SAFETY OUR PRIORITY

While European railway systems maintain a high level of safety, occasional accidents still occur. Learning from these incidents is essential to further enhance safety. This issue of the newsletter is devoted to the safety issue with level crossings.

The discussions were based on the presentation of investigations into the most recent accidents, leading to a sharing of best practices, identification of existing gaps, and proposals of concrete solutions to prevent similar incidents and accidents in the future. It was also highlighted the importance of collaboration among member states, regulatory authorities, and railway operators to create a safety and more efficient railway system.

These actions demonstrate a strong commitment to continuously improving railway safety across Europe.

NIB NETWORK NEWSLETTER
No. 3
2026

THE ACCIDENT CHARTS
01/10/2023- 01/10/2025

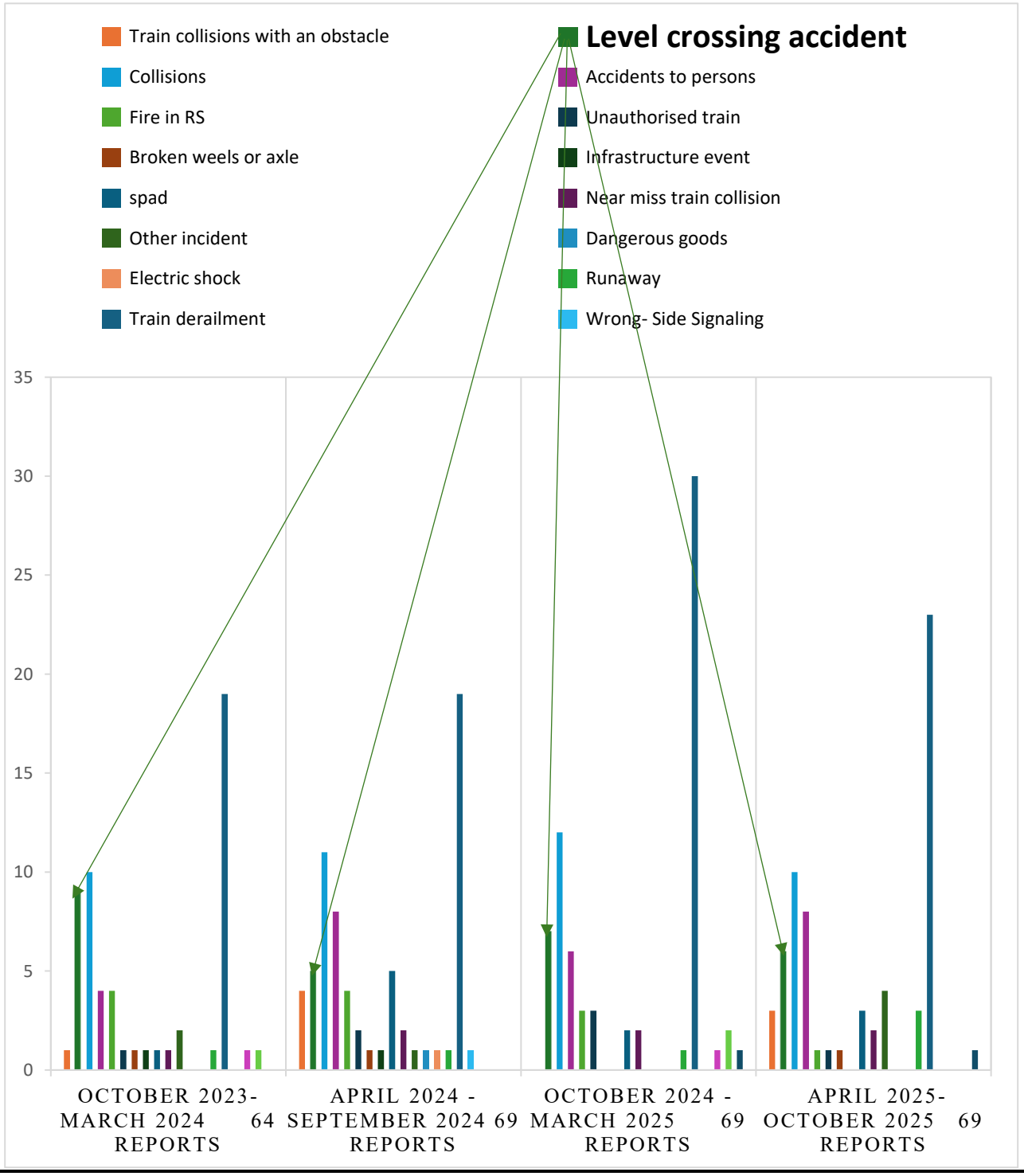
SUMMARY OF FOUR LEVEL CROSSING ACCIDENT INVESTIGATIONS

NIB's LOGO

ERA
TRAINING CATALOGUE

EUROPEAN UNION AGENCY FOR RAILWAYS

NIB FINAL REPORTS
2023 October to 2025 October



Real Risk Versus Perceived Risk at Level Crossings

A common perception among drivers is that level crossings are not particularly dangerous and that accidents rarely occur. However, statistics show a different picture. Although there are relatively few accidents at level crossings compared to other types of road traffic accidents, the consequences are often very serious when an accident does happen. The encounter between a train and a vehicle weighing several tons and traveling at high speed is rarely compatible with life and health.

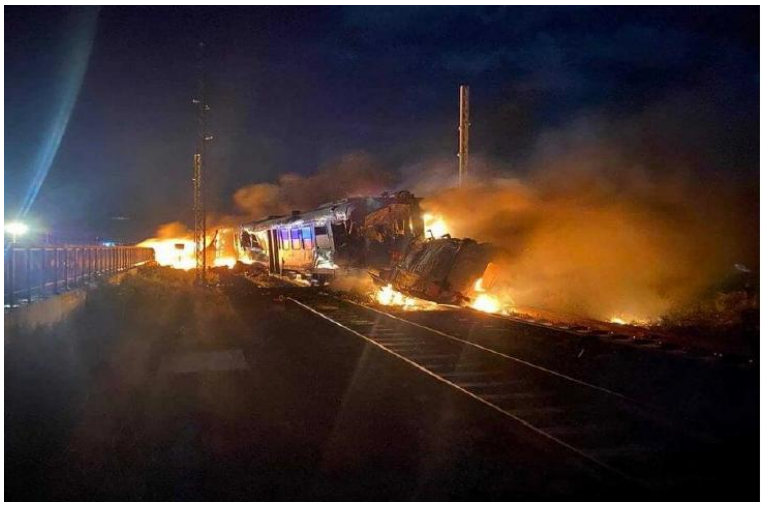
In addition, there is the psychological effect of crossing a level crossing. For many, it is a brief delay in their daily lives, and they develop a habit of crossing without thinking carefully. This habit can lead to taking shortcuts or chances, especially if they feel they often have to wait unnecessarily long in front of a closed level crossing without any train approaching.

Research has shown that people's perception of risk often does not match the real risk. This can be due to several factors, such as a lack of knowledge about the risk, overconfidence in one's own abilities, or a feeling of control in situations where one actually does not have it. Regarding level crossings, the seemingly long time between each accident can contribute to reducing the perceived risk, even though the actual risk at each individual crossing can be significant.

