technical condition' was about 60% of the total track length, while 22% were rated as satisfactory (i.e. with lower operational parameters) and a further 13% – as unsatisfactory (with significantly lower operational parameters). The Office of Railway Transport monitors the sections with the limited capacity.

In addition to the main infrastructure manager PKP PLK, the following standard 1435 mm-gauge infrastructure managers have operated in Poland: CTL Maczki-Bór, DSDiK, Euroterminal Sławków, Infra SILESIA, KP Kotlarnia – Linie Kolejowe, Pomorska Kolej Metropolitalna, PMT Linie Kolejowe, CARGOTOR, JSK and UBB Polska. There are also infrastructure managers which combine the functions of managers and railway undertakings through managing railway infrastructure and performing rail transport along lines designated solely for urban or suburban rail transport:

- PKP SKM – the manager and passenger railway undertaking which also has the duty of providing access to infrastructure for licensed railway undertakings;
- WKD – the manager and passenger railway undertaking which does not provide access to infrastructure for railway undertakings.

Additionally, PKP LHS – the manager of the wide-gauge line and freight railway undertaking which does not provide access to infrastructure for other railway undertakings.

3.2. Development and maintenance programmes

Investments in railway infrastructure in Poland increased significantly from PLN 2 billion (EUR 0.5 billion) in 2010 to PLN 10.5 billion (EUR 2.4 billion) in 2020 (**Figure 3.1**). The total investment expenditure in this period amounted PLN 70 billion (around EUR 18.4 billion).

The National Railway Programme until 2023 (KPK) is the largest initiative for railway infrastructure development in Poland to date. It includes about 230 projects (9,000 km of tracks) which are co-financed from the EU funds within the Multi-annual Financial Framework 2014–2020 (following the n+3 rule) and other investments in railway infrastructure managed by PKP PLK financed from national public funds.

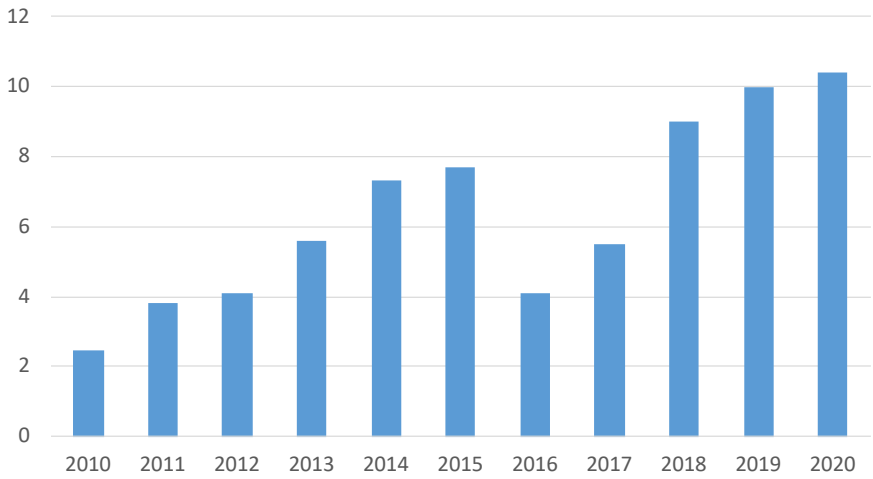


Fig. 3.1. Total expenditure in railway infrastructure in 2010-2020 (billion PLN)
Source of data: PKP PLK S.A.

The lists of investment tasks are included in the Detailed Plan of Implementation of the KPK, outlining planned expenditures and sources of financing of an individual investment project. The scale of the upgrading works is presented by **Figures 3.2** and **3.3.**

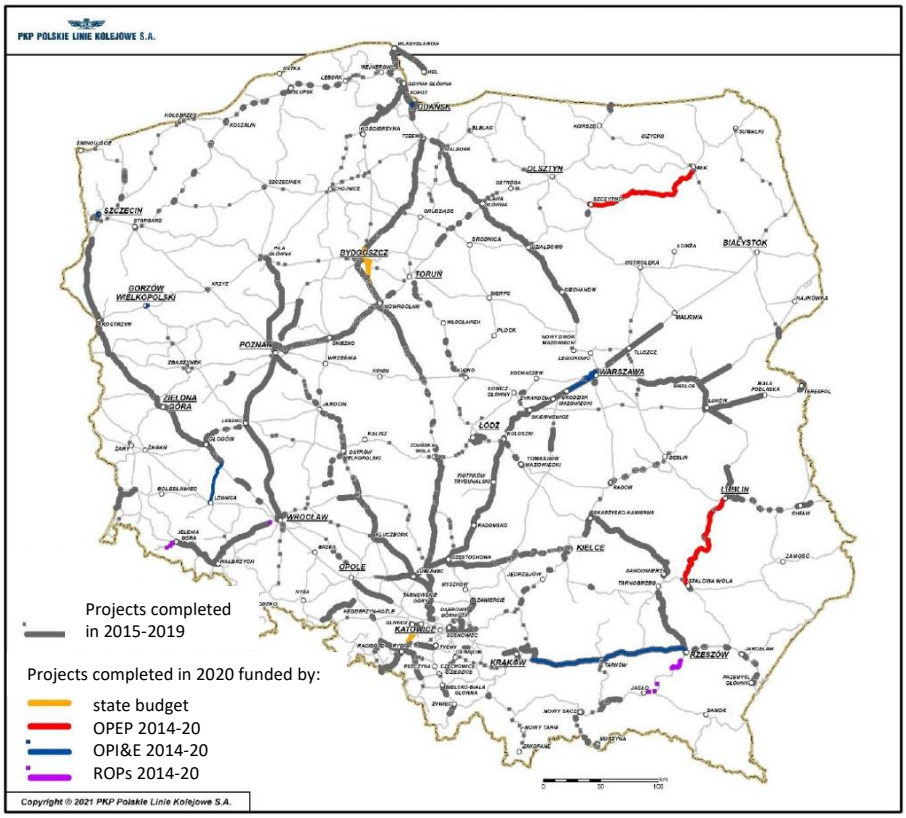


Fig. 3.2. Railway infrastructure projects completed between 2015 and 2020 (without ERTMS/ETCS/GSM-R)

Source: PKP PLK.

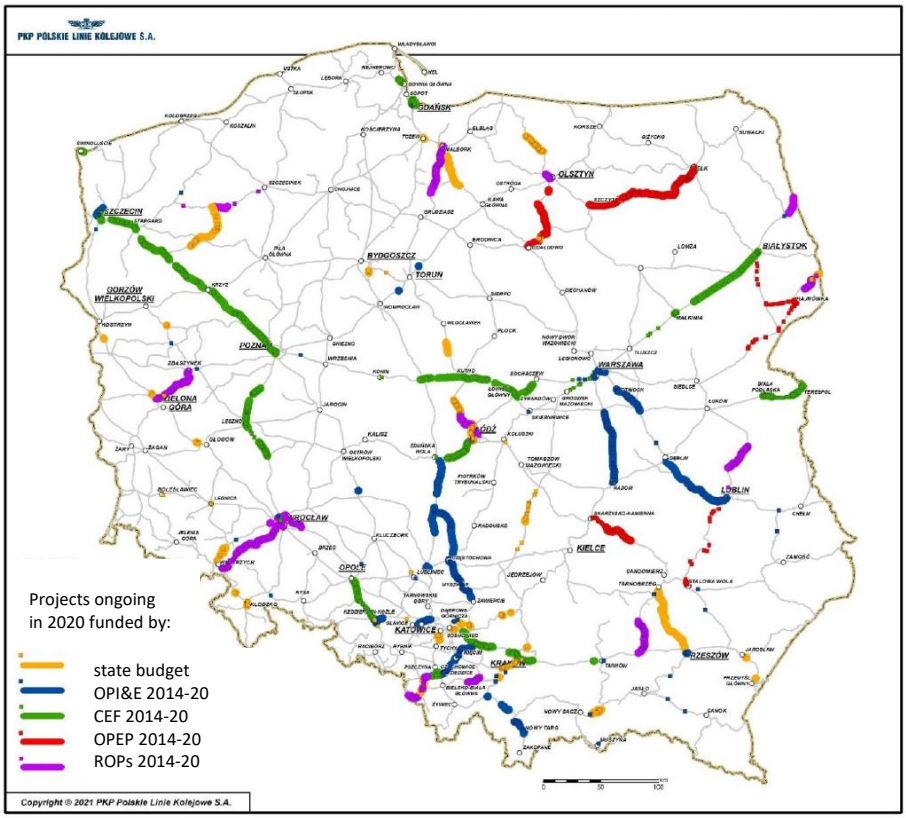
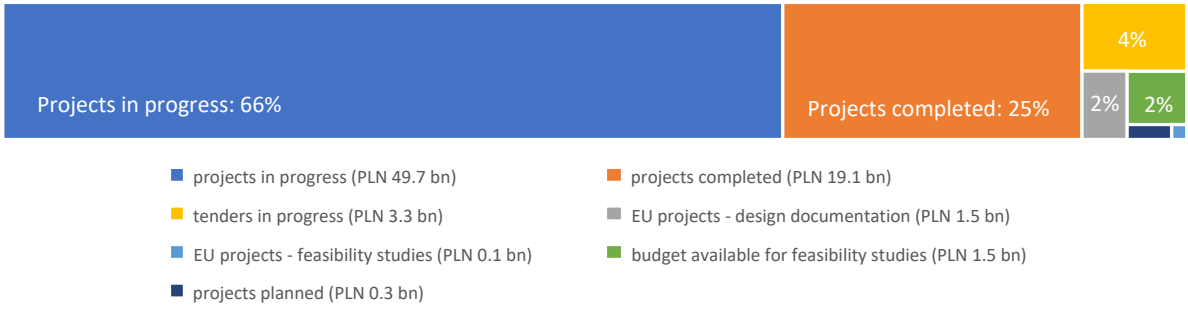


Fig. 3.3. Railway infrastructure projects ongoing in 2020 (without ERTMS/ETCS/GSM-R)

Source: PKP PLK.

The value of the KPK programme for the years 2014–2023 in terms of the basic list is PLN 76 billion (about EUR 17.1 billion). As of mid-2021, 66% projects had been in progress and 25% were completed (**Figure 3.4**). Among the largest projects – with the investment expenditures exceeding PLN 2 billion (EUR 0.4 billion) – were:

- upgrade works on railway line CE65 on the Chorzów Batory – Tarnowskie Góry – Karsznice – Inowrocław – Bydgoszcz – Maksymilianowo section;
- upgrade works on railway line 7 Warszawa Wschodnia Osobowa – Dorohusk on the Warszawa – Otwock – Dęblin – Lublin section;
- upgrade works on the E75 line on the Czyżew – Białystok section;
- upgrade works on the E59 railway line on the Poznań Główny – Szczecin Dąbie section;
- upgrade works on the E20 railway line on the Warszawa – Poznań section – other works, the Sochaczew – Swarzędz section.



Notes:

Projects completed – a value of completed contracts.

Projects in progress – a value of signed contracts.

Tenders in progress – a value of ongoing tender procedures (an estimated net value of contracts).

The EU projects in progress – project design documentation – a value of planned to announce tender procedures for construction works for which project documentation is being prepared

The EU projects – feasibility studies – a value for which feasibility studies are being prepared.

Projects planned – projects before the announcement of the contract award procedure.

Budget available for feasibility studies – a value of feasibility studies contracts planned for implementation in accordance with the budget limits for individual years until the end of the implementation of the KPK.

Fig. 3.4. Status of the KPK implementation as of June 2021

Source: PKP PLK.

A complementary element of the KPK is the implementation of the **European Rail Traffic Management System (ERTMS)**, combining European Train Control System (ETCS) and Global System for Mobile Communications – Railway (GSM-R). This is delayed by over ten years. According to the National Implementation Plan for TSI Control, it is expected that by 2023 the ETCS system will cover 2,480 km of railway lines. In the years 2014–2020, about 900 km of railway lines equipped with ETCS were put into operation. It covers the following railway line sections: Grodzisk Mazowiecki – Zawiercie, Psary – Kozłów, Poznań Wschód – Wągrowiec, E30 Opole – Wrocław – Legnica – Bielawa Dolna, E65 Warsaw – Gdynia (**Figure 3.5**). Further 14 railway lines totalling 1,600 km are expected to be upgraded in the coming years.

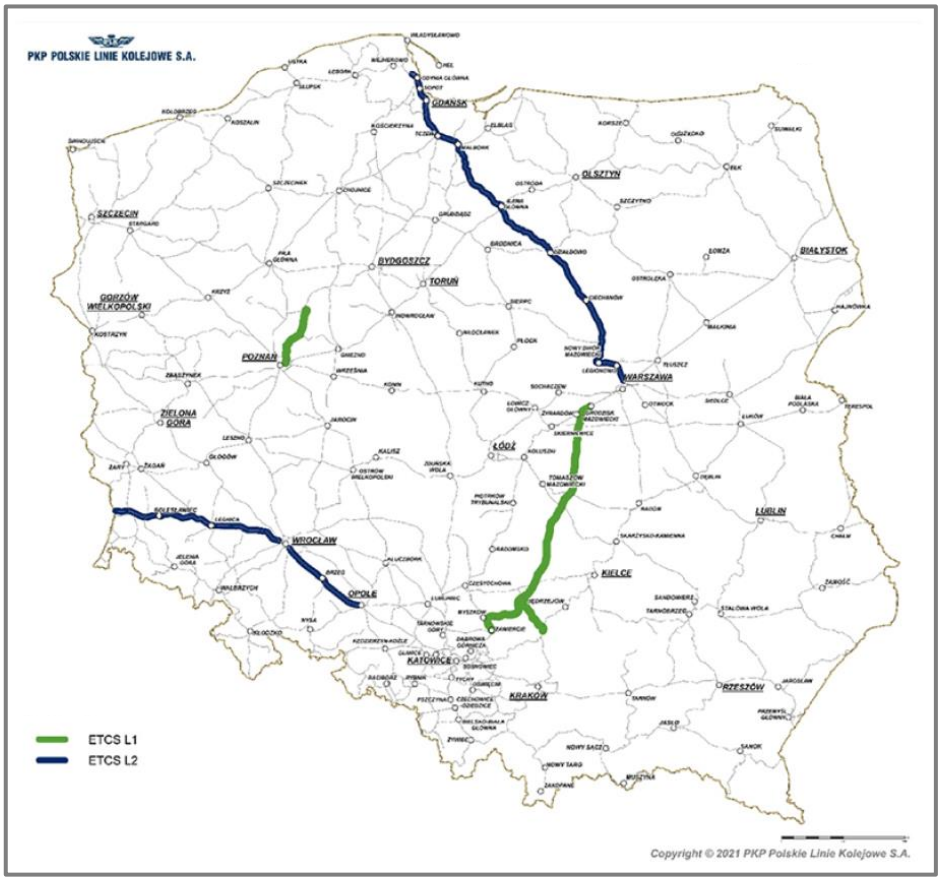


Fig. 3.5. Railway lines equipped with ETCS (as of December 2020)

Source: PKP PLK.

For many years, Poland lacked a systemic approach to maintaining the railway network with the assumed operational parameters and a long-term perspective of funding activities related to the management of railway infrastructure, which hampered the rational planning and implementation of maintenance tasks. The first multi-annual **Maintenance Programme** was approved in January 2018 and updated in January 2021. The programme established the financial framework and the conditions for the implementation of the state's plans in the field of railway infrastructure management. In December 2018, a contract between the biggest beneficiary of this programme – PKP PLK and Ministry of Infrastructure – was signed for five years. The programme is financed by the state budget and the Railway Fund. For its implementation in 2019–2023, about PLN 23.8 billion (EUR 5.5 billion) are to be allocated, including PLN 21 billion (EUR 4.9 billion) from the state budget.

3.3. The TEN-T and rail freight corridors

In Poland, 7,720 km of railway lines have been included in the Trans-European Transport Network (TEN-T). The nine Core Network Corridors that have been defined in the EU constitute a framework for coordinated infrastructure development for the TEN-T Core Network. The Baltic – Adriatic and the North Sea – Baltic Core Network Corridors run through Poland.

