



State Commission on Rail Accident Investigation
Ministry of Infrastructure

ANNUAL REPORT FOR 2018

FROM THE OPERATIONS OF THE
State Commission on Rail Accident
Investigation

approved by:

Signed on the original copy:

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President of the State

Commission on Rail Accident Investigation

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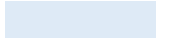
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List of contents:

Point	Title	Page
1.	Introduction	4
1.1	Legal basis for the operation and tasks of the Commission	4
1.2	Organisational structure of the Commission	5
2.	Forms of conducting proceedings by the Commission and supervision by the President in 2018.	9
3.	Incidents from 1 January to 31 December 2018	12
3.1	Incidents notified to the Commission by the entities obliged to do so	12
3.2	Events in respect of which the Commission has conducted proceedings directly, of which the European Union Agency for Railways (EUAR) has been notified	17
3.2.1	A serious accident of category A 21, which occurred on 27 February 2018 at 18:57 at a D-category level crossing localized on the monorail line Opole Zachodnie - Szydłów, at km 1.934 of the railway line No. 287 Opole Zachodnie - Nysa	17
3.2.2	A B11 accident which occurred on 10 May 2018 at 16:12 at the Wronki station, track No. 1, at 50,474 km of railway line No. 351 Poznań Główny - Szczecin Główny	20
3.2.3	A serious accident of category A 21, which occurred on 13 June 2018 at 12:54 PM at a D-category level crossing localized on the Szczecin Podjuchy – Daleszewo Gryfińskie line, track 2, at km 342,231 of the railway line No. 273 Wrocław Główny – Szczecin Główny	22
3.2.4	A18 category serious accident which occurred on 2 August 2018 at 16:30 on a category A level crossing serviced by the crossing guard from post 43, on the Pierzyska-Gniezno route, track 1, at km 43,141 of railway line 353 Poznań Wschód - Skandawa	24
3.2.5	A serious accident of category A 21, which occurred on 23 August 2018 at 11:17 AM at a D-category level crossing localized at the Szaflary station , at km 25,749 of the railway line No. 99 Chabówka - Zakopane	
3.2.6	A serious accident of category A 21, which occurred on 17 November 2018 at 11:49 AM at a D-category level crossing localized at the Dobrzechów – Frysztak route, track 1, at km 42,602 of the railway line No. 106 Rzeszów - Jasło	26
3.2.7	A serious accident of category A 20, which occurred on 19 December 2018 at 14:33 PM at a C-category level crossing localized at the Głogów Małopolski - Rzeszów route, at km 63,130 of the railway line No. 71 Ocice - Rzeszów	29
		30
4.	Recommendations on improving safety issued by the Commission in annual reports pursuant to art. 281 par. 6 of the Act of 28 March 2003 on railway transport	31
	Recommendations issued in 2018, published in the 2017 Annual Report of the PKBWK	31
	Recommendations issued in this 2018 Annual Report.	33
5.	Implementation of recommendations issued in 2018 by the PKBWK (based on information from the Office of Rail Transport - UTK)	35
5.1	Analysis of information on the implementation of recommendations.	36
5.2	Summary of the implementation of the Commission's recommendations (based on the position of the President of UTK)	56
6.	Analysis of events occurring in 2018	59
7.	Other aspects related to the functioning of the Commission in 2018.	66
8.	PKBWK tasks for 2019	70
9.	Summary	72
10.	PKBWK contact details as of 1 August 2019.	74
	ANNEX to the Annual Report of the PKBWK for 2018. Information on the	75

implementation of the recommendations of the PKBWK issued in 2018.



1. Introduction

1.1 Legal basis for the operation and tasks of the Commission

An independent, permanent State Commission for the Investigation of Railway Accidents ("the Commission" or "PKBWK") operates at the Minister responsible for transport. The establishment of the Commission was the result of the implementation into national law of Directive 2004/49/EC of the European Parliament and the Council of 29 April 2004 on the safety of the Community's railways ("Directive"). In accordance with art. 21 of the Directive, each Member State should ensure that the causes of accidents and incidents are investigated by a permanent entity that is functionally, organisationally and decisively independent from the safety authority, railway market regulator, railway undertakings, infrastructure managers and any other parties whose interests may conflict with the functioning of the investigating body. The State Commission on Rail Accident Investigation ("Commission") is the national investigative body specified in the Directive, according to national law. The Commission is fully independent in terms of organisation and law from the entities referred to in art. 21 of the Directive and represented externally by the President.

Pursuant to the provisions of Chapter 5a of the Act of 28 March 2003 on rail transport (consolidated text: Dz. U. of 2019 item 710 as amended), The Commission carries out its tasks on behalf of the Minister competent for transport. In accordance with the comments submitted by representatives of the European Commission to the provisions of national law, changes were introduced to the Act on rail transport, the Act of 25 September 2015 on amending the act on rail transport (Dz. U. item 1741). The basic task of the Commission is to conduct proceedings **after every serious accident** in rail transport (occurring on railway lines and railway sidings) having an obvious (negative) impact on rail safety regulations or on the management of this safety. The Commission may also conduct proceedings **in the event of accidents or incidents which, under slightly different conditions, would be serious accidents** causing the cessation of structural subsystems or interoperability constituents of the trans-European rail system.

The decision on commencing proceedings in the event of an accident or incident referred to above shall be taken by the Chairman of the Commission not later than within one week of receiving information about its occurrence.

The Commission may conduct proceedings in respect of an accident and other incident, provided that it occurred in circumstances justifying such an investigation, in this case the decision to initiate proceedings pursuant to art. 28e paragraph 2a of the Act on rail transport, is taken by the Chairman of the Commission without a specific date.

In accordance with the changes introduced to the Act on rail transport, from 1 March 2016, the scope of the Commission's competence was extended to include the possibility of investigating events that have place at railway sidings. Covering railway sidings with analogous solutions that

operate on railway lines causes unification of the rules for collecting data on railway events and taking into account also the threats that result from transport in the area of railway sidings. Another condition for the possibility of conducting accident proceedings and incidents are their occurrence in repetitive situations caused by similar reasons. Each decision to proceed with an accident or incident is preceded by:

- severity of the accident or incident;
- whether the accident or incident creates a series of accidents or incidents relating to the system as a whole;
- impact of the accident or incident on rail safety at Community level;
- applications of managers, railway carriers, minister competent for transport, President of UTK or EU Member States.

Within one week from the date of the decision to commence proceedings, the Commission shall inform the Agency, stating the date, time and place of the event, as well as its type and effects including fatalities, injuries and injuries sustained as well as material losses.

As part of its activities, the Commission conducts investigations to determine the causes and circumstances of occurrences, as well as to identify preventive conclusions aimed at improving safety in rail transport. The Commission makes decisions in the form of a resolution.

Members of the Committee have ID cards entitling them to perform official duties at the place of the railway incident, as well as other activities related to it, in accordance with with the ordinance of the Minister of Transport of February 21, 2007 on the model ID card of a member of the State Commission for the Investigation of Railway Accidents (Dz. U. item 269).

In cases where the Commission conducts proceedings, it prepares a report compliant with the regulation of the Minister of Transport of 12 April 2016 amending the ordinance on the contents of the report on the proceedings in the case of a serious accident, accident or incident railway (Dz.U., item 369).

1.2 Organisational structure of the Commission

As of 31 December 2018, the Commission consisted of 11 permanent members including the Chairman, two Deputies, the Secretary and one employee of the Commission's staff dealing with administrative and office matters and the secretariat of the President of the Commission. The Commission has its seat at the Ministry of Infrastructure in Warsaw, ul. Chałubińskiego 4, and as stipulated in art. 28d par. 2 of the act, personnel, financial and social services and the administration of the Commission is run by the appropriate organizational units of the office servicing the minister responsible for transport. the office supporting the minister competent for transport.

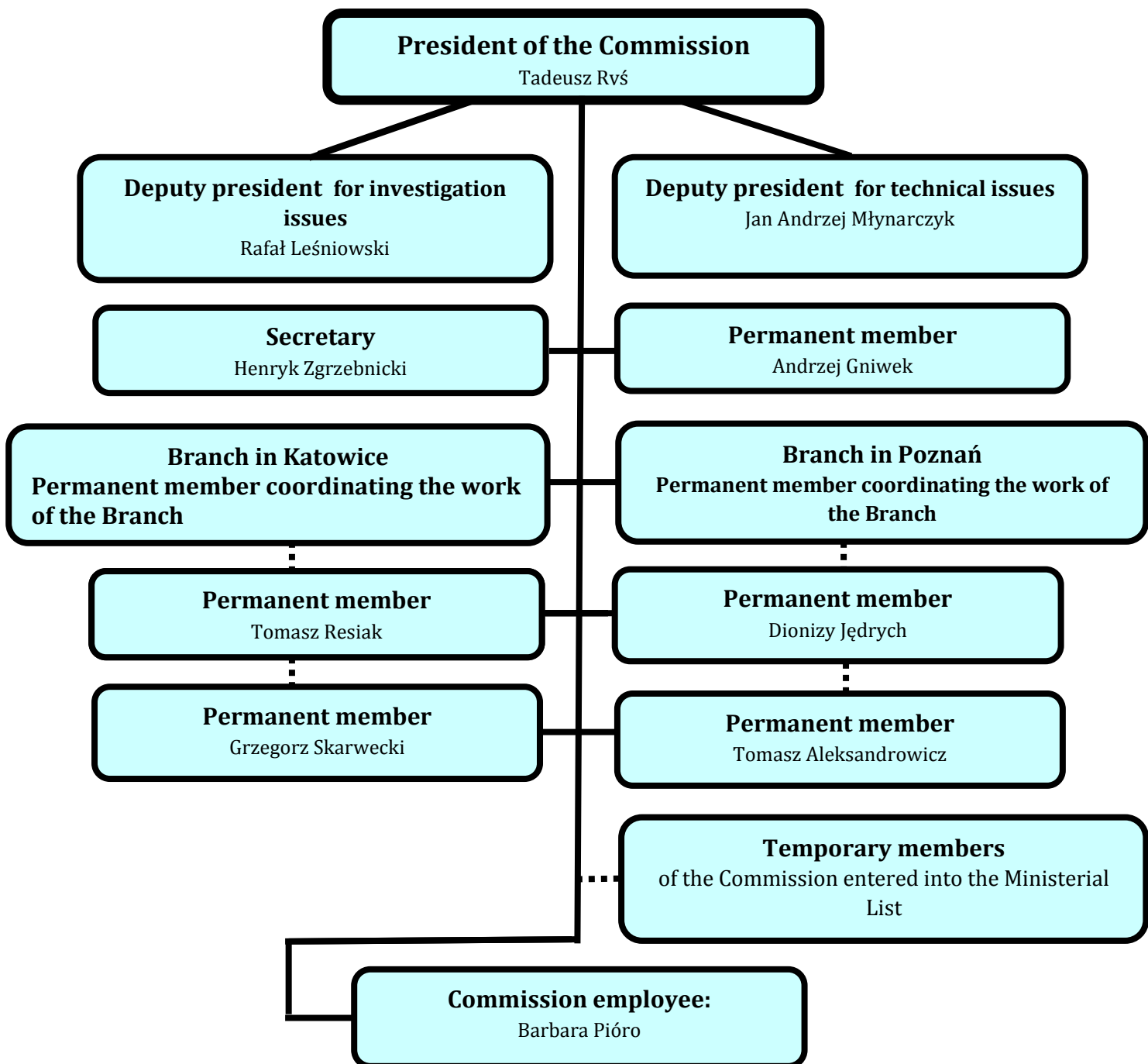
Pursuant to the provisions of § 5 para. 1 of the Regulations of the State Commission for the Investigation of Railway Accidents, contained in Annex 1 to Regulation No. 29 of the Minister of Infrastructure and Construction of 22 June 2017 on the regulations of the State Commission for the Investigation of Railway Accidents (Dz. U. Min. Inf. and Constr. Pos. 48), the President coordinates the implementation of the tasks of the Commission, ensures proper organization of the work of the Commission, its efficient operation and represents the Commission outside.

As a result of the change in 2015, the Act on rail transport imposed on GDPWK additional obligations related to including in its scope also railway sidings, which resulted in a surge in the number of events reported to the Commission from March 1, 2016. In the new system, the scope of activity by PKBWK more than 700 entities are covered, including railway line managers, carriers and siding users, who are obliged to report events to the Commission for the purposes of undertaking proceedings.

Based on the statutory delegation specified in art. 28d paragraph 4 of the Act of 28 March 2003. on rail transport, the minister competent for transport was obliged to specify, by way of an ordinance, the regulations of the Commission, the number of its permanent members and the organizational structure, taking into account the nature of its tasks and the need to provide adequate resources necessary for the proper implementation of the Commission.

According to the new organisational structure the Commission consists of:

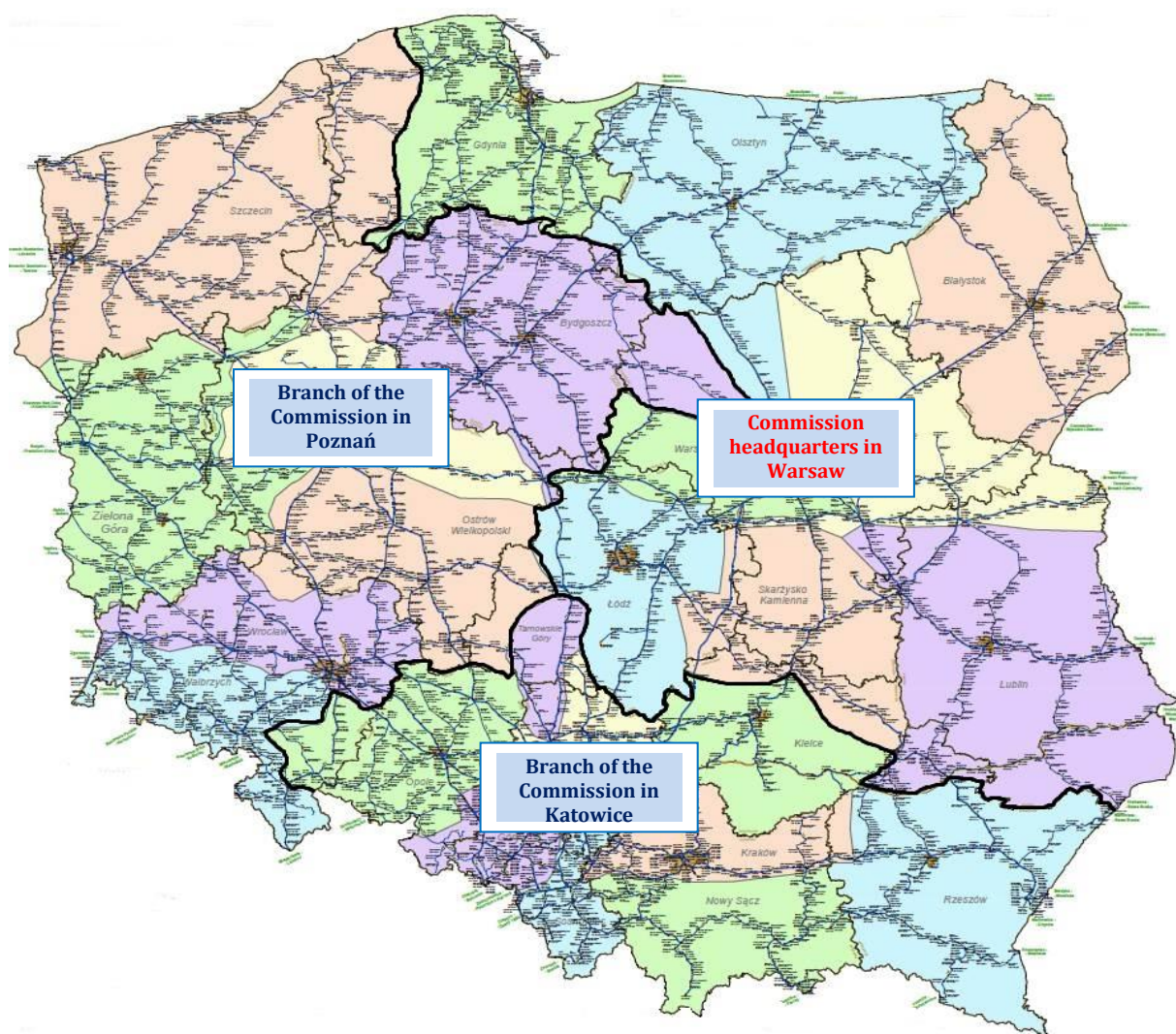
1. Commission office with headquarters in Warsaw (6 positions):
 - 1) permanent members (5 positions):
 - a) president,
 - b) deputy president for investigation issues,
 - c) deputy president for technical issues,
 - d) secretary,
 - e) permanent member;
 - 2) secretarial staff (1 position)
2. Commission Branch in Katowice (4 positions):
 - 1) Permanent member coordinating the work of the Branch
 - 2) permanent members (3 positions):
3. Commission Branch in Poznań (3 positions):
 - 1) Permanent member coordinating the work of the Branch
 - 2) permanent members (2 positions):



Status as of 31 December 2018

Employment status as of 31 December 2018 in:

- the office of the Commission with its seat in Warsaw - 6 persons (including 5 permanent members and one secretarial employee),
- a branch of the Commission in Katowice - 3 people,
- a branch of the Commission in Poznań - 3 people.



Restructuring changes regarding the Commission established by the Act of 25 September 2015 on the amendment of the Act on railway transport (Dz. U. item 1741) were implemented in 2017.

Organizational structure and new Rules of Operation of the State Railway Accident Investigation Commission were introduced by Regulation No. 29 of the Minister of Infrastructure and Construction of 22 June 2017 on the operating rules of the State Railway Accident Investigation Commission (Dz. U. Min. Inf. and Constr. item 48).

2. Forms of conducting proceedings by the Commission and supervision by the President in 2018.

In 2018, the Commission conducted proceedings on serious accidents and incidents in the following forms:

1. Conducting the proceedings by the Commission research team appointed by the Chairman of the Commission - in this form, the Chairman of the Commission appointed the head of the research team, and then in consultation with him determined the composition of the research team from among permanent and ad hoc members of the Commission. The Commission research team carried out activities to determine the circumstances and causes of events, preparation of documentation describing the process of proceedings, necessary for the Commission to adopt a resolution closing the investigation of a serious accident, accident or incident. The head of the research team designated and coordinated the activities performed by persons who were members of this team and was responsible for the correctness of the activities carried out. The tasks and the detailed scope of activities are specified in the organizational regulations of PKBWK of 22 June 2017. Until the entry into force of the Regulation of the Minister of Infrastructure and Construction of 12 April 2016 amending the regulation on the content of the report on proceedings in the event of a serious accident, accident or railway incident, the tasks and responsibilities of the research team were performed in the same form by a team called an accident accident.

In 2018, the President of the Commission decided seven times to take over the proceedings by the Commission research team regarding the following events:

- 1) a serious accident of category A 21, which occurred on 27 February 2018 at 18:57 at a D-category level crossing localized on the monorail line Opole Zachodnie - Szydłów, at km 1.934 of the railway line No. 287 Opole Zachodnie - Nysa;
- 2) a B11 accident which occurred on 10 May 2018 at 16:12 at the Wronki station, track No. 1, at 50,474 km of railway line No. 351 Poznań Główny - Szczecin Główny
- 3) a serious accident of category A 21, which occurred on 13 June 2018 at 12:54 PM at a D-category level crossing localized on the Szczecin Podjuchy – Daleszewo Gryfińskie line, track 2, at km 342,231 of the railway line No. 273 Wrocław Główny – Szczecin Główny
- 4) A18 category serious accident which occurred on 2 August 2018 at 16:30 on a category A level crossing serviced by the crossing guard from post 43, on the Pierzyska-Gniezno route, track 1, at km 43,141 of railway line 353 Poznań Wschód - Skandawa
- 5) a serious accident of category A 21, which occurred on 23 August 2018 at 11:17 AM at a D-category level crossing localized at the Szaflary station , at km 25,749 of the railway line No. 99 Chabówka - Zakopane

- 6) a serious accident of category A 21, which occurred on 17 November 2018 at 11:50 AM at a D-category level crossing localized on the Dobrzechów – Frysztak route, at km 42,602 of the railway line No. 106 Rzeszów Główny – Jasło;
- 7) a serious accident of category A 20, which occurred on 19 December 2018 at 14:33 PM at a C-category level crossing localized on the Głogów Małopolski – Rzeszów route, at km 63,130 of the railway line No. 71 Ocice – Rzeszów Główny.

The state of implementation of proceedings conducted by the Commission is as follows:

- the proceedings listed in items 1, 2, 3, 4 and 5 were completed by the Commission research teams, after prior familiarizing interested parties with the content of the draft Report, the developed "Reports on the proceedings" were adopted by resolution of the Commission and published,
- the proceedings listed in items 6, 6, 7 are being finalized, analyzed and collected by the Commission's research teams - will be finalized at the statutory date, i.e. the fourth quarter of 2019.

Detailed information on the proceedings being conducted regarding these events is included in the further content of the report.

2. Direct participation of a member of the Commission in the inspection of the place of occurrence in the presence of railway committees - it was used primarily for events where there was a suspicion that the occurrence of the event was caused by a poorly functioning railway traffic safety management system and requires analysis and possible corrective actions or other reasons indicating the need to take proceedings - in accordance with §16 of the Regulation of the Minister of Infrastructure and Construction of 16 March 2016 on serious accidents, accidents and incidents in rail transport (Dz. U. item 369).

On-site diagnosis allows the President of the Commission to take a decision on taking over the proceedings in order to determine the circumstances and causes of the incident.

3. The Commission cooperated with relevant entities conducting the proceedings on serious accidents, accidents or incidents in other Member States of the European Union, including The Commission cooperated with Drážní Inspekce (equivalent of PKBWK in the Czech Republic) on the preparation of Report No. PKBWK/07/2018 from the investigation of a category B37 railway accident that occurred on 10 November 2017 at 6:20 on the route Nysa - Nowy Świętów.
4. The Commission monitored reported railway events and maintained a register of Railway Event Records (EwZd).

5. In 2018, joint inspection of the railway events took place, performed by members of the Committee and railway committees, including connected carrying out measurements and tests as well as analyzing documentation related to events.

The most important factors affecting the functioning of the Commission were:

- ❖ Cooperation - between bodies operating in parallel and independently with mutual respect of competences in connection with the occurrence of a railway event, based on the "Agreement of 27 June 2014 concluded between the State Commission for Investigation of Railway Accidents and the Prosecutor General." The agreement also applies to cooperation with the Police, Internal Security Agency, Military Police and Border Guard (in accordance with the definition of the body conducting criminal proceedings - in § 1 point 5 of the Agreement). All provisions relating to the GDPWK rights also apply to the railway commission. The content of the Agreement is available on the website of the PKBWK www.gov.pl tab: *Ministry of Infrastructure* → *What we do* → *Tasks* → *Transport* → *Railways* → *State Commission for Investigating Railway Accidents*.
- ❖ Agreement of 16 December 2014 concluded between the Chief Police Commander and the State Commission for Investigation of Railway Accidents concluded in order to determine the principles of cooperation in the field of mutual support of actions taken at the level of training projects organized and conducted by them.
- ❖ Agreement of June 3 2016 concluded between the Chairman of the State Commission for the Investigation of Rail Accidents and the President of the Office of Rail Transport on cooperation in the field of safety in rail transport of the Republic of Poland. The purpose of the concluded agreement are joint activities of the parties for development and ensuring safety in rail transport as well as exchange of information and experience in the field of railway commissions.
- ❖ As part of the exchange of experience and improving the quality of the incident investigation system and improving the safety of rail transport, the Commission organizes training for the Prosecutor's Office and the Police. Members of the Commission participate in training sessions, conferences, meetings, plenary meetings, working teams, workshops, meetings organized by the European Union Railway Agency and entities conducting proceedings on serious accidents, accidents and incidents in other EU Member States organized by other entities.
- ❖ Amendments to national regulations since March 2016 (laws and regulations), resulting in including railway sidings in the system of supervision and investigation of railway events, have imposed new obligations on railway sidings users in the scope of reporting all

railway events to the President of the PKBWK and the President of UTK, investigating the causes of events by research teams established for this purpose, as well as registering events and analyzing their impact on the level of safety at the siding. The year 2018 was the full second year of the changes introduced to national regulations.

3. Incidents from 1 January to 31 December 2018

3.1 Incidents notified to the Commission by the entities obliged to do so

As at 31 December 2017, the obligation to immediately notify the Commission and the President of UTK of serious accidents, accidents and incidents on railway lines by managers, railway undertakings and users of railway sidings resulted from art. 28g par. 1 of the Rail Transport Act. However, the obligation to notify the incident in detail by the manager or user of the railway siding appropriate for the place of the incident arose from § 7 para. 1-5 of the Regulation of the Minister of Infrastructure and Construction of 16 March 2016. on serious accidents, accidents and incidents in rail transport. Amendments to national regulations have established a division into the following types of events in rail transport:

- 1) **serious accident – any accident caused by** a collision, derailment or other event that obviously affects rail safety regulation or safety management: with at least **one fatality or at least five seriously injured people** (seriously injured - a person who as a result of a serious accident or accident suffered a bodily or health disorder and as a result staying in the hospital for longer than 24 hours), or causing a significant damage to the railway vehicle, railway infrastructure or environment that can be immediately estimated by the accident investigation committee at least 2 million EUR,
- 2) **accident** - an unintentional, sudden event or sequence of events involving the railway vehicle causing negative consequences for human health, property or the environment; accidents include, in particular: collisions, derailments, level crossing events, events involving persons caused by a railway vehicle in motion or fire of a railway vehicle,
- 3) **incident** - any event other than an accident or serious accident related with the **railway traffic** and affecting its safety.

These categories of events (serious accident, accident and incident) were defined according to the provisions of the Rail Transport Act, which came into force on 1 March 2016

Until 29 February 2016, definitions of events other than the above were in force. mentioned. Changes to the definition are detailed in the 2016 Annual Report.

In the period from 1 January to 31 December 2017, they were notified to the Commission and registered in the Railway Event Records system (EwZd) in total 1985 railway events according to the qualifications resulting from the regulation of the Minister of Infrastructure and Construction of 16 March 2016 on serious accidents, accidents and incidents in rail transport, of

which : 6 serious accidents, 722 accidents and 1257 incidents. Table 2 shows the number of victims (killed and seriously injured) in events in 2018 in relation to 2017.

The number and structure of events divided into categories are presented in tables 1 and 3 below.

Table 1. Events reported to the Commission in 2018 as compared to 2017.

Type of event (PW - serious accident, W-accident, I-incident)	2017	2018	Change 2018/2017
Serious Accident (Cat. A)	4	6	+50.0%
Accident (Cat. B)	743	722	-2.8 %
Incident (Cat. C)	1272	1257	-1.2 %
Total number of railway incidents	2019	1985	-1.7 %

Table 2. Persons injured in events in 2018 compared to 2017.

Injured	2017	2018	Change 2018/2017
Deceased	172	196 ^{*)}	+13.9%
Heavily injured persons	88	86 ^{**)}	-2.3%
Injured persons	168 ^{**)}	131 ^{**)}	-22.0 %

^{*)} The total number of fatalities (including railway sidings) according to the information provided as at the date of the Report (i.e. August 10, 2019), does not include victims qualified in the prosecutor's decisions as suicides or suicide attempts.

