



**PKP POLSKIE LINIE KOLEJOWE S.A.**

*Zarządca narodowej sieci linii kolejowych*



# 2013

ANNUAL REPORT



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# Foreword by the President of the Management Board

*To whom it may concern,*

*The year 2013 demonstrated that unwavering commitment to running of a responsible, well-organised and effectively managed company led to a situation when all of us were able to embrace its objectives. Our efforts to meet these objectives have been characterised by prudence, entrepreneurial spirit and flexible approach to the dynamic business environment. As part of our work aimed at improving the availability, attractiveness and reliability of railway transport, we have been enhancing travel comfort and visual aspects of railway infrastructure as well as creating a better customer experience for train passengers. The attention we pay to traffic safety as well as the issues of environmental protection and compliance with European standards are the main reasons behind the continuation of the grand programme of railway infrastructure modernisation.*

*Providing passenger and freight operators with a guaranteed offer compliant with the most stringent requirements is one of the key objectives of PKP Polskie Linie Kolejowe S.A. New major investments were launched and some are in progress. Financed from EU funds and the state budget they will have a great impact on the regions and the entire country. The Operational Programme Infrastructure and Environment as well as the Regional Operational Programmes set new requirements for the domestic railway network manager.*

*The year of 2013 witnessed some very good outcomes of our investment efforts as well as tangible acceleration of construction projects that are to finish before 2015. The products of these projects will remain in use for dozens of years.*

*Ensuring an adequate safety level is one of the top priorities of PKP Polskie Linie Kolejowe S.A. In 2013, we continued our programmes related to the Safe crossing – “Stop and live!” campaign. It improves general awareness of the risks involved in not being cautious enough while passing through railway crossings and areas. But we have also imposed some obligations on ourselves. Training sessions organised for rail traffic controllers and train dispatchers, application of new technologies and know-how in the projects comprising replacement and modernisation of traffic control infrastructure and devices... – they are just*

*a few elements of the comprehensive programme of improving and enhancing the safety of Polish railways.*

*As regards our passenger-oriented efforts, we are now able to provide detailed information about train traffic. We managed to provide a better access to fresh data through our website and social networking websites. We make sure to inform our clients about planned modernisation work and changes in timetables well in advance; moreover, we post poster timetables online. We do all this for the benefit of efficient railways – an asset that is crucial for the economy of the state and its citizens.*

*The years to come will surely pose new challenges for PKP Polskie Linie Kolejowe S.A. to face. Adapting the Polish railway network to European standards as well as bridging the technological gap between our companies and the European leaders will surely be arduous, work-intensive tasks for our Company. We are well aware of the fact the effects of our work, spread over a period of time, will not manifest themselves until much time has passed.*

*The 2013 Annual Report of PKP Polskie Linie Kolejowe S.A. has been prepared for you with much care and attention to detail. It addresses all aspects of our business. We approach our tasks, including managing the infrastructure of one of the basic transport modes, with the highest diligence and in compliance with binding procedures and the most stringent standards. We know that the degree of our commitment and professionalism may affect people's lives. I give you this document hoping it will make an interesting and enlightening read.*

*Remigiusz Paszkiewicz  
President of the Management Board  
PKP Polskie Linie Kolejowe S.A.*

## Members of the Management Board and the Supervisory Board

### Management Board:

1. **Remigiusz Paszkiewicz**  
President of the Management Board
2. **Andrzej Pawłowski**  
Vice President of the Management Board – Operations Director
3. **Andrzej Filip Wojciechowski**  
Vice President of the Management Board – Restructuring Director
4. **Józefa Majerczak**  
Member of the Management Board – Infrastructure Maintenance Director
5. **Karol Depczyński**  
Member of the Management Board – Financial and Economic Director
6. **Wojciech Folejewski**  
Member of the Management Board – Investment Implementation Director

### Supervisory Board:

1. **Arkadiusz Krężel** - Chairman of the Supervisory Board
2. **Gabriela Popowicz** - Secretary of the Supervisory Board
3. **Piotr Gebel** - Member of the Supervisory Board
4. **Piotr Góralewski** - Member of the Supervisory Board
5. **Irena Marszał** - Member of the Supervisory Board
6. **Jacek Partyka** - Member of the Supervisory Board
7. **Wiesław Pełka** - Member of the Supervisory Board
8. **Ireneusz Piecuch** - Member of the Supervisory Board
9. **Tomasz Warsza** - Member of the Supervisory Board

(as at 30 September 2014)

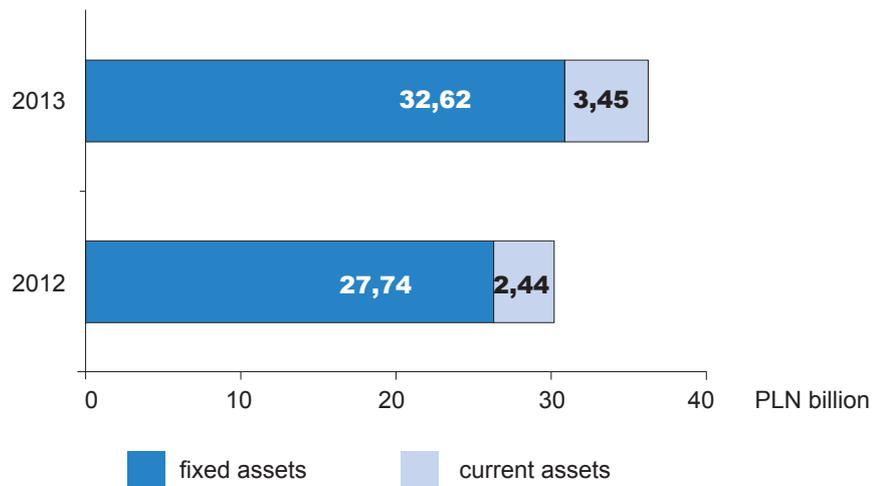
# Financial result

The Company's economic and financial situation was assessed based on financial reports representing the status as at 31 December 2013.

## Company assets

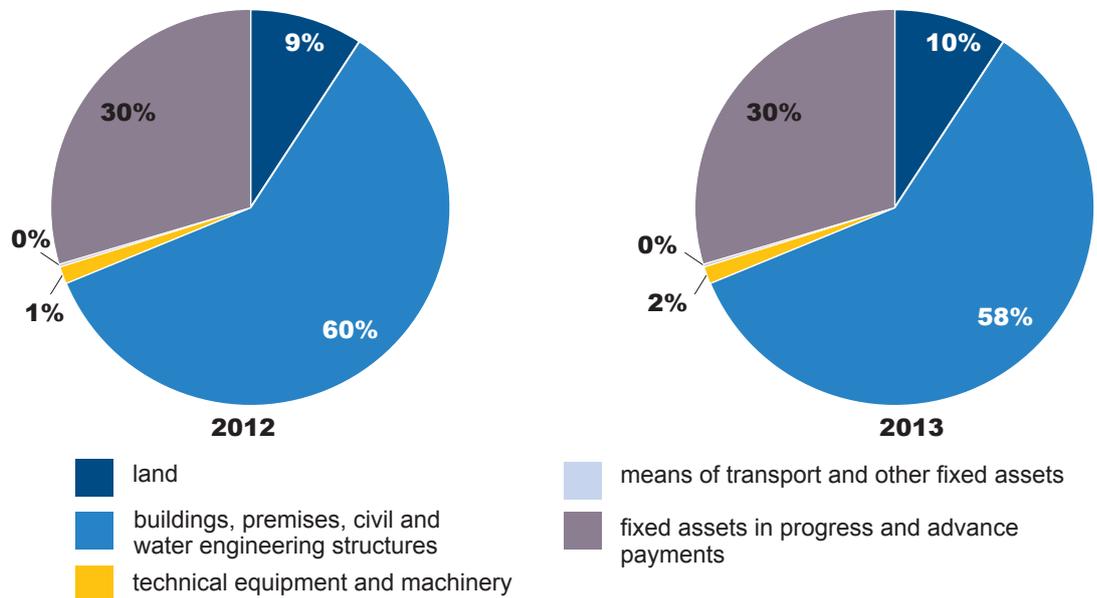
The book value of the assets owned by PKP Polskie Linie Kolejowe S.A. as at 31 December 2013 amounted to PLN 35 065.1 million and was 19.5% higher than in 2012.

The assets of PKP Polskie Linie Kolejowe S.A. in 2012-2013



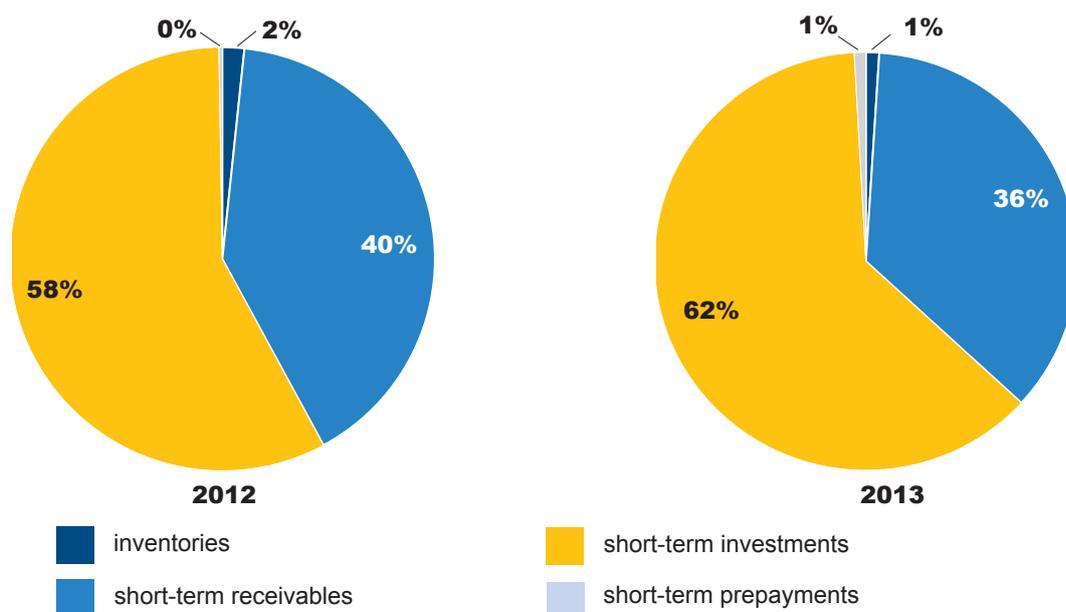
The structure of the Company assets is typical of railway infrastructure managers, namely it comprises mostly buildings, premises, civil and water engineering structures. Similar to 2012, in 2013 the Company's fixed assets comprised almost 90% of its total assets. Over a fiscal year, fixed assets grew by approx. 18% due to the a number of investments having been completed and commissioned on railway lines as well as due to intensified modernisation work.

The structure of tangible assets in 2012-2013



The current assets of PKP Polskie Linie Kolejowe S.A. in 2012-2013 amounted to approx. 10% of all assets. Their book value grew by 41% when compared to the year of 2012. The growth resulted primarily from the balance of cash having been increased with the funds from loans (EIB) earmarked for co-financing and pre-financing modernisation of railway lines as well as the funds from the issuance of bonds for financing and re-financing investment outlays on selected railway lines covered by the Multi-annual Railway Investment Programme until 2015. The raised loans and issued bonds increased the safety of Company's financial liquidity.

Structure of current assets in 2012-2013



In 2013, PKP Polskie Linie Kolejowe S.A. held shares reported as long-term investments in the following subsidiaries:

1. Przedsiębiorstwo Napraw i Utrzymania Infrastruktury Kolejowej w Krakowie Sp. z o.o. (100% of shares in share capital);
2. Dolnośląskie Przedsiębiorstwo Napraw Infrastruktury Komunikacyjnej DOLKOM Sp. z o.o. we Wrocławiu (100% of shares in share capital);
3. Zakład Robót Komunikacyjnych – DOM w Poznaniu Sp. z o.o. (100% of shares in share capital);
4. Pomorskie Przedsiębiorstwo Mechaniczno–Torowe Sp. z o.o. z siedzibą w Gdańsku (100% of shares in share capital);
5. KOW media & marketing Sp. z o.o. (55% of shares in share capital).

The balance value of the assets in question as at 31 December 2013 was PLN 117.6 million.

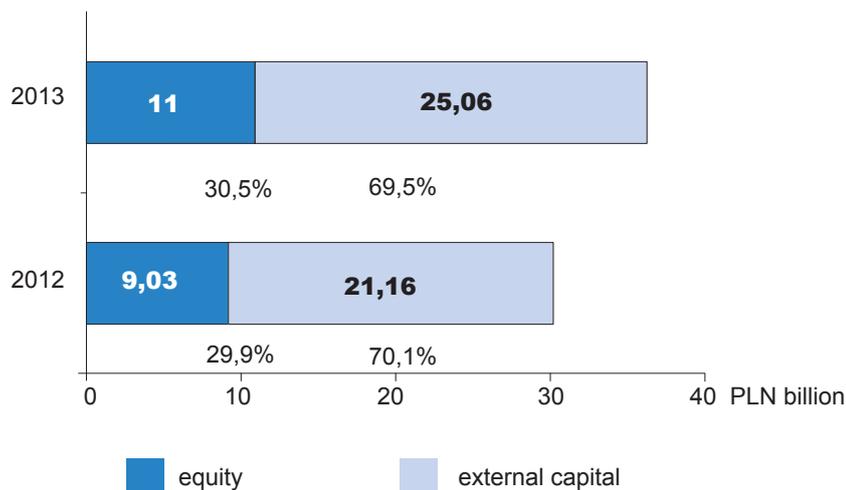
The maintenance and repair companies are the necessary potential of PKP Polskie Linie Kolejowe S.A. that is used to:

1. maintain the required technical condition of tracks;

2. perform modernisation and replacement investments on railway stations and railway routes;
3. respond rapidly to the need to carry out construction work in emergency situations.

## Source of assets financing

The source of financing assets of PKP Polskie Linie Kolejowe S.A. in 2012-2013



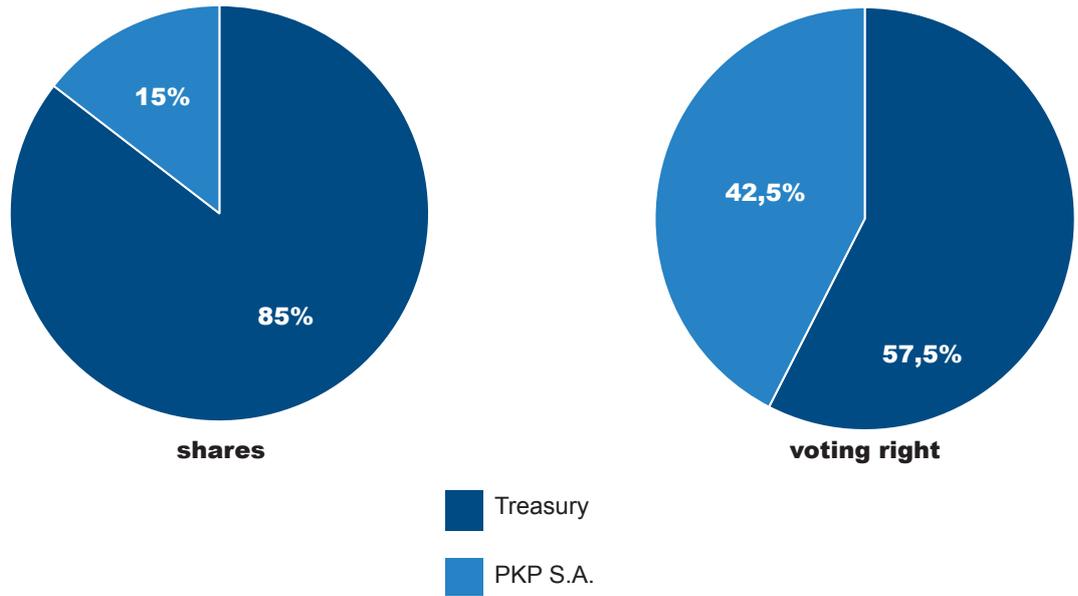
## Equity

In 2013, the Company's equity made up approx. 31% of its assets; in comparison to 2012 it grew by almost 22%, which was a result of:

1. increase in the share capital made on 21 October 2013 by an in-kind contribution of PKP S.A., comprising the right of perpetual usufruct of land and the title to the buildings and structures thereon;
2. creation of reserve capital totalling PLN 2,401.8 million earmarked for increasing the share capital by issuing bearer's shares taken up by:
  - PKP S.A. in return for in-kind contributions in the form of a group of assets;
  - The State Treasury, represented by the Minister responsible for transport issues, in return for the state budget expenditure handed over in 2012-2013 for financing railway lines of national importance.

From the onset of its business activity to 31 December 2013, PKP Polskie Linie Kolejowe S.A. issued – in twenty-three series – 14 228 571 shares, each of a nominal value of PLN 1 000 comprising the share capital of the Company. The shareholders of the Company are the Treasury and PKP S.A.

Shareholder structure as at 31 December 2013 (shares vs. votes)

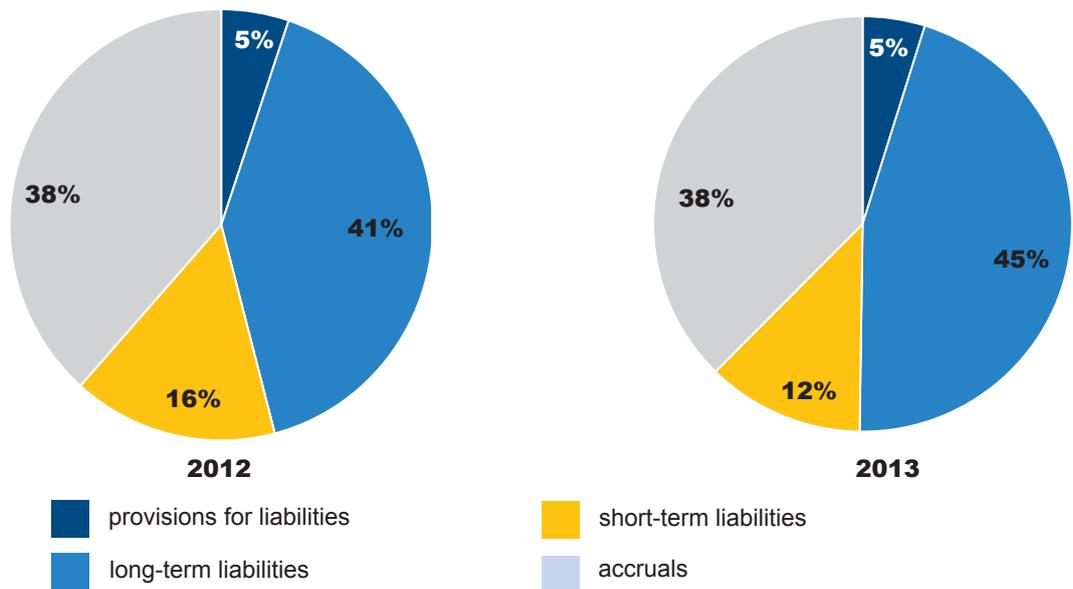


## External capital

The main source of financing assets of PKP Polskie Linie Kolejowe S.A. 2013, just like in previous years, was external capital.

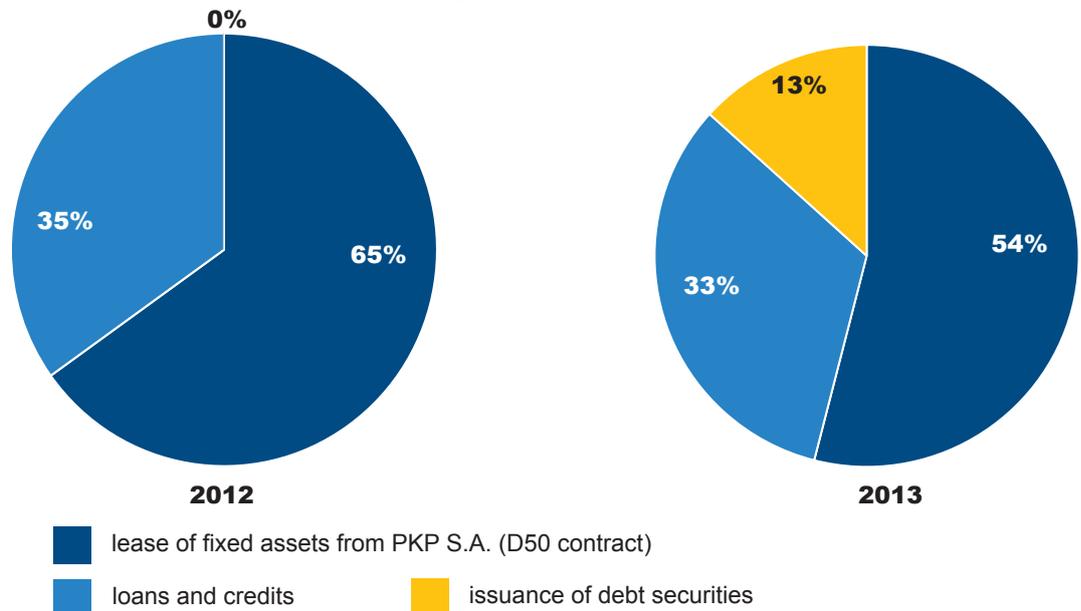
The share of external capital in financing the Company's assets decreased in 2013 (when compared to 2012) by approx. 1%, as a result of smaller short-term liabilities.

Structure of external capital in 2012-2013



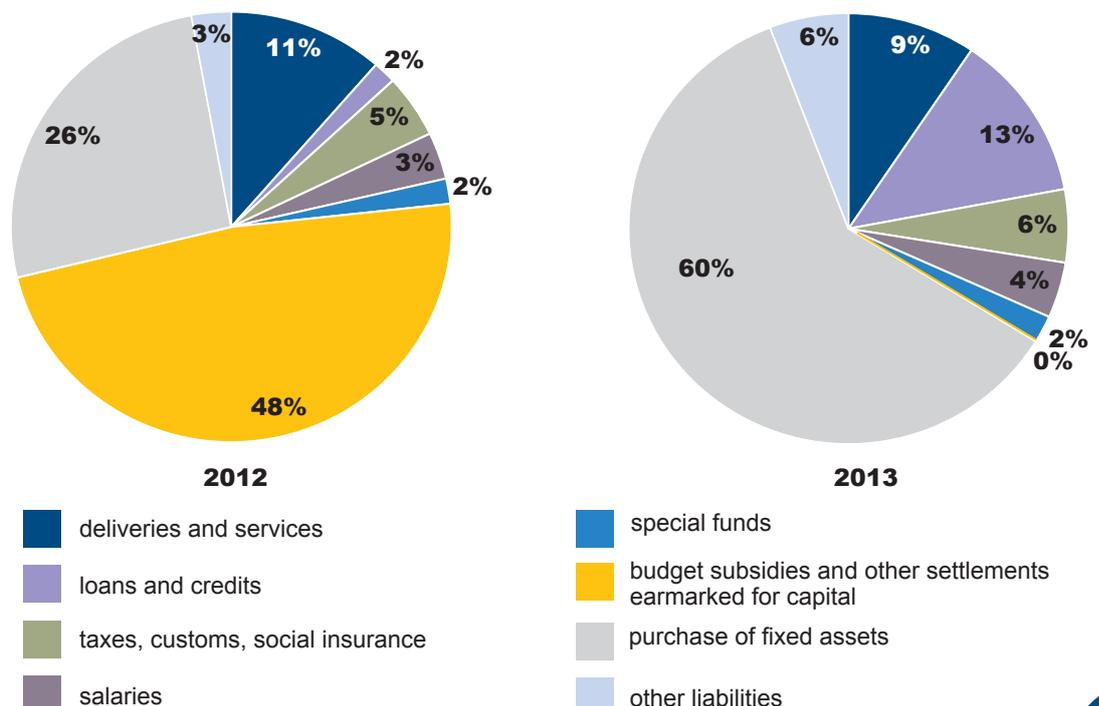
AAs at 31 December 2013, the long-term liabilities amounted to PLN 11 385 million. Approximately 54% of these liabilities comprised the liabilities from the contract concluded with PKP S.A. in 2001 for the lease of railway lines for use against payment along with other real property required to manage these railway lines (contract D50-KN-1L/01). The loans extended by the EIB for co-financing and pre-financing modernisation of railway lines amounted to 33% of the liabilities, while the bonds issued in 2013 for the investment purposes amounted to 13% of the liabilities.

Structure of long-term liabilities in 2012-2013



Short-term liabilities as at the end of 2013 amounted to PLN 3 052.6 million and were lower than in the preceding year by approx. 8%. The recorded decrease resulted from the changes in the presentation of liabilities due to the subsidy received for the construction of fixed assets in 2012-2013. In line with the regulations in force, since 2013 the subsidy value has been presented in the Company's reserve capitals as awaiting registration of the share capital increase.