Rail Freight Corridors (RFCs) are an integral part of the TEN-T Core Network. The three freight corridors running through Poland (**Figure 3.6**) are of key importance for rail transport, including intermodal transport:

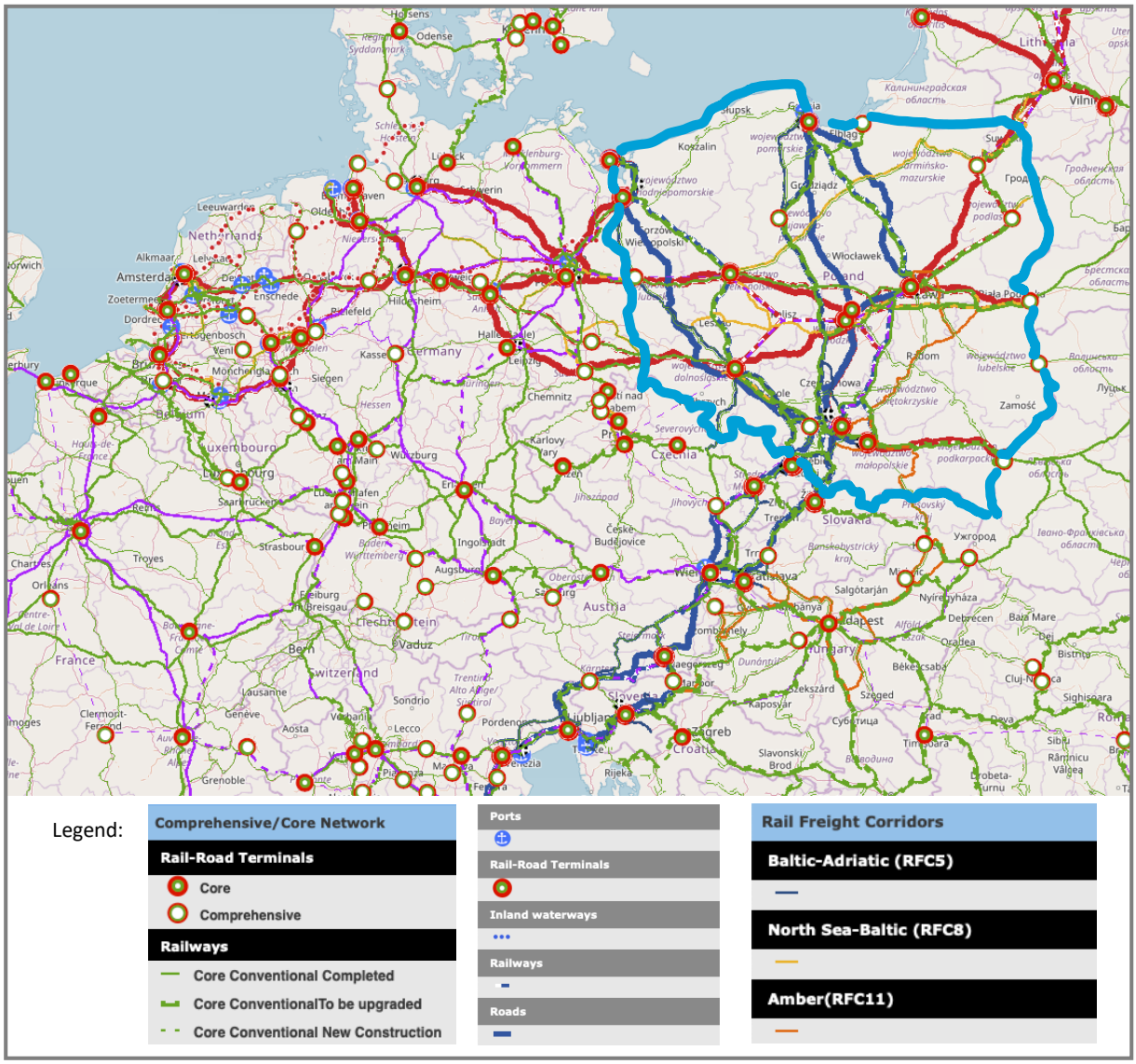


Fig. 3.6. The TEN-T and Rail Freight Corridors in Poland

Source: TENtec, EC, DG MOVE, 2021.

- **RFC5 Baltic – Adriatic Corridor** on the north-south axis, which starts in Gdynia and runs through Tczew, Bydgoszcz (CE65), Warsaw (E65), Katowice, Ostrava, Vienna, Trieste to Ravenna;
- **RFC8 North Sea – Baltic Corridor** connects Bremerhaven, Amsterdam, Rotterdam/Antwerp via Berlin, Warsaw and Terespol (E20) with Kaunas in Lithuania. This corridor is mainly used for the freight transport from China to Western Europe;
- **RFC11 Amber Corridor** connecting south-eastern Poland, Slovakia, Hungary and Slovenia with the Belarusian border in Terespol, running through Budapest, Bratislava and Ljubljana and industrial centres around Krakow, Katowice (Upper Silesian Industrial District), Warsaw, Košice and Miskolc. In the south, the corridor leads to the Port of Koper on the Adriatic Sea in Slovenia.

Infrastructure development in these corridors is supported by the **Connecting Europe Facility (CEF)**. As of June 2021, Poland received EUR 4.3 billion in CEF funding for the implementation of a total of 59 transport projects. PKP PLK is the largest beneficiary of this programme in the EU: within 21 projects, about 1,000 km of railway lines will be upgrading by 2023 (E20, E30, E59, E65, E75 sections, and seaports access sections) with a total cost of EUR 4.3 billion, including EUR 3.4 billion from CEF.

4. RAIL FREIGHT AND PASSENGER SERVICES

4.1. Traffic trends and performance of rail freight operators

Poland is the second largest rail freight market in the EU. The German rail freight market continued to be the largest with 108 billion tkm in 2020. Polish rail freight market accounted for 52 billion tkm and was at the same mark as in 2004 and 2008 (**Figure 4.1**). Practically the only segment of rail freight the volume increased is container transport.

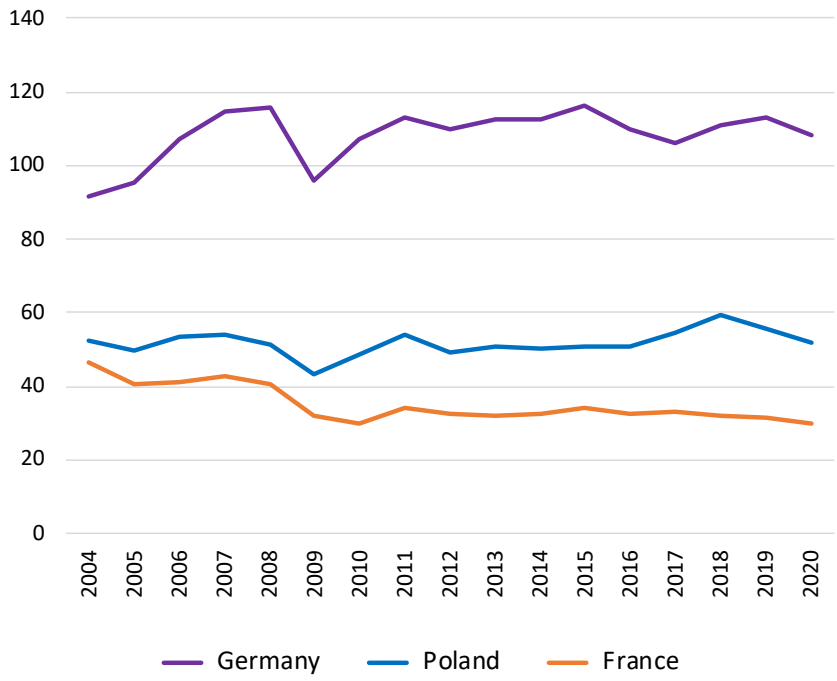


Fig. 4.1. Transport performance trends in the biggest rail freight EU-markets (billion tkm)

Source of data: national statistical offices.

The share of rail freight transport in Poland continues to fall in relation to road transport (from 42% in 2000 to 10% in 2020), because of very high growth dynamics of the road transport: more than 5-fold increase over this period **(Figure 4.2)**.

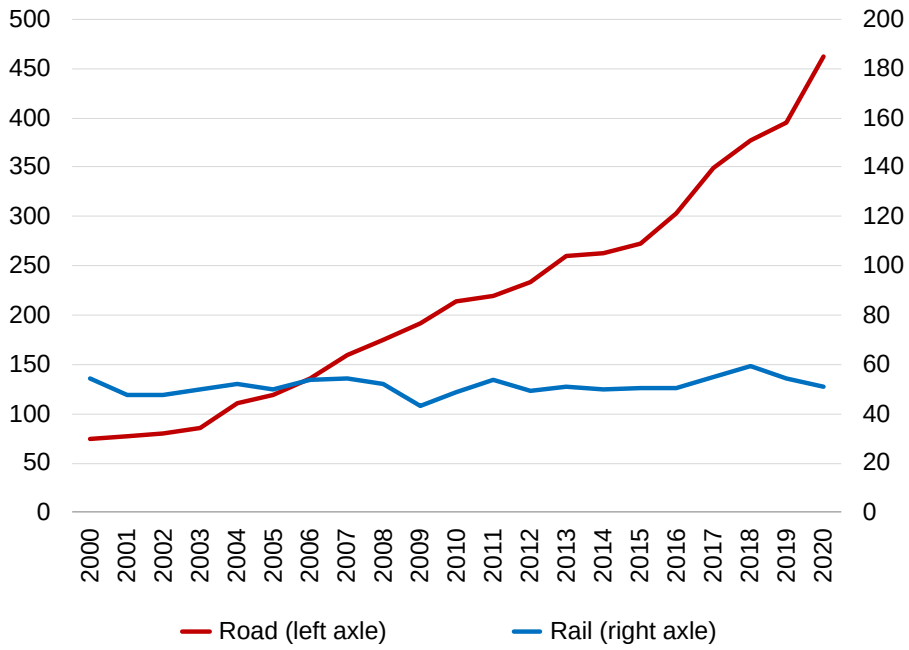


Fig. 4.2. Rail and road transport performance in Poland (billion tkm)

Source of data: Statistics Poland.

In 2020, the market share of the six largest railway operators was about 70% in terms of transport performance. In spite of losing a considerable market share between 2004 and 2018 (from 80% to 41%) PKP Cargo remains the dominant railway operator in Poland. The other main operators are: Lotos Kolej (10.4%), DB Cargo Polska (5.1%), PKP LHS (4.9%), CTL Logistics (4.3%), and Freightliner (3.3%). In international transport, PKP Cargo has about 45%, followed by PKP LHS (12.1%), DB Cargo (9.7%) and CTL Logistics (5.3%).

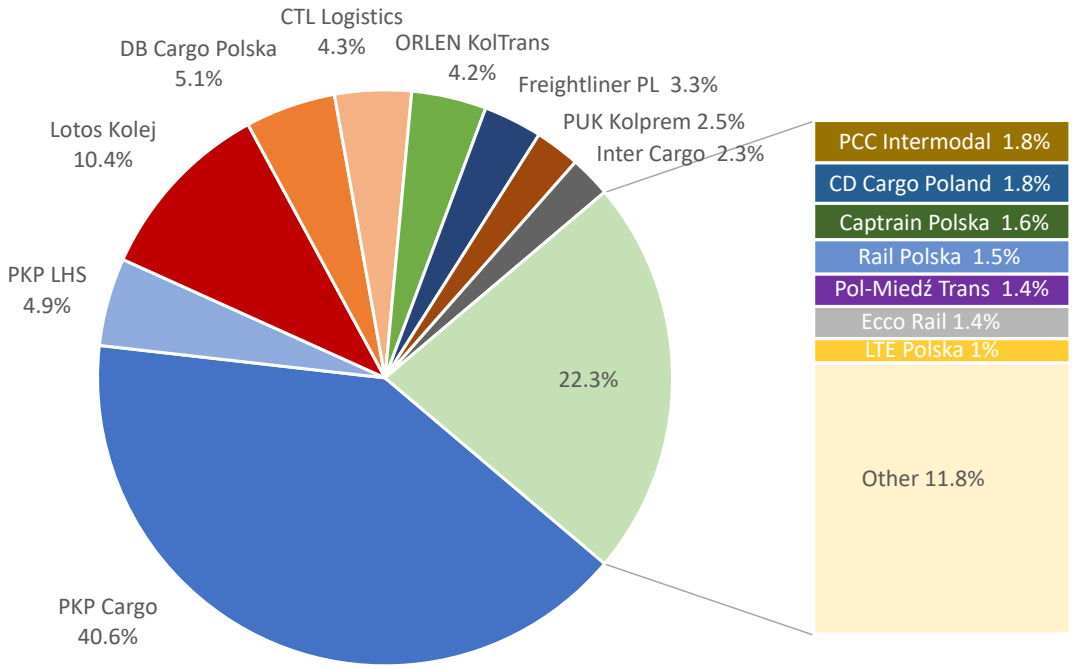


Fig. 4.3. The market share of railway operators in Poland (%, 2020, based on tkm)

Source of data: UTK.

4.2. Rail container transport

Polish rail container market has been developing dynamically since 2010, reaching 2,672,000 TEU (7.8 billion tkm) in 2020 and placing Poland in the third place among the EU-countries after Germany and Italy, overtaking Austria, the Czech Republic and the Netherlands.

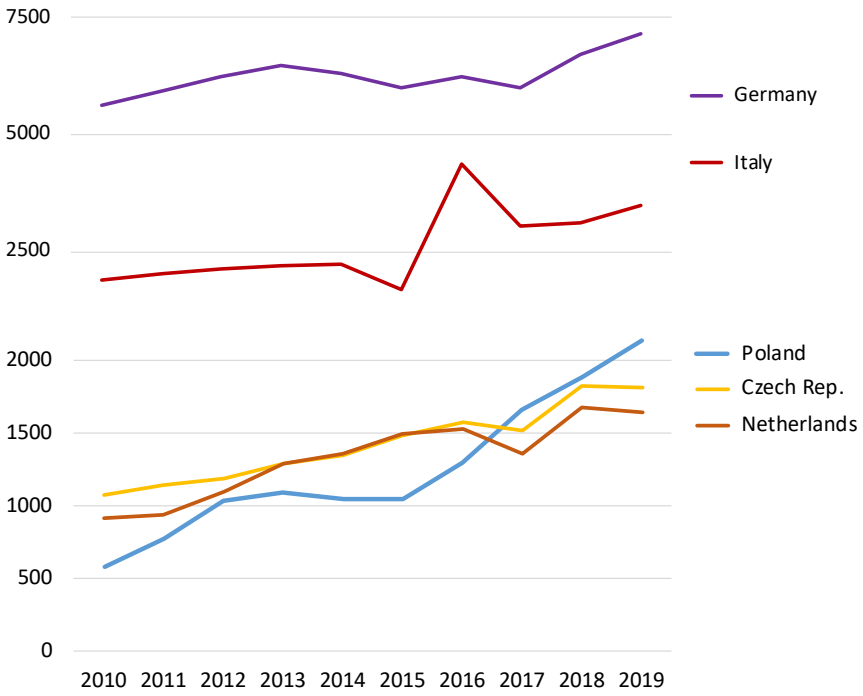


Fig. 4.4. Rail container traffic in Poland and other EU-countries (thousand TEU)

Source of data: Eurostat and UTK.

Rail intermodal transport in Poland still uses mainly containers (96% of the total intermodal units), of which 37% are 20-foot units and 53% are 40-foot units. This transport is carried out by 22 operators. The market share of the leading operator, PKP Cargo, decreased from 70% in 2010 to 43% in 2020. A strong position on the Polish railway market also had: DB Cargo Polska (12%), PCC Intermodal (11.8%) and Captrain Polska (7.7%), followed by Ecco Rail (5.6%), CTL Logistics (4.7%), Metrans (Polonia) (4.7%), LTE Polska (4.1%).

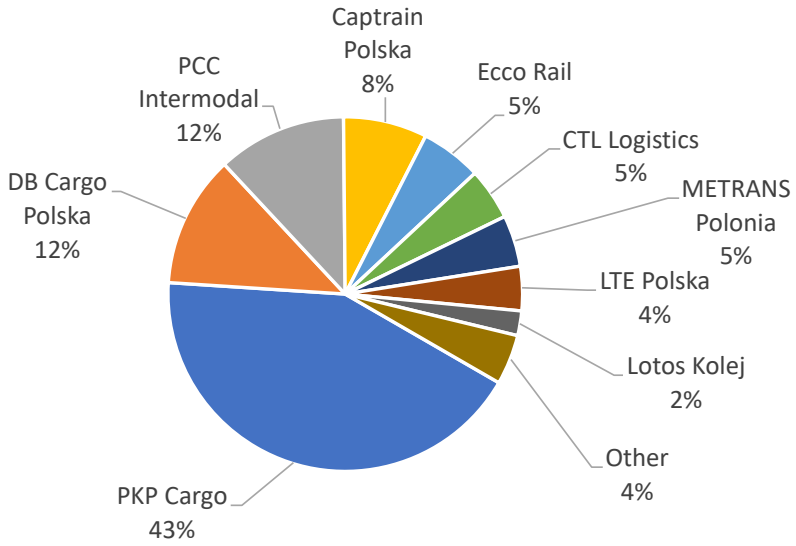


Fig. 4.5. The market share of railway operators in intermodal transport in Poland (%, 2020, based on tkm)

Source of data: UTK.

In mid-June 2021, 41 public-service rail-road terminals operated in Poland. The overall handling capacity of these terminals is 9.2 million TEU, of which 4.2 million TEU of 35 land terminals. About 50% of land rail-road terminals' capacity is concentrated in three urban areas: Katowice, Poznań and Warsaw, and another 10% around Wrocław and Łódź. Three leading intermodal operators owning (or/and managing) the road-rail terminals are: HHLA/Metrans (Polonia), PKP Cargo Group and PCC Intermodal.

