

Zarządca narodowej sieci linii kolejowych

Annual report for 2020

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FOREWORD BY THE PRESIDENT OF THE MANAGEMENT BOARD



Ladies and Gentlemen,

I have the pleasure of submitting to you the Annual Report of PKP Polskie Linii Kolejowe S.A. for 2020. The publication provides information on all areas of the Company's activity in 2020, ranging from data on railway infrastructure, investment projects, finances, safety, employment, to the discussion of development directions, provision of railway infrastructure and implementation of the timetable.

2020 was different from past years because of the ongoing coronavirus pandemic. We had to learn to operate in a new reality, but thanks to rapid organisational changes, development of a system of cooperation with contractors on construction sites, introduction of accelerated payments, settlements and remote working, PKP Polskie Linie Kolejowe S.A. realise and implement tasks that are important for the society and economy of the country.

The coronavirus epidemic had no significant impact on the investment process either – we implemented investment projects, handed over completed works, signed new agreements and announced tenders. In 2020, PKP Polskie Linie Kolejowe S.A. signed contracts totalling nearly PLN 10.9 billion net. Poland's railway network gained almost 1,000 km of modernised railway lines, 1,074 turnouts, 335 modernised level crossings, as well as 170 platforms and 134 bridges.

The effects of the National Railway Programme investment projects can be seen across the country. Passengers enjoy shorter travel times on the route from Warsaw to Tricity, where trains now travel at 200 km/h. This reduction in travel time also affects the connections

Ireneusz Merchel President of the Management Board PKP Polskie Linie Kolejowe S.A.

between Gdańsk and Kraków. Katowice and Wrocław. Travel times have also dropped below 1 h for connections between the capitals of the Małopolska Province and the Silesia Province. Train travel time has become more attractive on the Lower Silesia - Wielkopolska route as well. Railway travel is becoming more accessible. This is not only about new, comfortable platforms at modernised stations in Szczecin. Gdańsk and Rzeszow. but also dozens of smaller stations that have become more accessible for all travellers, regardless of their mobility. There has also been an increase in the number of brand-new stations – e.g. Wałbrzych Centrum, Kochcice-Glinica. Importantly, many long-gone railway connections are about to be restored - e.g. on the Bielsk Podlaski – Hajnówka route.

In 2020, two crucial programmes to be implemented by PKP Polskie Linie Kolejowe S.A. were launched under the auspices of the Ministry of Infrastructure. They will contribute to the elimination of traffic exclusion on a national scale and will foster Poland's economic development by stimulating infrastructural investment projects. The aim of the 2028 Rail Plus Local and Regional Infrastructure Supplementation Programme is to supplement the railway network with rail connections to towns with a population of over 10.000 which do not have access to passenger connections with provincial cities or those that do, but their existing connections need improvement. On the other hand, the aim of the Government Programme for the Construction or Modernisation

of Railway Stops for 2021-2025 is to construct or modernise railway stations, as well as to finance works related to the availability of parking spaces for passengers. Safety is our priority. This is why we carry out a wide range of tasks and undertake new initiatives in the technical and personnel areas to increase the safety level of railway operations, thus influencing the safety of the entire railway system. The company's continuous public awareness social campaign "Safe rail-road level crossing", which has been running for 15 years, is also part of these activities.

In 2020, PKP Polskie Linie Kolejowe S.A., demonstrating its social responsibility in connection with the ongoing coronavirus outbreak, donated more than PLN 2.25 million for the purchase of necessary medical equipment, personal protective equipment and to meet the urgent needs of hospitals. In addition to the financial commitment, the Company has made 87 cars available throughout the country for healthcare purposes.

I encourage you to read this PKP Polskie Linii Kolejowe S.A. Annual Report to learn more about what we have managed to do and what we plan for the future.

Ireneusz Merchel President of the Management Board PKP Polskie Linie Kolejowe S.A

SUPERVISORY BOARD OF THE COMPANY

MANAGEMENT BOARD

- Mariusz Andrzejewski Chairman of the Supervisory Board
- Artur Kawaler Secretary of the Supervisory Board
- Magdalena Błaszczyk Member of the Supervisory Board
- Piotr Gebel
 Member of the Supervisory Board
- Jakub Kapturzak Member of the Supervisory Board
- Joanna Klekot Member of the Supervisory Board
- Marcin Piwowarski Member of the Supervisory Board
- Tomasz Rurka Member of the Supervisory Board
- Henryk Sikora
 Member of the Supervisory Board

- Ireneusz Merchel President of the Management Board
- Mirosław Skubiszyński
 Vice President of the Management Board -Director for Operational Affairs
- Arnold Bresch
 Member of the Management Board –
 Director for Investment Implementation
- Radosław Celiński Member of the Management Board – Director for Financial and Economic Affairs
- Grzegorz Kurdziel Member of the Management Board – Director for Operational Support
- Piotr Majerczak
 Member of the Management Board –
 Director for Infrastructure Maintenance

(as of 30 November 2021)





COMPANY ASSETS

The Company's economic and financial position was assessed based on financial reports representing its status as of 31 December 2020.

The book value of the assets owned by PKP Polskie Linie Kolejowe S.A., as of 31 December 2020, amounted to PLN 96,415.8 million and was 21.8% higher than in 2019.

The structure of what the Company owns is asset-based, which is typical for railway infrastructure managers, which mostly comprises buildings, premises, as well as civil and water engineering structures. In 2020, the Company's fixed assets comprised approximately 86.1% of its total assets. During the financial year, fixed assets increased by 20.0% as a result of the modernisation of the infrastructure, i.e. investments that have been completed and commissioned on railway lines.





The current assets of PKP Polskie Linie Kolejowe S.A. in 2020 amounted to 13.9% of all assets. Relative to 2019, their carrying value increased by 34.3%. Essentially, this increase was the result of an increase in cash and cash equivalents, consisting of such things as funds from the Railway Fund and the state budget for current expenses related to infrastructure management tasks, funds from the recapitalisation of the Company, loans from the European Investment Bank (EIB) and refunds of funds involved in investment projects within the Regional Operational Programmes (ROPs), the Operational Programme Infrastructure and Environment (OPI&E), the "Connecting Europe" Facility (CEF), the Cohesion Fund and the Operational Programme Eastern Poland (OP EP).



In 2020, PKP Polskie Linie Kolejowe S.A. held shares reported as long-term investments in the following subsidia-ries:

- Przedsiębiorstwo Napraw i Utrzymania Infrastruktury Kolejowej w Krakowie Sp. z o.o. (100% of shares in share capital);
- Dolnośląskie Przedsiębiorstwo Napraw Infrastruktury Komunikacyjnej DOLKOM Sp. z o.o. with its registered office in Wrocław (100% of shares in share capital).
- Zakład Robót Komunikacyjnych DOM w Poznaniu z o.o. (100% of shares in share capital);
- Pomorskie Przedsiębiorstwo Mechaniczno-Torowe sp. z o.o. with its registered office in Gdańsk (100% of shares in share capital).

The carrying value of the above assets as of 31 December 2020 was PLN 229.9 million.

For PKP Polskie Linie Kolejowe S.A., the maintenance and repair companies

constitute the necessary potential that is used to:

- 1. maintain the tracks in good technical condition;
- carrying out modernisation and replacement investment projects to improve railway stations and routes;
- respond rapidly to the need to carry out construction work in emergency situations.

SOURCE OF ASSETS FINANCING

Sources of funding for the assets of PKP Polskie Linie Kolejowe S.A. in 2019 and 2020



EQUITY

Equity accounted for 20.9% of the Company's assets in 2020 and increased by 3.3 percentage points (p.p.) compared to 2019.

In 2020, the share capital was increased to PLN 25,264.4 million as a result of the in-kind contribution received in the form of treasury securities transferred pursuant to the Letter of Issue of the Minister of Finance dated 11 May 2020. A significant increase in 2020 was also recorded in other reserves, which is mainly due to a cash contribution made by the State Treasury. These funds are intended to cover the following:

- capital investments consisting in increasing the share capital of subsidiaries of PKP Polskie Linie Kolejowe S.A. (amount of PLN 850.0 million). The subsidiaries will use the funds from the share capital increase to purchase fixed assets in the form of machinery and equipment or real estate in order to increase the potential of their investment projects,
- activities related to the construction, reconstruction, expansion or modernisation of railway stations and associated infrastructure, implemented under the multi-annual programmes referred to in Article 136 of the Act of 27 August 2009 on public finance, particularly for the implementation of investment activities resulting from the "Programme for the Construction or Modernisation of Railway Stops for 2021-2025" (amount of PLN 1,000.0 million).



Shareholding structure of PKP Polskie Linie Kolejowe S.A. as of 31 December 2020

EXTERNAL CAPITAL

The main source of financing for the investment expenditures of PKP Polskie Linie Kolejowe S.A. in 2020 was external capital, just like in previous years. As of 31 December 2020, external capital amounted to PLN 76,257.4 million, covering 79.1% of the Company's asset resources.

In 2020, compared to 2019, the share of external capital in the financing of the Company's assets decreased despite a significant increase in long-term accruals for railway infrastructure modernisation funds obtained from state subsidies, Railway Fund, EU funding, as well as other public financing sources and long-term credit and loan liabilities.



As of 31 December 2020, non-current liabilities amounted to PLN 20,132.3 million and their share in external capital was 26.4%. The highest share in long-term liabilities (59.0%) was represented by loans received from the

EIB to co-finance and pre-finance the modernisation of railway lines; 36.4% of these liabilities were liabilities under a 2001 agreement on the transfer for paid use of railway lines and other real estate needed for railway management entered into with PKP S.A. (agreement D50-KN-1L/01).



Short-term liabilities at the end of 2020 amounted to PLN 4,620.3 million and were 5.5% lower than in 2019. The decrease in short-term liabilities was mainly due to invoices for investment project works related to the modernisation of railway infrastructure, which will ultimately be covered by EU and state budget funding, as well as EIB loan tranches.



ECONOMIC AND FINANCIAL RESULTS

Financial results of the economic activity of PKP Polskie Linie Kolejowe S.A. (in PLN million)

No.	Item	2015	2016	Chan	ge
				Value (PLN million)	%
1.	Revenues from sales and equivalent	6,756	6,351.1	404.8	6.4
2.	Operating costs	8,012.5	7,510.3	502.2	6.7
3.	Result on sales (1-2)	-1,256.5	-1,159.2	-97.4	8.4
4.	Other operating revenue	1,476.1	1,435.4	40.7	2.8
5.	Other operating costs	341.3	535	-193.6	-36.2
6.	Result on other operating activity (4-5)	1,134.7	900.4	234.3	26.0
7.	Result on operating activity (3+6)	-121.8	-258.8	136.9	-52.9
8.	Result on operating activity exclu- ding depreciation and amortisation (EBITDA)	1,873.1	1,605.7	267.4	16.7
9.	Financial revenue	69.6	130.0	-60.4	-46.5
10.	Financial costs	439.4	41.6	397.8	956.3
11.	Result on financial operations (9-10)	-369.8	88.4	-458.2	-518.3
12.	Gross profit/loss (7+11)	-491.6	-170.4	-321.3	188.7
13.	Income tax	0,0	6.4	-6.4	-100.0
14.	Net profit/loss (12-13)	-491.6	-176.7	-314.9	178.2
15.	Net profit/loss excluding depreciation and amortisation	1,372.8	1,687.7	-314.9	-18.7

In 2020, PKP Polskie Linie Kolejowe S.A. achieved income from operations amounting to PLN -491.6 million. The financial result achieved was PLN

314.9 million lower than in 2019. The income decrease was mainly due to a loss on the financial activities (down by PLN 458.2 million relative to 2019),

resulting primarily from negative exchange rate differences.



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The 2020 revenues from the provision of railway lines amounted to PLN 1,926.5 million and were PLN 107.2 million lower compared to 2019. Revenues fell as a result of a reduction in passenger carriage services due to restrictions imposed in connection with the spread of the SARS-CoV-2 virus and the introduction of state of emergency due to the epidemic. In addition, there has been a decrease in the operational work of freight carriers amounting to 5.8% compared to 2019, driven by a reduction in demand for bulk freight. The lower revenue from the sale of other services in 2020 compared to 2019 is a result of a decrease in demand for leasing land and advertising space due to restrictions on commercial activities imposed nationwide as a result of the SARS-CoV-2 outbreak and the Company's implementation of temporary aid measures in the form of rent reductions granted to contractors for rail infrastructure in the wake of the coronavirus pandemic. This is also a result of reduced demand for the hire of equipment for track, investment project and maintenance works resulting from the expansion of the investment contractors' machinery resources, which reduces the need to hire the Company's machines.



PKP Polskie Linie Kolejowe S.A. incurred 6.7% higher operating costs in 2020 than in 2019.

The increase in operating expenses concerned such things as:

- labour costs the effect of the increase in the minimum wage since 1 January 2020, which is the basis for the payment of allowances;
- depreciation and amortisation costs – primarily the increase in the value of capital expenditures charged;
- costs of external services their increase was mainly due to a higher level of sectoral costs resulting from the implementation of tasks included in a multi-year programme called "Assistance in financing the costs of railway infrastructure management, including its maintenance and repair until 2023".

In 2020, PKP Polskie Linie Kolejowe S.A. recorded an improvement in the result on other operating activities. Higher financial result on other operating activities was achieved from the

settlement of non-refundable EU and national funds earmarked for the modernisation of railway infrastructure and the revaluation of non-financial assets. There was also a significant decrease in other operating expenses.



PKP Polskie Linie Kolejowe S.A. is the manager of the national railway infrastructure, which it makes available on equal terms. In 2020, access was granted subject to the principles established in the Act on Railway Transport and the regulation of the Minister competent for rail infrastructure of 7 April 2017 on sharing railway infrastructure. The amended Railway Transport Act, which came into force on 30 December 2016, expanded the group of entities authorised to procure capacity by introducing the concept of an "applicant", which may be a railway undertaking, but also an international economic interest grouping comprising railway undertakings or another entity interested in obtaining capacity, in particular, a public rail transport organiser, a freight forwarder, a shipper or a combined transport operator. The use of railway infrastructure is still only available to rail carriers. Non-carrier applicants must indicate the carrier that will make the train run. Consequently, the infrastructure manager shall conclude a capacity allocation contract with the applicant and a capacity usage contract with the operator.

Based on the train timetables provided to the applicants, a total of 2,391,591 journeys were made in 2020, including on the basis of:

- Annual Timetable prepared based on applications submitted by applicants and updated during its validity period on set dates – 1,609,399 train rides;
- Individual Timetable prepared by PKP Polskie Linie Kolejowe S.A. when some capacity is available based on an application for train route allocation by an applicant – 782,192 train rides.

In 2020, the Company made its railway lines available to 107 carriers, including 17 passenger traffic carriers (11 regular passenger traffic carriers), 86 freight traffic carriers, and 4 carriers handling both passenger and freight traffic. 6 new clients launched their business activity on the network managed by PKP Polskie Linie Kolejowe S.A.

The basic reference value in terms of measuring access to railway lines is operating performance expressed in train-kilometres [train-km]. In 2020, 231.15 million train-km were achieved, including 156.54 million train-km in passenger traffic and 74.61 million train-km in freight traffic.

In 2020, PKP Polskie Linie Kolejowe S.A. recorded a 6.18% decrease in the total volume of operational work

carried out by customers compared to 2019 (there was a 6.35% decrease in passenger transport and a 5.83% decrease in freight transport).

In the passenger transport segment, this is due to a reduction in the capacity on offer because of restrictions related to the SARS-CoV-2 virus outbreak, which resulted in the cancellation of scheduled trains. In the transport segment, the SARS-CoV-2 outbreak had no impact on the volume of operational work performed.



DATA CONCERNING COMPLETED INTERNATIONAL CARRIAGES

In 2020, international transport services in cross-border traffic were carried out by 57 carriers, who typically chose the following border crossings:

1. for passenger traffic: Zgorzelec

(Poland – Germany), Chałupki (Poland – Czech Republic), Kostrzyn (Poland – Germany) and for transit carriages: Hirschfelde –Trzciniec Zgorzelecki – Ręczyn – Hagenwerder; for freight traffic: Kunowice (Poland – Germany), Terespol (Poland – Belarus), Chałupki (Poland – Czech Republic) and Zebrzydowice (Poland – Czech Republic).



International transport services in cross-border traffic in 2020

In 2020, 164,795 journeys were made in border traffic, including 77,505 in passenger traffic and 87,290 in freight traffic. Rides across the German-Polish border comprised 44% (72,040) of all international railway crossings, those across the Polish-Czech border accounted for 34% (55,322), the Polish-Belarusian border – 15% (24,874), the Polish-Russian border – 3% (4,257),

the Polish-Ukrainian border – 3% (3,565), Polish-Slovak border – 2% (3,844), while in the case of the Polish-Lithuanian border, it was below 1% (893). In 2020, PKP Polskie Linie Kolejowe S.A implemented an average of 450 train rides per day in international traffic under the Individual and Annual Timetable.

To make it easier for carriers to use international train routes, the One Stop Shop (OSS) at PKP Polskie Linie Kolejowe S.A., which is part of the international OSS network within the Association of European Railway Infrastructure Managers RailNetEurope (RNE), provides comprehensive information on the conditions which must be met to gain access to infrastructure by RNE members and the products and services they offer. Customers interested in international train rides may turn to one of the OSS, which will then take over the process of allocation along the entire train route.

PKP Polskie Linie Kolejowe S.A. works with neighbouring railway infrastructure managers in terms of annual and individual timetables in both passenger and freight traffic. The cooperation with the railways RŽD (Russia), BC (Belarus) and UZ (Ukraine) is based on bilateral agreements, while that with DB Netz (Germany), LG (Lithuania), SŽ (Czech Republic) and ŽSR (Slovakia) is carried out both on the basis of bilateral agreements and regulations of international organisations. Trains rides under Individual Timetables are arranged in a separate way:

- between PKP Polskie Linie Kolejowe S.A. and DB Netz, LG, SŽ and ŽSR, i.e. they are based on a common procedure (24h/a day via the Railway Traffic Management Centre being coordinated in Warsaw);
- for other neighbouring infrastructure managers, they are arranged by the OSS unit at the Warsaw Railway Traffic Management Centre.

DATA CONCERNING COMPLETED NATIONAL CARRIAGES

In 2020, the network managed by PKP Polskie Linie Kolejowe S.A. was used by the following number of trains:

- 1. for passenger traffic 1,510,147 trains,
- 2. for freight traffic 419,265 trains.

In 2020, passenger train timeliness reached the highest level observed

in many years (94.39%); however, it should be noted that one of the reasons for such high timeliness of passenger trains – apart from the qualitative changes in the railway infrastructure resulting from years of modernisation efforts – was the pandemic-related transport restrictions, which translated into a decrease in the number of trains by 129,268 compared to 2019. In the case of freight traffic, the pandemic caused a smaller reduction in the number of trains running, which was 27,232 lower compared to 2019. Nonetheless, the increase in punctuality (45.98%) in this segment was much greater than in passenger traffic.



RAIL ROADS

In 2020, the length of rail lines in operation decreased by 18,264 km compared to 2019. This was due to the need to adapt the infrastructure to evolving transport needs.

List of railway infrastructure in use, managed by PKP Polskie Linie Kolejowe S.A. (as of 31 December 2020):

- 1. 18,566 km of railway lines, i.e. 36,042 km of track, including:
 - 27,297 km of route tracks and main principal tracks at stations;
 - 8,745 km of station tracks;

- 2. 39,389 turnouts, including:
 - 18,609 turnouts in route tracks
 and main principal tracks;
 - 20,780 turnouts in station tracks.
- 13,695 crossings in the rail level, including operated lines, totalling 11,938, including crossings of the following categories:
 - A 2,229;
 - B 1,411;
 - C 1,499;
 - D 5,617;
 - F 727;
 - cat. E pedestrian crossings 455;

- 4. 24,792 engineering structures, including 6,338 bridges and viaducts;
- 5. 5,269 buildings;
- 6. 14,502 structures.
- 7. 282.6 km of acoustic barriers.

ROAD INFRASTRUCTURE TECHNICAL CONDITION

As a result of the maintenance and repair works and investment project activities in 2020, the length of railway tracks graded as good in terms of its technical condition (as of 31 December 2020) accounted for 68.21% of the total length of tracks in operation, which is an increase of 3.16% compared to the

state as of 31 December 2019; at that time, 65.05% of the tracks were graded as good.



The diagram above was developed based on the following criteria:

- good railway lines operated according to the assumed conditions; only maintenance work is required;
- satisfactory railway lines with impaired operating parameters (reduced maximum service speed, local speed restrictions), apart from maintenance works, it is

necessary to carry out ongoing repairs consisting in the replacement of damaged track elements in order to restore maximum operational parameters;

 unsatisfactory – railway lines with significantly impaired operating parameters (low service speeds, a large number of local speed restrictions, reduced permissible loads); this qualifies the tracks on the given line to be replaced. As a result of the improvement in the technical condition of the tracks, in the 2020/2021 Train Timetable, the maximum scheduled speed for passenger trains was increased at 1,680 m of the tracks and reduced at 311 km of the tracks.



