

**Executive Director** 

## ACCOMPANYING REPORT TO THE ADVICE

## OF THE EUROPEAN RAILWAY AGENCY

FOR

**EUROPEAN COMMISSION** 

REGARDING

**RAILWAY SAFETY IN POLAND** 

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## **EXPRESSION OF THANKS**

In preparing this task the Agency applied an open and intensive information exchange with Polish officials from the Ministry, the NSA and the NIB, and with railway operators, infrastructure managers and representatives of Polish Trade Unions. The Agency team thanks all who supported this report with their contributions and advice. In particular we would like to thank our contacts in the Polish Ministry, from the Polish National Safety Authority and from the Polish National Investigation Body for their valuable support.

## **EXECUTIVE SUMMARY**

The European Railway Agency (Agency) was asked by the European Commission (Commission) in their letter received on 04 February 2013 to analyse by mid October 2013 railway safety in Poland.

Across a number of recent accidents, (including the accident in Szczekociny of 03 March 2012 where 16 people died and 51 were seriously injured) more than ten passengers and employees were killed in each of the past five years. The result of the high number of trespassers and level crossing fatalities is that the fatality risk on the Polish railway network is one of the highest within the EU.

These serious accidents overshadowed progress made by Poland in improving railway safety in recent years. Notably, the number of significant accidents was decreasing in the past five years according to the available Common Safety Indicators (CSI) data. However the CSIs figures alone cannot reflect the full picture of railway safety in Poland. To supplement the picture provided by the CSIs, the Agency made an evaluation of the Polish railway legislation and two audits to assess the application of EU legislation as well as several missions to Poland to establish a clearer picture of the actual safety situation on the ground. This included several interviews with the Ministry, discussions with the infrastructure manager, a number of railway undertakings and trade unions (among them the trade union which forwarded their complaints to the Agency).

This report cannot give a definitive answer whether the Polish railway system is safe or not. Judgement on safety cannot be a binary (yes/no) answer. Therefore the intention of the present work was to answer specific questions raised by the European Commission, identify strengths and weaknesses of the Polish railway system and to consider the implications that these findings might have on railway safety in Poland.

The key problem found in Poland was that although EU legislation has in general been transposed into the national legislative framework, there was an issue in relation to its interpretation and application. This includes directly applicable EU Regulations such as Commission Regulation (EU) 1158/2010 (CSM for assessing conformity with the requirements for obtaining railway safety certificates) and Commission Regulation (EU) 1077/2012 (CSM for supervision by national safety authorities after issuing a safety certificate or safety authorisation). Central to this was the ineffective implementation and application of the Safety Management System (SMS) as required by the Railway Safety Directive (RSD).

This applied to the NSA in assessing and supervising the SMS, the NIB in relation to investigating the SMS, and the Railway Undertakings (RUs) and Infrastructure Managers (IMs) using the SMS to control and manage all safety risks. During the audits the Agency found a number of discrepancies in relation to the tasks and roles of the NSA and NIB. In relation to the Train Driver Directive (TDD) problems were found with the transposition into national legislation.

For the NSA, the direct application of Regulations (EU) 1158/2010 and 1077/2012 is confounded by the interpretation and application of national legislation (both railway and non railway related), preventing the NSA from effectively delivering their tasks and RUs from having robust and fully applied SMS. Whilst safety certificates have been issued to over 80 RUs, based on an assessment by the NSA of the RUs SMS; the decision making process for achieving this does not completely fulfil the requirements of Regulation (EU) 1158/2010. In addition, national legal provisions require the approval of the RUs internal regulations by the NSA, which is not in line with EU legislation. The impact of this approach is that RUs (and IMs) see the internal regulations approved by the NSA as delivering and ensuring their safe operation rather than the development of an SMS that ensures their risks are managed. As a result RUs do not implement the SMS in accordance with the objective and the allocation of responsibilities established by the RSD. In the case of vehicle maintenance (a separate category of internal rules) this might introduce confusion with the responsibilities of the entitities in charge of maintenance. For supervision, problems arise because the application of non railway legislation restricts the role and opportunity of the NSA to inspect RUs and IMs.

For the NIB, they fulfil the tasks required by Polish legislation, but do not investigate the full range of accidents and serious accidents required by the RSD. The national legal framework does not enable the NIB to carry out and focus on the tasks required by the RSD. Specifically the NIB supervises investigations by railway committees; it also participates and in some cases chairs investigations carried out by these committees. The independence of the NIB is weakened by some provisions of the national legal framework. For example the national legislation requires the NIB to supervise investigations of other than serious accidents performed by committees composed of operators.

In relation to drivers, one of the key concerns was the number of hours that drivers could and do work. Driver fatigue can have an impact on the RU's safe operation and is a key risk that must be managed. No monitoring or checks were made by either the RUs or the NSA of the hours worked, the effect this has on the drivers' fitness for work and the implementation of controls. The SMS is a key tool for managing and controlling risks of driver fatigue as a result of working long hours. The SMS requires each RU to have a competence management system which includes a process to check the drivers' fitness for work. This should be a key part of the supervision activities of the NSA to check that this is in place and take necessary enforcement where problems are encountered.

For the review of national safety rules (NSRs), some positive improvements of transparency were achieved since 2010 but there is room for improving the system of NSRs in line with EU legislation. The main issue blocking further progress is a misunderstanding of the role of National Rules in Poland.



NSRs revision should be given a high priority in order to speed-up the implementation of common rules and address the current situation of fragmented legal framework and uncertainties about the status of some legislation. The NSA could play a significant role in improving the understanding of NSRs and in clarifying their role in the safety regulatory framework in line with EU legislation.

