



STATE COMMISSION ON RAILWAY ACCIDENT INVESTIGATION

MINISTRY OF INTERIOR AND ADMINISTRATION

ANNUAL REPORT 2022

FROM ACTIVITIES STATE COMMISSION ON RAILWAY ACCIDENT INVESTIGATION

Approved:

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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 Accident Investigation, hereinafter referred to as the "Commission" or "PKBWK," has been investigating serious accidents, accidents and occurrences since April 17, 2007.

The establishment of the Commission resulted from the transposition into national law of the position set out in Article 21 of Directive 2004/49/EC of the European Parliament and of the Council of April 29, 2004 on the safety of the Community's railways, repealed by Directive (EU) 2016/798 of the European Parliament and of the Council of May 11, 2016 on railway safety - OJ L 138, 26.5.2016, p. 102, hereinafter referred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 in force, the Republic of Poland has ensured that the investigation of accidents and occurrences is carried out by a permanent body which is functionally, organizationally and in its decision-making independent of the safety authority, the railway market regulator, railway undertakings, infrastructure managers and other parties whose interests may conflict with the activities of the investigative body. The national investigating body defined in the Directive is the "Commission", in accordance with national law. The Commission is fully independent organizationally and legally from the entities referred to in Article 22 of the Directive and is represented externally by its chairman. This article also authorizes the national investigative body to perform the function of supervising the investigation in the event of a serious accident, accident, or incident.

The Commission operates on the basis of the provisions of Chapter 5a of the Railway Transport Law of March 28, 2003 (consolidated text: Journal of Laws of 2021, item 1984, as amended), hereinafter referred to as the "Railway Transport Law" or the "Law".

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 Law* - Journal of Laws, item 1979).

On the day this *Act amending the Law* 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 primary task of the Commission is to conduct proceedings after any serious accident in rail transport (occurring on railway lines with a track gauge of not less than 300 mm, on railway networks functionally separated from the railway system and on railway sidings that are not private) that has an obvious (negative) impact on railway safety regulation or management, as stipulated in Article 28e (1) of the Law.

The Commission may also initiate proceedings in respect of an accident or incident which, under slightly different conditions, would be a serious accident causing the cessation of operation of

structural subsystems or interoperability components of the trans-European rail system, as provided for in Article 28e (2) of the Law. The decision to initiate the abovementioned procedure shall be taken by the Chairman of the Commission not later than two months from the date of receipt of the notification referred to in Article 28e (3a) of the Law.

The Commission may conduct proceedings in respect of accidents and incidents other than those referred to above, if they occurred under circumstances justifying such an investigation, in which case the decision to conduct proceedings pursuant to Article 28e, paragraph 2a of the Railway Transport Law shall be taken by the Chairman of the Commission without a specific time limit.

Another reason for deciding to investigate accidents and incidents is their recurrence in situations with similar causes. Any decision to investigate an accident or incident shall be preceded by consideration of:

- The severity of the accident or incident;
- whether an accident or incident results in a series of accidents or incidents affecting the system as a whole;
- the impact of an accident or incident on railway safety at the community level;
- requests from managers, railway undertakings, the Minister of the Interior and the Minister of Transport, the President of the Office of Rail Transport, hereinafter referred to as the "President of UTK", or Member States of the European Union.

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

As part of its activities, the Commission conducts investigations to determine the circumstances of occurrences, factors contributing to the occurrence, as well as to determine preventive proposals to improve safety in rail transport. The Commission shall prepare a report on the proceedings with recommendations for improving safety and preventing serious accidents, accidents or incidents and shall adopt a resolution in this respect. Investigations conducted by the Commission do not determine guilt or liability.

The members of the Commission shall have identification cards authorizing them to perform the activities specified in Article 28h paragraph 2 of the Railway Transport Law. Specimen of the identification card is specified in the Regulation of the Minister of Internal Affairs and Administration of 23.10.2020 on the model of the identification card of a member of the State Commission on Railway Accidents Investigation (Journal of Laws, item 1894).

The identification card for a member of the Commission shall be issued by the Minister responsible for internal affairs.

If the Commission undertakes the investigation of an accident or incident, the Railway Commission shall hand over the conduct of the investigation to the Commission. PKBWK shall prepare a report on the conduct of the investigation in accordance with the Commission Implementing Regulation (EU) 2020/572 of April 24, 2020 *on the structure of reports used for the purposes of reports (reports - as defined by Polish legislation) on the investigation of railway accidents and occurrences*, hereinafter referred to as the "*Commission Implementing Regulation (EU)*", which establishes the structure of reports for the investigation of accidents and incidents referred to in Article 20 (1) and (2) of Directive (EU) 2016/798.

Commission Implementing Regulation (EU) 2020/572 of April 24, 2020. (Official Journal of the European Union No. 132 of April 27, 2020), which entered into force on May 14, 2020, is binding in its entirety and directly applicable in all Member States.

1.2 Organizational structure of the Commission

As of December 31, 2022, the Commission consisted of 10 permanent members, including the Chair, two Vice Chairs, and the Secretary of the Commission.

The seat of the State Commission on Railway Accident Investigation is in the building of the Ministry of Internal Affairs and Administration at Aleja J. Ch. Szucha 2/4, 00-582 Warsaw.

Pursuant to Article 28d(4) of the Railway Transport Law of March 28, 2003 (Journal of Laws of 2019, item No. 710, 730, 1214, 1979 and 2020), the Minister of Internal Affairs and Administration has issued Order No. 3 of the Minister of Internal Affairs and Administration of January 31, 2020 *on the Regulations of the State Commission on Railway Accident Investigation* (hereinafter referred to as the Regulations of the Commission), published in the Official Journal of the Minister of Internal Affairs and Administration under Item No. 2.

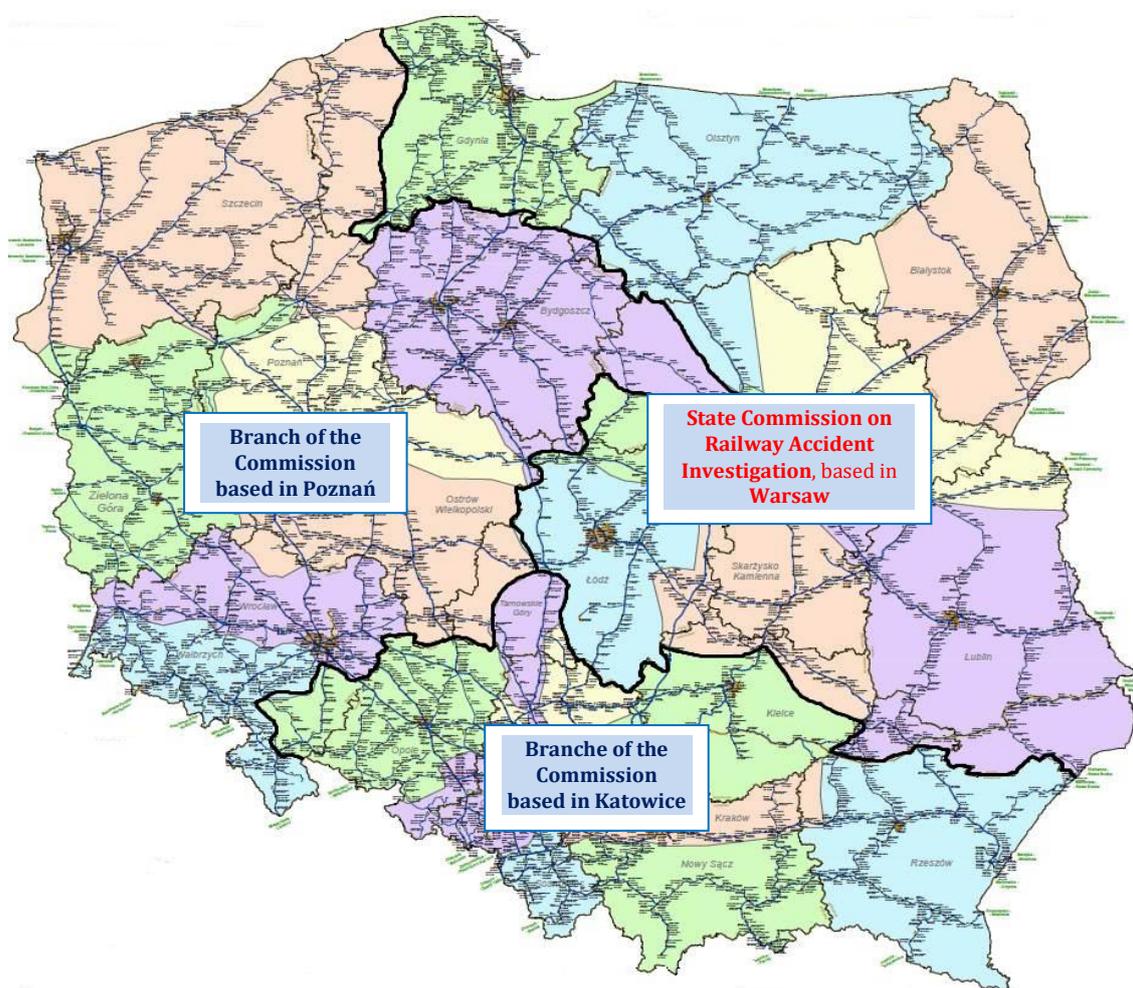
In Annex No. 1 to Order No. 3 of the Minister of Internal Affairs and Administration of January 31, 2020 (item 2) contains the *Regulations of the State Commission on Railway Accident Investigation*, effective as of January 31, 2020, defining the directions of the Commission, organizational structure and duties of the Office of the Minister of Internal Affairs and Administration in dealing with the Commission.

In accordance with § 5 (1) of the Regulations of the Commission, the Chairman coordinates the implementation of the Commission's tasks, ensures the proper organization of the Commission's work and its efficient operation, and represents the Commission externally.

The organizational structure of PKBWK is set forth in Appendix No. 2 to the aforementioned Regulation:

1. State Commission on Railway Accident Investigation based in Warsaw (5 full-time – permanent members):
 - a) Chairman,

- b) Vice Chairman for Research Affairs,
 - c) Vice Chairman for Technical Affairs,
 - d) Secretary of the Commission,
 - e) permanent member.
2. Commission branch based in Katowice (4 full-time– permanent members):
- a) Permanent member to coordinate the work of the branch,
 - b) permanent members (3 full-time– permanent members).
3. A branch of the Commission based in Poznań (3 full-time– permanent members):
- a) Permanent member to coordinate the work of the branch,
 - b) permanent members (2 full-time– permanent members).



Employment status as of December 31, 2022:

- Seat of the Commission in Warsaw - 4 permanent members (1 vacancy) and 1 support staff*) of the Commission,
- Commission's branch in Katowice - 3 permanent members (1 vacancy),
- Commission's branch in Poznań - 3 permanent members.

*) Commission services are provided by the office of the Minister of the Interior.

2. Activities and forms of the Commission's activities and supervision by the Chairman in 2022

In 2022, the Commission conducted activities related to railway occurrences, including the following activities:

1. Analysis of the immediate report on the occurrence provided by the bodies specified in Article 28g of the Law.

The purpose of the preliminary analysis was to determine the consequences of the occurrence (circumstances, causes, number of victims, estimation of losses and other important data related to the occurrence). This was the scope of activities performed by the members of the Commission under the supervision of the Chairman of the Commission.

Preliminary information about the occurrence was provided to the Chairman of the Commission.

2. The decision to send members of the Commission to the site of the occurrence, for the purpose of inspection, was made by the Chairman or Vice Chairman of the Commission.
3. Direct participation of the member(s) of the Commission in the inspection of the site in the presence of the Chairman of the Railway Commission - was used primarily in occurrences where there was a suspicion that a poorly functioning railway safety management system contributed to the occurrence and required analysis and possible corrective action, or where there were other indications of the need to take action - in accordance with Article 28e (2a) and (3) of the Railway Transport Law. From the inspection of the site, the members took notes and submitted recommendations to the President of PKBWK.
4. The preliminary information collected and provided, i.e., the nature of the occurrence and its consequences including fatalities, serious injuries, and property damage, enabled the Chairman of the Commission to assess the need to issue a decision on the further handling of the occurrence.
5. The investigation of a serious accident, accident or incident has been conducted by the Commission's Investigation Team appointed by the Chairman of the Commission.
6. Conduct of proceedings by the Commission's Investigation Team appointed by the Chairman of the Commission - is carried out by appointing the Head of the Investigation Team and then, in consultation with him, determining the composition of the Investigation Team from among the permanent and ad hoc members of the Commission. The Commission's Investigation Team shall conduct activities to determine the circumstances and contributing factors of the occurrence, prepare documentation describing the investigative process necessary for the Commission to adopt a resolution concluding the investigation of a serious accident, accident, or incident. The head of the Investigation Team appointed and coordinated the activities of the team members

and was responsible for the correctness of the activities performed. The tasks and detailed scope of activities are specified in the Commission's Regulations. The above activities were performed under the supervision of the Chairman of the Commission.

The Commission made recommendations to improve safety and prevent serious accidents, accidents, or incidents during the process.

The scope of the investigation plan carried out by the Investigation Team depended on the conclusions the Commission wanted to reach to improve safety.

In 2022, the reports were prepared by the Commission's Investigation Teams based on the provisions of the *Commission Implementing Regulation (EU)*.

The final version of the draft Report was adopted by resolution of the Commission, as a result of the analysis and after accepting or rejecting the comments of the entities listed in Article 28k, paragraph 2 of the Law.

In 2022, the President of the Commission, Mr. Tadeusz Ryś, decided to take over the investigation and management of the Commission's investigative team in the following occurrences:

- 1) On January 14, 2022, at 10:48 a.m., a train accident occurred at a category C level crossing in Kolbuszowa station, on track No. 1Wb, at km 46.925 of railway line No. 71 Ocice - Rzeszów Główny;
- 2) Railway accident occurring on February 3, 2022, at 06:14 on the route Warlubie - Laskowice Pomorskie, on track No. 2, at a level crossing of category B, at km 437.386 of the railway line No. 131 Chorzów Batory - Tczew;
- 3) On June 20, 2022, at 12:55 a railway accident occurred at Regalica junction post, on track no. 2, at km 204.079 of railway line no. 351 Poznań Główny POD - Szczecin Główny;
- 4) Occurrence of category C57 that occurred on October 16, 2019, at 3:54 am at Leszczyń station, at the "Lsz" signal box at 31.738 km of railway line no. 140 Katowice Ligota - Nędza - continuation of proceedings in 2020.

The status of the Commission's investigation is as follows:

- The proceedings listed in items 1 through 3 have been completed by the Commission's Investigation Teams, and the prepared "reports" on the proceedings have been adopted by Commission resolutions and published,
- The procedure referred to in point 4, based on the Infrastructure Manager's request of September 9, 2020, and the importance and safety implications for the system as a whole, initiated by PKBWK by Commission Chairman's Decision No. PKBWK.7.2020 of October 1, 2020 - was continued by the Investigation Team appointed by the Commission.

In 2022, the Commission prepared and published 3 interim reports:

- **PKBWK 01/T1/2022** from the investigation of the incident that occurred on February 5, 2021, at 09:40 at Gogolin station, on track no. 6, at km 22,400 of railway line no. 136;

- **PKBWK 02/T1/2022** from the investigation of the railway incident that occurred on October 16, 2019, at 13:54 at Leszczyny station, at km 31.738, railway line No. 140, Katowice Ligota - Nędza;
- **PKBWK 03/T1/2022** from the investigation of the railway accident that occurred on February 26, 2021, at 05:32 at the station Grodzisko Dolne, in track No. 2, at km 163.756 of the railway line No. 68 Lublin - Przeworsk.

In addition, the Commission completed one investigation in 2020 and five investigations into occurrences that occurred in 2021, and prepared reports that were published on the website.

Details of the ongoing investigations into these occurrences are provided later in the report.

7. The Commission informed the entities listed in Article 28k (2) of the Law about the proceedings and their progress and gave them the opportunity to express their views and submit comments on the proceedings.
8. The Commission cooperated with the relevant bodies investigating serious accidents, accidents, or incidents in other European Union Member States, including Drážní Inspekce, the national investigative body of the Czech Republic, and the national investigative body of BEU-Germany, in accordance with Article 28j of the Law.
9. Based on Article 28ja of the Law, the Commission participated in the program of mutual evaluation within the framework of international cooperation of national investigative bodies of the European Union. A representative of PKBWK participated in the evaluation of the National Investigation Authority of Germany - as a member of the evaluation team.
10. The Commission monitored reported railway occurrences and maintained a "Railway Occurrence Record (EwZd)."
11. In 2022 there were joint inspections of the railway occurrences that occurred, carried out by members of railway commissions and members of the Commission, inter alia, to conduct measurements and tests, analyze documentation.
During the investigation of the cause and circumstances of the occurrence, the members of the Commission participated in the meetings of the Railway Commission. The Commission issued several instructions to clarify the visual inspection of the scene of the occurrence, including non-derailed rolling stock, in front of and behind the derailed rolling stock, and infrastructure.
12. Important factors affecting the Commission's work were:
 - Cooperation - between authorities acting in parallel and independently with mutual respect for each other's competence in connection with the railway occurrence, based on the "Agreement of June 27, 2014, between the State Commission on Railway Accident Investigation and the Prosecutor General." The Agreement also applies to cooperation with the Police, the Internal

Security Service, Military Police and Border Guard (as defined by the Criminal Investigation Department - in § 1 item 5 of the Agreement). All provisions concerning the rights of PKBWK shall also apply to railway commissions.

- Agreement of December 16, 2014, between the Chief of Police and the State Commission on Railway Accident Investigation concluded in order to determine the principles of cooperation in the field of mutual support of activities undertaken at the level of training projects organized and conducted by them.
- Agreement of June 3, 2016, between the Chairman of the State Commission on Railway Accident Investigation and the President of the Office of Rail Transport on cooperation in the field of railway safety in the Republic of Poland. The purpose of the concluded agreement is the joint activities of the parties for the development and ensuring of safety in railway transport, as well as the exchange of information and experience in the work of railway commissions.

The above Agreements are available on the website:

<https://www.gov.pl/web/mswia>

Tab: What we do → State Commission on Railway Accident Investigation: → Legal acts and documents.

- In the framework of exchange of experience and improvement of the quality of the system of investigation of occurrences and improvement of the state of railway safety, the members of the Commission shall participate in training courses, conferences, seminars, meetings, plenary sessions, working groups, workshops, meetings organized by other bodies, as well as meetings organized by the European Union Railway Agency and bodies investigating serious accidents, accidents and incidents in other Member States of the European Union.

3. Events investigated in the period from January 1 to December 31, 2022

3.1 Events reported to the Commission by the entities indicated in Article 28g of the Law

The obligation of infrastructure managers, railway undertakings and users of railway sidings to immediately notify the Commission and the President of UTK of serious accidents, accidents and incidents on railway lines was based on Article 28g (1) of the Railway Transport Law. On the other hand, the obligation of the infrastructure manager or siding user responsible for the location of the occurrence to report the incident in writing resulted from § 7 (1-5) of the Regulation of the Minister of Infrastructure and Construction of March 16, 2016, on serious accidents, accidents and incidents in railway transport (Journal of Laws, item 369), hereinafter referred to as the "Regulation". National regulations define the classification of rail transportation incidents into the following types:

- 1) **Serious accident - any accident caused** by a collision, derailment or any other occurrence with an obvious impact on railway safety regulations or safety management: resulting in at

least **one fatality or at least five seriously injured persons** (seriously injured - a person who, as a result of a serious accident or incident, suffers a bodily injury or impairment of health and is hospitalized for more than 24 hours as a result), or causing significant damage to a railway vehicle, railway infrastructure or the environment, which can be immediately estimated by the accident investigation committee to be at least 2 million euros;

- 2) **Accident** - an unintentional, sudden occurrence or series of occurrences involving a rail vehicle that results in negative consequences for human health, property or the environment; accidents include, but are not limited to:
- collisions,
 - derailments,
 - crossing occurrences,
 - occurrences involving persons caused by a rail vehicle in motion,
 - railway vehicle fire;
- 3) **Incident** - any occurrence other than an accident or serious accident, **related to railway traffic** and affecting its safety. The clarification of the costs of this occurrence can be found in the regulation.

The aforementioned terms for the type of occurrences (serious accident, accident and occurrence) are defined according to the provisions of the Railway Transport Law.

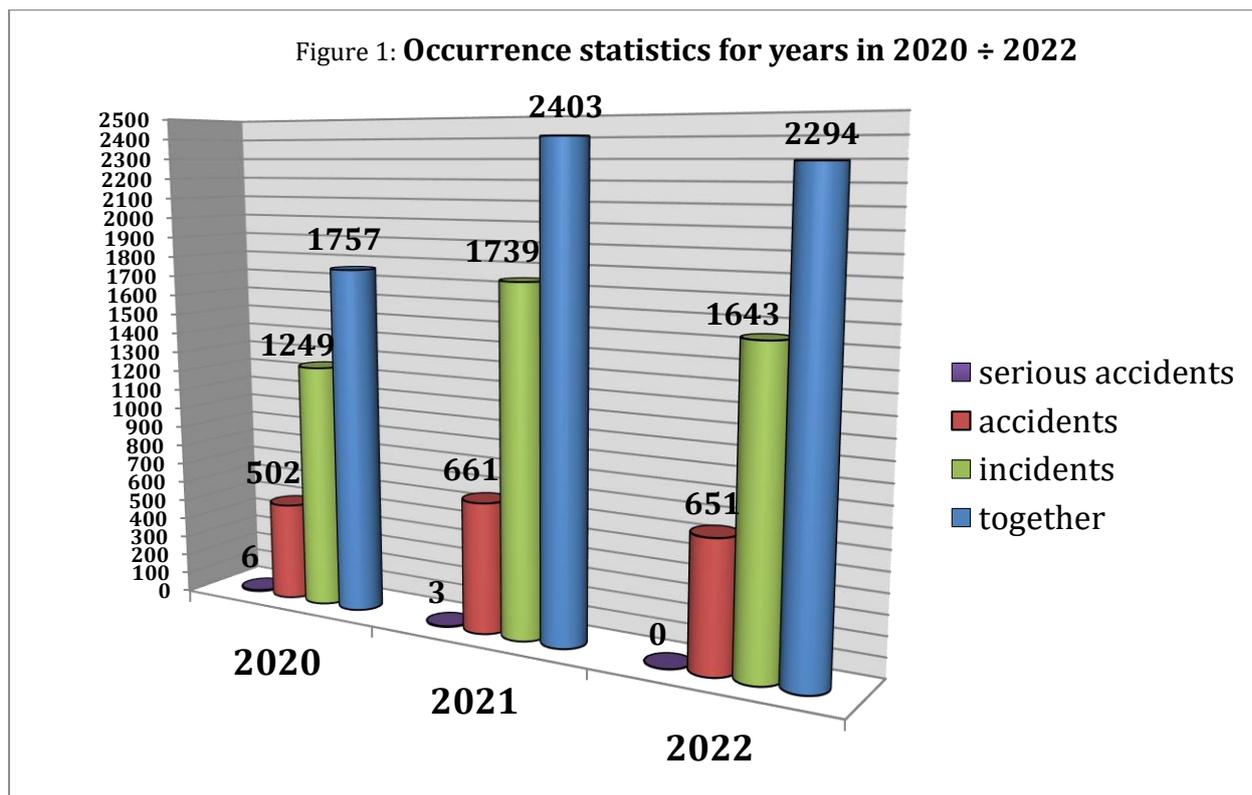
In the period from January 01 to December 31, 2022, a total of 2294 railway occurrences were reported to the Commission and registered in the Railway Event Recording System (EwZd) according to the direct cause qualification under the Regulation, of which: 651 accidents and 1643 incidents.

The number and structure of the events by type are shown in the following table.

Table 1 Occurrences reported to the Commission in 2022 versus 2021.

Type of event (PW - serious accident, W - accident, I - incident).	2021	2022	Change 2022/2021
PW (cat. A)	3	0	not noted in EwZd in 2022
W (cat. B)	661	651	-1.5%
I (Cat. C)	1739	1643	-5.5%
Total number of railway occurrences	2403	2294	-4.5%

The chart below shows a summary of serious accidents, accidents and incidents occurring in 2020, 2021 and 2022.



Including in 2022 from railway sidings - a total of 168 railway occurrences (including: 128 accidents and 40 incidents) were reported to the records (EwZd) kept at PKBWK.

The following table shows the number of injuries (fatalities, serious injuries, and injuries) in occurrences that occurred in 2022 compared to 2021 (based on documentation provided by obligated parties).

Table 2 Injured in occurrences in 2022 vs. 2021.

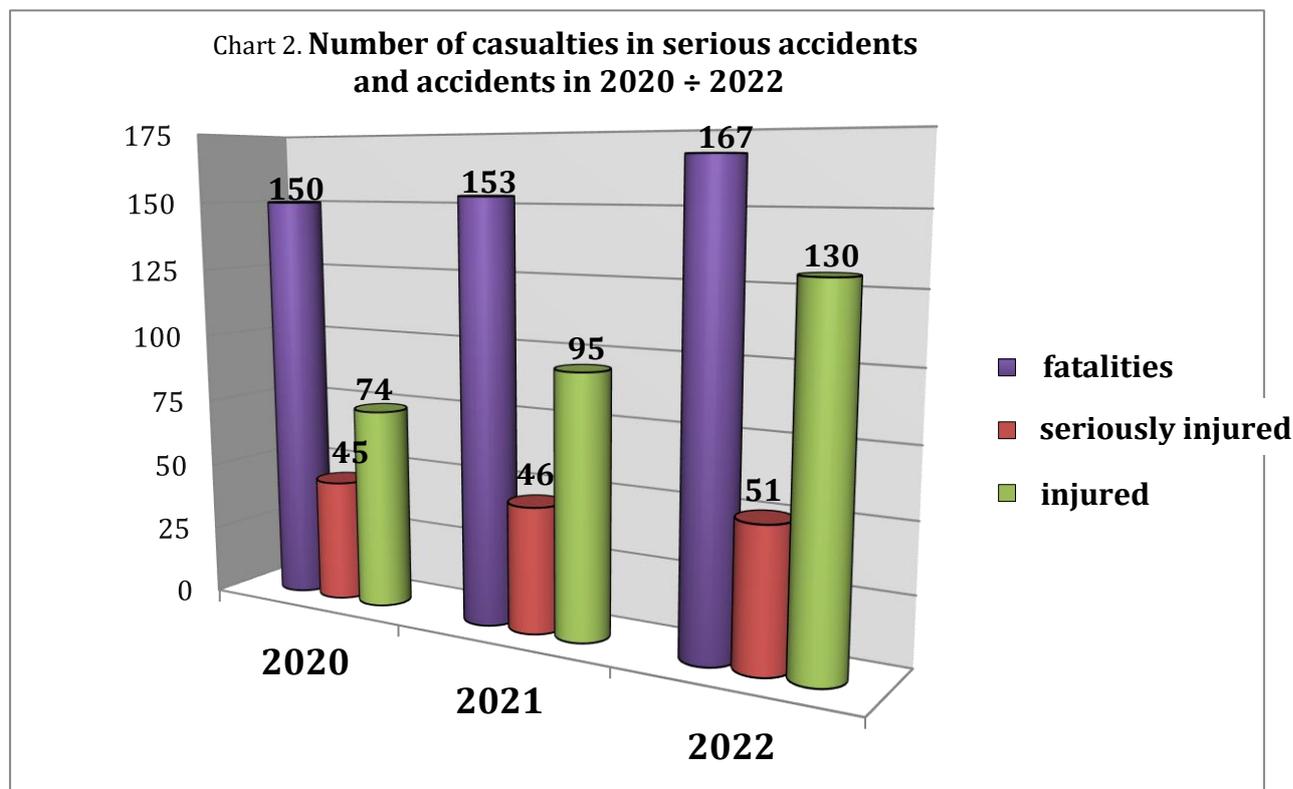
Casualties ^{*)}	2021	2022	Change 2022/2021
Fatalities	153 ^{**)}	167 ^{**)}	+9,2%
Seriously injured	46 ^{**)}	51 ^{**)}	+10,9%
Injured	95 ^{**)}	130 ^{**)}	+36,8%

^{*)} Casualties: fatalities, seriously injured, and injured (including railway sidings) according to information provided as of the date of the report (i.e., through August 15, 2023); casualties classified as suicides or attempted suicides in the prosecutor's decisions were not included.

^{**)} Statistics (figures): fatalities, seriously injured and injured shown based on Commission Reports and the Final Memoranda of findings prepared by the railway commissions and submitted to PKBWK.