Percentage structure of maximum scheduled speeds as of the introduction of the 2020/2021 Train Timetable



For several years there has been a systematic increase in the length of tracks allowing a maximum timetable

speed Vmax \ge 120 km/h. At the end of 2020, the length of such tracks was 11,131 km; by the end of 2019, it was

10,605 km; at the end of 2018, there were 10,278 km of such tracks and 10,244 km of them by the end of 2017.

AUTOMATICS AND TELECOMMUNICATION

Control command and signalling (CSS) systems can be divided into three basic functional groups:

- 1. station equipment installed at traffic stations;
- 2. wayside equipment controlling train traffic on railway routes;
- 3. traffic safety equipment at level crossings.

The above-mentioned systems still predominantly use relay and mechanical

equipment. However, the dynamic development of computer technology has resulted in its widespread use in CCS and train control systems. The latest generation of CCS is based on computer and relay-computer (hybrid) solutions, which combine the state of the art, reliability and extensive functionality and ensure a very high level of traffic safety. As of 31 December 2020, 43 Local Control Command and Signalling Centres (LCS) were in operation; 4 LCS had a dedicated CCS system for lightly loaded lines and 34 line sections had remote control solutions in place. A total of 249 signalling centre control areas with a total of 4,783 switches and 6,310 signallers per 2,633 km of railway lines are remotely controlled.

The signal box control areas are equipped in various types of station traffic CCS equipment







Point machines play an important role in safe and efficient rail traffic management. As a result of the modernisation work carried out and purchases made as part of maintenance work on the railway line network managed by PKP Polskie Linie Kolejowe S.A., a total of 388 new point machines were installed in 2020.

As of 31 December 2020, the rail network managed by the Company had a total of 38,543 mechanical and electric point machines, out of which 80.6% were electric and 19.4% were mechanical. The diagram below shows the share of each type of electric point machine.



Groups of railway	<pre>/ traffic control</pre>	equipment in	numbers
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	State as of 31 December 2020			
Station equipment	Signalling centre control area	Points	Signalling device	
mechanical key	566	3,592	1,734	
mechanical centralised	916	11,714	9,651	
electrical slide	85	2,715	1,837	
relay	722	16,750	20,334	
relay-computer	122	1,832	2,568	
computer	379	8,229	10,550	
In total	2,790	44,832	46,674	

The safety of train rides between operating control points is ensured by block signalling systems – single block and multi block – which have been installed on 16,314 km of railway lines. The railway line network managed by PKP Polskie Linie Kolejowe S.A. is dominated by single block signalling block systems, with 12,856 km of railway lines equipped with such systems, of which 1,075 km are equipped with blocking systems using the latest computer technology. Multi-block systems are installed on 3,458 km of lines, of which 2,033 km are equipped with computer blocks equipped with integrated remote diagnostics systems, controlling and recording the system's technical and operational parameters.



The railway line network managed by PKP Polskie Linie Kolejowe S.A. has 11,938 level crossings, of which 5,521 are equipped with traffic protection devices, which accounts for 46% of the total number of level crossings in use. The traffic safety systems at level crossings also use computer technology. The new generation of equipment used at crossings features auto-diagnostic systems, systems that register all operation events as well as solutions controlling the operation of the entire system. The intersections of railway lines managed by PKP Polskie Linie Kolejowe S.A. and public roads are equipped with 2,261 of such modern technical devices, installed at cat. A, B, C and E crossings, which accounts for 41% of all types of crossing equipment used.

Division fo road/railway level crossing equipped with traffic protection devices into categories



To ensure a continuously high level of operating safety, the modernised railway lines are being equipped with defect detectors (dSAT). Currently, dSAT equipment is installed in 227 locations on 52 railway lines. Depending on their diagnostic configuration, these devices remotely detect the following types of defects in moving trains:

- failure of axle bearings (GM function);
- failure of block and disc brakes (GH function);
- deformation of wheel rims (PM function);
- dynamic overload (PD function);
- excessive axle and line loads (OK function).



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In 2020, the following railway line sections equipped with the ERTMS/ ETCS level 2 system were commissioned:

- LCS Wrocław Muchobór area comprising railway line No. 275 in the section Wrocław Nowy Dwór -Legnica (a section of over 54 km is equipped with the above-mentioned system);
- LCS Opole Zachodnie area comprising railway line No. 132 in the section Wrocław Brochów – Opole Zachodnie (a section of over 72 km is equipped with the above--mentioned system);
- Warszawa Gdynia section, comprising railway lines:
 - 9 in the section Warszawa Praga – Gdańsk Główny (a section of over 311 km is equipped with the above-mentioned system);
 - 202 on the Gdańsk Główny – Gdynia Chylonia section (a section of over 27 km is equipped with the above-mentioned system);



- 260 on the Zajączkowo Tczewskie – Pruszcz Gdański section (a section of over 11 km is equipped with the above-mentioned system);
- 456 on the Warszawa Praga Chotomów section (a section of over 13 km is equipped with the above-mentioned system).

ELECTRICAL POWER DEVICES

Electrical power devices managed by PKP Polskie Linie Kolejowe S.A. in 2020 compared to 2019

Machine	Unit of measure	2020	2019
Traction network devices:			
length of electrified railway lines	km	11,989	11,998
length of traction network	tkm	24,995	24,991
traction network disconnector	items	20,185	20,093
including controlled	items	13,595	13,483
3 kV DC devices (leased to PKP Energetyka S.A.):			
traction substations/sectional cabins	items	11	11
modernised traction substations/sectional cabins	items	26	26
Electric heating of turnouts (eor):			
single turnouts, including locking devices	items	35,199	33,587
Points of external lighting:			
points of external lighting	items	210,293	205,826
installation points and internal lighting	items	206,144	198,571
MV distribution lines:			
non-traction lines (NTL)	km	784	757
Electric power delivery points:			
number of electric power delivery points	items	16,934	16,647
Contracted capacity	kW	398,442	379,494

TRACTION NETWORK

The evaluation criteria for the individual groups of devices were developed on the basis of the operating instructions for the individual groups of devices and a mathematical algorithm.

Good condition – equipment that has been modernised, has not exceeded its useful life, and whose technical condition allows further safe use; Sufficient condition – equipment requiring minor and point repairs; its technical condition enables further safe use;

Unsatisfactory condition – equipment eligible for renovation/modernisation; the technical condition of the equipment enables its further use under increased diagnostic supervision; Inadequate condition – equipment that, due to poor technical condition, should undergo a complete renovation (modernisation). They can be used with increased diagnostic supervision and more intensive maintenance.

Technical condition of the traction network (in percentages)

ltem	Technical condition	2020	2019	2020
		%	%	vs. 2019
Traction network devices	Good	25.1	24.6	+ 0.5
	Satisfactory	47.2	46.7	+ 0.5
	Unsatisfactory	25.8	26.6	- 0.8
	Inadequate	1.9	2.1	- 0.2

ELECTRIC HEATING OF TURNOUTS (EOR)

The evaluation criteria for the individual groups of devices were developed on the basis of the operating instructions for the individual groups of devices and a mathematical algorithm.

Good condition – rating given to equipment that meets the following conditions:

- the equipment has been in operation for less than 50% of its expected lifetime;
- the equipment has the technical and operational parameters that are compliant with the standards and requirements established for such equipment;
- it is not in need of repairs, with the exception of repairs due to natural wear and tear caused by operation.

Sufficient condition – rating given to equipment meeting the following conditions:

 the equipment is between 50% and 100% of its expected useful life;

- the equipment has the technical and operational parameters that are compliant with the standards and requirements established for such equipment;
- it requires the replacement of worn out elements as part of planned repairs

Unsatisfactory condition – rating given to equipment meeting the following conditions:

- its period of useful life has been exceeded;
- the technical condition of the equipment allows its safe use;
- the equipment is in need of comprehensive repair or modernisation.

Inadequate condition – rating given to equipment meeting the following conditions:

 due to wear and tear, the equipment does not have the required technical and operational parameters; due to the risk of breakdown and safety risk, equipment should be put out of service.

Technical condition of the electrical heating of turnouts (eor)

Specification	Technical condition	2020	2019	2020	
		%	%	vs. 2019	
Electrical heating of turnouts	Good	53.52	51.5	+ 2.0	
	Satisfactory	44.43	45.8	- 1.4	
	Unsatisfactory	1.15	1	+ 0.2	
	Inadequate	0.9	1.7	- 0.8	

Electrical heating of turnouts (eor) is being systematically equipped with weather stations that streamline their proper utilisation, which translates into increased efficiency and reduced electricity consumption. At present, 73.39% of electrical heating of turnouts (eor) is controlled automatically, whereas the rest is controlled manually.

EXTERNAL LIGHTING EQUIPMENT

The evaluation criteria for the individual groups of devices were developed on the basis of the operating instructions for the individual groups of devices and a mathematical algorithm.

Good condition – equipment that has been modernised, has not exceeded its useful life, and whose technical condition allows further safe use; **Sufficient condition** – equipment requiring minor and point repairs; its technical condition enables further safe use;

Unsatisfactory condition – equipment eligible for renovation/modernisation; the technical condition of the equipment enables its further use under increased diagnostic supervision; **Inadequate condition** – equipment that, due to its poor technical condition, should undergo complex repairs (modernisation). It can be operated with increased diagnostic supervision and more intensive maintenance activities.

Technical condition of the external lighting equipment

Specification	Technical condition	2020	2019	2020
		%	%	vs. 2019
External lighting equipment for railway grounds	Good	33.1	31.5	+ 1.6
	Satisfactory	25.8	27.2	- 1.4
	Unsatisfactory	19.3	18.4	+ 0.9
	Inadequate	21.8	22.9	- 1.1

In 2020 continuation of the programme consisting in the replacement of external lighting fixtures and poles. As part of the renovation works and the energy efficiency improvement programme, 1,089 lighting fixtures were replaced with energy-saving fixtures, including LEDs. These measures ensure more efficient lighting of railway grounds and reduce electricity consumption.

ENERGY CONSUMPTION AND PURCHASE COSTS

As part of its primary activity – ensuring the proper operation of the railway infrastructure – the company purchases energy across the country.

In 2020, electricity was purchased through 16,934 power connections, for which 398,442 kW of electrical power were ordered.

Compared to 2019, this is an increase of 287 connections, with an increase of 18,948 kW of installed capacity. This significant increase in installed capacity is due to the modernised railway infrastructure being put into service. The increase in the number of installed devices and their types, despite the use of energy-efficient equipment, their number and capacity contributes to an increase in consumption and thus an increase in the Company's electricity costs.

EQUIPMENT LEASE

The Company manages the infrastructure used to distribute electricity, which is leased by PKP Energetyka S.A. - the entity using this infrastructure to act as Distribution System Operator.

In 2020, power processing equipment was leased to PKP Energetyka S.A. As part of the agreement, PKP Energetyka S.A. used 885 power processing and distribution devices in 2020.

In addition, in 2020 PKP Polskie Linie Kolejowe S.A. leased part of the premises in the managed buildings to PKP Energetyka S.A. under a contract for USb2 control cabinets used for local control of traction network disconnectors. In 2020, the contract covered 822 facilities with 1,906 USb2 cabinets installed.

DIAGNOSTIC CENTRE

To guarantee safe railway transport and comfort of travel, required technical condition of the railway infrastructure must be ensured through its appropriate maintenance. Railway diagnostic system equipped with appropriate tools monitors the degree of wear and tear and degradation of the infrastructure.

Railway diagnostics is carried out in PKP Polskie Linie Kolejowe S.A. by:

- Diagnostic teams in the Company's organisational units – Railway Lines District Units, which use manual instruments and devices to carry out measurements and testing of the track bed, railway surface, engineering structures, buildings and railway buildings, as well as the power network equipment and signalling devices;
- 2. Diagnostic Centre in Warsaw, which is a unit within the Company that specialises in railway infrastructure diagnostics. The Diagnostic Centre ensures the safety of railway traffic through constant inspections and analysis of the technical condition of the railway infrastructure during its utilisation. In addition, the unit supervises the compliance with technical standards for the construction of railway pavement elementsduring maintenance and investment works.

The Diagnostic Centre performs measurements, tests and analyses of the technical condition of the infrastructure in the areas of maintenance and investment regarding:

- track geometry, structure gauges, measurements of the longitudinal and transverse profile of the rails and other specialised measurements, such as of the roughness or hardness of the rails, the chemical composition of welds, etc;
- the geometry of the contact line, the wear of the overhead wire and the defects of certain elements;
- defectoscopy of the rails, their connections and certain turnout elements (detecting defects in terms of surface and internal damage);
- functional diagnostics of dSAT equipment (detection of rolling stock malfunctions) by simulating malfunctions with special equipment installed on the measuring wagon;
- calibration of measuring instruments such as track gauges and steel rulers with a length of 1,000 mm;
- supervision and control of welding of rails and turnouts and the assessment of the rail joints;
- field and laboratory tests of the quality of new rail connections and the training of technical staff to meet the Company's needs in this area;

- technical acceptance tests of track pavement elements to be incorporated into railway infrastructure;
- relay maintenance (RM) for relays used in signalling and train control systems;
- 10. preparing opinions and expert reports in the above-mentioned areas.

In 2020, the Diagnostics Centre performed – as part of their primary activity – among others:

No.	Ta	Quantity	Unit of measure	
1.	Measurement of track geometry both vertically and horizontally using a DP-560 multifunction vehicle, 2 EM120 measuring vehicles and a UPS-80 special vehicle		52,950	km of tracks
2.	Inspection of internal rail structure in a wagon	track using a track defect detection	12,312	km of tracks
3.	Inspection of internal rail structure in a detection bogie	track using a track defect detection	42,443	km of tracks
		Welds	1,021	items
	Defect detection test on railway track	Padding welds	130	items
		Turnouts Crossings	2,412	items
		Longitudinal rail profile	60,935	metres
4.		Transverse rail profile	929	items
	Specialist test on railway track	Running surface courseness	178	items
	elements	Measuring the straightness of rail connectors	2,019	items
		Eddy current testing of rails	32,177	metres
5.	Checking the operation of hot axle box detection units by driving a DSAT car simulating an axle box failure			devices
6.	Participation in inspections of bridge structures using a specialised vehicle of the Svabo SRS type, for the purposes of inspectors from the Railway Lines Discrict Units		250	facilities
7.	Laboratory testing of rail joints on which thermite-welding, welding and har- dfacing was used		30	reports
8.	Field testing of rail joints on which thermite-welding, welding and hardfacing was used		22	reports
9.	Testing of welded rail joints on open tes	sting grounds (2 tests per year)	8	reports
10	Training and accuracy in will walding an		116	persons
10.	Training and courses in rail weiding and	a weiding supervision	19	courses
11.	Periodic and certification exams in rail	welding	149	persons
12.	Instruction and issuing of competence certificates, identification cards for welding supervision		85	items
10	Calibratian	Of rail gauges	1,030	items
13.	Calibration	Of rulers	151	items
		Turnouts	1,032	sets
14.	elements	Various components for turnout production	24	items
15	Polov maintenance	Own units	44,876	items
15.		External units	10,904	items

The above-mentioned values are planned annually based on obligatory regulations and the information on demand submitted by Railway Lines District Units.

Among the important projects carried out in 2020 by the Diagnostic Centre there are:

- continuation of track geometry measurements on normal gauge lines (1,435 mm gauge) in Lithuania using Polish diagnostic rail vehicles as part of cooperation between Polish and Lithuanian railway authorities;
- 2. completing the upgrade of the Diagnostic Database (BDD) which

has stored diagnostic data on track geometry and rail defectoscopy since 2009.

INFRASTRUCTURE REPAIR COMPANY

Infrastructure Repair Company is a specialised organisational unit of PKP Polskie Linie Kolejowe S.A. that carries out tasks in the area of day--to-day repairs and maintenance of railway lines, performing track works using high-performance track machinery, other equipment and manual labour. In 2020, the Infrastructure Repair Company carried out the typical maintenance work, i.e. adjusting the track and turnouts vertically and horizontally, cleaning the ballast and joining the rails in the track using welding and thermite welding. In 2020, the Infrastructure Repair Company completed more than 30% of the total track adjustments performed by the Company and 44% of the horizontal and vertical adjustments of the tracks with the use of the DPUS unit (the unit consists of a CSM type track tamping machine, a DGS type dynamic track stabiliser, a USP type ballast grader, which makes it possible to restore the scheduled speed immediately after the completion of the works). In addition, the Infrastructure Repair Company completed approx. 30% of the Company's planned vertical and horizontal adjustments of the turnouts with turnout tampers, 26% of the ballast cleaning works and nearly 56% of rail joints welded with a track welder. The aforementioned works were carried out on the following railway lines: No. 2 Warszawa Zachodnia - Terespol,

No. 3 Warszawa Zachodnia – Kunowice, No. 6 Zielonka – Kuźnica Białostocka, and No. 1 Warszawa Zachodnia – Katowice.

In 2020, the existing high-performance devices and wagons were also modernised and comprehensively repaired. The equipment potential has also been enhances through the purchase of new devices and vehicles for the Infrastructure Repair Company.

TRACK MACHINERY PLANT

The Track Machinery Plant in Kraków is a specialised organisational unit of PKP Polskie Linie Kolejowe S.A. which carries out tasks comprising ongoing repairs, maintenance of railway lines and engineering structures as well as investments. The plant is equipped with specialist machinery and equipment as well as process lines for regeneration and welding of railways.

The maintenance of railway lines and engineering structures along with investment tasks are implemented using high-performance specialist machinery for track and track bed work. An important advantage of the machine sets is that the repair operations are carried out in a single operational passing without the need to dismantle the railway track, which significantly shortens the repair time, while ensuring uniform and stable high parameters of the railway track geometry. This is important in terms of environment protection and the impact of the railway line on the surroundings, as there is no need to disturb the structure of the land adjacent to the repaired area, destroy access roads or set out off-road technological routes for the transport and disposal of materials and spoil.

Rails are restored at a specialist unit the Rail Welding Section in Bydgoszcz. In the process, the correct profile of the rail head is restored and the rails are then welded together to form a 210 m long rail. In 2020, 114,627 m of rails were welded at the Rail Welding Section in Bydgoszcz, of which 89,537 m were old rails after the reprofiling process. This makes it possible to recycle old material from modernised railway lines and to replace the rails on less busy railway lines while minimising costs. Welding of new rails is carried out at the Rail Welding Section in Kedzierzyn-Koźle.

Workshops of the Track Machinery Plant in Cracow perform inspections of the P2, P3 level of railway vehicles and the planned repairs of machines and track laying machines. Track laying machines and welding plants are operated by an experienced and qualified team of employees, who ensure high quality work corresponding to high reliability, which results in failure-free operation. As a confirmation of the quality of the services provided by the Plant, the company has the ISO 9001:2015 certification.

Machine operation of the Track Machinery Plant in 2020

Machine	Quantity	Unit of measure
AHM 800 R	17,022	r.m.
P-93 i P-95	91,102	r.m.
OT-800 i RM 80	76,120	r.m.
CSM 09	246,543	r.m.
ZTU 300	216,758	r.m.
DGS 62 N	236,373	r.m.
UNIMAT [r.o.u.]	948	r.o.u.
UNIMAT [r.m.]	33,265	r.m.
USP [r.m.]	467,888	r.m.
USP [r.o.u.]	205	r.o.u.

IMPORTANT ACHIEVEMENTS IN THE SCOPE OF RESEARCH AND TECHNOLOGICAL DEVELOPMENT

In 2020, the Company's continued cooperation with the National Centre for Research and Development – NCiBR. As part of the implementation of the joint project entitled: "BRIK – Research and Development in the Railway Infrastructure", 10 research and development projects are being conducted with a total value of over PLN 42.9 million (including the Company's financial contribution of approximately PLN 17.6 million). In 2020, PKP Polskie Linie Kolejowe S.A. together with NCiBR worked on deve-

loping cooperation and carried out conceptual work related to preparations for the announcement of the next competition for the implementation of a new portfolio of research and development projects.

One of the Company's development directions may also include expanding the base of approved elements for use on the rail network managed by PKP Polskie Linie Kolejowe S.A. from the road, automation, telecommunications and energy industries. In 2020, a total of 46 approvals were issued based on the SMS-PW-17 procedure. Moreover, in order to implement new technical solutions, the Company has supervised over 57 polygons, where devices and components from the above-mentioned industries are monitored and tested.

ACHIEVEMENTS IN THE FIELD OF ENERGY

PKP Polskie Linie Kolejowe S.A. implements within the joint project entitled "BRIK - Research and Development in Railway Infrastructure" the following projects dedicated to the area of railway power engineering:

a) development of an innovative control system for the lighting infrastructure on the network managed by the Company;

- b) introduction of self-cleaning, efficient photovoltaic panels on a flexible surface integrated with an acoustic screen and intelligent monitoring system;
- c) development and implementation of elements of an anti-theft system for the rail network.

In 2020, the Company continued to implement the above-mentioned projects.

TESTING GROUND "SYSTEM OF PROTECTION AGAINST OVERVOLTAGES OF TRACK-SIDE DEVICES LOCATED IN THE 3 KV DC OVERHEAD CONTACT LINE ZONE"

In 2020, PKP Polskie Linie Kolejowe S.A. continued the construction of the testing ground entitled "System of Protection against Overvoltages of Track-side Devices Located in the 3 kV DC Overhead Contact Line Zone". The project involved monitoring the failure rate of overhead contact line and track-side devices in relation to adjacent sections of other railway lines on which no protective devices will be built. As a result of the implementation

of the project, the final report was prepared, indicating the appropriateness of the directions of the actions taken.