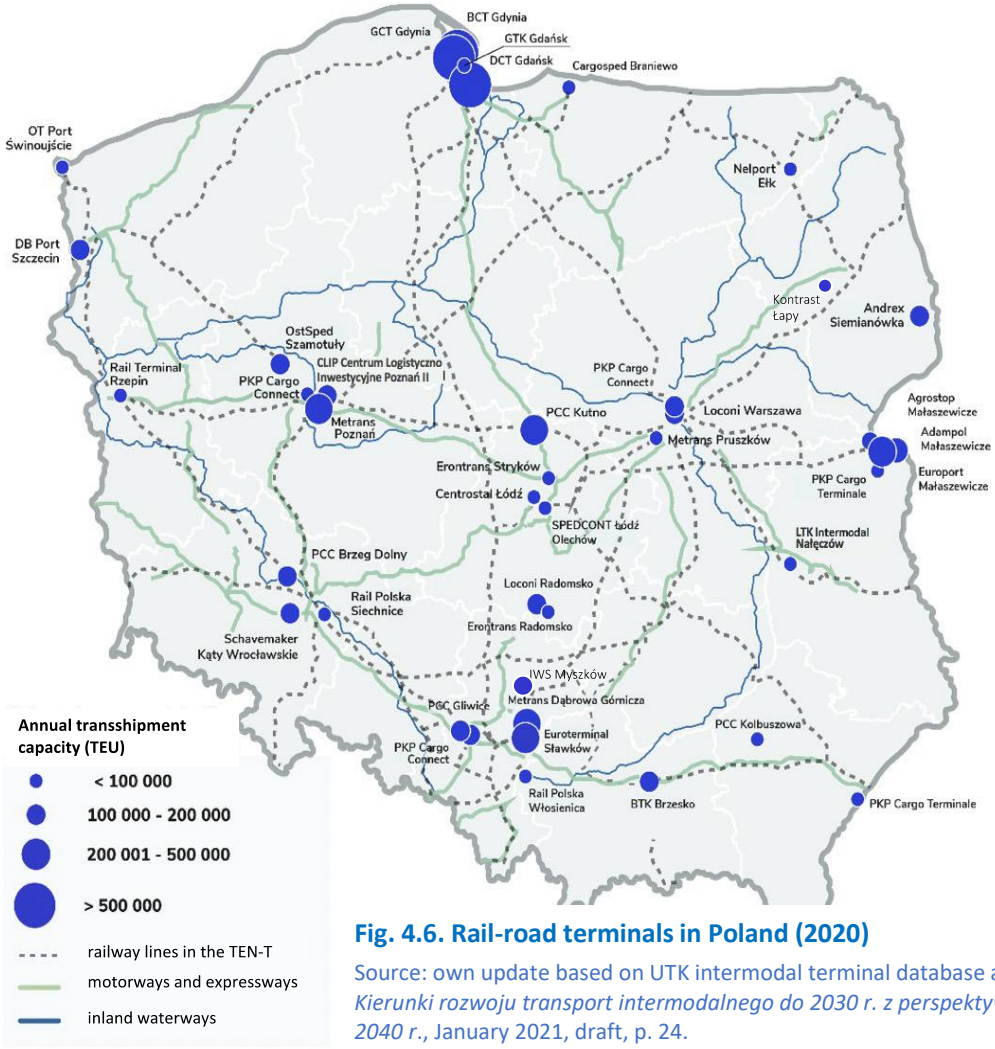


Fig. 4.6. Rail-road terminals in Poland (2020)

Source: own update based on UTK intermodal terminal database and CUPT, *Kierunki rozwoju transport intermodalnego do 2030 r. z perspektywą do 2040 r.*, January 2021, draft, p. 24.

About 77% of the containers in 2019 were carried to international destinations. About 63% of the containers were transported by import (37%) and export (26%), mainly via Gdańsk and Gdynia seaports and border crossings with Germany and the Czech Republic. A further 25% were generated by the domestic market and 14% by transit (**Figure 4.7**).

At the beginning of 2021, a draft of the first intermodal transport development programme[8] has been prepared (as of June 2021 still not adopted). It aimed to create optimal conditions for intermodal integration in the Polish transport system and increase the use of rail transport in intermodal transport. The goal will be achieved through investment activities as well as organisational and legislative activities. A number of flagship projects have been proposed.

[8] CUPT, *Kierunki rozwoju transport intermodalnego do 2030 r. z perspektywą do 2040 r.*, January 2021, draft.

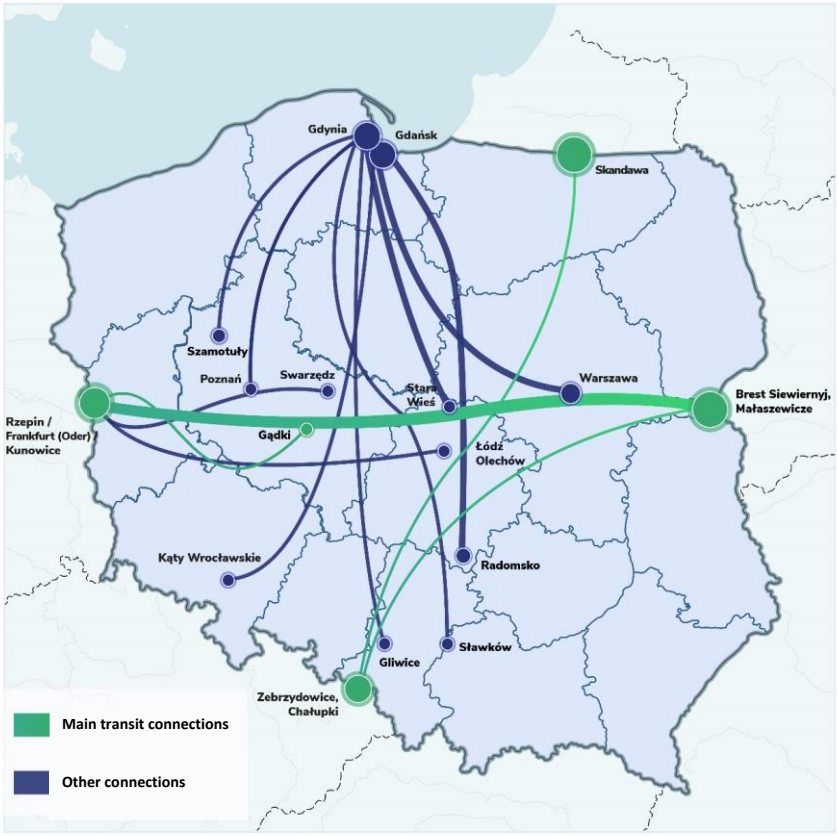


Fig. 4.7. Main intermodal connections in Poland (2019)

Source: UTK/CUPT.

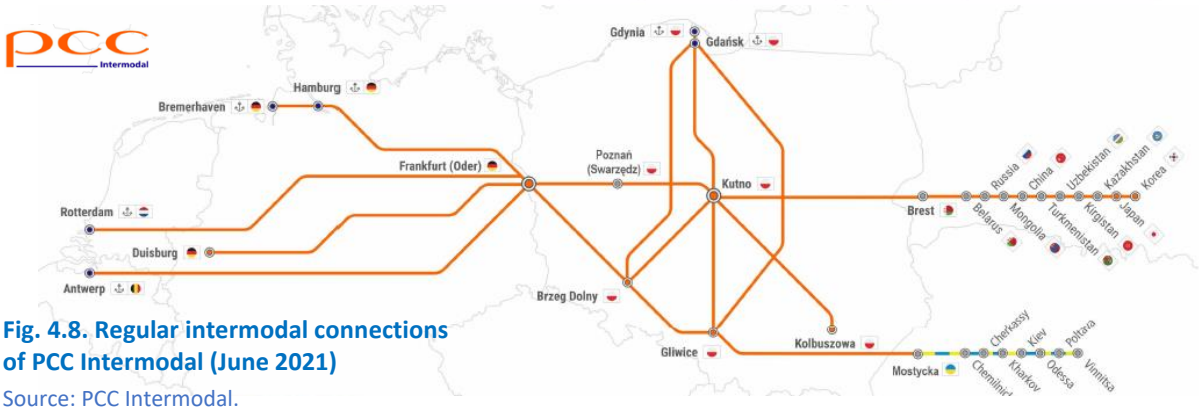


Fig. 4.8. Regular intermodal connections of PCC Intermodal (June 2021)

Source: PCC Intermodal.

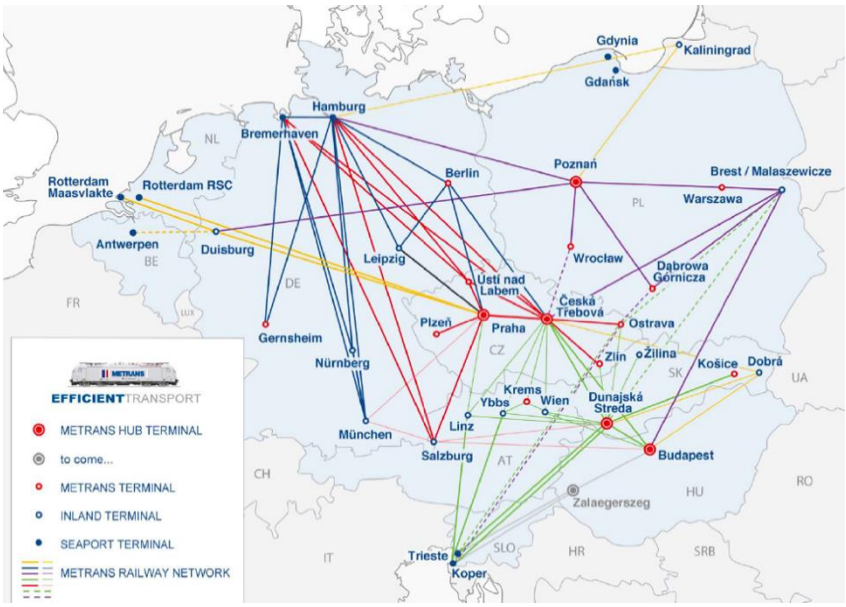


Fig. 4.9. Regular intermodal connections of Metrans (June 2021)

Source: Metrans.

Useful information

FREIGHT OPERATORS

Rail Freight Operator | Key person	Secretariat of the Board
President of the Management Board: Czesław Warsewicz	**PKP Cargo S.A.** tel. +48 22 391 46 19 mob. +48 663 296 030 e-mail: sekretariat.c@pkpcargo.com www.pkpcargo.com/en/ ul. Grójecka 17, 02-021 Warszawa
President of the Management Board: Zbigniew Tracichleb	**PKP Linia Hutnicza Szerokotorowa sp. z o.o.** tel. +48 84 638 62 23 e-mail: info@pkp-lhs.pl https://lhs.com.pl/en ul. Szczebrzeska 11, 22-400 Zamość
President of the Management Board: Anatol Kupryciuk	**Lotos Kolej Sp. z o.o.** tel. +48 58 308 77 35 e-mail: lotoskolej@lotoskolej.pl www.lotoskolej.pl/en/ ul. Michałki 25, 80-716 Gdańsk
President of the Management Board: Marek Staszek	**DB Cargo Polska S.A.** tel. +48 32 271 44 41 e-mail: dbcargo.pl@deutschebahn.com https://pl.dbcargo.com/rail-pl-en ul. Wolności 337, 41-800 Zabrze
President of the Management Board: Grzegorz Bogacki	**CTL Logistics Sp. z o.o.** tel. +48 32 299 01 21 e-mail: info@ctl.pl https://ctl.pl/en/ ul. Długa 90, 41-208 Sosnowiec

Rail Freight Operator | Key person	Secretariat of the Board
President of the Management Board: Krzysztof Duszczyk	**Orlen KolTrans S.A.** tel. +48 24 256 64 44 e-mail: koltrans@orlen.pl www.orlenkoltrans.pl/EN ul. Chemików 7, 09-411 Płock
President of the Management Board: Konstantin Skorik	**Freightliner PL Sp. z o.o.** tel. +48 22 648 66 55 e-mail: biuro@freightliner.pl https://pl.freightliner.eu/en/ ul. Polna 11, 00-633 Warszawa
President of the Management Board: Łukasz Skorupa	**PUK KOlprem Sp. z o.o.** tel. +48 795 524 430 e-mail: anna.lapa@arcelormittal.com www.kolprem.pl/en/ Al. J. Piłsudskiego 92 41-308 Dąbrowa Górnicza
President of the Management Board: Sylwester Sigiel	**Inter Cargo Sp. z o.o.** tel. +48 32 204 41 32 e-mail: office@inter-cargo.pl www.inter-cargo.pl ul. Ceglana 4, 40-514 Katowice
President of the Management Board: Dariusz Stefański	**PCC Intermodal S.A.** tel. +48 58 585 82 00 e-mail: info.intermodal@pcc.eu www.pccintermodal.pl ul. Hutnicza 16, 81-061 Gdynia
President of the Management Board: Tomasz Momot	**CD Cargo Poland Sp. z o.o.** tel. +48 22 380 33 90 e-mail: sekretariat@cdcargo.pl https://cdcargo.pl/en/ ul. Grzybowska 4, room 3 00-131 Warszawa

Rail Freight Operator | Key person	Secretariat of the Board
President of the Management Board: Paweł Szczapiński	**Captrain Polska Sp. z o.o.** tel. +48 784 031 000 e-mail: biuro@captrain.pl www.captrain.pl/en/ ul. Powstańców Śląskich 2-4 53-333 Wrocław
President of the Management Board: Edward A. Burkhardt	**Rail Polska Sp. z o.o.** tel. +48 22 646 54 67 e-mail: railpolska@railpolska.pl www.railpolska.pl/en ul. Willowa 8/10 room 11 00-790 Warszawa
President of the Management Board: Stanisław Bazak	**Pol-Miedź Trans Sp. z o.o.** tel. +48 76 847 18 00 e-mail: sekretariat@pmtrans.pl www.pmtrans.pl/en/ ul. Marii Skłodowskiej-Curie 190 59-301 Lublin
President of the Management Board: Monika Łupińska	**Ecco Rail Sp. z o.o.** tel. +48 887 707 887 e-mail: monika.lupinska@ecco-rail.eu www.ecco-rail.eu/en/ ul. Chorzowska 6, 40-101 Katowice
President of the Management Board: Arthur Kaldynski	**LTE Polska Sp. z o.o.** tel. +48 58 526 92 41 e-mail: arthur.kaldynski@lte-group.eu www.lte-group.eu/en/ ul. Sportowa 8, 81-300 Gdynia
Managing Director: Tomasz Mioduszewski	**Metrans Polonia Sp. z o.o.** tel. +48 22 336 34 00 e-mail: mioduszewski@metrans.eu https://metranspolonia.pl Al. Jana Pawła II 19, 00-854 Warszawa

4.3. Traffic trends in rail passenger transport

In 2019, railways in Poland carried 336 million passengers. The growing trend in the number of passengers has been continued since 2015. In 2020, due to the coronavirus SARS-CoV-2, this trend was interrupted, recording a decrease of 38% (**Figure 4.10**). Between 2019 and 2020 the transport performance fell from 22.1 to 12.7 billion passenger-kilometres.

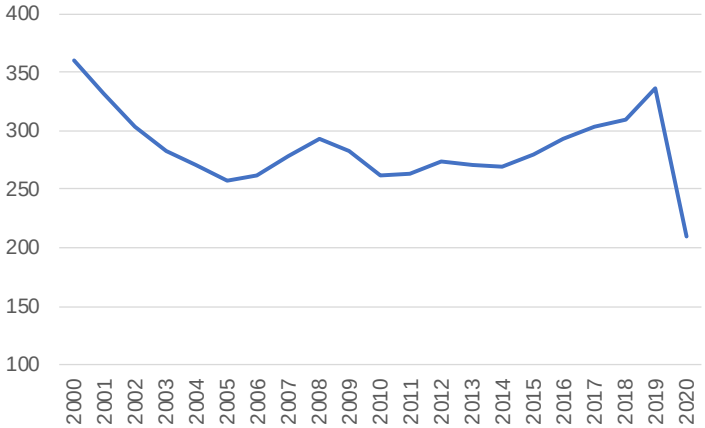


Fig. 4.10. The number of passengers carried by railways in Poland (million passengers)
Source of data: UTK.

In a long-distance segment, PKP Intercity carried 26.6 million passengers in 2020 (45% less than in 2019).

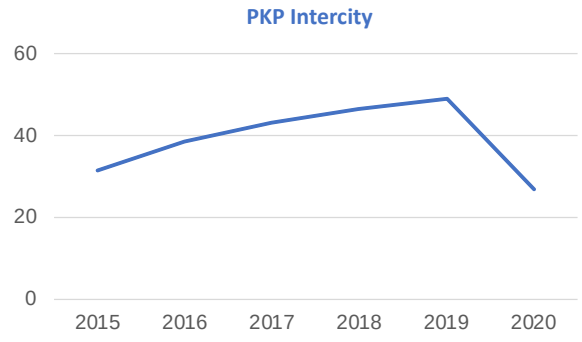


Fig. 4.11. The number of passengers carried by PKP Intercity's long-distance trains (million passengers)
Source of data: UTK.

The biggest operator serving individual voivodeships is POLREGIO, with 55.7 million passengers carried in 2020 alone. Other three large operators include: Koleje Mazowieckie – KM, and Szybka Kolej Miejska (SKM Warszawa) serving the Warsaw Metropolitan Area, and PKP Szybka Kolej Miejska w Trójmieście serving the Gdańsk-Gdynia-Sopot Metropolitan Area.

