

Building resilience of the European railway sector to hybrid threats. Polish contribution to good practices and increased safety

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Following a series of terrorist attacks in Europe in 2015–2017, which also targeted rail transport, the issue of safety became one of the European Union’s priorities.

The ministerial meeting of Member States on 29 August 2015 in Paris and the so-called Paris Declaration provided political support for the European Commission to take urgent action to improve safety in the EU. In turn, at the EU Council meeting in Luxembourg on 8 October 2015, proposals to develop common safety rules for international trains and high-speed railways were adopted. The European Commission was thus obliged to analyse the impact of a number of initiatives to improve passenger rail transport safety in the EU.

In 2017, Jean-Claude Juncker, the then President of the European Commission, emphasised the need for a strong and secure Union in his *State of the Union* address, and in the following years, issues related to land transport safety, including the safety of passenger and public places in particular, remained priority topics on the EU agenda.

Poland was involved in this work, including through the Representative Office of the Polish State Railways (PKP S.A.) in Brussels, responsible for cooperation with EU institutions and international railway organisations. These joint efforts resulted in initiatives to increase security in the EU, including in the field of transport.

RAILSEC platform – plan to improve rail passenger safety

In view of the growing risk of terrorist attacks on passenger rail transport, the Directorate-General for Mobility and Transport (DG MOVE) responsible for transport policy in the EU conducted a public consultation with the rail sector in 2016–2017. The aim was to explore possible EU legislative and non-legislative initiatives in this area. The Representative Office of PKP was involved in this process, coordinating the contribution of the PKP companies and developing a common position of European railways within the Community of European Railways and Infrastructure Managers (CER). The consultation resulted in the European Commission publishing the *EU action plan to improve the security of rail passengers and staff* in mid-2018, which initiated the establishment of the EU Rail Passenger Security Platform (RAILSEC). Its members included experts from the EU Member States and from countries belonging to the European Free Trade Association (EFTA), delegated to it from national authorities and services. Other stakeholders, for instance railway organisations such as the European Railway Agency (ERA), Colpofer, were granted observer status. The platform members' meetings were closed-door and were chaired jointly by the DG MOVE and the Directorate-General for Migration and Home Affairs (DG HOME). The work covered, among other things:

- updating the methodology for assessing the risk of terrorist threats in passenger rail transport, as well as a set of guidelines, recommendations and best practices that can be used to conduct risk assessments by competent entities at national and local level,
- creating a list of the most useful technologies for protecting trains and railway stations (mainly in the context of detecting explosives and weapons). On this basis, the European Commission (DG MOVE/ DG HOME) developed a catalogue of best practices and the most effective technologies, including in terms of cost and solutions,

- developing guidelines on insider threat, including a list of workplaces that are vulnerable to terrorist threats and require special attention from employers,
- other activities – including in the areas of cybersecurity, CBRN (chemical, biological, radiological, nuclear) threats and railway safety management plans.

RAILSEC platform has become part of the larger and broader thematic expert platform of Member States on land transport – the Land Transport Security (LANDSEC), which has been operating for years.

The Representative Office of PKP monitored the activities of RAILSEC and participated in working group meetings, communicating the results of its work (guidelines, recommendations, etc.) that were relevant to the PKP Group. It also participates in LANDSEC meetings.

Action plan for the protection of public spaces

In parallel with activities undertaken in the area of passenger safety in rail transport, DG HOME was involved in work related to the protection of public spaces. In October 2017, the *Action Plan to support the protection of public spaces* was published, establishing EU forum of public and private operators. Its main task is to exchange know-how and best practices in the field of public spaces safety. This is achieved through thematic meetings of platform members, concerning, among other things, transport, the organisation of mass events and the protection of commercial spaces. The forum has developed a number of guidelines and good practices in the context of actions that operators can take to strengthen the security and protection of public spaces.

The Representative Office of PKP has been an active member of this body since its inception. It presents the good practices and strategies adopted by the PKP Group in the field of safety and provides PKP Group companies with information from meetings, including on solutions developed in the area of safety.

