



State Commission on Railway Accidents Investigation
MINISTRY OF INTERNAL AFFAIRS AND ADMINISTRATION

ANNUAL REPORT 2020

ON ACTIVITIES OF THE
STATE COMMISSION ON RAILWAY ACCIDENTS
INVESTIGATION (PKBWK)

Approved:

Signature on original

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President

of the State Commission on Railway Accidents Investigation

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1. Introduction

1.1 Legal basis for the functioning and tasks of the Commission

The permanent and independent State Commission on Railway Accidents Investigation, hereinafter referred to as 'the Commission' or 'PKBWK', has been investigating serious accidents, incidents, and accidents since 17 April 2007.

Establishment of the Commission resulted from implementation into national law of Directive 2004/49/EC of the European Parliament and of the Council of 29 April 2004 on safety of the Community's railways repealed by Directive (EU) 2016/798 of the European Parliament and of the Council of 11 May 2016 on railway safety - OJ L 138, 26.5.2016, p. 102 hereinafter referred to as "the Directive". Pursuant to Article 22 of the Directive, the Republic of Poland has ensured that investigations into accidents and incidents are carried out by a permanent body functionally, organizationally, and decision-making independent of the safety authority, the railway market regulator, railway undertakings, infrastructure managers and any other party whose interests could conflict with the functioning of the investigating body. The national investigating body defined by the Directive shall be 'the Commission' in accordance with national law. The Commission shall be fully independent in organisational and legal terms from the entities referred to in Article 22 of the Directive and shall be represented externally by its President.

The Commission acts pursuant to the provisions of Chapter 5a of the Railway Transport Act of 28 March 2003 (consolidated text: Journal of Laws of 2020, item 1043 as amended), hereinafter referred to as "the Railway Transport Act" or "the Act".

As of November 1, 2019, the minister responsible for internal affairs shall provide the budget and the service of the Commission shall be provided by the office servicing that minister (in accordance with Article 4 of the Act of August 30, 2019, *amending the Railway Transport Act* - Journal of Laws, item 1979).

On the day this *Act amending the Act* enters into force, the minister in charge of transport or the office servicing him, concerning the functioning of the State Commission on Railway Accidents Investigation, shall become a party to contracts and agreements concluded by the minister in charge of internal affairs or the office servicing him, respectively.

The basic task of the Commission is to carry out proceedings after any serious railway transport accident (occurring on railway lines and railway sidings) having an obvious (negative) impact on railway safety regulation or on the management of this safety, as stipulated in Article 28e (1) of the Act.

The Commission may also investigate an accident or incident which, under slightly different conditions, would be a serious accident causing the discontinuation of operation of structural

subsystems or interoperability constituents of the trans-European rail system, as provided for in Article 28e (2) of the Act, within one week of being informed of its occurrence.

The Commission may conduct proceedings in respect of an accident and incident of another, if it occurred in circumstances justifying the undertaking of such an investigation, in which case the decision to undertake proceedings under Article 28e (2a) of the Railway Transport Act, shall be made by the Chairman of the Commission, without a specified time limit.

Another rationale for deciding to investigate accidents and incidents is that they occur in recurring situations due to similar causes. Any decision to investigate an accident or incident shall be preceded by consideration:

- the seriousness of the accident or incident;
- whether an accident or incident creates a series of accidents or incidents relating to the system as a whole;
- the impact of the accident or incident on railway safety at Community level;
- applications of managers, railway undertakings, minister competent for internal affairs, President of Office of Rail Transport, hereinafter referred to as "President of UTK" or Member States of the European Union.

Within one week of the decision to initiate proceedings, the Commission shall inform the European Union Railway Agency thereof, indicating the date, time, and place of the incident, as well as its nature and its consequences, including fatalities, injuries, and material damage.

As part of its activities, the Commission shall carry out inquiries (investigations) to establish the causes and circumstances of incidents, as well as to identify preventive proposals to improve safety in rail transport. The Commission shall draw up an investigation report containing recommendations for improvement of safety and prevention of serious accidents, incidents, or accidents, adopting a resolution in this respect. Investigations by the Commission shall not determine liability or responsibilities.

Members of the Commission have identity cards entitling to perform activities referred to in article 28h (2) of the Railway Act. Specimen of ID card is specified in the regulation of the Minister of Internal Affairs and Administration of 23 October 2020 on a model of ID card of a member of State Commission on Railway Accidents Investigation (Journal of Laws, item 1894).

The pass for a member of the Commission shall be issued by the minister responsible for internal affairs.

Where the Commission undertakes an investigation of an accident or incident, the Railway Commission shall hand over the conduct of the investigation to the Commission. The PKBWK shall report on the investigation in accordance with Commission Implementing Regulation (EU) 2020/572 of 24 April 2020 *concerning the reporting structure to be used for rail accident and incident investigation reports*, established the reporting structure for accident and incident investigations referred to in Article 20(1) and (2) of Directive (EU) 2016/798.

Commission Implementing Regulation (EU) 2020/572 of 24 April 2020 entered into force on 14 May 2020, is binding in its entirety and directly applicable in all Member States.

In the Act of March 30, 2021, on amending the Railway Transport Act - Article 1, Section 68(a), the Legislature repealed paragraph 3 in Article 28l, Section 3 which reads: "(3) *The minister responsible for internal affairs shall determine, by regulation, the content of the report on the investigation of serious accidents, accidents or incidents, taking into account the consequences of serious accidents, accidents or incidents.*"

The regulation of the Minister of Infrastructure and Construction of 12 April 2016 amending the regulation on the content of the report on the investigation of a serious accident, accident, or railway incident (Journal of Laws, item 560), which was in force until the entry into force of the Commission Implementing Regulation (EU) 2020/572 of 24 April 2020.

1.2 Organisational structure of the Commission

As of 31 December 2020, the Commission consisted of 11 permanent members including the Chairman, two Deputies and the Secretary of the Commission.

The headquarters of the State Commission on Railway Accidents Investigation is in the building of the Ministry of Infrastructure at the following address: ul. Chałubińskiego 4, building A, 00-928 Warsaw.

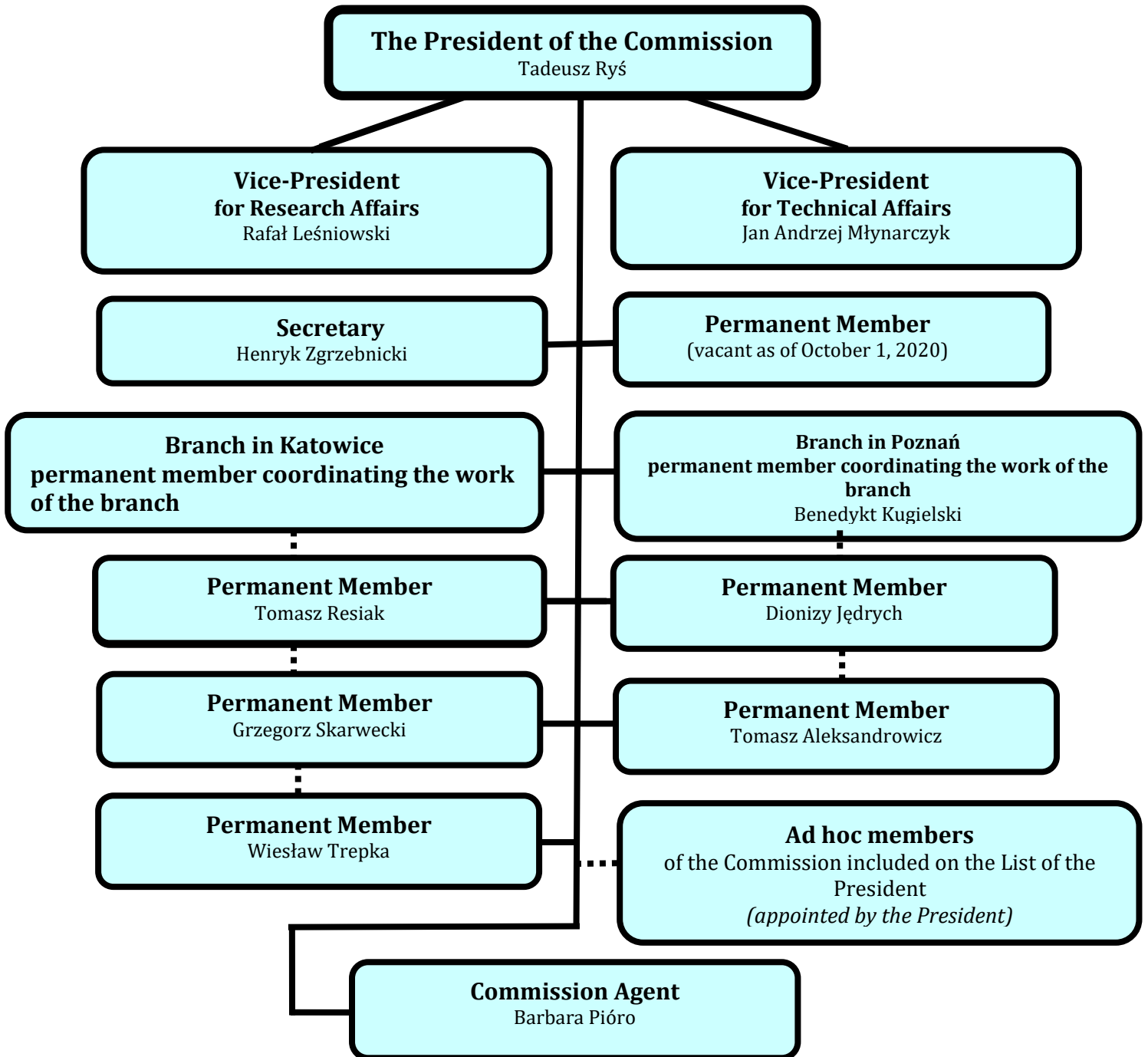
Pursuant to Article 28d (4) of the Railway Transport Act of 28 March 2003 (Journal of Laws of 2019, item 710, 730, 1214, 1979 and 2020), the Minister of Internal Affairs and Administration issued Order No. 3 of the Minister of Internal Affairs and Administration of 31 January 2020 *on the operating regulations of the State Commission on Railway Accidents Investigation* published in the Official Journal of the Minister of Internal Affairs and Administration under item No. 2.

In Appendix No. 1 to Order No. 3 of the Minister of Internal Affairs and Administration dated 31 January 2020 (item 2) contains *Regulations of the State Commission on Railway Accidents Investigation*, in force since 31 January 2020 based on which the Commission operates.

According to the provisions of § 5, section 1 of the Regulations of the State Commission on Railway Accidents Investigation, in force since 31 January 2020, included in the appendix No. 1 to the Order No. 3 of the Minister of Internal Affairs and Administration of 31 January 2020 on the Regulations of the *State Commission on Railway Accidents Investigation* (Official Journal of the Minister of Internal Affairs and Administration, Item No. 2), the Chairman coordinates the implementation of the Commission's tasks, ensures the proper organization of the Commission's work, its efficient operation and represents the Commission externally.

The organizational structure of PKBWK is defined in Attachment No. 2 to the above-mentioned Ordinance:

1. State Commission on Railway Accidents Investigation based in Warsaw (5 permanent members):
 - a) President,
 - b) Vice President for Research Affairs,
 - c) Vice President for Technical Affairs,
 - d) Commission Secretary,
 - e) permanent member.
2. Commission Branch based in Katowice (4 permanent members):
 - a) a permanent member to coordinate the work of the branch,
 - b) permanent members (3 positions).
3. Commission Branch based in Poznań (3 permanent members):
 - a) a permanent member to coordinate the work of the branch,
 - b) permanent members (2 positions).

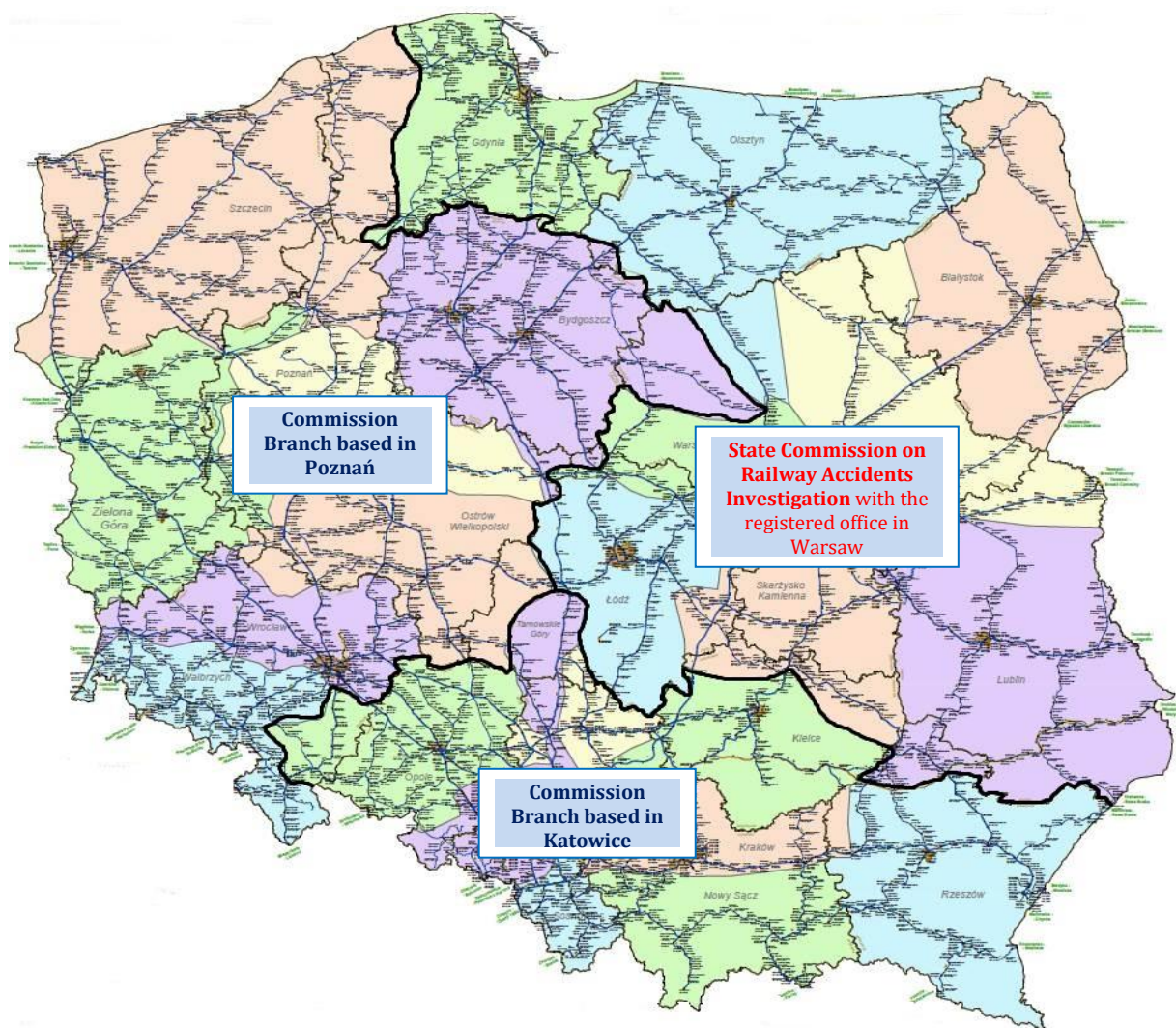


Status as of December 31, 2020.

Staffing levels as of December 31, 2020, in:

- the Commission's seat in Warsaw - 4 permanent members and 1 Commission agent*),
- the Commission's branch in Katowice - 4 permanent members,
- the Commission's branch in Poznań - 3 permanent members.

*) the Commission is serviced by the office of the minister responsible for internal affairs, currently by 1 employee of the Department of Civil Protection and Crisis Management of the Ministry of Internal Affairs and Administration - employed at the Commission's headquarters in Warsaw.



Organizational structure and Operating Regulations of the State Commission on Railway Accidents Investigation valid in 2020 introduced by the ordinance No. 3 of the Minister of Internal Affairs and Administration Regulations of the State Commission on Railway Accidents Investigation, valid from 31 January 2020. (Official bulletin of the Ministry of Internal Affairs and Administration, Item No. 2).

2. Forms of Commission business activity and supervision by the President in 2020.

In 2020, the Commission conducted activities on serious accidents, incidents and accidents in the following forms:

1. *Conduct of proceedings by the Commission investigation team appointed by the President of the Commission* - in this form, the President of the Commission appointed the leader of the investigation team and then, in agreement with him, determined the composition of the investigation team from among the permanent and ad hoc members of the Commission. The

Commission's investigation team conducted activities aimed at determining the circumstances and cause of events, preparing documentation describing the process necessary for the Commission to adopt a resolution closing the investigation of a serious accident, accident, or incident. The team leader appointed and coordinated the activities performed by the members of the team and was responsible for the correctness of the activities performed. The tasks and the detailed scope of activities were specified in the organisational regulations of the PKBWK dated 31 January 2020.

In 2020, reports were prepared by the Commission's Investigation Teams based on the Regulation of the Minister of Infrastructure and Construction of 12 April 2016 amending the Regulation on the content of the report on the investigation of a serious accident, railway accident or incident (Journal of Laws, item 560).

In 2020, the President of the Commission Mr. Tadeusz Ryś decided to take over the investigation and conduct by the Commission's Investigation Team of the following events:

- 1) serious accident of category A23 occurred on 11 January 2020 at 04:35 on route Szamotuły - Pęckowo, track no. 1, at km 34.102 of railway line no. 351 Poznań Główny - Szczecin Główny;
- 2) accident of category B21 occurred on 17 February 2020 at 19:34 on level crossing of category D, located on route Czerwonak - Bolechowo, track no 1, at km 7.765 of railway line no 356 Poznan East - Bydgoszcz Główna;
- 3) serious accident of category A13 occurred on 9 March 2020 at 04:15 at Szymankowo station, track no. 2, km 287.360 of railway line no. 9 Warszawa Wschodnia Osobowa - Gdańsk Główny;
- 4) serious accident of category A19 occurred on 29 April 2020 at 17:32 on level crossing of category B located on route Bolechowo - Murowana Goślina, track no. 1, at km 15.753 of railway line no. 356 Poznań Wschód - Bydgoszcz Główna;
- 5) serious accident of category A20 occurred on 18 August 2020 at 07:29 on level crossing of category C located on route Nisko - Rudnik nad Sanem, track no 1, at km 119,080 of railway line no 68 Lublin Główny - Przeworsk;
- 6) serious accident of category A21 occurred on 03 September 2020 at 13:50 on level crossing of category D, located on route Przybówka - Jasło Towarowa, track no. 1, at km 55,924 of railway line no. 106 Rzeszów Główny - Jasło;
- 7) serious accident of category A20 occurred on 21 October 2020 at 12:52 on level crossing of category C located on route Rokiciny - Baby, track no. 2, at km 120.779 of railway line no. 1 Warszawa Zachodnia - Katowice;
- 8) Incident of category C57 occurring on 16 October 2019 at 13:54 at Leszczyny station, at control station "Lsz" at km 31.738 of railway line no. 140 Katowice Ligota - Nędza.

The state of proceedings in the Commission's investigations was as follows:

- the proceedings listed under items 1 to 7 were completed by the Commission's Investigation Teams and the "Reports" on the proceedings were adopted by resolutions of the Commission and published,
- proceeding mentioned in item 8 due to importance and safety impact relating to the system as a whole and at the request of the chairman of the railway committee taken over by the State Commission on Railway Accidents Investigation - is at the final stage of the analysis of project documentation and expert opinions and studies.

Detailed information on the proceedings concerning these events is presented later in this report.

2. *Direct participation of member of the Commission in examination of site in the presence of railway commission* - was used mainly in case of events where it was suspected that poorly operating system of railway traffic safety management system contributed to the occurrence of an event and it required analysis and possible corrective actions or there were other indications that it was necessary to undertake proceedings - according to article 28e, (2a) and (3) of the Railway Transport Act. The members prepared notes on the site inspection and submitted them together with conclusions to the President of PKBWK. Decision on undertaking proceedings was made by the Commission's Chairman.
3. The Commission cooperated with the relevant bodies involved in the investigation of serious accidents, incidents, and accidents in other Member States of the European Union, including with Drážní Inspekce (the equivalent of PKBWK in the Czech Republic).
4. The Commission monitored reported railway incidents and maintained the Railway Event Register (EwZd).
5. In 2020, there were joint inspections of the occurring railway incidents carried out by members of the Commission and railway commissions, among others combined with conducting measurements and research and analysis of documentation related to the incidents.

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

- Cooperation - between authorities acting in parallel and independently with mutual respect of competences in relation to the occurrence of a railway incident, based on the "Agreement of 27 June 2014 concluded between the State Commission on Railway Accidents Investigation and the General Prosecutor". The Agreement also applies to cooperation with the Police, ABW, Military Police and Border Guard (as defined by the authority conducting criminal proceedings - in § 1

point 5 of the Agreement). All provisions referring to the rights of PKBWK are also applicable to the railway commission.

The content of this Agreement and other above-mentioned documents are available on www.gov.pl tab: *Ministry of Internal Affairs and Administration* → *What we do* → *State Commission on Railway Accidents Investigation*: → *Legal acts and documents*

<https://www.gov.pl/web/mswia/panstwowa-komisja-badania-wypadkow-kolejowych>

- Agreement of 16 December 2014 between the Chief Commander of the Police and the State Commission on Railway Accidents Investigation concluded to determine the principles of cooperation in the field of mutual support of activities undertaken on the level of organized and conducted by them undertakings of a training nature.
- Agreement of 3 June 2016 between the Chairman of the State Commission on Railway Accidents Investigation and the President of the Office of Rail Transport on cooperation in the field of safety in railway transport of the Republic of Poland. The aim of the concluded Agreement is joint activities of the parties for development and ensuring safety in railway transport and exchange of information and experience in the field of work of railway commissions.
- Within the framework of exchange of experience and improvement of quality of system of investigation of incidents and improvement of safety in railway transport, the Commission organizes trainings for the Prosecutor's Office and the Police. Members of the Commission participate in trainings, conferences, meetings, plenary sessions, working groups, workshops, meetings organised by the European Union Railway Agency and bodies investigating serious accidents, incidents, and accidents in other Member States of the European Union.

3. Events investigated between 1 January and 31 December 2020

3.1 Events notified by obliged entities to the Commission

As of 31 December 2020, the obligation to immediately report serious accidents, accidents, and incidents on railway lines to the Commission and the President of UTK by infrastructure managers, railway undertakings and users of railway sidings resulted from Article 28g (1) of the Railway Transport Act. Whereas the obligation of written notification of the event by the infrastructure manager or railway siding user competent for the place of the event resulted from § 7 (1)-(5) of the Regulation of the Minister of Infrastructure and Construction of 16 March 2016 on serious accidents, accidents, and incidents in railway transport. National regulations define the division of railway incidents in railway transport into the following categories:

- 1) **serious accident - any accident caused by** collision, derailment or any other event with an obvious impact on railway safety regulation or the management of safety: with at least **one fatality or at least five seriously injured persons** (seriously injured - a person, who as a result of a serious accident or an accident sustained an impairment of a bodily function or a disorder of health and as a result stayed in hospital for more than 24 hours), or causing significant damage to a railway vehicle, railway infrastructure or the environment, which can be immediately estimated by the committee investigating the accident at at least EUR 2 million;
- 2) **accident** - unintended, sudden event or sequence of events involving railway vehicle causing negative consequences for human health, property or environment; accidents include in particular: collisions, derailments, incidents on level crossings, incidents with persons caused by railway vehicle in motion or fire of railway vehicle;
- 3) **incident** - any occurrence, other than an accident or a serious accident, associated **with railway traffic** and affecting its safety.

The above-mentioned definitions of categories of events (serious accident, accident, and incident) have been defined according to the provisions of the Railway Transport Act.

In the period from 1 January to 31 December 2020, a total of 1757 railway incidents were reported to the Commission and registered in the Register of Railway Events (EwZd) system according to the qualification resulting from the Regulation of the Minister of Infrastructure and Construction of 16 March 2016 on serious accidents, accidents and incidents in railway transport, of which: 6 serious accidents, 502 accidents and 1249 incidents.

The number and structure of incidents by category are shown in Tables 1 and 3 below.

Table 2 shows the number of casualties (killed, seriously injured and injured) in incidents in 2020 compared to 2019.

Table 1: Events reported to the Commission in 2020 compared to 2019.

Type of event (PW - major incident, W - accident, I - incident)	2019	2020	Change 2020/2019
PW (cat. A)	4	6	+50,0%
W (cat. B)	632	502	-20,6 %
I (cat. C)	1261	1249	-1,0 %
Total number of railway events	1897	1757	-7,4 %

Table 2 Injured in incidents in 2020 compared to 2019.

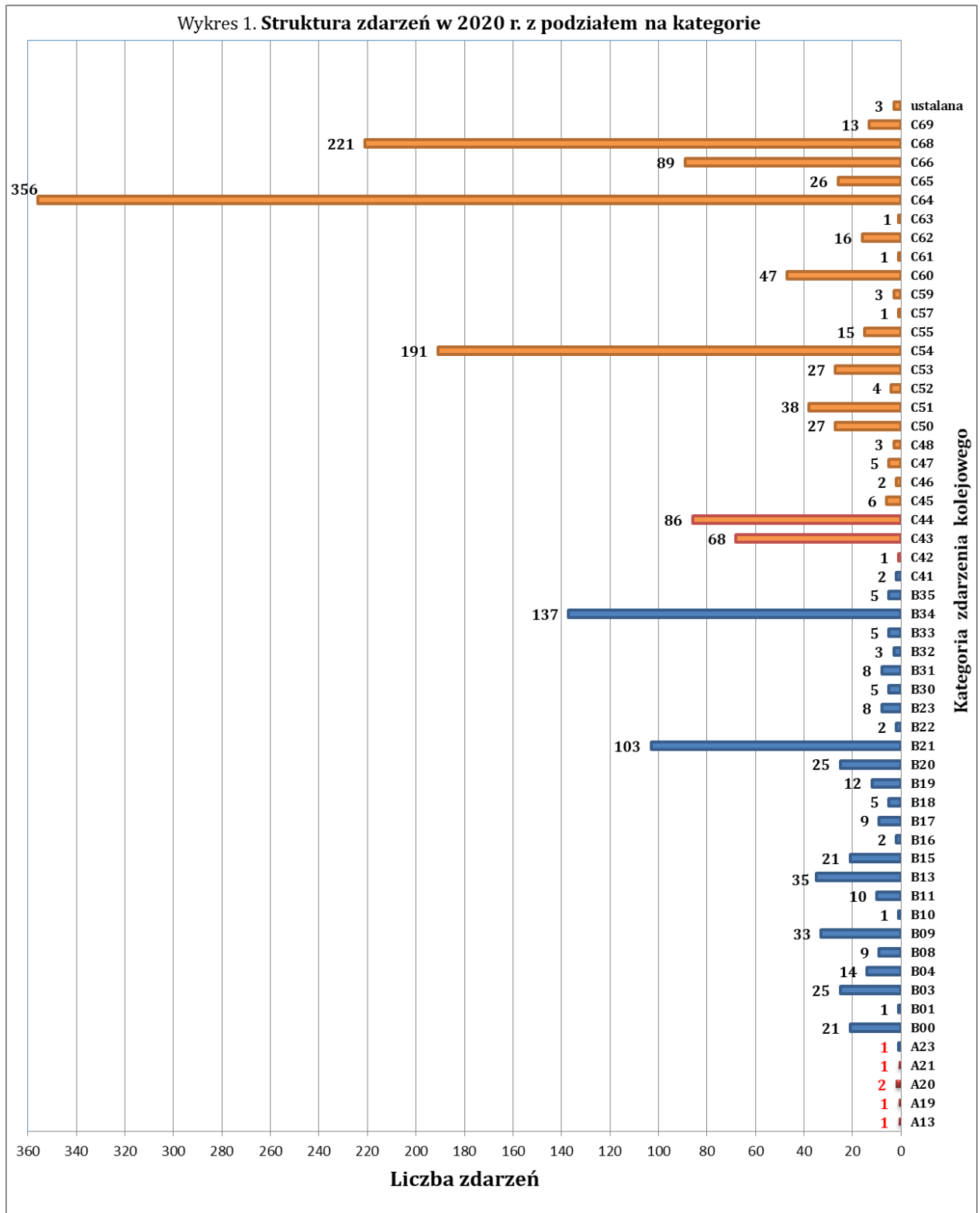
Injured	2019	2020	Change 2020/2019
Killed	160*)	150*)	-6,3%
Severely injured	49**)	45**)	-8,2%
Injured	99**)	74**)	-25,3%

*) The total number of fatalities (including railroad sidings) according to information provided as of the date of the Report (i.e., August 26, 2021), does not include victims classified as suicides or suicide attempts in prosecutor decisions.

***) Statistics (figures) shown based on the Commission Reports and Final Findings Protocols prepared by the Railway Commissions and submitted to PKBWK.

Table 3 - Structure of incidents in 2020 compared to 2019 by category

Category of incident (letter marking)	Description of incident category Qualification of direct cause	Category (numerical marking)	TOTAL 2019	TOTAL 2020	
A	Railroad vehicle running into a railroad vehicle or other obstacle (e.g. brake skid, baggage cart, mail cart)	13	-	1	
	Collision of railway vehicle with road vehicle (other road vehicle, agricultural machinery) or vice versa on railway-road crossing equipped with automatic crossing system with traffic lights and barriers (cat. B)	19	1	1	
	Collision of railway vehicle with road vehicle (other road vehicle, agricultural machinery) or vice versa on railway-road crossing equipped with automatic crossing system with traffic lights and without barriers (cat. C)	20	1	2	
	Collision of railway vehicle with road vehicle (other road vehicle, agricultural machinery) or vice versa on railway-road crossing not equipped with crossing system (cat D)	21	1	1	
	Railway vehicle collision with a road vehicle (other road vehicle, agricultural machinery) or vice versa outside level crossings at stations and routes or on the communication and access track to the siding	23	-	1	
	Passenger incidents linked to the movement of the railway vehicle (jumping, falling from the train, railway vehicle, strong approach, or sudden braking of the railway vehicle)	35	1	-	
SUM OF SERIOUS ACCIDENTS			4	6	
B	Causes other than those listed below, or the overlap of several causes at the same time, creating equivalent causes	00	13	21	
	Running a railway vehicle on an occupied, closed or running opposite to the main track or in the wrong direction	01	0	1	
	Acceptance of a railway vehicle into a station on a closed or occupied track	02	0	0	
	Running, adopting, or driving a railway vehicle on an incorrectly laid unprotected route or incorrect operation of traffic control equipment	03	30	25	
	Failure of a railway vehicle to stop before a signal "Stop" or in a place where it should stop, or starting of a railway vehicle without required authorisation	04	28	14	
	Failure to observe caution after a railway vehicle has passed an automatic semaphore signalled 'Stop' or a doubtful signal after coming to a halt	05	0	0	
	Exceeding the maximum speed limit	06	1	0	
	Carrying out a manoeuvre that endangers the safety of train movements	07	1	0	
	Runaway railway vehicle	08	4	9	
	Damage to or poor maintenance of a structure, e.g., pavement, bridge or viaduct, including improper execution of works, e.g., improper unloading of materials, pavement, leaving materials and equipment (including road machinery) on the track or in the gauge of a railway vehicle or running over elements of the structure by a railway vehicle	09	52	33	
	Damage to or poor technical condition of powered railway vehicle, special-purpose vehicle (including running over an object which is a structural part of powered railway vehicle, special-purpose vehicle) and damage to or malfunction of the on-board part of the ERTMS equipment	10	6	1	
	Damage or poor technical condition of the wagon (including running over a structural part of the wagon)	11	26	10	
	Failure or malfunction of signalling equipment	12	1	0	
	Railroad vehicle running into a railroad vehicle or other obstacle (e.g., brake skid, baggage cart, mail cart)	13	49	35	
	Criminal assassination	14	0	0	
	Premature termination of the route or override and crossing of a switch under a railway vehicle	15	14	21	
	Incorrect composition of train or shunting formation	16	1	2	
	Incorrect loading, unloading, deficiencies in load securing or other deficiencies in loading operations or incorrect assembly of the train or the shunting yard	17	17	9	
	Injury of a railway vehicle on a road vehicle (other road vehicle, agricultural machinery) or vice versa on a rail-road crossing with turnpikes (category A according to the crossing certificate)	18	9	5	
	Collision of railway vehicle with road vehicle (other road vehicle, agricultural machinery) or vice versa on railway-road crossing equipped with automatic crossing system with traffic lights and barriers (cat. B)	19	13	12	
	Collision of railway vehicle with road vehicle (other road vehicle, agricultural machinery) or vice versa on railway-road crossing equipped with automatic crossing system with traffic lights and without barriers (cat. C)	20	26	25	
	Collision of railway vehicle with road vehicle (other road vehicle, agricultural machinery) or vice versa on railway-road crossing not equipped with crossing system (cat D)	21	130	103	
	Collision of a railway vehicle with a road vehicle (other road vehicle, agricultural machinery) or vice versa at a level crossing for private use (cat. F)	22	1	2	
	Railway vehicle collision with a road vehicle (other road vehicle, agricultural machinery) or vice versa outside level crossings at stations and routes or on the communication and access track to the siding	23	10	8	
	Fire in a train, marshalling yard or railway vehicle	24	1	0	
	Fire in a structure, etc., within the boundaries of the railroad area, forest fire within the boundaries to the end of the fire lane, grain, grass, and track fires occurring within the boundaries of the railroad area	26	0	0	
	Explosion on train, shunting yard or railway vehicle	27	0	0	
	Natural disasters (e.g., floods, snowdrifts, ice jams, hurricanes, landslides)	28	0	0	
	Construction disasters in the immediate vicinity of railway tracks carrying normal train traffic	29	0	0	
	Malicious, hooligan or reckless misconduct (e.g., throwing stones at a train, stealing cargo from a train or shunting yard in motion, placing an obstacle in the track, vandalising power, communication, control-command and signalling equipment or the track surface and interfering with such equipment)	30	9	5	
	Running of a railway vehicle over persons when crossing the track at level crossing or level crossing	31	12	8	
	Collision of railway vehicle on persons when crossing tracks on railway-road crossing with automatic crossing system (cat. B, C)	32	5	3	
	Railway vehicle impacting on persons while crossing the tracks at other level crossings and level crossings	33	10	5	
	Railway vehicle collision with persons when crossing tracks outside level crossings or level crossings in stations and routes	34	141	137	
	Passenger incidents linked to the movement of the railway vehicle (jumping, falling from the train, railway vehicle, strong approach, or sudden braking of the railway vehicle)	35	19	5	
	Disregard by the driver of a road vehicle of signals prohibiting entry onto a level crossing and damage to a barrier or traffic lights	36	0	0	
	Train or marshalling yard break-up resulting in runaway cars	37	0	0	
	Incorrect operation of structures and equipment intended for railway traffic or of railway vehicles caused by theft	38	0	0	
	Running of a railway vehicle using traction energy supply from the overhead contact line on an unoccupied, non-electrified track	39	0	0	
	Uncontrolled release of dangerous goods from a wagon or package requiring the intervention of authorities or measures to deal with fire, chemical, biological hazards at a station or on a route	40	0	0	
	Undetermined category	-	3	3	
	SUM OF INCIDENTS			632	502
	C	Running a railway vehicle on an occupied, closed or running opposite to the main track or in the wrong direction	41	4	2
		Acceptance of a railway vehicle into a station on a closed or occupied track	42	3	1
		Running, receiving or driving a railway vehicle on an improperly paved, unsecured route, or improper operation or failure to operate traffic control equipment	43	92	68
		Failure of a railway vehicle to stop before a signal "Stop" or in a place where it should stop, or starting of a railway vehicle without required authorisation	44	83	86
		Exceeding the maximum speed limit	45	6	6
Carrying out a manoeuvre that endangers the safety of train movements		46	2	2	
Runaway railway vehicle		47	5	5	
Premature termination of the route or override and crossing of a switch under a railway vehicle		48	3	3	
Incorrect train composition		49	0	0	
Improper loading, unloading, incorrect load securing or other irregularities in cargo operations		50	17	27	
Damage to the surface, bridge or viaduct, catenary network, also improper execution of works, e.g., improper unloading of materials, leaving materials and equipment (including road machinery) on the track or in the gauge of a railway vehicle		51	49	38	
Incorrect operation of railway traffic control devices resulting in - not covering with "Stop" signal the interval of line blocking, occupied by railway vehicle, - setting signal on semaphore with incorrect route, incorrect operation of track or turnout unoccupied devices, incorrect operation of station or line blocking devices, - not warning and not protecting road users against train approaching railway-road crossing or crossing equipped with crossing system		52	2	4	
Damage or bad technical condition of a powered railway vehicle, a special-purpose vehicle making it necessary to put it out of service as a result of indications provided by the rolling stock malfunction detection devices, confirmed in workshop conditions (hot axle box, hot brake resulting in a displaced rim), as well as other defects of railway vehicles in service noticed by the operating staff (e.g. broken spring)		53	31	27	
Damage or bad technical condition of a wagon causing the necessity of its exclusion from traffic because of indications by the rolling stock fault detection devices, confirmed in workshop conditions (hot axleboxes, hot brake resulting in a displaced rim), as well as other defects in railway vehicles in motion noticed by the operating staff		54	229	191	
Fire in the train or in the railway vehicle not causing adverse effects to property or environment, without injuries		55	21	15	
Fire in a railway vehicle, excluding fires in trains		56	0	0	
Fire in a structure and vegetation in the immediate vicinity of railway tracks carrying normal rail traffic		57	3	1	
Uncontrolled release of dangerous goods from a wagon or package requiring the intervention of authorities or measures to deal with fire, chemical, biological hazards at a station or on a route		58	0	0	
Uncontrolled release of dangerous goods from a wagon or package requiring the intervention of authorities or measures to deal with fire, chemical, biological hazards at a station or on a route		59	1	3	
Railroad vehicle running into an obstacle (e.g., brake skid, baggage cart, mail cart, etc.) without derailment or casualties		60	45	47	
Criminal assassination		61	0	1	
Natural disasters (e.g. floods, snowdrifts, ice jams, hurricanes, landslides)		62	19	16	
Construction disasters in the immediate vicinity of railway tracks carrying normal train traffic		63	0	1	
Malicious, hooligan or reckless mischief (e.g., throwing stones at a train, stealing cargo from a train or shunting yard in motion, placing an obstacle in the track, vandalising power, communication, control-command and signalling installations or the surface and interfering with these installations), without victim or adverse consequences for property or the environment, endangering passengers, or staff of the train		64	255	356	
Passenger incidents involving rail vehicle movements (crossing tracks at level crossings and level crossings or off-ramps, jumping, falling from trains or rail vehicles, being struck by rolling stock in motion, heavy approaching, or sudden braking of rail vehicles), without victims or adverse consequences for property or the environment		65	25	26	
Failure of a road vehicle to stop in front of a closed turnpike (semi turnpike) and damage to it or to traffic lights on which signals are activated to warn of an approaching train, without collision with a railway vehicle		66	82	89	
Malfunction of railway traffic facilities or vehicles due to theft		67	0	0	
Train or marshalling yard breaking up without wagons running away		68	261	221	
Causes other than those listed above or the overlapping of several causes at the same time, creating equivalent causes		69	23	13	
SUM OF INCIDENTS			1261	1249	
SUM OF EVENTS			1897	1757	



The chart contains 3 railway incidents occurring in 2020 for which a category has not been established until 26 August 2021. - under the heading of category 'established'.