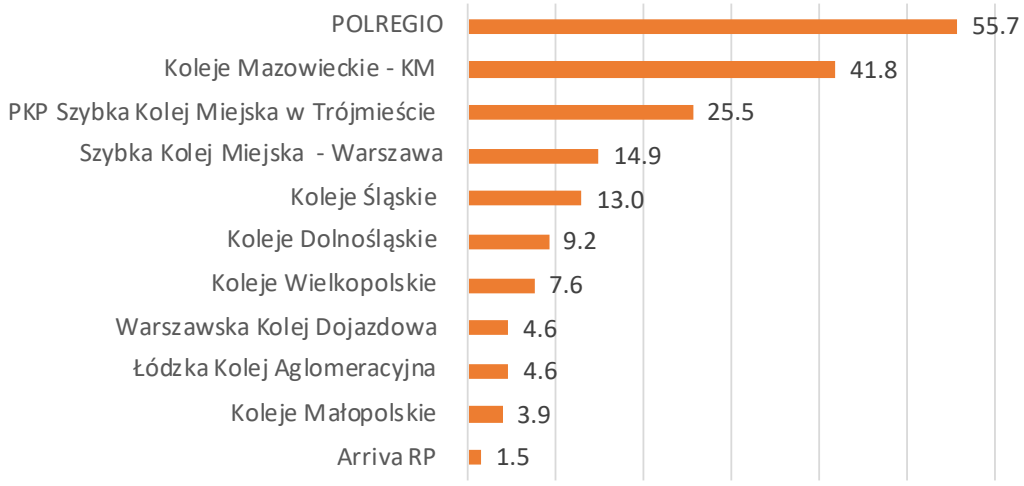


Fig. 4.12. The number of passengers carried by regional and urban railways in 2020 (million passengers)
Source of data: UTK.

5. RAIL SUPPLY INDUSTRY

5.1. Rolling stock manufacturers

The railway industry in Poland has a long tradition. Both global and local players are located here.

Until 2021, the largest global rail industry investor in Poland was Bombardier Transportation with more than 2,000 employees in Katowice, Łódz, Warsaw and Wrocław and a wide range of business activities: production of locomotive and passenger vehicle carbodies, including high-speed vehicles, bogie frames for high-speed trains, regional multiple units, trams and metro cars; design and production of rail control-command and signalling systems; production of electric devices and equipment; maintenance services for rail control solutions and rolling stock.

Bombardier products and services are well known in the country. New generation TWINDEXX double-deck trains are operated in Poland by Koleje Mazowieckie. The TRAXX locomotives are operated by many companies, including LOTOS Kolej, Pol-Miedź Trans, Orlen Koltrans and Koleje Mazowieckie. Modern low-floor FLEXITY trams have improved metropolitan transport in Kraków, Gdańsk and Lódź. All main railway lines in Poland, as well as lines 1 and 2 on the Warsaw metro, are equipped with rail control solutions designed and produced with a significant contribution from the Bombardier Transportation site in Katowice. Bombardier's INTERFLO ERTMS/ETCS Level 2 technology will soon be launched on E30 and E65 railway lines.

Following the completion of Bombardier Transportation acquisition on 29 January 2021, **ALSTOM** has become the largest player on the railway market in Poland, employing over 4,000 people in the following **production and service plants**:

- Alstom Konstal rolling stock site in Chorzów (near Katowice): regional passenger trains, high-speed trains, metros and trams, carbodies for locomotives;
- Alstom manufacturing sites in Katowice and Świętochłowice: an engineering and manufacturing site for metro, trams and regional trains (the company also cooperates with ZRE Katowice site);
- Alstom centre of excellence for aluminium and steel car body-shells in Katowice;
- Alstom bogie production plant in Piaseczno (near Warsaw): bogies for Coradia Stream trains;
- Bombardier rolling stock site in Wrocław: production and assembly of carbodies;
- Bombardier manufacturing/engineering site in Katowice: design and manufacturing of rail traffic control-command and management systems;
- Bombardier engineering office in Warsaw: design of rail control solutions;
- Bombardier service site in Łódź;
- Alstom service and maintenance depot in Warsaw (for Pendolino ED250 trains);
- Delta manufacturing facility near Katowice: welding and electrical components for rolling stock.

Alstom has been present in Poland for over 20 years. The Alstom Konstal plant in Chorzów is one of the three largest Alstom factories in the world: a 250,000-square-metre engineering and manufacturing site for metros and regional trains. In November 2018, the new fitting line dedicated to the Intercity Next Generation (ICNG) trains was inaugurated. The Coradia Stream regional trains are manufactured upon Nederlandse Spoorwegen (NS) order: 79 trains in two configurations (8 cars and 5 cars) will be delivered by October 2022. Alstom Konstal in Chorzów is also a worldwide competency centre for metros, and part of Alstom's Global Engineering Network. 100% of its production is destined for the export market, such as: Europe, the Middle East, Africa, Australia.

Alstom sources 40% of components from subcontractors in Poland and cooperates with up to 468 Polish suppliers not only for its factories in Poland, but also for projects being developed in 27 Alstom sites worldwide. Alstom is the only Top Employer certified company in railway industry in Poland.

Alstom has been a pioneer in introducing high-speed trains in the country with its Pendolino flagship for PKP InterCity: its 20 ED250 trains are operational since December 2014. Alstom Pendolino service depot in Warsaw services these trains.

In April 2021 a consortium led by Alstom has completed the delivery of its signalling solution ERTMS/ ETCS Level 2 for the E65 railway line which is under modernization and links Warsaw in central Poland with Gdynia, in the north of the country. This project was based on a contract previously signed with PKP PLK. The delivery of the state-of-the-art technology on 350 kilometres of line that covers 35 railway stations and links Warsaw with Gdynia enables train traffic at the speed of 200 km/h. The project delivered by the consortium of companies was one of the largest and most complex projects in the history of the railways in Poland. Alstom and Thales Polska were responsible for the design and implementation of ERTMS/ETCS Level 2 signalling solution, and Nokia for providing the GSM-R system. Within the scope of the project, the consortium upgraded eight integrated control rooms, delivered remote traffic control and management systems, turn-key solutions for Dispatcher Centres and an integrated passenger information system.

Poland with Ukraine and the Baltic States are a part of Alstom's Central and Eastern Europe (CEE) Cluster. Poland is not only the largest manufacturing centre in the region, but also the business and commercial centre hosting Alstom's CEE headquarters. In March 2021, Sławomir Nalewajka was appointed as a Managing Director of Alstom in Poland, Ukraine and the Baltic States. He will be responsible for maintaining relations with local authorities and customers, developing sales activities, market strategy, business, managing operations of Alstom's manufacturing sites and ensure project delivery.

In mid-June 2021, the ALSTOM Group announced plans to open a new plant for the production of bogies for hydrogen powered trains Coradia iLInt, for metro cars and trams, in Nadarzyn near Warsaw.

Photo: ALSTOM

Another global leader present in the Polish market is **SIEMENS**. Although Siemens has no manufacturing plants in Poland, all its business units, including transport, are well established. In July 2018, **Siemens Mobility** unit was separated from the structure of the holding. Its activity covers offering rolling stock, railway signalling, maintenance service, ITS. The company participates in tenders for the delivery of products and services and cooperates with numerous companies in the field of creating solutions for the Polish railway market. In January 2021, Siemens Mobility delivered the last of the 20 Vectron locomotives ordered to PKP Cargo. In total, over 50 Vectron locomotives registered in Poland are used by PKP CARGO, DB Cargo Polska, CARGOUNIT and Lotos Kolej.

Photo: SIEMENS

In autumn 2020, the Office of Rail Transport issued an indefinite permit for putting into operation in Poland Vectron MS locomotives equipped with the ETCS Baseline 3.4.0.

From the beginning of 2021, all new MS Vectrons delivered in Poland are compatible with the latest version of the ETCS system. The first was the first Vectron for Laude Smart Intermodal delivered in January 2021 with the latest version of the ETCS system.

STADLER has three sites in Poland with 1,500 employees: the Central Europe Division is headquartered in Warsaw, there is a production centre in Siedlce, and there is a service centre in Łódź. The assembly plant in Siedlce was opened in 2007 after Stadler had been able to conclude a substantial contract in June 2006 for the development and production of FLIRT trains for the Masovian and Silesia voivodeships. STADLER POLSKA builds trains for the Polish market and for export (to Germany, Estonia, Italy, Hungary, the Netherlands and Belarus). In September 2016, STADLER POLSKA and Solaris Bus & Coach announced their intention to step up their cooperation in the area of urban rail and trams. The two companies are now operating as a consortium. Currently, an order for 61 five-unit FLIRT trains for Koleje Mazowieckie and two orders for 110 trams for MPK Kraków are being carried out. Also, a new hybrid multiple units are being built for a rail operator from Norway, as well as Wink trains using hydrogenated vegetable oil technology for Dutch Arriva.

Based in Środa Wielkopolska, STADLER ŚRODA specialises in the construction and painting of steel bodies for trams. Together with STADLER POLSKA, STADLER ŚRODA takes part in tenders for the supply of new trams on the Polish and other markets. STADLER SERVICE POLSKA was established in 2016 and operates maintenance plants at the sites in the Polish cities of Łódź and Warsaw. They maintain 54 FLIRT vehicles for: Łódzka Kolej Aglomeracyjna, PKP Intercity, Koleje Śląskie, Koleje Mazowieckie. In May 2021, the construction of a new maintenance hall for FLIRT trains operated by Koleje Mazowieckie was launched in Sochaczew.


Photo: STADLER

LEADING GLOBAL MANUFACTURERS OF ROLLING STOCK IN POLAND

ALSTOM KONSTAL S.A.

Managing Director (Chorzów plant):
Paweł Siwek

Country office:
tel. +48 32 349 10 00
ul. Metalowców 9, 41-500 Chorzów

www.alstom.com/alstom-poland

Managing Director for CEE:
Sławomir Nalewajka

Sales office and CEE office:
tel. + 48 22 540 66 00
Warsaw Financial Center
ul. Emilii Plater 53, 00-113 Warszawa

SIEMENS MOBILITY Sp. z o.o.

Headquarter:
tel. +48 22 870 97 61
e-mail: mobility.pl@siemens.com

www.mobility.siemens.com/pl/pl.html

ul. Żupnicza 11, 03-821 Warszawa

CEO: Krzysztof Celiński

STADLER POLSKA Sp. z o.o.

tel. +48 25 746 45 00
e-mail: Stadler.Siedlce@stadlerrail.com

www.stadlerrail.com/en/about-us/locations/stadler-polska-sp-z-oo/32/

ul. Targowa 50, 08-110 Siedlce

CEO: Tomasz Prejs

In 2010–2020, rolling stock manufacturers delivered a total of 599 passenger rail vehicles to the Polish market, of which were 62 locomotives, 418 electric multiple units (EMUs), 117 diesel multiple units (DMUs) and 2 hybrid multiple units (HMUs).

2020 saw the highest activity since 2016 in terms of railway related purchases:

- Polish carriers started operating 75 new railway vehicles, of which 36 were EMUs;
- NEWAG delivered 30 electric locomotives to PKP Intercity;
- two hybrid multiple units were put into service for the first time on the Polish market.

Additionally, contracts for the supply of 55 rail passenger vehicles were signed in 2020, with a total value of PLN 1.5 billion (EUR 0.4 billion). According to the value of contracts signed, 72% of new orders belonged to NEWAG, 19% to Stadler and 9% to PESA (**Table 5.1**).

Table 5.1. New railway passenger vehicles delivered to the Polish market in 2020

Manufacturer	Passenger operator	Contracting authority	Vehicle type	Quantity
NEWAG	POLREGIO	Marshal's Office of the Pomerania Voivodeship	Impuls 45WE/EN90-10 five-unit EMU	1
	PKP Intercity	PKP Intercity	Electric locomotives Griffin E4DCU/EU160	30
	POLREGIO	Marshal's Office of the Subcarpathia Voivodeship	22Ma/SA140 two-unit DMU	2
	POLREGIO	Marshal's Office of the Subcarpathia Voivodeship	Impuls 36WEdb/EN63B three-unit EMU	8
	POLREGIO	Marshal's Office of the Lubusz Voivodeship	Impuls 36WEhd three-unit DMU	2
	Koleje Wielkopolskie	Koleje Wielkopolskie	Impuls 36WEhd three-unit DMU	3
	Polregio	Marshal's Office of the WestPomerania Voivodeship	Impuls EN63H three-unit HMU	3
STADLER	Koleje Mazowieckie	Koleje Mazowieckie	Flirt II ER160 five-unit EMU	18
PESA	Koleje Wielkopolskie	Koleje Wielkopolskie	Elf 2 48WE five-unit EMU	3
	Koleje Sląskie	Koleje Śląskie	Elf 2 21WEa three-unit EMU	2
	Koleje Wielkopolskie	Koleje Wielkopolskie	Elf 2 48WEb five-unit EMU	4

*EMU – electric multiple unit; DMU – diesel multiple unit; HMU – hybrid multiple unit.

Source of data: *Rynek Kolejowy No. 3/2021*.

NEWAG is a group with Polish origins dating back to 1876. It produces modern electric, diesel and hybrid passenger trains, electric and diesel locomotives as well as metro and tram vehicles. It also offers restoration of diesel locomotives and passenger cars. Two NEWAG's plants are located in Nowy Sącz and Gliwice. In a consortium with SIEMENS, NEWAG has delivered 35 metro vehicles for the Warsaw Metro and 30 for the Sofia metro operator. With GENERAL ELECTRIC, a comprehensive modernization of locomotives for PKP LHS. were carried out. In the last two years, NEWAG has introduced new generations of vehicles to the market: the Dragon 2 electric locomotive and the IMPULS 2 36WEdb EMU.

In 2020, 46 electric locomotives, 13 electric, 7 diesel and 1 hybrid multiple units were produced in NEWAG's plans. This resulted in a 78% share on the Polish market in the new electric locomotives delivered. The company also had a 74% share in the deliveries of modernized diesel locomotives. In 2021, the process of obtaining approval for operation is carried out for the four types of vehicles: electric double-system locomotive type E6MST DRAGON 2; double-unit electric multiple unit 37WEa Impuls II, four-section electric multiple unit 31WEb Impuls II; five-unit electric multiple unit 45WEa Impuls II.

LEADING POLISH ROLLING STOCK MANUFACTURER GROUPS

Manufacturer | Key person	Secretariat of the Board
President of the Management Board: Zbigniew Konieczek	**Newag S.A.** tel. +48 18 449 63 60 e-mail: sekretariat@newag.pl www.newag.pl/en/ ul. Wyspiańskiego 3, 33-300 Nowy Sącz
President of the Management Board: Krzysztof Zdziarski	**PESA Bydgoszcz S.A.** tel. +48 52 58 68 199 e-mail: pesa@pesa.pl http://pesa.pl ul. Z. Augusta 11, 85-082 Bydgoszcz Sącz

PESA, the Bydgoszcz-based rolling stock manufacturer, since 2006 has supplied diesel- and electric powered rail vehicles (including the low-floor ELF family) to all regions of Poland as well as to Ukraine, Lithuania, and Italy. In 2012, an electric locomotive developed as part of the Gama modular locomotive family, which includes locomotives powered by a 2400 kW diesel engine and capable of a maximum speed of 160 km/h alongside an electric locomotive line comprising single-system and multi-system locomotives powered at 1.5kV DC, 3kV DC, 15kV AC or 25kV AC and reaching the maximum speed of 140 km/h in freight transport or 200 km/h in passenger transport. A key characteristic of the GAMA locomotive family is the use of standardized modules that can be mounted on different types of locomotives, making the cars a lot easier to service. In 2015 – first Dart trains delivered – a new generation of intercity class EMU trains geared to meet the requirements of European and global operators for long-distance lines. Dart units can be powered by a range of voltages and run at operating speeds of up to 250 km/h.

In the first half of 2021, PESA has delivered 14 orders, including 16 SWING trams for Romanian city Jassy, 18 TWIST trams for Silesia, 3 Jazz trams for Gdańsk and 5 SWING trams for Toruń. ELF-family multiple units will be used by Koleje Małopolskie, Koleje Wielkopolskie and Koleje Dolnośląskie. In May 2021, PESA Bydgoszcz delivered the first GAMA Marathon locomotive, ordered by RCP for AlzaCargo.

Part of PESA Group is ZNTK Repair plant, based in Minsk Mazowiecki (Zakłady Naprawcze Taboru Kolejowego Mińsk Mazowiecki), in which rolling stock is modernised, repaired and has built.

There are also a number of other, less major, rolling stock construction and repair plants in Poland. Additionally, a rolling stock lease providers operate on the Polish market. Almost 30% of the rolling stock used in freight transport have been acquired through rental or lease, including from rolling stock pool entities (ROSCO).

