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ANNUAL SAFETY REPORT | 2021

GREEK NATIONAL SAFETY AUTHORITY



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1. INTRODUCTION

1.1 Purpose, scope and recipients of the report

1.2 Main conclusions on the reporting year



1. Introduction

The 2021 Annual Report regarding the activities of the Greek National Safety Authority (NSA), the duties of which are performed by the Regulatory Authority for Railways (RAS), was prepared by the Railway Safety and Interoperability Unit (RSIU) of RAS.

The Annual Report was prepared in accordance with the “Issuing the [yyyy] NSA Annual Report” (GUI_MRA_002 V 3.0) guide, published by the European Railway Agency (hereinafter the “Agency”) and addressed to the NSAs. The report covers all the activities undertaken by RAS in the areas of railway safety & interoperability from 1 January to 31 December 2021 and is available in Greek and English on the following website: <http://ras-el.gr>.

For further clarifications, please contact us at: info@ras-el.gr.

1.1 Purpose, scope and addressees of the report

Article 19 of the Railway Safety Directive (EU) 2016/798 transposed into Greek law with article 71, Law 4632/2019 (A’ 159) requires that NSAs publish an annual report each year concerning their activities in the preceding year and send it to the Agency by 30th September.

The annual report contains information on:

- a) the development of railway safety, including an aggregation at Member State level of the Common Safety Indicators (“CSIs”), in accordance with Article 5(1) of Directive (EU) 2016/798;
- b) important changes in legislation and regulation concerning railway safety;
- c) the development of safety certification and safety authorisation;
- d) the results of, and experience relating to, the supervision of infrastructure managers and railway undertakings, including the number and outcome of inspections and audits;
- e) the derogations decided in accordance with Article 15 of Directive (EU) 2016/798; and
- f) the experience of railway undertakings and infrastructure managers on the application of the relevant Common Safety Methods (“CSMs”).

This report is intended to provide evidence of Greece’s ongoing efforts to harmonise with other EU Member States on the following topics:

- Improvement of safety performance;
- Progress in the development of interoperability.

Consequently, the purpose of this report is to inform any interested party and the Agency of RAS's activities on the development of railway safety & interoperability, demonstrating how RAS promotes the EU regulatory framework for railways, monitors the development of railway safety and the interoperability of the railway system in Greece, highlighting problems and good practices.

The structure and the content of this report are based on the Agency's Guide mentioned in the Introduction.

According to article 9 (6) of the Directive (EU) 2016/798, transposed into Greek law with article 61, Law 4632/2019, before 31 May of each year, all Infrastructure Managers ("IM") and Railway Undertakings ("RU") submit to the NSA an annual safety report concerning the preceding calendar year. The annual reports of railway agencies are an important source of information for this report.

This report covers the entire active railway system in Greece.

This report is available to:

- The Agency;
- The Greek National Safety Authority;
- Other NSAs;
- The Greek Ministry of Infrastructure & Transport;
- The National Railway Accident Investigation Body ("NIB") (not active for the time being);
- The railway agencies in Greece, as follows:
 - Railway Undertakings [HELLENIC TRAIN (former TRAINOSE), STASY, RAIL CARGO, PEARL & GFR]
 - Infrastructure Manager (OSE);
 - Company for Rolling Stock Maintenance (HELLENIC TRAIN, former EESSTY)
 - Conformity Assessment Bodies: Notified and Defined Bodies (NoBos & DeBos), Risk Assessment Bodies (AsBos)
- Any other interested party (i.e. passenger associations, e.t.c.)

The availability and publication of this report is ensured through RAS website at <http://ras-el.gr> and the ERADIS data base of the Agency. A hard copy is also notified to the Minister of Infrastructure & Transport, to the Deputy Minister of Infrastructure & Transport, and to the Secretary General for Transport of the Ministry of Infrastructure & Transport.

1.2 Main conclusions on the reporting year

RAS operates as an Independent Administrative Authority pursuant to its Internal Rules of Operation and Management, which were approved by Joint Ministerial Decision (JMD) Δ4δ/οικ.89995 / 15--11--2018 (B' 5781). In accordance with said JMD, RAS's organisational structure includes the RSIU, which is organised into two Departments: the Railway Safety Department and the Interoperability Department. At the end of 2021 seven (7) employees were exclusively employed in RSIU.

RSIU implements the tasks of the NSA arising in particular from Law 4632/2019 (A' 159), Law 4199/2013 (A' 216), Law 3911/2011 (A' 12) as applicable, and from the respective European legislation on railway safety and interoperability. Furthermore, RSIU performs the duties of the "Competent Authority" as defined in the Regulation in relation with the international carriage of dangerous goods by rail (RID) of JMD No. Γ5/145078/03-06-2021 (B' 3202).

RAS's organisational framework is outlined with further detail in section 3.4 hereof.

The Management Board of RAS is made up of 5 members. The Chairman, the Vice-Chairman and three (3) regular members, substituted by three (3) substitute members. This Administration was appointed in July 2017 and continued performing its duties throughout 2021.

RAS continued focusing on the application of legislative and regulatory changes and requirements, such as Law 4632/2019 (A' 159) on harmonisation with the Guidelines of the technical pillar of the Fourth Railway Package, MD ΑΣ10/77243/580/13-02-2019 (B' 698 / 01-03-2019) on the amendment of the General Traffic Regulation (GKK) – Part B' Traffic and Manoeuvre Regulation etc. Following the issuance of Regulation (EU) 2015/995 (TSI OPE), the start of implementation of the revised GKK and the issuance of the first Rule Books of the RU, changes have been made with regard to the responsibilities of the bodies involved in the conduct and management of train traffic, which are the main components of safety management.

In 2021, RAS continued performing, at least, its main duties detailed in paragraph 2, article 16 of the Directive on railway safety which was transposed into national law with article 68, Law 4632/2019.

Despite the special circumstances brought about by the COVID-19 pandemic, RAS continued performing the RU and IM supervision duty in accordance with the relevant regulatory framework, undertaking a series of railway operator supervision activities, in accordance with the relevant annual Supervision Plan. In 2021, twelve (12) out of fourteen (14) scheduled supervision activities were eventually performed.

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Under Decision No 9442/14-01-2019 (B' 359) which defined the qualifications, and the terms and conditions for recognising the examiners of the train drivers and candidate train drivers, RAS continued granting recognitions/renewals of examiners and publishing on its website the Recognised Train Driver Examiner and Candidate Train Driver Register. The same also applied for the cases of granting/renewal of certification of adequacy for trainers of train drivers and candidate train drivers, as well as granting/renewal of recognition of medical doctors performing medical examinations on train drivers and candidate train drivers.

In 2021, RAS as a competent authority for the implementation of Law 3911/2011 continued the issuance of "European" train driver licenses in accordance with the template in the Appendix of Regulation (EU) 36/2010. Said licenses are printed by the Hellenic National Passport and Secure Document Centre of the Headquarters of the Hellenic Police (DDEA) in accordance with the provisions of JMD ΑΣ19/1052/14 / 20- -07- -2018 (B' 3089). With regard to the training of candidate train drivers, the OSE training centre submitted, under article 23, Law 3911/2011, an updated Training Programme related to the train driver certificate. The Railway Safety Department reviewed the submitted programme and drafted a recommendation addressed to the RAS plenary for the approval thereof, which took place in 2022.

In summer 2021, examinations for candidate train drivers were held for the third time, in accordance with decision No 10720/18-07-2019 (B' 2962) – RAS decision on the "Procedure for acquiring a train driver license – Organisation and definition of the process of examination to obtain a train driver license." To acquire a train driver license, three candidate train drivers of STASY RU participated in the examinations that were held on 25/06/2021 (theoretical part) and 28/06/2021 (practical part).

With regard to important common safety indicators, in 2021 there were 14 significant accidents (increased in relation to 2020 - 9 accidents), while the average for the last five years was 17 accidents. In 2021, it increased by 55.6% compared to incidents in 2020 and reduced by 17.6% compared to the average for the last five years.

It is noted that in 2021, 6 fatalities were recorded (two fatalities in 2020), while the average of the last five years amounts to 11, i.e. almost double. This index also was increased by 83% compared to the previous year and reduced by 54.5% compared to the average of the last five years.

In 2021, the global community continued facing difficulties due to the Covid-19 pandemic. In this context, the application of restrictive measures against the spread of the pandemic was continued, resulting in the reduction of the RUs productive work, in railway transport in

Greece and worldwide. Significant accidents recorded in 2021 were down compared to pre covid years, but increased compared to the indexes of 2020.

2. SUMMARY IN ENGLISH (SUMMARY IN ENGLISH)



2. SUMMARY IN ENGLISH

The duties of the Greek National Safety Authority (NSA) are performed by the Regulatory Authority for Railways (RAS). The 2021 Annual Report was prepared by Railway Safety and Interoperability Unit (RSIU) of RAS in accordance with the “Issuing the [yyyy] NSA annual report” (GUI_MRA_002 V 3.0) Guide and the article 19 of the Railway Safety Directive (EU) 2016/798 transposed into Greek law with article 71, Law 4632/2019 (A’ 159). The purpose of this report is to inform any interested party and the Agency of RAS’s activities on the development of railway safety & interoperability, demonstrating how RAS promotes the EU regulatory framework for railways, monitors the development of railway safety and the interoperability of the railway system in Greece, highlighting problems and good practices.

The availability and publication of this report is ensured through the website of RAS at <http://ras-el.gr> and the ERADIS data base of the Agency.

RAS operates as an Independent Administrative Authority in accordance with its Internal Rules of Procedure, which were approved by Joint Ministerial Decision (JMD) No. Δ4δ/οικ.89995 / 15-11-2018 (B’ 5781). In accordance with said JMD, RAS’s organisational structure includes the RSIU, which is organised into two Departments: the Railway Safety Department and the Interoperability Department. In 2021, seven (7) employees were employed exclusively at the RSIU.

The RSIU implements the functions of the NSA arising from Law 4632/2019 (A’ 159), Law 4199/2013 (A’ 216), Law 3911/2011 (A’ 12) as applicable, and from the respective European legislation on railway safety and interoperability. Furthermore, the RSIU performs the duties of the “Competent Authority” of the Rules in relation to the international carriage of dangerous goods by rail (RID) of JMD No. οικ. Γ5/48222/2474 / 21-06-2019 (B’ 2755). Recently, the new JMD for RID 2021, i.e. JMD No Γ5/145078/03-06-2021 (B’ 3202) was published in the Government Gazette.