^{**) Statistics (figures) shown on the basis of Commission Reports and Final Findings Protocols prepared by railway commissions and submitted to PKBWK.}

Table 3 - The structure of events in 2018 in relation to 2017, divided into categories

Event category (letter designation)	Description of the event category Qualification of a direct cause	Category (digit designation)	TOTAL 2017	TOTAL 2018
A	Failure to stop by a railway vehicle in front of the "Stop" signal or in the place where it should stop, or starting the railway vehicle without the required "go" signal	4	1	-
	Collision of a railway vehicle with a road vehicle (other road machine, agricultural machine) or vice versa at a railway crossing with road tolls (category A according to transit method)	18	2	1
	Collision of a railway vehicle with a road vehicle (another road machine, agricultural machine) or vice versa on a level crossing equipped with a self-propelled road system with traffic lights and no turnpikes (category C)	20	1	1
	Collision of a railway vehicle with a road vehicle (another road machine, agricultural machine) or vice versa on a level crossing not equipped with a road system (category D)	21	-	4
SERIOUS ACCIDENTS			4	6
B	Other than the below-mentioned reasons or the co-existence of several causes at the same time, creating equivalent causes	00	19	19
	Directing a railway vehicle to a busy track, closed or opposite to the main track or in the wrong direction	01	0	0
	Accepting a railway vehicle at the station on a closed or busy track	02	0	0
	Directing, accepting or driving a railway vehicle on an improperly laid unprotected route or improper operation of rail traffic control devices	03	35	27
	Failure to stop by a railway vehicle in front of the "Stop" signal or in the place where it should stop, or starting the railway vehicle without the required "go" signal	04	20	35
	Failure to be cautious when the railway vehicle passes an automatic interval semaphore indicating the "Stop" signal or a "Caution" signal after stopping	05	1	0
	Exceeding the highest permitted speed	06	1	0
	Performing a maneuver posing a threat to train traffic safety	07	2	8
	Rolling out of a railway vehicle	08	10	11
	Damage or poor maintenance of a building, e.g. a surface, bridge or viaduct, including improper performance of works, e.g. improper unloading of materials, surface, leaving materials and equipment (including road machines) on the track or gauge of a railway vehicle or hovering a railway vehicle on building elements	09	61	43
	Damage or poor condition of a power-driven railway vehicle, a special purpose railway vehicle (including moving over an object constituting a structural part of a railway vehicle with a drive, a special purpose railway vehicle) and damage or incorrect operation of the on-board part of the devices enabling the rail vehicle control (ERTMS)	10	7	4
	Damage or poor technical condition of a rail car (including moving over the structural part of the car)	11	28	21
	Damage or incorrect operation of railway traffic control devices	12	3	3
	Collision of a railway vehicle with a railway vehicle or other obstacle (e.g. brake shoe, luggage cart, postal cart)	13	59	48
	Criminal attack	14	0	0
	Premature termination of the run or close of the closure and transfer of the crossover under the railway vehicle	15	12	18
	Incorrect combination of a train or a maneuvering component	16	1	0
	Improper loading, unloading, irregularities in cargo securing or other irregularities in loading operations or improper train composition or maneuvering composition	17	8	17
	Collision of a railway vehicle with a road vehicle (another road machine, agricultural machine) or vice versa on a private-use level crossing (category A)	18	11	2
	Collision of a railway vehicle with a road vehicle (another road machine, agricultural machine) or vice versa on a level crossing equipped with a self-propelled road system with traffic lights and turnpikes (category B)	19	16	21
	Collision of a railway vehicle with a road vehicle (another road machine, agricultural machine) or vice versa on a level crossing equipped with a self-propelled road system with traffic lights and no turnpikes (category C)	20	27	35
	Collision of a railway vehicle with a road vehicle (another road machine, agricultural machine) or vice versa on a level crossing not equipped with a road system (category D)	21	154	137
	Collision of a railway vehicle with a road vehicle (another road machine, agricultural machine) or vice versa on a private-use level crossing (category F)	22	0	0
	Collision of a railway vehicle with a road vehicle (other road machine, agricultural machine) or vice versa, excluding level crossings at stations and routes or on the communication and access road to the side track	23	10	6
	Fire on the train, maneuvering compound or in a railway vehicle	24	1	6
	A fire in a building, etc. within the railway area, forest fire within the end of the fire-fighting zone, fire of cereals, grasses and tracks created within the boundaries of the railway area	26	0	0
	An explosion on a train, maneuvering compound or railway vehicle	27	0	0
	Natural disasters (e.g. flood, snow drifts, ice jams, hurricanes, landslides)	28	15	2
	Construction catastrophe in the immediate vicinity of the railway tracks where normal train traffic takes place	29	0	0
	Malicious, hooligan or reckless misdeeds (eg throwing a train with stones, theft of cargo from a train or maneuvering composition in motion, laying obstacles on the track, devastation of power devices, communication, control of railway traffic or surface and interference with these devices)	30	6	1
	Collision of a railway vehicle with people while crossing the tracks on a railroad crossing or guarded passage	31	2	4
	Collision of a railway vehicle with people while crossing the tracks on a railroad crossing with an automatic crossing system (cat. B, C)	32	7	10
	Collision of a railway vehicle with people while crossing the tracks on the remaining railroad crossings and passages	33	10	9
	Collision of a railway vehicle with people while crossing the tracks outside level crossings or crossings at stations and routes	34	182	205
	Occurrences with persons connected with the railway vehicle movement (jumping in, falling out of a train, railway vehicle, strong access or sudden braking of a railway vehicle)	35	30	24
	Ignoring signals prohibiting entry to the railroad crossing and damage to the gantry or traffic lights by the road vehicle operator	36	0	0
	Bursting of a train or maneuvering set that did cause the wagons to roll out	37	1	0
	Incorrect operation of buildings and devices intended for railway traffic or railway vehicles caused by theft	38	1	0
	Entry of a railway vehicle using the traction power supply from the traction network to an uninhabited, non-powered track	39	0	1
	Uncontrolled release of dangerous goods from a wagon or packaging that require intervention by the authorities or measures to eliminate fire, chemical or biological hazards at the station or on the route	40	0	0
	Unknown category	-	3	4
ACCIDENTS -			743	722
TOTAL				
C	Directing a railway vehicle to a busy track, closed or opposite to the main track or in the wrong direction	41	0	3
	Accepting a railway vehicle at the station on a closed or busy track	42	5	4
	Directing, accepting or driving a railway vehicle on a wrongly laid, unprotected route or improper operation or lack of operation of railway traffic control devices	43	59	67
	Failure to stop by a railway vehicle in front of the "Stop" signal or in the place where it should stop, or starting the railway vehicle without the required "go" signal	44	82	86
	Exceeding the highest permitted speed	45	4	8
	Performing a maneuver posing a threat to train traffic safety	46	2	1
	Rolling out of a railway vehicle	47	2	9
	Premature termination of the run or close of the closure and transfer of the crossover under the railway vehicle	48	1	4
	Incorrect train composition	49	0	0
	Improper loading, unloading, irregularities in cargo securing or other irregularities in loading activities	50	25	26
	Damage to the surface, bridge or viaduct, overhead contact line, improper work, e.g. improper unloading of materials, leaving materials and equipment (including road machines) on the track or in the gauge of the railway vehicle	51	29	45
	Incorrect operation of railway traffic control devices causing: - not covering with the "Stop" signal of the line block distance occupied by a railway vehicle, - setting the enabling signal on the semaphore with incorrectly arranged route, incorrect operation of track vacant or turnout devices, improper operation of station or line blocking devices, - not observing and not protecting road users against by a train approaching a level crossing or a crossing equipped with a crossing system	52	4	0
	Damage or poor technical condition of a powered railway vehicle, special purpose railway vehicle causing the necessity of its shutdown due to indications by rolling stock emergency detection devices, confirmed in workshop conditions (hot axle boxes, hot brake resulting in a shifted rim), as well as other defects in railway vehicles in motion noticed by service personnel (e.g. broken spring)	53	22	25
	Damage or bad technical condition of the wagon causing the necessity of its shutdown due to indications by rolling stock emergency detection devices, confirmed in workshop conditions (hot axle boxes, hot brake resulting in shifted rim), as well as other defects in railway vehicles in motion noticed by staff operating	54	242	240
	A fire in a train or railway vehicle that has no negative effects on property or the environment, without injured persons	55	19	26
	Fire in a railway vehicle, except for train fires	56	0	0
	A building and vegetation fire in the immediate vicinity of the railway tracks followed by normal rail traffic	57	4	3
	Uncontrolled release of dangerous goods from a wagon or packaging that require intervention by the authorities or measures to eliminate fire, chemical or biological hazards at the station or on the route	58	0	0
	Uncontrolled release of dangerous goods from a wagon or packaging that require intervention by the authorities or measures to eliminate fire, chemical or biological hazards at the station or on the route	59	1	2
	Collision of a railway vehicle with an obstacle (e.g. brake shoe, baggage cart, postal cart etc.) without derailling or injured persons	60	31	58
	Criminal attack	61	0	0
	Natural disasters (e.g. flood, snow drifts, ice jams, hurricanes, landslides)	62	26	8
	Construction catastrophe in the immediate vicinity of the railway tracks where normal train traffic takes place	63	0	0
	Malicious, hooligan or reckless offenses (eg throwing a train with stones, stealing cargo from a train or maneuvering station in motion, laying obstacles on the track, devastating power equipment, communications, traffic control or surfaces and interference with these devices), without injuries or negative consequences for property or the environment, posing a threat to passengers or employees of the train	64	125	133
	Occurrences with persons associated with the operation of a railway vehicle (crossing the tracks at level crossings and transitions or outside, jumping, falling off of a train or railway vehicle, set-off by rolling stock, strong acceleration or rapid braking of the railway vehicle), without injuries or negative consequences for property or the environment	65	22	10
	Failure to stop the road vehicle from a closed half-timpiece and its damage or traffic lights, on which signals were signaled of an approaching train, without collision with a railway vehicle	66	171	138
	Incorrect operation of devices intended for railway traffic or railway vehicles due to theft	67	0	1
	Bursting of a train or maneuvering set that did not cause the wagons to roll out	68	373	333
	Other than the above-mentioned reasons or the co-existence of several causes at the same time, creating equivalent causes	69	21	28
INCIDENTS - TOTAL			1272	1257
EVENTS - TOTAL			2019	1985

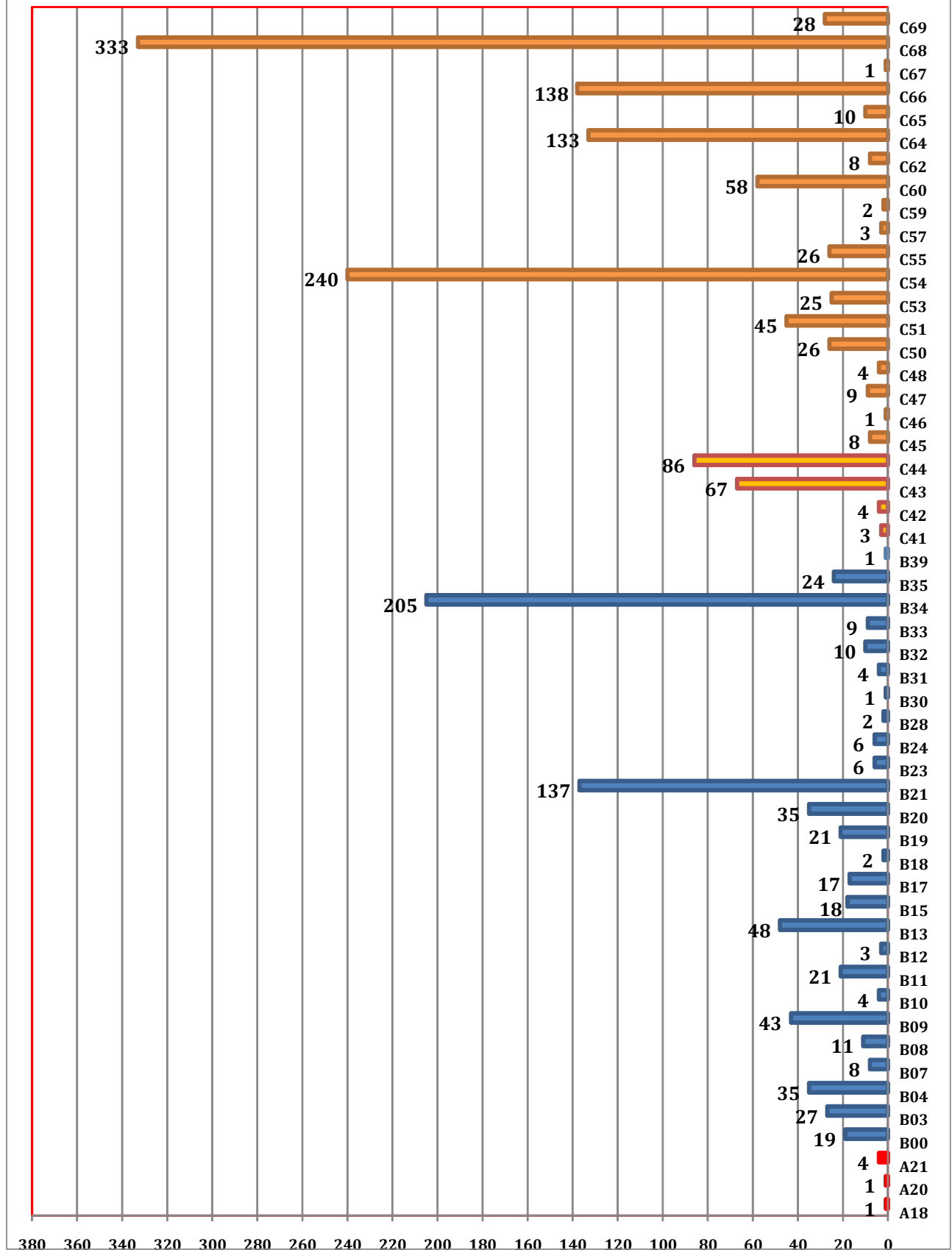
Diagram 1. **Structure of events in 2018 by category**

Diagram 1 does not contain rail events occurring in 2018 for which no category has been determined until 10 August 2018.

3.2 3.2 Events in respect of which the Commission has conducted proceedings directly, of which the European Union Agency for Railways (EUAR) has been notified

3.2.1 Serious accident of category A 21, which occurred on 27 February 2018 at 18:57 at a D-category level crossing localized on the monorail line Opole Zachodnie - Szydlów, at km 1.934 of the railway line No. 287 Opole Zachodnie - Nysa;

On February 27, 2018 at 18:57 (in the dark) at the D-level rail crossing crossing the street - District Road No. 1766.0 in Opole with the railway line No. 287 West Opole - Nysa (West Opole Trail - Szydlów) in km 1,934 a passenger train No. APM 60832 was driven over the SA137-004 traction vehicle: Nysa - Opole Main carrier Przewozy Regionalne Sp. z o. o. Opole branch for a Volkswagen Passat passenger car. While the train was traveling from Szydlów station to Opole Zachodnie station with a timetable speed of 70 km / h, at the height of the W6a indicator at a distance of 490 m before the passage the driver gave the signal "attention". He continued driving in accordance with the Annual Timetable. Approaching the level crossing at 1.934 km, the driver noticed standing vehicles - 2 passenger cars on the right and 1 passenger car on the left. According to the driver and the witnesses of the incident, the driver gave the "signal of attention" several times when approaching the crossing. After a while, the first car on the right suddenly started and drove straight under the moving train (railcar). At the time i.e. at 18:56 24` sudden braking was implemented and, as a consequence, a sudden decrease in speed from 64.75 km / h to 0 km / h over a distance of about 157 m (according to the records of the electronic recorder) and stopped at 18:56 43`. After stopping, the head of the train was located at 1.755 km, 179 meters behind the crossing. The car was hit from the driver's side by bumpers and front coupling and thrown to the left side of the track looking in the direction of the train. There were four people in the car who were killed on the spot as a result of the collision. According to the research team, the driver's reaction was correct, the driver implemented a sudden braking when entering a road vehicle, which had previously stopped at the STOP sign before crossing and suddenly entered at the same moment as the railcar for level crossing. However, the combined brake was activated after using the emergency brake adjuster with a delay of approx. 1 second in relation to the gear ratio.

As a result of the decision by the Chairman of the PKBWK to take over the proceedings by the Research Team, taking into account the provisions of Art. 28e, paragraph 4 of the Rail Transport Act, the Commission on 06 March 2018 reported this fact to the European Union Railway Agency ("EUAR") via the "ERAIL" IT system and the above event was registered in the ERA database under number PL-5617.

From this proceeding, the State Commission for Investigation of Rail Accidents prepared report No. PKBWK / 04/2018, in which the Commission research team recommended the implementation of the following activities:

1. The road manager will consider the possibility of ensuring continuous lighting of the road to eliminate the dark zone in the area of access to the crossing.
2. The Commission sees the need for lighting at the crossing, based on §85 para. 2 of the Regulation of the Minister of Infrastructure and Development of 20 October 2015 on technical conditions to be met by junctions of railway lines and railway sidings with roads and their location (Dz. U. item 1744, as amended)
3. The road manager will supplement the missing vertical marking with the F6a sign on a side road.
4. The road manager will reduce the speed limit in force from 90 km / h to 50 km / h.
5. The Railway Infrastructure Manager will complete asphalt losses in the transit area.
6. The road administrator will build the U1a guide posts at the crossing (the recommendation was implemented during the proceedings).
7. The Railway Infrastructure Managers for all category D level crossings located on revitalized / modernized lines will introduce, along with the commissioning of the railway line into traffic, a gradual increase in the speed of trains traveling through the passage until reaching the target speed. The value of the first time speed limit should be 60 km / h, and at intervals of 30 days there should be an increase in speed of 20 km / h after a prior risk assessment analysis, until a scheduled speed is obtained. By the time the target speed is introduced before these journeys, the railway infrastructure managers will set the W6b indicators at a distance resulting from the visibility triangles for 20 meters.
8. According to the declaration contained in the letter No. IBR1u-0701-20.1/2018 of 10.09.2018 PKP PLK S.A. shall take steps to increase road users' awareness of changing local conditions on category D rail and road crossings located on revitalized/modernized rail lines by informing the local community living around the crossing through local governments and local media.
9. Carriers and railway infrastructure managers shall ensure the synchronization of time indications with real time on all data recorders.
10. Przewozy Regionalne Sp. z o. o. will implement the order of the President of the Office of Rail Transport No. DBK-550/R-03/KB/12 of 30.05.2012, addressed to rail carriers on the obligation to install infrastructure recording devices in front of the vehicle - digital cameras or video recorders in newly built railway vehicles and in operation, in accordance with the recommendation of PKBWK - No. PKBWK-076-305/RL/R/11 of 22.11.2011.
11. Przewozy Regionalne Sp. z o. o. will take action to supplement the data on recording the use of the attention signal in embedded ATM recorders in used traction vehicles.

12. PKP PLK S.A., Railway Lines Plant in Opole will update the Rail and Road Journey Record.
13. PKP PLK S.A., the Railway Lines Plant in Opole will take action to liquidate the earth mound before the passage (the recommendation was implemented during the proceedings).
14. Przewozy Regionalne Sp. z o. o. during periodic instructions and ad hoc train drivers will implement the subject of making correct copies in "DRIVE VEHICLE BOOK" after the event.
15. The powiat road manager will adapt the road infrastructure to the requirements included in regulations: Minister of Transport and Maritime Economy of 2 March 1999. on the technical conditions to be met by public roads and their location (Dz.U. of 2016, item 124), Annex 2 and the ordinance of the Minister of Infrastructure and Development of 20 October 2015 on the technical conditions to be met intersections of railway lines and railway sidings with roads and their location.
16. PKP PLK S.A. during the periodic instructions of traffic station employees, it will implement the subject of making correct copies in the Conversation Journal Telephone (R-138 logs).
17. PKP PLK S.A. will intensify the "Safe crossing - Stop and live" action on category D level crossings
18. Managers of railway infrastructure at all category D level crossings shall carry out checks for:
 - existing speed limits in relation to actual visibility triangles,
 - correct marking of road side crossings.
19. The railway infrastructure managers for all category D crossings shall carry out a detailed analysis of the correctness of the data contained in the crossing records in relation to the actual condition.
20. Rail infrastructure managers should consider that during the design process of modernization or revitalization works on railway lines, designers will verify the road communication system as a whole functionally connected to level crossings. During designing, it is reasonable to make a project to change the organization of such roads in the appropriate impact area in the vicinity of level crossings in such a way that after reorganizing this system it is possible to redirect traffic to adjacent crossings of the same or higher category in order to channel traffic at one point. This action should lead to the elimination of unnecessary level crossings. Local administration authorities and road managers should cooperate in achieving the above objective with the infrastructure manager in a given area covered by the above works. At the place of liquidation of the cat. D crossing, the possibility of creating the cat. E crossing should be considered.

3.2.2 A B11 accident which occurred on 10 May 2018 at 16:12 at the Wronki station, track No. 1, at 50,474 km of railway line No. 351 Poznań Główny - Szczecin Główny

On 10 May 2018, at 4:11 from the Łaziska Średnie station with a delay of 803 minutes from the scheduled departure time, the TME 484028/9 freight train from Łaziska Średnie - Police Chemia, CTL Logistics Sp. z o.o., assembled from the ET22-408 locomotive and 29 coal wagons loaded with fine coal. After 401 kilometers, to the Pęckowo station, the journey proceeded without any disturbances. While driving from the track No. 1 of the Pęckowo - Wronki route to the station track No. 1 of the Wronki station, at 16.12, before the turnout No. 13 at 50,474 km, the second axle of the first eighth bogie of the wagon in the train composition derailed due to the axle box falling off as a result of twisting right axle spigot. A train with a derailed second axle of the first truck in the eighth car passed 25 meters, he lost the spigot with the axle box and without mounting the axle after driving another 8 meters on the crossroads No. 13 the wagon entered the rails (spontaneous derailment of the wagon). Train No. TME 484028/9 continued to ride without axle suspension without interference for 1523 meters. At the exit of the arch at 16:14, at 52.030 km, the second axle of the eighth wagon was repeated and in the derailed condition the train ran about 220 meters. The damaged eight-car wagon protruding beyond the rolling stock hooked on the bearing element of the viaduct over voivodship road No. 182. As a result of hooking, the first bogie of the eighth wagon was blocked by the viaduct and the train composition was torn apart at kilometer 52.250. After wedging and the eighth wagon stopping, the accumulated energy of the moving train caused derailment and crushing of another 11 wagons. It remained in an unused state 7 wagons directly behind the locomotive and the last 10 wagons from 20 to 29. As a result of the train tearing, the head of the ET22-408 locomotive with seven wagons stopped at kilometer 52.460, after driving 210 m. The train consisted of 29 coal wagons of the Ea series loaded with coal. Gross weight of the train: 2,271,250 tons. Net weight 1,679.05 tons and train length 407 m. At the time of the event, the train traveled at a speed of about 52 km / h, at the applicable speed of up to 50 km/h.

As a result of the decision by the Chairman of the PKBWK to take over the proceedings by the Research Team, taking into account the provisions of Art. 28e paragraph 4 of the Rail Transport Act, the Commission on 19 May 2018 reported this fact to the European Union Railway Agency ("EUAR") via the "ERAIL" IT system and the above event was registered in the ERAIL database under number PL-5665.

From this procedure, the State Commission for Investigation of Rail Accidents drew up report No. PKBWK/02/2019, in which the Commission research team recommended the implementation of the following activities:

1. Carriers and entities in charge of rolling stock maintenance are still required to comply with the PKBWK recommendation regarding the protection of bearing shells after their assembly on wheelset journals by the use of new bolts and lock washers.

2. On safety washers, employees installing axle boxes on the pivots of wheelsets from companies performing level P3, P4 and P5 inspections will stamp individual identifying features of the employee assembling and date of assembly.
3. Based on the expert opinion, the entities responsible for the maintenance of freight wagons (ECM) will introduce the obligation to replace the rolling bearings of wheel sets with new ones, during the review of the P4 or P5 level, up to 25 years of their operation.
4. Entities in charge of maintenance will check MMS for the causes identified in this report and consider including the following in these systems:
 - a) detailed requirements for contractors of P4 and P5 level reviews,
 - b) including detailed tasks for commissioners in the Maintenance Management System (MMS) for freight wagons, in particular for partial in-service acceptance.
5. PKP PLK S.A. will equip existing dSAT devices on line 351 with devices for both tracks, so that the diagnostics of rolling stock emergency conditions is carried out for all directions.
6. PKP PLK S.A. will take measures to systematically equip railway lines with devices for detecting rolling stock faults on operated railway lines based on an analysis based on the risk of occurrence of events.
7. As part of the maintenance management system, CTL Logistics will take actions to: a) increasing supervision over the implementation of the procedures of the Maintenance Management System, b) ensuring detailed supervision of repair service providers, including WWK Łapy.
8. WWK Łapy will undertake actions aimed at increasing the supervision over performed rolling stock repairs, including increasing the quality control of implemented repair activities.

3.2.3 A serious accident of category A 21, which occurred on 13 June 2018 at 12:54 PM at a D-category level crossing localized on the Szczecin Podjuchy – Daleszewo Gryfińskie line, track 2, at km 342,231 of the railway line No. 273 Wrocław Główny – Szczecin Główny

On 13 June 2018, at a properly marked D-category railroad crossing directly in front of the oncoming passenger train No. MOJ 87502, Szczecin Główny-Zielona Góra, consisting of a three-part electric multiple unit (Ezt) EN 57AL-2108 Spółka Przewozy Regionalne, a truck (truck) with a Volvo semi-trailer loaded with wooden beams. The cabin of the electric train set hit in a road vehicle between the driver's cab and the tractor's saddle. The front of the train was at kilometer 342,075 after driving 156 m from the axis of the level crossing. As a result of collision with a road vehicle, a Volvo truck crashed, the driver died on the spot. 23 passengers on the passenger train were injured and 3 people on the train, of whom a seriously injured driver was transported by air ambulance. The EN57AL-2108 "Rb" electric multiple unit derailed at the

inter-gauge in the gauge of track number 1. The first, second and fourth bogies derailed looking in the direction of travel with 2 axles, the third bogie derailed with the second axle in the direction of travel. Electric traction unit EN57AL-2108 "Rb" No. EVN 94 51 2 121 862-8 completely damaged, electric traction unit EN57AL2108 "S" No. EVN 94 51 2 121 861-0 damaged current collectors, damaged two bogies with sets circular, damaged inverter housings and fast switch, damaged bodywork, glass passenger compartment awnings. The electric train unit EN57AL-2108 "Ra" with the EVN No. 94 51 2 121 860-2 some of the devices on the chassis have signs of damage, damaged body, glass vestibules of the passenger compartment, interior elements have traces of displacement. Composition EN57AL-2108 total mass 147 tonnes, braking mass required 162 tonnes, actual braking mass 179 tonnes, percentage of braking mass required 110%, percentage of actual braking mass 121%. During the accident on the Gryfino - Daleszewo Gryfińskie route there was a fast train from the company PKP Intercity S.A., which was stopped by the duty officer of the Daleszewo Gryfińskie station. Information about the accident and the need for immediate suspension of rail traffic was given by a bystander who, thanks to the level marking, has an information sticker on the inside of the G4 sign - the Holy Cross. Andrew, notified the emergency number 112. The emergency number operator immediately notified the dispatcher of PKP PLK S.A., who notified the duty officer of the Daleszewo Gryfińskie station.

A broken catenary network over a length of approx. 300 meters, two catenary poles broken at track 2, damaged pavement over a length of about 140 meters, and an apparatus and power supply cabinet.

In connection with the decision of the Chairman of the WCWK to take over the proceedings by the Research Team, pursuant to art. 28e, para. 4 of the act on rail transport, on 7 April 2017 the commission reported this fact to the European Union Railway Agency ("EUAR") via the "ERAIL" IT system and the above event was registered in the ERA database under number PL-5692.

From this procedure, the State Commission for Investigation of Rail Accidents drew up report No. PKBWK / 01/2019, in which the Commission research team recommended the implementation of the following activities:

1. The manager of railway lines of PKP PLK S.A. The Railway Lines Plant in Szczecin will assess operational risk in order to consider changing the existing category D to a higher category.
2. Until the risk analysis is carried out, PKP PLK S.A Zakład Linie Linie Kolejowe in Szczecin, at this railroad crossing, it will limit the speed of trains on each track and in both directions within the visibility triangle over the entire length of the train approaching, pursuant to the provisions of the Regulation of the Minister of Infrastructure and Development of October 20, 2015 contained in Part B of Annex No. 3.

3. Infrastructure managers and users of railway sidings will review all category D level crossings for correct marking as well as continuous updating of crossing records.
4. Operators of motorized rail vehicles will check the built-in image recording systems in front of traction vehicles for correctness and continuous image recording without delays when using buffer recording. For systems with delayed image saving, they will make modifications in power supply systems to ensure its continuity even in the event of loss of external power.
5. Spółka Przewozy Regionalne Sp. z o. o. as an element of inspection of traction vehicles after repairs related to the registration of vehicle operating parameters and carrying out maintenance activities of levels P3, P4 and P5 will introduce an obligation to check whether the required driving parameters of a powered railway vehicle are recorded by electromechanical and electronic recorders.

