|  |  |
| --- | --- |
|  | **The Estonian Technical Regulatory Authority** |

ANNUAL REPORT OF THE ESTONIAN TECHNICAL REGULATORY AUTHORITY 2017

**ANNUAL REPORT OF THE
ESTONIAN TECHNICAL REGULATORY AUTHORITY 2017**

**Table of contents**

[A.1 Summary 3](#_Toc529527770)

[A.2 Summary 3](#_Toc529527771)

[B. Introduction 4](#_Toc529527772)

[B.1.1 Key conclusions and recommendations from 2017 4](#_Toc529527773)

[B.1.2 The NSA’s safety strategy, programmes and activities 4](#_Toc529527774)

[B.1.3 Important issues in 2018 5](#_Toc529527775)

[B.2 Estonia’s railway sector 6](#_Toc529527776)

[B.2.1 Rail Baltic 6](#_Toc529527777)

[B.2.2 The initiation of our preparations for the Riisipere-Turba environmental assessment 7](#_Toc529527778)

[B.2.3 European Register of Infrastructure (RINF) 8](#_Toc529527779)

[C. The development of railway safety 8](#_Toc529527780)

[C.1 Initiative for maintaining and increasing railway safety levels 8](#_Toc529527781)

[C.1.1 Estonian National Traffic Safety Programme – cooperation with the Estonian Road Administration 8](#_Toc529527782)

[C.1.2 The National Traffic Safety Programme – an early childhood education curriculum on railway safety 9](#_Toc529527783)

[C.1.3 A cooperation process with MTÜ Operation Lifesaver Estonia 9](#_Toc529527784)

[C.1.4 Prevention activities – teachers’ books for schools 10](#_Toc529527785)

[C.1.5 The railway automation lab at the TTK University of Applied Sciences – Stadler train driving simulator 10](#_Toc529527786)

[C.2 Detailed analysis of the data 12](#_Toc529527787)

[C.3 Summary of safety recommendations 16](#_Toc529527788)

[D. Supervision of railway undertakings 16](#_Toc529527789)

[D.1 Strategy and plans 16](#_Toc529527790)

[D.2 Human resources and competency 17](#_Toc529527791)

[D.3 Decision-making 17](#_Toc529527792)

[D.4 Coordination and cooperation 17](#_Toc529527793)

[D.5 The results of supervision measures 18](#_Toc529527794)

[E. Development and authorisation of safety certificates 20](#_Toc529527795)

[E.1 National legal space – safety certificates and authorisations process 20](#_Toc529527796)

[E.1.1 Safety certificates issued 20](#_Toc529527797)

[E.2 Contact with other safety authorities 21](#_Toc529527798)

[E.3 Problems in procedures 21](#_Toc529527799)

[E.4 Feedback 22](#_Toc529527800)

[F. Main amendments to legislation 23](#_Toc529527801)

[F.1 Railway Safety Directive 23](#_Toc529527802)

[F.1.1 Preparations for the fourth railway package 23](#_Toc529527803)

[F.1.2 OPE TSI 23](#_Toc529527804)

[F.2 Amendments to national legislation 23](#_Toc529527805)

[F.2.1 Amendments to the Railways Act and the rules covering the technical use of the railway 23](#_Toc529527806)

[F.2.2 Amendments to the Emergency Act 24](#_Toc529527807)

[I. Summary, conclusions and priorities 25](#_Toc529527808)

[J. Primary information sources 26](#_Toc529527809)

[Annex A - COMMON SAFETY INDICATORS 27](#_Toc529527810)

[Annex B - SUPERVISION IN 2017 29](#_Toc529527811)

# A.1 Summary

This annual report provides an overview of the current situation in the Estonian railway sector in 2017. The report has been composed by the Technical Regulatory Authority (hereinafter TJA). The report is primarily aimed at the European Union Agency for Railways, which uses this report and makes safety conclusions on the safety of the European Union's railway sector in 2017. The report takes into account the European Railways Agency's draft report form for 2017 and the qualitative analysis of the European Union Agency for Railways on the basis of the 2015 NSA reports.

In 2017, a total of 22 railway accidents occurred, of which 10 were motor vehicle and train collisions and 12 were accidents to persons caused by rolling stock in motion. All in all four people were injured and 13 people killed. Compared to 2016 (13 accidents, seven injured, one death), both the total number of accidents and the number of injured and dead have sadly increased. The main cause of accidents is negligence by road users and behaviour that goes contrary to traffic and safety regulations.

# A.2 Summary

This annual report provides an overview of the current situation in the Estonian railway sector in 2017. The report has been composed by the Technical Regulatory Authority (hereinafter TJA). The report is primarily aimed at the European Union Agency for Railways, which uses this report and draws conclusions on the safety of the European Union's railway sector in 2017. The report takes into account the European Railways Agency's draft report form for 2017 and the qualitative analysis by the European Union Agency for Railways on the basis of the 2015 NSA reports.