Company | Location	Website
Rolling stock construction plants, repair and maintenance shops	
ALSTOM Konstal S.A., Chorzów	www.alstom.com/alstom-poland
ALSTOM (Bombardier Transportation), Wrocław	https://rail.bombardier.com/en/about-us/worldwide-presence/poland/en.html
Altrans, Oleśnica	www.altrans.wroc.pl
ASKO RAIL sp. z o.o., Pyskowice	www.ascorail.pl/en
Fablok Martech, Chrzanów	https://fablok.com.pl
FHU 'ORION Kolej', Nowy Sącz	www.orionkolej.pl
EVERRAIL Sp. z .o., Warszawa	http://everrail.pl
H. Cegielski – FPS, Poznań	https://fpspoznan.pl
Kol-System Cieżak sp.j., Sosnowiec	www.kol-system.pl
'Lok-Service' Dariusz Majran, Zabrze	http://lok-service.pl/
Newag S.A., Nowy Sącz	www.newag.pl/en/
OLKOL Sp. z o.o., Oleśnica	http://olkol.pl/en/homepage/
PESA Bydgoszcz S.A., Bydgoszcz	http://pesa.pl/?lang=en_us
P.H.U 'LOKOMOTIV' Bronisław Plata	www.lokomotiv.net.pl
Protor Sp. z o.o., Pyskowice	http://protorsa.com.pl
Siemens Mobility, Warszawa	www.mobility.siemens.com/pl/
Serwis Pojazdów Szynowych	https://serwispojazdowszynowych.pl/en
Stadler Polska Sp. z o.o., Siedlce	www.stadlerrail.com/en/about-us/locations/stadler-polska-sp-z-oo/32/
Seluch Dariusz Selka, Pruszcz	not available
Tabor Dębica Sp. z o.o., Dębica	www.tabor-debica.pl
TLL Sp. z o.o. Sp. K., Gliwice	https://techlok.pl
Wagony Świdnica Sp. z o.o. (Greenbrier Europe), Świdnica/Oława/Tarnobrzeg	www.greenbrier-europe.com/production/swidnica/
ZNTKiM Gdańsk	http://zntkim.pl
ZNTK Mińsk Mazowiecki S.A.	http://zntkmm.pl/o-firmie/
ZNTK Paterek S.A., Nakło nad Notecią	http://zntk-paterek.pl
ZNTK Radom Sp. z o.o., Radom	www.zntkradom.pl
ZNTK Ostróda (GATX Rail Poland), Ostróda	www.wsostroda.eu

Company | Location	Website
Components and equipment for rolling stock	
Axtone S.A., Kańczuga	https://axtoneglobal.com
Fabryka Aparatury Elektromechanicznej Fanina, Przemyśl	www.fanina.pl/en
FRIMATRAIL FRENOPLAST S.A., Wołomin	https://frimatrail-frenoplast.pl/en/
Intermech	www.intermech.com.pl/en/produkty.html
Growag Sp. z o.o. Grodzisk Wlkp.	https://growag.pl/en/
Knorr-Bremse Systemy dla Kolejowych Środków Lokomocji PL Sp. z o.o., Kraków	www.knorr-bremse.pl/en/group/kbinpoland/location/krakow/krakow_1.jsp
Kuźnia Ostrów Wielkopolski Sp. z o.o.	http://kuzniaostrow.pl/index.php/en/
Lucchini Poland Sp. z o.o., Mińsk Maz.	https://lucchini.pl/pl/
Mavex-Rekord Sp. z o.o., Raciborz	http://mavex-rekord.pl
MEDCOM Sp. z o.o., Warszawa	www.medcom.com.pl/en/
Polmor, Bytów	https://polmor.pl/en/
Posteor, Wrocław	http://posteor.eu/english
Rail-Bohamet, Nakło nad Notecią	https://rail-bohamet.pl
Rail Tech Polska Sp. z o.o., Bielsko-Biała	https://railtechpapla.pl/en/products/hasler-rail-ag/
RFWW RAWAG Sp. z o.o., Rawicz	www.rawag.pl/en/
Stemmann-Polska Sp. z o.o., Kąty Wrocławskie	www.stemmann.com.pl
Ster Sp. z o.o., Swadzim	www.tabor-debica.pl
TAPS Łódź	https://taps.com.pl/en/
TransComfort (M&MR Trading Polska), Gdynia	www.transcomfort.pl/english
Voith Turbo Sp. z o.o., Wola Krzysztoporska	https://voith.com/pol-en/2567.htm
Rolling stock leasing	
Cargounit (Industrial Division), Wrocław	www.cargounit.pl/en/
EUROWAGON Sp. z o.o., Poznań	www.euro-wagon.com/en/
GATX Rail Poland Sp. z o.o., Warszawa	www.gatx.eu
Polski Tabor Szynowy Sp. z o.o., Katowice	https://polskitabor.pl
Rail Capital Partners sp. z o.o. (RCP), Bydgoszcz	www.rcplokomotywy.pl
Tankwagon, Szczecin	www.ewl-twg.pl/en/

5.2. Train control-command and signalling systems

The table below lists the major Polish manufacturers of modern train control-command devices, signalling systems and telecommunication devices, both for the domestic market and for export.

MANUFACTURERS OF TRAIN CONTROL-COMMAND AND SIGNALLING SYSTEMS

Company | Location	Website
Train control and signalling systems	
AKSEL Sp. z o.o. (DEUTA-WERKE), Rybnik	https://aksel.com.pl/en/products/solutions-for-rail-transport/201-deuta-werke-k-en
ALSTOM S.A., Warszawa/Katowice	www.alstom.com/alstom-poland
Elester-PKP Sp. z o.o., Łódź	https://elester-pkp.com.pl/en/
ELKOL Sp. z o.o. (KZA Lublin), Bytom	http://elkol.pl/en/kza-lublin-2/
Frauscher Polska Sp. z o.o., Katowice	www.frauscher.pl
Kolster Sp. z o.o., Olsztyn	https://kolster.com.pl/en/
Kolejowe Zakłady Łączności sp. z o.o., Bydgoszcz	www.kzl.pl
Komster Sp. z o.o., Warszawa	www.komster.com
Kontron Transportation Sp. z o.o., Warszawa	www.kontron.com/en/industries/transportation
Kolejowe Zakłady Automatyki S.A., Katowice/Chorzów	www.kzasa.pl
Kombud, Radom	https://en.kombud.com.pl
Krakowskie Zakłady Automatyki S.A., Kraków/Wieliczka (FIMA GROUP)	https://kza.krakow.pl
KZA Zielonka Invest Sp. z o.o., Wołomin	www.kzazielonka.eu
MEDCOM Sp. z o.o., Warszawa	www.medcom.com.pl/en/
MONAT, Gdańsk/Katowice	http://monat.pl/english
Rail-Mil Computers Sp. z o.o. Sp. k., Warszawa	www.rail-mil.eu
Przedsiębiorstwo wielobranżowe kolejnictwa Koltech Sp. z o.o., Bydgoszcz	http://koltech.bydgoszcz.eu
Spółdzielnia Pracy Automatyków i Informatyków, Katowice	https://spai.com.pl
Scheidt@Bachmann, Luboń	www.scheidt-bachmann.pl/en/signalling-systems/
Sygnały S.A., Rybnik	www.sygnaly.com.pl
Thales Polska Sp. z o.o., Warszawa	www.thalesgroup.com/en/countries/europe/thales-poland
WASKO S.A., Gliwice	www.waskogroup.com
voestalpine Signaling Poland Sp. z o.o., Sopot	www.tens.pl

Company | Location	Website
ZAiT Sp. z o.o., Gdynia	www.zait.pl
Zakłady Automatyki KOMBUD S.A., Radom	https://en.kombud.com.pl
Railway communication	
Kolejowe Zakłady Łączności sp. z o.o., Bydgoszcz	www.kzl.pl
Pyrylandia Sp. z o.o., Warszawa	www.pyrylandia.com.pl/?lang=en
Radionika Sp. z o.o., Kraków	www.radionika.com

5.3. Railway infrastructure

The plants located in Poland reaching as far back as the 19th century of manufacturing rail track components, such as: concrete and wooden sleepers, rail fastening systems, railway points, railway and tram turnouts, level crossing plates. One of the leading suppliers is Track Tec Group, which has several plants in Poland and abroad.

MANUFACTURERS OF RAIL TRACK COMPONENTS

Company | Location	Website
ABB Sp. z o.o.	www.abb.com
AK Sp. z o.o., Komorniki	www.ak.com.pl
Aste Sp. z o.o., Gdańsk	www.aste.pl/index.php?idn=5538
Interfrez Sp. z o.o., Tarnów	www.interfrez.pl
KZN Bieżanów Sp. z o.o., Kraków	http://kzn.pl/?lang=en
Plastwil Sp. z o.o., Ujście	www.plastwil.pl/en/
Poltorex Sp. z o.o., Radzyń Podlaski	http://poltorex.pl
P.H.U. RAMATECH-INSTAL S.C., Skawina/Kraków	www.ramatech.pl
TINES Capital Group S.A., Warszawa	http://tinescg.com
Track Tec Koltram Sp. z o.o., Zawadzkie	http://tracktec.eu
Track Tec S.A. plaint Goczałków	http://tracktec.eu
Track Tec plaint Suwałki	http://tracktec.eu
TransComfort (M&MR Trading Polska), Gdynia	www.transcomfort.pl/english
voestalpine Railway Systems Polska, Sopot	www.vaepolska.pl
Vossloh Cogifer Polska Sp. z o.o., Bydgoszcz	www.vossloh.com/en/
WPS S.A. (Sateba), Mirosław	https://wps-sa.com.pl/en/
WPS Strunbet Sp. z o.o., Bogumiłowice	www.strunbet.pl/?lang=en
ZUE S.A., Kraków	www.grupazue.pl/en

Over the last decade, Polish rail construction market was unstable, with a high volatility of the volume of orders and a strong dependence on just one ordering party – PKP PLK. At the end of 2020, in the tender phase there were works of the total costs of PLN 3.4 billion (EUR 0.8 billion), while a year and two years earlier they were respectively PLN 10 billion and PLN 11 billion (EUR 2.4 billion and EUR 2.6 billion).

At the beginning of 2021, the value of Polish railway infrastructure construction market was estimated at nearly PLN 120 billion (EUR 28 billion), of which PLN 35 billion (EUR 8.1 billion) (30%) is allocated to investments under construction, and over PLN 80 billion (EUR 18.6 billion) to projects at the tender and planning, or initial concept stage. Over 200 investment projects are expected to be completed or planned in total by 2027.

Around one hundred contractors actively seek contracts for the upgrade of railway infrastructure. **BUDIMEX, TRAKCJA, ZUE** and **TORPOL groups** are the leaders of the railway construction market in Poland. At the end of 2020, the total value of their contracts was PLN 8 billion (EUR 1.9 billion).

LEADING CONSTRUCTION COMPANY GROUPS ON THE POLISH RAILWAY MARKET

Capital Group | Key person	Secretariat of the Board
budimex President of the Management Board: Artur Popko	**BUDIMEX S.A.** tel. +48 22 623 61 70 www.budimex.pl/en ul. Siemiogrodzka 9, 01-204 Warszawa
TRAKCJA President of the Management Board: Marcin Lewandowski	**TRAKCJA S.A.** tel. +48 22 350 94 31 e-mail: recepcja@grupatrakcja.com www.grupatrakcja.com/en/ Al. Jerozolimskie 100, 00-807 Warszawa
torpol President of the Management Board: Grzegorz Grabowski	**TORPOL S.A.** tel. +48 61 87 82 700 www.torpol.pl/en/ ul. Mogileńska 10G, 61-052 Poznań
GRUPA ZUE President of the Management Board: Grzegorz Grabowski	**ZUE S.A.** tel. +48 12 266 39 39 e-mail: zue@zue.krakow.pl www.grupazue.pl/en ul. K. Czapińskiego, 30-048 Kraków

Company | Location	Website
Alusta S.A., Poznań	www.alusta.pl
Bahn Technik Wrocław Sp. z o.o. (Trakcja S.A.), Wrocław	https://btw-wroc.pl/en/
BUDIMEX, Warszawa	www.budimex.pl/en
DOLKOM Sp. z o.o., Wrocław	www.dolkom.pl
Feroco S.A., Poznań	www.feroco.pl
Infra SILESIA S.A., Rybnik	www.infrasilesia.pl
INTERCOR Sp. z o.o., Zawiercie	www.intercor.eu
NDI S.A., Sopot	www.ndi.pl/en
PNI (PKP PLK), Warszawa	www.plk-sa.pl/kontakt/przedsiebiorstwo-napraw-infrastruktury/
PNUIK Kraków Sp. z o.o., Kraków	www.pnuik.pl/test/en/
PORR S.A., Warszawa	https://porr.pl/pl/
PPM-T Sp. z o.o., Gdańsk	http://ppmt.pl/en/
PRK 7 S.A., Warszawa	not available
Strabag Sp. z o.o., Pruszków	www.strabag.pl
Schweerbau GmbH & Co. KG, Wrocław	www.schweerbau.de/pl/kontakt/
TRAKCJA S.A., Warszawa	www.grupatrakcja.com/en/
TorKol sp. z o.o., Tychy	http://torkol.pl
TORPOL S.A., Poznań	www.torpol.pl/en/
Track Tec Construction Sp. z o.o., Wrocław	http://tracktec.eu
VolkerRail Polska Sp. z o.o., Wrocław	not available
ZUE S.A., Kraków	www.grupazue.pl/en

The recent initiative of the construction of the new Solidarity Transport Hub (*Port Solidarność – Centralny Port Komunikacyjny* – CPK) will have a major significance for the long-term prospects for the railway construction industry in Poland. The cost of the railway component is estimated at over PLN 90 billion (about EUR 20 billion), of which more than half of the expenditure is allocated for the years 2024–2027.

In the coming years, major investments in **railway power supply systems** are also expected. In May 2021, a development plan for 2021–2025 for PKP Energetyka, responsible for the power supply for the railways, was approved by the President of the Energy Regulatory Office. In total, by 2025, PKP Energetyka intends to allocate PLN 4.4 billion (ca. EUR 1 billion) to the development of the power supply network. Priority has been given to the so-called Power System Modernisation Programme, which has been implemented by the company continuously since 2011. Between 2011 and 2020, projects worth more than PLN 2 billion (EUR 0.48 billion) have been implemented. By 2025, PKP Energetyka will have allocated almost PLN 3.65 billion (EUR 0.8 billion) to the implementation of this programme and for connecting new users. It means that about 84% of the total resources will be infrastructure-related investments, another 9% (PLN 420 million or EUR 93 million) will be used to finance distribution network modernisation projects, nearly 7% (PLN 300 million or EUR 67 million) will be allocated to other investments. On average, PKP Energetyka's annual investments will amount to approx. PLN 880 million (EUR 196 million). The highest number of projects will be implemented in the Masovia, Łódź, Pomerania and Greater Poland Voivodeships, which is in line with the national railway development programmes and the needs of other industry customers. The implementation of this plan will increase the possibility of connecting renewable energy sources to the company's distribution network. The projects also include the construction of photovoltaic systems for PKP Energetyka's own needs.

PKP Energetyka is involved in the Green Railway Programme, which is coordinated by the Railway Energy Efficiency Center (*Centrum Efektywności Energetycznej Kolei* – CEEK). It is an initiative of the Polish railway industry to optimise electricity consumption in the rail transport.

Useful information

PKP ENERGETYKA

President of the Management Board:
Wojciech Orzech

PKP Energetyka

tel. +48 22 474 19 00
e-mail: energetyka@pkpenergetyka.pl

www.pkpenergetyka.pl/EN

ul. Hoża 63/67, 00-681 Warszawa

CENTER FOR RAILWAY ENERGY EFFICIENCY

The chairperson of the Council:
Janusz Malinowski

CEEK

tel. +48 697 041 554
e-mail: biuro@ceek.pl

https://ceek.pl/en

Al. Jerozolimskie 65/79, 00-697 Warszawa

5.4. Deployment of railway products

Railway manufacturers have to ensure that their products meet the requirements of the Directive 2008/57/EC on the interoperability of the rail system within the EU. This is carried out according to formalized conformity assessment procedures. The conformity assessment system distinguishes products that comply with European or national requirements.

In accordance with the provisions of the Act on Railway Transport, for railway products and vehicles running on this infrastructure, it is necessary to obtain a type approval certificate, i.e. a document authorizing the operation of a railway vehicle type, structure type or device type. The procedure for obtaining the certificate and the conditions to be met are described in Art. 22f of the act on rail transport and the Regulation of 30 May 2014 on the admission to operation of certain types of structures, equipment and railway vehicles, issued by the Minister of Infrastructure and Development (Journal of Laws of 2014, item 720; consolidated text: Journal of Laws of 2019, item 1923).

As part of the conformity assessment of domestic products, the type of device or structure is examined. The test may also include in-service tests, including checking the interfaces. However, only the first unit of the product is tested in this way, and the certificate is issued thereafter. On the basis of the issued certificate, subsequent copies are manufactured, for which a declaration of conformity to the type is issued. The declaration is issued on the basis of the conformity assessment modules set out in Decision 768/2008. True to its wording, the modules contained in this decision can be put in service.

A certificate of conformity to type is issued by an organisational unit authorized to carry out technical examinations necessary to determine conformity to type, which confirms that a given device, structure or railway vehicle complies with the type that previously obtained the type approval certificate. Product conformity assessment procedures are inextricably linked with the conformity assessment of subsystems composed of them and, more broadly, with the procedures for placing subsystems in service.

In the 'European mode', it is the manufacturer who issues the declaration of conformity or suitability for use of an interoperability constituent before placing the product on the market, in accordance with the relevant conformity assessment modules, mostly carried out with the participation of a notified body. It is the third party in the authorization process. Organisational units authorized to perform technical examinations necessary to obtain type approval certificates, confirm compliance with the type and issue type conformity certificates and type conformity certificates, together with an indication of the scope of their authorizations, are listed below. These are certification bodies, control units and laboratories that have previously been accredited by the Polish Centre for Accreditation (PCA) for the purpose of assessing compliance with the essential requirements for the interoperability of the railway system for interoperability constituents and EC verification for structural subsystems. The list of notified bodies is published by UTK.

Placing an interoperability constituent on the market does not yet mean that it can be placed in service. Putting into service means all activities as a result of which the subsystem or the vehicle is in its designed operating state. Designed operating state means normal handling and foreseeable failure events (including wear) within the scope and conditions of use as specified in the technical and maintenance file. It covers all the conditions under which the subsystem is intended to operate and its technical limits.