ReArm Europe/Readiness 2030 – the European Union defence financing plan

In March 2025, the European Commission presented joint White Paper on European Defence Readiness 2030. It is complemented by Plan ReArm Europe, an ambitious defence package under which up to EUR 800 billion (through various financial instruments) will be allocated to investments that increase defence capabilities of the Member States. The military mobility package and EU's defence transformation action plan were identified as priorities. The package includes, among other things, conclusions drawn from the revised EU military mobility action plan 2.0 and the 2024 military mobility commitments. It was developed in close coordination with the European External Action Service and the European Defence Agency, ensuring consistency with NATO standards and procedures.

The package consists of a communication on military mobility and a proposal for a regulation establishing a framework for measures to facilitate the transport of military equipment, goods and personnel by the EU¹ (to which a European Commission working document has been added), and introducing changes to the EU regulations and better taking into account the requirements of the military mobility from a dual-use perspective – military and civilian.

The European Commission aims to establish by 2027 a military Schengen zone and transform the defence industry. The intention of these measures is to introduce facilitations that will enable military units, equipment and resources to be moved across Europe on a large scale and at high speed, in an efficient and coordinated manner. This is to be achieved by:

- removing regulatory barriers – by introducing rules on harmonised military mobility at EU level and setting out rules and procedures on cross-border military movements, with applications processed within a maximum of three days and simplified customs formalities;
- establishment of structures in case of an emergency – by appointing the European Military Mobility Enhanced Response System (EMERS) to speed up procedures and ensure priority access to

¹ *Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on establishing a framework of measures to facilitate the transport of military equipment, goods and personnel across the Union*, https://eur-lex.europa.eu/resource.html?uri=cellar:b84cfa7d-c619-11f0-8da2-01aa75ed71a1.0001.02/DOC_1&format=PDF.

the infrastructure. EMERS shall support the armed forces operating in the context of the EU and NATO;

- increasing the resilience of transport infrastructure – by adapting key EU military mobility corridors to dual-use standards and protecting strategic infrastructure with a new set of tools. Targeted investments are intended to strengthen cybersecurity, energy security and readiness both in times of peace and crisis;
- pooling and sharing capabilities – by increasing the readiness, solidarity and availability of military mobility capabilities for the Member States. This is to be achieved through the introduction of a solidarity pool and the creation of a digital information exchange system for the purposes of military mobility;
- strengthening governance and coordination – the implementation of changes and the monitoring of readiness will be the responsibility of a new EU Military Mobility Transport Group and a reinforced Trans-European Transport Network (TEN-T). They will be supported by national coordinators for cross-border military transport operating in each Member State;
- innovations for defence readiness.

The European Commission has committed to reviewing, in 2026, the implementing regulation on railway infrastructure capacity in order to ensure that it meets the needs of military transport, taking into account input from military representatives. Military transport is to be exempt from traffic restrictions resulting from vehicle environmental efficiency requirements, air-quality controls or noise-level controls (with regard to airports or ports), and railway vehicles will be able to operate with greater flexibility. Furthermore, in 2026, the Commission with the support of, inter alia, the ERA and infrastructure managers, is to carry out a reassessment of the physical constraints of railway infrastructure on priority military mobility corridors in order to facilitate the transport of oversized cargo. It will also work, with the support of the ERA as well, on strengthening the railway traffic management system in order to ensure continuity of operations in the event of sabotage or another system failure. The regulation also addresses, inter alia, issues related to individual train paths for military rail transport, the use of railway vehicles outside their designated area of operation, and the identification of railway vehicles for potential use in military transport.

The package is of great importance for Polish railways and, above all, for the functioning of the state in crisis situations. In the event of an armed

conflict, the ability of the railway system to maintain continuity of supplies and support mobilisation is crucial for an effective response and the country's stability. Rail transport enables the efficient movement of armed forces and military equipment. The railway sector and the rail industry must also keep pace with innovations and changes resulting from hybrid threats. This requires financial resources and the development of appropriate competencies. The Russian aggression against Ukraine has shown how rapidly offensive and defensive technologies are developing. Innovations such as artificial intelligence, quantum systems, drones and space technologies are changing the nature of the battlefield and operations conducted on it. This makes the role of logistics all the more important.