In 2017, a total of 22 railway accidents occurred, of which 10 were motor vehicle and train collisions and 12 accidents to persons caused by rolling stock in motion. All in all there were 4 people injured and 13 people killed. Compared to 2016 (13 accidents, 7 injured, 1 death), both the total number of accidents and the number of injured and dead have been sadly increased. The main cause of accidents is neglect of road users and behaviour that is in contrary to traffic and safety regulations.

# B. Introduction

**B.1 General**

This 2017 report is the twelfth report on railway safety to have been prepared by the TJA (previous reports date from between 2006 and 2016). Based on an analysis of the main safety indicators (accidents at level crossings, collisions, etc.), this safety report provides an overview of the developments in railway safety in Estonia. This report has been prepared for the European Union Agency for Railways with the aim of providing an update on developments which concern railway safety in Estonia. This safety report is publicly available on the website: www.tja.ee.

The TJA has introduced a three-year action plan, an annually reviewed document describing the organisation’s strategic orientation, which aims to define the key lines of action for the coming two or three years, with a particular emphasis on issues that may be important to society at large. The TJA’s entire field of activity is mapped out, and developments are monitored in other documents and environments, such as the TJA’s work plan, the TJA’s services module, the TJA’s threat estimate, electronic supervision environments for procedures, etc. Anything that is related to the activities of the Railway Safety Department is handled on the same principles.

### B.1.1 Key conclusions and recommendations from 2017

The report which was submitted in 2016 pointed out that 2017 would see a continuation of railway safety supervision, with an emphasis on preventative activities in daily work. In 2017, these activities were continued. For the TJA, 2017 brought with it both changes in the organisation’s structure and several accidents (including an accident involving dangerous goods). As a result, activities have devoted significant attention to the supervision of companies, prevention activities, and communication with the sector.

### B.1.2 The NSA’s safety strategy, programmes and activities

An important change in organisational terms was the amalgamation of the Railway Transport Department and the Railway Infrastructure Department into the Railway Safety Department. This resulted in the launch of the department’s joint supervision, the aim of which was to obtain a more comprehensive picture of the company and also to reduce the company’s burden in terms of time spent on supervision. A new practice was introduced, under which supervisory results were incorporated into one comprehensive report which set out a company’s supervision results by issue.

### B.1.3 Important issues in 2018

Late 2017 saw the mapping out of several issues which were important to the Railway Safety Department and these issues will be the objective of targeted achievements in 2018.

1. Public railway safety level NRV indicator ≤ 0.8. This indicator consists of the ratio between the dead and injured and train kilometres travelled.
2. Railway traffic safety level indicator ≤ 0.2. This indicator is the ratio between railway engineering incidents and train kilometres travelled on the network in a year.
3. The Estonian National Traffic Safety Programme (ENTSP), and cooperation with the Estonian Road Administration and OÜ Operation Lifesaver Estonia (OLE). Among other things, work is under way on the creation of a railway safety workbook for children aged between five to seven, the closure of level crossings, the creation and assessment of engineering solutions for level crossings, and a solution for an automated traffic light camera for level crossings.
4. Amendments to legislation which relates to the Railways Act, the rules for the technical use of the railway, an examination of railway drivers, safety reports, and other indicators.
5. Consultations with undertakings concerning amendments to legal acts:
	1. Fourth railway package
	2. Cooperation agreement EE, LT, LV/EUAR
	3. Cooperation agreement EE/EUAR
	4. Awareness-raising activities for undertakings: information days for undertakings. EUAR role
	5. Training experts (creating a pool of experts)
6. In terms of preventative activity, cooperation with the Estonian Road Administration, OLE, the Estonian Ministry of the Interior, and the University of Tartu. Continuation of the process of cooperating with railway undertakings.
7. Preparation of national contingency planning procedures.
8. County comprehensive planning procedures.
9. Procedures concerning safety certificates with regard to the expiry of those certificates.
10. Transformation of the Technical Supervision Information System (TSIS) 2018 as a key tool for the creation of a functioning and user-friendly system.
11. Updating supervisory procedures.

## B.2 Estonia’s railway sector

### B.2.1 Rail Baltic

2017 was a milestone year for the TJA in the planning of Rail Baltic (RB). From the global perspective, an updated cost-benefit analysis for the entire project, prepared by EY Baltics, was completed in April. An updated profitability calculation became the basis for the making of several major international and national decisions.



|  |  |
| --- | --- |
| Üldprojekt | General project |
| Eesti | Estonia |
| Läti | Latvia |
| Leedu | Lithuania |
| Planeerimisetapp | Planning stage |
| Projekteerimisetapp | Design stage |
| Ehitusetapp | Construction stage |

*Project timetable. Source: RB Rail AS*

Nationally, key documents for RB planning were completed. On 9 August 2017, the Estonian Ministry of the Environment gave its approval for a strategic environmental assessment report which will cover the entire RB route, thereby enabling submission, via RB plans for Harju, Rapla, and Pärnu counties, to the Estonian Ministry of Finance for supervision. At the very end of the year, a positive decision was indeed obtained in regard to the supervisory procedures. All of these steps took the process, which was launched as far back as 2012, to a point at which, in early 2018, it will be possible to introduce county plans, by which stage the RB route in Estonia may be considered as being most definitively certain. With the completion of the county plans, the role of the TJA in the development of the RB project will also begin to decrease, since the TJA will have to undertake the function of a safety authority in the subsequent phases of the project.