3.2.4 A18 category serious accident which occurred on 2 August 2018 at 16:30 on a category A level crossing serviced by the crossing guard from post 43, on the Pierzyska-Gniezno route, track 1, at km 43,141 of railway line 353 Poznań Wschód - Skandawa

On 02.08.2018 at 16:30 passenger train No. ECE 71005 from Berlin Hbf. - Warszawa Wschodnia, operated by the EU44-003 series locomotive belonging to the railway carrier "PKP Intercity" S.A., at the A-level railroad crossing, located along District Road No. 2152P ul. Gajowa, town of Gniezno, served from the junction post 43 line No. 353 Poznań Wsch. - Skandawa, Pierzyska - Gniezno trail, track number 1, km 43,141 hit a cyclist who rode a level crossing directly in front of an oncoming train with open crossing gates. At 16:26, the crossing liner in post No. 43 was given by a train officer on duty from Gniezno notification on the departure of train No. 57314 (Bydgoszcz Główna - Poznań Główny) by track No. 2 towards Pierzysk. At the same time, the Pierzyska station duty officer reported departure of the train No. ECE 71005 on track No. 1 towards Gniezno. The gates were closed at 16:28. After passing the train No. 57314 on track 2 towards Pierzysk, the crossing liner of post No. 43 opened the gates to enable cars standing in front of the crossing. After opening the barriers, two pedestrians walked quickly: one from right to left of the passage, the other from the left to the right of the passage (looking in the direction of the train) and two cars passed from right to left (looking in the direction of the train). When the ECE 71005 train was located at 42.724 kilometer (420 meters before the accident site), the train driver noticed the circular motion at the crossing and began broadcasting the signal "Attention". This signal was broadcast continuously until the cyclist was hit (for 10 seconds). 10 seconds after noticing the vehicular traffic on the driver's crossing, the cyclist is hit. The driver used the emergency brake when he noticed the cyclist entering. After the incident, the front of the locomotive stopped at km. 43,787 i.e. 646 meters from the place of the event. Post 43 track

crossing after realizing that the ECE 71005 train is approaching the passage (about 10 seconds before the incident) began closing the gates using the gates closing buttons in normal operation mode, where the total time of closing the gates is on average about 25.5 seconds i.e. the warning time lasted for 14.3 seconds, the red traffic lights were on, the beeper sounded (electronic bell) and the lamps placed on the toll bars (initial warning time), then after that the toll drives started to operate and the tolls closed (average time) it takes 11.2 seconds to fully close the gates.) The gates closed only after passing a train ECE No. 71005 through a level crossing with open toll gates (no entry allowed by traffic lights). One of the pedestrians after crossing the stop stopped at track 2 and when he noticed that the cyclist was entering the crossing, to which the train was approaching, he began to warn the cyclist by waving his arms, shouting about the oncoming train. The cyclist from the moment he got on the bike for 6 meters rode at a calm pace, did not look around, did not respond to the signs given by the users of the ride and the moving train continuing to cross the passage. When the cyclist realized that he was in danger, staying in the gauge of the oncoming train he pressed harder on the pedals and drove about 2 meters until the impact. While crossing the passage the cyclist was looking straight ahead all the time. At train speed ECE 71005 of 144 km / h, the cyclist is hit with the left side of the locomotive's front (looking in the direction of the train). As a result of the impact, the cyclist was thrown away at a distance of 25 meters from the axis of the passage towards track No. 2 and died on the spot.

In connection with the decision of the Chairman of the WCWK to take over the proceedings by the Research Team, pursuant to art. 28e, para. 4 of the act on rail transport, on 7 April 2017 the commission reported this fact to the European Union Railway Agency ("EUAR") via the "ERAIL" IT system and the above event was registered in the ERA database under number PL-5737.

From this proceeding, the State Commission for Investigation of Rail Accidents drew up report No. PKBWK / 04/2019, in which the Commission research team recommended the implementation of the following activities:

1. Manager of PKP PLK S.A. railway lines The Railway Lines Plant in Poznań will take action to build the crossing warning discs informing the driver about the condition of the passage protection at km 43.14 on track 1 and 2 on the Pierzyska - Gniezno route while preventing the opening of the barriers when the train passes the crossing warning disc.
2. Manager of PKP PLK S.A. railway lines during all inspections carried out at checkpoints where rail and road crossings are operated, it will carry out a practical check of the employee's skills in emergency service of the crossing with the annotation in the Book of control of railway traffic control devices and of introducing and cancellation of restrictions (E-1758).
3. Infrastructure managers will carry out theoretical and, in addition, practical training during periodic instructions for staff serving toll barriers with a reminder of the rules of conduct in case of emergency closing of the gates.

4. The chairman of the PKBWK will apply to the minister competent for transport for action to amend the regulation regarding the reduction of the initial warning time for category A level crossings served from a place to 3 seconds, for those served from a distance of up to 8 seconds.
5. PKP PLK S.A. will take action to develop uniform technical requirements and rules of using the system (function) of emergency closing of the gates on the control panel with the registration of the use of this function.
6. PKP Intercity S.A, during periodical trainings shall refresh the rules of conduct while driving rail vehicles with a drive in the situation of noticing open crossing gates and will cause such situations to be practiced each time while running a railway vehicle simulator.

3.2.5 A serious accident of category A 21, which occurred on 23 August 2018 at 11:17 AM at a D-category level crossing localized at the Szaflary station , at km 25,749 of the railway line No. 99 Chabówka - Zakopane

On August 23, 2018 at 11:17 at the D-category rail road crossing constituting the intersection of the internal road extending Kolorowa Street with the railway line No. 99 Chabówka - Zakopane at the Szaflary railway station at km 25,749, a passenger train ROJ No. 33397 collided from EZT EN99-004 and EN63-003, the route Chabówka - Zakopane of the carrier Przewozy Regionalne Sp. z o. o. The Malopolska branch for the examination vehicle (Suzuki Baleno passenger car) marked with a blue board with the white letter "L". While the train is traveling at a speed of 89.3 km / h at a timetable speed of 90 km / h on the Nowy Targ - Szaflary route, at the W6a level at a distance of 715 m before reaching the abovementioned a level crossing leading a passenger train gave the signal "Attention" continuing to drive at the speed limit in accordance with the timetable. At the same time, the examination vehicle (driving license "L" owned by MORD Nowy Targ) driven by the person who passed the driving test under the supervision of an authorized examiner, was traveling on the national road No. 47 from Nowy Targ towards Zakopane. Approaching the intersection with a roundabout (roundabout) about 600 meters in front of him, the examiner gave the command to the examinee: "At the next intersection, to the right please". The driver, after leaving the roundabout, continued driving along Kolorowa Street, going to a railroad crossing at a speed of about 40 km/h. When approaching a level crossing, he did not stop the vehicle before the B20 "STOP" sign and did not react properly to warning signs (A10, G1a, G1b, G1c, G3). After passing the B20 "STOP" sign, the test car stopped at a level crossing centrally on the track axis for unknown reasons. After stopping the examination vehicle, the examiner got out of it, closed the door and walked away quickly from the track towards Kolorowa Street. The car remained on the journey with the examined person driving the vehicle. The train driver (trainee - a candidate for a train driver) noticed a passenger car about 290 meters before the passage entering the passage from the left, and gave the signal "Attention" lasting three seconds. Seeing that the vehicle was not leaving the passage, he began to siren the

signal "Attention" again. The candidate for a driver, continuing under the driver's supervision driving at the authorized speed of approx. 90 km / h, at a distance of approx. 180 meters before the journey implemented the sudden braking of the train using an electro-pneumatic brake using the "travel and braking command". At the same time, the driver of the examination car made an attempt to leave the passage - he moved forward covering a distance of about 0.5 meters. Rolling over the car (moment of collision with an obstacle) occurred at the crossing at 11:16:37 at a train speed of 56.4 km/h. The braking distance of the train from 88.9 km / h to 0 km / h was 293 m in 24 seconds. The front of the stopped train was at 25.861 km, 112 meters behind the crossing axis. The test vehicle was hit by the train in the right side (from the passenger side) in its central part. The front coupling of a railway vehicle hit the interior of the car, hitting the driver in the head. The car was pushed by the train for the passage towards Szaflary station to km 25,861 and stopped at the height of the traction pole in deposit 25-16 (see. Photo: No 19). The person driving the examination vehicle died as a result of injuries after being transported to hospital.

As a result of the decision by the Chairman of the PKBWK to take over the proceedings by the Commission Research Team, taking into account the provisions of Art. 28e paragraph 4 of the Rail Transport Act, the Commission on 31 August 2018 reported this fact to the European Union Railway Agency ("EUAR") via the "ERAIL" IT system and the above event was registered in the ERAIL database under number PL-5751. **From this proceeding, the State Commission for Investigation of Rail Accidents drew up report No. PKBWK / 03/2019, in which the Commission's research team recommended the implementation of the following activities:**

1. Infrastructure manager PKP PLK S.A.. Zakład Linie Kolejowe in Nowy Sącz will assess operational risk in order to consider changing the existing category D crossing to a higher category or eliminating it, leaving pedestrian crossing category E. It will limit the speed of trains to 60 km / h on the railway section until the reconstruction of the passage. for visibility triangles from a distance of 5 meters.
2. The infrastructure manager shall repair the bituminous pavement in the section of the level crossing and update the crossing records.
3. Przewozy Regionalne sp. z o. o. shall check the image quality of cameras of train-front recording devices in the railway vehicles being in operation.
4. PKP PLK S.A. IZ Nowy Sącz shall adapt the level level crossing markings to the applicable regulations (regarding sign B20, G2 and G3).
5. The road manager shall adjust the width of the road at the approach to the level crossing in order to ensure the possibility of collision-free passing of road vehicles at the level level crossing at km 25,749 of the railway line No. 99 Chabówka - Zakopane, and then - in

- consultation with the infrastructure manager - the width of the crossing shall be adjusted to the width of the road.
6. In connection with previous accidents at the level crossing in question and the serious accident that took place on 23.08.2018, the road administrator (the Mayor of Nowy Targ) shall put A30 signs ("other danger") on both sides of the crossing along with T14d ("accidents") road signs.
 7. The President of the State Railway Accident Investigation Commission shall request from the Minister of Infrastructure that the provisions of § 7 para. 1 point 1 of the Ordinance of the Minister of Infrastructure and Construction of 24 February 2016 regarding the examination of applicants for driving licenses, training, examination and obtaining permissions by examiners, as well as sample documents used in these matters, be supplemented with the requirement to install image and sound recording devices inside test vehicles.
 8. All railway carriers, during periodic and *ad hoc* train drivers' instructions and trainings shall re-address the following rules:
 - - pertaining to the use of driver's emergency brake in a situation of immediate safety threat,
 - - pertaining to performing a detailed brake test in accordance with applicable regulations,
 - - pertaining to making entries in the Drive Vehicle Book after incidents.
 9. Managers of railway infrastructure and managers of roadways shall carry out:
 - - review of all category B, C and D rail and road level crossings in terms of the appropriateness of setting the B20 ("Stop") signs as provided for in Annex No. 3, Section B of the Ordinance of the Minister of Infrastructure and Development of 20 October 2015 on technical and organizational conditions which need to be met by intersections of railway lines and railway sidings with roads and their location (Dz. U. item 1744, as amended)
 - - measures to introduce conditions for train speed appropriate to visibility in accordance with the provisions of Annex 4 to the Ordinance of the Minister of Infrastructure and Development of 20 October 2015 on technical and organizational conditions which need to be met by intersections of railway lines and railway sidings with roads and their location.
 10. Infrastructure managers shall request road managers to agree on the placement of B-20 "Stop" signs before rail and road crossings. In addition, road managers shall inform the relevant infrastructure manager of any changes to the way vertical and horizontal road and rail crossings are marked before they are introduced.
 11. The chairman of the State Railway Accident Investigation Commission shall request from the Minister competent for transport for the content of the Ordinance of the Minister of

Infrastructure and Development of 20 October 2015 on technical and organizational conditions which need to be met by intersections of railway lines and railway sidings with roads and their location to be changed as regards the operation of category D level crossings within the boundaries of a railway station on tracks over which train runs are carried out.

12. The minister competent for transport shall introduce the obligation of absolute visibility of the front of the train from 5 and 10 meters to Annex 3 point B item 5 and 6 to the Ordinance of the Minister of Infrastructure and Development of 20 October 2015 on technical and organizational conditions which need to be met by intersections of railway lines and railway sidings with roads and their location. If visibility from 10 meters is not ensured, it shall be necessary to determine the speed of the trains at which visibility from a distance of 10 m is met.

3.2.6 A serious accident of category A 21, which occurred on 17 November 2018 at 11:49 AM at a D-category level crossing localized at the Dobrzechów – Frysztak route, track 1, at km 42,602 of the railway line No. 106 Rzeszów - Jasło

On 17 November 2018, at 11.26 from Jasło station, according to the timetable, the passenger train No. 33110 departed from Zagórz - Rzeszów. Main carrier SKPL Cargo sp. Z o.o. At 11:45 the train passed the Frysztak station. The train was assembled from the diesel VT 614 SN84-002 trainset and operated by a train crew composed of: driver, train manager and conductor of SKPL Cargo sp.z o.o. The train was driven from cabin B. At 11:49 at category D level crossing, at km 42.602 on the Dobrzechów - Frysztak route in track 1, directly in front of the oncoming passenger train No. 33110 on the Zagórz - Rzeszów Główny route, a Ford Focus passenger car entered. The train hit a road vehicle in its middle part on the right side of the vehicle (passenger side). As a result of impact with bumpers and the front wall of the train, the car was crushed in the cabin part and pushed 29 m from the axis of the rail - road crossing and rejected to the right side of the track in accordance with the direction of the train. After the collision and stopping the train, its front was at km 42.242, i.e. 360 m from the axis of the level crossing. Until the vehicles collided, the train No. 33110 in Zagórz - Rzeszów traveled smoothly. At the Jasło station there was a change of direction of the train from cab A to cab B. The driver after changing the cab and a simplified combination brake test performed by the train manager left the Jasło station according to the timetable at 11:26. After reaching the required speed, he performed control braking and found the brakes to work correctly. After passing the Frysztak station, approaching the level crossing at km 42.602, he noticed a fast approaching navy blue passenger car from the left to the direction of travel. The driver of the vehicle did not react to the given attention signals, the car did not stop and entered the passage. Despite the sudden braking implemented by the driver, a collision occurred. As a result of the train colliding with a road vehicle, the driver and passenger of the car died on the spot. Travelers and passenger train staff were not injured. The driver driving the train felt unwell after the incident and was taken by the ambulance for observation to the hospital. As a result of a serious accident, a road vehicle (passenger car) was completely

destroyed. The B cabin of the three-part diesel multiple train VT 614 SN84-002 was damaged, where the casing and control elements as well as the paint coating of the front part of the railway vehicle were damaged. The VT 614 SN rail bus has the ID of the railway vehicle No. EVN D-SKPL 9580 0 614 025-4, 9580 0 614 023-6, 9580 0 614 026-2 total weight 139 tonnes, braking weight required 122 tonnes, actual braking weight 209 tonnes, percentage of braking mass required 88%, percentage of braking mass real 150%. The train was canceled on the further route, travelers from the train continued their journey by a replacement bus provided by the carrier. After the operational activities carried out by the railway commission, the Prosecutor and the Police, the train left the trail at 16:30 to the Frysztak station. As a result of the decision of the Chairman of the PKBWK to take over the proceedings by the Research Team, the Commission having regard to the provisions of Art. 28e paragraph 4 of the Act on rail transport, Commission on 26 November 2018, she reported this fact to the European Union Railway Agency ("EUAR") via the "ERAIL" IT system and the above event was registered in the ERAIL database under number PL-5852. From the above procedure, the Commission's research team developed a draft report with which stakeholders were acquainted in accordance with art. 28k paragraph 2 of the Act on rail transport.

From the proceedings, the Commission will publish in the fourth quarter of 2019 report No. PKBWK / 05/2019.

3.2.7 A serious accident of category A 20, which occurred on 19 December 2018 at 14:33 PM at a C-category level crossing localized on the Głogów Małopolski – Rzeszów route, at km 63,130 of the railway line No. 71 Ocice – Rzeszów Główny.

On December 19, 2018 at 2:33 p.m. on a C-level road crossing crossing Borowa Street managed by the Municipal Road Administration (MZD) Rzeszów with railway line No. 71 Ocice - Rzeszów Główny (Głogów Małopolski - Rzeszów route) at km 63.130 a Volkswagen Passat passenger car came in directly in front of the oncoming APM train No. 32432 between Rzeszów Główny and Stalowa Wola with the light and sound signaling of the automatic transit system (SSP) attached. The car was hit from the driver's side, i.e. to the left side, causing it to jam under the railway vehicle and push 378 meters from the pass axis. As a result of the accident, two people were killed (car driver and passenger), a third person (car passenger) died in hospital as a result of injuries.

As a result of the decision by the Chairman of the PKBWK to take over the proceedings by the Commission Research Team, taking into account the provisions of Art. 28e, paragraph 4 of the Act on rail transport, the Commission on 21 December 2018 reported this fact to the European Union Railway Agency ("EUAR") via the "ERAIL" IT system and the above event was registered in the ERAIL database under number PL-5879. During the proceedings, the Commission's research team with the participation of the Chairman of the PKBWK organized a meeting

with interested parties (including the road administrator, railway infrastructure manager, police and representatives of the Municipal Office in Rzeszów). The purpose of the meeting was to make binding arrangements in terms of reducing security risk, among others by changing the organization of road traffic in this area. As part of these activities, the speed of rail vehicles through this crossing was reduced and the road marking changed. The Commission will publish a report on the above procedure in the fourth quarter of 2019 on report No. PKBWK / 06/2019.

4. Recommendations on improving safety issued by the Commission in annual reports pursuant to art. 28l par. 6 of the Act of 28 March 2003 on railway transport

4.1 Recommendations issued in 2018, published in the 2017 Annual Report of the PKBWK

Based on Article. 28l paragraph 6 of the Act of 28 March 2003 on rail transport, the State Commission for the Investigation of Rail Accidents issued in 2018 the following recommendations on improving safety:

- 1) Railway carriers will take action to eliminate railway events caused by non-stopping of a railway vehicle from the "Stop" signal or in the place where it should stop, or starting a railway vehicle without the required permit.

The recommendation results from a significant increase in the number of C44 category events and a persistent large number of cat. B04 events. The reasons for these events may be related to e.g. training the driver with an improper driving technique, exceeding working time standards, lack of knowledge of the route, etc.

- 2) Rail carriers operating freight and entities responsible for maintaining freight wagons (ECM) as part of their management systems will take action to eliminate incidents caused by the tearing of the train or the shunting composition.

The recommendation results from a significant increase in the number of C68 events (train breaks or shunting composition) on the railway network. Rail carriers operating freight and entities responsible for the maintenance of freight wagons (ECMs) should increase oversight and take effective action to eliminate this type of incident.

- 3) Railway infrastructure managers will undertake activities aimed at verifying the road communication system as a whole, functionally connected in the process of designing modernization or revitalization works of railway lines with railway crossings. During designing, it is reasonable to make a project to change the organization of such roads in the appropriate impact area in the vicinity of level crossings in such a way that after reorganizing this system it is possible to redirect traffic to adjacent crossings of the same or higher category in order to channel traffic at one point.

This action should lead to the elimination of unnecessary rail and road crossings, and you should strive to the distance between rail and road crossings was not less than 3 km (§23 item 2 of the Regulation of the Minister of Infrastructure and Development of 20 October 2015 on the technical conditions to be met by the intersection of railway lines and railway sidings with roads and their location (Dz.U. of 2015 item 1744), hereinafter referred to as "Regulation 1744 on intersections".

Local administration authorities and road managers should cooperate in achieving the above objective with the infrastructure manager in a given area covered by the above works. In the place of liquidation of the D category crossing, ensure safe pedestrian communication in case of pedestrian traffic.

- 4) Railway infrastructure managers will continue activities aimed at reducing the number of accidents at level crossings for all categories: A, B, C and D.

The recommendation is due to the increase in the number of accidents in 2017 on category A, B, C and D rail crossings.

- 5) The railway infrastructure managers shall implement the project of additional identification marking of level crossings and crossings at the rail level, containing the necessary information for the operator of the 112 emergency number, and the model of the project implemented by PKP PLK S.A.

The recommendation applies to railway infrastructure managers other than PKP PLK S.A.

The placement of additional information enables quick contact with the railway infrastructure manager, and in the event of an event involving a railway vehicle that causes negative consequences for human health and other hazards at the rail / road crossing, enables quick notification of interested rescue services.

- 6) The railway infrastructure managers shall check the correctness of placing the B-20 "STOP" signs in front of category D level crossings, where visibility conditions are maintained and the train speed limit is not enforced (as per Annex 3 Part B point 7 of Regulation 1744 on intersections).

If the B-20 "STOP" sign is not justified, the infrastructure managers will oblige the road manager to remove it.

Setting the "STOP" sign before a level crossing of the category where the scheduled speed applies, despite ensuring that the train is not approaching, prevents the smooth passage of road vehicles. In certain cases, a smooth passage of a road vehicle may lead to a train running over that vehicle.

The above recommendations were directed to the President of the Office of Rail Transport, who forwarded them to entities of the railway market over which the President of UTK exercises statutory supervision.

4.2 Recommendations issued in this 2018 Annual Report.

Based on Article. 28l paragraph 6 of the Act of 28 March 2003 on rail transport, the State Commission for the Investigation of Rail Accidents issues in this Annual Report for 2018 the following recommendations on improving safety:

- 1) Carriers and infrastructure managers will take measures to ensure that trainers, as part of the professional training of employees employed in positions directly related to conducting and railway traffic safety as well as driving specific types of railway vehicles, in accordance with the Regulation of the Minister of Infrastructure and Development of 30 December 2014 (Dz. U. of 2015, item 46), were not included in the committees conducting qualification and verification examinations for employees who have been trained by these persons.

The purpose of the above recommendation is to increase the independence and impartiality of examination committees from the training process, which will translate into raising the level of knowledge of the examined employees and improving safety in rail transport. Other members of the commission conducting the examination than members of trainers, according to the Commission, will require the need for more thorough mastery of knowledge by employees and to avoid conflicts of interest between trainers and examiners.

- 2) Infrastructure managers will eliminate exit gates for automatic crossing systems on category B level crossings for solutions with four half barriers. This condition is inconsistent with the provisions contained in Annex 1, point 6.2 of the Regulation of the Minister of Infrastructure of 03 July 2003 on detailed technical conditions for road signs and signals as well as road safety devices and conditions for placing them on the roads (Dz. U. item . 2181 from 2013, from late d.), which provides: *"The barriers closing the entire width of the U-13a and U-13b roadways are used at category A level crossings, while the U-13c half barriers are used at category B crossings. Half barriers should be placed so that on each side of the passage they close the right half of the road (also in when using half barriers on one-way roads)."*

The above recommendation is aimed at eliminating the incidents of road vehicles remaining in the danger zone of passing between closed half barriers and allows the exit of road vehicles, in the event of failure to comply with the prohibition of entry to this crossing, when the traffic signal gave a signal prohibiting entry (to avoid collision with oncoming rail vehicles). An alternating flashing red signal transmitted on a traffic light built-up before crossing means that entry for this traffic light is prohibited, as provided for in § 98 (5) of the Regulation of the Ministers of Infrastructure and Interior and Administration of 31 July 2002 on road signs and signals (consolidated text: Dz.U. of 2019, item 454). In the period April - June 2019, there were at least 45 such cases on the railway network managed by PKP PLK S.A.

- 3) Infrastructure managers, rail carriers and railway siding users will take measures to eliminate the practice of replacing training as part of professional preparation for qualifying

examinations, employees employed in positions directly related to the operation and safety of rail traffic and the operation of specific types of railway vehicles, in accordance with with the Regulation of the Minister of Infrastructure and Development of 30 December 2014 (Dz. U. of 2015 item 46), a form of self-education of these employees.

The above recommendation results from the fact that employees preparing for qualification exams on the principle of self-education often show a lack of practical and theoretical knowledge, which means that these employees may pose threats to railway traffic safety and may contribute to the occurrence of railway events. The above requires analysis and appropriate changes in internal regulations of entities of the railway market sector.

- 4) To improve the visibility of the D8 signal (presence of a lineman), the railway infrastructure managers should introduce a 24-hour night signal from the post of an employee serving the closing of the gates (lane liner or other employee).

D8 daily signal given in the room (watchtower or control room) or through the watchtower window (control room) is not visible (or is hardly visible) by the trainset.

- 5) Rail carriers will take measures to eliminate railway incidents caused by the collapse of a railway vehicle.

The recommendation results from a significant increase in the number of C47 events and a persistent large number of B08 events. The causes of these events can be related e.g. with improper protection of railway vehicles, improper organization of work, non-compliance with work regulations, etc.

- 6) Railway infrastructure managers will take action to eliminate premature dissolution of the route and expedition, acceptance or driving of a railway vehicle on an improperly arranged, unsecured route or incorrect operation or lack of operation of railway traffic control devices

The recommendation results from the increase in the number of events of categories B15, C48 and C43. The reasons for these events may be related to, for example, insufficient communication during train movements and shunting journeys between employees of positions related to railway traffic safety, improper marshalling yard organization, incorrect maneuvering discussions by the maneuver manager, etc.

The above recommendations are forwarded to the President of UTK, who will cause these recommendations to be sent to final recipients - i.e. entities on the railway market over which the President of UTK exercises statutory supervision.

5. Implementation of recommendations issued in 2018 by the PKBWK (based on information from the Office of Rail Transport - UTK)

The State Commission on Railway Accident Investigation received on 05 May 2018 from the Office of Rail Transport information on the implementation of recommendations issued by the Commission in 2018.

As part of the supervision over the implementation of the PBKWK recommendations by railway market entities, the analysis included the recommendations contained in:

- 1) Report No. PKBWK/01/2018 under the investigation of accident of cat. A18 that occurred on 4 April 2017 at 17:34 on a category A level crossing located at km 244,676 on the Zawadówka route Uherka, on route track No. 1, railway line No. 7 Warszawa Wschodnia Osobowa - Dorohusk.
- 2) Report No. PKBWK/02/2018 under the investigation of accident of cat. A 20, which occurred on 7 April 2017 at 15:11 at a C-category level crossing localized on the monorail line Ozimek – Chrzastowice, at km 56,977 of the railway line No. 144 Tarnowskie Góry – Opole,
- 3) Report No. PKBWK/03/2018 under the investigation of accident of cat. A04 which occurred on 30 August 2017. at 21:53 at Smętowo station, in station track No. 2, in km 457,485 railway line No. 131 Chorzów Batory - Tczew
- 4) Report No. PKBWK/04/2018 under the investigation of accident of cat. A 21, which occurred on 27 February 2018 at 18:57 at a D-category level crossing localized on the monorail line Opole Zachodnie - Szydłów, at km 1.934 of the railway line No. 287 Opole Zachodnie - Nysa;
- 5) Report No. PKBWK/05/2018 under the investigation of accident of cat. A18 that occurred on 2 November 2017 at 18:49 at the category A level crossing with suspended service, located at km 37,119 on the Śniadowo - Łapy route, on the route track No. 1 of the railway line No. 36 Ostrołęka - Łapy
- 6) Report No. PKBWK/6/2018 under the investigation of accident of cat. which occurred on 24 November 2017. at 6:48 at Warlubie – Laskowice Pomorskie route, track no. 2, at km 424,208 railway line no. 131 Chorzów Batory – Tczew,
- 7) Report No. PKBWK/07/2018 under the investigation of accident of cat. B37 which occurred on 10 November 2017 at 6:20 with train no. TMS 624016/7 running the route Kamieniec Ząbkowicki - Szeligi at the Nysa - Nowy Światów section, track no. 2, at km 129,650 of railway line 137 Katowice - Legnica
- 8) PKBWK Annual Report for 2017.

In order to improve the implementation of the GDPWK recommendations by railway market entities, a questionnaire was prepared at UTK and entities were asked to complete it (letter DMB-WMIC.464.1.2019.1.MK of 14 March 2019).

The railway market entities provided the President of UTK with answers on the implementation of the recommendations in the form of surveys.

5.1. Analysis of information on the implementation of recommendations.

The status of implementation of the recommendations based on the information provided by UTK is as follows:

Recommendations issued by PKBWK in 2018, the President of UTK forwarded for implementation to 137 entities of the railway market, including:

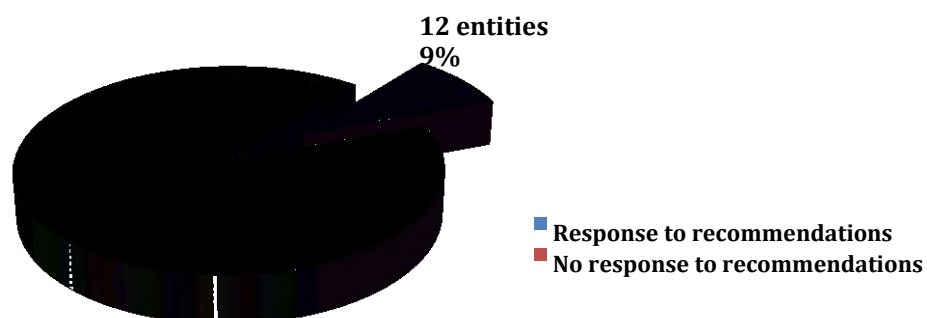
- 100 certified rail carriers (13 passengers, 74 freight, 13 with a certificate for the transport of passengers and goods),
- 11 authorized managers of railway infrastructure and
- 62 entities responsible for the maintenance of freight wagons (ECM) - (including 4 entities certified in the IV maintenance function).