The chart below shows a summary of the number of casualties: fatalities, seriously injured and injured, in occurrences occurring in 2020, 2021 and 2022, compiled on the basis of Commission

Reports and Final Memoranda of findings prepared by railway commissions and submitted to PKBWK.

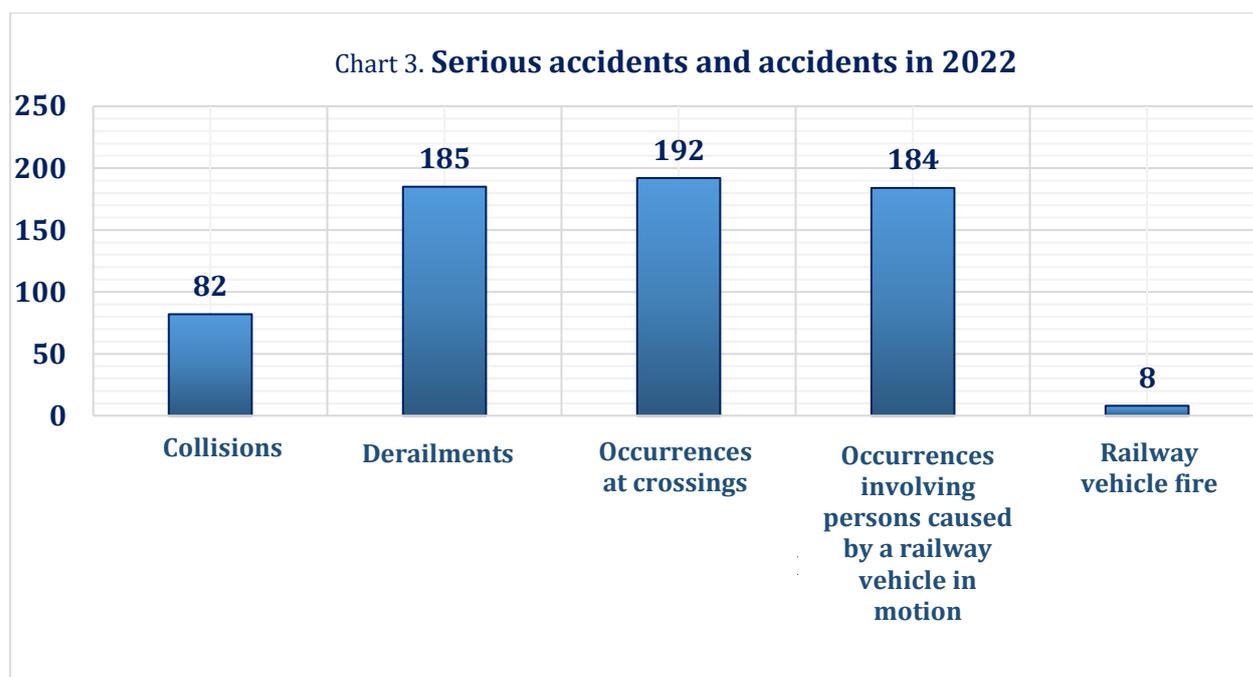


3.2 Breakdown of occurrences reported to the Commission by entities indicated in Article 28g of the Law

The assignment of occurrences occurring in 2022 to the relevant types, made by PKBWK, is shown in the charts below:

a) serious accidents and accidents - 651

- A. Collisions - 82
- B. Derailments - 185
- C. Occurrences at crossings - 192
- D. Occurrences involving persons caused by a railway vehicle in motion - 184
- E. Railway vehicle fire - 8.



b) incidents -1643

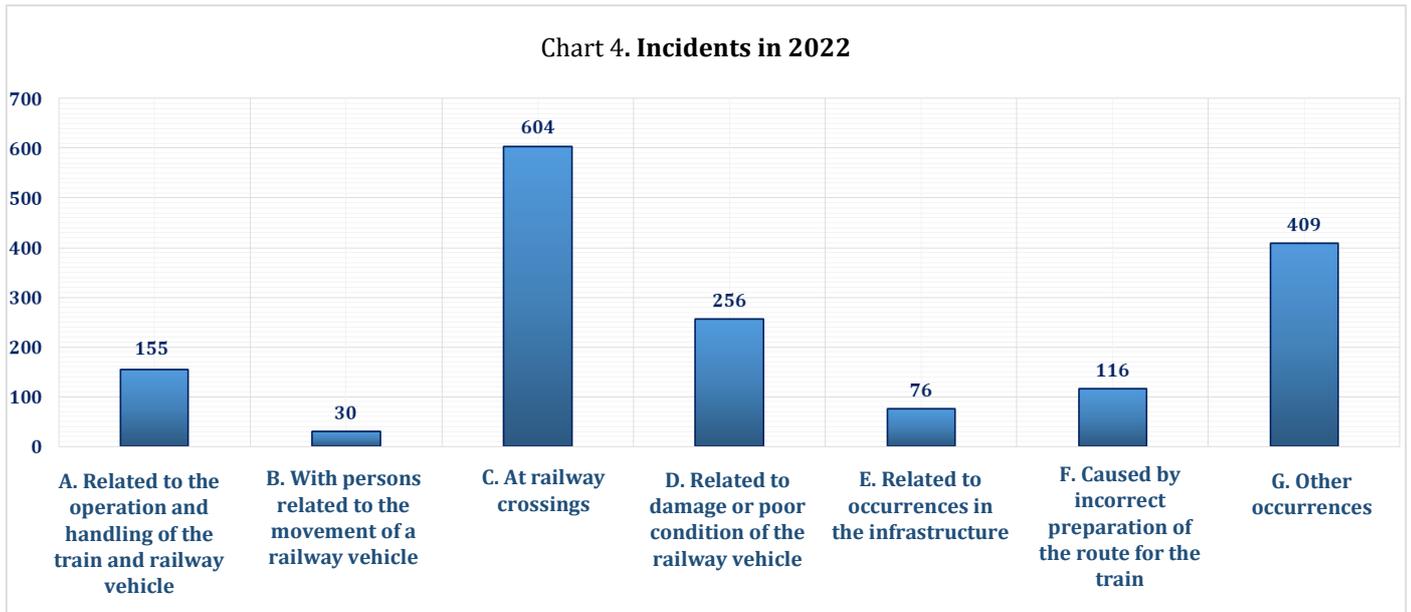
- A. Occurrences (incidents) related **to the operation and handling of the train and railway vehicle** (including: *) incidents of category: C44 - 118, C45 - 25, C46 - 3, C47 - 9).
Number of incidents in the above categories: 155
- B. Occurrences **with persons related to the movement of a railway vehicle**, without casualties or negative consequences for property or the environment (i.e.*) incidents of category C65 - 30).
- C. Occurrences (incidents) **at railway crossings** - failure of a road vehicle to stop in front of a closed turnpike (semi-turnpike) and damage to it or traffic signals (i.e.*) incidents of category C66 - 87); malicious, hooligan or reckless misconduct, without casualties or negative consequences for property or the environment, posing a danger to passengers or train employees (i.e.*) incidents of category C64 - 517).
Number of incidents in the above categories: 604
- D. Occurrences (incidents) related **to damage or poor condition of the railway vehicle** and fire (including: *) incidents of category: C53 - 33, C54 - 199, C55 - 24).
Number of incidents in the above categories: 256
- E. Occurrences (incidents) related **to occurrences (disturbances) in the infrastructure** (damage, malfunction of equipment, invasion of an obstacle, and fire in the facility or near the track, i.e.*) incidents of categories: C51 - 29, C52 - 4, C57 - 3, C60 -35, C64 - 5). Number of occurrences in the above categories: 76
- F. Occurrences (incidents) caused by **incorrect preparation of the route for the train** (launching, starting, receiving the train or railway vehicle) and preparation of the train for

*) incidents of category - designation in accordance with the qualification of the direct cause, contained in the Regulation of the Minister of Infrastructure and Construction of March 16, 2016 on serious accidents, accidents and incidents in railway transport (Journal of Laws. 2016, item 369)

running (i.e.*) incidents of categories: C41 - 2, C42 - 1, C43 - 85, C48 - 4, C49 - 1, C50 - 23). Number of occurrences in the above categories: 116

G. Other occurrences:

uncontrolled release of dangerous goods, natural disasters, malicious, hooligan or reckless misconduct (e.g., pelting of a train, theft of cargo from a train, etc., train or shunting yard breakup that did not result in a runaway train of cars, and other causes or the overlap of several causes simultaneously (i.e., *) category occurrences: C61- 4, C62 - 33, C64 - 85, C67- 1, C68 - 246, C69 - 40). Number of incidents of the categories as above: 409.



3.3 Occurrences for which the Commission has started investigations in 2022.

3.3.1 Railway accident occurred on January 14, 2022, at 10:48 a.m. at the level crossing of category C in Kolbuszowa station, track No. 1Wb, at km 46.925 of the railway line No. 71 Ocice - Rzeszów Główny

Consequences of the occurrence:

- As a result of the occurrence, the driver of the road vehicle died at the scene. Five train passengers were injured. Four people received medical attention at the scene, one person was taken to the hospital in serious condition and died as a result of his injuries.
- A delivery truck and the first section of rail vehicle No. EN63B-108 were destroyed.



Photo 1 - View of the site of the occurrence (PKBWK's own material)



Photo 2 - Consequences of the occurrence (material of the railway commission)

Occurrence at a level crossing of category C. The occurrence involved the RAJ 33506 passenger train owned by railway undertaking POLREGIO S.A., consisting of an EN63B-108 electric multiple unit and a Citroen Jumper van. The occurrence consisted of the train hitting the side of the vehicle, whose driver entered the crossing despite the signals on the traffic lights prohibiting entry behind these signals and the sound signals emitted by acoustic devices.

After arriving at the railroad crossing, the driver of the van stopped in front of the traffic signals, which alternated between flashing red lights and sounding audible signals. After a while, despite the signals sent by the traffic signals prohibiting entry behind the signals, he drove off and entered the crossing directly in front of an oncoming train. The railway vehicle EN63B-108 caught fire and derailed.

As a result of the decision of the Chairman of PKBWK to take over the conduct of the proceedings by the Investigation Team, taking into account the provisions of Article 28e (4) of the Railway Transport Law, the Commission notified the European Union Railway Agency ("EUAR") of the takeover of the conduct of the proceedings through the information system "ERAIL" on January 30, 2022, and the above occurrence was registered in its database under the number **PL-10186**.

Recommendations made during the investigation to improve security

On February 24, 2002, the Chairman of the Commission, in a letter addressed to the Director of PKP PLK S.A. Railway Line Department in Rzeszów, made recommendations for increasing the safety of rail traffic in relation to the railway crossing in question, i.e.:

- 1) Introduction of a permanent speed limit of 60 km/h for trains going to Kolbuszowa station before the category C level crossing at Kolbuszowa station, km 46.925 of railway line no. 71 Ocice - Rzeszów Główny, and installation of W6b indicators corresponding to this speed,
- 2) Ensure visibility of traffic signals transmitted by traffic lights from 100 meters away.

In addition, on February 03, 2022, in a letter addressed to the Director of District Roads Administration in Kolbuszowa, he made recommendations with the following content, i.e.:

- 1) Introduction of a speed limit of up to 50 km/h on road No. 1214R on the approaches to the crossing due to non-compliance with the provisions of the Regulation of the Minister of Infrastructure and Development of October 20, 2015 *on the technical conditions to be met by the intersections of railway lines and railway sidings with roads and their location*, Annex No. 3, paragraph A, 1 as an implementing regulation of Article 7 of the Construction Law,
- 2) Mark the intersection (on the side of Road No. 9 - the left side of the intersection) with an A-10 sign in accordance with regulations,
- 3) Mark the crossing with P-14 horizontal signs.

From this proceeding, the Commission issued Report No. PKBWK 08/2022 (December 27, 2022), in which it made the following recommendations:

1. PKN Orlen S.A., in connection with the change of infrastructure: railway crossing (from category C to category B), track layout and track use on the siding adjacent to the railway track, and change of traffic organization within the railway crossing, will appoint a team for risk assessment and evaluation in order to identify risks affecting the safety of rail and road traffic at the railway crossing and on track No. 101. It is recommended that the team identifying the risks should include representatives of the railway infrastructure manager, the road manager, the user of the railway siding and the organizer of traffic in the area of the railway siding.
2. PKN Orlen S.A., in agreement with PKP PLK S.A., will update the start section of the Fuel Terminal siding in Widełka in the relevant documentation.
3. PKP PLK S.A. will liquidate redundant built-up vertical rails along line No. 71, which are fixed points of the jointless track. Use of existing traction poles as fixed points.
4. Railway undertakings licensed to carry passengers shall equip railway vehicles with rescue stretchers or other equipment for transporting injured persons in areas accessible to the train service team.

3.3.2 Railway accident occurred on February 3, 2022, at 06:14 on route Warlubie - Laskowice Pomorskie, track No. 2, at a level crossing of category B, at km 437.386 of the railway line No. 131 Chorzów Batory - Tczew

Consequences of the occurrence:

- As a result of the incident, the driver of the bus was killed on the spot.
- The bus was destroyed, and the EU07A-002 locomotive and two passenger cars were damaged.



Photo 3 - Consequences of the occurrence (PKBWK's own material)



Photo 4 - Consequences of the occurrence (PKBWK's own material)

An occurrence on a category B level crossing involving the passenger train IC 5600/1 of PKP Intercity S.A., consisting of locomotive EU07A-002 and seven coaches, and a Mercedes INTEGRO bus of PKS Grudziądz. The occurrence consisted in the train hitting the right rear of the bus, which was in the rolling stock gauge between the closed half-barriers and was trying to leave the crossing. After the impact, the bus was thrown to the right side of track no. 2, in the direction of the train, at about 100 meters from the axis of the crossing.

As a result of the decision of the Chairman of PKBWK to take over the conduct of the proceedings by the Investigation Team, taking into account the provisions of Article 28e (4) of the Railway Transport Law, the Commission notified the European Union Railway Agency ("EUAR") on February 21, 2022 of the takeover of the conduct of the proceedings through the information system "ERAIL", and the above event was registered in its database under the number **PL-10022**.

Recommendations made during the investigation to improve security:

On April 21, 2002, in a letter addressed to the Director of PKP PLK S.A. Railway Line Department in Bydgoszcz, the Head of the Świecko District and the Head of the Warlubie Municipality, the Chairman of the Commission made the following recommendations for increasing the safety of rail traffic at the railway crossing in question, i.e.:

- 1) Removal of unnecessary concrete elements at the crossing on the side of track 2,
- 2) Removal of a tree growing on the left side of the crossing when approaching from direction of the village Bąkowski Młyn,
- 3) Demarcating the boundary of PKP PLK S.A. land within the crossing for the purpose of relocating traffic safety equipment at the crossing,
- 4) Repositioning of the masts of the cameras monitoring the crossing so that the images include the indications of the signals on the traffic lights,
- 5) Determine the necessary measures to widen the access roads to the crossing to allow collision-free movement of vehicles in both directions while commuting and passing through the crossing,
- 6) Relocation of light poles and traffic signals considering the widening of the access roads to the railway crossing.

From this proceeding, the Commission issued Report No. PKBWK 07/2022 (dated December 14, 2022), in which it made the following recommendations:

1. The Infrastructure Manager PKP PLK Railway Line Department in Bydgoszcz will reassess the significance of the change, considering local conditions, in connection with the implementation of post-accident recommendations.
2. Infrastructure manager PKP PLK Railway Line Department in Bydgoszcz will implement the findings contained in the minutes from the meeting of the Team for the assessment of the significance of change according to the procedure in accordance with the procedure SMS-PR-03 "Change Management" for assessing the significance of the change for the technical change consisting in the reconstruction of level crossings from category A to B on the line No. 131 Chorzów Batory - Tczew located at kilometer 344.021; 437.386; 440.762 dated 15.04.2015, in particular with regard to TVU monitors at the control room of the Warlubie station.
3. The road manager will develop a new traffic organization project in the area of the cat. B railway crossing, taking into account the topographical conditions of the intersection of the railway line and the road, in such a way that the vehicles coming from the direction of Bąkowski Młyn will have priority in passing through the crossing.
4. Infrastructure managers, during public campaigns to improve safety at level crossings, will emphasize the formation of correct behavior of crossing users when a road vehicle is locked between barriers, including, among other things, the need to immediately exit the vehicle from the crossing by breaking the barrier or leave the vehicle if it is damaged at the crossing.
5. Authorized infrastructure managers, in the event of a change in the category of a level crossing, reconstruction or construction of a new crossing or pedestrian crossing, shall make it mandatory to assess the significance of the change, considering existing local conditions.

3.3.3 Railway accident occurred on June 20, 2022 at 12:55 at the Regalica branch station, in track No. 2, at km 204.079 of railway line No. 351 Poznań Główny POD - Szczecin Główny

Consequences of the occurrence:

- As a result of the occurrence, two rail vehicles were damaged: ROM train 88628/9 led by rail bus type 219M and network train Rob.1 led by motorized car WM15P.00/HB-19.
- There were no casualties as a result of the occurrence.



Photo 5 - View of the vehicles after the occurrence (source: materials provided by the railway commission)



Photo 6 - View of the site of the vehicle clash (source: materials provided by the railway commission)

While the train ROM 88628/9 (POLREGIO Spółka Akcyjna) of line Szczecin Główny - Kołobrzeg was running on track no. 2 from Szczecin Port Central SPA station in the direction of Szczecin Zdroje junction post, at Regalica junction post in the area of turnout no. 3, a collision occurred with a network train Rob. standing on turnout no. 1.

The occurrence involved the following trains: passenger train ROM 88628/9/9 between Szczecin Główny and Kołobrzeg (rail bus type 219M) of POLREGIO S.A. and network train Rob.1 (WM15P.00/HB-19) of PKP Energetyka S.A. During the passage of train ROM 88628/9 on track No. 2, there was a collision with the network train Rob.1, which was standing on track No. 1, at the switch fouling point No. 3 with a side impact. The end of the Rob.1 train was at the switch fouling point no. 3, occupying the gauge for the moving ROM 88628/9 train.

As a result of the decision of the Chairman of PKBWK to take over the conduct of the proceedings by the Investigation Team, taking into account the provisions of Article 28e (4) of the Railway Transport Law, the Commission on July 01, 2022, notified the European Union Railway Agency ("EUAR") of the takeover of the conduct of the proceedings through the "ERAIL" information system, and the above event was registered in its database under the number **PL-10248**.

There was no need to make recommendations to improve security during the investigation.

From this investigation, the Commission issued Report No. PKBWK 02/2023 (dated June 05 2023), in which it made the following recommendations:

1. The infrastructure Manager PKP PLK S.A. will ensure the supervision of the quality of the implementation of the Company's investment process and diagnostic process.
2. The Infrastructure Manager PKP PLK S.A. shall strengthen the system of supervision of training and authorization of employees in connection with organizational or technical changes affecting the way they perform their activities.
3. The Infrastructure Manager PKP PLK S.A. will adapt its internal regulations to the provisions of the Regulation of the Minister of Infrastructure of January 11, 2021 on employees working in positions directly related to the operation and safety of rail transport and the operation of certain types of rolling stock (Journal of Laws 2021, item 101) with respect to authorizations.

4. Analysis of occurrences reported to PKBWK in 2022.

Decrease in the total number of occurrences.

In 2022, the total number of incidents reported to the Commission by infrastructure managers and users of railway sidings relevant to the site decreased by 4.5% compared to 2021, of which:

- there were no serious accidents investigated by the Commission (in 2021, there were 3 serious railway accidents, i.e. categories*) A20 - 1 and A21 - 2),
- there was a slight decrease in the number of accidents - by 1.5% (from 661 occurrences in 2021 to 651 in 2022),
- The number of occurrences decreased by 5.5% (from 1,739 occurrences - in 2021 to 1,643 in 2022).

An analysis of the occurrences reported to PKBWK in 2022 shows that the total number of railway occurrences on railway sidings decreased by 6.7% compared to 2021.

In 2022, there were 168 occurrences, of which 128 were classified as railway accidents and 40 as railway incidents, while in 2021, there were 180 railway occurrences, of which 149 were classified as railway accidents and 31 as railway incidents.

The structure of occurrences in 2022 compared to 2021 by category (including direct cause qualification) is included in Appendix "C" to this report on page 88.

Accidents

The decrease in the number of accidents compared to the previous year occurred in 12 categories*) (out of 40 total category B occurrences), viz: B00 - 26; B09 - 44; B11 -15; B13 - 45; B15 - 13; B19 - 15; B21 - 106; B32 - 5; B33 - 10, and no occurrences were reported (total decrease) in categories B02; B06; B28.

There was a **slight increase in the** number of accidents in 15 categories*) viz: B03 - 33; B04 - 34; B07 - 3; B08 - 14; B10 - 8; B12 - 3; B16 - 2; B17 - 10; B20 - 42; B22 - 2; B23 - 11; B24 - 8; B30 - 5; B31 - 6; B34 - 175.

The largest decrease in the number of serious accidents and accidents occurred in the categories:

A21 + B21 - a decrease of 46 - occurrences occurred at cat D level crossings, with 152 (2+150) incidents occurring in 2021 and in 2022 - 106 occurrences;

B09 - a decrease of 14 - damage or poor maintenance of a structure, such as a roadway, bridge or overpass, including improper execution of work, such as improper unloading of materials, pavement, leaving materials and equipment (including road machinery) on the track or in the gauge of a railway vehicle, or overrunning elements of the structure - 58 occurred in 2021 and in 2022 - 44 occurrences;

B13 - a decrease of 10 - occurrences of overrunning by a railway vehicle of a railway vehicle or other obstacle (e.g., brake skid, baggage car, mail car) - 55 occurred in 2021 and in 2022 - 45 occurrences;

B15 - a decrease of 7 - occurrences of premature termination of the runway or abrogation of the closure and pulling the switch under the vehicle - 20 occurred in 2021 and in 2022 - 13 occurrences.

Incidents

Compared to the previous year, there was a 5.5% **decrease** in the number of reported incidents in 2022 - that is, by 96 (in 2021 there were 1739 incidents, and in 2022 there were 1643 incidents).

There was a **decrease** in the number of incidents in 12 categories*) (out of 27 total category C occurrences), viz: C42 - 1; C43 - 85; C44 - 118; C46 - 3; C50 - 23; C51 - 29; C52 - 4; C54 - 199; C59 - 0; C60 - 35; C66 - 87; C68 - 246.

There was a **slight increase** in the number of incidents in 13 categories*) i.e. C45 - 25; C47 - 9; C48 - 4; C49 - 1; C53 - 33; C55 - 24; C57 - 3; C61 - 1; C62 - 33; C64 - 607; C65 - 30; C67 - 1; C69 - 40.

The largest decrease in incidents occurred in following categories:

- **C68** - from 281 incidents in 2021, a decrease to 246 incidents in 2022 (- 35) - a train or shunting yard breakup that did not result in a runaway train car;
- **C66** - from 122 incidents in 2021, a decrease to 87 incidents in 2022 (- 35) - failure of a road vehicle to stop in front of a closed full barrier (half barrier) and damage to it or to traffic signals on which signals warning of an oncoming train were attached, without collision with a rail vehicle;

*) category accidents - designation in accordance with the qualification of the direct cause, contained in the Decree of the Minister of Infrastructure and Construction of March 16, 2016 on serious accidents, accidents and incidents in railway transport (Journal of Laws of 2016, item 369).

- **C54** - from 226 incidents in 2021 decrease to 199 incidents in 2022 (- 27) - damage or poor technical condition of a railcar making it necessary to take it out of service as a result of indications by rolling stock emergency detection devices, confirmed in workshop conditions (hot axle boxes, hot brake resulting in displaced rim), as well as other defects in rail vehicles in service noticed by operating personnel;
- **C44** - from 137 incidents in 2021, a decrease to 118 incidents in 2022 (- 19) - failure of a railway vehicle to stop before the "Stop" signal or at the place where it should stop, or starting a railway vehicle without the required authorization;
- **C60** - from 54 incidents in 2021, a decrease to 35 incidents in 2022 (- 19) - a rail vehicle running into an obstacle (e.g., brake skid, baggage cart, mail cart, etc.) without derailment or casualties;
- **C50** - from 39 incidents in 2021 decrease to 23 incidents in 2022 (- 16) - improper loading, unloading, irregularities in cargo securing or other irregularities in cargo operations.

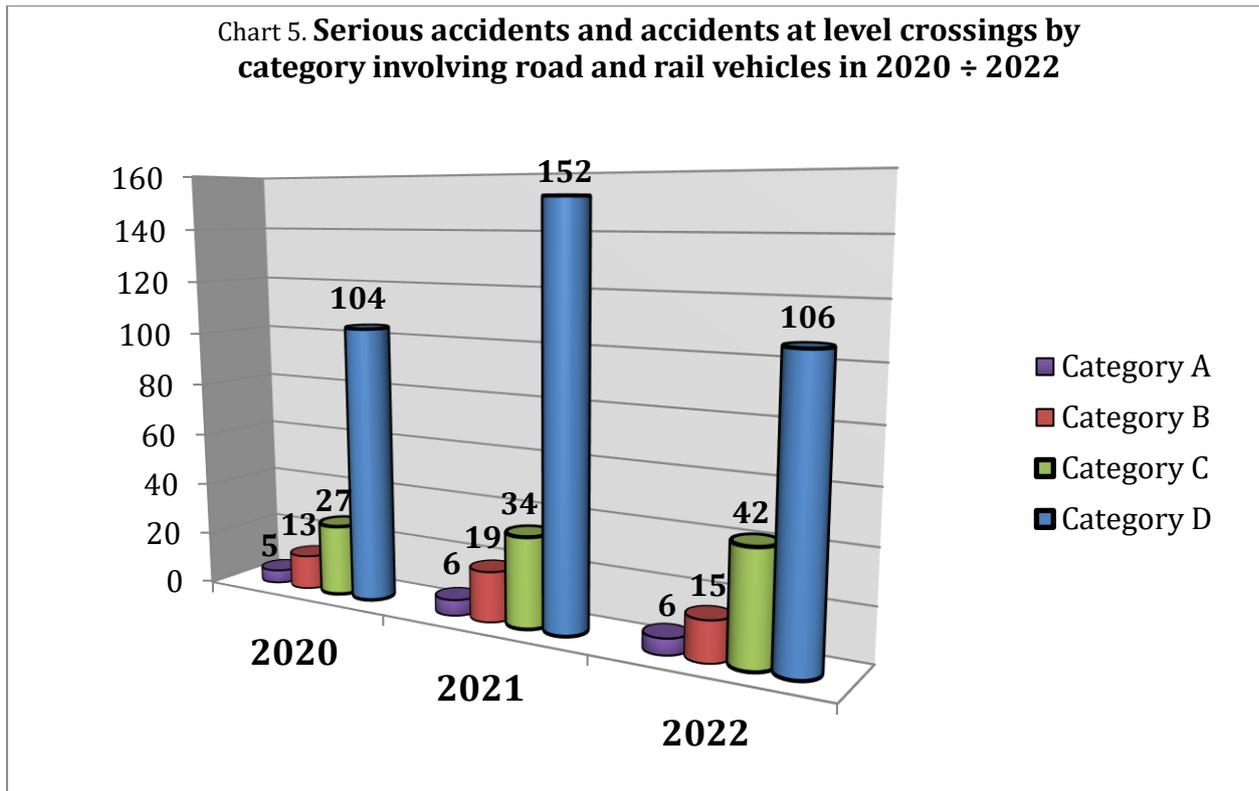
Occurrences at level crossings

In 2022, compared to 2021, there was a **decrease of 42 occurrences** from the total number of accidents at grade A, B, C, D railway-road crossings, i.e., by **19.9%**, (in 2021 - 211 accidents occurred, and in 2022 - 169) including:

- There was no change in the number of accidents at category A level crossings,
- At category B level crossings, a **decrease by** 4 accidents,
- There was an **increase** of 8 accidents at category C level crossings,
- At category D level crossings, a **decrease** of 46 accidents.

The above statistics also consider accidents occurring at level crossings of users of railway sidings, i.e., four accidents at category D crossings and one at category A.

A comparative summary of serious accidents and accidents at level crossings of each category involving road and rail vehicles in 2020 ÷ 2022 is shown in the chart below.