Structure of short-term liabilities in 2012-2013



## Economic-financial results

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

No.	Items	2012	2013	Difference	
				Value	%
1.	Revenues from sales and equivalent	4 250,9	4 371,2	120,3	2,8
2.	Operating costs	5 083,9	4 961,8	-122,1	-2,4
3.	Profit/loss on sales	-833	-590,6	242,4	29,1
4.	Other operating revenue	353,4	420,6	67,2	19
5.	Other operating costs	357,2	275,5	-81,7	-22,9
6.	Profit/loss on other operating activity	-3,8	145,1	148,9	3 918,4
7.	Profit/loss on operating activity	-836,8	-445,5	391,3	46,8
8.	Financial revenue	121	55,4	-65,6	-54,2
9.	Financial costs	32,1	55,9	23,8	74,1
10.	Profit/loss on financial operations	88,9	-0,5	-89,4	-100,6
11.	Gross/net profit (loss)	-747,9	-446	301,9	40,4
12.	Result excluding depreciation	199	407,4	208,4	104,7

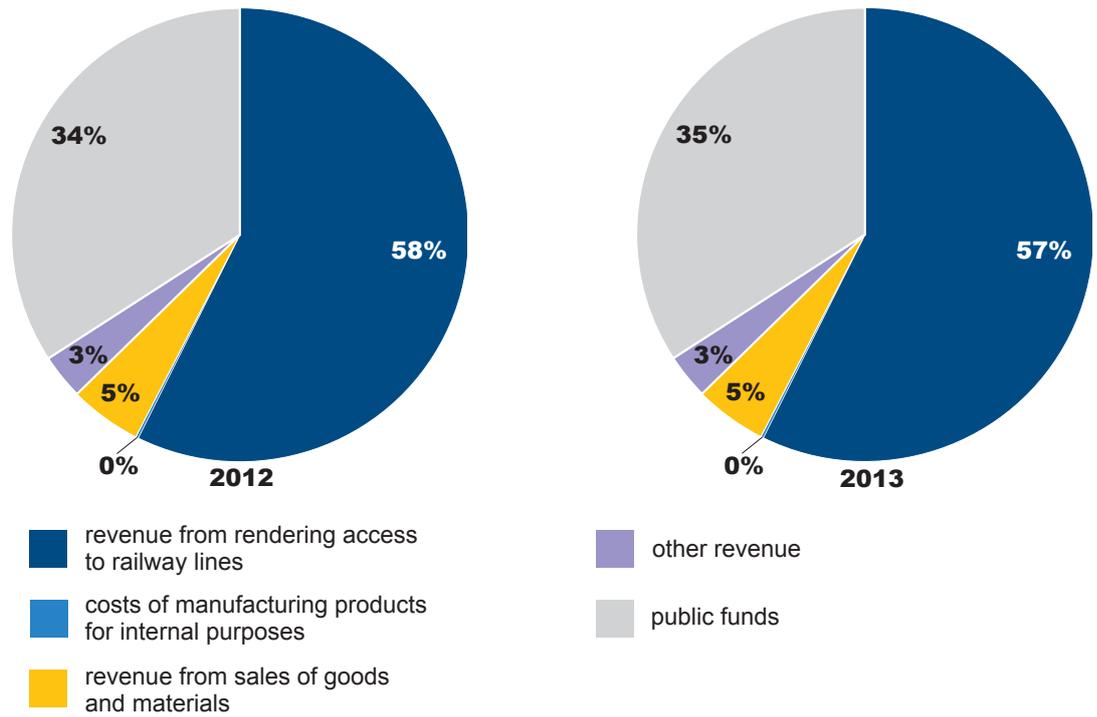
The amount of loss was predominantly the result of the costs that were not taken into account when calculating railway infrastructure access rates. These are, among other, the costs of depreciation on fixed assets financed from non-returnable sources (funds received from the EU, Railway Fund, local government units and budgetary subsidy earmarked for financing investment tasks). They grow markedly due a major increase in investment outlays spent on railway infrastructure. Taking into account the high value of the fixed assets and the resultant depreciation costs, the financial result on operating activity – if this cost was deducted – would be positive, amounting to PLN 407.4 million.

The obtained financial result would then be 40.4% (PLN 301.9 million) better than in 2012.

In 2013, the Company's income from business activity amounted to PLN 4 847.2 million and it covered 92% of the costs it had incurred. The highest position in total income is held by sales revenue and equivalent, including the income on rendering access to railway lines to licensed passenger and freight operators, which amounted to PLN 2 468.3 million. In comparison to 2012, the revenue from rendering access to railway lines was over 1% higher. This increase resulted from the change in railway infrastructure access rates.

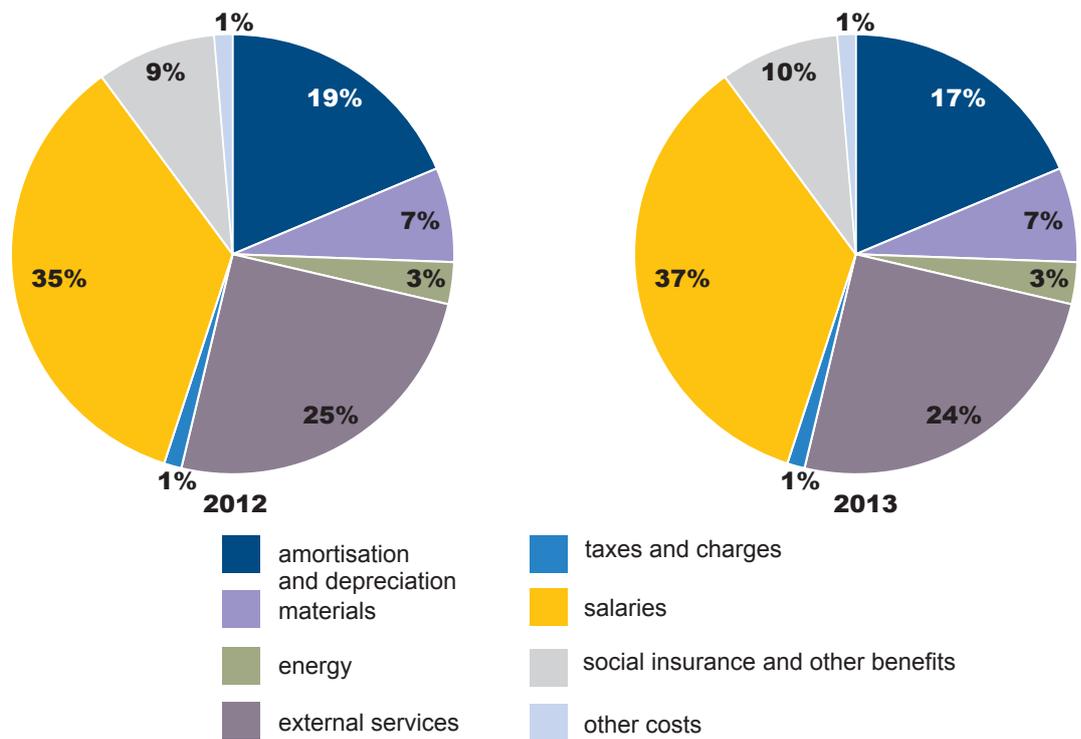
The public funds received by the Company constituted 106.2% of the proceeds 2012. They were spent on maintenance and refurbishment tasks that were necessary to improve railway traffic safety and increase the speed of passenger trains.

## Sales revenue and equivalent in 2012-2013



As result of its business activity, in 2013 the Company incurred costs amounting to PLN 5 293.2 million, namely over 3% lower than in the previous year. Above 44% of these costs were labour costs.

## Structure of expenses by type in 2012-2013



The decrease in the costs of operating activity in 2013 against 2012 can be observed for such items as depreciation/amortisation, material consumption or external services. Moreover, the decrease results from the implementation of the restructuring programme. It assumed centralisation of purchases as well as negotiating more advantageous terms of some contracts, including lower unit costs.

In 2013, it was concluded – based on a ration analysis – that the Company complied with its commercial obligations, paid remunerations on time as well as met other public and legal obligations. Productivity improved as well – a single Company employee could be ascribed the amount of PLN 113 400 of sales revenue. It was PLN 5 700 more than in 2012.

In 2013, under a completed tender for maintenance services for non-traction power engineering devices, a range of services hitherto rendered exclusively by PKP Energetyka S.A. was released to be handled on standard market terms.

Furthermore, more advantageous insurance terms were concluded. As regards Casco insurance contracts for rail vehicles as well as third party liability insurance contracts for the members of the companies managements, the premiums agreed upon were 41% lower than in 2012.

As a result of an open tender, a very good contract for electric power supply was signed for 2014-2015. Through purchasing power on better terms, the financial savings in turnover expected in 2014-2015 will amount to 20% against the year of 2013. The tender was the largest one of this type in Poland compliant with the provisions of the Public Procurement Law.

## Train path sales

PKP Polskie Linie Kolejowe S.A. is the manager of the national railway infrastructure to which it renders access based on unbiased agreements signed with licensed railway operators. Access is granted subject to the principles established in the Act on Railway Transport as well as in the regulation of the Minister of Infrastructure on the conditions of access to and use of railway infrastructure.

The basic product of PKP Polskie Linie Kolejowe S.A. is the timetable sold as train routes arranged upon the order of a railway operator. In 2013, in total 2 368 179 train rides were performed, also on the basis of:

1. Annual Timetable prepared on the basis of applications made by operators. It was updated during its validity period on prearranged dates – 1 670 952 train rides;
2. Individual Timetables developed by PKP Polskie Linie Kolejowe S.A. when there is some throughput available upon request made by individual operators for train routes allocation – 697 223 train rides;
3. PLK Catalogue in line with the parameters adopted by the railway infrastructure manager – 4 train rides.

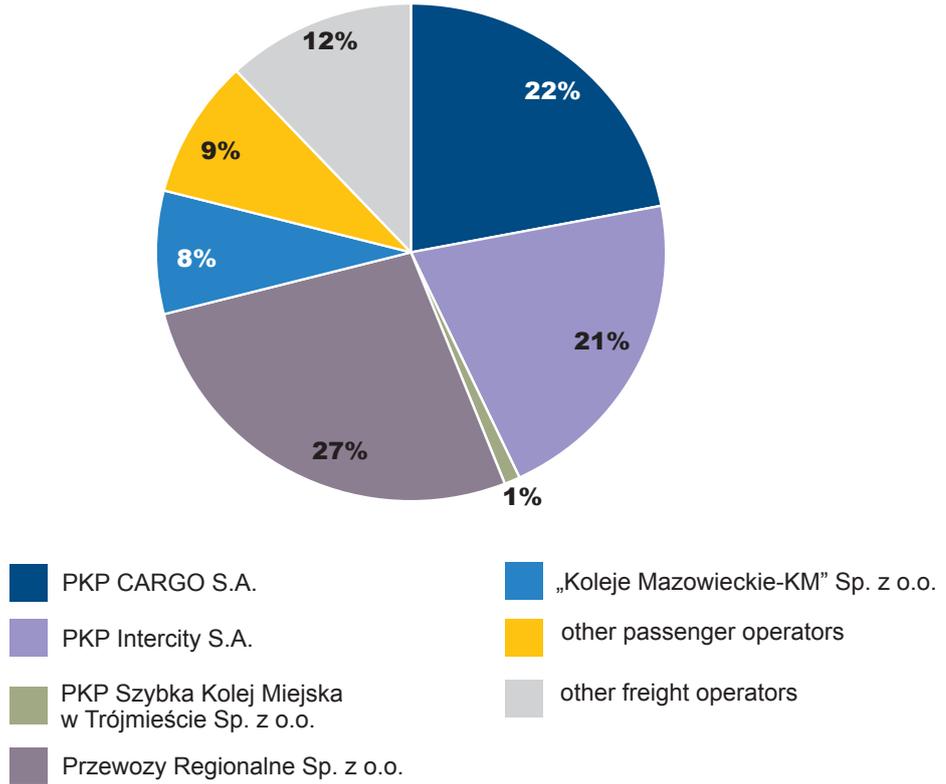
In 2013, the Company made its railway lines available to 76 carriers, including 14 lines for passenger services, 56 lines for freight services and 6 for passenger & freight services. The 10 new clients launched their business activity on the network managed by PKP Polskie Linie Kolejowe S.A.

The basic reference value in terms of measuring access to railway line is operation performance expressed in train-kilometres [train-km]. In 2013, 207.59 million train-km were achieved, including 136.07 million train-km in passenger services and 71.52 million train-km in freight services.

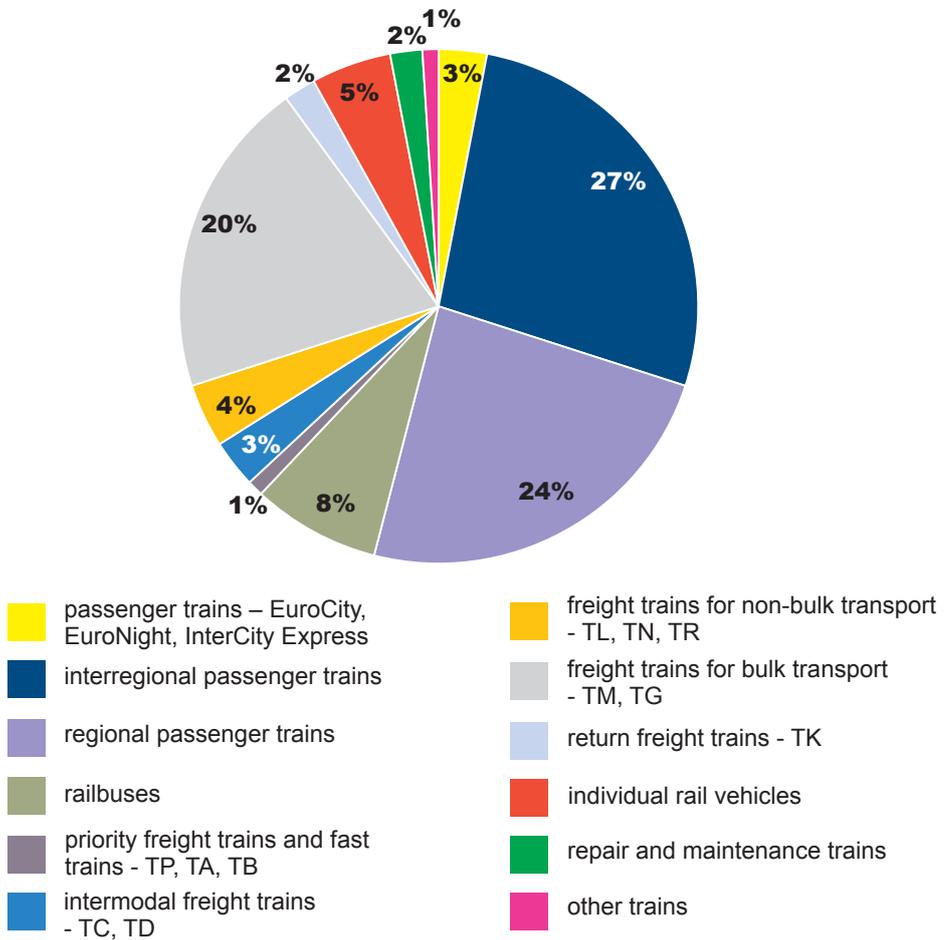
In 2013, the Company recorded:

1. a 3.45% decrease in total operation performance of its clients against 2012 (freight services segment witnessed a decrease of 1.23% while the passenger service segment – a decrease of 4.58%);
2. a stable upward trend in transport services rendered by freight operators from outside the PKP Group, whose share in the entire freight transport segment grew from 32.30% in 2012 to 35.55% in 2013.

Structure of operation performance in 2013 - by operators



Structure of operation performance in 2013 - by train types



As part of the Individual Timetables (IRJ) 28 264 rides of international trains were organised (of which across the Czech border – 12 708, German border – 12 334, Slovak border – 1 723, Belarus border – 653, Russian border – 647, Ukrainian border – 195, Lithuanian border – 4), which is 8% more than in 2012 (23 158 route). Within 24 hours PKP Polskie Linie Kolejowe S.A accepts and performs on average 77 orders for international trains as part of Individual Timetables. Most rides take place between Poland and Germany/Czech Republic (a total of approx. 88%).

International transport services in cross-border traffic in 2013 were performed by 41 operators, who in most cases used the following border crossings: Rzepin - Oderbrücke (Poland - Germany), Zebrzydowice - Petrovice U Karvine (Poland - Czech Republic), Chałupki - Bohumin Vrbice (Poland - Czech Republic), Gubin - Guben (Poland - Germany), Węglińiec - Horka (Poland - Germany), Muszyna - Plavec (Poland - Slovakia) and Międzyzylesie - Lichkov (Poland - Czech Republic).

To make it easier for the operators to use international train routes, the One Stop Shop (OSS) unit 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), offers comprehensive information about the conditions that need to be met to obtain access to the RNE member`s infrastructure as well as to the services and products they have on offer. A client who is interested in an international train ride 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. cooperates with neighbouring railway infrastructure managers in terms of annual and individual timetables in both passenger and freight traffic. Cooperation with RŽD, LG, BC and UZ railways is based on bilateral agreements, while with DB Netz, SŽDC and ŽSR – on bilateral agreements and regulations of international organisations.

Trains rides under Individual Timetables are arranged in a separate way:

1. between PKP Polskie Linie Kolejowe S.A. and DB Netz AG, SŽDC and ŽSR – they are based on a common procedure (24h/day, through agencies of the Railway Traffic Management Centre being coordinated in Warszawa);
2. for the remaining infrastructure managers – through the One Stop-Shop unit at the Railway Traffic Management Centre in Warszawa.

## Oversize cargo

The offer of Polskie Linie Kolejowe S.A. for the operators is complemented with a wide range of services related to the transport of oversize cargo (i.e. out-of-gauge loads and rolling stock and/or axle overload).

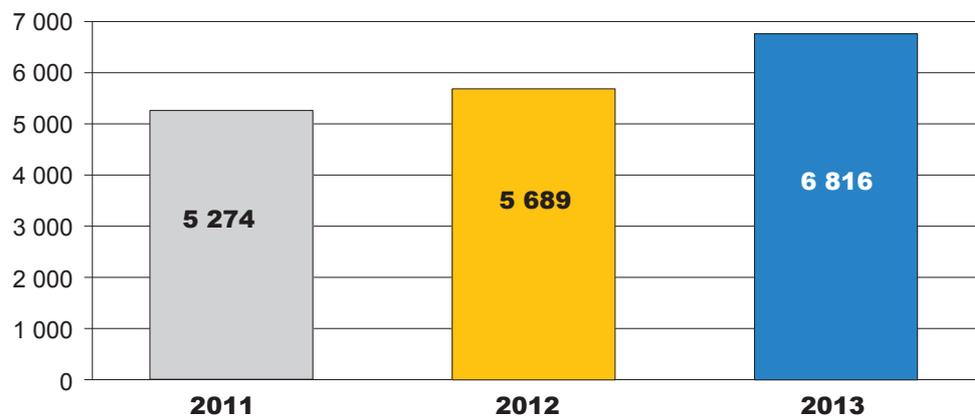
At the request of an operator who would like to have an oversize cargo transported, PKP Polskie Linie Kolejowe S.A. develops and issues terms and conditions for such a service, which are presented in the following documents (depending on the type of transport):

1. "Permit to carry oversize cargo in domestic traffic...";
2. "Permit to carry oversize cargo in international traffic...";

3. "Permit to carry oversize cargo in domestic traffic and order to perform the transport of oversize cargo (address four)..."
4. "Permit to carry oversize cargo in international traffic and order to perform the transport of oversize cargo (address four)..."

The staff of the Railway Traffic Manager Centre accept in the Timetable Development System (SKRJ) the terms and conditions contained in the permits referred to above and develop an adequate timetable (Annual Timetable and Individual Timetable). Moreover, the permits are sent to the Telegrams Edition System (SET) where – through the following systems: Operation Performance Registration System (SEPE) and Train Dispatchers Support System (SWDR), e-SEPE – they are made available for: train dispatchers, traffic orderlies and the staff of the operator in question.

Number of developed "Permits for the transport of oversize cargo (...) in 2011-2013"



Bear in mind, however, that a single "Permit" may be used several times (e.g. in the case of railway transport of high-cube containers).

The data above shows that despite lower transport performance on the network of PKP Polskie Linie Kolejowe S.A. the number of permits has been on the increase; this means that the share of oversize cargo transport in the total number of launched trains is significant.

## Hazardous goods and high-risk goods

The statistic data found in various studies clearly indicates that the amount of hazardous goods carried on rails is much higher than on roads; the safety index for this transport mode is much higher as well. It was possible to reach such a high level of safety through the introduction of continuous supervision over the transport of high-risk goods, while other hazardous cargoes are subject to the notification process.

The staff working for the railway infrastructure manager who are responsible for transport safety (dispatchers, traffic orderlies, signal control operators, gatekeepers at crossings), by carrying out their basic duties, implement the provisions established in the regulations in force and use customized IT systems: SEPE and SWDR.

The application of the procedures in force by particular members of the staff directly involved in the transport of hazardous goods, including high-risk goods, is supervised

and controlled by consultants for safety of transport of hazardous goods by rail at the level of Railway Lines Plants and Railway Traffic Management Centre; whereas expert supervision over the entire operation is in the hands of Technical Rescue and Fire Protection Unit) at the Company headquarters.

## Infrastructure

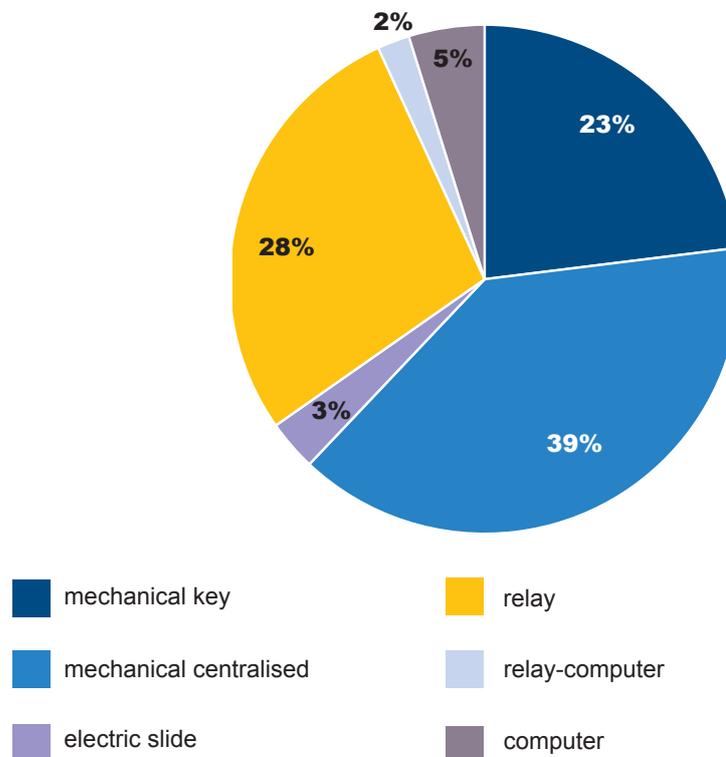
### Automation and Telecommunications

The relay and mechanical systems of railway traffic control are still the most frequent on the railway lines managed by PKP Polskie Linie Kolejowe S.A. The systems can be divided into three basic functional groups:

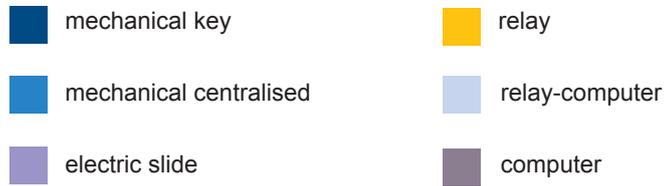
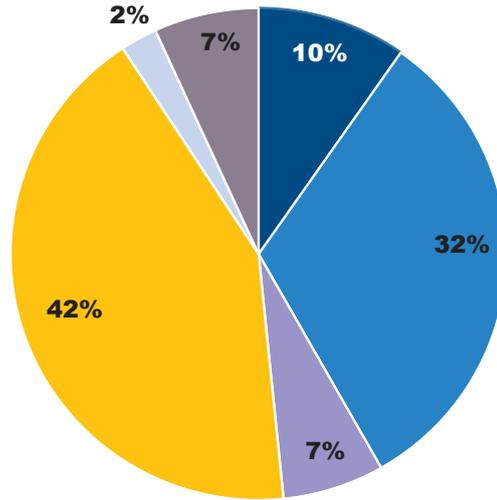
1. station devices, mounted on stations and signal boxes;
2. lineside devices controlling train traffic on railway routes;
3. traffic safety devices at railway crossings.

The dynamic development of IT technology and its vast applications in the systems of automatic control and management made it possible to use new railway traffic control systems and devices based on an advanced microchip technology. The latest generation of these devices comprises computer systems and relay-computer (hybrid) systems which combine cutting-edge features, reliability and extended functionality in addition to ensuring a high level of traffic safety. Computer systems of railway traffic control were installed in 148 signal box control areas and they control 3 287 switches and 3 949 light signals. Remote control devices cover 987 km of railway lines and 100 railway stations, on which safe train rides are monitored by 28 local control centres.