The Agency was informed by the interviewed RUs and the IM (PKP PLK) that the signalling systems and other infrastructure elements often operate in degraded mode due to both their poor condition and continual engineering works. To rectify this Poland has identified several projects to renew and upgrade major lines and to reduce significantly the number of level crossings. The Agency was informed that the implementation of these projects will have a positive effect for the state of infrastructure. Nevertheless it seems that some of these projects are not as advanced as planned.

Answering the questions raised by the Commission, the Agency concludes the following:

One of the key points to emerge from the Agency's review is the need for Poland to clarify the application of national legislation and the relationship with EU legislation.

An aim of the Railway Safety Directive, complemented by other EU legislation on railway safety, is to maintain railway safety while the railway market is restructured and opened. Poland has an open market with over 80 safety certificates issued to railway undertakings; which is why it is particularly important to follow the provisions of the RSD which has been designed for allowing the development and improvement of the railway safety in an open market.

In particular the approach to the implementation of the Safety Management System framework, to ensure that safety is maintained and risks effectively managed by all parties should be addressed. This will also require work to ensure the consistency of the national legislation with the EU legislation.

Based on the facts identified in Poland, the Agency concludes, that the current weaknesses in relation to the application of EU law are likely to have a negative impact on railway safety performance in Poland. Although Poland has, for the moment, achieved its allocated safety targets (national reference values) it must be noted that the current weaknesses in relation to the application of EU law may, in part, explain why Poland reports quite poor safety performance indicators within the EU.

Considering the identified weaknesses the Agency cannot be sure that Poland will be able to achieve the required safety targets in the future, without a significant improvement of the situation.

It was agreed with the Commission that Poland will be consulted on the draft report prior to sending it to the Commission by mid October 2013.

The present report provides an overview of the main findings and of the related analysis made by the Agency in regards to the railway safety situation in Poland. It is the supporting document for the Agency Advice to be addressed formally to the Commission.



## 1 Introduction

In their letter of the 12 of November 2012 the Trade Union of Train Drivers in Poland (hereafter TU) explained several areas which, in their opinion, are a threat for railway safety in Poland.

#### 1.1 Summary of the letter of the Trade Union of Train Drivers in Poland (RKZZS)

The TU's concerns can be summarised by the Agency as following:

- Market opening and various new market entrants are operating on the Polish network without implementation of an adequate legal framework and instructions and sufficient supervision of authorities.
- Lack of safety regulation and legislation which is necessary for safety reasons (lack of coherent internal rules).
- Not enough staff of the NSA to ensure their tasks related to safety and supervision.
- Insufficient accident investigation.
- Investigations pointing out human factors instead of real causes for accidents.
- Safety recommendations given by the accident investigator after accidents were not implemented.
- Permanent reduction of costs connected with operational activities of the railway companies concerning safety.
- In certain locomotives two drivers are necessary for visibility reasons to ensure safety while Polish rules allow only one driver in the cabin.
- Insufficient control of working time hours of train drivers, where some drivers are working for several employers without having necessary rest time to maintain their fitness. Implementation of an appropriate central database which would allow control was neglected by authorities.
- Training hours to get a licence and a certificate for drivers is insufficient to obtain knowledge for safe operation. Follow-up training for drivers and dispatchers is insufficient to obtain competences for a safe operation.
- Degraded condition of railway infrastructure which causes safety threats and pressure on staff having difficulties to operate on bad infrastructure and to adapt to frequent changes to the time tables, infrastructure characteristics ad speed limits.
- Outdated signalling equipment and too long periods before rolling stock is maintained.
- Auxiliary devices and equipment for signalling system which cause technical and operational threats for safety; general use of "substituted signals".

## 1.2 The Request from the European Commission to the Agency

Taking into account the content of the TU complaint and following a request of the European Parliament, the Commission asked in its letter of the 4<sup>th</sup> of February 2013 the Agency to provide an advice according to Article 21b (2b) of Regulation (EC) 881/2004 (hereafter Agency Regulation) on the basis of the following analysis:



"1. Transposition and implementation of Railway Safety and Train Drivers Directives in Poland;

2. Operation and correct fulfilment of their tasks by the Polish NSA and NIB (including level of staffing and reactions to safety threats and accidents);

3. National rules and their compliance with the EU legal framework;

4. Organisation of work of train drivers, with a focus on risks to railway safety;

5. State of the railway infrastructure (with auxiliary devices) and rolling stock with a view of ensuring railway safety.

The analysis shall be reinforced by a field visit in Poland and interviews with the relevant stakeholders (at least NSA, NIB, IM, operators, Trade Union of Train Drivers). The advice will be taken into account by DG MOVE to ascertain whether the minimum railway safety standards (including compliance with Railway Safety Directive and Train Drivers Directive) are met in Poland; in particular, the issues raised in the letter from the Trade Union of Train Drivers in Poland will have to be confirmed, falsified."

This report covers the main results of the analysis and of the visits the Agency made to Poland. The formal Agency's Advice (ERA/ADV/2013-1) will be addressed separately to the Commission with this accompanying report.

## 2 Context

#### 2.1 Safety Performance Indicators in Poland

In all four annual assessments of the achievements of Common Safety Targets (CSTs) and National Reference Values (NRVs) carried out so far by the Agency in years 2010-2013, Poland achieved the allocated targets on safety performance for all categories of railway users.

Although there were no signs of deterioration of safety indicators identified for Poland, it is not the purpose of macro level indicators (figures) to report on all the complexity of the actual safety performance in Poland. The visits and interviews held by the Agency in Poland provide a detailed analysis of the implementation of key safety related activities which can have an (indirect) impact on future safety indicators.

Annex 1 "Note on railway safety performance in Poland" gives further information on the achievement of safety targets.