The National Investigation Bodies believes (NIBs) it is important to increase awareness of the real risk at level crossings so that road users take the necessary precautions. Information campaigns, better signage, and securing level crossings are all measures that can contribute to this. At the same time, it is important to understand that human behaviour is complex, and that technical solutions alone are not always sufficient to prevent accidents.

The European Union Agency for Railways (ERA) promotes transparency by making all NIB Investigation reports accessible on its website, thereby ensuring accountability and trust in Europe's railway systems.

ITALY



The final report regarding the accident at the Thurio Public Crossing (PL) at km 128+123 on the Sibari – Catanzaro line details a collision that occurred on November 28, 2023, at approximately 6:51 p.m. It involved regional train R5677, an ALn 663 series train, and a tractor-trailer truck. The level crossing was equipped with an automatic protection system including barriers, a bell, and flashing lights, activated upon the formation and release of the train's departure route.

The investigation indicates that the tractor-trailer truck entered the level crossing from Via Senofane intending to exit onto Via Erodoto. While manoeuvring within the railway crossing to avoid hitting a low wall with the trailer, the level crossing barriers began to close at 6:46:33 p.m. The train departed from Sibari at 6:47:06 p.m. after receiving a clear signal and was traveling at the permitted speed. The collision occurred at 6:50:42 p.m.

The driver of the truck and the train conductor died in the collision. None of the approximately 25 passengers or other in the train crew reported any injuries. The tractor-trailer was completely destroyed, and the train sustained significant damage to the front. The accident resulted in the interruption of railway traffic on the affected line.

The report suggests that the truck driver's maneuvering to avoid the low wall may have contributed to the truck being trapped on the crossing as the barriers closed. The report raises the possibility of disattention or panic on the part of the truck driver once the barriers started to descend. The truck driver had recently obtained his heavy vehicle driving licence and may have been unfamiliar with the specific vehicle involved and the layout of the Thurio level crossing.