RAS’s organisational framework is outlined with further detail in section 3.4 hereof.

RAS was in collaboration with the Ministry of Infrastructure and Transport for the compliance of Railway Undertakings (RU) with the overall changes. Also, RAS informed the RUs about their obligations and responsibilities undertaken by the RUs to perform activities.

In 2021, RAS continued performing its main, at least, duties detailed in paragraph 2, article 16 of the Directive on railway safety.

RAS continued performing the RU and IM supervision duty in accordance with the relevant regulatory framework, in accordance with the relevant annual Supervision Plan.

Under Decision No 9442/14-01-2019 (B' 359) which defined the qualifications, and the terms and conditions for recognising the examiners of the train drivers and candidate train drivers, RAS continued to grant examiner recognitions/renewals and publish on its website the Recognised Train Driver Examiner and Candidate Train Driver Register. The same was true for the case of granting adequacy certification for train driver trainers and candidate train drivers as well as granting recognition for doctors undertaking the medical examination of train drivers and candidate train drivers.

Within 2021, RAS being the competent authority for the implementation of Law 3911/2011 continued issuing the “European” train driver licenses in accordance with the Annex to Regulation (EU) 36/2010. In summer 2021, examinations for candidate train drivers were held for the third time, in accordance with decision No 10720/18-07-2019 (B' 2962) – RAS decision on the “Procedure for acquiring a train driver license – Organisation and definition of the process of examination to obtain a train driver license.” 3 train driver candidates of the STASY RU participated in the train driver license exams held on 25 and 28.06.2021.

As regards important safety indicators, in 2021 there were 14 significant accidents (increased in relation to 2020 when the corresponding number was 9). 6 fatalities were recorded, while in 2020 there were 2.

2021 was also a year during which the global community continued to face unprecedented difficulties due to the Covid-19 pandemic. Within this framework, railway transport in Greece and worldwide was subject to restrictive measures to prevent the spread of the pandemic resulting to the reduction of the RUs productive work for 2021 and therefore the reduction of significant accidents recorded.

3. NSA SAFETY STRATEGY, PROGRAMMES, INITIATIVES AND ORGANIZATIONAL FRAMEWORK

- 3.1 Strategy and planning activities**
- 3.2 Safety Recommendations**
- 3.3 Safety measures implemented in addition to the recommendations**
- 3.4 Organizational Context of Safety**



3. NSA SAFETY STRATEGY, PROGRAMMES, INITIATIVES AND ORGANIZATIONAL FRAMEWORK

3.1 Strategy and planning activities

One of the most significant goals of the Ministry of Infrastructure and Transport (MIT) is to continuously improve the safety level of Greek railway and therefore to improve significant CSIs. To this end, the main concerns are the completion and placing into service of the new infrastructure projects including modern systems (i.e. ERTMS), the development of a safety culture, the reduction of serious accidents, the implementation of Law 4632/2019 (Incorporation into the Greek Law of the technical pillar of the Fourth Railway Package) the implementation of the revised General Traffic Regulation (GKK) – Part B', etc.

In this context, in 2021 RAS planned and carried out the following activities / initiatives:

- RAS continued performing supervision activities pursuant to the annual Supervision Plan and the approved Supervision Strategy, in targeted sectors. Following the issuance of Regulation (EU) 2015/995 (TSI OPE), the start of implementation of the revised GKK and the issuance of the first Rule Books of the RUs, focus was placed on the application of legislative and regulatory changes and requirements. The above have caused changes in the responsibilities of the bodies involved in the conduct and management of train traffic, which are key components of safety management. For this reason, supervision activities were scheduled in order to audit the harmonisation of said changes, which mainly regard the specialisation of interfaces between the Infrastructure Manager (IM) and the Railway Undertakings (RU) but also the obligations and responsibilities undertaken by the RUs in order to perform activities.
- RAS continued monitoring railway incidents and accidents on the national railway network to draw conclusions on the overall safety level of the national railway network, but also supervising railway operators in targeted fields/areas.
- RAS continued receiving train monitoring Reports for HELLENIC TRAIN RU trains on a monthly basis in order to monitor train driver compliance with speed limits.
- For the third consecutive year, RAS, in cooperation with the "Panos Mylonas" Road Safety Institute, participated in the events of the "International Level Crossing Awareness Day (ILCAD 2020)", which was held on 10 June 2021 and is organised by the International Union of Railways (UIC). RAS and the Panos Mylonas Institute issued a joint press release and produced a poster. Moreover, at a teleconference

organized by the International Union of Railways (UIC), they presented the actions and initiatives they have undertaken concerning safety at level crossings.

3.2 Safety recommendations

The Railway Accident and Incident Investigation Committee established under article 2, law 4313/2014 (A' 261) has not been activated for the time being. Therefore, no safety recommendations were issued during 2021.

3.3 Safety measures implemented

3.3.1 Supervision activities/Interventions

In 2021, RAS proposed and monitored the implementation of the following measures:

- RAS asked the IM to appoint a manager, safety manager, & operator for the network tunnels, as outlined in the safe work manuals.
- RAS proposed to the IM to post on inforail the updated archive of the tunnel EPs on inforail.
- RAS asked the STASY RU to include a safety culture seminar in the 2022 training programme.
- RAS asked the STASY RU to sign the ERA's European Railway Safety Culture Declaration.
- RAS proposed to TRAINOSE RU to draft guidelines for the management of a crisis during the carriage of dangerous goods in case of emergency and notify them to the Security company as well as to the company employing the operator of the loading and unloading lifting machines.

3.3.2 Interventions following the investigation of complaints

The Regulatory Authority for Railways, in the context of its responsibilities as the National Safety Authority (Railway Safety Authority), received the following complaints/letters that led to interventions and to suitable measures:

1. A complaint according to which at kilometric point (KP) 1+523 of the Patras-Pyrgos line (Patras Suburban Railway) a makeshift pedestrian crossing was constructed.

RAS forwarded the above complaint to OSE. According to OSE, at (KP) 1+523 of the Patras-Pyrgos line, there is a legal pedestrian level crossing (LC), in accordance with the applicable Level Crossing Register of OSE. In the context of improving the accessibility of the authorised LC, small scale works were carried using concrete to adjust the surface

level of the road in order to improve accessibility and prevent accidents due to an uneven surface that could present difficulties when crossing the railway superstructure.

Following the complaint, OSE officers visited the project and inspected the LC again. Due to the special conditions in the area (a school and a church nearby, plus poor visibility) the removal of said crossing will be examined.

2. A complaint according to which the RUs route freight trains with wagons not equipped with a handbrake, something that poses serious traffic safety risks in the Greek Network (in case of breakup).

RAS asked TRAINOSE in writing to immediately take any necessary measures, as well as to draft the necessary procedure with regard to the issue above. Given that this procedure affects the interface with the IM, the procedure could be established following an agreement with the IM. Said procedure should be included in the relevant SMS, be immediately implemented and sent to RAS. TRAINOSE provided RAS with a draft procedure of the relevant SMS for said issue, in which it transposed article 70, paragraph 734, of the former GKK. In the context of the supervisions/audits of the SMSs it performs, RAS is willing to audit said procedure once it has been approved and introduced in TRAINOSE's SMS.

As regards RAIL CARGO RU, there is a relevant provision in the RU's Train Driver Manual.

3. A complaint by a train driver of RAIL CARGO Railway Undertaking mentioning locomotives manned with one train driver and one under certification, contrary to the provisions of Law 3911/2011, due to insufficient locomotive personnel in the RU.

RAS forwarded said complaint to RCLG RU and asked that any information and documentation deemed suitable be submitted by the RU, together with its opinions regarding the complaint above about the composition of train crews. According to the RU, the complaint is totally unfounded and was made purely due to self-interest. The reasons why the two train drivers under certification are scheduled together with two certified train drivers is on the one hand because they have completed their training and are expecting the final exams and on the other hand because, due to the general situation, a great period has passed since the training, therefore their daily occupation can help them get familiar with the job and acquire valuable experience so that when they are certified they will be able to fully respond to the significant demands of the job.

In the context of the complaint investigations, the complainant was summoned to a meeting via teleconference on 20-01-2021 to provide further clarification and to explain

his claims. A findings report has been drafted by RAS's competent committee and respective actions are expected.

4. A complaint regarding the derailling of two wagons of a freight train in the area of Serres on 25/08/2021. This accident specifically regarded the derailling and rollover of two tank cars of freight train No 80610 with thermal traction unit MLW/504+509 at kilometric point 173+700 of the Thessaloniki-Alexandroupoli line and the subsequent leakage of 5,400lt (or 4,401kg) of diesel fuel.

RAS decided to perform an ex officio examination of the incident, in accordance with article 5, paragraph 2 of the Hearing Regulation of RAS. The examination's special object (article 5 paragraph 3, of above mentioned Regulation) is the audit of the observation of regulations, provisions of railway regulation and the requirements of the relevant Safety Management System (SMS) of TRAINOSE RU with regard to railway transfer safety, based on indications and evidence available to the Authority. It was decided that the relevant investigation be performed by officers of the competent Rail Safety & Interoperability Unit (RSIU) of RAS, in accordance with RAS's Regulations of Internal Operation and Management. Following the completion of the investigation, a findings report was prepared for the launch of the hearing process, in application of article 5, paragraph 5 of the Hearing Regulation of the Regulatory Authority for Railways.

5. Complaint by PES (Panhellenic Association of Stationmasters) OSE regarding the breach of article 983.1 of the GKK. According to the complaint, trains depart from the closed R.S. of Volos without the crew having been informed about the traffic documents by signing, given that while they remain in the closed R.S. of Volos the locomotive and accompanying personnel change.

It was decided that the relevant investigation be performed by officers of the Rail Safety & Interoperability Unit of RAS and following the completion of the investigation a findings report shall be prepared on whether the hearing process will be launched or not, in application of article 5, paragraph 5 of the Hearing Regulation of the Regulatory Authority for Railways.