OVERHEAD CONTACT LINE TESTING UP TO 250 KM/H

In 2020, a research unit was commissioned to carry out simulation tests on overhead contact lines of the 2C120-2C-3 and YC150-2CS150 types in order to assess their interaction with pantographs of railway vehicles travelling at speeds of up to 250 km/h. As a result of the simulation studies, the necessary changes in the construction of the overhead contact lines were demonstrated in order to adapt to the requirements of the "Energy" Technical Specifications for Interoperability (TSI) introduced by the EU Commission Regulation No. 1301/2014 of 18 November 2014. However, the results of the simulation tests on modified overhead contact lines indicate that they can be used at the speed of 250 km/h. In order to meet the requirements of the "Energy" TSI, it is still necessary to carry out a verification through dynamic tests.

The results of the simulation tests and dynamic tests will be used by a notified body when performing an assessment,

RENEWABLE ENERGY SOURCES

The Company meets pro-environmental trends by taking measures to, among other things, reduce the consumption and cost of electricity from non-renewable sources. This is facilitated by the extensive railway infrastructure managed by the Company, which enables safe development of photovoltaic installations in the vicinity and on buildings managed by the Company. on the basis of which an EC certificate of conformity or suitability for use shall be issued for the interoperability factor in the form of an overhead contact line for the above-mentioned speed. The above-mentioned operation is part of the Company's plans to allow traffic at speeds exceeding 200 km/h.

Currently, PKP Polskie Linie Kolejowe S.A. operate 23 installations of this type.

ACHIEVEMENTS IN THE FIELD OF AUTOMATION AND TELECOMMUNICATION

- Supervision was exercised over the implementation of testing grounds for the purpose of carrying out operational tests in order to obtain permissions to use the types of equipment issued by the Railway Transport Office for:
 - Eap-2000 type semi-automatic line interlock produced by PPHU Maciej Grot Sp. z o.o.;
 - a computer console for relay signalling and train control systems with a function of ATE-ZS remote control produced by

Zakład Produkcyjno-Handlowo-Usługowy "ATE" sp. z o.o.;

- PERUN-type computerised crossing signalling system produced by ELESTER-PKP sp. z o.o.;
- electro-hydraulic point machine ECOSTAR 4 produced by voestalpine SIGNALING Sopot Sp. z o.o.;
- type KPI-41 point position control device produced by AŽD Praha s.r.o;
- AZD 70-PL railway signalling device produced by AŽD Praha s.r.o;

- KOLBUD's ELS and ELK type railway signalling devices;
- SWITCHGUARD ELS710 electric point machine produced by Siemens Mobility sp. z o.o.;
- Alstom's P-80 G F.E type point machine.
- Field tests of the stationary RFID reader installed on the railway line no. 401 (in Łożnica) in the vicinity of the installed dSAT equipment (rolling stock emergency detection equipment). A positive result of the

field tests will enable the installation of the gate system and the full identification of the rolling stock involved in railway traffic.

- 14 dSAT devices were built in new locations within the Company's organisational units (6 in the Railway Lines District Unit in Lublin, 1 in the Railway Lines District Unit in Łódź, 5 in the Railway Lines District Unit in Poznań, 2 in the Railway Lines District Unit in Siedlce).
- 8 dSAT devices were modernised (replaced with newer devices or new functions were added).
- 5. In order to improve the management of railway traffic, a software modification of 12 dSAT terminals, in the form of adding an automatic terminal (AT) function, was put into operation, allowing information about detected emergencies to be redirected towards the dSAT terminal that the train is approaching. This information about

detected irregularities will be communicated to the employee, who shall make a decision on the further steps regarding the rolling stock in his area.

ACHIEVEMENTS IN THE FIELD OF ENVIRONMENT PROTECTION

In 2020, PKP Polskie Linie Kolejowe S.A. continued research work on new solutions and equipment to protect people and buildings from noise and vibration caused by railway operations. The joint project "BRIK – Research and Development of Railway Infrastructure" will enable developing effective vibro-acoustic solutions other than standard noise barriers. The implementation of innovative solutions in the future will minimise the noise nuisance as well as the impact of the equipment used on the natural landscape. Research work is carried out under two projects: "New solutions for the protection of people and the environment against noise" and "New solutions for the protection of people and the environment against vibrations".

ENTERPRISE ASSET MANAGEMENT SYSTEM

In 2020, the Company continued the initiated preparation for the implementation of an IT system for the maintenance of railway infrastructure - Enterprise Asset Management. The computerisation of railway infrastructure maintenance is of key importance, with the Company making significant investments under the National Railway Programme to maximise the operating life as a result of the largest ever railway infrastructure modernisation programme.

PASSENGER SERVICE FACILITIES

PKP Polskie Linie Kolejowe S.A. undertakes a number of initiatives involving passenger infrastructure with a view to providing travellers with better comfort on platforms, access routes and with convenient access to trains. Clear signposting of stations and railway stops as well as access to information on train traffic is provided. Stations and railway stops shall be equipped with elements necessary for comfortable waiting for the train, and shall be adapted to the needs of persons with reduced mobility. In 2020, the Company managed platforms and access routes at 2,769 stations and railway stops.

PASSENGER INFORMATION

In 2020, the amendment of the Railway Transport Act made it necessary to adapt the internal regulations of PKP Polskie Linie Kolejowe S. A. to the new regulations. Pursuant to the provisions of the Act of 9 January 2020 amending the Railway Transport Act and certain other acts (Journal of Laws of 17 March 2020, item 462) the definition of a passenger station has changed. In the light of new statutory regulations, PKP Polskie Linie Kolejowe S.A. is considered a passenger station operator in the case of stations which also operate railway stations owned by the Company, i.e.: Łódź Fabryczna, Włoszczowa Północ, Bystra Podhalańska, Turowo Pomorskie, Jerzmanice Lubuskie. At these stations, the Company also acts as the manager of the railway infrastructure, including as the manager of the platforms. As a result, a new document entitled "Framework regulations for the use of passenger stations and rules for the use of the station's railway infrastructure" has been developed and is published at all passenger facilities managed by the Company.

In 2020, after a pilot phase, a new service – request stops – was launched upon requests of railway operators. It includes the following railway stops: Krzyżowa, Nowa Wieś Legnicka, Bo-

lesławice Świdnickie, Kwieciszowice, Ubocze, Studzianka, Suszka, Wierzchowice, Jedlina Górna, Nowa Ruda Zdrojowisko, Nowa Ruda Przedmieście, Gorzuchów Kłodzki, Bierkowice, Unisław Śląski, Błażkowa, Kłodzko Książek, Kłodzko Zagórze, Stary Wielisław, Kulin Kłodzki, Lewin Kłodzki, Górzyniec.

The dynamic passenger information service is provided at 1,430 railway stations and stops throughout the country,



Prosimy czekać na pociąg w miejscu widocznym dla maszynisty Trains stop on request only Please walt for the train in a place visible to the driver which accounts for approx. 52% of all railway stations and stops managed by the Company. In 875 locations it is provided as the direct voice information, given by an operator – either a train dispatcher or a megaphone speaker. The Automatic Announcement System (AAS) is installed in 399 locations and uses a local server that generates the message content using the Text-to--Speech (TTS) system.

At 136 stations and railway stops, voice information is also accompanied by visual information, of which 116 locations use electronic systems with LCD displays. Analogue visual information devices are installed at 20 locations.

PKP Polskie Linie Kolejowe S.A. is gradually implementing the Central Dynamic Passenger Information System (CSDIP) at railway stations and stops. CSDIP is a centralised system that is a collection of all the devices installed at the stations and railway stops to present information to passengers. A part of the CSDIP system is the Central Application of the Dynamic Passenger Information System (CAS-DIP), which provides it with timetable data and information about possible delays in train traffic.



Passenger information systems of PKP Polskie Linie Kolejowe S.A.

In addition to providing the CSDIP devices with source data, CASDIP provides content display and message output via an implemented speech synthesiser. Between 2016 and 2020, 20 locations were added to the CSDIP system, including: Jelenia Góra, Zielona Góra Główna, Warszawa Wola, Warszawa Powązki, Milanówek, Pruszków, Warszawa Włochy, Radom, Lubliniec i Białystok. A total of 607 devices operate in the CSDIP system as of 31 December 2020.

VISUAL MONITORING

In 2020, a project was launched to create a Video Monitoring System (SMW) at stations on railway line No. 351 (on the Poznań Wola – Szczecin Dąbie section), at Poznań Główny station (platform 3a) and on railway line No. 6 (on the Czyżew – Białystok section). In addition, in 2020, a design concept was approved for a project involving the establishment of a Passenger Infrastructure Safety Centre (CBIP), which will serve as a central point for the supervision of video monitoring systems in the country that belong to PKP Polskie Linie Kolejowe S.A. Under the project in question, 105 stations will be equipped with modern video monitoring systems – this applies to railway line No. 2 (Warszawa Rembertów – Terespol section), railway line No. 3 (Warszawa Ursus Północny – Kunowice section), railway line No. 275 (Wrocław Nowy Dwór – Jeziarzany section) and railway line No. 282 (Miłkowice – Węgliniec section), as well as the Warszawa Targówek station.

NAMES OF STATIONS AND RAILWAY STOPS

In 2020, the process of organising and shaping the public space in which the passenger moves was continued by naming and renaming stations and railway stops in accordance with current regulations.

Names were given to 29 new stations and railway stops, namely to the following: Wrocław Szczepin, Rzozów Centrum, Wola Radziszowska Lipki, Kochcice-Glinica, Wadowice Osiedle Podhalanin, Skoczów Bajerki, Cieszyn Uniwersytet, Ustroń Brzegi, Wisła Jawornik, Łódź Warszawska, Łódź Radogoszcz Wschód, Łódź Retkinia, Biała Podlaska Wschodnia, Wieliszew Centrum, Olsztyn Likusy, Olsztyn Redykajny, Radom Stara Wola, Radom Północny, Radom Gołębiów, Miasteczko Śląskie Centrum, Pyrzowice Lotnisko, Mierzęcice, Zawiercie Kądzielów, Olsztyn Jezioro Ukiel, Katowice Uniwersytet, Katowice Akademia, Katowice Kokociniec, Łódź Andrzejów Szosa, Warka Miasto.

In addition, 4 stations and railway stops were renamed:

- Głogów Wróblin (formerly Wróblin Głogowski);
- Kutno Azory (previously Azory);
- Zegrze Południowe (formerly Zegrze);
- Otmice (formerly Kamień Śląski).

EQUIPMENT AND MAINTENANCE OF PLATFORMS AND PLATFORM ACCESS ROUTES

In 2020, the implementation of tasks aimed at improving the comfort of passengers waiting for trains at stations and railway stops was continued, including:

- 1. building 9 platform shelters;
- 2. installation of approximately 200 litter bins;
- installation of approximately 200 platform benches;
- installation of approximately 330 bicycle racks;
- 5. installation of 37 information showcases;
- 6. installation of new permanent signposts at more than 20 locations.

ADAPTATION OF PASSENGER INFRASTRUCTURE TO THE NEEDS OF DISABLED PERSONS AND PERSONS WITH REDUCED MOBILITY (PRM)

In 2020, PKP Polskie Linie Kolejowe S.A. continued their efforts to eliminate architectural barriers at passenger stations in order to adapt them to the needs of people with disabilities and people with reduced mobility.

As part of the reconstruction and revitalisation tasks carried out by the Company, 178 platforms were rebuilt and 64 new platforms were constructed, taking into account their adaptation to the needs of persons with reduced mobility, including: installation of 80 passenger lifts and 143 ramps leading to the platforms, construction of paths for the visually impaired and blind, and adjustment of platform heights to the applicable guidelines. In addition, in 2020 the Company continued its cooperation with Polskie Koleje Państwowe S.A. (PKP S.A.) with regard to providing assistance to disabled persons and persons with reduced mobility at passenger stations by security guards for protection of persons and property employed by PKP S.A. As part of this cooperation, more than 9,693 people with reduced mobility were assisted at 58 passenger stations in 2020.

Below, we present a summary of the effects of the measures taken in 2020 to adapt the stations and stops managed by the Company to the needs of disabled persons and persons with reduced mobility:

- 1. 1,740 platforms were modernised;
- 2. 376 passenger lifts were installed;
- 3. 81 vertical platform lifts were installed;
- 4. 147 stair lifts were installed;
- 5. 67 escalators were installed;

- 6. 8 travelators were installed;
- at more than 1,000 stations and railway stops, ramps leading to platforms and outdoor areas were installed;
- 8. about 200 stations and railway stops were provided with information in Braille.

MAINTENANCE OF ORDER AND CLEANLINESS AT STATIONS AND PASSENGER STOPS

In 2020, a contractor was appointed to provide cleaning services in selected locations managed by PKP Polskie Linie Kolejowe S.A. and PKP S.A., i.e. at approx. 2,750 stations and railway stops. In addition, the "Book of Standards for Maintaining Cleanliness at PKP Passenger Stations" was modified, with new provisions introduced based on experience gained in previous years.

The audit structure of PKP Polskie Linie Kolejowe S.A. is used for assessing the level of performance of the cleaning services at railway stations and stops. Employees checking the cleanliness level are equipped with mobile devices with a special audit application allowing them to send the assessment and any comments to the service contractor in real time.
INSPECTIONS AND AUDITS OF PASSENGER INFRASTRUCTURE

In 2020, the scope of inspections of the condition of passenger infrastructure and the preparation of reports on these inspections was modified. The introduction of changes resulted, among others, from the necessity to adjust the content of the document to the provisions of the amended Act on Railway Transport.

Passenger infrastructure inspections and audits are conducted in order to identify and rectify non-compliance with the Company's internal passenger infrastructure regulations, as well as to obtain current and reliable information on the condition of passenger infrastructure. Conducting inspections and audits of railway stations and stops is an on-going process that identifies possible irregularities and defects so that they can be rectified as quickly as possible.

The average monthly number of inspections in 2020 amounted to almost 3,900. A total of 46,642 inspections of 876 facilities and audits of 2,538 facilities were carried out. Audit and verification activities are undertaken primarily out of concern for the passenger. They are aimed at ensuring the required level of cleanliness and proper maintenance of passenger infrastructure elements for the comfort of passengers using railway transport.

The inspections and audits involved checking passenger infrastructure, in particular in the areas of:

- 1. the level of maintenance of cleanliness including:
- platforms, access paths, intertrack space, slopes;
- landscaping elements, platform markings, SDIP elements;
- removal of graffiti from buildings and landscaping elements;
- PRM equipment;
- 2. the level of winter maintenance including:
- platforms, access paths;
- landscaping elements, platform

markings, SDIP elements; PRM equipment;

- 3. the technical condition of passenger infrastructure:
- landscaping elements, marking of platforms and access paths, information showcases, shelters;
- platforms and access paths, railway underpasses, footbridges, other traffic routes;
- bicycle racks;
- PRM equipment;
- 4. publication of various types of train timetables, including:
- line timetable (detailed);
- route timetable;
- future timetable;
- the efficiency of the dynamic visual and voice information system and timing signaling network;
- 6. presence of illegal advertising.



WINTER PROTECTION OF RAILWAY LINES

Intense snowfall, low temperatures and strong winds can cause disruption to the operation and transport process on the railway. During the winter standby period, which lasts from 15 November to 31 March, an appropriate winter standby phase is initiated depending on the influence of weather conditions on train operation. Initiating a specific phase involves incorporating sufficient staff, machinery and snow removal equipment into the winter work. Communication routes that are economically and socially important are under special winter protection.

The railway lines were divided into three groups based on the order of winter maintenance. Priority is given to railway lines with regional traffic related to commuting to work and schools. For conducting winter works in the 2020/2021 season, PKP Polskie Linie Kolejowe S.A. secured nearly 14.0 thousand people (its own employees and external entities). The primary element of the technical protection of the railway lines are the snow removal machines – special snow removal teams, snowploughs and snowblowers. In total, the Company had a total of 282 of the aforementioned machines in 2020.

In addition, more than 18,100 turnouts were equipped with electrical heating of turnouts (eor) to ensure smooth switching during snowfall. All turnouts are also lubricated with an agent with a low freezing point. In 2020, 177 emergency response teams were also available to deal with breakdowns and faults in the railway pavement and signalling equipment (CCS). In addition, the areas exposed to snow drifting (a total of 906 km of track) were covered with permanent and temporary snow screens. For overhead contact line maintenance, 66 trains equipped with percussion wire de-icing equipment and pantographs with reinforced strips for de-icing frost and rime frost were secured. Almost 4,300 km of contact line wires were treated with an anti-icing agent to reduce the effects of rime frost and ice build-up.

COMMERCIAL DEVELOPMENT OF PASSENGER INFRASTRUCTURE

The Company leases passenger infrastructure space on an ongoing basis for commercial purposes. These activities are carried out in accordance with the "Guidelines for commercial development of passenger infrastructure managed by PKP Polskie Linie Kolejowe S.A.", which define the principles of commercial, service and advertising space development in passenger infrastructure areas.



STATISTICS OF RAILWAY EVENTS (AS OF 30 NOVEMBER 2021)

In the period from 1 January to 31 December 2020. on the rail network managed by PKP Polskie Linie Kolejowe S.A. there were 369 accidents (exclu-

ding suicides). Compared to 2019, the number of accidents decreased by 115 (24%).



Comparison of the number of accidents that occurred between 2010 and 2020

ACCIDENTS AND SERIOUS ACCIDENTS BY TYPE



The type classification of accidents used by PKP Polskie Linie Kolejowe S.A., compliant with the requirements of the Office of Rail Transport (UTK) and European Railway Agency (ERA) includes:

- collisions; 1.
- 2. derailments;
- accidents at level crossings and 3 pedestrian crossings;
- 4. accidents involving persons outside level crossings and pedestrian crossings (excluding suicides);
- rolling stock fires; 5.
- other accidents. 6

The diagram above shows that by far the largest groups of accidents on the rail network managed by PKP Polskie Linie Kolejowe S.A. were accidents at level crossings and pedestrian crossings, as well as accidents involving persons outside level crossings and pedestrian crossings (people being hit while staying on railway premises or jumping in/out of trains). Collisions and derailments amounted to less than 22% of all accidents in 2020. These are incidents that usually occur because of the broadly understood railway system, i.e. technical devices, procedures and/ or human and organisational factors (on the part of the railway undertaking or the infrastructure manager). The possibility to reduce these two types of accidents depends directly on the me-

asures taken by railway market participants – infrastructure managers and railway undertakings, but also designers, producers, suppliers and contractors of construction and maintenance work.

PERSONS INJURED IN RAILWAY ACCIDENTS

The number of persons injured in accidents on the rail network managed by PKP Polskie Linie Kolejowe S.A. in 2020 amounted to 187, of which 143 were fatalities and 44 seriously injured. Compared to 2019, the number of fatalities decreased by 13, and the number of people seriously injured also decreased – by 3. The largest groups of fatalities that occurred in 2020 were unauthorised persons on railway premises (95 killed, i.e. o 2 less than in 2019) and users of level crossings and pedestrian crossings (45 killed, i.e. 13 less than in 2019). Among people seriously injured in rail accidents, the largest group (23 persons, i.e. 1 less than in 2019) were also unauthorised persons on railway premises and users of level crossings and pedestrian crossings (20 persons, i.e. 3 less than in 2019).

ACCIDENTS BY FAULT ATTRIBUTION

Statistics show that the vast majority of railway traffic accidents are caused by users of level/pedestrian crossings and

unauthorised persons on railway premises – compared to other categories, they make up an overwhelming number of people at fault for accidents on the rail network managed by the Company.

Quantitative structure of accidents on the rail network managed by PKP Polskie Linie Kolejowe S.A.



In 2020, there were 24 accidents involving PKP Polskie Linie Kolejowe S.A., including 2 collisions, 18 derailments, 4 accidents at level crossings. The most frequent causes of incidents burdening the company were mistakes of employees in charge of railway traffic and damage to or poor technical condition of the surface of railway tracks.

MEASURES TAKEN TO IMPROVE RAILWAY TRAFFIC SAFETY

IMPROVEMENT OF INFRASTRUCTURE SAFETY PARAMETERS AS A RESULT OF INVESTMENT WORKS ON RAILWAY LINES

PKP Polskie Linie Kolejowe S.A. is implementing a large-scale programme for the modernisation and revitalisation of railway lines. The scope of works under individual investment projects usually involves the comprehensive replacement of the track structure, control-command and signalling equipment, electric power equipment (both traction and non-traction) as well as the modernisation of level crossings and their removal and replacement with two-level crossroads. The replacement of old, run-down and degraded railway infrastructure and technical equipment with new infrastructure and equipment made using modern technologies allows to significantly improve the operating parameters of railway lines (mainly maximum permissible speeds) while maintaining the same level of railway traffic safety or even improving it. The modernisation and revitalisation works carried out on railway lines reduce the risk of occurences (accidents and incidents) and potentially dangerous situations caused by poor technical condition or infrastructure malfunctions.