## 2.2 Railway context in Poland

The **Polish Ministry of Transport, Construction and Maritime Economy** is composed of 15 departments and 5 bureaux. For the purpose of this work, two departments are particularly relevant: the Railway Transport Department (8 divisions, 2 individual positions, 53 employees) and the Legal Department.



The **Polish National Safety Authority** is called as Urząd Transportu Kolejowego (hereafter UTK or NSA). The Railway Transport Department, on behalf of the Minister, supervises the President of the Office for Railway Transport (NSA)<sup>1</sup>.

The **Regulatory Body** whose main task under the EU legal framework is to ensure a fair and nondiscriminatory access to the rail network and services, is in Poland also UTK<sup>2</sup>.

The **Polish National Investigation Body** is called as Państwowa Komisja Badania Wypadków Kolejowych (hereafter PKBWK or NIB). It operates at the side of the Minister of Transport, it performs its tasks in the name of the Minister of Transport.

Historically, the state-owned operator Polish State Railways called as Polskie Koleje Państwowe (hereafter PKP) was the only railway company in Poland and was responsible for the whole railway transport, including infrastructure management and operation of freight and passenger train services. In 2001, as a result of the restructuring of the state enterprise PKP, the PKP Group was created. The purpose of these changes was to separate railway transport operations from management of railway lines and to establish independent commercial entities which could provide services not only on the railway market. The PKP Group comprises the parent company - PKP S.A. - and twelve other companies that are responsible for management and modernisation of railway infrastructure, passenger transport services, freight transport services and other services. Outside the PKP Group, new companies have also started operating rail transport services on the Polish infrastructure. According to the data available in the European Railway Agency Database of Interoperability and Safety (hereafter ERADIS), currently there are more than 80 railway undertakings operating on the Polish infrastructure. The national rail network is managed by the PKP Polish Railway Lines (hereafter PKP PLK) and six other private Infrastructure Managers. In 2010 the total length of railway lines managed by PKP PLK counted about 22,000 km. They represent 97% of the total railway network in Poland.

## 3 Scope and Methodology of the Agency assessment

#### 3.1 General

This report concentrates on the results of audits and discussions with the NSA and NIB, discussions with the Ministry, a series of fact finding interviews with companies and replies by the companies and the NSA to the Agency's questionnaires on the transparency of national rules. The aim was to identify strengths and weaknesses of the Polish railway system, which could potentially have an impact on railway safety performance in Poland. The Agency also checked the transposition and implementation of the Directive 2004/49/EC (hereafter Railway Safety Directive or RSD) and the Directive 2007/59/EC (hereafter Train Drivers Directive or TDD) and how effectively they were applied in practice. For the issues relating to the safety of the infrastructure, rolling stock and control of train drivers, the Agency discussed with the sector companies and the NSA how the national and EU legal framework was applied in practice.

<sup>&</sup>lt;sup>1</sup> Railway Transport Act, Article 11.

<sup>&</sup>lt;sup>2</sup> http://ec.europa.eu/transport/modes/rail/market/regulatory\_bodies\_en.htm

All the information gathered by the Agency has enabled an assessment of the effectiveness of the safety regulatory framework in Poland and whether its implementation conforms with the requirements of European law. However, it should be noted that the Agency cannot make an absolute judgement on whether the railway system in Poland is safe or not. But the Agency can, based on the findings and evidence gathered, express concerns about the potential impact of the findings on the safety performance in Poland.

## 3.2 Scope of each detailed assessment

To take forward the present request from the Commission the Agency implemented seven projects under a Programme Management approach to monitor the delivery and the results. All separate reports for each of the projects are attached in Annexes 2 to 7. This chapter describes the scope of each of these projects. The detailed methodologies for the projects are set out in the detailed reports (annexes); however, each involved reviewing legislation/documentation, interviewing key personnel, analysing the results and providing recommendations for improvement. Key stakeholders were given the opportunity to give their comments and feedback at key stages on the draft findings. Therefore the annexes contain commonly agreed conclusions resulting from the interviewed/consulted parties, on which the present overview report is based.

#### 3.2.1 Transposition and implementation of RSD and TDD

The Agency carried out a transposition check of the Polish national laws. This task consisted of a comparison between the national transposition texts and the requirements of the Railway Safety Directive and the Train Driver Directive. The work was based on English translations of the Polish legislation.

The check focused on legal issues for which practical consequences were identified.

For the RSD transposition check the practical consequences were identified during the audits of the NSA and the NIB. The Polish Ministry of Transport and the Agency met twice to gather information, discuss and agree on main findings. Main issues identified via the RSD transposition check are not reported separately since these are reflected in the NSA and NIB audit reports.

For the TDD, discussions took place with the NSA, which acts as the Competent Authority, and RUs to assess how the legislation had been applied, particularly in relation to the national system for driver competence.

Both these checks took into account the concerns set out in the letter of the TU on the implementation of an adequate legal framework.

The results of the transposition check of RSD are covered by the NSA and NIB Reports in Annexes 2 and 3. For the transposition of the TDD the report is in Annex 4.

#### 3.2.2 NSA Assessment

The Agency's NSA assessment team reviewed relevant legislation and supporting documentation from Polish NSA. The assessment followed in principle the NSA Cross Audit protocols which concentrate on both the Article 16 and 17 of the RSD and Regulations (EU) 1158/2010 and 1077/2012.



The assessment also took into account the concerns set out in the letter of the TU on the lack of regulation and legislation on safety, NSA resources and the supervision by the NSA.

The report "Assessment of NSA activities of the Polish NSA UTK" is attached as Annex 2.