6. Complaint by PEPE (Panhellenic Association of Locomotive Crew) with regard to the practical training of train drivers in order to obtain a category B certificate by the railway undertakings, taking place without the attendance of a certified trainer in the Cab Ride.

In the context of information and data collection with regard to this complaint, RAS asked the OSE training centre of train drivers and candidate train driver to provide evidence

and information on whether the aforementioned practical training takes place without a certified trainer being present.

OSE submitted the relevant presence records and the locomotion reports for the training of its train drivers, informing RAS at the same time that the presence of a certified trainer is proven for all the above trainings. The review of the submitted attendance sheets, which was performed by RAS officers, showed that the trainings were performed with a certified trainer who had signed the relevant attendance sheets. Therefore, based on the collection and review of the above evidence, the train driver training in order to obtain a category B certificate by railway undertakings took place with a certified trainer being present in the Cab Ride in accordance with the provisions, and the complaint was closed.

7. PEPE has sent the following letters to RAS:

- a letter regarding the condition of the infrastructure near the Aspropyrgos RS, resulting in uncontrolled access to the railway infrastructure at the Thriasio-Aspropyrgos area, especially by residents of the Roma settlement in the area, proposing the fencing of the railway line in this specific area
- a letter regarding the Edessa safety key in the outside position, apart from the Infrastructure Manager (IM) and its permanent arrangement at the bypass, something that according to PEPE poses traffic safety risks.

RAS asked OSE to examine the issues and proposals above and notify its opinions, as well as to provide information about any suitable measure already taken or to be taken by OSE.

With regard to the first issue, OSE informed RAS that it has decided to resolve the problem by constructing a heavy-duty fence in the area and already actions are taken for the award of the relevant construction design through its competent services. As regards the second issue about the safety latch at the Edessa R.S., in summary, the technical opinion of the competent Division of OSE is that today trains use “unlimited” brake types, so that there is no longer any risk of the train slipping in slopes, while a train’s sliding, for any reason, while parking resulting in incorrect parking, is covered by regulation (Article 116 of GKK, sliding course).

Further correspondence and actions for this complaint continued into the following year.

3.3.3 Interventions / Issuance of recommendations following incidents at Level Crossings

Due to the increase in accidents and incidents on the Greek railway network and specifically at level crossings, RAS made an intervention sending letters with recommendations to railway operators, once more stressing the responsibility of the main actors in the EU and national railway system i.e. of the Infrastructure Manager (IM) and the Railway Undertakings (RUs), for the railway system's safe operation, risk control and the collaboration among them for the implementation of necessary risk control measures.

In order to avoid dangerous incidents, it proposed within the recommendations above various activities and actions, such as:

1. Creation of an integrated System for the Recording and Management of Level Crossings (Register);
2. Creation of an automated system for the prevention of incidents at L.C.s;
3. Establishment of a special committee aiming to conduct a study considering the need for unprotected level crossings;
4. Educational campaign to raise awareness;
5. Improvement proposals (Marking of a dangerous LC area with colours; Stripes with a rough surface on the road before the LC; Warning light (with sound) turned on from the side of the users of the road; Warning of proximity to an L.C. for vehicle drivers).

3.4 Organizational Context of Safety

In 2021 the national organizational framework in Greece as regards railway safety is as follows:

- The Ministry of Infrastructure & Transport is the legislative authority, responsible for the railway sector in Greece. OSE and its subsidiary ERGOSE operate under its supervision.
- RAS is an Independent Administrative Authority performing, among others, the duties of Greek NSA, in accordance with Law 4199/2013 and Law 4632/2019.
- The Railway Accident and Incident Investigation Committee is an Independent Administrative Authority established under article 2 of Law 4313/2014 (A' 261) in order to perform the duties of the National Investigation Body of article 22 of Directive (EU) 2016/786. For the time being this Committee is not active.
- OSE is the sole national railway infrastructure manager, holder of a valid safety authorization, operating in Greece under the supervision of the Ministry of

Infrastructure and Transport. OSE is also the owner of the only recognized Train Driver and Candidate Train Driver Training Centre.

- ERGOSE S.A. is a subsidiary of OSE, responsible for the execution of its Investment Program and the management of the new railway infrastructure projects.
- There are five (5) licensed Railway Undertakings (RUs) holding a safety certificate, as follows:
 - STASY, a public RU within the Superfund providing only passenger services, including high-speed services, safety certified (Single Safety Certificate), in operation;
 - HELLENIC TRAIN (former TRAINOSE) – Member of the Ferrovie Dello Stato Italiane S.p.A. Group, a private RU providing passenger services, including high-speed services, and freight services, including carriage of dangerous goods services, Safety Certified (Part A and Part B), in operation;
 - RAIL CARGO LOGISTIC GOLDAIR, a private RU providing freight services, including carriage of dangerous goods services, Safety Certified (Part A and Part B), in operation;
 - PEARL, a private RU providing freight services, carriage of dangerous goods services not included, Safety Certified (Part A and Part B), has not started operating for the time being;
 - GFR, a private Romanian RU providing freight services, carriage of dangerous goods included, is Safety Certified (certificate issued by ERA in April 2020) in accordance with article 10 of Directive (EU) 2016/798. GFR operates on the Romanian railway network and is expected to start its operation on the Greek railway network in 2022.
- HELLENIC TRAIN (former TRAINOSE), additionally to the performance of its transport activity as a RU, it is also an Entity in Charge of Maintenance of Freight Wagons and Rail vehicles in general (following its merge with EESSTY), holding a valid ECM certificate regarding freight wagons.
- GAIA OSE S.A. is a public enterprise, holder and manager of the existing national rolling stock, under the supervision of the Superfund.

See below the organizational chart of RAS and a table with information on the personnel of the Rail Safety & Interoperability Unit (RSIU) of RAS in 2021.

Chart 1: RAS organizational chart

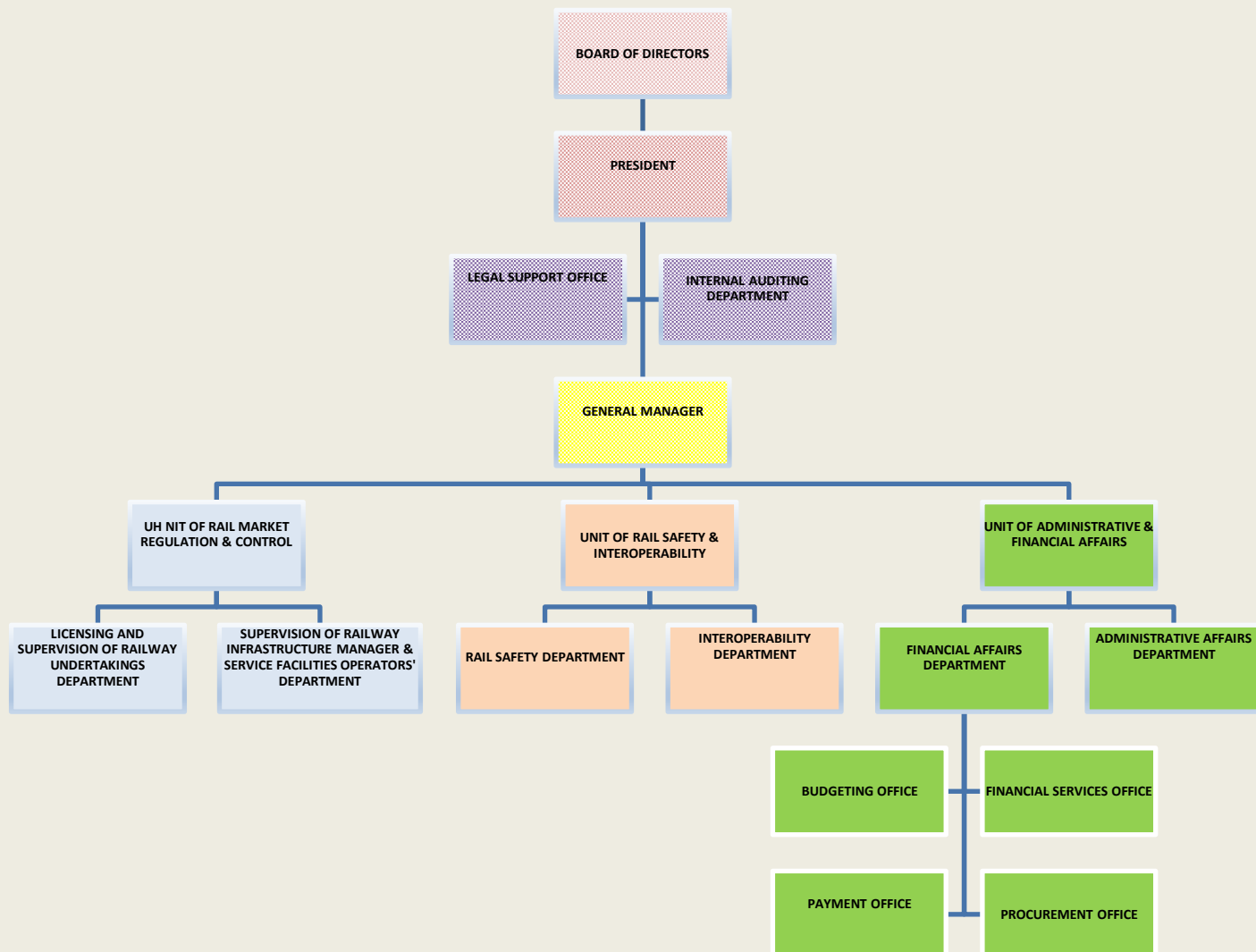


Table 1: Personnel of the Rail Safety & Interoperability Unit of RAS in 2021

Railway Safety Unit Interoperability Unit	Provided number of staff positions	Number of covered staff positions	Number of vacant staff positions
Railway Safety Department	6	6*	0
Interoperability Department	5	2	3
Total	11	8	3

*4 out of 6 officers are exclusively employed at the Railway Safety Department

4. SAFETY PERFORMANCE

4.1 Analysis of particular safety performance information in the last five years

4.2 CSI data charts



4 SAFETY PERFORMANCE

4.1 Analysis of particular safety performance information in the last five years

Based on the CSIs reported from 2016 to 2021, the following safety performance trend analysis was conducted:

Number of significant accidents:

(Definition of a significant accident: at least 1 fatality or 1 serious injury, or damages over €150.000 or a delay of more than 6 hours):

2017	2018	2019	2020	2021	2017-21 average
22	24	18	9	14	17

The total number of significant accidents for the year 2021 compared to the respective number of the previous years, with the exception of 2020, has decreased.