Many entities simultaneously perform several functions, which means that among the abovementioned entities:

- 66 is only a rail carrier (PK),
- 28 is only the entity responsible for the maintenance of wagons (ECM),
- 32 is both a railway carrier and an entity responsible for maintenance of cars (PK + ECM),
- 8 is only a railway infrastructure manager (ZI),
- 1 entity is both the infrastructure manager and the entity responsible for the maintenance of the wagons (ZI + ECM),
- 1 entity is both an infrastructure manager and a railway carrier (ZI + PK),
- 1 entity performs all three functions: manager (ZI), carrier (PK) and entity responsible for the maintenance of wagons (ECM).

The survey form prepared by the Office of Rail Transport was completed by 125 (91%) entities, informing about the status and stage of implementation of a specific recommendation. The statistics also include those entities that will not succeed

Diagram 2. **A general summary of the entities' responses to the letter (survey) of the President of UTK**



However, 12 entities (9%) did not provide information on the degree of implementation of recommendations for improving safety or measures to implement them. In relation to railway market sector enterprises to which the recommendation related, who did not address him satisfactorily or did not provide information at all on the status of implementation of the recommendations, the President of UTK will issue letters to supplement and present a plan for implementing the recommendations. In the absence of a proper response from the entities, the President of UTK will take appropriate supervisory activities.

The first part of the analysis of the implementation of the PKBWK recommendations contains the assessment of the President of UTK regarding the manner of implementation of the PKBWK recommendations. This part is the result of a qualitative analysis of the responses sent to the President of UTK by railway market entities.

A division was made between recommendations that were assessed positively and those that were assessed negatively.

A positive assessment of the implementation of the recommendations contained in the PKBWK reports was granted only if the UTK decided that the actions taken by the entity were appropriate or properly directed to all the recommendations that concerned him in the given report.

The implementation of the recommendations of a given report by the entity was considered complete when the assessment of all the individual recommendations making up the report was positive. If at least one recommendation from the report was evaluated negatively or if the entity did not send information to the UTK about the status of implementation of the recommendations, then the assessment of the implementation of the recommendations was negative.

The assessment of the President of UTK regarding the implementation of recommendations from individual reports is presented below on pie charts.

The second part of the information (included in the annex) are the answers declared by rail market entities. According to the information provided by UTK, an average percentage of the implementation of the given recommendation was indicated under each recommendation, which for the needs of the assessment was calculated as an arithmetic average based on the values declared by market entities.

Ad. 1) The President of UTK accepted for implementation the recommendations of the Report No. PKBWK / 01/2018 directing them in full for the implementation of all authorized railway infrastructure managers and certified rail carriers by letter UTK No. DMB-WMIC.465.2.2018.2.MK of 2018-08-01 as follows:

- Recommendations No. 1, 2, 3, 4b, 5a, 5b, 5c prepared in Report No. PKBWK / 01/2018 and directed by PKBWK to the infrastructure manager of PKP Polskie Linie Kolejowe S.A. (PKP PLK S.A.) - were also directed by the President of UTK to implement all authorized infrastructure managers - i.e. 11 entities,

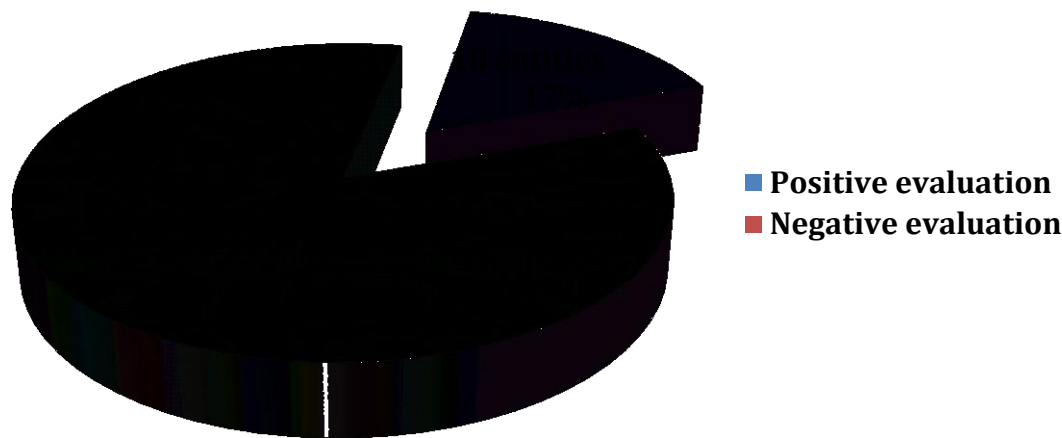
- Recommendation No. 4a developed in Report No. PKBWK / 01/2018 and addressed by the Commission to PKP PLK S.A. - was directed by the President of UTK for implementation by PKP PLK S.A,
- Recommendations: No. 6a, 6b and 6c addressed by the Commission to the railway carrier Przewozy Regionalne Sp. z o.o. - were also directed by the President of UTK to implement all certified rail carriers - i.e. 100 entities,
- Recommendation 6d addressed by the Commission to the rail carrier Przewozy Regionalne Sp. z o.o. - was also directed by the President of UTK to implement all certified rail carriers and authorized infrastructure managers.

Recommendations: No. 6d from the PKBWK / 01/2018 Report, No. 2 from the PKBWK / 02/2018 Report, No. 1 from the PKBWK / 03/2018 Report, No. 10 from the PKBWK / 04/2018 Report, No. 1 from the PKBWK / 06/2018 Report and No. 2 from the PKBWK / 07/2018 Report contain the same content. These recommendations were directed by the President of UTK for implementation by all certified railway carriers and authorized infrastructure managers. **The President of UTK obliged entities to respond to these recommendations only with the last recommendation, i.e. No. 2 from Report PKBWK/07/2018.**

Table 4. Implementation of recommendations by entities listed by the Commission in Report No. PKBWK/01/2018 based on information submitted in March 2019 to PKBWK

Recommendations resulting from Report No. PKBWK / 01/2018 (issued in 2018)	Entity that is the addressee of the recommendation	Date of implementation of the recommendation	Average percentage (%) of the implemented recommendation by the entities listed in column 2 / (stage of implementation)
1	2	3	4
Recommendation 1	PKP PLK S.A.	2018-09-30	100
Recommendation 2	PKP PLK S.A.	2018-06-30	100
Recommendation 3	PKP PLK S.A.	2018-06-30	100
Recommendation 4a	PKP PLK S.A.	2018-10-31	100
Recommendation 4b	PKP PLK S.A.	2025-12-31	62 (implemented by PKP PLK S.A.)
Recommendation 5a	PKP PLK S.A.	2018-12-31	100
Recommendation 5b	PKP PLK S.A.	2018-12-31	100
Recommendation 5c	PKP PLK S.A.	2018-12-31	100
Recommendation 6a	Przewozy Regionalne Sp. z o.o.	2018-12-31	100
Recommendation 6b	Przewozy Regionalne Sp. z o.o.	2018-10-01	100
Recommendation 6c	Przewozy Regionalne Sp. z o.o.	2019-01-01	100
Recommendation 6d	Przewozy Regionalne Sp. z o.o.	2040-12-31	56 (being implemented by PR Sp. z o.o.)

Diagram 3. **Assessment of the manner of implementation of the recommendations from Report No. PKBWK/01/2018 addressed to the President of the UTK (based on information provided by the UTK)**



Positive evaluation - in the opinion of UTK, declared actions of 91 railway market entities are heading towards the correct implementation of the recommendations of the PKBWK.

Negative evaluation - in the opinion of the UTK, the declared proposals of activities of 18 entities do not lead **towards implementing the recommendations.**

Table 5. **List of evaluations of entities' responses to the implementation of individual recommendations from Report no. PKBWK/01/2018 (based on information provided by UTK)**

	Recommendation 1	Recommendation 2	Recommendation 3	Recommendation 4a	Recommendation 4b (ZI)	Recommendation 5a (ZI)	Recommendation 5b (ZI)	Recommendation 5c (ZI)	Recommendation 6a (ZI)	Recommendation 6b (ZI)	Recommendation 6c (ZI)
Referring to entities	11	11	11	1	11	11	11	11	100	100	100
positive	11	11	11	1	11	10	11	11	83	85	86
negative	0	0	0	0	0	1	0	0	17	15	14

(PKP PLK)* – means PKP Polskie Linie Kolejowe S.A.

Ad. 2) The President of UTK accepted for implementation the recommendations of Report No. PKBWK / 02/2018, directing them in full for the implementation of all authorized managers of railway infrastructure, certified railway carriers or other entities, in UTK letter no DMB-WMIC.465.2.2018.2.MK of 08/08/2018 as follows:

- Recommendations No. 1, 5, 15 and 16 directed by the Commission to PKP PLK S.A. - Railway Lines Plant in Opole - were also directed by the President of UTK to implement all authorized infrastructure managers - i.e. 11 entities,

- Recommendation No. 2 directed by the Commission to PKP Intercity S.A. (PKP IC S.A.) - was directed by the President of UTK for implementation by PKP Intercity S.A.,
- Recommendations No. 3, 10 and 19 directed by the Commission to the railway carrier PKP Intercity S.A. (PKP IC) - were also directed by the President of UTK to implement all certified passenger rail carriers - i.e. 26 entities,
- Recommendations No. 4, 6–9, 11, 12, 14 and 17 addressed by the Commission to PKP PLK S.A. - were also directed by the President of UTK to implement all authorized infrastructure managers - i.e. 11 entities,
- Recommendation No. 13 addressed by the Commission to carriers and infrastructure managers - was also addressed by the President of UTK to authorized infrastructure managers and certified railway carriers,
- Recommendation No. 17 directed by the Commission to the national road manager - was also directed by the President of UTK to implement all authorized infrastructure managers - i.e. 11 entities,
- Recommendation No. 18 directed by the Commission to the national road manager - was directed by the President of UTK for implementation by PKP PLK S.A. PKP PLK S.A.:

Table 6. Implementation of recommendations by entities listed by the Commission in Report No. PKBWK / 02/2018 on the basis of information submitted to PKBWK in March 2019. and inspection carried out by permanent members of the Commission on 20/08/2019

Recommendations resulting from Report No. PKBWK / 02/2018 (issued in 2018)	Entity that is the addressee of the recommendation	Date of implementation of the recommendation	Average percentage (%) of the implemented recommendation by the entities listed in column 2 / (stage of implementation)
1	2		4
Recommendation 1	PKP PLK S.A. – IZ in Opole PKP PLK S.A.	2019-06-30	100 (confirmed at the site of the incident during the PKBWK inspection); 60 (in progress by PKP PLK S.A.)
Recommendation 2	PKP Intercity S.A.	2018-12-31	86
Recommendation 3	PKP Intercity S.A.	2018-12-31	100
Recommendation 4	PKP PLK S.A.	2018-12-31	100
Recommendation 5	PKP PLK S.A. – IZ in Opole	2018-08-23	100
Recommendation 6	PKP PLK S.A.	2018-09-30	100
Recommendation 7	PKP PLK S.A.	2018-05-31	100
Recommendation 8	PKP PLK S.A.	2018-06-30	100
Recommendation 9	PKP PLK S.A.	2018-07-30	100
Recommendation 10	PKP Intercity S.A.	2019-12-31	60 (implemented by PKP IC S.A.)
Recommendation 11	PKP PLK S.A.	2018-06-30	100
Recommendation 12	PKP PLK S.A.	2018-06-30	100
Recommendation 13	PK + ZI including: PKP Intercity S.A., PKP PLK S.A.	..... 2020-12-31 2019-12-31	91 (% of implementation of all: PK +ZI) **) 15 (implemented by PKP IC S.A.) 95 (implemented by PKP PLK S.A.)

Recommendation 14	PKP PLK S.A	2019-12-31	95 (being implemented)
Recommendation 15	PKP PLK S.A. – IZ in Opole	2018-09-30	100
Recommendation 16	PKP PLK S.A. – IZ in Opole	2018-10-04	100
Recommendation 17	Manader of National Road	2018-05-31	100 (implemented under supervision of PKP PLK S.A. – ZI Opole)
Recommendation 18	Zarząd Dróg Powiatowych w Opolu*)	2018-05-31	100 (implemented under supervision of PKP PLK S.A. – ZI Opole)
Recommendation 19	PKP Intercity S.A.	2020-12-31	20 (implemented by PKP IC S.A.)

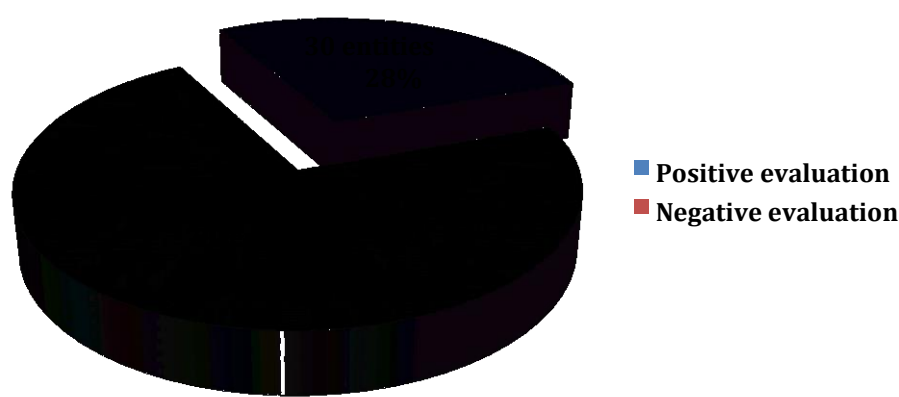
*) Report No. PKBWK / 02/2018 submitted to the Board of Poviats Roads in Opole at the speech PKBWK.4631.44.2018.BP of 2018-04-19
**) based on Information on the implementation of recommendations issued by PKBWK in 2018 - from UTK - DMB-WMIC.464.1.2019.5.MK from 4/30/2019

During the inspection carried out in Ozimek on August 20, 2019 by permanent members of PKBWK it was found:

- Recommendation 1 regarding the liquidation of the road profile bend - implemented; road - a new bituminous surface with the correct profile has been laid along the length of the journey and access;
- Recommendation 15 - PKP PLK S.A. - The Railway Lines Plant in Opole improved the ergonomics of work in the traffic dispatch station at the Ozimek station - the premises were renovated and the device settings were reorganized;
- Recommendation 17 and 18 - the road manager has completed the missing road signs - signs F6 have been set and characters A30 and T14d.

In addition, the railway infrastructure manager built cameras at the crossing to allow observation of the level crossing through the Ozimek duty station.

Diagram 4. **Assessment of the manner of implementation of the recommendations from Report No. PKBWK/02/2018 addressed to the President of the UTK (based on information provided by the UTK)**



Positive evaluation - in the opinion of UTK, declared actions of 79 railway market entities are heading towards the correct implementation of the recommendations of the PKBWK.

Negative evaluation - in the opinion of the UTK, the declared proposals of activities of 30 entities do not lead **towards implementing the recommendations**.

Table 7. List of evaluations of entities' responses to the implementation of individual recommendations from Report no. PKBWK/02/2018 (based on information provided by UTK)

	Recommendation 1 (ZI)	Recommendation 3 (PK passenger)	Recommendation 4 (ZI)	Recommendation 5 (ZI)	Recommendation 6 (ZI)	Recommendation 7 (ZI)	Recommendation 8 (ZI)	Recommendation 9 (ZI)	Recommendation 10 (ZI)
Referred to entities	11	26	11	11	11	11	11	11	26
positive	11	17	8	8	8	10	10	10	17
negative	0	9	3	3	3	1	1	1	9

	Recommendation n 11 (ZI)	Recommendation n 12 (ZI)	Recommendation n 13 (ZI+PK)	Recommendation n 14 (ZI)	Recommendation n 15 (ZI)	Recommendation n 16 (ZI)	Recommendation n 17 (ZI)	Recommendation n 18 (ZI)	Recommendation n 19 (PK passenger)
Referred to entities	11	11	109	11	11	11	11	1	26
positive	10	10	89	10	10	11	10	1	17
negative	1	1	20	1	1	0	1	0	9

Ad. 3) The President of UTK accepted for implementation the recommendations of Report No. PKBWK / 03/2018, directing them in full for the implementation of all authorized managers of railway infrastructure, certified railway carriers or other entities, in UTK letter no DMB-WMIC.465.4.2018.2.MK of 2019-01-03 as follows:

- Recommendation 1 directed by the Commission to the railway carrier STK S.A. - it was also directed by the President of UTK to implement all certified railway carriers and authorized infrastructure managers,
- Recommendations No. 2a, 2b, 2c and 3 addressed by the Commission to the railway carrier STK S.A. - were also directed by the President of UTK to implement all certified railway carriers - i.e. 100 entities,
- Recommendations No. 4a, 4b, 4c, 9a, 9b, 10a and 10b - directed by the Commission to the infrastructure manager of PKP PLK S.A. - were also directed by the President of UTK to implement all authorized infrastructure managers - i.e. 11 entities,
- Recommendations No. 5a, 5b and 6 addressed by the Commission to the railway carrier STK S.A. and Infrastructure manager PKP PLK S.A.. - were also directed by the President

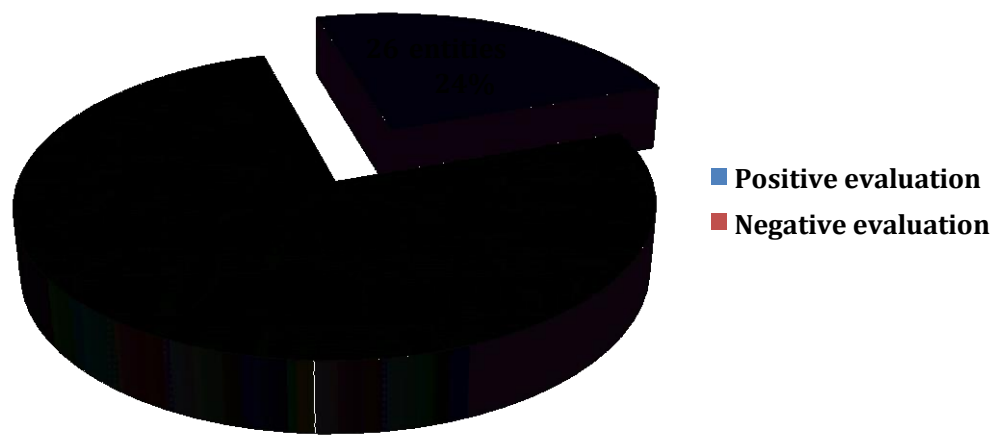
of UTK to implement all certified railway carriers and authorized infrastructure managers,

- Recommendations No. 7 and 8 addressed by the Commission to PKP PLK S.A. - were directed by the President of UTK for implementation by PKP PLK S.A.

Table 8. Implementation of recommendations by entities listed by the Commission in Report No. PKBWK/03/2018 on the basis of information submitted to PKBWK in March 2019

Recommendations resulting from Report No. PKBWK / 03/2018 (issued in 2018)	Addressee of the recommendation:	Date of implementation of the recommendation:	Average percentage (%) of the implemented recommendation by the entities listed in column 2 / (stage of implementation)
1	2	3	4
Recommendation 1	STK S.A. (PKP PLK S.A.)	2019-12-31 2024-12-31 (for vehicles in operation)	50 (STK S.A. being implemented) 20 (PKP PLK S.A. being implemented)
Recommendation 2a	STK S.A.	2018-08-31	100
Recommendation 2b	STK S.A.	2018-08-31	100
Recommendation 2c	STK S.A.	2019-02-28	100
Recommendation 3	STK S.A.	2018-08-31	100
Recommendation 4a	PKP PLK S.A.	2019-03-31	100
Recommendation 4b	PKP PLK S.A.	2019-03-31	100
Recommendation 4c	PKP PLK S.A.	2019-03-31	100
Recommendation 5a	STK S.A. (PKP PLK S.A.)	2019-12-31 2019-12-31	40 (STK S.A. - being implemented) 30 (PKP PLK S.A. being implemented)
Recommendation 5b	STK S.A. (PKP PLK S.A.)	2019-12-31 2019-12-31	40 (STK S.A. - being implemented) 30 (PKP PLK S.A. being implemented)
Recommendation 6	STK S.A. (PKP PLK S.A.)	2019-03-31 2019-12-31	100 30 (PKP PLK S.A. being implemented)
Recommendation 7	PKP PLK S.A.	2018-05-25	100
Recommendation 8	PKP PLK S.A.	2019-01-22	100
Recommendation 9a	PKP PLK S.A.	2018-12-31	100
Recommendation 9b	PKP PLK S.A.	2018-12-31	100
Recommendation 10a	PKP PLK S.A.	2019-03-31	100
Recommendation 10b	PKP PLK S.A.	2019-03-31	100

Diagram 5. Assessment of the manner of implementation of the recommendations from Report No. PKBWK/03/2018 addressed to the President of the UTK (based on information provided by the UTK)



Positive evaluation - in the opinion of UTK, declared actions of 83 railway market entities are heading towards the correct implementation of the recommendations of the PKBWK.

Negative evaluation - in the opinion of the UTK, the declared proposals of activities of 26 entities do not lead **towards implementing the recommendations.**

Table 9. List of evaluations of entities' responses to the implementation of individual recommendations from Report no. PKBWK/03/2018 (based on information provided by UTK)

	Recommendation 2a (PK)	Recommendation 2b (PK)	Recommendation 2c (PK)	Recommendation 3 (PK)	Recommendation 4a (ZI)	Recommendation 4b (ZI)	Recommendation 4c (ZI)	Recommendation 5a (ZI+PK)
Referred to entities	100	100	100	100	11	11	11	109
positive	88	90	88	89	10	10	10	93
negative	12	10	12	11	1	1	1	16

	Recommendation 5b (ZI+PK)	Recommendation 6 (ZI+PK)	Recommendation 7 (PKP PLK)	Recommendation 8 (PKP PLK)	Recommendation 9a (ZI)	Recommendation 9b (ZI)	Recommendation 10a (ZI)	Recommendation 10b (ZI)
Referred to entities	109	109	1	1	11	11	11	11
positive	93	90	1	1	10	10	10	10
negative	16	19	0	0	1	1	1	1

Ad. 4) The President of UTK accepted for implementation the recommendations of Report No. PKBWK/04/2018, directing them in full for the implementation of all authorized managers of railway infrastructure, certified railway carriers or other entities, in UTK letter no DMB-WMIC.465.4.2018.2.MK of 2019-01-03 as follows:

- Recommendations No. 1-4, 6 and 15 directed by the Commission to the road manager - were also directed by the President of UTK to implement all authorized infrastructure managers - i.e. 11 entities,
- Recommendation 5 directed by the Commission to the railway infrastructure manager - was also directed by the President of UTK to implement all authorized infrastructure managers - i.e. 11 entities,
- Recommendations No. 7, 18 and 19 directed by the Commission to railway infrastructure managers - for all category D level crossings - were also directed by the President of UTK to implement all authorized infrastructure managers - i.e. 11 entities,
- Recommendations No. 8 and 17 addressed by the Commission to PKP PLK S.A. - were also directed by the President of UTK to implement all authorized infrastructure managers - i.e. 11 entities,
- Recommendation No. 9 addressed by the Commission to railway infrastructure carriers and managers - was addressed to all certified carriers railway and authorized infrastructure managers,
- Recommendation 10 addressed to the carrier Przewozy Regionalne Sp. z o.o. by the Commission - it was also directed by the President of UTK to all certified railway carriers and authorized managers of railway infrastructure,
- Recommendations 11 and 14 addressed by the Commission to Przewozy Regionalne Sp. z o.o. - were also directed by the President of UTK to implement all certified railway carriers - i.e. 100 entities,
- Recommendation No. 12 directed by the Commission to PKP PLK S.A. – Zakład Linii Kolejowych in Opole - it was directed by the President of UTK to be implemented by PKP PLK S.A.,

- Recommendation No. 13 addressed by the Commission to PKP PLK S.A. - Zakład Linii Kolejowych in Opole - it was also directed by the President of UTK to implement all authorized infrastructure managers - i.e. 11 entities,
- Recommendation No. 16 addressed by the Commission to PKP PLK S.A. - it was also directed by the President of UTK to implement all authorized infrastructure managers - i.e. 11 entities,
- Recommendation No. 20 directed by the Commission to managers of railway infrastructure - was directed by the President of UTK to implement all authorized infrastructure managers - i.e. 11 entities.

Table 10. Implementation of recommendations by entities listed by the Commission in Report No. PKBWK / 04/2018 on the basis of information submitted to PKBWK in March 2019. and inspection carried out by permanent members of the Commission on 2019-08-

20

Recommendations resulting from Report No. PKBWK / 04/2018 (issued in 2018)	Addressee of the recommendation:	Date of implementation of the recommendation:	Average percentage (%) of the implemented recommendation by the entities listed in column 2 / (stage of implementation)
1	2	3	4
Recommendation 1	manager of the road *) (+ PKP PLK S.A.- ZI w Opolu)	..... 2018-11-30	100 (according to PKP PLK S.A.)(1i2)
Recommendation 2	manager of the road *) (+PKP PLK S.A.- ZI in Opole)	..... 2019-12-31	50 (PKP PLK S.A. being implemented)(1i2)
Recommendation 3	manager of the road *) (+ PKP PLK S.A.- ZI w Opolu)	..... 2018-11-30	100 (according to PKP PLK S.A.) (3and4)
Recommendation 4	manager of the road *) (+ PKP PLK S.A.- ZI w Opolu)	2018-11-30	100 (according to PKP PLK S.A.) (3and4)
Recommendation 5	PKP PLK S.A.	2019-12-31	40 (being implemented) (5)
Recommendation 6	manager of the road *) (+ PKP PLK S.A.- ZI w Opolu)	..... 2019-12-31	40 (according to PKP PLK S.A.)
Recommendation 7	ZI (including PKP PLK S.A.)	..... 2018-12-31	73 (% implementation by all ZI)** 100 (implemented by PKP PLK S.A.)
Recommendation 8	PKP PLK S.A.	2018-12-31	100
Recommendation 9	PK +ZI (including PKP PLK S.A.)	..... 2019-12-31	61 (% implementation by all PK+ZI)** 30 (implemented by PKP PLK S.A.)
Recommendation 10	Przewozy Regionalne Sp. z o.o	2040-12-31	56 (being implemented)
Recommendation 11	Przewozy Regionalne Sp. z o.o	2023-12-31	0 (being implemented)
Recommendation 12	PKP PLK S.A. – ZI in Opole	2018-08-27	100
Recommendation 13	PKP PLK S.A. – ZI in Opole	2018-12-31	100

Recommendation 14	Przewozy Regionalne Sp. z o.o.	2019-01-23	100
Recommendation 15	manager of the road *) (+ PKP PLK S.A.- ZI in Opole)	..... 2018-11-30	100 (according to PKP PLK S.A.) (15)
Recommendation 16	PKP PLK S.A.	2019-12-31	40 (being implemented)
Recommendation 17	PKP PLK S.A.	2018-12-31	100
Recommendation 18	ZI (including PKP PLK S.A.)	2019-09-30	69 (% implementation by all ZI)**) 20 (PKP PLK S.A. - being implemented)
Recommendation 19	ZI (including PKP PLK S.A.)	..... 2019-09-30	63 (% implementation by all ZI)**) 15 (PKP PLK S.A. - being implemented)
Recommendation 20	ZI (including PKP PLK S.A.)	..... 2019-01-18	88 (% implementation by all ZI)**) 100 (implemented by PKP PLK S.A.)

*) Report No. PKBWK / 04/2018 submitted to the Municipal Road Administration in Opole with the PKBWK.4631.44.2018.BP of 2018-04-19

In this case PKP PLK S.A. - The Railway Lines Plant in Opole corresponded with the road administrator, the Commission's recommendations in the field of road lighting were forwarded to the Faculty of Technical Infrastructure and Municipal Management of the Opole City Hall.

In accordance with the regulations in force at PKP PLK S.A. - in cases where irregularities at level crossings are found which are outside the scope of the railway infrastructure manager's activities - locally competent Zakłady Linii Kolejowych PKP PLK S.A. will apply to road managers for removal of irregularities. There are no legal grounds for the President of UTK to apply to the PKBWK for directing the recommendation directly to interested entities or for UTK to direct the Commission's recommendations for implementation - by the PKBWK.