Similarly, the frequency of accidents at level crossings is reduced by equipping them with additional safety and user warning devices.

As part of the modernisation and revitalisation projects implemented by the Company, the elements of railway line infrastructure which are critical in terms of the risk of derailment, i.e. turnouts. are being replaced and retrofitted. In 2020, the investment activities on the network managed by PKP Polskie Linie Kolejowe S.A. covered a total of 1,010 turnouts. In order to ensure greater reliability and safety of rail transport in difficult weather conditions, all the turnouts installed as part of the project "Improvement of safety at crossroads with railway roads" were equipped with devices for electrical heating of turnouts (eor). They prevent the freezing of moving turnout elements and facilitate the removal of snow and ice, and they are equipped with modern technology which enables automatic activation of the heating system depending on temperature changes.

In addition, as part of the modernisation and revitalisation of railway lines, the Company is rebuilding level crossings and pedestrian crossings, equipping them with additional safety and/or warning devices; moreover, some level crossings and pedestrian crossings are being removed and replaced with viaducts, footbridges and tunnels.

In 2020, investment activities (under the above-mentioned project) covered a total of 306 crossings, and at various locations, the scope of modernisation covered also: the installation of automatic crossing signalling devices (SSP), installation of closed-circuit television devices (CCTV) and/or replacement of the surface of the crossing. In addition, 633 engineering structures were built, modernised or revitalised, including 35 two-level crossroads.

INCREASING THE LEVEL OF SAFETY DURING THE IMPLEMENTATION OF INVESTMENT AND MAINTENANCE WORKS

The implementation of investment works and other works on the tracks requires the closure of track sections. The proper organisation of those operations is crucial in terms of the safety of railway traffic on the active track adjacent to the closed track, as well as on other adjacent routes and in the area of traffic posts. Track closure entails the need to introduce appropriate restrictions in railway traffic and, in case of long-term closures, changes to the train timetables. In certain adverse conditions, this may be an additional risk factor for an occurrence of a railway incident.

In 2020, on the network managed by PKP Polskich Linii Kolejowych S.A., there have been a total of 70,039 track closures (12% more than in 2019), including 5,755 24-hour closures (3% more than a year earlier). The operation of train traffic on railway lines where investment works or other works are carried out in the vicinity of active tracks requires the application of additional risk management measures. The company is undertaking many activities aimed at ensuring the highest level of safety during investment works and other works, both in terms of railway traffic safety and the safety of people working in the vicinity of active tracks. The measures implemented to this end in 2020 include:

- increasing personnel at traffic posts during the implementation of investments on the station/line, by a total of 57,817 hours;
- thematic internal audits of the

Safety Management System (SMS) related to railway traffic safety during the execution of investment works (7 such audits were conducted in 2020);

inspections concerning railway traffic safety in locations where investment works are carried out - in 2020, inspectors representing the Company's organisational units have performed 15 inspections with respect to security and signalisation on the investment work sites from the side of tracks open to train traffic, with particular focus on the sites of works carried out by various economic entities (subcontractors);

application of the "Safety rules during the performance of investment, revitalisation, maintenance and repair works by employees of foreign companies on the premises of PKP Polskie Linie Kolejowe S.A." and "Guidelines for providing information and informing the employee of another employer about threats concerning safety and health while performing work on the premises of PKP Polskie Linie Kolejowe S.A." lbh-105.

PURCHASE OF SPECIALIST TECHNICAL EQUIPMENT FOR THE DIAGNOSTICS AND REPAIR OF INFRASTRUCTURE FAULTS

In 2020, the Company executed contracts for the purchase of 2 track tamping machines, 1 turnout tamping machine, 1 ballast tamper and 1 road-rail vehicle for the inspection of engineering facilities. Two contracts were also executed for the supply of a total of 42 motor trolleys with tooling. The new machines will increase the safety and punctuality of train traffic, allowing infrastructure malfunctions and their consequences to be quickly removed.

INSTALLATION OF TRACK OCCUPANCY CONTROL SYSTEMS

In 2020, in order to reduce the risk of rolling stock collisions on station tracks, the works consisting in the installation

of track occupancy control systems at the stations not yet equipped with such devices were continued. Between 2015 and 2020, occupancy control systems were installed on 1,075 tracks of 275 railway stations.

INTERLOCKING OF THE LEVEL CROSSING EQUIPMENT IN STATION CONTROL-COMMAND AND SIGNALLING EQUIPMENT

In order to improve safety at level crossings located on the premises of railway stations, a measure was initiated in 2016 and continued in 2020 consisting in installing the so-called interlocking in CCS equipment, thanks to which it is possible to display signals that enable trains to run on semaphores only if the boom barriers of the level crossing have been closed. Between 2015 and 2020, the abovementioned technical solution was applied at 376 level crossings. In 2021, activities in this area will be continued.

PURCHASE AND INSTALLATION OF W 24 INDICATORS MADE WITH THE USE OF LED TECHNOLOGY

Starting from 2016, the Company has been implementing a measure to improve the safety system on the railway network, consisting in the replacement of W 24 indicators "Opposite direction indicator" that use incandescent light sources with indicators that use LED technology. The use of such technology allows to significantly increase the visibility and readability of these indicators, both thanks to the better visibility of the light source and the possibility of adjusting the brightness of the indicator to the prevailing conditions (time of day, weather conditions). In accordance with the guidelines set out in the Company's internal regulations and the basic investment documents, when installing new or replacing old CCS equipment, only LED W 24 indicators should be used, whereas indicators in equipment not covered by investment projects should be replaced gradually whenever possible.

In 2020, as part of the central purchase of LED W 24 indicators, to be installed in locations determined on the basis of identified needs and operational criteria, i.e. average 24-hour train traffic, line category, type of CCS equipment installed at the traffic post, 705 indicators were purchased and installed (between 2016 and 2020 a total of 3,420 indicators). In the selected locations, they have replaced the previous in-

dicators that used technology based on incandescent light sources (signal bulbs).

MARKING OF LEVEL CROSSING ACCESS ROADS WITH HORIZONTAL LINES SLOWING DOWN THE TRAIN

In order to reduce the risk of collisions at level crossings, PKP Polskie Linie Kolejowe S.A. has implemented in 2014 and continued in the following years the action consisting in placing special warning and slow-down signs on access roads to level crossings. The purpose of strips placed on the surface of the access road at an appropriate distance from the railway line is to warn the driver of a road vehicle that they are approaching a crossing with a railway line – a high-risk area where particular caution must be exercised. Thanks to the slight convexity, the strips generate characteristic vibrations and sound, while their bright red colour is an informational and warning factor. The main focus of this measure is to increase the level of safety at category D level crossings (without barriers and light and sound signalisation), however, in justified cases, the signs are also placed at category B and C crossings. Since the initiation of the project until the end of 2020, the signs have been placed on access roads to 458 level crossings throughout the country.

ACTIONS TO IMPROVE STAFF COMPETENCES AND DEVELOP THE SAFETY CULTURE

PKP Polskie Linie Kolejowe S.A. is implementing a programme of activities aimed at developing the safety culture within the Company and among its stakeholders. The actions taken in this area in 2020 include:

- organisation of the 16th edition of the "Safe rail-road level crossing" social campaign;
- safety talks and safety meetings;
- provision of training on a simulator of CCS and communication equipment;
- implementation of job placements within the scope of basic information about the Safety Management System, risk management, human factors and safety culture;
- providing all employees of the Company with semi-annual and annual information on the safety on the rail network managed by PKP Polskie Linie Kolejowe S.A.;
- developing Information Bulletins concerning railway events that have occurred and distributing them to employees responsible for railway traffic safety.

In 2020, the Company has also initiated a series of training courses with the general objective of streamlining the operating procedure and mutual cooperation between representatives of the police, the prosecutor's office and the railways all over the country when investigating railway accidents and restoring smooth operation and safety of railway traffic.

These training courses are addressed to the police, district and regional prosecutors, as well as representatives of other interested public administration units and bodies which perform tasks related to conducting police and prosecutor proceedings or investigations concerning railway events. The priority in such matters is, first and foremost, safety and the prevention of possible future railway accidents on the entire network managed by the Company. However, it is equally vital to strengthen the organisation of the entire crisis management system in such a way as to be able to restore rail transport immediately and completely, as soon as an obstacle causing disruption to rail traffic arises.

In 2020, due to the coronavirus epidemic, two meetings were held in Warsaw and Gdynia. This training will be continued in the coming years.

In 2020, the Company also introduced an internal regulation related to the rules of conduct during employee tests for sobriety or for the presence of drugs affecting psychophysical performance. The purpose of this measure is to prevent employees from performing their duties while under the influence of such substances, due to the possibility of causing a threat to the safety of railway traffic and the safety of human life or health.

MONITORING THE SAFETY MANAGEMENT SYSTEM

PKP Polskie Linie Kolejowe S.A. implemented a monitoring process for their Safety Management System, laid down in procedure SMS/MMS-PD-04 "Monitoring and Continuous Development of the Safety Management System and the Maintenance Management System" (MMS), in order to meet the requirements laid down in Commission Regulation (EU) No 1078/2012 of 16 November 2012 on a common safety method for monitoring to be applied by, inter alia, infrastructure managers after receiving a safety authorisation. Moreover, in compliance with the provisions of this Regulation, the Company implements a Monitoring Strategy establishing, among others, the principles for selecting tools and methods of SMS monitoring for problem areas as well as qualitative and quantitative indicators used in the process of SMS monitoring. Main areas subject to the monitoring process include:

- the safety of railway traffic on the railway network managed by PKP Polskie Linie Kolejowe S.A.;
- the correct and effective application of SMS procedures at the Company;
- 3. the introduction of technical, operational and organisational chan-

ges considered as significant in the change management process;

- the cooperation with suppliers and contractors whose products/services have a direct or indirect impact on railway traffic safety;
- 5. the effectiveness of implementation of preventive and corrective measures, including:
 - the implementation of guidelines and recommendations of National Railway Accident Investigation Board (PKBWK);
 - the implementation of guidelines of railway committees included in the Final Memorandum of Understanding (PUK);
 - the implementation of post-control conclusions from controls carried out by UTK or other public administration authorities;
 - the implementation of conclusions and recommendations from SMS audits, SMS controls, SMS inspections;
 - the implementation of recommendations issued by risk analysis teams;
 - the implementation of conclusions from the previous monitoring process application;

- the implementation of tasks provided for in the Safety Improvement Programme;
- the implementation of training, periodic instructions and ad hoc instructions.
- the effectiveness of implemented risk management measures and actions implemented as part of constant SMS optimisation.

The basic tools and methods of SMS monitoring at the Company include:

- maintaining an Accidents & Events (WiW) database and performing statistical analyses of data collected therein;
- 2. running the Operating Performance Registration System (SEPE) application and performing statistical analyses of data collected therein;
- analysing common safety indicators (CSI) and how they change over time;
- 4. SMS audits;
- SMS controls, taking into consideration all internal regulations concerning the performance of inspections at the Company;
- 6. SMS inspections.

RISK MANAGEMENT MEASURES

In 2020, a total of 753 change significance assessments have been performed, an increase of 17.65% compared to 2019. Of the 753 change significance assessments completed in 2020, 5 changes were deemed significant – within the meaning of the Commission Implementing Regulation (EU) No. 402/2013 of 30 April 2013 on the common safety method for risk evaluation and assessment and repealing Regulation (EC) No. 352/2009.

A total of 245 risk evaluations were also performed (an increase of 5.15% compared to 2019) with regard to railway traffic safety, as part of the SMS and MMS in force at the Company, to determine additional risk management measures in justified cases and minimise the degree of risk (enhance safety) related to the Company's activity. The majority of all the risk assessments performed were activities related to hazards at level crossings (67 assessments).

IMPLEMENTATION OF THE RAILWAY TRAFFIC SAFETY IMPROVEMENT PROGRAMME

The primary purpose of implementing the Railway Traffic Safety Improvement Programme in 2020 was to prevent any unacceptable risks and limit the frequency of hazards and their consequences through the application of appropriate risk management measures. The measures stipulated in the Programme were aimed at the implementation of the main safety targets for the year 2020, laid down in Resolution No. 682/2019 of the Management Board of the Company of 5 November 2019.

Apart from measures allocated to individual initiatives and targets, the Programme also includes indicators that allow monitoring the target achievement progress on an ongoing basis. These indicators have been designed in such a way, so as to enable their comparison in cumulative periods with the state at the end of the base year. For each indicator, warning and alarm values have also been determined in reference to all periods.

Organisational units of the Company were tasked with submitting quarterly reports from the implementation of the Programme in 2020.

In these reports, units participating in the implementation of the Programme presented quantitative (expressed in percentages) and qualitative information concerning the performance of tasks stipulated in individual initiatives and provided the values of main safety target achievement indicators in relation to their own activity. Quarterly reports from the implementation of the Railway Traffic Safety Improvement Programme for the year 2020 were based on the verification and analysis of information provided and subject to the approval of the Vice President of the Management Board, Director for Operational Affairs.

In 2020, the Company also implemented a number of additional measures to improve railway traffic safety in all areas of its activity.

TECHNICAL RAILWAY RESCUE

The technical railway rescue teams are equipped with special equipment and are located throughout the entire network managed by PKP Polskie Linie Kolejowe S.A., mainly at node stations, so that they can reach accident sites as quickly as possible. As of 31 December 2020, there were 18 teams operating, i.e. 11 Special Technical Rescue Trains (SPRT) and 7 Technical Rescue Trains (PRT). The main tasks of the technical railway rescue teams include removing the consequences of railway accidents and incidents which have interrupted or restricted railway traffic and transporting railway vehicles damaged as a result of technical malfunctions to the nearest station. The railway rescue teams are prepared to work in all weather conditions prevailing throughout the year in our country. The distribution and types of the railway rescue teams were adapted to the needs and volume of traffic on the railway network.

In 2020, the railway technical rescue had at its disposal, among other things, 17 UniRoller-S road-rail vehicles and 2 Uniman vehicles. The vehicles are equipped with equipment for removing the consequences of railway accidents (mainly hydraulic lifts, rerailing bridges, control desks, spreaders, cutting and lighting equipment and wood for substructure). These vehicles also carry the crew performing the tasks of railway vehicle rerailing. They travel at speeds of up to 80 km/h on roads and up to 50 km/h on tracks.

The railway technical rescue also has at its disposal 9 WM-15A/PRT technical rescue vehicles. These vehicles are equipped with devices for quick removal of consequences of accidents on the railway network. These vehicles facilitate prolonged operations in difficult weather conditions.

In 2020, the railway technical rescue also had at its disposal 15 railway cranes with a maximum lifting capacity of 125 tonnes (6 EDK 750 cranes and 9 EDK 1000 cranes) and one EDK 2000 crane with a maximum lifting capacity of 250 tonnes, 10 WZT technical recovery vehicles on tank chassis - intended for removing from the tracks destroyed or damaged railway vehicles that, due to the damage, cannot be put back on the tracks. In addition, the teams are equipped with 63 technical and utility wagons, including 10 platforms for transporting caterpillar tractors on tank chassis, the remaining ones for transporting

the equipment and tools necessary to remove the consequences of railway accidents, including for transporting railway cranes, and some of these wagons are social facilities for the railway technical rescue crews, the railway committees that determine the causes of incidents or other persons participating in rescue operations.

RAILWAY SECURITY GUARD

The Railway Security Guard (SOK) recorded nearly 14.5% fewer dangerous incidents in 2020 compared to 2019. Effective preventive activities carried out by the officers of the Railway Security Guard are aided by modern equipment and trained personnel. There are mobile monitoring centres working in the field - vehicles equipped with cameras, portable and thermal, installed on masts. The Railway Security Guard officers are also equipped with night vision and thermal imaging devices, which guarantee better efficiency in night operations, photo traps - devices that notify the officers on duty when an unauthorised person appears in the secured area. The Railway Security Guard also uses specially trained patrol and defence dogs as well as service vehicles, which are highly effective in difficult field conditions.

Since March 2020, the Railway Security Guard officers have performed additional tasks in connection with the regulations issued by the Minister competent for health: of 13 March 2020 on declaring an epidemic state on the territory of the Republic of Poland, and then of 20 March 2020 on declaring an epidemic state on the territory of the Republic of Poland, as well as the orders issued on 12 March 2020 by the governors acting on the basis of Art. 11 sec.

1 of the Act of 2 March 2020 on special solutions related to preventing, counteracting and combating of COVID-19, other infectious diseases and the crisis situations caused by them in order to prevent the spread of the infectious disease COVID-19 caused by the SAR-S-CoV-2 virus. In cooperation with the Police and Border Guards, as well as with railway operators, passengers on international trains entering Poland from Germany, the Czech Republic and Slovakia had their body temperature measured. At railway border crossings, the Railway Security Guard officers carried out, together with Border Guard officers, measurements of body temperature of employees operating freight trains entering Poland.

During the "Flight Home" operation, the Railway Security Guard patrols secured trains on the entire train routes as well as at stops. Furthermore, in accordance with additional instructions issued by the Governor of Mazowieckie and the Governor of Małopolskie, the Railway Security Guard officers patrolled and secured the stations: Warszawa Centralna, Warszawa Lotnisko Chopina and Kraków Główny.

Since the beginning of the COVID-19 pandemic, the Railway Security Guard officers, as part of their statutory tasks, have also carried out activities to control observance of restrictions, obligations and prohibitions established under the Council of Ministers regulation in connection with the outbreak of the epidemic. From 29 November 2020, i.e. from the date of entry into force of the Act of 28 October 2020 on the amendment of certain acts with reference to counteraction against crisis situations connected with COVID-19, the Railway Security Guard officers have obtained an additional authorisation in the form of the right to impose fines in the form of a penalty ticket for offences consisting in non-compliance on the railway area and on trains with the above-mentioned ordinance regulations, including in particular the obligation to cover the mouth and nose.

In 2020, the Railway Security Guard carried out intensified preventive and anti-theft activities on trains, at passenger stops, stations and on railroads. Thanks to the activity of the Railway Security Guard officers, the number of crimes and offences committed on the railway area decreased by 14.49% in 2020 (from 7,535 in 2019 to 6,443 in 2020, i.e. 1,092 fewer incidents). In 2020, compared to 2019, an increase in the estimated value of losses resulting from crimes and offences committed in the railway area by 14.93% (by PLN 2,304,000) was registered.

In 2020, devastation and other hooliganism accounted for the largest proportion of all recorded incidents (46.11%). Compared to 2019, the number of incidents registered in this category decreased by 200 cases (from 3,171 in 2019 to 2,971 in 2020), which represents a 6.31% decrease in incidents.

Further groups of incidents that are distinguished by the number of recorded cases were:

- theft and devastation of equipment at rail and road level crossings – 10.14% of all incidents recorded in 2020. Compared to 2019, the number of incidents recorded in this category decreased by 196 cases (from 849 in 2019 to 653 in 2020). This represents a decrease in incidents of 23.09%;
- theft and devastation of equipment on active railway lines – 10.48% of all incidents recorded in 2020. Compared to 2019, the number of incidents recorded in this category decreased by 66 cases (from 630 in 2019 to 564 in 2020). This represents a decrease in incidents of 10.48%;
- the apprehension of perpetrators of offences committed outside the railway area – 8.15% of all incidents recorded in 2020. Compared to 2019, the number of incidents registered in this category has decreased by 204 cases (from 729 in 2019 to 525 cases in 2020). This represents a 27.98% decrease in incidents;
- obstacles on tracks 6.60% of all incidents recorded in 2020. Compared to 2019, the number of incidents recorded in this category decreased by 51 cases (from 476 in 2019 to 425 in 2020). This represents a decrease in incidents of 10.71%;
- theft of rolling stock surface elements, materials, tools, work items and unattended parcels – 5.99% of all incidents recorded in 2020. Compared to 2019, the number of incidents registered in this category decreased by 197 cases (from 583 in 2019 to 386 in 2020). This represents a decrease in incidents of 33.79%;
- incidents related to goods shipment – 5.18% of all incidents recorded in 2020. Compared to

2019, the number of incidents registered in this category decreased by 3 cases (from 337 in 2019 to 334 in 2020). This represents a decrease in incidents of 0.89%;

- theft to the detriment of travellers

 4.64% of all incidents recorded in 2020. Compared to 2019, the number of incidents registered in this category decreased by 94 cases (from 393 in 2019 to 299 in 2020). This represents a decrease in incidents of 23.92%;
- throwing objects at trains –2.08% of all incidents registered in 2020. Compared to 2019, the number of incidents registered in this category decreased by 24 cases (from 158 in 2019 to 134 in 2020). This represents a decrease in incidents of 15.19%;
- theft and devastation of equipment on closed railway lines – 1.43% of all incidents recorded in 2020.

Compared to 2019, the number of incidents recorded in this category decreased by 27 cases (from 119 in 2019 to 92 in 2020). This represents a decrease in incidents of 22.69%;

 beatings of persons - 0.70% of all incidents recorded in 2020. Compared to 2019, the number of incidents registered in this category decreased by 13 cases (from 58 in 2019 to 45 in 2020). This represents a decrease in incidents of 22.41%;

 banditry, terrorism, murders and rapes - 0.23% of all incidents registered in 2020. Compared to 2019, the number of incidents registered in this category decreased by 17 cases (from 32 in 2019 to 15 in 2020. This represents a decrease in incidents of 53.13%.