### B.2.2 The initiation of our preparations for the Riisipere-Turba environmental assessment

On 15 September 2017, based on a submitted application, the TJA initiated proceedings concerning the environmental assessment of the Riisipere-Turba railway line. According to the application, the plan is to construct a 6.5 km-long electrified railway line from Riisipere to Turba. The new railway is planned to run along a former railway corridor, where a 1520 mm gauge railway also used to run. The railway segment will be equipped with overhead contact lines, with semi-automated interlocking used as a signalling system. The overhead contact lines will be located to one side of the railway. Two concrete bridges and one metal bridge will be located on the segment. No points are planned for the segment. Along the segment, level crossings will be constructed at the junctions with Nissi Road and Kivitammi Road, with an underpass beneath the railway having been preserved at the junction with Veetõusme Road. The level crossings that are to be constructed will be equipped with automated traffic light signalling and barriers. In the town of Turba there is a plan to construct a 138 m-long station platform. Furthermore, points for maintenance railway vehicles which are fitted with guide wheels will be constructed at Turba so that they can travel onto or off the rails. An environmental assessment will be carried out during the compilation of the building design documentation and, along with the building design documentation, design documentation for geodetic and geological surveys and for land improvement work will also be compiled.

### B.2.3 European Register of Infrastructure (RINF)

The TJA began work on gathering information as far back as 2014 about the Estonian railway network, with this being required for the European Register of Infrastructure (RINF). The initial list of data and an analysis of the required IT development work were both completed in late 2014. This was followed by details on the major railway infrastructure managers, with information about the results of the analysis and the forthcoming work; this revealed that much of the data needed by the RINF is not available to railway infrastructure managers or is not available in a format that is machine-readable. 2015 also saw the preparation of a draft amendment to the statutes for the maintenance of a railway traffic register, introducing a reference to Commission Implementing Decision 2014/880/EU. The new statutes entered into force on 13 June 2016. In parallel, work was undertaken to develop a new supervisory information system for the TJA, a component of which is the railway traffic register in which RINF details are also collected. Railway infrastructure managers have engaged in the collection of RINF data since 2015 and submitted the data they have collected to the TJA in the second half of 2017. However, not all of the data which was submitted was in the required format, and importing it into the railway traffic register took a great deal of additional work.

# C. The development of railway safety

## C.1 Initiative for maintaining and increasing railway safety levels

### C.1.1 Estonian National Traffic Safety Programme – cooperation with the Estonian Road Administration

As part of the Traffic Safety Programme 2016-2025 and the implementation plan for 2016-2019, the Estonian Road Administration has begun to create guidelines to cover traffic management at level crossings. The guidelines are intended as a source of information for those who are tasked with maintaining national roads, as well as local government authorities and other interested parties (including designers and builders). The objective behind the guidelines is to provide a complete overview of requirements for level crossings: covering traffic management principles for level crossings (on national roads); specifying how they are to be marked and the speed setup to be used; and setting out guidelines for marking level crossings both in the design phase of road construction and when signage is being upgraded within the scope of maintenance work. In the creation of the guidelines, the Estonian Technical Regulatory Authority is acting in the role of consultant. The guidelines will be completed in 2018, with the railway infrastructure managers also being involved in its completion.

### C.1.2 The National Traffic Safety Programme – an early childhood education curriculum on railway safety

In 2016 a cooperation project was launched between MTÜ Operation Lifesaver Estonia (OLE) and the TJA as part of the National Traffic Safety Programme (ENTSP), with the aim of creating a railway safety workbook for children aged between five to seven years, along with early childhood education teachers and anyone who supervises children. The content of the project was mainly developed in 2017, with tasks and a visual component being created for children. In addition, AS Eesti Raudtee was involved in the creation of the workbook. Representatives of the TJA and AS Eesti Raudtee were tasked with reviewing the substantive component of the workbook, and OLE assembled the ideas behind the tasks and created the visual component. The original idea for the workbook derives from the Sina Saad [You Can] creative competitions which were held by OLE in previous years, with several submissions having been collected during the competitions that were incorporated into the workbook. A workbook for nursery schools will be completed in 2018.

### C.1.3 A cooperation process with MTÜ Operation Lifesaver Estonia

A cooperation process with OLE has also been ongoing in 2017. We will publish joint press releases (such as OLE’s Christmas campaign press release), hold safety training events, and create new methods to educate people about the hazards relating to railways. OLE’s objective is to create a situation in which not a single fatal accident occurs on the railways due to ignorance. To this end, OLE is responsible for the creation and dissemination of campaigns and for conducting prevention activities in the public sphere (in schools, safety days, etc.). The TRA’s role is to act as a partner on content issues, sharing its knowledge and information about challenges in railway safety (such as, for instance, if a specific negative trend has been spotted).