3.2 Events directly investigated by the Commission notified to the European Union Agency for Railways (EUAR)

3.2.1 Serious accident of A23 category occurred on 11 January 2020 at 04:35 on route Szamotuły - Pęckowo, track no. 1, km 34.102 of railway line no. 351 Poznań Główny - Szczecin Główny

On 11.01.2020 there were performed works connected with modernization of the railway line no. 351 Poznań Główny - Szczecin Główny, on route Szamotuły - Pęckowo. At kilometer 34.102, ZRI Chrobok performed sheet piling works as a subcontractor of Budimex S.A. From 00:01a.m. track no. 1 was closed according to the notice on track closure order no. 71 IZES5-7011-09/20 of 09.01.2020 for the disassembly of the overhead contact line and installation of supporting structures. This order did not apply to works on the Szamotuły-Pęckowo route involving embedding steel sheet piles (sheet piling walls) and driving pile foundations for catenary network posts. Due to the modernization of line no. 351, track no. 2 on this route was disassembled. The work site for steel sheet piling at kilometer 34.102 was illuminated by floodlights mounted on a mast and powered by a diesel engine-driven generator. At 00:15a.m. a working train Rob1 of PKP Energetyka S.A. was set out from the Szamotuły station onto closed track no. 1. Zakład Robót Energetycznych in Słotwiny, which was also a subcontractor of Budimex S.A. The train crew for the work train was provided by the rail carrier TKol Sp. z o.o. providing services for PKP Energetyka S.A. Zakład Robót Energetycznych w Słotwinie. The work train Rob1 was moved to kilometer 41.815. After the work train finished placing piles for the catenary line poles, at approx. 04:20a.m. Rob1-pushed train set off in the direction of Szamotuły station, driving on track no. 1. At that time, in the place of disassembled track no. 2, at kilometer 34.102, activities connected with the completion of steel sheet piling and cleaning of the workplace were carried out by employees of ZRI Chrobok. In the course of these works, while moving the ZRI Chrobok delivery truck, it got unintentionally immobilized (suspended with its front part) in the gauge of track no. 1 on protruding steel sheet piles. Several attempts to get the car out ended in a failure. In another attempt to get the car out, a crane was used, hooking the sling to the towing hook of the car. While attempting to lift the car, the sling slipped off the hook. A work train was then approaching the scene, already visible to ZRI Chrobok employees, for whom the movement of the approaching train was a surprise. Upon noticing the approaching train, an attempt was made to stop it by means of manual daylight signals "STOP" given by an employee of PKP Energetyka and an employee of Budimex, which, however, did not bring the expected result. The injured employee of ZRI Chrobok got out of the cab and went to the right side of the car to free the car by entering between the blocked car and track no. 1. At that moment a train pushed forward by cars hit the right side of the first car of the above-mentioned worker and then collided with the car. On the car in the container was the train manager's forward observation post. According to the train manager's explanation, he was in the designated observation position and did not notice the incident. Only the driver of the locomotive, after hearing an impact from the right side, implemented the braking of the train and passed a message to the train manager claiming that "we hooked something". The locomotive was the fifth vehicle on the pushed train. The front of the working train stopped at a distance of 125 m behind the place of the incident. However, the cab of the driver who responded to the incident was 55 m behind the place of event. As a result of the incident, an employee of ZRI Chrobok died on the spot.

As a result of the decision of the Chairman of the PKBWK to take over the proceedings by the Investigation Team, taking into account the provisions of Article 28e (4) of the Railway Transport Act, the Commission on 26 March 2020 notified the European Union Railway Agency ("EUAR") to

take over the conduct of the proceedings through the information system "ERAIL" and the above event was registered in the ERAIL database under the number **PL-6168**.

From this proceeding, the Commission issued Report No. PKBWK/09/2020, in which the Commission's Investigation Team recommended implementation of the following actions:

1. The infrastructure manager PKP PLK S.A. will enforce the participation of contractors, subcontractors and other interested parties in regulatory committees preparing temporary traffic management rules and regulations during works execution, as well as in coordination meetings related to the construction process.
2. The infrastructure manager PKP PLK S.A. will oblige contractors and subcontractors of works to give detailed information specifying the scope of executed works (phase, stage, etc.) with indication of their location in the request for track closures submitted to the Infrastructure Manager.
3. The infrastructure manager PKP PLK S.A. will strictly observe the content of Ir-19 Instruction concerning issuing "notification on track/track closure order" addressed to all concerned.
4. The infrastructure manager PKP PLK S.A. will enforce making detailed records about works (kilometers of works, phase, stage, etc.) in Switch Inspection Logbook (D-831).
5. The carrier TKol Sp. z o.o. shall implement mechanisms for checking the competence of employees in order to prevent the appointment of employees to perform activities without proper qualifications and enforce the correct implementation of procedures within the SMS, especially Procedure P-12.
6. The carriers: TKol Sp. z o.o. and PKP Energetyka S.A. and the infrastructure manager PKP PLK S.A. will undertake actions to eliminate other irregularities not related to the causes of a serious accident but revealed during the investigation of the causes of a serious accident.
7. The owner of railway vehicle SM42-9288 PKP Energetyka S.A. will carry out the order of Office of Rail Transport President regarding installation of digital cameras or video recorders in railway vehicles.
8. PKP Energetyka S.A. the owner of technical and utility wagon type 3Z; year of construction 1949, serial no. - 0689, possessing railway vehicle identifier no. EVN PL-PKPE 99 51 9530 165-1, will carry out an inspection of appropriate level and will issue a new technical efficiency certificate after fulfilling all necessary requirements.
9. PKP Energetyka S.A. the owner of motive power unit SM42-9288 will take action to use in PIAP recorders all available signals including recording of acoustic signal "Alert".

3.2.2 Accident category B21 occurred on 17 February 2020 at 19:34 on level crossing category D, located on route Czerwonak Bolechowo, track no 1, at km 7.765 of railway line no 356 Poznań Wschód - Bydgoszcz Główna

On 17.02.2020 during train journey of passenger train 77486/7 Wągrowiec - Poznań Główny of the carrier Koleje Wielkopolskie Sp. z o.o. operated by diesel train VT628.4-659 series on track no 1, on route Czerwonak - Bolechowo, railway line no 356 at level crossing cat. "D" at km 7.765 there was an impact of a road vehicle i.e., MAN truck with trailer in front of the oncoming train, As a result, there was a collision between the rail and road vehicles. Passenger train No. 77486/7 had its last scheduled stop at Owińska passenger stop. At 19:31:44 (on the basis of ATM recorder's

records), the train departed from the above-mentioned stop and was driven according to the timetable. After passing indicator W6a at km 8,520 referring to level crossing category "D" at km 7,765 of railway line no. 356 the driver of train no. 77486/7 gave the Rp1 signal "Alert". Approaching the crossing, when the train was at about 200 metres from the crossing, the driver noticed that a lorry was entering the level crossing and at that moment he gave the "Alert" signal again.

At about 150 metres from the crossing, the driver gave the "Alert" signal again and implemented emergency braking. He quickly left the cab of the diesel multiple unit and warned the passengers about the imminent danger, and grabbed the railing himself. The analysis of the recording made by the trail camera in the railway vehicle shows that the driver of the truck did not stop before the level crossing, as he was obliged to do by the B-20 "STO" sign and the P-12 line, placed 5 m from the crossing, and he entered the crossing directly in front of the oncoming passenger train No. 77486/7. Then, the train, travelling at a speed of approx. 95 km/h, hit the trailer of the truck. As a result of the impact, the car was thrown to the right side of the crossing (looking from the direction of the train), and the trailer to the left side. Additionally, the train impact with the car caused the derailment of the diesel multiple unit with the second wheelset to the right side in the direction of travel. The front end of the damaged MAN truck was located after the accident on the right side of the crossing at about 15 meters from the axis of the crossing in the direction of travel of the train, the car was rotated about 90 degrees. The remains of the destroyed trailer were in several parts on the left side of the crossing at about 10 to 30 meters from its axis in the direction of travel of the train. After the accident the front end of the train stopped at km 7,393 i.e., 372 metres from the crossing axis. The length of the train braking distance from the moment the driver applied emergency braking to the moment of stopping the train was 469 metres. As a result of the collision of the 77486/7 train with the road vehicle, no passengers, railway workers or crossing users were injured. However, as a result of the incident there were significant material losses, including: damage to a truck and complete destruction of its trailer, damage to a diesel traction vehicle of VT628-659 series, damage to the railway infrastructure, including in particular the railway surface from the crossing to the place where the train head stopped, two CBP crossing slabs and damage to the surface on the approach to the crossing on the left side of the crossing.

As a result of the decision of the Chairman of the PKBWK to take over the investigation by the Investigation Team, considering the provisions of Article 28e (4) of the Railway Transport Law, the Commission on 28 February 2020 reported this fact to the European Union Railway Agency ("EUAR") through the information system "ERAIL" and the above event was registered in the ERAIL database under the number **PL-6208**.

From this proceeding, the Commission issued Report No. PKBWK/07/2020, in which the Commission's Investigation Team recommended the implementation of the following actions:

1. Road administrator - Czerwonek Municipality in consultation with railway infrastructure manager PKP Polskie Linie Kolejowe S.A. will undertake actions to develop a concept of building a public road along the railway line (on its left side) that would channel the traffic from cat D crossings at km 7.018, 7.483 and 7.765 to one crossing of a higher category.
2. Road Manager Urząd Gminy Czerwonek will establish appropriate actions to ensure immediate removal of irregularities reported by infrastructure manager PKP Polskie Linie Kolejowe S.A. resulting from inspections and diagnostic tests of railway-road crossings.

3. Infrastructure manager PKP Polskie Linie Kolejowe S.A. will include each check as an obligatory element of the scope of control and diagnostic tests of level crossings:
 - a) compatibility of the inclination of the access road alignment with the applicable regulations and the travel metric,
 - b) visibility of the crossing from the access roads,
 - c) check that the journey log is up to date.If irregularities are found, appropriate corrective action should be taken.
4. Infrastructure manager PKP Polskie Linie Kolejowe S.A. will undertake actions aimed at improving the quality of final acceptance of investment tasks, including ensuring that technical parameters of received road-rail crossings are compliant with applicable regulations.
5. Infrastructure manager PKP Polskie Linie Kolejowe S.A. within Safety Management System (SMS) will undertake activities aimed at
 - a) improving the effectiveness of the monitoring and analysis of information on safety risks resulting from requests made by carriers and users of level crossings and from incidents investigated in accordance with the procedure,
 - b) improvement of effectiveness of SMS procedures implementation: PW-01 and PD-05,
 - c) Addition to the 'hazard register' of 'failure to meet the visibility conditions of the level crossing from the access road'.
6. The owner of railway vehicle VT628, i.e., Arriva RP carrier, will implement recommendation No. 4 included in point VI of Report No. PKBWK/01/2019 adopted by the Commission with a resolution on 26 March 2019, i.e., will check the installed image recording systems in front of traction vehicles for correctness and continuity of image recording without delays in case of using buffer recording. In the case of systems with delayed image recording, the carrier will make modifications to the power systems to ensure continuity of recording even in the event of loss of external power.
7. PKP S.A. Real Estate Management Branch in Poznań shall undertake actions aiming at removing the car stopping place on the right side of the crossing located on the left side of access road to the crossing looking from the side of provincial road (land plot no. 9/3) due to the fact that the vehicles stopping there limit the visibility of the front of the trains approaching the crossing and the visibility from the right side of the track for the drivers of the trains approaching the railway-road crossing towards Wągrowiec station.
8. Railway infrastructure managers will send information to managers of roads accessing railway and road crossings about irregularities identified, including in marking and organisation of road traffic, and request information about their removal.

3.2.3 Serious accident of A13 category occurred on 9 March 2020 at 04:15 at Szymankowo station, track no. 2, km 287.360 of railway line no. 9 Warszawa Wschodnia Osobowa - Gdańsk Główny

On 08.03.2020 at 22:15, in accordance with the provisions of the Rules for Temporary Traffic Management during the Execution of Works No. 35/2020 dated 06.02.2020 and the notice of the order of track closure dated 06.03.2020, the LCS Tczew station traffic officer (Local Control Centre) closed the track no. 2 from Tczew station to Szymankowo station. The track was closed to carry out

the works - grinding of rails by a specialist train SPENO. For the time of the works the "Sz" post of the Szymankowo station was manned locally and train traffic between the Tczew and Szymankowo stations was carried out on one-track bidirectional on track no. 1. From the Szymankowo station to the closed track no. 2 a working train Rob.3 (a specialist train for grinding the rails - SPENO) was sent, whose work consisted in grinding the rails. The employees of the infrastructure manager disassembled the track-side equipment and then assembled it again after the train Rob.3 had passed. About 02:20 a.m. a motored carriage WMB10-182 was launched from the Tczew station to the closed track no. 2 of the Tczew - Szymankowo route for technical support of the installation of the track-side equipment. After finishing the work of grinding the rails the working train Rob.3 received the permission to enter the Szymankowo station from the closed track no. 2. The train together with the train driver (the function of the train driver was fulfilled by the trackmaster) and the stationmaster coordinating the track works entered the station track no. 4 about 04:00, and the engine car WMB10-182 (train Rob.1) stayed on the track. The trackmaster, after leaving the working train Rob.3, contacted the traffic officer of Szymankowo station by means of mobile phone to discuss the method of restoring the efficiency of the track sections after the rail grinding work (zeroing the unoccupied track sections). Performing the zeroing of the track gauge control on the Szymankowo - Tczew route required the route to be free of any railway vehicles. During the conversation the trackmaster discussed the descent of the motive power unit WMB10-182 (the working train Rob.1) from the closed track no. 2. From the interviews with the traffic officer of the Szymankowo station and the trackmaster it results that they agreed that the motive power unit WMB10-182 should bypass the entry semaphore "P" giving the signal S1 - "Stop" and get to the shunting disc Tm12. The trackmaster, walking towards the engine car WMB10-182 standing in front of the "P" entry semaphore, made a phone call to the engine driver of that car and informed him about the arrangements with the traffic officer of the Szymankowo station. During those talks the LTE train 555122 (a loose locomotive), travelling on track 1 from Tczew station, was approaching Szymankowo station. The traffic officer of the Szymankowo station prepared the entry for that train from the track no. 1 to the station track no. 2. One of the elements of the route for the LTE 555122 train was turnout no. 26. After about two minutes the motive car WMB10-182 (work train Rob.1) without the required clearance was started bypassing the entry semaphore "P" transmitting signal S1 "Stop" and the shunting disc Tm12 indicating signal Ms1- "shunting prohibited" and stopped at the junction No. 26 because the switch of the junction was moved to the reverse direction and not in accordance with its direction of movement from the spur for the direction straight ahead. The LTE 555122 train continued its journey and after passing the 'O' entry semaphore giving the signal 'S6 - clear way, proceeding at a speed not exceeding 100 km/h...' it drove on the track connecting track No. 1 with track No. 2 and hit, at a speed of 76.7 km/h, the WMB10-182 motorized bogie standing in the running way at turnout No. 26. After the impact the motive power unit WMB10-182 was pushed on the distance of 224 meters and stopped on the level of the catenary structure (the gate in the loco 287-5). As a result of the incident, two people in the WMB10-182 motorized trolley, which was completely destroyed, died on the spot.

As a result of the decision of the Chairman of the PKBWK to take over the investigation by the Investigation Team, considering the provisions of Article 28e(4) of the Railway Law, the Commission on 26 March 2020 reported this fact to the European Union Railway Agency ("EUAR") through the information system "ERAIL" and the above event was registered in the ERAIL database under the number **PL- 6227**.

From this proceeding, the Commission issued Report No. PBKWK 01/2021, in which the Commission's Investigation team recommended implementation of the following actions:

1. Infrastructure Manager of PKP PLK S.A., in accordance with the Safety Management System (SMS) in force, will assess and evaluate the risk in relation to the threats identified in this Report, which contributed to the occurrence or constituted other irregularities connected with the examined event. The Infrastructure Manager shall also take appropriate measures to mitigate the risk of occurrence of the said hazards.
2. Infrastructure manager PKP PLK S.A. will complete the risk register with the following risk "use of mobile phones for giving orders related to railway traffic operation instead of means permitted by internal regulations" and will assess and estimate this risk and will take appropriate measures to limit the risk of occurrence of this risk.
3. It is imperative that the infrastructure manager PKP PLK S.A. implements the recommendation included in the Annual Report on the activities of PKBWK for 2013, which reads:
"The number of internal controls from the scope should be reviewed:
 - a) *an obligation to listen in periodically (in accordance with internal instructions) to conversations carried out using communications and radio communications,*
 - b) *correctness of entries in the technical and operating documentation kept at traffic stations, including in traffic logbooks, especially in terms of legibility and timeliness,*
 - c) *types and frequency of recurrence of failures of the control-command and signalling equipment and legibility'.*
4. Infrastructure manager PKP PLK S.A. in training programme will include principles connected with entering, leaving and passage of train based on § 61 of Ir-1 Instruction and with organization of transport process work by train dispatcher, giving orders, issuing authorizations and with communication with driver and with driver of work train (§ 23 Ir-1 Instruction).
5. Infrastructure manager PKP PLK S.A. and carrier HSL Polska Sp. z o.o. will undertake actions aimed at eliminating other irregularities, not having causal link, and included in this Report in point IV.6.
6. Infrastructure manager PKP PLK S.A. will implement effective ban on using mobile phones during official duties related to railway traffic operation, shunting works, trains connected with closures - according to the order of Vice President of UTK from 30.05.2012 included in letter no. DKKBK-550/R-03/KB/2012.
7. Infrastructure manager PKP PLK S.A. enforces obligation of signalling the closed track with "D1" disc according to § 53 rec. 6 of Ir-1 Instruction together with application of auxiliary means (warning plates) according to § 50 of Ir-1 Instruction.

3.2.4 Serious accident of A19 category occurred on 29 April 2020 at 17:32 on level crossing of B category, located on route Bolechowo - Murowana Goślina, track no. 1, at km 15.753 of railway line no. 356 Poznań Wschód - Bydgoszcz Główna

On 29.04.2020 during train run no 77472/3 (RZEPICHA) from Gołańcz to Wolsztyn of the carrier Koleje Wielkopolskie Sp. z o.o. operated by rail bus series SA132-012 on level crossing cat. "It

entered directly in front of the train, avoiding standing cars on the left lane and the tollgate closing the entrance to the railway-road crossing. Passenger train No. 77472/3 (RZEPICHA) had its last scheduled stop at the passenger stop Zielone Wzgórze at 17:29. After departing from that stop, at a scheduled speed, it was approaching a railway-road crossing at kilometer 15.753. When the train passed the curve of the railway line, the driver saw standing cars in front of the railway-road crossing. Approximately 100 meters away from the crossing, the driver noticed on the right side, looking in the direction of the train, that a truck was approaching the rail-road crossing at high speed. He activated the emergency braking of the train, then ran out of the rail bus cab to the passenger compartment and warned the passengers about the imminent danger. At that moment the train at a speed, according to the recorder, of 96 km/h hit the left side of the MAN truck semi-trailer. As a result of the train hitting the car, it was jammed and pushed by the train for 65 meters until it stopped at km 15.688. The impact caused the derailment of the rail bus with the first bogie on the left side in the direction of travel and the middle bogie on the right side. The impacted truck was rotated 90 degrees relative to the direction of travel and positioned along the track such that its cab was facing the rear of the train. Fragments of the semi-trailer were in the damaged train cab and under the train's spur. After the accident the front end of the train stopped at km 15,688 i.e., 65 metres from the centre line of the crossing. The braking distance of the train from the moment of impact to the moment of stopping was 65 metres. As a result of the collision of the train no. 77472/3 (RZEPICHA) with the road vehicle 16 people were injured (11 passengers, 3 railway workers and 2 persons of the MAN truck). There were material losses, including: total destruction of a lorry with a semi-trailer, broken down diesel motive power unit series SA132-012, damage to the railway infrastructure, in particular to the track surface starting from the crossing to the place where the train head stopped.

As a result of the decision of the Chairman of the PKBWK to take over the investigation by the Investigation Team, considering the provisions of Article 28e (4) of the Railway Transport Law, the Commission on 07 May 2020 reported this fact to the European Union Railway Agency ("EUAR") through the information system "ERAIL" and the above event was registered in the ERAIL database under the number **PL-6263**.

From this proceeding, the Commission issued Report No. PKBWK/10/2020, in which the Commission's Investigation team recommended the implementation of the following actions:

1. In the case of improper use of the MAN vehicle, the Commission did not issue recommendations because the Provincial Road Transport Inspector in Poznań, based on the material received from the Prosecutor's Office, initiated administrative proceedings against the owner of the vehicle, of which the Commission was informed by the Chief Road Transport Inspector.
2. Considering the volume of vehicle traffic at the crossing at km 15.753 of railroad line no. 356, which exceeds 400,000, the accidents which have occurred so far and the significant risk of recurrence of such events, to increase the level of safety and road capacity, the road administrator together with the railroad infrastructure manager will consider taking actions to build a viaduct in the course of provincial road no. 196 over the railroad line. Construction of a two-level crossing is favored by the configuration of the terrain, which is unfavorable for access to the railroad-road crossing, especially in winter.

3. The road manager will place a vertical sign A-29 "Traffic lights" on both sides of the crossing and complete the horizontal marking with a line P-14 "conditional stop line".
4. PKP PLK S.A. Zakład Linii Kolejowych (Railway Line Company) in Poznań will install a monitoring system at cat. "B" level crossing located at kilometer 15.753 of railway line no. 356.
5. PKP PLK S.A. Zakład Linii Kolejowych w Poznaniu (Railway Line Company in Poznań) will introduce changes in concluded contracts in the scope of possibility of current access to the records of remote traffic control devices (logs) and their analysis by company employees without necessity of each application to the system supplier for delivering this data.
6. PKP PLK S.A. Department of Railway Lines in Poznań will change software of computer system to eliminate handwritten diagrams of train runs by the LCS Wągrowiec dispatcher and will replace this activity with preparation of diagrams by computer system. Until introduction of computer registration system it is necessary to keep handwritten diagram according to template given in Appendix No. 2 to Instruction Ir-11.

3.2.5 Serious accident of category A20 occurred on 18 August 2020 at 07:29 on level crossing of category C, located on route Nisko - Rudnik nad Sanem, track no 1, at km 119,080 of railway line no 68 Lublin Główny - Przeworsk

On 18 August 2020 during the passenger train journey MPE 26105 "HETMAN" between Lublin Główny and Wrocław Główny of the carrier PKP Intercity S.A., on track no. 1, on the route Nisko - Rudnik nad Sanem of the railway line No. 68 Lublin - Przeworsk at the level crossing cat. C at km 119.080 there occurred an entry of a road vehicle, i.e., MAN truck directly in front of the oncoming train. As a result, the front end of the locomotive hit the right side of the body of the truck carrying sand, in accordance with the task of delivering it from the sand mine in Nisko to the construction site. The passenger train was composed of locomotive EP07-1058 owned by PKP Intercity SA. Western Plant and five passenger coaches. The train was operated by a PKP Intercity S.A. train crew consisting of engine driver, train manager and a conductor. MPE 26105 travelled on track no. 1 on schedule and without any obstacles until km 119.080. Approaching the crossing at km 118.388 at level indicator W6b the driver of this train gave the Rp1 signal "Alert". Then, while continuing to drive, the driver noticed a MAN truck approaching the crossing from his left, moving at a low speed. Then, the driver implemented emergency braking and at 125 m to the crossing he again gave the "Alert" signal. Despite the signals given by the train, the road vehicle with a load of sand continued to enter the crossing without stopping in front of it, despite its obligation to do so. The truck entered the level-road crossing from the side of the track no. 2, and then drove onto the track no. 1 directly in front of the locomotive driving the train MPE 26105. The front end of the locomotive EP07 hit the right side of the truck, i.e., the rear part of the cargo box. At the rail-road crossing at km 119.080 on the right and left side of the access roads to the crossing there are installed two-chamber automatic crossing system (SSP) road signals type SPA-2A and B-20 "Stop" signs ordering to stop. The SSP roadside signaling devices were in the vehicle's path and were triggered by a train approaching the crossing. The signals were switched on more than 30 seconds before the train entered the crossing. The correctness of the operation of the automatic traffic lights devices is confirmed by the counters of the remote-control device installed on the controlling signal box (Nk) at the Nisko station. The correctness of operation is also confirmed by the testimony of a traffic officer of Nisko station and a witness. Immediately after the accident the

railway committee had no possibility to make functional tests of the correctness of the SSP due to the damage. When hitting the road vehicle with the front end of the locomotive the train was driving at 92 km/h, with the regular speed on this track of $V=100$ km/h. The force of the impact and the dead weight of the car with a several-ton load of sand caused the derailment of the locomotive. Locomotive EP07-1058 derailed to the right in the direction of travel of the first bogie with two wheelsets. The locomotive continued in the derailed state until it stopped, damaging the railway infrastructure along the way. After the incident, the front of the train stopped at km 119.305, i.e., 225 metres behind the crossing axis. At the same time, due to the impact with the locomotive, the road vehicle was thrown beyond the gauge of track 1 to the right side, looking in the direction of train travel. The high impact force caused the driver of the truck to be thrown about 15 m to the right side relative to the truck, and his body was laid on the bench of track No. 1 after the accident (i.e., on the left side of the access road from the side of track No. 1). The impact and drag forces acting caused the vehicle to be ejected in the direction of the train. The ejected truck struck a standing traction pole in loco 119.3 with the left side of the rear cargo box. As a result of the impact with the pole, the truck experienced a rotation of 180° and rolled over onto its right side. During the impact and fall the truck overturned the catenary pole, destroyed the apparatus cabinet, the power cabinet, the traffic signal box and caused total damage to these devices. Simultaneously, at the moment of the collision between the rail and road vehicles, the locomotive was seriously damaged. The windscreens of the locomotive were smashed and deep dents and significant deformations of the front part of the vehicle at the level of the driver's stand occurred. The control cab was destroyed, which resulted in jamming of the engine driver behind the control panel. As a result, the driver suffered severe injuries. The cab was partially covered with a large amount of sand from a broken-down truck. Additionally, the first car behind the locomotive no. PL-PKPIC was damaged on the train: 50 51 20-78 776-5 in which the first right door and the front wall on the right side of the car according to the direction of the train were damaged. The damages of the wagon consisted in dents and paint defects. A catenary pole because of the impact force was broken and falling with the equipment on a track no. 1 and on a track no. 2 it caused further damages of the catenary network on the length of about 300 m. The broken catenary caused damage to both pantographs of the derailed locomotive. Moreover, a traffic signal on the left side of the road from the side of track no. 1 was also damaged. Immediately after the occurrence of the incident the train manager notified the traffic officer of the Nisko and Rudnik nad Sanem stations using his official telephone. A traffic officer at the Rudnik nad Sanem station informed the operator of the emergency number 112 about the incident, and a traffic officer at the Nisko station informed the company and line dispatcher of PKP PLK S.A. The driver of the road vehicle died because of the accident. Whereas the train driver, after getting him out of the locomotive cab by the rescue services and after the rescue operation, was transported to hospital with extensive injuries by the Air Rescue. The conductor's team was tested for alcohol content in exhaled air – with negative result. The examination was conducted by officers from the District Police Headquarters in Nisk.

As a result of the decision of the Chairman of the PKBWK to take over the investigation by the Investigation Team, considering the provisions of Article 28e (4) of the Railway Transport Law, the Commission on 21 August 2020 reported this fact to the European Union Railway Agency ("EUAR") through the information system "ERAIL" and the above event was registered in the ERAIL database under the number **PL-6323**.

From this proceeding, the Commission issued Report No. PKBWK 04/2021, in which the Commission's Investigation Team recommended implementation of the following actions:

1. Infrastructure manager PKP Polskie Linie Kolejowe S.A. will make evaluation of change and risk significance considering irregularities included in points II.1.5., IV.5.3., IV.5.4., IV.6. of this Report.
2. Railway Infrastructure Managers shall extend their obligations to carry out checks:
 - a) visibility of the crossing from the access roads,
 - b) regularity of behaviour of visibility triangles,
 - c) the correct positioning of traffic signal chambers and their visibility from the roads access roads,
 - d) the timeliness of the ride metrics and their compliance with the parameters on the ground for all personnel performing maintenance, as well as inspections and diagnostic testing of the rides.
3. Railway Infrastructure Manager PKP Polskie Linie Kolejowe S.A. within Safety Management System (SMS) will undertake activities aimed at improvement of effectiveness of SMS procedures implementation, especially PW-01 and PR-03 procedures and improvement of effectiveness of performed checks and diagnostic tests of railway-road crossings and will implement effective mechanisms of supervision over obligations resulting from these procedures.

3.2.6 Serious accident of A21 category occurred on 3rd September 2020 at 13:50 on level crossing of D category located on route Przybówka - Jasło Towarowa, track no. 1, at km 55.924 of railway line no. 106 Rzeszów Główny - Jasło

On September 03, 2020, during the passenger train MPS 32102/3 "WETLINA" from Zagórz to Lublin Główny of the rail carrier PKP Intercity S.A., on the track no. 1, on the route Przybówka - Jasło Towarowa, railway line no. 106, at the level crossing cat D, at km 55.924, a road vehicle (passenger car Opel Mokka) drove directly in front of the oncoming train. As a result, the front end of the locomotive hit the left side of the passenger car and as a result, the driver and the passenger died. The passenger train was composed of locomotive SU160-007 and two passenger cars. The train was operated by a train crew consisting of a driver and a train manager from PKP Intercity S.A. According to "The Card of Brake and Pneumatic Devices Train Testing" the detailed brake test was performed at Zagórz station on 03.09.2020 at 11:20 a.m. The last scheduled stop of this train before the accident took place at Jasło station. According to the timetable of this train, generated in Timetable Construction System (SKRJ) on 22.07.2020, departure from Jasło station took place after changing the train head at 13:37 after a simplified brake test. The train departure time is confirmed by the record of the electronic data recorder Hasler Teloc 2500. According to the recorder on the day of the accident, i.e., September 3, 2020, the train departed from the Jasło station at 13:37:27. The train was running as scheduled and was driven according to the timetable without any obstacles until the moment of the accident. The last recorded sounding of the Rp1 signal 'Attention' took place at 13:47:27, i.e., 3115 m before the crossing where the serious accident happened. The passenger train was running not exceeding the regular speed $V=100$ km/h on this section of the route. Approaching the crossing with a speed of 98,3 km/h, when the train was 11 metres from the crossing, the driver gave the Rp1 signal "Alert", that is about 0,5 s before the accident. The passenger car approached the level crossing from the right side of the moving train. Despite good visibility of the train, the car driver did not react and did not stop the car (no braking traces), neither did he try to avoid the collision, i.e., turn aside from the road (undeveloped area, fields), which resulted in a serious accident. The car driver's lack of reaction is evidence of the high speed at which the road vehicle was travelling. The permissible speed on the road on the day of the

accident was $V=90$ km/h. Assuming that the car was running at this maximum speed, at the moment the driver gave the Rp1 signal "Alert" the car was - just like the train - about 12.5 metres before the crossing. At the moment of the collision, i.e., hitting the car with the bumpers and the front of the locomotive, the driver started to brake suddenly and gave the Rp1 signal "Alert". The driver implemented the emergency braking with the help of the "driving and braking reference-unit".

From the analysis of the materials gathered by the investigating team of PKBWK it results that the car was moving from the opposite direction than the one assumed and recorded by the railway commission in the Accident Site Inspection Report. As determined by the investigating team, which was confirmed by the Police in their materials and by the driver of the train MPS 32102/3 when he was heard again, the passenger car with the injured, driver and passenger, was driving from the direction of the village Bajdy towards the village Chrzastówka. According to the findings of the Investigating Team, the driver of the car, despite the ban on entering the crossing without stopping, did not stop in a place of convenient observation, as provided by the B-20 "stop" sign, and entered the crossing directly in front of the locomotive of the oncoming passenger train MPS 32102/3, as a result of which the locomotive crashed into the car. When approaching the level crossing from the direction of Bajdy, the driver of the car did not comply with the prohibition of driving onto the crossing without stopping resulting from the B-20 "stop" sign and despite a good visibility of the approaching train, he drove from the right side of the train directly in front of the SU160-007 locomotive. The train hit the road vehicle in its central part - on its left side (i.e., on the driver's side). The angle of the car to the front of the locomotive (crossing angle $\alpha=55^\circ$) and the force of the impact with the bumpers of the locomotive caused tearing out a part of the vehicle with the seat and the driver on it. This part of the car was jammed with the left buffer and the scraper of the locomotive. The driver and the seat were pulled by the train and thrown onto the track bench on the left side of the track, in the direction of the train. The body was laid along the track axis at the height of the first bogie of the first car. After hitting the car and implementing emergency braking by the driver, the front end of the train stopped after passing 392 metres behind the crossing axis, i.e., at km 55.532. At the same time, because of this impact, the rest of the car was crushed and thrown together with the passenger sitting on the front seat. Through the component forces, i.e., the speed of the car and the speed of the locomotive, it was hit and thrown in the direction of the train. The car wreck got on the opposite side of the track, i.e., the left side of the train, and fell into a ditch draining the track. Additionally, it was pressed by the locomotive and the train set against the pole placed there, located 23 m from the crossing axis, and hit its concrete base, scratching the left side of the train cars. Despite the impact and the resulting resistance, the car with its passenger moved another 19 m and stopped in a drainage ditch 42 m behind the crossing axis. After the incident, the car was facing the direction of the train. After the accident and stopping of the train, the engine driver immediately informed the traffic officer of the Przybówka station about the incident via radiotelephone. As a result of the serious accident, the driver of the passenger car and his passenger died. The passengers and the staff of the passenger train were not injured, nor did they suffer any material losses. The road vehicle (passenger car) was completely destroyed. The B cab of the SU160-007 locomotive was damaged, as well as the passenger cars of the train. The damage caused by the accident to the rail and road surface was not found. The detailed scope of damage to the train is described in chapter II.2.3. After the incident the train MPS 32102/3 was cancelled on its further track. The passengers of this train continued their further journey using the substitute transport launched by the railway undertaking. After the rescue action and operational activities conducted by the railway commission, the

Prosecutor's Office and the Police, the train left the route to the station. The departure from the track took place at 21:05, and the entry to the station at Przybówka at 21:13.

As a result of the decision of the Chairman of the PKBWK to take over the investigation by the Investigation Team, considering the provisions of Article 28e (4) of the Railway Transport Act, the Commission on 24 September 2020 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 the number **PL-6343**.

From this proceeding, the Commission issued Report No. PKBWK 03/2021, in which the Commission's Investigation team recommended implementation of the following actions:

1. Due to local conditions and train speed on this railway-road crossing amounting to 100 km/h, the administrator of railway infrastructure PKP PLK S.A. Zakład Linii Kolejowych w Rzeszowie (Railway Line Works in Rzeszów) will perform operational risk assessment to consider decrease of train speed on the length of sections where train head is visible from public road.
2. Infrastructure manager PKP Polskie Linie Kolejowe S.A. during periodic instructions and ad-hoc trainings will remind the concerned employees about the obligation of using the Individual Identification Number (junction number) of railway-road crossing, especially during accidents and calling emergency services, so that the situation presented in PKBWK Report 02/2021 will not occur again.
3. Railway infrastructure managers, in case of revealing irregularities in maintenance and traffic organization in the area of access roads to railway and road crossings, will immediately inform proper road managers indicating those irregularities and their location.
4. Railway undertakings operating motive power units equipped with an "emergency braking" device will include in train driver training subjects related to methods and principles of train braking in emergency situations, i.e., using the emergency brake (mushroom) to shorten the braking distance - as specified in clause IV.4 of this Report.
5. Railway undertaking PKP Intercity S.A. will introduce requirements for vehicles' producers and maintenance service, concerning installation of emergency power supply for video recorders, so that the continuity of recording images from cameras mounted on railway vehicles will be preserved (in case of orders by writing in ToR), thus properly implementing the order of President of Office of Rail Transport No. DBK-550/R03/KB/12 from 30.05.2012, directed to railway undertakings about obligation of installing pre-field devices - digital cameras or video recorders in newly built and operating railway vehicles according to recommendation of PKBWK - No. PKBWK-076-305/RL/R/11 from 22.11.2011.

3.2.7 Serious accident of A20 category occurred on 21 October 2020 at 12:52 on level crossing of C category, located on Rokiciny - Baby track, track no. 2, at km 120.779 of railway line no. 1 Warszawa Zachodnia - Katowice

During the travel of inter-voivodeship fast passenger train MPE71106 between Zielona Góra and Warszawa Wschodnia of the carrier PKP INTERCITY S.A. driven by the locomotive EP07-411 on 21.10.2020, which left from the Baby station towards the Rokiciny station on the track no. 2, a passenger car Volkswagen Passat drove in front of the head of the train and as a result, the train

collided with the car. The locomotive driving this train overran the track sensor no. 5/120 type ELS-9503 of the automatic crossing system (SSP) located at km 122,596, as a result the SSP equipment became active and the road-rail crossing signals at km 120,779 started to broadcast alternately flashing red light and acoustic signal. These signals prohibited the entry of road vehicles on the crossing. Then the train passed the Top1208 crossing warning disc located at km 121,101 referring to the rail-road crossing at km 120,779. The crossing warning disc informs the traction team about the operational status of the devices warning road users at the crossing located in the braking distance behind the disc. In its basic state, when there is no train approaching the crossing to which it refers, the crossings warning disc remains unlit. When the crossing warning devices are activated, the crossing warning disc transmits a signal indicating whether road users are or are not warned of the approach of a train to the crossing. This shield gave the signal Osp2 (the signaling devices at the crossing.... are operational, driving through the crossing at the highest speed allowed). The driver of train MPE71106 approaching the level crossing at km 120.779 at the level of indicator W6b set at km 121.547 gave the signal "Alert". Reaching the level crossing he noticed a passenger car approaching from his left side looking in the direction of the train and again he gave the „Alert” signal. The car did not stop although the traffic signal of the automatic crossing system was transmitting alternating flashing red light forbidding to enter the crossing, also the B-20 "Stop" sign ordered the road vehicles to stop in front of the crossing. Then the road vehicle crossed track 1, despite the „Alert” signal given by the MPE71106 train driver and entered the crossing directly in front of the front of the train travelling on track 2. At 12:52:07 the locomotive driving the EP07-411 series train crashed into the right front part of a Volkswagen Passat passenger car. Before a collision between the train and the road vehicle, the engineer implemented emergency braking of the train by setting the handle of the combined brake in the "emergency braking" position when he realized that the car was entering the gauge of track no. 2 and a collision was inevitable. The beginning of the pressure drop in the main line, and thus the beginning of the braking process, occurred about 27 meters behind the crossing axis, i.e. about 1s after the collision of the locomotive head with the car. As a result of the serious accident the driver and the passenger of the passenger car died on the spot. The impact with the car caused tearing off the scraper of the locomotive, which getting under the first wheel set caused derailment of the locomotive with this wheel set to the right side. The locomotive continued to move in a derailed condition with the first wheelset until it stopped. As a result of the impact, the bumpers of the locomotive penetrated the interior of the passenger car causing the car to jam. The car in this position was pushed until the locomotive stopped. Fragments of the car body were also on the side of the track no. 2 and in the gauge of the track no. 1. The front of the train after the accident stopped at km 120,282 i.e., 497 meters from the crossing axis (according to the recorder the distance from applying the brake was 479 m). The train driver used the "Radio stop" during braking and reported the incident to the traffic officer of the Rokiciny and Baba stations and informed about the need to close both tracks of the railway line. The speed of the train at the moment of hitting the car was 118 km/h, while the regular speed of the train was 120 km/h. The train was properly signaled with Pc-1 and Pc-5 signals, according to the le-1 manual. The train commander at the Baby station notified the police, fire brigade, ambulance service, and the Railway Security Guard. Tracks 1 and 2 were closed at 12:55 p.m. The equipment at the rail-road crossing at km 120.779 was operating properly. In the way the car was driving, on the right side of the road before the crossing there were installed two-chamber automatic traffic signals type SPA-5 v. 0.1, which were switched on more than 30 seconds before the train entered the crossing. The time from the activation of SSP devices to the moment of the incident was 55 seconds. Train MPE71106 stopped after a collision with a passenger car on track no. 2 between detectors no. 7/120 and 8/120. After the incident the traffic signals had - red light switched on, flashing alternately. The acoustic signal was also switched on. As a result of the derailment of the EP07-411 locomotive with the first axle the track surface was damaged.