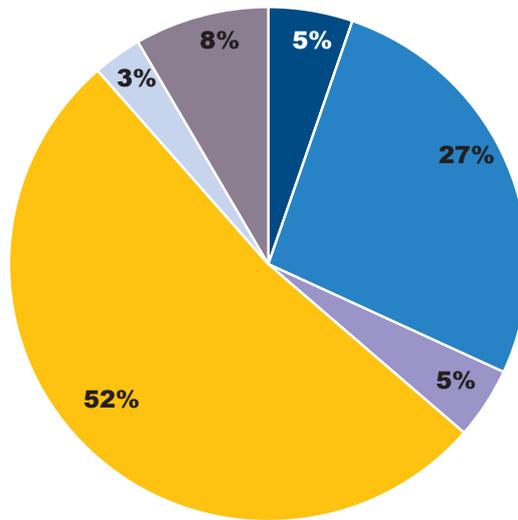
The signal box control areas in various types of station traffic control devices



Switches in various types of station traffic control devices



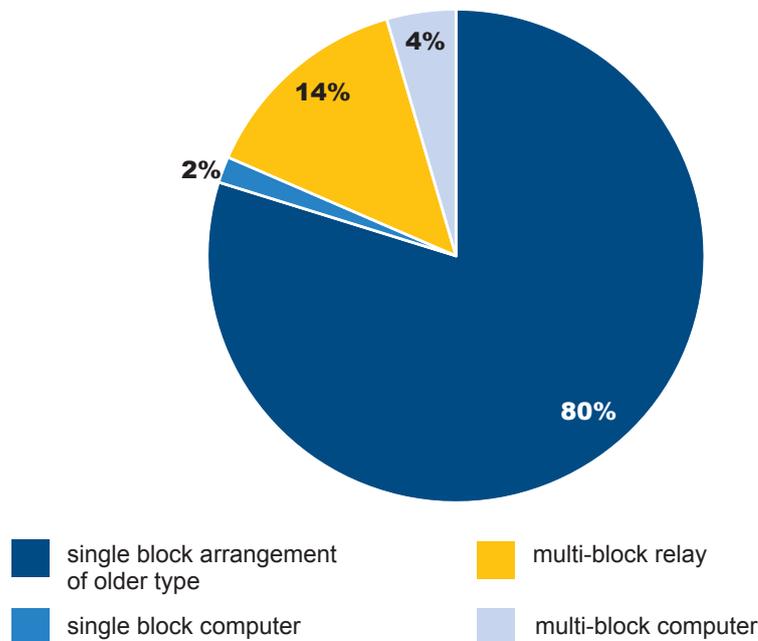
Light signals in various types of station traffic control devices



## Groups of railway traffic control devices in numbers

No.	Station devices	As at 31 December 2013		
		Control area	Turnout	Signalling device
1.	Mechanical locking	710	4 679	2 478
2.	Mechanical centralised	1 203	15 417	12 543
3.	Electrical slide	99	3 189	2 115
4.	Relay	860	20 387	24 578
5.	Relay-computer	63	1 154	1 437
6.	Computer	148	3 287	3 949
7.	Total	3 083	48 113	47 100

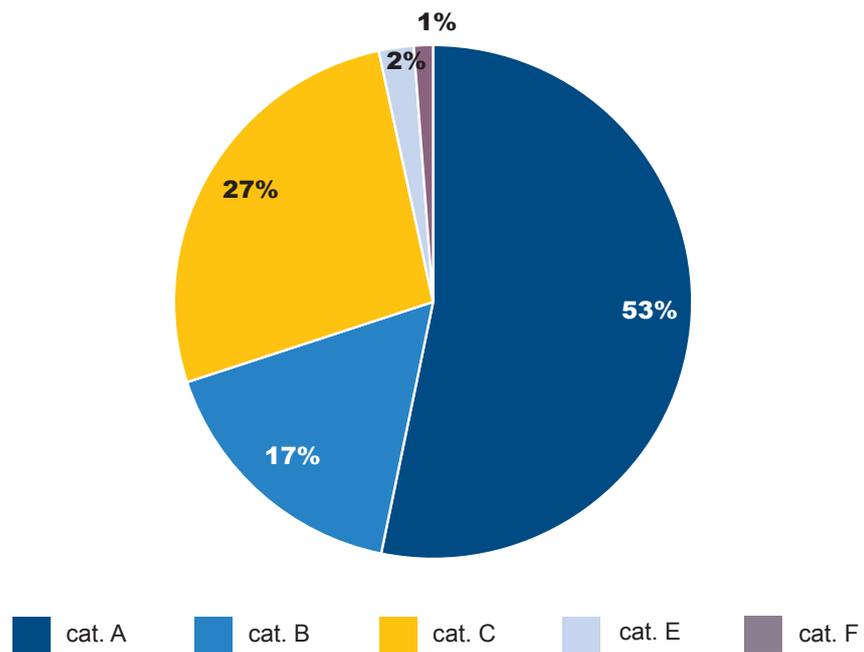
## Types of signalling block systems



The computer technology is also dominant in traffic safety devices installed on level crossings. Also in their case, the devices are controlled by microchips, feature auto-diagnostic systems, systems of registration of all operation events as well as solutions controlling the operation of the entire system. On the railway crossings managed by PKP Polskie Linie Kolejowe S.A. so far 814 sets of such cutting-edge technical solutions have been installed (cat. B crossings).

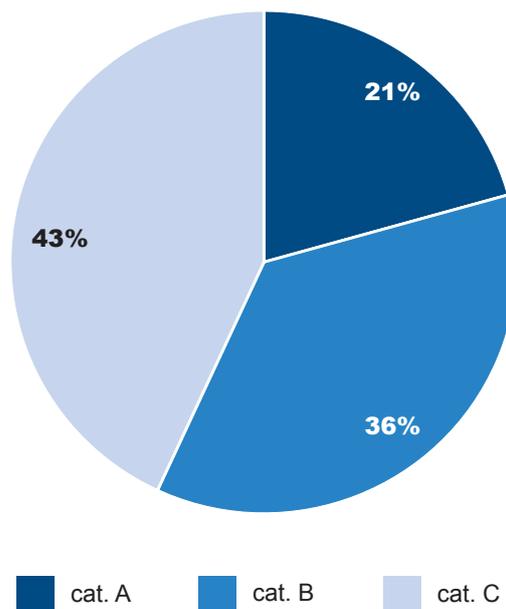
The safety of train rides between stations is ensured by block signalling systems – single block and multi block – which have been mounted on 15 065 km of railway lines. Single-block systems are predominant – 12 285 km of railway lines have them, while 259 km have systems utilising computer-controlled technologies. Multi-block systems have been installed on 2 780 km of railway lines, of which 677 are computer-based blocks, featuring independent automatic diagnosis systems, controlling and recording technical and operational parameters of the system.

Division of level crossings with traffic protection devices into categories



PKP Polskie Linie Kolejowe S.A. is committed to improving the technical condition of railway traffic control devices. In 2013, 30 signal boxes were upgraded, including 290 centralised switches. Also 144 km of railway lines were upgraded, which now feature automatic block signalling and crossing devices. As a result of modernisation of level crossings, 58 systems ensuring safety on level crossings were put into use, of which 12 on cat. A crossings, 21 on cat. B crossings, and 25 on cat. C crossings.

Percentage share of modernised crossing devices by categories



To ensure a high level of train traffic safety, the upgraded railway lines were equipped with systems of rolling stock emergency status detection. The devices, depending on their diagnostic configuration, can detect:

1. failures of axle bearings (GM function);
2. failures of block and disc brakes (GH function);
3. deformation of wheel rims (PM function);
4. dynamic overload (PD function);
5. excessive axle and line loads (OK function).

In 2013, the systems of rolling stock emergency status detection were upgraded and replaced on the Warszawa - Gdynia section of railway line E65, by adapting the devices to train speeds of  $\geq 200$  km/h. The deployed devices are fully compatible with the technical requirements of interoperability specifications and make it possible to monitor HS rolling stock (EIC Premium).

Fast access to information about bad technical condition of rolling stock and about irregularities in loading of freight cars was provided by the IT system SID. It is a superior layer for independent operating diagnostic devices. The SID system is feeding 128 systems of rolling stock emergency status detection on main railway lines. Access to information from the system is granted to all licensed railway operators under signed agreements.

In 2013, development programmes continued with respect to implementing cutting-edge railway traffic control devices. Establishing cooperation with producers of railway traffic control solutions and scientific units made it possible to put eight new types of devices and systems of traffic control into operation on the railway lines managed by PKP Polskie Linie Kolejowe S.A. Among them there are two modern, automatic systems of ensuring traffic safety on crossings: RASP-4.4Ft manufactured by Zakłady Automatyki KOMBUD from Radom and RBUT-PL manufactured by Thales Polska from Poznań.

The group of currently used line systems of railway traffic control was expanded with the digital ATC block of the CBL2010 type manufactured by SIG-MONT from Katowice, while the group of station systems – with an upgraded system of computer station devices of the ESTWL90 5 type manufactured by Thales. In 2013, the certification process of two types of devices commenced: system of axle calculation, type: UniACI, developed by Voestalpine TENS, and counter system of non-occupancy control SKZR-2 by KOMBUD.

In 2013, PKP Polskie Linie Kolejowe S.A. continued its work in the area of automatic control devices on railway network humps, aiming at boosting their reliability, increasing their availability and diagnostic susceptibility. The track brake machine rooms on four humps were refurbished. The completed work made it possible to maintain operational efficiency of humps, prevented oil leaks and reduced power consumption as well as the necessity to carry out maintenance; it also extended operational efficiency of particular elements and enabled the introduction of technical diagnostics of the system.

In 2013, PKP Polskie Linie Kolejowe S.A. completed the work on the introduction of new generation of LED indicators to railway signalling systems.

For the first time they featured the function of automatic, smooth adjustment of signal image contrast and light brightness. These indicators were the first to obtain the

permit to be put in operation, issued in line with the safety management procedure SMS-PW-17. Under the procedure, the process of obtaining the permit for operation on the railway lines managed by PKP Polskie Linie Kolejowe S.A. (supervised by experts) was also completed for warning systems at work sites of MINIMEL 95 and MINIMEL LYNX types, made by the Swiss Company SCHWEIZER ELECTRONIC AG. Application of these systems made it possible to run trains at a full timetable speed on an adjacent track, next to the track under repair.

In 2013, all analogue conversation recorders of the Irys type were replaced with digital ones. To this end, a contract was signed for delivery, assembly and launch of modern control panels in 2013-2015 (a total of 450 items), used by traffic controllers. The newly installed control panels allow recording of conversations and events performed when using them. They will be covered with a network of remote supervision and management with an option to play back conversations and full supervision over the correctness of their work.

PKP Polskie Linie Kolejowe S.A., as an entity responsible for the implementation of ERTMS (European Rail Traffic Management System) in Poland, continues the process of implementation of projects related to the deployment of ETCS (European Train Control System) and GSM-R (Global System for Mobile Communications – Railways), co-financed by the European Union under the Operational Programme Infrastructure and Environment and the European Transport Network (TEN-T) programme. Implementation of these projects will contribute to improving railway traffic safety.

As part of continued efforts related to the implementation of ERTMS system in Poland, in 2013 the implementation of ETCS Level 1 system was completed on the section of railway line E65 (CMK): Grodzisk Mazowiecki - Zawiercie, which enabled reaching a train speed of 200 km/h. Moreover, the deployment of ERTMS/ETCS and ERTMS/GS-R on railway line E30 continued, where a contract was signed with PKP Intercity S.A. and PKP CARGO S.A. for giving access to locos to test the trackside ETCS installation. The acceptance of applications enabling adjustment of EBILOCK 950 to cooperate with ERTMS/ETCS Level 2 was completed, along with the protocol Euroradio+/Subset098 on the Warszawa - Gdynia section of railway line E65.

## Electrical power devices

### Economic situation

Power devices managed by PKP Polskie Linie Kolejowe S.A. in 2013.

No.	Items	Measurement unit	Years	
			2012	2013
1.	Traction network devices			
	Length of electrified railway lines	km	11 782	11 706
	Length of traction network	tkm	24 914	24 835
	Traction network disconnectors	items	20 065	19 876
	incl. controlled	items	13 213	13 525
2.	Direct current devices 3 kV (leased by PKP Energetyka S.A.)			
	Traction substations and sectional cabins	items	11	11
	Modernised traction substations and sectional cabins	items	26	26
3.	Electrical heating of turnouts			
	Single turnouts incl. locks	items	30 322	30 070
4.	Lighting devices of railroads and electrical installations in infrastructure-related structures			
	Points of external lighting	items	189 560	190 276
	Installation points and internal lighting	items	189 034	193 525
5.	MV distribution lines:			
	Lineside power supply line	km	387	387

### Assessment of the technical condition of electrical power devices

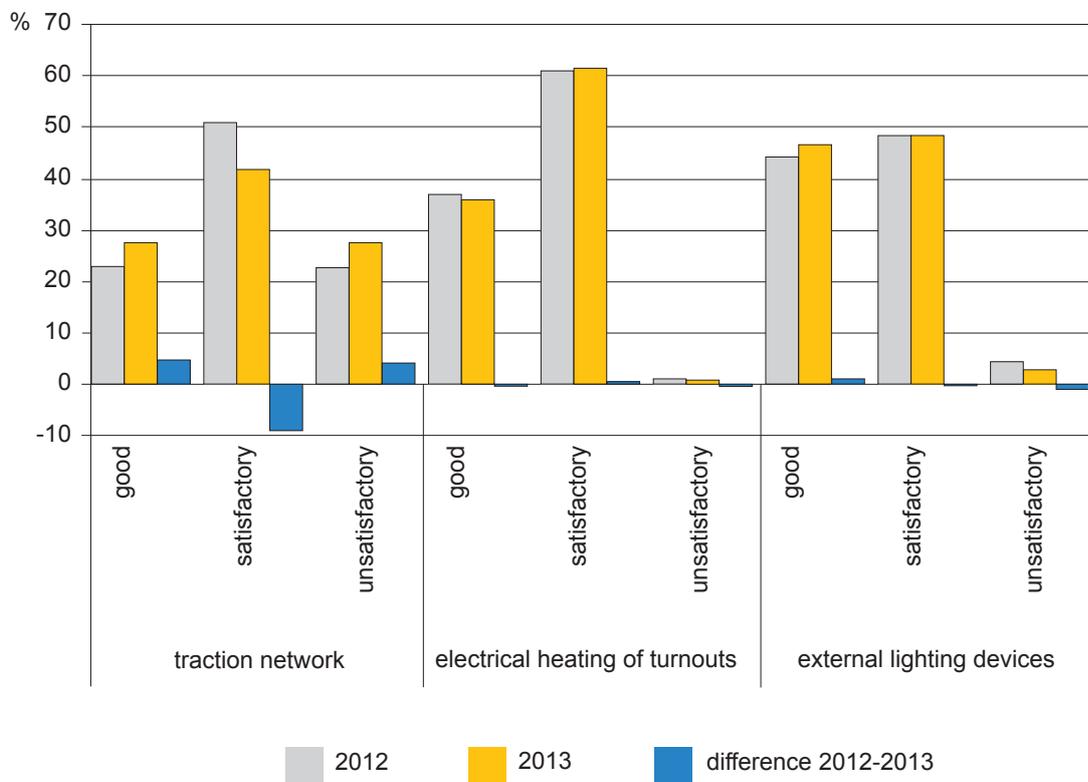
In order to better and more effectively manage power devices used by PKP Polskie Linie Kolejowe S.A., a set of assessment criteria has been introduced to evaluate their condition. The four grade scale is based on how long the devices have been in service (the 30-year-long operation period of power devices was adopted as the basic value):

1. good condition – this grade is given to devices meeting the following criteria:

- less than 50% of the anticipated operation period;
- devices have the technical and operational parameters that are compliant with the standards and requirements established for such devices;

- devices do not require renovation with the exception of those resulting from normal operational wear and tear (e.g. of the contact wire).
2. satisfactory condition – this grade is given to devices meeting the following criteria:
    - exceeded 50% of the anticipated operation period;
    - devices have the technical and operational parameters that are compliant with the standards and requirements established for such devices;
    - devices require replacement of worn elements as part of scheduled repair/renovation work (e.g. of the contact wire, catenary, isolators).
  3. unsatisfactory condition – this grade is given to devices meeting the following criteria:
    - exceeded anticipated operation period;
    - technical condition of the devices permits their safe operation provided that more frequent periodic inspections are performed;
    - devices require comprehensive modernisation/renovation work.
  4. inadequate condition – this grade is given to devices meeting the following criteria:
    - given the degree of their use, devices fail to meet the required technical and operational parameters;
    - due to the risk of breakdown and safety risk the devices should be put out of service.

Technical condition of the power devices



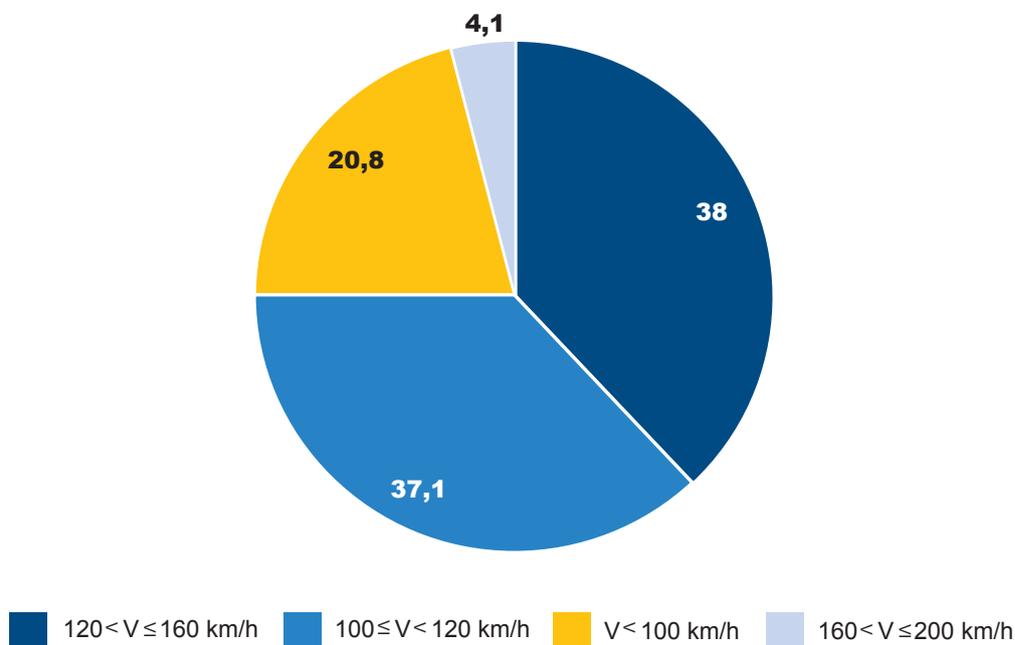
The percentage difference (decrease) between the number of devices that received the satisfactory grade in 2013 (when compared to 2012) results from the following:

1. some of the devices were given the good grade due to completed renovation work and investments;
2. a large number of devices were given the unsatisfactory grade due to the ageing process.

The smaller number of external lighting devices in the unsatisfactory condition results from completed programmes, e.g. replacement of worn fixtures and posts under the “Restructuring and development of PKP Polskie Linie Kolejowe S.A.” programme aimed the cutting down the Company’s operating costs.

## Traction network

Traction network division based on speeds



Of the total number of 24 835 track-km (tkm) of the traction network, approx. 7 200 tkm has been in operation for less than 15 years, 10 500 tkm – for 16-30 years, and 7 100 tkm – longer than 30 years.

## Non-traction electrical power devices

More and more of turnout electrical heating devices are being equipped with weather stations, which streamline their utilisation. This results in significant reduction of energy consumption. Currently 59% of turnout electrical heating devices are automatically controlled, while the rest of them – manually.

The year of 2013 witnessed the continuation of the programme launched a few years ago, comprising replacement of fixtures and poles of external lighting infrastructure. As part of renovation work, 5 620 fixtures were replaced with power efficient units along with 2 395 light poles. These measures ensure adequate amount of light in

railway areas as well as help reduce power consumption by approx. 2.2 GWh/year, which also means bringing down the costs of purchasing electric power.

## Power utilisation and costs of purchase

PKP Polskie Linie Kolejowe S.A. is taking numerous measures to improve power efficiency of the Company's operation.

In 2013, the largest ever open tender in Poland was held aimed at "Purchasing electricity on a free market basis" (TPA in electricity purchases). The procedure of changing the supplier for approx. 15 300 units of power collection points was completed.

Making purchases based on the TPA principle makes it possible to:

1. make substantial financial savings in 2014-2015 with respect to power trade by approx. 20% versus the year of 2013;
2. streamlining documentation management regarding electricity supplies.

The tender procedure completed in 2013 that covered maintenance of non-traction power devices meant that the services that up to that point had been rendered by just one contractor would be performed on the free market basis.

Moreover, supervised operation was performed of the test monitoring station of pantographs technical condition in work conditions; moreover, the accuracy of conditions was verified again with the results provided by operators.

During the 2013 renovation of lighting infrastructure at railway crossings, composite material posts were installed that boast far greater durability that meets the most stringent passive safety standards applicable to road structures. Application of composite material structures in railway areas reduce the costs of maintaining external lighting and contribute to improved safety of drivers at railway crossings. It will result from reduced effects of accidents involving collisions with road vehicles, while protection class 2 of these devices means that the risk of electric shock suffered by unauthorised persons will be far lower.

In 2013, measures were taken to implement new technologies and products that would enhance functioning and safety of railway traffic, such as support structures for overhead lines that have got closed profiles or are made of vibro concrete that prevent access of unauthorised people.

## Winter protection of railway lines

Intensive snowfall, low temperatures as well as strong winds may disrupt operation of trains on railway lines due to difficult process of ensuring passability of tracks being covered with snow. Moreover, railway infrastructure devices require more efficient repairs under such circumstances (track superstructure, traffic control devices and traction network). PKP Polskie Linie Kolejowe S.A. takes significant measures to mitigate the consequences of weather conditions. The railway lines of special economic and social importance are particularly well protected in winter.

The railway lines have been divided into three winter maintenance groups:

1. group 1 – 16 300 km of tracks;
2. group 2 – 6 300 km of tracks;
3. further groups – 4500 km.

The traffic of commuter trains transporting members of local communities to workplaces and schools as well as transport of coal, other fuels and of food products is treated preferentially. PKP Polskie Linie Kolejowe S.A. delegates 15 500 people (own employees and contractors) to performing work aimed at ensuring railway lines protection in winter. The basic element of technical protection measures is heavy winter service machines of which the Company owns 166 units:

1. 16 winter service machines collecting snow directly onto hopper freight cars;
2. 84 snow ploughs;
3. 66 snowblowers.

The deployment locations as well as routes of the machines have been established. When necessary, the machines are transported to problem areas. Moreover, PKP Polskie Linie Kolejowe S.A. owns construction machines, road vehicles, motorized draisines and other railway vehicles used in winter service – in total 912 units. Rapid removals of breakdowns of track superstructure and traffic control devices are handled by 177 separate mobile service units. Defects of traction network are removed by 88 centenary service trains, 18 of which are equipped in devices removing ice from overhead lines, while 28 – devices removing hoarfrost. Adequate operation of turnouts in winter conditions is possible thanks to almost 16 000 fixed power heating devices having been installed. All turnouts are greased with a product containing substances protecting movable parts of turnouts against freezing. The places exposed to being covered with snow (in total 1 227 km of tracks) are protected with snow shields – fixed or movable. Moreover, the Company performs snow removal in all locations where passenger service takes place, such as platforms, footbridges and pedestrian crossings (their total surface is 5 million sq m); however 70% of these tasks are outsourced.

In the winter protection period (15 Nov. – 30 March), depending on the impact of weather conditions on train traffic, the winter protection coordinator may declare one of the three phases of winter service operation (the so-called “winter alert”). Specific phases call for a specific number of staff, machinery and snow clearing equipment to be put into service.

## Railway technical rescue service and fire protection service

Safety of train traffic is the absolute priority. All the actions taken by PKP Polskie Linie Kolejowe S.A. in order to ensure a high technical standard of the railway line network it manages take into account effective system of railway technical emergency services as well as fire prevention solutions.

The company has in total 20 units of emergency service including 10 special-purpose trains available 24/7, as well as 10 special-purpose trains deployed whenever necessary. These trains are equipped with:

1. train cranes, type: EDK 750, EDK 1000, EDK 2000
2. crawler tractors, type: WZT-2 and WZT-1, transported on platform freight cars;
3. road-rail vehicles;
4. self-propelled rescue technical service vehicles, type: WM-15A/PRT (forward and backward driving);

5. hydraulic devices capable of rolling stock re-railing and auxiliary devices;
6. technical and auxiliary freight cars to transport the re-railing machinery.

The equipment combined with highly competent technical staff guarantee interoperability and efficiency of restoring the passability of railway lines. These two components enhance safety and provide protection against the outcomes of breakdowns as well as technical and environmental disasters.

In 2013, the technical rescue service units took part in 184 operations comprising removal of railway event consequences. In addition to their basic operation, without detriment to their full availability for rescue service, the units offered support in re-railing, hauling, removal and rotating of all types of rolling stock. Moreover, they participated in various simulated rescue tests in railway areas in cooperation with the State Fire Service units and other units managed by the local authorities.

For PKP Polskie Linie Kolejowe S.A. – as the manager of the national network of railway lines, who also participates in train transport of hazardous goods – ensuring the top safety level of its operations is the crucial thing. This is done by ongoing development of its employees' qualifications. They are the safety advisers on hazardous goods transport by rail who work in all Railway Line Plants, Railway Guards (Straż Ochrony Kolei – SOK) Headquarters, as well as in Train Traffic Control Centre. The Company aims to ensure the optimum safety level whenever transport of hazardous goods by rail is involved.

Moreover, the Company is focused on identification of threats, irregularities and minimisation of consequential risks. Improving safety of hazardous goods transport in the managed area is done by planning and implementing corrective measures.

The initiatives started by the Company translate into high quality of our services as well as the competences of our staff, but their basic outcome is the high safety level of our services – especially with respect to transporting hazardous goods by rail.

## Track Machinery Plant

### Operation of high-power track machinery, welding of rails and machine repairs

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 has specialist machinery and devices as well as process lines for welding rails into sections of up to 210 m long. Maintenance of railway lines and engineering structures along with investment tasks are implemented using heavy duty specialist machinery for track and subgrade work. What is crucial in the case of machinery groups is that repairs are carried out in a single take, without the need to disassemble the railway track; this significantly reduces the repair time and helps maintain uniformly high railway track parameters. This is especially important in the context of environmental protection and impact on the railway lines surroundings: there is no need to disturb the structure of the areas adjacent to the section under repair, to destroy access roads or to establish haul roads for transporting materials and spoil.

Rails are welded in specialist units – welding machines in Skarżysko-Kamienna, Kędzierzyn-Koźle and Bydgoszcz.

For several years workshop of Track Machinery Plant in Kraków has been participating in repairing rail grinding trains for the Swiss Company SPENO and it performs repairs of own heavy duty machines.

Track machines and welding machines are operated by a highly experienced and qualified team of workers, which ensures quality of the performed work meeting the most stringent expectations of clients. The confirmation of the quality of the procedures used in the Plant is the Certificate EN ISO 9001:2008.

## Diagnostics

Diagnostic measurements and tests are the basis for assessing the technical condition of railway infrastructure and planning maintenance and repair processes.