### C.1.4 Prevention activities – teachers’ books for schools

In 2017, there was an opportunity to participate in a safety task force convened by the Estonian Ministry of the Interior and aimed at creating safety-related tasks for all school stages. It was the first project of its kind, one which addressed most of the relevant issues in the area of safety such as, for instance, water, fire, the internet, explosions, and traffic safety (including railway safety). There is a plan for 2018 to conduct at least three training events for teachers in order to provide them with information about harmonised teaching material that has been created by various authorities, which teachers can use during lessons at school as part of the broad topic of safety that runs through the general education curriculum. Thanks to the safety task force of the Estonian Ministry of the Interior, good contacts have been obtained with various representatives in the area of safety, which have already provided a basis for some joint projects. For instance, we are cooperating with the Estonian Road Administration so that materials can be created which address traffic safety matters as an integrated whole.

### C.1.5 The railway automation lab at the TTK University of Applied Sciences – Stadler train driving simulator

In providing railway-related applied higher education, the TTK University of Applied Sciences has created the most modern railway automation lab in the Baltic States and Finland in cooperation with AS Eesti Raudtee, with further training events for employees of railway companies possibly being conducted in railway automation, signalling and traffic management, in addition to in-depth instruction in railway automation and traffic management for students specialising in railway engineering. By its nature, the lab represents a realistic railway station, with the rails and the train having been replaced by a replica train. All the other equipment is actually used on the railways and provides a strong basis for practical instruction.

In addition, from 2017 the lab has a Stadler train driving simulator. The simulator enables traffic lights to be changed, to which the train driver must respond. Various train faults may be generated for the driver sitting in the simulator to solve.

The TTK University of Applied Sciences holds round-table discussions on teaching activities, including discussions on the development of railway-related training courses based on training at TTK University. The round-table discussions have also been attended by other representatives of the TJA. The conferences resulted in the understanding that there was a need for a railway automation lab, in which AS Eesti Raudtee invested. At the same time, the Estonian Technical Regulatory Authority has also expressed its support for practical railway education. As a direct example of practical railway education, the Stadler train driving simulator may also be cited.

##

## C.2 Detailed analysis of the data

The TJA analyses national accident data and annually submits CSI data to the European Union Agency for Railways. Key indicators in terms of CSI data have been set out for 2013-2017. If a comparison is made to the five-year mean, it may be concluded that the cause for any occurrence of accidents is incorrect behaviour by road users and a disregard for traffic regulations at level crossings and on the railways.



In 2017, a total of 22 railway accidents occurred, of which 10 were motor vehicle and train collisions and 12 were accidents to persons caused by rolling stock in motion. All in all four people were injured and 13 people killed. Compared to 2016 (which totalled thirteen accidents, with seven injured and one killed), both the total number of accidents and the numbers of the injured and dead have increased. The main cause of accidents is negligence by road users and behaviour that goes contrary to traffic and safety regulations.

|  |  |
| --- | --- |
| Vigastatud | Injured |
| Hukkunud | Deaths |

*Collisions between railway rolling stock and motor vehicles and off-road vehicles, and the numbers of persons who are injured or killed as a result of such collisions in 2006-2017*

|  |  |
| --- | --- |
| Vigastatud | Injured |
| Hukkunud | Deaths |

*Collisions between railway rolling stock and people, and the numbers of persons injured or killed as a result of such collisions in 2006-2017*

In order to assess the levels of railway safety and the quality of train services, we have taken into account safety indicators related to accidents and incidents that have occurred during the year. When calculating the levels of railway safety, three indicators are used: the number of deaths, the number of injuries and the number of suicides. In the case of railway traffic safety levels, cases that affect railway traffic safety (such as incidents which involve signals passed at danger), technical incidents (such as rail breakages) and third party-related cases, including rolling stock collisions with obstacles on the line and road vehicle collisions which involve rolling stock at level crossings, are all analysed. These three indicators each have a different share in safety indicators. In the case of both public railway safety levels and railway traffic safety levels, the result is a ratio which depends upon the number of train kilometres travelled.

Compared to previous years, 2017 has seen a significant decrease in public railway safety levels (from 0.10 to 1.29), the main reason for this being an increased number of accidents in which the person involved in the incident dies. Compared to the year before, railway traffic safety levels in 2017 have decreased (from 0.80 to 0.35), which may be linked to a decline in the number of incidents which affect railway traffic safety levels. For instance, there was a significant decrease in the number of train collisions and of instances of prohibitory signs being passed in 2017 (zero incidents) compared to 2016 (two incidents). Although the number of incidents occurring on Estonian railways is relatively small, every incident significantly serves to affect the statistical indicators.