In 2021, as in 2020, the global community continued facing difficulties due to the COVID-19 pandemic and taking new or modified, compared to the previous, restrictive measures in all sectors of human activity was imposed. In this context, the application of restrictive measures against the spread of the pandemic was continued in railway transport, passenger and freight, in Greece and worldwide. These measures resulted in the reduction of the RUs' productive work in 2021 (limited compared to 2020) and therefore in a reduced number, compared to the average of the last five years, of significant accidents recorded.

RUs operating in the national network as well as the IM, fully harmonised with the guidelines of the Public Health Executive Agency (PHEA) and the Ministry of Infrastructure and Transport took measures during the COVID-19 pandemic for the protection of their passengers and personnel, aiming at their safety and at the prevention of its further spreading. Such measures to prevent congestion and crowding were, inter alia, the reduction of seats available for booking, with one empty seat/one occupied alternately, free window opening in trains and installations for additional fresh air input combined with the ventilation system of the wagons and the installations, etc.

A great percentage of accidents (5 accidents, 35.7%) are accidents to persons caused by rolling stock in motion. These are cases of pedestrians being carried away by trains along the

line (level crossings not included). This category remains the main cause of serious accidents. Compared to 2020 there was no differentiation in the value of the index. The most important reason for accidents is the habit of local residents (of the areas the train passes through) to cross the track on foot or walk along it at points where it is not allowed instead of using overhead pedestrian crossings or level crossings (LC), as well as the lack of road behaviour culture.

The next category of significant accidents and the one with most accidents in 2021 (7 accidents, 50%) regards Level Crossings. Such accidents involve a collision of vehicles with a train and are mainly caused due to, light and sound, sign and warning violations at the crossings by drivers. In 2021, there were 2 incidents at unprotected crossings (1 incident in 2020), 2 at crossings with manual protection system (0 incidents in 2020) and 3 incidents in crossing with automatic protection system (1 incident in 2020). There is a significant increase compared to 2020 (2 incidents) due to the relaxing of the strict measures taken in 2020, with restriction to movement (lockdown) being a typical example.

Number of fatalities:

2017	2018	2019	2020	2021	2017-21 average
18	17	12	2	6	11

The number of deaths in 2021 compared to the previous years, with the exception of 2020, for the reasons mentioned above, is reduced, as well as compared to the average of the last five years (54.5%). The six (6) deaths in 2021 are due to accidents at level crossings (5 incidents) and pedestrians hit by rolling stock in movement - suicides excluded - (1 incident).

Number of serious injuries:

2017	2018	2019	2020	2021	2017-21 average
10	12	8	7	6	8.6

The number of serious injuries in 2021 (6 incidents) is at the same level as in 2020 (7 incidents) and is reduced by 16%. It is also reduced compared to the average of the last five years (8.6).

The highest percentage (66.7) of accidents was caused to persons by rolling stock in motion. These are cases of pedestrians hit by trains along the tracks (level crossings not included), which is the main cause of serious accidents.

The second category with most serious accidents regards level crossings and there have been 2 incidents (28%). Said accidents regard a collision of vehicles with a train and are mainly caused due to sign and warning breaches at the crossings by passing-by drivers.

Number of suicides:

2017	2018	2019	2020	2021	2017-21 average
7	5	2	4	1	3.8

In 2021, there has been one (1) suicide. In the last five years there has been a steady reduction of the number of suicides with the exception of 2020.

Number of precursors to accidents:

2017	2018	2019	2020	2021	2017-21 average
126	101	74	56	86	88.6

The number of precursors to accidents in 2021, compared to the respective number in 2020, is increased by 53.6%, which is related to the increase in the productive work carried out compared to the previous year, while it is approximately on the same level as the average of the last five years.

Cost of significant accidents (in million Euro):

2017	2018	2019	2020	2021	2017-21 average
22.76	18.71	13.14	7.01	17.41	15.8

The financial cost of significant accidents, for 2021 compared to 2020, is highly increased by 140.8%, which confirms the increase of the productive work in 2021 compared to 2020. Compared to the average of the last five years it is slightly increased.

This increase is due to one incident that took place on 25/08/2021, related to the derailing of two wagons of a freight train in the area of Serres. It was a derailment accident and it specifically involved the derailing and overturn of two tank cars at kilometric point 173+700 of the Thessaloniki-Alexandroupoli line and the subsequent leakage of 5,400lt (or 4,401kg) of oil fuel.

The cost due to fatalities amounts to €14.78 million (which remains the greatest part of the total cost) and is significantly increased compared to 2020 (€4.46million) in conjunction with the increase in fatalities (6 in 2021 and 2 in 2020). The cost due to injuries amounts to €2.26 and is slightly reduced compared to 2020 (€2.39 million).

The cost of material damages in trains and superstructure due to significant accidents is €0.37 million and is significantly increased compared to 2020 by 184.6%.

Delays of passenger trains due to significant accidents amount to 1457' and are increased by 43.3%, while the delays of freight trains amount to 240' and are decreased by 29% compared to the previous year.

Technical safety of infrastructure and its implementation, safety management:

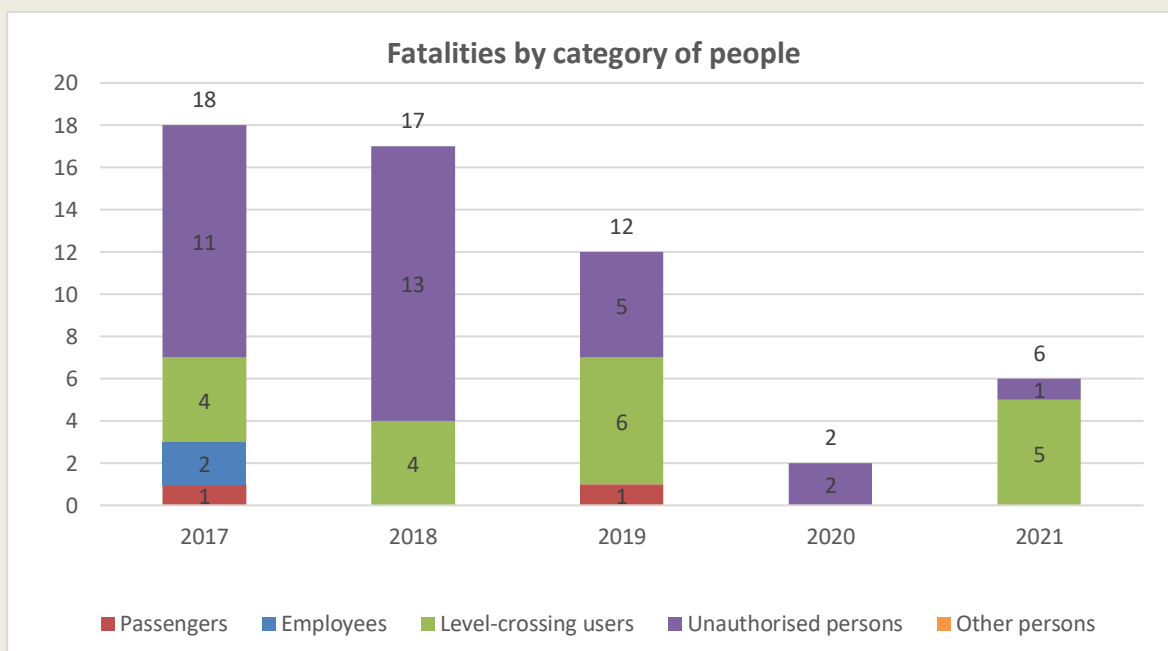
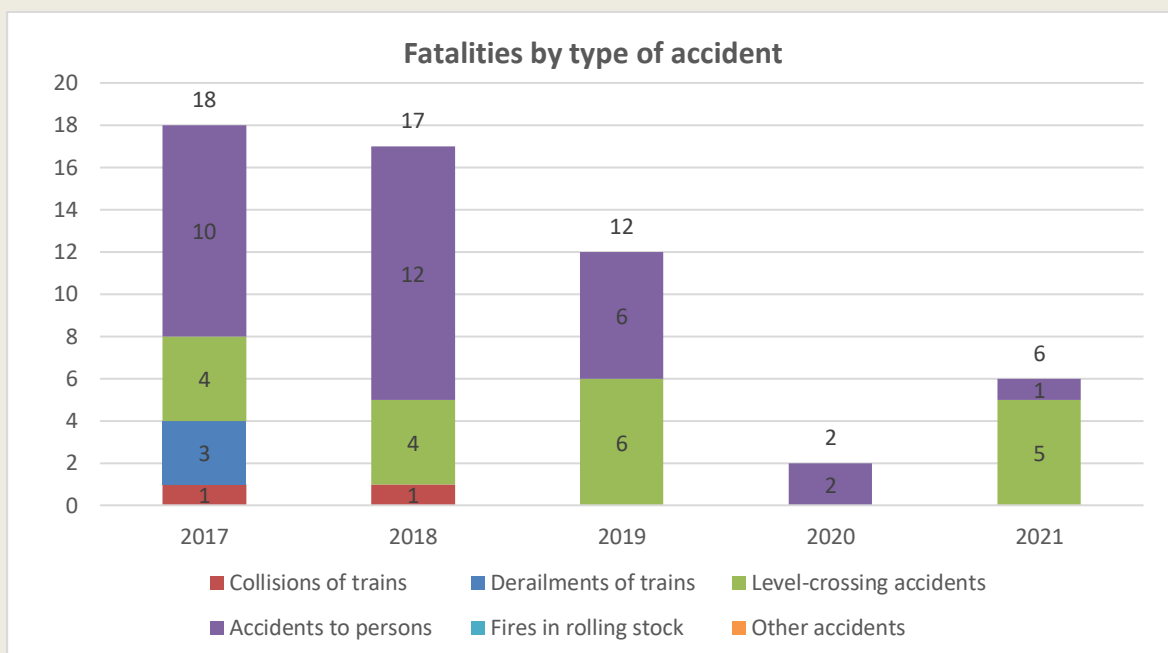
Number of level crossings by type:

	2017	2018	2019	2020	2021
Active	692	695	685	684	685
Passive	571	568	551	552	549

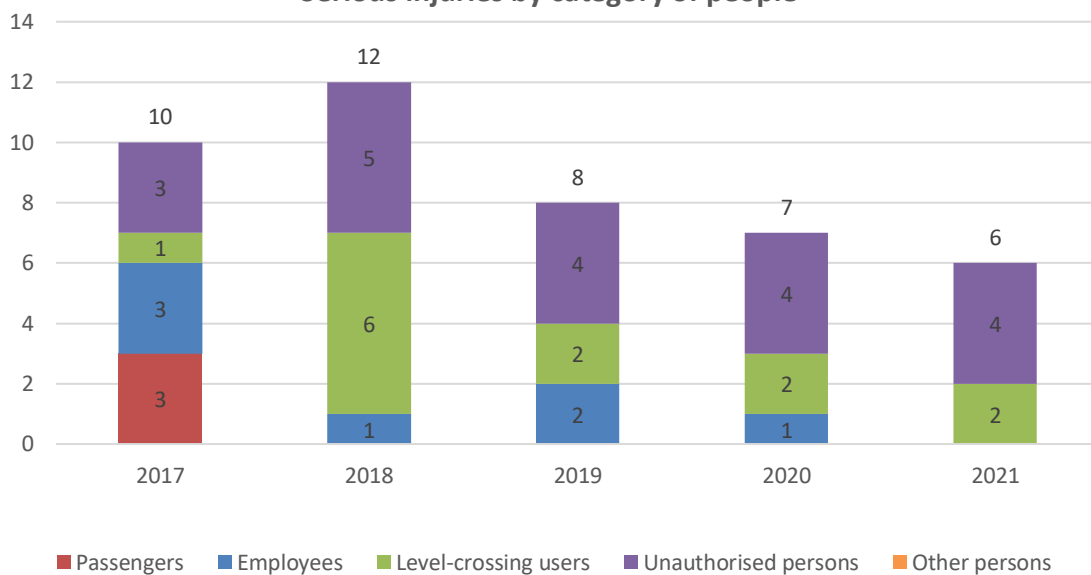
Total	1263	1263	1236	1236	1234
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The number of LCs of the national network was slightly decreased (by two LCs) compared to 2020. In the previous years, due to the gradual delivery of parts of the new line in operation there has been a reduction of level crossings (both active LCs and passive LCs).

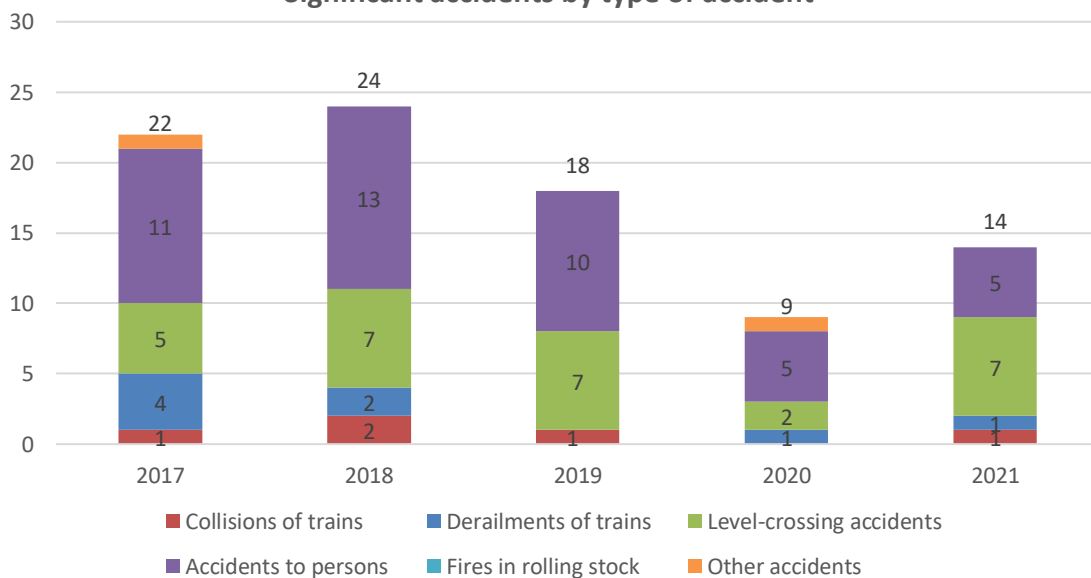
4.2 CSI data charts



Serious injuries by category of people



Significant accidents by type of accident



5. EU LEGISLATION AND REGULATION

5.1 Changes in laws and regulations

5.2 Derogations pursuant to Art. 15 Directive (EU) 2016/798



5. EU LEGISLATION & REGULATION

5.1 Changes in laws and regulations

In 2021 the COVID-19 pandemic was continued and it was necessary to take special measures for the support of the railway sector, both at the European and at the national level. Such measures include the adoption of Regulation (EU) 2021/267 (Omnibus II) under which measures were taken regarding the renewal or extension of certain certificates, licenses and authorizations and the suspension of certain periodic audits and periodic training in certain sectors of the transport legislation.

All legislative acts of 2021 were issued following a collaboration with and notification of the railway sector, with the care of the Greek Ministry of Infrastructure & Transport and RAS.

In 2021, the following legal and regulatory acts on railway safety and interoperability were issued on a European level:

1. Regulation (EU) 2021/267 of the European Parliament and Council of 16 February 2021 on the adoption of special and temporary measures due to the continued crisis of COVID-19, regarding the renewal or extension of certain certificates, licenses and authorizations, the suspension of certain periodic audits and periodic training in certain sectors of the transport legislation and the extension of certain periods mentioned in the Regulation (EU) 2020/698.
2. Implementing Regulation (EU) 2021/541 of the COMMISSION of 26 March 2021 for the amendment of Regulation (EU) 1305/2014 with regard to the simplification and improvement of the calculation and exchange of data and the update of the management process for the audit of changes (TAF TSI).
3. Implementing Decision (EU) 2021/701 of the COMMISSION of 27 April 2021 for the correction of Implementing Decision 2011/665/EU for the European register of types authorised railway vehicles.
4. Decision (EU) 2021/1361 of the Commission of 30 June 2021 authorising Greece to implement an extension of the period defined in article 10 of Regulation (EU) 2021/267 of the European Parliament and Council.
5. Implementing Decision (EU) 2021/1730 of the COMMISSION of 28 September 2021 regarding the harmonised use of paired frequency bands 874,4-880,0 MHz and 919.4-925.0 Mhz and of the non paired frequency band 1 900-1 910Mhz for mobile railway radio communication.

6. Implementing Regulation (EU) 2021/1903 of the COMMISSION of 29 October 2021 for the amendment of Implementing Regulation (EU) 2018/764 regarding the fees and charges that must be paid to the European Railway Agency and the terms of payment thereof.

In 2021, the following legal and regulatory acts regarding, inter alia, railway safety and interoperability were issued at the national level:

1. Law No 4850/2021 (A' 208) "Driving safely: Modernisation of the training and examination framework for candidate drivers and drivers for their granting with vehicle driving licenses, provisions on driving for persons with disabilities, provisions on the classification and operation of vehicles of historic interest, other provisions under the competence of the Ministry of Infrastructure and Transport and other urgent provisions".
2. JMD No Γ5/145078/03-06-2021 (B' 3202) "Adaptation of the Greek legislation to the provisions of Directive 2008/68/EC of the European Parliament and Council, on the inland transport of dangerous goods, as the appendices thereof were adapted to scientific and technical progress with Directive (EU) 2020/1833 of the Commission".

5.2 Derogations pursuant to Art. 15 Directive (EU) 2016/798

In Greece, no derogation pursuant to Art. 15 Directive (EU) 2016/798 has taken place in 2021.

6. SAFETY CERTIFICATIONS, SAFETY AUTHORISATIONS AND OTHER CERTIFICATES ISSUED BY THE NSA

- 6.1 Single Safety Certificates and Safety Authorisations
- 6.2 Vehicle Authorisations
- 6.3 Entities in Charge of Maintenance of Freight Wagons (ECM)
- 6.4 Train Drivers
- 6.5 Other types of Authorizations and Certifications
- 6.6 Contacts with other National Safety Authorities
- 6.7 Exchange of Information between NSAs and Railway Operators
- 6.8 Cooperation with the EU Railway Agency



6. SAFETY CERTIFICATIONS, SAFETY AUTHORISATIONS AND OTHER CERTIFICATES ISSUED BY THE NSA

6.1 Single Safety Certificates and Safety Authorizations

In 2021 one (1) Single Safety Certificate was issued in Greece by RAS, applying article 62 (8) of Law 4632/2019 and Regulation (EU) 2018/762, to STASY RU. Furthermore, the safety certificates (Part A and Part B) in the table below, issued pursuant to PD 160/2007 and Regulations (EU) 1158/2010 and 1168/2010, shall remain in force until their expiry date.

The valid Safety Certificates and Safety Authorizations issued by RAS until the end of 2021 are shown in the table below:

Company	History	Date of issue	Valid until	Certificate Type	Type of service
OSE	Renewed	04-10-21	03-10-25	Safety Authorisation	Infrastructure Manager
PIRAEUS EUROPE ASIA RAIL LOGISTICS (PEARL) SA	Amended	21/03/18	09/11/22	Safety Certificate - Part B	Freight, carriage of dangerous goods not included
PIRAEUS EUROPE ASIA RAIL LOGISTICS (PEARL) SA	Amended	21/03/18	18/12/21	Safety Certificate - Part A	Freight, carriage of dangerous goods not included
RAIL CARGO LOGISTICS GOLDAIR (RCLG) SA	New	21-06-17	20-06-22	Safety Certificate - Part B	Freight, dangerous goods carriage services included
RAIL CARGO LOGISTICS GOLDAIR (RCLG) SA	New	30-09-16	29-09-21	Safety Certificate - Part A	Freight, dangerous goods carriage services included.