#### 3.2.3 NIB Audit

The Agency's NIB audit covered the processes of the PKBWK. The main objective of the NIB audit report is to provide the EC and the NIB with feedback on the performance of NIB activities in practice. The ultimate aim of the audit is learning and improvement by the NIB. The secondary objective is to contribute to the improvements of the legal framework for independent accident investigation in Poland. The audit also took into account the concerns set out in the letter of the TU in relation to accident investigation.

The Audit report of the "Audit of the NIB Poland" is attached as Annex 3.

#### 3.2.4. Evaluation of NSR

Taking into account the 'safety-oriented' request from the Commission, the task on national rules focused on National Safety Rules (NSR).

The analysis by the Agency of the Polish NSRs focused on high level issues: whether the structure, management and content of the NSR system in Poland meet the requirement in EU legislation. This analysis took into account the concerns set out in the letter of the TU about the lack of common rules and instructions for railway traffic safety, and the lack of harmonisation of internal rules of RUs operating on the same infrastructure. It also took into account the concerns about the poor condition of infrastructure and the consequences this might have for the driver in dealing with constant changes to the network-related information at short notice.

The report on National Rules is attached in Annex 5.

#### 3.2.5. Management of train drivers

The report on the management of train drivers focussed on the following issues linked to the original complaint by the TU:

- The management/deployment of train drivers working for more than one RU
- Implication of heavy infrastructure work, work load and work conditions of train drivers and train dispatchers and measures in place
- Training and competence management (adequate training programs, competence refreshing, up-dating), adequate mix of training methods

The report on the safety of work of train drivers is attached as Annex 6.

3.2.6. State of infrastructure (with auxiliary devices) and rolling stock

The report on state of the infrastructure and rolling stock reviewed information on the state of the fixed installations and the rolling stock. The report took into account the concerns set out in the letter of the TU on the degraded condition of the infrastructure and outdated signalling equipment. The information gathered was analysed, and some conclusions were drawn on potential impact of the technical condition of the equipment on the overall safety level of rail operation in Poland.

The report on state of infrastructure (with auxiliary devices) and rolling stock can be found in Annex 7.



## 4 Analysis and findings

This section describes the key findings from each report and an overall analysis . More detailed information on each of the reports can be found in the respective annexes to this report.

## 4.1 Transposition of Railway Safety Directive in Poland

In general, the Agency found that the RSD had been transposed into the Polish legal framework. However, a number of problems have been identified with the transposition and application. These are dealt with under the sections on the NSA and NIB audits (see Annexes 2 and 3).

## 4.2 Transposition of Train Drivers Directive in Poland

The key concern is related to the lack of clarity of how the scope and definitions have been dealt with in the transposition into national legislation. In addition, the legislation is fragmented with many references to different amendments and legal acts. Key definitions such as 'train driver', 'other crew members', 'complimentary certificates', 'training centres' have not been adequately transposed.

#### Finding 1: insufficient and unclear transposition of the two directives into national legislation.

## 4.3 Operation and correct fulfilment of their tasks by the Polish NSA

In relation to the role of the NSA and the implementation of an SMS-based approach for the sector, Poland has kept its previous system of approval of internal regulations of companies at state level and combined this with an assessment of the SMS. The requirement that the NSA has to approve the companies' internal regulations undermines the principles of an SMS based approach and tends to shift responsibility from RUs/IMs to the NSA. In addition, this also means that Regulation (EU) 1158/2010 is not being correctly applied. Other non-railway legislation on public authorities undertaking 'controls' also restricts the NSA role, particularly in relation to Article 17(2) of the RSD and Regulation (EU) 1077/2012, resulting in very limited audits of the proper functioning of the RUs' SMS.

Currently, the NSA is not adequately supervising the RUs/IMs because it is limited by requirements for controls in national legislation. The NSA is required to be free to carry out all inspections and supervisions that are needed for the accomplishment of its tasks. Supervision under EU law is wide ranging and includes the ability of the NSA to undertake SMS audits through to detailed on-the-ground technical inspections. Because of the restrictions it is questionable whether the NSA is adequately monitoring firstly the RUs SMS and in particular the competence of drivers and secondly the management via the SMS of the lifecycle of the infrastructure and the risks incurred when renewing and maintaining it.

There is therefore a practical need for a more systematic and pro-active involvement of the NSA in monitoring the safety performance of the system, including providing more proactive advice to those making the rules.



In relation to the TU complaint, whilst the Agency cannot make a comment on whether the NSA has sufficient resources, it is the case that in some areas the staffing levels are likely to undermine the ability of the NSA to deliver some of its key tasks, such as supervision and assessments. The Agency also found problems with the implementation of the legal framework and supervision of this by the NSA.

# Finding 2: incorrect transposition of EU legislation and limitation of the supervision role of the NSA.

## 4.4 Operation and correct fulfilment of their tasks by the Polish NIB

The Railway Transport Act sets up a National Investigation Body and tasks it with investigating serious accidents. It also has the possibility to investigate other accidents and incidents. However, the definition of 'serious accident' is not in line with the RSD. In addition, the way in which the requirements of the RSD have been implemented means that the independence of the NIB and its role in supervising 'local committees' is not in line with the EU legal framework. There is also a concern about the lack of resources. Taking into account the accident rate and size of the network the resources are unlikely to be sufficient. As a result on a national level, Poland may not be learning from all accidents and making the necessary changes to ensure that they do not happen again. This suggests there is some basis for the concerns of the TU in relation to accident investigation.

Finding 3: incorrect transposition of EU legislation, restriction of the NIB role and a lack of resources.

## 4.5 National rules and their compliance with the EU legal framework

The Agency found improvements of NSR transparency since its last evaluation in 2010. Poland is the first Member State to follow the procedures agreed in the Task Force on NSR for draft NSR, because they notify some rules as draft to the Commission before they are adopted and become applicable in the MS.