On 24 October 2017, the Estonian Safety Investigation Bureau (ESIB) published its casualty report on a collision that took place between a passenger train and a motor vehicle at the Sompa level crossing in Ida-Viru County on 12 March 2017. It was an incident in which the driver and a passenger in the motor vehicle both died. Based on the ESIB’s casualty report, it was concluded that the direct cause of the accident was human error. The driver of the motor vehicle was under the influence of narcotic substances, and was unable to notice that the level crossing was closed to road users, and so drove in front of a passenger train. In addition, the driver of the motor vehicle who was under the influence of narcotic substances drove past a line of cars that had stopped at the traffic lights in front of the level crossing. The accident occurred at a level crossing equipped with automated traffic light signalling and marked with appropriate traffic signs. It was daytime, and the road leading up to the level crossing was dry and straight. The ESIB concluded that, in relation to the incident, there was no causal relationship between the actions of the persons who were involved in the management of railway traffic and the accident that took place. Furthermore, there is no causal relationship to any potential deficiencies in the rules which governed the occurrence of the incident.

On 27 March 2017, two tank wagons leaked on the Kohtla-Tapa open section of track. The tank wagons were transporting a hazardous chemical, a solvent (UN number 1993, emergency card number 328). The two tank wagons leaked at different times. According to the public railway infrastructure manager, approximately 34.5 tonnes of substance leaked from one tank and 17.4 tonnes from the other. It was an accident that resulted in extensive environmental damage. The TJA conducted administrative proceedings concerning the incident in order to assemble the relevant materials and to prepare a summary about the incident. At the national level, the Environmental Inspectorate initiated criminal proceedings in 2017 in relation to the incident.

In 2017, multiple incidents occurred on Estonian railways where young people took part in what was known as a traffic ‘game’, which involved running directly in front of approaching cars or trains, thereby creating highly dangerous situations. Undertakings responded to the incidents very quickly, and it was concluded that preventive measures should be taken. The TJA met with the undertakings that were connected to the incidents and with the police. Together, they concluded that notification would be provided about the situation to all railway undertakings so that they were made aware of what was happening and could inform their employees about it. Fortunately, the high-risk behaviour being exhibited by these young people resulted in no people-train collisions on the railways.

To ascertain the facts of all of accidents, the Estonian Technical Regulatory Authority cooperates with railway companies and the Police and Border Guard Board, in order to be able to determine the causes of every incident. Where an accident occurs at a level or pedestrian crossing, the technical safety aspects of the crossing are examined thoroughly in order to ensure that the railway infrastructure complies with the requirements (appropriate signage and other traffic control devices, visibility). An analysis of accidents indicates that no accidents in 2017 were caused by a technical fault in the infrastructure or rolling stock and that, instead, the accidents were caused by the road users being careless and breaching regulations. There are still many accidents that occur because people are present at places on the railways where they should not be. The total number of accidents in 2017 was also greater due to collisions between trains and machine tools during railway maintenance work.

## C.3 Summary of safety recommendations

Based on the details revealed about a collision between a passenger train and a passenger at Sompa level crossing on 12 March 2017, and in order to increase traffic safety levels, the ESIB provided recommendations to the TJA about conducting a social campaign on the role of road users in level crossing safety and about the further instruction of rolling stock drivers on carrying out brake tests. Subsection 43(3) of the Railways Act lays down the obligation of the Estonian Technical Regulatory Authority to submit to the ESIB by 1 April every year a report on measures taken or proposed, based upon recommendations. Accordingly, the TJA has planned the preparation of a written reply to the recommendations for 2018. Prevention activities aimed at raising public awareness about the hazards related to the railways will continue in 2017.

# D. Supervision of railway undertakings

## D.1 Strategy and plans

In early 2017, the Estonian Technical Regulatory Authority introduced a new technical information system, JVIS, with the aim of increasing supervision efficiency. All procedures (including initiating procedures and preparing reports and precepts), plus the entry and analysis of incidents and the issuance of authorisation permits, will be carried out via the system.

The new technical information system facilitates the performance of joint supervision by the Railway Safety Department and makes it possible to store and interlink procedures and document management in a single system.

The 2017 supervision plan is set out in Annex B. In 2017, supervision focused on companies operating on the non-public railway infrastructure, since these business operators are the likeliest to be unaware of any changes in the railway sector or of the necessary authorisations or other normative documents.

## D.2 Human resources and competency

In 2017 the Railway Transport Department and the Railway Infrastructure Department of the Estonian Technical Regulatory Authority were amalgamated as the Railway Safety Department, which meant that, as a result of cooperation between the department’s key resources (i.e. its staff), supervision and those duties which are granted to the department under the statutes of the TJA could be carried out more efficiently.

With regard to the supervision of undertakings, attention has focused both on the competency of the staff of the relevant companies and the staff of their subcontractors. Holding training events and improving the skills of members of staff are an important part of companies’ safety management systems and require reliable implementation. However, companies have to ensure that the staff of their subcontractors possess sufficient competencies so as to avoid hazardous situations on the railways.