Company	History	Date of issue	Valid until	Certificate Type	Type of service
TRAINOSE S.A.	Renewed	28-12-17	31-12-22	Safety Certificate - Part A	Passenger, high-speed services included - Freight, carriage of dangerous goods included
TRAINOSE S.A.	Renewed	28-12-17	31-12-22	Safety Certificate - Part B.	Passenger, high-speed services included - Freight, carriage of dangerous goods included
STASY S.A.	New	07-11-21	06-11-26	Single Safety Certificate	Passenger, high-speed services included
TRAINOSE	Amended	18-10-21	10-10-23	ECM Certificate	Freight wagons, including tank cars for dangerous goods and other special freight wagons for the transfer of dangerous goods

For the time being, there has been no case of a Safety Certificate or a Safety Authorization having been revoked in Greece.

There were no changes in the procedures of RAS for issuing Safety Certificates and Safety Authorizations, with the exception of the ones introduced by new legislation, by which 4th Railway Package was transposed (Law 4632/2019).

OSE

The No EE EL 21 2015 0001 Safety Authorization Recognition of OSE S.A. Infrastructure Manager, which was to expire on 04-06-20, was extended due to measures related to the

outbreak of the COVID-19 pandemic, in accordance with Regulations (EU) 2020/698 & 2021/267, until **03-10-2021**.

In June 2020, OSE submitted to RAS an application for the renewal of its safety authorization, submitting a file with the required documents. The examination and assessment of the application for the granting of a renewal of the safety authorization, as well as of the accompanying documents was carried out and completed by RAS legally based on Article 12 of Directive (EU) 2016/798, Article 64 of Law 4632/2019 (A' 159). According to the aforementioned assessment and the provisions in Appendix II paragraph 4.5 to the Recommendation (EU) 2019/780, the renewal of the safety authorization was granted with a notification for taking measures necessary to remedy shortcomings, the nature of which does not impede the granting of a renewal of an IM safety authorization. The completion of the necessary actions shall be audited by RAS during supervision, after the issuance of the renewal of the IM safety authorization.

IM safety authorization No EL 21 2021 0001 was granted by decision of the RAS Plenary in October 2021 and shall be valid for five years, from **04.10.2021** through to **03.10.2026**.

TRAINOSE S.A.

Since 2017, TRAINOSE S.A. Holds the renewed Safety Certificates Part A (EL 11 2017 001) and Part B (EL 12 2017 0003), valid for five years, until 31-12-2022. RAS has posted said certificates on the ERA's ERADIS register.

STASY S.A.

Since 2016, Railway Undertaking STASY SA holds Safety Certificate (Part A) No EL 11 2016 0001 and Safety Certificate (Part B) No EL 12 2016 0001. The Safety Certificates granted by RAS, in application of the provisions of Article 10 PD 160/2007, are valid for five years, until 14-07-2021 and have been posted on ERA's ERADIS register.

Due to the COVID-19 pandemic and the charges imposed on the transport sector on a European level, the EU adopted special and temporary measures in order to deal with the crisis, including the extension of the deadlines provided in Directive 2004/49/EC. In this context, applying Article 10 of Regulation (EU) 2021/267 (Omnibus II) of the European Parliament and the Council of 16 February 2021, in conjunction with Commission Decision No 2021/1361 of 30.06.2021, the expiry date of STASY Ru's A&B certificates was extended for ten (10) months, that is they shall be valid until 14.05.2022.

On 04/06/2021, STASY RU submitted via OSS an application for the issuance of a single safety certificate with application ID S-20210604-002 and selected the Regulatory Authority for Railways (RAS) as the safety certification body. The application defined the kind of service involved as “Passenger transfer excluding high speed services” and the place of service provision as the “DOUKISIS PLAKENTIAS - AIRPORT” part of the National Railway Infrastructure. The application was accompanied by evidence for the coverage of the SMS part, the Technical Specification for Interoperability for the Conduct and Management of Traffic (TSI CMT) and the national part with regard to the compliance with national rules in the safety sector. Following the assessment of the submitted application file in accordance with Regulation (EU) 2018/763 and via the One Stop Shop (OSS), RAS granted a single Safety Certificate, applying Article 62 of Law 4632/2019, valid for five years, from 07/11/2021 through 06/11/2026. The single safety certificate proves that the R.U. has adopted a Safety Management System (SMS) and is able to operate safely at the location where it intends to provide its services, as provided in Article 62 of Law 4632/2019.

Railway Undertaking STASY SA holds Single Safety Certificate No EL1020210173. The single safety certificate is posted on the ERA’s ERADIS register.

RAIL CARGO LOGISTICS GOLDAIR S.A. (RCLG)

Since 2016, Rail Cargo Logistics Goldair (RCLG) S.A. railway undertaking holds No EL 11 2016 0002 Safety Certificate (Part A), which is valid for five years until 29-09-2021, and since 2017 the No EL 12 2017 001 Safety Certificate (Part B), which valid for five years through 20-06-2022. The Safety Certificates (Part A & B) are posted on the ERA’s ERADIS register.

In 2021, RAS informed the RU about the impending expiry of the safety certificates (Part A and B) within the year, as well as the application and accompanying file submission process via the OSS service for the issuance of a single safety certificate. During the first supervision meeting in 2021 of said RU, there was a more detailed description of the application submission procedure for obtaining a single safety certificate, as well as for the possibility of selecting the certification among RAS and ERA. The RU officers informed us that they shall select RAS as the certification body and RAS stressed again that because of the impending expiry of the valid certificates they should proceed to immediate actions for the submission of an application. The requirements of Article 62 (8) of Law 4632/2019 (A’ 159) were specifically mentioned with regard to the validity of the single safety certificate at stations in neighbouring Member States.

PIRAEUS EUROPE ASIA RAIL LOGISTICS (PEARL) SA

Since 2016, PEARL SA RU holds the No EL 11 2016 0003 Safety Certificate (Part A), which is valid for five years until 18/12/2021, and since 2017, the No EL 12 2017 002 Safety Certificate (Part B), which is valid for five years through 09-11-2022. Following a respective application submitted by the RU for the amendment of the Safety Certificates - Part A and Part B, on 21/03/2018 RAS issued Safety Certificate (Part A) No EL 11 2018 001 and Safety Certificate (Part B) No EL 12 2018 001, Part A being valid until 18/12/2021 and Part B until 09/11/2022. The Safety Certificates (Part A & B) are posted on the ERA's ERADIS register.

In 2021, RAS informed the RU about the impending expiry of the safety certificates (Part A and B) within the year, as well as the application and accompanying file submission process via the OSS service for the issuance of a single safety certificate. During the first supervision meeting in 2021 of said RU, there was a more detailed description of the application submission procedure for obtaining a single safety certificate, as well as for the possibility of selecting the certification agent among RAS and ERA. RU officers informed us that they shall select RAS as the certification body and RAS stressed again that because of the impending expiry of the valid certificates they should proceed to immediate actions for the submission of an application. The requirements of Article 62 (8) of Law 4632/2019 (A' 159) were specifically mentioned with regard to the validity of the single safety certificate at stations in neighbouring Member States.

GFR

Since 2020, GFR RU holds Single Safety Certificate, which was issued by ERA, on 06/04/2020, with the EU1020200017 identification number and period of validity from 09/04/2020 to 08/04/2025.

In 2021, the RU with its application No S-20210429-002 addressed to ERA asked for the update of the above Single Safety Certificate due to extension of its operation area up to cross border stations of Kulata and Svilengrad within the Bulgarian territory. The updated certificate, No EU1020210087, was issued by ERA on 21/07/2021, with the participation of the Romanian, Greek, and Bulgarian NSAs, each one of which assessed the national part of the application and the submitted file. The updated certificate shall be valid from 21/07/2021 until 08/04/2025 and has been posted on the ERA's ERADIS register.

Apart from the case above, no other discussions or cooperation with other NSAs have taken place concerning the issuance of a Safety Certificate or Authorization in 2020.

6.2 Vehicle Authorizations

With regard to 2021, RAS in conjunction with ERA, for the cases of extension of area of use, or for the Greek network being the area of use, and with ERA having been selected as the authorisation body by the applicant, assessed, via the OSS platform, based on the relevant legislation, the applications and technical files as regards the national part, for the authorisation of two (2) engine vehicles (one electric and one diesel) to be launched in the Greek market by the GFR SA RU - Greek Branch S.A. The two applications were submitted on 02/03/2021, while the authorisations of vehicles to be launched in the market and the authorization of vehicle type were issued by ERA on 09/07/2021.

Furthermore, RAS as the authorization body assessed, via the OSS platform, based on the relevant legislation, the application and technical files for the new authorisation of self-propelled electric passenger train of TRENITALIA S.p.A. The application regarded authorization in the Greek networks, was submitted on 28/04/2021, was assessed under the applicable legislation, and was authorised on 22/02/2022.

Finally, in the context of the assessment of preliminary contact applications and technical files for vehicle authorization, the following assessments took place:

- for the case of a new application (due to rejection of the first one in 2020), of preliminary contact for vehicle authorization and authorization of one propelling unit vehicle type of the CRRC Zhuzhou company, RAS in conjunction with ERA as the authorization body, assessed, via the OSS platform, the basis of the preliminary contact as to the national part of the application. The application regarded the authorization in five (5) Member States and in particular Bulgaria, Croatia, Greece, Hungary, and Romania, it was submitted on 29/06/2021, it was assessed under the applicable legislation and was accepted by ERA on 14/12/2021.
- for the case of preliminary contact for a new authorization of a self-propelled electric passenger train of TRENITALIA S.p.A., RAS as the authorization body, assessed via the OSS platform the basis of the preliminary contact. The application regarded authorization in the Greek networks, was submitted on 11/01/2021, was assessed under the applicable legislation, and was authorised on 22/03/2021.

6.3 Entities in Charge of Maintenance (ECM) of Rail Vehicles

RAS is the body assigned by the Greek legislation with the duties of the competent ECM Certification Body with certificate No EL/30/0021/001, in accordance with Article 66 of Law

4632/2019, as described in Regulation (EU) 2019/779. On 16/06/2020, this Regulation replaced Regulation (EU) 445/2011.