In particular, the primary causes of occurrences at level crossings continue to be:

- Failure to comply with the prohibition of entering a crossing beyond a traffic signal that emits a no-entry signal "alternating flashing red signal," or two alternating flashing red signals,
- Failure to stop in front of a "Stop" sign and failure to exercise due care by drivers of road vehicles,
- Passing under closing full barriers,
- Bypassing half-barriers,
- Failure to use the required visibility triangle,
- Failure to take special precautions in front of a level crossing with closed barriers and properly functioning traffic lights, and failure of the driver of a passenger vehicle to respond to the audible signal "Attention" given by the driver of a train,
- Blocking the crossing by driving onto the tracks without being able to get off,
- Failure to adjust speed to prevailing road conditions,
- Failure to obey signs and other traffic signals,
- Misbehavior when the vehicle is stopped on the tracks,

- Failure of the driver of a road vehicle to respond to the "Attention" signals given by the train driver when crossing a level crossing, and as a result, entering the crossing directly under the oncoming train,
- Failure of a road vehicle to stop in front of a traffic signal that has a traffic light prohibiting vehicles from entering the level crossing and an audible signal activated, and entering directly in front of an oncoming train at a properly secured and signalized category C crossing,
- Driving a road vehicle onto a level crossing when the warning lights are on - failure of the driver to exercise caution at a category B level crossing and to stop the vehicle at the level crossing before the barrier closes the exit,
- Failure of a road vehicle to stop in front of traffic signals when unable to proceed due to traffic congestion and getting stuck at a level crossing after the barrier has closed,
- Failure of a vehicle to stop in front of a traffic signal prohibiting entry to a level crossing, failure of a road vehicle to stop in front of a level crossing despite signals emitted on traffic signals warning about an oncoming train and the beginning of closing the barriers.

The records kept at PKBWK show that there were 40 railway occurrences in which a road vehicle at a level crossing ran into the side of a railway vehicle included in a train and was at the level crossing.

The main causes of these accidents at category A level crossings are:

- Car entering on a closed barrier at a level crossing, damaging it and driving a passenger car into a passing train,
- Failure of the crossing guard of the post to comply with the provisions of the rules of operation of the crossing (failure to use the emergency switch to close the crossing),
- Late closing of the barrier for the passage of trains,
- Opening the barrier too early after a train has passed one of the tracks,
- Failure of the driver of a road vehicle to obey traffic signs and driving a road vehicle into the side of a passing train,
- Running over of a train on a category A level crossing by a road vehicle with open barrier in the absence of the crossing guard's operation of the barrier.

At category B level crossings, there is still a **massive phenomenon of road vehicles entering** these crossings (when the barriers are closing) and lockdown between the barriers. An analysis of the *Final Memoranda of findings* (PUK) submitted by the railway commissions shows that in 2022 more than **604** occurrences (incidents) were registered at level crossings, i.e. failure of a road vehicle to stop in front of a closed barrier (half-barrier) and damage it or traffic signals (i.e., incidents of category C66 - 87); and malicious, hooligan or reckless misconduct, with no victims or negative consequences for property or the environment, posing a threat to passengers or train employees - road vehicle lockdown between barriers (i.e., incidents of category C64 - 517). In 2022, there was an increase in

incidents of category C64 (from 585 in 2021 to 607 in 2022) and a decrease in category C66 (from 122 occurrences in 2021 to 87 in 2022). It should be noted that there were no collisions between road vehicles and rail vehicles among the incidents.

The large number of such incidents (categories C64 and C66) testifies to the reckless behavior of road vehicle drivers or their lack of caution when crossing level crossings.

Circumstances and causes of incidents should be thoroughly analyzed by railway commissions and railway infrastructure managers, and appropriate measures should be taken to prevent future occurrences.

A positive development is the decrease in the number of accidents at category B level crossings (19 accidents in 2021 and 15 in 2022).

In 2022, 42 accidents occurred at category C level crossings, compared to 2021: 1 serious accident and 33 accidents, an increase of 23.5% (+8).

There has been a significant decrease in the number of serious accidents and railway accidents at category D level crossings (from 152 in 2021, a decrease to 106 in 2022), which should be considered as a positive development. Drivers of road vehicles have a significant influence on the number and occurrence of accidents at category B, C and D level crossings.

In 2022, 106 accidents occurred at Category D level crossings, while in 2021 there were: 2 serious accidents and 150 accidents, a decrease of 30.3% (-46).

A total of 169 railway accidents and serious railway accidents occurred at level crossings in 2022, - accounting for 26.0% of the total number of accidents occurring in 2022 (651).

In accidents at level crossings in 2022, 31 people were killed and 18 were seriously injured, while at level crossings and crossings involving people, i.e., a total of categories B18, B19, B20, B21, B22 and B31, B32 and B33 were recorded the following: 42 people killed and 20 seriously injured.

Safety is improved by the implementation and improvement of additional marking (applied by the manager PKP PLK S.A.) of level crossings/intersections **with stickers with an individual identification number and emergency telephone number implemented by rail infrastructure managers** - the so-called "Yellow Sticker" project. The additional marking enables a road user who is involved in or a witness to a breakdown or occurrence to contact the emergency services quickly. The database of individual identification numbers has been integrated into the information system used by the operators of the 112-emergency number.

In the event of an accident or occurrence at the level crossing, after calling 112 (in the event of an accident or imminent accident) or the emergency number (in the event of an emergency), the reporting party provides the individual crossing identification number from the yellow sticker.

Thanks to the transmitted information, the 112 operator or railway employee can determine the exact location of the crossing, which reduces the response time of the services in case of an emergency.

The effectiveness of the implementation of this project depends on the transmission of information about the "Yellow Sticker", to as many users of level crossings and pedestrian crossings as possible.

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

From June 1, 2018 to July 31, 2023, 112 emergency operators received 30,200 calls regarding potential hazards at level crossings and railway areas.

In 2022, a total of 7,951 calls were recorded through the Yellow Sticker program. By calling 112, following actions were taken:

- In 458 cases, a reduction train speed was introduced to ensure the safety of passengers and people using level crossings (from 01.01. to 30.06.2022 - 271 cases);
- In 205 cases, trains were suspended on railway lines (from 01.01. to 30.06.2022 - 169 cases).

In view of the impact of accidents and occurrences at level crossings, it is necessary to accelerate the implementation of projects for monitoring and occurrence analysis systems to improve safety at category B, C and D level crossings, including determining compliance with existing traffic regulations.

In addition, the use of a radio broadcast "Alarm" signal has been reported. This is intended to prevent rail incidents in 2022.

In total, in 2022, PKP PLK S.A. recorded **674** cases of use of the "Alarm" signal, of which:

- 482 are cases sent from outside the rail system, unfounded;
- 192 are cases assigned in the rail system, including:
 - 58 are legitimate cases - preventing railway occurrences,
 - 134 are unfounded cases - given by the driver, dispatcher, crossing guard or other employee.

Compared to 2021, the number of cases of use of the "Alarm" signal in 2022 decreased by 4.5% (from 706 to 674 cases), and the number of cases of legitimate use decreased by 9.3% (from 64 cases in 2021 to 58 cases in 2022). Out of a total of 674 cases of use of the "Alarm" signal, unfounded use from outside the railway system accounted for 71.7% (i.e. 482 cases).

The use of the "Alarm" signal was made by employees working in the above-mentioned positions:

- driver - in 31 cases deemed justified and 96 cases deemed unfounded,
- crossing guard - in 16 cases deemed justified, while one case deemed unfounded,

- Dispatcher - in 11 cases considered justified and in 8 cases considered unfounded.

The largest number of cases of unfounded transmission of "Alarm" signals (616 cases) was recorded in areas with large settlements and high network density, where signal interference affects the largest number of railway lines. In 2022, the highest activity of transmitted "Alarm" signals was recorded by PKP PLK S.A. Railway Line Departments in Warsaw, Sosnowiec and Gdynia, with significantly higher activity at PKP PLK ZLK in Warsaw (110 unfounded uses of "Alarm" signals were recorded).

Unfounded use of the "Alarm" signal was most often observed in the professional group of train drivers - i.e. 96 cases.

Casualties in occurrences

In 2022, compared to 2021, the number of persons killed in railway accidents increased by 9.2%, while the number of persons seriously injured increased by 10.9% (Table 2). Among those casualties (fatalities and seriously injured), the vast majority are: people crossing the tracks in prohibited places or at rail intersections, people hit by railway vehicles, people jumping on and off railway vehicles in motion, and people using level crossings. The number of injuries increased significantly from 95 in 2021 to 130 in 2022.

Table 3 Casualties in occurrences in 2022.

Category of casualties in occurrences in 2022.	Fatalities	Severely injured	Injured
a) passengers	3	-	19
b) employees including employees of subcontractors	-	6	14
c) Users of a level crossing or intersections	41	19	70
d) persons not authorized to be in the railway area	122	26	24
e) others	1	-	3
Total	167	51	130

5. Recommendations for safety improvements made by the Commission in annual reports until 2022, pursuant to Article 28l (6) of the Law of March 28, 2003. on railway transport

5.1 Recommendations issued in 2022 and published in September 2022 in PKBWK Annual Report for 2021

Pursuant to Article 28l (6) of the Railway Transport Law, the Commission has issued the following recommendations for improving safety in 2022.

From the "**Information on the implementation of the recommendations of PKBWK for the year 2022**" (provided by UTK letter ref: DPN-WDZK.464.9.2023.1.EK dated April 27, 2023) shows that the President of UTK by UTK letter ref: DPN-WDZK.464.13.2022.2.KG dated October 21, 2022– provided the revised recommendations to the rail market entities and analyzed the information on their implementation.

The content of the recommendations amended as to the content of the Commission and forwarded to the rail market players by the President of UTK is included in the "Recommendations issued in 2022 by PKBWK in the Annual Report for 2021" below.

Recommendations made in 2022 by PKBWK in its 2021 Annual Report	
The content of the recommendations issued by PKBWK in its Annual Report for 2021 and pursuant to Article 28l (8) of the Railway Transport Law of March 28, 2003 addressed to the President of UTK, which would apply to all entities related to rail transportation	The content of the recommendations of the Commission as amended by the President of UTK and sent for implementation to the listed entities: certified railway undertakings, authorized infrastructure managers, users of railway sidings, operators of narrow-gauge railways, and managers of railway networks that are functionally separate from the Union railway system and intended only for provincial or local operations (operating on the basis of safety certificates).
1. PKP PLK S.A. and other infrastructure managers will accelerate the implementation, at category D level crossings, of monitoring and event analysis systems (detection of an approaching road vehicle, warning the driver of the approach of a level crossing, recording the behavior of vehicles at the crossing), as well as determination of compliance with current traffic regulations.	Annual Report for 2021_1 Authorized Infrastructure Managers shall accelerate the implementation of the use of monitoring and event analysis systems (detection of an approaching road vehicle, warning of approaching a level crossing, recording of vehicle behavior at the level crossing) at level crossings of category D, as well as the determination of compliance with applicable traffic regulations.
2. Railway undertakings shall take organizational and technical measures to minimize damage and poor technical condition of railcars and traction units that require their withdrawal from service as a result of indications from rolling stock emergency detection devices, confirmed in workshop conditions (hot axle boxes, overheated brake resulting in displaced rim), as well as other defects of rolling stock in service noticed by operating personnel.	Annual Report for 2021_2 Certified Railway Operators shall take organizational and technical measures to minimize damage and poor technical condition of rolling stock and traction units resulting in the need to withdraw them from service as a result of indications from rolling stock fault condition detection devices confirmed under workshop conditions (hot axle boxes, overheated brake resulting in displaced rim), as well as other defects of rolling stock in service noticed by the operating staff.
3. Railway infrastructure managers operating and maintaining level crossings of category B, as well as railway undertakings, shall take measures to minimize incidents of category C64 involving users of level crossings, in which the closed barriers were bypassed and road vehicles were left in the dangerous area of the crossing (locked between the barriers), by applying, inter alia, the provisions contained in § 21 of the Ordinance of the Minister of Infrastructure of September 13, 2018, amending the Ordinance on technical conditions to be met by intersections of railway lines and railway sidings with roads and their location (Journal of Laws 2018, item 1876).	Annual Report for 2021_3 Authorized railway infrastructure managers, users of railway sidings, operators of narrow-gauge railways and other entities operating and maintaining category B level crossings, as well as certified railway undertakings, shall take measures to minimize category C64 occurrences involving users of level crossings, in which the closed barriers are bypassed and road vehicles are left in the dangerous zone of the level crossing (locked between the barriers), by applying, inter alia, the provisions of § 21 of the Ordinance of the Minister of Infrastructure of September 13, 2018, amending the Ordinance on technical conditions to be met by intersections of railway lines and railway sidings with roads and their location (Journal of Laws of 2018, item 1876).

4. Railway operators and railway infrastructure managers shall take measures to eliminate railway occurrences caused by failure of a railway vehicle to stop before the "Stop" signal or at the place where it should stop, or by starting a railway vehicle without the necessary authorization.

Annual Report for 2021_4 Certified railway undertakings, authorized railway infrastructure managers, users of railway sidings, operators of narrow-gauge railways, as well as entities exempted from the obligation to obtain a safety certificate or an authorization to operate on the basis of a safety certificate, shall take measures to eliminate railway incidents caused by failure of a railway vehicle to stop before a "stop" signal or at the place where it should stop, or by starting of a railway vehicle without the required authorization.

5.2 Recommendations made in 2023 by the Commission in the 2022 Annual Report

Pursuant to Article 28l (6) of the Railway Transport Law of March 28, 2003, the Commission makes the following recommendations on improving safety:

1. PKP PLK S.A. and other railway infrastructure managers, based on their analysis of the sections of railway lines where there are cases of forest animals entering the track directly in front of an oncoming train, and will take measures, especially in forest areas, to prevent or stop forest animals from getting overrun by traction vehicles.

This recommendation is based on the inflow of a large amount of information (reports from railway undertakings and infrastructure managers) on the incidents that have occurred, which are mainly qualified as potentially dangerous situations D75 - by infrastructure managers and constitute a major nuisance in the operation and damage to railway vehicles. Category D75 - is defined as a railway vehicle hitting an obstacle on the track or within the gauge, which does not pose a threat to traffic safety and does not cause damage to property or the environment or stopping in front of such an obstacle. In 2022, only 17 incidents - mostly classified as C60 - were reported as incidents where railway commissions conducted investigations. The remaining occurrences that occurred were qualified as potentially dangerous situations. However, it should be emphasized that the number of occurrences reported on the above topic - only on a monthly basis - is several times higher than the number of conducted occurrences qualified as incidents.

2. Infrastructure managers, railway undertakings, users of railway sidings, operators of narrow-gauge railways and entities exempted from the requirement to obtain a safety certificate or license but authorized to operate on the basis of a safety certificate shall provide periodic training to members of railway commissions on issues related to conducting investigations into the circumstances of railway occurrences.

The above recommendation is based on the analysis of the circumstances and conduct of the investigation of the causes of railway accidents conducted by some railway commissions. A common phenomenon is, for example, the documentation of the effects of occurrences instead of the facts determining the causes and circumstances of their occurrence, incomplete (cursory) performance of visual inspections to speed up the restoration of railway traffic. As a result, the preparation of the report on the inspection of the site of the occurrence is very much delayed, despite the fact that the site of the occurrence has been made available for the operation of railway traffic. This recommendation is a reminder of the recommendations made by the Commission in: Reports for 2008 (Report 2008, page 13 table No. 8 point 4) and for 2015 (Report 2015, page 15, point 3b). The above, despite the recommendations issued and the supervision exercised by the President of UTK - is not fully implemented.

3. PKP Polskie Linie Kolejowe S.A. and other infrastructure managers will revise the existing regulations on the phase of restoring traffic after automatic transmission of an alarm signal

(radio stop). In particular: they will develop and implement a unified form of the order to resume traffic issued by the organizer of train traffic in the area of the transmitted alarm to the traction teams (railway undertakings). In addition, they will analyze the suitability of the current location of the W28 indicator setting.

The recommendation is based on the need to avoid dangers that may arise in the phase of restoring traffic after unjustified use of the automatic alarm signal, mainly from outside the railway system. The persistently high percentage in the area of unjustified use of the automatic alarm signal (using radio stop) from outside the railway system accounts for more than 71% of the total number of recorded cases of use of this signal on the railway network of PKP PLK S.A. In addition, it is useful to analyze the regulations for setting the W28 signal. For example, the Ir-12 instruction specifies the location of the W28 indicator 30 - 70 m behind the last switch of a station and 100 - 150 m behind the last turnout of a junction post, looking in the direction of the route. Such distances, assuming that the trains are longer (e.g., more than 200 m), cause that the train leaving the signaling post is still on the turnout at the time of the change of the radio communication channel, which in turn can lead to e.g., switching the turnout under the moving train (the W28 indicator should be set at a greater distance behind the last turnout).

4. Railway undertakings, infrastructure managers with motorized railway vehicles, users of railway sidings, operators of narrow-gauge railways and entities exempted from the obligation to obtain a safety certificate or authorization and authorized to operate on the basis of a safety certificate shall regulate (in instructions/internal regulations) and implement the prohibition of contacting the driver by mobile phone while driving a railway vehicle, except in emergency situations (e.g. lack of communication) when it is necessary to inform the driver about situations that threaten the safety of railway traffic.

The above recommendation is a reminder of the recommendations issued by the Commission in Reports No. PKBWK/1/2012 (page 47, recommendation No. 3) and PKBWK 01/2021 (page 56, recommendation No. 6), which are not consistently implemented in operational practice. The above is not fully implemented despite the recommendations issued and the supervision exercised by the President of UTK. This recommendation remains to be implemented by the entities in which the above has not been implemented to date.

5. PKP Polskie Linie Kolejowe S.A. and other railway infrastructure managers will analyze sections of railway lines where there have been cases of people being hit, entering the tracks in unsuitable places, directly in front of an oncoming train and will take appropriate measures to reduce their number (including by legalizing the crossing with appropriate signage, SOK patrols, fencing, surveillance system (cameras), etc.).

The above recommendation is aimed at reducing the number of hit-and-runs, i.e., reducing the number of category B34 incidents.

The issuance of the aforementioned recommendations by the Commission is the result of an analysis of the number of occurrences that have occurred and documents submitted to the Commission by oil market participants.

6. Implementation of recommendations made in 2022 by PKBWK (according to information from the President of the Office of Rail Transport)

On April 28, 2023, the Commission received from the President of the Office of Rail Transport, hereinafter referred to as "UTK", information on the implementation of the recommendations made by the Commission in 2022.

In 2022, PKBWK submitted to the President of the UTK, 8 reports on completed investigations 2022 on railway occurrences from 2020, 2021 and 2022, and the annual report for 2021 on the activities of the State Commission on Railway Accident Investigation, together with recommendations:

1. REPORT No. PKBWK 01/2022 of the investigation of a serious railway accident that occurred on April 4, 2021, at 09:10 on route Oborniki Wielkopolskie - Rogozno Wielkopolskie, track No. 1, at the category D level crossing at km 30.453 of railway line No. 354 Poznań Główny POD - Piła Główna;
2. REPORT No. PKBWK 02/2022 from the investigation of a railway accident that occurred February 26, 2021, at 09:32 at Grodzisko Dolne station, track No. 2, at km 163.756 of railway line No. 68 Lublin Główny - Przeworsk;
3. REPORT No. PKBWK 03/2022 on the investigation of a train accident that occurred April 30, 2020, at 11:50 am on the route Świdnica Kraszowice - Jedlina Zdrój, at km 60.885 of railway line No. 285 Wrocław Główny - Świdnica Przedmieście;
4. REPORT No. PKBWK 04/2022 on the investigation of a railway accident that occurred On July 29, 2021, at 06:15 on the route Szczecin Gumieńce - Tantow, track No. 1, category C level crossing at km 7.585, railway line No. 409 Szczecin Gumieńce - State Border (Tantow);
6. REPORT No. PKBWK 05/2022 on the investigation of a serious accident that occurred On June 15, 2021, at 10:05 a.m. at the Kochanówka Pustków station in track No. 1, at the category C level crossing at km 313.328 of the railway line No. 25 Lodz Kaliska - Debica;
7. REPORT No. PKBWK 06/2022 on the investigation of a railway incident that occurred on February 5, 2021, at 9:37 a.m. at Gogolin station, in track No. 6, at km 22,400 of railway line No. 136 Kędzierzyn Koźle - Opole Groszowice;
8. REPORT No. PKBWK 07/2022 on the investigation of a railway accident that occurred On February 3, 2022, at 06:14 on route Warlubie - Laskowice Pomorskie, on track No. 2, at a category B level crossing at km 437.386 of the railway line No. 131 Chorzów Batory - Tczew;
9. REPORT No. PKBWK 08/2022 from the investigation of a railway accident that occurred January 14, 2022, at 10:48 am, at Kolbuszowa station, in track No. 1Wb, cat. C level crossing, at km 46.925 of railway line No. 71 Ocice - Rzeszów Główny;
10. Annual Report for 2021 on the activities of the State Commission on Railway Accident Investigation.

Within the framework of the supervision of the implementation of PKBWK's recommendations by the entities of the railway market, the President of UTK analyzed the recommendations addressed to him and, after making changes to their content, forwarded them for implementation to the infrastructure managers, railway undertakings, entities responsible for the maintenance of railway rolling stock and entities operating special rolling stock.

The addressees of the recommendations who do not have a safety/maintenance management system should implement the recommendations based on the internal regulations in force at these units.

Recommendations resulting from the above-mentioned reports were sent by the President of UTK to the units in writing (letters with safety sheets).

Recommendations issued by PKBWK in 2022 were forwarded by the President of UTK to the organizations for implementation. Each time, all materials and information on the forwarded recommendations from a given report were posted on the UTK website.

UTK developed a questionnaire, based on which the units provided information on the stages of implementation of the recommendations received from the President of UTK.

6.1 Analysis of information on the implementation of recommendations

The President of UTK analyzed the recommendations addressed to him, considering the need to ensure a systemic approach to safety management and risk minimization in rail transport.

The President of UTK may consider the recommendations and accept them for implementation or pass them on in whole or in part for implementation to managers, railway undertakings or other entities whose activities affect the safety of railway traffic and the safety of railway operations, subject to regulation under the provisions of the Railway Transport Law.

A total of 37 recommendations were forwarded by the President of UTK to rail market entities for implementation.

The Commission made a total of **42 recommendations in the 8 aforementioned reports and in the Annual Report for 2021**, of which 37 recommendations were addressed to rail market entities under the statutory supervision of the President of UTK, and 4 recommendations to other entities (i.e., vehicular road managers not under the supervision of the President of UTK, and one address to relevant ministers).

The President of UTK addressed recommendations for implementation to authorized infrastructure managers, certified railway undertakings, users of railway sidings, managers of narrow-gauge railways, managers of railway networks that are functionally separate from the Union railway system and intended for provincial or local transport (operating based on safety certificates), and operators of special vehicles.

Based on the information provided by the market participants, the UTK analyzed and evaluated the implementation of the recommendations issued by PKBWK.

In cases where the timetable for the implementation of actions presented by the company was not in doubt, the lack of 100% implementation of the recommendation did not negatively affect the evaluation of the presented actions. In addition, the presented average stage of implementation of recommendations (in the following analysis as an average percentage of implementation) was determined based on the submitted data received by the President of UTK in January 2022 - April 2023 (some of the entities to which recommendations were addressed updated the previously submitted information in March 2023).

A "**Positive assessment**" means that the proposed way of implementing the recommendations has been accepted and that the declared activities are moving towards the proper implementation of PKBWK's recommendations.

In cases classified as "**incomplete response**", it was found that the information provided did not contain all the required elements or no justification was provided.

On the other hand, administrative measures are taken against entities that have not provided information on the implementation of recommendations ("no response"), including requests for information, written warnings and, in cases of gross negligence, proceedings to revoke documents authorizing them to conduct business.

According to the information provided by the President of UTK, the status of analyzing the information on implementing the recommendations is as follows:

Ad. 1)	
REPORT No. PKBWK 01/2022 on the investigation of a serious railway accident. occurred on April 04, 2021 at 09:10 on the route Oborniki Wielkopolskie - Rogoźno Wielkopolskie, in track no. 1, at the D category level crossing at km 30.453 of the railway line No. 354 Poznań Główny POD - Piła Główna	
Recommendations of the State Commission on Railway Accidents Investigation provided in the report	From the " Information on the implementation of the recommendations of PKBWK in 2022 " (UTK letter No. DPN-WDZK.464 .9.2023.1.EK dated April 27, 2023) shows that the President of UTK by UTK letter No. DPN-WDZK.47.12.2022.2.KG dated March 29, 2022– forwarded the recommendations to market participants and analyzed the information on the implementation of the above-mentioned recommendations
1. The Infrastructure Manager PKP PLK S.A. shall, in order to ensure safety in the area of the level crossing, implement the arrangements for upgrading the category of the level crossing as specified in Protocol No. IZ16KI.505.36.2021, dated 20/04/2021.	The content of the recommendations submitted for implementation by the President of UTK PKBWK 01/2022_1 PKP Polskie Linie Kolejowe S.A., the infrastructure manager, in order to ensure safety in the area of the level crossing, shall implement the provisions for upgrading the category of the level crossing as set forth in Protocol No. IZ16KI.505.36.2021 of April 20, 2021.
2. Infrastructure managers shall take measures to ensure the effectiveness of monitoring the implementation of SMS procedures or internal rules. In the case of changes in the parameters of the railway line concerning the increase of train speeds in the area of level crossings, an assessment of the significance of the change shall be carried out individually for each level crossing.	PKBWK 01/2022_2 The Authorized Infrastructure Manager and Warsaw Municipal Railway shall take measures to ensure the effectiveness of monitoring the implementation of SMS procedures or internal regulations. In the case of changes in the parameters of the railway line concerning the increase of train speeds in the area of level crossings, an assessment of the significance of the change shall be carried out individually for each level crossing.
3. Infrastructure managers shall take measures to improve the quality and depth of inspections, diagnostic tests, and the method of measuring the visibility triangle of level crossings. When measuring the visibility triangles, it should be considered that the visibility of the front of the train must be uninterrupted (not obscured by any object during the approach of the train to the level crossing) from 5 meters from the extreme rail and must include the signal lamps of its front end. If this condition is not observed, the speed of trains in the area of level crossings must be reduced in accordance with the regulations in force.	PKBWK 01/2022_3 Authorized Railway Infrastructure Managers, Sidings Users, Narrow Gauge Railway Operators and Warsaw Municipal Railway will take measures to improve the quality and depth of inspections, diagnostic tests, and the method of measuring the visibility triangle of level crossings. When measuring visibility triangles, it should be considered that the visibility of the head of a train from 5 meters from the extreme rail must be continuous (not obscured by any objects when the train approaches the crossing) and must include the signal lights of its head. If this condition is not met, the speed of trains in the area of level crossings shall be reduced in accordance with the regulations in force.
The above recommendations, accepted by the resolution of PKBWK, have been included in the report published on the website and addressed to the President of UTK in accordance with Article 28l (8) of the Railway Transport Law of March 28, 2003.	

Table 4. **Analysis of information on the implementation of recommendations from Report No. PKBWK 01/2022 provided by the President of UTK to the entities of the railway market** (according to information from the President of UTK)

Statistical analysis of information on the implementation of the recommendations of PKBWK Report 01/2022	
Number of recipients of recommendations	314
Replies provided in time	247
Failure to respond in time	67
Number of summonses to entities	67
Number of post-call responses	35
Failure to respond to summons	32

The donut chart illustrates the distribution of responses to recommendations. The largest segment is 'answered' at 79% (blue), followed by 'post-call responses' at 11% (orange), and 'no answer' at 10% (grey).