As a result of the decision of the Chairman of the PKBWK to take over the investigation by the Investigation Team, considering the provisions of Article 28e (4) of the Railway Transport Law, the Commission on 29 October 2020 reported this fact to the European Union Railway Agency

("EUAR") through the information system "ERAIL" and the above event was registered in the ERAIL database under the number **PL-6362**.

From that proceeding, the Commission issued Report No. PKBWK 02/2021, in which the Commission's Investigation team recommended implementation of the following actions:

1. The County Roads Authority in Tomaszów Mazowiecki will complete the F-6a road sign on the road approaching the county road No. 4321E (access road to the crossing) from the left side of the railway-road crossing at km 120.779 of the railway line No. 1.
2. The County Roads Authority in Tomaszów Mazowiecki will undertake actions to ensure that all irregularities reported by the infrastructure manager PKP Polskie Linie Kolejowe S.A. resulting from inspections and diagnostic tests of railway and road crossings carried out by the infrastructure manager PKP PLK S.A. will be removed immediately.
3. Road District Authority in Tomaszów Mazowiecki will remove B-20 signs at level crossing at km 120.779 of railway line no. 1 and at other level crossings of category C located within roads managed by it in agreement with the administrator of railway infrastructure pursuant to the applicable regulation of the Minister of Infrastructure and Development issued based on article 7 (2) item 2 and (3) item 2 of the act of 7 July 1994 - Construction Law. The above constitutes an obligation for all road managers.
4. The County Roads Authority in Tomaszów Mazowiecki will take actions to remove trees and bushes near railway and road crossings to ensure continuous visibility of traffic lights, barrier devices, and road signs.
5. Infrastructure manager PKP Polskie Linie Kolejowe S.A. and other infrastructure managers will undertake actions to assure that employees of those managers, including staff of traffic posts reporting incidents on railway and road crossings to Rescue Notification Centre will use the identification number of railway and road crossings, which will contribute to quicker rescue operation activation and those entities will regulate this matter in technical regulations of stations.
6. Infrastructure manager PKP Polskie Linie Kolejowe S.A. and other infrastructure managers will include in subject of periodic instructions for traffic wardens' principles of proceeding in case of traffic safety threat and railway incidents included in § 69 - 79 of Instruction Ir-1 of PKP PLK S.A. and in relevant regulations of other infrastructure managers.
7. Railway infrastructure managers and road managers will undertake measures to improve cooperation at the stage of design, implementation, and final acceptance of investment tasks in accordance with applicable regulations concerning access to railway and road crossings.
8. Infrastructure Manager PKP Polskie Linie Kolejowe S.A. will disassemble unused power supply cabinet of control and signalling devices located on the right side of the crossing. Additionally, during diagnostic tests of all crossings, it should be checked every time if in the field of visibility from access roads from 5 meters from the crossing there are power supply cabinets of SSP devices or other objects obstructing visibility of train head and in case of finding them they should be removed or moved to another place to improve visibility. Infrastructure manager

PKP Polskie Linie Kolejowe S.A. will carry out urgent physical liquidation of disused devices and facilities after acceptance for operation.

9. The infrastructure manager PKP Polskie Linie Kolejowe S.A. will speed up its activities with regard to the installation at railway-road crossings of devices monitoring offences of drivers using these crossings, resulting in the imposition of fines, as agreed on 27.06.2019 with the Chief Inspectorate of Road Transport on the initiative of the Chairman of the State Commission on Railway Accidents Investigation.
10. Railway undertaking PKP Intercity S.A. will undertake actions aimed at ensuring correctness of parament registrations in registrars installed on motive power railway vehicles. Additionally, within the framework of safety improvement programs of the Safety Management System (SMS) PKP Intercity S.A. will include carrying out additional controls of the correctness of the parament registrations in the recorders of powered railway vehicles.
11. Carrier PKP Intercity S.A. will continue the systematic equipping of powered railway vehicles, including locomotive EP07-411 in track monitoring systems (digital cameras), implementing the order of the President of the Office of Rail Transport in this regard.

3.2.8 Incident of category C57 occurred on 16 October 2019 at 13:54 at Leszczyzny station, control station "Lsz" at km 31.738 of railway line no. 140 Katowice Ligota - Nędza

On 16 October 2019, there was a fire in the dispatcher room of the control station "Lsz" at km 31.738 in Leszczyzny station - in the control cabinet with the computer of the railway traffic control system type MOR1.

In connection with the application submitted by the infrastructure manager (letter ISE5A-5430-336/20 of 9 September 2020), based on Article 28e (2a) of the Railway Transport Act of 28 March 2003 (i.e.: Journal of Laws of 2020, item 1043, as amended), by decision PKBWK.7.2020 of 1 October 2020. of the President of PKBWK, the Commission undertook proceedings to clarify the causes and circumstances of the railway incident that occurred on 16 October 2019 at 13:54 at Leszczyzny station, control station "Lsz" at km 31.738 of line No. 140 Katowice Ligota - Nędza.

As a result of the decision of the Chairman of the PKBWK to take over the investigation by the Investigation Team, considering the provisions of Article 28e (4) of the Railway Transport Law, the Commission on 1 October 2020 reported this fact to the European Union Railway Agency ("EUAR") through the information system "ERAIL" and the above event was registered in the ERAIL database under the number **PL-6348**.

The investigation to determine the causes and circumstances is in the final stages of analysis of project documentation and expert reports and studies.

4. Safety improvement recommendations made by the Commission in its annual reports under Article 28l (6) of the Railway Transport Act of 28 March 2003

4.1 Recommendations made in 2020 and published in the 2019 PKBWK Annual Report

Pursuant to Section 28l (6) of the Railway Transport Act, the Commission made the following recommendations on safety improvements in 2020.

From the "**Information on the implementation of the recommendations of PKBWK for the year 2020**". (submitted by the UTK in letter no.: DPN.53.1.2021.1.IF of 28 April 2021), it follows that the President of UTK in the letter: DPN-WDZK.47.42.2020.2.2KG of 14 December 2020 submitted the revised recommendations to market entities and **analysed the information on their implementation**.

The content of the recommendations as amended and forwarded by the President of UTK is included in the following "Recommendations made by PKBWK in the 2019 Annual Report".

Recommendations made by PKBWK in the 2019 Annual Report	
The content of the recommendations made by PKBWK in the 2019 Annual Report	From the " Information on the implementation of the recommendations of PKBWK for the year 2020 ". (submitted by the UTK in letter No.: DPN.53.1.2021.1.IF of 28 April 2021), the President of UTK in the letter No. DPN-WDZK.47.42.2020.2.KG of 14 December 2020 submitted the recommendations to market entities and analysed the information on the implementation of the following recommendations
Pursuant to Article 28l (6) of the Railway Transport Act, the Commission made the following recommendations on improving safety in 2020, which were addressed to the President of UTK	Content of recommendations submitted for implementation by the President of UTK
1. Railway infrastructure managers, who operate and maintain category B railway-road crossings, as well as railway undertakings, will undertake measures to minimize incidents of category C64 involving users of railway-road crossings, which consisted in road vehicles remaining in the dangerous zone of the crossing (closed between crossing barriers), by applying, among others, the provisions included in §21 of the Regulation of the Minister of Infrastructure of 13 September 2018 amending the Regulation on technical conditions to be met by crossings of railway lines and railway sidings with roads and their location (Journal of Laws of 2018, item 1876).	<p>Recommendation No. 1. Authorized managers of railway infrastructure and WKD having in service and maintenance railway-road crossings of category B will undertake actions aimed at minimizing incidents of category C64 with the participation of users of railway-road crossings, which consisted in leaving road vehicles in the dangerous zone of the crossing (closed between turnpikes), by applying, among others, the provisions included in § 21 of the Regulation of the Minister of Infrastructure of 13 September 2018 amending the Regulation on technical conditions to be met by crossings of railway lines and railway sidings with roads and their location (Journal of Laws of 2018, item 1876).</p> <p>Certified railway undertakings shall take appropriate measures within their abilities and competences, to implement this Recommendation, in particular regarding the exchange of information on the risks identified and cooperation on shared risk assessment common.</p>
2. Railway Infrastructure Managers shall take measures (increase operation effectiveness) to minimise during a transport operation: malicious, hooligan or reckless misbehaviour (e.g., throwing stones at the train, stealing cargo from the train or shunting yard in motion, placing obstacles in the way of the track or of the surface). malicious, hooligan or reckless misconduct (e.g., stone-pelting, theft of load from a moving train or shunting yard, placing of an obstruction on the track, defacement of and interference with power, communication, control-command and signalling equipment or the track surface) without causing injury or negative consequences to property or the environment, endangering passengers, or the train crew.	<p>Recommendation No. 2. Authorised managers of railway infrastructure, WKD and PKM will undertake actions or will increase effectiveness of existing actions aiming at minimising in the process of transportation malicious, hooligan or reckless misbehaviour, without harm or negative consequences for property and environment, posing a threat to passengers or train crew. Such incidents include throwing stones at the train, theft of cargo from the train or shunting yard in motion, placing an obstacle on the track, vandalism of, or interference with, power, communications, signalling or trackside equipment, and unauthorised use of the Radiostop signal by outsiders.</p>

<p>3. Railway undertakings shall undertake organisational and technical measures to minimise damage and the poor technical state of wagons and powered vehicles necessitating their withdrawal from service as a result of indications provided by rolling stock malfunction detection equipment and confirmed in workshop conditions (hot axle boxes, hot brake causing displaced rims), as well as other defects on rolling stock in service observed by the operating staff.</p>	<p>Recommendation No. 3 Certified railway undertakings shall undertake organisational and technical measures to minimise damage and poor technical condition of wagons and powered vehicles resulting in the need to put them out of service as a result of indications provided by the rolling stock malfunction detection devices, confirmed in workshop conditions (hot axle boxes, hot brake resulting in a displaced wheel rim), as well as other faults in running railway vehicles noted by the operating staff.</p>
<p>4. Railway Infrastructure Managers will undertake documented preventative and precautionary actions linked to the development of proactive staff attitudes (at all stages from commencement to completion of investment and upgrading works), aimed at preventing risks to rail traffic safety with the involvement and commitment of company management (including contractors and sub-contractors) in accordance with the principles of Safety Culture at all levels of railway infrastructure management. In particular, infrastructure managers shall, in their actions, take account of all stages of investment and upgrading works, preliminary and internal acceptance, technical acceptance, final acceptance, commissioning and decommissioning (of routes and sections of railway lines, other railway equipment and infrastructure, etc.), disruption during works and protection of decommissioned infrastructure.</p>	<p>Recommendation 4. Authorised managers of railway infrastructure, WKD and PKM will undertake documented preventive and preventive actions connected with shaping proactive attitudes of employees (at all stages from commencing to completing investment and modernisation works), directed at counteracting threats to railway traffic safety with participation and involvement of company management (including contractors and subcontractors) in accordance with principles of safety culture at all levels of railway infrastructure management. In addition, infrastructure managers shall, in their actions, take account of all stages of investment and modernisation works, preliminary and internal acceptance, technical acceptance, final acceptance, commissioning and decommissioning (of routes and sections of railway lines, other railway equipment and infrastructure, etc.), disruption during works and protection of decommissioned infrastructure.</p>
<p>5. Infrastructure Managers and Railway Undertakings who have digital data recorders (speed, states of equipment, etc.) and on-track monitoring equipment (video or audio/video recording) installed on their railway vehicles shall take measures to provide members of the Railway Committees with the necessary tools to enable the data from these recorders to be read on the spot immediately after the event.</p>	<p>Recommendation no. 5. Authorised infrastructure managers, WKD and PKM and certified railway undertakings, having installed in railway vehicles digital data recording devices (indicating speed, state of devices, etc.) and track monitoring devices (image or image and sound recording), will undertake actions aimed at equipping members of railway committees with proper tools enabling them to read data from those recorders on the spot, immediately after occurrence of the event.</p>
<p>According to article 28l rec. 8 of Railway Transport Act of 28 March 2003 (i.e.: Journal of Laws of 2020, item 1043, as amended), the afore-mentioned recommendations were addressed to the President of the Office of Rail Transport.</p>	

4.2 Recommendations made in the 2020 Annual Report

Pursuant to Article 281 (6) of the Railway Transport Act of 28 March 2003, the Commission makes the following recommendations on improving safety in this Annual Report for 2020:

- 1) The Rail Infrastructure Managers will implement recommendation 2 from the 2018 Annual Report (a repeat of the recommendation made in 2019 and published in the 2018 Annual Report) which reads:

"Infrastructure managers shall eliminate exit barriers for automatic crossing systems at category B crossings, with regard to solutions with four semi-crossings, and, where justified by local conditions, shall notify the road manager of the need to protect the access to a category B rail-road crossing from the possibility of entry of a road vehicle by a lane allowing the closed barrier to be bypassed, in particular through the use of separating strips or separators.

Such state is inconsistent with the provisions of Appendix No. 4, item 6.2 of the Regulation of the Minister of Infrastructure of 3 July 2003 on detailed technical conditions for road signs and signals and road traffic safety devices and their placement conditions on the roads (consolidated text: Journal of Laws of 2019, item 2311), which states: "*U-13a and U-13b full-width closing barriers shall be used on category A crossings, while U-13c semi-crossings shall be used on category B crossings. The semi-crossings should be placed so that on each side of the crossing they close the right half of the road (also in the case of using semi-crossings on one-way carriageways)*".

The above recommendation is intended to eliminate incidents consisting in road vehicles remaining in the danger zone of the crossing between closed semi-crossings and allows for the exit of road vehicles if a driver fails to comply with the prohibition of entering the crossing when the traffic signal system issues a signal prohibiting entry (to avoid collisions with oncoming rail vehicles). An alternating flashing red signal emitted on the traffic lights built in front of the crossing means that it is forbidden to enter behind that traffic light, as stated in § 98.5 of the Regulation of the Ministers of Infrastructure and Internal Affairs and Administration of 31 July 2002 on Road Signs and Signals (consolidated text: Journal of Laws of 2019, item 2310). In the period from January to December 2020 there were more than 235 documented incidents of closure of road vehicles between halves on the railway network managed by PKP PLK S.A. Massive increase of incidents qualified to category C64 poses a threat to the occurrence of accidents and serious train accidents. This recommendation is still up to date to be implemented by entities, where this has not been done so far.

- 2) Railway infrastructure manager PKP Polskie Linie Kolejowe S.A. and other railway infrastructure managers will implement recommendation no. 9 from Report No. PKBWK/02/2018 which reads:

"PKP PLK S.A. and other managers of railway infrastructure will inspect railway-road crossings for correct road alignment in relation to the platform at railway-road crossings, and in case of finding unevenness at railway-road crossings, they will apply to the road manager to put up A-11 "uneven road" signs."

The aim of the above is to identify existing hazards resulting from incorrect road profiles at railway-road crossings, placement of horizontal signs on the road (P-12 and P-16) and installation of the A-11 sign directly before it, and elimination of the causes of the existing irregularities. The recommendation applies to all managers of railway infrastructure who maintain railway-road crossings. This recommendation is a repetition of recommendation no. 9 from the report No. PKBWK/2/2018 from the investigation of the serious accident cat. A20 occurring on 7 April 2017 at 15:11 on the railway-road crossing of category C located on the single-track route Ozimek - Chrzastowice, at km 56.977, railway line no. 144 Tarnowskie Góry - Opole. This recommendation is still up to date to be executed by managers of railway infrastructure, where the aforementioned has not been realized until now.

- 3) Railway (freight) undertakings and entities responsible for organising freight transport and entities responsible for loading, unloading, and securing freight or other loading activities will increase supervision over the preparation and putting into service of wagons (railway vehicles), which will consequently contribute to reducing the number of C50 incidents.

The above recommendation is due to an increase of over 58% in category C50 incidents (from 17 incidents in 2019 to 27 in 2020) and category B17 incidents (there were 9 category B17 incidents in 2020). Improper loading, unloading, inadequate load securing, or other irregularities in loading operations typically lead to damage to other vehicles (glass damage) when trains pass, and can cause other accidents and hazards in service.

- 4) Railway Infrastructure Managers shall take appropriate action to minimise the number of cat. B15 accidents - premature termination of the route or override of a closure and passing of a switch under a railway vehicle.

The recommendation is due to an increase in the number of cat. B15 accidents from an occurrence of 14 in 2019 to 21 in 2020.

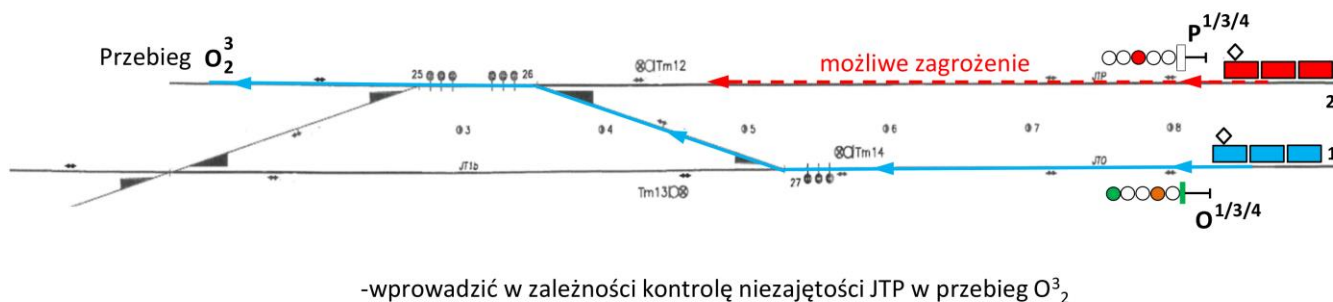
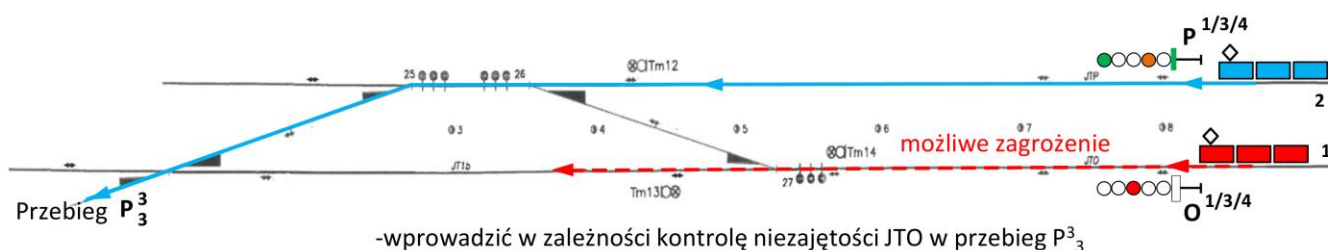
- 5) Railway Undertakings shall implement appropriate measures to further reduce the number of C44 and B04 incidents where a railway vehicle fails to stop before or at a stop signal or starts without the required authorisation.

In 2020, there was an increase in C44 category incidents (from 83 in 2019 to 86 in 2020) and a decrease in B04 category incidents (28 in 2019 vs. 14 in 2020). The overall number of incidents in the C44 and B04 categories decreased in 2020. Nevertheless, the high number of these incidents, which has remained at a similar level for several years (more than 100), should

mobilize the carriers for further actions to eliminate hazards in these categories. Especially that some incidents in addition to the above categories are classified as potentially dangerous situations - category D79.

- 6) To increase traffic safety in a signalling circle in case of simultaneous train movement on tracks in the same direction - of the same station and when a train (red) with "stop" signal given on the entry semaphore does not stop to cause earlier change of authorising picture to the "stop" signal, for the train (blue) approaching the entry semaphore on the adjacent track with "free passage" signal it is necessary

In control-command and signalling systems with unoccupied track sections following semaphores on the entry and exit sides of multiple-track routes as part of their mutually conflicting routes, introduce their relation as shown in the examples in the following figures.



This recommendation is addressed to infrastructure managers to eliminate of events such as those which occurred (or similar) at Szymankowo station on 9 March 2020 at 04:15, and the circumstances presented in Report No. PKBWK 01/2021.

- 7) Railway infrastructure managers will identify railway-road crossings where the angle of crossing of the railway line with the road does not meet the condition specified in § 26 (2) of the Ordinance of the Minister of Infrastructure and Development of 20 October 2015 on technical conditions to be met by crossings of railway lines and railway sidings with roads and their location (Journal of Laws, item 1744 as amended), will assess the risk of incidents at these crossings and will take appropriate preventive measures in accordance with their safety management systems.

The above recommendation results from the recurrence of incidents at some railway-road crossings, where the angle of crossing of the railway line with the road does not meet the above condition.

Pursuant to Article 28l (8) of the Railway Act, the Commission addresses the above recommendations to the President of UTK.

5. Implementation of the recommendations issued in 2020 by the PKBWK (based on information from the Office of Rail Transport)

The Commission received on 29 April 2021 from the Office of Railway Transport, hereinafter 'UTK', information on the implementation of the recommendations made by the Commission in 2020.

In 2020, PKBWK submitted 10 reports of completed investigations in 2020 on the occurrence of railway incidents in 2019 and 2020 and the Annual Report for 2019 on the activities of the State Commission on Railway Accidents Investigation with recommendations:

- 1) Report No. PKBWK/01/2020 from investigation of accident category B13 occurring on 19 May 2019 at 15:25 at Rybnik Towarowy station, track no. 308, km 43.450 of railway line no. 140 Katowice Ligota - Nędza
- 2) Report No. PKBWK/02/2020 from the investigation of a serious accident category A20 occurring on 15 June 2019 at 18:22 on a level crossing category C, located on the route Kąty Wrocławskie –podg. Mietków, track no. 2, at km 22.788 of the railway line no. 274 Wrocław Świebodzki - Zgorzelec
- 3) Report No. PKBWK/03/2020 from the investigation of a serious accident of category A19 occurring on 03 July 2019 at 08:50 on a level crossing of category B, located on the route Wargowo - Złotniki, in closed track no. 2, at km 13.916 of the railway line no. 354 Poznań Główny PoD –Piła Główna
- 4) Report No. PKBWK/04/2020 from the investigation of a serious accident of category A21 occurring on 2 August 2019 at 19:42 on a railway and road crossing of category D, located on the route Starzyny - Koniecpol, track no. 1, at km 34.751 of the railway line No. 64 Kozłów - Koniecpol.
- 5) Report no. PKBWK/05/2020 from investigation of railway incident of category C41 occurred on 30 July 2019 at 16:53 in Zlocieniec station, track no. 2, at km 114.131 of railway line no. 210 Chojnice –Runowo Pomorskie
- 6) Report No. PKBWK/06/2020 from investigation of accident category B11 that occurred on 8 August 2019 at 23:18 on Tarnów Opolski –Opole Groszowice route, track no 1, at km 87,973 of railway line no 132 Bytom –Wrocław Główny
- 7) Report no. PKBWK/07/2020 from investigation of railway accident of category B21 occurring on 17 February 2020 on railway-road crossing of category D, located on route

Czerwonak - Bolechow, track no. 1, km 7,765 of railway line no. 356 Poznań Wschód-Bydgoszcz Główna.

- 8) Report No. PKBWK/08/2020 from investigation of serious accident of category A35 occurred on 28 October 2019 at 12:55 on route Paczyna –Toszek, track no. 1, at km 48.180 of railway line no. 132 Bytom –Wrocław Główny
- 9) Report no. PKBWK/09/2020 from investigation of serious accident of category A23 occurred on 11 January 2020 at 04:35 on route Szamotuły - Pęckowo, track no. 1, at km 34.102 of railway line no. 351 Poznań Główny - Szczecin Główny
- 10) Report No. PKBWK/10/2020 from investigation of serious train accident of category A19 occurred on 29 April 2020 at 17:32 on level crossing of category B on route Bolechowo - Murowana Goślina at km 15.753 of line No. 356 Poznań Wschód - Bydgoszcz Główna.
- 11) Annual Report for 2019 on the activities of the State Commission on Railway Accident Investigation Board.

Within the framework of supervision over implementation of recommendations of PKBWK by entities operating on railway market, UTK analysed its recommendations and after introducing changes in their content submitted them for implementation to railway managers, railway undertakings, entities responsible for maintenance of railway vehicles and entities operating special vehicles. The addressees of recommendations, who do not have implemented safety/maintenance management system, should implement recommendations based on internal regulations functioning in these entities.

Recommendations resulting from the above reports have been submitted by the President of UTK to the entities in a written form (letters together with safety cards).

Recommendations issued by PKBWK in 2020, were submitted by the President of UTK for implementation to the entities successively after the completion of research and preparation of reports mentioned above. Each time, all materials and information concerning the submitted recommendations from a given report were placed on the UTK website.

UTK prepared a questionnaire and on its basis the entities provided information on the stages of implementation of recommendations received from the President of UTK.

5.1 Analyzis of information regarding the implementation of recommendations.

The President of UTK analyses recommendations addressed to him, considering the necessity to ensure system approach to safety management and risk minimisation in railway transport.

The President of UTK may consider the recommendations and accept them for implementation or pass them, in whole or in part, for implementation to administrators, railway undertakings or other entities whose activity affects the safety of railway traffic and safe operation of railways, subject to regulation under the Railway Transport Act.

In total, the President of UTK submitted 84 recommendations to railway market entities for implementation.

The Commission made a total of 76 recommendations in the 10 aforementioned reports and the 2019 Annual Report. 67 recommendations were made to the UTK President in 2020.

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

Ad. 1) REPORT No. PKBWK/01/2020 of the investigation of the category B13 accident occurring on 19 May 2019. at 15:25 at Rybnik Towarowy station, track no. 308, km 43.450 of railway line no. 140 Katowice Ligota - Nędza	
Recommendations of the State Commission on Railway Accidents Investigation in its report	From the " Information on the implementation of the recommendations of PKBWK for the year 2020 " (submitted by the UTK in a letter no.: DPN.53.1.2021.1.IF of 28 April 2021), the President of UTK in the letter no. DPN-WDZK.47.28.2020.3.JJ of 03 July 2020 submitted the recommendations to market entities and analysed the information on the implementation of the following recommendations
1. Carrier PKP CARGO S.A. and railway infrastructure manager PKP PLK S.A. Zakład Linii Kolejowych w Tarnowskich Górach (Railway Line Works in Tarnowskie Góry) shall undertake actions aimed at elimination of other irregularities identified during the proceedings and contained in this report, in accordance with their competences arising from valid regulations.	Content of recommendations submitted for implementation by the President of UTK
	PKBWK/01/2020_0_1 PKP CARGO S.A. will undertake actions in order to eliminate irregularities found during proceedings of PKBWK, consisting in incorrect preparation of brake test card (not in accordance with template included in annex no. 1 to regulation of Minister of Transport of 2 November 2006 on documents which should be on a railway vehicle (Journal of Laws of 2006 no. 9, item 63) and with instruction Cw-1 (Instruction for rolling stock brakes maintenance and operation).
	PKBWK/01/2020_0_2 PKP CARGO S.A. will undertake actions to eliminate the irregularities found during the proceedings of PKBWK, consisting in carrying out conversations between drivers via private mobile phone during a simplified brake test.
	PKBWK/01/2020_0_3 PKP CARGO S.A. will undertake actions aiming at eliminating irregularities stated during PKBWK proceedings, which consist in lack of PKP CARGO S.A. confirmation of correct train set and its readiness for departure, which is a violation of procedure P/01 - Execution of transport process.
	PKBWK/01/2020_0_4 PKP CARGO S.A. will undertake actions to eliminate the irregularities found during the proceedings of PKBWK, consisting in lack of making entries in the logbooks of powered vehicles ST48-049 and SM42-1205 about the accident and termination of work after receiving the substitution and arrival of representatives of railway commission.
	PKBWK/01/2020_0_5 PKP CARGO S.A. will undertake actions to eliminate the irregularities found during the proceedings of PKBWK, consisting of the discrepancy of time parameter between time recorded in the TELOC recorder of SM42-1205 6Dg vehicle and the real time, as well as the movement of this locomotive with incorrect indications of the time parameter (indication in the recorder with the delay of 5 hours and 10 minutes).
	PKBWK/01/2020_0_6 PKP CARGO S.A. will undertake actions aiming at eliminating irregularities stated during PKBWK proceedings consisting in not stating in brake testing card that there is a pushing locomotive in a train set and that the last vehicle in a train set is SM42-1205 locomotive and not introducing changes in train parameters i.e., total weight, required braking weight and real braking weight.
	PKBWK/01/2020_0_7 PKP CARGO S.A. will undertake actions aiming at eliminating irregularities stated during PKBWK proceedings consisting in lack of inclusion in the list of railway vehicles in the train set that there is a pushing locomotive and the last vehicle in the

Corrective recommendations

	<p>train set is SM42-1205.</p> <p>PKBWK/01/2020_0_8 PKP CARGO S.A. will undertake actions to eliminate the irregularities found during PKBWK proceedings consisting in lack of inclusion in the PKP Cargo S.A. danger register a situation of setting a train without performing a simplified brake test with a pushing locomotive.</p> <p>PKBWK/01/2020_0_9 PKP Polskie Linie Kolejowe S.A. will undertake actions in order to eliminate irregularities stated during PKBWK investigation consisting in occurrence of corroded semaphore plates in the area of RTB station causing difficulties for motive power units drivers to go to proper tracks in the absence of track numbering on the ground.</p> <p>PKBWK/01/2020_0_10 PKP Polskie Linie Kolejowe S.A. will undertake actions aiming at elimination of irregularities found during proceedings of PKBWK, consisting in incorrect entries in controllers of entry track occupation (R-292) of RTB and RTD signal boxes, not conforming to valid instructions.</p> <p>PKBWK/01/2020_0_11 PKP Polskie Linie Kolejowe S.A. will undertake actions aiming at elimination of irregularities found during proceedings of PKBWK, consisting in incorrect transmission of messaging telegrams (not compliant with the template of Ir-1 Instruction) and giving orders by means of wireless communication not compliant with the template of Ir 5 Instruction.</p>	
2. Carrier PKP CARGO S.A. and railway infrastructure manager PKP PLK S.A. will include in the subject of periodic training the principles of shunting and driving with a pushing locomotive.	PKBWK/01/2020_1 Certified railway undertakings, authorised managers of railway infrastructure, WKD and PKM will include in their periodic training the rules for shunting and driving with a pushing locomotive (for passenger services, if applicable).	Corrective recommendations
3. Within the periodical instructions PKP CARGO S.A. will remind the rules of correct performing simplified brake test in freight trains with pushing locomotive and preparing train for journey in scope of railway traffic safety.	PKBWK/01/2020_2 Certified Railway Undertakings, within the framework of periodic instructions, will remind the rules of correct execution of simplified test of combined brake on trains with pushing locomotive (in case of passenger service - if applicable) and preparation of train for road in the scope of railway traffic safety.	
4. Infrastructure manager PKP PLK S.A. will review possessed regulations concerning shunting work and will verify them in scope of discussing shunting work between traffic officer and freight warden or other employee of railway undertaking who organizes shunting work.	PKBWK/01/2020_3 PKBWK/01/2020_3 Authorized managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitalna S.A. will review possessed regulations concerning shunting work and will verify them in scope of discussing shunting work between traffic officer and organizer of transport or other railway undertaking's employee organizing shunting work.	
5. Infrastructure manager PKP PLK S. A. within periodic instructions will remind the principles of correct running of Track Occupancy Checks, traffic logs, principles of conducting shunting on the station and correct conducting of talks with the use of radio communication and station communication devices.	PKBWK/01/2020_4 Authorized managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitalna S.A. within periodic instructions will remind rules of correct keeping of track occupancy control (or other documents fulfilling the same function), traffic logs, rules of conducting shunting on the station and correct conducting of conversations with use of radio communication and station communication devices.	

<p>6. In order to enforce compliance with internal rules and instructions, Railway Undertakings and Infrastructure Managers shall increase supervision:</p> <ul style="list-style-type: none"> – the correctness of the formulation of radiograms and phonograms, – the correct performance of brake tests, – discussing and carrying out shunting work correctly. 	<p>PKBWK/01/2020_5 Certified railway undertakings and authorised managers of railway infrastructure as well as Warsaw Commuter Rail Ltd. and Pomorska Metropolitan Rail Ltd. to enforce compliance with internal regulations and instructions shall increase supervision over:</p> <ul style="list-style-type: none"> – the correctness of the formulation of radiograms and phonograms, – the correct performance of brake tests, – discussing and carrying out shunting work correctly.
<p>In accordance with the provisions of the Railway Transport Act of 28 March 2003, Article 28l (8) (Journal of Laws of 2019, item 710, as amended), the above recommendations were addressed to the President of the Office of Rail Transport. Individual entities should implement the recommendations contained in this report of the Investigation team and adopted by the resolution of the PKBWK.</p>	

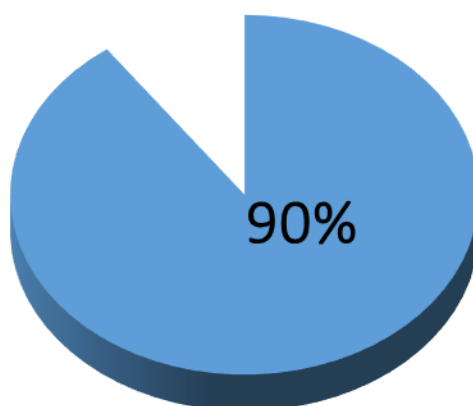
Table 4. Assessment of the implementation of recommendations from Report No. PKBWK/01/2020 submitted by the President of UTK to entities operating on the railway market
(based on information from UTK)

Assessment of the implementation of the recommendations of Report No. PKBWK/01/2020																
Recommendations	Corrective recommendations											Corrective recommendations				
	PKBWK/01/2020_0_1	PKBWK/01/2020_0_2	PKBWK/01/2020_0_3	PKBWK/01/2020_0_4	PKBWK/01/2020_0_5	PKBWK/01/2020_0_6	PKBWK/01/2020_0_7	PKBWK/01/2020_0_8	PKBWK/01/2020_0_9	PKBWK/01/2020_0_10	PKBWK/01/2020_0_11	PKBWK/01/2020_1	PKBWK/01/2020_2	PKBWK/01/2020_3	PKBWK/01/2020_4	PKBWK/01/2020_5
Assessed positively	1	1	1	1	1	1	1	1	1	1	1	98	102	12	11	101
Insufficient answer	0	0	0	0	0	0	0	0	0	0	0	3	2	1	2	2
Average percentage of implementation of the recommendation	100	100	100	100	100	100	100	100	100	100	100	61	55	88	66	70

Chart 2. **Average percentage of implementation of particular recommendations provided by the President of UTK - from the Report No. PKBWK/01/2020** (based on information from UTK)



Chart 3. **Average percentage of implementation of recommendations provided by the President of UTK - from Report No. PKBWK/01/2020** (based on information from UTK)



The average percentage of implementation of recommendations was determined by UTK based on declarations of addressees of a given recommendation. Lack of 100% of recommendation results from the schedule of activities undertaken by the entity to fully implement the recommendations of PKBWK.

Table 5. Implementation of recommendations by entities listed by the Commission in Report No. PKBWK/01/2020 - based on information provided to PKBWK in March and April 2021.

Recommendations arising from from Report No. PKBWK/01/2020 (issued in 2020)	ADDRESSEE OF THE RECOMMENDATION:	Date of implementation of the recommendation	Average percentage (%) of completion of recommendation by entities listed in column 2/(implementation phase) in column 2/(implementation phase)
1	2	3	4
Recommendation 1	¹⁾ PKP CARGO S.A. + ²⁾ PKP PLK S.A.	2020-07-22 2020-12-31	100 (% - realised - by PKP CARGO) 100 (% - realised - by PKP PLK)
Recommendation 2	PKP CARGO PKP PLK (⁶⁾ PK+ ⁵⁾ ZI + ³⁾ WKD sp. z o.o. + ⁴⁾ PKM S.A.)	2020-07-22 2021-12-31 	100 (% - realised - by PKP CARGO) 50 (% in progress by PKP PLK) 61 (% in progress by: PK+ZI+WKD +PKM)*)
Recommendation 3	PKP CARGO (PK)	2020-07-22 	100 (% - realised by PKP CARGO) 55 (% - implementation by all CPs)*)
Recommendation 4	PKP PLK (ZI +WKD + PKM)	2020-12-31 	100 (% - realised by PKP PLK) 88 (% - in progress according to recommendation of President of UTK (PKBWK/01/2020_3) by: ZI+WKD+PKM)*)
Recommendation 5	PKP PLK (ZI+WKD+PKM)	2021-12-31 	50 (% - in progress by PKP PLK) 66 (% - in progress according to recommendation of the President of UTK - (PKBWK/01/2020_4) by: ZI+WKD+PKM)*)
Recommendation 6	PKP PLK (ZI+PK+WKD +PKM)	2020-12-31 	100 (% - realised by PKP PLK) 70 (% - in progress according to recommendation of President of UTK - PKBWK/01/2020_5) by: ZI+PK+WKD+PKM)*)

*) on the basis of Information on the implementation of the recommendations of PKBWK for the year 2020 - submitted by UTK with a letter - DPN.53.1.2021.1.IF dated 2021-04-28 - (concerns implementation of recommendations submitted by UTK President to railway market entities)

¹⁾PKP CARGO S.A. - railway (freight) carrier - hereinafter referred to as "PKP CARGO".

²⁾PKP PLK S.A. - means: PKP Polskie Linie Kolejowe S.A. - hereinafter referred to as "PKP PLK".

³⁾WKD sp. z o.o. - means: Warszawska Kolej Dojazdowa sp. z o.o. - hereinafter referred to as "WKD".

⁴⁾PKM S.A. - means: Pomorska Kolej Metropolitarna S.A. - hereinafter referred to as "PKM".