The subsystem is allowed to operate only after its conformity assessment by the manufacturer (for example, the contractor of the railway line upgrading), including technical compatibility and safe integration verification using the risk assessment in accordance with Art. 4 sec. 3 and Art. 6 sec. 3 of Directive 2004/49/EC. Fulfilment of these requirements is assessed by the notified body in the process of EC verification of the subsystem. This process clearly distinguishes the stage of placing the products constituting the subsystem on the market, for which the product manufacturer is responsible, from the stage of checking their safe integration, for which the subsystem manufacturer is responsible. Only after completing these two stages, it is possible to release the entire subsystem into service. It also means that a single product (interoperability constituent) cannot be placed in service. The concept of placing in service refers only to the subsystem in which this product is built-in or installed.

The procedures for assessing the compliance of subsystems with the relevant national technical specifications and standardisation documents, as well as the scope of the technical documentation attached to the declaration of verification of the EC of the subsystem are specified in the new Regulation of the Minister of Infrastructure of 7 June 2021 on interoperability.

THE NOTIFIED BODIES (as of 15.06.2021)

The Notified Body | Area	Key person | Contact details
The Railway Research Institute (*Instytut Kolejnictwa*) Certification of Conformity with the essential requirements of Directive 2008/57/EC on the interoperability of the rail system within the Community constituents and subsystem in all structural areas: infrastructure, energy, control-command and signalling track-side and on-board subsystems, rolling stock, traffic operation and management subsystems (Notified Body No. 1467). Voluntary certification of conformity of products used in rail transport with relevant standards, UIC leaflets, specifications and other applicable normative documents. Certification of factory production control system (ZKP) for construction products used in railway infrastructure in compliance with EN ISO/IEC 17065:2013 standard requirements and with relevant issued technical approvals and selected items of PN-EN ISO/IEC 17021-1:2015. National technical assessment Independent safety assessment	Director: Andrzej Żurkowski, Ph.D. Eng. tel. +48 22 47 31 300 e-mail: azurkowski@ikolej.pl Vice-director on interoperability: Marek Pawlik, Ph.D. Eng. tel.: +48 22 47 31 304 e-mail: mpawlik@ikolej.pl The Quality and Certification Centre Head: Wojciech Rzepka M.Sc. Eng. tel. +48 22 47 31 392 e-mail: wrzepka@ikolej.pl The Rolling Stock Testing Laboratory Head: Sławomir Walczak MSc. Eng. tel. +48 22 47 31 330 e-mail: swalczak@ikolej.pl The Signalling and Telecommunications Laboratory Head: Marek Sumiła, Ph.D. Eng. tel. +48 22 47 31 451 e-mail: msumila@ikolej.pl Secretary: tel. +48 22 610 08 68 e-mail: ikolej@ikolej.pl www.ikolej.pl/en/ ul. J. Chłopickiego 50, 04-275 Warszawa

The Notified Body | Area	Key person | Contact details
Certification Centre, Transport Faculty, Warsaw University of Technology (*Ośrodek Certyfikacji Transportu na Wydziale Transportu, Politechnika Warszawska*) Certification of rail traffic control-command devices. Certification of Conformity with the essential requirements of Directive 2008/57/EC on the interoperability of the rail system within the Community constituents and subsystem in the area: control-command and signalling track-side devices (Notified Body No. 2856). Tests on approval for use elements of subsystems and technologies on the railway lines managed by PKP PLK S.A.	Director: Andrzej Kochan, Ph.D. Eng. tel. + 48 22 234 78 82 e-mail: andrzej.kochan@pw.edu.pl Secretary: tel. +48 (22) 234 14 41 e-mail: biuro.oct@pw.edu.pl https://www.wt.pw.edu.pl/Wydzial/Osrodek-Certyfikacji-Transportu/Zakres-dzialalnosci ul. Koszykowa 75 room 301, 00-662 Warszawa
Signal CERT Sp. z o.o. Certification of devices for rail traffic, which are part of the TSI Control subsystem (track-side and on-board devices). Tests of rail traffic control-command devices (for 'to type' certification and 'with type' certification).	Certifying Body Manager: Wojciech Błotnicki, MSc. Eng. tel. +48 32 76 21 262 e-mail: jednostka@signalcert.pl ul. Modelarska 12, 40-142 Katowice Office: tel. +48 22 860 01 30 e-mail: info@signalcert.pl ul. Świętojerska 5/7, 00-236 Warszawa http://signalcert.pl/en/
Transportowy Dozór Techniczny – TDT Certification of devices for rail traffic, which are part of the TSI Infrastructure subsystem.	Certification and Conformity Assessment Department Head: Anna Pawińska tel. +48 506 693 897 e-mail: anna.pawinska@tdt.gov.pl www.tdt.gov.pl/dzialalnosc/certyfikacja_i_ocena_zgodnosci/wyrobow/ ul. Puławska 125, 02-707 Warszawa

6. THE PLANNED GOVERNMENT PROJECTS AND MARKET NEEDS BY 2027

6.1. The EU funds 2021–2027 for Poland

The EU funds play an important role in co-funding transport projects, including railways. Poland will be the biggest beneficiary of the upcoming EU financial perspective for 2021–2027 (around EUR 170 billion). The EU budget consists of the Multi-annual Financial Framework (MFF) and the new European Union Recovery Instrument, funded by the capital markets. The most important element of this instrument is the **Recovery and Resilience Facility (RRF)**, intended to provide an investment boost in the first years of the financial perspective to support economic recovery after the COVID-19 epidemic. The funds from the RRF will be used towards the cost of energy transition, low-carbon transport, and digitalisation.

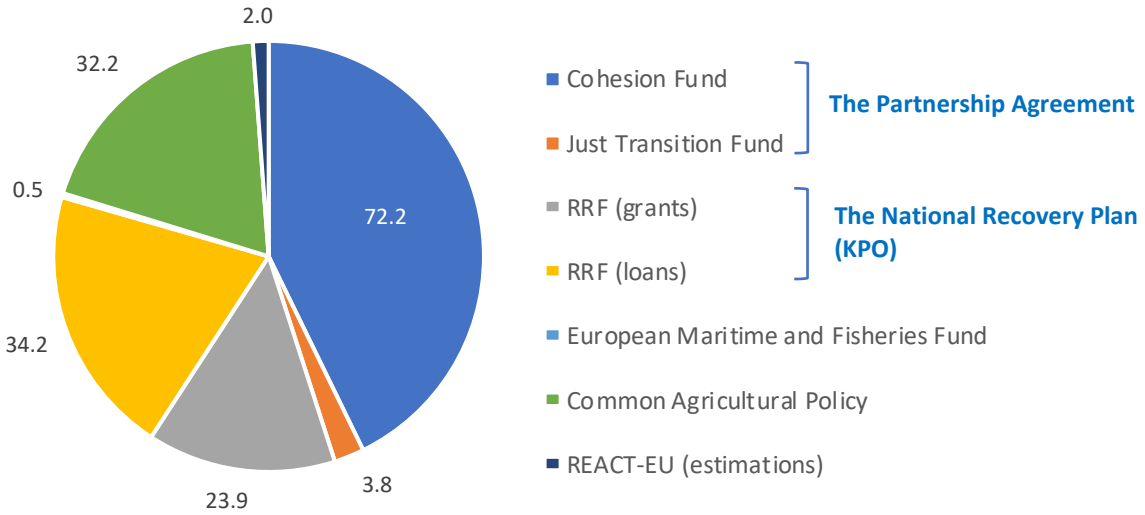


Fig. 6.1. The EU funds for Poland for 2021–2027 (as of 18 June 2021, billion EUR)

Source of data: Ministry of Funds and Regional Policy

In 2021–2027, Poland will benefit from EUR 72.2 billion from the **EU Cohesion Policy funds**. The three largest of them are: the European Regional Development Fund (ERDF) – EUR 47.1 billion, the Cohesion Fund (CF) – EUR 12.2 billion, and the European Social Fund + (ESF+) – EUR 11.6 billion. This is supplemented by EUR 3.8 billion from the **Just Transition Fund (JTF)**, to a total of about EUR 76 billion.

Published on 8 February 2021, the Partnership Agreement is the basic document defining the strategy for the use of European funds in Poland agreed with the European Commission. The intervention involving EU funds will focus on five objectives of the **Cohesion Policy**. Three of them are relevant to rail transport:

- **Objective 2:** A greener, low-carbon Europe (EUR 20.5 billion), including measures in the field of low-emission transport and urban mobility;
- **Objective 3:** A better connected Europe (EUR 17.6 billion) with priorities defined in terms of the development of transport infrastructure (road, rail, inland waterway and sea transport, intermodal transport) and improving transport accessibility of regions and sub-regions and implementing digital solutions into the Polish transport system;
- **Objective 4:** A more social Europe (EUR 14.8 billion), including social inclusion and integration.

According to the Partnership Agreement, these objectives will be implemented through 26 operational programmes, in particular:

- **The European Funds for Infrastructure, Climate and Environment – EFICE** (*Fundusze Europejskie na Infrastrukturę, Klimat, Środowisko*)[9] – the successor to the Infrastructure and Environment Programme (OPI&E). This programme will contribute to the development of a low-emission economy, environmental protection, counteracting and adapting to climate change as well as transport investments. The planned budget is over EUR 25 billion (35% of total budget);
- **The Regional Operational Programmes**, managed by local authorities at voivodeship level, with the expected budget of EUR 21.5 billion;
- **The Programme for Eastern Poland** with a projected budget of EUR 2.5 billion. This will continue to cover the less-developed voivodeships of eastern Poland (Lublin, Subcarpathia, Podlaskie, Świętokrzyskie and Warmia-Masuria) as well as the subregion of Masovia.

As in the years 2014–2020, also in the new perspective, approximately 60% of funds from the Cohesion Policy will be directed to programmes implemented at the national level. The remaining 40% will be allocated to regional programmes managed by voivodeship marshals.

Under the **RRF/National Recovery Plan (KPO)**[10], railway projects will be granted within Component E. Green and Intelligent Mobility (of total EUR 6.8 billion):

- E2.1. Increasing the competitiveness of the railway sector (EUR 2.7 billion):
  - E2.1.1. Upgrading of railway lines (at national and regional levels) – funds supporting the KPK's implementation under the indicated projects (EUR 2.1 billion);
  - E2.1.2. Modernisation of passenger rolling stock (at national and regional levels) – implementation under the indicated projects and in the competition procedure (EUR 400 million);
  - E2.1.3. Investments in intermodal projects. Implementation in the competition procedure (EUR 185 million);

[9] Ministerstwo Funduszy i Polityki Regionalnej, *Projekt Programu Fundusze Europejskie na Infrastrukturę, Klimat, Środowisko 2021-2027*, Warszawa, 17 czerwca 2021, https://www.pois.gov.pl/media/101769/FEnIKS_projekt_18_czerwca_2021.pdf.

[10] Ministerstwo Funduszy i Polityki Regionalnej, *Krajowy Plan Odbudowy i Zwiększania Odporności*, projekt, Warszawa, 30 kwietnia 2021, https://www.gov.pl/attachment/2572ae63-c981-4ea9-a734-689c429985cf.

- E2.2. Increasing transport safety (EUR 1.2 billion):
  - E2.2.2. Investments related to the wider use of digital solutions in transport: development of modern devices and systems for rail traffic control, including in the field of passenger information and ticket sales – implementation under the indicated projects and in the competition procedure (EUR 441 million).

In the case of RRF loans, the following projects as a part of Component E are planned: investments into trams (EUR 200 million) and investments into passenger rolling stock in regions (EUR 500 million).

6.2. The European Funds for Infrastructure, Climate and Environment Programme

Most railway projects will be implemented with the use of the EFICE Programme and funded from the CF and ERDF (**Figure 6.2**) within Priorities III, IV and V (**Figure 6.3**).

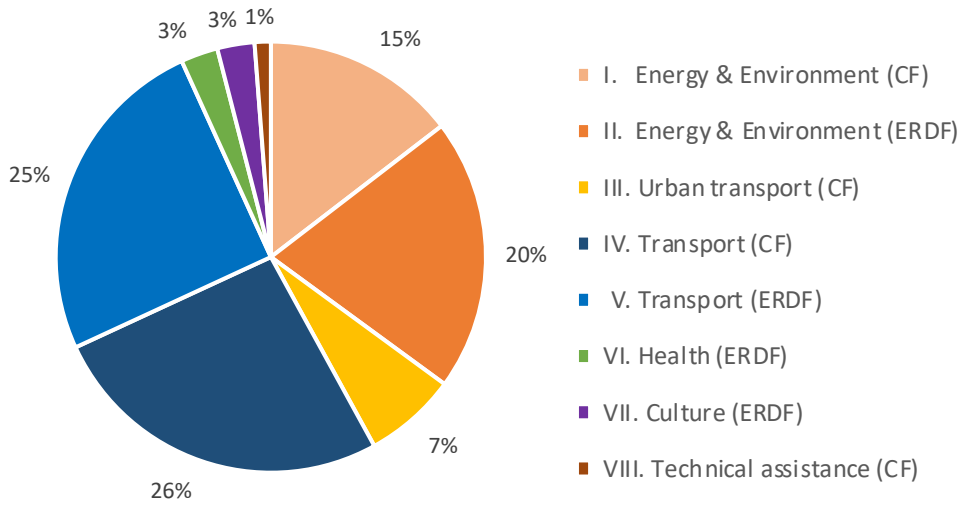


Fig. 6.2. The EU funds for transport within EFICE (as of 18 June 2021)

Source of data: Ministry of Funds and Regional Policy.

The EFICE Programme also provides for the implementation of strategic undertakings within the framework of individual specific objectives that will significantly contribute to the achievement Programme's objectives. These undertakings will result from strategic sectoral documents or integrated ones, of the greatest importance due to the assumed effects, economic and environmental. In the transport area the following projects are planned to be co-financed:

- projects to complete the TEN-T Core Network (IQ 2021 – IIQ 2027);
- works on an alternative railway line Bydgoszcz – Tri-city (continuation of the investment MFF 2014–2020) (IIQ 2022 – IIQ 2025);
- works on railway line No. 7 Warszawa Wschodnia Osobowa – Dorohusk on the section Warszawa – Otwock – Dęblin – Lublin, stage II (implementation section: Warsaw Wawer – Otwock) (IQ 2023 – IVQ 2025);
- investments in improving sea and land access to seaports, in particular to The Central Port in Gdańsk, the Outer Port in Gdynia and the container terminal in Świnoujście (IVQ 2025 – IVQ 2027).

PRIORITY III. URBAN TRANSPORT (THE COHESION FUND)

Specific objective 2.8. Supporting sustainable multimodal urban mobility as part of the transformation towards a zero-emission economy

Challenges:
- providing better access to public transport for residents of urban areas
- increasing the share of zero-emission transport

Planned investments:
- infrastructure and rolling stock
- transfer points, depots, technical facilities, ITS, infrastructure for bicycle and pedestrian traffic (design elements)
- city planning documents

Potential beneficiaries:
- local and city authorities
- carriers

PRIORITY IV. SUPPORT FOR THE TRANSPORT SECTOR (THE COHESION FUND)

PRIORITY V. SUPPORT FOR THE TRANSPORT SECTOR (ERDF)

Specific objective 3.1. Development of a climate resilient, intelligent, safe, sustainable and intermodal TEN-T

Specific objective 3.2. Development and improvement of a sustainable, resilient one climate, smart and intermodal mobility at national, regional and local, including improved access to TEN-T and cross-border mobility

RAIL TRANSPORT

Challenges:
- development and integration of the transport network
- better transport accessibility
- improvement of traffic safety
- reducing the environmental impact of transport

Planned investments:
- main railway lines, stations and rolling stock
- ERTMS
- nationwide projects (shared ticketing, education and campaigns for safety)

Potential beneficiaries:
- railway infrastructure managers
- railway stations' managers
- railway operators

INTERMODAL TRANSPORT

Challenges:
- development and integration of the transport network
- better transport accessibility
- improvement of traffic safety
- reducing the environmental impact of transport

Planned investments:
- transshipment terminals
- rolling stock for intermodal transport
- digital systems

Potential beneficiaries:
- terminal operators
- carriers

Fig. 6.3. The priorities relevant to the rail transport under the EFICE Programme

6.3. National multi-annual programmes for railway infrastructure development

In Poland, in the next ten years, investments in the upgrade of the existing network will be continued, as well as projects to build new railway lines will be undertaken. The development of railway infrastructure is carried out within the framework of five multi-annual programmes dedicated to railways and one programme for air transport, which also include a railway component.

The National Railway Programme (KPK)

In the years 2021–2023, railway infrastructure projects will be implemented on the basis of the KPK's list and its updates adopted by the Council of Ministers. The total investment expenditures of PLN 40.7 billion (about EUR 9.1 billion) are planned for this period.

Table 6.1. Investment expenditures planned for railway infrastructure projects under the KPK until 2023

Project's category	2021	2022	2023	IN TOTAL	
				million PLN	million EUR
The Cohesion Fund, of which:	8,151	12,637	12,006	**32,794**	**7,288**
CEF	*4,612*	*6,004*	*4,078*	***14,694***	***3,265***
OPI&E 2014-20	*3,534*	*6,631*	*7,928*	***18,093***	***4,021***
OPEP	239	264	604	**1,107**	**246**
ROPs 2014-20	1,484	942	436	**2,862**	**636**
National projects	1,373	1,460	1,003	**3,836**	**852**
Programme for Civil Defence	43	57	25	**125**	**28**
IN TOTAL, million PLN	**11,288**	**15,360**	**14,075**	**40,724**	**-**
million EUR	**2,508**	**3,413**	**3,128**	**-**	**9,050**

Source of data: 2020 KPK annual report, p. 18.