Table 5. **Evaluation of the information provided on the implementation of the recommendations from Report No. PKBWK 01/2022 provided by the President of UTK to the entities of the railway market** (according to information from the President of UTK)

Evaluation of the information provided on the implementation of recommendations from PKBWK Report 01/2022			
Recommendations	PKBWK 01 /2022_1	PKBWK 01 /2022_2	PKBWK 01 /2022_3
Rated positive	1	15	247
Answer incomplete	0	2	35
Average percentage of implementation of the recommendation	50	90	81

Chart 6. **Average percentage of implementation of individual recommendations provided by the President of UTK - from Report No. PKBWK 01/2022** (acc. to information from the

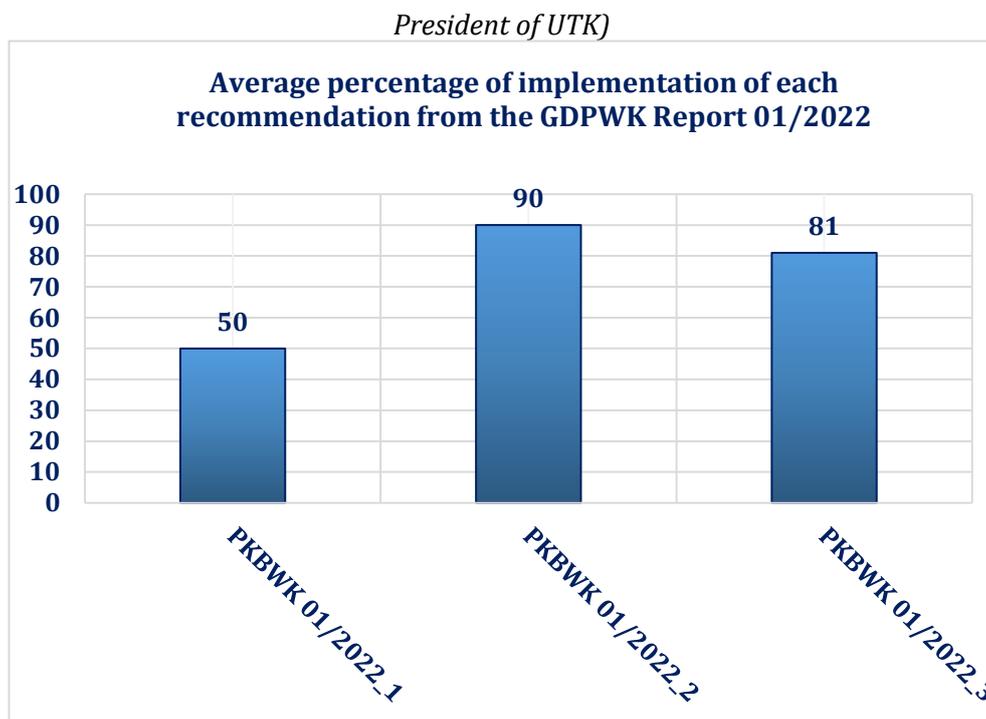
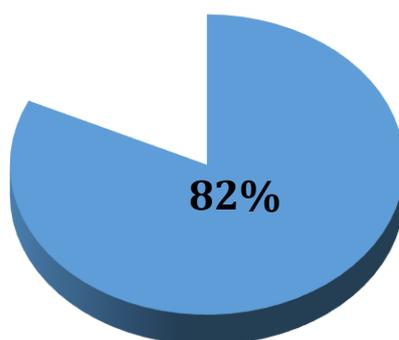


Chart 7. Average percentage of implementation of recommendations provided by the President of UTK - from Report No. PKBWK 01/2022 (acc. to information from the President of UTK)



The average percentage of implementation of the recommendations was determined by UTK based on the declarations of the addressees of a given recommendation. The absence of 100% of the recommendations is due to the timetable of the company for the implementation of activities aimed at the full implementation of PKBWK recommendations.

Table 6. Implementation of recommendations by the entities listed by the Commission in Report No. PKBWK 01/2022 - based on information provided to PKBWK in March 2023.

Recommendations resulting from Report No. PKBWK 01/2022 (issued in 2022).	Recipient of the recommendation	Date of implementation of the recommendation	Average percentage (%) of implemented recommendation by entities listed in column 2/(stage of implementation)
1	2	3	4
Recommendation 1	1) PKP PLK S.A.	2023-12-31	50 (% - under implementation by PKP PLK)

Recommendation 2	²⁾ ZI + ³⁾ WKD Sp. z o.o. PKP PLK	..... 2022-12-31	90 (% - under implementation by: ZI + WKD).*) 100 (% - realized by PKP PLK)
Recommendation 3	(²⁾ ZI + ⁴⁾ UŻb + ⁵⁾ OKW + WKD) PKP PLK	..... 2022-12-31	81 (% - under implementation by: ZI + UŻb + OKW + WKD)*) 100 (% - realized by PKP PLK)

*) According to the Information on the implementation of the recommendations of PKBWK for the year 2022 - provided from UTK by letter - DPN-WDZK.464.9.2023.1.EK dated 2023-04-27 - (refers to the implementation of recommendations provided by the President of UTK to the entities of the railway market)

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

2) ZI - means: authorized manager of railway infrastructure

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

4) UŻb - users of railway sidings

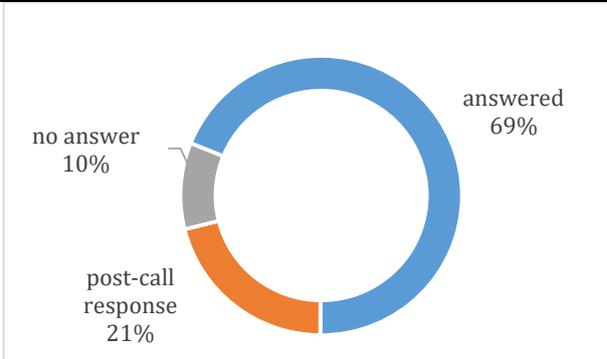
5) OKW - means: narrow-gauge railway operator - hereinafter referred to as "OKW"

Ad. 2)	
REPORT No. PKBWK 02/2022 from the investigation of the train accident occurred on February 26, 2021, at 09:32 at Grodzisko Dolne station, track no. 2, at km 163.756 of railway line no. 68 Lublin Główny - Przeworsk	
Recommendations of the State Commission on Railway Accident Investigation provided in the report	From the " Information on the implementation of the recommendations of PKBWK for the year 2022 " (UTK letter DPN-WDZK.464.9.2023.1.EK dated April 27, 2023) shows that the President of UTK by UTK letter No. DPN-WDZK.47.14.2022.3.KG dated May 06, 2022– forwarded the recommendations to market entities and analyzed the information on the implementation of the above-mentioned recommendations.
	The content of the recommendations submitted for implementation by the President of UTK
1. Infrastructure managers shall ensure that dispatchers inform train drivers of the need to let trains pass when they are informed of the change in traffic organization at the station.	PKBWK 02/2022_1 Authorized infrastructure managers shall cause traffic officers to inform train drivers of the need to let trains pass when they inform them of the change in traffic organization at the station.
2. To ensure the visibility of semaphore D at Grodzisko Dolne station, PKP PLK S.A. Railway Line Department in Rzeszów is going to reposition the catenary pole position 163-44 in the area of GD1 signal circle.	PKBWK 02/2022_2 In order to ensure the visibility of semaphore D at Grodzisko Dolne station, PKP Polskie Linie Kolejowe S.A. Railway Line Department in Rzeszów will move the catenary pole position 163-44 in the area of the GD1 setpoint area.
3. Infrastructure managers shall perform an emergency check of the visibility of shaped semaphores during day and night at stations with catenary in the main and auxiliary tracks.	PKBWK 02/2022_3 Authorized infrastructure managers shall exceptional checks on the visibility of shaped semaphores during the day and at night at stations with overhead contact lines in the main and auxiliary tracks.
4. Railway undertakings will take measures to improve the safety of passengers on trains by properly fixing tables in non-compartmental passenger cars to ensure the safety of travelers.	PKBWK 02/2022_4 Certified passenger railroads will take steps to improve passenger safety on trains by properly securing tables in un-compartmentalized passenger cars to ensure the safety of travelers.
5. The Infrastructure Manager will implement the recommendation contained in the Protocol on Diagnostic Tests of Railway Traffic Control Equipment (Protocol No. IZATA-I/3-22-068/2019 dated 21.06.2021), which reads:	PKBWK 02/2022_5 The Infrastructure Manager PKP Polskie Linie Kolejowe S.A. shall implement the recommendation contained in the Protocol on Diagnostic Tests of Traffic Control Equipment (Protocol No. IZATA-I/3-22-068/2019 dated June 21, 2021), which reads as follows:

<p>"Provide for the renovation of signaling equipment, replacement of shaped semaphores with light semaphores, and installation of Eap interlocking on the lines adjacent to the Tryńcza-Leżajsk station."</p>	<p>"Provide for the renovation of signaling equipment, replacement of shaped semaphores with light semaphores, and installation of Eap interlocking on the lines adjacent to the Tryńcza-Leżajsk station."</p>
<p>6. In order to ensure the safety of rail traffic in runs a¹₁ b₂ and a²₃ PKP PLK S.A. Railway Line Department in Rzeszów will restore the technical condition of the infrastructure at Grodzisko Dolne station in accordance with the current technical documentation.</p>	<p>PKBWK 02/2022_6 In order to ensure the safety of rail traffic in runs a¹₁ b₂ and a²₃ PKP PLK S.A. Railway Line Department in Rzeszów will restore the technical condition of the infrastructure at Grodzisko Dolne station in accordance with the current technical documentation.</p>
<p>(7) Railway Undertakings and Infrastructure Managers shall introduce internal regulations limiting the use of multimedia devices not related to the operation of railway traffic by train crews and station and station staff during working hours, which interfere with the correct reception of transmitted acoustic signals and voice messages and shall include this issue in the program of periodic instructions.</p>	<p>PKBWK 02/2021_7 Certified railway undertakings, authorized infrastructure managers, users of railway sidings, operators of narrow-gauge railways, as well as entities exempted from the requirement to obtain a safety certificate or authorization and authorized to operate on the basis of a safety certificate, shall introduce internal regulations concerning restrictions on the use of multimedia devices not related to the operation of railway traffic by train crews and station operating personnel during working hours, which interfere with the correct reception of transmitted acoustic signals and voice messages, and shall include this issue in the program of periodic instructions.</p>
<p>8. The railway undertaking LOTOS Kolej Sp. z o.o. will implement the order of the President of the Railway Transport Office no. DBK-550/R03/KB/12 dated 30.05.2012, addressed to railway companies, concerning the obligation to install pre-field recording devices - digital cameras or video recorders in newly built and operating railway vehicles, in accordance with the recommendation of PKBWK - no. PKBWK-076-305/RL/R/11 of 22.11.2011.</p>	
<p>The above recommendations, accepted by the resolution of PKBWK, were included in the report published on the website and addressed to the President of UTK in accordance with Article 28l (8) of the Railway Transport Law of March 28, 2003.</p>	

Table 7. **Analysis of information on the implementation of recommendations from Report No. PKBWK 02/2022 provided by the President of UTK to the entities of the railway market** (according to information from the President of UTK)

Statistical analysis of information on the implementation of the recommendations of PKBWK Report 02/2022	
Number of recipients of recommendations	722
Replies provided in time	498
Failure to respond in time	224
Number of summonses to entities	224
Number of post-call responses	154
Failure to respond to summons	70



The donut chart illustrates the distribution of responses to recommendations. The largest segment is 'answered' at 69% (blue), followed by 'post-call response' at 21% (orange), and 'no answer' at 10% (grey).

Table 8. **Evaluation of information provided on the implementation of recommendations from Report No. PKBWK 02/2022 provided by the President of UTK to the entities of the railway market** (according to information from the President of UTK)

Evaluation of the information provided on the implementation of the recommendations of PKBWK Report 02/2022								
Recommendations	PKBWK 02 /2022_1	PKBWK 02 /2022_2	PKBWK 02 /2022_3	PKBWK 02 /2022_4	PKBWK 02 /2022_5	PKBWK 02 /2022_6	PKBWK 02 /2021_7	PKBWK 02 /2021_8
Rated positive	13	1	9	56	1	1	505	1
Answer incomplete	0	0	0	2	0	0	141	1
Average percentage of implementation of the recommendation	86	100	100	80	100	100	75	90

Chart 8. **Average percentage of implementation of individual recommendations provided by the President of UTK - from Report No. PKBWK 02/2022** (acc. to information from the President of UTK)

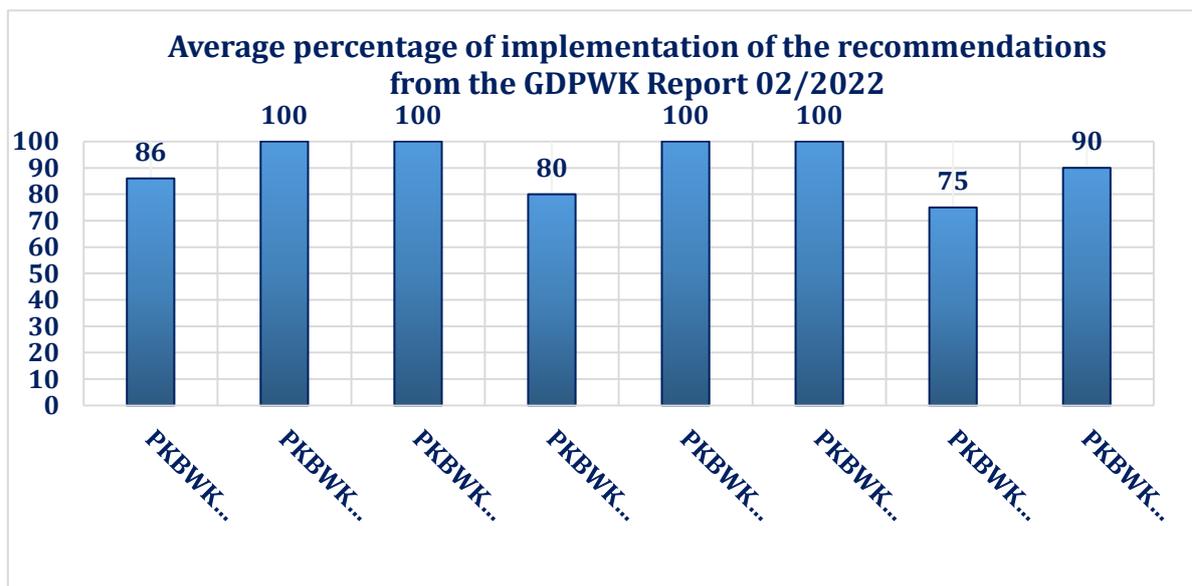
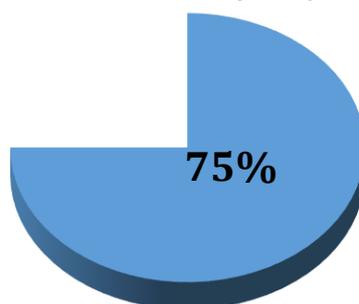


Chart 9. **Average percentage of implementation of recommendations provided by the President of UTK - from Report No. PKBWK 02/2022** (according to information from the President of UTK)



The average percentage of implementation of the recommendations was determined by UTK based on the declarations of the addressees of a given recommendation. The absence of 100% of the recommendations is due to the timetable of the company for the implementation of activities aimed at the full implementation of PKBWK recommendations.

Table 9. **Implementation of recommendations by entities listed by the Commission in Report No. PKBWK 02/2022** - based on information provided to PKBWK in March 2023.

Recommendations resulting from PKBWK Report No. 02/2022 (issued in 2022).	Recipient of the recommendation	Date of implementation recommendation	Average percentage (%) of implemented recommendation by entities listed in column 2/(stage of implementation)
1	2	3	4
Recommendation 1	ZI PKP PLK	..... 2022-12-31	86 (% - under implementation by ZI) ⁷⁾ 100 (% - realized by PKP PLK)
Recommendation 2	⁶⁾ PKP PLK ZLK in Rzeszów	2022-12-22	100 (% - realized by PKP PLK ZLK in Rzeszów)
Recommendation 3	ZI PKP PLK	..... 2022-09-30	100 (% - realized by ZI) [*] 100 (% - realized - by PKP PLK)
Recommendation 4	⁷⁾ PK	.....	80 (% - under implementation by KP) [*]
Recommendation 5	PKP PLK	2022-12-30	100 (% - realized - by PKP PLK)
Recommendation 6	PKP PLK ZLK in Rzeszów	2022-09-30	100 (% - realized by PKP PLK ZLK in Rzeszów)
Recommendation 7	(PK + ZI + UŻb + OKW + ⁸⁾ exempt entities)	.....	75 (% - under implementation by: PK + ZI + UŻb +OKW + exempt entities) [*]
Recommendation 8	LOTOS Kolej Sp. z o.o.	2022-12-31	100 (% - realized by LOTOS Kolej Sp. z o.o.).

^{*}) According to the Information on the implementation of the recommendations of PKBWK for the year 2022 - provided from UTK by letter - DPN-WDZK.464.9.2023.1.EK dated 2023-04-27 - (refers to the implementation of recommendations provided by the President of UTK to the entities of the railway market)

⁶⁾ PKP PLK ZLK in Rzeszów - means: PKP Polskie Linie Kolejowe S.A. Railway Line department in Rzeszów

⁷⁾ PK - means: certified railway undertaking

⁸⁾ "Exempt entities": means: entities exempt from security certification or authorization authorized to operate under a security certificate

Ad. 3) REPORT No. PKBWK 03/2022 on the investigation of the railway accident. occurred on April 30, 2020, at 11:50 on route Swidnica Kraszowice– Jedlina Zdrój at km 60.885 of railway line no. 285 Wrocław Główny– Świdnica Przedmieście	
Recommendations of the State Commission on Railway Accident Investigation provided in the report	From the " Information on the implementation of the recommendations of PKBWK for the year 2022 " (UTK letter DPN-WDZK.464.9.2023.1.EK dated April 27, 2023) shows that the President of UTK by UTK letter No. DPN-WDZK.464.2.2022.2.KG dated June 03, 2022– forwarded the recommendations to market entities and analyzed the information on the implementation of the above-mentioned recommendations
	The content of the recommendations submitted for implementation by the President of UTK
1. Dispatchers of special vehicles will implement Recommendation No. 4 of Report PKBWK/03/2020 concerning the equipment of special vehicles with an on-board recorder of driving parameters and will additionally take measures to retrofit these vehicles with foreground image recorders and operation.	PKBWK 03/2022_1 Dispatchers of special vehicles will implement Recommendation No. 4 of PKBWK Report/03/2020 concerning the equipment of special vehicles with an on-board recorder of driving parameters and will additionally take measures to retrofit these vehicles with foreground and background image recorders.
2. Authorized infrastructure managers will develop rules for performing work on the railway line gradient using special self-propelled vehicles in combination with other non-propelled railway vehicles, which companies performing repair and maintenance work will be obliged to apply and will provide mechanisms for monitoring the application of this procedure.	PKBWK 03/2022_2 Authorized infrastructure managers will develop rules for the performance of work on a railway track using special self-propelled vehicles in combination with other non-propelled railway vehicles, which will be required to be applied by companies performing repair and maintenance work and will provide mechanisms for monitoring the application of this procedure.
3. Undertakings that carry out repair and maintenance work on railway infrastructure, organized in a long-term manner that does not allow direct contact with workers, will implement a system of control of work discipline and compliance with regulations and instructions, in particular regarding the conduct of traffic, the performance of work and the mental and physical condition of workers.	PKBWK 03/2022_3 Authorized infrastructure managers will provide companies performing repair and maintenance work on their rail infrastructure with a recommendation that reads: "Undertakings carrying out repair and maintenance work on railway infrastructure, organized in a long-term manner and avoiding direct contact with workers, will implement a system of control of work discipline and compliance with rules and instructions, in particular as regards the conduct of traffic, the performance of work and the mental and physical condition of workers" and will establish mechanisms to monitor the implementation of this recommendation.
4. Infrastructure managers: a. Not having the relevant regulations for machine work and equipment running on the same track at the same time in different locations will	PKBWK 03/2022_4 Authorized infrastructure managers: a. where there are no relevant rules governing the operation of machinery and equipment working on the same line at the same time in different places,

<p>develop these regulations for mutual communication in these work situations and implement them,</p> <p>b. Those with the above regulations will conduct training sessions to remind them of the applicable rules.</p>	<p>shall develop and implement such rules for mutual communication in such working situations,</p> <p>b. Those who have the above rules in place will conduct training sessions to remind them of the rules in place.</p>
<p>5. Authorized infrastructure managers, when developing contract specifications in connection with planned investment/upgrading works, shall consider the recommendations issued regarding:</p> <p>a. equipping self-propelled track-side rail welding machines with driving parameters recorders and foreground image recorders and work,</p> <p>b. Equipping employees with radio communications equipment.</p>	<p>PKBWK 03/2022_5 Authorized infrastructure managers, when developing procurement specifications in connection with planned investments/modernization work, shall consider the recommendations issued on:</p> <p>a. Equipping self-propelled track-side rail welding machines with driving parameter recorders and foreground image recorders and work,</p> <p>b. Equipping employees with radio communications equipment.</p>
<p>The above recommendations adopted by the resolution of PKBWK, were included in the report on the website and, in accordance with Article 28l (8) of the Railway Transport Law of March 28, 2003, addressed to the President of UTK.</p>	

Table 10. Analysis of information on the implementation of recommendations from Report No. PKBWK 03/2022 provided by the President of UTK to the entities of the railway market (according to information from the President of UTK)

Statistical analysis of information on the implementation of the recommendations of PKBWK Report 03/2022	
Number of recipients of recommendations	55
Replies provided in time	45
Failure to respond in time	10
Number of summonses to entities	10
Number of post-call responses	7
Failure to respond to summons	3

Category	Percentage
answered	82%
post-call response	13%
no answer	5%

Table 11. Evaluation of information provided on the implementation of recommendations from Report No. PKBWK 03/2022 provided by the President of UTK to the entities of the railway market (according to information from the President of UTK)

Evaluation of the information provided on the implementation of the recommendations of PKBWK Report 03/2022					
Recommendations	PKBWK 03 /2022_1	PKBWK 03 /2022_2	PKBWK 03 /2022_3	PKBWK 03 /2022_4	PKBWK 03 /2022_5
Rated positive	41	12	11	11	11
Insufficient answer	5	0	0	0	0
Average percentage of implementation of the recommendation	42	84	91	78	85

Chart 10. Average percentage of implementation of individual recommendations provided by the President of UTK - from Report No. PKBWK 03/2022 (according to information from the President of UTK)

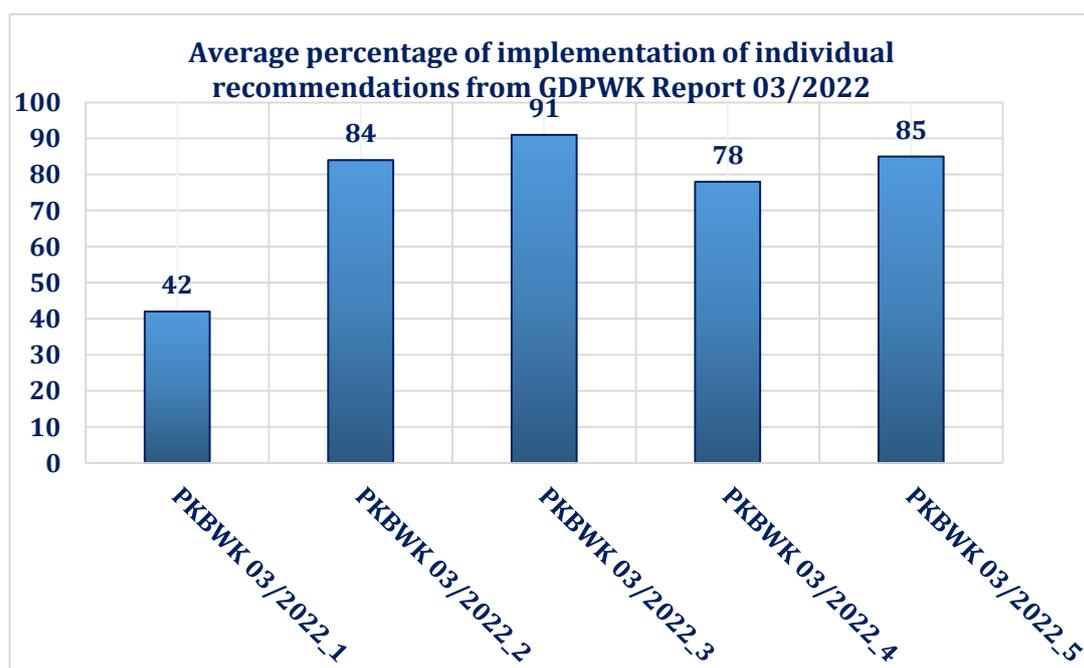
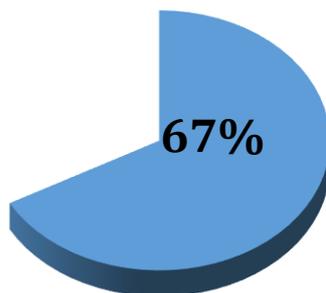


Chart 11.

**Average percentage of implementation of recommendations provided by the UTK President
- from Report No. PKBWK 03/2022 (according to information from the UTK President)**



The average percentage of implementation of the recommendations was determined by UTK on the basis of the declarations of the addressees of a given recommendation. The absence of 100% of the recommendations is due to the timetable of the company for the implementation of activities aimed at the full implementation of PKBWK recommendations.

Table 12. Implementation of recommendations by entities listed by the Commission in Report No. PKBWK 03/2022 - based on information provided to PKBWK in March 2023.

Recommendations from Report No. PKBWK 03/2022 (issued in 2022).	Recipient of the recommendation	Date of implementation of the recommendation	Average percentage (%) of implemented recommendation by entities listed in column 2/(implementation stage)
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
Recommendation 1	⁹⁾ DPS	.....	42 (% - under implementation by DPS) ^{*)}
Recommendation 2	ZI	.....	84 (% - under implementation by ZI) ^{*)}
Recommendation 3	ZI	.....	91 (% - under implementation by ZI). ^{*)}
Recommendation 4	ZI	.....	78 (% - under implementation by ZI). ^{*)}
Recommendation 5	ZI	.....	85 (% - under implementation by ZI). ^{*)}

^{*)} According to the Information on the implementation of the recommendations of PKBWK for the year 2022 - transmitted from UTK by letter - DPN-WDZK.464.9.2023.1.EK dated 2023-04-27 - (refers to the implementation of recommendations provided by the President of UTK to the entities of the railway market)

⁹⁾ DPS - means: holders of special vehicles

Ad. 4)	
REPORT No. PKBWK 04/2022 of the investigation of the railway accident that occurred on July 29, 2021, at 06:15 on route Szczecin Gumieńce - Tantow, in track No. 1, at the category C level crossing at km 7.585, railway line No. 409 Szczecin Gumieńce - State Border (Tantow)	
Recommendations of the State Commission on Railway Accident Investigation provided in the report	From the "Information on the implementation of the recommendations of PKBWK for the year 2022" (UTK letter DPN-WDZK.464.9.2023.20.2022.1.EK dated April 27, 2023) shows that the President of UTK by UTK letter No. DPN-WDZK.464.4.2022.2.MF dated June 08, 2022– forwarded the recommendations to market entities and analyzed the information on the implementation of the above-mentioned recommendations.
1. The Head of the Municipality of Kolbaskowo will implement measures to eliminate the current connection of the district road No. 3492Z with the access to the gravel pit by building a road in accordance with the construction project No. P-872/2017 "Construction of a communal road to the service and production investment areas within Barnislaw", approved by the Starost of Police.	The content of the recommendations submitted for implementation by the President of UTK The recommendation does not apply to the Chairman of the Railway Transport Authority, which exercises statutory supervision over infrastructure managers and rail undertakings.
2. Until the current connection of County Road No. 3492Z with the access to the gravel pit is removed, the County Road Manager will develop and implement a new traffic organization in the area of the access to the railway-road junction that will ensure improved traffic safety.	The recommendation does not apply to the Chairman of the Railway Transport Authority, which exercises statutory supervision over infrastructure managers and rail undertakings.
3. In order to improve safety in the area of the level crossing at km 7.585, PKP PLK S.A. will take measures to raise the category of this crossing.	PKBWK 04/2022_1 PKP Polskie Linie Kolejowe S.A., the infrastructure manager, in order to improve safety in the area of the level crossing at km 7.585, will take measures to upgrade the category of this crossing.
4. Infrastructure managers will take steps to establish mechanisms that lead to the implementation of the conclusions and recommendations of diagnostic reviews at level crossings.	PKBWK 04/2022_2 Authorized Infrastructure Managers, Sidings Users, Narrow Gauge Railway Undertakings and entities exempted from the requirement to obtain a safety authorization and authorized to operate on the basis of a safety certificate shall take steps to establish mechanisms leading to the implementation of the conclusions and recommendations of diagnostic reviews at level crossings.
Recommendations No. 1 and 2, adopted by resolution of PKBWK, have been included in the report on the website and, in accordance with Article 28l (4) of the Railway Transport Law of March 28, 2003, have been addressed to the Road Manager for implementation. Recommendations No. 3 and 4, adopted by resolution of the PKBWK, have been included in the report posted on the website and addressed to the President of UTK in accordance with Article 28l (8) of the Railway Transport Law of March 28, 2003.	