Polish contribution to security – activity of the PKP Representative Office at the EU level

For many years, the PKP Representative Office has been engaged in efforts to improve security in rail transport, actively cooperating with EU institutions and participating in numerous international expert platforms, initiatives and projects. It also initiates international actions aimed at strengthening railway security. As the body responsible for cooperation and coordination of the PKP companies within the world's largest railway organisation – the International Union of Railways (L'Union internationale des chemins de fer, UIC) – the PKP Representative Office additionally takes part, together with the PKP S.A. Security Office, in UIC activities and projects in the field of railway security. This is, among others, the UIC Security Platform (together with the UIC Security Hub established within it), which was chaired by the PKP S.A. for a period of time. Together with the largest European railways, the PKP Representative Office also initiated several international projects, the coordination of which was later handed over to the UIC.

The SHERPA project (Shared and Coherent European Railway Protection Approach)²

The project was initiated at the turn of 2017 and 2018 and involved developing a coherent, comprehensive approach by European railways to ensuring passenger safety in rail transport in the context of terrorist

² <https://sherpa-rail-project.eu/>.

threats. The project was led by the UIC, with the consortium members being the largest European railways: Polish PKP, German DB, French SNCF, Italian FSI and Belgian SNCB. It lasted two years and concluded in 2020 with 90% of its funding provided by the EU.

Within the framework of this project, terrorist threats targeting railway stations and trains were analysed, including attacks and acts of sabotage or attempts thereof. This allowed for the development of best protection practices along with a catalogue of railway needs, including a unified approach to assessing and managing risks related to terrorist threats in rail transport, requirements and specifications for detection equipment, and new technological solutions. During its implementation, the PKP S.A. organised in Warsaw workshops involving numerous international experts, focused on improving safety at stations and on trains.

Due to this project, the UIC significantly strengthened the aforementioned security platform and the hub operating within it, which contains best practices, methodologies and technological solutions for improving security in rail transport.

The IMPRESS project

(IMProving Railway sEcurity through awareneSS and training)³

In 2022, the PKP Representative Office initiated another international project, this time with the participation of the SNCB Railway, FSI Railway and the Dutch NS Railway, as well as the German Police University (Deutsche Hochschule der Polizei) as the expert party and the UIC as the consortium coordinator. It was a continuation of the SHERPA project and aimed to improve rail transport security by raising awareness of threats and providing training. The project budget amounted to over EUR 1.058 million, and due to high evaluations by the European Commission (DG HOME), 90% of it was funded by the EU. The project lasted two years and concluded in 2025.

Its objective was to strengthen the security system of railway public spaces (train stations, trains) by involving not only railway staff, police services, railway and station security, but also other entities, including commercial tenants, station and train service personnel. The aim was to raise awareness among these groups, and especially among the so-called first respondents, about terrorist threats, suspicious behaviour and situations, and how to respond appropriately, as well as to improve cooperation and

³ <https://impress-rail-project.eu/>.

coordination between public and private entities within the public railway environment. This is very important, proactive component of railway and train security.

The PKP S.A. participation in the IMPRESS project resulted in the development of educational and training modules that increased awareness among both railway employees and other entities operating within the railway environment, as well as in the enhancement of knowledge and the creation of specific security solutions for train stations. It also contributed to strengthening cooperation of the PKP Group with the largest European railway companies, as well as security experts.

The CBRNe4Rail project – CBRNe preparedness for passenger transport hubs⁴

The project started in 2025 and focuses on the detection of chemical, biological, radiological and nuclear (CBRNe) threats in railway transport, as well as on their prevention and response. Its objective is to increase awareness and the capacity of railway sector stakeholders to respond effectively to these threats at railway stations by improving their security plans and providing training to railway personnel. The project includes the full spectrum of CBRNe threats, including explosives as a means of delivering CBRN substances. It focuses on railway stations as a primary component of railway infrastructure and a key element of vulnerability to threats in public spaces. It includes both the public spaces inside stations and the public areas in their vicinity.