In accordance with the above Regulation in force, RAS as a Certification Body grants ECM certificates following the assessment of the applicant's capacity to fulfil the relevant requirements of Appendix II to the Regulation (EU) 2019/779. Said certificate is valid for a five (5) year period. In order to ensure continuous conformity of the ECM in terms of applicable requirements, the Regulation includes a post-certificate surveillance system.

In accordance with the new Regulation, ECM certification is obligatory for every entity in charge of maintenance:

- a) responsible for the maintenance of freight wagons or
- b) which is not a railway undertaking or infrastructure manager maintaining vehicles exclusively for its own operations.

Every entity in charge of maintenance of vehicles, except for those mentioned in clauses (a) and (b), may submit an ECM certification application.

The certification system offers responsibility and traceability evidence for the maintenance carried out to the vehicles. It also defines a certification procedure ensuring a transparent and structured management system for maintenance operations and contributes to the reduction of the load and repetition of checks and/or checks in the entirety of the railway sector. ERA publishes the list of accredited and recognised certification bodies, as well as the ECM certificates in the ERADIS data base.

In May 2020, TRAINOSE due to the merger of the companies TRAINOSE - subsidiary of Ferrovie Dello Stato Italiane S.p.A. - and EESSTY, with the acquisition of EESSTY by TRAINOSE, submitted an application for the update/amendment of the existing ECM Certificate of the EESSTY former company, in accordance with the provisions of Regulation (EU) 445/2011, so that it is updated pursuant to the new ownership structure and organizational chart.

The review and assessment of the application for the issuance of a Certificate, as well as of the accompanying documents, was performed and completed in 2021 by RAS under Article 66 Law 4632/2019, with a notification to take measures necessary for the resolution of the remaining issues, the nature of which does not impede its granting. The completion of the actions required for the resolution of the issues shall take place at a subsequent supervision, after the issuance of the certificate. A decision taken by the Plenary in October 2021 approved the update/amendment of ECM certificate No EL3100180001 of EESSTY and the forwarding thereof to TRAINOSE.

The updated/amended certificate granted by RAS shall be valid for two years from 18.10.2021 until 10.10.2023.

TRAI NOSE holds ECM certificate No **EL 3100210001**.

RAS, in order to facilitate the interested parties, has drafted a summary procedure for the issuance of the ECM certificate, the setting up of a post-certificate surveillance system, as well as for the amendment, renewal, suspension or withdrawal thereof. The procedure can be found on RAS's website. Furthermore, RAS prepares every year an ECM Surveillance Framework-Plan for the next year.

6.4 Train Drivers

6.4.1 General

RAS is the competent authority for the supervision of the implementation of the provisions of Law 3911/2011 (Gov. Gaz. 12/A/08-02-2011), transposing in the Greek Law European Directive 2007/59/EC and regulating train driver licensing and certification issues, for train drivers operating in the Greek railway network. In accordance with these provisions, every train driver should hold:

- A **license** proving that the train driver fulfils the minimum requirements with regard to medical requirements, the basic training and general professional credentials.
- One or more **certificates**, specifying the infrastructures on which the certificate holder is allowed to drive, as well as the rolling stock they are allowed to drive.

Both the license and the certificate are granted following a relevant training in certified and recognised training centres and a successful examination by RAS as regards the license and by the Railway Undertaking (RU) or the Infrastructure Manager (IM) as regards the certificate.

6.4.2 Issuance of train driving licenses

In accordance with L.3911/2011, RAS is the competent authority for the issuance of train driver licenses under the community template of Appendix I to Regulation (EU) No. 36/2010. According to the provisions of the above law, the printing of train driver licenses was assigned to the Hellenic National Passport and Secure Document Centre of the Headquarters of the Hellenic Police (DDEA).

RAS, applying the above legislation, has installed and operates the "TRAIN DRIVER LICENSES" electronic online programme/application, via which it receives applications for the issuance and granting of train driver licenses.

The first licenses were issued in February 2019, in accordance with the template of Annex I to Regulation (EU) 36/2010, and in 2021, 43 licenses were issued in total, 24 of which

regarded the conversion of valid national licenses into “European” licenses while 19 regarded a new issuance of “European” licenses. The licenses issued in 2021 regarded STASY (3), RAIL CARGO (4), TRAINOSE (16) RUs and the Infrastructure Manager OSE (20).

6.4.3 Keeping of the National Register of Train Driver Licences

In accordance with Article 22 Law 3911/2011, competent authorities must keep a National Register of Train Driver Licences, in which details and information are registered regarding the train driver licences issued, also pursuant to Decision 2010/17/EC.

With the details of each license at the Register the “date of the next medical examination” is registered inter alia, in accordance with the Health Certificate provided for in Annex II of Article 9 JMD No ΑΣ19/38259/1879/23-09-2016 (B’ 3242) and the required frequency provided in Chapter 3 of Annex I to Article 31 of Law 3911/2011. In 2021 RAS proceeded to the withdrawal of licenses either because the deadline for the periodical examinations had expired, or because the train driver was deemed by the competent doctors as “Not Able” at the Health Certificate, in the context of periodic medical examinations following the train driver license issuance.

The “TRAIN DRIVING LICENSES” programme/application is connected and feeds the National Train Driver Licences Register kept by RAS with the data of the train drivers, in accordance with Decision 2010/17/EU “on the adoption of the main parameters for registers of train driving licences”.

In 2021 the National Register of Train Driving Licences contained information for 318 train driving licenses, of which 35 licenses have been suspended.

6.4.4 Train driver certificates

RAS requested that the RUs begin issuing train driver certificates for train drivers for whom a train driving license has been issued and that they keep a Complementary Certificate Register. TRAINOSE, STASY, and RCLG RUs have issued the train driver certificates in accordance with the template of Annex II to Regulation (EU) 36/2010 and have distributed copies thereof to the train drivers.

TRAINOSE RU gave RAS access via cloud to the electronic folder with the train driver certificates and the Register thereof, in accordance with the provisions in the legislation, for the performance of RAS’s supervision activities. Similarly PEARL RU sent the train driver certificates in an electronic format and granted access to the electronic file with the train driver certificates and to the Register thereof. In case of any amendment, STASY RY sends an

updated spreadsheet containing the train driver certificates. Respectively, RCLG RU sends an updated PDF file.

The certificates are reviewed by officers of the Railway Safety Department in accordance with the attestations by the OSE training centre for the completion of the authorized training programme and the attestations by the RU for the successful completion of exams.

6.4.5 Recognition and Operation of the OSE Training Centre for train driver and candidate train driver training

The Regulatory Authority for Railways (RAS) is the competent authority for the recognition of train driver and candidate train driver training centres, in accordance with Article 2 of JMD ΑΣ19/οικ.53229/395 / 09-07-2018 (Gov. Gaz. B 2838/16.07.2018).

In accordance with the above, RAS recognised OSE's Training Centre as a train driver and candidate train driver training centre with its No 8495/23.08.2018. OSE's training centre has been recognised for the following training duties:

- i. General professional knowledge, required for the acquisition of a train driving license, in accordance with Appendix III, to Law 3911/2011.
- ii. Professional knowledge required for the acquisition of a train driver certificate for rolling stock, in accordance with Appendix IV to Law 3911/2011.
- iii. Professional knowledge required for the acquisition of a train driver certificate for infrastructure, in accordance with Appendix V to Law 3911/2011.
- iv. Language knowledge required for the acquisition of a train driver certificate, in accordance with paragraph 8 of Appendix V to Law 3911/2011.

The statement of recognition of the OSE training centre for train drivers and candidate train drivers was issued by RAS in 2018 and is valid until 22-08-2023.

In 2021, RAS did not issue a new statement of recognition for a train driver and candidate train driver training centre.

With regard to the candidate train driver training, the OSE recognised training centre submitted an updated Training Programme with regard to the train driver certificate, under the provision of Article 23 of Law 3911/2011. The Railway Safety Department reviewed the submitted programme and prepared a recommendation to the Plenary of RAS for its approval, which was granted in 2022.

6.4.6 Regulation of Medical Issues of Train Drivers and Candidate Train Drivers / Medical Doctor Recognition

In the beginning of 2017, applying the requirements of JMD No Σ19/38259/1879/2016 (Gov. Gaz. 3242/B/10.10.2016), RAS proceeded to the publication of an open call for the expression of interest, which will remain permanently valid, for the submission of applications/participation of doctors in the procedure of recognition of medical doctors conducting medical examinations provided in Law 3911/2011.

The call for the expression of interest in accordance with the JMD will remain permanently valid, meaning that RAS continues collecting the applications of interested parties, in order to regularly update the Recognised Medical Doctor Register.

In 2021, RAS granted recognition to forty (40) doctors to conduct the required examination for the confirmation of the physical and occupational psychological fitness of train drivers and candidate train drivers. Out of those, ten (10) regarded a new recognition and thirty (30) regarded a renewal of recognition.

It is noted that in the Recognised Medical doctor Recognition all doctors of NHS public entities can be included, as provided for in article 3 of the aforementioned JMD.

6.4.7 Train Driver and Candidate Train Driver Trainer Competence Certification

Article 76 of Law 4530/2018 (A'59) provides for a competence certification for trainers at train driver and candidate train driver training centres by RAS. Applying said Article, RAS's Decisions No 7690/11-05-2018 (Gov. Gaz. B' 1691) and 8664/01-10-2018 (Gov. Gaz. B 4687/18-10-2018) were issued in 2018 and published in the Gov. Gaz. on the credentials, terms, and conditions for the issuance of train driver trainer certification.

Implementing the requirements of the above Decisions, RAS published a relevant open call for expression of interest, which will remain permanently valid, for the submission of applications of participation in the train driver-candidate train driver trainer training competence certification and the registration thereof in the Certified Trainer Register, kept by RAS and published on RAS's website under Law 3911/2011. It is noted that the competence certificate is valid for three years and may be renewed in accordance with the provisions of the aforementioned Decisions by RAS.

In 2021, RAS granted a Competence Certification to two (2) train driver - candidate train driver trainers. By the end of 2021, the trainer register included 154 trainers.

In the context of the renewal of the train driver trainer training competence certification, forty five (45) applications for the renewal of driver & candidate train driver Trainer Training Competence Certification were submitted to RAS. For the renewal of the certification of train driver trainers registered in the Train Driver Trainer Register, the interested parties must [Regulatory Authority for Railways, 33 Stadiou str. | 105 57 Athens | info@ras-el.gr](https://www.ras-el.gr)

provide proof of a teaching experience of 150 hours or attendance at a trainer training programme of at least 50 hours. The applications were assessed and the decision was issued in the following year.