## D.3 Decision-making

In supervisory terms, decisions are made according to the situation, the magnitude of the potential hazard and the activities of the undertaking. Decisions are based on national and EU-level legislation. Supervision activities and alerts yield information, based on which decisions may be taken in order to resolve a situation (for instance, a company’s entitlement to take action to suspend or lower railway infrastructure speeds, etc.). When decisions are made, discretion is used, potential risks are assessed, and the TJA’s code of conduct and internal decision-making formats are adhered to. For instance, for the issuance of authorisations by the TJA, an authorisations committee has been implemented to ensure that all aspects are considered when authorisations are issued and that decisions are made based upon the appropriate information.

## D.4 Coordination and cooperation

The TJA actively cooperates with railway undertakings and the trade union. In addition, cooperation is pursued with other authorities in terms of common issues, such as safety and prevention activities. For instance, the TJA has an important role to play in the National Traffic Safety Programme. Coordination and cooperation are definitely also important in the prevention activities of the TJA and undertakings. On safety issues, the initiative being taken by undertakings has increased. Undertakings respond very promptly to hazardous situations on railways and share information with the TJA. There are regular conferences with sector stakeholders to discuss safety issues, opportunities for cooperation, and the implementation of the safety management system. The TRA also attends a safety conference convened by undertakings.

When it comes to formulating and finalising legal acts, cooperation is also pursued with the stakeholders in the sector. Proposals for producing legal acts are collected in cooperation with undertakings. Discussions regarding substantive draft amendments are held with the Estonian Ministry of Economic Affairs and Communications.

## D.5 The results of supervision measures

In 2017, the Railway Safety Department reviewed a total of eighteen companies. This included companies which were operating on the public railway infrastructure, such as AS EVR Cargo, AS Eesti Raudtee, AS Eesti Liinirongid, AS GoRail, Maardu Raudtee AS, Edelaraudtee AS, and Edelaraudtee Infrastruktuuri AS.

In addition, the Railway Safety Department also conducted a review of companies operating on the non-public railway infrastructure, such as AS Talot, AS Nordkalk, Debora Grupp AS, Eesti Keskkonnateenused AS, RGR AS/RGR Metall OÜ, Elme Metall OÜ, Propaan AS, Frelok AS, Alexela Energia AS, Lemeks AS, and Estreftransservice AS.

A detailed description of the supervision being carried out by the TJA’s Railway Safety Department in 2017 is set out in Annex B – SUPERVISION IN 2017.

The results of the supervision exercise have shown that: problems exist with the implementation and updating of safety management systems for companies; companies have not been updating their corporate safety management systems with sufficient frequency, creating a situation where this frequently has to be pointed out in the results of the supervisory process. It is difficult to explain to companies the practical need for a safety management system or the ways in which a system helps a company to better manage its processes and to ensure the safety and legality of its operations. Nevertheless, we communicate with companies on a daily basis and, during joint conferences and supervisory duties, we inform them about the current requirements and the ways in which they can make a safety management system work for them.

Since train driver training may be conducted by an undertaking that has been issued with a licence for carrying out such training, in the first half of the year AS ERS submitted a licence application to the TJA to obtain a pre-authorisation. In order to be able to issue a pre-authorisation, the TJA had first to establish and then confirm its compliance with the requirements. A review established that the training centre does indeed have the premises, learning materials, teaching aids and training programmes necessary for driver training. Following an affirmative result of the review, the TJA issued a pre-authorisation, based on which the Estonian Ministry of Education and Research issued AS ERS with train driver training licence No 116 on 1 June 2017. At the end of the year, a procedure was begun in relation to AS Sillamäe Sadam, which continued into 2018.

As part of the Nordic-Baltic mobility programme for public administration, visits with colleagues from the Railway Safety Department and from the Lithuanian safety authority were undertaken in October 2017, to the offices of the Norwegian safety authority, the Accident Investigation Board Norway, and the company BaneNor where, among other things, railway safety and supervisory systems were discussed. The state of railway safety, methods used and best practice in Norway were all studied. In addition, there was an opportunity to exchange experiences from three countries in terms of their railway sector involvement.

# E. Development and authorisation of safety certificates

## E.1 National legal space – safety certificates and authorisations process

### E.1.1 Safety certificates issued

|  |
| --- |
| **Public railway infrastructure managers**  |
| **1. AS Eesti Raudtee** | The TEN-T network (except for the Valga-Koidula, Keila-Riisipere and Klooga-Ranna routes) |
| **2. Edelaraudtee Infrastruktuuri AS** | The Non-TEN-T network |

|  |
| --- |
| **Railway undertakings (cargo transport on the public railway infrastructure in Estonia)** |
| **1. AS ERS** | Safety certificate issued in 2013 |
| **2. EVR Cargo AS** | Safety certificate issued in 2014 |
| **3. Alexela Terminal AS** | Safety certificate issued in 2015 |
| **4. Enefit Kaevandused AS** | Safety certificate issued in 2015 |
| **5. Edelaraudtee AS** | Safety certificate issued in 2014 |
| **6. AS Kunda Trans** | Safety certificate issued in 2013 |
| **7. Vesta Terminal Tallinn OÜ** | Safety certificate issued in 2013 |
| **8. Westgate Transport OÜ** | Safety certificate issued in 2013 |
| **9. AS Maardu Raudtee** | Safety certificate issued in 2013 |
| **10. Dekoil OÜ** | Safety certificate issued in 2013 |
| **11. AS Railservis** | Safety certificate issued in 2013 |
| **12. AS Sillamäe Sadam** | Safety certificate issued in 2013 |
| **13. Leonhard Weiss RTE AS** | Safety certificate renewed in 2017 |
| **14. Horizon Tselluloosi ja Paberi AS** | Safety certificate issued in 2017 |
| **Railway undertakings involved in passenger transport in Estonia** |
| **1. GoRail AS** | International passenger transport under the provisions of a service between Tallinn-St Petersburg-Moscow |
| **2. Eesti Liinirongid AS (Elron)** | Domestic passenger transport on diesel and electric-powered trains |