During these processes current technical parameters of infrastructure elements are determined to analyse their compliance with prescriptive standards and established safety tolerances.

Diagnostics and assessment of the technical condition of railway infrastructure are handled by:

1. diagnosticians employed at Railway Line Plants who – using portable tools and devices – make measurements and tests of subgrade, track superstructure, engineering structures, railway buildings and structures as well as power and railway traffic control devices and networks;
2. Diagnostics Centre in Warszawa – a specialist unit carrying out measurements and diagnostic tests using specialised equipment on bogies, rail vehicles and rail-road vehicles.

The Diagnostics Centre in Warszawa ensures railway traffic safety of the network of PKP Polskie Linie Kolejowe S.A. by making measurements and analysing the technical condition of railway infrastructure in five areas:

1. diagnostic measurements of track superstructure (track geometry) and railway infrastructure elements (clearance outline), measurements of longitudinal and vertical rail profiles (the so-called waviness) and other specialist measurements, e.g. coarseness or rigidity;
2. flaw detection in steel elements of superstructure (looking for and revealing surface and internal flaws and defects in rails, elements of turnouts and in rail joints);
3. functional diagnostics of automatic control devices by simulating rolling stock emergency conditions;
4. welding of rails and turnouts – supervision, control and assessment of performed rail joints as well as field and lab tests of joints quality;
5. acceptance of railway superstructure elements of required quality to be used in railway infrastructure.

In 2013, 148 employees of the Diagnostics Centre performed – as part of their primary business – among others:

No.	Task	Quantity	Measurement unit
1.	Measurement of horizontal and longitudinal track geometry in plan and profile, using two measuring vehicles EM 120	38 868.8	km of track
2.	Inspection of rail internal structure in a track using a flaw detection wagon	11 781.9	km of track
3.	Inspection of rail internal structure in a track using a flaw detection bogie	36 870.8	km of track
4.	Specialist flaw detection test of railway superstructure elements	Welds	2 922 items
		Turnout profiles	483 items
		Rail profiles	784 items
			130 828 metres
5.	Test of rail waviness	264.8	km of rails
6.	Control of operation of axle welding sensors by DSAT wagon which simulates an axle-box breakdown	140	devices
7.	Participation in bridge structure inspections using a specialist Volvo - SRS Svabo vehicle, for the purpose of inspectors from Railway Lines Plants	123	structures
8.	Lab and field tests of railway superstructure elements	158	items

9.	Trainings and courses in rail welding and welding supervisions		135	people
			12	courses
10.	Periodic and certifying exams in rail welding		219	people
11.	Instructions and issuing competence certificates, identification cards for welding supervision		176	items
12.	Trackmeter calibration		560	items
13.	Technical acceptance of railway superstructure elements	Turnouts	685	sets
		Various elements for turnout production	1 567	items
14.	Technical acceptance of railway superstructure elements in field (e.g. with a digital rod)	Thermite welds and welds	1 699	items

Gaining information about railway infrastructure parameters is the basic activity of the Diagnostics Centre; its tasks are planned on an annual basis in compliance with obligatory regulations and demand from the maintenance units.

The year of 2013 was a beginning of the period of implementation of cutting-edge measurement technologies in railway infrastructure diagnostics:

1. a half of the formerly used flaw detectors (25 items) were replaced with modern units featuring electronic road counters, GPS, 3D imaging of detected flaws and continuous recording of measurement signals;
2. last December the modernisation of specialist rail vehicle was completed that is used to make photogrammetric measurements of railway outline limits. A modern system of spacing measurement with a laser scanner was installed; the laser is supported with a system of continuous photogrammetric recording, locating with GPS location tracker. The vehicle features a module of optic measurement of track geometry integrated with the systems of clearance outline assessment. After successful operation trials, the vehicle will be sent to perform measurement tasks on the network of PKP Polskie Linie Kolejowe S.A. in 2014;
3. digital base of diagnostic data was developed by adding new information; the network access of infrastructure maintenance staff to data was expanded;
4. in November 2013, the procedure of awarding a public procurement contract was completed and a contract was signed with the Polish-Italian consortium for the construction, delivery and implementation of a multi-function, self-propelling rail measuring vehicle for measuring the geometry of tracks, rails, traction network as well as inspecting railway superstructure and track-side devices. The planned commencement of vehicle operation in 2016 will expand the scope of currently performed infrastructure diagnostic tests with measurements from the power and railway automatic control industry;
5. The Diagnostics Centre, as every year, was a promoter of modern methods and technologies by organising a number of presentations of measurement equipment addressed to the representatives of Railway Lines Plants and maintenance companies.

The technical and technological development of railway diagnostics, supported by the team of experts (industry diagnosticians), will help the Company plan modernisation, refurbishment and maintenance needs of railway infrastructure in a more rational way – both at the level of organisational units and of the entire Company. It will also significantly increase the level of railway traffic technical safety.

## Rail roads

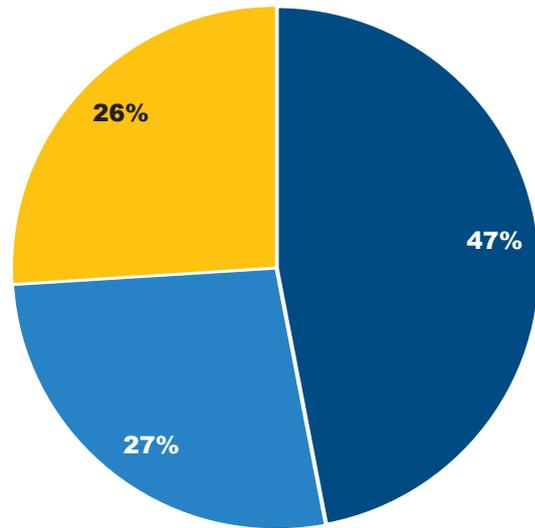
In 2013, the length of railway lines in use changed. The modification was a result of the need to adapt infrastructure to the changing transport needs.

List of railway infrastructure in use, managed by PKP Polskie Linie Kolejowe S.A. in 2013 (as at 31 December 2013):

1. 18 533 km of railway lines (i.e. 36 440 km of tracks) including:
  - 27 113 km of route tracks and main principal tracks at stations;
  - 9 327 km of station tracks.
2. 41 944 turnouts, incl.:
  - 18 320 turnouts in route tracks and main principal tracks;
  - 23 624 turnouts in station tracks.
3. 15 715 level crossings, incl. on active railway lines: a total of 13 120, including level crossings of cat.:
  - A – 2 539 items;
  - B – 812 items;
  - C – 1 289 items;
  - D – 7 386 items;
  - F – 594 items;
  - pedestrian crossings of cat. E – 500 items.
4. 25 683 engineering structures, incl. 6 436 bridges and viaducts;
5. 6 272 buildings;
6. 12 382 structures.

## Road infrastructure technical condition

As a result of the maintenance and repair work as well as investment tasks performed in 2013 the length of railway line tracks graded as good in terms of technical condition (as at 21 December 2013) amounted to 47% of the total track length, which is a 4% increase in comparison to the status as at 31 December 2012 (43% of tracks were graded as good at that time).



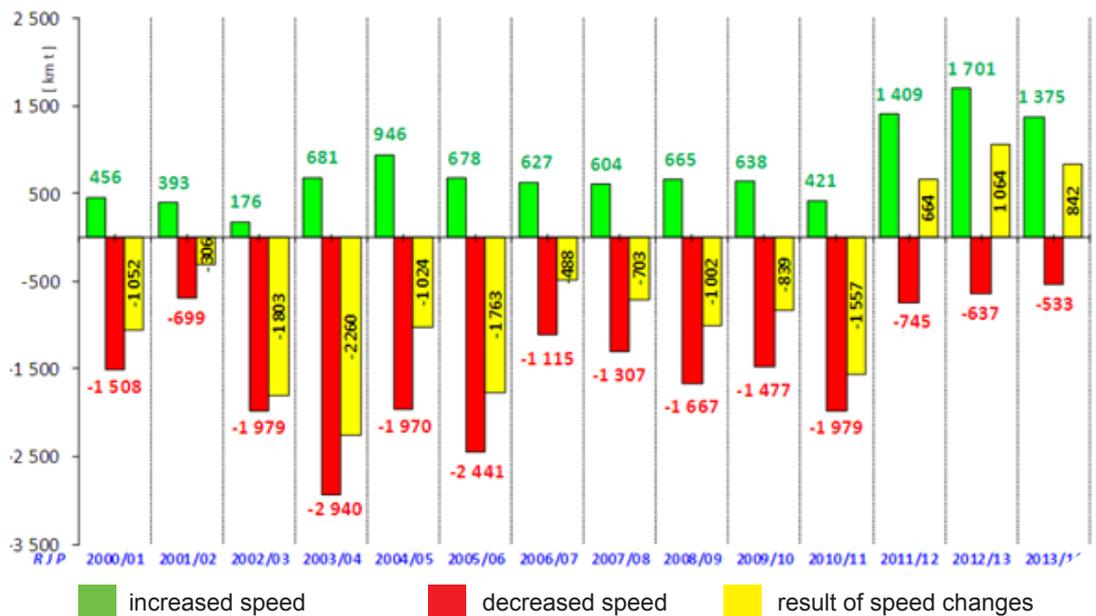
■ good    ■ satisfactory    ■ unsatisfactory

The diagram above was developed based on the following criteria:

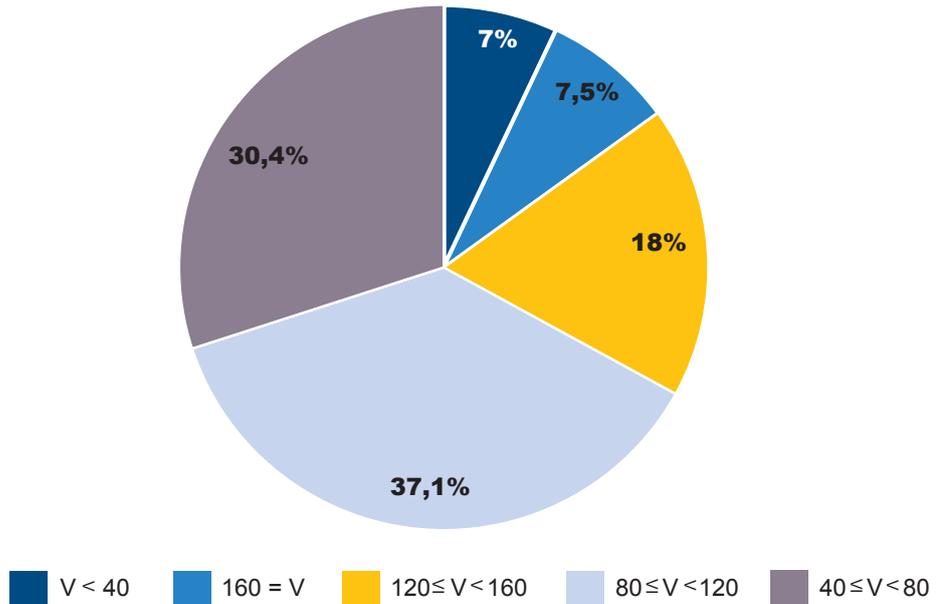
1. good - railway lines operated in line with the assumed parameters, only maintenance work is required;
2. satisfactory - railway lines with lower operation parameters (reduced top timetable speed, local speed limits); to restore the maximum operational parameters, in addition to maintenance work, ongoing repairs are required comprising replacement of faulty track elements;
3. unsatisfactory - railway lines of significantly lower operation parameters (low timetable speeds, large number of local speed limits, lower permissible loads), which qualify railway tracks for comprehensive replacement.

The effect of improved technical condition of tracks was the higher top timetable speed in the Train Timetable 2013/2014 for passenger trains on the track sections with a length of 1 375 km, and decreased speed on 533 km of tracks.

The length of operated railway line tracks where top timetable speeds were changed:



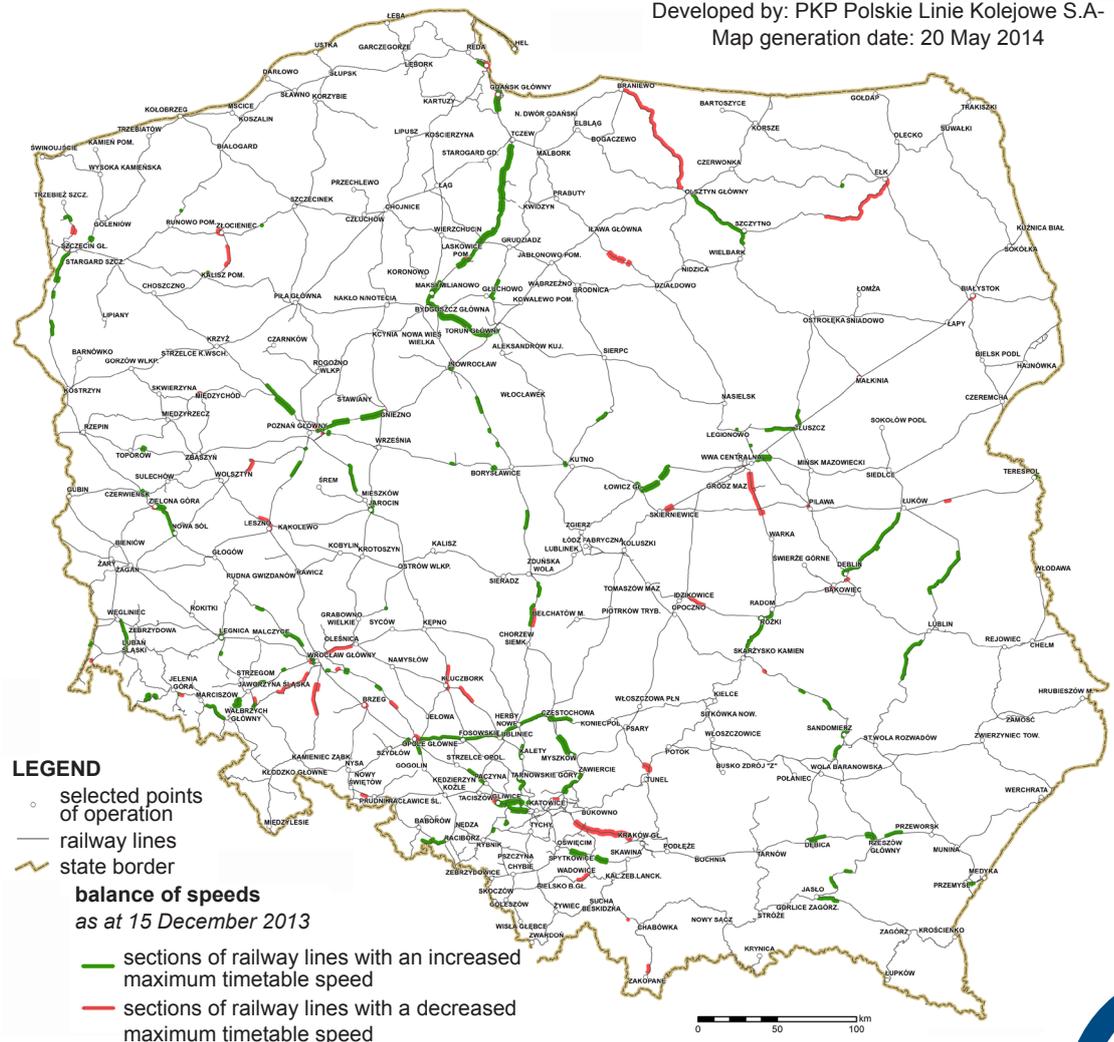
Percentage structure of top timetable speeds in the 2013-2014 timetable:



What should be perceived as a success is the fact that once again in 2013 the track length with timetable speed of  $V = 160$  km/h increased reaching 2 022 km of tracks, while at the end of 2012 it was only 1 956 km of tracks.

Increases and decreases in timetable speeds for passenger trains as at the day when the Annual Timetable 2013/14 became effective

Developed by: PKP Polskie Linie Kolejowe S.A.  
Map generation date: 20 May 2014



## Development prospects

### Development strategy

In 2013, PKP Polskie Linie Kolejowe S.A. actively participated in the work related to reaching the objectives established in governmental strategic documents; the company also continued the implementation of an extensive investment programme.

The actions taken in this respect consisted in participating in the work (coordinated by the Ministry of Transport, Construction and Marine Economy, and then by the Ministry of Infrastructure and Development which was established on its basis on 27 November 2013) related to:

1. development and consultation of the Implementation Document to the Transport Development Strategy until 2020 (with a perspective to 2030);
2. update of the Multi-annual Railway Investment Programme until 2013 (with a perspective to 2015), which was adopted by way of Resolution no. 219/2011 of the Council of Ministers of 7 November 2011; which resulted in the adoption of Resolution no. 196/2013 of the Council of Ministers of 5 November 2013 on the establishment of the Multi-annual Railway Investment Programme until 2015. It was necessary to update the Programme due to, among others, changes in the level of available funds and due to new limitations affecting the implementation of certain tasks. The Programme was expanded with new tasks, e.g. aimed at enhancing the quality of transport services by improving the technical condition of railway lines (the so-called revitalisation projects), planned for implementation under the Operational Programme Infrastructure & Environment.

In 2013, PKP Polskie Linie Kolejowe S.A. worked on the framework programme of the railway network development in Poland called: "Vision of the railway network in Poland until 2023". The vision is a holistic concept of the real development and modernisation of railway lines in Poland, which may be achieved in 2023; moreover, the vision is to present a new approach to planning the investment programme which would make it possible to increase technical parameters of railway infrastructure from a global perspective, i.e. to maximise the network effect.

Furthermore, PKP Polskie Linie Kolejowe S.A. commenced actions with respect to planning and selecting projects for implementation in the EU financial perspective for 2014-2020. The following principles were followed when deciding on priorities:

1. continuation of large multi-annual projects included in the decisions, legal acts and sectoral programmes so far, e.g. Master Plan, OPI&E, Multi-annual Railway Investment Programme;
2. realistic approach in planning the scope and schedules of new investments in light of the current financial conditions;
3. striving for the maximum absorption of available EU funds;
4. elimination of barriers hindering and delaying project implementation.

With the application of basic criteria for investment projects classification, i.e. traffic criterion, increased speed, location, continuation and readiness of a project for implementation, a ranking list of railway investment projects was drawn up. These projects were then included in the draft Implementation Document to the Transport Development Strategy until 2020 (with a perspective to 2030).

Based on the ranking, a short list will be created of investments which will receive additional funding in 2014-2020 from the following sources:

1. Connecting Europe Facility (CEF) – instrument established by the Regulation of the European Parliament and of the Council (EU) No. 1316/2013 of 11 December 2013; key instrument for financing the development of TEN-T;
2. Operational Programme Infrastructure and Environment 2014-2020 – on 8 January 2014 the Council of Ministers adopted a draft OPI&E, thereby allowing for transferring this project to the European Commission and starting official negotiations;
3. Eastern Poland Operational Programme – additional financial support instrument for 5 Eastern Poland provinces: Lubelskie, Podlaskie, Podkarpackie, Świętokrzyskie and Warmińsko-Mazurskie, which will complement and reinforce the activities carried out within the framework of regional and national operational programmes of the European cohesion policy.

In 2014, PKP Polskie Linie Kolejowe S.A. will continue to work on establishing the final list of railway investments planned for implementation in 2014-2020, which will be included in the Implementation Document to the Transport Development Strategy until 2020 (with a perspective to 2030).

In addition to the projects which will be placed in the Implementation Document to the Transport Development Strategy until 2020 (with a perspective to 2030) – as part of the actions related to programming of investment activity of PKP Polskie Linie Kolejowe S.A. in the EU financial perspective for 2014-2020 – some preparatory work was removed the aim of which is to develop a list of projects that, given their regional character, could be co-funded under the cooperation with local governments and implemented in the future Regional Operational Programmes. To optimise the actions of PKP Polskie Linie Kolejowe S.A. and to coordinate them with the strategic plans of particular provinces, their Marshals were provided with proposals of the projects covering regional and local railway lines of significant social and economic importance for the region. In line with the procedure of public consultations run by Managements of particular Provinces, PKP Polskie Linie Kolejowe S.A. actively contributed its opinions about the announced projects of Regional Operational Programmes involving railway transport; the company also intensively sought maximum EU support available for railway infrastructure projects being the beneficiary thereof in the future.

In 2013, no final decision was made on the allocation of funds under the ROPs, so the Company will continue its actions aiming at establishing the final list of projects recommended for additional funding under the Regional Operational Programmes in 2014.

The strategic framework for the actions of PKP Polskie Linie Kolejowe S.A. is composed of governmental strategic documents on transport and relevant EU regulations.

The key document defining the Company's strategy is consistent with the objectives of the European Union and the Transport Development Strategy until 2020 (with a perspective to 2030), the main objective of which is to increase the availability of transport and improve the safety of traffic participants and the efficiency of the transport sector, through the creation of a coherent, sustainable and user-friendly transport system at the national, European and global levels.

The strategy of PKP Polskie Linie Kolejowe S.A. concentrates on meeting the following targets indicated in the Transport Development Strategy, referring to railway transport:

1. creation of a modern and coherent network of railway lines;

2. improved organisation and management methods;
3. improved safety of traffic and transport cargo;
4. limiting the adverse impact from transport on the natural environment;
5. formation of a rational model of infrastructure investment financing.

Among the most important tasks of PKP Polskie Linie Kolejowe S.A. in 2013 was its participation in the work on developing programme documents for the new EU financial perspective.

The Company took part in the work of the Working Group established within the current Ministry of Infrastructure and Development to support the work on the preparation of the operational programme for, among others, transport in 2014-2020. Moreover, the Company took part in consultations and providing opinions on the subsequent versions of programme documents (projects: partnership agreement, territorial contract, Operational Programme Infrastructure & Environment, Eastern Poland Operational Programme, Technical Assistance Operational Programme, Regional Operational Programmes) as part of public consultations and working contracts signed with the Ministry of Infrastructure and Development.

A number of comments and motions were made the aim of which was to include in these documents the provisions which would ensure financing and implementing investments in the railway infrastructure managed by PKP Polskie Linie Kolejowe S.A.

The Company also began work on improving access to sea ports in Gdynia, Gdańsk, Szczecin and Świnoujście, to eliminate bottlenecks which hinder the growing transport of goods to and from the ports. To this end, intensive actions are being taken to develop pre-project documentation, including Feasibility Studies. Moreover, attempts are made to obtain sources of financing from the operational programmes available in the next budget perspective.

PKP Polskie Linie Kolejowe S.A. took actions also with respect to the base documents for the orders being implemented. The primary objective of establishing a system of mutually linked base documents (which make up standard Terms of Reference) was to make the tender process more efficient by standardisation and improvement of tender documentation specimens. The base documents combine knowledge and experience of experts from many areas, the Company's experience in handling tenders as well as the requirements imposed by the regulations of Polish and EU law.

In addition to the continuous work related to the development of new types of base documents, in 2013 the base documents accepted for use in the past years were verified and updated. The main task was to develop a new approach to drawing up project feasibility studies and excluding environmental issues (except for the analysis for the purpose of project cost estimates) from pre-project documentation. The approach to developing variants was changed as well: a two-stage selection of variants was introduced using a multi-criteria analysis; also, more attention was paid to the market approach to the issues under analysis and improvement of investment effectiveness.

To establish stable financial conditions for the development of railway infrastructure (proper level of financing from public funds) work was carried out on the Framework Agreement for Railway Infrastructure Budgeting (RUBIK).

The Agreement stipulates that a draft multi-annual contract for railway infrastructure maintenance will be signed between the railway infrastructure manager and the Minister for Transport; other arrangements related to the implementation of Directive 2012/34/EU are also covered therein.

Among the work performed in 2013 by the Company, a matter of crucial importance for its business was the actions aimed at reaching the most favourable wording of the provisions in legislative proposals.

As for EU regulations, work was performed on legal acts under the 4th Railway Package, which concentrates on the following areas:

1. “unbundling”, i.e. ensuring adequate separation of railway infrastructure management from transport activities in the context of ensuring full independence and effectiveness of the infrastructure manager;
2. improving the procedures for issuing permits to put railway vehicles into service (i.e. the common European passport);
3. authorizing the ERA to issue safety certificates to railway undertakings;
4. opening of national railway passenger services to competition.

With such a broad scope and nature of the regulations under the 4th Railway Package, some legal acts covering the draft of new law are still being analysed by PKP Polskie Linie Kolejowe S.A. According to the Commission’s opinion, these legal acts are to take into consideration the changes that will result in improving quality and effectiveness of railway services by removing legal, institutional and technical obstacles in the development of a single European railway area.

Moreover, PKP Polskie Linie Kolejowe S.A. took part in the work on the Regulation of the European Parliaments and of the Council (EU) of 11 December 2013 (extremely important from the perspective of the Company’s business):

1. Regulation of the European Parliament and of the Council 1315/2013 of 1 December 2013 on EU guidelines for the development of trans-European transport network repelling Decision no. 661/2010/EU (EU OJ L348/1 of 20 December 2013);
2. Regulation of the European Parliament and of the Council (EU) no. 1316/2013 of 11 December 2013 establishing the „Connecting Europe Facility”, amending Regulation (EU) no. 913/2010 and repealing Regulation (EC) no. 680/2007 and (EC) no. 67/2010 (OJ EU L348/129 of 20 December 2013).

As regards the national level, the representatives of PKP Polskie Linie Kolejowe S.A. played an active role in the preparation of the amendment to the Act on Railway Transport implementing into the Polish law the Commission Directive no. 2011/18/EU of 1 March 2011 amending Annexes II, V and VI to Directive of the European Parliament and of the Council no. 2008/57/EC on the interoperability of the rail system within the Community. The Act on Railway Transport, in its new wording (along with the changed definitions of modernisation and refurbishment), allows one to verify subsystems based on national legislation; thus it makes it possible to submit to the President of the Office of Rail Transportation a request to be issued a permit for putting a structural subsystem into use.