The major remaining problem is the misunderstanding of the status and purpose of national rules in the context of the legal system of EU.

This has a big impact on the structure, management and revision of national rules in Poland. It is still not easy to find a complete set of all relevant national rules in force. NSR notification submitted by Poland to the Commission in 2008 is incomplete and outdated. Binding rules of Infrastructure Managers are less transparent than legislation.

To improve safety, it is vital to promote consistent risk management and coordination among RUs and IMs and give a higher priority to NSR revision (reduction), with greater involvement of the NSA.

Finding 4: Lack of understanding on the role of national rules and the way in which internal company rules of the RUs and IMs are taken forward; slow progress of NSR revision and insufficient role of NSA in this process. NSR system does not fully comply with EU legal framework.



## 4.6 Organisation of work of train drivers, with focus on risks to railway safety

The monitoring and supervision of the working hours of drivers are covered by the Labour Inspectorate that monitors the working time directive generally. However, the management of fatigue in relation to drivers is a wider issue than working hours and the NSA should be supervising how the RUs are managing these specific risks.

Whilst the trade unions (the complaining TU and Solidarność) confirmed the situation as per their letter, the RUs did not express any major problems regarding the number of hours worked by drivers or the issue of drivers working for a number of RUs. But both, trade unions and RUs, confirmed that, due to train drivers' shortage on the labour market and due to difficult operational conditions linked with the state of the network, overtime is currently a quite frequent issue. However, RUs reported that compensation in time is generally organised within appropriate periods. The supervision of RUs in relation to their drivers' working hours is not considered to be a direct task for the NSA. This is despite the fact that the SMS sets out requirements in the competence management system of the RU to ensure that drivers are fit for work, which includes the issue of fatigue. In this respect the NSA has a role, instead the supervision of working time as a matter of health protection is undertaken by the Labour Inspectorate who liaise and co-ordinate with the NSA.

Concerns were also raised by the trade unions and the RUs on the condition of the infrastructure and on the poor planning of maintenance and renewals as well as on the lack of clear communication by the IM. In particular maintenance and construction projects in many cases do not meet the scheduled timeframe. In addition the IM submits up-dates on operational conditions or speed limits with very short notice. This is challenging for operators in regard to work organisation and for train drivers, as they need to cope with ad-hoc adjustments to shift schedules and driving conditions. These last minute alterations have an effect on how RUs operate. Effective co-operation and communication between the RU and IM is also a key component of the SMS.

In relation to the concerns raised by the trade unions on the shortening of the driver training program, this was not shared by the RUs who believe that the new training system enables them to provide a more tailor made training programme. In fact the education of train drivers is in a transition period as full implementation of the European train drivers licence scheme is established. This new education scheme provides new responsibilities for training centres and RUs concerning the design of training programs, which can be developed flexibly to meet the specific needs of the operator. RUs confirmed that they also undertake refresher training every year.

Finding 5: A lack of understanding of the SMS and the role it should play in managing the competence and fitness for work of drivers. This is confounded by the lack of NSA supervision of RU driver management arrangements because working time is not considered to be part of their role despite the safety risks that this could create.



Current deficits in the management of infrastructure works and the lack of communication between IM and RUs have also a negative effect on the working conditions of train drivers in general and in particular increase the likelihood of overtime.

4.7 State of the railway infrastructure (with auxiliary devices) and rolling stock with a view of ensuring railway safety

#### 4.7.1 Infrastructure with auxiliary devices

The Agency found that the state of the railway infrastructure in Poland is below the standard. Less than 43% of the railway tracks managed by PKP PLK are in in 'good' condition, and over 27% is in 'insufficient' or 'bad' condition. Between the end of 2011 and that of 2012 a little improvement was noted: percentage of the lines in 'good' state raised from 39.9 to 42.8%, and percentage of 'sufficient', 'insufficient' and 'bad' states decreased.

It must be noted that in many cases modernisation projects (co-financed with a Polish contribution and European funds) have been significantly delayed. The main reasons expressed by the interviewees was the complicated procedures related to finantial support from the EU, environmental issues and tendering process.

One of the major safety related issues, signalled by the Trade Unions, is the poor state of the control-command and signalling systems in Poland. The majority of the signalling systems are assessed as being in 'sufficient' technical condition. This means the systems basically work properly, but require increased maintenance and more frequent repairs. That is reflected in the number of the failures and malfunctions. Malfunction of the signalling systems often results with necessity of using the so-called 'replacement (substitute) signal'<sup>3</sup>. The TUs complain that this has become a habit, and is often considered as a 'normal way of operating the rail traffic'.

Mitigation measures are taken in order to try and ensure safe train operation despite the poor condition of the infrastructure. Wherever necessary, operational restrictions are introduced and although these mitigation measures are intended to maintain the necessary safety level, degraded mode operation is frequently a factor in railway accidents, they are also a cause of a decreased quality of service, both in passenger and freight transport.

However, the issue of funding and its management is something that should be effectively managed at Member State level and appropriate help and advice given to the railway sector so that they can plan and implement investment projects.

#### 4.7.2. Rolling stock

Most of the RUs have almost all traction units (locomotives, EMUs, DMUs, motor cars) – between 98% and 100% for different RUs – equipped with the automatic warning system (SHP) and train-to-track radio system of Polish types. Additionally, the traction units are equipped with the driver's vigilance (dead-man) system – action of this system is harmonised and synchronised with SHP functionality if the vehicle is equipped with SHP.

<sup>&</sup>lt;sup>3</sup> The so-called 'replacement (substitute) signal' is used in degraded mode operation to authorise train movement instead of normal signal aspect (green or yellow light) in case when normal use of the signalling systems is not possible due to e.g. failure, engineering work etc. Use of replacement signal requires additional procedural and technical measures to ensure safe train operation.