The investigation did not identify any delays or obstruction by any party. The methods used included interviews with railway personnel and measurements taken at the accident site after the accident. On-site inspections were conducted two days after the accident with only some remains of the vehicles present. The level crossing has been closed since the accident. The report contains four safety recommendations and mentions the ongoing review of level crossing safety by the European Union Agency for Railways (ERA) and shares a draft of their updated guidelines, emphasizing the need for measures to prevent the obstruction of level crossings while in use by trains and the clear identification of all level crossings. The report also notes the consideration of a national toll-free number for reporting dangerous situations at level crossings.

Link to full report

HUNGARY

The final report 2022-0960-5 details a railway accident that occurred on September 5, 2022, at an unsecured level crossing, located the Kunfehértó – Kiskunhalas railway line in Hungary. The accident involved a passenger train and a car. 7 people in the car died as a result of the accident.

The professional investigation aimed to identify the causes and circumstances of the accident and to initiate professional measures to prevent similar cases in the future. The investigation was independent of any other administrative or criminal proceedings.

The investigation concluded that the primary cause of the accident was a human factor related to the car driver, who did not stop for the "Railway Crossing" sign and entered the level crossing while a train was approaching. At the time of the accident, the triangle of visibility was ensured in all quadrants of the level crossing.

The collision resulted in fatal injuries to the occupants of the car. The car was damaged beyond repair. The train sustained damage estimated at approximately 5.5 million HUF. The investigation also examined other similar unsecured level crossings between Kunfehértó and Kiskunhalas stations on connecting roads branching off from main road 5412. The investigation found shortcomings related to the design of these level crossings, the presence and visibility of necessary traffic signs, and visibility obstructions. In addition, the Investigating Committee found that, of the level crossings between the two stations, which involving dirt roads are not pre-indicated by road signs on Road 5412. Additionally, one level crossing did not meet regulations regarding the distance between the railway crossing and a nearby intersection. As a result of the findings, the Hungarian Transportation Safety Bureau (KBSZ) issued an immediate safety recommendation (BA2022-0960-5-01A) to the Bács-Kiskun County Government. The recommendation urged the government to obligate the road operator to review the traffic regulations for the affected crossings and implement necessary modifications to eliminate hazardous situations. It also recommended ordering the removal of trees or other vegetation obstructing the visibility triangle at the railway crossings. The Bács-Kiskun County Government responded and initiated a personal consultation with relevant authorities and stakeholders. Site inspections were conducted, and measures were initiated, including requesting the replacement of worn signs and the removal of vegetation obstructing visibility. Proposals were also made to install necessary signs on road 5412 at the level crossings. Furthermore, a notification was sent to the road operators regarding the subsequent design of the railway crossings in accordance with relevant regulations.

link to the report summary

POLAND

Report No. PKBWK 01/2025 details a serious railway accident that occurred on January 10, 2024, at 07:58 on the Rogoźno Wielkopolskie – Budzyń line, on track no. 1 at km 56.055 of railway line no. 354 Poznań Główny POD – Piła Główna. The accident involved a freight train (MOJ 87940) and a truck at an unsignaled level crossing of category D.

The accident occurred when a truck entered the level crossing directly in front of an approaching train. Despite the train driver initiating a "Caution" signal for 12 seconds after passing the W6b indicator, the truck driver failed to stop. The collision resulted in two fatalities on the train and severe injuries to the train driver. There was significant material damage to both the train and the truck, as well as to the railway infrastructure.

The primary cause of the accident was the truck driver's failure to exercise due caution while approaching the level crossing and not ensuring that no railway vehicle was approaching before crossing. The driver also failed to obey the stop sign.

Contributing factors included that the truck driver was engaged in a phone conversation via a hands-free system, which likely distracted him. The acute angle (53°) of the road crossing the railway line and limited visibility of the approaching train from the road due to the angle and potentially the design of road vehicles were also considered contributing factors. The report notes that current regulations for determining the visibility triangle may not be fully representative of the conditions for road users. Another similar accident occurred at the same crossing on August 10, 2024.

Safety recommendations in the report include that the infrastructure manager (PKP PLK S.A.) should agree with the road manager to implement one of the following measures to improve safety at the crossing: changing the road configuration, upgrading the level crossing category, or eliminating the level crossing. Until these actions are taken, a permanent speed restriction for trains to 20 km/h should be introduced at the crossing. The report also recommends a revision of the regulations for measuring visibility at level crossings, and that railway operators should verify their forward-facing image recording systems. PKP PLK S.A. should also verify risk assessments for similar category D level crossings.