The modified provisions of the Act lead to standardisation of the requirements used in the EU in the scope of certification of railway sector products (both with respect to TSI and the requirements imposed by the Member State). Extended application of interoperability in Poland will improve transport offer in international services, which at the same time will ensure rendering domestic services in any scope. Extending the application range of interoperability is an element that would contribute to increased attractiveness of railway transport as well as increased competition in the sector of international passenger and freight railway services.

With respect to international cooperation, in 2013 PKP Polskie Linie Kolejowe S.A. actively participated in the work of various international organisations, also in the areas of railway transport and in public consultations of the European Commission and EU institutions.

In this context the representatives of PKP Polskie Linie Kolejowe S.A. took part in the work of CER (Infrastructure Interested Group) and EIM (Asset Management Working Group), and they cooperated with the Executive Agency of TEN-T (since 1 January 2014 – Innovation and Networks Executive Agency – INEA) and the General Representation of PKP S.A. in Brussels. The cooperation focused on the issues related to the creation of new EU legislation, draft technical specifications for interoperability (TSI), and in particular the new TSI concerning the problem of „persons with reduced mobility” of the trans-European railway system, and finally the analysis of performance/effectiveness data in planning resources management.

Moreover, the representatives of the Company participated in the work of Working Group SERAC (Single European Railway Area Committee) and in Mr Vinck’s Corridor Group.

As part of the membership in the RNE, PKP Polskie Linie Kolejowe S.A. participated in the work of a number of working groups. The Company was also involved in the Train Information System project. The main task of TIS is to support the management of international trains (freight and passenger) by providing information on train movement in real time.

Moreover, the Company’s representatives played an active role in various UIC working groups in the field of ERTMS, security, safety, environment, operation, technical specifications for interoperability, high-speeds, and legal issues, as well as in the work of other organisations, such as: OSŹD, USIC, FISAIC, FIATC and UEEIV, COLPOFER.

In terms of implementation of the Regulation of the European Parliament and of Council (EU) no. 913/2010 concerning a European rail network for competitive freight, in 2013, the Office of Freight Corridor No. 8 (Bremerhaven - Rotterdam - Antwerp - Aachen - Berlin - Warszawa - Terespol - Kaunas) was launched at the headquarters of PKP Polskie Linie Kolejowe S.A. in Warszawa. Work was continued by all the corridor working groups. The majority of transport market analyses were completed. The Managing Council made a number of strategic decisions on the future of the corridor functioning. The strategies within the project co-financed by the TEN-T fund were continued. Moreover, work began on the analysis of the transport market of Freight Corridor No. 5 (Gdynia - Katowice - Ostrava - Žilina - Bratislava - Vienna - Klagenfurt - Udine - Venice - Trieste - Bologna - Ravenna - Graz - Maribor - Ljubljana - Koper - Trieste).

Majority of the working groups and advisory groups commenced their work on the implementation of the freight corridor. The Managing Board took a number of targeted decisions, including the one on the future legal form of the corridor (EEIG will be based in Warszawa). Organizational measures were also taken aimed at obtaining additional funding for the corridor implementation. An application was submitted and co-funding from TEN-T fund was awarded.

As part of the bilateral cooperation, PKP Polskie Linie Kolejowe S.A. continued their cooperation in railway infrastructure management with partners from the neighbouring states (DB, SŹDC, ŹSR, UZ, BŹD, RŹD, LG) and other (e.g. MAV, NS, ADIF, SNCF, RFF, Network Rail).

Cooperation of this type is particularly important when it comes to neighbouring railway infrastructure managers with regard to:

1. safe and efficient cross-border railway traffic;
2. modernisation of railway infrastructure and its points of contact, including coordination of this type of work;
3. reconciliation of railway traffic rules and development of appropriate additional agreements for railway border crossings (Local Border Agreements);
4. improving the punctuality of trains at border crossings;
5. current operation;
6. actions to improve and strengthen cooperation with operators (border conferences of infrastructure managers with operators), also addressing the issue of ordering routes and implementation of international services.

In addition to that, the bilateral cooperation includes a number of other activities, such as cooperation of experts, joint organisation of workshops and other activities, exchange of experiences, etc., and it will be continued in the following years.

## IT

In the area of systems describing railway infrastructure the following conceptual idea was developed:

1. an application supporting inventorying of the railway infrastructure in terms of tracks and platforms (ePOS);
2. software supporting data collection maintained by the European Railway Agency, Railway Infrastructure Register - RINF. The data are grouped within the subsystems which include elements of rail roads, automatic control, communications and power.

Within the area of systems supporting the Company's operations the following was developed:

1. in the system supporting timetable development:
  - online registration and accounting module processing proposals to the Annual Timetable and requests for timetable revision;
  - online reporting module of status of application development for carriers and a reporting module for the status of annual timetable development;
  - module of automatic timetable development in response to changes in technical-operational parameters of trains or changes in infrastructure parameters;
  - a module supporting international exchange of data about train timetables (MERITS) and a module enabling harmonisation of timetables at border stations (PCS);
  - traction calculation module was modified for trains running at a speed of 200 km/h, which supports timetable development for EIC Premium trains.
2. in the system supporting timetable execution:
  - system collecting information from tracks was modified to allow obtaining information about train ride time from the Local Train Control Centres (LCS).

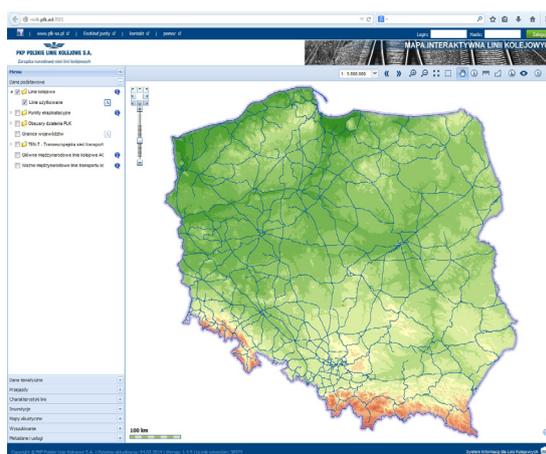
- This change has a direct impact on improving the quality of data on train rides;
- mechanism of automatic approval of data obtained from GPS devices during the ride of trains;
  - changes in the „Crisis Management Centre” system enabling one to present detailed information about delayed trains divided into groups, depending on the size of the delay. The system supported activities leading to the elimination of train delays caused by icing of traction network in winter 2013;
  - application that supports feeding the TIS (Train Information System) with data on the timetable and its execution. The TIS system enables real time monitoring of international train rides, regardless of their location, along the whole route of their service. Data transmission handling is performed in accordance with the TAF TSI standards for interoperability.
3. under the “PLK Web Portal for Passengers” (PDP) the following solutions were developed and implemented:
- a new layout of the web portal with a new functionality: the Online Train Timetable. The web portal provides passengers with comprehensive information: train timetable, commercial information, train links (passenger car replacements, etc.). The web portal comprises:
    - search engine for scheduled railway services along with information about their performance (information about delays, delay forecasts for next stations on the train route);
    - poster timetable for passenger stations and stops under the Annual Timetable as well as for the current and future Substitute Timetable;
    - online timetable for boards, passenger stations and stops and railway lines under the Annual Timetable as well as the current and future Substitute Timetable;
  - as part of the system development, an application “Railway Timetable” was created for mobile devices (running on WP, Android, and iOS systems). It offers the following features:
    - search engine for scheduled railway services along with information about their performance (information about delays, delay forecast for next stations on the train route);
    - train timetables for passenger stations, stops
4. other activities:
- to facilitate performing audits and generating reports about work on maintaining cleanliness of train stations the Control System of Cleaning Services Performance was developed. The system supports:
    - controlling quality of the services provided by external cleaning companies;
    - ongoing tracking of work progress;
    - generating aggregate reports allowing periodic verification of external cleaning companies, for example, at the time of invoice issuing.
  - in the area of basic IT infrastructure, consolidation of basic IT services in the Company was completed. This included the launch of a new email system and introducing a domain enabling centralised management of IT equipment and its users.

## 5. future plans:

- in the longer term, the Company's efforts will include further development of systems that support the core activities of PKP Polskie Linie Kolejowe S.A. Further development of the systems that support the creation of timetables is also planned. Future work will include the development of the management module for commercial data on trains and the development of a train services linking module. There are plans to modify the module of substitute timetable development and commence adjusting work on the SKRJ system that organises timetables based on accurate information about the parameters of station and route tracks; this will entail a substantial increase in its quality and enhance the degree of automation of the development process;
- a large project was launched to develop a new system supporting timetable creation (SEPE II). The system will be based on the most advanced technologies using the experience gained during the functioning of the current system version. Flexible solutions will be used to enable further extension of the application; they will also boost its security and ensure quick access to up-to-date information. The completion of work is planned for 2016;
- development work on modules and applications supporting EU legislation requirements is continued. This consist in offering support to more and more TAF and TAP TSI messages and further work related to the Register of Railway Infrastructure (RINF);
- to reduce the costs of printing, work commenced on implementing outsourcing of printing devices at PKP Polskie Linie Kolejowe S.A.

## Geoinformation

In 2013, PKP Polskie Linie Kolejowe S.A put into use the new online service: the Interactive Map of Railway Lines (MILK). The map is available at <http://mapa.plk-sa.pl> or via the main website of PKP Polskich Linii Kolejowych S.A.



The MILK service provides its users with access to the information about railway lines and operating points along with their basic features and location on the map. The site can search for information about structures we look for and perform simple analyses and their visualization, thus satisfying the most urgent needs for basic information about the railway network. Additionally, MILK offers data on noise maps made for

railway lines on which more than 30,000 trains per year run, thereby meeting the legal obligations resulting from the binding requirement to ensure universal access to such information. Together with the MILK service the WMS service (Web Map Service) was made available. The WMS displays data on railway lines and operating points as well as limits of Railway Line Plants through own applications presenting data with geographic coordinates. At the end of 2013, i.e. 3 months from the service launch, approx. 19,000 page views were recorded.

In 2013, some assumptions were prepared (including the Description of the object of the procurement order) referring to the further development of the Information System for Railway Lines. The planned development of the System assumes improving accuracy of spatial data stored in the LRS Module and the expansion of other modules, providing the Company with access to current and reliable information, and thus supporting sound decision-making processes.

The system development will make it possible to implement new functionalities and maintain the high quality of services rendered by the system, in particular those related to spatial visualisation and provision of access to spatial data on railway lines.

At the same time another stage of the railway line “codification” project is in progress. The aim of the project is to develop a measuring system for limiting outline of railway lines based on the integration of laser scanning and georeferential module GNSS/INS. The target system will facilitate performing measurements with a speed of up to 100 km/h, processing data from the measurement and establishing limiting outline cross-section to determine codes of railway line sections. In 2014, the implementation of the results of the research work completed in 2013 is planned.

## Environmental protection

PKP Polskie Linie Kolejowe S.A., by realising public tasks, bear particular responsibility before the environmental protection bodies and the public for environmental care and following relevant legal acts. Therefore, environmental protection at PKP Polskie Linie Kolejowe S.A. is a crucial element of the Company’s business – crucial in the course of investment implementation and during operation. The environmental protection tasks comprise primarily:

1. use of the environment with respect to the operation of railway lines, including monitoring of environmental impact;
2. implementation of planned undertakings in a way that is compliant with the regulations on environmental protection and with the requirements put forth by financial institutions;
3. planning and taking actions aimed at limiting environmental impact.

### Environmental protection reporting

PKP Polskie Linie Kolejowe S.A. prepares periodic summaries and reports on environmental protection, which are then submitted to the authorities and institutions. They are, e.g.:

1. lists containing information and data on the use of the environment and the amount of fees due;
2. annual reports on generated waste and ways of their handling;

3. annual reports sent to the Domestic base on emission of greenhouse gases and other substances by the users of the environment;
4. statistical reports for the Central Statistical Office on environmental protection (L-02, G-06, OS-6).

### **Participation in consultations on environmental protection**

PKP Polskie Linie Kolejowe S.A., given the nation-wide scope of its business, takes part in providing opinions on and consulting strategic and planning documents under development; the Company also participates in public consultations on environmental protection.

The most important forms of its activity in this respect in 2013 were:

1. at the point of contact: railway (noise) and surroundings – making postulates to commune governments with respect to providing an opinion on zoning policy strategic documents. They referred to the way the direct surroundings of railway areas are managed and to limiting the construction of new acoustically protected developments;
2. participation in work related to the development of programmes of environmental protection against noise;
3. participation in consultations on the plans of protection tasks for Natura 2000 areas located near railway lines;
4. analysis of environmental documentation related to the management of areas adjacent to railway lines.

### **Environmental protection vs. investments**

In 2013, the “Standard requirements for environment-related documentation” were developed and adopted by the Management of PKP Polskie Linie Kolejowe S.A. They provide a set of requirements which must be met by project information sheets, natural inventories, reports on the environmental impact (made in the phase of work at the stage of obtaining a decision on environmental conditions) and reports on environmental impact for the purpose of environmental impact reassessment. Standard requirements provide guidance for contractors and a base material for preparation of tender documents for railway investments under which environmental documentation will be developed.

Since 2013 the project called “Development of environment-related documentation for selected infrastructure projects in the financial perspective of 2014-2020 under the Operational Programme Infrastructure & Environment 2007-2013” has been in progress. The aim of the project is to collect data on the resources, assets and condition of the natural environment in the areas located in direct vicinity (approx. 1 200 km) of railway lines. The completion of the project is planned for 2015.

### **Participation in the process of legislation**

The business of PKP Polskie Linie Kolejowe S.A. is implemented in line with the regulations of law in force. In 2013, the Company took part in the legislative process with respect to 35 drafts of legal acts on environmental protection. The most important of them that directly affected the Company’s business include:

1. bill on amending the Environmental Protection Law Act and some other acts;

2. bill on amending some acts given the reinforced tools protection of landscape protection;
3. bill on amending the act on commune government and some other acts.

Moreover, on 27 April 2013, the Act of 8 March 2013 on plant protection products (Journal of Laws 2013, item 455), which imposes on the Company a number of new obligations on the use of plant protection products, confirmation of the technical efficiency of equipment intended for use with plant protection products, and performance of trainings on plant protection products. In view of the need to implement the provisions of the Act and secondary legislation, the Company has taken steps to adapt procedures and regulations in force at PKP Polskie Linie Kolejowe S.A. to the requirements established in the Act above for the use of plant protection products.

In 2013, the Regulation of the Council of Ministers of 25 June 2013 amending the regulation on undertakings that might have a significant environmental impact, which is a crucial document for the investment process, was changed (Journal of Laws 2013 item 817).

### **Monitoring of the environment**

In 2013, PKP Polskie Linie Kolejowe S.A. implemented the procedure of the Safety Management System SMS PW-07 Environmental protection Management. The aim of the procedure is to identify, record and analyse the situations which could have a negative impact on the environment and become a source of danger to the safety of railway traffic that might occur as a result of the Company's business.

The risks covered by the procedure include water, soil, and ground contamination (due to transport of hazardous goods) and collisions with animals.

PKP Polskie Linie Kolejowe S.A. updated acoustic maps for railway lines used by over 30,000 trains per year. The update was performed due to the changes in acceptable values of noise levels in the environment under the new Regulation of the Minister of Environment of 1 October 2012 amending the regulation on acceptable noise levels in the environment (Journal of Laws 2012, item 1109). The change reduced significantly the scope of non-standard acoustic impact from railway lines.

In 2013, PKP Polskie Linie Kolejowe S.A. commenced tests of precipitation water and meltwater discharged from railway line areas at 100 selected locations as well as tests of soil quality at 40 selected locations. The aim of the tests is to determine the real demand for the devices used in treating precipitation water and meltwater. The project is to end in Q2 2014.

## Safety

### Railway events statistics

#### Railway events by categories

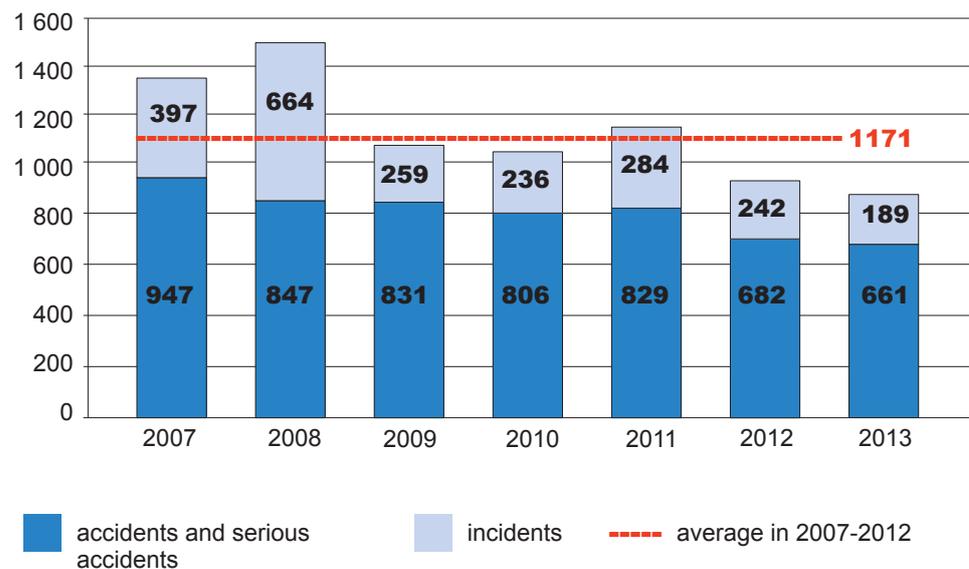
Between 1 January – 31 December 2013, on the railway line network managed by PKP Polskie Linie Kolejowe S.A., 850 events took place (excluding suicides), including:

1. one serious accident (namely having severe consequences and affecting railway safety management);
2. 660 accidents (namely events having negative impact on human health, property or the environment);
3. 189 incidents (namely other events related to train traffic and decreasing its safety).

In comparison to 2012, the number of events dropped by 74, comprising:

1. number of accidents decreased by 21;
2. number of incidents decreased by 53.

Comparison between the numbers of events that took place on the railway lines managed by PKP Polskie Linie Kolejowe S.A. in 2007-2013.



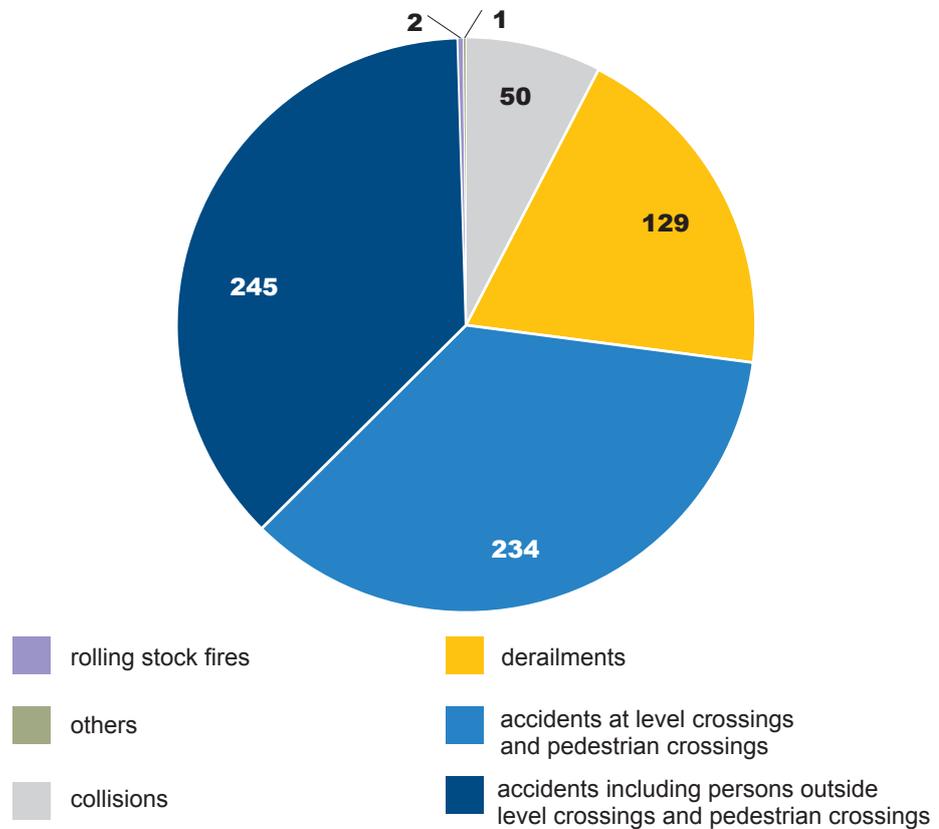
#### Accidents and serious accidents by type

The railway accidents classification method used by PKP Polskie Linie Kolejowe S.A. (compliant with the requirements of the Office of Rail Transportation and the European Railway Agency) covers:

1. collisions;
2. derailments;
3. accidents at level crossings and pedestrian crossings;
4. accidents including persons outside level crossings and pedestrian crossings (excluding suicides);

5. rolling stock fires;
6. other accidents.

Quantitative structure of accidents on the network managed by PKP Polskie Linie Kolejowe S.A. in 2013, by type



The diagram above shows that the undoubtedly most numerous group of accidents that took place on the network managed by PKP Polskie Linie Kolejowe S.A. were the ones that involved persons outside level crossings and pedestrian crossings (persons who were on railway premises and were hit by trains, or who attempted to jump on/off trains) as well as accidents on level crossings and pedestrian crossings. Collisions and derailments amounted to over 27% of all accidents in 2013. They are the events that usually result from the errors in the entire “railway system”, namely of technical devices, procedures and/or human factor (on the side of the railway operator or infrastructure manager). The possibility to reduce the two types of accidents depends directly on the measures taken by railway market participants (infrastructure managers and railway operators), but also designers, producers, suppliers and contractors of construction and maintenance services.

### Casualties of railway accidents

The number of casualties of accidents that occurred on the railway network managed by PKP Polskie Linie Kolejowe S.A. in 2013 was 329, with 224 fatalities and 105 severely injured. In comparison to 2012 the number of fatalities dropped by 35 and of severely injured – by 81. The largest group of fatalities in accidents in 2013 comprised persons with no authorisation to remain on railway premises (165 fatalities – fewer by 7 than in 2012) as well as the users of level crossings and pedestrian crossings (50 people killed – fewer by 9 than in 2012).

Also among the severely injured in railway accidents the largest group (54 people – fewer by 8 than in 2012) were those with no authorisation to remain on railway

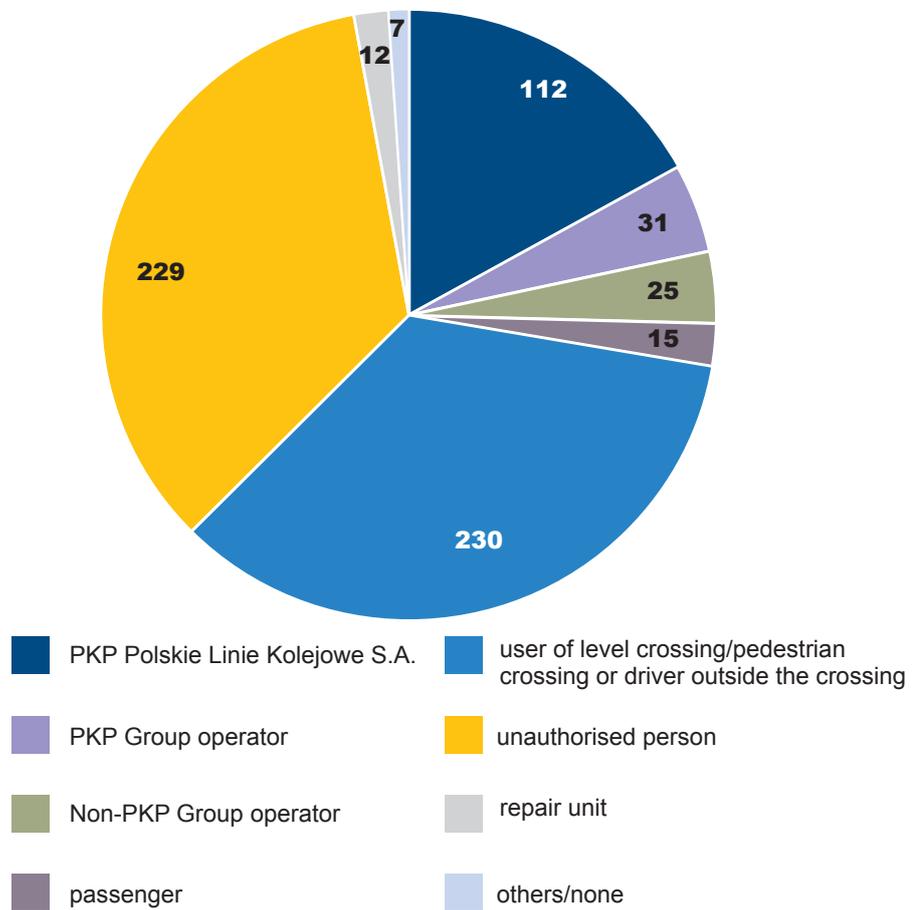
premises, while the second largest group were the users of level crossings and pedestrian crossings (39 people – fewer by 3 than in 2012).

The accidents that caused injuries in the group of passengers (6) and railway employees (2) resulted from being hit by trains while they were crossing the tracks in prohibited places or jumping on/off the train or falling from it. This means that in the entire 2013 each passenger that obeyed the regulations reached safely his/her destination.

### Incidents and accidents by fault attribution

In most cases, the parties that were responsible for accidents in railway traffic were the users of level crossings and pedestrian crossings, which is evident in the much higher number of accidents at railway crossings and collisions with pedestrians outside level crossings and pedestrian crossings in the general statistical results related to accidents.