⁵⁾ZI - means: authorised manager of railway infrastructure

⁶⁾PK - means: certified railway undertaking

Ad.2) REPORT No. PKBWK/02/2020 from investigation of serious accident of category A20 occurring on 15 June 2019 at 18:22 at level crossing of category C located on route Kąty Wrocławskie –podg. Mietków, track no. 2, at km 22.788 of railway line no. 274 Wrocław Świebodzki - Zgorzelec		
<p align="center">Recommendations of the State Commission on Railway Accidents Investigation in its report</p>	<p>From the "Information on the implementation of the recommendations of PKBWK for the year 2020". (submitted by the UTK in a letter no.: DPN.53.1.2021.1.IF of 28 April 2021), the President of UTK in the letter no. DPN-WDZK.47.28.2020.3.JJ of 03 July 2020 –submitted the recommendations to market entities and analysed the information on the implementation of the following recommendations</p>	
<p>1. Przewozy Regionalne Sp. z o.o. (current name of the Company - POLREGIO Sp. z o.o.) and the infrastructure manager PKP PLK S.A. shall undertake actions to eliminate other irregularities not related to the causes of the serious accident but revealed during the investigation of the causes of the serious accident.</p>	<p align="center">Content of recommendations forwarded by the President of UTK</p>	
	<p>PKBWK/02/2020_0_1 PKP PLK S.A. Zakład Linii Kolejowych w Wałbrzychu will take action regarding the irregularity consisting in the lack of protection of cameras on the crossing at km 22.788 near track no. 2 against the influence of weather conditions. Reading from one camera was impossible - the lens was completely fogged up, from the second camera the image was unclear, rain streaked on the lens.</p>	<p>Corrective recommendations</p>
	<p>PKBWK/02/2020_0_2 PKP PLK S.A. Zakład Linii Kolejowych in Wałbrzych will take action regarding the irregularity consisting in the lack of descriptions of traffic signals. The lack of descriptions was found in 2017 during a diagnostic examination. By the date of the accident, the diagnostic recommendation had not been implemented.</p>	
	<p>PKBWK/02/2020_0_3 PKP PLK S.A. Railway Lines Department in Wałbrzych will take action regarding the irregularity consisting in keeping the E1758 book in SSP container contrary to internal regulations.</p>	
	<p>PKBWK/02/2020_0_4 PKP PLK S.A. Zakład Linii Kolejowych w Wałbrzychu will undertake action regarding the irregularity consisting in the lack of effective supervision over documentation keeping.</p>	
<p>PKBWK/02/2020_0_5 POLREGIO sp. z o. o. shall take action regarding the irregularity consisting in the lack of recording in the HASLER TELOC 1500 recorder of EP07P-2004 vehicle of the parameter of air pressure in the main train tube and in the brake cylinders.</p>		

2. Railway infrastructure managers in cooperation with road managers during inspections will check the correctness of location of traffic signs in terms of compliance with applicable regulations.	PKBWK/02/2020_1 Authorised managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o. in consultation with road managers will check during inspections the correctness of traffic signs' location in terms of compliance with applicable regulations.	Corrective recommendations
3. Przewozy Regionalne Sp. z o.o. (current name of the Company - POLREGIO Sp. z o.o.) will increase supervision over the control of correctness of recording parameters by electronic recorders in powered railway vehicles.	PKBWK/02/2020_2 Certified railway undertakings will increase supervision of the control of the correctness of the recording of parameters by electronic recorders in powered railway vehicles.	
4. Przewozy Regionalne Sp. z o.o. (current name of the Company - POLREGIO Sp. z o.o.) will install a camera in EP07P-2004 locomotive according to the order of President of Office of Rail Transport No. DBK-550/R-03/KB/12 from 30.05.2012 and recommendation of State Commission on Railway Accidents Investigation No. PKBWK-076-305/RL/R/11 from 22 November 2011 regarding installation of digital cameras or video recorders in vehicles.	PKBWK/02/2020_0_6 POLREGIO sp. z o. o. shall take actions regarding the irregularity consisting in the lack of installation of front cameras on EP07P-2004 vehicle which is not compliant with the recommendation of PKBWK No. PKBWK-076 305/RL/R/11 of 22 November 2011.	Corrective recommendation
5. Przewozy Regionalne Sp. z o.o. (current name of the Company - POLREGIO Sp. z o.o.) and the infrastructure manager PKP PLK S.A. will discuss the serious accident on the periodic instructions.	PKBWK/02/2020_3 Authorised Infrastructure Managers and Certified Railway Undertakings and Warszawska Kolej Dojazdowa sp. z o.o. will discuss a serious accident on periodic instructions.	Corrective recommendation
6. The administrator of the road - Kąty Wrocławskie Commune Office - will correctly place the G1a, G1b, G1c signs.		
7. The Road Manager - Kąty Wrocławskie Municipality will ensure the required visibility of the G1a, G1b, G1c, A10 signs and the visibility of the railway and road crossing from the required distance by removing unnecessary		

vegetation.	
8. The administrator of the road - Kąty Wrocławskie Commune Office - will install speed limit sign on the road no 120603D Nowa Wieś Kącka - Sokolniki according to the road class.	
Pursuant to article 28l (8) of the Railway Transport Act of 28 March 2003 (consolidated text: Journal of Laws of 2019, item 710), the above recommendations no. 1, 2, 3, 4, 5 were addressed to the President of the Office of Rail Transport. The remaining recommendations concern the road manager –Urząd Gminy Kąty Wrocławskie. Individual entities should implement the recommendations contained in this Investigation team Report and adopted by resolution of the PKBWK.	

Table 6. Assessment of the implementation of recommendations from Report No. PKBWK/02/2020 submitted by the President of UTK for implementation by entities operating on the railway market (based on information from UTK)

Evaluation of the implementation of the recommendations of Report PKBWK/02/2020									
Recommendations	Corrective recommendations						Corrective recommendations		
	PKBWK/02 2020_0_1	PKBWK/02 2020_0_2	PKBWK/02 2020_0_3	PKBWK/02 2020_0_4	PKBWK/02 2020_0_5	PKBWK/02 2020_0_6	PKBWK/02 2020_1	PKBWK/02 2020_2	PKBWK/02 2020_3
Evaluated positive	1	1	1	1	1	1*)	12	97	89
Insufficient answer	0	0	0	0	0		0	4	7
Average percentage of implementation of the recommendation	100	100	100	100	10	0	72	63	51

*) a positive assessment was given when complete information on the implementation of recommendations was provided, including information on actions planned to be taken along with the timetable for their implementation

Chart 4. Average percentage of implementation of particular recommendations provided by the President of UTK - from the Report No. PKBWK/02/2020 (based on information from UTK)

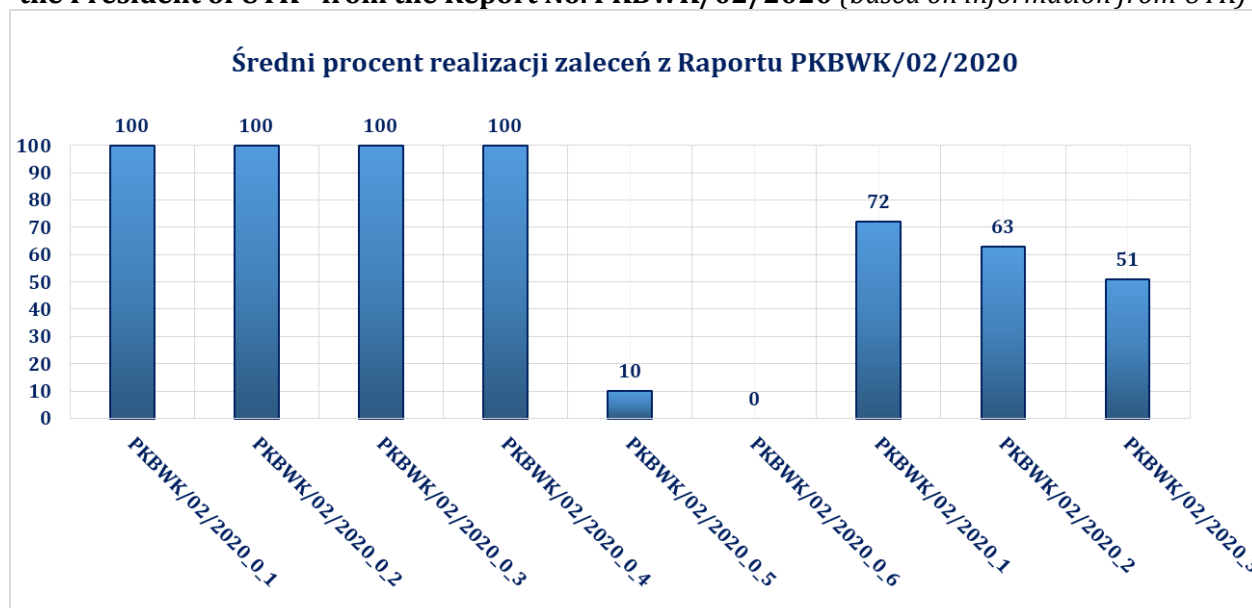
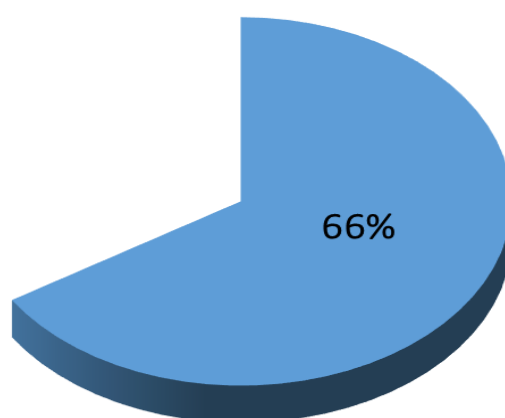


Chart 5. Average percentage of implementation of recommendations provided by the President of UTK - from the Report No. PKBWK/02/2020 (based on information from UTK)



The average percentage of implementation of recommendations was determined by UTK based on declarations of addressees of a given recommendation. Lack of 100% of recommendation results from the schedule of activities undertaken by the entity to fully implement the recommendations of PKBWK.

Table 7. **Implementation of recommendations by entities listed by the Commission in Report No. PKBWK/02/2020** - based on information provided to PKBWK in March and April 2021.

Recommendations from Report No. PKBWK/02/2020 (issued in 2020)	ADDRESSEE OF THE RECOMMENDATION:	Date of implementation of the recommendation	Average percentage (%) of completion of recommendation by entities listed in column 2/(implementation phase)
1	2	3	4
Recommendation 1	POLREGIO sp. z o.o. + PKP PLK	2020-12-31 2020-12-31	10 (% - in progress - by POLREGIO sp. z o.o.) 100 (% - realised by PKP PLK)
Recommendation 2	PKP PLK (ZI+WKD)	2020-12-31	100 (% - realised by PKP PLK) 72 (% - in progress by: ZI+WKD)*)
Recommendation 3	POLREGIO sp. z o.o. (PK)	2020-12-31	10 (% - in progress by POLREGIO sp. z o.o.) 63 (% - implementation by all CPs)*)
Recommendation 4	POLREGIO sp. z o.o.	2020-12-31	0 (% - on EP07P-2004 locomotive scheduled for major repair in 2033) 62 (% - recommendation under realisation - planned realisation on POLREGIO sp. z o.o. vehicles - year 2040)
Recommendation 5	POLREGIO sp. z o.o. PKP PLK (PK+ZI+WKD) 2021-12-31	100 (% - implemented by POLREGIO sp. z o.o.) 40 (% - in progress by PKP PLK) 51 (% - according to the President's recommendation No. PKBWK/02/2020_3) by: ZI and PK + WKD)*)
Recommendation 6	^{1*)} Road Manager - Kąty Wrocławskie Commune Office	implemented	1*)
Recommendation 7	^{1*)} Road Manager - Kąty Wrocławskie Commune Office	implemented	1*)
Recommendation 8	Road Manager - Kąty Wrocławskie Commune Office	implemented	1*)

*) on the basis of Information on the implementation of the recommendations of PKBWK for the year 2020 - submitted by UTK with a letter - DPN.53.1.2021.1.IF dated 2021-04-28 - (concerns implementation of recommendations submitted by UTK President to railway market entities)

^{1*)}Attached to the letter No. PKBWK.4631.26.2020 dated 22 May 2020. The Chairman of PKBWK, according to the article 28l (4) of the Railway Transport Act of 28 March 2003 (Journal of Laws of 2019, item 710, as amended), submitted to the road manager - Mayor of the Town and Municipality of Kąty Wrocławskie the Report No. PKBWK/02/2020 from the completed investigation of the accident occurring on the category C level crossing, on 15 June 2019 on the route Kąty Wrocławskie - podg. Mietków at km 22.788 of the line 274 - together with recommendations on safety improvement no. 6, 7 and 8. From the information provided by PKP PLK in the letter IBR4.0323.1.21.a dated 2021-03-30 it results that the road manager realized the recommendations by making:
ad. 6 - proper placement of G1a, G1b, G1c signs,
ad. 7 - cutting of all bushes and unnecessary vegetation from the side of communal road 120603D from the village Sokolniki, improving visibility on the entire length of road-rail crossing at km 22.788 of railway line no. 274,
ad.8 - Installation of a road sign B33 limiting the speed to 50km/h on road 120603D in front of the railway-road crossing at km 22.788 of the railway line no. 274, from the town of Sokolniki.

Ad. 3) REPORT No. PKBWK/03/2020 from investigation of a serious accident of category A19 occurring on 03 July 2019 at 08:50 at level crossing of category B, located on route Wargowo –Złotniki, in closed track no. 2, at km 13.916 of railway line no. 354 Poznań Główny PoD Piła Główna–	
Recommendations of the State Commission on Railway Accidents Investigation in its report	From the " Information on the implementation of the recommendations of PKBWK for the year 2020 ". (submitted by the UTK in letter No.: DPN.53.1.2021.1.IF of 28 April 2021) the President of UTK in the letter No. DPN-WDZK.47.33.2020.3.JJ of 11 August 2020 –submitted the recommendations to market entities and analysed the information on the implementation of the following recommendations
1. Infrastructure manager PKP PLK S.A. will introduce to the instruction detailed principles of proceeding during work of trains on closed track, with switched off sensors of automatic crossing system while train traffic on remaining tracks is carried out.	Content of recommendations submitted for implementation by the President of UTK PKBWK/03/2020_1 Authorized infrastructure managers and Warsaw Commuter Railway Ltd., further referred to as "WKD", shall introduce to internal instructions detailed principles of behaviour during work of working train on closed track, with switched off sensors of automatic crossing system, while train traffic on remaining tracks is carried out.
2. Until the instructions are amended, if it is necessary to run a work train on a closed track with deactivated devices of automatic crossing system with active second track, also in case of deactivation of sensors' interaction in the track with track identification: <ul style="list-style-type: none"> – impose a 20 km/h speed limit on trains travelling on the active and closed track over the entire width of the crossing or passage. – warn train crews on active track and work trains by written order about necessity of repeated sounding of horn Rp 1 „Alert” until setting of W 6b indicator on the section from W 6a indicator to level crossing, and in case of not setting W 6a indicator, from the kilometer set in technical regulations individually for each crossing; – mark the railroad-road crossing with a B-20 "Stop" road sign with a sign "damaged crossing barrier" or "damaged signal". 	PKBWK/03/2020_2 Authorised infrastructure managers and WKD until modification of internal instructions, in case of necessity of work train on closed track with switched off devices of automatic crossing system with active second track and in case of switching off influence of sensors in track with track identification: <ul style="list-style-type: none"> – impose a 20 km/h speed limit on trains travelling on the active and closed track over the entire width of the crossing or passage. – will warn train crews on active track and work trains by written order about necessity of repeated sounding of barrier Rp 1 „Alert” until setting W6b indicator on the section from W6a indicator to level crossing, and in case of not setting W6a indicator, from the kilometer set in technical regulations individually for each crossing; – mark a railroad-road crossing with a B-20 "Stop" road sign with a "damaged crossing barrier" or "damaged signal" sign.
3. Infrastructure manager PKP PLK S.A. will increase number of inspections and strengthen supervision over observance of temporary regulations and internal rules in case of track closures due to investment works and will include these actions in safety improvement programmes within SMS.	PKBWK/03/2020_3 Authorised Infrastructure Managers and WKD will increase the number of inspections and strengthen supervision of compliance with temporary rules and regulations in case of track closures due to investment works, Authorised Managers will include these actions in the SMS safety improvement programmes.

<p>4. Recommendations No. 1 and 3 of the State Commission on Railway Accidents Investigation, indicated in the Report No. PKBWK/05/2018 from the investigation of a serious accident of category A18 occurring on 2 November 2017 at 18:49 at the level crossing cat. A with suspended service, located at km 37.119 of route Śniadowo - Łapy, track no. 1 of the railway line no. 36 Ostrołęka - Łapy, referring to the equipment of auxiliary vehicles in reflective elements improving the visibility of the vehicle from the side, and in the on-board recorder of the driving parameters (recording at least the speed, pressure in the main tube and brake cylinders, activation of the „Alert” signal) for special vehicles.</p>	<p>PKBWK/03/2020_6 Operators of special vehicles shall take measures to ensure that these vehicles running on railway lines are equipped with reflective elements improving the side visibility of these vehicles and develop guidelines for additional marking of vehicles with these elements.</p>
<p>5. Infrastructure manager PKP PLK S.A. will undertake actions aiming at elimination of irregularities in scope of correct issuing technical fitness certificates for railway vehicles.</p>	<p>PKBWK/03/2020_7 Operators of special vehicles shall retrofit on-board recorders of the driving parameters (at least registering speed, pressure in the main pipe and brake cylinders, activation of the „Alert” signal). The retrofitting concerns vehicles undergoing maintenance level P4 and P5 inspections as well as newly purchased vehicles.</p>
<p>6. Infrastructure manager PKP PLK S.A. will include in the register of risks a danger consisting in switching off devices of automatic crossing system in one of the tracks passing by railway-road crossing.</p>	<p>PKBWK/03/2020_5 Infrastructure manager PKP Polskie Linie Kolejowe S.A. will undertake actions to eliminate irregularities in issuing technical fitness certificates for railway vehicles.</p>
<p>Pursuant to Article 28l(8) of the Railway Transport Act of 28 March 2003 (Journal of Laws of 2019, item 710, as amended), the above recommendations were addressed to the President of the Office of Rail Transport. Individual entities should implement the recommendations contained in this Report of the Investigation team and adopted by the resolution of PKBWK.</p>	<p>PKBWK/03/2020_4 Infrastructure manager PKP Polskie Linie Kolejowe S.A. will include in the danger register a threat of switching off automatic crossing system devices in one of the tracks passing by railway-road crossing.</p>

Table 8. Assessment of the implementation of recommendations from Report No. PKBWK/03/2020 submitted by the President of UTK to entities operating on the railway market (based on information from UTK)

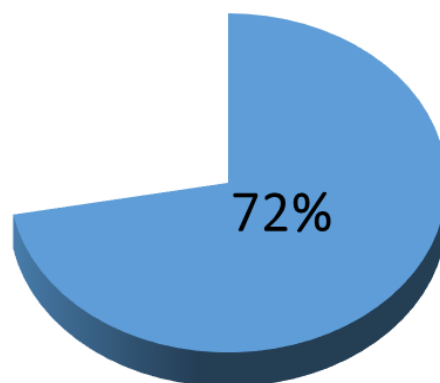
Evaluation of the Implementation of the Recommendations of Report PKBWK/03/2020							
Recommendations	PKBWK/03/2020_1	PKBWK/03/2020_2	PKBWK/03/2020_3	PKBWK/03/2020_4	PKBWK/03/2020_5	PKBWK/03/2020_6	PKBWK/03/2020_7
Evaluated positive	10	10	11	1	1	36	38
Answer insufficient	0	0	0	0	0	4	3
Average percentage of implementation of the recommendation	90	83	43	100	100*)	58	30

*) according to information provided by PKP PLK S.A.

Chart 6. Average percentage of implementation of particular recommendations provided by the President of UTK - from the Report No. PKBWK/03/2020 (based on information from UTK)



Graph 7 Average percentage of implementation of recommendations provided by the President of UTK - from the Report No. PKBWK/03/2020 (based on information from UTK)



The average percentage of implementation of recommendations was determined by UTK based on declarations of addressees of a given recommendation. Lack of 100% of recommendation results from the schedule of activities undertaken by the entity to fully implement the recommendations of PKBWK.

Table 9. **Implementation of recommendations by entities listed by the Commission in Report No. PKBWK/03/2020** - based on information provided to PKBWK in March and April 2021.

Recommendations from Report No. PKBWK/03/2020 (issued in 2020)	ADDRESSEE OF THE RECOMMENDATION:	Date of implementation of the recommendation	Average percentage (%) of completion of recommendation by entities listed in column 2/(implementation phase)
1	2	3	4
Recommendation 1	PKP PLK (ZI+WKD)	2020-06-08	100 (% - realised by PKP PLK) 90 (% ongoing) *)
Recommendation 2	PKP PLK (ZI +WKD)	2019-11-19	100 (% - realised by PKP PLK) 83 (% - in progress by: ZI+ WKD)*)
Recommendation 3	PKP PLK (ZI +WKD)	2020-12-31	100 (% - realised by PKP PLK) 43 (% - in progress by: ZI+WKD) *)
Recommendation 4(a)	PKP PLK (operators of special vehicles)	2020-12-31	100 (% - fitting special vehicles with reflective elements - recommendation implemented by PKP PLK) 58 (% - fitting retro-reflectors for special vehicles - recommendation under implementation by operators of special vehicles) *)
Recommendation 4(b)	PKP PLK (operators of special vehicles)	2027-12-31	40 (% - ongoing recommendation by PKP PLK - retrofitting of on-board recorders to special vehicles) 30 (% - pending recommendation - retrofitting special vehicles with on-board recorders)*)
Recommendation 5	PKP PLK	2020-09-30	100 (% - realised by - PKP PLK)
Recommendation 6	PKP PLK	2020-07-09	100 (% - realised by - PKP PLK)

*) on the basis of Information on the implementation of the recommendations of PKBWK for the year 2020 - submitted by UTK with a letter - DPN.53.1.2021.1.IF dated 2021-04-28 - (concerns implementation of recommendations submitted by UTK President to railway market entities)

Ad.4) REPORT No. PKBWK/04/2020 on investigation of serious accident of category A21 occurred on 2 August 2019 at 19:42 on railway-road crossing of category D, located on route Starzyny - Konięcpol, track no. 1, at km 34.751 of railway line no. 64 Kozłów - Konięcpol.	
Recommendations of the State Commission on Railway Accidents Investigation submitted in the report	From the " Information on the implementation of the recommendations of PKBWK for the year 2020 ". (submitted by the UTK in letter No.: DPN.53.1.2021.1.IF of 28 April 2021) the President of UTK in the letter No. DPN-WDZK.47.33.2020.3.JJ of 11 August 2020 submitted the recommendations to market entities and analysed the information on the implementation of the following recommendations
1.	Content of recommendations submitted for implementation by the President of UTK
Railway Infrastructure Manager PKP PLK S.A. Railway Branch in Kielce will assess operational risk in order to consider changing the existing D category of a level crossing to a higher category or reducing the speed of trains, taking into account local conditions and 120 km/h train speed as well as local authorities' requests.	PKBWK/04/2020_1 The Railway Infrastructure Manager PKP Polskie Linie Kolejowe S.A. will carry out an operational risk assessment to consider changing the existing "D" category level crossing, route Starzyny - Konięcpol, track no. 1, at km 34.751 of railway line no. 64 Kozłów - Konięcpol to a higher category or limiting the speed of trains, due to local conditions and a speed of 120km/h, as well as local authorities' requests.
2. Railway undertaking PKP Intercity S.A. will implement order of President of Office of Rail Transport no. DBK-550/R03/KB/12 from 30.05.2012, directed to railway undertakings about obligation to install recording devices - digital cameras or video recorders in newly built and operating railway vehicles according to recommendation of PKBWK - No. PKBWK-076-305/RL/R/11 from 22.11.2011 in such way that recording of image and sound will be continuous over the whole route of train.	PKBWK/04/2020_4 Certified railway undertakings and WKD will implement recommendation of PKBWK nr PKBWK.076.305/RL/R/11 from 22 November 2011 addressed to railway undertakings about obligation to install recording devices - digital cameras or video recorders in newly built and operating railway vehicles in such way, that image and sound recording will be retained in continuous manner on the whole train route.
3. Zarząd Dróg Powiatowych in Włoszczowa, due to local conditions, will determine the permissible speed of wheeled vehicles on the road in the area of the railway-road crossing in question and will supplement the horizontal P12 sign and adjust the setting of the B20 sign to the requirements in consultation with the administrator of the railway infrastructure.	
4. Railway Infrastructure Manager PKP PLK S.A. Railway Branch in Kielce will update the Crossing Metrics regarding the entries in accordance with the letter ILK2d-5003-500/1/2018 introducing "Guidelines for preparation and updating of rail-road crossing / level crossing Metrics".	PKBWK/04/2020_2 Railway Infrastructure Manager PKP Polskie Linie Kolejowe S.A. will update the level crossing metric according to the Manager's letter ref. ILK2d.5003.500/1/2018 introducing "Guidelines for preparing and updating the level crossing/road crossing metric"...
5. The Railway Infrastructure Manager PKP PLK S.A. Zakład Linii Kolejowych in Kielce will level the slopes on both sides of the railway-road crossing at km 34.751 of the railway line No. 64 Kozłów - Konięcpol to improve visibility triangles from 10 and 20 metres.	PKBWK/04/2020_3 The Railway Infrastructure Manager PKP Polskie Linie Kolejowe S.A. will level the slopes on both sides of the railway-road crossing at km 34.751 of the railway line No. 64 Kozłów - Konięcpol to improve visibility triangles from 10 and 20 metres.

<p>Pursuant to Article 28l (8) of the Railway Transport Act of 28 March 2003 (Journal of Laws of 2019, item 710, as amended), the above recommendations were addressed to the President of the Office of Rail Transport (Recommendation No. 1, 2, 4, 5) and to other stakeholders (Recommendation No. 3). Individual entities should implement recommendations included in this Report and adopted by resolution of PKBWK.</p>	
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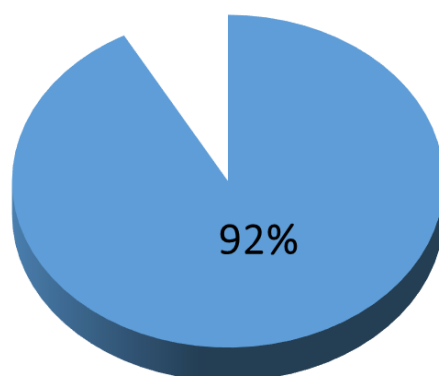
Table 10. **Assessment of the implementation of recommendations from Report No. PKBWK/04/2020 submitted by the President of UTK to entities operating on the railway market (based on information from UTK)**

Evaluation of the implementation of the recommendations of Report No. PKBWK/04/2020				
Recommendations	PKBWK/04 2020_1	PKBWK/04 2020_2	PKBWK/04 2020_3	PKBWK/04 2020_4
Assessed positively	1	1	1	102
Insufficient answer	0	0	0	1
Average percentage of implementation of the recommendation	100	100	100	68

Chart 8. **Average percentage of implementation of particular recommendations provided by the President of UTK - from the Report No. PKBWK/04/2020 (based on information from UTK)**



Chart 9. **Average percentage of implementation of recommendations provided by the President of UTK - from the Report No. PKBWK/04/2020 (based on information from UTK)**



The average percentage of implementation of recommendations was determined by UTK based on declarations of addressees of a given recommendation. Lack of 100% of recommendation results from the schedule of activities undertaken by the entity to fully implement the recommendations of PKBWK.

Table 11. Implementation of recommendations by entities listed by the Commission in Report No. PKBWK/04/2020 - based on information provided to PKBWK in March and April 2021.

Recommendations from Report No. PKBWK/04/2020 (issued in 2020)	ADDRESSEE OF THE RECOMMENDATION:	Date of implementation of the recommendation	Average percentage (%) of completion of recommendation by entities listed in column 2/(implementation phase)
1	2	3	4
Recommendation 1	PKP PLK	2020-09-09	100 (% - realised by PKP PLK)
Recommendation 2	**PKP Intercity S.A. (PK +WKD)	2026-12-31	72 (% - in progress by PKP IC) 68 (% - in progress by: PK+ WKD)*)
Recommendation 3	^{1*)} District Road Administration in Włoszczowa	implemented	Implemented by the road manager ^{1*)}
Recommendation 4	PKP PLK	2020-07-21	100 (% - realised by PKP PLK)
Recommendation 5	PKP PLK	2020-08-28	100 (% - realised by PKP PLK)

*) on the basis of Information on the implementation of the recommendations of PKBWK for the year 2020 - submitted by UTK in letter - DPN.53.1.2021.1.IF dated 2021-04-28 - (concerns the implementation of recommendations submitted by UTK President to railway entities - according to UTK President this is recommendation submitted to entities under number PKBWK/04/2020_4)

**) PKP Intercity S.A. - Railway carrier - hereinafter referred to as: - "PKP IC".

^{1*)} Attached to the letter No. PKBWK.4631.46.2020 of 8 July 2020. The Chairman of PKBWK, in accordance with article 281 (4) of the Railway Transport Act of 28 March 2003 (Journal of Laws of 2019, item 710, as amended), forwarded to the road manager - the County Road Administration in Włoszczowa the Report No. PKBWK/04/2020 from the completed investigation of a serious accident of category A21 occurring on 2 August 2019. at 19:42 on a railway and road crossing of category D, located on the route Starzyny - Koniecpol - together with recommendation on safety improvement no. 3. From the information provided by PKP PLK in the letter IBR4.0323.1.21.a of 2021-03-30 it results, that the road manager fulfilled the recommendation by completing the horizontal P12 sign and setting the B20 sign before the level crossing and specified the maximum speed of 90 km/h.

Ad.5 REPORT No. PKBWK/05/2020 on investigation of railway incident category C41 occurred on 30 July 2019 at 16:53 in Zlocieniec station, track no. 2, at km 114.131 of railway line no. 210 Chojnice –Runowo Pomorskie	
Recommendations of the State Commission on Railway Accidents Investigation forwarded in the report	From the " Information on the implementation of the recommendations of PKBWK for the year 2020 ". (submitted by the UTK in a letter no.: DPN.53.1.2021.1.IF of 28 April 2021) shows that the President of UTK in the letter No. DPN-WDZK.47.30.2020.2.KG of 11 September 2020 – forwarded the recommendations to market entities and analysed the information on the implementation of the above mentioned recommendations
	Content of recommendations submitted for implementation by the President of UTK
1. Railway infrastructure managers within 3 months after publication of this report will verify modernised mechanical devices with light signalling from the point of view of meeting requirements with provisions of § 47 rec. 7 of Instruction Ie-4 light plan in particular placing track layout scheme of a station. In case of finding any irregularities, they will take actions to remove them.	PKBWK/05/2020_1 Authorised managers of railway infrastructure will, within 3 months from the publication of the report, verify the modernised mechanical devices with light signals from the point of view of providing a lighting plan with elements reflecting the traffic control devices applied in a given traffic station. In particular, they will take into account the transfer of the station layout scheme to the light sheet, as well as other elements of the light signalling infrastructure, such as: repeating signals, line interlocking, line and station counterbalance, track and turnout unoccupancy control devices, and elements depicting other devices such as road-rail crossings, sidings, etc. In case of finding any irregularities, they will take action to remove them.
2. Railway infrastructure manager PKP PLK S.A. within the framework of ongoing and future modernisations of mechanical devices will ensure compliance with provisions of § 47 rec. 7 of Instruction Ie-4.	PKBWK/05/2020_2 Authorised managers of railway infrastructure within ongoing and future modernisations of mechanical devices with light signals will consider equipment of signalling posts with light plans containing appropriate elements of signalling equipment in a given traffic station.
3. Railway infrastructure manager PKP PLK S.A. within internal control will include issues concerning preparation of temporary traffic regulations during execution of works for executed investment tasks in terms of ensuring railway traffic safety.	KBWK/05/2020_3 Authorized managers of railway infrastructure will include, within conducted internal inspections, issues concerning preparation of temporary traffic regulations during execution of works for executed investment tasks in terms of ensuring safety of railway traffic.
4. Railway infrastructure managers will extend the obligation of sealing dPo buttons of semi-self-acting automatic relay line interlocking independently of counter operation.	PKBWK/05/2020_4 Authorised managers of railway infrastructure shall extend the obligation to seal the dPo buttons of semi-self-acting automatic relay line interlocking independently of the operation of the counter.
5. Railway infrastructure manager PKP PLK S.A. changes provisions of Instruction Ir-1 in § 28 " <i>running of trains on routes with single-signal (semi-self-propelled) line blockade</i> " adding in rec. 19 rules concerning operating of starting block by signalman only on order of train dispatcher during telephone announcement of <i>trains</i> .	PKBWK/05/2020_6 Railway Railroad Infrastructure Manager PKP Polskie Linie Kolejowe S.A. changes provisions of Instruction Ir-1 in § 28 " <i>running of train traffic on routes with single-side (semi-self-propelled) line blockade</i> " adding in rec. 19 principles concerning operating of starting block by signalman only on order of railroad line manager during telephone announcement of trains.

<p>6. Railway Infrastructure Managers and Railway Undertakings shall make arrangements to regularly synchronise with real time (including documentation) the internal system times of the call recorders, computer systems and other time recording devices.</p>	<p>PKBWK/05/2020_5 Certified Railway Undertakings and Authorised Railway Infrastructure Managers shall undertake measures to regularly synchronise with real time (with documentation) the internal system times of call recorders, computer systems and other time recording devices.</p>
<p>7. Railway Infrastructure Manager PKP PLK S.A. will amend provisions of Instruction Ir-1 regarding written orders by means of communication devices to the train driver, who is not in driver's cab.</p>	<p>PKBWK/05/2020_8 Railway Infrastructure Manager PKP Polskie Linie Kolejowe S.A. will change provisions of Instruction Ir-1 § 58 regarding sending written orders by means of communication devices, considering train driver without access to driver's cab.</p>
<p>8. Railway infrastructure manager PKP PLK S.A. changes provisions of Instruction Ir-1 in § 58 rec. 4 item 2) adding at the end of the point after words "..... this signal", the notation "number of line track where train enters". This information should be written in box 4 "Others" of written order "S".</p>	<p>PKBWK/05/2020_7 Railway Infrastructure Manager PKP Polskie Linie Kolejowe S.A. changes provisions of Instruction Ir-1 in § 58 rec. 4, point 2) adding at the end of the point, after words "of this signal", statement "together with indication of number of line track, where the train enters". This information should be written in box 4 "Other" of written order "S".</p>
<p>In accordance with Article 281 (8) of the Railway Transport Act of 28 March 2003 (consolidated text: Journal of Laws of 2019, item 710), the above recommendations were addressed to the President of the Office of Rail Transport. Individual entities should implement the recommendations contained in this Report of the Investigation team and adopted by the resolution of the PKBWK.</p>	
	<p>PKBWK/05/2020_9 Certified railway undertakings within periodic instructions will discuss duties of train crew during train journey with special consideration of actions in case of train entering the route based on alternative signal or written order together with discussion about principles of receiving written orders transmitted by means of communication devices.</p>

Table 12. **Assessment of the implementation of recommendations from Report No. PKBWK/05/2020 submitted by the President of UTK to entities operating on the railway market** (based on information from UTK)

Evaluation of the implementation of the recommendations of Report PKBWK/05/2020									
Recommendations	PKBWK/05 2020_1	PKBWK/05 2020_2	PKBWK/05 2020_3	PKBWK/05 2020_4	PKBWK/05 2020_5	PKBWK/05 2020_6	PKBWK/05 2020_7	PKBWK/02 2020_8	PKBWK/02 2020_9
Evaluated positive	13	13	13	13	111	1	1	1	99
Insufficient answer	0	0	0	0	0	0	0	0	1
Average percentage of implementation of the recommendation	88	84	75	31	71	100	100	100	57

Chart 10. **Average percentage of implementation of particular recommendations provided by the President of UTK - from the Report No. PKBWK/05/2020** (based on information from UTK)

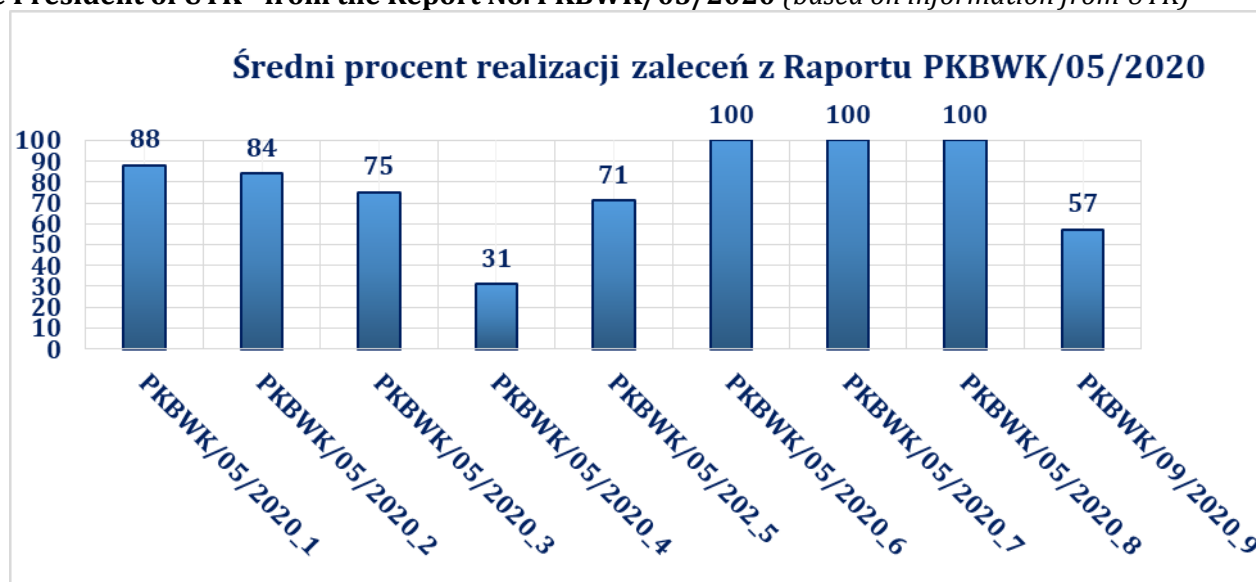
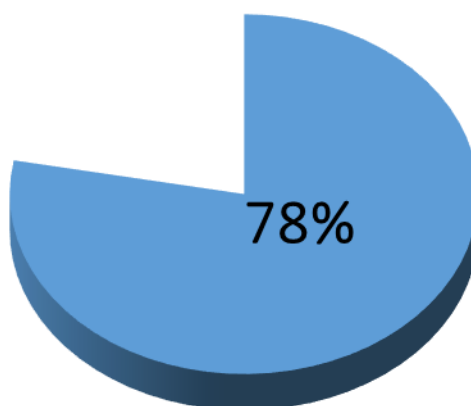


Chart 11. **Average percentage of implementation of recommendations provided by the President of UTK - from the Report No. PKBWK/05/2020** (based on information from UTK)



The average percentage of implementation of recommendations was determined by UTK based on declarations of addressees of a given recommendation. Lack of 100% of recommendation results from the schedule of activities undertaken by the entity to fully implement the recommendations of PKBWK.

Table 13. Implementation of recommendations by entities listed by the Commission in Report No. PKBWK/05/2020 - based on information provided to PKBWK in March and April 2021.