## E.2 Contact with other safety authorities

On issues related to safety certificates, communication has taken place with other safety authorities. This could be partly covered under the Norwegian mobility programme. In addition, 2017 saw multilateral conferences being held between Estonian, Latvian, and Lithuanian safety authorities with regard to safety certificates and the authorisation of rolling stock.

## E.3 Problems in procedures

In procedures for the approval of safety certificates, the problem is the length of the procedures. In procedures which concern safety management systems, we have uncovered deficiencies that the company has been unable to remedy in its safety management system within a reasonable period of time.

## E.4 Feedback

In relation to supervisory duties, undertakings and the safety authority are in constant communication. In addition, both undertakings and the safety authority have convened various working groups to deal with both the technical and preventive aspects of safety issues.

# F. Main amendments to legislation

## F.1 Railway Safety Directive

### F.1.1 Preparations for the fourth railway package

In 2017 formulation work began on the text of cooperation agreements between safety authorities regarding various authorisations for placing rolling stock into service and on issuing harmonised safety certificates. A total of four working meetings were held in Estonia, Finland, Latvia and Lithuania in 2017. Since our railway network differs from the intra-Union railway network, a dedicated agreement is being prepared between the Baltic States (Estonia, Latvia, and Lithuania) and the European Union Agency for Railways. As for a bilateral agreement between the European Union Agency for Railways and the Estonian safety authority, the decision has been made to proceed with this once the agency has prepared a standard text for the agreement. In addition, working meetings served to detail and harmonise the technical requirements between the 1520 mm networks in the Baltic States, and the results were uploaded to the RDD.

### F.1.2 OPE TSI

A plan has been prepared for the implementation of the OPE TSI and has been forwarded to the European Union Agency for Railways. Differences which are applicable for the Estonian railway network in relation to the OPE TSI have been ascertained and these have also been forwarded to the EUAR.

## F.2 Amendments to national legislation

### F.2.1 Amendments to the Railways Act and the rules covering the technical use of the railway

in 2017 the Minister of Economic Affairs and Communications launched activities to help to develop a new Railways Act. The main aim of the draft Railways Act is to coordinate regulations, implement new requirements which have arisen from the fourth railway package and eliminate non-relevant provisions. Specialists at the Estonian Technical Regulatory Authority have put forward relevant appropriate proposals for inclusion in the draft act. There is a plan to bring the Railways Act in its new version into force in the first half of 2019.

Between 2015-2017 a working group – formed of the Estonian Technical Regulatory Authority’s experts in the railway sector and of representatives of railway undertakings – prepared a draft regulation for the Minister of Economic Affairs and Communications, entitled ‘Rules for the technical use of the railway’. In 2017, the finished draft regulation was given to the Minister of Economic Affairs and Communications for further action.

The new draft version of the rules for the technical use of the railway was prompted by the opening up of the railway market and the implementation of the fourth railway package in 2019. The new technical regulations for the use of railways are based throughout on the principle that the state regulates the technical, technological, and traffic and transport management aspects of railways as little as possible, and yet does so to such a level as to ensure general railway safety principles for all involved parties.

### F.2.2 Amendments to the Emergency Act

By virtue of the new Emergency Act (EA) which took effect on 1 July 2017, the existing Emergency Act was repealed (RT I 2009, 39, 262). For the holders of railways the most important change was that, compared to the previous regulation, the following services are no longer considered as being vital services: the functioning of railway transport, including passenger public transport, and the functioning of the management of the public railways. The nature and functioning of the above services continued to be regulated by dedicated legislation, but the functioning of these services will be ensured only in emergencies, where possible. Service providers therefore do not have to allocate quite so many resources to continuity of services in terms of, for example, increasing technical capacity or duplicating various components of a service. It is sufficient, in accordance with the regulation under the General Section of the Economic Activities Code Act 1 (EACA), that the provider of a service of general interest is forbidden from withdrawing from the market if no replacement for it has been found. Furthermore, the composition of the authorities responsible for preparing an emergency risk assessment changed in 2017, being based on a rescue event rather than a supervisory activity for all future requirements.

# I. Summary, conclusions and priorities

Several important objectives have been set for 2018. We will undertake safety improvements, prevention activities, amendments to legislation and consultations with undertakings. The key issues for 2018 have been set out at length in item B.1.3.