Entities responsible for accidents in 2013



In 2013, 112 accidents took place that were attributable to PKP Polskie Linie Kolejowe S.A. (24 more than in 2012), including: 11 collisions, 93 derailments, 5 accidents on level crossings and pedestrian crossings and 3 accidents which involved people outside level crossings and pedestrian crossings.

The most frequent cause of events attributable to the Company was damaged track superstructure or its inadequate condition as well as poor condition of engineering structures.

## Measures taken to improve the safety of railway traffic

### Initiatives aimed at improving the technical condition of the infrastructure and devices

As part of modernisation and revitalisation work covering track superstructure, also turnouts – elements playing a crucial role in preventing the risk of derailment – were replaced. In 2013, on the network managed by PKP Polskie Linie Kolejowe S.A. 789 turnouts were mounted (namely replaced). The replacement of selected turnouts is the object of a separate investment project – OPI&E 7.1-71 “Improving safety by installation of new railway turnouts with a higher design standard”.

The current railway lines modernisation and revitalisation projects that are currently in progress, road-rail crossings and pedestrian crossings were modified, being equipped with additional protection/warning solutions; moreover, level crossings are being eliminated and replaced with viaducts, footbridges and tunnels.

In 2013, on the network of PKP Polskie Linie Kolejowe S.A., the surface of 259 crossings was modernised and automatic crossing signalling devices were installed on 75 crossings. Furthermore, 116 viaducts were built or thoroughly modernised.

Modernisation of a number of road-rail crossings is the object of two separate investment projects:

1. OPI&E 7.5-59 “Improving safety and elimination of operational risks at railway crossings - stage 1”;
2. OPI&E 7.1.80 “Improving safety and elimination of operation risks at railway crossings – stage 2”.

As part of the current and planned investments, additional detection systems of rolling stock emergency states devices are being installed on the railway network managed by PKP Polskie Linie Kolejowe S.A. Until 2017, 200 of them are to be mounted. In 2013, the Company installed 2 additional devices in new locations. Moreover, the installation of more railway devices was consulted as part of investment documentation development.

### Purchase and replacement of voice recorders in signal boxes

In order to strengthen work discipline and create safety-oriented attitude among the staff directly involved in traffic management and ensuring traffic safety, the Company has been installing voice recorders and train announcement units with a voice recording function at active signal boxes. The programme assuming the purchase and installation of 600 such devices until the end of 2015 is in progress. In 2013, 130 recorders and 20 train announcement units were bought and a contract was signed for the installation of 450 units (in 2013, 150 of them were delivered).

### Optimising safety procedures used during investment implementation and other track work

Performance of investments and other track work requires closures of track section. Proper planning and commencement of those is very important from the perspective of railway traffic.

Track closures result in the necessity to introduce traffic restrictions, while in the case of long-term closures – also changes in train timetables. Under some disadvantageous conditions this may be an additional risk factor. In 2013, on the network managed by PKP Polskie Linie Kolejowe S.A. there were in total 33,500 track closures, including 3,093 that lasted the whole day.

The Company took a number of steps to improve safety – both for people working in the vicinity of active tracks and train traffic occurring near work site. Another goal is better quality of work and acceptances during investment implementation or other works.

## **Human factor**

Another key area in terms of risks is the so-called “human factor”. In the area of safety, the human factor is understood as the impact on the occurrence of a railway event caused by various employees or their groups carrying out their tasks and obligations related to their positions at the Company, taking into account their private goals and aspirations.

In 2013, 49 events took place on the network of PKP Polskie Linie Kolejowe S.A., including 35 accidents and 14 incidents for which the Company’s employees were responsible. The basic features of the workers involved in traffic safety and management were determined as: gender, age, job history in the railway industry. Moreover, a very important factor that the Company takes into account when analysing events caused by the human factor is work load, which is defined as the number of trains on the route/signal box supervised by one employee.

## **Initiatives of PKP Polskie Linie Kolejowe S.A. aimed at improving staff competence and building safety-oriented culture**

PKP Polskie Linie Kolejowe S.A. are implementing a major programme the goal of which is to promote safety-oriented culture among its employees, contractors and other people related to the railway system. It should be borne in mind that the formation of the required safety-oriented culture is a challenging process as it requires changes in the mentality and awareness of the staff. Therefore it is an evolutionary and thus a long-term process. For this reason the Company is involved in continued activity.

The foundation of this activity is the process of monthly and ad-hoc instructions and trainings for the Company staff. To meet this objective, the training unit underwent restructuring; moreover, many other initiatives were implemented, comprising all management tiers and all spheres of activity.

## **Optimising Safety Management System**

In 2013, PKP Polskie Linie Kolejowe S.A. implemented a monitoring process for their “Safety Management System” to meet the requirements established in Commission Regulation (EU) no. 1078/2012 of 16 November 2012 on a common safety assessment method for monitoring. Moreover, in compliance with the provisions of this Regulation, the Company developed and implemented a monitoring strategy establishing, among others, the principles of selecting tools and methods of SMS monitoring for problem areas as well as qualitative and quantitative ratios used in SMS monitoring.

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

1. maintaining an accidents & events database and a statistical analysis of the data it contains;
2. running the Operation Performance Registration System (SEPE) application and a statistical analysis of the data it contains;
3. analysis of common safety indicators (CSI) and how they change over time;
4. assessment of safety targets compliance (CST);
5. SMS audits;

6. audits of train traffic safety;
7. SMS inspections.

### **Risk management measures**

In 2013, risk assessment was performed of train traffic safety as part of the SMS used at the Company, with the aim being optimisation of risk control measures.

Fifty-six risk assessments were conducted for selected accident categories and risk register areas as well as technical risk assessments, including the risk of operating ED250 EIC Premium vehicles.

### **Implementation of the “Programme of railway traffic safety improvement”**

The “Programme of railway traffic safety improvement” is a document implementing the goals of PKP Polskie Linie Kolejowe S.A. in terms of enhancing train traffic safety. It determines qualitative and quantitative parameters of meeting those goals. The “Programme of railway traffic safety improvement” at PKP Polskie Linie Kolejowe S.A. for 2013 was developed based on the risk register and accidents & events database as well as the results of the audit. Based on the Programme, the Company’s organisational units developed their own detailed programmes that take into account additional tasks related to counteracting local risks.

Moreover, in 2013, Polskie Linie Kolejowe S.A. implemented a number of additional measures to improve railway traffic safety in all areas of its activity. The Company monitored the implementation of its programmes by developing the “Schedule of the actions of PKP PLK S.A. aimed at safety improvement in 2012 and beyond”. The total number of actions covered by the schedule taken in 2013 was 198, including 37 technical actions, 121 organisational-maintenance actions and 40 employee-related ones.

## **Railway Guards (Straż Ochrony Kolei – SOK)**

The basic function of Railway Guards (SOK) is to improve safety and ensure public order in railway areas. Just as important is ensuring safety of railway traffic and protecting cargo transported by rail.

An integral part of these two assumptions is a greater sense of passenger’s safety on trains, in station buildings and outside them, which Railway Guards is responsible for. An indicator of the safety status is how safe people actually feel and that is the primary objective of all the tasks being handled.

In 2013, the Railway Guards Headquarters was responsible for a number of tasks related to protection of passengers’ life and health, property protection and enforcement of regulations in railway areas, on trains and other rolling stock. Railway Guards provides protection over:

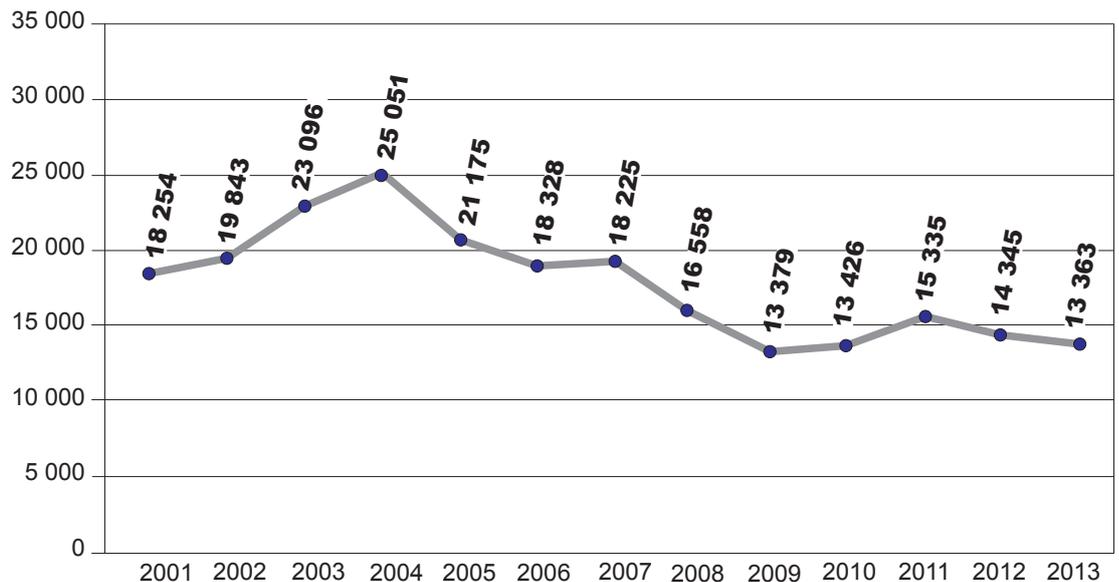
1. 18 533 km of railway lines, comprising tracks of a total length of approx. 37 000 km and over 15,715 railway crossings;
2. about 1 000 station buildings;
3. about 5 500 passenger and freight trains launched on average a day.

The tasks of Railway Guards in 2013 were carried out by the staff of (on average) 3 132 officers and employees.

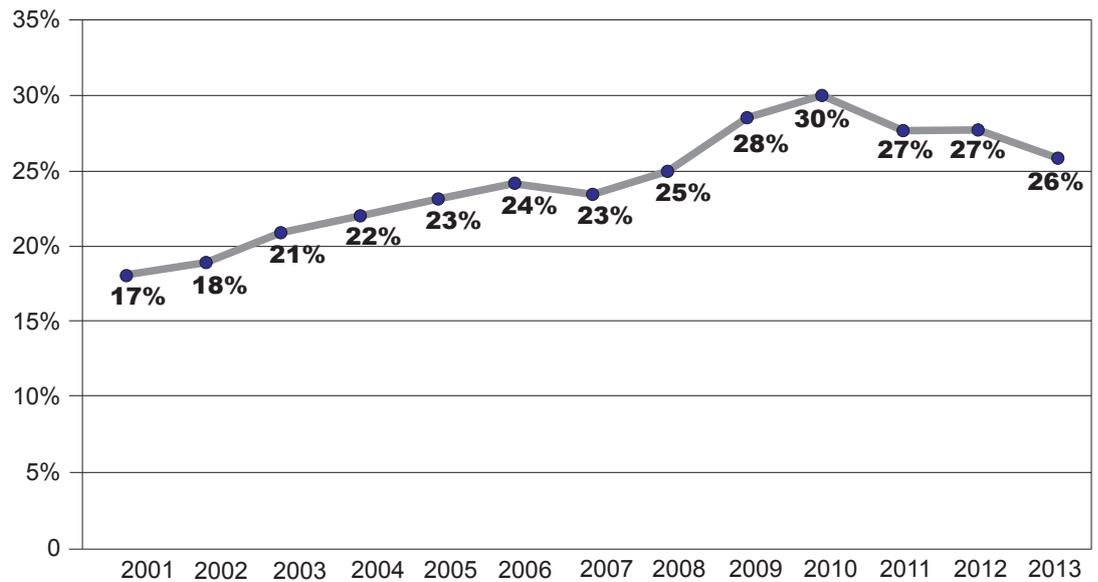
No.	Type of event	Year		Decrease in %
		2012	2013	
1.	Throwing stones or other objects at trains	577	388	32,76
2.	Freight car cargo (thefts, unauthorised interference with rolling stock without stealing cargo)	2 958	2 767	6,46
3.	Blocking tracks	337	218	2,38
4.	Vandalising traffic safety devices	1 250	1 084	13,28
5.	Assault	97	88	9,28
6.	Robbery, terrorism, killing, etc.	30	27	10
7.	Hooliganism (total)	5 024	4 627	7,9
8.	Thefts (total)	8 354	7 804	6,58

These statistics clearly show that the work of Railway Guards contributes to improved crime and theft prevention, while instruction offered to students of education centres has a significant impact on enhanced safety in railway areas.

Events recorded by Railway Guards in 2001-2013



Crimes and offences detection by Railway Guards in 2001-2013



## Safe crossing – “Stop and Live!”

Each year 200-250 collisions and accidents occur at railway crossings, resulting in dozens of casualties. Approximately 300 accidents happen in the places of restricted access, with the result being death of over 200 persons.

Safety at railway crossings and in the areas where crossing tracks is forbidden is a problem of all the parties that can do something about it: the railway, police, administration, local governments, road managers, social organisations and all people of good will.

The basic goal is to change people’s behaviour, strengthen correct social attitudes, increase the awareness of threats resulting from insufficient alertness during one’s presence at railway crossings and areas. It is our objective to reduce the number of accidents at level crossings and in railway areas. Our actions primarily target all road users: drivers, cyclists and pedestrians – both children and adults.

The campaign Safe crossing – “Stop and Live!” was first started in 2005 and has been continued until today. The first four editions were organised only in summer months. Since 2009, the initiative covers the entire year. In October 2012 the project was expanded to include the accidents related to crossing tracks in restricted areas.

Some of the actions taken by the staff of Polskie Linie Kolejowe S.A. in 2013 as part of the social campaign in question include:

1. 448 lectures on improving railway safety (in total, there were 100% more of them than in 2012);
2. 3 730 distributed newsletters;
3. production of a radio advertisement;
4. production of 10 000 colouring books on safety that were distributed among preschoolers;

5. production of 100 000 educational workbooks distributed among children aged 6-10;
6. distribution of 920 000 leaflets across Poland (half of these were distributed at Orlen petrol stations);
7. performance of 18 simulated accidents;
8. 5 demonstrations of technical emergency service;
9. preparation of an exhibition focusing on safety at level crossings at Centrum Handlowe Wileńska shopping mall (exhibition was open for 150 days);
10. 230 inspections of level crossings under the "Safe Monday" project;
11. 71 company cars were covered in campaign-related visuals;
12. 29 defects of level crossings were solved thanks to people using the form "Report a defect" available on: [www.bezpieczny-przejazd.pl](http://www.bezpieczny-przejazd.pl);
13. 70 open-air events promoting safety;
14. 17 165 "unofficial" pedestrian crossings inspected.

## 2nd Countrywide Blood Donation Programme carried out in ambulances

Just as in 2012, the observation of the Railwayman's Day in 2013 was accompanied by the Second Countrywide Blood Donation Programme carried out in ambulances.

Through this initiative, the community of railwaymen wished to help people in need by offering the precious gift of their own blood.

The blood donation programme was held with the motto: *"By donating your blood, voluntarily and for no compensation, you do something that has an immense moral and civic value. It is a true GIFT OF LIFE... I hope that the number of donors, who have well earned gratitude of all of us, will only increase across the entire plant,"* John Paul II.

The donation programme run by PKP Polskie Linie Kolejowe S.A. covered all companies within the PKP Group as well as some of the Regional Centres of Blood Donation and Treatment in Poland.

The event took place on 21-29 November 2013. Blood was donated in eight Polish cities: Lublin, Opole, Łódź, Katowice, Poznań, Warszawa, Kraków and Gdańsk. Almost 300 railwaymen donated their blood and the total amount collected was 90 litres.

## Counteracting thefts and devastation of railway infrastructure elements

In 2012, PKP Polskie Linie Kolejowe S.A. signed the Memorandum of cooperation with respect to counteracting thefts and devastation of railway infrastructure. The aim of the programme is to highlight the impact of thefts and devastation of infrastructure and encourage the society to be more pro-active in combating such phenomena. The result we wish to achieve is improved safety and quality of freight and passenger transport services.

## Investments

The investment activity of PKP Polskie Linie Kolejowe S.A., the manager of the national railway line network, is aimed at improving the efficiency and performance of Poland's transport system. It is to be achieved through an extremely comprehensive modernisation programme of railway lines.

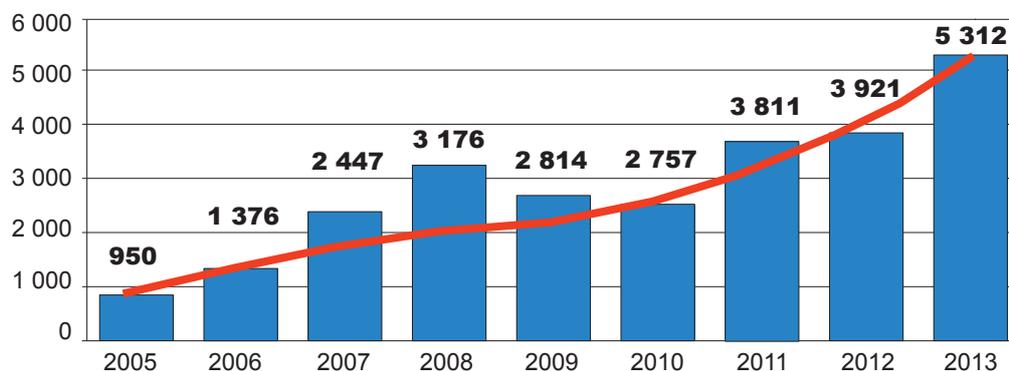
The basis of the Company's investment activity in 2013 was a relevant plan which assumed implementation of projects financed with state budget resources, Cohesion Fund, TEN-T, Railway Fund and the Company's own money. The plan covered the outlays on projects realised under the Regional Operational Programmes and the Operational Programme Infrastructure and Environment 2007-2013, as well as the Work and Expenditure Programme of Railway Fund support utilisation – part A Investments, and finally – money from the state budget.

The priority investments realised on railway lines in 2013 were: modernisation of the E65 railway route on the section: Warszawa - Trójmiasto, test deployment of ERTMS/ETCS and ERTMS/GSM-R solutions in Poland, modernisation of the E30 railway line, the E75 railway line on the section Warszawa - Sadowne, the E59 railway line, no. 4 railway line (Central Rail Line) between Warszawa and Katowice and Kraków, but also implementation of projects important for specific regions, addressing local speed limits, improving travel comfort, restoring cancelled train traffic and facilitating main transport links and integrating with other modes of public transport. Work continued on preparing railway links with Goleniów and Szymany airports.

### Investment outlays and sources of their financing

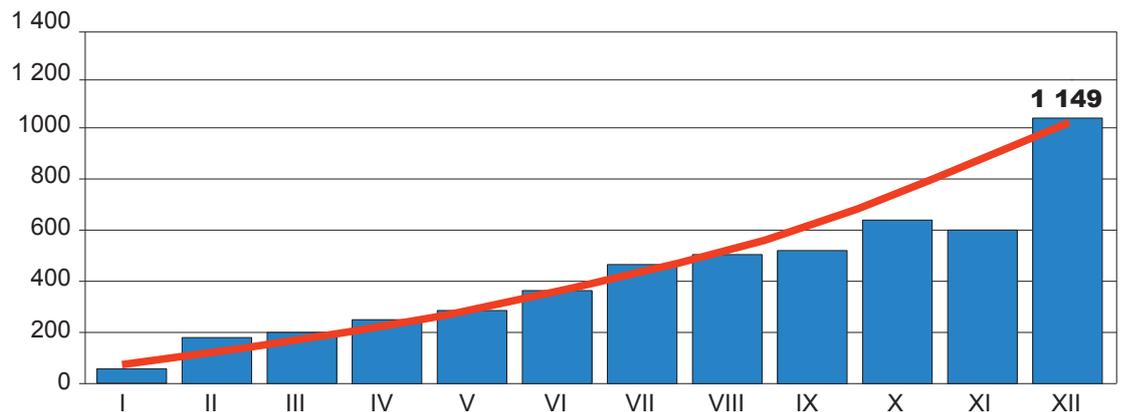
The year of 2013 was, historically, record-breaking for PKP Polskie Linie Kolejowe S.A. with respect to both outlays made and the percentage rate of their utilisation against the plan. The completion of the 2013 Investment Plan amounted to PLN 5 312.1 million, namely 95.2%.

Total investment outlays in 2005-2013 (including work in progress) [PLN million]



It should be noted that December 2013 was the first month ever in the Company's history when more than PLN 1 billion was spent on investment.

Total investment outlays in 2013 – by month  
(including work in progress) [PLN million]



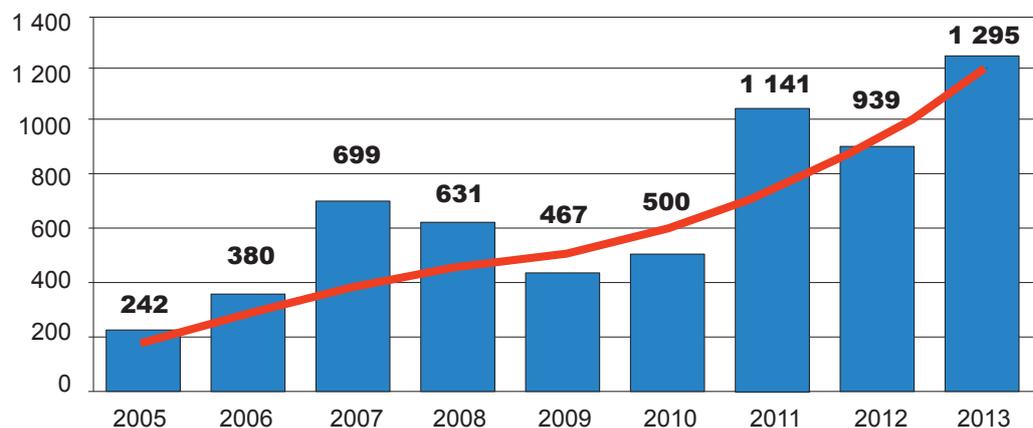
Completion of the investment outlay plan as per specific programmes  
[PLN thousand]

No.	Programmes	Performed in 2013
1.	OPI&E	3 328.3
2.	Regional Operational Programmes	305,9
3.	State budget	1 359.8
4.	TEN-T	7.9
5.	Railway Fund	37.4
6.	Other	272.8
7.	Total	5 312.1

## Investment outlays – work

In 2013, the completion of the work plan for the main indicator (track modernisation) was 1 295 km of tracks and was the highest ever in the Company's history.

Tracks modernised in 2005-2013 [km of tracks]



## Completion of the work plan in 2013

No.	Items	Measurement unit	Performance (Jan.-Dec. 2013)
1.	Track modernisation (incl. repairs of track superstructure, subgrade, OC rails)	km of track	1 295.563
2.	Turnouts development	items	789
3.	Engineering structures, incl.:		
	- bridges	items	98
	- viaducts	items	116
	- culverts	items	394
	- line tunnels	items	3
4.	Platforms	items	142
5.	Traction network	km of track	720.65
6.	Traction substations and sectional cabins	items	12
7.	Development of lineside power supply line	km	54.328
8.	Railway crossings (superstructure)	items	259
9.	Development of railway traffic control devices, incl.:		
	- automatic crossing signalling devices	items	75
	- change of category	items	45
	- CCTV on crossings	items	54
10.	Development of automatic block signalling	items	102
11.	Drives	items	929
12.	Buildings	items	2
13.	Platform shelters	items	145

**Major changes in investments in 2013**

In 2013, the Company took some intensive actions aimed at better utilisation of the funds for modernisation of railway lines as well as acceleration and timely completion of the investments in progress. To make the investment planning process more efficient in the forthcoming years, to effectively monitor the work already in progress and to successfully implement the already planned investments, a number of investment optimisation and acceleration measures were taken:

1. risk monitoring and management – an investment risk management policy was implemented. As a result, the Project Management Office (PMO) was established in the Company, the aim of which is to provide permanent monitoring of the investments. The Office is also responsible for supervision by the Company Management Board of the implemented and monitored (on a weekly basis) action plans aiming at minimisation of project risks. These plans were developed upon verification and adjustment of detailed schedules of all investments.
2. implementation of the Project Management methodology based on global models (Project Management Institute – PMI). Its primary task is to perform an investment in line with: established scope, estimated budget, developed schedule and assumed quality. To this end, modern IT/EPM tools were implemented in the Company;

3. thorough reorganisation of the investment support area (planning, risks, project management methodology, professional reporting, IT tools, new and experienced staff);
4. regular field monitoring of the implemented projects – in 2013, the inspection team was expanded, so it could carry out a total of 70 field inspections covering almost half of the investments in progress. The tasks of investors were intensified. In addition to verifying the compliance of work with the schedules and securing investments, the tasks of field inspectors include: verification of the project implementation methodology, analysis of previously confirmed risks and identification of new risks, functioning of the project team and accuracy of declared work completion dates. The reports from such visits are sent to the Investment Implementation Office and to the Management Board of PKP Polskie Linie Kolejowe S.A. In the future, the unit responsible for field monitoring is to be equipped in new inspection cars. In order to further increase monitoring effectiveness the Company is planning to develop a good practices base; it will be based on reports from investment tasks implementation.
5. sorting out the investment-related processes – implemented standards (construction councils, acceptances, better terms and conditions of contracts/terms of references);
6. efficient Investment Committee — in 2013, an Investment Committee was established in the Company, an advisory body to the Company's Management Board and project teams.
7. integrated investment reporting and monitoring system as well as key management analyses at operational and strategic level;
8. staff reorganisation and implementation of an optimised functioning structure of the Investment Implementation Office – new staff, Steering Committees in the course of implementation and new investment portfolios;
9. performed risk audit and assessment of all projects of the Company – a reliable verification of 160 investment projects taking into account an analysis of implementation risks. Repair plans were implemented for projects under greatest threat;
10. update of project schedules (EPM) – in the period from April to June 2013 a project was implemented updating schedules of all investment and infrastructure projects in the EPM system. As part of the schedule update, separate project schedules were integrated into one schedule based on the developed template which took into account all the required schedule elements. As a result, detailed, uniform implementation schedules were created in the EPM system; this, in turn, made it possible to quickly retrieve data necessary to monitor all work in a given project, whereas the future target is – in connection with the new EPM – to make the process of progress reporting more automatic and to generate outlays schedules from the system;
11. new Multi-annual Programme of Railway Investments 2013/2015 – a stable financial foundation for investments of PKP Polskie Linie Kolejowe S.A. in the key period of completing the projects under the current EU budget perspective;
12. making the service of OPI&E more effective – closer cooperation with CUPT and faster proceeding;
13. expert's support – currently the contractors provide comprehensive legal services taking into account regionalisation (four law firms instead of one). In addition,

separate law firms were selected to support the Company on the issues related to environmental protection and public procurement law;

14. beginning of the new EU budget perspective 2014/2020 – comprehensive and design-related preparation for the first 5 projects to be submitted to CEF (Connecting Europe Facility) in June 2014 [new governmental programmes CEFik, KPK (National Railway Programme)];
15. establishment of the Steering Committee for the EIC Premium programme.