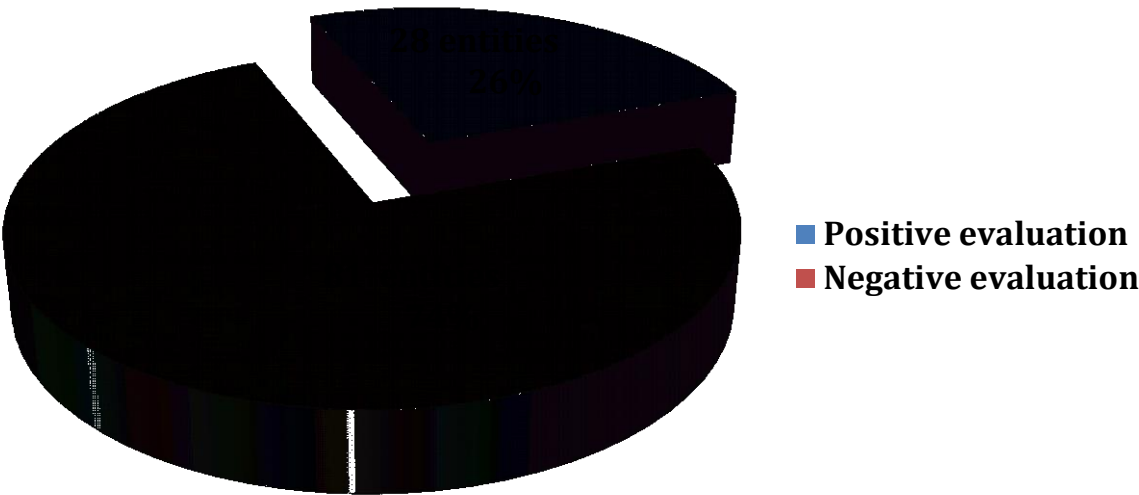
**) based on Information on the implementation of recommendations issued by PKBWK in 2018 - from UTK - DMB-WMIC.464.1.2019.5.MK from 4/30/2019

During the inspection carried out on August 20, 2019 at the level crossing in Chmielowice by permanent members of PKBWK:

- Recommendations 1 and 2 regarding the continuous lighting of the access zones to the crossing not implemented, but concerning the lighting of the crossing during implementation (1 and 2);
- Recommendations 3 and 4 regarding the limitation of speed of road vehicles and signaling exit from a side road - were not implemented by the road administrator (3 and 4);
- Recommendation 5 regarding the addition of asphalt defects within the crossing not implemented (5);
- Recommendation No. 15 the road administrator did not adapt the road infrastructure to the provisions (15).

The process of carrying out the reconstruction of the upgrade to a higher category, i.e. category C, was confirmed and the following threats and irregularities occurred during the reconstruction: no visibility from the place indicated by signs G3 and B20 on the left side of the passage towards the Opole station, no line P12 on both sides of the passage, with on the right-hand side of the road, no visibility from 5 m towards Opole, unobstructed chambers of inactive traffic signals.

Diagram 6. Assessment of the implementation of the recommendations from Report No. PKBWK/04/2018 addressed to the President of the UTK (based on information provided by the UTK)



Positive evaluation - in the opinion of UTK, declared actions of 81 railway market entities are heading towards the correct implementation of the recommendations of the PKBWK.

Negative evaluation - in the opinion of the UTK, the declared proposals of activities of 28 entities do not lead **towards implementing the recommendations**.

Table 11. **List of evaluations of entities' responses to the implementation** of individual recommendations from Report no. PKBWK/04/2018 (based on information provided by UTK)

	Recommen dation 1 (ZI)	Recommen dation 2 (ZI)	Recommen dation 3 (ZI)	Recommen dation 4 (ZI)	Recommen dation 5 (ZI)	Recommen dation 6 (ZI)	Recommen dation 7 (ZI)	Recommen dation 8 (ZI)	Recommen dation 9 (ZI+PK)
Referred to entities	11	11	11	11	11	11	11	11	109
positive	11	11	11	11	11	11	10	11	90
negative	0	0	0	0	0	0	1	0	19

	Recommenda tion 11 (ZI)	Recommenda tion 12 (PKP PLK)	Recommenda tion 13 (ZI)	Recommenda tion 14 (PK)	Recommenda tion 15 (ZI)	Recommenda tion 16 (ZI)	Recommenda tion 17 (ZI)	Recommenda tion 18 (ZI)	Recommenda tion 19 (ZI)	Recommenda tion 20 (ZI)
Referred to entities	100	1	11	100	11	11	11	11	11	11
positive	80	1	11	85	11	10	11	11	11	11
negative	20	0	0	15	0	1	0	0	0	0

Ad. 5) The President of UTK accepted for implementation the recommendations of Report No. PKBWK / 05/2018, directing them in full for the implementation of all authorized managers of railway infrastructure, certified railway carriers or other entities, in UTK letter no DMB-WMIC.465.4.2018.2.MK of 08/08/2018 as follows:

- Recommendation 1 addressed to the railway infrastructure managers by the Commission and other entities operating auxiliary vehicles - it was also directed by the President of UTK to implement all certified railway carriers and authorized infrastructure managers in the field of special vehicles, including special vehicles operated by track works contractors,
- Recommendation 2 addressed by the Commission to PKP PLK S.A. - it was also directed by the President of UTK to implement all authorized infrastructure managers and certified railway carriers,
- Recommendation No. 3 addressed by the Commission to PKP PLK S.A. - it was also directed by the President of UTK to implement all authorized infrastructure managers in the scope of special vehicles at their disposal, as well as in the scope of requirements for special vehicles operated by track works contractors during the execution of orders - i.e. 11 entities,
- Recommendation No. 4 addressed by the Commission to PKP PLK S.A. - it was also directed by the President of UTK to implement all authorized railway infrastructure managers in the scope of verification of training of employees planning, supervising and implementing track works in the field of Safety Management System and its updating as well as systematic provision of ongoing employee training - i.e. 11 entities,
- Recommendations No. 5, 6a and 6b addressed by the Commission to PKP PLK S.A. - were also directed by the President of UTK to implement all authorized railway infrastructure managers - i.e. 11 entities.

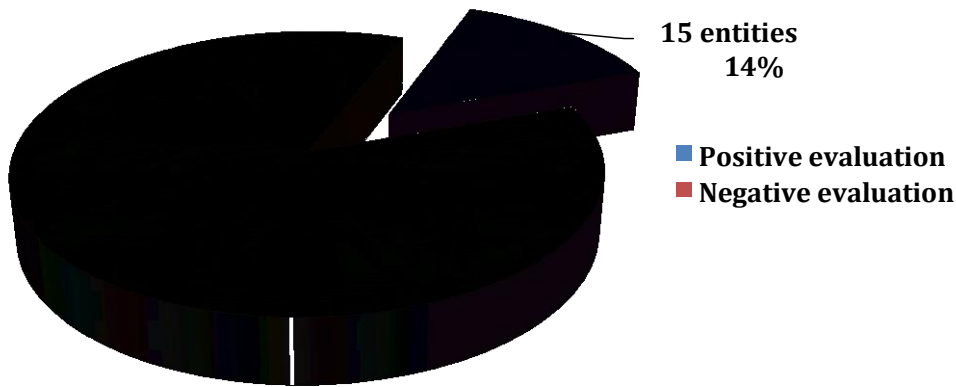
Table 12. Implementation of recommendations by entities listed by the Commission in Report No. PKBWK/05/2018 on the basis of information submitted to PKBWK in March 2019

Recommendations resulting from Report No. PKBWK / 05/2018 (issued in 2018)	Addressee of the recommendation:	Date of implementation of the recommendation:	Average percentage (%) of the implemented recommendation by the entities listed in column 2 / (stage of implementation)
1	2	3	4
Recommendation 1	ZI +PK (including PKP PLK S.A.)	..... 2019-04-30	50 (% implementation by all PK+ZI)**) 60 (being implemented by PKP PLK S.A.)
Recommendation 2	PKP PLK S.A.	2019-12-31	30 (being implemented by PKP PLK S.A.)
Recommendation 3	PKP PLK S.A.	2026-12-31	5 (alternative activities have been undertaken, being implemented by PKP PLK S.A.)
Recommendation 4	PKP PLK S.A.	2019-12-31	10 (being implemented by PKP PLK S.A.)

Recommendation 5	PKP PLK S.A.	2019-12-31	30 (being implemented by PKP PLK S.A.)
Recommendation 6a	PKP PLK S.A.	2018-12-31	100
Recommendation 6b	PKP PLK S.A.	2021-01-31	45 (being implemented by PKP PLK S.A.)

**) based on Information on the implementation of recommendations issued by PKBWK in 2018 - from UTK - DMB-WMIC.464.1.2019.5.MK from 2019-04-30

Diagram 7. Assessment of the implementation of the recommendations from Report No. PKBWK/05/2018 addressed to the President of the UTK (based on information provided by the UTK)



Positive evaluation - in the opinion of UTK, declared actions of 94 railway market entities are heading towards the correct implementation of the recommendations of the PKBWK.

Negative evaluation - in the opinion of the UTK, the declared proposals of activities of 15 entities do not lead **towards implementing the recommendations.**

Table 13. **List of evaluations of entities' responses to the implementation** of individual recommendations from Report no. PKBWK/05/2018 *(based on information provided by UTK)*

	Recommendation 1 (ZI+PK)	Recommendation 2 (ZI+PK)	Recommendation 3 (ZI)	Recommendation 4 (ZI)	Recommendation 5 (ZI)	Recommendation 6a (ZI)	Recommendation 6b (ZI)
Referring to entities	109	109	11	11	11	11	11
positive	99	94	11	11	11	11	11
negative	10	15	0	0	0	0	0

Ad. 6) The President of UTK accepted for implementation the recommendations of Report No. PKBWK/06/2018, directing them in full for the implementation of all authorized managers of railway infrastructure, certified railway carriers or other entities, in UTK letter no DMB-WMIC.465.4.2018.2.MK of 2019-01-03 as follows:

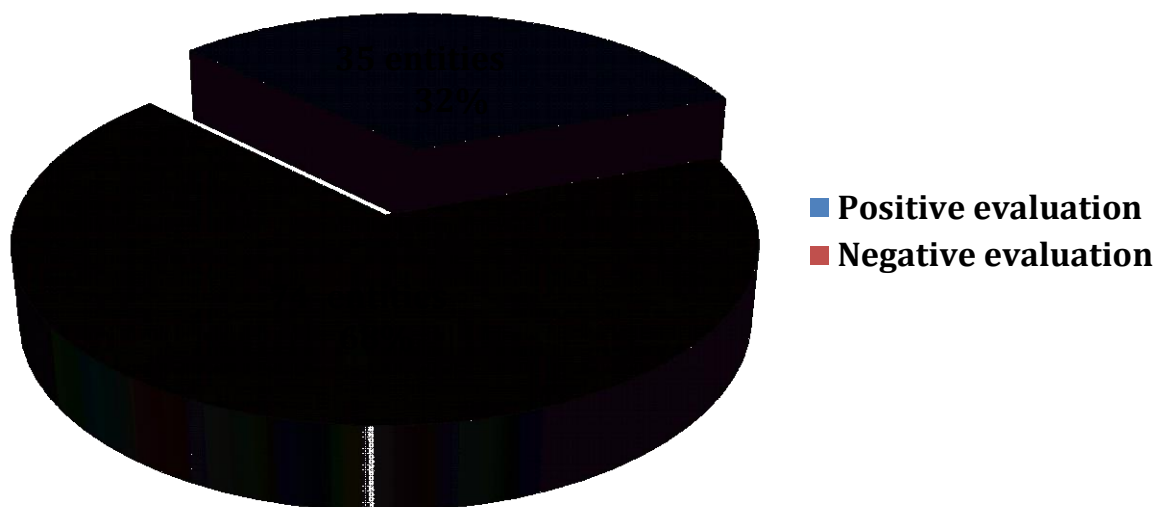
- Recommendation 1 addressed to POL-MIEDŹ TRANS Sp. z o.o. by the Commission (POL-MIEDŹ TRANS) and LOTOS Kolej Sp. z o.o. (LOTOS Kolej) - was also directed by the President of UTK to implement all certified rail carriers and authorized infrastructure managers,
- Recommendations No. 2, 3, 4, 5 and 7 directed by the Commission to POL-MIEDŹ TRANS - were also directed by the President of UTK to implement all certified rail carriers - i.e. 100 entities,
- Recommendation 6 addressed to rail vehicle users by the Commission and railway infrastructure managers - was directed by the President of UTK to implement all certified railway carriers and authorized infrastructure managers.

Table 14. Implementation of recommendations by entities listed by the Commission in Report No. PKBWK/06/2018 on the basis of information submitted to PKBWK in March 2019

Recommendations resulting from Report No. PKBWK / 06/2018 (issued in 2018)	Addressee of the recommendation:	Date of implementation of the recommendation:	Average percentage (%) of the implemented recommendation by the entities listed in column 2 / (stage of implementation)
1	2	3	4
Recommendation 1	POL-MIEDŹ TRANS PKP PLK S.A. LOTOS Kolej	2020-06-30 2024-12-31 2019-12-31	10 (being implemented - POL-MIEDŹ TRANS) 20 (being implemented by PKP PLK S.A.) 98 (being implemented - LOTOS Kolej)
Recommendation 2	POL-MIEDŹ TRANS	12/31/2018	100
Recommendation 3	POL-MIEDŹ TRANS	2019-12-31	90 (being implemented - POL-MIEDŹ TRANS)
Recommendation 4	POL-MIEDŹ TRANS	2018-12-31	100
Recommendation 5	POL-MIEDŹ TRANS	2019-12-31	70 (being implemented - POL-MIEDŹ TRANS)
Recommendation 6	PK + ZI including: - POL-MIEDŹ TRANS - LOTOS Kolej - PKP PLK S.A.	..... 2018-12-31 2019-12-31 2019-12-31	64 (% implementation by all ZI)**) 100 (POL-MIEDŹ TRANS) 50 (being implemented - LOTOS Kolej) 30 (being implemented by PKP PLK S.A.)
Recommendation 7	POL-MIEDŹ TRANS	2019-01-17	100

**) based on Information on the implementation of recommendations issued by PKBWK in 2018 - from UTK - DMB-WMIC.464.1.2019.5.MK from 2019-04-30

Diagram 8. Assessment of the implementation of the recommendations from Report No. PKBWK/06/2018 addressed to the President of the UTK (based on information provided by the UTK)



Positive evaluation - in the opinion of UTK, declared actions of 74 railway market entities are heading towards the correct implementation of the recommendations of the PKBWK.

Negative evaluation - in the opinion of the UTK, the declared proposals of activities of 35 entities do not lead **towards implementing the recommendations**.

Table 15. **List of evaluations of entities' responses to the implementation** of individual recommendations from Report no. PKBWK/06/2018 (*based on information provided by UTK*)

	Recommendation 2 (PK)	Recommendation 3 (PK)	Recommendation 4 (PK)	Recommendation 5 (PK)	Recommendation 6 (ZI+PK)	Recommendation 7 (PK)
Referred to entities	100	100	100	100	109	100
positive	79	82	81	83	92	83
negative	21	18	19	17	17	17

Ad. 7) The President of UTK took into account and accepted for implementation all the recommendations from Report No. PKBWK / 07/2018, directing them in full to the implementation of all authorized managers of railway infrastructure and certified railway carriers, in UTK letter DMB-WMIC.465.4.2018.2.MK of 2019- 01-03 as follows:

- Recommendation - (ZI) No. 1 and 3 addressed by the Commission to PKP PLK S.A. - it was also directed by the President of UTK to implement all authorized infrastructure managers - i.e. 11 entities,
- Recommendation (ZI) No. 2 addressed by the Commission to PKP PLK S.A. – Zakład Linii kolejowych in Opole - it was also directed by the President of UTK to implement all authorized infrastructure managers - i.e. 11 entities,
- Recommendations (PK) No. 1, 3 and 4 addressed by the Commission to the railway carrier Cargo Przewozy Towarowe, Transport Sp. z o. o. S.K. (Cargo PTT) - were also directed by the President of UTK to implement all certified railway carriers - i.e. 100 entities,

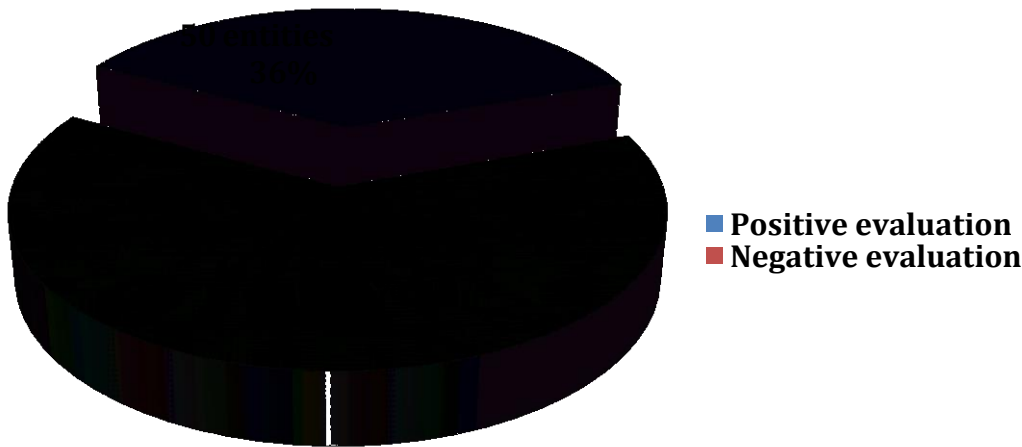
- Recommendation (PK) No. 2, directed by the Commission to the railway carrier Cargo Przewozy Towarowe, Transport Sp. z o. o. S.K. - it was also directed by the President of UTK to implement all certified railway carriers and authorized infrastructure managers,
- Recommendation (PK) No. 5 addressed by the Commission to rail carriers servicing freight trains - was extended and directed by the President of UTK to implement all certified rail carriers - i.e. 100 entities,
- Recommendation (PK) No. 6 addressed by the Commission to railway carriers servicing freight trains and entities responsible for the maintenance of wagons (ECM) - was extended and directed by the President of UTK to implement all certified railway carriers and entities responsible for maintenance.

Table 16. Implementation of recommendations by entities listed by the Commission in Report No. PKBWK/07/2018 on the basis of information submitted to PKBWK in March 2019

Recommendations resulting from Report No. PKBWK / 07/2018 (issued in 2018)	Addressee of the recommendation:	Date of implementation of the recommendation:	Average percentage (%) of the implemented recommendation by the entities listed in column 2 / (stage of implementation)
1	2	3	4
Recommendation (ZI)-1	PKP PLK S.A.	2018-11-28	100
Recommendation (ZI)-2	PKP PLK S.A. – IZ in Opole	2019-05-30	50 (being implemented by PKP PLK S.A. – IZ in Opole)
Recommendation (ZI)-3	PKP PLK S.A. – ZI in Opole PKP PLK S.A.	..... 2019-05-30	100 (completed - PKP PLK S.A. – ZI in Opole – change no. 20 to RT st. Nowy Świątów) 50 (being implemented – PKP PLK S.A.)
Recommendation (PK)-1	Cargo PTT	2017-12-31	100
Recommendation (PK)-2	Cargo PTT	2019-12-31	50 (being implemented by Cargo PTT)
Recommendation (PK)-3	Cargo PTT	2019-12-31	50 (being implemented by Cargo PTT)
Recommendation (PK)-4	Cargo PTT	2019-12-31	50 (being implemented by Cargo PTT)
Recommendation (PK)-5	PKtow including: Cargo PTT	..... 2019-03-30	69 (% implementation by PKtow + PKpas)**) 50 (being implemented by Cargo PTT)
Recommendation (PK)-6	PKtow +ECM including: Cargo PTT	..... 2019-12-31	78 (% implementation by PK + ECM)**) 50 (being implemented by Cargo PTT)

**) based on Information on the implementation of recommendations issued by PKBWK in 2018 - from UTK - DMB-WMIC.464.1.2019.5.MK from 2019-04-30

Diagram 9. Assessment of the implementation of the recommendations from Report No. PKBWK/07/2018 addressed to the President of the UTK (based on information provided by the UTK)



Positive evaluation - in the opinion of UTK, declared actions of 87 railway market entities are heading towards the correct implementation of the recommendations of the PKBWK.

Negative evaluation - in the opinion of the UTK, the declared proposals of activities of 50 entities do not lead **towards implementing the recommendations**.

Table 17. **List of evaluations of entities' responses to the implementation** of individual recommendations from Report no. PKBWK/06/2018 (based on information provided by UTK)

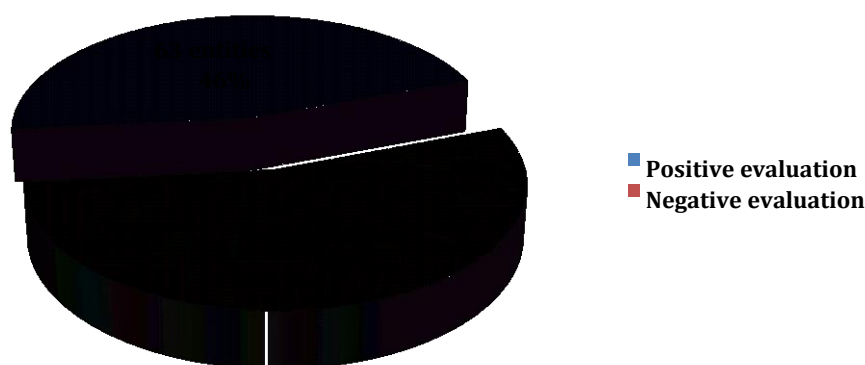
	Recommen dation 1 (ZI)	Recommen dation 2 (ZI)	Recommen dation 3 (ZI)	Recommen dation 1 (PK)	Recommen dation 2 (ZI+PK)	Recommen dation 3 (PK)	Recommen dation 4 (PK)	Recommen dation 5 (PK)	Recommen dation 6 (PK+ECM)
Referred to entities	11	11	11	100	109	100	100	100	129
positive	11	11	11	81	84	82	80	88	104
negative	0	0	0	19	25	18	20	12	25

Ad. 8) In 2018, PKBWK issued 6 recommendations in the 2017 Annual Report. The President of UTK issued recommendations from the 2017 Annual Report for implementation: authorized railway infrastructure managers (ZI), certified railway carriers (PK) or entities responsible for maintenance (ECM), in letter from UTK No. DMB-WMIC.465.4.2018.2.MK of 2019-01-03 as follows:

- Recommendation No. 1 directed by the Commission to rail carriers - was also addressed by the President of UTK, for the implementation of all certified freight carriers - i.e. 100 entities,

- Recommendation No. 2 addressed by the Commission to railway carriers and entities responsible for the maintenance of wagons - was directed by the President of UTK to implement all certified freight railway carriers - i.e. 117 entities (in total),
- Recommendation 3, 5 and 6 addressed by the Commission to railway infrastructure managers - it was also directed by the President of UTK to implement authorized infrastructure managers - i.e. 11 entities,
- Recommendation No. 4 addressed by the Commission to railway infrastructure managers - was addressed by the President of UTK, to authorized railway infrastructure managers and certified railway carriers.

Diagram 10. Assessment of the manner of implementation of the recommendations from the Annual Report for 2017 directed for implementation by the President of UTK (based on information provided by UTK)



Positive evaluation - in the opinion of UTK, declared actions of 74 railway market entities are heading towards the correct implementation of the recommendations of the PKBWK.

Negative evaluation - in the opinion of the UTK, the declared proposals of activities of 63 entities do not lead **towards implementing the recommendations**.

Table 18. Summary of responses by the entities listed by the Commission to individual recommendations of the 2017 Annual Report. *(based on information provided by UTK)*

	Recommendation 1 (PK)	Recommendation 2 (PKtow*)+ECM)	Recommendation 3 (ZI)	Recommendation 4 (ZI+PK)	Recommendation 5 (ZI)	Recommendation 6 (ZI)
Referred to entities	100	117	11	109	11	11
positive	53	84	11	91	11	11
negative	47	33	0	18	0	0

PKtow*) – cargo carriers

The average percentage of implemented recommendations issued by the Commission is presented in the table below.

Table 19. Status of implementation of the recommendations of the PKBWK issued in 2018 published in the Annual Report of the PKBWK for 2017 *(based on information provided by UTK)*

Recommendations resulting from the 2017 Annual Report of PKBWK (published in 2018)	Number of entities being the addressees of recommendations ^{**)}	Average percentage (%) of recommendation completion by the entities listed in column 2
<i>1</i>	<i>2</i>	<i>4</i>
Recommendation 1	(PK)-100	70
Recommendation 2	(PK+ECM) -117 ^{**)}	78
Recommendation 3	(ZI) -11	83
Recommendation 4	(PK+ZI) -109	62
Recommendation 5	(ZI) -11	56
Recommendation 6	(ZI) -11	68

^{**)} total (number of entities) addressees of the recommendation: including certified rail freight operators (87) and entities in charge of maintenance (62)

Information on the average percentage of implementation of individual recommendations issued by the Commission in 2018, which were accepted for implementation by the President of UTK and directed to be implemented by authorized managers, certified rail carriers or other entities are contained in the Annex to this Annual Report prepared by the Office of Rail Transport.

5.2. Summary of the implementation of the Commission's recommendations (based on the position of the President of UTK)

The President of UTK analyzed the recommendations of the State Commission for the Investigation of Rail Accidents, hereinafter referred to as "PKBWK", issued in 2018 and submitted them for implementation to authorized railway infrastructure managers, certified railway carriers and certified entities in charge of maintenance. With a view to improving the performance of the task by the above entities, an excel table was prepared, available on the website of the Rail Transport Office. The information obtained from the entities constituted the basis for the development of the results, which were presented in the Annex constituting the annual information on the state of implementation of the recommendations of the State Commission for the Investigation of Railway Accidents issued in 2018.

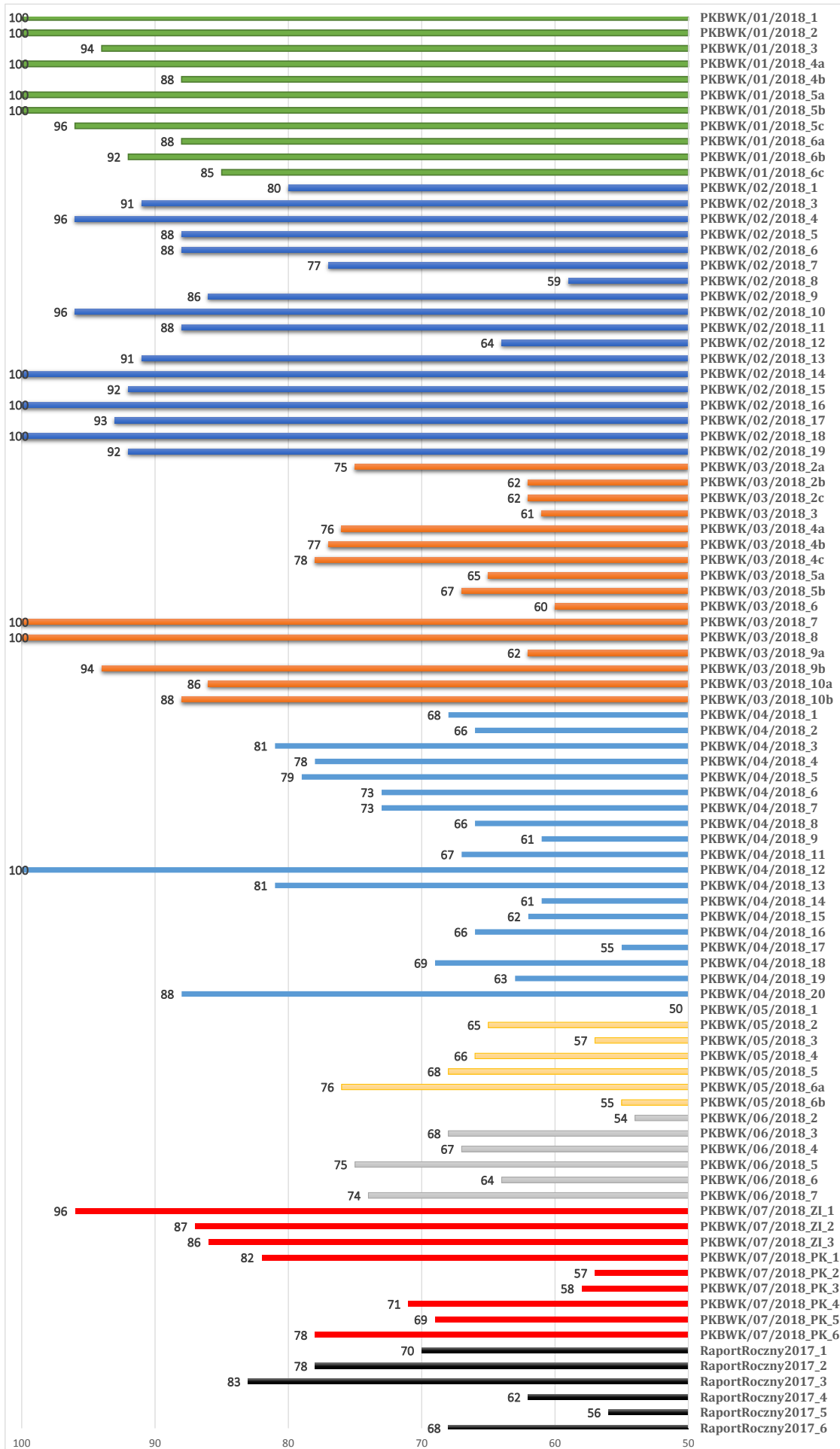
In terms of verifying the implementation by rail market entities of the PKBWK recommendations issued in 2018, it should be borne in mind that the reports containing them are issued at different times of the year, hence the results of the verification of recommendations issued in 2018 are incomplete. The average percentage of implementation of recommendations (issued in

published PKBWK reports) by market entities in the first beginning months of 2018 is higher, as shown in Figure 11. The average percentage of implementation of the PKBWK recommendations for 2018.