In 2020, the Railway Security Guard officers:

- checked 28,684 people;
- cautioned 41,384 people;
- imposed 22,538 fines by way of a penalty ticket;
- carried out a total of 13,424 inspections of scrap yards, which revealed 15 pieces of railway property from theft of a total value of PLN 10,159. As a result of the actions, 3 purchasers and 13 sellers of illegally acquired rail infrastructure elements were apprehended;
- apprehended 1,815 perpetrators of crimes and offences;
- carried out 42,465 patrols on passenger trains;



Incidents recorded by the Railway Security Guard in the years 2019-2020

- carried out 180,182 patrols of routes;
- carried out 196,233 patrols of stations and passenger stops;
- carried out 55,845 patrols of freight stations;
- carried out 4,084 patrols of the permanent stations;
- checked 853,306 freight wagons.

In addition, the Railway Security Guard officers took an active part in the following actions:

- social campaign "Safe rail-road level crossing" as part of the activities carried out within the scope of the campaign, the Railway Security Guard officers secured 26,115 railway crossings and intervened with regard to 2,365 persons who committed offences;
- "Wild crossings" the officers secured 48,078 so-called "wild crossings" and intervened in relation to 8,619 persons who crossed the railway tracks in a place not designated for this purpose;
- "Safe Tracks" within the scope of this activity aimed at controlling the rights to stay in the railway area, the Railway Security Guard officers inspected 10,701 employees performing work in the railway area and 2,820 unauthorised persons. A total of 13,941 Railway Security Guard officers took part in the activities;
- "Infrastructure" within country-wide actions, the Railway Security Guard officers inspected 10,389 railway routes and 6,929 scrap yards. In the course of its activities, 25 perpetrators of theft were apprehended;
- 176 lectures were held, with 8,517 children and young people taking part.

The Railway Security Guard is also constantly concerned with the safety of passengers travelling by rail during mass events. In 2020, the Railway Security Guard officers secured the railway area during the passage of 743 trains, in which were 71,763 football fans. 8,323 Railway Security Guard officers and 8,313 police officers maintained order during the travels of football fans. The Central Headquarters of the Railway Security Guard, there is a nationwide emergency telephone (22 474 00 00), which receives reports of incidents in the railway area. In 2020, 2,760 reports were registered.

20,000 15,424 15,000 10,000 5,000 2019 2020 17,728 Value of losses Value of recovered property 245 245

Incidents in the railway area in 2019 and 2020 according to the division into incident categories 512 S 3,500 102 3,000 2019 2020 2,500 2.000 1,500 Or Or 1,000 S **√**℃ ŝ So So ૡ૾ૢૢૢ స్తు 10 200 22 ૾ૢૺ ക چې مې ŝ 500 స్టి 3 220 ŝ ኇ \$ Ŷ S 0 Thefts and devastation on level crossings Apprehension of offenders outside the railway area Theft and devastation on active equipment, money, documents, business items and loose goods Throwing objects at Beatings of persons Crimes related to banditry, terrorism, murder and rape Devastation and hooliganism Obstacles on tracks Theft of rolling stock, materials, tools, Incidents connected with railway shipment Thefts and devastation on closed railway lines* Theft to the detriment of the passenger railway lines*

Value of losses due to crimes and offences committed in the railway area in PLN thousand



PKP Polskie Linie Kolejowe S.A., in accordance with its statutory obligations, fulfils the functions of the national railway infrastructure manager and implement the state policy in the field of railway transport.

The Strategy for Responsible Development for the period up to 2020 (including the perspective up to 2030)1 defines strategic programmes for the railway sector. Two of them relate directly to the Company's activities. These are: "National Railway Programme until 2023. Railway infrastructure managed by PKP Polskie Linie Kolejowe S.A."² (KPK), and the multi-annual programme "Support for financing the costs of railway infrastructure management, including its maintenance and repairs until 2023" (in accordance with the Resolution of the Council of Ministers of 5 January 2021, operating under a changed name: Support for tasks of railway infrastructure managers, including maintenance and repairs, until 2023). The KPK includes investment projects co-financed from EU funds under the 2014-2020/23 financial perspective and other investments in railway infrastructure managed by PKP Polskie Linie Kolejowe S.A. financed from public funds, while the other of the aforementioned programmes - is intended to ensure the sustainability of operational parameters of railway infrastructure, stability of financing and effective management of infrastructure.

"The support for financing the costs of railway infrastructure management, including its maintenance and repairs until 2023" multi-annual programme is being implemented complementarily to the activities carried out under the KPK, ensuring co-financing of costs of railway infrastructure management until 2023, especially in the area of maintenance and repairs. This will improve the quality of the railway infrastructure and shorten journey times, increase passenger safety and as a result - increase the competitiveness of railway transport. The implementation of the programme in question is the contract³ concluded between PKP Polskie Linie Kolejowe S.A. and the Ministry in charge of infrastructure of 21 December 2018.

Another multi-annual programme dedicated to the development of the railway infrastructure, for which PKP Polskie Linie Kolejowe S.A. is responsible, was developed in 2019, carried out under the aegis of the Ministry in charge of infrastructure and launched in 2020. The programme entitled "Local and Regional Railway Infrastructure Reple-

nishment Programme by 2028 - Rail +" (hereinafter referred to as the "Rail +" multi-annual programme) is a tool for achieving objectives of state policy in the scope of ensuring communication accessibility of regions. The Programme consists, among others, of a basic investment component, under which PKP Polskie Linie Kolejowe S.A. in cooperation with local self-government units will carry out projects focused on the development of a network of railway connections in towns with population of over 10,000 residents, which have no access to railway connections with voivodship towns, or those which have access to railways, but the existing connections require improvement. Investment activities can be financed in 85% from the Programme's funds and in 15% from local government funds.

The development and further detailing of the most important strategic objectives of the government in the field of transport is presented in the Strategy for Sustainable Transport Development until 2030 (SRT2030), a horizontal, integrated sectoral strategy within the system of nine integrated strategies for national development.

¹ Document adopted by resolution of the Council of Ministers of 14 February 2017.

² Document adopted by resolution of the Council of Ministers of 15 September 2015.

³ Contract of 21 December 2018 for the implementation of "The support for financing the costs of railway infrastructure management, including its maintenance and repairs until 2023" multi-annual programme

PREDICTED DEVELOPMENT PROSPECTS

The directions of development of PKP Polskie Linie Kolejowe S.A. result from provisions on railway transport adopted in EU and national strategic documents. It is assumed that they will be implemented on a continuous basis in the following years.

The main development activities in 2021 and in the following years will focus on the implementation of investments specified in the KPK and in the KPK Detailed Implementation Plan, including planned expenditures and sources of financing for individual investment projects.

The primary directions for the Company's development are also determined by activities aimed at improving railway traffic safety, enhancing the quality of the infrastructure offer and developing cooperation with carriers and contractors. Further work is envisaged to improve the efficiency of the Company's operations. Particular attention will be devoted to the issues of cost-effectiveness of operations and to the fullest possible consideration of the needs of railway carriers and the expectations of the population and those resulting from the economy. Activities related to ensuring compliance of technical solutions with the requirements of the Technical Specifications for Interoperability (TSI) will also be continued.

In the long term, the Company's activities will continue to focus on the implementation of investment projects aimed at modernising the railway network and ensuring that the infrastructure offer meets market demand and population's expectations. They will be carried out in connection with the implementation of the multi-annual programme that is a continuation of the existing KPK.

ACTIONS AGAINST THE TRANSPORT EXCLUSION

In 2020, the Company implemented measures to reduce the phenomenon of transport exclusion, in accordance with the provisions of the long-term Rail + multi-annual programme and preparations for establishing a new programme dedicated to bus stop in-frastructure.

The Rail + multi-annual programme, for which PKP Polskie Linie Kolejowe S.A. is responsible, is a direct tool for improving transport accessibility of regions. In 2020, the activities conducted by the Company involved the preparation of the "Programme for implementation" and the start of the call for projects. The "Guidelines for the Call for Projects for the Local and Regional Railway Infrastructure Replenishment Programme by 2028 – Rail +" were developed and the call for proposals for the Programme was announced on 26 May 2020.

Applicants whose projects have qualified for stage II of the call have 12 months to prepare application documents, including the preparation of a preliminary planning and forecasting study. The Company started cooperation in order to support the applicants in their activities, especially in the preparation of preliminary planning and forecasting studies.

In 2020, PKP Polskie Linie Kolejowe S.A. made efforts to develop a new tool to reduce traffic exclusion. Together with the Minister responsible for in-

frastructure, the Company developed a draft multiannual programme approved by Resolution No. 63/2021 of the Council of Ministers of 19 May 2021, entitled "Government Programme for the Construction or Modernisation of Railway Stations for 2021 - 2025", including a basic list with 173 tasks and a substitute list with 182 tasks, developed on the basis of the Company's analyses and requests submitted by self-government bodies (city mayors, municipal offices, marshal's offices), transport operators, entrepreneurs, local associations and citizens. The Programme budget covering the scope of construction, reconstruction, expansion or modernisation of railway stations and the accompanying infrastructure was set at PLN 1 billion.

INTEROPERABILITY

In 2020, PKP Polskie Linie Kolejowe S.A. continued its efforts aimed at increasing the speed to 200 km/h on railway line No. 9 (Warszawa – Gdańsk). As the 2020/2021 timetable came into force on 13 December 2020, thanks to the use of the ETCS Level 2 system, the travel times for trains on the Warszawa-Gdańsk route was reduced.

DEVELOPMENT OF FREIGHT CORRIDORS

Freight corridors operate under the Regulation (EU) No. 913/2010 of the European Parliament and of the Council of 22 September 2010 concerning a European rail network for competitive freight. Based on that, the total of 11 freight corridors was established, three of which run through the territory of Poland: freight corridor No. 5 Baltic Sea-Adriatic Sea, freight corridor No. 8 North Sea-Baltic Sea and amber freight corridor No. 11.

Freight corridors are not considered investment projects. They are primarily intended to make international rail freight more competitive through cooperation between EU rail infrastructure managers, allocation bodies, ministries responsible for transport, carriers and terminal managers and owners. Improving the functioning of the internal railway market, in particular for international freight transport, is an essential element of progress towards sustainable mobility.

In this regard, the following actions are currently being, and going forward will continue to be, implemented: organisational improvements, harmonisation of requirements and removal of barriers

(especially cross-border), customer information and the possibility to make a joint offer of capacity ordered in one place (one-stop-shop for C-OSS applications). The freight corridors may be used by authorised applicants, namely railway carriers, international groupings of carriers, shippers, freight forwarders or combined transport operators. The Baltic Sea-Adriatic Sea freight corridor No. 5 connects Polish ports with the those of the Adriatic Sea. The following six countries cooperate within the corridor: Poland, the Czech Republic, Slovakia, Austria, Slovenia and Italy. The freight corridor No. 8 North Sea--Baltic Sea, which connects East and West Europe, consists of Belgium, the Netherlands, Germany, Poland, the Czech Republic and Lithuania. On 20 October 2020, Corridor 8 was extended to Latvia and Estonia. Both corridors were launched at the end of 2015 and a European Economic Interest Grouping (EZIG) operates on both of them

From 2019, the amber freight corridor No. 11, which runs through Poland, Slovakia, Hungary and Slovenia, is also in operation. The southern end of the river channel reaches the port of Koper on the Adriatic Sea and in the north it leads to Warsaw and the Polish-Belarusian border in Terespol. The main task of the corridor is to link the industrial and commercial centres of the countries forming the corridor with a common capacity offer for international freight trains. The corridor has been incorporated into the European freight corridor network and has thus completed the system of freightcorridorsrunningthroughPoland. PKP Polskie Linie Kolejowe S.A. act as a corridor one-stop-shop (C-OSS).

In addition, 5 out of 13 corridors belonging to the OSJD (Organisation for Cooperation of Railways) are also on the territory of Poland, No 1, 3, 4, 7, 13. With regard to Corridor 4, the 4w and 4e branches are also on the territory of Poland.

INTERNATIONAL COOPERATION

In terms of international cooperation, in 2020, the Company participated in the work of the most important international organisations: the International Union of Railways (UIC), the Organisation for Cooperation of Railways (OSJD), RailNet Europe (RNE), the Community of European Railway and Infrastructure Companies (CER), European Rail Infrastructure Managers (EIM), United Nations Economic Commission for Europe (UNECE), COLPOFER (the European organisation set up in 1980 bringing together railway companies and police forces) and the Platform for European Rail Infrastructure Managers (PRIME).

In 2020, PKP Polskie Linie Kolejowe S.A. was represented in the statutory bodies of selected international organisations and bodies, including Rail-NetEurope (RNE), the UNECE Trans-European Railway (TER) Project and the EIM.

Highlights of the Company's activities in international organisations and bodies in 2020 included the participation of its representatives in, among others, the RNE General Assembly, the EIM General Assembly, the EIM CEO Club Meeting and the PRIME Plenary Meeting. The Company's experts continued their work in selected committees and working groups of OSJD, EIM, PRIME, CER and UIC projects.

In terms of cooperation with German partners, the most important events in 2020 include the Border Conference of the Company and DB Netz AG with the carriers, which took place in Poznań at the beginning of March 2020 and the Round Table workshop of PKP Polskie Linie Kolejowe S.A. and DB Netz AG with freight carriers. Cooperation with the German partner also involved the planning and implementation of infrastructure projects in the border area.

In terms of cooperation with the Czech Infrastructure Manager, works were continued in 2020 on updating the Local Boundary Agreements and preparing for the development of the voltage change project on the Czech Chałupki – Bohumin cross-border section. As part of cooperation with the Lithuanian partner (AB LTG Infra), the most important events in 2020 included a meeting between representatives of PKP Polskie Linie Kolejowe S.A. and AB LTG Infra, during which the technical issues concerning the infrastructure parameters of the Rail Baltica line at the border section between Poland and Lithuania were discussed.

In 2020, PKP Polskie Linie Kolejowe S.A. continued the cooperation, concerning the operations at the junction of the two 1435 mm/1520 mm technical railway systems, with Russian Railways (RZD), Belarusian Railways (BCz) and Ukrainian Railways (UZ). The bilateral cooperation concerned: the cross-border traffic safety, capacity of railway border crossings, implementation of joint investment projects, implementation of investment projects in border areas on both sides of the state border, preparation of bilateral legal documents.

The activities of the representative office of PKP Polskie Linia Kolejowe S.A. in Belarus (with an extension to Lithuania, Russia and Ukraine) were continued, supporting, among others, key investment projects implemented on the Polish-Belarusian border and activities related to the increasing volume of railway traffic across the border.

In 2020, cooperation with NIF Zrt. concerning the exchange of experience and good practices in the area of investment preparation and implementation was also continued. A workshop on risks in investments also took place.

In terms of cooperation with Rail Baltica in 2020, the most important events were the meetings of Rail Baltica Task Groups and the Rail Baltica Global Forum. The purpose of the meetings at various levels was to continue and strengthen the cooperation in the field of implementation and to exchange information on the implementation of the Rail Baltica project.

As part of multilateral cooperation in 2020, the Company was involved in

the works of the team of experts of the Visegrad Group high-speed trans, the team of representatives of 7 railways (Belarus, China, Kazakhstan, Mongolia, Germany, Poland and Russia) for the development of the New Silk Road.

Moreover, in 2020, the representatives of the Company participated in a number of international meetings with partners from, i.a., the Netherlands, Estonia, Japan, supporting cooperation in the field of cross-border investments and development of railway connections, e.g., on the Rail Baltica axis.

International cooperation enabled the exchange of experience and good practice, as well as the expansion of the market for contractors under the ongoing and planned investment projects by the Company. Furthermore, the cooperation contributed to strengthening the image of PKP Polskie Linie Kolejowe S.A. as a partner ready for negotiations and new technologies.

EU LEGISLATION AND STRATEGY AS WELL AS THE PARTICIPATION IN EU PROJECTS

When it comes to the EU documents in 2020, the Company conducted work related to proposed regulations under the Multiannual Financial Framework (including the second edition of the Connecting Europe Facility 2 (CEF 2) and the Reconstruction Fund (as regards the proposed Instrument for Reconstruction and Resilience), as well as work on a draft of a new regulation on rights and obligations of rail passengers, and a draft directive on facilitating measures to make progress in the implementation of investments on the TEN-T network (known as SMART TEN-T).

Furthermore, work was carried out within the framework of the revision of the Regulation on EU guidelines for the development of the trans-European transport network (TEN-T) and the creation of a new "Strategy for Sustainable and Intelligent Mobility". The company also monitored EU legislative and non-legislative initiatives relating to EU climate policy in terms of the European Green Deal, including work on a taxonomy for sustainable investment. PKP Polskie Linie Kolejowe S.A. was involved in assessing the decision on the European Year of Rail 2021. The company also monitored all EU guidelines and legal acts related to counteracting the effects of the pandemic on the railways, and provided the necessary information to EU structures on the effects of the pandemic and measures taken.

In addition, the Company participated directly or through sector organisations - in selected public consultations of the European Commission.

DEVELOPMENT PROSPECTS

SYSTEMS DOMAIN - RAILWAY DOMAIN

- As a part of maintained and developed "Running Network Description" (POS, e-POS) system and Change of Network Operating Parameters (ZMIPEL) application, the module for generation of selected plots of Technical Regulations was developed and implemented; mechanisms for generating data for "Route Book" shared railway carriers were developed, a module for describing passenger information systems in passenger stations and stops was implemented.
- 2. The control of maximum reserves for selected types of trains was developed and implemented within the framework of the maintained and developed Timetable Construction System (SKRJ) and Internet System for Ordering Train Path (ISZTP). Forms showing permissible pressures, speeds and line classes for the machine route were developed and implemented. A module for determining running times for trains under the control of the ETCS system was developed and implemented. The track closure management mechanism was modified for the EPM system. The circular routing functionality for SEPE 2 was developed and implemented.
- As regards the maintained System of Exploitation Work Records (SEPE), changes to the following modules were developed and implemented: Accounting for the access of railway infrastructure to the carriers in RJ 2020/21 and Quality for the execution of the timetable RJ 2020/21.
- The implementation phase of the system called System of Exploitation Work Records version 2 (SEPE 2), included creating production version of the system along with internal interfaces, the SEPE 2 system was integrated with other exploited systems in the Company.
- 5. As part of the implemented Electronic Traffic Log (EDR), the system was prepared to work with the SEPE2 system. In more than 1,200 traffic stations, simultaneous data transmission from the EDR system to the SEPE and SEPE 2 systems was activated. Mechanisms enabling a smooth transition for EDR system users to work with SEPE or SEPE 2 were implemented. Controller role/mode support was introduced and launched.
- As part of the developed and maintained system of the Passenger Portal (PDP), there was a new

functionality implemented, called "Facilities for the disabled", which enables managing the information and reporting on the accessibility of facilities for people with disabilities and reduced mobility in stations and passenger stations (platforms, railway stations). In the Passenger Portal (on the website and in the mobile application), a new form of declarations of accessibility of websites in Polish and English was implemented, according to the guidelines of the relevant Ministry in charge of digitisation.

7. Within the framework of the developed Railway Line Information System (SILK), further stages of its development were completed, including: increasing the scope of integration with the PDP, EPM, JOGI systems, and increasing the possibility of using external services, e.g. those offered by the Central Office of Geodesy and Cartography.

SYSTEMS AREA - BUSINESS DOMAIN

Implemented solutions:

- Implementation of the Unified Control File (JPK V7M) for sales VAT invoices in accordance with the requirements of the Ministry responsible for the finances.
- White List (eNIP2) a solution was implemented and configured in SAP that enables the verification of Contractors' data, based on the VAT White List and registers of active VAT payers.
- 3. Handling of XML-formatted invoices - solutions was implemented

to accept XML-formatted invoices for posting, without the need to scan the documents.

 Implementation of a solution to support the process of settling Employee Capital Plans (ECP -PKK).

INFRASTRUCTURE AREA

- 1. In view of 2020 COVID-19 pandemic, solutions have been prepared to enable nearly 3,000 Company employees to work remotely.
- 2. The capacity of main IP VPN links was increased.
- 3. The firewall system was migrated to the latest platform, optimising system operation and ensuring so-ftware updates.
- 4. LAN was upgraded in Company's organisational units. Network swit-

ches were supplied with warranty and technical support services as part of the contract concluded.

ARCHITECTURE AND INTERNATIONAL COOPERATION AREA

 As part of TAF/TAP TSI system under development (Telematic Applications for Freight/Passenger Transport) Interface has been updated to the latest version, which has improved the performance and security of the system. Reporting stations and PLC codes (network operations points) have been updated in the CRD database (Central Reference File Database). The quality of data sent to TIS (Train Information System) has been improved.

 As regards RINF (Register of Infrastructure) system under development, the completeness and quality of data on the Company's railway infrastructure have improved to RINF. The RINF PLK register has been adapted to the new Commission Implementing Regulation (EU) 2019/777 of 16 May 2019 on the common specifications for the register of railway infrastructure and repealing Implementing Decision 2014/880/ EU.