Recommendations from Report No. PKBWK/05/2020 (issued in 2020)	ADDRESSEE OF THE RECOMMENDATION:	Date of implementation of the recommendation	Average percentage (%) of completion of recommendation by entities listed in column 2/(implementation phase)
1	2	3	4
Recommendation 1	PKP PLK (ZI+ WKD +PKM)	2020-11-03	100 (% realized by--: PKP PLK) 88 (% in- progress by: ZI+WKD +PKM)*)
Recommendation 2	PKP PLK (ZI+ WKD +PKM)	2020-12-31	100 (% realized by--: PKP PLK) 84 (% -in progress by: ZI+ WKD +PKM)*)
Recommendation 3	PKP PLK (ZI+WKD +PKM)	2020-12-31	100 (% realized- by: PKP PLK) 75 (% -in progress by: ZI+ WKD +PKM)*)
Recommendation 4	PKP PLK (ZI+WKD +PKM)	2021-04-30	85 (% -in progress by: PKP PLK) 31 (% -in progress by: ZI+ WKD +PKM)*)
Recommendation 5	PKP PLK	2021-03-01	100 (% realized by- PKP PLK)
Recommendation 6	PKP PLK (PK+ZI+WKD+PKM)	2020-12-31	100 (% -realized by PKP PLK) 71 (% in- progress by: PK+ZI+ KD+PKM)*)
Recommendation 7	PKP PLK	2021-03-01	100 (% -realized by PKP PLK)
Recommendation 8	PKP PLK	2021-03-01	100 (% -realized by PKP PLK)

*) on the basis of Information on the implementation of the recommendations of PKBWK for the year 2020 - submitted by UTK with a letter - DPN.53.1.2021.1.IF dated 2021-04-28 - (concerns implementation of recommendations submitted by UTK President to railway market entities)

Ad.6) PKBWK/06/2020 on investigation of accident category B11 occurred on 8 August 2019 at 23:18 on route Tarnów Opolski –Opole Groszowice, track no. 1, km 87.973 of railway line no. 132 Bytom –Wrocław Główny	
Recommendations of the State Commission on Railway Accidents Investigation forwarded in the report	From the " Information on the implementation of the recommendations of PKBWK for the year 2020 ". (submitted by the UTK in letter No.: DPN.53.1.2021.1.IF of 28 April 2021) shows that the President of UTK in the letter No. DPN-WDZK.47.40.2020.2.KG of 20 October 2020 submitted the recommendations to market entities and analysed the information on the implementation of the following recommendations
1. The carrier PKP CARGO S.A. will immediately strengthen the supervision over the implementation of the process of rolling stock maintenance levels, especially in the field of wheelsets.	Content of recommendations submitted for implementation by the President of UTK PKBWK/06/2020_3 Certified Railway Undertakings and ECM will immediately strengthen the supervision of the implementation of the rolling stock maintenance levels process especially for wheelsets.
2. The carrier PKP CARGO S.A. enforces the quality of inter-operational and final acceptance, especially of wheelsets.	PKBWK/06/2020_4 Certified Railway Undertakings and ECMs contracting maintenance activities enforce the quality of inter-operational and final acceptance, especially of wheelsets.
3. In relation to the Safety Management System, introducing by the Infrastructure Manager and the carrier in the Register of Risks the risk consisting of "breaking the pivot of the axle of a wheel set". The Infrastructure Manager fulfilled the above recommendation during the conducted proceedings.	PKBWK/06/2020_6 The Authorised Infrastructure Managers, Certified Railway Undertakings and the ECM shall include the hazard 'broken wheel-set axle journal' in the Safety Management System or in the Maintenance Management System respectively.
4. PKP PLK S.A. will accelerate implementation of recommendation included in report no. PKBWK/02/2019 which reads: <i>PKP PLK S.A. will take measures to systematically equip railway lines with devices for detection of rolling stock emergency conditions on operated railway lines based on conducted analysis based on risk of possibility of occurrence of events.</i> At the same time, it will implement provisions of Instruction Ie-3.	PKBWK/06/2020_1 PKP Polskie Linie Kolejowe S.A. will take effective actions to implement the recommendation included in the report no. PKBWK 02/2019 which reads: <i>"PKP PLK S.A. will undertake measures to systematically equip railway lines with devices to detect rolling stock emergency conditions on operated railway lines based on a risk-based analysis of the possibility of events."</i> At the same time, it will ensure that the provisions of Instruction Ie-3 are properly implemented.
5. Railway infrastructure managers and railway undertakings, to emphasize the importance of the issue and to raise awareness of safety culture, will include in the subject of periodic instructions for traffic wardens' principles of proceeding in case of irregularities in rolling stock layout according to internal regulations (in case of PKP PLK S.A. included in § 76 Instruction Ir-1).	PKBWK/06/2020_7 Authorised managers of railway infrastructure and certified railway undertakings, to emphasise the importance of the issue and to raise awareness of safety culture, shall include, in the subject of periodic instructions for employees directly involved in train traffic and driving vehicles, principles of proceeding in case of noticing irregularities in the running gear of wagons according to internal regulations.
6. The undertakings shall equip the traction units and/or drivers with light sources (flashlights) to enable, among other things, an examination of the railway vehicles to be carried out in the dark.	PKBWK/06/2020_5 Certified railway undertakings shall permanently equip traction units and/or drivers with light sources (flashlights), among others, to allow visual inspections of railway vehicles during the dark period.

<p>7. PKP CARGO S.A. will review the Maintenance System Documentation and will introduce the obligation of correct filling in the measurement cards during the maintenance inspections in all the plants carrying out the maintenance process.</p>	<p>PKBWK/06/2020_2 PKP CARGO S.A. will review the Maintenance System Documentation and will ensure that the obligation to correctly fill in the measurement cards during the maintenance inspections is properly fulfilled in all plants carrying out the maintenance process.</p>
<p>According to article 28l (8) of Railway Transport Act of 28 March 2003 (consolidated text: Journal of Laws of 2020, item 1043 as amended), the above recommendations were addressed to the President of Office of Rail Transport. The listed entities should implement recommendations included in this Report of the Investigation team and adopted by the resolution of PKBWK.</p>	

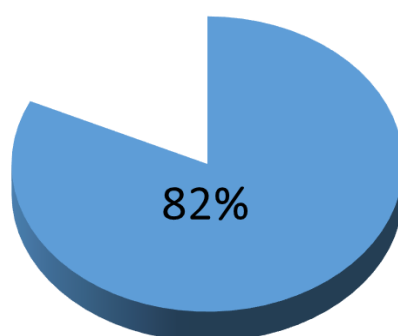
Table 14. **Assessment of the implementation of recommendations from Report NR PKBWK/06/2020 submitted by the President of UTK to entities operating on the railway market (based on information from UTK)**

Evaluation of the implementation of the recommendations of Report PKBWK/06/2020							
Recommendations	PKBWK/06/2020_1	PKBWK/06/2020_2	PKBWK/06/2020_3	PKBWK/06/2020_4	PKBWK/06/2020_5	PKBWK/06/2020_6	PKBWK/06/2020_7
Evaluated positively	1	1	123	125	99	125	98
Answer insufficient	0	0	3	2	1	1	3
Average percentage of implementation of the recommendation	100	100	83	81	76	76	56

Chart 12. **Average percentage of implementation of particular recommendations provided by the President of UTK - from the Report No. PKBWK/06/2020 (based on information from UTK)**



Chart 13. **Average percentage of implementation of recommendations provided by the President of UTK - from the Report No. PKBWK/06/2020 (based on information from UTK)**



The average percentage of implementation of recommendations was determined by UTK based on declarations of addressees of a given recommendation. Lack of 100% of recommendation results from the schedule of activities undertaken by the entity to fully implement the recommendations of PKBWK.

Table 15: Implementation of recommendations by entities listed by the Commission in Report No. PKBWK/06/2020 - based on information provided to PKBWK in March and April 2021.

Recommendations from Report No. PKBWK/06/2020 (issued in 2020)	ADDRESSEE OF THE RECOMMENDATION:	Date of implementation of the recommendation	Average percentage (%) of completion of recommendation by entities listed in column 2/(implementation phase) in column 2/(implementation phase)
1	2	3	4
Recommendation 1	PKP CARGO (PK+ECM**)	2020-09-(15-17)	100 (% realized– by PKP CARGO) 83 (% in– progress by: CP+ECM)*)
Recommendation 2	PKP CARGO (PK+ECM)	2020-09-(15-17)	100 (% realized– by PKP CARGO) 81 (% –in progress by: CP+ECM)*)
Recommendation 3	PKP PLK (ZI+PK+ECM)	2020-07-09	100 (% realized– by PKP PLK) 76 (% –in progress by: ZI+PK+ECM)*)
Recommendation 4	PKP PLK	2020-12-31	100 (% realized– by PKP PLK)
Recommendation 5	PKP PLK (PK+ZI)	2021-12-31	25 (% –in progress by PKP PLK) 56 (% –in progress by: ZI+PK) *)
Recommendation 6	PKP CARGO (PK)	2020-08-12.....	100 (% –realised by PKP CARGO) 76 (% realised by PK)*)
Recommendation 7	PKP CARGO	2020-08-20	100 (% realized by PKP– CARGO)

*) on the basis of Information on the implementation of the recommendations of PKBWK for the year 2020 - submitted by UTK with a letter - DPN.53.1.2021.1.IF dated 2021-04-28 - (concerns implementation of recommendations submitted by UTK President to railway market entities)

***)ECM - Entities in charge of the maintenance of freight wagons

Ad.7) REPORT No. PKBWK/07/2020 on investigation of railway accident of category B21 occurred on 17 February 2020 at level crossing of category D, located on route Czerwonak –Bolechowo at km 7.765 of railway line No. 356 Poznań Wschód Bydgoszcz Główna–	
Recommendations of the State Commission on Railway Accidents Investigation forwarded in the report	From the " Information on the implementation of the recommendations of PKBWK for the year 2020 ". (submitted by the UTK in a letter no.: DPN.53.1.2021.1.IF of 28 April 2021) shows that the President of UTK in the letter No. DPN-WDZK.47.39.2020.2.KG. of 20 October 2020 –submitted the recommendations to market entities and analysed the information on the implementation of the following recommendations
In accordance with Article 28l (8) of the Railway Transport Act of 28 March 2003 (consolidated text: Journal of Laws of 2020, item 1043, as amended), the Commission recommended the implementation of the following measures:	Content of recommendations submitted for implementation by the President of UTK
1. Road administrator - Czerwonak Municipality in consultation with railway infrastructure manager PKP Polskie Linie Kolejowe S.A. will undertake actions to develop a concept of building a public road along the railway line (on its left side) that would channel the traffic from cat D crossings at km 7.018, 7.483 and 7.765 to one crossing of a higher category.	
2. Road Manager Urząd Gminy Czerwonak will establish appropriate actions to ensure immediate removal of irregularities reported by infrastructure manager PKP Polskie Linie Kolejowe S.A. resulting from inspections and diagnostic tests of railway and road crossings.	
3. Infrastructure manager PKP Polskie Linie Kolejowe S.A. will include each check as an obligatory element of the scope of control and diagnostic tests of level crossings: a) compatibility of the inclination of the access road alignment with the applicable regulations and the travel metric, b) visibility of the crossing from the access roads, c) check that the journey log is up to date. If irregularities are found, appropriate corrective action should be taken.	PKBWK/07/2020_4 Authorised infrastructure managers and WKD will include each check as a compulsory element of the scope of inspections and diagnostic tests of journeys: a) the compliance of the gradient of the access roads with the applicable regulations and the travel metric the crossing metric, b) visibility of the crossing from the access roads, c) check that the journey log is up to date. If irregularities are identified, they will take appropriate corrective action.
4. Infrastructure manager PKP Polskie Linie Kolejowe S.A. will undertake actions aimed at improving the quality of final acceptance of investment tasks, including ensuring that technical parameters of received road-rail crossings are compliant with applicable regulations.	PKBWK/07/2020_5 Authorised infrastructure managers and WKD will undertake actions aimed at improving the quality of final acceptance of investment tasks, including ensuring that the technical parameters of received road-rail crossings will be compliant with applicable regulations.
5. Infrastructure manager PKP Polskie Linie Kolejowe S.A. within Safety Management System (SMS) will undertake activities aimed at a) improving the effectiveness of the monitoring and analysis of information	PKBWK/07/2020_2 Authorised infrastructure managers within the framework of the safety management system (SMS) will undertake actions aimed at improving the effectiveness of monitoring and analysing information on safety hazards resulting from requests submitted by railway undertakings and users of road-rail level crossings, as well as from

<p>on safety risks resulting from requests made by carriers and users of level crossings and from incidents investigated in accordance with the procedure,</p> <p>b) improvement of effectiveness of SMS procedures implementation: PW-01 and PD-05,</p> <p>c) Addition to the 'hazard register' of 'failure to comply with the visibility conditions of the level crossing from the access road'.</p>	<p>requests from incidents investigations in accordance with the procedure. WKD will implement the above recommendation based on other than Safety Management System (SMS) procedures and internal regulations.</p> <p>PKBWK/07/2020_1 PKP Polskie Linie Kolejowe S.A. will undertake actions aimed at:</p> <ul style="list-style-type: none"> – improvement of effectiveness of SMS procedures implementation: PW-01 and PD-05, – Addition to the 'hazard register' of 'failure to meet the visibility conditions of the level crossing from the access road'.
<p>6. The owner of railway vehicle VT628, i.e., Arriva RP carrier will implement recommendation No. 4 included in point VI of Report No. PKBWK/01/2019 adopted by the Commission with a resolution on 26 March 2019, i.e., will check the installed image recording systems in front of traction vehicles for correctness and continuity of image recording without delays in case of using buffer recording. In the case of systems with delayed image recording, the carrier will make modifications to the power systems to ensure continuity of recording even in the event of loss of external power.</p>	<p>PKBWK/07/2020_3 The certified carriers and WKD will implement recommendation No. 4 included in point VI of Report No. PKBWK/01/2019 adopted by the Commission by resolution of 26 March 2019, i.e., they will check the installed image recording systems in front of traction vehicles for correctness and continuity of image recording without delays in case of using buffer recording. In the case of systems with delayed image recording, carriers will make modifications to the power systems to ensure continuity of recording even in the event of loss of external power.</p>
<p>7. PKP S.A. Real Estate Management Branch in Poznań will undertake actions aiming at removing the car stopping place on the right side of the crossing located on the left side of access road to the crossing looking from the side of provincial road (land plot no. 9/3) due to the fact that the vehicles stopping there limit the visibility of the front of the trains approaching the crossing and the visibility from the right side of the track for the drivers of the trains approaching the railway-road crossing towards Wągrowiec station.</p>	
<p>8. Railway infrastructure managers will send information to managers of roads accessing railway and road crossings about irregularities identified, including in marking and organisation of road traffic, and request information about their removal.</p>	<p>PKBWK/07/2020_6 Authorised managers of railway infrastructure and WKD will send to managers of roads accessing railway and road crossings information on irregularities found, including in marking and organisation of traffic and request information on their removal.</p>
<p>The above recommendations are addressed:</p> <ul style="list-style-type: none"> – recommendation no. 1 and 2 - to the Municipal Office of Czerwonak, – Recommendations 3-6 and 8 to the President of the Office of Rail Transport, – Recommendation No. 7 - to the Company Polskie Koleje Państwowe S.A. <p>Individual entities should implement the recommendations contained in this Report and adopted by resolution of the Commission.</p>	

Table 16. **Assessment of the implementation of recommendations from Report No. PKBWK/07/2020 submitted by the President of UTK to entities operating on the railway market (based on information from UTK)**

Evaluation of the implementation of the recommendations of PKBWK Report/07/2020						
Recommendations	PKBWK/07/2020_1	PKBWK/07/2020_2	PKBWK/07/2020_3	PKBWK/07/2020_4	PKBWK/07/2020_5	PKBWK/07/2020_6
Assessed positively	1	11	97	12	12	12
Insufficient answer	0	0	4	0	0	0
Average percentage of implementation of the recommendation	100	89	69	71	99	96

Chart 14. **Average percentage of implementation of particular recommendations provided by the President of UTK - from the Report No. PKBWK/07/2020 (based on information from UTK)**

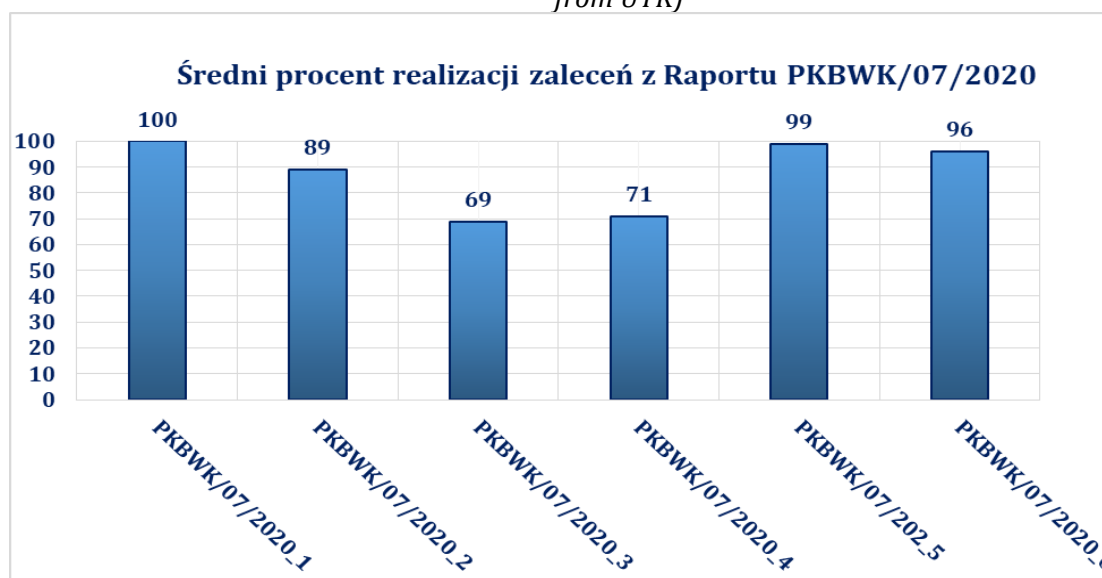
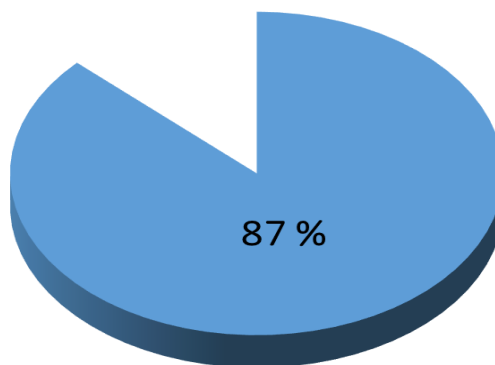


Chart 15. **Average percentage of implementation of recommendations provided by the President of UTK - from the Report No. PKBWK/07/2020 (based on information from UTK)**



The average percentage of implementation of recommendations was determined by UTK based on declarations of addressees of a given recommendation. Lack of 100% of recommendation results from the schedule of activities undertaken by the entity to fully implement the recommendations of PKBWK.

Table 17. Implementation of recommendations by entities listed by the Commission in Report No. PKBWK/07/2020 - based on information provided to PKBWK in March and April 2021.

Recommendations from Report No. PKBWK/07/2020 (issued in 2020)	ADDRESSEE OF THE RECOMMENDATION:	Date of implementation of the recommendation	Average percentage (%) of completion of recommendation by entities listed in column 2/(implementation phase) in column 2/(implementation phase)
1	2	3	4
Recommendation 1	1*)Road manager (in consultation with with PKP PLK)	Not implemented	1*)
Recommendation 2	2*)Road manager (in consultation with with PKP PLK)	Not implemented	2*)
Recommendation 3	PKP PLK (ZI+WKD)	2021-12-31.....	40 (% –in progress by: PKP PLK) 71 (% –in progress by: ZI+WKD)*)
Recommendation 4	PKP PLK (ZI+WKD)	2020-12-31.....	100 (% realized– by: PKP PLK) 99 (% –in progress by: ZI+WKD)*)
Recommendation 5	PKP PLK (ZI+WKD)	2021-02-28.....	100 (% realized by–: PKP PLK) 89 (% –in progress by: ZI+WKD)*)
Recommendation 6	Arriva RP sp. z o.o. (PK+ WKD)	2021-04-30.....	50 (% –in progress by Arriva RP sp. z o.o.) 69 (% –in progress by: ZI+WKD)*)
Recommendation 7	3*)PKP S.A.	2020-10-06	50 (% implementation alternative used–)*3*)
Recommendation 8	PKP PLK (ZI+WKD)	2020-12-31.....	100 (% completed by– PKP PLK) 96 (% completed by: ZI+WKD)*)

*) based on Information on the implementation of the recommendations of PKBWK for 2020. - submitted by UTK in a letter - DPN.53.1.2021.1.IF dated 2021-04-28 - (concerns the implementation of recommendations submitted by the President of UTK to market entities)

1*) 2*) Enclosed letter No. PKBWK.4631.2.11.2020 of 21 August 2020. In accordance with article 28l rec. 4 of Railway Act dated 28 March 2003 (Dziennik Ustaw - Polish Office Journal 2020, item 1043), PKBWK submitted to road administrator, Head of the Czerwonak Municipality, Report no. PKBWK/07/2020 from completed investigation on accident that happened on 17 February 2020 on railway-road crossing of D category at km 7.765 located on the route Czerwonak - Bolechowo. From the information provided by PKP PLK in the letter IBR4.0323.1.21.a of 2021-03-30 we know that Railway Company in Poznań appointed a commission with the road manager to establish the possibility of liquidating 3 railway-road crossings with the possibility of building a public road along the track. On 2020-08-31 a meeting was held in Czerwonak Municipality Office, where concept of road construction along the track was established. According to the information from PKP PLK, further actions will be taken by the road manager.

According to the information provided by Czerwonak Municipality Office, the concept of building a road parallel to the railway tracks on the section between Portowa Street and Młyn Complex in Czerwonak, which was prepared in agreement with PKP PLK, has been given a negative opinion by PKP S.A. Real Estate Management Branch in Poznań. The statement in this case was included in the letter KNPO6.6142.66.2020.AH/11 dated 2020-07-21, submitted to the Municipal Council in Czerwonak.

2*) According to the position of **Czerwonak Municipality** to ensure efficient activity in removing defects reported by the infrastructure manager, all information should be sent immediately to the e-mail address kancelaria@czerwonak.pl to the administrator of the municipal road - this will enable quick action.

3*) By letter nr PKBWK.4631.2.12.2020 of 21 August 2020. State Commission on Railway Accidents Investigation in accordance with article 28l rec. 4 of the Railway Act of 28 March 2003 (Dziennik Ustaw of 2020, item 1043.) submitted to Polish National Railways S.A. (PKP S.A.) information about finishing proceedings in case of accident which happened on 17 February 2020 on level crossing category D at km 7.765 located on route Czerwonak - Bolechowo together with Report no. PKBWK/07/2020 from these proceedings. In response Polskie Koleje Państwowe S.A. Oddział Gospodarowania Nieruchomościami w Poznaniu (Real Estate Management Branch in Poznań) submitted information about the implementation of recommendation no. 7 addressed to PKP S.A. in letter no. KOB02.733.1.2020/6 of 06 October 2020. Implementing the recommendation, the entity applied an alternative solution and indicated that to verify the actions taken

it will monitor this solution. According to the assessment of PKBWK this recommendation has been implemented in an alternative way, and the status of its implementation is 50%, because the actions taken by PKP S.A. in the form of setting up B-1 and B-2 signs in practice proved to be ineffective.

Ad.8) REPORT No. PKBWK/08/2020 from investigation of serious accident of category A35 occurred on 28 October 2019 at 12:55 on route Paczyna - Toszek, track no. 1, at km 48.180 of railway line no. 132 Bytom – Wrocław Główny	
Recommendations of the State Commission on Railway Accidents Investigation forwarded in the report	From the " Information on the implementation of the recommendations of PKBWK for the year 2020 ". (submitted by UTK in letter No.: UTK DPN.53.1.2021.1.IF of 28 April 2021) shows that the President of UTK in the letter No. DPN-WDZK.47.46.2020.2.KG of 18 December 2020 submitted the recommendations to market entities and analysed the information on the implementation of the following recommendations
	Content of recommendations submitted for implementation by the President of UTK
1. Within the framework of internal regulations or safety management systems, works contractors will take actions aimed at implementing supervision over securing worksites, complying with the provisions of temporary works regulations, proper cooperation between works managers and traffic wardens, as well as observing occupational health and safety regulations. For this purpose, they will increase the number of internal inspections concerning the aforementioned issues and included, inter alia, in internal regulation Id-18.	<p>PKBWK/08/2020_1 Authorized managers of railway infrastructure, WKD and PKM:</p> <p>– make the following recommendation to railroad contractors:</p> <p>"The contractors of works, within the framework of internal regulations or safety management systems, will take measures to implement the supervision of maintaining an appropriate level of safety during the execution of investment, maintenance and repair works, performed by their subordinate employees by each time properly and effectively securing the worksite, observing the provisions of temporary regulations for the execution of works, proper cooperation of the works managers with the traffic officer and observance of occupational health and safety regulations. For this purpose, they will increase the number of internal inspections concerning the aforementioned issues, in relation to the regulations in force in this respect.",</p> <p>implement the recommendation and effective controls on its implementation within their safety management systems and/or internal rules.</p>
2. Infrastructure manager PKP PLK S.A. shall ensure preparation of temporary regulations and internal rules in case of planned works requiring track closures.	PKBWK/08/2020_2 Authorised infrastructure managers, WKD and PKM will ensure that temporary bylaws and internal rules are developed for planned works requiring track closures and will implement effective mechanisms to supervise the development and application of the bylaws.
3. Infrastructure manager PKP PLK S.A. in order to emphasize importance of the issue and to raise awareness of safety culture, will include in subject of periodic trainings for train dispatchers and supervisors, principles of conduct included in § 53(1), item 9) of Ir-1 Instruction concerning planned track closures and in § 62, § 63 of Id-1 Instruction.	PKBWK/08/2020_3 Authorized managers of infrastructure, WKD and PKM to emphasize the importance of the issue and to raise awareness of safety culture, will include in the subject of periodic instructions for traffic managers and supervisors, the rules of conduct during the execution of investment, maintenance and repair works. Particular attention will be paid to issues related to covering the worksite, as well as the work manager's

	duties in terms of managing track closures, supervision of workers and compliance with occupational health and safety regulations during the works.
4. Infrastructure Managers shall make appropriate provision in their internal rules for the obligation on train drivers to inform drivers evidentially about all works in the track area where trains are operated.	PKBWK/08/2020_4 Authorised infrastructure managers, WKD and PKM will introduce relevant provisions in internal regulations concerning the obligation for train crews to inform drivers evidentially about all works in the area of tracks on which trains are operated.
5. Railway undertaking PKP Intercity S.A. will implement order of President of Office of Rail Transport no. DBK-550/R03/KB/12 from 30.05.2012, directed to railway undertakings about obligation of installing recording devices - digital cameras or video recorders in newly built and operating railway vehicles according to the recommendation of PKBWK - No. PKBWK-076-305/RL/R/11 from 22.11.2011 in such a way that image and sound recording will be continuous over the whole train route.	PKBWK/08/2020_5 PKP Intercity S.A. railway undertaking will implement, according to recommendation of PKBWK no. PKBWK-076-305/RL/R/11 from 22nd November 2011, recommendation about obligation to install recording devices - digital cameras or video recorders in newly built and operating railway vehicles in such a way that image and sound recording will be continuous over the whole train route.
6. Carrier PKP Intercity S.A. will switch on function of recording of given parameters of acoustic signals in HASLER TELOC 1500 recorder of EP07-1056 vehicle and will check in operated railway vehicles with drive the correctness of recording of train driving parameters.	PKBWK/08/2020_6 The carrier PKP Intercity S.A. will switch on the function of recording of given parameters of acoustic signals in HASLER TELOC 1500 recorder of EP07-1056 vehicle and will make the verification of correctness of train journey parameters recording in operated railway vehicles with propulsion.
7. Railway undertakings shall step up supervision of the day-to-day control of the correctness of the recording of all parameters by the electronic driving recorders of powered railway vehicles, including in particular the signals at attention.	PKBWK/08/2020_7 Certified Railway Undertakings and WKD will implement systematic mechanisms of supervision of current control of correctness of all parameters recorded by electronic recording devices of motive power trains, including in particular given „Alert” signals.
According to article 28l rec. 8 of Railway Transport Act of 28 March 2003 (consolidated text: Journal of Laws of 2020, item 1043), the above-mentioned recommendations were addressed to the President of Office of Rail Transport. Individual entities should implement the recommendations contained in this Investigation team Report and adopted by resolution of the PKBWK.	

Table 18. **Assessment of the implementation of recommendations from Report No. PKBWK/08/2020 submitted by the President of UTK to entities operating on the railway market (based on information from UTK)**

Assessment of the implementation of the recommendations of PKBWK Report/08/2020							
Recommendations	PKBWK/08/2020_1	PKBWK/08/2020_2	PKBWK/08/2020_3	PKBWK/08/2020_4	PKBWK/08/2020_5	PKBWK/08/2020_6	PKBWK/08/2020_7
Assessed positively	13	13	13	13	1	1	108
Insufficient answer	0	0	0	0	0	0	0
Average percentage of implementation of the recommendation	73	83	47	89	72	100	66

Chart 16. **Average percentage of implementation of particular recommendations provided by the President of UTK - from the Report No. PKBWK/08/2020 (based on information from UTK)**

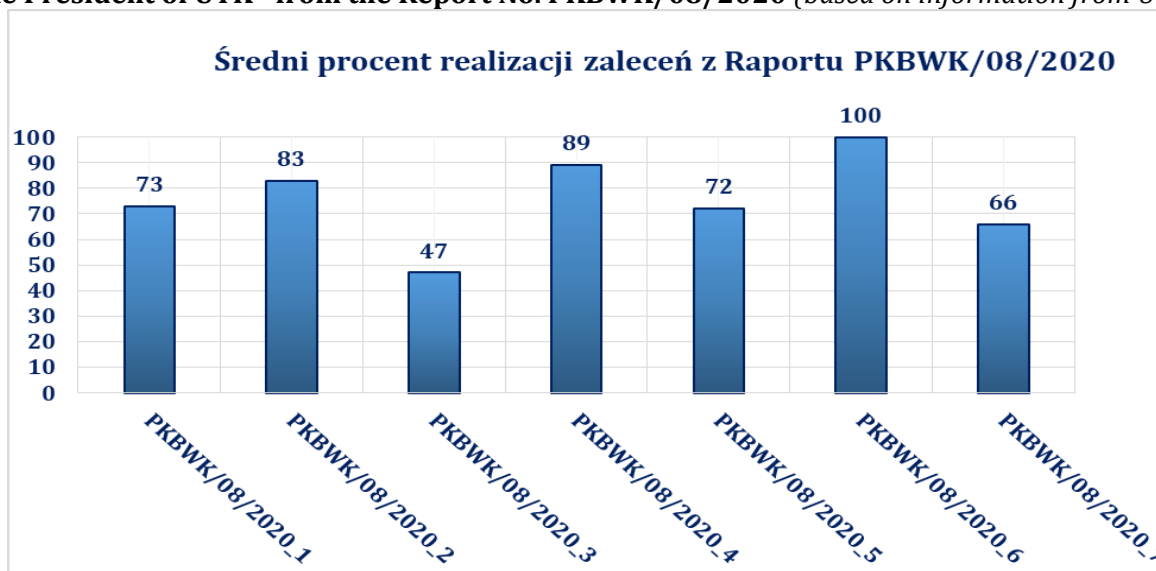
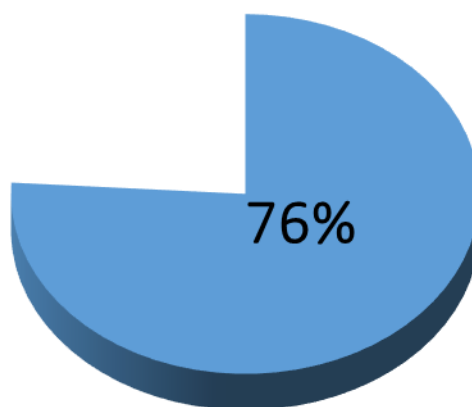


Chart 17. **Average percentage of implementation of recommendations provided by the President of UTK - from the Report No. PKBWK/08/2020 (based on information from UTK)**



The average percentage of implementation of recommendations was determined by UTK based on declarations of addressees of a given recommendation. Lack of 100% of recommendation results from the schedule of activities undertaken by the entity to fully implement the recommendations of PKBWK.

Table 19. Implementation of recommendations by entities listed by the Commission in Report No. PKBWK/08/2020 - based on information provided to PKBWK in March and April 2021.

Recommendations from Report No. PKBWK/08/2020 (issued in 2020)	ADDRESSEE OF THE RECOMMENDATION:	Date of implementation of the recommendation	Average percentage (%) of completion of recommendation by entities listed in column 2/(implementation phase)
1	2	3	4
Recommendation 1	PKP PLK (ZI+WKD+PKM)	2021-12-31	40 (% –in progress by PKP PLK) 73 (% –in progress by: ZI+WKD +PKM) *)
Recommendation 2	PKP PLK (ZI+WKD+PKM)	2021-12-31	40 (% –in progress by PKP PLK) 83 (% –in progress by: ZI+WKD +PKM) *)
Recommendation 3	PKP PLK (ZI+WKD+PKM)	2021-12-31	20 (% –in progress by PKP PLK) 47 (% –in progress by: ZI+WKD +PKM) *)
Recommendation 4	PKP PLK (ZI+WKD+PKM)	2021-05-01	95 (% –in progress by PKP PLK) 89 (% –in progress by: ZI+WKD +PKM) *)
Recommendation 5	PKP IC	2026-12-31	72 (% –under implementation by PKP IC)
Recommendation 6	PKP IC	2020-11-24	100 (% –realised by PKP IC)
Recommendation 7	(PK +WKD)	66 (% –in progress by: PK+WKD) *)

*) on the basis of Information on the implementation of the recommendations of PKBWK for the year 2020 - submitted by UTK with a letter - DPN.53.1.2021.1.IF dated 2021-04-28 - (concerns implementation of recommendations submitted by UTK President to railway market entities)

Ad. 9) REPORT No PKBWK/09/2020 on investigation of category A23 major accident occurred on January 11, 2020, at 04:35 on route Szamotyły - Pęckowo, track no 1, at km 34.102 of railway line no 351 Poznań Główny - Szczecin Główny	
Recommendations of the State Commission on Railway Accidents Investigation forwarded in the report	From the " Information on the implementation of the recommendations of PKBWK for the year 2020 ". (submitted by the UTK in letter No.: DPN.53.1.2021.1.IF of 28 April 2021), the President of UTK in the letter No. DPN-WDZK.47.2.2021.2.KG of 9 February 2021 submitted the recommendations to market entities and analysed the information on the implementation of
1. Infrastructure manager PKP PLK S.A. will enforce the participation of contractors, subcontractors and other interested parties in regulatory committees preparing temporary traffic management regulations during works execution, as well as in coordination meetings related to the construction process.	Content of recommendations submitted for implementation by the President of UTK PKBWK/09/2020_1 Authorized managers of railway infrastructure, WKD and PKM enforce the participation of contractors and subcontractors of works and other interested entities in regulatory committees preparing temporary traffic regulations during works execution as well as in coordination meetings related to the construction process.
2. Infrastructure manager PKP PLK S.A. will oblige contractors and subcontractors of works to give detailed information specifying the scope of executed works (phase, stage, etc.) with indication of their location in the request for track closures submitted to the Infrastructure Manager.	PKBWK/09/2020_2 Authorized managers of railway infrastructure, WKD and PKM will oblige contractors and subcontractors of works to provide detailed information specifying the scope of works performed (phase, stage, etc.) with indication of their location in the report on track closures submitted to the infrastructure manager.
3. Infrastructure manager PKP PLK S.A. will strictly observe the content of Ir-19 Instruction concerning issuing "notification on track/track closure order" addressed to all concerned.	PKBWK/09/2020_3 Authorized managers of railroad infrastructure WKD and PKM will implement effective supervisory mechanisms in terms of absolute observance of all obligations resulting from internal regulations concerning issuing notices on track/track closure orders addressed to all interested entities. In case of lack of such regulations the aforementioned managers will undertake actions to develop them. In case of infrastructure manager PKP PLK S.A. the recommendation concerns adherence to obligations defined in Ir-19 Instruction.
4. Infrastructure manager PKP PLK S.A. will enforce making detailed records about works (kilometers of works, phase, stage, etc.) in Switch Inspection Logbook (D-831).	PKBWK/09/2020_4 Authorized managers of railway infrastructure, WKD and PKM enforce making detailed records about works (kilometers of works, phase, stage, etc.) in documentation concerning diagnostics of railway infrastructure before starting track works. In case of infrastructure manager PKP PLK S.A. it will be Switch Inspection Log (D-831)
5. The carrier TKol Sp. z o.o. will implement mechanisms checking the competence of the employees to prevent the appointment of employees to perform activities without proper qualifications and will enforce the correct implementation of the procedures within the SMS, in particular Procedure P-12.	PKBWK/09/2020_5 Certified Railway Undertakings, as part of their Safety Management System (SMS), will take measures to improve the effectiveness of the monitoring of appropriate staff competency checking procedures to prevent staff being appointed to activities without the correct qualifications and enforce their correct implementation. WKD will implement the above recommendation based on procedures and

	internal regulations other than the Safety Management System (SMS).
6. The carriers: TKol Sp. z o.o. and PKP Energetyka S.A. and the infrastructure manager PKP PLK S.A. will undertake actions to eliminate other irregularities not related to the causes of a serious accident but revealed during the investigation of the causes of a serious accident.	PKBWK/09/2020_6 The carriers: TKol Sp. z o.o. and PKP Energetyka S.A. and the infrastructure manager PKP PLK S.A. will undertake actions to eliminate other irregularities not related to the causes of the serious accident but revealed during the investigation of the causes of the serious accident.
7. The owner of railway vehicle SM42-9288 PKP Energetyka S.A. will carry out the order of Office of Rail Transport President regarding installation of digital cameras or video recorders in railway vehicles.	PKBWK/09/2020_7 PKP Energetyka S.A. - the owner of railway vehicle SM42-9288 will implement recommendation of PKBWK nr PKBWK-076-305/RL/R/11 from 22 November 2011 addressed to railway undertakings about obligation to install recording devices - digital cameras or video recorders in newly built and operating railway vehicles in such way, that the recording of image and sound will be retained in continuous manner on the whole route of train.
8. PKP Energetyka S.A. the owner of technical and utility wagon type 3Z; year of construction 1949, serial no. - 0689, possessing railway vehicle identifier no. EVN PL-PKPE 99 51 9530 165-1, will carry out an inspection of appropriate level and will issue a new technical efficiency certificate after fulfilling all necessary requirements.	PKBWK/09/2020_8 PKP Energetyka S.A. - the owner of the technical-commercial wagon type 3Z; year of construction 1949, serial no. - 0689, possessing the railway vehicle identification no. EVN PL-PKPE 9951 9530 165-1, will carry out the inspection of the appropriate level and will issue a new technical efficiency certificate after fulfilling all the necessary requirements.
9. PKP Energetyka S.A. the owner of motive power unit SM42-9288 will take action to use in PIAP recorders all available signals including recording of acoustic signal „Alert”.	PKBWK/09/2020_9 PKP Energetyka S.A. - the owner of motive power unit SM42-9288 will undertake actions in scope of using in PIAP recorders all available signals with recording of acoustic signal „Alert”.
10. Those whose employees were involved in the incident will discuss the serious accident at periodic briefings and health and safety training.	PKBWK/09/2020_10 Authorised Infrastructure Managers, Certified Railway Undertakings, WKD and PKM will discuss a serious accident in periodic instructions and health and safety training and enforce this on their subcontractors of works.
According to article 281 rec. 8 of Railway Transport Act of 28 March 2003 (consolidated text: Journal of Laws of 2020, item 1043), the above-mentioned recommendations were addressed to the President of Office of Rail Transport. Individual entities should implement the recommendations contained in this Investigation team Report and adopted by resolution of the PKBWK.	