In accordance with the obligation arising from art. 28l paragraph 9 of the Act on Rail Transport, the President of UTK, supervising the implementation of recommendations by entities whose activities affect railway traffic safety and railway operation safety, carried out 32 inspections in 2018 and at the beginning of 2019.

In view of the recommendations of the 2017 Annual Report and the reports PKBWK / 01/2018, PKBWK / 02/2018, PKBWK / 03/2018, PKBWK / 04/2018, PKBWK / 05/2018, PKBWK / 06/2018 and PKBWK / 07/2018 The President of the Office of Rail Transport did not find any irregularities during the inspections.

Diagram 11. The average percentage of implementation of the PKBWK



6. Analysis of events occurring in 2018

A slight decrease in the total number of events

In 2018, the total number of events reported to the Commission by infrastructure managers and users of railway sidings relevant to the scene of the incident decreased by 1.7% compared to 2017, of which:

- 6 serious accidents were reported for which the Commission conducted proceedings (in 2017, 4 serious rail accidents were reported),
- the number of accidents decreased by 2.8%,
- the number of incidents decreased by 1.2%.

Accidents

The number of accidents decreased in 18 categories (out of 40 total category B events).

The biggest decrease in the number of accidents in relation to the previous year occurred in the following categories:

- B05 - no caution after the railway vehicle passes an automatic interval semaphore indicating the signal "Stop" (not existing in 1, in 2018 - 0 event occurred) - by 100%,
- B06 - exceeding the highest permitted speed (in 2017 they occurred 1 events; in 2018 - 0 event) - by over 100%,
- B16 - incorrect combination of train or maneuvering composition (in 2017 they occurred 1 events; in 2018 - 0 event) - by 100%.
- B37 - incorrect combination of train or maneuvering composition (in 2017 they occurred 1 events; in 2018 - 0 event) - by 100%.
- B38 - incorrect operation of structures and devices intended for railway traffic or railway vehicles caused by theft (in 2017 there was 1 event; in 2018 - 0 events) - by 100%,
- B28 - natural disasters (e.g. flood, snowdrifts, ice jams, hurricanes, landslides), (15 events occurred in 2017; in 2018 - 2 events) - by over 86.6%,
- B30 - malicious, hooligan or reckless misdemeanors (e.g. throwing stones at a train, stealing cargo from a train or maneuvering train in motion, placing an obstacle on the track, devastating energy devices, communications, controlling railway traffic or pavement and interfering with these devices) (in 2017 there were 6 events; in 2018 - 1 event) - by over 83.3%,
- B18 - collision of a railway vehicle on a road vehicle (other road machine, agricultural machine) or vice versa at a level crossing with barriers (cat. A according to the transit records), (11 events occurred in 2017; in 2018 - 2 events) - by over 81.8%,
- B10 - damage or poor technical condition of a powered railway vehicle, special purpose railway vehicle (including collision with an object constituting a structural part of a powered railway vehicle, special purpose railway vehicle) and damage or incorrect

functioning of the on-board part of devices enabling the control of railway vehicle driving (ERTMS), (there were 7 events in 2017; in 2018 - 4 events) - by over 42.8%,

- B23 - collision of a railway vehicle with a road vehicle (other road machine, agricultural machine) or vice versa except level crossings at stations and on routes or on the communication and access track to the siding (in 2017 10 events; in 2018 - 6 events) - by 40%,
- B09 - damage or poor maintenance of the structure, e.g. pavement, bridge or viaduct, including improper performance of works, e.g. incorrect unloading of materials, pavement, leaving materials and equipment on the track or in the gauge of a railway vehicle or rolling over a railway vehicle on elements of a building (61 events occurred in 2017; in 2018 - 43 events) - by over 29.5%,
- B11 - damage or bad technical condition of the wagon (including colliding with the structural part of the wagon), (28 events occurred in 2017; in 2018 - 21 events) - by 25%
- B03 - expediting, accepting or driving a railway vehicle along an improperly laid unsecured route (35 events occurred in 2017; in 2018 - 27 events) - by over 22.8%,
- B35 - events with people associated with the movement of a railway vehicle - jumping, falling out of a train, a railway vehicle, strong access or rapid braking of a railway vehicle - (in 2017 there were 30 events, in 2018 - 24 events) - by 20%,
- B13 - collision of a railway vehicle over a railway vehicle or other obstacle (e.g. brake shoe, luggage trolley, postal cart), (59 events occurred in 2017; in 2018 - 48 events) - by over 18.6%,
- Collision of a railway vehicle with a road vehicle (another road machine, agricultural machine) or vice versa on a level crossing not equipped with a road system (category C49 - incorrect train schedule (154 events occurred in 2017, in 2018 - 137 events) - by 11%,

The largest increase in the number of accidents occurred in the following categories:

- B24 - fire in a train, maneuvering warehouse or railway vehicle (1 fire occurred in 2017; 6 fires in 2018) - by 500%,
- B07 - execution of a maneuver posing a threat to train safety (2 events occurred in 2017; 8 events in 2018) - by 300%,
- B17 - improper loading, unloading, irregularities in securing cargo or other irregularities in loading operations, or incorrect combination of a train or shunting warehouse (8 events occurred in 2017; in 2018 - 17 events) - by 125%,
- B31 - collision of a railway vehicle with people when crossing tracks at a level crossing or guarded crossing (in 2017 there was 2 events; in 2018 - 4 events) - by 100%,
- B39 - entry of a railway vehicle using traction energy supply from the overhead contact line onto an unoccupied non-electrified track (in 2017 - 0 events; 1 event occurred in 2018) - by 100%,

- B04 - failure to stop a railway vehicle from the "Stop" signal or at a place, in which he should stop or start a railway vehicle without the required permit (20 events occurred in 2017; 35 events in 2018) - by 75%
- B15 - premature solution of the route or annulment of closure and moving the switch under a railway vehicle (in 2017, 12 events occurred; in 2018 - 18 events) - by 50%,
- B32 - collision of a railway vehicle with persons when crossing tracks on a level crossing with an automatic crossing system (cat. B, C) - (in 2017 there were 7 events; in 2018 - 10 events) - by over 42.8%,
- B19 - collision of a railway vehicle with a road vehicle (other road machine, agricultural machine) or vice versa at a road-rail crossing equipped with automatic travel system with traffic lights and toll barriers (cat. B) - (16 events occurred in 2017; 21 events in 2018) - by over 31.3%,
- B20 - collision of a railway vehicle on a road vehicle (other road machine, agricultural machine) or vice versa at a level crossing equipped with automatic travel system with traffic lights and without barriers (cat. C) - (27 events occurred in 2017; 35 events in 2018) - by over 29.6%,
- B34 - collision of a railway vehicle with people when crossing the tracks outside level crossings or crossings at stations and routes (182 events occurred in 2017; in 2018 - 205 events) - by over 12.6%.C49 - incorrect train schedule (7 events occurred in 2017, in 2018 - 10 events) - by 42.8%,

Incidents

Compared to the previous year, in 2018 there was a slight decrease in the number of reported incidents by 2.7%.

The number of incidents decreased in 9 categories (from all 27 category C events).

The largest **decrease** in the number of incidents occurred in the following categories:

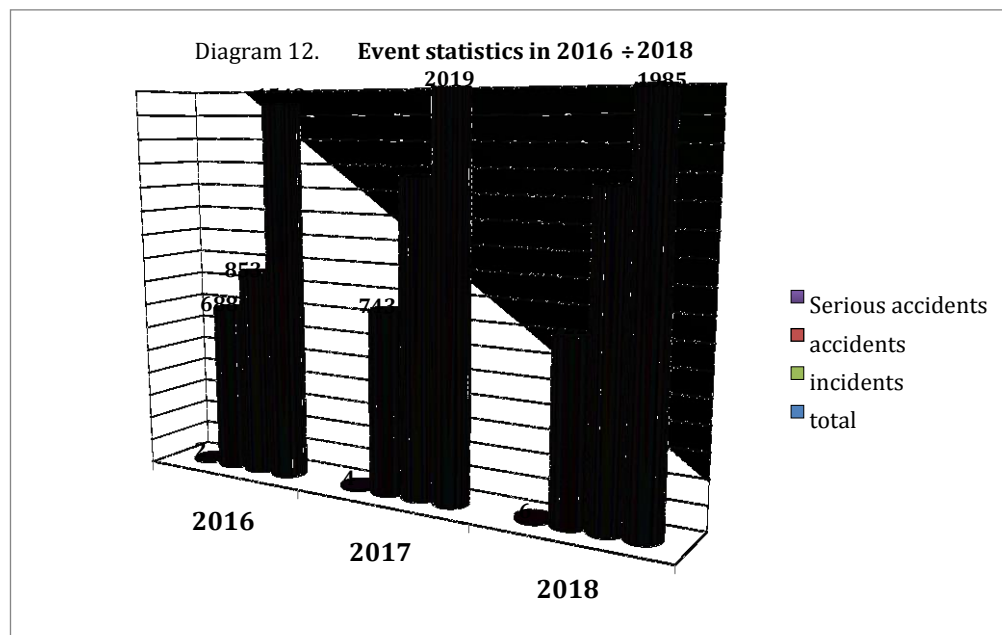
- C 52 - incorrect operation of railway traffic control devices (in 2017 there were 4 events; in 2018 - there were no events in this category) - by 400%,
- C62 - natural disasters (e.g. flood, snowdrifts, ice jams, hurricanes, landslides) (26 events occurred in 2017; in 2018 - 8 events) - by 69.2%,
- C65 - events related to persons related to the movement of a railway vehicle (crossing the tracks at level crossings and crossings or outside them, jumping in, falling off a train or railway vehicle, being hit by rolling stock in motion, heavy access or sudden braking of a railway vehicle), 22 events occurred in 2017; 10 events in 2018) - by 54.5%,
- C46 - execution of a maneuver that poses a threat to train traffic safety (2 events occurred in 2017; 1 event in 2018) - by 50%,

- C57 - fire of a building and vegetation in the immediate vicinity of the railway tracks followed by normal rail traffic (in 2017 there were 4 events; in 2018 - 3 events) - by 25%,
- C42 - taking a railway vehicle to a station on a closed or occupied track (5 events occurred in 2017; in 2018 - 4 events) - by 20%,
- C66 - non-stopping of a road vehicle from a closed barrier (half barrier) and damage to it or traffic lights on which there were broadcast signals prohibiting entry into this passage without collision with a railway vehicle (171 events occurred in 2017; in 2018 - 138 events) - by over 19.2%,
- C68 - train or maneuvering unit tearing that did not cause the cars to converge (373 events occurred in 2017; 333 events in 2018) - by more than 10.7%.

Areas in which the number of incidents **increased** include in particular:

- C47 - convergence of a railway vehicle (in 2017 there were 2 events in this category; in 2018 - there were 9 events) - by 350%,
- C48 - premature solution of the route or annulment of closure and moving the switch under a railway vehicle (in 2017 there was 1 event in this category; in 2018 - 4 events occurred) - 300%,
- C45 - exceeding the maximum permitted speed (in 2017 they occurred 4 events in this category; in 2018 - there were 8 events) - by 100%
- C59 - uncontrolled release of dangerous goods from a wagon or packaging requiring the intervention of authorities or the use of measures to eliminate fire, chemical, biological hazards at a station or on a route (in 2017 there was 1 event in this category; in 2018 - there were 2 events) - by 100%,
- C60 - collision of a railway vehicle over an obstacle (e.g. brake shoe, luggage trolley, postal etc.) without derailment or injured persons (31 events in this category occurred in 2017; in 2018 - 58 events occurred) - by over 87 %
- C51 - damage to pavement, bridge or viaduct, overhead contact line, also improper performance of works, e.g. incorrect unloading of materials, leaving materials and equipment (including road machinery) on the track or in the gauge of a railway vehicle (in 2017 there were 29 events in this category; in 2018 - 45 events occurred) - by over 55%,
- C55 - fire in a train or a railway vehicle that has no negative effects on property or the environment, without injured persons (19 events in this category occurred in 2017; 26 events occurred in 2018) - by over 36.8%,

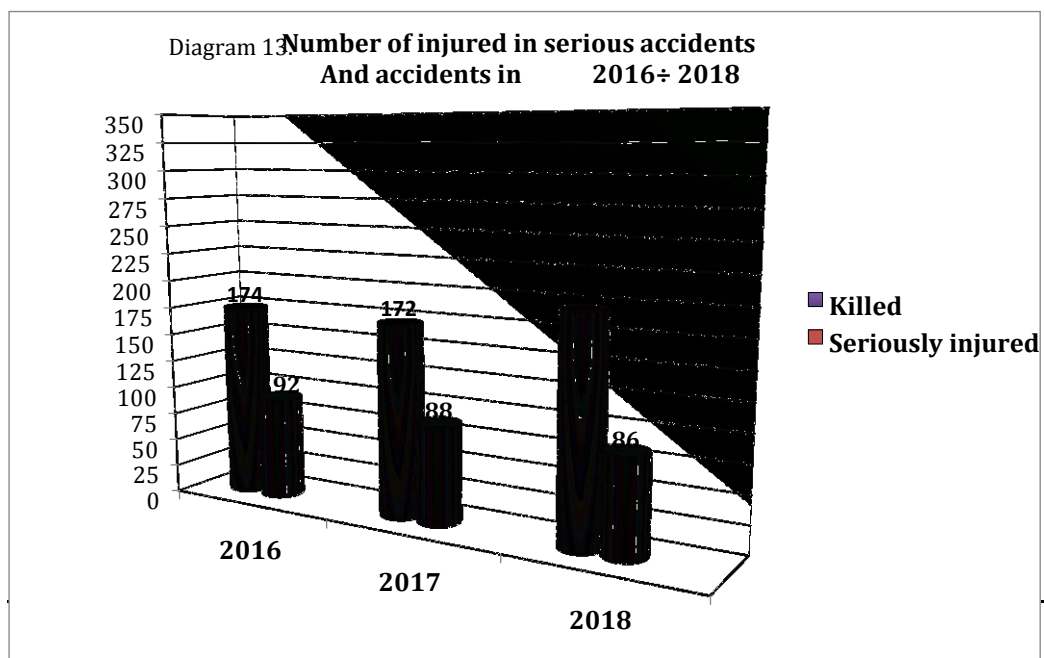
- C69 - other than the above-mentioned reasons or the overlap of several causes at the same time, creating equivalent causes (in 2017 there were 21 events in this category; in 2018 - there were 28 events) - by over 33.3%,
- C53 - damage or poor technical condition of a powered rail vehicle, a special-purpose rail vehicle that necessitates its shutdown traffic due to indications by rolling stock emergency detection devices, confirmed in workshop conditions (22 events in this category occurred in 2017; 25 events occurred in 2018) - by over 13.6%,
- C64 - Malicious, hooligan or reckless offenses (eg throwing a train with stones, stealing cargo from a train or maneuvering station in motion, laying obstacles on the track, devastating power equipment, communications, traffic control or surfaces and interference with these devices), without injuries or negative consequences for property or the environment, posing a threat to passengers or employees of the train (in 2017 there were 125 events in this category; in 2018 - 133 events occurred) - by 6.4%,



People injured in incidents

In 2018, compared to 2017, the number of people killed in railway incidents increased by 13.9%, while the number of seriously injured decreased by 2.3% (Table 2). In the group of victims (killed and seriously injured), the vast majority are people crossing the tracks in unauthorized places or at rail level crossings, hit by railway vehicles, people jumping in and jumping out of railway vehicles in traffic and users of level crossings.

The basic data on the victims (killed were illustrated in the chart below) and seriously injured) in 2016-2018.



Events at railroad crossings

In 2018, compared to 2017, there was a slight decrease in the total number of accidents at railroads of categories A, B, C, D by over 4.7%, including:

- on category A level crossings a decrease of 10 accidents,
- on category B level crossings an increase of 5 accidents,
- on category C level crossings an increase of 8 accidents,
- on category D level crossings a decrease of 13 accidents (including users of railway sidings).

The basic causes of events when crossing level crossings are in particular:

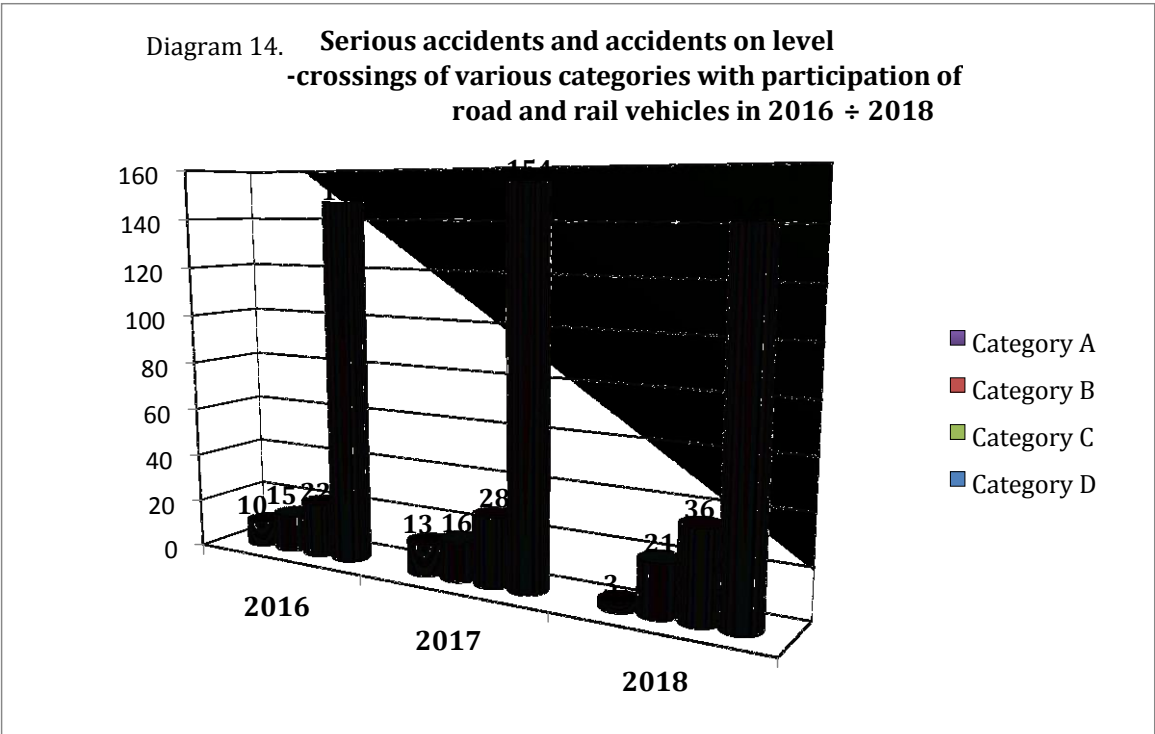
- ignoring the "Stop" sign and failure to exercise due care by road vehicle drivers,
- passing under closing gates
- bypassing half barriers,
- no required visibility triangle,
- blocking the passage by entering the track without the possibility of exit,
- not adapting speed to prevailing road conditions,
- non-compliance with signs and other traffic signals,
- improper behavior when the car is immobilized on tracks,
- no reaction to the "guard" signals given by the train driver by the driver of a road vehicle when crossing a passage and, as a consequence, entering the passage directly under the oncoming train.

The PKBWK railway events recorded in the registry show that more than 40 railway events occurred, consisting in driving a road vehicle into the side of a railway vehicle in the train.

However, in some cases at category A level crossings it was found that the reason for the occurrence was the late closing of the gates or not closing the gates before the train enters the level crossing.

On the category B level crossings, an increasingly massive phenomenon of entering these road crossings (when the gates close) and closing them between the gates is observed. The collected partial (incomplete) information shows that in the months of April - June 2019 45 cases of closure of road vehicles between the gates of category B level crossings were observed (road vehicles did not participate in collisions with trains because they were outside the gauge of passing rolling stock) . **The circumstances and causes of the incidents should be thoroughly analyzed by railway commissions and railway infrastructure managers.**

35 people died in level crossings in 2018, and 27 were seriously injured.



7. Other aspects related to the functioning of the Commission in 2018.

In 2018, the Commission conducted its statutory activities by implementing planned goals and challenges based on the funds allocated for this year. As part of the funds allocated, the employment of one permanent member of the Commission was increased.

As part of its activities, the Commission cooperated with other departments of the Ministry, including in the field of analyzing draft legal acts, industry programs, budget preparation, organizational matters and personnel matters.

The Commission's activities concerned, among others cooperation with railway commissions, external organizations and enterprises in the country and abroad, in particular with:

- The Office of Rail Transport,

- railway commissions conducting proceedings on determining the causes and the circumstances of the events that occurred,
- trips of permanent members of the Commission to the place of occurring events based on reports received - (trips of up to 40 events),
- commencing proceedings in the event of an accident or incident if it occurred in circumstances justifying undertaking such an examination (7 decisions of the Chairman of the PKBWK),
- prosecutor's offices and the police, at the scene of the incident and at later stages of the proceedings in accordance with the concluded agreement and applicable regulations,
- organizers of trainings and conferences on the presentation of the work of the Commission and how to conduct investigations related to railway events (serious accidents, accidents and incidents) by railway committees and participation in meetings and consultations at railway undertakings regarding the assessment of the state of safety in rail transport,
- participation of Commission members in a working team at the Ministry of Infrastructure in the implementation of the national GSM-R program on the Polish rail network and at meetings of the Technical Committee No. 61 and 138 on Technical Traction Equipment,
- participation of Commission members in cyclical trainings organized for e.g. the police, the prosecutor's office and railway market entities,
- participation of Commission members in security seminars and conferences in rail transport,
- cooperation with national investigation bodies of other EU countries,
- European Union Railway Agency (EUAR),
- with the cells of the Ministry of Infrastructure, among others with the Railway Department,

In the field of international activity in 2018, participation in:

➤ **plenary meetings of EU national investigation bodies**

In 2018, the Commission participated in three plenary meetings of the European Union National Investigation Bodies organized by the EU Railway Agency in Valenciennes. Participation in plenary meetings and working groups follows from the provisions of art. 22 paragraph 7 and Directive (EU) 2016/798 of the European Parliament and of the Council of 11 May 2016 on railway safety, which states that *"investigating bodies shall conduct an active exchange of views and experience for the purposes of the development of common investigation methods, drawing up common principles for follow up of safety recommendations and adaptation to the development of technical and scientific progress."*

Participation in plenary meetings is crucial to exchange information, experience and cooperation with the Agency and other national investigation bodies (NIB) in discussing the results of accident investigations, exchanging information on actions taken after incidents to improve the state of security in the EU, information on annual reports, safety management system, safety certification and safety authorization, interoperability, the state of work of EUAR working teams, the ERAIL event notification system, assessments of national peer reviews, the state of implementation of the Safety Directive in individual Member States and other aspects relevant to the safety of rail transport in Europe.

➤ **working group for the peer review programme and pilot programme**

In addition, the Commission took part in the meetings of the Peer review working group of the Peer Review program operating under the EU Railway Agency. The obligation for the peer review program to develop and implement by member states results from art. 7 third sentence, ie "Investigative bodies with the support of the Agency in accordance with art. 38 section 2 of EU Regulation 2016/796, establish a peer review program ("peer review, with all investigative bodies encouraged to participate in this programme to monitor the effectiveness and independence of their activities. Investigative bodies (...) publish a joint peer review program and evaluation criteria as well as annual reports on program implementation, highlighting strong points and proposing improvements. "Peer review" can be translated as a kind of assessment involving looking inside the organization of the investigative body to analyze how it works and what could be improved. The assessment of the national investigation body is made by a 3-person panel composed of representatives of other investigation bodies. On 3 October 2018, a pilot assessment took place at the headquarters of the Czech National Investigative Body - Dražni Inspekce. The evaluation team consisted of representatives of Poland (PKBWK), Great Britain and Romania. As part of the assessment, the team analyzed selected aspects of the rated entity's functioning, in particular, independence, organization, issuing recommendations on improving security, manner and scope of proceedings. The assessment report was published by the Czech national investigation authority.

➤ **bilateral meetings**

as part of international cooperation, in September 2018 it was held at the headquarters of Commission in Warsaw bilateral meeting with the management of the national body of the Czech Republic, i.e. Dražni Inspekce. As part of the meeting, both entities exchanged information and experience about the organization, ongoing investigations, causes of railway incidents and national regulations in both countries.

PKBWK has implemented the provisions of the GDPR - Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 has been in force since 25 May 2018.

In 2018, the Chairman of PKBWK Mr. Tadeusz Ryś was intensively involved and held patronage over the implementation of the project developed by the manager of PKP PLK S.A. aimed at marking level crossing / rail level crossing with information about its location. The project was completed and implemented in May 2018. It should be emphasized that the national rail infrastructure manager is strongly involved in the implementation of this project. Yellow sticker, placed at the crossroads of the track and road on the turnstile posts or on the inside of the St Andrew's Cross should be known by everybody. Each one has an individual journey number (identifying rail and road crossing), 112 emergency number and telephone numbers for technical services. In order to reach the users of level crossings and pedestrian crossings with information about the #ŻółtaNaklejkaPLK campaign, leaflets, video-guides, banners, posters, information campaigns and materials for driving instructors are used.

Based on information from PKP Polskie Linie Kolejowe S.A.:

- as at 04-06-2019, 13369 level crossings and pedestrian crossings were marked with a yellow sticker,
- from the start of the program (i.e. from June 2018) to 31 May 2019, emergency 112 operators received 803 notifications (including in 2018 - 417 applications and in 2019 - 386 applications),
- from the beginning of the program until May 31, 2019, in 78 cases, thanks to a special quick connection, train traffic on the railway line was suspended, assistance was called, and tragedy was prevented.
- after 87 reports, train travel restrictions were introduced to ensure the safety of passengers and passengers using level crossings (in 2018, in 24 cases traffic was stopped and in 30 cases speed limits were introduced, and in 2019 - 54 and 57 respectively)

PKP Polskie Linie Kolejowe S.A. summarized the year of the "presence" of yellow stickers at the intersection of the track and road as follows:

"For a year, yellow stickers on the crossings and a special inter-service link PKP Polskie Linie Kolejowe S.A. and operators No. 112 allowed for quick reactions, ensuring safety in rail and road traffic. Marking of journeys has significantly increased the level of safety of drivers and train passengers. Additional information helps to eliminate the resulting threats from inappropriate behavior of drivers or random events."

In addition, in order to avoid rail incidents in 2018, road crossing trackers used the "Alarm" signal 10 times in the Radio-stop system. In total, 574 cases of using the "Alarm" signal were recorded in 2018, of which 540 cases were unjustified use.

Other managers - information on the degree of project implementation related to marking with an identification sticker on rail and road crossings (hereinafter PKD) and crossings at rail level, below - current project status.

Infrastructure managers (ZI) other than PKP PLK:

- 1) They entered into agreements with the Main Office of Geodesy and Cartography (GUGiK) to place PKD on the maps of the "Geoportal" portal - the agreements were concluded between infrastructure managers and GUGiK with support, but without the formal participation of UTK (data update is carried out as part of individual arrangements between ZI and GUGiK)
- 2) GUGiK has placed PKD on maps in the Geoportal.

Activities between ZI and the Ministry of the Interior and Administration (MSWiA) are coordinated by UTK.

By 27 June 2019, the following activities had been carried out:

- 3) ZI appointed telephone numbers for the purpose of reporting breakdowns and railway events,
- 4) ZI have prepared / or are preparing draft internal procedures for notifications,
- 5) ZI submitted the database, i.e. identification number, PKD location to UTK, by 14 June 2019,
- 6) UTK 15 June 2019 transferred the database to the Ministry of Interior and Administration (for the needs of the Emergency Notification Center (CPR)) - currently the database is being verified on the non-production environment of the CPR IT system (the first test results indicate that not all PKDs were placed in the Universal Map Module).

The next planned activities are:

1. Re-verification of the PKD databases and supplementing the databases in order to properly supply the CPR IT system.
2. Carrying out "notification tests" between the Ministry of Interior and Administration - the simulation tests will be conducted on the basis of the PKP PLK and MSWiA test scenario.
3. PKD marking by ZI.

After positive tests, other ZI will be included in the 112 alarm system.

Expected date of completion - end of September 2019.

2018 is the second full calendar year in which users of railway sidings were obliged to immediately report serious accidents, accidents and incidents to the Commission and the President of UTK. In the railway event register kept by PKBWK, 148 reported railway events occurred at railway sidings.