Table 13. Analysis of information on the implementation of recommendations from Report No. PKBWK 04/2022 provided by the President of UTK to the entities of the railway market (according to information from the President of UTK)

Statistical analysis of information on the implementation of the recommendations of PKBWK Report 04/2022	
Number of recipients of recommendations	595
Replies provided in time	409
Failure to respond in a timely manner	186
Number of summonses to entities	186
Number of post-call responses	119
Failure to respond to summons	67

Category	Percentage
answered	69%
post-call response	20%
no answer	11%

Table 14. Evaluation of information provided on the implementation of recommendations from Report No. PKBWK 04/2022 provided by the President of UTK to the entities of the railway market (according to information from the President of UTK)

Evaluation of the information provided on the implementation of recommendations from PKBWK Report 04/2022		
Recommendations	PKBWK 04 /2022_1	PKBWK 04 /2022_2
Rated positive	1	426
Answer incomplete	0	102
Average percentage of implementation of the recommendation	30	87

Chart 12. Average percentage of implementation of individual recommendations provided by the President of UTK - from Report No. PKBWK 04/2022 (according to information from the President of UTK)

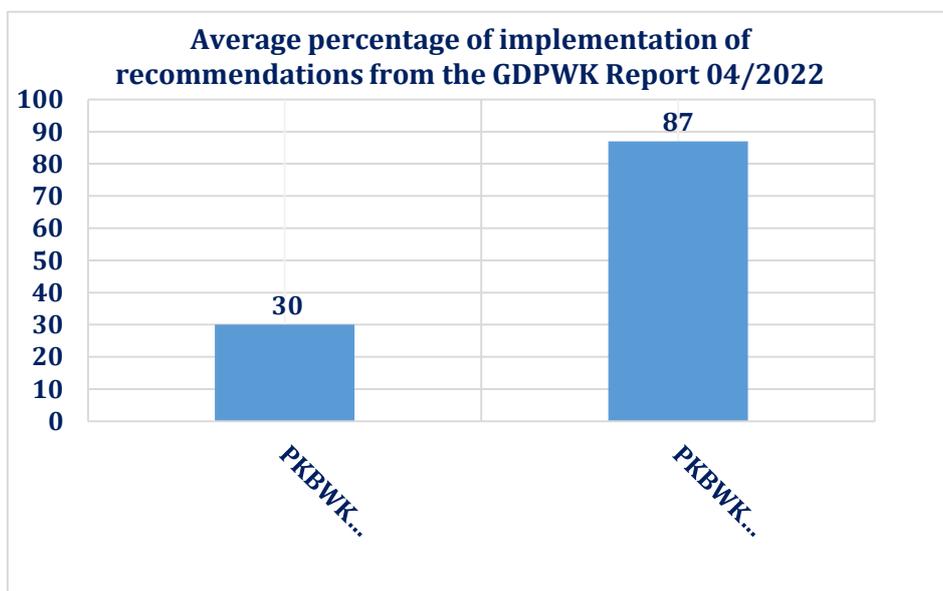
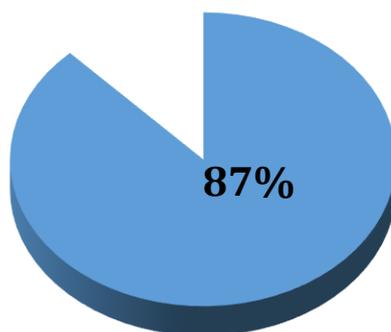


Chart 13. **Average percentage of implementation of recommendations provided by the President of UTK - from Report No. PKBWK 04/2022** (according to information from the President of UTK)



The average percentage of implementation of the recommendations was determined by UTK based on the declarations of the addressees of a given recommendation. The absence of 100% of the recommendations is due to the timetable of the company for the implementation of activities aimed at the full implementation of PKBWK recommendations.

Table 15. **Implementation of recommendations by entities listed by the Commission in Report No. PKBWK 04/2022** - based on information provided to PKBWK in March 2023.

Recommendations resulting from Report No. PKBWK 04/2022 (issued in 2022).	Recipient of the recommendation	Date of implementation of the recommendation	Average percentage (%) of implemented recommendation by entities listed in column 2/(stage of implementation)
1	2	3	4
Recommendation 1	Municipal road operator, Head of Kolbaskowo Municipality	10)	100%
Recommendation 2	County road operator, County Office in Police	11)	100%
Recommendation 3	PKP PLK	2023-12-31	30 (% - under implementation by PKP PLK)
Recommendation 4	(ZI + UŻb + OKW + exempt entities) PKP PLK	..... 2022-12-31	87 (% - in progress by: ZI + UŻb + OKW + exempted entities) *) 100 (% - realized by PKP PLK)

*) According to the Information on the implementation of the recommendations of PKBWK for the year 2022 -provided from UTK by letter - DPN-WDZK.464.9.2023.1.EK dated 2023-04-27 - (refers to the implementation of recommendations provided by the President of UTK to the entities of the railway market)

10) By letter No. PKBWK.4631.7.18.2021 dated May 18, 2022. State Commission on Railway Accident Investigation in accordance with Article 281 paragraph 4 of the Railway Transport Law of March 28, 2003 (Journal of Laws of 2021, item 1984, as amended), provided to the Head of the Municipality of Kolbaskowo in Kolbaskowo information on the completion of the proceedings in the case of an accident occurring on July 29, 2021 at 06:15 a.m. at a category C level crossing, located on route Szczecin Gumieńce - Tantow, track No. 1, at km 60.885 of railway line No. 409 Szczecin Gumieńce - State Border (Tantow), together with PKBWK Report 04/2022 containing "Recommendation No. 1" addressed to the municipal road operator. The implementation of "Recommendation No. 1" was confirmed by Kolbaskowo Municipality by e-mail on August 17, 2023.

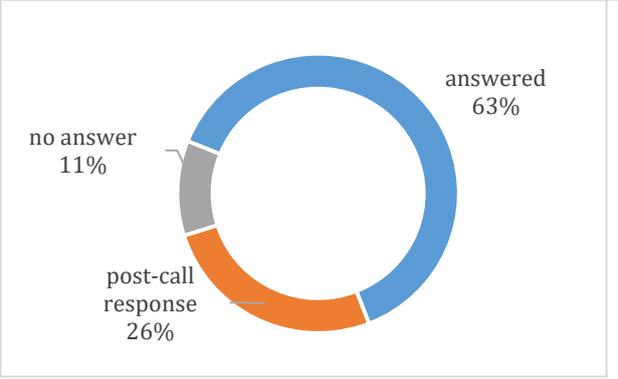
11) By letter No. PKBWK.4631.7.19.2021 dated May 18, 2022, the State Commission on Railway Accident Investigation, in accordance with Article 281, paragraph 4 of the Railway Transport Law of March 28, 2003 (Journal of Laws of 2021, item 1984, as amended), informed the Police Starost in Police of the completion of the investigation of the accident that occurred on July 29, 2021, at 06:15 a.m. at the Category C level crossing, located on route Szczecin Gumieńce - Tantow, in track No. 1, at km 60.885 of the railway line No. 409 Szczecin Gumieńce - State Border (Tantow), together with PKBWK Report 04/2022 containing "Recommendation No. 2" addressed to the county road operator. The implementation of "Recommendation No. 2" was confirmed by e-mail on September 08, 2023, by the Police District Office.

Ad. 5)	
REPORT No. PKBWK 05/2022 on the investigation of a serious accident. on June 15, 2021, at 10:05 am at Kochanowka Pustkow station in track No. 1, at the category C level crossing at km 313.328 of the railway line No. 25 Łódź Kaliska - Debica	
Recommendations of the State Commission on Railway Accident Investigation provided in the report	From the " Information on the implementation of the recommendations of PKBWK for the year 2022 " (UTK letter DPN-WDZK.464.09.2022.1.EK dated April 27, 2023) shows that the President of UTK by UTK letter No. DPN-WDZK.464.5.2022.2.KG. dated June 29, 2022– forwarded the recommendations to market entities and analyzed the information on the implementation of the above-mentioned recommendations,
	The content of the recommendations submitted for implementation by the President of UTK
1. Railway infrastructure managers shall include in their internal regulations the obligation to reverse and obscure crossing signals so that the chambers are not visible to users of the crossing when the signals are installed but not yet in operation.	.PKBWK 05/2022_1 Authorized railway infrastructure managers, users of railway sidings, operators of narrow-gauge railways and entities exempted from safety authorization and authorized to operate on the basis of a safety certificate shall include in their internal regulations the obligation to turn over and obscure crossing traffic signals in such a way that the chambers are not visible to crossing users when the signals are installed but not yet in operation.
2. Railway infrastructure managers shall take measures to put in place mechanisms for effective control of the proper performance of level crossing diagnostic tests. In the case of level crossings used by road traffic, the obligation to carry out periodic diagnostic tests, rests with the railway infrastructure manager.	PKBWK 05/2022_2 Authorized railway infrastructure managers, users of railway sidings, operators of narrow-gauge railways and entities exempted from the obligation to obtain a safety authorization and authorized to operate based on a safety certificate shall take measures to introduce mechanisms for effective control over the correctness of the performance of diagnostic tests of railway crossings. Regarding railway crossings with traffic, the obligation to carry out periodic diagnostic tests is incumbent on the above-mentioned entities.
3. Operators of special vehicles will absolutely implement the unimplemented recommendations of PKBWK Reports: <ul style="list-style-type: none"> – Recommendation No. 3 of Report No. PKBWK/05/2018: "PKP PLK S.A. will retrofit auxiliary vehicles undergoing modernization, undergoing P4 and P5 level maintenance inspections, and newly purchased vehicles with on-board recorders of driving parameters (recording at least speed, pressure in the main line and brake cylinders, activation of the 'attention' signal)." 	PKBWK 05/2022_3 Operators of special vehicles will absolutely implement the unimplemented recommendations of PKBWK Reports: <ul style="list-style-type: none"> – Recommendation No. 3 from Report No. PKBWK/05/2018: "PKP Polskie Linie Kolejowe S.A. will retrofit auxiliary vehicles undergoing modernization, undergoing P4 and P5 level maintenance inspections, and newly purchased vehicles with on-board recorders of driving parameters (recording at least speed, pressure in the main line and brake cylinders, activation of the 'attention' signal)."

<p>– Recommendation No. 4 of Report No. PKBWK/03/2020: "Recommendations No. 1 and No. 3 of the State Commission on Railway Accident Investigation, indicated in Report No. PKBWK/05/2018 from the investigation of the serious accident of category A18 that occurred on November 2, 2017, at 18:49 at a level crossing of category A with suspended operation, located at km 37.119 of the Śniadowo - Łapy route, in track no. 1 of the railway line no. 36 Ostrołęka - Łapy, concerning the equipment of auxiliary vehicles with reflective elements to improve the visibility of the vehicle from the side and in the on-board recorder of driving parameters (recording at least the speed, pressure in the main line and brake cylinders, activation of the "attention" signal) for special vehicles, are extended".</p>	<p>– Recommendation No. 4 from Report No. PKBWK/03/2020: "Recommendations No. 1 and No. 3 of the State Commission on Railway Accident Investigation, indicated in Report No. PKBWK/05/2018 from the investigation of the serious accident of category A18 that occurred on November 2, 2017, at 18:49 at a level crossing of category A with suspended operation, located at km 37.119 of the Śniadowo - Łapy route, in track no. 1 of the railway line no. 36 Ostrołęka - Łapy, concerning the equipment of auxiliary vehicles with reflective elements to improve the visibility of the vehicle from the side and in the on-board recorder of driving parameters (recording at least the speed, pressure in the main line and brake cylinders, activation of the "attention" signal) for special vehicles, are extended."</p>
<p>4. The road operator will ensure that the speed limit is reduced to 50 km/h on the road No. 1283R on the accesses to the crossing in connection with the occurrence of increased risk of accidents associated with excessive speed (in accordance with the issued recommendation PKBWK.4631.5.2.2021 dated July 14, 2021).</p>	<p>The recommendation does not apply to the Chairman of the Office of Rail Transport, which exercises statutory supervision over infrastructure managers and rail carriers.</p>
<p>Recommendations No. 1, 2 and 3 adopted by resolution of PKBWK were included in the report published on the website and addressed to the President of UTK in accordance with Article 28l (8) of the Law of March 28, 2003, on Railway Transport. Recommendation No. 4, adopted by resolution of PKBWK, was included in the report on the website and, in accordance with Article 28l (4) of the Law of March 28, 2003, on Railway Transport, addressed to the Road Manager for implementation.</p>	

Table 16. Analysis of information on the implementation of recommendations from Report No. PKBWK 05/2022 provided by the President of UTK to the entities of the railway market (according to information from the President of UTK)

Statistical analysis of information on the implementation of the recommendations of PKBWK Report 05/2022	
Number of recipients of recommendations	611
Replies provided in time	387
Failure to respond in time	224
Number of summonses to entities	224
Number of post-call responses	158
Failure to respond to summons	66



Response Category	Percentage
answered	63%
post-call response	26%
no answer	11%

Table 17. Evaluation of information provided on the implementation of recommendations from Report No. PKBWK 05/2022 provided by the President of UTK to the entities of the railway market (according to information from the President of UTK)

Evaluation of the information provided on the implementation of recommendations from PKBWK Report 05/2022			
Recommendations	PKBWK 05 /2022_1	PKBWK 05 /2022_2	PKBWK 05 /2022_3
Rated positive	434	382	55
Answer incomplete	92	141	11
Average percentage of implementation of the recommendation	75	86	57

Chart 14. Average percentage of implementation of individual recommendations provided by the President of UTK - from Report No. PKBWK 05/2022 (according to information from the President of UTK)

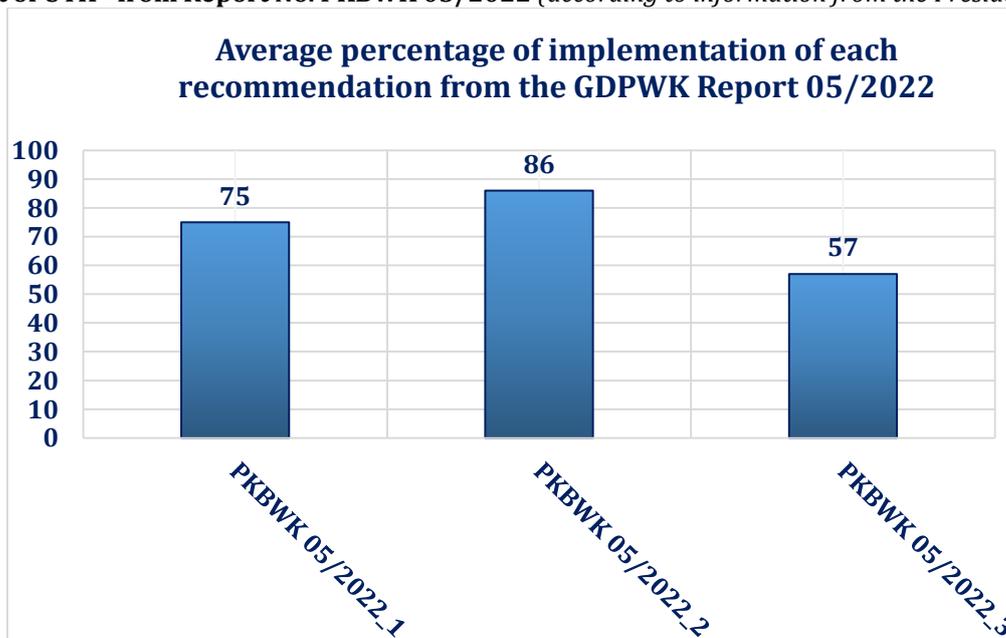
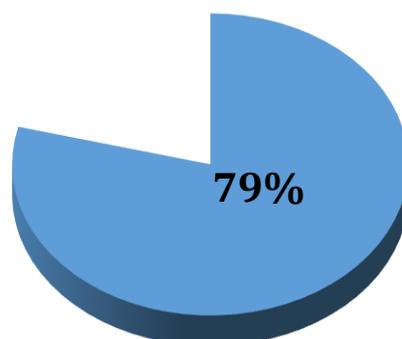


Chart 15. **Average percentage of implementation of recommendations provided by the President of UTK - from Report No. PKBWK 05/2022** (according to information from the President of UTK)



The average percentage of implementation of the recommendations was determined by UTK on the basis of the declarations of the addressees of a given recommendation. The absence of 100% of the recommendations is due to the timetable of the company for the implementation of activities aimed at the full implementation of PKBWK recommendations.

Table 18. **Implementation of recommendations by entities listed by the Commission in Report No. PKBWK 05/2022** - based on information provided to PKBWK in March 2023.

Recommendations resulting from Report No. PKBWK 01/2022 (issued in 2022).	Recipient of the recommendation	Date of implementation of the recommendation	Average percentage (%) of implemented recommendation by entities listed in column 2/(stage of implementation)
1	2	3	4
Recommendation 1	(ZI + UŻb + OKW + exempt entities) PKP PLK	..... 2022-03-07	75 (% - in progress by: ZI + UŻb + OKW + exempted entities)*) 100 (% - realized by PKP PLK)
Recommendation 2	(ZI + UŻb + OKW + exempt entities) PKP PLK	..... 2022-12-31	86 (% - in progress by: ZI + UŻb + OKW + exempted entities)*) 100 (% - realized by PKP PLK)
Recommendation 3	(ZI + UŻb + OKW + exempt entities) PKP PLK	..... 2032-12-31	57 (% - in progress by: ZI + UŻb + OKW + exempted entities)*) 50 (% - alternative measures have been taken by PKP PLK)
Recommendation 4	Road operator, ¹²⁾ County Road Administration in Debica	¹²⁾	100%

*) According to the Information on the implementation of the recommendations of PKBWK for the year 2022 - provided from UTK by letter - DPN-WDZK.464.9.2023.1.EK dated 2023-04-27 - (refers to the implementation of recommendations provided by the President of UTK to the entities of the railway market)

¹²⁾ By letter No. PKBWK.4631.5.12.2021 dated June 07, 2022, the State Commission on Railway Accident Investigation, in accordance with Article 28l (4) of the Railway Transport Law of March 28, 2003 (Journal of Laws of 2021, item 1984, as amended), provided the County Road Administration in Debica with information on the completion of the investigation of the accident that occurred on June 15, 2021, at 10:05 a.m. at the Category C level crossing, located at Kochanówka Pustków station, track No. 1, at km 313.328 of the railway line No. 25 Lodz Kaliska - Debica, together with PKBWK Report 05/2022, including "Recommendation No. 4" - addressed to the road operator.

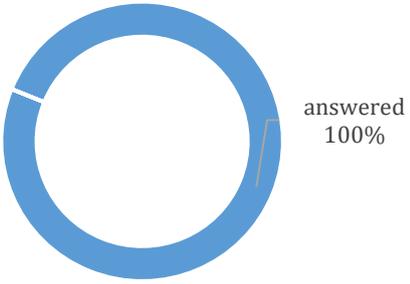
The implementation of "Recommendation No. 4" was confirmed by letter No. ZDP.3d.456.67.2021, dated May 25, 2022, by the County Road Administration in Debica 39-200 Debica, ul. Parkowa 26.

Ad. 6) REPORT No. PKBWK 06/2022 of the railway incident that occurred on February 5, 2021 at 9:37 am at Gogolin station, in track No. 6, at km 22.400 of railway line No. 136 Kędzierzyn Koźle - Opole Groszowice	
Recommendations of the State Commission on Railway Accident Investigation provided in the report	From the " Information on the implementation of the recommendations of PKBWK for the year 2022 " (UTK letter DPN-WDZK.464.09.2022.1.EK dated April 27, 2023) shows that the President of UTK by UTK letter No. DPN-WDZK.464.10.2022.2.KG. dated September 05, 2022– forwarded the recommendations to market entities and analyzed the information on the implementation of the above-mentioned recommendations.
1. Railway infrastructure manager PKP PLK S.A. will take measures to: a. Increase oversight of contractors in ongoing investments by the Investment Execution Center, b. Improve the quality and depth of technical inspections of the various phases of the work in order to verify the conformity of the project documentation with the condition on the ground, c. Include in the topics of training for operation point personnel issues related to operation of train traffic in the station and adjacent lines during restrictions, telephonic announcement of trains on lines, telephonic ordering, and reporting of preparation of lines in the station.	The content of the recommendations submitted for implementation by the President of UTK
	PKBWK 06/2022_1 Railway infrastructure manager PKP Polskie Linie Kolejowe S.A. will take steps to strengthen the Investment Execution Center's supervision of contractors working on ongoing investments.
	PKBWK 06/2022_3 The authorized infrastructure managers, Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitalna, will take steps to: a. Improve the quality and depth of the technical inspections of the various phases of the work, to verify the conformity of the project documentation with the condition on the ground, b. Include in the training of operation point personnel issues related to the operation of train traffic in the station and on adjacent lines in case of restrictions, telephone announcement of trains on the tracks, telephone ordering and reporting of track preparation in the station.
2 Railway infrastructure manager PKP PLK S.A., as part of its supervision of ongoing investments, will expand the scope of inspections for compliance of implemented phases with documentation, in particular during changes between successive transitional phases of investment works related to railway operations and safety.	PKBWK 06/2022_4 Authorized Infrastructure Managers, as well as Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitalna S.A., within the framework of supervision of ongoing investments, will expand the scope of control in terms of compliance of implemented phases with the documentation, especially

	during changes between successive transitional phases of investment works related to railway operation and safety.
(3) After the completion of each stage of the current investment project, which includes phases, a new temporary regulation of train operation during the execution of works on the territory of PKP PLK S.A. Railway Line Department should be drawn up, which will be a continuation of the given investment task.	PKBWK 06/2022_2 After the completion of each stage of the current investment project, which includes phases, a new temporary regulation of train operation during the execution of works on the territory of PKP PLK S.A. Railway Line Department should be drawn up, which will be a continuation of the given investment task.
The above recommendations, accepted by the resolution of PKBWK, were included in the report published on the website and addressed to the President of UTK in accordance with Article 28l (8) of the Railway Transport Law of March 28, 2003.	

Table 19. Analysis of information on the implementation of recommendations from Report No. PKBWK 06/2022 provided by the President of UTK to the entities of the railway market (according to information from the President of UTK)

Statistical analysis of information on the implementation of the recommendations of PKBWK Report 06/2022	
Number of recipients of recommendations	13
Replies provided in time	13
Failure to respond in time	0
Number of summonses to entities	0
Number of post-call responses	0
Failure to respond to summons	0



answered 100%

Table 20. Evaluation of information provided on the implementation of recommendations from Report No. PKBWK 06/2022 provided by the President of UTK to the entities of the railway market (according to information from the President of UTK)

Evaluation of the information provided on the implementation of the recommendations of the PKBWK Report 06/2022				
Recommendations	PKBWK 06 /2022_1	PKBWK 06 /2022_2	PKBWK 06 /2022_3	PKBWK 06 /2022_4
Rated positive	1	1	11	11
Answer incomplete	0	0	2	2
Average percentage of implementation of the recommendation	100	100	91	100

Chart 16. Average percentage of implementation of individual recommendations provided by the President of UTK - from Report No. PKBWK 06/2022 (according to information from the President of UTK)

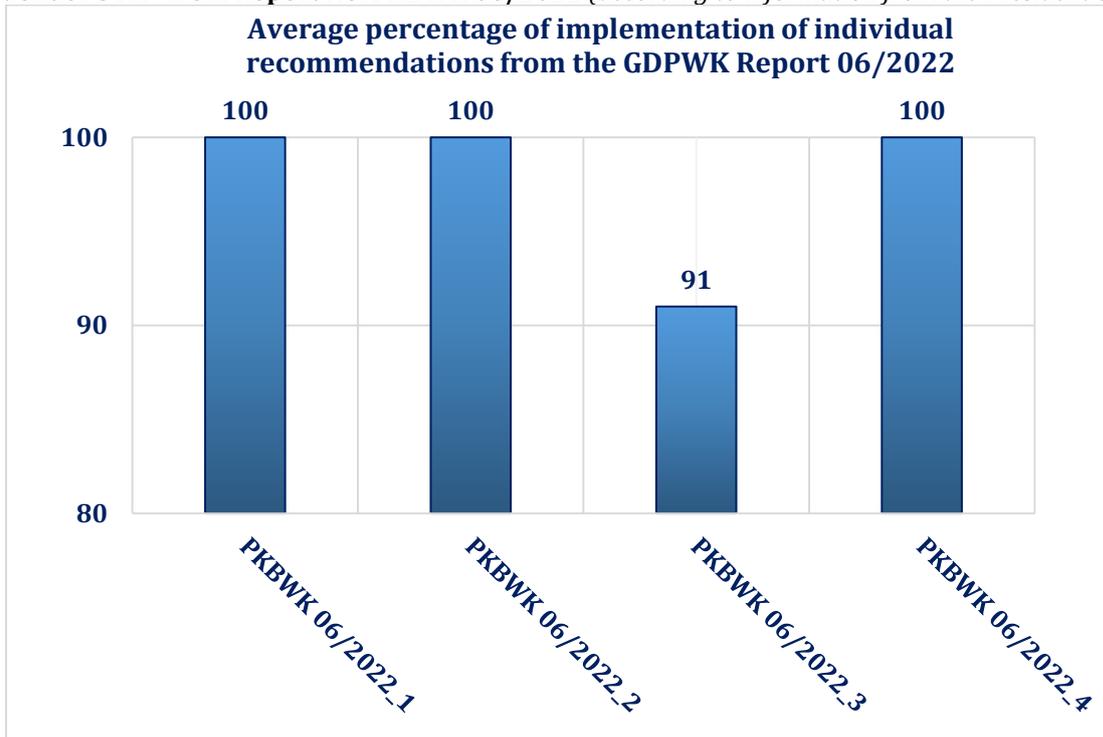
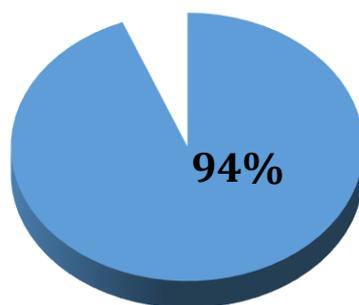


Chart 17. **Average percentage of implementation of recommendations provided by the President of UTK - from Report No. PKBWK 06/2022** (according to information from the President of UTK)



The average percentage of implementation of the recommendations was determined by UTK based on the declarations of the addressees of a given recommendation. The absence of 100% of the recommendations is due to the timetable of the company for the implementation of activities aimed at the full implementation of PKBWK recommendations.

Table 21. **Implementation of recommendations by entities listed by the Commission in Report No. PKBWK 06/2022** - based on information provided to PKBWK in March 2023.