Table 20. **Assessment of the implementation of recommendations from Report No. PKBWK/09/2020 submitted by the President of UTK to entities operating on the railway market (based on information from UTK)**

Assessment of the implementation of the recommendations of the PKBWK/09/2020 Report										
Recommendations	PKBWK/09/2020_1	PKBWK/09/2020_2	PKBWK/09/2020_3	PKBWK/09/2020_4	PKBWK/09/2020_5	PKBWK/09/2020_6	PKBWK/09/2020_7	PKBWK/09/2020_8	PKBWK/09/2020_9	PKBWK/09/2020_10
Assessed positively	12	12	12	12	90	3	1	1	1*)	99
Insufficient answer	0	0	0	0	1	0	0	0	0	1
Average percentage of implementation of the recommendation	72	70	53	49	67	20	40	10	0	47

*) a positive assessment was given when complete information on the implementation of recommendations was provided, including information on the actions planned for implementation with a timetable for their implementation

Chart 18. **Average percentage of implementation of particular recommendations provided by the President of UTK - from the Report No. PKBWK/09/2020 (based on information from UTK)**

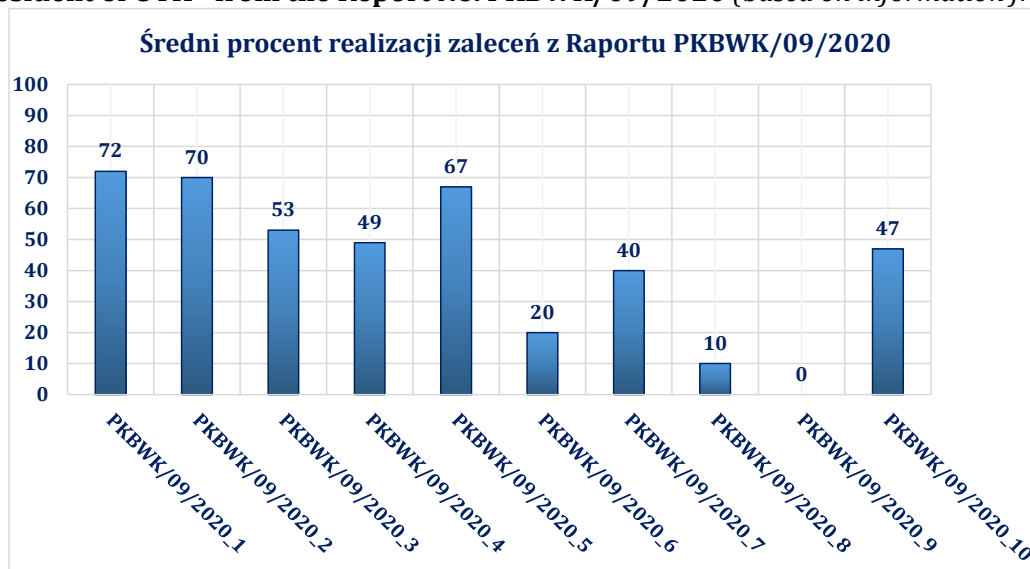
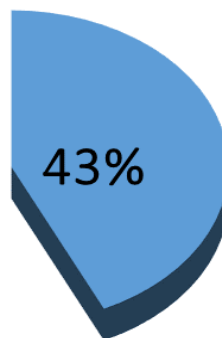


Chart 19. **Average percentage of implementation of recommendations provided by the President of UTK - from the Report No. PKBWK/09/2020 (based on information from UTK)**



The average percentage of implementation of recommendations was determined by UTK based on declarations of addressees of a given recommendation. Lack of 100% of recommendation results from the schedule of activities adopted by the entity to fully implement the recommendations of PKBWK.

Table 21: **Implementation of recommendations by entities listed by the Commission in Report No. PKBWK/09/2020** - based on information provided to PKBWK in March and April 2021.

Recommendations from Report No. PKBWK/09/2020 (issued in 2020)	ADDRESSEE OF THE RECOMMENDATION:	Date of implementation of the recommendation	Average percentage (%) of completion of recommendation by entities listed in column 2/(implementation phase)
1	2	3	4
Recommendation 1	PKP PLK (ZI+WKD+PKM)	2021-12-31	25 (% –in progress by: PKP PLK) 72 (% in– progress by: ZI+WKD+PKM) *)
Recommendation 2	PKP PLK (ZI+WKD+PKM)	2020-12-31	25 (% –in progress by: PKP PLK) 70 (% in– progress by: ZI+WKD+PKM)*)
Recommendation 3	PKP PLK (ZI+WKD+PKM)	2021-12-31	25 (% –in progress by: PKP PLK) 53 (% in– progress by: ZI+WKD+PKM)*)
Recommendation 4	PKP PLK (ZI+WKD+PKM)	2021-12-31	25 (% –in progress by: PKP PLK) 49 (% –in progress by: ZI+WKD+PKM)*)
Recommendation 5	^{1*)} TKol Sp. z o.o. (PK+WKD)	2021-06-30	10 (% –ongoing through: TKol) 67 (% –in progress by: PK+WKD)*)
Recommendation 6	TKol PKP PLK ^{2*)} PKP Energetyka S.A. (TKol +PKP PLK +Energetyka)	2021-06-30 2021-01-31 2023-12-31	10 (% –ongoing through: TKol) 100 (% –completed by PKP PLK) 40 (% recommendation pending– completion by Energetyka) ^{3*)} 20 (% –average percentage of implementation by: TKol + PKP PLK+Energetyka)*)
Recommendation 7	Energetics	2023-12-31	40 (% –under implementation by Energetics)*)
Recommendation 8	Energetics	2021-06-30	10 (% –under implementation by Energetics)*)
Recommendation 9	Energetics	2023-12-31	0 (% –ongoing with Energetics) *) ^{4*)}
Recommendation 10	(ZI+PK+WKD+PKM)	47 (% –in progress by: ZI+PK+WKD+PKM)*)

*) on the basis of Information on the implementation of the recommendations of PKBWK for the year 2020 - submitted by UTK with a letter - DPN.53.1.2021.1.IF dated 2021-04-28 - (concerns implementation of recommendations submitted by UTK President to railway market entities)

^{1*)} TKol Sp. z o.o. - means: the railway undertaking TKol Sp. z o.o. - hereinafter referred to as 'TKol'.

^{2*)} PKP Energetyka S.A. - means: railway undertaking PKP Energetyka S.A. - hereinafter: "Energetyka".

^{3*)} Average percentage of recommendation implementation by PKP Energetyka S.A. - based on information provided by UTK

^{4*)} a positive evaluation was given when complete information on the implementation of recommendations was provided, including information on actions planned to be implemented together with a timetable for their implementation

Ad.10) REPORT No PKBWK/10/2020 on examination of serious train accident of category A19 occurred on 29th April 2020 at 17:32 on railway-road crossing of category B, route Bolechowo - Murowana Goślina at km 15,753 of the line No. 356 Poznań Wschód - Bydgoszcz Główna	
Recommendations of the State Commission on Railway Accidents Investigation forwarded in the report	From the " Information on the implementation of the recommendations of PKBWK for the year 2020 ". (submitted by the UTK in letter No.: DPN.53.1.2021.1.IF of 28 April 2021), the President of UTK in the letter No. DPN-WDZK.47.3.2021.2.KG of 2 February 2021 submitted the recommendations to market entities and analysed the information on the implementation of the following recommendations
1. In the case of improper use of the MAN vehicle, the Commission did not issue recommendations because the Provincial Road Transport Inspector in Poznań, based on the material received from the Prosecutor's Office, initiated administrative proceedings against the owner of the vehicle, of which the Commission was informed by the Chief Road Transport Inspector.	Content of recommendations submitted for implementation by the President of UTK
2. Considering the volume of vehicle traffic at the crossing at km 15.753 of railroad line no. 356, which exceeds 400,000, the accidents which have occurred so far and the significant risk of recurrence of such events, in order to increase the level of safety and road capacity, the road administrator together with the railroad infrastructure manager will consider taking actions to build a viaduct in the course of provincial road no. 196 over the railroad line. Construction of a two-level crossing is favored by the configuration of the terrain, which is unfavorable for access to the railroad-road crossing, especially in winter.	PKBWK/10/2020_1 PKP PLK S.A. - based on a risk analysis - in cooperation with the road manager, will take action to determine the need to build a viaduct in the course of provincial road no. 196 over the railway line in order to improve safety and increase throughput. This recommendation is dictated by the high volume of vehicle traffic at the level crossing at km 15.753 of railroad line no. 356, exceeding 400,000, by the accidents that have occurred so far and by the significant risk of recurrence of the incident. The configuration of the terrain, which is unfavourable for access to the railway and road crossing, especially in winter, favours construction of the two-level crossing.
3. The road manager will place a vertical sign A-29 "Traffic lights" on both sides of the crossing and complete the horizontal marking with a line P-14 "conditional stop line".	
4. PKP PLK S.A. Zakład Linii Kolejowych (Railway Line Company) in Poznań will install a monitoring system at cat. "B" level crossing located at kilometer 15.753 of railway line no. 356.	PKBWK/10/2020_2 PKP PLK S.A. will install a monitoring system at cat. "B" level crossing located at km 15,753 of railroad line no. 356.
5. PKP PLK S.A. Zakład Linii Kolejowych w Poznaniu (Railway Line Company in Poznań) will introduce changes in concluded contracts in the scope of possibility of current access to the records of remote traffic control devices (logs) and their analysis by company employees without necessity of each application to the system supplier for delivering this data.	PKBWK/10/2020_3 PKP PLK S.A. will amend contracts regarding the possibility of current access to the records of remote traffic management devices (logs) and their analysis by plant employees without the necessity of each application to the system supplier for delivery of such data.
6. PKP PLK S.A. Department of Railway Lines in Poznań will change software of computer system to eliminate handwritten diagrams for train runs by LCS Wągrowiec dispatcher and will replace this activity with preparation of diagrams by computer system. Until introduction of computer registration system it is necessary to keep handwritten diagram according to template	PKBWK/10/2020_4 PKP PLK S.A. will change software of computer system to eliminate carrying out graphic diagrams of train runs by LCS Wągrowiec dispatcher and replace this activity with preparation of diagrams by computer system. Until introduction of computer registration system PKP PLK S.A.

<p>given in Appendix No. 2 to Instruction Ir-11.</p>	
<p>According to article 28l, rec. 8 of Railway Transport Act of 28 March 2003 (i.e.: Journal of Laws of 2020, item 1043, as amended), the above recommendations were addressed to the President of Office of Rail Transport (recommendation No. 4, 5) and to other interested parties (recommendation No. 2, 3). Individual entities should implement the recommendations contained in this Report and adopted by resolution of the PKBWK.</p>	

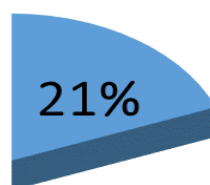
Table 22. **Assessment of the implementation of recommendations from Report No. PKBWK/10/2020 submitted by the President of UTK to entities operating on the railway market (based on information from UTK)**

Evaluation of the implementation of the recommendations of the PKBWK/10/2020 Report				
Recommendations	PKBWK/10/2020_1	PKBWK/10/2020_2	PKBWK/10/2020_3	PKBWK/10/2020_4
Assessed positively	1	1	1	1
Insufficient answer	0	0	0	0
Average percentage of implementation of the recommendation	20	5	10	50

Chart 20. **Average percentage of implementation of particular recommendations provided by the President of UTK - from the Report No. PKBWK/10/2020 (based on information from UTK)**



Figure 21: **Average percentage of implementation of recommendations forwarded by the President in Report No. PKBWK/10/2020 (based on information from UTK)**



The average percentage of implementation of recommendations was determined by UTK based on declarations of addressees of a given recommendation. Lack of 100% of recommendation results from the schedule of activities undertaken by the entity to fully implement the recommendations of PKBWK.

Table 23: Implementation of recommendations by entities listed by the Commission in Report No. PKBWK/10/2020 - based on information provided to PKBWK in March and April 2021.

Recommendations from Report No. PKBWK/10/2020 (issued in 2020)	ADDRESSEE OF THE RECOMMENDATION:	Date of implementation of the recommendation	Average percentage (%) of completion of recommendation by entities listed in column 2/(implementation phase)
1	2	3	4
Recommendation 1	ITD1*)		
Recommendation 2	PKP PLK	2021-06-30	20 (% –in progress by PKP PLK)
Recommendation 3	2*)The road manager - The Wielkopolska Voivodeship Road Authority	2021-12-31	2*)
Recommendation 4	PKP PLK	2022-12-31	5 (% –under implementation by PKP PLK)
Recommendation 5	PKP PLK	2021-12-31	10 (% –in progress by PKP PLK)
Recommendation 6	PKP PLK	2020-11-24	50 (% alternative action taken–)

1*)ITD - means the Road Transport Inspection which has implemented a separate procedure

2*)In response to recommendation no. 3 of the Report no. PKBWK/10/2020 from the finished proceedings of the Commission on the accident of category A19 which occurred on 29th April 2020 at 17:32 on the level crossing of category B on route Bolechowo - Murowana Goślina at km 15,753 of the line no. 356 Poznań Wschód - Bydgoszcz Główna, the Regional Directorate of Voivodeship Roads in Poznan informed in the letter WZDW.WUD.434-38/20 of 2021-03-29, about:

- painting a P-14 "conditional stop" line in front of the railway crossing
- and to erect A-30 'other danger' signs with the sign 'Accidents with trains' on both sides for each direction of traffic instead of A-29 'traffic lights' signs.

Table 24. **Assessment of the implementation of recommendations from the Annual Report for 2019 submitted by the President of UTK to entities operating on the railway market** (based on information from UTK)

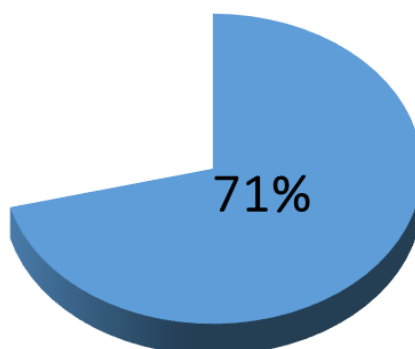
*)Evaluation of the implementation of the recommendations from the 2019 Annual Report					
Recommendations	R.R. for 2019 - zal. 1	R.R. for 2019 - zal. 2	R.R. for 2019 - zal. 3	R.R. for 2019 - zal. 4	R.R. for 2019 - zal. 5
Assessed positively	92	10	109	10	101
Insufficient answer	0	0	5	0	2
Average percentage of implementation of the recommendation	69	74	70	72	70

*)A summary of the "Recommendations issued by the PKBWK in the 2019 Annual Report" is included in section 4.1 of this report (page 34)

Chart 22: **Average percentage of implementation of individual recommendations from the Annual Report for 2019 provided by the President of UTK to railway market entities** (based on information from UTK)



Chart 23: **Average percentage of implementation of recommendations provided by the UTK President - from the Annual Report for 2019** (based on information from UTK)



The average percentage of implementation of recommendations was determined by UTK based on declarations of addressees of a given recommendation. Lack of 100% of recommendation results from the schedule of activities undertaken by the entity to fully implement the recommendations of PKBWK.

Table 25. status of implementation of the recommendations of the PKBWK issued in 2020 published in the 2019 Annual Report based on information provided to the PKBWK in March 2021. (and based on information from UTK)

Recommendations from the 2019 Annual Report (issued in 2020)	ADDRESSEE OF THE RECOMMENDATION:	Date of implementation of the recommendation	Average percentage (%) of completion of recommendation by entities listed in column 2 in column 2
1	2	3	4
Recommendation 1	PKP PLK (PK+ZI+WKD)	2021-12-31	40 (% –in progress by PKP PLK) 69 (% - in progress by: PK + ZI+WKD) *)*1)
Recommendation 2	PKP PLK (ZI+WKD+PKM)	2021-12-31	50 (% –in progress by PKP PLK) 74 (% –in progress by: ZI + WKD+PKM)*)*1)
Recommendation 3	(PK)	70 (% –in progress by: CP) *)*1)
Recommendation 4	PKP PLK (ZI+WKD+PKM)	2021-12-31	50 (% –in progress by PKP PLK) 72 (% –in progress by: ZI+WKD+PKM) *)*1)
Recommendation 5	PKP PLK (ZI+PK+WKD)	2021-12-31 and subsequent years until completion of the actions	80 (% of –alternative activities –under implementation by PKP PLK until completion of activities) 70 (% –on implementation by: ZI+PK+WKD) *)*1)

*) on the basis of Information on the implementation of the recommendations of PKBWK for 2020 - communicated from UTK by letter - DPN.53.1.2021.1.IF dated 2021-04-28 - (concerns the implementation of the recommendations amended by the President of UTK)

*1) The content of the recommendations submitted for implementation by the President of UTK is presented in the summary in item 4.1 of this report (p. 34)

Information on the **average percentage of implementation of individual recommendations addressed for implementation by the President of UTK** is included in Appendix A to this Annual Report. Whereas information on the implementation of the recommendations of PKBWK issued in 2020 addressed to other interested entities (in accordance with Article 28l (8) of the Railway Act) is included in Appendix B.

UTK conducted activities in 2020 towards the implementation of the recommendation of PKBWK contained in the report No. PKBWK/07/2019 published on 20 November 2019 from the accident cat. B11 on line 272, route Taczanów - Pleszew, caused by a broken axle of the wheelset.

In that report the following recommendation was formulated: "**The President of the Office of Rail Transport will take action with regard to the introduction of compulsory registration of wheelsets for axles of freight wagons in accordance with the Guide for the Implementation of the European Wheelset Registration (EWT) for Axles of Freight Wagons developed in**

Brussels on 26 July 2010 by the Joint Sector Group of the ERA Task Force for Freight Wagons/Axles, which has been agreed with the National Safety Authority."

Implementation of the National Register of Wheelsets of Railway Vehicles (KRZK) is to enable supervision of trade in wheelsets of railway vehicles registered in Poland, travelling on the national and European railway network. The justification for implementation of KRZK is the recently increasing number of accidents caused by axle damage to a wheelset. Often such incidents are caused by fitting in freight wagons wheel sets that should be withdrawn from service and in passenger vehicles wheel sets that do not meet the standards and do not conform to the approved type. Repetition of such incidents causes, apart from the fundamental issue of passengers' safety, considerable costs to be incurred by the railway system.

According to UTK, implementation of wheelset registration will not be effective without appropriate legal regulations. In view of the above, the President of UTK has taken an appropriate initiative in this regard. So far, the following actions have been taken:

- detailed assumptions of the NQF were developed, including the catalogue of data to be included in the register;
- a target version of the register has been developed in a dedicated ICT system;
- within the framework of cooperation with carriers who dispose of the highest number of wheel sets and maintain vehicles (and thus sets) based on various maintenance documentation, tests of the created system have been initiated, which have not been completed yet. Their completion is planned for this year;
- proposals have been developed:
 - ✓ supplementing the provisions of the Railway Transport Act,
 - ✓ a draft act implementing the Act, based on the statutory authorisation referred to above.

According to UTK, target KRZK should cover wheelsets used or intended to be used in vehicles subject to registration in National Register of Railway Vehicles (NVR) and then in European Register of Railway Vehicles (EVR) introduced in its place, for which the registration state is the Republic of Poland.

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

The President of UTK carried out activities in 2020 towards implementation of the recommendation of PKBWK included in the report No. PKBWK/07/2019 published on November 20, 2019, from the accident cat. B11 on line 272, route Taczanów - Pleszew, caused by a broken axle of a wheelset.

In 2020, the President of UTK issued an opinion on 10 draft reports concerning the events in which PKBWK carried out the proceedings. The President of UTK presented his opinion including proposals of changes in draft reports.

A total of 1013 letters were sent to railway market entities (railway undertakings, railway infrastructure managers, entities responsible for maintenance of railway vehicles and operators of special vehicles), transmitting 84 recommendations resulting from PKBWK reports.

In 89 cases obliged railway market entities did not provide information on the way they followed the recommendations of PKBWK. The entities that did not respond were sent requests to provide

the information in question within the set deadline. By April 2021, responses were not provided in 55 cases.

If the response is not received within the deadline set by the President of UTK, administrative actions will be taken to enforce the obligations imposed on entities under the Railway Transport Act - initiation of proceedings and issuance of a decision imposing the obligation to implement the recommendations.

The verification of the actual way of fulfilling the recommendations of PKBWK took place during supervision activities of the President of UTK.

During the period 2020 - April 2021, the President of UTK was carrying out the inspections of the implementation of selected recommendations resulting from the reports of PKBWK no. PKBWK/01/2020 - PKBWK/08/2020.

The scope of control included the status of implementation of recommendations provided by the President of UTK and the implementation, in case of entities operating on the basis of safety management system or maintenance management system, of a systemic approach to recommendations provided.

UTK carried out 25 inspections in total, including 5 inspections of safety management/maintenance systems, during which the implementation of recommendations was verified, and 20 dedicated inspections aimed at supervision of the implementation of recommendations. During the inspections the implementation of 32 recommendations issued by the President of UTK was verified. Issues related to the implementation of recommendations will be verified during audits planned for 2021.

UTK carried out qualitative analysis of replies sent by railway market entities. The analysis includes mainly UTK President's assessment of the way in which recommendations provided by UTK are implemented, declared by entities operating based on safety management system or maintenance management system.

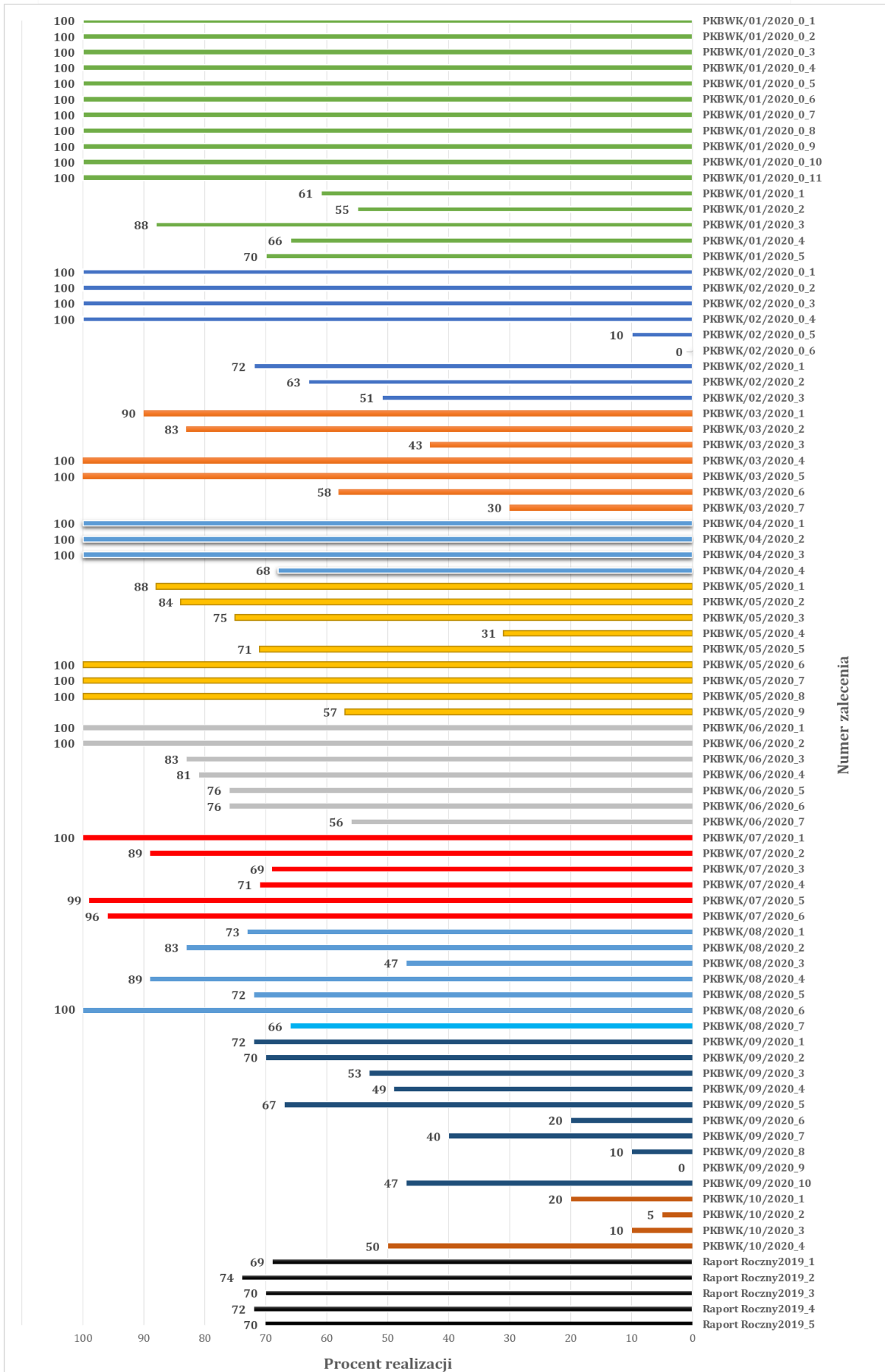
As a result of analysis of the information provided by the entities, the majority of UTK accepted the proposed method of implementation of recommendations, considering that the declared activities are aimed at correct implementation of the recommendations.

Control activities will be carried out considering the principle of proportionality between enforcement and risk.

Detailed information on the implementation of the recommendations has been included in the dedicated cards relating to 84 recommendations submitted by the President of UTK to entities for implementation.

The cards include the average percentage of recommendation fulfilment, which was determined based on declarations of addressees of a given recommendation. Lack of 100% implementation of the recommendation results from the schedule of actions taken by the entities to fully implement the recommendations provided to market entities by the President of UTK.

Figure 24: Average percentage of implementation of PKBWK recommendations for 2020 according to Appendix A



6. Analysis of events occurring in 2020.

Decrease in the total number of incidents

In FY 2020, the total number of incidents reported to the Commission by infrastructure managers and rail siding users with jurisdiction over the incident decreased by 7.4 percent compared to FY 2019, of which:

- there were 6 serious accidents investigated by the Commission (in 2019, there were 4 serious train accidents),
- The number of accidents decreased by 20.6%,
- The number of incidents decreased by 1.0%.

Accidents

There was a decrease in accidents in 22 categories (out of 40 total category B incidents).

There was a **decrease in** accidents from the previous year in the following categories:

Category of occurrence (letter/number)	Description of incident category Qualification of direct cause	Number of events occurring in 2019.	Number of incidents in 2020	Change 2020/2019 (decrease)
B10	– damage to or poor technical condition of powered unit, special-purpose unit (including running over an object which is a structural part of powered unit, special-purpose unit) and damage to or malfunction of the on-board part of ERTMS	6	1	-83,3%
B35	– incidents with persons related to the movement of a railway vehicle (jumping, falling from a train, railway vehicle, strong approach, or sudden braking of a railway vehicle)	19	5	-73,7%
B11	– damage to or poor technical condition of a wagon	26	10	-61,5%
B04	– failure to stop the railway vehicle before the signal "Stop" or in the place where it should stop, or starting the railway vehicle without required authorisation	28	14	-50,0%
B33	– running over people by a railway vehicle when crossing the tracks at other level crossings and level crossings	10	5	-50,0%
B17	– incorrect loading, unloading, incorrect load securing or other irregularities in loading operations or incorrect train or shunting set-up	17	9	-47,1%
B18	– collision of railway vehicle with road vehicle	9	5	-44,4%

	(other road vehicle, agricultural machinery) or vice versa on railway-road crossing with turnpikes (category A according to crossing certificate)			
B30	– malicious, hooligan or reckless acts (e.g., throwing stones at a train, stealing cargo from a train or shunting yard in motion, placing an obstacle in the track, defacing power, communication, control-command and signalling installations or track surface and tampering with these installations)	9	5	-44,4%
B32	– collision of railway vehicle with persons crossing the tracks on railway-road crossing with self-propelled crossing system (cat. B, C)	5	3	-40,0%
B09	– damage or poor maintenance of a structure, e.g., a superstructure, bridge or viaduct, including also improper execution of works, e.g., improper unloading of materials, superstructure, leaving materials and equipment (including road machines) on a track or in a gauge of a railway vehicle or running over elements of a structure by a railway vehicle	52	33	-36,5%
B31	– running of a railway vehicle over persons when crossing the tracks at level crossings or level crossings	12	8	-33,3%
B13	– failure or malfunction of the signalling and traffic control equipment	49	35	-28,6%
B21	– collision of railway vehicle with road vehicle (other road vehicle, agricultural machinery) or vice versa on railway-road crossing not equipped with crossing system (cat D)	130	103	-20,8%
B23	– impact of a railway vehicle on a road vehicle (other road vehicle, agricultural machinery) or vice versa outside level crossings in stations and routes or on the communication and access track to the siding	10	8	-20,0%
B03	– sending, receiving, or driving of a railway vehicle on an improperly laid unprotected route or incorrect operation of traffic control devices	30	25	-16,7%
B19	– collision of railway vehicle with road vehicle (other road vehicle, agricultural machinery) or vice versa on railway-road crossing equipped with automatic crossing system with traffic lights and barriers (cat. B)	13	12	-7,7%
B20	– collision of railway vehicle with road vehicle (other road vehicle, agricultural machinery) or vice versa on railway-road crossing equipped with automatic crossing system with traffic lights and without barriers (cat. C)	26	25	-3,8%
B34	– running of a railway vehicle upon persons when crossing the track outside level crossings	141	137	-2,8%

	or track crossings in stations and routes			
B06	– exceeding the maximum authorised speed	1	0	There were no accidents in 2020.
B07	– carrying out a manoeuvre that endangers the safety of train movements	1	0	There were no accidents in 2020.
B12	– failure or malfunction of the signalling and traffic control equipment	1	0	There were no accidents in 2020.
B24	– fire in a train, marshalling yard or railway vehicle	1	0	There were no accidents in 2020.

The **increase in** accidents occurred in the following categories:

Category of occurrence (letter/number)	Description of incident category Qualification of direct cause	Number of events occurring in 2019.	Number of incidents in 2020	Change 2020/2019 (increase)
B08	– runaway railway vehicle	4	9	+125,0%
B16	– incorrect train or shunting set-up	1	2	+100,0%
B22	– impact of a railway vehicle on a road vehicle (other road vehicle, agricultural machinery) or vice versa at a level crossing for private use (cat F)	1	2	+100,0%
B00	– causes other than those listed below, or the overlapping of several causes at the same time, creating equivalent causes	13	21	+61,5%
B15	– premature termination of the route or override and crossing of a switch under a railway vehicle	14	21	+50,0%
B01	– Running a railway vehicle on an occupied, closed or running opposite to the main track or in the wrong direction	0	1	in 2020, there was 1- accident

Incidents

Compared to the previous year, there was a slight decrease of approximately 1.0% in the number of reported incidents in 2020.

There was a decrease in incidents in 11 categories (out of 27 total Category C incidents).

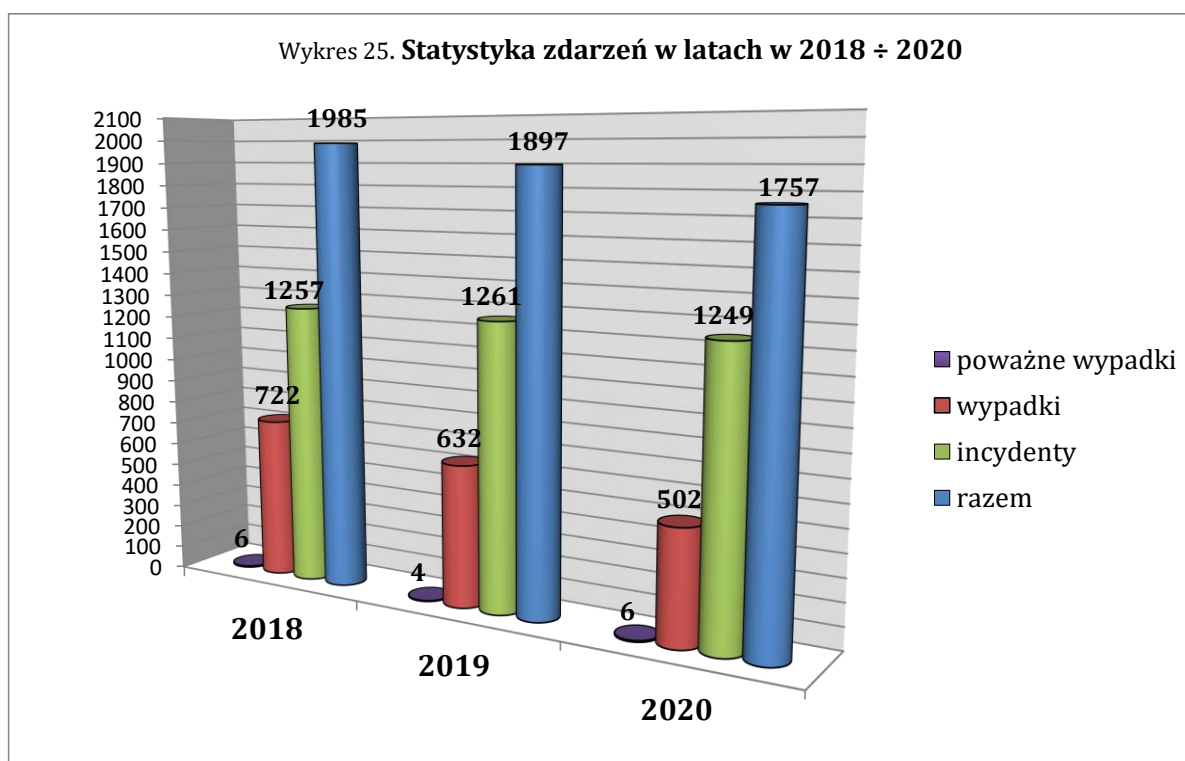
Incidents decreased in the following categories:

Category of occurrence (letter/number)	Description of incident category Qualification of direct cause	Number of events occurring in 2019.	Number of incidents in 2020	Change 2020/2019 (decrease)
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C42	– acceptance of a railway vehicle into a station on a closed or occupied track	3	1	-66,7%
C57	– fire of building and vegetation in the immediate vicinity of railway tracks carrying normal railway traffic	3	1	-66,7%
C41	– Running a railway vehicle on an occupied, closed or running opposite to the main track or in the wrong direction	4	2	- 50%
C69	– causes other than those listed above or the overlapping of several causes at the same time, creating equivalent causes	23	13	-43,5%
C55	– fire in the train or in the railway vehicle without adverse consequences for property or the environment, without any casualties	21	15	-28,6%
C43	– sending, receiving, or driving of a railway vehicle on an incorrectly laid or unsecured route or incorrect operation or lack of operation of traffic control devices	92	68	-26,1%
C51	– damage to the surface, bridge or viaduct, catenary network, also improper execution of works, e.g., improper unloading of materials, leaving materials and equipment (including road machines) on the track or in the rail vehicle gauge	49	38	-22,4%
C54	– damage or bad technical condition of a wagon causing the necessity of its exclusion from traffic as a result of indications by the rolling stock emergency detection devices, confirmed in the workshop conditions (hot axleboxes, hot brake resulting in a displaced rim), as well as other defects in the moving railway vehicles noticed by the operating staff	229	191	-16,6%
C62	– natural disasters (e.g., floods, snowdrifts, ice jams, hurricanes, landslides)	19	16	-15,7%
C68	– a train or shunting yard break-up that did not cause the wagons to run away	261	221	-15,3%
C53	– damage or bad technical condition of powered railway vehicle, special-purpose railway vehicle causing the necessity of its exclusion from service as a result of indications by the rolling stock fault detection devices, confirmed in workshop conditions (hot axle box, hot brake resulting in displaced rim), as well as other defects of railway vehicles in service noticed by operating staff (e.g., broken spring)	31	27	-12,9%

Areas where there has been **an increase in** incidents include:

Category of occurrence (letter/number)	Description of incident category Qualification of direct cause	Number of events occurring in 2019.	Number of incidents in 2020	Change 2020/2019 (increase)
C59	– uncontrolled release of dangerous goods from a wagon or package requiring intervention of authorities or application of measures to eliminate fire, chemical, biological hazards at a station or on a route	1	3	+200,0%
C52	– incorrect operation of signalling equipment	2	4	+100,0%
C50	– improper loading, unloading, incorrect load securing or other irregularities in cargo operations	17	27	+58,8%
C64	– malicious, hooligan or reckless acts (e.g., throwing stones at a train, stealing cargo from a train or shunting yard in motion, placing an obstacle in the track, vandalising power, communication, control-command and signalling installations or the surface and interfering with these installations), without any victims or negative consequences for property or the environment, posing a threat to passengers or workers on the train	255	356	+39,6%
C66	– failing to stop a road vehicle before a closed turnpike (half turnpike) and damaging it or traffic lights, on which signals to warn of an approaching train were activated, without colliding with a railway vehicle	82	89	+8,5%
C60	– Running of a railway vehicle over an obstacle (e.g., brake skid, luggage trolley, mail cart, etc.) without derailment or injured persons	45	47	+4,4%
C65	– incidents with persons involved in the movement of a railway vehicle (crossing of tracks at level crossings and level crossings or off-ramps, jumping, falling from a train or railway vehicle, being struck by rolling stock in motion, heavy approach, or sudden braking of a railway vehicle)	25	26	+4,0%
C44	– failure to stop the railway vehicle before the signal "Stop" or in the place where it should stop, or starting the railway vehicle without required authorisation	83	86	+3,6%
C61	– criminal assassination	0	1	in 2020, there was 1- incident
C63	– construction disasters in the immediate vicinity of railway tracks carrying normal train traffic	0	1	in 2020, there was 1- incident



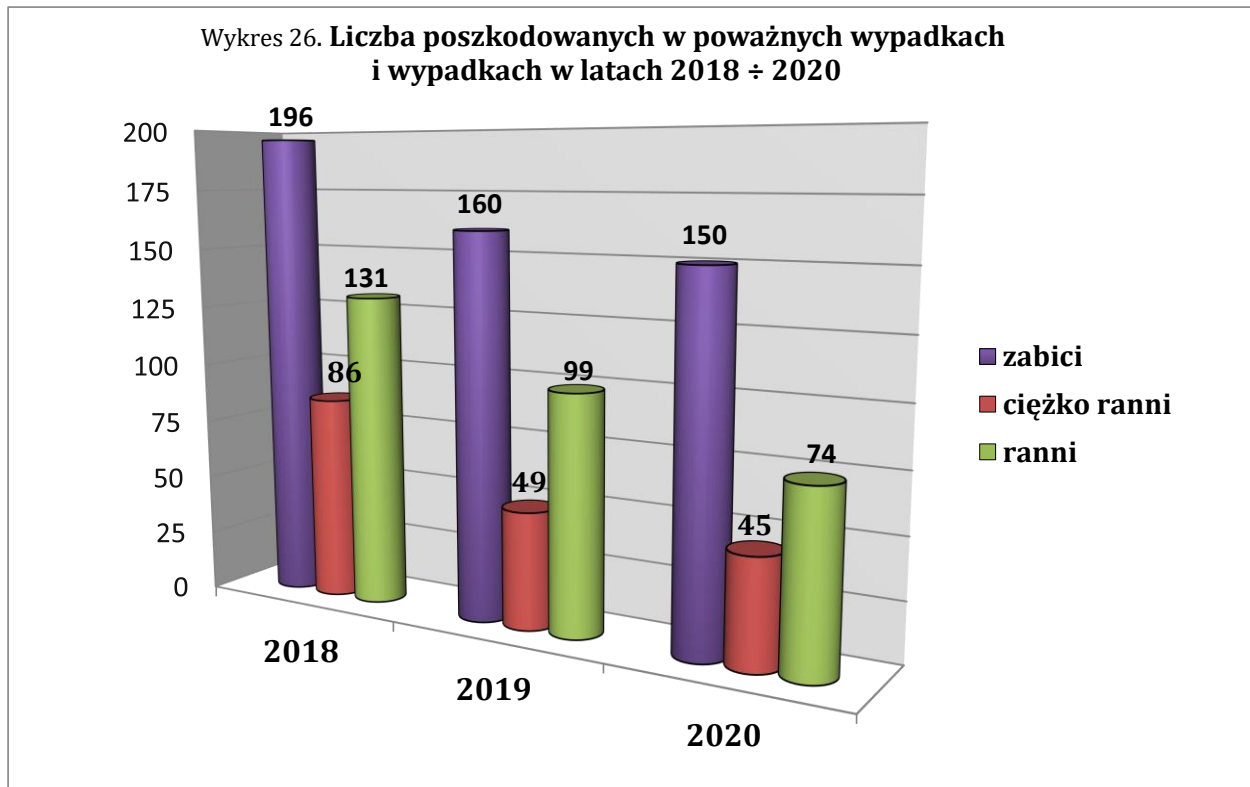
Victims of incidents

In 2020, compared to 2019, the number of people killed in rail incidents decreased by 6.3%, while the number of seriously injured people decreased by 8.2% (Table 2). In the group of injured persons (killed and seriously injured), the overwhelming majority are persons crossing the tracks in prohibited places or at level crossings, persons hit by railway vehicles, persons jumping in and out of railway vehicles in motion, and users of railway-road crossings.