8. PKBWK tasks for 2019

As part of the ongoing activities of the Commission in 2019, it will be necessary to implement, among others following activities:

- conducting proceedings by the Commission arising from national provisions,
- trips to places of rail incidents based on reports received,
- commencing proceedings in the event of an accident or incident if it occurred in circumstances justifying undertaking such an examination,
- training permanent members of the Commission to update knowledge to the extent necessary to carry out the tasks of the Commission,
- updating (purchase) of the application for reading train driving parameters - selected electronic recorders,
- supplementing the number of permanent members of the Committee to the one specified in ordinance No. 29 of the Minister of Infrastructure and Construction of 22 June 2017 (implemented in March 2019 - appointing a permanent member),
- updating and maintaining a database of registered railway events,
- updating the list of the Minister containing ad hoc members of the Commission,
- cooperation with the Office of Rail Transport, in particular in the scope of recommendations submitted for implementation to the President of UTK in accordance with his competences and other activities in the field of improving railway traffic safety,
- analysis of applications submitted by the President of UTK to the President of the Commission to decide on any proceedings by the Commission,
- cooperation with other units of the Ministry of Infrastructure in the area of designing changes to national regulations,
- cooperation with the Ministry's cells after the amendment to the Act on rail transport regarding the implementation of the judgment of the Court of Justice of the EU of 13 June 2018 in case C-530/16,
- analysis of legal acts in connection with fatal occurrences at level crossings and presenting proposals to the Ministry of Infrastructure to introduce changes, additions and eliminate inconsistencies contained in laws and regulations, obtained as a result of:
 - pending proceedings related to incidents with fatalities occurring at level crossings, among others in Szaflary, Rzeszów and Gniezno,
 - analyzes of some provisions appearing in legal acts (acts and ordinances), in which there are inconsistencies that make it impossible to determine the clear causes of events at the intersections of railway lines with roads,
 - analyzes of entries in the acts defining the organization of train traffic and organization of road traffic in the area of level crossings.

- participation in meetings with representatives of national investigation bodies (NIB) of other EU countries and the European Union Railway Agency (EUAR) as part of plenary meetings and working teams - exchange of experience and knowledge,
- cooperation and participation in working teams and trainings organized by the European Union Railway Agency,
- participation in meetings with prosecutors and the police,
- participation in conferences, workshops and seminars
- continuing training as part of professional development of representatives of bodies conducting criminal proceedings, railway commissions and the Commission,
- participation in process experiments related to the occurrences,
- supervision of compliance with the Commission's budget assumptions for 2019.

9. Summary

In 2018, the total number of incidents reported to the Commission increased by 1.7 % compared to the previous year.

In terms of the number of accidents, there was a slight decrease in the total number of accidents (by 2.8%), the number of serious accidents increased by 50%, and incidents decreased by 1.2%. In 2018, there were 6 serious accidents at level crossings, of which at category D level crossings in 2018 there were 4 serious accidents, while no serious accident was recorded in 2017. Category A level crossings recorded one major accident in 2018 and two major rail accidents in 2017. A positive phenomenon is a decrease of 10 accidents at category A level crossings. In 2018, there was one serious accident at a category B level crossing, in the previous year also one accident at a crossing of this category. In the period April - June 2019, there were at least 45 incidents of closures of road vehicles on category B level crossings on the railway network managed by PKP PLK S.A. There is still a large number of B00 accidents - i.e. 19 (in 2017 - also 19) and an increase in the number of C69 incidents (an increase of 7 incidents in 2018) may indicate a lack of a thorough analysis of the circumstances and causes of accidents or incidents which should be carried out during the visual inspection and tests at the place of the incident, as well as throughout the whole process of railway commissions.

The increase in the number of victims (killed) in rail accidents, i.e. by over 13.9%. Attention should be paid to category B34, which was updated as at 10 August 2019. The number of events in this category is much smaller than that recorded as at 31 December 2018 due to the proceedings of the prosecutor's office completed and the reclassification of some of the events of category B34 to category "Suicide" or "attempted suicide". Nevertheless, compared to 2017, in 2018 the number of B34 accidents increased. A large number of C68 incidents still persist (333 incidents occurred in 2018 and 373 incidents occurred in 2017). The increase in the number of incidents of a railway vehicle `` C47 category " from 2 incidents in 2017 to 9 incidents in 2018 is

also a worrying phenomenon, especially when the number of B08 accidents, i.e. the collapse of railway vehicles increased from 10 in 2017 to 11 accidents in 2018

In 2018, in the Railway Event Records system (EwZd), there was a slight decrease in the number of reported incidents by 1.2% compared to the previous year. In relation to accidents, incidents generate less material damage and fewer victims. Nevertheless, the persistence of a large number of victims is important information on existing threats that rail market entities should monitor as part of their safety management systems. Incidents of category C54, C64, C68 together constitute over 61% of all incidents that occurred in 2018.

Particularly noteworthy is the large number of serious accidents and accidents at category A, B, C and D level crossings. In 2018, compared to the previous year, a slight decrease in the total number of accidents on level crossings by about 4.7%. (including 1 serious accident at guarded level crossings, i.e. category A, one at category C and 4 at category D).

In-depth analysis and elimination of threats (irregularities) should be subjected to events that occurred on sections of railway lines during the implementation of investments and repairs, and the number of which increased in 2018 (including in categories: B04, C44 and C60) and in continuing large number of accidents in categories B13 and B23.

The analysis of the number of events reported to PKBWK in 2018 shows a large number of railway events - on railway sidings - i.e. 148 events. There was a slight decrease in the number of railway events including railway sidings by 3.2%. However, the number of railway events at railway sidings still accounts for over 7.4% of all railway events registered in the PKBWK records in 2018.

In this report, the Commission issued a series of recommendations that the Commission considers - to improve safety in rail transport.

In 2018, the Commission fulfilled its statutory obligations, while not exceeding the budget assumptions for 2018. It implemented them in effective cooperation with many entities, primarily with railway committees, the Office of Rail Transport as well as infrastructure managers and carriers.

PKBWK contact details as of 1 August 2019.

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The website of the PKBWK

The Commission's website:

www.gov.pl

Tab: *Ministerstwo Infrastruktury* → *Co robimy* → *Zadania* → *Transport* → *Kolej* → *Państwowa Komisja Badania Wypadków Kolejowych*.

As part of the Commission's website, available information and documents are grouped into the following sections:

- immediate reporting of events (Article 28g),
- written notification of railway events (§ 7),
- about the Commission,
- law and documents,
- reports
- personal data protection (in accordance with the GDPR).

ANNEX
to the Annual Report of the PKBWK for 2018. Information on the implementation of the
recommendations of the PKBWK issued in 2018.
(based on information from the UTK)

According to Annex II to Commission Regulation (EU) No. 1158/2010 of 9 December 2010. on a common safety method for assessing compliance with the requirements for obtaining railway safety certificates and in accordance with with the text of Annex II to Commission Regulation (EU) No 1169/2010 of 10 December 2010 on a common safety method for assessing compliance with the requirements for obtaining railway safety authorizations, railway undertakings and railway infrastructure managers, operating on the basis of a safety management system, are required to set up procedures to ensure that the recommendations of the national safety authority and the national investigative body are and, where applicable, implemented or recommended to be implemented.

Also enterprises having a certificate of the entity in charge of maintenance or a certificate in the scope of IV maintenance function, in accordance with art. 4 point f critical I of Annex III to Commission Regulation (EU) No 445/2011 of 10 May 2011 on the certification system of entities in charge of maintenance in the field of freight wagons, must have procedures to ensure that relevant recommendations from national regulatory authorities safety and national authorities investigating the causes of accidents and resulting from industry investigations have been assessed and performed where appropriate.

The President of the Office of Rail Transport, hereinafter referred to as the "President of UTK", implementing the instruction of Art. 28l paragraph 9 of the Act of 28 March 2003 on rail transport (consolidated text: Dz.U. of 2019, item 710 as amended), hereinafter referred to as the "Rail Transport Act", supervises the implementation of recommendations issued by the State Commission for the Investigation of Rail Accidents, hereinafter referred to as "PKBWK", by infrastructure managers, railway carriers or other entities whose activities have an impact on railway traffic safety and railway operation safety and are regulated pursuant to the provisions of the Act.

Considering the above and obligations imposed on entities of the railway sector in the area related to safety recommendations, railway entities, i.e. infrastructure managers, railway carriers and entities responsible for maintenance, operating on the basis of a safety certificate or authorization issued by the President of UTK, as well as entities responsible for the maintenance of freight wagons, were requested to submit information on the state of implementation of the recommendations issued by the President of the PKBWK in 2018.

As part of the supervision over the implementation of the PBKWK recommendations by railway market entities, the analysis included the recommendations contained in:

- 1) Report No. PKBWK/01/2018 under the investigation of accident of cat. A18 that occurred on 4 April 2017 at 17:34 on a category A level crossing located at km 244,676 on the Zawadówka route Uherka, on route track No. 1, railway line No. 7 Warszawa Wschodnia Osobowa - Dorohusk.
- 2) Report No. PKBWK/02/2018 under the investigation of accident of cat. A 20, which occurred on 7 April 2017 at 15:11 at a C-category level crossing localized on the monorail line Ozimek – Chrzastowice, at km 56,977 of the railway line No. 144 Tarnowskie Góry – Opole,
- 3) Report No. PKBWK/03/2018 from an investigation of serious accident - category A04 which occurred on 30 August 2017. at 21:53 at Smętowo station, in station track No. 2, in km 457,485 railway line No. 131 Chorzów Batory - Tczew

- 4) Report No. PKBWK/04/2018 under the investigation of accident of cat. A 21, which occurred on 27 February 2018 at 18:57 at a D-category level crossing localized on the monorail line Opole Zachodnie - Szydłów, at km 1.934 of the railway line No. 287 Opole Zachodnie - Nysa;
- 5) Report No. PKBWK/05/2018 under the investigation of accident of cat. A18 that occurred on 2 November 2017 at 18:49 at the category A level crossing with suspended service, located at km 37,119 on the Śniadowo - Łapy route, on the route track No. 1 of the railway line No. 36 Ostrołęka - Łapy
- 6) Report No. PKBWK/6/2018 from an investigation of accident - category B13 which occurred on 24 November 2017. at 6:48 at Warlubie – Laskowice Pomorskie route, track no. 2, at km 424,208 railway line no. 131 Chorzów Batory – Tczew,
- 7) Report No. PKBWK/07/2018 under the investigation of accident of cat. B37 which occurred on 10 November 2017 at 6:20 with train no. TMS 624016/7 running the route Kamieniec Ząbkowicki - Szeligi at the Nysa - Nowy Świątów section, track no. 2, at km 129,650 of railway line 137 Katowice - Legnica
- 8) PKBWK Annual Report for 2017.

Analysis of individual recommendations - answers declared by rail market entities

The President of UTK did not assess the manner of dealing with recommendations, but only presented the declared status of implementation of the recommendations. **The verification of the actual way of implementing the PKBWK recommendations took place during the supervisory activities of the President of UTK.**

Under each recommendation, the average percentage of implementation of a given recommendation was indicated, which for the purposes of the assessment was calculated as an arithmetic mean based on the values declared by market entities.

- I. **Recommendations contained in the Report No. PKBWK/01/2018** from the investigation of a serious accident cat. A18 that occurred on 4 April 2017 at 17:34 on a category A level crossing located at km 244,676 on the Zawadówka route Uherka, on route track No. 1, railway line No. 7 Warszawa Wschodnia Osobowa - Dorohusk.

PKBWK/01/2018 - RECOMMENDATION 1: Authorized infrastructure managers shall implement a change in the place where the pass-through D8 signal is given by the crossing officer to a more visible one, provided that during the operation the lack of visibility of the pass-through D8 signal is found.
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RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **100%**

The recommendation does not apply to 5 entities that do not have crossings serviced by crossing officers.

PKBWK/01/2018 - RECOMMENDATION 2: Authorized infrastructure managers will check the correctness of train radio communication on the entire managed railway network

authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **100%**

The recommendation does not apply to 1 entity - i.e. Dolnośląska Służba Dróg i Kolei we Wrocławiu Sp. z o.o. (there is no radio communication in the area managed by the company). Radio communication via GSM cellular network is used. PKP Polskie Linie Kolejowe S.A. conducts railway traffic on the basis of a contract.

PKWBK/01/2018 - RECOMMENDATION 3: Authorized infrastructure managers shall enforce the use of warning vests by crossing officers.

ADDRESSEES OF THE RECOMMENDATION: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **94%**

The recommendation does not apply to 5 entities that do not have level crossings serviced by crossing officers.

PKWBK/01/2018 - RECOMMENDATION 4a: PKP PK S.A. as part of OHS activities, will lead the crossing officers' working conditions at the level crossing at km 244,676 of route 7 to comply with applicable regulations, in particular with the Regulation of the Minister of Labour and Social Policy of 26 September 1997 (Dz. U. of 2003 No. 169 item 1650, as amended) and will eliminate the irregularities referred to in chapter III.1.3).1 of the Report

RECOMMENDATION ADDRESSED TO: PKP Polskie Linie Kolejowe S.A.

AVERAGE PERCENTAGE OF IMPLEMENTATION: **100%**

PKWBK/01/2018 - RECOMMENDATION 4b: Authorized infrastructure managers as part of health and safety at work under the systematic approach to the working conditions of crossing officers - will check the working conditions of crossing officers on all category A crossings and in the event of non-compliance with the Regulation of the Minister of Labour and Social Policy of 26 September 1997 (Dz. U. of 2003, No. 169, item 1650, as amended) shall take appropriate corrective actions. *(The recommendation applies to all crossing locations served by crossing officers.)*

ADDRESSEES OF THE RECOMMENDATION: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **88%**

The recommendation does not apply to entities that do not have level crossings serviced by crossing officers.

PKWBK/01/2018 - RECOMMENDATION 5a: With regard to the safety management system, authorized infrastructure managers will take the following actions: on category A level crossings operated from the place, perform successive checks from the cabs of powered rail vehicles, from the driver's station, visibility of D8 signals given by crossing officers; in the event of a visibility deficit or lack of continuity, appropriate corrective and / or preventive action should be taken.

ADDRESSEES OF THE RECOMMENDATION: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **100%**

The recommendation does not apply to entities that do not have level crossings serviced by crossing officers.

PKWBK/01/2018 - RECOMMENDATION 5b: With regard to the safety management system, authorized infrastructure managers shall take the following actions: as part of the signal visibility check, inspect the visibility of toll gates open on vehicles equipped with these devices, in case of limited

visibility or lack of its continuity, appropriate corrective and / or preventive actions should be taken,

ADDRESSEES OF THE RECOMMENDATION: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **100%**

The recommendation does not apply to entities that do not have level crossings serviced by crossing officers.

PKWBK/01/2018 - RECOMMENDATION 5c: With regard to the safety management system, authorized infrastructure managers will take the following actions: increase the number of team inspections in relation to category "A" level crossings; when designating the facilities for the above mentioned control activities, be guided in particular by the risks occurring at the crossings.

ADDRESSEES OF THE RECOMMENDATION: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **96%**

The recommendation does not apply to entities that do not have level crossings serviced by crossing officers.

PKWBK/01/2018 - RECOMMENDATION 6a: As part of the safety management system, certified rail carriers will ensure the ongoing and periodic verification of the correctness of all parameter records on the tapes of electromechanical recorders of powered rail vehicles.

ADDRESSEES OF THE RECOMMENDATION: certified railway carriers (100 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **88%**

The recommendation does not apply to 12 entities - according to information provided by UTK.

PKWBK/01/2018 - RECOMMENDATION 6b: As part of the safety management system, certified railway carriers will introduce an internal obligation for drivers to check the correctness of the recording of parameters on speedometer tapes each time the belt is removed from the speedometer; in case of irregularities - they should be noted in the logs of powered vehicles.

ADDRESSEES OF THE RECOMMENDATION: certified railway carriers (100 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **92%**

The recommendation does not apply to 12 entities - according to information provided by UTK.

PKWBK/01/2018 - RECOMMENDATION 6c: As part of the safety management system, certified rail carriers will ensure, under the "Safety Improvement Program", an increase in the number of speedometer belt inspections.

ADDRESSEES OF THE RECOMMENDATION: certified railway carriers (100 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **85%**

The recommendation does not apply to 12 entities - according to information provided by UTK.

- II. Recommendations contained in Report No. PKBWK/02/2018** from the investigation of a category A20 serious accident that occurred on 7 April 2017 at 15:11 on a category C level crossing located on the Ozimek-Chrzastowice monorail route, at km 56,977 of railway line No. 144 Tarnowskie Góry - Opole.

PKBWK/02/2018 - RECOMMENDATION 1: Authorized infrastructure managers together with the road manager will eliminate the existing bends of the road profile within crossings amounting to above 9% (e.g. which occur at the connection of the driving plates with the bituminous surface of the road), until the irregularities are eliminated - they will carry out a risk assessment and introduce safe train speeds *(The validity and correctness of entries in the journey records on the entire managed railway network should be verified and appropriate corrective or preventive actions should be taken).*

ADDRESSEES OF THE RECOMMENDATION: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **80%**

PKBWK/02/2018 - RECOMMENDATION 3: Certified passenger rail carriers shall carry out and analyze the possibility and form of use and application in electric multiple units of a passenger warning system operating in the event of emergency braking being implemented to eliminate injury to passengers.

ADDRESSEES OF THE RECOMMENDATION: certified passenger railway carriers (26 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **91%**

Recommendation 3 does not apply to 14 entities that do not have electric multiple units in operation.

PKBWK/02/2018 - RECOMMENDATION 4: Authorized infrastructure managers shall introduce priority in starting the "radio-stop" system or any other measure aimed at immediate stopping of trains in the event of receiving information about obstacles on the track.

ADDRESSEES OF THE RECOMMENDATION: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **96%**

The recommendation does not apply to 1 entity - i.e. Dolnośląska Służba Dróg i Kolei we Wrocławiu (there is no radio communication in the area managed by the company). Radio communication via GSM cellular network is used. PKP Polskie Linie Kolejowe S.A. conducts railway traffic on the basis of a contract.

PKBWK/02/2018 - RECOMMENDATION 5: Authorized infrastructure managers shall turn on the recording system on the recorder in the dispatch telephone exchange, conversations between dispatchers are carried out, and traffic attendants.

ADDRESSEES OF THE RECOMMENDATION: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **88%**

The recommendation does not apply to 3 entities - the telephone exchange is not used to make telephone conversations between the dispatcher and the traffic dispatcher.

PKBWK/02/2018 - RECOMMENDATION 6: Authorized infrastructure managers shall check the recording of conversations carried out across the entire network between the dispatcher on all and the central dispatcher on all DGT devices.

ADDRESSEES OF THE RECOMMENDATION: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **88%**

The recommendation does not apply to 4 entities without a dispatching position or DGT equipment.

PKBWK/02/2018 - RECOMMENDATION 7: Authorized infrastructure managers together with the Ministry of Interior and Administration, shall complete the program of pictogram placement in the area of rail and road crossings informing about the possibility of notifying the Traffic Management Center in the event of a hazard at the crossing.

ADDRESSEES OF THE RECOMMENDATION: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **77%**

PKBWK/02/2018 - RECOMMENDATION 8: Authorized infrastructure manager (e.g. PKP PLK S.A. under the programme "Safe passage - Stop and live") and other social campaigns shall enter information for users of journeys on the way of notifying about existing dangers at crossings.

ADDRESSEES OF THE RECOMMENDATION: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **59%**

PKBWK/02/2018 - RECOMMENDATION 9: Authorized infrastructure managers shall carry out an extraordinary review of level crossings in terms of the correct level of the road in relation to the bridge at level crossings, and in the case of unevenness at level crossings, they will apply to the road administrator for setting the A-11 mark "uneven road".

ADDRESSEES OF THE RECOMMENDATION: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **86%**

PKBWK/02/2018 - RECOMMENDATION 10: Certified rail passenger carriers will provide for in-use powered rail vehicles, including those in the ED250 series in the case of PKP Intercity S.A., the ability to read data from on-board recorders at the scene of the accident by employees conducting post-accident proceedings, including in particular software to analyze the parameters of driving after incidents and provide ongoing analysis within the scope of internal management systems to control the work of drivers.

ADDRESSEES OF THE RECOMMENDATION: certified passenger railway carriers (26 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **96%**

The recommendation does not apply to 7 entities - according to information provided by UTK.

PKBWK/02/2018 - RECOMMENDATION 11: Authorized infrastructure managers will update safety management systems, in particular the hazard register for the possibility of incorrect bends in the longitudinal profile of roadways at level crossings and the resulting threats.

ADDRESSEES OF THE RECOMMENDATION: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **88%**

PKBWK/02/2018 - RECOMMENDATION 12: Authorized infrastructure managers will organize a media campaign or undertake other adequate actions and initiatives informing drivers about the introduction of telephone numbers to call in case of an emergency at railroad crossings.

ADDRESSEES OF THE RECOMMENDATION: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **64%**

PKBWK/02/2018 - RECOMMENDATION 13: Certified rail carriers and authorized infrastructure managers during periodic instructions and ad hoc instructions will implement the principle of observation by the railway driver in the area within the track on which the railway vehicle travels regarding their interpretation and reaction in the case of unusual signs given by outsiders to stop the train.

ADDRESSEES OF THE RECOMMENDATION: certified carriers and authorized infrastructure managers (109 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **91%**

The recommendation does not apply to 6 entities - according to information provided by UTK.

PKBWK/02/2018 - RECOMMENDATION 14: During the periodic and ad-hoc briefing, authorized infrastructure managers shall continue to use the radio-stop or other emergency stopping system as well as firm responses to received information on hazards affecting train safety at stations and adjacent routes.

ADDRESSEES OF THE RECOMMENDATION: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **100%**

Does not apply to 1 entity - i.e. Dolnośląska Służba Dróg i Kolei, which does not employ employees in positions directly related to the operation and safety of rail traffic and driving rail vehicles; the company does not provide instructions; PKP PLK S.A. conducts railway traffic on the basis of the concluded contract

PKBWK/02/2018 - RECOMMENDATION 15: Authorized infrastructure managers will take action to improve the ergonomics of the work station operator. (As regards posts on the entire railway network where ergonomics will need to be improved).

ADDRESSEES OF THE RECOMMENDATION: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **92%**

The recommendation does not apply to 1 entity - i.e. Dolnośląska Służba Dróg i Kolei

PKBWK/02/2018 - RECOMMENDATION 16: Authorized infrastructure managers shall carry out a risk analysis at level crossings, and if irregularities are found, they shall take steps to increase safety at level crossings. (Within the scope of operated category "A" crossings).

ADDRESSEES OF THE RECOMMENDATION: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **100%**

The recommendation does not apply to 2 entities - according to information provided by UTK.

PKBWK/02/2018 - RECOMMENDATION 17: Authorized infrastructure managers in consultation with the National Road Administrator will supplement the F6 signs built before the intersection of national street No. 46 with Kuczki street in Schodnia with information on the prohibition of heavy goods vehicles (including with the T21 sign "100m" or "except for access to the base") at the entrance to P. Kuczki street from both directions (Fig. 22 p. 64, Fig. 23 p. 65). *(The recommendation applies to locations where signs must be posted. If the analysis carried out by the infrastructure manager shows that signs are*

missing, please contact the road manager to complete the signs at specific locations for level crossings).

ADDRESSEES OF THE RECOMMENDATION: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **93%**

The recommendation does not apply to 1 entity - i.e. PKP SKM w Trójmieście sp.z o.o.

PKBWK/02/2018 - RECOMMENDATION 18: In connection with previous accidents at the crossing in question (described in point IV.1) and a serious accident that occurred on 7 April 2017, the Poviast Road Administration in Opole as the administrator of poviast road No. 1744.0 on both sides of the passage shall build signs A-30 "other danger" with T-14d plates, which should precede signs B-33 "speed limit" (Fig. 6 p. 33).

RECOMMENDATION ADDRESSED TO: PKP Polskie Linie Kolejowe S.A.

AVERAGE PERCENTAGE OF IMPLEMENTATION: **100%**

PKBWK/02/2018 - RECOMMENDATION 19: PKP Intercity S.A. in ED 250 vehicles, it will mount security devices on the upper luggage racks to prevent luggage from moving along the shelf and falling onto the passenger seats during emergency braking or centrifugal force.

ADDRESSEES OF THE RECOMMENDATION: certified railway carriers (26 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **92%**

- III.** Recommendations contained in Report No. PKBWK/03/2018 on the investigation of a serious accident category A04 that occurred on 30 August 2017 at 21:53 at the Smętowo station, at station track 2 at km 457,485 of railway track No. 131 Chorzów Batory - Tczew

PKBWK/03/2018 - RECOMMENDATION 2a: As part of the safety management system, certified rail carriers shall carry out risk analysis and valuation for cases of driving rail traction vehicles with the deliberate exclusion of SHP vigilance devices and the provisions of § 63 para. 13 Instructions Ir-1 (R-1).

ADDRESSEES OF THE RECOMMENDATION: certified railway carriers (100 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **75%**

PKBWK/03/2018 - RECOMMENDATION 2b: As part of the safety management system, certified rail carriers shall increase the following as part of the safety improvement program for the following years: the number of speedometer belt controls and the number of control runs in the cabs of traction vehicles.

RECOMMENDATION ADDRESSED TO: certified railway carriers (100 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **62%**

The recommendation does not apply to 9 entities that have not commenced transport operations and entities whose vehicles do not have electromechanical speedometers.

PKBWK/03/2018 - RECOMMENDATION 2c: As part of the safety management system, certified rail carriers shall increase the number of safety audits as part of the safety improvement programme for the coming years, in particular in relation to the transport process, with particular emphasis on supervision over the work of drivers and rolling stock auditors.

RECOMMENDATION ADDRESSED TO: certified railway carriers (100 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **62%**

The recommendation does not apply to 4 entities - according to information provided by UTK.

PKBWK/03/2018 - RECOMMENDATION 3: Certified railway carriers will increase supervision over the work of train drivers in terms of railway safety, and especially driving vehicles with SHP and CA devices turned on.

RECOMMENDATION ADDRESSED TO: certified railway carriers (100 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **61%**

The recommendation does not apply to 4 entities - according to information provided by UTK.

PKBWK/03/2018 - RECOMMENDATION 4a: Authorized infrastructure managers as part of periodic instructions for persons directly related to the operation of rail traffic will place particular emphasis on the need for employees of traffic posts to check the signal before the semaphore, whether the route is prepared, i.e. whether it is correctly set and secured and whether there are obstacles to ride, as required by § 40 para. 1, 2 and 3 of the Ir-1 instructions (in the case of PKP PLK S.A.).

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **76%**

Recommendation does not pertain to 1 entity - i.e. Dolnośląska Służba Dróg i Kolei we Wrocławiu, which does not have any traffic posts, on railway sections managed by the company, railway traffic is carried out by PKP Polskie Linie Kolejowe S.A.

PKBWK/03/2018 - RECOMMENDATION 4b: Authorized infrastructure managers as part of periodic instructions for persons directly related to rail traffic shall place particular emphasis on the correct formulation of telephoneograms and radiograms on the announcers.

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **77%**

Recommendation does not pertain to 1 entity - i.e. Dolnośląska Służba Dróg i Kolei we Wrocławiu, which does not have any traffic posts, on railway sections managed by the company, railway traffic is carried out by PKP Polskie Linie Kolejowe S.A.

PKBWK/03/2018 - RECOMMENDATION 4c: Authorized infrastructure managers as part of periodic instructions for persons directly related to rail traffic will place particular emphasis on good practice of informing radio drivers of railway vehicles by traffic station employees about changes in the organization of train traffic within a station, in particular about an unplanned stop at a station in order to pass other trains.

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **78%**

Recommendation does not pertain to 1 entity - i.e. Dolnośląska Służba Dróg i Kolei we Wrocławiu, which does not have any traffic posts, on railway sections managed by the company, railway traffic is carried out by PKP Polskie Linie Kolejowe S.A.

PKWBK/03/2018 - RECOMMENDATION 5a: Certified rail carriers and authorized infrastructure managers will verify the correctness of inspections of train radio communication equipment performed by subcontractors and increase supervision over the performance of these services.

RECOMMENDATION ADDRESSED TO: certified rail carriers and authorized infrastructure managers (109 entities in total).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **65%**

The recommendation does not apply to 6 entities - according to information provided by UTK.

PKWBK/03/2018 - RECOMMENDATION 5b: Certified rail carriers and authorized infrastructure managers will verify the correctness of traction vehicle inspections in terms of compliance with the Maintenance System Documentation of this series of vehicles and increase supervision over the performance of these services.

RECOMMENDATION ADDRESSED TO: certified rail carriers and authorized infrastructure managers (109 entities in total).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **67%**

The recommendation does not apply to 8 entities - according to information provided by UTK.