Link to full report

CROATIA

The final report prepared and published on December 12, 2004, details an accident that occurred on February 15, 2024, at 4:55 p.m. at the Stare Plavnice level crossing in Croatia. The level crossing, located at km 029+865 on the L203 (Križevci – Bjelovar – Kloštar) railway line, was is actively secured with light signals, sound signals, and half-barriers. The accident involved passenger train number 787 and a motor vehicle.

The investigation revealed that at the time of the accident, the level crossing safety system was malfunctioning and did not activate to warn of the approaching train (the lights, sound and half-bumpers did not activate at the level crossing). The on-site investigation of this accident determine that on the "Control signal KS1" (attached picture) from the direction of Sveti Ivan Žabno towards Bjelovar, a single yellow steady light was on, indicating the signal sign "Device at the level crossing is faulty".

The primary cause of the accident was identified as an intermittent fault in the 465-425-000 relay group within the level crossing's signalling and safety system. Following the accident, the Stare Plavnice level crossing was declared unsecured. Also, after the accident the committee carried out measurements and functional tests of the "Stare Plavnice" level crossing securing device and concluded that the control signal showed the actual state of the LC securing device in cases when the LC was not secured. Additionally, a temporary speed restriction of Vmax=20 km/h was recommended upon the level crossing's return to regular operation.

A contributing factor was that the train was traveling at a speed exceeding the maximum permitted speed of 60 km/h for that section of the line, at one point reaching 73 km/h and 65.6 km/h at the moment of impact.
The collision resulted in minor injuries to the driver of the passenger car and minor material damage to the diesel multiple unit train.

Safety recommendations issued include that the infrastructure manager should, within two years, install balises for automatic stop devices on the control signals of "Iskra KS" type automatic level crossings to prevent trains from passing a signal indicating a malfunction. For those where balises cannot be installed, event recorders should be fitted within the same timeframe. The report also suggests that the railway undertaking revise its safety management system to better address instances of train speed limit violations.

Link to full report

NIB's logo

In 2025, NIB Network (National Investigation Bodies) has decided to adopt its own logo.

This change in visual identity aims to reflect the organization's commitment to presenting a more modern and professional image, strengthening its role in investigating railway accidents and incidents. Additionally, a distinctive logo will help increase the organization's visibility, both within its internal operations and in interactions with the public and regulatory authorities in the railway sector.

The new visual identity is an important step for NIB Network, which aims to improve public perception and strengthen trust in its crucial role in investigating the causes of accidents. This image change reflects the strategic directions of the organization, focusing on transparency, efficiency, and high safety standards.
Moreover, the adoption of a logo symbolizes a unifying step for the NIB Network across Europe, ensuring consistent branding and recognition in all member states. This is particularly crucial in fostering collaboration and sharing best practices among the national bodies, reinforcing their shared mission to improve rail safety and respond effectively to incidents in an increasingly interconnected transport network.

ERA training catalogue

To support its stakeholders with the application of the EU legislation and enhance railway safety across the Union, ERA is implementing a training portfolio open to rail professionals and safety specialists.
Click here to find all the Events & Training organised by the Agency.
Below some interesting e-learning.

Human and Organisational Factors Toolkit

Permanent (registration needed).

The Human and Organisational Factors (HOF) Toolkit is a methodology developed by ERA to identify and assess the impacts of change on HOF.

This guidance can be used by the railway sector, including Railway Undertakings, Infrastructure Managers, NSAs, and manufacturers, to help integrate HOF more consistently and systematically.

ERTMS - Basics

Permanent.

The EU Agency for Railways has prepared a comprehensive e-learning course that provides some insights about the principles of railway signalling and its current evolution into to European Railway Traffic Management System.

The ERTMS and its components, which specifications and legal text are managed by Agency, are now explained through this online course which is available free of charge and can be consulted any time at the leisure of the user.

Join this self-discover journey through the basic principles of section blocks, interlockings and train detection systems all the way to the different ETCS levels and Radio communication.

Implementing the EU railway regulation on vehicle maintenance

Permanent.

The interactive and modular e-learning package on maintenance of European railway vehicle consists of 10 fully online modules . All the modules represent around ten hours of presentation, but can be followed individually with an average of one hour per module. These modules are freely accessible to all without specific registration.

The first module starts with the basics and explains why the maintenance of railway vehicles plays a crucial role in safeguarding the high level of safety in railway traffic.

The other modules describe the process of the maintenance managements system and the different steps concerning the certification of the Entity in charge of maintenance and the maintenance workshops. At the end of each module there is a self-assessment exercise to test the understanding of the module.