# J. Primary information sources

1. MTÜ Operation Lifesaver’s website <https://ole.ee/2018/03/raudteeohutusalane-toovihik-lastele/>
2. Estonian Safety Investigation Bureau’s casualty report about the accident at the Sompa level crossing

<https://www.ojk.ee/et/system/files/fail/manus/sompa_12.03.17_ee_ojk.pdf>

1. AS Eesti Raudtee’s environmental assessment for the construction of the Riisipere-Turba railway, draft version of 27 November 2017

<https://www.tja.ee/sites/default/files/content-editors/KMH/riisipereturba_kmh_progr_eelnou_elle_271117.pdf>

1. Emergency Act 205 draft act procedural data

<https://www.riigikogu.ee/tegevus/eelnoud/eelnou/6e396188-c9c2-4673-9fb6-ad324ec9a36c>

1. Guidelines on traffic management at level crossings (draft version, currently not public)
2. Estonian Public Broadcasting’s news portal. TTK students are able to simulate the work of train drivers in the new lab.

<https://www.err.ee/592066/ttk-tudengid-saavad-uues-laboris-simuleerida-vedurijuhi-tood>

1. The website of the TTK University of Applied Sciences. Railway engineering curriculum

<https://www.tktk.ee/sisseastujale/oppekavad/raudteetehnika>

1. The TRA’s 2017 three-year action plan

<https://www.tja.ee/sites/default/files/content-editors/TJA/Arengukava/tja_arengukava.pdf>

# Annex A - COMMON SAFETY INDICATORS

Input from the TRA into the 2017 data table for Common Safety Indicators (CSI) has been uploaded to the ERAIL information system (<http://erail.era.europa.eu/>).

|  |  |  |  |
| --- | --- | --- | --- |
| ***year*** | ***railway accidents*** | ***deaths*** | ***injured*** |
| ***2006*** | *47* | *16* | *21* |
| ***2007*** | *46* | *13* | *19* |
| ***2008*** | *26* | *9* | *10* |
| ***2009*** | *19* | *10* | *7* |
| ***2010*** | *31* | *12* | *14* |
| ***2011*** | *28\** | *9* | *7* |
| ***2012*** | *20\** | *7* | *7* |
| ***2013*** | *15\** | *4* | *4* |
| ***2014*** | *20\** | *12* | *19* |
| ***2015*** | *19\** | *9* | *5* |
| ***2016*** | *13\** | *1* | *7* |
| ***2017*** | *19\** | *7* | *4* |

\*Railway accidents include both collisions between motor vehicles and rolling stock and accidents to persons caused by rolling stock in motion, as well as derailments and collisions between trains. In previous years, this field reflected only collisions and accidents with persons involving rolling stock in motion because collisions between trains during shunting operations were not classified as accidents involving rolling stock in motion.

Of the accidents in 2017, five were confirmed by the Police and Border Guard Board, with the subsequent investigation indicating that the cause was probably premeditated action – i.e. suicide – by the persons involved.

# Annex B - SUPERVISION IN 2017

|  |  |  |
| --- | --- | --- |
| **Month** | **Company** | **Supervisory issues** |
| March | AS EVR Cargo | Rolling stock, safety management system, freight transportation, the operation of depots, and non-public railway infrastructure |
| April | AS Eesti Raudtee | Stations, signalling |
| April | AS EVR Cargo | Traffic |
| May | AS Eesti Liinirongid  | A test drive with the train driver |
| May | AS GoRail | A test drive with the train driver, rolling stock, and the work of train drivers |
| June | AS Eesti Raudtee | Traffic, stations, and signalling |
| June | AS Talot | Non-public railway infrastructure |
| June | AS Nordkalk | Traffic, level and pedestrian crossings, and non-public railway infrastructure |
| June | AS Maardu Raudtee | Rolling stock, traffic, signalling, the safety management system, freight transportation, level and pedestrian crossings, and non-public railway infrastructure |
| June | AS Eesti Raudtee | Traffic, stations, and signalling |
| June | RGR AS/RGR Metall OÜ | Traffic and non-public railway infrastructure |
| June | Elme Metall OÜ | Traffic and non-public railway infrastructure |
| June | Propaan AS | Traffic and non-public railway infrastructure |
| June | FRELOK AS | Traffic and non-public railway infrastructure |
| September | AS Eesti Liinirongid | A test drive with the train driver |
| October | AS Eesti Raudtee | Rolling stock |
| October | Alexela Energia AS | Traffic and non-public railway infrastructure |
| October | Lemeks AS | Traffic and non-public railway infrastructure |
| October | Nordkalk AS | Traffic and non-public railway infrastructure |
| October | Estreftransservice AS | Traffic and non-public railway infrastructure |
| November | Edelaraudtee AS | Rolling stock, traffic, the safety management system, and freight transport |
| November | Edelaraudtee Infrastruktuuri AS | The safety management system and freight transport |
| November | AS Eesti Liinirongid | Rolling stock, the safety management system, transporting passengers, and non-public railway infrastructure |