Recommendations resulting from Report No. PKBWK 06/2022 (issued in 2022).	Recipient of the recommendation	Date of implementation of the recommendation	Average percentage (%) of implemented recommendation by entities listed in column 2/(stage of implementation)
1	2	3	4
Recommendation 1	PKP PLK	2022-12-31	100 (% - realized by PKP PLK)
Recommendation 2	PKP PLK	2022-12-31	100 (% - realized by PKP PLK)
Recommendation 3	(ZI + WKD + 13) PKM S.A.) PKP PLK	..... 2022-12-31	91 (% - in progress - by: ZI + WKD + PKM)* 100 (% - realized by PKP PLK)
Recommendation 4	(ZI + WKD + PKM) PKP PLK	..... 2022-12-31	100 (% - realized by: ZI + WKD + PKM)* 100 (% - realized by PKP PLK)

*) According to the Information on the implementation of the recommendations of PKBWK for the year 2022 - provided from UTK by letter - DPN-WDZK.464.9.2023.1.EK dated 2023-04-27 - (refers to the implementation of recommendations provided by the President of UTK to entities of the railway market)

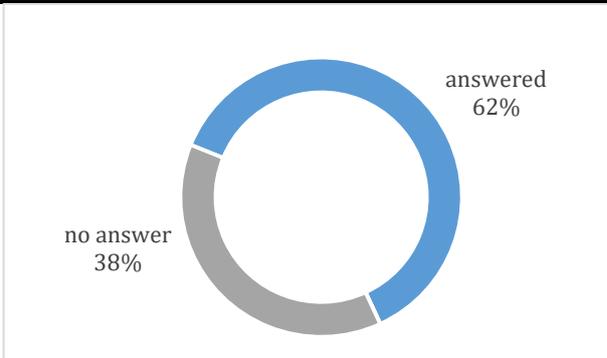
13) PKM S.A. - means: Pomorska Kolej Metropolitarna S.A. - hereinafter referred to as "PKM"

Ad. 7) REPORT No. PKBWK 07/2022 of the investigation of the railway accident that occurred on February 3, 2022, at 06:14 on the Warlubie - Laskowice Pomorskie route, in track No. 2, at the category B level crossing at km 437.386 of railway line No. 131 Chorzów Batory - Tczew	
Recommendations of the State Commission on Railway Accident Investigation provided in the report	From the " Information on the implementation of the recommendations of PKBWK for the year 2022 " (UTK letter DPN-WDZK.464.09.2022.1.EK dated April 27, 2023) shows that the President of UTK by UTK letter No. DPN-WDZK.464.15.2022.2.MF dated January 09, 2023 – forwarded the recommendations to market entities and analyzed the information on the implementation of the above-mentioned recommendations
1. The infrastructure manager, PKP PLK S.A. Railway Line Department in Bydgoszcz, will re-evaluate the significance of the change considering local conditions in connection with the implementation of post-accident recommendations.	PKBWK 07/2022_1 The infrastructure manager, PKP PLK S.A. Railway Line Department in Bydgoszcz, will re-evaluate the significance of the change considering local conditions in connection with the implementation of post-accident recommendations.
2. The infrastructure manager PKP PLK Zakład Linii Kolejowych in Bydgoszcz will implement the findings contained in the minutes of the meeting of the Change Significance Assessment Team in accordance with the SMS-PR-03 "Change Management" procedure for assessing the significance of the technical change related to the reconstruction of level crossings from category A to B on line no. 131 Chorzów Batory - Tczew at km 344.021; 437.386; 440.762 dated 15.04.2015, in particular with regard to TVU monitors in the control room of Warlubie station.	PKBWK 07/2022_2 Infrastructure manager PKP Polskie Linie Kolejowe S.A. Zakład Linii Kolejowych in Bydgoszcz will implement the findings included in the in the minutes of the meeting of the Change Significance Assessment Team in accordance with the SMS-PR-03 "Change Management" procedure for assessing the significance of the technical change related to the reconstruction of level crossings from category A to B on the line No. 131 Chorzów Batory - Tczew located at kilometer 344.021; 437.386; 440.762 of April 15, 2015, in particular with regard to TVU monitors in the control room of Warlubie station.
3. The road manager will develop a new traffic organization project in the area of the cat. B level crossing, taking into account the topographical conditions of the intersection of the railway line and the road, in such a way that the vehicles coming from the direction of Bąkowski Młyn will have priority in passing through the crossing.	The recommendation does not apply to the Chairman of the Office of Rail Transport, which exercises statutory supervision over infrastructure managers and rail undertakings.
4. Infrastructure managers, during public campaigns to improve safety at level crossings, will emphasize the formation of correct behavior of crossing users when a road vehicle is between the barriers, including the need to immediately exit the vehicle from the crossing by breaking the barriers or leave the vehicle if it is damaged at the crossing.	PKBWK 07/2022_3 Infrastructure managers (authorized railway infrastructure managers, users of railway sidings, operators of narrow-gauge railways and entities exempted from the requirement to obtain a safety permit, authorized to operate on the basis of a safety certificate) during public campaigns aimed at improving safety at level crossings will emphasize the formation of correct behavior of crossing users when a road vehicle is between the barriers, including

	<p>the need for the vehicle to exit immediately the crossing by breaking the barriers or to abandon the vehicle if it is damaged at the crossing.</p>
<p>5. Authorized Infrastructure Managers, in the event of a change in the category of a level crossing, reconstruction or construction of a new crossing or pedestrian crossing, shall be required to assess the significance of the change, considering existing local conditions.</p>	<p>PKBWK 07/2022_4 Authorized Infrastructure Managers, in the event of a change in the category of a level crossing, reconstruction or construction of a new crossing or pedestrian crossing, shall be required to assess the significance of the change, considering existing local conditions.</p>
<p>Recommendations No. 1, 2, 4 and 5 adopted by resolution of PKBWK have been included in the report published on the website and addressed to the President of UTK in accordance with Article 28l (8) of the Law of March 28, 2003, on Railway Transport.</p> <p>Recommendation No. 3, adopted by resolution of PKBWK, was included in the report on the website and, in accordance with Article 28l (4) of the Law of March 28, 2003, on Railway Transport, addressed to the Road Manager for implementation.</p>	

Table 22. Analysis of information on the implementation of recommendations from Report No. PKBWK 07/2022 provided by the President of UTK to the entities of the railway market (according to information from the President of UTK)

Statistical analysis of information on the implementation of the recommendations of PKBWK Report 07/2022	
Number of recipients of recommendations	554
Replies provided in time	343
Failure to respond in time	211
Number of summonses to entities	-
Number of post-call responses	-
Failure to respond to summons	-



A donut chart illustrating the implementation status of recommendations. The blue segment represents 'answered' at 62%, and the grey segment represents 'no answer' at 38%.

Table 23. Evaluation of information provided on the implementation of recommendations from Report No. PKBWK 07/2022 provided by the President of UTK to the entities of the railway market (according to information from the President of UTK)

Evaluation of the information provided on the implementation of recommendations from PKBWK Report 07/2022				
Recommendations	PKBWK 07 /2022_1	PKBWK 07 /2022_2	PKBWK 07 /2022_3	PKBWK 07 /2022_4
Rated positive	1	1	266	11
Answer incomplete	0	0	75	8
Average percentage of implementation of the recommendation	100	100	71	97

Chart 18. Average percentage of implementation of individual recommendations provided by the President of UTK - from Report No. PKBWK 07/2022 (according to information from the President of UTK)

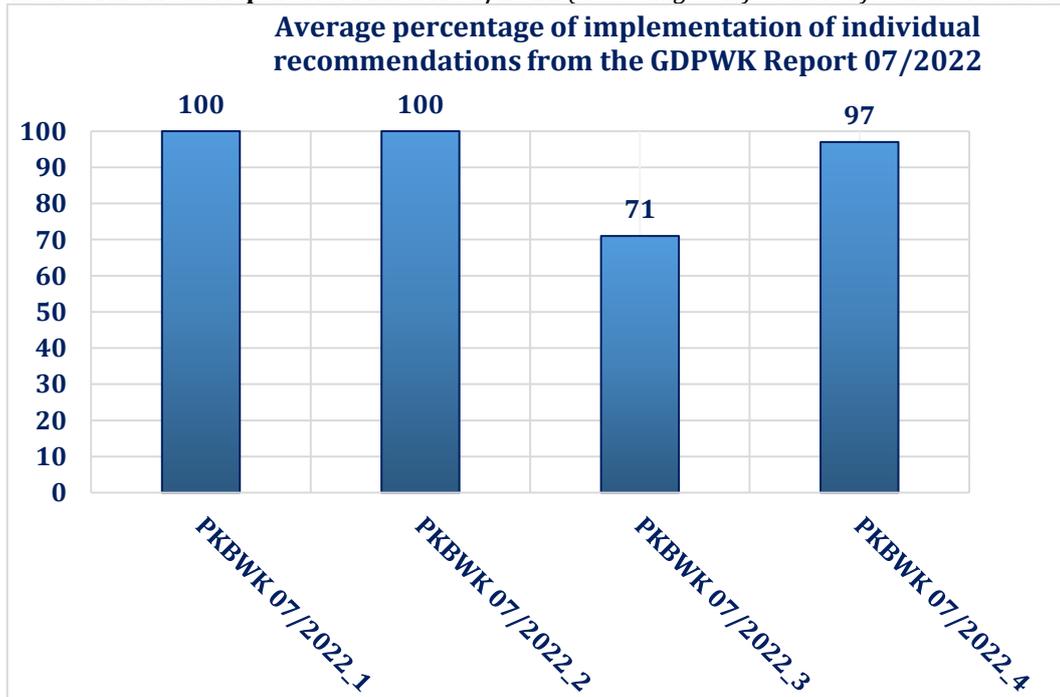
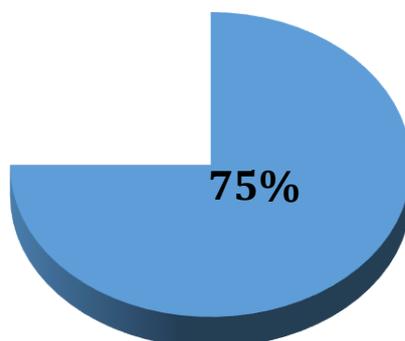


Chart 19. **Average percentage of implementation of recommendations provided by the President of UTK - from Report No. PKBWK 07/2022** (according to information from the President of UTK)



The average percentage of implementation of the recommendations was determined by UTK based on the declarations of the addressees of a given recommendation. The absence of 100% of the recommendations is due to the timetable of the company for the implementation of activities aimed at the full implementation of PKBWK recommendations.

Table 24. **Implementation of recommendations by entities listed by the Commission in Report No. PKBWK 07/2022** - based on information provided to PKBWK in March 2023.

Recommendations resulting from PKBWK Report No. 07/2022 (issued in 2022).	Recipient of the recommendation	Date of implementation of the recommendation	Average percentage (%) of implemented recommendation by entities listed in column 2/(stage of implementation)
1	2	3	4
Recommendation 1	¹⁴⁾ PKP PLK ZLK in Bydgoszcz	2023-02-27	100 (% - realized by PKP PLK ZLK in Bydgoszcz)
Recommendation 2	PKP PLK ZLK in Bydgoszcz	2023-02-27	100 (% - realized by PKP PLK ZLK in Bydgoszcz)
Recommendation 3	Road operator - County Office in Swiecie	¹⁵⁾	100%
Recommendation 4	(ZI + UŻb + OKW + exempt entities) PKP PLK	..... 2022-12-31	71 (% - in progress by: ZI + UŻb + OKW + exempted entities)* 100 (% - realized by PKP PLK)
Recommendation 5	(ZI) PKP PLK	..... 2022-12-31	97 (% - under implementation by ZI)* 100 (% - realized by PKP PLK)

*) According to the Information on the implementation of the recommendations of PKBWK for the year 2022 - provided from UTK by letter - DPN-WDZK.464.9.2023.1.EK dated 2023-04-27 - (refers to the implementation of recommendations provided by the President of UTK to the entities of the railway market)

¹⁴⁾ PKP PLK ZLK in Bydgoszcz - means: PKP PLK S.A. Railway Line Department w Bydgoszcz

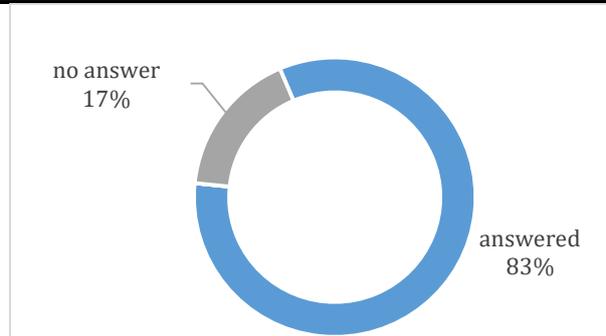
¹⁵⁾ By letter No. PKBWK.4631.2.20.2022 dated December 19, 2022, the State Commission on Railway Accident Investigation, in accordance with Article 28l (4) of the Railway Transportation Law of March 28, 2003 (Journal of Laws of 2021, item 1984, as amended), provided the County Starost of Swiecie with information on the completion of the investigation of the accident that occurred on February 03, 2022. at 06:14 a.m. at the Category B level crossing, located on route Warlubie - Laskowice Pomorskie, in track No. 2, at km 437.386 of the railway line No. 131 Chorzów Batory - Tczew, together with PKBWK Report 07/2022 containing "Recommendation No. 3" addressed to the road operator.

The implementation of "Recommendation No. 3" was confirmed by the County Road Operator, ul. Gen. Józefa Hallera 9, 86-100 Świecie - by letter No. 4080/29/2022 dated March 01, 2023.

Ad. 8) REPORT No. PKBWK 08/2022 on the investigation of a train accident occurred on January 14, 2022, at 10:48 a.m., at Kolbuszowa station, in track No. 1Wb, cat. C level crossing. at km 46.925 of the railway line No. 71 Ocice - Rzeszów Główny	
Recommendations of the State Commission on Railway Accident Investigation provided in the report	From the " Information on the implementation of the recommendations of PKBWK for the year 2022 " (UTK letter DPN-WDZK.464.09.2022.1.EK dated April 27, 2023) shows that the President of UTK by UTK letter No. DPN-WDZK.464.3.2022.2.KG dated January 31, 2023 – forwarded the recommendations to market entities and analyzed the information on the implementation of the above-mentioned recommendations
1. PKN Orlen S.A., in connection with the change of infrastructure: railway crossing (from category C to category B), track layout and track use on the siding adjacent to the railway track, and change of traffic organization within the railway crossing, will appoint a team for risk assessment and evaluation in order to identify risks affecting the safety of rail and road traffic at the railway crossing and on track No. 101. It is recommended that the team identifying the risks include representatives of the railway infrastructure manager, the road manager, the siding user and the organizer of transport in the area of the siding.	PKBWK 08/2022_1 PKN Orlen S.A. will set up a risk assessment and evaluation team to identify risks affecting the safety of rail and road traffic at the railway-road junction and on track no. 101 in connection with the change of infrastructure: level crossing (from category C to category B), track layout and designation of tracks on the siding adjacent to the railway track, and change in the organization of road traffic within the junction. It is recommended that the team identifying the risks include representatives of the railway infrastructure manager, the road manager, the user of the railway siding and the organizer of transport in the area of the railway siding.
2. PKN Orlen S.A., in agreement with PKP PLK S.A., will update the beginning of the siding of the Fuel Terminal in Widełki in the relevant documentation.	PKBWK 08/2022_2 PKN Orlen S.A., in agreement with PKP Polish Railway Lines Company S.A., will update the beginning of the siding of the Fuel Terminal in Widełki in the relevant documentation.
3. PKP PLK S.A. will liquidate superfluous vertical rails along line No. 71, which are fixed points of the jointless track. Use of existing traction poles as fixed points.	PKBWK 08/2022_3 PKP Polskie Linie Kolejowe S.A. will liquidate superfluous vertical rails along line No. 71, which are fixed points of the jointless track. Use of existing traction poles as fixed points.
4. Railway undertakings licensed to carry passengers shall equip railway vehicles in areas accessible to train drivers with rescue stretchers or other equipment for carrying injured persons.	PKBWK 08/2022_4 Railway undertakings licensed to carry passengers shall equip railway vehicles in areas accessible to train drivers with rescue stretchers or other equipment for carrying injured persons.
The above recommendations adopted by the resolution of PKBWK, were included in the report on the website and, in accordance with Article 28l (8) of the Railway Transport Law of March 28, 2003, addressed to the President of UTK.	

Table 25. Analysis of information on the implementation of recommendations from Report No. PKBWK 08/2022 provided by the President of UTK to the entities of the railway market (according to information from the President of UTK)

Statistical analysis of information on the implementation of recommendations from PKBWK Report 08/2022	
Number of recipients of recommendations	30
Replies provided in time	25
Failure to respond in a timely manner	5
Number of summonses to entities	-
Number of post-call responses	-
Failure to respond to summons	-



A donut chart illustrating the response rate to recommendations. The chart is divided into two segments: a large blue segment representing 'answered' at 83%, and a smaller grey segment representing 'no answer' at 17%.

Table 26. Evaluation of the information provided on the implementation of the recommendations from Report No. PKBWK 08/2022 provided by the President of UTK to the entities of the railway market (according to information from the President of UTK)

Evaluation of the information provided on the implementation of recommendations from PKBWK Report 08/2022				
Recommendations	PKBWK 08 /2022_1	PKBWK 08 /2022_2	PKBWK 08 /2022_3	PKBWK 08 /2022_4
Rated positive	1	2	1	17
Answer incomplete	0	0	0	0
Average percentage of implementation of the recommendation	50	30	15	34

Chart 20. Average percentage of implementation of individual recommendations provided by the President of UTK - from Report No. PKBWK 08/2022 (according to information from the President of UTK)

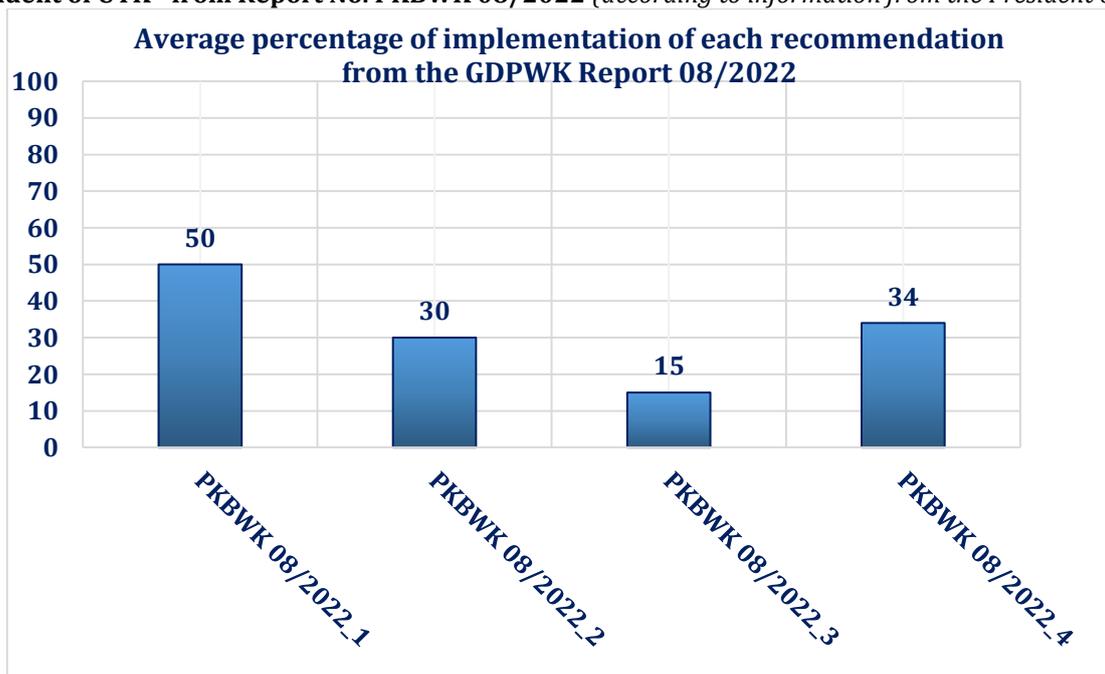
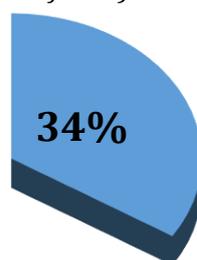


Chart 21. **Average percentage of implementation of recommendations provided by the President of UTK - from Report No. PKBWK 08/2022** (according to information from the President of UTK)



The average percentage of implementation of the recommendations was determined by UTK on the basis of the declarations of the addressees of a given recommendation. The absence of 100% of the recommendations is due to the timetable of the company for the implementation of activities aimed at the full implementation of PKBWK recommendations.

Table 27. **Implementation of recommendations by entities listed by the Commission in Report No. PKBWK 08/2022** - based on information provided to PKBWK in March 2023.

Recommendations resulting from PKBWK Report No. 08/2022 (issued in 2022).	Recipient of the recommendation	Date of implementation of the recommendation	Average percentage (%) of implemented recommendation by entities listed in column 2/(stage of implementation)
1	2	3	4
Recommendation 1	PKN Orlen S.A.	2023-08-25	¹⁷⁾ 50 (% - in progress by PKN Orlen S.A.) ^{*)}
Recommendation 2	(PKN Orlen S.A. + PKP PLK)	2023-08-31	¹⁸⁾ 30 (% - in progress by PKN Orlen S.A + PKP PLK) ^{*)}
Recommendation 3	PKP PLK	2023-12-31	15 (% - in progress by PKP PLK) ^{*)}
Recommendation 4	¹⁶⁾ PK passenger transport	.....	34 (%- under implementation by PK passenger transport) ^{*)}

^{*)} According to the Information on the implementation of the recommendations of PKBWK for the year 2022 - provided from UTK by letter - DPN-WDZK.464.9.2023.1.EK dated 2023-04-27 - (refers to the implementation of recommendations provided by the President of UTK to the entities of the railway market)

¹⁶⁾ PK passenger transport - railway undertakings with a license to transport passengers

¹⁷⁾ In the process of implementation by PKN Orlen S.A - based on the information provided by e-mail on August 18, 2023, the level of implementation (95% - planned date of implementation of the recommendation by 2023-08-25)

¹⁸⁾ in progress by: PKN Orlen S.A + PKP PLK - deadline dependent on submission of necessary documentation by PKN Orlen S.A.); based on information provided by ORLEN S.A. in letter no. HLI/078/2023 dated August 31, 2023, recommendation No. 2 was implemented as of 2023-08-31

Table 28 Analysis of information on the implementation of recommendations from the Annual Report for 2021 on the activities of PKBWK provided by the President of UTK to the entities of the railway market (according to information from the President of UTK)

Statistical analysis of information on the implementation of recommendations from the 2021 Annual Report	
Number of recipients of recommendations	736
Replies provided in time	497
Failure to respond in a timely manner	239
Number of summonses to entities	239
Number of post-call responses	159
Failure to respond to summons	80

Response Category	Percentage
answered	67%
post-call response	22%
no answer	11%

Table 29 Evaluation of information provided on the implementation of recommendations from the Annual Report for 2021 provided by the President of UTK to entities of the railway market (according to information from the President of UTK)

Evaluation of the information provided on the implementation of the recommendations of the 2021 Annual Report				
Recommendations	Annual Report for 2021_1	Annual Report for 2021_2	Annual Report for 2021_3	Annual Report for 2021_4
Rated positive	10	119	478	440
Answer incomplete	11	9	178	216
Average percentage of implementation of the recommendation	87	86	86	86

Figure 22: Average percentage of implementation of recommendations provided by the UTK President from the Annual Report for 2021 on the activities of PKBWK (according to information from the President of UTK).

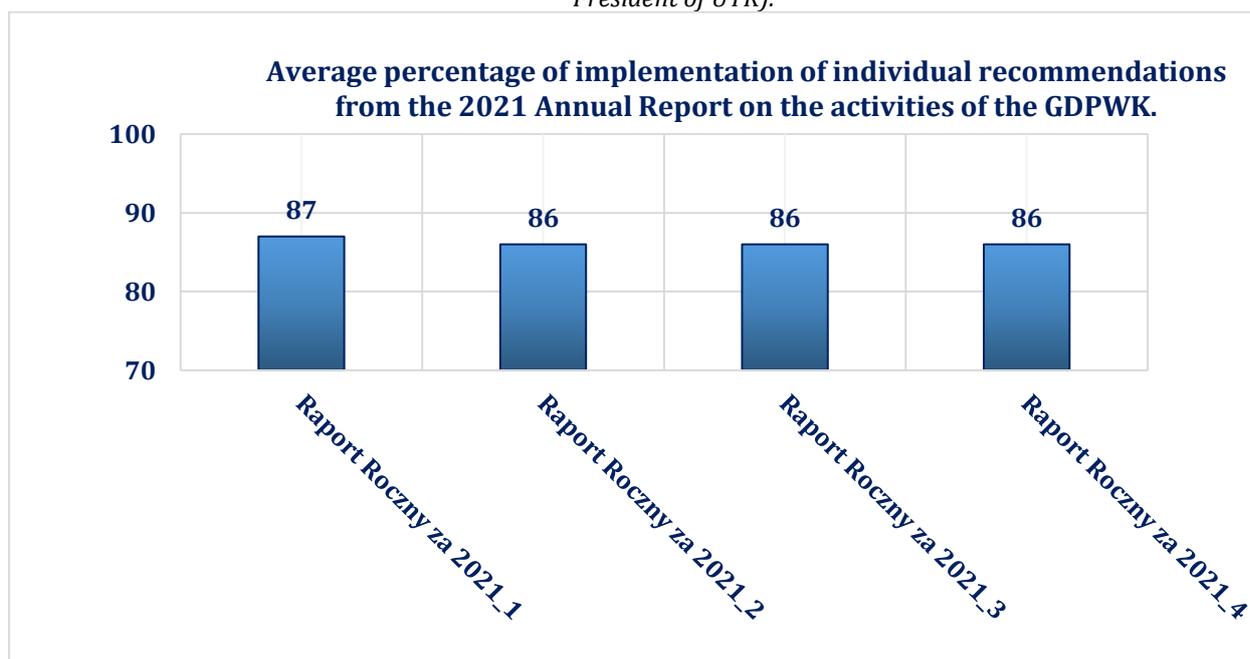
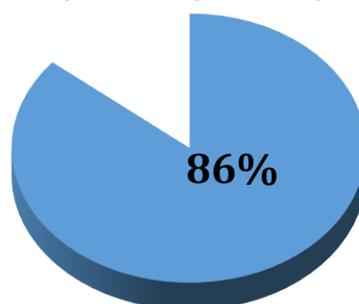


Figure 23: **Average percentage of implementation of recommendations provided by the President of UTK from the Annual Report for 2021 on the activities of PKBWK** (based on information from UTK)



The average percentage of implementation of the recommendations was determined by UTK based on the declarations of the addressees of a given recommendation. The absence of 100% of the recommendations is due to the timetable of the company for the implementation of activities aimed at the full implementation of PKBWK recommendations.

Table 30. **Status of implementation of PKBWK recommendations issued in 2022 and published in the Annual Report for 2021 based on information submitted to PKBWK in March 2023** (and based on information from UTK).

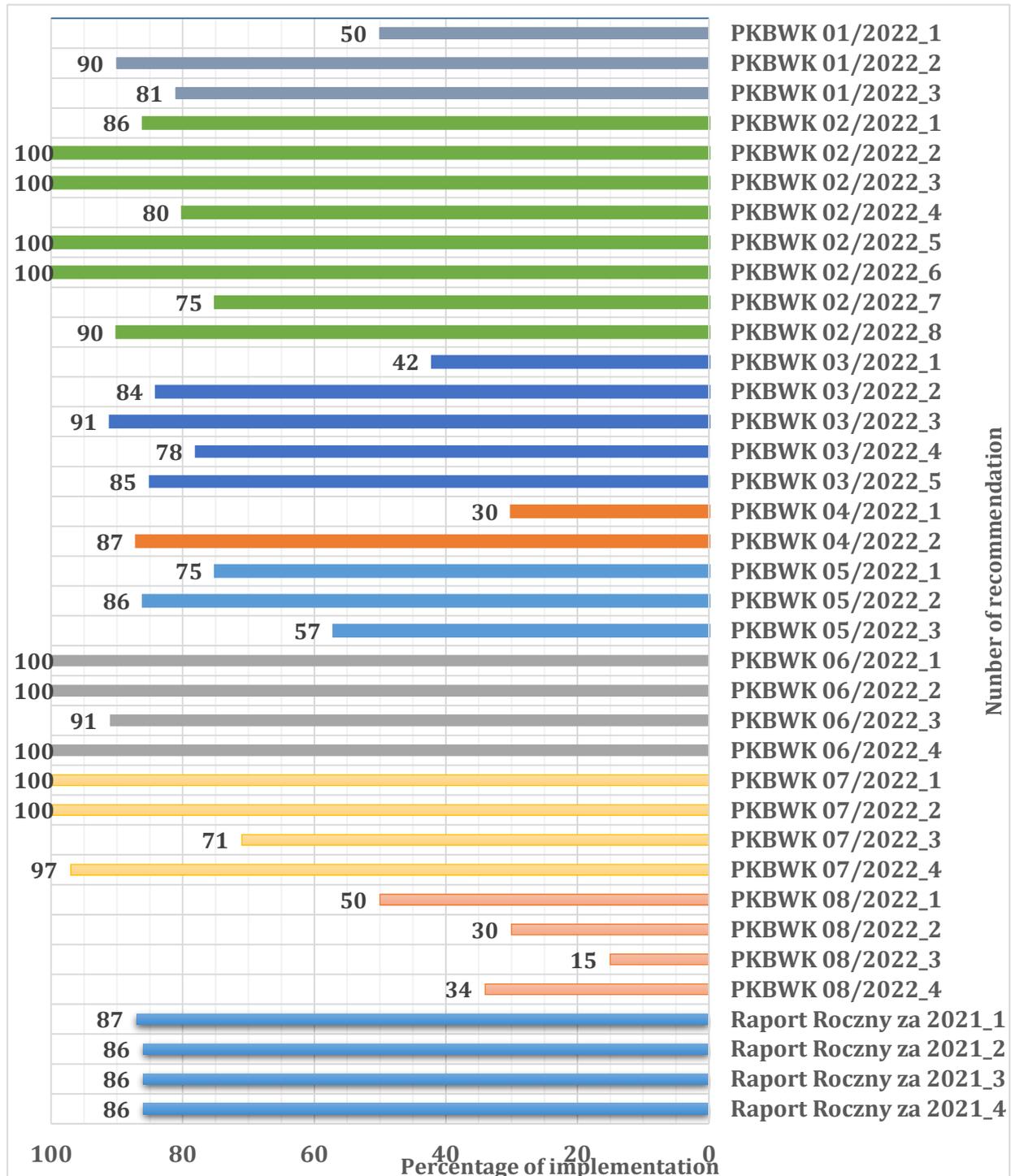
Recommendations from the Annual Report for 2021 (issued 2022)	Recipient of the recommendation	Date of implementation of the recommendation	Average percentage (%) of implemented recommendation by entities listed in column 2/(implementation stage)
1	2	3	4
*19) Recommendation 1	(ZI) PKP PLK	..... 2023-12-31	87 (% - under implementation by ZI *) 35 (% - under implementation by PKP PLK)
¹⁹⁾ Recommendation 2	(PK)	.....	86 (% - under implementation by KP)*)
¹⁹⁾ Recommendation 3	ZI + UŻb + OKW + + exempted entities + PK	.....	86 (% - in progress by: ZI + UŻb +OKW + exempted entities) *)
¹⁹⁾ Recommendation 4	(PK + ZI + UŻb + OKW + exempt entities) (PKP PLK)	..... 2023-12-31	86 (% - in progress by: PK + ZI + UŻb +OKW + exempted entities) *) 35 (% under implementation by PKP PLK)

*) According to the Information on the implementation of the recommendations of PKBWK for the year 2021 - provided from UTK by letter - DPN-WDZK.464 .13.2022.2.KG dated 2022-10-21- (refers to the implementation of recommendations provided by the President of UTK to the entities of the railway market)

*19) the content of the recommendations submitted for implementation by the President of UTK is included in the summary in section 5.1 of this report

Information on the **average percentage of implementation of individual recommendations directed to the President of UTK** for implementation is included in Appendix A of this Annual Report. Meanwhile, information on the implementation of PKBWK's recommendations directed to other stakeholders in 2022 (in accordance with Article 28l (8) of the Law on Railways) is included in Appendix B.