## List of projects implemented under the Regional Operational Programmes in 2013

### Podkarpackie Province:

1. improving accessibility of the railway line by modifying some elements of infrastructure on the sections of railway line no. 106 Rzeszów - Jasło under the Regional Operational Programme for Podkarpackie Province for 2007-2013 (2008-2014);
2. improving accessibility of the railway line by modifying some infrastructure elements on the sections of railway line no. 108 Stróże - Krościenko under the Regional Operational Programme for Podkarpackie Province for 2007-2013 (2008-2014);
3. revitalisation of the Przybówka - Jasło section and modification of the bridge at km 19,837 of railway line no. 106 Rzeszów - Jasło under the Regional Operational Programme for Podkarpackie Province for 2007-2014.

### Lubelskie Province:

1. modification of the transport system along with modernisation of the railway viaduct and subway within Lublin Railway Station (2010-2014);
2. modernisation of railway line no. 30 Łuków - Lublin Północny on the Lubartów - Lublin Północny section (2010-2015).

### Wielkopolskie Province:

1. modernisation of railway line no. 356 Poznań Wschodni - Bydgoszcz in Wielkopolskie Province, which plays an important role in handling services from small towns to the Poznań conurbation, on the Poznań Wschodni - Gołańcz section, stage 1 (2010-2014);
2. modernisation of railway line no. 357 Sulechów - Luboń in Wielkopolskie Province, which plays an important role in handling services from small towns to the Poznań conurbation, on the Wolsztyn - Luboń section (2010-2014);
3. modernisation of railway line no. 357 Sulechów - Luboń in Wielkopolskie Province, which plays an important role in handling services from small towns to the Poznań conurbation, on the Wolsztyn - Luboń section - stage 2 (2012-2015).

### Lubuskie Province:

- modernisation of railway line no. 358 on the Zbąszynek - Czerwieńsk section including the construction of the Pomorsko - Przylep rail link, bypassing Czerwieńsk station in Lubuskie Province - stage 1 (2010-2014).

### Pomorskie Province:

1. revitalisation and modernisation of the so-called „Kościerzyna railway corridor” -

the Kościerzyna - Gdynia section of railway line no. 201 - stage 1 (2007-2015);

2. revitalisation and modernisation of the so-called „Hel railway corridor” - railway line no. 213 Reda - Hel (2007-2015).

#### **Kujawsko-pomorskie Province:**

- revitalisation of railway line no. 207 Toruń Wschodni - Malbork on the Toruń Wschodni – Grudziądz section - stage 1 including the Chełmża - Grudziądz section (2009-2017).

#### **Warmińsko-mazurskie Province:**

1. revitalisation and modernisation of railway line Olsztyn - Szczytno - Szymany (section: Olsztyn - Szczytno – railway line no. 219 and section: Szymany - Szczytno – railway line no. 35) as a rail link between the modernised airport in Szymany and Olsztyn - stage 1 (2007-2015);
2. revitalisation and modernisation of railway line Olsztyn - Szczytno - Szymany (section: Olsztyn - Szczytno – railway line no. 219 and section: Szymany - Szczytno – railway line no. 35) as another rail link between the modernised airport in Szymany and Olsztyn - stage 2 (2013-2015).

#### **Zachodniopomorskie Province:**

- modernisation of regional railway line no. 402 Goleniów - Kołobrzeg including the construction of a rail link to Szczecin Goleniów Airport (2010-2013).

#### **Łódzkie Province:**

1. construction and modification of railway halts along the routes of the Łódź Conurbation Railway – improvement of transport accessibility by establishing intermodal halts with the Łódź Conurbation Railways - stage 1. (2011-2013);
2. revitalisation of railway line no. 16 on the Łódź Widzew - Zgierz section (2011-2014).

#### **Dolnośląskie Province: :**

1. modernisation of regional railway line no. 309 Kłodzko Nowe - Kudowa Zdrój on the Duszniki Zdrój - Kudowa Zdrój section (2010-2014);
2. modernisation of regional railway line no. 311 Jelenia Góra - Szklarska Poręba section (2010-2014);
3. modernisation of regional railway line no. 311 Jelenia Góra - Szklarska Poręba section, modernisation of platforms at Jelenia Góra Zachodnia and Piechowice railway stations under the Jelenia Góra Conurbation Railways project - stage 1 (2013-2015).

## **List of projects implemented under TEN-T in 2013**

1. studies and preparatory actions with respect to organizational structure of railway transport corridor no. 5;
2. designing and installation of ETCS level 1 on the section of railway line E 65, Main Trunk Line Grodzisk Mazowiecki - Zawiercie TEN-T 2009-PL-60151-P;
3. installation of ERTMS/ETCS level 1 along railway line E20/CE 20 on the Kunowice - Warszawa section TEN-T 2011-PL-60002-P;

4. modernisation of railway line Warszawa Włochy - Grodzisk Mazowiecki – preparatory work TEN-T 2011-PL-93141-S;
5. studies and preparatory actions with respect to organizational structure of railway transport corridor no. 8 TEN-T 2011-EU-95090-S;
6. feasibility study of modernisation and extension of Katowice Railway Node TEN-T 2010-PL-92245-S;
7. implementation of ERTMS/ETCS level 1 on railway lines nos. 570 and 64 on the Psary - Kozłów section.

## Information about refunded amounts and eligible costs borne in 2013 under the Operational Programme Infrastructure & Environment

Total:

1. refund - PLN 1 004 478 184.5;
2. eligible costs - PLN 2 187 380 898.9.

### OPI&E projects with the highest refunds and eligible costs borne in 2013:

Modernisation of the railway line E65/C-E65 on the Warszawa - Gdynia section - LCC Gdańsk, LCC Gdynia area OPI&E 7.1-1.2

1. refund - PLN 163 158 978.5;
2. eligible costs - PLN 213 254 621.1.

Modernisation of the railway line E 30/C-E 30 on the Kraków - Rzeszów section, stage 3 OPI&E 7.1-30

1. refund - PLN 146 754 909;
2. eligible costs - PLN 343,200,895.8.

Modernisation of the railway line E65/C-E65 on the Warszawa - Gdynia section - LCC Iława, LCC Malbork area OPI&E 7.1-1.3

1. refund - PLN 119 955 186.4;
2. eligible costs - PLN 363 206 301.5.

Modernisation of railway line E59 on the Wrocław - Poznań section, stage 2, Wrocław - border of Dolnośląskie Province section OPI&E 7.1-1.4

1. refund - PLN 117 719 644.2;
2. eligible costs - PLN 163 704 851.7.

## Use of funds as at 31 December 2013 for all ISPA/CF and CF projects

The current status of use of co-funding from CF resources for ISPA/CF and CF projects implemented as part of the 2000-2006 perspective:

1. amount of the EU grant awarded by the European Commission for all ISPA/CF and CF projects – EUR 1 126 288.4;
2. grant amount used by PKP Polskie Linie Kolejowe S.A. excluding system and individual adjustment – EUR 1 092 922.4;

3. grant amount used, including system adjustment and individual adjustment – EUR 971 298.9.

The utilisation degree of the grant awarded by the European Commission, including the system adjustment and individual adjustment, amounted to 86%.

Financial flows of the EU grant under ISPA/CF and CF as at 31 December 2013 were as follows:

1. received indirect payments - EUR 923 883.3;
2. received final payments - EUR 29 845.2;
3. final payment claims submitted to the European Commission (funds from CF so far not transferred to PKP Polskie Linie Kolejowe S.A.) – EUR 17 570.4 (including the system adjustment and individual adjustment).

## Current status of use of TENT-T funds:

1. amount of the awarded co-funding from the TEN-T budget as part of the signed decisions of the European Commission – EUR 26 391;
2. amount of co-funding from the TEN-T budget to be used by PKP Polskie Linie Kolejowe S.A., including the signed and planned agreements with contractors – EUR 14 708.

The degree of use of co-funding granted by the European Commission from the TEN-T budget in relation to the amount of co-funding to be used by PKP Polskie Linie Kolejowe S.A., including contracts with contractors, was 55%.

Financial flows of the TEN-T co-funding as at 31 December 2012 were as follows:

1. received TEN-T funds in advance and final payments – EUR 12 862.7;
2. TEN-T funds to be obtained in advance and final payments – EUR 1 818.3.

## Source of funding

PKP Polskie Linie Kolejowe S.A. makes use of financial resources from the following EU funds:

### Cohesion Fund

It is an instrument of the EU structural policy of a national scale. Its overall objective is to strengthen economic and social cohesion of the European Union by financing major projects including the development of transport infrastructure and environmental protection. The Cohesion Fund co-finances projects of supra-regional importance in the area of environmental protection and transport infrastructure with a value in excess of EUR 10 million. With the participation of the Cohesion Fund it is possible to implement such investment projects as modernisation, modification and expansion of the trans-European transport network (TEN-T).

### Structural Funds

They are instruments of the EU structural policy. Their task is to support restructuring and modernisation of the Member States' economies through interventions in key sectors and regions. In this way, they contribute to better economic and social cohesion of the EU. The primary source of financing investment activity of PKP Polskie Linie Kolejowe S.A. in 2013 as part of the structural funds was the European Regional Development Fund (ERDF).

The purpose of this fund is to help counteract the main regional imbalances in the European Union through participation in the development and structural adjustment of underdeveloped regions and conversion of declining industrial regions. In 2013, PKP Polskie Linie Kolejowe S.A. continued its efforts comprising railway lines modernization co-funded from the ERDF within the Regional Operational Programmes, which are the most important instruments of regional development policies.

## TEN-T Fund

TEN-T Fund is a programme of the European Union assistance in the field of transport addressed to all Member States. Funds from the TEN-T budget are earmarked for the projects of common interest, which:

1. contribute to sustainable development of the transport network throughout the European Community;
2. ensure consistency and interoperability of the trans-European transport network and access to it by integrating all modes of transport;
3. help to protect the environment and increase safety standards.

## New financial framework 2014-2020 - CEF Instrument

In the new financial perspective, Poland will benefit from the European Regional Development Fund (ERDF), the Cohesion Fund (CF) and parts of the Cohesion Fund resources, which will be moved to the new „Connecting Europe Facility” (CEF).

CEF was founded by the Regulation of the European Parliament and of Council (EU) no. 1316/2013 of 11 December 2013 on establishing the „Connecting Europe Facility”. It is a new instrument that defines the conditions, methods and procedures for granting EU financial aid to Trans-European networks (Trans-European Networks - Transport - TEN-T) to support projects that involve the development, construction or modernisation of existing infrastructure, of common interest in the transport, telecommunications and energy sectors, and in order to utilise the potential synergies between these sectors (in the transport sector, priority is given to the missing links).

Rules for granting additional funds under the CEF are similar to the rules of the TEN-T Fund. It will be managed directly by the European Commission. Applications of potential beneficiaries are submitted at the Innovation and Networks Executive Agency. They will be subject to the assessment by internal experts and Directorate General for Mobility and Transport of the European Commission (DG MOVE), as well as by external experts, acting on behalf of these institutions.

Each year, one call for proposals for the CEF will take place in a competition mode. In the first three competitions, i.e. in the years 2014, 2015 and 2016, the so-called national envelopes will be in use. Projects from a given country will not compete for co-funding against projects from another country – to receive funds it will be sufficient to meet the criteria for the so-called maturity of the project as well as match the strategic development directions of the TEN-T (only the projects in the TEN-T base network may be eligible to receive funding under the CEF). Starting from 2017, national envelopes will be eliminated, and in order to obtain the co-funding it will not only be necessary to meet the above criteria, but also one will have to obtain a score high enough to be included in the group of projects (from all EU Member States to which the CEF is addressed) falling in a specific pool of funds for the contest. At that

stage, another condition for receiving co-funding will be the commencement of work within a task, i.e., for implementation projects – the start of construction works. It is therefore essential to obtain approval for the projects submitted by PKP Polskie Linie Kolejowe S.A in the years 2014-2016 as part of national envelopes.

In 2013, PKP Polskie Linie Kolejowe S.A. commenced the preparatory work with regards to the project financing instrument – CEF. The aim of this is to prepare applications for the projects listed below and to submit them under the first call for proposals, which is to open in September 2014:

1. work on railway line E59 on the Wrocław - Poznań section, stage 4, border of Dolnośląskie Province - Czempin section;
2. work on the ring rail line in Warszawa (section Warszawa Gołębki/Warszawa Zachodnia - Warszawa Gdańska);
3. work on railway line E75 on the Sadowne - Białystok section along with the remaining work on the Warszawa Rembertów - Sadowne section;
4. work on railway line E20 on the Warszawa - Poznań section plus remaining work, section Sochaczew - Swarzędz;
5. work on railway line Warszawa Włochy - Grodzisk Mazowiecki (railway line no. 447);
6. work on railway line E59 on the Poznań Główny - Szczecin Dąbie section.

The total value of these projects amounts to approx. PLN 8 billion, which requires financial resources from:

1. CEF (EU resources) - PLN 5.6 billion;
2. state budget - PLN 1.5 billion;
3. EIB loan - PLN 0.9 billion.

## Investment Forum

Through organising the Investment Forum Polskie Linie Kolejowe S.A. tries to ensure an effective cooperation, exchange of experiences and making changes with respect to the implementation of railway investments. The year 2013 was a time of dialogue between entrepreneurs, the beneficiary and institutions involved in the investment process. Throughout the year we organised 40 meetings of working groups of 15-40 people, depending on the size of the group.

Participation in the forum is voluntary. The Forum members are service and production companies (associating organisations) providing railway infrastructure services with respect to investments, and public administration bodies, e.g. Public Procurement Office, Office of Railway Transportation, etc.

As part of the Investment Forum, the Forum Board was established comprising:

1. representative of PKP Polskie Linie Kolejowe S.A.;
2. representatives of contractors;
3. representative of the Minister of Infrastructure and Development.

It was decided that four basic Working Groups and four Topic Groups will be established divided into:

1. Working Group “designer + service provider”;
2. Working Group “engineer”;
3. Working Group „contractor + manufacturer”, including:
  - Topic Group “selection criteria”;
  - Topic Group “contract provisions” – analysing contract provisions;
  - Topic Group “technical” – dealing with the provisions of Terms of Reference and Descriptions of the Object of Contracts;
  - Topic Group “legislative” – dealing with analysing regulations and guidelines as well as proposals of legislative changes. Moreover, a decision was made to put on hold the Group’s work until the preliminary postulates are discussed in other groups.
4. The “institutional” Working Group – working on common declarations, taking into account the cooperation of all working group leaders, representatives of institutions, Executive Committee and the Board of the Forum.

In addition to this, on 21 June 2013, the 2nd Plenary Investment Forum took place which was attended by some 120 people. It was an opportunity for a dialogue between administration (including the OPI&E managing, intermediary and implementing institution), entrepreneurs and the investor (beneficiary of EU funds). The sessions were attended by representatives of the then Ministry of Transport, Construction and Maritime Economy, Ministry of Regional Development (since 27 November 2013 – the Ministry of Infrastructure and Development), Public Procurement Office, Centre for EU Transport Projects and of the JASPERS Initiative.

The idea behind the Forum is to address the problems that contractors and ordering parties face in the course of investment preparation and implementation. After preliminary work on postulates by particular working groups, the time came to present the materials to a larger group of people. With the Plenary Forum the group leaders were able to present standpoints reflecting the perspective of various parties interested. Attention was drawn to the problems in a wider perspective and – what is more important, considering the hands-on experience and competence of the members of particular working groups – about 60 postulates were submitted along with justifications. The topics discussed included the current situation of the Company and the market, priority actions, challenges and problems along with possibilities for cooperation development.

It was assumed that all investment activities should be developed in a comprehensive, reliable way and from a multi-criteria perspective through a dialogue involving all the parties interested; this is a prerequisite to reach the assumed objectives within a specified time-frame and with required quality and diligence.

Having identified the crucial issues, the first tangible effects of the Investment Forum activity have become evident:

1. some of the provisions were reflected in the base documents of PKP Polskie Linie Kolejowe S.A.;
2. participants established cooperation with the Public Procurement Office in developing a “Specimen contract for public procurement comprising construction work on line structures”;
3. at the meetings with the representatives of the Public Procurement Office the need to amend the Act on Public Procurement Law was discussed, especially with respect to:

- joint and several liability of a third party the resources of which are relied on by the contractor;
- making the definition of “blatantly low price” more precise;
- introducing provisions limiting the application of price as the only criterion for bid evaluation.

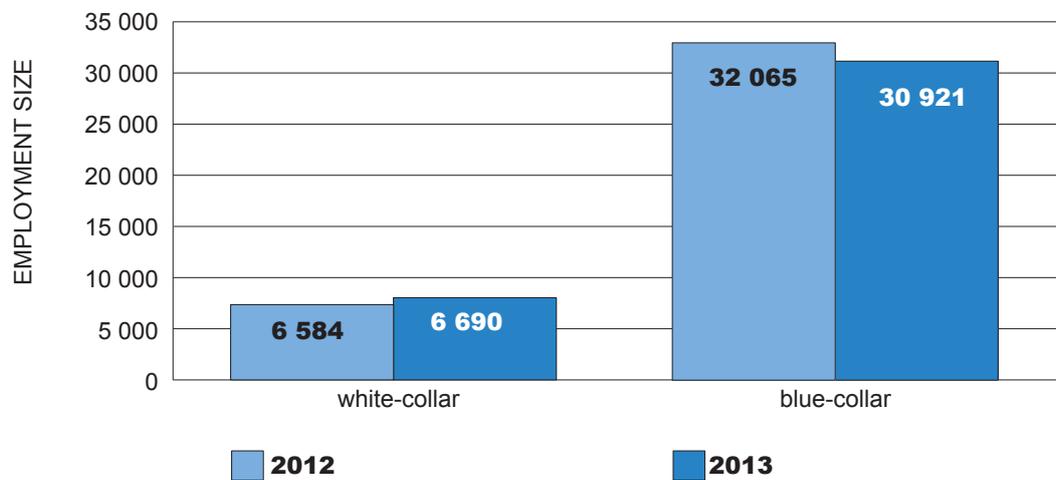
The participants in the Investment Forum agreed that this communication platform should definitely be continued.

## Human Resources

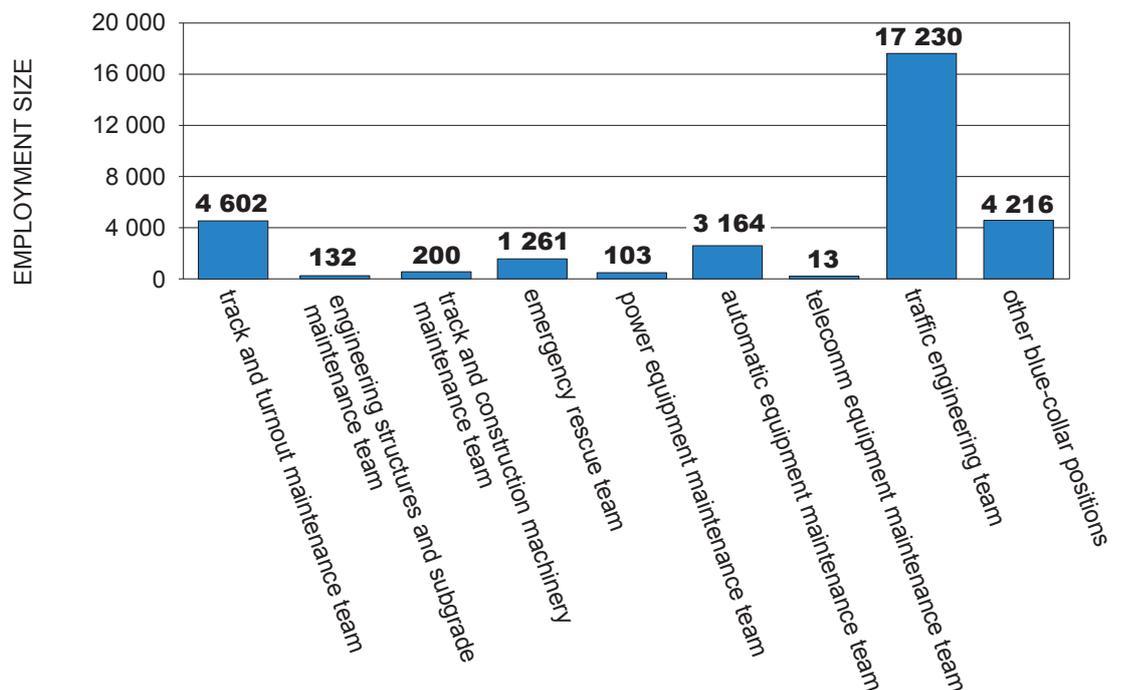
### Employment analysis

The year of 2013 was another year of employment rationalisation in the Company. In comparison to 2012, the employment level decreased by 1 038 people and amounted to 37 611 people. As regards the blue-collar positions, the employment level was brought down from 32,065 employees (as at 31 December 2012) to 30 921 employees. (as at 31 December 2013), i.e. it went down by 1 144 (3.57%). As regards the white-collar positions (incl. administrative) the employment level increased from 6 584 to 6 690 employees (as at 31 December 2013) i.e. the employment level went up by 106 people (1.61%).

Employment level in occupation groups as at 31 December 2013 – in persons

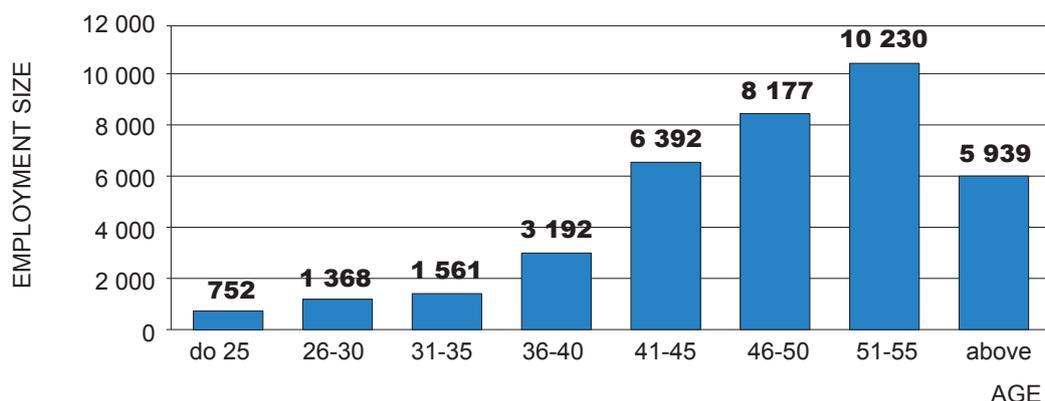


Employment level on blue-collar positions as at 31 December 2013 – in persons



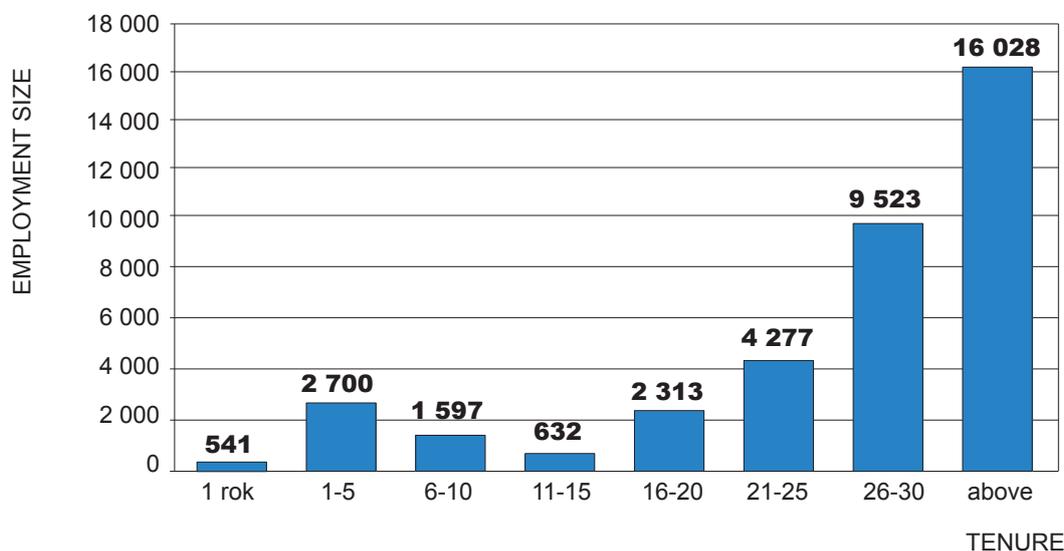
Aside from changes in numbers, the year 2013 saw changes in the age structure of the Company's personnel. The employees aged 25 and less comprised 2% of the whole workforce (752 employees) – in this category the number of employees decreased by 45 people, namely 5.65%. The employees aged 26-50 are the largest group in the Company (who are people in the period of their most intensive professional activity). They comprise 55.01% of all the members of the staff (20 690 employees). In this category, there was a decrease of the employment level by 1 538 employees, i.e. 6.92%. The third category are persons aged 51 and more. In 2013, they comprised 42.99% of the whole staff (16 169). In this group, the employment level grew by 542 employees, i.e. by approx. 3.5%.