The CBRNe4Rail project is funded by the European Commission. Its initiator is the UIC, in cooperation with the PKP Representative Office and other partners.

Mobile detectors for explosives and chemical substances, provided in cooperation with the European Commission (DG HOME)

In the area of improving security on the Polish railway, the PKP Representative Office works closely with the DG HOME, including its counter-terrorism unit. Thanks to this cooperation, the European Commission has provided the PKP and the services (the Police and

⁴ <https://www.cbrne4rail.eu/>.

the Border Guard operating in railway areas) with advanced mobile detectors for explosives and chemical substances (IONSCAN 600) free of charge. Initially, it was assumed that testing these devices in railway areas within the country would last six months. However, the pilot, which started in November 2024, was extended by the European Commission until June 2026. Its aim is both to strengthen the security of railway operations in Poland (the detectors are used, among others, at railway stations, on trains, at railway border crossings, in cargo terminals, and during sending conductor parcels) and to assess the usefulness of these devices in railway areas.

As part of the preparations for the pilot, the PKP Representative Office organised a meeting in Warsaw with security directors from the PKP companies (including the Railway Security Guard), followed by workshops dedicated to terrorist and sabotage threats in railway transport. The workshops were attended by experts from the European Commission, the Police, the Border Guard, the Internal Security Agency and security specialists from the PKP Group. Furthermore, the PKP Representative Office, together with the Commission, organised numerous workshop meetings to review the experiences of the services in using detectors gained so far. To date, the use of this equipment has brought tangible results.

Railway safety in the context of the current geopolitical situation

Attacks on railway infrastructure, signaling systems, and power supply systems have been observed for a long time in many European countries with well-developed railway networks. Poland is not an isolated case. Such incidents have occurred repeatedly in Germany and other countries, for example, on the eve of the Olympic Games in Paris. For this reason, the railway sector cooperates closely within international railway organisations. Cooperation with the services is also valuable. It is worth to emphasise, that from January 2026, the PKP S.A. is the first railway from the Central and Eastern European countries to assume leadership in the CER (The Community of European Railway and Infrastructure Companies)⁵. This is the result of the trust of the European partners with whom the PKP Representative Office cooperates, and a recognition

⁵ <https://www.cer.be/>.

of its work and commitment in Brussels. Issues related to enhancing the security and resilience of the European railway system will certainly be one of the priorities of the PKP S.A. leadership in the CER.

The outbreak of war in Ukraine is associated with the emergence of many hybrid threats. They also concern railways, as this type of transport remains crucial for military mobility. Europe must draw lessons from Ukraine's experiences – strengthening resilience and building a new defence ecosystem that combines industry, innovations and new technologies. It is also important to strengthen cooperation between the EU institutions and NATO. The PKP Group remains a participant in this dialogue, both at the EU level and in the sphere of civilian advisory services for NATO Headquarters.

In 1958, the British Prime Minister Harold Macmillan said: *Jaw, jaw is better than war, war*, which loosely translated means that discussion is better than conflict. It would certainly be preferable if problems were resolved through dialogue. However, it is clear that this is wishful thinking. Therefore, it is necessary to act in a deterrent manner, anticipate, adapt, and actively build the resilience of the railway system and the supply chain. This also applies to other dimensions of our security. What is needed is intensive cooperation on multiple levels, based on trust and a common vision.

Tomasz Lachowicz

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Expert in international cooperation, EU policies, the European Union's transport agenda, lobbying, strategy development and decision-making processes in the EU. In 2021–2025, he was responsible for chairing PKP in the International Union of Railways (UIC) in Paris, and since January 2026 he will be responsible for coordinating the leadership of PKP in the Community of European Railway and Infrastructure Companies (CER) in Brussels.

He is a member the Rail Forum Europe (RFE) Advisory Committee in the European Parliament.

Graduate of the Faculty of Law and Administration, University of Warsaw, Faculty of Law, Cardinal Stefan Wyszyński University in Warsaw and postgraduate management studies in economics at the SGH Warsaw School of Economics. He graduated with honours from an MBA programme.

He was awarded the Medal of Meritorious for Transport of the Republic of Poland.