Figure 18. **average percentage of implementation of GDPR recommendations for 2022** (according to Appendix A)



6.2 Summary of the implementation of the Commission's recommendations (according to information from the President of UTK)

The President of UTK addressed 37 recommendations resulting from the reports of PKBWK to the entities of the railway market: certified railway undertakings, authorized infrastructure managers, users of railway sidings, operators of narrow-gauge railways and managers of railway networks that are functionally separated from the Union railway system and intended only for provincial or local transport (operating based on safety certificates).

The mentioned entities were obliged to inform the President of UTK within a certain period of time on how to deal with the recommendations of PKBWK.

The UTK carried out an analysis of the responses (quantitative and qualitative) received from the railway market players and, on this basis, assessed the implementation of the recommendations made.

The analysis mainly includes the President of UTK's assessment of how the recommendations have been implemented by units operating under a safety management system or a maintenance management system. There were cases where it was found that the required information was missing, or no justification was given for stating that the recommendation did not apply to the entity. These issues will be monitored during UTK's ongoing oversight activities, considering the potential safety risk and the severity of the non-compliance.

As of April 01, 2023 - 105 entities had not responded on the implementation of recommendations resulting from at least one report of the PKBWK.

According to the President of UTK, those who do not respond are mainly entities operating based on a safety certificate, including users of railway sidings, operators of narrow-gauge railways or infrastructure managers exempted from licensing.

The President of UTK, within the framework of his supervision (in accordance with Article 28l(9) of the Law), in the period from January 2022 to April 2023 inspected the implementation of selected recommendations arising from the reports of the PKBWK issued in 2022. In this period, 80 inspections were carried out, including 25 inspections of safety management systems. Other supervisory activities related to the safety of the operation of railway sidings and individual areas of infrastructure managers' activities related to the implementation of recommendations. The manner of implementation of more than 230 recommendations was checked during the supervisory activities. During the conducted inspections, irregularities were detected - a total of 19 violations were formulated. Some of the formulated irregularities related to more than one recommendation. A total of 41 recommendations were found to be non-compliant. Irregularities were found in 24% of the inspections carried out and consisted mainly in the failure to implement recommendations and to provide the necessary information in this area to the President of UTK.

The supervisory activity of the President of UTK includes not only the recommendations issued in each reporting period, but also other recommendations issued in previous years that are of key importance for rail transportation safety.

In addition, PKBWK analyzed the implementation of 4 recommendations addressed to entities over which the President of UTK does not exercise statutory supervision. This analysis shows that these entities (which mainly exercise supervision over roads) have fully implemented the recommendations issued.

7 Other aspects related to the operation of the Commission in 2022.

In 2022, the Commission carried out its activities to implement the planned goals and challenges, based on the allocated funds for the year. Within the allocated funds, 9 permanent members of the Commission were employed, and as of August 2022 - 10 permanent members of the Commission.

As part of its activities, the Commission cooperated with other organizational units of the Ministry of Internal Affairs and Administration, including in the analysis of draft legislation, industry programs, budget preparation or organizational and personnel matters.

The activities of the Commission included:

- Cooperation with the Office of Rail Transport (UTK),
- Cooperation with railway commissions conducting investigations into the causes and circumstances of occurrences,
- Sending permanent members of the Commission to the place of the occurrence by order of the Chairman of the Commission - (inspections of 18 occurrences),
- Conducting an investigation of an accident or occurrence if it occurred under circumstances that warranted such an investigation (3 decisions by the Chairman of the Commission);
- Making recommendations to entities to improve safety during ongoing investigations (12 recommendations),
- Cooperation with the public prosecutor's office and the police at the scene and in the later stages of the investigation in accordance with the agreement and the valid regulations,
- Cooperation with the organizers of training courses and conferences on the presentation of the work of the Commission and the manner of investigation of railway incidents (serious accidents, accidents and incidents) by railway commissions and participation in meetings and briefings at railway companies on the assessment of the state of railway safety,
- Participation of members of the Commission in seminars and conferences on railway safety,
- Cooperation with public road operators of various levels (district, municipal), after railway incidents at level crossings,
- Cooperation with the national investigating authorities of other EU countries,

- Participation in meetings and working groups and cooperation with the European Union Railway Agency (EUAR),
- Cooperation with the departments of the Ministry of Interior and Administration in the field of drafting amendments to the national legislation,
- Cooperation with the Office of the Minister of Administration and Interior pursuant to Article 28d of the Law,
- Cooperation with the Ministry of Infrastructure,
- Training of representatives of the Georgian Railways and the Ministry of Development of the Republic of Georgia on international and national regulations of railway accident investigation and organization of PKBWK,
- Cooperation with the General Inspectorate of Road Transport (GITD) - on monitoring devices for drivers' violations in the area of railway crossings.

8. Summary

In 2022, the total number of occurrences reported to the Commission decreased by 4.5% compared to the previous year. There were 2294 reported, occurring occurrences in 2022, and 2403 in 2021 (i.e., a decrease of 109 occurrences) (Figure 1).

The year 2022 was the first full year in which PKBWK received reports of occurrences from a larger number of entities. The above is related to the extension of the provisions of *Chapter 5a of the Railway Transport Law* to the entities specified in in Article 3 of that law. The amendment was introduced by the *March 30, 2021, Act amending the Railway Transport Law - Article 1(3)(b)* (Journal of Laws, item 780), and applies to managers of rail networks that are functionally separate from the railway system and intended to operate only provincial or local services, as well as to railway undertakings operating exclusively within these rail networks (including WKD and narrow-gauge railways).

Nevertheless, there was a slight decrease in the total number of occurrences and, in particular, the number of accidents at level crossings decreased.

In 2022, there were no serious accidents recorded in the evidence (EwZd), while there was a slight decrease of 1.5% in the number of accidents and 5.5% in the number of incidents compared to 2021. On the other hand, in 2021, there were 3 serious accidents at level crossings, including 2 at a category B level crossing and one at a category C level crossing.

On category A level crossings in 2022 - 6 accidents occurred, the same number as in the previous year (6 accidents occurred in 2021) - no serious accidents were recorded.

At category B level crossings in 2022 - 15 accidents occurred, and in 2021 - 19 accidents. In 2022 at category C level crossings - there were 42 accidents, while in 2021 - 1 serious accident and 33 accidents.

A worrying development was the increase of 8 accidents at category C level crossings in 2022.

In 2022, there were more than 40 occurrences of a road vehicle entering and hitting the side of a railway vehicle at category D, C and also B level crossings.

A positive development was a decrease in serious accidents and accidents at level crossings compared to 2021 (i.e., from 211 occurrences in 2021, a decrease to 169 accidents in 2022). In 2022, there was a decrease in the number of serious accidents and accidents at level crossings - by 19.9% compared to 2021.

An analysis of the number of occurrences that occurred shows that there was a slight increase (by 22 occurrences) in occurrences classified under category C64 (607 incidents were recorded in 2022 and 585 in 2021), i.e. *malicious, hooligan or reckless misconduct (e.g. throwing stones at a train, stealing cargo from a moving train or from a shunting yard, placing an obstacle on the track, vandalizing or tampering with power, communications, traffic control or track surface equipment) that does not involve casualties or negative consequences for property or the environment and does not pose a danger to passengers or railway employees*. Incidents involving the entry and stay of road vehicles in the dangerous area of the level crossing, between closed half-barriers (barriers), are qualified by the railway commissions under category C64.

In 2022, there were 607 C64 occurrences, including 517 at level crossings, as well as 85 train pelting and 5 other incidents (theft, obstruction and other hooliganism).

A total of 604 incidents were recorded at level crossings - failure of a road vehicle to stop in front of a closed barrier (half-barrier) and damage to it or to traffic signals (i.e. incidents in categories C66 - 87) and malicious, hooligan or reckless behavior endangering passengers or railway staff, including lockdown of road vehicles at level crossings, damage to barriers (i.e. incidents in categories C64 - 517).

It should be noted that the figures presented for incidents at level crossings, including lockdowns of road vehicles in the danger zone at category B level crossings, are based only on information provided by the railway commissions in *Final Memoranda of findings*. In practice, however, there is a much larger number of such occurrences, some of which are also classified under category C66. It should be emphasized that not all occurrences are reported (because after a train has left a level crossing without a collision, the barriers are lifted for the driver of a road vehicle automatically, allowing him/her to drive away with impunity, despite the fact that he/she did not observe the traffic rules when entering the level crossing).

Infrastructure managers should continue to take measures to ensure that incidents of road vehicles remaining between closed barriers without contact with railway vehicles are only classified as C64 in each case. Railway undertakings should, as part of a safety culture, take measures to ensure that drivers and conductors of railway vehicles report to the staff of the infrastructure manager the fact that road vehicles are present between closed barriers.

Despite a significant decrease in the number of occurrences (accidents) at level crossings in 2022 (Figure 5), the number of occurrences is still high and should mobilize infrastructure managers to take effective measures leading to improved safety (further reduction of these occurrences).

There was a 9.2% increase in the number of casualties (fatalities) in the records of all railway accidents. Note the B34 category, updated as of August 15, 2023. The number of occurrences in the statistics of this category is significantly lower than that recorded on December 31, 2022, due to the conclusion of criminal proceedings and the reclassification of some occurrences in category B34 as suicides or attempted suicides.

A positive development is the decrease in the number of incidents of category C68 - train rupture without running (246 incidents in 2022 and 281 incidents in 2021). The number of these occurrences is still very high, which should mobilize railway commissions to analyze the causes more thoroughly and clarify the circumstances and causes of their occurrence to minimize risks. In 2022, there were 14 accidents of category B08 and 9 incidents of category C47 (i.e. runaway railway vehicles). This is a worrying phenomenon, as the number of these occurrences increased in 2022, despite the recommendation made on this subject in the 2021 annual report.

The Railway Event Recording System (EEWZd) reported a decrease of more than 41.0% in C50 incidents (from 39 incidents in 2021 to 23 in 2022) involving improper loading, unloading, and securing of cargo. This is a positive development. However, it calls for continued increased oversight and involvement of carriers and responsible parties (including those in charge of maintenance (ECM)) for cargo transportation organizations.

In depth analysis and elimination of hazards (anomalies) should be subjected to category C54 events, i.e., damage or emergency conditions of rolling stock detected by detection devices, confirmed in workshop conditions (hot axle boxes, overheated brake resulting in a displaced rim), as well as other defects of rolling stock in operation noticed by operating personnel. The number of such occurrences decreased from 226 in 2021 to 199 in 2022.

In the 2022 records, there was a 5.5% decrease in reported incidents compared to the previous year (Figure 1). In terms of accidents, the occurrences that did occur resulted in less property damage and fewer injuries. Nevertheless, their persistently high number still provides important information about existing risks that should be monitored by rail undertakings as part of their safety management and maintenance management systems. Incidents of categories C54 (199), C64 (607), C68 (246) together account for more than 64.0% of all incidents in 2022.

Occurrences during the implementation of investment and modernization works should be thoroughly analyzed and risks (irregularities) should be eliminated. Investment related occurrences are most categorized as B09 and C51. Occurrence categories B09 and C51 related to damage or poor maintenance of structures also include improper execution of investment and modernization works

(e.g., a railway vehicle hitting equipment (materials) left on the track or within the gauge). In addition to the above-mentioned categories, occurrences related to irregularities in the execution of infrastructure repairs, investment and modernization works were classified by railway commissions in other categories. Last year, the number of accidents in category B09 decreased from 58 in 2021 to 44 in 2022, and the number of incidents in category C51 decreased from 42 in 2021 to 29 in 2022. The number of these occurrences is still significant and should be subject to careful attention by those who supervise and organize this work (due to the significant impact of the human factor).

The most common irregularities related to investment and modernization events and pavement and track repairs are:

- **Failure to comply with temporary rules and regulations for** the conduct of work and the manager's internal instructions,
- **development of regulations in a simplified manner** that does not cover all the safety hazards of the work performed,
- **Improper securing of the work site** - collisions of railway vehicles with objects entering the gauge of the active track - most often with vehicles working on the construction site (excavators, dump trucks), improperly stored materials (sleepers, rails, etc.), collisions with road vehicles as a result of lack of guarding of the level crossing by an authorized employee, damage to rolling stock by ballast from the ballast cleaner working on the adjacent track, or sandblasting of the structure of the repaired bridge,
- **Improper conduct of users of level crossings** located within the area of the works,
- **Failure to exercise due caution during the execution of the work** - workers hit by trains moving on the active track without speed limit, in the vicinity of the work being performed,
- **Incorrect alignment of the runway** - The correctness of the runway alignment is not verified by the traffic lights, which are disabled due to the ongoing works,
- **Failure to stop the vehicle at the place where it should stop** (e.g., in front of the shunting disc or turnouts when leaving the worksite, starting to drive without the necessary authorization without consulting the traffic officer on duty),
- Lack of close cooperation in investments and operations, lack of proper communication between the Investment Realization Centers and the PKP PLK S.A. Railway Line Departments.

An analysis of the occurrences on railway sidings in 2022 - shows a decrease in occurrences in 2022 (i.e. - 168 occurrences, including 128 accidents and 40 incidents), while in 2021 a total of 180 occurrences (including 149 classified as railway accidents and 31 as railway incidents).

Incidents on railway sidings in 2022 account for 7.3% of the total number (2294) of occurrences reported to PKBWK, accidents (128) account for 19.7% of the total number (651) of railway

accidents reported to PKBWK, and incidents (40) account for 2.4% of the total number of railway incidents (1643).

In this report, the Commission made recommendations for the improvement of railway safety.

The 2022 Commission fulfilled its statutory duties while staying within the 2022 budget. It carried them out in effective cooperation with several entities, mainly: railway commissions, national investigative bodies of other EU countries, infrastructure managers and railway operators, UTK and the European Union Railway Agency.

9. Contact and address details of PKBWK as of August 1, 2023

State Commission on Railway Accident Investigation al. J. Ch. Szucha 2/4 00-582 Warsaw	
PERMANENT MEMBERS:	
Tadeusz Ryś Chairman of PKBWK phone 47 722 84 16	Karol Trzonski Deputy Chairman of PKBWK phone 47 722 86 61
Rafał Leśniowski Deputy Chairman of PKBWK phone 47 722 87 33	..... Permanent member of PKBWK (vacancy)
Henryk Zgrzebnicki Secretary of PKBWK phone 47 722 85 99	Barbara Pióro Commission service worker phone 47 722 84 09, fax 47 722 87 30 e-mail: pkbwk@mswia.gov.pl
Branch in Katowice ul. Rolna 43 40-555 Katowice	Branch in Poznań ul. Skłodowa 4 61-897 Poznań
Grzegorz Skarwecki Permanent member of PKBWK - coordinating the work of the Branch in Katowice phone 32 607-24-64	Benedykt Kugielski Permanent member of PKBWK coordinating the work of the Branch in Poznań phone 61 221-64-03
Tomasz Resiak Permanent member of PKBWK - Katowice Branch phone 32 607-24-65	Dionizy Jędrych Permanent member of PKBWK - Poznań Branch phone 61 221-64-05
Marek Rozyc Permanent member of PKBWK - Katowice Branch phone 32 607-24-65	Tomasz Aleksandrowicz Permanent member of PKBWK - Poznań Branch phone 61 221-64-05
..... Permanent member of PKBWK (vacancy)	
Duty phone 510 126 711	

PKBWK website

The Commission's website is available at:

<https://www.gov.pl/web/mswia>

Tab: What we do → State Commission on Railway Accident Investigation

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

immediate reporting of events (Article 28g),

- written notification of railway occurrences (§ 7),
- composition of the Commission,
- legal acts and documents,
- reports,
- Protection of personal data (in accordance with RODO).

APPENDIX "A"
to the Annual Report for 2022 of
the State Commission on Railway Accident Investigation.
Information on the implementation of the recommendations of PKBWK issued in 2022.
(according to information from the President of the Office of Rail Transport)

Within the framework of monitoring the implementation of the recommendations of PKBWK by the entities of the railway market, the President of UTK analyzed the recommendations addressed to him from the above-mentioned reports and, after making changes to their content, forwarded them for implementation to the managers, railway operators, entities responsible for the maintenance of railway rolling stock and entities operating special rolling stock.

1. REPORT No. PKBWK 01/2022 of the investigation of a serious railway accident that occurred on April 4, 2021, at 09:10 on the Oborniki Wielkopolskie - Rogozno Wielkopolskie route, in track No. 1, at the category D level crossing at km 30.453 of railway line No. 354 Poznań Główny POD - Piła Główna;
2. REPORT No. PKBWK 02/2022 of the investigation of the railway accident that occurred on February 26, 2021, 09:32 at Grodzisko Dolne station, track No. 2, at km 163.756 of the railway line No. 68 Lublin Główny - Przeworsk;
3. REPORT No. PKBWK 03/2022 of the investigation of the railway accident that occurred on April 30, 2020, at 11:50 am on route Świdnica Kraszowice - Jedlina Zdrój at km 60.885 of railway line No. 285 Wrocław Główny - Świdnica Przedmieście;
4. REPORT No. PKBWK 04/2022 of the investigation of the railway accident that occurred on July 29, 2021, at 06:15 on route Szczecin Gumieńce - Tantow, in track No. 1, category C level crossing at km 7.585, railway line No. 409 Szczecin Gumieńce - State Border (Tantow);
5. REPORT No. PKBWK 05/2022 on the investigation of a serious accident that occurred on June 15, 2021, at 10:05 am at Kochanówka Pustków station in track No. 1, at the category C level crossing at km 313.328 of railway line No. 25 Łódź Kaliska - Debica;
6. REPORT No. PKBWK 06/2022 from the investigation of the railway incident that occurred on February 5, 2021, at 9:37 am at Gogolin station, in track No. 6, at km 22,400 of railway line No. 136 Kędzierzyn Koźle - Opole Groszowice;
7. REPORT No. PKBWK 07/2022 of the investigation of the railway accident that occurred on February 3, 2022, at 06:14 on the Warlubie - Laskowice Pomorskie route, in track No. 2, at the Category B level crossing at km 437.386 of the railway line No. 131 Chorzów Batory - Tczew;
8. REPORT No. PKBWK 08/2022 of the investigation of the railway accident that occurred on January 14, 2022, at 10:48 am, at Kolbuszowa station, in track No. 1Wb, category C level crossing, at km 46.925 of railway line No. 71 Ocice - Rzeszów Główny;
9. Annual Report for 2021 on the activities of the State Commission on Railway Accident Investigation.

Analysis of information on the implementation of individual recommendations - from the responses declared by railway market players

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

The average percentage of implementation of the recommendations was determined by UTK based on information provided by the addressees of a particular recommendation.

I. Recommendations provided by the President of UTK after analyzing Report No. PKBWK 01/2022 from the investigation of a serious train accident occurring on April 4, 2021 at 09:10 on route Oborniki Wielkopolskie - Rogozno Wielkopolskie, track No. 1, at the category D level crossing at km 30.453 of railway line No. 354 Poznań Główny POD - Piła Główna

PKBWK 01/2022_1 The infrastructure manager PKP Polskie Linie Kolejowe S.A., in order to ensure safety in the area of the level crossing, will implement the arrangements for upgrading the category of the crossing resulting from Protocol No. IZ16KI.505.36.2021 of April 20, 2021.

ADDRESSEES OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A.

AVERAGE PERCENTAGE OF IMPLEMENTATION: **50%**

PKBWK 01/2022_2 Authorized railway infrastructure managers and Warszawska Kolej Dojazdowa sp. z o.o. will take measures on the effectiveness of supervision of the implementation of SMS procedures or internal regulations. In the case of changes in railway line parameters concerning the increase of train speeds in the area of level crossings, an assessment of the significance of the change should be carried out individually for each rail-level crossing.

RECOMMENDED ADDRESSES: authorized infrastructure managers and WKD sp. z o.o.

AVERAGE PERCENTAGE OF COMPLETION: **90%**

PKBWK 01/2022_3 Authorized railway infrastructure managers, users of railway sidings, operators of narrow gauge railways, and Warsaw Commuter Railway Ltd. will take measures to improve the quality and depth of inspections, diagnostic tests and the method of measuring the visibility triangle of level crossings. When measuring the visibility triangles, it should be considered that the visibility of the head of a train from 5 meters from the extreme rail must be continuous (not obscured by any objects when the train approaches the level crossing) and must include the signal lights of its head. If this condition is not met, the speed of trains in the area of level crossings must be reduced in accordance with the regulations in force.

RECOMMENDED ADDRESSES: authorized infrastructure managers, users of railway sidings, operators of narrow-gauge railways, and WKD sp. z o.o.

AVERAGE PERCENTAGE OF COMPLETION: **81%**

II. Recommendations provided by the President of UTK after analyzing Report No. PKBWK 02/2022 from the investigation of the railway accident that occurred on February 26, 2021 at 09:32 at Grodzisko Dolne station, track No. 2, at km 163.756 of the railway line No. 68 Lublin Główny - Przeworsk

PKBWK 02/2022_1 Authorized infrastructure managers will cause traffic officers to inform train drivers of the need to let trains pass, when they give information to train drivers, to keep them informed of the change in traffic organization at the station.

RECOMMENDED ADDRESSES: authorized infrastructure managers.

AVERAGE PERCENTAGE OF COMPLETION: **86%**

PKBWK 02/2022_2 To ensure the visibility of semaphore D at Grodzisko Dolne station PKP Polskie Linie Kolejowe S.A. Railway Line Works in Rzeszów will reposition the overhead line pole location 163-44 in the area of the GD1 signal setpoint.

ADDRESSEES OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. Railway Line Department in Rzeszów

AVERAGE PERCENTAGE OF COMPLETION: **100%**

PKBWK 02/2022_3 Authorized infrastructure managers will carry out an extraordinary visibility check of shaped semaphores during daytime and nighttime at stations with catenary in the main and auxiliary tracks.

RECOMMENDED ADDRESSES: authorized infrastructure managers.

AVERAGE PERCENTAGE OF COMPLETION: **100%**

PKBWK 02/2022_4 Certified passenger rail carriers will take measures to improve passenger safety on trains by properly fixing tables in compartmentless passenger cars, ensuring the safety of travelers.

ADDRESSES OF THE RECOMMENDATION: certified passenger rail carriers.

AVERAGE PERCENTAGE OF COMPLETION: **80%**

PKBWK 02/2022_5 The Infrastructure Manager PKP Polskie Linie Kolejowe S.A. will implement the recommendation specified in the Protocol of Diagnostic Tests of Traffic Control Equipment (Protocol No. IZATA-1/3-22- 068/2019 dated June 21, 2021), which reads: "Provide for the renovation of traffic control devices, replacement of shaped semaphores with light semaphores and installation of Eap interlocking on the lines adjacent to the Tryńcza-Leżajsk station".

ADDRESSEES OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A.

AVERAGE PERCENTAGE OF COMPLETION: **100%**

PKBWK 02/2022_6 In order to ensure the safety of train traffic in runs a11, b2 and a23, PKP Polskie Linie Kolejowe S.A Railway Line Department in Rzeszów will restore the technical condition of the infrastructure at Grodzisko Dolne station in accordance with the current technical documentation.

ADDRESSEES OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A Railway Lines Department in Rzeszów.

AVERAGE PERCENTAGE OF COMPLETION: **100%**

PKBWK 02/2022_7 Certified railway operators, authorized infrastructure managers, users of railway sidings, operators of narrow-gauge railways and entities exempted from the obligation to obtain a safety certificate or authorization and authorized to operate on the basis of a safety certificate, will introduce internal regulations on limiting the use of multimedia devices not related to railway operations by train crews and station staff during working hours, which interfere with the correct reception of transmitted acoustic signals and voice messages, and will include this issue in the program of periodic instructions.

ADDRESSES OF THE RECOMMENDATION: certified railway operators, authorized infrastructure managers, users of railway sidings, operators of narrow-gauge railways, and entities exempted from the obligation to obtain a safety certificate or authorization and authorized to operate on the basis of a safety certificate

AVERAGE PERCENTAGE OF COMPLETION: **75%**

PKBWK 02/2022_8 Railway operator LOTOS Kolej Sp. z o. o. will implement the recommendation of PKBWK addressed to railway operators on the obligation to install foreground recording devices - digital

cameras or video recorders in newly built and operating railway vehicles (recommendation of PKBWK No. PKBWK-076-305/RL/R/11 of November 22, 2011).

ADDRESSEES OF THE RECOMMENDATION: LOTOS Kolej Sp. z o. o.

AVERAGE PERCENTAGE OF COMPLETION: **100%**

III. Recommendations provided by the President of UTK after analyzing Report No. PKBWK

03/2022 from the proceedings in the case of a train accident occurring on April 30, 2020 at 11:50 on route Świdnica Kraszowice - Jedlina Zdrój at km 60.885 of railway line No. 285 Wrocław Główny - Świdnica Przedmieście

PKBWK 03/2022_1 Holders of special vehicles will implement Recommendation No. 4 of PKBWK Report 03/2020 concerning the equipment of special vehicles with an on-board recorder of driving parameters and will additionally take measures to retrofit these vehicles with foreground image recorders and operation.

RECOMMENDED ADDRESSES: holders of special vehicles.

AVERAGE PERCENTAGE OF COMPLETION: **42%**

PKBWK 03/2022_2 Authorized infrastructure managers will develop rules for the performance of work on the railway line gradient using special self-propelled vehicles in combination with other non-propelled railway vehicles, which companies performing repair and maintenance work will be obliged to apply, and will provide mechanisms for monitoring the application of this procedure.

RECOMMENDED ADDRESSES: authorized infrastructure managers.

AVERAGE PERCENTAGE OF COMPLETION: **84%**

PKBWK 03/2022_3 Authorized infrastructure managers will issue a recommendation to undertakings carrying out repair and maintenance work on their railway infrastructure, stating that "Companies performing repair and maintenance work on their railway infrastructure, organized in a long-term manner that does not allow direct contact with employees, will implement a system of control with regard to work discipline and compliance with regulations and instructions, and in particular with regard to the conduct of traffic, the performance of work and the mental and physical condition of employees" and will establish mechanisms to monitor the implementation of this recommendation.

RECOMMENDED ADDRESSES: authorized infrastructure managers.

AVERAGE PERCENTAGE OF COMPLETION: **91%**

PKBWK 03/2022_4 Authorized Infrastructure Managers:

- a. not having relevant rules for the work of machines and equipment operating on the same track at the same time in different locations, will develop and implement these rules for mutual communication in these work situations,
- b. Those with the above rules will conduct training sessions to remind them of the applicable rules.

RECOMMENDED ADDRESSES: authorized infrastructure managers.

AVERAGE PERCENTAGE OF COMPLETION: **78%**

PKBWK 03/2022_5 Authorized infrastructure managers, when developing procurement specifications in connection with planned investment/modernization work, shall consider the recommendations issued with respect to:

- a. Equipping self-propelled tracked rail welding machines with driving parameter recorders and foreground and background image recorders,
- b. Equipping workers with radio communication devices. Addressees of the recommendation: Authorized infrastructure managers

RECOMMENDED ADDRESSES: authorized infrastructure managers.