An average age of the rolling stock varies from 7 to 42 years, depending on the type of vehicle. The figures are different for different RUs as well. However, according to information received from the RUs, only vehicles in good condition are in use.

All the RUs from which information was received declare to have a Safety Management System, set up in line with the relevant European and national legislation. In some cases we received more detailed information, including the list of the SMS procedures and their description; in other cases the information was very general.

Finding 6: the poor state of the infrastructure and the malfunctioning of signalling systems have the consequence that the network is often operating in degraded mode. Whilst risks are managed through operational restrictions, this is likely to have a negative impact on the safety of the railway network in Poland.

## 5 Conclusion

The Agency concludes that Poland is struggling to come to terms and fully implement the safety framework established by the Railway Safety Directive, in particular the application of safety management systems and correct allocation of roles and responsibilities. There is a problem with the previous legal framework of over regulation being seen as key rather than the prioritisation and control of safety risks for delivering and operating an effective and efficient system. TUs supported by some of the RUs want to return to the highly prescriptive regulationbased system seeing it as the safest. So whilst the TU concerns can in general be confirmed in relation to the implementation of an adequate legal framework, the solution of more prescriptive regulation is not the answer. The situation is not helped by the NSA and NIB not being able to adequately fulfil their roles and to help support and manage the transition. The reliance on rules and approval of RU/IM internal regulations at state level is seen by most players as the only way forward. Some companies of the sector and to a certain extent the NSA do understand the SMSs key role and importance, however confusion is caused when they have to mix this with the previous way of working. Poland has not undertaken a complete review of the effect that the EU legislation should have on how they should implement and deliver their revised legal framework. Problems such as a lack of structured management of driver competence and working hours, combined with operating the infrastructure in a degraded mode mean that there is a potential risk that at some point there may be a failure in the system. Delayed infrastructure maintenance and enhancement projects and frequent degraded mode operation are often providing clear warning signs that the management of safety is likely to be compromised.

The Agency concludes, that the current situation in relation to the application of EU law, and the condition of the infrastructure is likely to have a negative impact on railway safety performance in Poland.



## Tables

## Table 1: List of Annexes

Nr	Annexes
1	Note on railway safety performance in Poland (included in the present report)
2	Assessment of NSA activities of the Polish NSA UTK – Audit report
3	Audit of NIB Poland – Audit report
4	Transposition and implementation of Train Drivers Directive (2007/59/EC) in Poland – Audit report
5	Analysis of the National Rules in Poland and their compliance with the EU legal framework
6	Organisation of work of train drivers, with focus on risk to railway safety
7	Report on State of railway infrastructure (with auxiliary devices) and rolling stock with a view of ensuring railway safety



## Table 2: Abbreviations

Abbreviation	Meaning				
CMS	Competence Management System				
CSM	Common Safety Method				
CSI	Common Safety Indicator				
CST	Common Safety Targets				
Dept	Department				
EC	European Commission				
ERA	European Railway Agency				
ERTMS	European Railway Traffic Management System				
IM	Infrastructure Manager(s)				
IOD	Interoperability Directive				
NIB	National Investigation Body				
NR	National Rules				
NSA	National Safety Authority				
NSR	National Safety Rules				
PLK	Polskie Linie Kolejowe S.A. (PLK) (biggest IM in Poland				
Polish Ministry	Ministry of Transport, Construction and Maritime Economy of the				
r onsir ivitristry	Republic of Poland				
RU	Railway Undertaking(s)				
RSD	Railway Safety Directive				
TDD	Train Driver Directive				
TU	Trade Union of Train Drivers in Poland				
UTK	Urząd Transportu Kolejowego – Rail Transport Office (NSA in Poland)				

Table 3: Table of reference documents.

Ref. N°	Title	Reference	Version
1	Request of the Commission for ERA advice concerning railway safety in Poland (addressed to Mr Verslype)	MOVE/B-2/PRa/sy	04/02/2013
2	Railway Safety in Poland (addressed by the Commission to the Permanent Representation of Poland)	DG MOVE/B/2- PRa/as (2013)432255	21/03/2013
3	Letter of the Polish Union of Train Drivers in Poland addressed to the European Railway Agency	RKZZM 161/11/12	12/11/2012



Ref. N°	Title	Reference	<b>Versio</b> n
1	Directive 2004/49/EC of the European Parliament and Directive of the Council of 29 April 2004 on safety on the Community's railways and amending Council Directive 95/18/EC on the licensing of railway undertakings and Directive 2001/14/EC on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure and safety certification (Railway Safety Directive)	OJ L 164, 30.04.2004, p. 44,	As last amended by Directive 2009/149/EC (OJ L 313, 28.11.2009, p. 65)
2	Directive 2007/59/EC of the European Parliament and of the Council of 23 October 2007 on the certification of train drivers operating locomotives and trains on the railway system in the Community	OJ L 315, 3.12.2007, p. 51	
3	Regulation (EC) No 881/2004 of the european parliament and of the council of 29 April 2004 establishing a European railway agency (Agency Regulation)	OJ L 164, 21.6.2004, p.1	As last amended by Regulation (EC) No 1335/2008 (OJ L 354, 31.12.2008, p.51)
4	Commission Regulation (EU) No 1158/2010 of 9 December 2010 on a common safety method for assessing conformity with the requirements for obtaining railway safety certificates	OJ L 326, 10.12.2010, p. 11	
5	Commission Regulation (EU) No 1077/2012 of 16 November 2012 on a common safety method for supervision by national safety authorities after issuing a safety certificate or safety authorisation	OJ L 320, 17.11.2012, p. 3	



Table 5: National legislation used for the analysis of the transpositions of Railway Safety Directive and Train Drivers Directive.