Table 26.

Injured in events occurring in 2020.	Killed	Severely injured	Injured
a) employees including contractor personnel	4	4	9
b) passengers	-	1	17
b) unauthorised persons	98	24	24
c) users of level crossings/road crossings	47	16	24
d) others	1	-	-
Total	150	45	74

Below the chart illustrates the basic data on the injured (killed, seriously injured and wounded) in 2018 ÷ 2020.

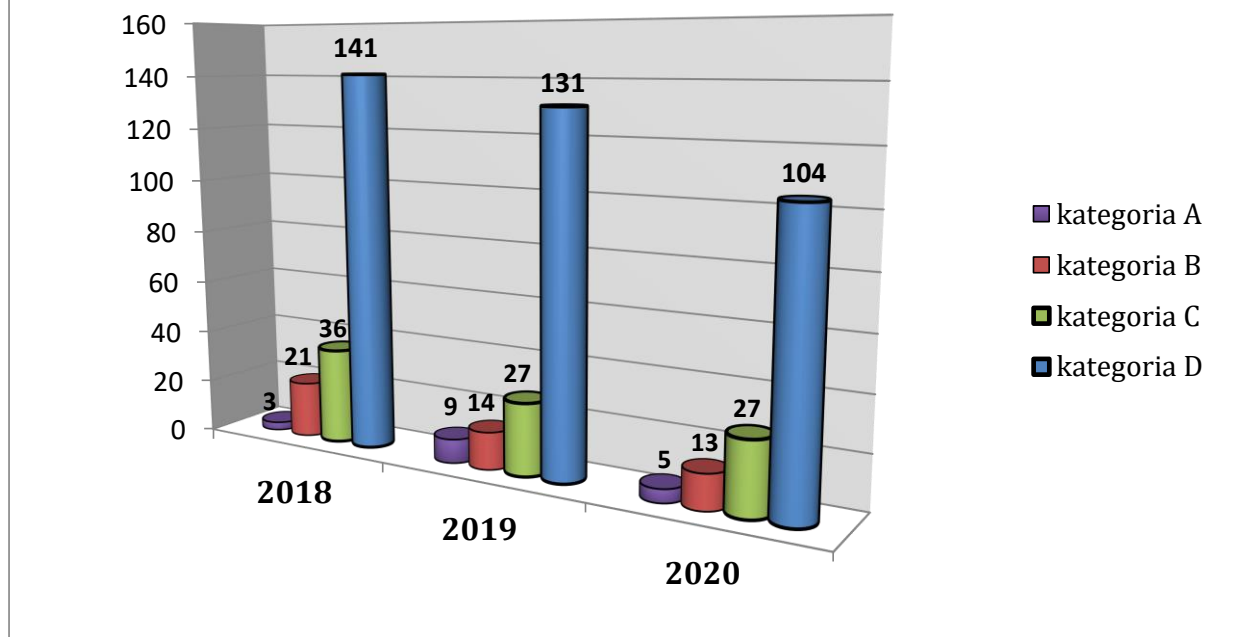


Incidents at level crossings

In 2020, compared to 2019, there was a **17.7% decrease** in the total number of accidents at Category A, B, C, D railroad crossings, including:

- at A category railway-road crossings - decrease by 4 accidents,
- at category B railway-road crossings, a decrease of 1 accident,
- At level crossings of category C, the number of incidents (accidents and serious accidents) did not change with respect to the previous year,
- at D category railway-road crossings - decrease by 27 accidents (including users of railway sidings).

Wykres 27. Poważne wypadki i wypadki na przejazdach kolejowo-drogowych poszczególnych kategorii z udziałem pojazdów drogowych i kolejowych w latach 2018 ÷ 2020



The primary causes of incidents when crossing railroad-road crossings are still in particular:

- Failure to stop before a "Stop" sign and failure to exercise due care by drivers of road vehicles,
- passing under closing turnpikes,
- bypassing the semi,
- lack of the required visibility triangle,
- blocking the crossing by driving onto the tracks without being able to exit,
- Failure to reduce speed in relation to the prevailing road conditions,
- Failure to observe signs and other traffic signals,
- inappropriate behavior when the car is immobilized on the tracks,
- lack of reaction of the road vehicle driver to „Alert” signals given by the train driver when crossing a railway-road crossing and, therefore, driving onto the crossing directly under the oncoming train,
- failing to stop a road vehicle in front of a road signal with switched on optical and acoustic warning signals and passing directly in front of an oncoming train on a properly secured and signalled C category crossing (with switched on warning lights on road signal lights and acoustic signal),
- driving a road vehicle on a railway-road crossing despite a warning on the traffic lights - driver's disregard of caution and blocking (closing) of the vehicle on a B-category crossing,

- Failure of a road vehicle to stop in front of traffic lights despite the impossibility of continuing the journey due to traffic jam and getting stuck on a level crossing after closing the barriers,
- unauthorized raising of closed barriers on a category A crossing, operated from a distance, driving a car into the crossing, and stopping on it,
- Failure of a vehicle to stop in front of a traffic signal prohibiting entry to the crossing, failure of a road vehicle to stop in front of the railway-road crossing despite signals on the traffic signals to warn of an approaching train and start closing of the barrier.

From the statistics recorded in the register of railway incidents of PKBWK results that 37 railway incidents occurred consisting in driving a road vehicle into the side of a railway vehicle on the train set.

Category A level crossings saw a decrease of 4 accidents in 2020 compared to 2019. The main causes of these accidents were:

- Failure to observe due care by the driver of a road vehicle at a level crossing of category A with suspended operation,
- Failure of a driver of a road vehicle to obey signals given by the traffic controller at a railway-road crossing,
- driving a road vehicle into a railway-road crossing and causing a collision with a railway vehicle (failure to behave with due caution when crossing a category A railway-road crossing),
- late closing of barriers or failure to close crossing barriers before train's entry (for the time of train's crossing) on railway-road crossing.

At Category B rail-road crossings, there is a **massive phenomenon** of road vehicles **entering** these crossings (at the time of closing the barriers) and closing them between the barriers. The analysis of the Protocols of *Final Findings* (PUK) submitted by railway commissions shows that in 2020 there were more than **235** documented cases of closing road vehicles between the barriers of category B railway-road crossings (road vehicles were not involved in collisions with trains because they were outside the clearance of the passing rolling stock). It should be noted that there was also an increase in incidents of category C66 (from 82 in 2019 to 89 in 2020), i.e. - failure of a road vehicle to stop in front of a closed barrier (semi-barrier) and damage to it or traffic signals on which signals warning of an oncoming train were switched on, without collision with a railway vehicle.

Circumstances and causes of incidents should be thoroughly investigated by railway committees and infrastructure managers.

At D category level crossings, despite a significant decrease, there is still a large number of railway accidents. Drivers driving road vehicles have a significant impact on the number and occurrence of these incidents.

In incidents (serious accidents and crashes) at level crossings involving road and rail vehicles in 2020, 33 people were killed and 18 were seriously injured. In incidents, at railway-road crossings and pedestrian crossings, involving persons caused by railway vehicles in motion in 2020, 13 persons were killed and 2 were seriously injured.

Safety is improved by implementation and improvement of additional marking (developed by the PKP PLK S.A. manager) of railway-road crossings /rail level crossings **with stickers with individual identification number and emergency telephone number by railway infrastructure managers** - so called "yellow sticker" project. Additional marking enables quick contact of the road user who is a participant or witness of breakdown or incident with emergency services.

In case of a failure or an incident at a crossing, after calling 112 (in case of an accident or a threat of an accident) or the emergency number (in case of a breakdown), the notifying party provides an individual crossing identification number. Thanks to the information provided, the 112 operator or railway employee can precisely determine the location of the crossing, which shortens the response time of the services in the case of a hazard.

The effectiveness of the implementation of this project depends on providing information about the "yellow sticker" to as many users of railway and road crossings and pedestrian crossings as possible.

Based on information provided by PKP Polskie Linie Kolejowe S.A:

- Since the beginning of the launch of the programme - i.e., since June 2018, 112 emergency number operators have received:
 - **10476 notifications**
(of which: in 2018. - 417 notifications
in 2019 - 4352 notifications
in 2020. - 5707 notifications
- In 2020 with the 112 emergency call:
 - a limitation of train speed was introduced to ensure safety of passengers and persons using railway and road crossings in 438 cases,
 - train traffic on railway lines was suspended in 167 cases.

In addition, the use of a radio-stop "Alert" signal was reported in 2020 to avoid rail incidents.

In total, in 2020, PKP PLK S.A. recorded **691** cases of use of the "Alarm" signal, of which 641 were unjustified use. In relation to 2019, the total number of cases of use of the "Alarm" signal increased (from 660 to 691). In contrast, the number of justified instances of the signal nearly doubled (increasing from 26 in 2019 to 50 instances in 2020). The use of the "Alarm" signal occurred by employees working in the positions:

- driver - in 21 cases considered justified and 99 cases considered unjustified,
- traffic officer - in 17 cases deemed justified and in 13 cases deemed unjustified,
- the crossing supervisor - in 12 cases deemed justified and in 5 cases deemed unjustified,
- others: service employee, carrier's employee, PKP PLK S.A. employee radio-telephone failure - in 36 cases,

and

- unknown perpetrators - use in 488 cases in an unauthorised manner by persons outside the railway system.

Throughout 2020, out of a total of 691 cases of use of the "Alarm" signal, 488 cases were found in which the sender was not identified, which is more than 70% of these calls. Unjustified cases of using the "Alarm" signal were observed most frequently among the professional group of train drivers - i.e., 99 cases.

Other managers of railway infrastructure other than PKP PLK S.A. :

UTK informed that **346** level-road crossings managed by managers other than PKP PLK S.A. were reported to the 112 system by 31 December 2020.

In 2020, the President of UTK continued works on coordination of activities related to additional marking of railroad-road crossings and level crossings with an identification sticker, containing necessary information for the operator of the emergency number 112 at other infrastructure managers.

In 2020, the tenth authorized railway infrastructure manager - CARGOTOR sp. z o.o. was included in the system on 30 January 2020. **Currently, the project has been implemented by all authorised infrastructure managers.**

Within the framework of works on extending the system of marking crossings in 2020 UTK has started talks with Warszawska Kolej Kolej Dojazdowa Sp. z o.o. (Warsaw Commuter Railway) regarding including also road-railroad crossings located on the railway lines of that infrastructure manager in the 112 number system. Implementation of the project is planned for 2022.

For the alarm system to operate efficiently, close cooperation between the Ministry of Internal Affairs and Administration (MSWiA), the General Office of Geodesy and Cartography (GUGiK) and infrastructure managers is necessary. PKP PLK S.A. carries out such coordination on its own, while in case of other authorized infrastructure managers, coordination of works in the scope of updating

the database of railway-road crossings and level crossings is carried out by employees of the Office of Rail Transport in cooperation with PKP PLK S.A. Thanks to that the reliability and timeliness of data available to 112 operators is ensured.

The President of UTK continues to coordinate works on updating the database and its submission to relevant entities. Authorized infrastructure managers other than PKP PLK S.A., who implemented the "yellow sticker" project to maintain the project sustainability, were obliged by the President of UTK to update the database of crossings and to verify "on the ground" the correctness of marking them with an individual identification number. In case of necessity to change the above-mentioned data, they always send the updated list of railway-road crossings and level crossings to the President of UTK.

Implementation of innovative monitoring systems at level crossings - the beginnings of the project and system assumptions (based on information provided by UTK).

The basis of innovative systems for securing D-category railway-road crossings are two functionalities:

- 1) alerting drivers to the approach of a crossing, and
- 2) monitoring their compliance with the applicable rules.

The principle of operation of these systems is to detect road vehicles approaching the crossing and to warn drivers of the danger connected with crossing the railway line. The warning function can be realized in various ways, e.g., by illuminating appropriate road signs or installing a device displaying appropriate messages. This type of information can additionally be made dependent on e.g., the approaching speed of the vehicle (a message encouraging to reduce speed). The way the system behaves can be modified, for example, by random selection of displayed messages.

The second element of these systems is to support the enforcement of existing regulations by equipping a railroad-road crossing with a camera and appropriate software to analyze the image obtained from it. This type of solution makes it possible to identify cases of non-compliance with regulations, such as failing to stop before a "Stop" sign or exceeding the speed limit. In combination with the possibility of automatic reading of the vehicle registration number, the device can generate information on violations of regulations and transmit it automatically to the appropriate services, whose task will be to take appropriate enforcement action.

The first installed system was the one **installed in July 2020 in the town of Imielin at level crossing category A on railway line No. 138 at km 12.897.**

By the end of March 2021, there were 5 active systems built at railroad-road crossings. Four of these are located at locations:

- at cat. D crossing at km 8.283 of line 326 (in Pasikowice),
- at cat. B crossing at km 1.286 of line 341 (Bielawa, Bohaterów Getta street),

- at cat. C crossing at km 2.690 of line 341 (Bielawa, Ceglana street),
- at cat. B crossing at km 100.843 of line 274 (DK 5 Sędziszów).

Four cameras (two on each side of the crossing) are installed at each of the four locations, making a total of 16 cameras. Ultimately, the system is planned to be implemented also at crossings of other categories than D.

The second system currently installed is the IVA Intelligent Video Analytics system, on the A category level crossing at km 26.910 in the Local Control Center (LCS) Władysławowo on the railway line no. 213. This system is distinguished by its application on the A category level crossing, which automatically involves the possibility of expanding the catalogue of analyzed and recorded hazards. An additional functionality is broadcasting emergency messages for pedestrians who enter the crossing area when the turnpikes are closed. Using the installed systems, it is possible to generate a comprehensive analysis of e.g., traffic intensity in a given location, which may influence the decision on changing the crossing category.

According to the information obtained from the data analyses during the test start-up period, an improvement in the behaviour of the users of the crossings took place as soon as the crossings were installed. However, the users of the crossings gradually returned to their erroneous behaviour as time passed, when they did not face any legal consequences for violations such as failing to stop in front of a "Stop" sign. Considering this information, it can be concluded that imposing a fine is a real means of enforcing discipline on users of railway and road crossings and thus contributes to increasing the level of safety.

In the opinion of the Commission and the President of UTK the described systems are a very promising solution for increasing the level of safety at D category crossings. Functionality similar to speed cameras on roads will ensure high effectiveness of impact. This is especially important in light of the large number of D category railroad crossings in Poland.

The condition of success - resulting from the implementation of such devices on D category railway-road crossings, is to enable the automatic enforcement of the existing regulations by relevant institutions.

7. Other aspects relating to the functioning of the Commission in 2020

In 2020 The Commission conducted its activities by meeting its planned objectives and challenges, based on the allocated funding for the year. Within the allocated funding, 12 permanent members of the Commission were employed and from October 2020. - 11 permanent members of the Commission were employed.

Within the framework of its activities, the Commission cooperated with other organisational units of the Ministry of Infrastructure and the Ministry of Interior and Administration, inter alia, in the

area of analyses of draft legislation, sectoral programmes, preparation of the budget or organisational and personnel matters.

The Commission's activities concerned, inter alia:

- cooperation with the Office of Rail Transport (UTK),
- cooperation with railway committees conducting proceedings to determine the causes and circumstances of incidents that have occurred,
- trips made by members of the Permanent Commission to the place of occurring events based on received notifications - (trips to 27 events); undertaking accident or incident investigations if they occurred in circumstances justifying the undertaking of such an investigation (8 decisions made by the President of PKBWK),
- cooperation with prosecutors and the police, at the scene of the incident and in the later stages of the proceedings, in accordance with the agreement concluded and the regulations in force,
- Cooperation with the organisers of trainings and conferences in terms of presenting the work of the Commission and the manner of conducting investigations related to railway incidents (serious accidents, accidents, and incidents) by railway committees and participation in meetings and conferences in railway undertakings concerning assessment of safety condition in railway transport,
- participation of members of the Commission in cyclic training sessions organized for e.g. the Police, the Prosecutor's Office and railway market entities,
- participation of Commission members in seminars and conferences on rail transport safety,
- cooperation with administrators of public roads of different levels (districts, communes), after the occurrence of railway incidents on railway-road crossings,
- cooperation with national investigative authorities of other EU countries,
- attendance at meetings of and cooperation with the European Union Agency for Railways (EUAR),
- cooperation with the units of the Ministry of Interior and Administration in the area of drafting amendments to national regulations (inter alia in the area of the content of the Report in connection with the entry into force of the EU Regulation on this matter and the regulation on the model of permanent member's ID card),
- cooperation with organisational units of the Ministry of Interior and Administration, i.a. with Director General of the Ministry of Interior and Administration, Civil Protection and Crisis Management Department, Personnel, Training and Organisation Office, Administrative and Financial Office, Legal Department, and ICT Department,

- cooperation with the General Inspectorate of Road Transport (GITD) - on devices monitoring drivers' infringements in the area of railway and road crossings.

8. Tasks of the PKBWK for the year 2021

As part of the ongoing activities of the Commission, the following activities, among others, will be necessary in 2021:

- the conduct of investigations by the Commission under national provisions,
- *Implementation of the Commission Implementing Regulation (EU) 202/572 of 24 April 2020 concerning the structure of reports used for reporting purposes* - development of report content with alignment to existing terms found in national legislation,
- trips of members of the Commission to places of railway incidents based on received notifications,
- to undertake investigations of an accident or incident if it occurs in circumstances justifying such an investigation,
- training of members of the standing committees in order to update their knowledge in the field necessary for the accomplishment of the tasks of the Committee,
- updating and maintaining the database of registered railway incidents,
- updating of the list of ad hoc and expert members kept by the Chairman of the Commission,
- cooperation with UTK, in particular within the scope of recommendations delivered to UTK President in accordance with his competencies and other actions aimed at improvement of railway traffic safety,
- analysis of applications addressed to the President of the Commission by administrators, railway undertakings, users of railway sidings, minister in charge of transport, minister in charge of internal affairs, the President of UTK or Member States of the European Union, e.g., in the case of initiating proceedings by the Commission,
- cooperation with organisational units of the Ministry of Interior and Administration following the implementation of the *Act on amending the Railway Transport Act* in relation to changes resulting from implementation of the so-called IV railway package of the European Union,
- cooperating with organisational units of the Ministry of Infrastructure, inter alia with the Railway Department (DTK), Secretary of the National Road Safety Council (SKR), Legal Department (DP) and Public Roads Department in the area of improving safety and amending legal regulations concerning drivers of road vehicles approaching and crossing railway and road crossings,

- cooperation with the General Inspectorate of Road Transport (GITD) - on the use of pilot-cab monitoring applied in the area of railway and road crossings,
- Participation in meetings with representatives of the National Investigation Bodies (NIB) of other EU countries and the European Union Agency for Railways (EUAR) in the framework of plenary meetings and working groups - exchange of experience and knowledge,
- cooperation and participation in working groups and training organised by the European Union Railway Agency,
- participation in meetings with the Prosecutor's Office and the Police,
- participation in conferences, conferences, workshops, and seminars,
- Continue in-service training for representatives of criminal investigation bodies, railway commissions and the Commission,
- participation in site visits and investigations related to incidents,
- cooperation and exchange of experience with the National Commission on Air Accidents Investigation (PKBWL) and the National Commission on Marine Accidents Investigation (PKBWM),
- overseeing compliance with the Commission's budget for 2021.

9. Summary

In FY 2020, the total number of incidents reported to the Commission decreased by 7.4% from the previous year.

There was an increase (50.0%) in serious accidents, while accidents decreased by 20.6% and incidents by 1.0%.

In 2020 there were 6 serious accidents - of which 4 occurred at level crossings: 1 each at category B and D level crossings and two at category C level crossings. In 2019, 1 serious accident was recorded at category B, C and D level crossings. There were no serious accidents at category A crossings in 2020, but there were 5 accidents, which is a decrease of 4 accidents compared to the previous year (there were 9 category B accidents in 2019). At category B level crossings, there were 1 fewer accident in 2020 (13 in 2020 and 14 in 2019). At level crossings of category C, there were 2 serious accidents in 2020, and 1 serious accident in 2019. - 1 serious accident. It is worrying that in 2020 there was 1 serious accident of category A13 and A23 each (in 2019 there were no serious accidents in these categories).

In 2020, there were more than 37 incidents involving a road vehicle entering and striking the side of a rail vehicle on a train while crossing category D, C and B level crossings.

The analysis of the number of occurred incidents shows an alarming increase (by 101 incidents) of incidents classified as category C64 (in 2020, 356 incidents were recorded and in 2019 - 255), i.e. malicious, hooligan or reckless acts (e.g. throwing rocks at a train, stealing cargo from a train or shunting yard in motion, placing an obstruction on the track, vandalizing power, communications, traffic control, or track surface equipment, and interfering with such equipment), with no victims or adverse consequences to property or the environment, posing a threat to passengers or train employees. Incidents, when road vehicles enter and stay in dangerous zone of level crossing, between closed semi-crossings (barriers), are qualified to category C64 by railway commissions.

In 2020, there were 356 category C64 incidents including: more than 70 train throwing incidents and more than 235 documented incidents of road vehicles being closed (in the danger zone) at category B level crossings between crossing barriers (outside the track gauge). The incidents of pelting trains (with stones or other objects) pose a threat to the health and lives of passengers or staff operating the trains.

It should be mentioned that the presented figures for road vehicle closures in the danger zone at category B level crossings are based only on information provided by railway commissions in their *Final Memoranda*. However, in practice there is a much larger number of such incidents - some of these incidents are also classified as category C66. It should be emphasized that not all incidents are reported (as after a train leaves a rail-road crossing without collisions, the driver of a road vehicle can raise the barriers automatically, making it possible to drive away with impunity despite not observing traffic regulations when crossing those crossings).

Positive is the decrease in the number of injured (killed) registered in the records of all railway accidents, i.e., by 6.3%. Attention should be paid to category B34, which was updated as of 26 August 2021. The number of incidents in the statistics in this category is significantly lower than that recorded as of 31 December 2020 due to the completed prosecution proceedings and the reclassification of some incidents of category B34 to incidents qualified as "suicide" or "suicide attempt".

Compared to 2019, there was a slight decrease in the number of cat. B34 accidents in 2020 (from 141 occurring in 2019 to 137 in 2020).

A positive development is the decrease in the number of cat. C68 incidents (221 incidents occurred in 2020 and 261 incidents occurred in 2019). However, the number of these incidents is still high, which should mobilise the railway commissions to analyse more thoroughly the causes and clarify the circumstances of their occurrence, to further minimise the risks. Especially that in 2020, these threats "transformed" into the occurrence of 9 accidents of category B08 and 5 incidents of category C47 (i.e., runaway railway vehicles).

EwZd's incident records show an increase of more than 58% in C50 category incidents (from 17 incidents in 2019 to 27 in 2020) regarding improper loading, unloading and securing of cargo. On

this issue, the Commission has prepared a recommendation for carriers and those responsible for organising freight transport.

There was also an increase in the number of category B15 accidents in 2020, from 14 occurring in 2019 to 21 in 2020 (an increase of 50% on the previous year). The Commission has also prepared a recommendation for railway infrastructure managers on this issue.

In 2020, in the Railway Event Recording System (EEWZd), there was a slight decrease of 1.0% in the number of reported incidents compared to the previous year. In relation to accidents, incidents generate less material damage and fewer injured persons. Nevertheless, their still high number is an important information about existing threats, which should be monitored by railway undertakings within their safety management and maintenance management systems. Incidents of category C54, C64, C68 together account for over 61% of all incidents in 2020.

Noteworthy is the overall lower number of serious accidents and incidents (A19, A20 and A21 and B18, B19, B20 and B21) at category A, B, C and D level crossings. In 2020, there was a decrease of more than 17.7% in the total number of accidents compared to the previous year.

Events which occurred during the execution of investment and modernization works should be subject to thorough analysis and elimination of hazards (irregularities). Events connected with investments are most often qualified to categories B09 and C51. Categories of events B09 and C51 related to damage or poor maintenance of structures include also improper execution of investment and modernization works (e.g., a railway vehicle run over equipment (materials) left on a track or in a track gauge). Moreover, apart from the above-mentioned categories, incidents occurring in relation to irregularities during execution of infrastructure repairs, investment works and modernisation were qualified by railway commissions to other categories. In the previous year, there was a decrease in the number of accidents of category B09 - from 52 in 2019 to 33 in 2020, and category C51 incidents decreased - from 49 in 2019 to 38 in 2020. Despite the decrease, the number of these incidents is still significant and should be given careful attention by those who supervise and organise this work.

The most common deficiencies associated with investment and upgrade events and pavement and track repairs are:

- **Failure to comply with the temporary work regulations** and the manager's internal instructions,
- **drawing up regulations in a simplified manner**, not covering all safety risks of the works performed,
- **improper protection of the worksite** - clashes between rail vehicles and objects that fall within the working track gauge - most often with vehicles working on the construction site (excavators, dump trucks), improperly stored materials (sleepers, rails, etc.), collisions with

road vehicles caused by the lack of guarding the rail-road crossing by an authorized employee, damage to the rolling stock by ballast from the ballast cleaning plant working on the adjacent track, or sandblasting the structure of the repaired bridge,

- **incorrect behaviour of users of railway-road crossings** located within the area of the works,
- **failure to exercise due caution when performing the works** - employees being hit by trains moving on the active track without speed limit, in the vicinity of the works being performed,
- **incorrect route alignment** - the correct alignment of the route not verified by the signalling equipment, disabled due to the works,
- **not stopping the vehicle in a place where it should stop** (e.g., in front of a manoeuvring platform or turnouts during an exit from a work site, starting a journey without a required permit without consulting the traffic officer on duty),
- lack of close cooperation in the area of investment and operation, lack of proper communication in the investment division and in the Railway Lines Division.

On 11 January 2020 there was a serious accident of category A23, in which there was a fatal hit (outside of the crossings) of an employee of the engineering contractor ZRI Chrobok company, who was in the gauge (between the car and the rolling stock of the work train) of the track No. 1 and to the right side of the truck Mercedes owned by the company ZRI Chrobok. The above happened during the descent from the closed track no. 1, of the work train Rob 1 consisting of 3 wagons of platforms and a piling rig - pushed by locomotive SM42-9288.

On 9 March 2020 there was also a serious accident of A13 category in which a train led by locomotive E186-261 entering from track no. 1 of Szymankowo - Tczew line onto a handcar WMB10-182 (PKP PLK S.A.) was hit. The engine left track no. 2 having omitted the entry semaphore "P" indicating "STÓJ" signal and the shunting disc Tm12 indicating "Shunting prohibited", stopping at the junction no. 26 entering the route of LTE 555122 train. The engine WMB 10-182 was derailed and damaged: the locomotive E 186-261, the overhead line gate in the loco 287-5, the railway track on the length of 224 m together with signalling equipment.

As a result of the incident, the driver of the WMB10-182 railway vehicle and the track fitter riding with him - PKP PLK S.A. employees - died.

The analysis of incidents reported to PKBWK in 2020 shows a large number of railway incidents occurring - on railway sidings - i.e., 141 (including 110 classified as railway accidents and 31 as railway incidents). The number of railway incidents on railway sidings represents more than 8.0% of all railway incidents registered in the records of PKBWK in 2020.

In this report, the Commission has made a number of recommendations to improve safety in rail transport.

The Commission met its statutory obligations in 2020 while respecting the 2020 budget. It did so in effective cooperation with many actors, in particular: railway commissions, national investigation

bodies of other EU countries, infrastructure managers and railway undertakings, UTK and the European Union Agency for Railways.

10. Contact details and address data of PKBWK as of 1 August 2021.

State Commission on Railway Accidents Investigation Chałubińskiego Street 4/6 building A 00-928 Warsaw PERMANENT MEMBERS:	
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Rafał Leśniowski Vice-Chairman of PKBWK phone (0-22) 630-14-35, fax (0-22) 630-14-39 Permanent member of the PKBWK (vacancy from 1 October 2020)
Henryk Zgrzebnicki Secretary of PKBWK phone (0-22) 630-14-30, fax (0-22) 630-14-39	Barbara Pióro Commission Service Worker: phone (0-22) 630-14-33, fax (0-22) 630-14-39, e-mail:
Branch in Katowice 43 Rolna Street 40-555 Katowice	Branch in Poznań 4 Składowa Street 61-897 Poznań
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Tomasz Resiak Permanent Member of PKBWK - Katowice Branch phone (0-32) 607-24-64	Tomasz Aleksandrowicz Permanent Member of PKBWK - Poznań Branch phone (0-61) 225-51-01
Wiesław Trepka Permanent member of PKBWK - Katowice Branch phone (0-32) 607-24-64	
Duty phone 510 126 711	

PKBWK website

The Commission's website is available at:

www.gov.pl

tab: *Ministry of Internal Affairs and Administration* → *What we do* → *State Commission on Railway Accidents Investigation*

<https://www.gov.pl/web/mswia/panstwowa-komisja-badania-wypadkow-kolejowych>

Within the Commission website, available information and documents are grouped into the following sections:

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

ANNEX "A"
to the Annual Report for 2020 of the State
Commission on Railway Accidents Investigation
Information on the implementation of the recommendations of the PKBWK issued in
2020 (based on information from the Office of Rail Transport)

Within the framework of supervision of implementation of recommendations of PKBWK by entities operating on railway market, the President of UTK has analysed the recommendations of the above-mentioned reports submitted to him and after introducing changes in their content submitted them for implementation to managers, railway undertakings, entities responsible for maintenance of railway vehicles and entities operating special vehicles.

- 1) Report No. PKBWK/01/2020 from the investigation of the accident category B13 occurring on 19 May 2019 at 15:25 at Rybnik Towarowy station, track No. 308, km 43.450 of railway line No. 140 Katowice Ligota - Nędza.
- 2) Report No. PKBWK/02/2020 from the investigation of a serious accident of category A20 occurring on 15 June 2019 at 18:22 on a level crossing of category C, located on route Kąty Wrocławskie –podg. Mietków, track no. 2, at km 22,788 of the railway line no. 274 Wrocław Świebodzki - Zgorzelec.
- 3) Report No. PKBWK/03/2020 from the investigation of a serious accident of category A19 occurring on 03 July 2019 at 08:50 on a level crossing of category B, located on route Wargowo –Złotniki, in closed track no. 2, at km 13.916 of the railway line no. 354 Poznań Główny PoD –Piła Główna.
- 4) Report No. PKBWK/04/2020 from the investigation of a serious accident of category A21 occurring on 2 August 2019 at 19:42 on a railway and road crossing of category D, located on route Starzyny - Koniecpol, track no. 1, at km 34.751 of the railway line No. 64 Kozłów - Koniecpol.
- 5) Report No. PKBWK/05/2020 from investigation of railway incident category C41 occurred on 30 July 2019 at 16:53 in Zlocieniec station, track no. 2, at km 114,131 of railway line no. 210 Chojnice –Runowo Pomorskie.
- 6) Report No. PKBWK/06/2020 from investigation of accident category B11 occurred on 8 August 2019 at 23:18 on route Tarnów Opolski –Opole Groszowice, track no. 1, at km 87.973 of railway line no. 132 Bytom –Wrocław Główny.
- 7) Report no. PKBWK/07/2020 from investigation of railway accident of category B21 occurring on 17 February 2020 at level crossing of category D, located on route Czerwonak –Bolechowo, track no. 1, at km 7,765 of railway line no. 356 Poznań Wschód - Bydgoszcz Główna.
- 8) Report No. PKBWK/08/2020 from the investigation of a serious accident of category A35 occurred on 28 October 2019 at 12:55 on route Paczyna –Toszek, track no. 1, at km 48.180 of railway line No 132 Bytom –Wrocław Główny.

- 9) Report no. PKBWK/09/2020 from investigation of serious accident cat. A23 that happened on 11 January 2020 at 04:35 on route Szamotuły - Pęckowo, track no. 1, at km 34.102 of railway line no. 351 Poznań Główny - Szczecin Główny.
- 10) Report no. PKBWK/10/2020 from investigation of serious train accident category A19 that occurred on 29 April 2020 at 17:32 on level crossing category B on route Bolechowo - Murowana Goślina at km 15.753 of line no. 356 Poznań Wschód Bydgoszcz Główna–.
- 11) PKBWK Annual Report 2019.

Analysis of information on the implementation of individual recommendations - from the answers declared by rail market actors

Under each recommendation, **the average percentage of implementation for that recommendation is** indicated.

The average percentage of implementation of recommendations was determined by UTK based on declarations of addressees of a given recommendation.

- I. Recommendations submitted by the President of UTK after the analysis of Report No. PKBWK/01/2020** from the investigation of accident category B13 occurring on 19 May 2019 at 15:25 at Rybnik Towarowy station, track No. 308, km 43.450 of railway line No. 140 Katowice Ligota - Nędza

PKBWK/01/2020_0_1 PKP CARGO S.A. will undertake actions in order to eliminate irregularities found during proceedings of PKBWK, consisting in incorrect preparation of brake test card (not in accordance with a model included in annex no. 1 to regulation of Minister of Transport of 2 November 2006 on documents which should be on a railway vehicle (Dziennik Ustaw [Journal of Laws] of 2006 no. 9, item 63) and with instruction Cw-1 (Instruction for rolling stock brakes maintenance and operation).

ADDRESSEE OF THE RECOMMENDATION: PKP CARGO S.A. (1 entity)

IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/01/2020_0_2 PKP CARGO S.A. will undertake actions to eliminate the irregularities found during the proceedings of PKBWK, consisting in carrying out conversations between drivers via private mobile phone during a simplified brake test.

ADDRESSEE OF THE RECOMMENDATION: PKP CARGO S.A. (1 entity)

IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/01/2020_0_3 PKP CARGO S.A. will undertake actions aiming at eliminating irregularities stated during PKBWK proceedings, which consist in lack of PKP CARGO S.A. confirmation of correct train set and its readiness for departure, which is a violation of procedure P/01 - Execution of transport process.

ADDRESSEE OF THE RECOMMENDATION: PKP CARGO S.A. (1 entity)

IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/01/2020_0_4 KP CARGO S.A. will undertake actions to eliminate the irregularities found during the proceedings of PKBWK, consisting in the lack of recording in the logbooks of powered vehicles ST48-049 and SM42-1205 information about the accident and termination of work after receiving the substitution and arrival of representatives of the railway commission.

ADDRESSEE OF THE RECOMMENDATION: PKP CARGO S.A. (1 entity)

IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/01/2020_0_5 PKP CARGO S.A. will undertake actions to eliminate the irregularities found during the proceedings of PKBWK, consisting of the discrepancy of time parameter between time recorded in the TELOC recorder of SM42-1205 6Dg vehicle and the real time, as well as the movement of this locomotive with incorrect indications of the time parameter (indication in the recorder with the delay of 5 hours and 10 minutes).

ADDRESSEE OF THE RECOMMENDATION: PKP CARGO S.A. (1 entity)

IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/01/2020_0_6 PKP CARGO S.A. will undertake actions aiming at eliminating irregularities stated during PKBWK proceedings consisting in not stating in brake testing card that there is a pushing locomotive in a train set and that the last vehicle in a train set is SM42-1205 locomotive and not introducing changes in train parameters i.e., total weight, required braking weight and real braking weight.

ADDRESSEE OF THE RECOMMENDATION: PKP CARGO S.A. (1 entity)

IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/01/2020_0_7 PKP CARGO S.A. will undertake actions aiming at eliminating irregularities stated during PKBWK proceedings consisting in lack of inclusion in the list of railway vehicles in the train set that there is a pushing locomotive and the last vehicle in the train set is SM42-1205.

ADDRESSEE OF THE RECOMMENDATION: PKP CARGO S.A. (1 entity)

PERFORMANCE FACTORY: **100%**.

PKBWK/01/2020_0_8 PKP CARGO S.A. will undertake actions to eliminate the irregularities found during PKBWK proceedings consisting in lack of inclusion in the PKP Cargo S.A. danger register a situation of setting a train without performing a simplified brake test with a pushing locomotive.

ADDRESSEE OF THE RECOMMENDATION: PKP CARGO S.A. (1 entity)

IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/01/2020_0_9 PKP Polskie Linie Kolejowe S.A. will undertake actions in order to eliminate irregularities stated during PKBWK investigation consisting in occurrence of corroded semaphore plates in the area of RTB station causing difficulties for motive power units drivers to go to proper tracks in the absence of track numbering on the ground.

ADDRESSEE OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. (1 entity)

IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/01/2020_0_10 PKP Polskie Linie Kolejowe S.A. will undertake actions aiming at elimination of irregularities found during proceedings of PKBWK, consisting in incorrect entries in controllers of entry track occupation (R-292) of RTB and RTD signal boxes, not conforming to valid instructions.

ADDRESSEE OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. (1 entity)

IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/01/2020_0_11 PKP Polskie Linie Kolejowe S.A. will undertake actions aiming at elimination of irregularities found during proceedings of PKBWK, consisting in incorrect transmission of messaging telegrams (not compliant with the template of Ir-1 Instruction) and giving orders by means of wireless communication not compliant with the template of Ir 5 Instruction.

ADDRESSEE OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. (1 entity)

IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/01/2020_1 Certified railway undertakings, authorised managers of railway infrastructure, WKD and PKM will include in their periodic training the rules for shunting and driving with a pushing locomotive (for passenger services, if applicable).

ADDRESSEE OF THE RECOMMENDATION: certified railway undertakings, authorised managers of railway infrastructure, Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.

IMPLEMENTATION PERCENTAGE: **61%**.

PKBWK/01/2020_2 Certified Railway Undertakings, within the framework of periodic instructions, will remind the rules of correct execution of simplified test of combined brake on trains with pushing locomotive (in case of passenger service - if applicable) and preparation of train for road in the scope of railway traffic safety.

ADDRESSEE OF THE RECOMMENDATION: Certified railway undertakings

IMPLEMENTATION PERCENTAGE: **55%**

PKBWK/01/2020_3 Authorised managers of railway infrastructure as well as Warsaw Commuter Railway Ltd. and Pomorska Metropolitan Railway Ltd. shall review their regulations on shunting work and verify them with regard to discussion of shunting work between a traffic officer and a transport organiser or other employee of railway undertaking organising shunting work.

ADDRESSEE OF THE RECOMMENDATION: authorised managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.

IMPLEMENTATION PERCENTAGE: **88%**

PKBWK/01/2020_4 Authorized managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A. within periodic instructions will remind rules of correct keeping of track occupancy control (or other documents fulfilling the same function), traffic logs, rules of conducting shunting on the station and correct conducting of conversations with use of radio communication and station communication devices.

ADDRESSEE OF THE RECOMMENDATION: authorised managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.