Employment structure by age as at 31 December 2013 – in persons



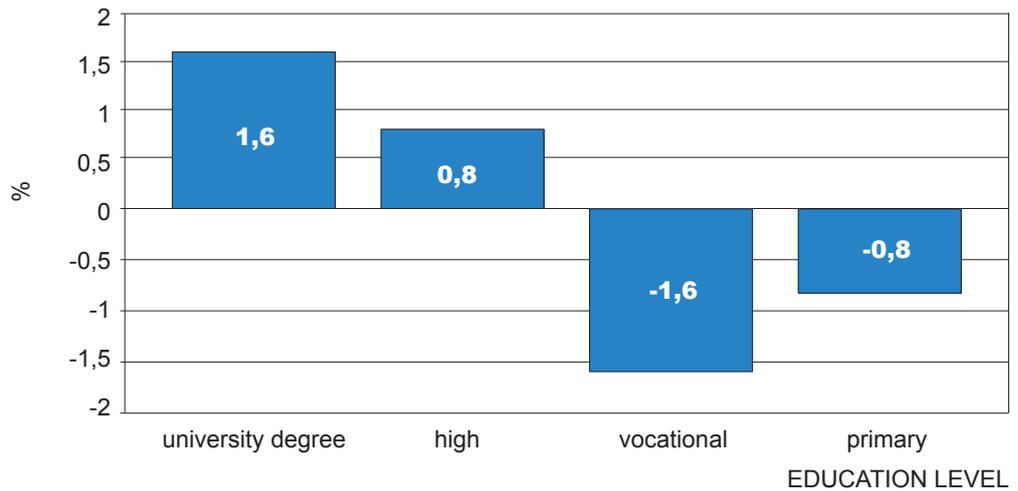
Employees with a job history at the Company of up to 10 years comprised 12.87% of the staff (4 838 employees) – in this group an increase by 342 employees was recorded, namely by about 1.23% when compared to 31 December 2012. Employees with a tenure of 11 to 20 years comprised 7.83% of the personnel (2 945 persons), which is a decrease by 502 employees, namely about 1.09%, when compared to 31 December 2012. The most numerous group in the Company is composed of persons with a tenure exceeding 21 years, who comprise 79.31% of the total number of employees (29 828 employees). In comparison to 31 December 2012, this group recorded a decrease by 890 employees, namely by about 2.9%.

As at 31 December 2013, the employment structure broken down into the length of tenure – in persons



In 2013, we observed further positive developments in terms of the education-related structure of the Company's personnel. The most important factor in this case was the increase in the number of employees with an academic degree with the simultaneous decrease in the number of people with secondary, basic vocational, or primary education. This results from the Company's policy which aims at recruiting highly-qualified employees and implementing continuous education programmes for the staff.

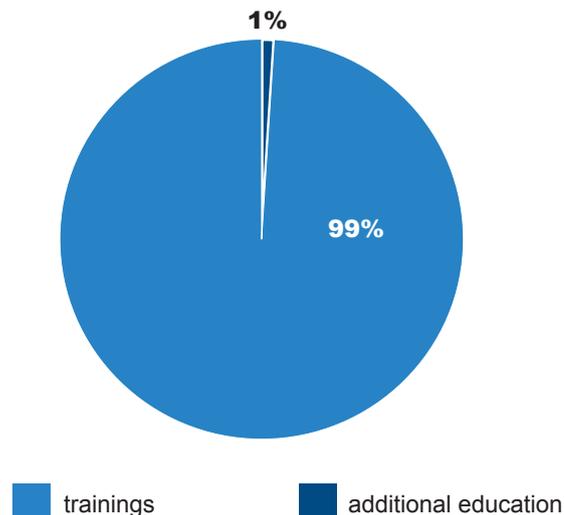
Dynamics of employees' education changes in 2013



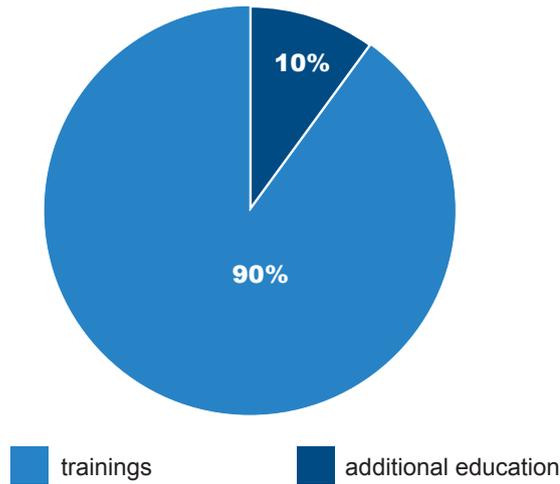
## Staff development

One of the priorities of PKP Polskie Linie Kolejowe S.A. is the development of staff competences which is a prerequisite to the Company's growth. Well-educated employees, who keep improving their qualifications, are a great potential and a guarantee of achieving positive results by the Company. Each year, PKP Polskie Linie Kolejowe S.A. earmark significant funds for, e.g., staff trainings, participation in seminars and conferences, improving the level of education and foreign language competences. In 2013, a total of 97 354 employees took part in personnel development programmes, of whom 96 741 participated in trainings, while 613 improved their level of education (including 14 persons who enrolled in language courses).

Share of particular forms of development



Share of costs for particular forms of development



For PKP Polskie Linie Kolejowe S.A. the development of its personnel is of particular importance due to the necessity to ensure safety of railway traffic, operation, maintenance and modernisation of railway lines as well as performance of other key tasks. Therefore, in 2013, as part of ordered trainings, the following were organised:

1. series of trainings for traffic orderlies, drivers of rail gang cars and motorized draisines on the psycho-physical aspect of effective communication (10 103 people were trained in 489 training groups); Drivers of railway gang cars and motorized draisines – 78 people were trained in 3 training groups;
2. trainings for diagnosticians of track superstructure and subgrade – 46 people were trained in 2 training groups;
3. series of trainings “Security – Crisis Management and Defence” for 262 people. The training was attended by traffic instructors, traffic orderlies and Railway Guards.

In 2013, PKP Polskie Linie Kolejowe S.A. enhanced the qualifications of its employees during in-company trainings on investments, geodetic surveying, construction work, Public Procurement Law, FIDIC, soft skills and management by objectives.

The highest number of people (774) participated in trainings on investment issues, including:

1. investment processes;
2. procedures of obtaining administrative decisions required to perform railway investments;
3. economic and financial analyses for the purpose of investment programmes. The geodetic surveying trainings were attended by 117 people, while the soft skills trainings – by 181 people. The trainings were aimed at the staff of the Headquarters and the Investment Implementation Office, who are involved in investment projects implementation.

As part of the in-company training contracts which continued from 2012, the personnel underwent the following trainings:

1. FIDIC – 232 participants;
2. Construction work – 433 participants;
3. Public Procurement Law – 73 participants.

## Mentor Instructor

The know-how of the staff working on basic positions directly related to railway traffic management is monitored and developed on a regular basis by Instructors (in-company trainers) during periodic and ad hoc instructional meetings. As part of the project “Mentor Instructor”, which was started in 2013, the Company:

1. introduced recruitment of Instructors using the Assessment Centre method;
2. tested key competences of all Instructors;
3. on the basis of obtained knowledge about gaps in competences, the Company developed a programme of a 5-module cycle of trainings called “Instructor’s Academy” which will be implemented in 2014.

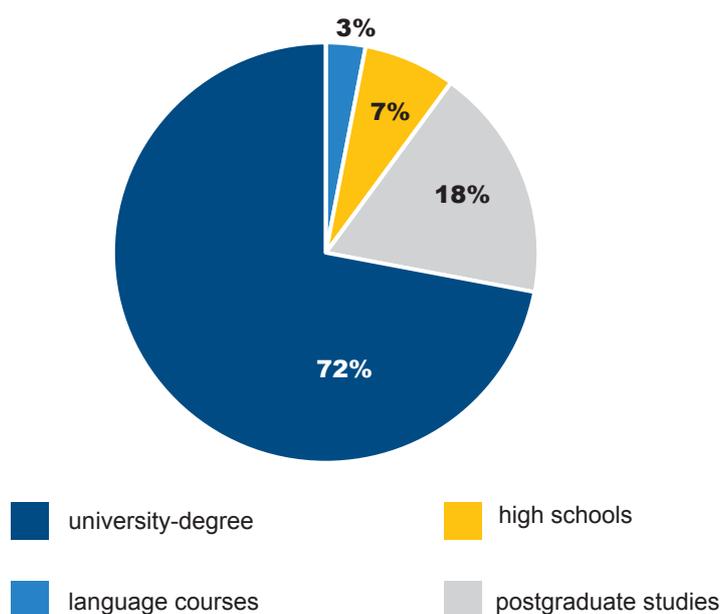
## Talent Development Programme

In 2013, PKP Polskie Linie Kolejowe S.A. launched a pilot project of talent management (i.e. the Company’s employees who stand out among others and have a potential for horizontal or vertical promotion). Under this project, the Company has been concentrating on innovativeness (each of the programme participants developed a proposal of improvements in the area in which he/she is active). The material is assessed by the commission comprising businesspersons and HR specialists, while the most interesting proposals are or will be put into effect.

## Additional education

PKP Polskie Linie Kolejowe S.A. offers additional funds to support education of its staff members at high schools, degree-level schools, and postgraduate schools as well as to support learning of foreign languages. In 2013, 613 staff members participated in the process of gaining additional education (including 14 taking part in language courses). The largest number of employees (443) who are gaining additional education are those who continue their studies at first- and second degree universities (BA, Eng., MA). The most popular majors included: construction, transport, management and administration.

% share of participants in particular forms of additional education



## Cooperation with schools

PKP Polskie Linie Kolejowe S.A. cooperates with high schools with respect to education focused on railway competences to ensure staff for the positions directly related to railway traffic safety.

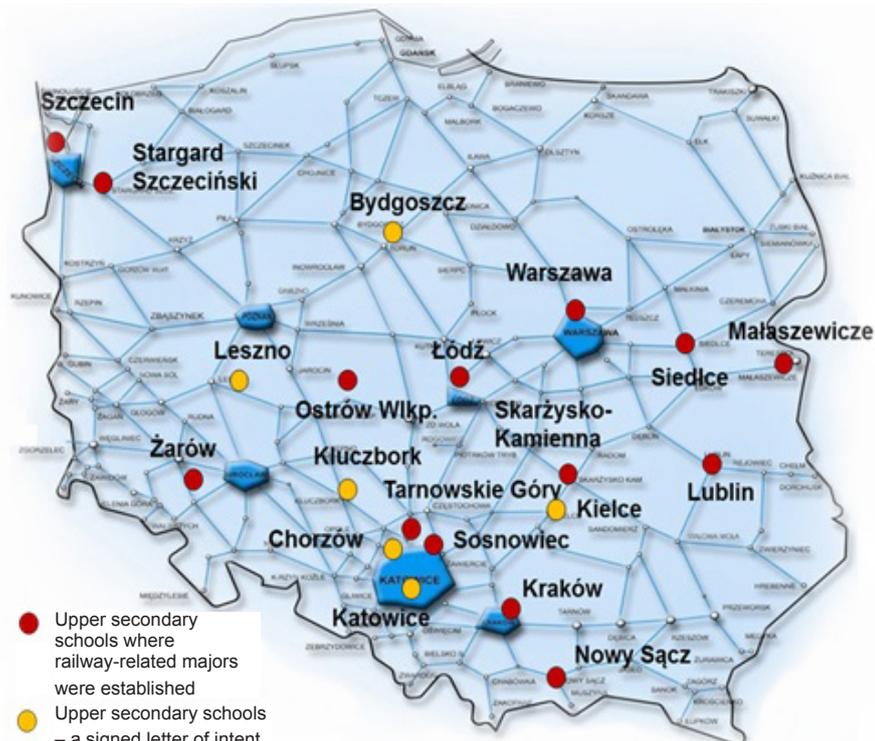
Schools which cooperate with PKP Polskie Linie Kolejowe S.A. offers education in the following areas:

1. railway transport technician;
2. railway roads and bridges technician;
3. railway traffic control systems technician (automation control);
4. rail transport electrical power engineering technician.

As part of cooperation with schools, the Company supports school managements in their efforts to establish railway specializations and develop curricula including vocational subjects; moreover, it takes part in developing programmes of vocational trainings and their organisation. In addition to that, the representatives of Polskie Linie Kolejowe S.A. participates in, among others, education fairs and “open days” organised at schools. The Company takes part in the process of recruiting candidates for schools with railway-related majors by printing leaflets to promote such majors, or by launching Facebook campaigns.

In 2013, as part of the created scholarship programme, 59 scholarship agreements were concluded with the students of schools in Siedlce, Małaszewicze, Łódź, Szczecin, Stargard Szczeciński, Sosnowiec, Lublin and Skarżysko-Kamienna. After graduation the Company guarantees employment to the students it supported, while the students are obligated to accept the job and perform it for the period corresponding to the period of scholarship at least.

The process of acquiring skills and qualifications through education at vocational schools prepares vocational school graduates to take on jobs on a given position in the Company thanks to the know-how they have acquired. This also makes it possible to reduce the costs of introductory trainings and adaptation.



## External communication

### New website

The new website [www.plk-sa.pl](http://www.plk-sa.pl) is a user-friendly portal; it has got attractive graphics and a content layout that is pleasant to eye – this, in turn, allows users to quickly find the information they look for.

The previous website had been in use from 2010. In late 2013, in order to standardise the method of presenting PKP Polskie Linie Kolejowe S.A., work commenced on building a new website which would take into account the latest standards of programming and designing new websites. Another impulse was the growing importance of mobile applications in browsing and downloading content. For users interested in this way of accessing information a special version of the website was developed.

### Composition

The new website is so much more than just graphic and visual assets. The new data layout is something worth attention. The contents have been selected and distributed in a way providing the user with fast and easy access to information regardless of whether he/she is competent in railway issues. This way the design has become more intuitive and friendly, and at the same time it matches the expectations of a broad spectrum of users. Thanks to this, the internet users who visit the website for the first time can find here the basic data on the Company's business as well as learn that PKP Polskie Linie Kolejowe S.A. implements investments, carries out infrastructure maintenance, develops timetables and manages train traffic; they may also find out more about the Company's priority, i.e. keeping safe its employees, passengers and people staying on railway premises. All this information in a nutshell can be found in the "About us" tag. The website is also intended for the entities active in the industries cooperating with PKP Polskie Linie Kolejowe S.A. This group, when visiting the website, is looking for specific information, such as regulations in the Company, price lists, manuals and other guidelines. Moreover, the website, revamped in terms of its contents, takes into consideration the needs of entities which are outside the railway sector but would like to establish business contacts with the Company, mainly in the area of public procurement. Most of all, with these two groups in mind, the "For clients and contractors" tab was created offering easy access to vital information.

An important element of the new website is also a large tab of the press office and an easy-to-read tab with contact details of the Management Board and organisational units of PKP Polskie Linie Kolejowe S.A.

The effective search engine on the website allows one to access the information available on it without the need to search through particular sections or subpages.

### Social networking websites

It is worth noting that the new website offers an even broader and quicker access to up-to-date information. This is possible due to highlighting – even at the home page – links to social networking sites where PKP Polskie Linie Kolejowe S.A. keeps its profiles: Facebook, Twitter and You Tube.

The new functionality allows users to go from the website to the selected portal with a single click; and from there obtain e.g. first-hand information about unexpected obstacles in railway traffic or watch the latest educational film about the activity of PKP Polskie Linie Kolejowe S.A.

## Trako International Railway Fair

On 24-27 September 2013, the representatives of PKP Polskie Linie Kolejowe S.A. took part in the 10th edition of Trako International Railway Fair in Gdańsk. The Fair is the most prestigious meeting place for the representatives of rail transport industry in Poland.

The visitors could admire the latest models of rolling stock used in passenger and freight transport as well as innovative solutions applied in railway infrastructure and technological innovations. PKP Polskie Linie Kolejowe S.A. was present at Trako as part of the PKP Group. The Company's representatives presented information about planned and implemented modernisation work on particular railway lines, about the latest technological solutions being deployed in the ongoing projects, along with information about the Company's priorities for the next EU budget 2014-2020. Throughout the event the stand of PKP Polskie Linie Kolejowe S.A. attracted many visitors to this important industry expo.

## “Man of the Year - Friend of the Railway” competition

The ceremony summing up the “Man of the Year - Friend of the Railway” competition took place during the 3rd Railway Congress on 5 November 2013 at Mariott Hotel in Warsaw. The “Man of the Year - Friend of the Railway” competition, which goes by the name of “Railway Oscars” in the railway milieu, has become an important point in the calendar of railway transport events. The winners of the competitions held so far comprise over 50 prominent representatives of the world of science, politics, business and local governments.

In 2013, the competition organisers amended its regulations and introduced several changes to the procedure of selecting the winners. In consideration of the above, the following distinctions were awarded in the competition: Man of the Year – Rail Transport, Friend of the Railway, and Railwayman of the Year.

By the decision of the competition jury the winners of the 9th edition were:

### 1. Title Man of the Year – Rail Transport

- Krzysztof Dyl, President of the Office of Rail Transportation;
- Jarosław Pawluk, President of the Management Board, Track Tec S.A.;

### 2. Title Friend of the Railway

- Andrzej Gołaszewski, PhD, distinguished railway scientist and expert with hands-on experience,
- Railway Institute;
- Gdańsk International Fair;

### 3. Title Railwayman of the Year

- Zbigniew Lipiński, technical supervisor, engine driver, Żnińska Kolej Powiatowa;
- Wiesław Młodzianowski, engine driver, “Koleje Mazowieckie - KM” Sp. z o.o.;
- Stanisław Siwek, senior engine driver, “Koleje Mazowieckie - KM” Sp. z o.o.;
- Wojciech Tomala, traffic orderly, PKP Polskie Linie Kolejowe S.A., Zakład Linii Kolejowych w Zielonej Górze;
- Robert Rogala (senior sergeant, Railway Guards) and Tomasz Goworek (senior guard, Railway Guards).

## Contact details

### Company Headquarters

ul. Targowa 74  
03-734 Warszawa  
[www.plk-sa.pl](http://www.plk-sa.pl)  
[www.plk-inwestycje.pl](http://www.plk-inwestycje.pl)  
[www.bezpieczny-przejazd.pl](http://www.bezpieczny-przejazd.pl)  
[www.kgsok.pl](http://www.kgsok.pl)

### Management Board Office

tel. (22) 473 33 40  
fax (22) 473 25 67  
e-mail: [ibz@plk-sa.pl](mailto:ibz@plk-sa.pl)

### Central Order Processing Office

tel. (22) 473 23 95  
fax (22) 473 23 99  
e-mail: [icz@plk-sa.pl](mailto:icz@plk-sa.pl)

### Sales Office

tel. (22) 473-20-30  
fax (22) 473-28-04  
e-mail: [ius@plk-sa.pl](mailto:ius@plk-sa.pl)

### Investment Implementation Office

tel. (22) 473 21 53  
fax (22) 473 21 54  
e-mail: [ir@plk-sa.pl](mailto:ir@plk-sa.pl) lub [centrum.ir@plk-sa.pl](mailto:centrum.ir@plk-sa.pl)

### Communication and Publicity Office

tel. (22) 473-23-38  
fax (22) 473-23-34  
e-mail: [iip@plk-sa.pl](mailto:iip@plk-sa.pl)

### Spokesperson

tel: (22) 473 30 02  
tel: (+48) 662 114 900  
e mail: [rzecznik@plk-sa.pl](mailto:rzecznik@plk-sa.pl)

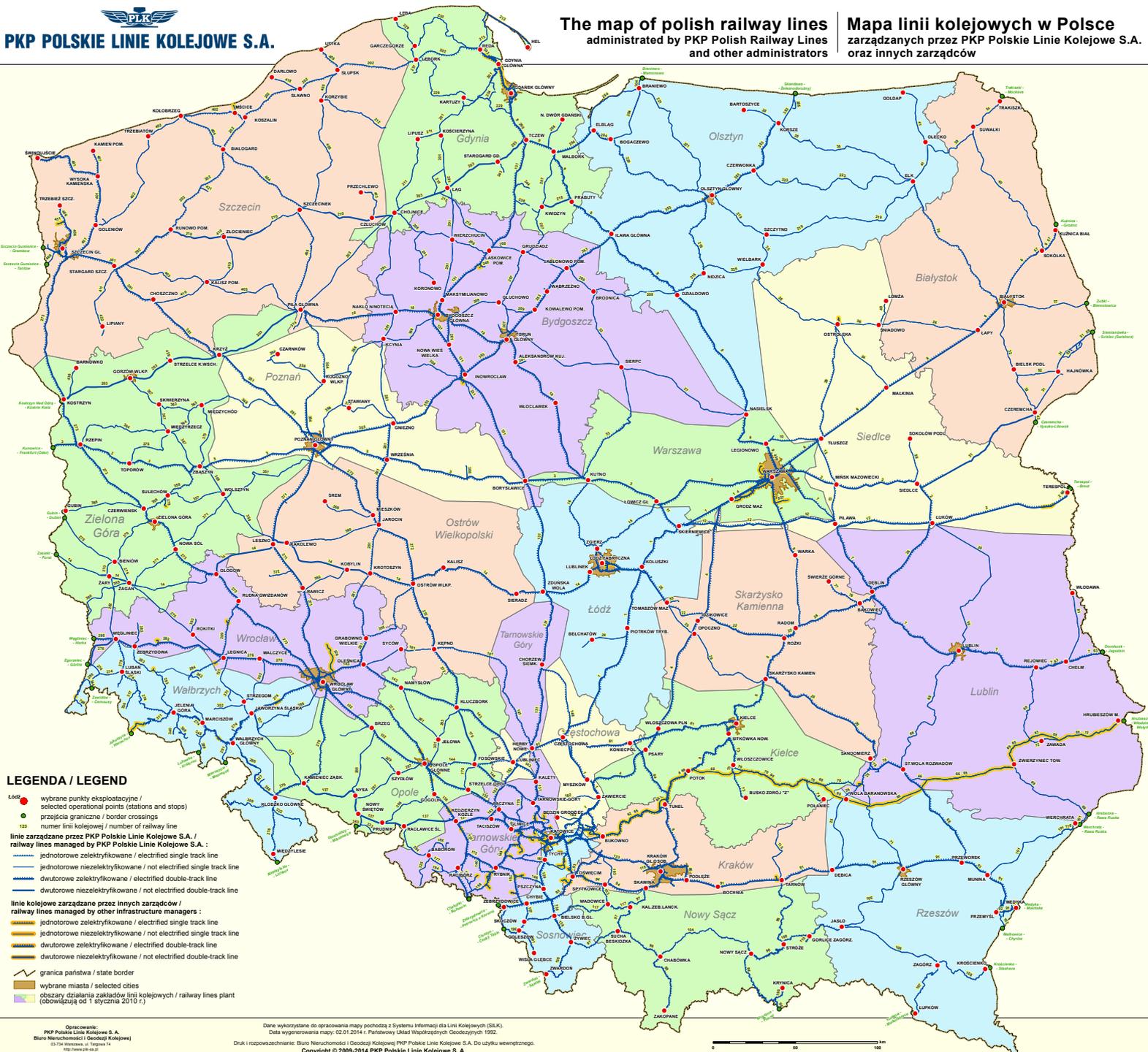
# Railway lines map



**PKP POLSKIE LINIE KOLEJOWE S.A.**

**The map of polish railway lines**  
administrated by PKP Polish Railway Lines  
and other administrators

**Mapa linii kolejowych w Polsce**  
zarządzanych przez PKP Polskie Linie Kolejowe S.A.  
oraz innych zarządców



**LEGENDA / LEGEND**

- wybrane punkty eksploatacyjne / selected operational points (stations and stops)
- przejścia graniczne / border crossings
- 123 numer linii kolejowej / number of railway line
- linie zarządzane przez PKP Polskie Linie Kolejowe S.A. / railway lines managed by PKP Polskie Linie Kolejowe S.A. :
  - jednotorowe zelektryfikowane / not electrified single track line
  - jednotorowe nieelektryfikowane / not electrified single track line
  - dwutorowe zelektryfikowane / electrified double-track line
  - dwutorowe nieelektryfikowane / not electrified double-track line
- linie kolejowe zarządzane przez innych zarządców / railway lines managed by other infrastructure managers :
  - jednotorowe zelektryfikowane / electrified single track line
  - jednotorowe nieelektryfikowane / not electrified single track line
  - dwutorowe zelektryfikowane / electrified double-track line
  - dwutorowe nieelektryfikowane / not electrified double-track line
- granica państwa / state border
- wybrane miasta / selected cities
- obszary działania zakładów lini kolejowych / railway lines plant (obowiązują od 1 stycznia 2010 r.)

Opracowanie:  
PKP Polskie Linie Kolejowe S.A.  
Biuro Nieruchomości i Geodazj Kolejowej  
03-734 Warszawa, ul. Targowa 74  
http://www.plk-sa.pl

Dane wykorzystane do opracowania mapy pochodzą z Systemu Informacji dla Lini Kolejowych (SILK).  
Data wygenerowania mapy: 02.01.2014 r. Państwowe Biuro Wydziału Geodezyjny 1992.  
Druk i rozpowszechnianie: Biuro Nieruchomości i Geodazj Kolejowej PKP Polskie Linie Kolejowe S.A. Do użytku wewnętrznego.  
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Developed by:  
PKP Polskie Linie Kolejowe S.A.  
03-734 Warszawa,  
ul. Targowa 74  
http://www.plk-sa.pl

The data used in the development of the map come from the SILK system [Railway line information system].

Map generation date: 2 Jan. 2014, State System of Geodetic Coordinates 1992

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