	_	RSD part
	1.	the Act of 28th March 2003 on railway transport (Journal of Laws 2007, no 16, item 94 of
	_	19/01 2007)
	2.	Act of 24/08/2007 on amendments to Acts in connection with the membership of the
	_	Republic of Poland in the European Union
	3.	Act of 19/09/2007 on Amendments to the Act on Rail Transport and other acts
·	4.	Act of 10/07/2008 on amendments to the Act on Rail Transport
	5.	Act of 19/12/2008 on amendments to the Act on Freedom of Business Activity and amendments to other Acts
	6.	Act of 25/06/2009 on amendments in the Rail Transport Act
	7.	Act of 21/11/2008 on civil service
	8.	Act of 16/12/2010 on collective public transport
	9.	Act of 16/08/2011 on changes in the Rail Transport Act
	10.	Act of 25/03/2011 on limiting administrative barriers for citizens and undertakings
	11.	Ordinance of the Minister for transport of 30/05/2006 regarding terms of access to and use
		of railway infrastructure
	12.	Regulation of the Minister of Transport of 5/12/2006 on the method of obtaining a safety
		certificate
	13.	Regulation of 19/02/2007 of the Minister of Transport concerning the content of reports on
		proceedings in the case of a serious accidents, and accident or an incident on the railway
	14.	Regulation of the Minister for transport of 21/02/2007 laying down model identity
		documents for members of the State Commission on Railway Accident Investigation
	15.	Regulation of the Minister of transport of 12/03/2007 on the manner of performing
		controls by the President of the Railway Transport Office
	16.	Regulation of the Minister for Transport of 12/03/2007 on the conditions and manner of
		issuing, extending, amending and withdrawing of safety authorisation, safety certificates
		and safety attestation
	17.	Regulation of the Minister of transport of 19/03/2007 on the railway safety management
		system
	18.	Regulation of the Minister of Transport of 30/04/2007 on serious accidents, accidents and
		incidents on the railway
	19.	Ordinance No 59 of the Ministry of Infrastructure of 11/12/2008 on the rules of operation
		of the State Commission for Investigation of Railway Accidents
	20.	Regulation of the Minister for infrastructure of 18/08/2009 on common safety indicators (CSIs)
	21.	Order No 29 of the Minister of Infrastructure of 21/07/2011 on assigning a statute to the
		Railway Transport Office

22. Order No 13 of the President of the Railway Transport Office of 30/09/2011 on determining



the Organisational Rules of the Railway Transport Office

- 23. Regulation of the Minister of Transport, construction and maritime economy of 6/09/2012 on the National Vehicle Register
- 24. Act on freedom of economic activity of 2 July 2004, consolidated version of 2013

#### TDD part

- Ordinance of the Minister of Transport of 30 May 2006 regarding terms of access to and use of railway infrastructure (Repealed and replaced by Regulation of Minister of Infrastructure of 27 II 2009 on terms of access and use of railway infrastructure)
- 2. Regulation of the Minister of Infrastructure of 18 February 2011 on train driver certificate
- 3. Regulation of the Minister of Infrastructure of 18 February 2011 on train driving licence
- 4. Regulation of the Minister of Infrastructure of ..... 2011 on examinations necessary for obtaining train driver certificate and its continuing validity
- 5. Regulation of the Minister of Infrastructure of ..... 2011 on registration on the list of entities entitled to carry out examinations in order to verify meeting medical, physical and psychological requirements necessary to obtain train driving licence and train driver certificate
- 6. Ordinance of 5 May 2006 of the Chairman of the Council of Ministers regarding detailed scope of activities of the Minister of Transport (Official Gazette No 76, item 541) The Minister of Transport manages the activities of the sector of governmental administration (transport) under Article 1.2 (2) of this Ordinance. This information was collected from a footnote in Ordinance of the Minister of Transport of 30 May 2006 regarding terms of access to and use of railway infrastructure. Repealed
- 7. Regulation of the President of the Council of Ministers of 16 November 2007 specifying the remit of the Minister for Infrastructure (Journal of Laws No 216/1594) The Minister for Infrastructure heads the government department responsible for transport pursuant to Section 1(2)(4) of this Regulation. This information was collected from a footnote in *Regulation of the Minister for Infrastructure of 18 August 2009 on common safety indicators*. Repealed



## Table 6: The ERA-Project Team and Steering Committee

#### **Steering Committee:**

Christopher Carr, Rob Rumping (both Safety Unit), Denis Biasin, Andrzej Harassek, (both Interoperabilit Unit), Richard Lockett (Cross Acceptance Unit)

Legal Advisor: Erika Tarr (Directorate)

**Responsible Head of Unit:** Christopher Carr, (Safety Unit)

Program Responsible: Caroline Fischer, Emmanuel Ruffin (deputy), (Safety Unit)

Project leaders:

Project 1a (RSD): Julie Dinimant, (Safety Unit)

Project 1b (TDD): Kornel Nagy, (Interoperability Unit)

Project 2a (NSA Audit): Karen Davies (Lead Auditor) and Cecilia Lind, (Safety Unit)

Project 2b (NIB Audit): Rob Rumping (Lead Auditor) and Vojtech Eksler, (Safety Unit)

Project 3 (NSR): Natalja Skacenko, (Safety Unit)

Project 4 (Safety of Train Drivers): Olaf Mette, (Interoperability Unit)

Project 5 (status of infrastructure and rolling stock related to safety): Andrzej Harassek, (Interoperability Unit)

Agency's staff interpreters<sup>4</sup>: Aleksandra Perkuszewska (Safety Unit), Kornel Nagy and Andrzej Harassek (Interoperability Unit)

<sup>&</sup>lt;sup>4</sup> For some meetings professional interperters were provided by the Agency.