PKWBK/03/2018 - RECOMMENDATION 6: Certified railway carriers and authorized infrastructure managers shall take actions to supervise the train radio devices in terms of compliance of the time of these devices with real time.

RECOMMENDATION ADDRESSED TO: certified rail carriers and authorized infrastructure managers (109 entities in total).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **60%**

The recommendation does not apply to 11 entities - according to information provided by UTK.

PKWBK/03/2018 - RECOMMENDATION 7: The location of the "W3" indicator at track No. 2 at kilometer 457,486 at Smętowo station is not justified by the current internal regulations. PKP PLK S.A. Zakład Linii Kolejowych in Gdynia, at the request of the PKWBK, he liquidated this indicator during the proceedings.

RECOMMENDATION ADDRESSED TO: PKP Polskie Linie Kolejowe S.A.

AVERAGE PERCENTAGE OF IMPLEMENTATION: **100%**

PKWBK/03/2018 - RECOMMENDATION 8: Infrastructure manager of PKP PLK S.A. will take measures to adapt the internal rule Ie-4 (WTB-E10) in the scope of protective routes taking into account train journeys by the station at different speeds, when these trains enter the route equipped with in a multi-block automatic line lock. To obtain an effective protection route of 50 m to the turnoff of the Rz24 and Rz25 crossroads after the L2 and K2 signposting semaphores with the speed of trains passing by 120 km / h through the station on the main main track, the manager will consider the possibility of moving the semaphores to the Sm2 control room by a minimum of 28 meters, or, without moving the semaphores, build gauge blocks at the extension of track No. 32 and 31 at least 50 m behind the L2 and K2 semaphores. The current application of the protection route is in accordance with the applicable internal regulations of the Ie-4 manager (WTB-E10).

RECOMMENDATION ADDRESSED TO: PKP Polskie Linie Kolejowe S.A.

AVERAGE PERCENTAGE OF IMPLEMENTATION: **100%**

PKWBK/03/2018 - RECOMMENDATION 9a: As part of the system approach to safety, railway

infrastructure managers will analyze the protective roads used at traffic posts with similar traffic organization conditions, including the track system.

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **62%**

The recommendation does not apply to 2 entities - i.e. Dolnośląska Służba Dróg i Kolei we Wrocławiu and Infra Silesia S.A. Dolnośląska Służba Dróg i Kolei we Wrocławiu does not have any traffic posts, on railway sections managed by the company, railway traffic is carried out by PKP Polskie Linie Kolejowe S.A. Infra Silesia S.A. - there is no multi-spaced automatic line block on the managed infrastructure; applicable train travel speeds through the stations are in the range from 20 to 30km / h.

PKBWK/03/2018 - RECOMMENDATION 9b: As part of the system approach to safety, railway infrastructure managers will analyze the legitimacy of currently built-in W3 indicators.

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **94%**

The recommendation does not apply to 5 entities (no managed W3 indicators on the managed infrastructure).

PKBWK/03/2018 - RECOMMENDATION 10a: Infrastructure manager of PKP PLK S.A. until the provision of a protective road for route z232 and z231 and before switches 24 and 25, will introduce in the Technical Regulations of the Traffic Post (RTPR) - Smętowo station before proceeding to prepare the route for the entry of the train onto track 2 from semaphore Z^{1/2} obligation the train dispatcher ensuring that the train has stopped after completing the runs on track 32. *(The recommendation is also directed to the implementation by authorized infrastructure managers who, as a result of the analysis of previous recommendations, state the need to change guard roads at traffic posts with similar conditions of traffic organization, until appropriate protective roads are provided, the duty operator must ensure that the traffic stops train after completing the mileage before proceeding to prepare the route for the entry of the next train, according to the track system).*

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **86%**

The recommendation does not apply to 3 entities - according to information provided by UTK.

PKBWK/03/2018 - RECOMMENDATION 10b: Infrastructure manager of PKP PLK S.A. until the provision of a protective road for route z232 and z231 and before switches 24 and 25, will introduce in the Technical Regulations of the Traffic Post (RTPR) - Smętowo station before proceeding to prepare the route for the entry of the train onto track 1 from semaphore A for route A1 obligation the train dispatcher ensuring that the train has stopped after completing the runs on track 31. *(The recommendation is also directed to the implementation by authorized infrastructure managers who, as a result of the analysis of previous recommendations, state the need to change guard roads at traffic posts with similar conditions of traffic organization, until appropriate protective roads are provided, the duty operator must ensure that the traffic stops train after completing the mileage before proceeding to prepare the route for the entry of the next train, according to the track system).*

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **88%**

The recommendation does not apply to 3 entities - according to information provided by UTK.

- IV. Recommendations contained in Report No. PKBWK/04/2018** from the investigation of a serious accident category A21 that occurred on 27 February 2018 at 18:57 at the D-category level crossing located on the monorail Opole Zachodnie - Szydłów, at km 1,934 of the railway line No. 287 Opole Zachodnie - Nysa

PKBWK/04/2018 - RECOMMENDATION 1: The road manager will consider the possibility of ensuring continuous lighting of the road to eliminate the dark zone in the area of access to the crossing.

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **68%**

PKBWK/04/2018 - RECOMMENDATION 2: The Commission sees the need for lighting at the crossing, based on § 85 para. 2 of the Ordinance of the Minister of Infrastructure and Development of 20 October 2015 on technical conditions to be met by junctions of railway lines and railway sidings with roads and their location (Dz.U., item 1744, as amended; hereinafter: regulation of 2015). *(The President of UTK directs the recommendation for analysis by authorized infrastructure managers in terms of the need for lighting development on the crossings located on the managed infrastructure and the implementation of activities specified in the above analysis).*

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **66%**

PKBWK/04/2018 - RECOMMENDATION 3: The road manager will supplement the missing vertical marking with the F6a sign on a side road.

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **81%**

The recommendation does not apply to 1 entity - i.e. PKP SKM w Trójmieście sp.z o.o.

PKBWK/04/2018 - RECOMMENDATION 4: The road manager will reduce the speed limit in force in the travel area from 90 km/h to 50 km/h.

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **78%**

The recommendation does not apply to 3 entities - according to information provided by UTK.

PKBWK/04/2018 - RECOMMENDATION 5: The railway infrastructure manager shall complete asphalt losses in the transit area. *(The President of UTK directs the recommendation for analysis by authorized infrastructure managers in terms of the need to supplement asphalt defects in the passage area located on the managed infrastructure and to implement activities specified in the above analysis).*

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **79%**

PKBWK/04/2018 - RECOMMENDATION 6: The road administrator will build Ula guide posts at the crossing. *(The President of UTK directs the recommendation for analysis by authorized infrastructure managers in terms of the need to install U1a guidance posts on crossings located on the managed infrastructure and to implement activities specified in the above analysis).*

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **73%**

PKBWK/04/2018 - RECOMMENDATION 7: The railway infrastructure managers for all category D level crossings located on revitalized/modernized lines shall introduce, along with the commissioning of the railway line into traffic, a gradual increase in the speed of trains traveling through the passage until reaching the target speed. The value of the first time temporary speed limit should be 60 km/h, and at intervals of 30 days there should be an increase in speed of 20 km/h after a prior risk assessment analysis, until a scheduled speed is obtained. By the time the target speed is introduced before these journeys, the railway infrastructure managers will set the W6b indicators at a distance resulting from the visibility triangles for 20 meters.

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **73%**

The recommendation does not apply to 6 entities - according to information provided by UTK.

PKBWK/04/2018 - RECOMMENDATION 8: According to the declaration contained in the letter No. IBR1u-0701-20.1/2018 of 10.09.2018 PKP PLK S.A. and other infrastructure managers shall take steps to increase road users' awareness of changing local conditions on category D rail and road crossings located on revitalized/modernized rail lines by informing the local community living around the crossing through local governments and local media.

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **66%**

The recommendation does not apply to 6 entities - according to information provided by UTK.

PKBWK/04/2018 - RECOMMENDATION 9: Carriers and railway infrastructure managers shall ensure the synchronization of time indications with real time on all data recorders.

RECOMMENDATION ADDRESSED TO: certified rail carriers and authorized infrastructure managers (109 entities in total).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **61%**

The recommendation does not apply to 11 entities - according to information provided by UTK.

PKBWK/04/2018 - RECOMMENDATION 11: Certified rail carriers shall take action to supplement the data on the registration of the use of the "Attention" signal in electronic recorders of the ATM type embedded in the operated traction vehicles.

ADDRESSEES OF THE RECOMMENDATION: certified railway carriers (100 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **67%**

The recommendation does not apply to 55 entities (according to information provided by UTK), which do not operate auxiliary vehicles.

PKBWK/04/2018 - RECOMMENDATION 12: PKP PLK S.A. Zakład Linii Kolejowych in Opole shall update the specifications of a level crossing.

RECOMMENDATION ADDRESSED TO: PKP Polskie Linie Kolejowe S.A.

AVERAGE PERCENTAGE OF IMPLEMENTATION: **100%**

PKBWK/04/2018 - RECOMMENDATION 13: *PKP PLK S.A. Zakład Linii Kolejowych in Opole shall take action to liquidate the earth mound before the crossing (the recommendation was implemented during the proceedings). (The President of UTK directs the recommendation for analysis by authorized infrastructure managers in terms of obstacles hindering the visibility of the oncoming train front on the crossings located on the managed infrastructure and the implementation of activities specified in the above analysis).*

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **81%**

PKBWK/04/2018 - RECOMMENDATION 14: Certified railway carriers during periodic instructions and ad hoc train drivers' trainings shall implement the subject of making correct copies in train documentation.

RECOMMENDATION ADDRESSED TO: certified railway carriers (100 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **61%**

The recommendation does not apply to 3 entities - according to information provided by UTK.

PKBWK/04/2018 - RECOMMENDATION 15: The poviast road manager shall adapt the road infrastructure to the requirements of the regulations: Ordinance of Minister of Transport and Maritime Economy of 2 March 1999 on the technical conditions to be met by public roads and their location (Dz.U. of 2016, item 124), Annex 2 and the ordinance of the Minister of Infrastructure and Development of 20 October 2015 on the technical conditions to be met intersections of railway lines and railway sidings with roads and their location.

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **62%**

PKBWK/04/2018 - RECOMMENDATION 16: During the periodic instructions of traffic station employees PKP PLK S.A. shall implement the subject of making correct copies in the Telephone Conversation Journal (R-138 logs). *(The President of UTK directs the recommendation to PKP PLK S.A. and other authorized infrastructure managers to implement during the periodic instructions the subject of making correct copies of telephone conversations by the traffic dispatchers in documentation kept in accordance with the implemented safety management system).*

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **66%**

PKBWK/04/2018 - RECOMMENDATION 17: PKP PLK S.A. shall intensify the "Safe crossing - Stop and live" programme on category D level crossings *(The President of UTK makes a recommendation to PKP PLK S.A. and other authorized infrastructure managers regarding the definition and implementation of similar activities on category D level crossings located on managed infrastructure).*

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **55%**

PKBWK/04/2018 - RECOMMENDATION 18: The poviast road manager shall adapt the road infrastructure to the requirements of the regulations: Ordinance of Minister of Transport and Maritime Economy of 2 March 1999 on the technical conditions to be met by public roads and their location (Dz.U. of 2016, item 124), Annex 2 and the ordinance of the Minister of Infrastructure and Development of 20 October 2015 on the technical conditions to be met intersections of railway lines and railway sidings with roads and their location.

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **69%**

PKBWK/04/2018 - RECOMMENDATION 19: The railway infrastructure managers for all category D crossings shall carry out a detailed analysis of the correctness of the data contained in the crossing records in relation to the actual condition.

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **63%**

PKBWK/04/2018 - RECOMMENDATION 20: Rail infrastructure managers should consider that during the design process of modernization or revitalization works on railway lines, designers will verify the road communication system as a whole functionally connected to level crossings. During designing, it is reasonable to make a project to change the organization of such roads in the appropriate impact area in the vicinity of level crossings in such a way that after reorganizing this system it is possible to redirect traffic to adjacent crossings of the same or higher category in order to channel traffic at one point. This action should lead to the elimination of unnecessary level crossings. Local administration authorities and road managers should cooperate in achieving the above objective with the infrastructure manager in a given area covered by the above works. At the place of liquidation of the cat. D crossing, the possibility of creating the cat. E crossing should be considered.

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **88%**

The recommendation does not apply to 4 entities - according to information provided by UTK.

- V. Recommendations presented in the Report No. PKBWK/05/2018 under the investigation of accident of cat. A18 that occurred on 2 November 2017 at 18:49 at the category A level crossing with suspended service, located at km 37,119 on the Śniadowo - Łapy route, on the route track No. 1 of the railway line No. 36 Ostrołęka - Łapy

PKBWK/05/2018 - RECOMMENDATION 1: Infrastructure managers and other entities operating auxiliary vehicles shall take action to ensure that auxiliary vehicles moving along railway lines are equipped with reflective elements improving the side visibility of these vehicles and will develop guidelines for additional marking of vehicles with these elements to internal regulations. (The President of UTK makes a recommendation to certified railway carriers in the field of special vehicles and authorized infrastructure managers, including special vehicles operated by subcontractors of track works).

RECOMMENDATION ADDRESSED TO: certified rail carriers and authorized infrastructure managers (109 entities in total).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **50%**

The recommendation does not apply to 70 entities which, according to information provided by UTK, do not operate auxiliary vehicles.

PKBWK/05/2018 - RECOMMENDATION 2: Authorized infrastructure managers and certified rail operators shall ensure that their own employees and employees of other entities on the railway lines on which work is carried out and work vehicles comply with the temporary regulations.

RECOMMENDATION ADDRESSED TO: certified rail carriers (100 entities) and authorized infrastructure managers (109 entities in total).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **65%**

The recommendation does not apply to 7 entities - according to information provided by UTK.

PKBWK/05/2018 - RECOMMENDATION 3: PKP PLK S.A. shall equip auxiliary vehicles modernized, newly purchased and periodically repaired at levels P3, P4 and P5 with on-board recorders of driving parameters (recording at least speed, pressure in the main line and brake cylinders, activation of the signal "Attention"). *(The President of UTK makes a recommendation to authorized infrastructure managers in the scope of special vehicles at their disposal, as well as in the scope of requirements for special vehicles operated by subcontractors of track works during the execution of orders).*

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **57%**

The recommendation does not apply to 3 entities - according to information provided by UTK.

PKBWK/05/2018 - RECOMMENDATION 4: *PKP PLK S.A. will take action to ensure that all employees of the Infrastructure Implementation Center are managed on an ongoing basis in the field of Safety Management System and its updates. (The President of UTK makes a recommendation to PKP PLK S.A. and other authorized infrastructure managers in the scope of verification of employee training, planning, supervising and implementing track works, in the field of Safety Management System and its updating and systemic ensuring current training of the above employees).*

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **66%**

PKBWK/05/2018 - RECOMMENDATION 5: Authorized infrastructure managers shall take steps to ensure that all employees of subcontractors are thoroughly acquainted with, in particular, the applicable temporary traffic regulations, the subcontractors' documentation of the infrastructure manager's safety management system and other documentation, including those on the subject of safety and health hazards performing work on the manager's premises.

ADDRESSEES OF THE RECOMMENDATION: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **68%**

PKBWK/05/2018 - RECOMMENDATION 6a: *With regard to the safety management system, PKP Polskie Linie Kolejowe S.A. will give special supervision regarding the compliance with PR-02, PR-03 and PD-05 procedures, including the audit and control system. (The President of UTK sends a recommendation to PKP PLK S.A. and other authorized infrastructure managers in the scope of verification of the effectiveness of procedures implemented within the safety management system covering the scope of change management, risk identification as well as corrective and preventive actions).*

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **76%**

PKBWK/05/2018 - RECOMMENDATION 6b: *With regard to the safety management system, PKP Polskie Linie Kolejowe S.A. will take action to implement the above-mentioned procedures to shorten and make the process more effective as well as to the procedures were completed no later than*

before the commencement of works. (The President of UTK sends a recommendation to PKP PLK S.A. and other authorized infrastructure managers in the scope of verification of the effectiveness of procedures implemented within the safety management system covering the scope of change management, risk identification as well as corrective and preventive actions).

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **55%**

VI. Recommendations presented in the Report No. PKBWK/06/2018 under the investigation of accident of cat. B13 which occurred on 24 November 2017 at 6: 48 at the route Warlubie - Laskowice Pomorskie, track No. 2, at km 424,208 of railway line No. 131 Chorzów Batory – Tczew

PKBWK/06/2018 - RECOMMENDATION 2: POL-MIEDŹ TRANS Sp. z o.o. shall increase supervision of train drivers in terms of railway safety. During the proceedings, the Company implemented an increased number of control rides by train drivers. (The President of UTK directs the recommendation to certified rail carriers in the scope of increasing supervision of train drivers in terms of railway safety by defining and implementing actions in accordance with the safety management system).

ADDRESSEES OF THE RECOMMENDATION: certified railway carriers (100 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **54%**

The recommendation does not apply to 6 entities - according to information provided by UTK.

PKBWK/06/2018 - RECOMMENDATION 3: POL-MIEDŹ TRANS Sp. z o.o. shall verify the provisions of the Work Regulations in terms of provisions regarding the activities included in the working time by employees, related to the operation and safety of rail traffic. (The President of UTK directs the recommendation to certified railway carriers as regards verification of internal provisions regarding the activities carried out by employees related to the operation and safety of rail traffic and the implementation of activities in accordance with the safety management system).

RECOMMENDATION ADDRESSED TO: certified railway carriers (100 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **68%** The recommendation does not apply to 9 entities - according to information provided by UTK.

PKBWK/06/2018 - RECOMMENDATION 4: POL-MIEDŹ TRANS Sp. z o.o. shall verify the correctness of the descriptions of activities performed at individual levels of maintenance of coal wagons as part of the Maintenance System Documentation. (The President of UTK directs the recommendation to certified rail carriers regarding verification of the correctness of the descriptions of activities performed at individual levels of maintenance of vehicles in use as part of the maintenance system documentation and taking action in accordance with the safety management system).

RECOMMENDATION ADDRESSED TO: certified railway carriers (100 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **67%** The recommendation does not apply to 12 entities - according to information provided by UTK.

PKBWK/06/2018 - RECOMMENDATION 5: POL-MIEDŹ TRANS Sp. z o.o. shall adjust the employment contracts for employees according to the activities performed in a given position. (The President of UTK directs the recommendation to certified rail carriers in the scope of verification of the adaptation of employment contracts for employees according to the activities performed in a given position and taking

actions in accordance with the safety management system in place).

RECOMMENDATION ADDRESSED TO: certified railway carriers (100 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: 75%

The recommendation does not apply to 8 entities - according to information provided by UTK.

PKBWK/06/2018 - RECOMMENDATION 6: Certified rail carriers and authorized infrastructure managers enforce compliance with time synchronization in real time in displaying and recording devices.

RECOMMENDATION ADDRESSED TO: certified rail carriers and authorized infrastructure managers (109 entities in total).

AVERAGE PERCENTAGE OF IMPLEMENTATION: 64%

The recommendation does not apply to 13 entities - according to information provided by UTK.

PKBWK/06/2018 - RECOMMENDATION 7: POL-MIEDŹ TRANS Sp. z o.o. shall improve communication regarding excluded wagons between the Dispatch Department and the Wagon Maintenance Department. *(The President of UTK directs the recommendation to certified rail carriers regarding verification of the effectiveness of internal and external communication in the scope of excluded vehicles, implemented in accordance with internal regulations and taking actions in accordance with the safety management system.)*

RECOMMENDATION ADDRESSED TO: certified railway carriers (100 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: 74%

The recommendation does not apply to 10 entities - according to information provided by UTK.

VII. Recommendations presented in the Report No. PKBWK/07/2018 under the investigation of railway accident of cat. B37 which occurred on 10 November 2017 at 6:20 with train no. TMS 624016/7 running the route Kamieniec Ząbkowicki - Szeligi at the Nysa - Nowy Świętów section, track no. 2, at km 129,650 of railway line 137 Katowice - Legnica

PKBWK/07/2018 - RECOMMENDATION (ZI)-1: The Commission's research team recommends including in the Railway Risk Manager's Register: "Train disconnection with or without uncontrolled movement of railway vehicles" as a result of an unfavourable railroad profile.

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: 96%

PKBWK/07/2018 - RECOMMENDATION (ZI)-2: Zakład Linii Kolejowych in Opole shall regulate the matter of not stopping freight trains from entering the semaphores to the Nowy Świętów station from the direction of the Nysa station by making appropriate entries in the Regulations of Traffic Points at these stations. *(The President of UTK directs the recommendation to PKP PLK S.A. and other authorized infrastructure managers regarding the analysis of the issue of not stopping freight trains in front of semaphores to stations with similar conditions in their technical regulations.)*

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: 87%

The recommendation does not apply to 4 entities - according to information provided by UTK -

including the absence of a station with conditions similar to the Nowy Świętów station.

PKBWK/07/2018 - RECOMMENDATION (ZI)-3: According to the research team, plot 40 RTPR (Technical Regulations of the Technical Post of the Nysa station) should be clarified, in accordance with the provisions of §71, paragraph 9 of the Ir-1 instruction "The detailed procedure depending on the existing local conditions should be set out in the technical regulations". *(The President of UTK directs the recommendation to PKP PLK S.A and other authorized infrastructure managers regarding the results of the analysis of the issue of not stopping freight trains from entering semaphores to stations with similar conditions in their technical regulations).*

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **87%**

The recommendation does not apply to 3 entities - according to information provided by UTK.

PKBWK/07/2018 - RECOMMENDATION (PK)-1: Until all the irregularities found in the documents of the wagons involved in the incident have been resolved, the Commission recommends that carriers remove these wagons from operation (in terms of irregularities related to the wagons in use).

RECOMMENDATION ADDRESSED TO: certified railway carriers (100 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **82%**

The recommendation does not apply to 29 entities - according to information provided by UTK.

PKBWK/07/2018 - RECOMMENDATION (PK)-2: Certified railway carriers and authorized infrastructure managers shall carry out the instruction of the President of UTK No. DBK-550/R-03/KB/12 of 30.05.2012, directed at railway carriers about the obligation to install front-track recording devices - digital cameras or video recorders in railway vehicles newly built and in operation, in accordance with the recommendation of PKBWK - No. PKBWK-076-305/RL/R/11 of 22.11.2011.

RECOMMENDATION ADDRESSED TO: certified rail carriers and authorized infrastructure managers (109 entities in total).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **57%**

The recommendation does not apply to 18 entities - according to information provided by UTK. The above recommendation was included in the reports issued by PKBWK in 2018, i.e. in recommendation No. 6d from the Report KBWK/01/2018, No. 2 from Report PKBWK/02/2018, No. 1 from Report PKBWK/03/2018, No. 10 from the PKBWK/04/2018 Report, No. 1 from the PKBWK/06/2018 Report and No. 2 from the PKBWK/07/2018 Report. This recommendation has been addressed to all certified rail carriers and authorized infrastructure managers. The President of UTK obliged entities to respond to this recommendation only with the last recommendation, i.e. No. 2 from the PKBWK/07/2018 Report.

PKBWK/07/2018 - RECOMMENDATION (PK)-3: Cargo PTT shall increase the quality and the number of audits and controls in the area of transport process implementation, in particular in the scope of supervision over the work of traction teams and rolling stock auditors and maintenance of rolling stock condition. *(The President of UTK directs the recommendation to certified railway carriers in the scope of undertaking activities under the safety management system to increase supervision over the work of traction teams and rolling stock auditors and to maintain rolling stock condition).*

RECOMMENDATION ADDRESSED TO: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **58%**

The recommendation does not apply to 4 entities - according to information provided by UTK.

PKBWK/07/2018 - RECCOMENDATION (PK)-4: Cargo PTT shall develop and implement the organization structure of the maintenance process and the scope of activities performed, in particular regarding rail vehicles, including all freight wagons and traction vehicles. *(The President of UTK directs the recommendation to certified rail carriers as regards verification of the effectiveness of the railway vehicle maintenance process implemented as part of the safety management system).*

RECOMMENDATION ADDRESSED TO: certified railway carriers (100 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **71%**

The recommendation does not apply to 13 entities - according to information provided by UTK.

PKBWK/07/2018 - RECCOMENDATION (PK)-5: Railway carriers operating freight and passenger trains, in the subject of periodic instructions shall include a discussion of the rules of conduct of the driver and rolling stock auditors in the field of:

- correct train composition,
- performing technical inspections before sending the train on the road,
- correct way to perform the required brake tests,
- proper train service technique (start-up, smooth running taking into account profile of railway sections, braking).

RECOMMENDATION ADDRESSED TO: certified railway carriers (100 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **69%**

The recommendation does not apply to 3 entities - according to information provided by UTK.

PKBWK/07/2018 - RECCOMENDATION (PK)-6: Railway carriers operating freight and passenger trains and entities responsible for the maintenance of freight wagons (ECM) shall strengthen the supervision over the correct implementation of the process of maintaining railway vehicles, in accordance with DSU (Maintenance System Documentation), AVV or other documents regarding the maintenance and operation of freight wagons.

RECOMMENDATION ADDRESSED TO: certified rail operators and entities in charge of maintenance (129 entities in total)

AVERAGE PERCENTAGE OF IMPLEMENTATION: **78%**

The recommendation does not apply to 10 entities - according to information provided by UTK.

VIII. Recommendations issued in the 2017 Annual Report:

Annual Report – RECOMMENDATION 1: Rail carriers shall take action to eliminate rail incidents caused by the failure to stop by a railway vehicle in front of the "Stop" signal or in the place where it should stop, or starting a railway vehicle without the required permit

ADDRESSEES OF THE RECOMMENDATION: certified rail carriers (100 entities). AVERAGE

PERCENTAGE OF IMPLEMENTATION: **70%**

The recommendation does not apply to 3 entities - according to information provided by UTK.

Annual Report – RECOMMENDATION 2: Railway infrastructure managers will undertake activities aimed at verifying the road communication system as a whole, functionally connected in the process of designing modernization or revitalization works of railway lines with railway crossings. During design-

ing, it is reasonable to make a project to change the organization of such roads in the appropriate impact area in the vicinity of level crossings in such a way that after reorganizing this system it is possible to redirect traffic to adjacent crossings of the same or higher category in order to channel traffic at one point.

ADDRESSEES OF THE RECOMMENDATION: certified rail freight operators and entities in charge of maintenance (117 entities in total)

AVERAGE PERCENTAGE OF IMPLEMENTATION: **78%**

The recommendation does not apply to 5 entities - according to information provided by UTK.

2017 Annual Report - RECOMMENDATION 3: Railway infrastructure managers will undertake activities aimed at reducing the number of accidents at level crossings. Particularly to the increasing number of accidents at level crossings of category A, B and D, railway infrastructure managers will take appropriate corrective and preventive actions in accordance with functioning security management systems (SMS). Managers should complete the implementation of the provisions of the Ordinance of the Minister of Infrastructure and Development of 20 October 2015 on technical conditions to be met by the intersection of railway lines and railway sidings with roads and their location.

ADDRESSEES OF THE RECOMMENDATION: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **83%**

The recommendation does not apply to 4 entities - according to information provided by UTK.

2017 Annual Report - RECOMMENDATION 4: Certified rail carriers and railway infrastructure managers shall continue activities aimed at reducing the number of accidents at level crossings for all categories: A, B, C and D.

ADDRESSEES OF THE RECOMMENDATION: certified rail carriers and authorized infrastructure managers (109 entities). AVERAGE PERCENTAGE OF IMPLEMENTATION: **62%**

The recommendation does not apply to 3 entities - according to information provided by UTK.

2017 Annual Report - RECOMMENDATION 5: The railway infrastructure managers shall implement the project of additional identification marking of level crossings and crossings at the rail level, containing the necessary information for the operator of the 112 emergency number, and the model of the project implemented by PKP PLK S.A.

ADDRESSEES OF THE RECOMMENDATION: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **56%**

The recommendation does not apply to 1 entity - i.e. PKP Polskie Linie Kolejowe S.A., which has already implemented the design of additional identification marking for level crossings and rail-level crossings.

2017 Annual Report - RECOMMENDATION 6: The railway infrastructure managers shall check the correctness of placing the B-20 "STOP" signs in front of category D level crossings, where visibility conditions are maintained and the train speed limit is not enforced (as per Annex 3 Part B point 7 of Regulation 1744 on intersections). If the B-20 "STOP" sign is not justified, the infrastructure managers will oblige the road manager to remove it.

ADDRESSEES OF THE RECOMMENDATION: authorized infrastructure managers (11 entities).

AVERAGE PERCENTAGE OF IMPLEMENTATION: **68%**

The recommendation does not apply to 1 entity, i.e. GARGOTOR sp. z o.o., where all category D crossings managed by the company, due to railway traffic safety, are subject to a speed limit of 20 km/h for all railway vehicles.