TELECOMMUNICATIONS AREA

As part of the interdisciplinary works on the level 2 ETCS deployment on railway lines 9 and 202, numerous analyses were carried out on the basis of data obtained from the GSM-R system. Carrying out the monitored operation preceded the production implementation of the operation of the level 2 ETCS system and enabled the introduction of a scheduled train speed of V=200 km/h on railway line No. 9 from 13 December 2020.

GEOINFORMATION

Railway Lines Information System (SILK), increases its importance year by year due to growing use of System's functionalities in the daily work of Company's employees and organisational units of the Company, as well as among other users of the system. Several development initiatives were undertaken and implemented in 2020 as part of the efforts to develop SILK system, the most significant of which are:

- expanding Interactive Railway Line Map (MILK) with further data sets, including environmental protection, management of railway investments and geographical visualisation of borders of record parcels;
- providing new functionalities for data analysis and MILK visualisation to support the process of passenger infrastructure management. The aforementioned functionalities make it possible to analyse to which passenger points the travellers will manage to reach in a specified time, taking into account passenger and express trains due to their integration with the Passenger Portal databases;
- providing functionality that enables MILK to search for railway stations within a user-defined distance expressed in kilometres;
- improving the security of SILK services providing operators of 112 emergency number constant access to geographical location of railway and road crossings on the network of railway lines managed by PKP Polskie Linie Kolejowe S.A;
- the analysis of needs and works started on preparing SILK functionality and data in accordance with the requirements of the Enterprise Asset Management railway infrastructure management project.

SILK is constantly expanding its integration with systems within the Company, ensuring up-to-date spatial data, on the basis of which cartographic works are carried out. SILK application development activities support implementation of Company's key projects, as well



MILK visualisation - environmental decisions



MILK visualisation - visualisation of record parcels



MILK visualisation - functionality 'where do I get within'



MILK visualisation - functionality 'stations within range'

In 2020, a study entitled "Establishment of reference stations along railway lines" was carried out, the aim of which was to check whether it is possible to measure track geometry with the required accuracy for design and maintenance work using satellite measurement techniques.

For this purpose, transmitting-receiving antennas were set up at selected locations, constituting a reference for conducting geodetic measurements with the use of satellite measurement technology - GNSS (Global Navigation Satellite System), whose main task is to determine user's position in the threedimensional coordinate system.

This project was about to set up 5 reference stations in such a way that their mutual layout makes it possible to obtain triangles of different sizes connecting stations. This made it possible to

GEODESIS

analyse and verify the optimum distance between stations to ensure the required measurement accuracy.

In accordance with the assumptions made, stations were connected to the geodetic country grid with the highest accuracy (the so-called fundamental



Network points locations

as the other projects containing railway component, i.e. Central Transport Port (CPK).

grid) amounting to 10 mm horizontally and 15 mm vertically. Trial measurements were carried out in three different triangles formed by the nearest reference stations using all available satellites from GPS, GLONASS, BeiDou and Galileo systems.

From the measurements made and their analyses it was found that there are certain boundary distances between measuring receiver and reference station which ensure that acceptable measurement errors are obtained, i.e.:

- horizontal coordinates up to 12 km,
- determining vertical component up to 10 km.

ENVIRONMENTAL PROTECTION

Environmental protection is a particularly important part of PKP Polskie Linie Kolejowe S.A. activities due to the high requirements of applicable requlations at each stage of maintenance of railway lines and implementation of investment projects. This primarily affects the timing and cost of investment preparation and implementation. Preparation for construction work requires decision on environmental conditions, and often an environmental impact assessment with public participation, for which detailed environmental documentation must be prepared. Documentation involves analysis of the natural environment along the railway line (including identification of natural conditions) and assessment of the impact of the planned investment on the environment.

In order to obtain a decision on environmental conditions for railway investments carried out by PKP Polskie Linie Kolejowe S.A. from the EU 2014 - 2020 perspective in 2020, two framework contracts concluded in 2015 and 2018 for the preparation of environmental documentation were implemented. Twelve Executive Agreements were concluded for the total amount of PLN 1,244,745.75 net. as part of the aforementioned contracts from 2020.

In 2020, PKP Polskie Linie Kolejowe S.A. obtained 33 decisions on environmental conditions and 6 decisions amending the decision on environmental conditions, as well as 7 decisions setting out conditions for the implementation of the investment, at the stage of reassessing the environmental impact. These decisions allowed further administrative steps to be taken, aimed at obtaining further necessary decisions in the investment preparation process. The issued decisions on environmental conditions determine, in some cases, the need to monitor the environment after the completion of the investment by implementing the obligation to conduct a post-execution analysis and environmental monitoring.

In 2020, works were undertaken to prepare a forecast of the impact on the environment for the strategic document titled "PKP Polskie Linie Kolejowe S.A. - investment intentions for 2021-2030 with a view to 2040". Additionally, public consultation was held on the abovementioned document, as a result of which there was a need to amend the strategic document, which necessitated verification, update and supplement of the prognosis of the environmental impact and the application to the environmental protection authorities for environmental data, as well as new opinions of the General Directorate for Environmental Protection and the Chief Sanitary Inspector.

Extension and reconstruction of railway infrastructure, and thus an increase in train speeds and traffic flows may change the nature of the impact - particularly the acoustic impact. This is important in view of the observed increase in urbanisation of areas located in the immediate and close vicinity of the railway area and the approximation of the first line of development, especially in urban areas, to the railway area. Locating new acoustically protected buildings in the direct vicinity of railway lines increases the number of people exposed to excessive noise. PKP Polskie Linie Kolejowe S.A. actively participate in issuing opinions on planning documents, in particular on local spatial development plans and studies of conditions and directions of spatial management of municipalities, with a view to limiting the introduction of residential development in very close proximity to railway lines. For this purpose, a total of approx. 747 planning documents were analysed.

Ongoing analysis of railway noise levels, especially in conflict situations, as well as analysis of environmental documentation is supported by a specialised Acoustic Laboratory for the measurement of railway noise in the environment, operating within the Company's structures, which has been certified by the Polish Centre for Accreditation (PCA). In 2020, the Laboratory carried out noise level measurements at 70 dif-

ferent locations throughout the country, excluding system measurements, i.e. performed as part of an external audit, an audit under PCA supervision, intercalibration and interlaboratory comparisons.

In 2020, the Acoustics Laboratory completed a study on the impact of installing rail absorbers type VICON AMSA 60 FSV on noise emissions from railway line. Studies were conducted on a testing ground located within the railway line No. 9, Legionowo - Nasielsk section. The total measurement time for noise levels was approx. 50 measurement hours, 126 of which were undisturbed journeys of various train types. The performed acoustic analysis of the influence of installing rail absorbers on the noise emission allowed to authorise the use of these devices on railway lines managed by PKP Polskie Linie Kolejowe S.A.





FINANCIAL FRAMEWORK 2014-2020

PKP Polskie Linie Kolejowe S.A. as the manager of the national railway infrastructure, aimed at improving the availability, efficiency and performance of the Polish transport system through the realisation of an extensive investment programme including modernisation of numerous railway lines.

2020 was the seventh year in which PKP Polskie Linie Kolejowe S.A. implemented the investment projects included in the National Railway Programme until 2023 (KPK). The Programme was adopted in September 2015 and was updated several times thereafter, with the last update taking place in June 2020 and being adopted by the Resolution of the Council of Ministers No. 73/2020 of 12 June 2020. The KPK aims to strengthen the role of the railway port in the integrated national transport system by creating a coherent and modern network of railway lines, which results directly from the provisions of the "Transport Development Strategy to 2020 (with a perspective until 2030)" in terms of rail transport.

GENERAL INFORMATION

The period of implementation and settlement of investments within the KPK corresponds to the EU financial perspective 2014-2020 and takes into account the n+3 rule, which means that the period of expenditure eligibility will end on 31 December 2023. The KPK assumes maximum use of EU funds to finance projects within the scope of: Operational Programme Infrastructure & Environment (OPI&E 14-20) for the years 2014-2020, Connecting Europe Facility (CEF 14-20), Operational Programme Eastern Poland (OP EP 14-20) for the years 2014-2020, and the Regional Operational Programmes (ROP-S 14-20) for the years 2014-2020.

The value of the KPK programme for 2014–2023 in terms of the basic list is PLN 75.5 billion¹. Some of the largest projects (with an investment value of more than PLN 2 billion) implemented under the KPK's basic list are:

1. works on railway line C-E 65 on the Chorzów Batory - Tarnowskie

Góry - Karsznice - Inowrocław - Bydgoszcz – Maksymilianowo section– OPI&E 14-20;

- works on railway line No. 7 Warszawa Wschodnia Osobowa – Dorohusk on the Warszawa – Otwock
 Dęblin – Lublin section – OPI&E 14-20;
- construction of the ERTMS/GSM--R system infrastructure on railway lines of PKP Polskie Linie Kolejowe S.A. within the framework of ERTMS NPW; – OPI&E 14-20;
- works on the E 59 railway line on the Poznań Główny – Szczecin Dąbie section – CEF 14-20;
- works on the E 75 railway line on the Czyżew – Białystok section – CEF 14-20;
- works on the Warsaw diametral line on the Warszawa Wschodnia

 Warszawa Zachodnia section – OPI&E 14-20.

IMPLEMENTATION OF THE NATIONAL RAILWAY PROGRAMME

In 2020, the Company carried out investment projects throughout the country on the basis of agreements concluded with contractors. Activities related to the comprehensive monitoring of all projects on the KPK basic list continued to be carried out, in particular with regard to key issues such as the implementation of works on construction sites, forecast execution of outlays, public procurement procedures, timely execution of milestones and project schedules.

¹In accordance with the Resolution of the Council of Ministers No. 73/2020 of 12 June 2020. Table 1 Planned expenses in years according to target sources of funding.

Status of KPK implementation as at 31 December 2020



Completed - value of completed contracts

Agreements in progress - value of contracts signed

Other fees and connections - value of expenditures made on an ongoing basis on projects without the need for procurement

Tenders in progress - value of ongoing tenders (estimated net

EU projects in progress project documentation - the value of tenders planned to be announced for construction works for which design documentation is being prepared

SW - EU projects - value for which feasibility studies are pre-

Planned - contracts prior to the announcement of procurement

Budget - value of contracts planned to be implemented in the following years according to the budget limits for particular years until the end of the KPK implementation

The list includes values of orders for projects included in the KPK up to the limit of financing provided for in the KPK primary list.



At the end of the seventh year of the current EU perspective, out of the total amount of the KPK programme of PLN 75.5 billion, approx. 90% were in the implementation stage (at various levels of progress) or were completed.

In 2020, contracts were signed for projects included in the KPK for a total net value of PLN 10.9 billion.*

* The total value of contracts concluded in 2020, including the scope financed solely by the Company, is PLN 10,756.3 million (net), including the value of OPI&E 14-20 of PLN 4,723.5 million.

The largest contracts concluded in 2020 (PLN million)

No.	Project name	Programme	Name of procurement	Net value of the contract with the con- tractor		
1.	Works on the Czyżew – Biały- stok section of the E 75 line	CEF 14-20	Construction works on the Czyżew-Białystok section from km 107.260 to km 178.500	3,366.0		
2.	Works on the Warsaw cross-city line on the Warszawa Wschod- nia – Warszawa Zachodnia section	OPI&E 14-20	Performance of construction works related to the reconstruction of the Warszawa Zachodnia station	1,941.5**		
3.	works on the C-E 65 railway line on the Chorzów Batory – Tarnowskie Góry – Karsznice – Inowrocław – Bydgoszcz – Maksymilianowo section	OPI&E 14-20	Development of project documentation and execution of construction works for the task entitled LOT A – Works on the Chorzów Batory (km 5,900) – Nakło Śląskie (km 29.000) section of railway line No. 131.	1,242.4		
4.	Revitalisation and reconstruc- tion of the partly closed railway line No. 182 Tarnowskie Góry - Zawiercie	OPI&E 14-20	Development of detailed designs and execution of construction works	660.2		
5.	Works on the E-59 railway line, Wronki - Słonice section	CEF14-20	Modernisation of track systems with the accom- panying infrastructure on the E-59 railway line, Dobiegniew – Słonice section, from km 105,820 to km 128,680	429.2		
6.	Works on the E-59 railway line, Wronki - Słonice section	CEF 14-20	Modernisation of track systems with the accom- panying infrastructure on the E-59 railway line, Wronki - Krzyż section (excluding the Krzyż station), from km 53.500 to km 81.877	398.2		
7.	Works on the E-59 railway line, Wronki - Słonice section	CEF 14-20	Modernisation of track systems with the accom- panying infrastructure on the E-59 railway line, Krzyż – Dobiegniew section, from km 81,877 to km 105,820	374.8		
8.	Construction of the Suburban Agglomeration Railway - SAR - implementation	OPI&E 14-20	Design and execution of works for the task enti- tled Construction and modernisation of railroad lines and station infrastructure	299.6		
9.	Works on the E-30 railway line, Kędzierzyn Koźle – Opole Zachodnie section	CEF 14-20	Construction works on the Kędzierzyn Koźle- -Opole Zachodnie section, within the 132 By- tom-Wrocław Główny railway line, on the Opole Groszowice-Opole Zachodnie section within the 132 railway line from km 97.210 to km 101.100	275.0		
10.	Works on the E-59 railway line, Wronki - Słonice section	CEF 14-20	Installation of signalling and railroad traffic con- trol devices as well as railway telecommunica- tions network equipment on the Wronki - Słonice section, from km 53.500 to km 81.877 (Local Control Command and Signalling Centre (LCS) in Poznań) and from km 81.877 to km 128.680 (Local Control Command and Signalling Centre (LCS) in Stargard)	207.9		
The vast majority of contracts conc- luded in 2020 were construction workmore than 94% of them were contracts for programmes implemented from thespective (CEF 14-20, OPI&E 14-20, OP EP 14-20, ROP 14-20).						

** The value also includes a part of the liabilities of Tramwaje Warszawskie under the contracts (works and supervision) concerning the Warszawa Zachodnia station in the total amount of PLN 0.1 billion.

EU funds under the 2014-2020 per-

contracts – over 95%. At the same time,

Contracts concluded in 2020 broken down by programmes and types (PLN million)

	Budget	CEF 14-20	OP EP 14-20	OPI&E 14-20	ROP-S 14-20	In total
Deliveries	1.2	0.0	0.0	203.0	0.0	204.2
Construction work	503.4	5,066.9	7.4	4,556.7*	259.5	10,394*
Services	101.0	56.5	8.8	107.6**	28.1	302**
In total	605.6	5,123.4	16.2	4,867.3***	287.6	10,900.2***

* The value also includes a part of the liability of Tramwaje Warszawskie under the contract for construction works on the Warszawa Zachodnia station in the total amount of PLN 142.6 million.

** The value also includes a part of the liability of Tramwaje Warszawskie under the contract for supervision on the Warszawa Zachodnia station in the total amount of PLN 1.2 million.

The basis for the Company's investment activities in 2020, as in previous years, was the Company's Investment Plan (PI2020) which assumed the implementation of projects financed by the Cohesion Fund, the state budget, the Railway Fund and the Company's own funds.

PI2020 was adopted as an element of the Company's plan of activities by the Management Board of PKP Polskie Linie Kolejowe S.A. by Resolution No. 154/2020 of 3 March 2020. The most significant group in PI2020 were projects financed from CEF 14-20 and OPI&E 14-20. In 2020, the capital expenditures amounted to PLN 10.6 billion. The largest projects include:

 works on railway line No. 7 Warszawa Wschodnia Osobowa--Dorohusk, on the Warszawa – Otwock – Dęblin – Lublin section, stage I (PLN 774.3 million);

INVESTMENTS IN 2020

- works on the E-59 railway line, on the Poznań Główny-Szczecin Dąbie section (PLN 753.8 million)
- Improvement of railway access to the Port of Gdańsk (PLN 468.2 million);
- works on primary passenger lines (E-30 and E-65) in the Śląskie Voivodeship, stage I, E-65 railway line, Będzin – Katowice – Tychy
- Czechowice Dziedzice Zebrzydowice section, LOT C (PLN 453.3 million);
- works on the E 59 railway line, Wrocław - Poznań section, stage IV, border of Dolnośląskie Voivodeship - Czempiń section (PLN 450.9 million);
- improvement of railway access to sea ports in Szczecin and Świnoujście (PLN 394.7 million);
- works on the E-59 railway line on the Wronki-Słonice section (PLN 365 million);

- works on the C-E 65 railway line on the Chorzów Batory – Tarnowskie Góry – Karsznice – Inowrocław – Bydgoszcz – Maksymilianowo section (PLN 337.1 million);
- improvement of railway access to the the Port of Gdynia (PLN 323.6 million);
- construction of ERTMS GSM-R system infrastructure on the railway lines of PKP Polskie Linie Kolejowe S.A. within the framework of NPW ERTMS (PLN 304.4 million).

INVESTMENT OUTLAYS IN MATERIAL TERMS

The scope of individual investment projects carried out by PKP Polskie Linie Kolejowe S.A. includes comprehensive replacement of the track superstructure, railway traffic control and (traction and non-traction) electrical power devices, as well as modernisation of level crossings and their removal and replacement with two-level crossings. Replacement of old, worn-out and degraded elements of the railway infrastructure and technical devices with new elements and devices made with the use of modern technologies enables significant improvement of the operating parameters of railway lines (mainly the maximum permissible speeds) while maintaining and increasing the level of traffic safety. As part of the implementation of PI2020, investment works have been carried out on the railway network managed by PKP Polskie Linie Kolejowe S.A., including in particular the modernisation, revitalisation or construction of nearly 1,000 km of tracks, 335 crossings and 170 platforms.

Implementation of selected material indicators in 2020

No.	Indicator	Unit of measurre	Plan	Performance
1.	Modernisation of the railway (including the repair of track superstructure, railroad bed, heat-treated rails)	km of tracks	967.87	999.5
2.	Installation of turnouts	items	951	1074
	Engineering structures, including:	items	769	707
3.	Bridges	items	150	134
	Viaducts	items	100	68
	Culverts	items	519	505
4.	Platforms	items	204	170
5.	Traction network	tkm	818.88	948.23
6.	Railway crossings	items	446	335

THREATS AND RISKS AS WELL AS ACTIONS TAKEN

The implementation of infrastructure projects carried out by PKP Polskie Linie Kolejowe S.A. in 2020 was the subject of numerous analyses in terms of the identification of threats, i.e. potential risks, development and subsequent implementation of preventive and reduction measures aimed at minimising the impact of the threat on the adopted objectives of the projects, with the simultaneous maintenance of train traffic.

The most significant risk areas that affected the implementation of projects in 2020 include:

1. Low quality of design documentation prepared by contractors The risks resulting from the poor quality of the design documentation prepared by the contractors were mainly caused by:

- failure to include in the tender materials all works necessary to be performed, e.g. reinforcement of the railroad bed (imperfect recognition of the engineering and geological conditions);
- insufficient site visits to the existing facilities;
- underestimation of the costs of the work.

Poor quality of the design documentation submitted by contractors contributed to the generation of the following risks:

- delay in work completion due to waiting for the revised design documentation;
- delay in the submission of applications for administrative decisions;
- delays in tender proceedings caused by bidders' questions to the design documentation and the need to correct and supplement it;
- increase in project value due to works not included or improper estimation of the project value.

In order to minimise the risk of errors and deficiencies in the design documentation submitted by contractors, the Company has consistently developed its human potential to support and verify the submitted documents.

2. Extension of the procedure for issuing administrative decisions

The multi-discipline, complex nature of the Company's investment projects makes it necessary to obtain numerous administrative decisions which enable the implementation of the project. The declaration of an epidemic in the territory of the Republic of Poland in 2020 led to a risk that the deadlines assumed in the original schedules of investment projects for obtaining environmental and location decisions or construction permits would not be met. i.a. due to prolonged procedures for issuing arrangements, permits and approvals necessary to complete applications for the issuance of individual decisions.

PKP Polskie Linie Kolejowe S.A. perform ongoing supervision of the contractors' activities so that activities related to obtaining administrative decisions are carried out in a timely manner and the submitted documents are of high quality in order to minimise the risk of delays in the implemented investment projects. The Company cooperates closely with the authorities issuing particular decisions and puts an emphasis on improving the quality of documentation submitted to the authorities for approval - both in the area of internal supervision of the competent units of the Company and as part of supporting activities commissioned to external entities under ongoing contracts.

External factors concerning the organisation of works and combination of projects under the Programme

When the completion of a particular project is dependent on the completion of another project or phase of another project (combined projects), risks associated with factors affecting the level of coordination are identified, such as:

- postponement of the dates of conclusion of works contracts for combined projects;
- schedule changes affecting the combined projects;
- extension of track closures in the combined projects.

In combined projects, these factors directly led to the necessity of adjusting work schedules on an ongoing basis, starting works that required obtaining documentation from another project, or adjusting track maintenance schedules.

In order to minimise the risk related to external factors, the Company undertakes actions aimed at both supporting the contractors and taking contractual measures in order to encourage and oblige the contractors to develop remedial plans for the contracts performed and enforce their implementation. The Company also actively supports contractors in their activities by monitoring the progress of construction works and solving any difficulties arising during the project implementation on an ongoing basis.