## Annex I: Note on railway safety performance in Poland

#### Summary:

In all four annual assessments of achievements of Common Safety Targets (CSTs) and National Reference Values (NRVs) carried out so far by the Agency in years 2010-2013, Poland showed acceptable safety performance for all categories of railway users. This means that there were no signs of deterioration in safety identified for Poland.

Common Safety Indicators (CSI) data reported by the Polish NSA to the Agency give an indication of the level of railway safety in Poland. However, only CSI data from 2010 onwards could be realistically used for drawing conclusions. In general, despite the improvements in CSI data quality in recent years, there might be a need for a deeper consolidation and revision carried out at the national level.

Available CSI data of past three years shows that the risk of fatality for all persons is one of highest in the EU, with some 1.5 fatalities per million train kilometres. The fatality risk for passengers is then 0.45 per billion passenger kilometres, three times the EU average.

The safety of infrastructure remains relatively poor: In 2012, there were no railway lines equipped with automatic train protection systems (such as ETCS) and the proportion of passive (unprotected) level crossings belongs to highest in Europe (with some 63% of all level crossings).

#### CSI data:

Railway safety data reported by the Polish NSA to the Agency <u>should be interpreted with a great</u> <u>care</u>. Poland has been only recently and gradually introducing EU common definitions for Common Safety Indicators in the national reporting system. Only the data for years 2010 and 2011 could be regarded as <u>partly</u> harmonized and comparable with other EU countries. The CSI data are available on the ERA webpage.

The risk of fatality from significant accident is high in Poland, with around 1.5 fatalities per million train kilometers. However, a great majority of fatalities are unauthorized persons on railway premises (80%). Their share is only 56% for the rest of the EU (for the period 2008-2010). The unauthorized person fatalities could contain suicide cases, which shall be reported separately from significant accident fatalities. For the same period (2008-2010), Poland reported only 101 suicides (less than neighbouring Czech Republic in single year 2010).

The fatality risk passenger is relatively high, with 0.45 killed per billion train-km (in the period 2006-2011). This is three times higher than the EU average of 0.16.





According to common safety indicator data submitted to the Agency by the NSA, about 500 significant accidents occurred in Poland annually in recent years. Detailed analysis of data reveals that on average one in ten collisions and one in twenty derailments was investigated by the NIB. This is substantially lower proportion compared to other EU countries, and below the EU average of about two in twenty<sup>5</sup>. Similarly, over the past six years, there was no single incident investigated by Polish NIB. The independent investigation of incidents is common in other EU countries.

Significant accidents (CSIs)	2007	2008	2009	2010	2011	2012 <sup>p</sup>
Collisions	6	8	18	4	8	3
Derailments	132	105	63	17	23	14
Level crossing accidents	325	278	288	86	86	76
Accidents to person	418	397	400	341	366	269
Fires in rolling stock	7	9	3	0	0	0
Others	86	92	71	1	5	NA
Total	888	797	772	444	475	378 <sup>e</sup>

Preliminary data from IM

<sup>e)</sup> Estimated value based on the preliminary data from the IM

<sup>&</sup>lt;sup>5</sup> ERA (2013). Intermediate report on the development of railway safety in the European Union, Pg.32





Table 3: Significant accidents per type (CSI data submitted to ERA by NSA)

Over the past seven years, there were on average 7 passenger and 2 staff fatalities, but the number of seriously injured was high: 45 passenger and 7 employees were seriously injured on yearly basis on average.

		2006	2007	2008	2009	2010	2011
Fatalities	Passengers	9	9	8	8	7	10
	Employees	3	3	1	1	6	2
Serious Injuries	Passengers	63	67	44	49	35	58
	Employees	5	9	5	9	10	11



In the 2012 Assessment of achievements of CSTs/NRVs, Poland has passed the assessment, with acceptable safety performance for all categories of railway users.



In the past three years, a relatively high number of serious accidents occurred on Poland, most of them were investigated by the Polish National Investigation Body (NIB). The list below shows some of the serious accident in recent years.

Date	Location	Accident type	Outcomes
8/11/2010	Bialystok	Trains collision	No person injury, considerable damage
13/06/2010	Kępice-Korzybie	Trains collision	13 serious injuries
28/05/2011	Lębork–Godętowo	Level-crossing accident	2 fatalities, 15 serious injuries
26/6/2011	Strzelce Krajeńskie	Runaway freight wagons	3 fatalities
12/08/2011	Baby	Train derailment	2 fatalities, 18 serious injuries
03/03/2012	Szczekociny	Trains collision	16 fatalities, 51 serious injuries

#### Safety-related indicator concerning the infrastructure:

Poland reported in the past that none of its lines is equipped by ATP system. The first sections should be equipped with ATP systems in 2014. This means that there is a considerable delay in the implementation of train protection systems in Poland compared to other EU countries.

Poland also has a relatively number of level crossings (per line kilometre) and the proportion of passive (unprotected) level crossing is relatively high. This highly contributes to a relatively low level of safety at level crossings in Poland.





Even when considering only the two infrastructure safety indicators (under RSD Annex I), a relatively underperformance of Poland in terms of infrastructure safety is visible.

This is a result of a considerable underinvestment in rail infrastructure and its maintenance in Poland during at least 10 years (up to 15 years for maintenance).

This is depicted in the graph showing the road and rail infrastructure expenditure in Poland since 1995. The year 1995 was the last one in which the rail infrastructure expenditure in Poland was comparable with OECD countries. The situation was most dramatic at the beginning of a new millennium when rail investment and maintenance expenditure accounted for just 0.07% of GDP. (Note that the total transport infrastructure expenditure of OECD countries has consistently been slightly below 1% of GDP.)