AVERAGE PERCENTAGE OF COMPLETION: **85%**

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

04/2022 from the investigation of the railway accident that occurred on July 29, 2021, at 06:15 on route Szczecin Gumieńce - Tantow, in track No. 1, category C level crossing at km 7.585, railway line No. 409 Szczecin Gumieńce - State Border (Tantow);

PKBWK 04/2022_1 Infrastructure manager PKP Polskie Linie Kolejowe S.A., in order to improve safety in the area of the level crossing at km 7.585, will take measures to upgrade the category of this crossing.

ADDRESSEES OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A.

AVERAGE COMPLETION PERCENTAGE:*) **30%**

*) For the level crossing of category C, at km 7.585 of national road no. 409 Szczecin Gumieńce - State border (Tantow), the possibility of upgrading it to category B is being discussed, as well as the sources of financing for the planned investment. As soon as the possibility of carrying out the relevant works has been established, an assessment of the significance of the change, together with the identification of risks, will be carried out in accordance with the Company's SMS/MMS-PR-03 procedure in order to assess the impact of the introduced change on the safety of the railway system.

PKBWK 04/2022_2 Authorized infrastructure managers, sidings users, narrow gauge railway undertakings and entities exempted from safety authorization and authorized to operate based on a safety certificate shall take measures to implement mechanisms resulting in the implementation of conclusions and recommendations of diagnostic reviews at level crossings.

ADDRESSES OF THE RECOMMENDATION: authorized infrastructure managers, users of railway sidings, operators of narrow-gauge railways, and entities exempt from the requirement to obtain security authorization authorized to operate on the basis of a security certificate

AVERAGE PERCENTAGE OF COMPLETION: **87%**

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

05/2022 from the investigation of a serious accident that occurred on June 15, 2021, at 10:05 am at Kochanówka Pustków station in track No. 1, at the railway-road crossing of category C at km 313.328 of the railway line No. 25 Łódź Kaliska - Debica

PKBWK 05/2021_1 Authorized railway infrastructure managers, users of railway sidings, operators of narrow-gauge railways and entities exempted from safety authorization and authorized to operate on the basis of a safety certificate shall include in their internal regulations the obligation to turn over and cover crossing traffic signals in such a way that the chambers are not visible to crossing users when the signals are installed but not yet in operation.

ADDRESSES OF THE RECOMMENDATION: authorized managers of railway infrastructure, users of railway sidings, operators of narrow-gauge railways, and entities exempt from the obligation to obtain security authorization authorized to operate on the basis of a security certificate

AVERAGE PERCENTAGE OF COMPLETION: **75%**

PKBWK 05/2021_2 Authorized railway infrastructure managers, users of railway sidings, operators of narrow-gauge railways and entities exempted from the obligation to obtain a safety authorization and authorized to operate based on a safety certificate shall take measures to introduce mechanisms for effective control over the correctness of carrying out diagnostic tests of level crossings. Regarding level crossings with

active traffic, the obligation to carry out periodic diagnostic tests is incumbent on the abovementioned entities.

ADDRESSES OF THE RECOMMENDATION: authorized managers of railway infrastructure, users of railway sidings, operators of narrow-gauge railways, and entities exempt from the obligation to obtain security authorization authorized to operate on the basis of a security certificate

– AVERAGE PERCENTAGE OF COMPLETION: **86%**

PKBWK 05/2022_3 Holders of special vehicles will absolutely implement the unimplemented recommendations of PKBWK Reports:

a. Recommendation No. 3 of Report No. PKBWK/05/2018: "PKP Polskie Linie Kolejowe S.A. will retrofit auxiliary vehicles undergoing P4 and P5 maintenance level inspections, as well as newly purchased vehicles, with on-board recorders of driving parameters (recording, at least speed, pressure in the main line and brake cylinders, activation of the "Attention" signal)."

b. Recommendation No. 4 of Report No. PKBWK/03/2020: "Recommendations No. 1 and No. 3 of the State Commission for Investigation of Railway Accidents, indicated in Report No. PKBWK/05/2018 from the investigation of the serious accident of category A18, which occurred on November 2, 2017, at 18:49 at the cat. A with suspended service, located at km 37.119 of the route Śniadowo - Łapy, on track No. 1 of the railway line No. 36 Ostrołęka - Łapy, relating to the equipment of auxiliary vehicles with reflective elements to improve the visibility of the vehicle from the side, as well as with an on-board recorder of driving parameters (recording at least speed, pressure in the main line and brake cylinders, activation of the "Attention" signal) on special vehicles."

RECOMMENDED ADDRESSES: dispatchers of special vehicles.

AVERAGE PERCENTAGE OF COMPLETION: **57%**

VI. Recommendations provided by the President of UTK after analyzing Report No. PKBWK 06/2022 from the investigation of the railway incident that occurred on February 5, 2021 at 9:37 am at Gogolin station, in track No. 6, at km 22,400 of railway line No. 136 Kędzierzyn Koźle - Opole Groszowice;

PKBWK 06/2022_1 Railway infrastructure manager PKP Polskie Linie Kolejowe S.A. will take steps to strengthen the Investment Execution Center's oversight of contractors working on ongoing investments.

ADDRESSEES OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A.

AVERAGE PERCENTAGE OF COMPLETION: **100%**

PKBWK 06/2022_2 After the completion of each stage of the ongoing investment project, including phases, it is necessary to draw up new temporary regulations for the operation of trains during the execution of works on the territory of PKP Polskie Linie Kolejowe S.A. Railway Line Department, which will be a continuation of the given investment task.

ADDRESSEES OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A.

AVERAGE PERCENTAGE OF COMPLETION: **100%**

PKBWK 06/2022_3 Authorized infrastructure managers and Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A. will take steps to:

- a) Improve the quality and depth of technical inspections of the various phases of the work in terms of checking the compliance of the project documentation with the condition on the ground;
- a) Include in the subject matter of the training of station maintenance personnel issues related to the operation of

b) of train traffic in the station and on adjacent tracks during restrictions, telephone announcement of trains on tracks, telephone ordering and reporting of track preparation in the station.

ADDRESSES OF THE RECOMMENDATION: authorized infrastructure managers, Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.

AVERAGE PERCENTAGE OF COMPLETION: **91%**

PKBWK 06/2022_4 Authorized Infrastructure Managers, as well as Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A., within the framework of supervision of ongoing investments, will extend the scope of control in relation to the compliance of implemented phases with the documentation, in particular during changes between successive transitional phases of investment works related to the operation and safety of railway traffic.

ADDRESSES OF THE RECOMMENDATION: authorized infrastructure managers, Warszawska Kolej Dojazdowa sp. z o.o. and Pomorska Kolej Metropolitarna S.A.

AVERAGE PERCENTAGE OF COMPLETION: **100%**

VII. Recommendations provided by the President of UTK after analyzing Report No. PKBWK 07/2022 from the investigation of the train accident that occurred on February 3, 2022, at 06:14 on the Warlubie - Laskowice Pomorskie route, on track No. 2, at the Category B level crossing at km 437.386 of the railway line No. 131 Chorzów Batory - Tczew

PKBWK 07/2022_1 Infrastructure manager PKP Polskie Linie Kolejowe S.A. Zakład Linii Kolejowych in Bydgoszcz will reassess the significance of the change taking into account local conditions in connection with the implementation of post-accident recommendations.

ADDRESSEES OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. Railway Line Department in Bydgoszcz

AVERAGE PERCENTAGE OF COMPLETION: **100%**

PKBWK 07/2022_2 The Infrastructure Manager PKP Polskie Linie Kolejowe S.A. Railway Line Department in Bydgoszcz will implement the findings contained in the minutes of the meeting of the Change Significance Assessment Team in accordance with the procedure SMS-PR-03 "Change Management" for assessing the significance of the technical change related to the reconstruction of level crossings from category A to B on line no. 131 Chorzów Batory - Tczew at km 344.021; 437.386; 440.762 dated April 15, 2015, in particular with regard to the TVU monitors at the Warlubie station control panel.

ADDRESSEES OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A. Railway Line Department in Bydgoszcz

AVERAGE PERCENTAGE OF COMPLETION: **100%**

PKBWK 07/2022_3: Infrastructure managers during public campaigns aimed at improving safety at level crossings will emphasize the formation of correct behavior of crossing users when a road vehicle is locked between the barriers, including, among other things, the need for the vehicle to immediately exit vehicle from the crossing by breaking the barriers or leave the vehicle when it is damaged at the crossing

ADDRESSES OF THE RECOMMENDATION: authorized managers of railway infrastructure, users of railway sidings, operators of narrow-gauge railways, and entities exempt from the obligation to obtain security authorization authorized to operate on the basis of a security certificate

AVERAGE PERCENTAGE OF COMPLETION: **71%**

GDPR 07/2022_4: Authorized infrastructure managers, in the case of a change in the category of a level crossing, reconstruction or construction of a new crossing or pedestrian crossing, shall make it mandatory to assess the significance of the change, considering existing local conditions

ADDRESSES OF THE RECOMMENDATION: authorized managers of railway infrastructure.

AVERAGE PERCENTAGE OF COMPLETION: **97%**

VIII. Recommendations provided by the President of UTK after analyzing Report No. PKBWK 08/2022 from the investigation of the railway accident that occurred on January 14, 2022, at 10:48 am, at Kolbuszowa station, in track No. 1Wb, cat. C level crossing, at km 46.925 of the railway line No. 71 Ocice - Rzeszów Główny

PKBWK 08/2022_1 In connection with the change of infrastructure: level crossing (from category C to category B), track layout and designation of the tracks on the siding in the vicinity of the railway track, and change in the organization of road traffic within the crossing, PKN Orlen S.A. will establish a risk assessment and evaluation team to identify risks affecting the safety of rail and road traffic at the railway-road crossing and on track No. 101. It is recommended that the team identifying the risks include representatives of the railway infrastructure manager, the road manager, the user of the railway siding and the organizer of transport in the area of the railway siding,

ADDRESSEES OF THE RECOMMENDATION: PKN Orlen S.A.

AVERAGE COMPLETION PERCENTAGE:*) **50%**

*) On 19.01.2023. PKN ORLEN S.A. established a Coordination Team for the implementation of Recommendation No. 1 of Report No. PKBWK 08/2022. The team consists of representatives of PKN ORLEN S.A. and ORLEN KolTrans S.A., the undertaking organizing the transport within the siding. The Chairman of the Team sent letters No. HLI/014/2023 and HLI/015/2023 to Kolbuszowa District Road Office and PKP Polskie Linie Kolejowe S.A. Railway Lines Department in Rzeszów, requesting representatives to participate in the work of the Commission. The team is working according to the content of the recommendation.

*)According to the information no. LR1/010/2023 of 25.08.2023, in the course of the team's work, a study entitled "Report on the Identification of Hazards Affecting the Safety of Vehicle Traffic at Level Crossing No. 071 046 925" was prepared and submitted to PKBWK.

PKBWK 08/2022_2 PKN Orlen S.A., in consultation with PKP Polskie Linie Kolejowe S.A., will update the start section of the Fuel Terminal siding in Widełka in the relevant documentation.

ADDRESSEES OF THE RECOMMENDATION: PKN Orlen S.A. and PKP Polskie Linie Kolejowe S.A.

AVERAGE COMPLETION PERCENTAGE:*) **30%**

*) According to the notification No. LR1/010/2023 dated August 25, 2023 - in agreement with PKP PLK S.A. Railway Line department in Rzeszów, the initial section of the railway siding of ORLEN Fuel Terminal S.A. in Widełka has been updated. The rules and regulations for the operation of the railway siding of the fuel terminal are currently being agreed. Based on the information provided by ORLEN S.A. in letter no. HLI/078/2023 dated August 31, 2002. Recommendation No. 2 was implemented on 31.08.2023.

PKBWK 08/2022_3 PKP Polskie Linie Kolejowe S.A. will eliminate redundant installed vertical rails along Line No. 71, which are fixed points of the jointless track. Use existing catenary poles as fixed points

ADDRESSEES OF THE RECOMMENDATION: PKP Polskie Linie Kolejowe S.A.

AVERAGE PERCENTAGE OF COMPLETION: **15%**

PKBWK 08/2022_4 Railway operators licensed to transport passengers shall equip railway vehicles with stretchers or other equipment for transporting injured persons in areas accessible to train drivers.

ADDRESSES OF THE RECOMMENDATION: railway undertakings licensed to transport passengers.
AVERAGE PERCENTAGE OF COMPLETION: **34%**

IX. Recommendations provided by the President of UTK after the analysis of the Annual Report for 2021

Annual Report for 2021_1 Authorized infrastructure managers will accelerate the implementation of monitoring and event analysis systems (detection of an approaching road vehicle, warning of an approaching level crossing, recording of vehicle behavior at the level crossing) at category D level crossings, as well as the determination of compliance with applicable traffic regulations.

*) ADDRESSES OF THE RECOMMENDATION: authorized managers of railway infrastructure.
AVERAGE PERCENTAGE OF COMPLETION: **87%**

Annual Report for 2021_2 Certified railway undertakings shall take organizational, technical and engineering measures to minimize damage and poor technical condition of rolling stock and traction units resulting in the need to withdraw them from service as a result of indications from rolling stock emergency detection devices confirmed under workshop conditions (hot axle boxes, overheated brake resulting in displaced rim), as well as other defects of rolling stock in service noticed by the operating staff.

RECOMMENDED ADDRESSES: certified railway operators.
AVERAGE PERCENTAGE OF COMPLETION: **86%**

Annual Report for 2021_3 Authorized managers of railway infrastructure, users of railway sidings, operators of narrow-gauge railways and other entities operating on the basis of safety certificates and having railway crossings of category B in operation and maintenance, as well as certified railway operators, shall take measures to minimize category C64 occurrences involving users of railway crossings, in which the closed barriers are bypassed and road vehicles are left in the dangerous zone of the crossing (locked between the barriers), by applying, among others, the provisions contained in § 21 of the Regulation of the Minister of Infrastructure of September 13, 2018, amending the Regulation on technical conditions to be met by intersections of railway lines and railway sidings with roads and their location (Journal of Laws of 2018, item 1876).

ADDRESSEES OF THE RECOMMENDATION: Authorized managers of railway infrastructure, users of railway sidings, operators of narrow-gauge railways and other entities operating on the basis of certificates, certified railway operators
AVERAGE PERCENTAGE OF COMPLETION: **86%**

Annual Report for 2021_4 Certified railway undertakings, authorized railway infrastructure managers, users of railway sidings, operators of narrow-gauge railways and entities exempted from the obligation to obtain a safety certificate or a permit to operate on the basis of a safety certificate shall take measures to eliminate railway incidents caused by failure of a railway vehicle to stop before the "Stop" signal or at the place where it should stop, or by starting a railway vehicle without the required permit.

ADDRESSES OF THE RECOMMENDATION: certified railway operators, authorized managers of railway infrastructure, users of railway sidings, operators of narrow-gauge railways, and entities exempted from the obligation to obtain a safety certificate or authorization authorized to operate on the basis of a safety certificate
AVERAGE PERCENTAGE OF COMPLETION: **86%**

APPENDIX "B"
to the Annual Report for 2022
of the State Commission on of Railway Accident Investigation

Information on the implementation of the recommendations of PKBWK issued in 2022 to other stakeholders (Article 28l (8) of the Railway Transport Law)

I. The recommendations contained in Report No. PKBWK 04/2022 of the investigation of the railway accident that occurred on July 29, 2021, at 06:15 on route Szczecin Gumience - Tantow, on track No. 1, category C level crossing at km 7.585, railway line No. 409 Szczecin Gumieńce - State Border (Tantow)

PKBWK 04/2022_recommendation_1 The Head of the Kolbaskowo Municipality will implement measures to eliminate the current connection between the district road No. 3492Z and the access to the gravel pit through the construction of a road, according to the in accordance with the construction project No. P-872/2017 "**Construction of a communal road to the service and production investment areas within Barnislaw**", approved by the Starost of Police.

ADDRESSEE OF RECOMMENDATION: Communal road operator, Head of Kolbaskowo Commune

PERCENTAGE OF IMPLEMENTATION: 100% - realized (confirmation of the implementation of the recommendation by the Municipality of Kolbaskowo by e-mail on August 17, 2023).

PKBWK 04/2022_recommendation_2 Until the current connection of County Road No. 3492Z with the access to the gravel pit is removed, the County Road Operator will develop and implement a new traffic organization in the area of the access to the rail-road junction that will ensure improved traffic safety.

ADDRESSEE OF RECOMMENDATION: County road operator, County Office in Police

PERCENTAGE OF IMPLEMENTATION: 100% - implemented (confirmation of implementation of recommendation by e-mail on September 08, 2023, by the Police District Office).

II. Recommendations contained in Report No. PKBWK 05/2022 of the investigation of the serious accident that occurred on June 15, 2021, at 10:05 am at the Kochanówka Pustków station, in track No. 1, at the category C level crossing, at km 313.328 of the railway line No. 25 Łódź Kaliska - Debica

PKBWK 05/2022_recommendation_4 The road operator will ensure that the speed limit on road no. 1283R is reduced to 50 km/h on the access roads to the crossing due to the increased risk of accidents caused by speeding (in accordance with the recommendation issued by PKBWK.4631.5.2.2021 dated July 14, 2021).

ADDRESSEE OF RECOMMENDATION: Road operator, County Road Administration in **Debica**

PERCENTAGE OF IMPLEMENTATION: 100% - implemented as of July 15, 2022 (confirmation of the implementation of the recommendation by the County Road Administration in Debica).

The implementation of "Recommendation No. 4" confirmed in the letter No. ZDP.3d.456.67.2021 dated May 25, 2022, has been implemented by the County Road Administration in Debica 39-200 Debica, 26 Parkowa St. Speed limit to 50 km/h on district road No. 1283 r Brzeźnica Kronowice within the railway-road crossing with railway line No. 25 Łódź Kaliska - Debica was introduced as of July 15, 2022.

III. Recommendations contained in Report No. PKBWK 07/2022 from the investigation of the railway accident that occurred on February 3, 2022, at 06:14 on route Warlubie - Laskowice

Pomorskie, on track No. 2, at the Category B level crossing at km 437.386 of the railway line No. 131 Chorzów Batory - Tczew

PKBWK 07/2022_recommendation_3 The road manager will develop a new design of traffic organization in the area of the cat. B railway crossing, taking into account the topographical conditions of the intersection of the railway line and the road, so that vehicles coming from the direction of the village of Bąkowski Młyn will have priority to cross the crossing.

ADDRESSEE OF RECOMMENDATION: Road operator, County Road Administration in **Debica**

PERCENTAGE OF IMPLEMENTATION: 100% - realized (confirmation of the implementation of the recommendation by the County Road Administration in Swiecie)

The implementation of "Recommendation No. 3" was confirmed by the County Road Administration ul. Generała Józefa Hallera 9, 86-100 Świecie - by letter No. 4080/29/2022 dated March 01, 2023.

APPENDIX "C"

to the Annual Report for 2022 of the State Commission on Railway Accident Investigation.

Structure of occurrences in 2022 compared to 2021 by category.

Category of event (letter designation)	Description of the event category Qualification of the direct cause	Category (digital designation)	Total 2021	Total 2022
A	Involvement of a rail vehicle in a road vehicle (other road machines, agricultural machines) or vice versa at a level crossing equipped with an automatic crossing system with traffic lights and without barriers (cat. C).	20	1	-
	Invasion of a railway vehicle by a road vehicle (other road machines, agricultural machines) or vice versa at a railway crossing not equipped with a crossing system. (Cat. D)	21	2	-
SERIOUS ACCIDENTS SUM			3	-
B	Other than the causes listed below, or an overlap of several causes at the same time, creating equivalent causes	00	29	26
	Launching a railway vehicle on an occupied, closed or opposite to the main track or in the wrong direction	01	0	0
	Acceptance of a railway vehicle into a station on a closed or occupied track	02	1	0
	Launching, receiving, or driving a railway vehicle on an improperly laid unprotected route or improper operation of traffic control devices	03	29	33
	Failure of a railway vehicle to stop before the signal "Stop" or at the place where it should stop, or starting a railway vehicle without the required authorization	04	33	34
	Failure to exercise caution after a railway vehicle passes an automatic clearance semaphore indicating a "Standstill" signal or a doubtful signal after stopping first	05	0	0
	Exceeding the highest speed limit	06	1	0
	Carrying out a maneuver that poses a risk to the safety of train traffic	07	1	3
	Runaway railway vehicle	08	10	14
	Damage to or inadequate maintenance of a structure, such as a pavement, bridge or overpass, including improper execution of work, such as improper unloading of materials, paving, leaving materials and equipment (including road machinery) on the track or in the gauge of a railway vehicle, or the intrusion of a railway vehicle into elements of the structure.	09	58	44
	Damage to or malfunction of a motorized railway vehicle, special railway vehicle (including running into an object that is a structural part of a motorized railway vehicle, special railway vehicle) and damage to or malfunction of the on-board part of the equipment that enables control of the guidance of the railway vehicle (ERTMS)	10	5	8
	Damage or poor condition of the wagon (including invasion of a structural part of the wagon)	11	16	15
	Failure or malfunction of railway traffic control equipment	12	2	3
	Railing over a railway vehicle or other obstacle (e.g., brake skid, baggage cart, mail cart)	13	55	45
	Criminal attempt	14	0	0
	Premature dissolution of the route or abrogation of the closure and flipping of the turnout under the railway vehicle	15	20	13
	Incorrect combination of train or shunting formation	16	1	2
	Improper loading, unloading, irregularities in cargo securing or other irregularities in loading operations or improper composition of the train or shunting yard	17	8	10
	Involvement of a railway vehicle in a road vehicle (other road machinery, agricultural machinery) or vice versa at a level crossing with a turnout (category A according to the crossing metric).	18	6	6
	Invasion of a railway vehicle into a road vehicle (other road machines, agricultural machines) or vice versa at a railway crossing equipped with an automatic crossing system with traffic lights and barriers (cat. B)	19	19	15
	Invasion of a railway vehicle into a road vehicle (other road machines, agricultural machines) or vice versa at a railway crossing equipped with an automatic crossing system with traffic lights and without barriers (cat. C)	20	33	42
	Invasion of a rail vehicle on a road vehicle (other road machinery, agricultural machinery) or vice versa at a level crossing not equipped with a crossing system (Cat. D)	21	150	106
	Invasion of a railway vehicle into a road vehicle (other road machinery, agricultural machinery) or vice versa at a level crossing of private use (cat. F)	22	1	2
	Invasion of a railway vehicle on a road vehicle (other road machinery, agricultural machinery) or vice versa outside of level crossings at stations and routes or on a communication and access track to a siding	23	10	11
	Fire in a train, shunting yard, or railway vehicle	24	2	8
	Fire in a building structure, etc. within the boundaries of the railway area, forest fire within the boundaries up to the end of the fire lane, grain, grass, and track fire arising within the boundaries of the railway area	26	0	0
	Explosion in a train, shunting yard, or railway vehicle	27	0	0
	Natural disasters (e.g., floods, snowdrifts, ice jams, hurricanes, landslides)	28	2	0
	Construction disasters in the immediate vicinity of railway tracks on which normal train traffic runs	29	0	0
	Malicious, hooligan or reckless misconduct (e.g., throwing rocks at a train, stealing cargo from a moving train or yard, placing an obstruction on the track, vandalizing or interfering with power, communications, traffic control or track surface equipment).	30	2	5
	Invasion of persons by a railway vehicle while crossing the tracks at a level crossing or a guarded crossing	31	2	6
	Invasion of persons by a railway vehicle while crossing the tracks at a level crossing with an automatic crossing system (cat. B, C)	32	7	5
	Invasion of persons by a railway vehicle while crossing the tracks at other level crossings and road crossings	33	11	10
Invasion of persons by a railway vehicle while crossing the tracks outside level crossings or crossings at stations and routes	34	137	175	
Occurrences with persons related to the movement of the railway vehicle (jumping, falling out of the train, railway vehicle, strong approach, or sudden braking of the railway vehicle)	35	9	9	
Disregard by the driver of a road vehicle of signals prohibiting entry to a level crossing and damage to the turnpike or traffic signals	36	0	0	
Train or shunting yard breakup that resulted in runaway cars	37	0	0	
Abnormal tripping of structures and equipment intended for railway traffic or railway vehicles caused by theft	38	0	0	
Entry of a railway vehicle using catenary power supply on unoccupied non-electrified track	39	0	0	
Uncontrolled release of hazardous materials from a car or package requiring government intervention or the application of fire, chemical, or biological hazard mitigation measures at a station or along a route.	40	0	0	
Undetermined category	-	1	1	
SUMMARY OF ACCIDENTS			661	651
C	Launching a railway vehicle on an occupied, closed or opposite to the main track or in the wrong direction	41	2	2
	Acceptance of a railway vehicle into a station on a closed or occupied track	42	2	1

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Launching, receiving or driving a railway vehicle on an improperly laid, unsecured route, or improper operation or lack of operation of traffic control devices	43	96	85
Failure of a railway vehicle to stop before the signal "Stop" or at the place where it should stop, or starting a railway vehicle without the required authorization	44	137	118
Exceeding the highest speed limit	45	6	25
Carrying out a maneuver that poses a risk to the safety of train traffic	46	4	3
Runaway railway vehicle	47	4	9
Premature dissolution of the runaway or abrogation of the closure and flipping of the turnout under the railway vehicle	48	3	4
Incorrect train combination	49	0	1
Improper loading, unloading, irregularities in cargo securing or other irregularities in cargo operations	50	39	23
Damage to the pavement, bridge or overpass, overhead catenary, including improper execution of work, such as improper unloading of materials, leaving materials and equipment (including road machinery) on the track or in the gauge of the rail vehicle.	51	42	29
Incorrect operation of traffic control devices causing - Failure to cover with the "stop" signal the interval of the line interlocking occupied by a railway vehicle, - Setting the permissive signal on the semaphore with improperly laid route, improper operation of track or turnout unoccupied devices, improper operation of station or line interlocking devices, - Failure to warn and protect road users from a train approaching a level crossing or crossing equipped with a crossing system.	52	5	4
Damage to or poor technical condition of a motorized railway vehicle, a special purpose railway vehicle requiring its withdrawal from service as a result of indications from rolling stock emergency detection devices confirmed under workshop conditions (hot axle boxes, overheated brake resulting in a displaced rim), as well as other defects of railway vehicles in service noticed by the operating personnel (e.g., a broken spring).	53	30	33
Damage or poor technical condition of a rolling stock requiring its removal from service, as indicated by rolling stock emergency detection devices and confirmed under workshop conditions (hot axle boxes, overheated brake resulting in rim displacement), as well as other defects of rolling stock in service noticed by the operating personnel.	54	226	199
Fire in a train or railway vehicle not causing adverse effects on property or the environment, without victims	55	17	24
Fire of a building structure and vegetation in the immediate vicinity of railway tracks on which normal rail traffic is carried out	57	1	3
Uncontrolled release of hazardous materials from a car or package requiring government intervention or fire, chemical, or biological hazard mitigation at a station or along a route.	59	4	0
Railway vehicle invasion of an obstacle (e.g., brake skid, baggage cart, mail cart, etc.) without derailment or casualties	60	54	35
Criminal attempt	61	0	1
Natural disasters (e.g., floods, snowdrifts, ice jams, hurricanes, landslides)	62	16	33
Construction disasters in the immediate vicinity of railway tracks on which normal train traffic runs	63	0	0
Malicious, hooligan, or reckless misconduct (e.g., throwing stones at a train, stealing cargo from a moving train or yard, placing an obstruction on the track, vandalizing or tampering with power, communications, traffic control, or track surface equipment) that does not cause casualties or damage to property or the environment, poses a threat to passengers or railroad employees.	64	585	607
Incidents with persons related to the movement of a railway vehicle (crossing the tracks at or beyond level crossings, jumping in, falling out of a train or railway vehicle, being hit by rolling stock in motion, violent approach or sudden braking of a railway vehicle) without casualties or negative consequences for property or the environment.	65	28	30
Failure of a road vehicle to stop in front of a closed barrier (half-barrier) and damage to it or to traffic signals on which signals were switched on to warn of an oncoming train, without collision with a railway vehicle	66	122	87
Malfunction of equipment intended for railway traffic or railway vehicles caused by theft	67	0	1
Train or shunting yard breakup that did not result in a runaway train of cars	68	281	246
Other than the above-mentioned causes or the overlap of several causes simultaneously, creating equivalent causes	69	35	40
SUM OF INCIDENTS		1739	1643
TOTAL OCCURRENCES		2403	2294