At the end of June 2021, the scope of the new national programme had not yet been specified, however, a document containing PKP PLK's investment plans for the years 2021–2030 with a perspective until 2040 was published[11]. The following projects have been given priority:

- meeting the requirements for the TEN-T Railway Core Network;
- creating a coherent network of voivodeship and inter-voivodeship connections ensuring direct connections between voivodeship capitals and county cities with voivodeship capitals;
- upgrading and extension of inter-city and urban railway lines by improving the capacity of urban nodes, reducing travel time, integrating urban centres into urban systems, creating network connections between existing urban centres in peripheral areas at risk of marginalization;
- increasing the parameters of freight routes by improving key technical parameters;
- ensuring access to seaports (Gdynia, Gdańsk, Szczecin, Świnoujście) by improving the technical and operational parameters of the railway infrastructure and adapting it to the actual needs of carriers and contractors and the expected directions of port development;

[11] *PKP Polskie Linie Kolejowe S.A. – zamierzenia inwestycyjne na lata 2021-2030 z perspektywą do 2040 r.*, Warszawa 2021, https://www.plk-sa.pl/files/public/user_upload/pdf/Zamierzenia_inwestycyjne/2021-06-30_-_ZAMIERZENIA_INWESTYCYJNE.pdf .

- successive implementation of the ERTMS – in accordance with the National Plan for the Implementation of TSI Control and GSM-R;
- elimination of bottlenecks and improvement of railway network parameters as part of multi-location investments, including those influencing improving safety and increasing multimodality.

The railway projects contained in the PKP PLK's investment plans have been divided into four groups:

1. **Supra-regional projects** – projects that, due to the scope of activities, are proposed for implementation under national programmes. Pre-proposed sources of financing: CF (e.g. EFICE, CEF), ERDF (OPEP), KPO, the Military Mobility Project. The list published in June 2021[12] included 126 proposed projects.
2. **Projects related to the railway sections of CPK** – projects the scope and implementation of which is related to the concept of building the CPK. Pre-planned source of funding: CF. A total of 19 projects are included in the list.
3. **Multi-location projects** – projects aimed at a horizontal approach to problems occurring on the Polish railway network. These projects will be common investments in many points and sections along the entire railway network. Pre-proposed sources of financing for 39 planned projects: EFICE (including funds allocated to infrastructure projects in urban nodes), KPO, state budget, the Military Mobility Project.
4. **Regional projects** – projects that, due to the scope of activities, are proposed for implementation under regional programmes. Pre-proposed sources of financing for 200 planned projects: ERDF, The Railway+ Programme, KPO.

Determining the list of ongoing projects which will be continued in the 2021–2027 perspective and the necessary financial support from European funds is currently subject to detailed analyses by PKP PLK. **Figure 6.4** shows the initial investment plans of PKP PLK S.A. by 2040.

[12] *PKP Polskie Linie Kolejowe S.A. – zamierzenia inwestycyjne na lata 2021-2030 z perspektywą do 2040 roku*, Warszawa 2021, https://www.plk-sa.pl/files/public/user_upload/pdf/Zamierzenia_inwestycyjne/2021-06-30_-_ZAMIERZENIA_INWESTYCYJNE.pdf, pp. 16-27.

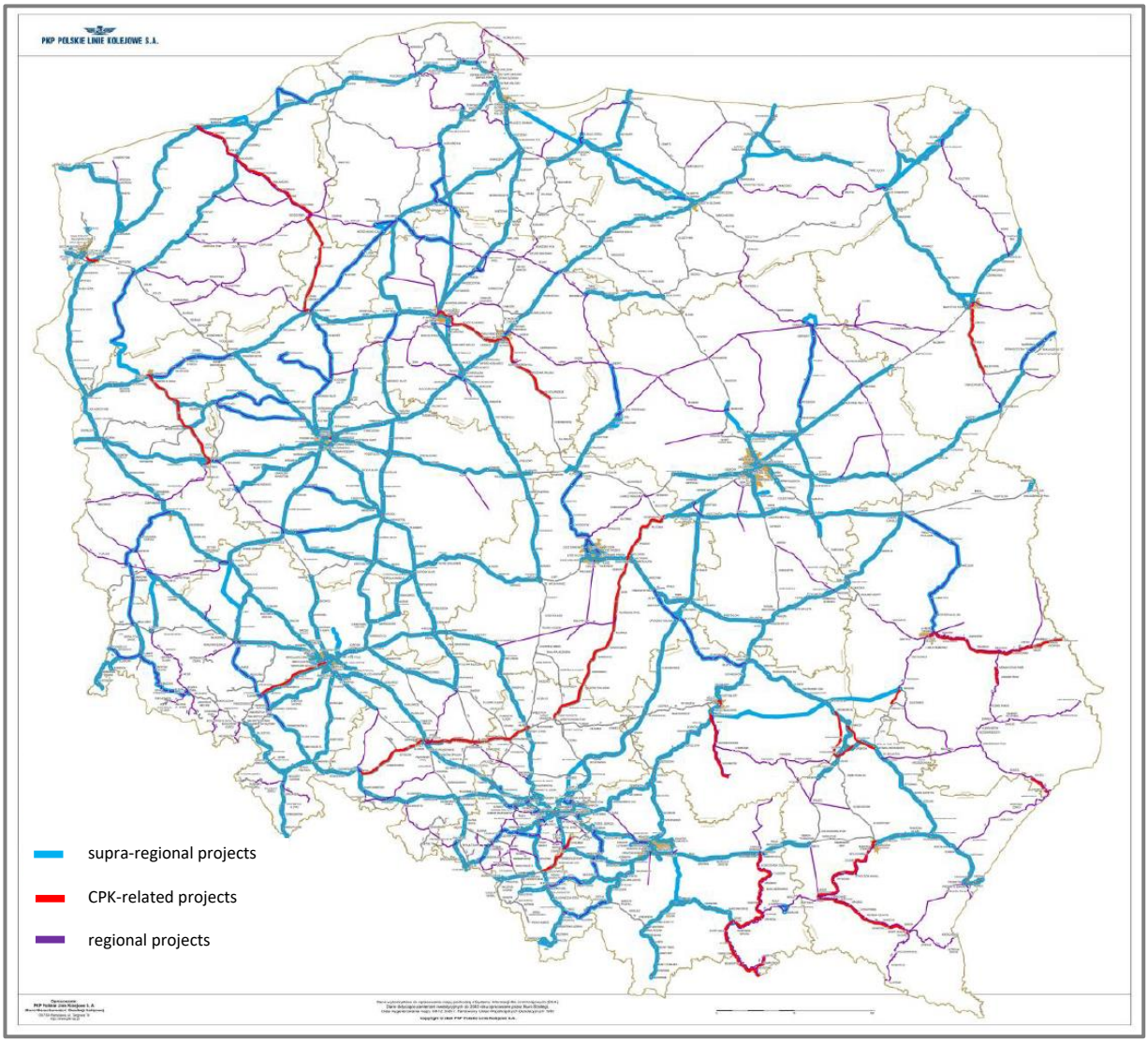


Fig. 6.4. The initial investment plans of PKP PLK S.A. by 2040 (as of June 2021)

Source: PKP PLK.

The railway component of the Solidarity Transport Hub – the CPK

The CPK is an emerging infrastructure megaproject, which includes two major components:

- a new international airport constructed from scratch in the suburbs of Warsaw,
- a new nationwide railway system consisting of ten major sections radiating from the CPK airport towards all regions of Poland.

The CPK railway system will be based on approximately 1,800 km of new high-speed rail (HSR) and 2,400 km upgrading railway lines:

 # 1 CPK – Kołobrzeg/Koszalin/Słupsk/Gdańsk, connecting the CPK airport and Warsaw with Płock and important centers of the Pomerania voivodeships (Tri-city and Słupsk), Kuyavian-Pomerania (Bydgoszcz, Toruń, Włocławek and Grudziądz) and Central Pomerania (Słupsk, Koszalin and Kołobrzeg). It can also be used to service Elbląg.

 # 2 CPK – Olsztyn, connecting the CPK airport and Warsaw with Olsztyn. The result will be a shortening of the length of the railway line for long-distance traffic on the Warsaw – Nasielsk section (better line geometry and ultimately higher maximum speed of trains and shorter travel time).

 # 3 CPK – Ostrołęka – Łomża – Giżycko/Białystok – Trakiszki/Kuźnica Białostocka (border), which is a connection of the CPK airport and Warsaw with the Masovian region, Podlaskie Voivodeship and with the Baltic countries (Lithuania, Latvia and Estonia), Belarus and Russia.

 # 4 CPK – Siedlce – Terespol (border), connecting the CPK airport and Warsaw with the eastern part of the Masovia Voivodeship and the northern part of the Lublin Voivodeship.

 # 5 CPK – Lublin – Chełm (border)/Zamość – Bełżec (border), connecting the CPK airport and Warsaw with important cities of the Lublin Voivodeship.

 # 6 CPK – Radom – Rzeszów – Sanok, which is a link of the CPK airport and Warsaw with the southern part of the Masovia Voivodeship, the north-east of the Świętokrzyskie Voivodeship and the Subcarpathia Voivodeship.

 # 7 CPK – Katowice – PL/CZ border/Kraków – Zakopane/Muszyna – PL/SK border/Kielce – Tarnów – Nowy Sącz/Skarżysko-Kamienna, connecting the CPK airport and Warsaw with the southern part of the country and neighboring countries (Czech Republic, Slovakia) and through the planned high-speed lines also with Austria, Hungary and further south.

 # 8 CPK – Piotrków Trybunalski – Częstochowa – Opole – Kłodzko, connecting the CPK airport and Warsaw with the northern part of the Silesia Voivodeship, the Opolskie voivodeship and the Kotlina Kłodzka, with the possibility of extending via Międzylesie to the Czech Republic.

 # 9 CPK – Łódź – Sieradz – Wrocław – Wałbrzych – PL/CZ border/Kalisz – Poznań – Szczecin/Ostrów Wielkopolski – Zielona Góra/PL/DE border/Gorzów Wielkopolski, connecting the CPK airport and Warsaw with important urban areas of Western Poland and with the Czech Republic (high-speed train line to Prague) and Germany.

 # 10 CPK – Łowicz – Kutno – Koło – Poznań), which is a connection of the CPK airport and Warsaw with Poznań and the western and north-western part of the country.

 # 11 Szczecin – Szczecin-Goleniów Airport, connecting Szczecin with the airport in Goleniów.

 # 12 Stalowa Wola – Lublin – Biała Podlaska – Białystok, which is a link between the largest cities in eastern Poland (Rzeszów, Lublin, Białystok) and numerous towns in this part of the country deprived of efficient rail transport.

Completion of the CPK railway programme is one of the largest ongoing engineering projects in Central Europe. It involves the adoption of finest HSR design standards, technical parameters and planning procedures, many of which will be implemented for the first time in the entire region. The CPK's railway planning concept includes the following preliminary assumptions for its high-speed sections:

- maximum design speed of up to 350 km/h,
- maximum operating speed of up to 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.

Due to the complexity of the undertakings included in the CPK investment programme, its implementation is divided into stages. The CPK is currently in its initial preparatory phase, with several conceptual decisions already being adopted by the Government of Poland. In October 2020, the Polish government adopted a resolution on the establishment of a long-term programme for the first stage (2020–2023). Its main task is to implement planning and developing design assumptions (**Figure 6.5**). In November 2020, Incheon International Airport, the main South Korea International Airport, became the strategic advisor for the CPK. The memorandum of understanding between Poland and South Korea was signed in February 2021. Additionally, the representatives of Poland and Spain has signed a Memorandum of Understanding for the cooperation on the CPK. It specifically focuses on cooperation in the development of the Polish high-speed rail system.

The railway component in connection with the CPK implementation covers both the construction of new railway lines and the upgrade of the existing ones. It is expected that the investment process in the field of construction new railway lines will be handled by the CPK special purpose entity. Adaptation of the existing railway infrastructure managed by PKP PLK for the purposes of harmonisation with the CPK concept, it will be implemented by PKP PLK.

The appointment of a contractor to prepare a master plan is expected in autumn 2021. Two main tasks are scheduled for 2023: an environmental impact report and a multi-branch architectural concept of the passenger terminal. Also in 2023, the investor plans to obtain a location decision.

In the autumn of 2021, it is planned to adopt a resolution of the Council of Ministers 'State plans and projects approved for implementation regards the construction of the CPK – within the perspective of the Strategy for Sustainable Transport Development until 2030'.

The total cost of financing the first stage of the CPK is estimated at approximately PLN 9.23 billion (EUR 2.1 billion). Most of the investments will be secured by the State Treasury. The airport and the first sections of the railway system, are scheduled to be opened at the end of 2027, including Warsaw – CPK – Łódź – Sieradz – Wrocław – Wałbrzych – border with the Czech Republic. Projects relating to the railway part are expected to be implemented by the end of 2034.

In July 2021, the CPK obtained over PLN 108 million (EUR 25 million) from the CEF Reflow call. Co-funding applies to two projects:

- design works for the HSR tunnel in Łódź. The estimated value of this project is PLN 119 million (EUR 28 million) and the amount of EU funding – PLN 59.4 million (EUR 13.8 million);
- study works for the HSR section between Warsaw and Poznań (part of the so-called 'Y line'). The budget of the entire project is about PLN 99 million (EUR 23 million), of which 50% will be financed from CEF. A feasibility study is being prepared for a part of this section (Warsaw – Łódź).

Under the new programme CEF 2.0, the CPK plans to submit applications for co-financing for a total amount of over PLN 2.25 billion (EUR 0.5 billion). In 2021–2017 it will apply for EU funds for such projects as: railway infrastructure design works at the CPK junction, construction works in the long-distance HSR tunnel in Łódź and the design of HSR sections from Łódź to Wrocław and from Sieradz to Poznań.

CPK 2023:

- ongoing preparatory works (1,258 km)
- ongoing construction works (531 km)

CPK 2027:

- ongoing preparatory works (802 km)
- ongoing construction works (456 km)
- completed construction works (531 km)

PKP PLK:

- upgrade and construction works

Fig. 6.5. Railway projects planned as a part of the CPK Programme

Source: CPK, April 2021.

The Railway Station Investments Programme for 2016–2023

The programme provides for the implementation of 189 railway station investments for the total amount of PLN 1.6 billion (EUR 0.38 billion)[13]. As expected, passenger service will improve and the railways will be integrated with other modes of transport.

The Railway+ Programme until 2028

The Programme for Supplementing the Local and Regional Railway Infrastructure until 2028 (the so-called Railways+ Programme) is a tool for achieving the goals of state policy in the field of ensuring the communication accessibility of regions. This will mainly apply to towns with more than 10,000 residents who currently do not have access to passenger or freight rail. The basic investment component of this programme, under which it is expected that PKP PLK (programme executor), in cooperation with local government units, will implement projects aimed at developing a network of railway connections to smaller towns. The call for projects submitted by local governments is managed by PKP PLK.

Almost PLN 6.6 billion (EUR 1.5 billion) will be allocated to its implementation in the years 2019–2028, of which approx. PLN 5.6 billion (EUR 1.3 billion) will come from the capital injection from PKP PLK, and PLN 1 billion (EUR 0.23 billion) is to be the own contribution of local government units (e.g. bonds, loans). Currently, the sum of the quoted projects (various stages of the feasibility study) exceeds PLN 11.5 billion (EUR 2.7 billion).

The Programme for the Construction or Upgrading of Train Stops for 2021–2025

This programme is another recently adopted (in May 2021) multi-annual development programme for rail transport, under which a total of around 200 railway stops will be build or upgraded. The budget of the programme is PLN 1 billion (EUR 0.2 billion). The aim of the programme is to increase the access of local communities to rail transport.

The Maintenance Programme

For the implementation of this programme in 2019–2023, about PLN 23.8 billion (EUR 5.5 billion) is to be allocated. After 2023, the adoption of a new maintenance programme is expected. It will additionally include railway lines built as part of the CPK project (**Figure 6.6**). The total infrastructure maintenance costs for the years 2024–2030 are estimated at PLN 42.2 billion (EUR 9.6 billion).

[13] List of railway stations included in this programme is available at the website: https://www.pkp.pl/images/Dworce/Tabele_dworce/lista_modernizowanych_dworcw_2021.pdf.