Insufficient personnel and equipment potential of the contractors and limited availability of subcontractors

In 2020, there were identified cases of risks of reduction in the pace of execution of works or the impossibility of supplying materials due to the deterioration of the financial liquidity of the subcontractors, resulting in the risk of extending the term of payment to subcontractors. As a result, there was a risk of insufficient engagement of the personnel and equipment potential, resulting in the impossibility of performing the entirety of the works and meeting the work schedule. In view of the above, the Company took steps to support the contractors' financial liquidity through:

- executing early payments at the request of contractors;
- enabling the advance purchase of building materials;
- enabling the creation of performance bonds through deductions from invoices issued by contractors;
- making direct payments to subcontractors applying to the Company.

3. Occurrence of collisions with infrastructure not identified at the design stage

In spite of exercising due diligence at the stage of preparing maps for design purposes and agreements on the design documentation, there are un-

foreseen collisions of the executed elements with unlisted elements of underground infrastructure. The consequence of such risks materialising is, among other things, the need to establish the conditions for removing the collision, the necessity to develop documentation enabling the work to be carried out, leading to the temporary suspension of the construction works provided for in the schedule and, consequently, to the postponement of deadlines for the project. Mitigation measures include: changing the contractor's work technology, developing additional project documentation, and making arrangements with network operators and facility owners. In this regard, the Company is also taking steps to mitigate the risks, e.g. by adjusting the planned track closures in order to undertake other works, enabling it to utilise the contractors' potential while making arrangements to remove the collisions.

4. Impact of the Covid-19 outbreak on investments

In 2020, the COVID-19 pandemic was also an indirect cause of risks during the implementation of the Company's investment tasks. However, despite the restrictions, construction works were not stopped and moreover:

- the Company issued recommendations on how to conduct remote meetings and construction site meetings, as well as how to safely organise the acceptance of completed works;
- periodic video-conferences with contractors were held, during which problems were solved on an ongoing basis.

In addition, pursuant to Art. 15r of the Act of 2 March 2020 on special solutions related to preventing, counteracting and combating of COVID-19, other infectious diseases and the crisis situations caused by them, solutions were introduced to improve financial flows during the pandemic (streamlining the process of provision of performance bonds and enabling a higher material payment ceiling – up to 90%).

The works performed were directly affected by:

- delays in ithe issue of dministrative decisions;
- suspension of examination subsequent delays in the examination of appeals by the National Appeals Chamber;
- restrictions on crossing the border by subcontractors and foreign workers;
- restrictions on the operation of hotel facilities making it difficult to work on business trips;
- difficulties in the supply of specialised equipment manufactured outside the country;
- infection or quarantine of key personnel of the contractor;
- lack of experience in dealing with

epidemics. The need to develop solutions to provide health care while maintaining continuity of delivery and financial flow.

ACTIONS IMPROVING THE INVESTMENT PROCESS

1. Changes to underlying documentation

Underlying documentation regarding Instructions for Contractors:

- a) the level of the required performance bond was reduced to 5% of the total price specified in the bid or the maximum nominal value of the contracting authority's obligation under the contract, in connection with the entry into force as of 1 July 2020 of the provisions of Art. 77 item 24 and Art. 93 of the Act of 19 June 2020 on Subsidies on Interest on Bank Loans Granted to Entrepreneurs Affected by COVID-19 and on the Simplified Procedure for the Approval of Arrangements in Connection with COVID-19, introducing to the Act of 2 March 2020 on specific solutions related to the prevention, counteraction and eradication of COVID-19, other infectious diseases and crisis situations caused by them, Art. 15 va and 15 vb;
- b) for contracts for construction works of a value from PLN 50 million to PLN 100 million, the level of the required security deposit was reduced from 2% to 1%.

Underlying documentation regarding Contracts:

 a) the contractual provisions in the underlying documents (terms and conditions) applied by the Company were updated and modified for orders executed by PKP Polskie Linie Kolejowe S.A. The changes made primarily included:

- adjustment of contractual provisions to the amended law on the prevention of excessive delays in commercial transactions – "large entrepreneur",
- introduction of an obligation to maintain lists of subcontractors in construction work contracts;
- modification of the provisions concerning electronic communication (including the introduction of a provision on electronic signature);
- possibility of submission of electronic invoices;
- modification of the provisions concerning withdrawal from the contract by the contracting authority due to the financial situation of the contractor (in terms of adjustment to the provisions of bankruptcy law);
- provisions on the effects of limiting the contracting authority's funding - were indicated as a circumstance authorising the contracting authority to withdraw from the contract in whole or in part (before the amendment, this circumstance was a prerequisite for amending the contract, which required a written form - a written annex);
- update of provisions introduced in the contracts in connection with the amendment of the VAT Act (the so-called white paper), i.e. the provisions concerning the obligation for con-

tractors to have a bank account, included in the electronic list of entities on the website of the Ministry in charge of Finance, for settlements finance were met;

- b) the contractual provisions in the underlying documents (contractual terms) currently applied by the Company for orders executed by PKP Polskie Linie Kolejowe S.A. were adjusted to the requirements of the Act of 2 March 2020 on specific solutions related to the prevention, counteraction and eradication of COVID-19, other infectious diseases and crisis situations caused by them:
 - reduction in the level of the required performance bond to 5%;
 - modification of the provisions relating to partial payments.
- c) the following changes were introduced in the model base agreements for the so called national projects:
 - change in the method of calculating contractual penalties, i.e. on the net value of the contract, not on the gross value as it was prior to the amendment;
 - introduction of a reference date to make it easier to identify the law applicable to a given contract;
 - introduction of a mechanism for the project engineer to have additional control over changes

to the contract caused by different geological conditions.

2. Participation in works on drafting a new Public Procurement Law

In 2020, using their experience in conducting large-scale tendering procedures, representatives of the Company provided opinions on amendments to the new Public Procurement Law and on draft acts of amendment to the Law.

Conducting tender opening operations remotely

In view of the epidemic caused by the SARS-CoV-2 virus, the Company initiated the opening of tender procedures by means of generally available remote communication tools.

3. Investment forum

Since 2012, within the Investment Forum, PKP Polskie Linie Kolejowe S.A. has been conducting cooperation and dialogue with contractors and public administration on investment issues for the broadly understood railroad sector. The establishment of Working Groups within the Forum, including the Engineer + Designer Group and the Contract Provisions Group, enabled effective cooperation, exchange of experience and improvement of the underlying documents. In 2020, despite the COVID-19 pandemic, video-conference meetings were organised for the Contract Provisions Working Group, the Designer + Engineer Working Group, and the Tech Working Group.

In 2020, the activities of the Contract Provisions Working Group were related to the development of new provisions of the basic contract for works, with an exemption from the application of the FIDIC contractual terms. As part of regular meetings with contractors, with the participation of representatives of the Centre for EU Transport Projects (CUPT) and the General Prosecutor's Office of the Republic of Poland, there was a discussion of comments and postulates submitted by contractors to the new provisions of the basic contract, such as those relating to insurance, adjustment of remuneration, withdrawal

from the contract, copyrights, confidentiality of information, and contractual penalties.

The 2020 Designer + Engineer Working Group meetings were also related to the start of work on updating the underlying documents for the preparation of the feasibility study, design documentation, and supervision services. The purpose of the meetings was to exchange experiences in the scope of implementation of design and supervision services with respect to issues concerning, in particular, the schedule for implementation of the design documentation, implementation of geotechnical studies as well as selection and activities of the Engineer.

The meetings of the Technical Working Group concerned the demand of PKP Polskie Linie Kolejowe S.A. for strategic materials and the current situation of producers and suppliers during CO-VID-19 pandemic, their existing production capacity and further development plans.

4. Work of the High Level Group responsible for Rail Investments

In 2020, the works of the High Level Group (HLG), established in December 2016 and comprising representatives of the European Commission (EC), the Ministry responsible for funds and regional policy, the Ministry responsible for infrastructure, CUPT and PKP Polskie Linie Kolejowe S.A., were continued.

In 2020, the Group mainly discussed the progress of the KPK implementation, the existing difficulties mainly in securing project funding, simplification of procedures and regulations, as well as remedial actions taken. The Company's plans for the next EU financial perspective were also discussed, including the path towards the completion of the TEN-T core network by 2030.

5. Improvements to project management and monitoring

Unmanned Aerial Vehicles

2020 proved to be a landmark year for the Company in terms of investment

monitoring. It was decided to use modern technology and the innovative solution of monitoring investments by means of unmanned aerial vehicles (UAVs) - in 2020, 11 UAVs were purchased. Training was also conducted on the operation of UAVs with the maintenance of visual line of sight (UAVO VLOS).

In 2020, organisational structures were established in the Company, where investment monitoring with the help of UAVs is implemented. Procedures governing the operation of UAVs, flight schedules, and standards for taking photos and videos were also adopted.

Flights using UAVs began in May 2020. On average, about 31 aircraft operations were performed per month, enabling the monitoring of the most important railroad investments carried out by the Company, on a total length of over 3,000 km of railway lines. The investments supervised included:

- a) modernisation of railway line No.
 8, Warszawa Okęcie Radom section (LOT A, B, F);
- b) works on the E-75 line between Czyżew and Białystok;
- c) streamlining of the TEN-T Łódź Railway Node, stage II, Łódź Fabryczna – Łódź Kaliska - Łódź Żabieniec section
- works on the E-59 railway line on the Poznań Główny - Szczecin Dąbie section;
- e) works on the E-59 railway line on the Wronki Słonice section;
- f) improvement of railway access to seaports in Szczecin and Świnoujście;
- g) improvement of railway access to the port in Gdańsk;
- h) improvement of railway access to the port of Gdynia.

An important event for the end of 2020 was a flight coordinated by 3 teams of UAV pilots simultaneously, which concerned about 70 km of railway line No. 8 on the Czachówek Górny - Radom section.

In 2020, PKP Polskie Linie Kolejowe S.A. obtained the status of an Operator issued by the Civil Aviation Office, while the Company's employees (UAV

operators) received the status of PKP Polskie Linie Kolejowe S.A. pilots.

In addition, field monitoring of the construction sites of the most important investments included in the KPK also continued in 2020. Despite the pandemic and the associated restrictions, monitoring teams made a total of 97 ground monitoring visits. They focused on the largest projects under construction and on key projects for the operation of rail traffic. In the area of tools supporting the implementation of investments in 2020, the Company continued its work to improve the EPM system. They were aimed, among other things, at improving the quality of data entered and the analytical capabilities of IT tools used by the Company. This enabled the Company to obtain more complete management information on both projects and programmes. The monitoring of individual projects included in the KPK and the entire document in the form of the KPK status (monitoring) table also continued in 2020. It includes all KPK projects broken down into individual contracts, along with information on such issues as tender proceedings, agreements, material and financial progress as well as milestones. The report is prepared on a monthly basis and is submitted to the Ministry responsible for infrastructure, the Ministry responsible for investment and CUPT.

SOURCES OF FINANCING

APPLICATIONS FOR EU FUNDING

In 2020, the Company submitted 4 applications for funding under the 4th call within the Connecting Europe Facility (CEF) for the projects described in the table below.

No.	Project name	Date of appli- cation	Total net cost of the project with the application for funding	Amount of EU funding ac- cording to the application
1.	Works on the Czyżew – Białystok section of the E 75 line (stage II)	2020-02-26	2,218,929	1,886,090
2.	Works on the E 75 railway line, Ełk - Trakiszki (state border) section – design documentation	2020-02-26	185,000	157,250
3.	Works on the E-20 railway line, Siedlce - Terespol sec- tion, stage III - LCS Terespol - other works	2020-02-26	192,000	163,200
4.	Works on Poznań freight bypass	2020-02-26	1,203,752	1,023,190
		Total	3,799,681	3,229,730

List of applications for funding submitted under CEF 2014-2020 in 2020 (PLN thousand)

As a result of the competition results, Grant Agreements were signed for 2 of them in accordance with the table below:

List of projects for which GA was signed in 2020 (PLN thousand)

No.	Project name	Date of application	Total net cost of the project with GA in EUR thousand	Amount of EU funding accor- ding to the GA in EUR thousand	Amount of EU funding accor- ding to the GA in PLN thousand
1.	Works on the E 75 railway line, Ełk – Trakiszki (state border) section – design documentation	2020-11-11	43,151	36,678	157,250
2.	Works on the Czyżew – Białystok section of the E 75 line (stage II)	2020-11-27	453,787	385,719	1,653,692

GRANT AGREEMENTS

In 2020, PKP Polskie Linie Kolejowe S.A. concluded 2 grant agreements with the Center for EU Transport

Projects (CUPT) for financing under OPI&E for the total net amount of PLN 419,464 thousand, including EU funds of PLN 274,140 thousand – as shown in the table below.

Signed co-financing agreements within the framework of the OPI&E in 2020 (PLN thousand)

Lp.	Nazwa Projektu	Date of conc- lusion of the grant agreement	Total net cost	Net eligible costs	Funding under the grant agreement	EU funding
1.	Works on railway line No. 8, Skarżysko Kamienna – Kielce – Kozłów section – preparatory works	2020-06-30	22,598	20,802	20,802	17,682
2.	Works on railway lines No. 132, 138, 147, 161, 180, 654, 655, 657, 658, 699, Gliwice - Bytom - Chorzów Stary - Mysłowice Brzezinka – Oświęcim section and Dorota – My- słowice Brzezinka section	2020-11-27	396,866	396,684	301,716	256,458
In total:			419,464	417,486	322,518	274,140

At the end of 2020, the Company had EU funds allocated for 72 projects, according to the following, with a distinction of individual EU aid programmes:

1. Operational Programme Infrastructure and Environment (OPI&E) - 39 projects with a total EU funding of PLN 16,206,042 thousand;

- Operational Programme for Eastern Poland (OPEP) - 9 projects with a total EU funding of PLN 1,583,589 thousand;
- Connecting Europe Facility (CEF) 22 projects with a total EU funding

of EUR 3,167,973 thousand. In addition, in 2020, Grant Agreements were concluded for 2 projects, with the total amount of EU funding of EUR 422,397 thousand, which means that the total share of EU funding amounts to EUR 3,590,370 thousand.


EMPLOYMENT ANALYSIS

The level of employment in PKP Polskie Linie Kolejowe S.A., as of 31 December 2020, was 38,599 employees and was lower by 477 persons (1.22%) compared to 31 December 2019. With regards to manual positions, the level of employment declined from 32,348 employees (as of 31 December 2020) to 31,862 employees (as of 31 December 2020), that is, there was a decline in employment by 486 persons (1.24%). The level of employment in manual positions was lower due to the ongoing technological changes consisting of the introduction of new equipment and gradual automation of processes. In nonmanual positions, the level of employment increased from 6,728 employees (as of 31 December 2019) to 6,737 employees (as of 31 December 2020), i.e., there was an increase by 9 persons (0.02%). The increase in the level of employment in non-manual positions was due to, among other things, the strengthening of teams implementing investments.

Employment in professional groups (as of 31 December 2020 – in persons)





Employment in professional groups (as of 31 December 2020 – in persons)

The most numerous group in the employment structure in the Company are employees aged over 51. In 2020, they accounted for 48.03% of the total number of employees (18,539 persons). Compared to 2019, the level of employment in that group declined by 42 employees, that is, by 0.11%. In 2020, employees in the 26-50 age group, that is, in the period of their highest professional activity, accounted for 47.31% of the personnel (18,263 employees). Compared to 2019, there was a decline in the level of employment in that group by 419 employees, that is, by 1.07%. In 2020, employees at the age of 25 or less represented 4.66% of the personnel (1,797 employees). Compared to 2019, there was a decline in the level of employment in that group by 16 employees, that is, by 0.04%.

Employment structure by age (as of 31 December 2020 - in persons)



Employees with up to 10 years of seniority accounted for 32.63% of the personnel (12,595 employees) - compared to 31 December 2019, there was an increase in the level of employment in that group by 765 employees, i.e., by 1.96%. Employees with 11 to 20 years of seniority accounted for 7.27% of the personnel (2,808 employees) - compared to 31 December 2019, there was an increase in the level of employment in that category by 185 employees, i.e., by 0.47%. In 2020, the largest group in the Company were employees with seniority over 21 years, who accounted for 60.10% of the total number of employees (23,196 employees) - compared to 31 December 2019, the level of employment in that group declined by 1,427 employees, i.e., by 3.65%.





The structure of employment in PKP Polskie Linie Kolejowe S.A. by education is steadily improving. In 2020, the share of employees with

higher education increased by 0.66% compared to 2019, there was a decline in the number of persons with secondary, basic vocational and primary

education. The above is the result of a deliberate employment policy to hire highly-qualified employees as well as the Company's system of training.



IMPROVING EMPLOYEE QUALIFICATIONS AND EMPLOYEE DEVELOPMENT

The Company continuously improves the qualifications of the employees by, among other things, organising training (including specialist training), conferences and, for example, by reimbursing the costs associated with learning foreign languages. The Company's employees study at universities and attend post-graduate studies. The Company also supports the development of employees involved in train operation by sending them to specialised vocational courses, including in-house courses that enable them to obtain new licences. In 2020, the Company allocated PLN 5.2 million to improve the qualification of the employees.

PKP Polskie Linie Kolejowe S.A. has also been cooperating with the Association of Railway Employers in the area of postgraduate studies for many years, in particular, MBA studies conducted by Gdansk Foundation for Managerial Education.

Moreover, in 2020, the Company will launch the third edition of postgraduate studies in human resources manage-

ment in cooperation with Gdansk Foundation for Managerial Education and CS Natura Tour Sp. z o.o.

An important group of employees to whom specially prepared training cycles are directed are employees of teams implementing investment projects and departments that prepare and support such activities. The Company applies the principle of long-term investment in the development of its employees by financing academic education. In recent years, the employees have been interested mostly in post-graduate studies, MBAs, second-cycle master degree studies and language courses. In 2020, 422 employees took advantage of the opportunity of further training. PKP Polskie Linie Kolejowe S.A. also invests in the education of future railwaymen. In 2020, the Company cooperated with 46 secondary schools all over the country, which educate young people in the field of railway, i.e.:

- Rail Transport Technician;
- Electrical Power Technician for Rail Transport;

- Railway Construction Technician;
- Railway Traffic Control AutomationTechnician.

As part of the cooperation, the Company grants scholarships for the most talented students, such scholarships were paid for 226 persons in 2020. All students have the opportunity to complete internships and work placements in the organisational units of the Company - Railway Lines District Units and can broaden their knowledge and skills thanks to the modern simulator of computer control command and signalling equipment. The company assists in the development of teaching facilities at schools and also provides qualified lecturers of vocational subjects, that is, own employees. Furthermore, PKP Polskie Linie Kolejowe S.A., provides, for the needs of school professional lab rooms, among other things, elements of the railway infrastructure such as traffic control devices, rails, turnouts or semaphores to help students prepare for work in the rail industry.

RAILWAY EDUCATION

In 2020, PKP Polskie Linie Kolejowe S.A. continued to prepare employees to work in positions related to the management and safety of railway traffic using an internal system. Due to the pandemic, theoretical training as part of the qualification course for the following positions: traffic dispatcher, signalman, points operator, crossing keeper, track master, watchman, automation and train manager, specialising in economic and work trains, was organised online and conducted by appropriately prepared employees of the Company.

In 2020, 65 qualification courses were organised for 1,291 participants.

To supplement the personnel authorised to operate railway vehicles, the Company organised exams to obtain the train driving licence, with the participation of 31 employees (in 4 groups), and 1 training to receive the rain driving licence which was attended by 15 employees of the Company.

In 2020, the training to extend the train driving licence and to include new types of vehicles was attended by 137 employees, and 99 employees participated in knowledge and skills tests to obtain the train driving licence for new vehicles. As part of professional development, 672 train drivers participated in training with the use of a railway vehicle simulator. Such organisation of the professional training system is a response to the applicable regulations and requirements concerning competencies and professional skills of employees but, first of all, it is an expression of the Company's concern for the safety of railway traffic.



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SOCIAL CAMPAIGN "SAFE RAIL-ROAD LEVEL CROSSING"

In 2020, activities performed as part of the social campaign "Safe rail-road level crossing" were adapted to the current sanitary and epidemiological guidelines. However, the restrictions did not prevent from reaching hundreds of thousands of people. The activities included actions in the media, cooperation with influencers or online training for driving instructors and lecturers of Driver Training Centres. In 2020, the previously implemented projects were

MEDIA CAMPAIGN

In 2020, as part of the "Safe rail-road level crossing" social campaign, four spot campaigns were organised in the largest nationwide TV stations. The campaigns on YouTube contributed to over 14.3 million views of spots: "Listen to your voice of reason" and "PLK yellow sticker". In March 2020, the video #YellowStickerPLK ranked 3rd among most often viewed ads, according to YouTube Ads Leaderboard. In turn, the campaign spots posted on VoD websites reached nearly 5 million views. In multiplexes, studio and local cinemas, over 3.65 million persons watched the above-mentioned videos. Moreover, the subject of the campaign was mentioned in television programmes such as "Question for breakfast" and "To the rescue 112". Campaign posters were placed on billboards located in 460 spots across the country. Moreover, more than 7.2 million campaign spots were broadcast on LED screens

also continued, i.e. "Safe Friday" or "October: the Month of Education". The campaign celebrated its 15th anniversary in 2020.

in public space. Press advertisements dedicated to the campaign were published 98 times in national and local weekly magazines.