IMPLEMENTATION PERCENTAGE: **66%**

PKBWK/01/2020_5 Certified railway undertakings and authorised managers of railway infrastructure as well as Warsaw Commuter Rail Ltd. and Pomorska Metropolitan Rail Ltd. to enforce compliance with internal regulations and instructions shall increase supervision over:

- the correctness of the formulation of radiographs and phonograms,
- the correct performance of brake tests,
- discussing and carrying out shunting work correctly.

ADDRESSEES OF THE RECOMMENDATION Certified railway undertakings, authorised managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.

IMPLEMENTATION PERCENTAGE: **70%**

II. Recommendations submitted by the President of UTK after the analysis of the Report No.

PKBWK/02/2020 from the investigation of the serious accident category A20 occurring on 15 June 2019 at 18:22 on the level crossing category C located on the route Kąty Wrocławskie –podg. Mietków, in track no. 2, at km 22,788 of the railway line no. 274 Wrocław Świebodzki - Zgorzelec.

PKBWK/02/2020_0_1 PKP PLK S.A. Zakład Linii Kolejowych w Wałbrzychu will act regarding the irregularity consisting in the lack of protection of cameras on the crossing at km 22.788 near track no. 2 against the influence of weather conditions. Reading from one camera was impossible - the lens was completely fogged up, from the second camera the image was unclear, rain streaked on the lens.

ADDRESSEE OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. (1 entity)

AVERAGE IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/02/2020_0_2 PKP PLK S.A. Zakład Linii Kolejowych in Wałbrzychu will act regarding the irregularity consisting in the lack of descriptions of traffic signals. The lack of descriptions was found in 2017 during a diagnostic examination. By the date of the accident, the diagnostic recommendation had not been implemented.

ADDRESSEE OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. (1 entity)

AVERAGE IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/02/2020_0_3 PKP PLK S.A. Zakład Linii Kolejowych w Wałbrzychu will act regarding the irregularity consisting in keeping the E1758 book in SSP container contrary to internal regulations.

ADDRESSEE OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. (1 entity)

AVERAGE IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/02/2020_0_4 PKP PLK S.A. Zakład Linii Kolejowych w Wałbrzychu will undertake action regarding the irregularity consisting in the lack of effective supervision over documentation keeping.

ADDRESSEE OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A (1 entity)

AVERAGE IMPLEMENTATION PERCENTAGE: **100%**.

PKBWK/02/2020_0_5 POLREGIO sp. z o. o. shall act regarding the irregularity consisting in the lack of recording in the HASLER TELOC 1500 recorder of EP07P-2004 vehicle of the parameter of air pressure in the main train tube and in the brake cylinders.

ADDRESSEE OF THE RECOMMENDATION: POLREGIO sp. z o. o. (1 entity)

AVERAGE IMPLEMENTATION PERCENTAGE: **10%**

PKBWK/02/2020_0_6 POLREGIO sp. z o. o. shall take actions related to the irregularity consisting in the lack of installation of front cameras on EP07P-2004 vehicle which is not compliant with the recommendation of PKBWK nr PKBWK-076-305/RL/R/11 of 22 November 2011.

ADDRESSEE OF THE RECOMMENDATION: POLREGIO sp. z o. o. (1 entity)

AVERAGE IMPLEMENTATION PROCESS: **0%** (in progress)

PKBWK/02/2020_1 Authorised managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o. in consultation with road managers will check during inspections the correctness of traffic signs' location in terms of compliance with applicable regulations.

ADDRESSEE OF THE RECOMMENDATION: authorised managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o.

AVERAGE IMPLEMENTATION PERCENTAGE: **72%**

PKBWK/02/2020_2 Certified railway undertakings will increase supervision of the control of the correctness of the recording of parameters by electronic recorders in powered railway vehicles.

ADDRESSEES OF THE RECOMMENDATION Certified railway undertakings

AVERAGE IMPLEMENTATION PERCENTAGE: **63%**

PKBWK/02/2020_3 Authorised Infrastructure Managers and Certified Railway Undertakings and Warszawska Kolej Dojazdowa Sp. z o.o. will discuss a serious accident on periodic instructions.

ADDRESSEES OF THE RECOMMENDATION Authorised infrastructure managers and certified railway undertakings and Warszawska Kolej Dojazdowa sp. z o.o.

AVERAGE IMPLEMENTATION PERCENTAGE: **51%**

III. Recommendations submitted by the President of UTK after the analysis of Report No.

PKBWK/03/2020 from the investigation of serious accident category A19 occurring on 03 July 2019 at 08:50 on railway and road crossing category B, located on route Wargowo - Złotniki, in closed track no. 2, at km 13.916 of railway line no. 354 Poznań Główny - PoD Piła Główna

PKBWK/03/2020_1 Authorized infrastructure managers and Warszawska Kolej Dojazdowa sp. z o.o., further referred to as "WKD", shall introduce to internal instructions detailed principles of behaviour during work of working train on closed track, with switched off sensors of automatic crossing system, while train traffic on remaining tracks is carried out.

ADDRESSEES OF THE RECOMMENDATION Authorised infrastructure managers and Warszawska Kolej Dojazdowa sp. z o.o.

AVERAGE IMPLEMENTATION PERCENTAGE: **90%**

PKBWK/03/2020_2 Authorized infrastructure managers and WKD until modification of internal instructions, in case of necessity of work train on closed track with switched off devices of automatic crossing system with active second track and in case of switching off influence of sensors in track with track identification:

- introduce a 20 km/h speed limit on the whole width of the crossing;
- will warn train crews on active track and work trains by written order about necessity of repeated sounding of horns Rp 1 „Alert” until setting W6b indicator on the section from W6a indicator to level crossing, and in case of not setting W6a indicator, from the kilometer set in technical regulations individually for each crossing;
- mark a railroad-road crossing with a B-20 "Stop" road sign with a "damaged barrier" or "damaged signal" sign.

ADDRESSEES OF THE RECOMMENDATION Authorised managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o.

AVERAGE IMPLEMENTATION PERCENTAGE: **83%**

PKBWK/03/2020_3 Authorised Infrastructure Managers and WKD will increase the number of inspections and strengthen supervision of compliance with temporary rules and by-laws in the case of track closures due to investment works, authorised managers will include these actions in the SMS safety improvement programmes.

ADDRESSEES OF THE RECOMMENDATION Authorised managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o.

AVERAGE IMPLEMENTATION PERCENTAGE: **43%**

PKBWK/03/2020_4 Infrastructure manager PKP Polskie Linie Kolejowe S.A. will include in the danger register a threat of switching off automatic crossing system devices in one of the tracks passing by railway-road crossing.

ADDRESSEE OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. (1 entity)

IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/03/2020_5 Infrastructure manager PKP Polskie Linie Kolejowe S.A. will undertake actions to eliminate irregularities in issuing technical fitness certificates for railway vehicles.

ADDRESSEE OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. (1 entity)

(*)IMPLEMENTATION PERCENTAGE: **100%**

*) according to information provided by PKP PLK S.A. to PKBWK

PKBWK/03/2020_6 Operators of special vehicles shall take measures to ensure that these vehicles running on railway lines are equipped with reflective elements improving the side visibility of these vehicles and develop guidelines for additional marking of vehicles with these elements.

ADDRESSEES OF THE RECOMMENDATION: Operators of special vehicles

AVERAGE IMPLEMENTATION PERCENTAGE: **58%**

PKBWK/03/2020_7 Operators of special vehicles shall retrofit on-board recorders of the driving parameters (at least registering speed, pressure in the main pipe and brake cylinders, activation of the „Alert” signal). The retrofiting concerns vehicles undergoing maintenance level P4 and P5 inspections as well as newly purchased vehicles.

ADDRESSEES OF THE RECOMMENDATION Operators of special vehicles

AVERAGE IMPLEMENTATION PERCENTAGE: **30%**

IV. Recommendations provided by the President of UTK after the analysis of Report No.

PKBWK/04/2020 from the investigation of the serious accident category A21 occurring on 2 August 2019 at 19:42 on the level crossing category D, located on the route Starzyny - Koniecpol, in track no. 1, at km 34.751 of the railway line No. 64 Kozłów Koniecpol–

PKBWK/04/2020_1 The Railway Infrastructure Manager PKP Polskie Linie Kolejowe S.A. will carry out operational risk assessment to consider changing the existing cat. "D" level crossing, route Starzyny - Koniecpol, track no. 1, at km 34.751 of railway line no. 64 Kozłów - Koniecpol to higher category or limiting the speed of trains, due to local conditions and speed of 120 km/h and to statements of local authorities.

ADDRESSEE OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. (1 entity)

IMPLEMENTATION PERCENTAGE: **100%**.

PKBWK/04/2020_2 The Railway Infrastructure Manager PKP Polskie Linie Kolejowe S.A. will update the level crossing metric according to the letter of the Manager ref. ILK2d.5003.500/1/2018 introducing "Guidelines for preparation and updating of level crossing/road crossing metric.

ADDRESSEE OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. (1 entity)

IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/04/2020_3 The Railway Infrastructure Manager PKP Polskie Linie Kolejowe S.A. will level the slopes on both sides of the railway-road crossing at km 34.751 of the railway line No. 64 Kozłów - Koniecpol to improve visibility triangles from 10 and 20 metres.

ADDRESSEE OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. (1 entity)

IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/04/2020_4 Certified railway undertakings and WKD will implement recommendation of PKBWK No. PKBWK.076.305/RL/R/11 of November 22, 2011, addressed to railway undertakings about the obligation to install recording devices - digital cameras or video recorders in newly built and operating railway vehicles in such a way that the recording of image and sound is preserved throughout the entire route of the train.

ADDRESSEES OF THE RECOMMENDATION: Certified railway undertakings and Warszawska Kolej Dojazdowa sp. z o.o

AVERAGE IMPLEMENTATION PERCENTAGE: **68%**

V. Recommendations provided by the President of UTK after the analysis of Report No.

PKBWK/05/2020 from the investigation of railway incident of category C41 occurred on 30 July

2019 at 16:53 in Zlocieniec station, track No. 2, at km 114.131 of railway line No. 210 Chojnice –Runowo Pomorskie

PKBWK/05/2020_1 Authorized managers of railway infrastructure will, within 3 months from the publication of the report, verify the modernized mechanical devices with light signals from the point of view of providing a lighting plan with elements reflecting applied traffic control devices in a given traffic station. In particular, they will take into account the transfer of the station layout scheme to the light sheet, as well as other elements of the light signalling infrastructure, such as: repeating signals, line interlocking, line and station counterbalance, track and turnout unoccupancy control devices, and elements depicting other devices such as road-rail crossings, sidings, etc. In case of finding any irregularities, they will take action to remove them.

ADDRESSEE OF THE RECOMMENDATION: authorised managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.

IMPLEMENTATION PERCENTAGE: **88%**

PKBWK/05/2020_2 Authorised managers of railway infrastructure within ongoing and future modernisations of mechanical devices with light signals will consider equipment of signalling posts with light plans containing appropriate elements of signalling equipment in a given traffic station.

ADDRESSEE OF THE RECOMMENDATION: authorised managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.

IMPLEMENTATION PERCENTAGE: **84%**

PKBWK/05/2020_3 Authorized managers of railway infrastructure will include in their internal inspections, issues concerning preparation of temporary operating rules during execution of works for executed investment tasks in terms of ensuring safety of railway traffic.

ADDRESSEE OF THE RECOMMENDATION: authorised managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.

AVERAGE IMPLEMENTATION PERCENTAGE: **75%**

PKBWK/05/2020_4 Authorised managers of railway infrastructure shall extend the obligation to seal the dPo buttons of semi-self-acting automatic relay line interlocking independently of the operation of the counter.

ADDRESSEE OF THE RECOMMENDATION: authorised managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.

IMPLEMENTATION PERCENTAGE: **31%**

PKBWK/05/2020_5 Certified Railway Undertakings and Authorised Railway Infrastructure Managers shall undertake measures to regularly synchronise with real time (with documentation) the internal system times of call recorders, computer systems and other time recording devices.

ADDRESSEES OF THE RECOMMENDATION Certified railway undertakings, authorised managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.

IMPLEMENTATION PERCENTAGE: **71%**

PKBWK/05/2020_6 Railroad Infrastructure Manager PKP Polskie Linie Kolejowe S.A. changes provisions of Instruction Ir-1 in § 28 "running of trains on routes with single-side (semi-self-propelled) line blockade" adding in rec. 19 rules concerning operating of starting block by dispatcher only on order of railroad line manager during telephone announcement of trains.

ADDRESSEE OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. (1 entity)

IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/05/2020_7 Railway Infrastructure Manager PKP Polskie Linie Kolejowe S.A. changes provisions of Instruction Ir-1 in § 58 rec. 4, point 2) adding at the end of the point, after words "of this signal", statement "together with indication of number of line track, where the train enters". This information should be written in box 4 "Other" of written order "S".

ADDRESSEE OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. (1 entity)

IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/05/2020_8 Railway Infrastructure Manager PKP Polskie Linie Kolejowe S.A. will change provisions of Instruction Ir-1 § 58 regarding sending written orders by means of communication devices, taking into account train driver without access to driver's cab.

ADDRESSEE OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. (1 entity)

IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/05/2020_9 Certified railway undertakings within periodic instructions will discuss duties of train crew during train journey with special consideration of actions in case of train turnout on the route based on alternative signal or written order together with discussion about principles of receiving written orders transmitted by means of communication devices.

ADDRESSEE OF THE RECOMMENDATION: certified railway undertakings and Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.

IMPLEMENTATION PERCENTAGE: **57%**

VI. Recommendations submitted by President of UTK after the analysis of Report No.

PKBWK/06/2020 from the investigation of accident category B11 occurred on 8 August 2019 at 23:18 on route Tarnów Opolski –Opole Groszowice, track no. 1, at km 87.973 of railway line no. 132 Bytom –Wrocław Główny

PKBWK/06/2020_1 PKP Polskie Linie Kolejowe S.A. will take effective actions to implement recommendation included in report no. PKBWK 02/2019 with the following content:

"PKP PLK S.A. will undertake measures to systematically equip railway lines with devices to detect rolling stock emergency conditions on operated railway lines based on a risk-based analysis of the possibility of events."

At the same time, it will ensure that the provisions of Instruction le-3 are properly implemented.

ADDRESSEE OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. (1 entity)

AVERAGE IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/06/2020_2 PKP CARGO S.A. will review the Maintenance System Documentation and will ensure that the obligation to correctly fill in the measurement cards during the maintenance inspections is properly fulfilled in all plants carrying out the maintenance process.

ADDRESSEE OF THE RECOMMENDATION: PKP CARGO S.A. (1 entity)

AVERAGE IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/06/2020_3 Certified Railway Undertakings and ECM will immediately strengthen the supervision of the implementation of the rolling stock maintenance levels process especially for wheelsets.

ADDRESSEE OF THE RECOMMENDATION: Certified railway undertakings and ECMs

AVERAGE PERCENTAGE OF RECOMMENDATION COMPLETION: **83%**

PKBWK/06/2020_4 Certified Railway Undertakings and ECMs contracting maintenance activities enforce the quality of inter-operational and final acceptance, especially of wheelsets.

ADDRESSEE OF THE RECOMMENDATION: Certified railway undertakings and ECMs

AVERAGE PERCENTAGE OF RECOMMENDATION COMPLETION: **81%**

PKBWK/06/2020_5 Certified railway undertakings shall permanently equip traction units and/or drivers with light sources (flashlights), among others, to allow visual inspections of railway vehicles during the dark period.

ADDRESSEE OF THE RECOMMENDATION: Certified railway undertakings

AVERAGE PERCENTAGE OF RECOMMENDATION COMPLETION: **76%**

PKBWK/06/2020_6 The Authorised Infrastructure Managers, Certified Railway Undertakings and the ECM shall include the hazard '*broken wheel-set axle journal*' in the Safety Management System or in the Maintenance Management System respectively.

ADDRESSEE OF THE RECOMMENDATION: authorised infrastructure managers, certified railway undertakings and ECMs

AVERAGE PERCENTAGE OF RECOMMENDATION COMPLETION: **76%**

PKBWK/06/2020_7 Authorised managers of railway infrastructure and certified railway undertakings, in order to emphasise the importance of the issue and to raise awareness of safety culture, shall include, in the subject of periodic instructions for employees directly involved in train traffic and driving vehicles, principles of proceeding in case of noticing irregularities in the running gear of wagons according to internal regulations.

ADDRESSEE OF THE RECOMMENDATION: authorised infrastructure managers and certified railway undertakings

AVERAGE PERCENTAGE OF RECOMMENDATION COMPLETION: **56%**

VII. Recommendations provided by UTK President after analysis of Report no. PKBWK/07/2020 from investigation of railway accident category B21 that occurred on 17 February 2020 on railway-road crossing of category D, on route Czerwonak –Bolechowo, track no. 1, at km 7.765 of railway line no. 356 Poznań Wschód Bydgoszcz Główna.

PKBWK/07/2020_1 PKP Polskie Linie Kolejowe S.A. will undertake actions aimed at:

- improvement of effectiveness of SMS procedures implementation: PW-01 and PD-05,
- Addition to the 'hazard register' of 'failure to comply with the visibility conditions of the level crossing from the access road'.

ADDRESSEE OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. (1 entity)

AVERAGE IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/07/2020_2 Authorised Infrastructure Managers within the framework of the Safety Management System (SMS) will take measures to improve the effectiveness of monitoring and analysis of information on safety hazards resulting from requests made by operators and users of level crossings and from requests from incidents in accordance with the procedure.

WKD will implement the above recommendation based on procedures and internal regulations other than the Safety Management System (SMS).

ADDRESSEES OF THE RECOMMENDATION Authorised infrastructure managers and Warszawska Kolej Dojazdowa sp. z o.o.

AVERAGE PERCENTAGE OF RECOMMENDATION COMPLETION: **89%**

PKBWK/07/2020_3 The certified carriers and WKD will implement recommendation No. 4 included in point VI of Report No. PKBWK/01/2019 adopted by the Commission by resolution of 26 March 2019, i.e., they will check the installed image recording systems in front of traction vehicles for correctness and continuity of image recording without delays in case of using buffer recording. In the case of systems with delayed image recording, carriers will make modifications to the power systems to ensure continuity of recording even in the event of loss of external power.

ADDRESSEE OF THE RECOMMENDATION: certified carriers and Warszawska Kolej Dojazdowa sp. z o.o.

AVERAGE PERCENTAGE OF RECOMMENDATION COMPLETION: **69%**

PKBWK/07/2020_4 Authorised infrastructure managers and WKD will include each check as a compulsory element of the scope of inspections and diagnostic tests of journeys:

- a) compatibility of the inclination of the access road alignment with the applicable regulations and the travel metric,
- b) visibility of the crossing from the access roads,
- c) check that the journey log is up to date.

If irregularities are identified, they will take appropriate corrective action.

ADDRESSEE OF THE RECOMMENDATION: authorised infrastructure managers and Warszawska Kolej Dojazdowa sp. z o.o.

AVERAGE PERCENTAGE OF RECOMMENDATION COMPLETION: **71%**

PKBWK/07/2020_5 Authorised infrastructure managers and WKD will undertake measures to improve the quality of final acceptance of investment tasks, including ensuring that the technical parameters of accepted road-rail crossings comply with the applicable regulations.

ADDRESSEE OF THE RECOMMENDATION: authorised infrastructure managers and Warszawska Kolej Dojazdowa sp. z o.o.

AVERAGE PERCENTAGE OF RECOMMENDATION COMPLETION: **99%**

PKBWK/07/2020_6 Authorised managers of railway infrastructure and WKD will send to managers of roads accessing railway and road crossings information on irregularities found, including in marking and organisation of traffic and request information on their removal.

ADDRESSEE OF THE RECOMMENDATION: authorised managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o.

AVERAGE PERCENTAGE OF RECOMMENDATION COMPLETION: **96%**

VIII. Recommendations submitted by the President of UTK after the analysis of Report No. PKBWK/08/2020

from investigation of serious accident of category A35 occurred on 28 October 2019, at 12:55 on route Paczyna –Toszek, track no 1, at km 48.180 of railway line no 132 Bytom –Wrocław Główny.

PKBWK/08/2020_1 Authorized managers of railway infrastructure, WKD and PKM:

– make the following recommendation to railroad contractors:

"The contractors of works, within the framework of internal regulations or safety management systems, will take measures to implement the supervision of maintaining an appropriate level of safety during the execution of investment, maintenance and repair works, performed by their subordinate employees by each time properly and effectively securing the worksite, observing the provisions of temporary regulations for the execution of works, proper cooperation of the works managers with the traffic officer and observance of occupational health and safety regulations. For this purpose, they will increase the number of internal inspections concerning the afore-mentioned issues, in relation to the regulations in force in this respect.",

implement the recommendation and effective controls on its implementation within their safety management systems and/or internal rules.

ADDRESSEE OF THE RECOMMENDATION: authorised managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.

IMPLEMENTATION PERCENTAGE: **73%**

PKBWK/08/2020_2 Authorised infrastructure managers, WKD and PKM will ensure that temporary bylaws and internal rules are developed for planned works requiring track closures and will implement effective mechanisms to supervise the development and application of the bylaws.

ADDRESSEE OF THE RECOMMENDATION: authorised managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.

IMPLEMENTATION PERCENTAGE: **83%**

PKBWK/08/2020_3 Authorized managers of infrastructure, WKD and PKM to emphasize the importance of the issue and to raise awareness of safety culture, will include in the subject of periodic instructions for traffic managers and supervisors, the rules of conduct during the execution of investment, maintenance and repair works. Particular attention will be paid to issues related to covering the worksite, as well as the work manager's duties in terms of managing track closures, supervising employees, and observing occupational health and safety regulations during the works.

ADDRESSEE OF THE RECOMMENDATION: authorised managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.

IMPLEMENTATION PERCENTAGE: **47%**

PKBWK/08/2020_4 Authorised infrastructure managers, WKD and PKM will introduce relevant provisions in internal regulations concerning the obligation for train crews to inform drivers evidentially about all works in the area of tracks on which trains are operated.

ADDRESSEE OF THE RECOMMENDATION: authorised managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.
IMPLEMENTATION PERCENTAGE: **89%**

PKBWK/08/2020_5 PKP Intercity S.A. railway undertaking will implement, according to recommendation of PKBWK no. PKBWK-076-305/RL/R/11 from 22 November 2011, recommendation about obligation to install recording devices - digital cameras or video recorders in newly built and operating railway vehicles in such a way that image and sound recording will be continuous over the whole train route.

ADDRESSEE OF THE RECOMMENDATION: PKP Intercity S.A. (1 entity)
IMPLEMENTATION PERCENTAGE: **72%**

PKBWK/08/2020_6 The carrier PKP Intercity S.A. will switch on the function of recording of given parameters of acoustic signals in HASLER TELOC 1500 recorder of EP07-1056 vehicle and will make the verification of correctness of train journey parameters recording in operated railway vehicles with propulsion.

ADDRESSEE OF THE RECOMMENDATION: PKP Intercity S.A. (1 entity)
IMPLEMENTATION PERCENTAGE: **100%**

PKBWK/08/2020_7 Certified Railway Undertakings and WKD will implement systematic mechanisms of supervision of current control of correctness of all parameters recorded by electronic recording devices of motive power trains, including in particular given „Alert” signals.

ADDRESSEE OF THE RECOMMENDATION: certified railway undertakings and Warszawska Kolej Dojazdowa sp. z o.o.
IMPLEMENTATION PERCENTAGE: **66%**

IX. Recommendations submitted by President of UTK after the analysis of Report no. PKBWK/09/2020 from investigation of serious accident cat. A23 that occurred on 11 January 2020, at 04:35 on route Szamotuły - Pęckowo, track no. 1, at km 34.102 of railway line no. 351 Poznań Główny - Szczecin Główny

PKBWK/09/2020_1 Authorized managers of railway infrastructure, WKD and PKM enforce the participation of contractors and subcontractors of works and other interested parties in regulatory committees preparing temporary traffic regulations during works execution as well as in coordination meetings related to the construction process.

ADDRESSEES OF THE RECOMMENDATION Authorised managers of railway infrastructure, Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.
AVERAGE IMPLEMENTATION PERCENTAGE: **72%**

PKBWK/09/2020_2 Authorised managers of railway infrastructure, WKD and PKM will oblige contractors and subcontractors of works to provide detailed information specifying the scope of works performed (phase, stage, etc.) with indication of their location in the report on track closures submitted to the infrastructure manager.

ADDRESSEES OF THE RECOMMENDATION Authorised managers of railway infrastructure, Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.

AVERAGE IMPLEMENTATION PERCENTAGE: **70%**

PKBWK/09/2020_3 Authorized managers of railway infrastructure WKD and PKM will implement effective mechanisms of supervision in the scope of absolute observance of all obligations resulting from internal regulations concerning issuing notices on track/track closing orders addressed to all interested entities. In case of lack of such regulations, the above-mentioned managers will undertake actions to develop them. In case of infrastructure manager PKP PLK S.A. the recommendation concerns observing duties specified in Ir-19 Instruction.

ADDRESSEES OF THE RECOMMENDATION Authorised managers of railway infrastructure, Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.

AVERAGE IMPLEMENTATION PERCENTAGE: **53%**

PKBWK/09/2020_4 Authorized managers of railway infrastructure, WKD and PKM enforce making detailed records about works (kilometers of works, phase, stage, etc.) in documentation concerning diagnostics of railway infrastructure before starting track works. In case of infrastructure manager PKP PLK S.A. it will be Switch Inspection Log (D-831).

ADDRESSEES OF THE RECOMMENDATION Authorised managers of railway infrastructure, Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.

AVERAGE IMPLEMENTATION PERCENTAGE: **49%**

PKBWK/09/2020_5 Certified Railway Undertakings within the framework of the safety management system (SMS) shall take measures to improve the effectiveness of the monitoring of the relevant procedures for checking the competence of staff to prevent staff from being designated to perform activities without appropriate qualifications and enforce their correct implementation. WKD will implement the above recommendation based on procedures and internal rules other than the safety management system (SMS).

ADDRESSEE OF THE RECOMMENDATION: certified carriers and Warszawska Kolej Dojazdowa sp. z o.o.

AVERAGE IMPLEMENTATION PERCENTAGE: **67%**

PKBWK/09/2020_6 The carriers: TKol Sp. z o.o. and PKP Energetyka S.A. and the infrastructure manager PKP PLK S.A. will undertake actions to eliminate other irregularities not related to the causes of the serious accident but revealed during the investigation of the causes of the serious accident.

RECOMMENDATION ADDRESSEES: TKol Sp. z o.o. PKP Energetyka S.A., PKP PLK S.A. (3 entities)

AVERAGE IMPLEMENTATION PERCENTAGE: **20%**

PKBWK/09/2020_7 PKP Energetyka S.A. - the owner of railway vehicle SM42-9288 will implement recommendation of PKBWK nr PKBWK-076-305/RL/R/11 from 22 November 2011 addressed to railway undertakings about obligation to install recording devices - digital cameras or video recorders in newly built and operating railway vehicles in such way, that the recording of image and sound will be retained in continuous manner on the whole route of train.

ADDRESSEE OF THE RECOMMENDATION: PKP Energetyka S.A. (1 entity)

IMPLEMENTATION PERCENTAGE: **40%**

PKBWK/09/2020_8 PKP Energetyka S.A. - the owner of the technical-commercial wagon type 3Z; year of construction 1949, serial no. - 0689, possessing the railway vehicle identification no. EVN PL-PKPE 9951 9530 165-1, will carry out the inspection of the appropriate level and will issue a new technical efficiency

certificate after fulfilling all the necessary requirements.

ADDRESSEE OF THE RECOMMENDATION: PKP Energetyka S.A. (1 entity)

IMPLEMENTATION PERCENTAGE: **10%**

PKBWK/09/2020_9 PKP Energetyka S.A. - the owner of motive power unit SM42-9288 will undertake actions in scope of using in PIAP recorders all available signals with recording of acoustic signal „Alert”.

ADDRESSEE OF THE RECOMMENDATION: PKP Energetyka S.A. (1 entity)

IMPLEMENTATION PERCENTAGE: **0%**

PKBWK/09/2020_10 Authorised Infrastructure Managers, Certified Railway Undertakings, WKD and PKM will discuss a serious accident in periodic instructions and health and safety training and enforce this on their subcontractors of works.

ADDRESSEES OF THE RECOMMENDATION Authorised managers of railway infrastructure, certified railway undertakings, Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.

AVERAGE IMPLEMENTATION PERCENTAGE: **47%**

- X. Recommendations submitted by President of UTK after the analysis of Report no. PKBWK/10/2020** from investigation of serious train accident category A19 that occurred on 29 April 2020 at 17:32 track no. 2020 at 17:32 on railway-road crossing of category B located on route Bolechowo - Murowana Goślina, track no. 1, km 15,753 of railway line no. 356 Poznań Wschód -Bydgoszcz Główna

PKBWK/10/2020_1 PKP PLK S.A. - based on a risk analysis - in cooperation with the road manager, will take action to determine the need to build a viaduct in the course of provincial road no. 196 over the railway line in order to improve safety and increase throughput. This recommendation is dictated by the high volume of vehicle traffic at the level crossing at km 15.753 of railroad line no. 356, exceeding 400,000, by the accidents that have occurred so far and by the significant risk of re-occurrence of the incident. The configuration of the terrain, which is unfavourable for access to the railway and road crossing, especially in winter, favours construction of the two-level crossing.

ADDRESSEE OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. (1 entity)

AVERAGE IMPLEMENTATION PERCENTAGE: **20%**

PKBWK/10/2020_2 PKP PLK S.A. will install a monitoring system at cat. "B" level crossing located at km 15,753 of railroad line no. 356.

ADDRESSEE OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. (1 entity)

IMPLEMENTATION PERCENTAGE: **5%**

PKBWK/10/2020_3 PKP PLK S.A. will change the concluded agreements in the scope of possibility of current access to the records of remote traffic management devices (logs) and their analysis by the plant employees without necessity of each application to the system supplier for delivery of those data.

ADDRESSEE OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. (1 entity)

AVERAGE IMPLEMENTATION PERCENTAGE: **10%**

PKBWK/10/2020_4 PKP PLK S.A. will change software of computer system to eliminate graphic diagrams of train runs made by LCS Wągrowiec dispatcher and will replace this activity with preparation of diagrams by computer system. Until introduction of computer recording system PKP PLK S.A. will keep handwritten diagram according to pattern defined in annex no. 2 to Instruction Ir-11.

ADDRESSEE OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. (1 entity)

IMPLEMENTATION PERCENTAGE: **50%**

XI. Recommendations from the 2019 Annual Report

R. R. PKBWK for 2019 - Recommendation 1: Authorized managers of railway infrastructure and WKD having in service and maintenance category B railway-road crossings will take measures to minimize category C64 incidents involving users of railway-road crossings, which consisted in leaving road vehicles in the dangerous zone of the crossing (closed between turnpikes), by applying, among others Among others, the provisions included in § 21 of the Regulation of the Minister of Infrastructure of 13 September 2018 amending the Regulation on technical conditions to be met by crossings of railway lines and railway sidings with roads and their location (Journal of Laws of 2018, item 1876). Certified Railway Undertakings will take appropriate measures, within their abilities and competences, to implement this Recommendation, in particular to exchange information on identified risks and to cooperate in the assessment of shared risks.

ADDRESSEES OF THE RECOMMENDATION Certified railway undertakings, infrastructure managers and Warszawska Kolej Dojazdowa sp. z o.o.

IMPLEMENTATION PERCENTAGE: **69%**

R.R. PKBWK for 2019 - Recommendation 2: Authorized Rail Infrastructure Managers, WKD and PKM will act or increase the effectiveness of existing actions to minimize malicious, hooligan or reckless misconduct in the transportation process, with no victims or negative consequences to property and the environment, posing a threat to passengers or train employees. Such incidents include throwing stones at the train, theft of cargo from the train or shunting yard in motion, placing an obstacle on the track, vandalism of and interference with power, communication, signalling or trackside equipment, and unauthorised use of the Radiostop signal by outsiders.

ADDRESSEE OF THE RECOMMENDATION: authorised managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.

IMPLEMENTATION PERCENTAGE: **74%**

R.R. PKBWK for 2019 - Recommendation 3: Certified rail carriers shall take organizational and technical actions to minimize damage and poor condition of railcars and powered vehicles resulting in the need to take them out of service as a result of indications by rolling stock failure condition detection devices confirmed under shop conditions (hot axle boxes, hot brake resulting in displaced rim), as well as other defects in rail vehicles in service noticed by operating personnel.

ADDRESSEE OF THE RECOMMENDATION: Certified railway undertakings

IMPLEMENTATION PERCENTAGE: **70%**

R.R. PKBWK for 2019 - Recommendation 4: Authorised managers of railway infrastructure, WKD and PKM will undertake documented preventive and preventive actions related to shaping proactive attitudes of employees (at all stages from commencement to completion of investment and modernisation works), directed at counteracting threats to railway traffic safety with participation and involvement of company management (including contractors and subcontractors) in accordance with the principles of safety culture at all levels of railway infrastructure management. In addition, infrastructure managers shall, in their actions, take account of all stages of investment and modernisation works, preliminary and internal acceptance, technical acceptance, final acceptance, commissioning and decommissioning (of routes and

sections of railway lines, other railway equipment and infrastructure, etc.), disruption during works and protection of decommissioned infrastructure.

ADDRESSEE OF THE RECOMMENDATION: authorised managers of railway infrastructure and Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.

IMPLEMENTATION PERCENTAGE: **72%**

R.R. PKBWK for 2019 - Recommendation 5: Authorized infrastructure managers, WKD and PKM and certified rail carriers with digital data recording devices (indicating speed, equipment status, etc.) and trail monitoring devices (video or video and audio recording) installed on rail vehicles will take steps to equip rail commission members with appropriate tools to read data from these recorders at the scene of an incident immediately after the incident occurs

ADDRESSEES OF THE RECOMMENDATION Certified railway undertakings, infrastructure managers and Warszawska Kolej Dojazdowa sp. z o.o.

IMPLEMENTATION PERCENTAGE: **70%**.

APPENDIX "B"
to the Annual Report 2020
State Commission on Railway Accidents Investigation

Information on the implementation of the recommendations of the PKBWK issued in 2020 addressed to other stakeholders (Article 28l (8) of the Railway Transport Act)

- I. Recommendations included in the Report No. PKBWK/02/2020** from the investigation of a serious accident of category A20 occurring on 15 June 2019 at 18:22 on a level crossing of category C, located on route Kąty Wrocławskie –podg. Mietków, track no. 2, at km 22.788 of the railway line no. 274 Wrocław Świebodzki - Zgorzelec

PKBWK/02/2020_recommendation_6: The administrator of the road - the Municipality of Kąty Wrocławskie will correctly place the signs G1a, G1b, G1c.

ADDRESSEE OF THE RECOMMENDATION: Kąty Wrocławskie Commune Office (1 entity)

PERCENTAGE OF IMPLEMENTATION: **100%** - achieved (according to the recommendation from the report No. PKBWK/02/2020)

PKBWK/02/2020_recommendation_7: The road manager - Kąty Wrocławskie Municipality Office will ensure the required visibility of the G1a, G1b, G1c, A10 signs and the visibility of the level crossing from the required distance by removing unnecessary vegetation.

ADDRESSEE OF THE RECOMMENDATION: Kąty Wrocławskie Commune Office (1 entity)

PERCENTAGE OF IMPLEMENTATION: **100%** - achieved (according to the recommendation from the report No. PKBWK/02/2020)

PKBWK/02/2020_recommendation_8: The administrator of the road - Kąty Wrocławskie Municipality will install the speed limit sign on the road no. 120603D Nowa Wieś Kącka - Sokolniki according to the road class.

ADDRESSEE OF THE RECOMMENDATION: Kąty Wrocławskie Commune Office (1 entity)

PERCENTAGE OF IMPLEMENTATION: **100%** - achieved (according to the recommendation from the report No. PKBWK/02/2020)

- II. Recommendations included in the Report No. PKBWK/04/2020** from the investigation of the serious accident of category A21 occurring on 2 August 2019 at 19:42 on the railway and road crossing of category D, located on route Starzyny - Koniecpol, in track no. 1, at km 34.751 of the railway line No. 64 Kozłów - Koniecpol

PKBWK/04/2020_zalenie_3 Zarząd Dróg Powiatowych w Włoszczowie due to local conditions will determine the permissible speed of wheeled vehicles on the road in the area of the railway-road crossing in question and will complete the horizontal P12 sign and adjust the setting of the B20 sign to the requirements in agreement with the administrator of the railway infrastructure.

ADDRESSEE OF THE RECOMMENDATION: Kąty Wrocławskie Commune Office (1 entity)

PERCENTAGE OF IMPLEMENTATION: **100%** - achieved (according to the recommendation from the report No. PKBWK/04/2020)

III. Recommendations included in Report no. PKBWK/07/2020 from investigation of railway accident category B21 that occurred on 17 February 2020 on railway-road crossing category D, located on route Czerwonak - Bolechowo, track no. 1, at km 7.765 of railway line no. 356 Poznań Wschód - Bydgoszcz Główna

PKBWK/07/2020_recommendation_1: The road manager, Czerwonak Municipality in consultation with the railway infrastructure manager PKP Polskie Linie Kolejowe S.A. will take actions to develop a concept of building a public road along the railway line (on its left side), which would channel the traffic from cat D crossings at km 7.018, 7.483 and 7.765 to one crossing of a higher category.

RECOMMENDATION ADDRESSEE: Road Manager Czerwonak Municipality Office (1 entity)

Percentage of implementation: **100%** - not implemented (according to the recommendation from the report No PKBWK/07/2020)

PKBWK/07/2020_recommendation_2: The road manager Urząd Gminy Czerwonak will establish appropriate actions to ensure immediate removal of irregularities reported by the infrastructure manager PKP Polskie Linie Kolejowe S.A. resulting from inspections and diagnostic tests of railway and road crossings.

RECOMMENDATION ADDRESSEE: Road Manager Czerwonak Municipality Office (1 entity)

Percentage of implementation: **100%** - not implemented (according to the recommendation from the report No PKBWK/07/2020)

PKBWK/07/2020_recommendation_7: PKP S.A. Real Estate Management Branch in Poznań will undertake actions aiming at removing the car stopping place on the right side of the crossing located on the left side of access road to the crossing looking from the side of provincial road (plot no. 9/3), due to the fact that the vehicles stopping there limit drivers' visibility of the front of the trains approaching the crossing and the visibility from the right side of the track for the drivers of the trains approaching the railway-road crossing towards Wągrowiec station.

ADDRESSEE OF THE RECOMMENDATION: PKP S.A. (1 entity)

PERCENTAGE OF IMPLEMENTATION: **100%** - achieved (according to the recommendation from the report No. PKBWK/07/2020) - the entity applied an alternative solution and indicated that it would monitor this solution to verify the actions taken

IV. Recommendations included in Report no. PKBWK/10/2020 from investigation of serious train accident category A19 that occurred on 29th April 2020 at 17:32 on railway-road crossing category B, on route Bolechowo - Murowana Goślina, track no. 1, at km 15,753 of line no. 356 Poznań Wschód - Bydgoszcz Główna

PKBWK/10/2020_recommendation_3: The road manager shall erect a vertical sign A-29 "Traffic signals" on both sides of the crossing and supplement the horizontal marking with a line P-14 "conditional stop line".

ADDRESSEE OF THE RECOMMENDATION: Road administrator - Wielkopolska Zarząd Dróg Wojewódzkich in Poznań (1 entity)

REALISATION PROCESS: 100% - the alternative solution was implemented (according to the recommendation from report No. PKBWK/10/2020).