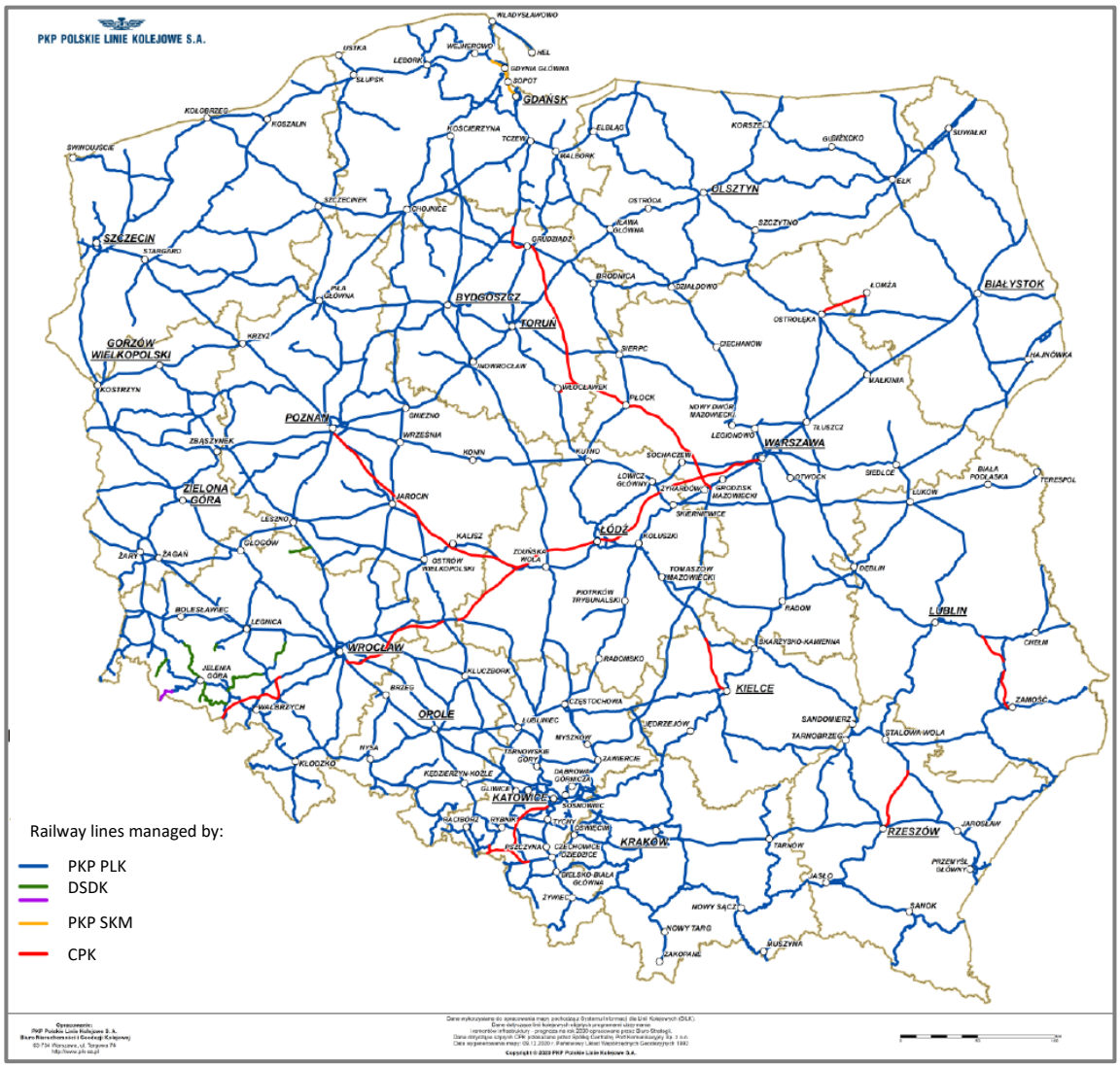


Fig. 6.6. Railway lines as part of the Maintenance Programme in 2030 (estimates)

Source: PKP PLK, January 2021.

Following the implementation of investment and maintenance programmes, both the length of the railway network and a significant improvement in network parameters are expected to increase.

6.4. The investment needs of passenger and freight operators

As part of the National Recovery Plan preparation process, Polish voivodeships reported a total need for 415 new **passenger vehicles**, including:

- 281 electric multiple units with the expected cost of PLN 8,210 million (EUR 1,865 million);
- 67 hybrid multiple units with the expected cost of PLN 1,848 million (EUR 420 million);
- 29 hydrogen multiple units amounted of PLN 752 million (EUR 170 million);
- 8 diesel multiple units amounted of PLN 139 million (EUR 32 million);
- 30 units for push-pull trains of PLN 300 million (EUR 68 million).

The greatest needs were declared by the Masovia Voivodeship, which includes the following vehicles for Koleje Mazowieckie: 50 EMUs, 10 HMUs and 30 double-decker units for push-pull trains (PLN 2,027 million or EUR 460 million). The second largest order is from the Lesser Poland Voivodeship: 56 EMUs (PLN 1,795 million or EUR 408 million).

Regional needs for passenger rolling stock are estimated at about PLN 11,351 million (EUR 2,580 million), including modernisation of 56 units.

Additionally, PKP SKM Trójmiasto placed a demand for 10 new EMUs for urban services (in total PLN 400 million or about EUR 90 million).

The investment plans of POLREGIO assume a minimum investment level of PLN 2 billion (EUR 0.45 billion), and the implementation of the development variant would require approximately PLN 7 billion (EUR 1.6 billion). POLREGIO submitted three applications to the National Reconstruction Plan with a total value of over PLN 6.3 billion (EUR 1.43 billion). It concerns the purchase of 180 EMUs, 40 hybrid units and co-financing of the modernization of 50 currently used EMUs (PLN 525 million).

According to the National Recovery Plan presented by Poland to the European Commission at the beginning of May 2021, **a total of EUR 965 million has been planned for rolling stock grants for the years 2021–2027** to be evenly shared between: PKP Intercity and regional rolling stock needs. As part of the investment at the supra-regional level, it is planned to provide financial support to PKP Intercity in order to purchase 38 push-pull trains (7-car double-decker trains with 45 multi-system locomotives), as well as support purchases of rolling stock for regional transport (approximately 70 trains). This will be provided as part of an open, competitive competition procedure ensuring equal participation of all interested entities meeting the criteria. In the existing rolling stock investments by PKP Intercity, the government assumes the cost of PLN 115 million for one push-pull train (EUR 26.1 million). In regional transport, an average of PLN 18.1 to 32.9 million (EUR 4.1 to 7.5 million) is an assumed price of a multiple unit). In addition, the programme specifies that EUR 500 million will be secured in form of a bank loan.

The survey carried out by UTK in 2020 showed that 80% of **freight operators** declared that in the following years they will purchase locomotives and 60% – freight wagons. A third of them are also going to invest in IT systems, and a quarter of them – in transshipment terminals (**Figure 6.7**). There is significantly less interest in train control-command and signalling systems, including ERTMS.

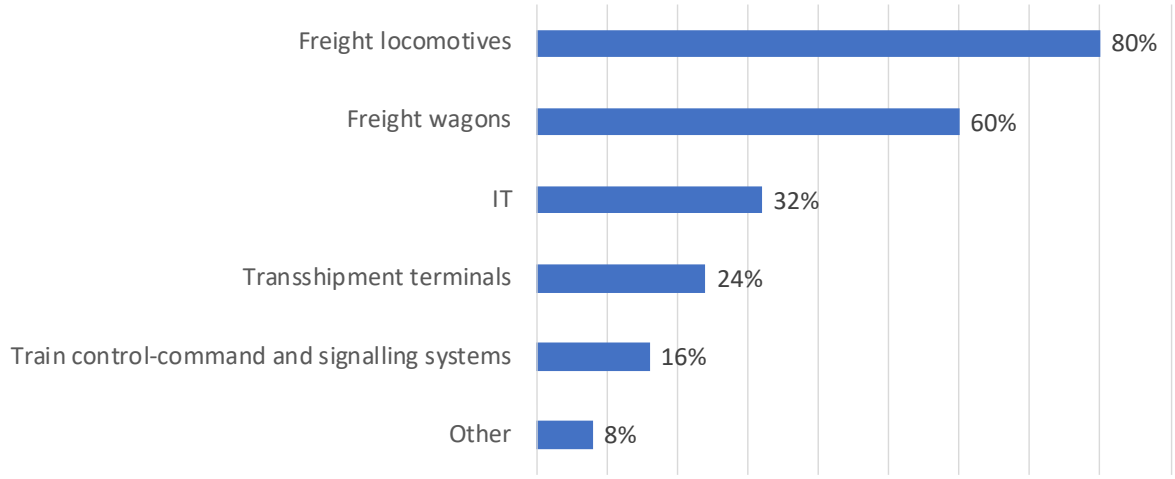


Fig. 6.7. Investments declared by freight operators

Source of data: UTK survey, *Kolejowi przewoźnicy towarowi w Polsce*, 2021.

Despite the need to renew the locomotive fleet, freight operators are only planning limited purchases of new units. They most often decide to lease it or modernise the existing rolling stock. One of the reasons of this approach is the low utilisation efficiency of rolling stock due to the continuous railway lines upgrading, and a large number of speed limits on the network and detours.

Additionally, the delay in the implementation of the ERTMS trackside infrastructure programme causes railway operators to postpone their investments in new TSI-compliant rolling stock. At the end of 2020, 276 locomotives (of which passenger electric – 30, freight electric – 155 and freight diesel – 91) and 317 multiple units equipped with on-board ETCS systems were in operation. In the next five years, freight operators plan to purchase about 100 new locomotives equipped with the ETCS, while passenger operators – as many as 390 units.

In the case of freight wagons, the greatest demand is expected for open wagons and intermodal platforms. In order to support the development of sustainable transport, about EUR 185 million will be secured within the National Recovery Plan for intermodal transport development, including the purchase of rolling stock and construction of transshipment terminals.

The total investments of freight operators in new rolling stock until 2027 is estimated at approx. PLN 2.5 billion (ca. EUR 0.55 billion).

CONCLUSIONS: BUSINESS OPPORTUNITIES AND CHALLENGES FOR RAILWAY SUPPLIERS

As of mid-August 2021, the operational programmes and allocated resources for financing railway infrastructure, and the purchase of rolling stock in Poland had not yet been approved by the government. However, based on the available data and the plans presented above, it can be concluded that in the years 2021–2027, investments in Polish rail transport, roughly estimated at EUR 16 billion, will be even greater than in the previous perspective. The majority of the funding (EUR 14.3 billion) will be allocated to railway infrastructure upgrading and construction. The total value of the envisaged investments in rolling stock is about EUR 1.1 billion, and in freight locomotives and wagons – EUR 550 million. Additional demand for passenger rolling stock worth approximately EUR 2.5 billion has not been secured financially. Masovia and the Lesser Poland Voivodeships declare the highest demand in this respect. Regional authorities and passenger railway operators are particularly interested in hybrid and hydrogen-powered multiple units, and double-decker units for push-pull trains. Freight operators intend to purchase electric locomotives equipped with on-board ETCS, and intermodal platforms. This creates significant **opportunities for railway suppliers**.

At the same time, the instability of the railway construction market with the so-called investment gaps, the **risks** of repeated amendments to national policies, particularly in the case of the CPK, and possible postponing and cancellations of tenders must be considered. In addition, regions purchase rolling stock of various classes and types, and the locally-based manufacturers of rolling stock as well as infrastructure components and signalling systems maintain a strong market position.

Consistent monitoring of national development programmes is necessary to prepare for upcoming announcements of tendering procedures[14]. Additionally, local industry events (such as: the International Railway Fair TRAKO, the European Rolling Stock Forum, and the RailFreight Summit Poland) provide multiple opportunities to keep up to date with the present challenges of the Polish market.

The figure below summarises the opportunities and risks concerning possibilities for foreign investors.

[14] The following tender platforms may be consulted:

- https://ted.europa.eu; https://i-przetargi.com.pl/profil/kolejnictwo; https://www.info-przetargi.pl/;
- PKP PLK S.A. (railway infrastructure): https://platformazakupowa.plk-sa.pl;
- CPK Sp z.o.o. (railway infrastructure): https://portal.smartpzp.pl/cpk;
- PKP S.A. (railway stations): https://pkp.eb2b.com.pl/open-auctions.html;
- marshal offices websites (see Section 2.3).

POSSIBILITIES FOR FOREIGN INVESTORS IN THE POLISH RAILWAY SECTOR – SWOT ANALYSIS

Strengths	Opportunities
○ Favourable economic conditions in Poland. ○ Large railway infrastructure upgrading needs. ○ New and ongoing multi-annual national development programmes. ○ Plans for the construction of railway lines as a part of the CPK programme. ○ Large demand for new passenger rolling stock. ○ Large demand for new freight rolling stock. ○ Growing investment in major cities (Warsaw, Krakow, Poznań, Wrocław) and some metropolitan areas (such as GZM Metropolis) in terms of rolling stock, infrastructure and railway services. ○ Subsidies available for the purchase of passenger rolling stock. ○ The need for the implementation of the TSI requirements, including ERTMS/ETCS/GSM-R. ○ Potential for intermodal transport development. ○ Availability of EU funds. ○ Active involvement of chambers and railway industry associations.	○ Participation in tenders for upgrading railway infrastructure. ○ Participation in tenders for construction new high-speed railway lines. ○ Participation in tenders for rolling stock purchase. ○ Participation in tenders for the supply of components and devices. ○ Offering rolling stock leasing services, especially in the case of freight locomotives. ○ Offering passenger services as a result of the Fourth Railway Package implementation.
Weaknesses	**Threats**
○ A significant fragmentation of rail freight market. ○ A declining trend in the volume of freight transport (with the exception of intermodal market segment). ○ A large number of classes and types of multiple units tendered by voivodeships. ○ A small number of destinations on which commercial passenger services are profitable. ○ Strong position of domestic producers of passenger rolling stock. ○ Many locally-based manufacturers of freight wagons, usually performing maintenance, repair, overhaul and upgrading. ○ Frequent 'investment gaps' on the railway construction market. ○ Bureaucracy and insufficient cooperation between local and central authorities.	○ Changes in the government policy regarding the implementation of the largest projects, especially in the case of CPK. ○ Possible postponing and cancellations of tenders ○ Lack of domestic resources to secure national contribution in the case of projects co-funded by the EU. ○ Technological or financial failure of Nevomo.

There are also initiatives to implement breakthrough technologies on the Polish market. An example is **Nevomo** (formerly Hyper Poland Sp. z o.o.), a Polish company founded in 2017, which is developing the next generation of HSR, and it is one of the promising European start-ups, employing top-notch professionals from the rail and engineering industries.

Hyperloop as an innovative magnetic vacuum rail system uses the advantages of both rail and aircraft. This solution works in a vacuum environment, the high speed of the vehicle (up to 1,200 km/h) and with no contact with the ground during movement. Hyperloop pods move through a system of tubes, which guarantees very low pressure and virtually no friction, allowing the vehicle to reach very high speeds.

According to the current report IDOM and Nevomo's report 'Preliminary study of Magrail Implementation' (May 2021), innovative magrail technology may play an important role in railway investment programmes in Poland. The analysis explores on how magrail technology would perform on the first Polish HSR-line between Warszawa, Lódź/Poznań, and Wrocław ('Y Line')[15]. Two variants have been compared: a basic scenario which assumes construction of a new HSR line for conventional trains only (allowing the speed of up to 300-350 km/h), and an investment scenario (magrail) with the speed of up to 550 km/h.

At the beginning of June 2021, Nevomo signed an agreement with CIECH Sarzyna, a company belonging to the CIECH chemical group, which allows Nevomo the access to the area (with the railway track and the adjacent infrastructure) located in the Nowa Sarzyna commune in the Subcarpathia voivodeship, allowing it to build a full-scale 750 m long test track. Construction works will begin in the second half of this year and the track will be the longest passive magnetic levitation test facility in Europe. On the test track, vehicles with a linear drive system and passive levitation will be tested, as well as power electronic systems for powering and controlling a multi-segment linear motor. The successful conduct of these tests opens the path to pilot implementations, which are planned for the years 2022–2024. Magrail technology is expected to be technically fully operational by 2025. Also, Plastwil and Plastwil de Bonte, companies specializing in the production of top-quality pre-stressed concrete sleepers and rail fastening systems, will support Nevomo in this project. The track design is co-financed by the EU from the ERDF under the Intelligent Development Programme. Project implemented as part of the 'Quick Track' competition of the National Centre for Research and Development.

Additionally, Nevomo has been invited to participate in the Dutch Hyperloop Development Program – a venture with total funding of EUR 30 million. The work will result in, e.g. construction of the European Hyperloop Center and the development of hyperloop technology as a fast and emission-free transport solution. Nevomo will be responsible for designing key elements of propulsion, power, and control systems, within the working group preparing the concept of the system for cargo transportation – the so-called cargoloop. The programme is funded by the Dutch government and a consortium of research companies and will last three years. Project participants include Dutch Railways, TATA Steel, Royal Schiphol Group, TÜV Rheinland, and Hardt Hyperloop.

[15] Poland's 'Y line' was first proposed over 10 years ago, but it was cancelled (postponed) due to insufficient funding. This line would have connected Warsaw, Lódź, Poznan and Wrocław. Even though the project was cancelled in the early stages of its development, it was recently revived as part of the CPK Multi-annual Programme.

Useful information

CENTRALNY PORT KOMUNIKACYJNY
—
SOLIDARITY TRANSPORT HUB POLAND

CEO: Mikołaj Wild

Centralny Port Komunikacyjny Sp. z o.o.
Mob. +48 882 350 395
e-mail: sekretariat@cpk.pl

www.cpk.pl/en

Al. Jerozolimskie 134, 02-305 Warszawa

NEVOMO

CEO: Przemysław Pączek

Nevomo (Hyper Poland Sp. z o.o.)
e-mail: info@nevomo.tech

www.nevomo.tech/en/

ul. Mińska 63A, 03-828 Warszawa

Photo: Magrail/NEVOMO

Economic and Commercial Department
Embassy of the Kingdom of the Netherlands in Poland
ul. Kawalerii 10, 00-468 Warsaw
e-mail: war-ea@minbuza.nl

Warsaw, August 2021