#YELLOWSTICKERPLK SUPPORTS THE USERS OF LEVEL CROSSINGS

One of the key projects implemented as part of the 2020 campaign was the #YellowStickerPLK. PKP Polskie Linie Kolejowe S.A. marked over 14 thousand of level crossings with special stickers containing an individual identification number which makes it possible to locate the level crossing (INI). Additional INI database was integrated with the IT system used by the operators of the 112 emergency number.

The identification number of the level crossing placed on the yellow sticker, quoted by a person reporting a threat or an accident, allows the operators of the 112 emergency number to find the exact level crossing and provide rapid

 numer skrzyżowania:
 003 299 660

 W razie wypadku lub zagrożenia wypadkiem tel.:
 112

 W razie awarii tel.:
 +48 012 345 678, +48 01 23 45 678
 assistance of railway workers and, if necessary, emergency services. Immediate reaction increases the chance of, for example, stopping a speeding train at a safe distance from the level crossing and prevent an accident. In 2020, the stickers were used 5,707 times by persons who called the 112 emergency number to provide information. In 438 cases, drivers were instructed about train speed limits and asked to drive carefully, and in 167 cases, train traffic was was suspended to prevent a tragedy.

ABOUT SAFETY ON THE ROAD – FOR CHILDREN AND ADULTS

Equally important aspects of activities of PKP Polskie Linie Kolejowe S.A. as part of the social campaign "Safe rail--road level crossing" were workshops and training. In 2020, until the introduction of pandemic restrictions, 2 workshops were organised on-site and additional 2 were organised as online meetings. As every year, the workshops were attended by specialists in the field of safety, including representatives of local Driver Training Centres, Provincial Road Traffic Centres, Railway Security Guards, Regional Headquarters of: Police, State Fire Service and emergency medical services teams. During the meetings, topics related to road traffic law were discussed in the context of level crossings, different categories of level crossings and the most common malpractices of drivers were presented in detail, and CCTV footage showing dangerous driving behaviour was shown.

Another project carried out as part of the 2020 campaign was "Safe Friday", organised across the country every year, every Friday of the Summer holiday, at the country's busiest level crossings and along the tracks, at the so-called "wild passages". In 2020, 570 information and prevention actions were performed under the project, approximately 53,000 information materials were distributed, more than 500 warnings were issued to persons behaving in an appropriate way, 132 traffic tickets were issued and more than 460 sobriety controls were performed. This extremely important initiative is intended to remind every road user of their duty to act in accordance with traffic regulations and their common sense.

The Company, as part of the "Safe rail-road level crossing" campaign, also reached children by organising educational lectures in schools and nursery schools. In 2020, more than 571 classes were conducted, involving 19,218 children. During the classes, children learned the basic rules at level crossings, got to know traffic signs and learned what not to do on railway premises.

In 2020, cooperation was established with the creators of online automotive

channels: EMCE and Miłośnicy 4 Kółek (M4K). In cooperation with EMCE, a video was produced entitled "What to do if you get stuck on train tracks?", describing technical highlights on the subject of safety at level crossings. The video reached over 148 thousand views. As part of cooperation with M4K, a video "A bit too late..." was recorded - addressed to fans of motorisation and concerning behaviour at level crossings and the use of the #YellowSticker-PLK. The video reached 154 thousand views.

"SAFE RAIL-ROAD LEVEL CROSSING" IN NUMBERS

In 2020:

- 571 educational lectures on rail safety were conducted (including 363 lectures as part of the project "October: the Month of Education");
- 19,218 children were educated (including 10,095 children as part of the project "October: the Month of Education");
- 865 leaflet distribution and prevention actions were carried out at crossings/level crossings (including 570 actions as part of "Safe Friday" campaign);

Moreover:

- 533 traffic tickets were issued (including 132 tickets under the "Safe Friday" project);
- 872 warnings were issued (including 517 warnings under the "Safe Friday" project);
- 1,471 sobriety inspections were performed (including 368 under the "Safe Friday" project).

- 71,250 road users got involved in the leaflet distribution and prevention actions (including 53,054 as part of the "Safe Friday" project);
- 230 defects were reported using the "Report a defect" form;
- 12 articles were published in local press;
- 79 promotional events were organised;
- 4 workshops were organised for Driver Training Centres (including two online);
- a chat was organised with an expert on safety on level crossing;
- more than 4,000 educational materials were distributed in children's hospital wards.

The campaign reached:

- more than 14,000,000 views of the campaign spot on YouTube;
- more than 7,200,000 views of the campaign advertising spots on LED screens placed in public space;

- nearly 5,000,000 views of the campaign spots on VoD platforms;
- more than 3,650,000 persons watched the campaign videos in multiplexes and studio cinemas;
- 154,000 views of the video recorded in collaboration with M4K;
- 148,000 views of the video recorded in collaboration with EMCE.

RAILWAY TRADITION

In 2020, PKP Polskie Linie Kolejowe S.A. made 24 donations of over PLN 860,000 to institutions that care about railway history and tradition. The used--up railway equipment was donated to, i.a., the institute of history and transport technology in Warsaw (semaphores), the Pomeranian Society of Iron Railway Enthusiasts in Gdynia (railway track elements), the Polish tourist society in Zielona Góra (railway traffic control devices), Choszczeńskie Stowarzyszenie Miłośników Kolei SEMAFOR (snowplough), Lubaczów municipality (steel bridge constructions from railway line No. 101 Munina-Hrebenne), Średzkie district (ribbed lock washers, four-hole lugs), the Polish tourist society in Zielona Góra (steel sleepers) and Muzeum Ziemi Kościerskiej (snowplough type 411S). In 2020, the Company also supported Grodziska Draisine Railway, which received elements of railway infrastructure.

The Company also supports educational institutions. In 2020, among the schools and universities that received donations from the Company were, i.a., Wrocław University of Science and Technology (mechanical automation equipment), Zespół Szkół Komunikacji im. Hipolita Cegielskiego w Poznaniu (railway traffic control devices), Zespół Szkół im. Stanisława Staszica w Małkini Górnej (materials and railway infrastructure equipment) and Zespół Szkół Budowlano-Technicznych w Stargardzie (snow blower OM-3A).

PKP Polskie Linie Kolejowe S.A. made almost 100 donations to institutions that care for the history and tradition of railways.



PLK RECEIVES THE "AMBER OF THE POLISH ECONOMY 2020" AWARD

During the National Economic Summit in Lublin in 2020, PKP Polskie Linie Kolejowe S.A. received the "Amber of the Polish Economy" award for consistent and effective implementation of the National Railway Programme (KPK) by improving railway traffic in agglomerations, raising the standard of travel on local routes and improving conditions for cargo transport.

"Amber of the Polish Economy" is an award granted for special activities in the field of development and security of Polish economy in the country and abroad. The winners receive the award for their determination and consistency in meeting challenges arising in their position or out of the company's strategy.

SUPPORTING HEALTH SERVICES IN THE FIGHT AGAINST THE CORONAVIRUS OUTBREAK

In 2016, PKP Polskie Linie Kolejowe S.A. donated over PLN 2.25 million to support the health care system in the fight against COVID-19. Four institutions in the country that were involved in activities to fight the pandemic received financial support from PKP Polskie Linie Kolejowe S.A, including the National Institute of Public Health – National Institute of Hygiene in Warsaw, the Institute of Hematology and Blood Transfusion in Warsaw, the Regional Ambulance Station in Rzeszów and the Specialist Regional Hospital in Ciechanów. In 2020, PKP Polskie Linie Kolejowe S.A. Group of Companies transferred a total of almost PLN 5 million to support the health care system in the fight against COVID-19.

The donated financial support was allocated by the health institutions to, among other things, purchase of necessary medical equipment, sanitary equipment, personal protective equipment, devices for laboratory testing related to COVID-19 and urgent needs of hospitals resulting from the fight against the coronavirus pandemic.

Apart from the financial support, PKP Polskie Linie Kolejowe S.A. made available 76 cars across the country to the health care system.

PLK TAKES PART IN THE ECONOMIC FORUM IN KARPACZ AND THE EUROPEAN ECONOMIC CONGRESS IN KATOWICE

PKP Polskie Linie Kolejowe S.A. actively participated in the European Economic Congress which took place from 2 September to 4 September 2020 in Katowice, and the Economic Forum which took place from 8 September to 10 September 2020 in Karpacz. During the European Economic Congress, the representatives of the Company's Management Board took part in debates:

"Transport Strategy for Poland", "The Central Communication Port", "Con-

struction market in the new reality" and "Public investments". As part of the Economic Forum, the representatives of the Company's Management Board participated in two debates: "Domestic mega investments as an opportunity for the development of the country" and "Time for the economy - new connections as an impulse for regional development".

The participation of representatives of the Company's Management Board in

the European Economic Congress and the Economic Forum enabled the presentation of activities of PKP Polskie Linie Kolejowe S.A. as the entity implementing the largest ever investment programme in rail infrastructure, and allowed to emphasise the role of the Company as the manager of the national network of railway lines.

MAIN EVENTS IN 2020

January

- 2nd edition of the Railway Development Congress organised by the railway companies -PKP Polskie Linie Kolejowe S.A., PKP S.A., PKP CARGO S.A. and PKP Intercity S.A.
- Signing by PKP Polskie Linie Kolejowe S.A. a contract worth over PLN 181 million net to design, supply and instal elements of passenger dynamic information system and a monitoring system at 133 stations and stops as part of the project: "Design, supply and installation of elements of passenger dynamic information system and a visual monitoring system along with technical infrastructure at railway stations and stops" co-financed by the European Union from the Cohesion Fund under the Operational Programme Infrastructure and Environment.
- Signing by PKP Polskie Linie Kolejowe S.A. a contract worth PLN 21.5 million for the purchase of 6 motorised trolleys. The contract is part of the PLN 250 million project: "Improving railway traffic safety through the purchase of specialised technical equipment" co-financed by the European Union from the Cohesion Fund under the Operational Programme Infrastructure and Environment.
- Signing by PKP Polskie Linie Kolejowe S.A. a contract worth PLN 94.7 million net to increase the standard of services at 22 stations and adapt the service to the needs of passengers with reduced mobility, at 15 stations and stops in three voivodships. The investment project was performed as part of the project: "Improvement of the technical condition of the passenger service infrastructure (including adaptation to the requirements of PRM-TSI standard), Stage IV".
- Signing by PKP Polskie Linie Kolejowe S.A. four contracts worth a total value of PLN 1.4 billion as part of the project "Works on the E59 railway line between Poznań

Główny and Szczecin Dąbie" co--financed by the European Union from the financial instrument Connecting Europe Facility CEF.

February

- Signing by PKP Polskie Linie Kolejowe S.A. a contract for the preparation of a feasibility study for the construction of additional agglomeration tracks on the route from Warsaw to Piaseczno and Czachówka, including the connection to Konstancin-Jeziorna.
- Signing by PKP Polskie Linie Kolejowe S.A. a cooperation agreement with the district of Poznań with regards to the construction of a railway viaduct in Kobylnica, worth approximately PLN 37 million, as part of the project: "Improving safety at level crossings - Stage III", co-financed by the European Union from the Cohesion Fund under the Operational Programme Infrastructure and Environment.
- Completion of construction works under the project "Works on railway line No. 219 in the section Szczytno - Ełk", implemented under the Operational Programme Eastern Poland. The project is worth over PLN 300 million.
- Signing by PKP Polskie Linie Kolejowe S.A. a contract for the modernisation of 16 engineering structures in the route Pilichowice
 Olszamowice as part of the project: "Modernisation of the railway line No. 4 - Central Railway Line (Centralna Magistrala Kolejowa), Stage II". The net value of the investment project is almost PLN 57 million. The investment project is financed from national resources.
- Signing by PKP Polskie Linie Kolejowe S.A. a contract worth PLN 28.9 million net for the preparation of project documentation for the task "Works on the C-E 65 line, Zduńska Wola - Inocław - Tczew" LCS Bydgoszcz Główna.

March

- Signing by PKP Polskie Linie Kolejowe S.A. and the General Directorate for National Roads and Motorways a framework agreement on cooperation between the two managers of national infrastructure.
- Participation of a representative of PKP Polskie Linie Kolejowe S.A. in the Rail Baltica forum in Brussels. The representatives of the European Commission, governments and rail industry experts exchanged their opinions on the priorities for the development of the European railway network in the light of the EU's financial perspectives for 2021-2027 and the European Green Deal.
- Signing by PKP Polskie Linie Kolejowe S.A. and the city of Kraków a letter of intent to build a pedestrian and cycle bridge over the Vistula River as part of the modernisation of the cross-city railway line in Kraków. The project: "Works on the E30 railway line on the route: Kraków Central Station - Rudzice along with the construction of agglomeration line" is co-financed by the European Union from the "Connecting Europe Facility" CEF.
 Signing by PKP Polskie Linie Kole
 - jowe S.A. a contract worth PLN 1.9 million to create a concept for the development of Poznań Railway Node.
 - Signing by PKP Polskie Linie Kolejowe S.A. and the Marshal Office of the Malopolska Region, a contract for preparation of a document: "Preliminary Feasibility Study of Railway Infrastructural Investments in Małopolska", which will help identify the most important investments on railway lines in the coming years.
 - Signing by PKP Polskie Linie Kolejowe S.A. a contract worth PLN 139 million for the design and performance of construction works under the task: "Revitalisation of railway line No. 207 on the route: Toruń Wschodni - Chełmża".

The project is co-financed by the European Union as part of the Regional Operational Programme of Kujawsko-Pomorskie Voivodship.

April

- Completion of the modernisation of Szczecin Główny station under the project: "Improvement of the technical condition of the passenger service infrastructure (including adaptation to the requirements of PRM-TSI standard), Stage I Szczecin Główny" co-financed by the European Union from the Cohesion Fund under the Operational Programme Infrastructure and Environment.
- PKP Polskie Linie Kolejowe S.A. signed a contract for the design and construction of an underpass under the railway line in Skarżysko-Kamienna, worth approximately PLN 40 million. The project is co-financed by the European Union under the the Świętokrzyskie Voivodeship Regional Operational Programme.
- Signing by PKP Polskie Linie Kolejowe S.A. a contract worth PLN 34.1 million net for the development of project documentation and performance of construction works as part of the project "Works on railway line No. 28 Wieliszew - Zegrze". The project is co-financed by the European Union as part of the Mazowieckie Voivodeship Regional Operational Programme.

Мау

- Signing by PKP Polskie Linie Kolejowe S.A. and Rzeszów University of Technology an agreement on cooperation in the field of education of future engineers for the railway industry during first-cycle studies in transport with a specialisation in rail transport.
- 26 th of May announcement of the Local + Regional Railway Infrastructure Replenishment Programme - Rail +, by 2028. Opening of the application process for the first stage of the Programme.
- Signing by PKP Polskie Linie Kolejowe S.A. a contract with Bombardier Transportation (ZWUS), worth nearly PLN 26 million, for

services to support computerised signalling equipment over the period from 2020 to 2021.

 Trains travelled on the first one out of three new railway bridges over the Vistula River in Kraków. The investment project was worth over PLN 1 billion and was co-financed under the "Connecting Europe Facility" CEF.

June

- 15th anniversary of the "Safe rail--road level crossing" campaign.
- Signing by PKP Polskie Linie Kolejowe S.A. a contract worth more than PLN 3.3 billion for the reconstruction of another section of Rail Baltica - section Czyżew - Białystok. The project is co-financed by the "Connecting Europe Facility" CEF.
- Participation of PKP Polskie Linie Kolejowe S.A. in an online conference on Rail Baltica with the representatives of the management of Lithuanian railway infrastructure.
- Commissioning of the new station Kraków Bronowice. The investment was carried out as part of the project: "Modernisation of the E30 railway line, section Zabrze-Katowice-Kraków, Stage IIb", co-financed by the European Union as part of the "Connecting Europe Facility" CEF.
- PKP Polskie Linie Kolejowe S.A. signed a cooperation agreement with the management board of Lublin Voivodeship concerning the development of a spatial concept related to construction of Lublin agglomeration railway.
- Delivering to Łódź all elements of two TBM machines to drill the underground railway line Łódź Fabryczna - Łódź Kaliska/Łódź Żabieniec. The investment project was worth over PLN 1.7 billion and was co-financed under the Operational Programme Infrastructure and Environment.

July

 Signing a contract for more than PLN 1.9 billion for the modernisation of Warszawa Wschodnia station under the project: "Works on the Warsaw cross-city railway line between Warszawa Wschodnia and Warszawa Zachodnia stations" co-financed by the European Union from the Cohesion Fund under the Operational Programme Infrastructure and Environment.

- Completion of modernisation of Krzeszowice station. The investment was carried out under the project "Modernisation of the E 30 railway line on the route: Zabrze--Katowice-Kraków, Stage IIb", co--financed by the European Union under "Connecting Europe Facility" CEF.
- Announcement of first tenders as part of the government programme for the construction or modernisation of railway stations over the period from 2021 to 2025 - for the modernisation of stations: Niemojki, Pasłęk, Szklarska Poręba Średnia.

August

- Signing by PKP Polskie Linie Kolejowe S.A. and Dąbrowa Górnicza municipality a contract for the preparation of project documentation and the construction of a railway viaduct in Dąbrowa Górnicza as part of the project: "Improving safety at level crossings - Stage III" co-financed by the European Union from the Cohesion Fund under the Operational Programme Infrastructure and Environment.
- Signing by PKP Polskie Linie Kolejowe S.A. an agreement on implementation and management of works related to the reconstruction of Kielce station and construction of a car park over the railway line. The project was co-financed by the European Union from the "Connecting Europe Facility" CEF.
- Collection by a subsidiary of PKP Polskie Linie Kolejowe S.A. - Zakład Robót Komunikacyjnych -DOM w Poznaniu Sp. z o.o. a tamping machine UNIMAT 09-4x4/4S Dynamic.

September

- Completion of the call for applications for stage I of the Local and Regional Railway Infrastructure Replenishment Programme - Rail +.
- Rail Baltica. Commencement of works on the section: Czyżew -Białystok. The project "Works on the E75 line on the route: Czyżew and Białystok" is co-financed by the "Connecting Europe Facility" CEF.
- Signing of a supervision contract for the project "Works on the Warsaw cross-city railway line between Warszawa Wschodnia and Warszawa Zachodnia stations" co--financed by the European Union from the Cohesion Fund under the Operational Programme Infrastructure and Environment.

October

- Signing a contract worth over PLN 660 million for the implementation of the project: "Revitalisation and reconstruction of partly closed railway line No. 182 Tarnowskie Góry
 Zawiercie", co-financed by the European Union under the Operational Programme Infrastructure and Environment.
- Signing by PKP Polskie Linie Kolejowe S.A. and Koluszki municipality an agreement with a contractor for the construction of a new collision-free crossing in Gałkowo on the route: Koluszki - Łódź Widzew as part of the project: "Improving safety at level crossings - Stage III", co-financed by the European Union under the Operational Programme Infrastructure and Environment.

November

- Opening of stage II of the call for proposals for the Rail + Regional Railway Infrastructure Replenishment Programme.
- Signing a contract for the development of the concept of Lublin Agglomeration Railway.
- Signing a contract for the reconstruction of the platform in Niemojki as part of the programme related to the construction or modernisation

of railway stations over the period from 2021 to 2025.

 Signing a contract worth PLN 275 million for the reconstruction of the route: Opole Zachodnie - Opole Groszowice, as part of the project: "Works on the E30 railway line on the section: Kędzierzyn Koźle -Opole Zachodnie" co-financed by the "Connecting Europe Facility" CEF.

December

- Shorter travel time from Warszawa to Trójmiasto thanks to the ERT-MS/ETCS Level 2 system and the introduction of a 200 km/h speed limit on the section: Warszawa -Gdańsk.
- Completion of electrification of the section: Lublin - Stalowa Wola Rozwadów as part of the project "Works on railway lines 68, 565 on the section: Lublin - Stalowa Wola Rozwadów" worth PLN 451.4 million net, co-financed under the Operational Programme Eastern Poland.
- Signing a contract worth almost PLN 45 million for modernisation of 21 bridges, viaducts and culverts on the Central Railway Line (Centralna Magistrala Kolejowa) to raise the speed of trains to 250 km/h. Financed from the budget.
- Signing a contract for the design and construction of railway lines and station infrastructure as part of the project: "Construction of the Suburban Agglomeration Railway" co-financed by the European Union from the Cohesion Funds under the Operational Programme Infrastructure and Environment.
- Signing by PKP Polskie Linie Kolejowe S.A. and "Polish Waters" National Water Holding a contract for the construction of a new railway bridge over the Regalica River in Szczecin. Project co-financed by the European Union by the "Connecting Europe Facility" CEF.
- Signing by PKP Polskie Linie Kolejowe S.A. and the City of Skierniewice a contract for the construction of a collision-free level crossing in Skierniewice as part of the project: "Improving safety at level crossings

 Stage III", co-financed under the Operational Programme Infrastructure and Environment.



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MAP OF RAILWAY LINES