6.4.8 Recognition of Examiners of Train Drivers and Train Driver Candidates

Article 76 of Law 4530/2018 (Gov. Gaz. 59/A/30-3-2018) provides for the recognition by RAS of examiners to check the skills required of candidate train driver in order to acquire a train driver license. Applying said article, decision No 9442/14.01.2019 (Gov. Gaz. 359/B/11-02-2019) “Definition of qualifications, terms and conditions for the granting of initial recognition and renewal thereof for the examiners at the Train Driver and Candidate Train Driver Training Centre” was issued and published by RAS in 2019.

In 2021, RAS granted recognition to four (4) train driver-candidate train driver examiners and a renewal of recognition to six (6) examiners. By the end of 2021, the examiner register included 25 examiners.

6.4.9 Training - Candidate Train Driver Examinations

The process for organizing and conducting the examination to obtain a train driver license is defined by RAS decision N. 10720/18--07--2019 (Gov. Gaz. B 2962/19--07--2019).

In accordance with the above framework, following a decision by the President of RAS, the Central Examination Committee (CEC) was established for organizing and defining the conducting of examinations, with a three-year term.

By a decision, CEC approved the pool of questions for the examinations to be enriched with further questions, submitted by OSE’s recognised training centre and certified trainers. The enriched pool of questions was posted on RAS’s webpage. For the purposes of conducting the examination, CEC established Examination Committees made up of examiners listed in the Recognised Train Driver Examiner Register kept by RAS.

Applying the above decisions, theoretical and practical examinations took place on 25/06/2021 and on 28/06/2021 at the OSE vocational training centre and at the Service in the part D. Plakentias R.S. - El. Venizelos Athens Airport R.S. respectively, with three (3) train driver candidates of the STASY RU participating.

The RAS Plenary approved the results of the examinations the candidate train drivers had taken and the granting of an examination success certificate to successful candidates so that they could apply for the issuance of a train driver license.

6.5 Other types of Authorizations /Certifications

In the context of the assessment of applications and technical files for the authorization of the placing into service of fixed installations, OSE, as the infrastructure manager submitted [Regulatory Authority for Railways, 33 Stadiou str. | 105 57 Athens | \[info@ras-el.gr\]\(mailto:info@ras-el.gr\)](#)

in December 2021 an application and technical files for the authorization of the placing into service of the “Track-side control - operation and signalling (CCS)” subsystem. The object of the application was the GSM-R system radio communication subsystem at the parts of the Piraeus-Thessaloniki-Promahonas, Kiato-Airport railway axes, and the Thriasio-Ikonio and Inoi-Chalkida line branches.

The result of the detailed assessment of this particular application is expected to be issued at the end of 2022.

Finally, it is noted that in 2021 RAS continued the consultation with both GAIAOSE, holder of rolling stock, and ERA with regard to the procedure to be followed in order for the GAIAOSE vehicles to be authorized after they are fitted with the level 1 on-board ETCS subsystem.

6.6 Contacts with other National Safety Authorities

In 2021, RAS collaborated with ERA representatives as well as the Romanian and Bulgarian NSA, in the context of the assessment of the application of GFR RU for the update of the single safety certificate.

In 2021, no requests from/to other NSAs asking for information on authorisations/certifications were sent because there is no RU operating an international route between Greece and a neighbouring country.

There were no outcomes of discussions with other NSAs on supervision results.

6.7 Exchange of Information between NSAs and Railway Operators

In 2021, RAS continued exchanging views and information with railway operators on issues related to railway safety and interoperability. This exchange of information is usually carried out through regular and extraordinary supervision, or other meetings as well as through correspondence. Railway Operators can express opinions on issuing procedures/practices, can file complaints to RAS and can raise any topic for discussion. In accordance with the regulatory framework for supervision, at least one supervision meeting with each railway operator separately and at least one joint meeting with all the actors are carried out on an annual basis.

The topics discussed at the as above meetings in 2021 are listed below:

- An overview of the supervision activities of RAS in 2021 and their results - Planned actions related to the implementation of the 2022 Supervision.

- Safety Culture Information by the RO for actions regarding the implementation of a safety culture.
- Implementation of Law 4632/2019 (A' 159) – Outstanding issues with its implementation (issuance of secondary legislation, drivers etc.).
- Implementation of the revised General Traffic Regulation (GKK) – Part B' - Information on problems arising from its implementation.
- Drafting of RAS decision for the certification of personnel with Crucial Safety Duties - Vehicle Control Technician Training Programme (Visitors).
- Information on the assessment of National rules in the safety sector by ERA.
- Cross border infrastructure and traffic. Issuance of train driver certificates for border infrastructure.
- Train Driver Training (updating the pool of questions, etc.).
- Amendment of Article 23 of Law 3911/2011 (A'12).
- National Rules on Safety (NRS) and Acceptable Means of Compliance.

6.8 Cooperation with the EU Railway Agency

In 2021, RAS and the Agency collaborated within the framework of the Cooperation Agreement they concluded on 11-06-2019 in Bucharest, pursuant to article 76, Regulation (EU) 796/2016.

Specifically, they collaborated for the assessment of:

- Application S-20210429-002 by GFR RU for the Update of a single safety certificate with service provided in Romania, Bulgaria, and Greece. Within this framework, RAS evaluated the national part of the application. The relevant EU1020210087 single safety certificate was issued by the Agency on 21-07-2021, and is valid until 08-04-2025.
- Applications V-20210302-001 and V-20210302-002 by GFR RU for the authorization of area use extension of two locomotives in the Greek network. In this context, RAS assessed the national part of the above applications. The two applications were submitted on 02/03/2021, while the authorisations of vehicles to be launched in the market and the authorization of vehicle type were issued by ERA on 09/07/2021.
- Application of preliminary contact P-20210629-001 by CRRC Zhuzhou company for vehicle authorization and vehicle type authorization of an engine block. RAS in conjunction with ERA as the authorization body, assessed via the OSS platform the preliminary contact basis as regards the national part of the application. The

application involved the approval in five (5) Member States and in particular Bulgaria, Croatia, Greece, Hungary, and Romania, it was submitted on 29/06/2021, it was assessed based on the applicable legislation and it was accepted by ERA on 14/12/2021.

7. SUPERVISION

- 7.1 Strategy, planning and decision making
- 7.2 Supervision results
- 7.3 Coordination and cooperation
- 7.4 Follow-up audit of the RAS performance and decision making by the Agency



7. SUPERVISION

7.1 Strategy, planning and decision making.

The supervision of railway operators is one of the most important activities of RAS, in the context of duties performed as the National Safety Authority (NSA) under Article 68 of Law 4632/2019 (A' 159).

Delegated Regulation (EU) 2018/761 provides that supervision should be focused on the activities the NSA deems as posing the most serious risks or in cases when risks are less controlled. To this end, the NSA should prepare and implement a risk-based supervision Strategy and Plan(s), describing the way it selects the goals of its activities and the way it defines its priorities with regard to supervision.

Furthermore, in the provisions of article 4 of the RAS regulatory framework for supervision, it is mentioned that by its decision RAS approves, issues and implements a Supervision Strategy of a three-year duration, posted on its webpage.

For the implementation of the above requirement the Railway Safety and Interoperability Unit (RSIU) drafted a Supervision Strategy for RAS for the period 2020-2022, in accordance with the requirements of Annex I to the Delegated Regulation (EU) 2018/761, approved by RAS's Plenary in October 2020. This Strategy has been posted on RAS's webpage and the interested railway operators have been informed.

The Authority's supervision activity programme is approved at the beginning of each year and includes supervision activities per month of the year, per railway operator and the necessary resources (number of supervisors) for the completion of every supervision activity. The yearly schedule does not include any extraordinary or random supervision activities of RAS.

The Supervision Plan of 2021 practically implemented the above Strategy. Since every Supervision Plan is defined by the Strategy, it is based on the risks characterised as in need of supervision in said Strategy.

For the preparation and implementation of the Supervision Plan 2021 the following was taken into consideration:

- RAS's Supervision Strategy for 2020-2022 and in particular the activity targets (sectors) and priorities based on risks (risk based criteria) (Article 7.3 of the Strategy).
- RAS's available resources:
- The type, area, and size of the RUs

TRAINOSE being the largest RU operating in the Greek railway network (as regard the type and volume of transport service but also as regards the size) shall be subject to the largest part of RAS's supervision activities for 2021.

- The continuation of compliance with the overall assessment criteria in Regulations (EU) 1158/2010, 1169/2010 and 445/2011, within the validity period of the relevant Certificates and Authorizations.
- Outstanding issues from non-resolved compliances from previous supervision activities.
- Necessary collaboration between the NSAs in cases of cross border operation (Article 7.2 of the Strategy).

Although for the time being there is no classical cross border traffic at the borders of our country with Bulgaria and Northern Macedonia and taking into account that the applicable Safety Certificates of the Greek RUs are valid up to the first cross border stations in the two aforementioned countries, joint supervision activity with the Bulgarian NSA is being planned at the cross border Kulata station. This particular supervision activity was planned to be performed in 2020 but this was not possible due to the Covid-19 pandemic. For this reason it has been scheduled for the current year.

- RAS's Action Plan for the remedy of non-compliances and comments, regarding supervision and came up from ERA's audit in June 2019.

The Supervision Plan for 2021 was approved in May and included fourteen (14) supervision activities on IMs and RUs. Its implementation was suspended in the first semester due to preventive and restrictive measures taken against the spread of the Covid-19 pandemic. Twelve (12) out of fourteen (14) planned supervision activities were carried out.

It should be noted that within 2021 the design and installation of an information system following up RAS's supervision activities was completed, focusing on following up findings identified during said activities, as well as monitoring the implementation progress for the relevant corrective actions undertaken for their remedy.

No complaints on the decisions made by RAS during the supervision activities were filed by the parties concerned.

7.2 Supervision results

In 2021 (suspension in the first semester due to restrictive measures against the pandemic), RAS implemented the following supervision activities per railway operator:

- **OSE IM (2 supervisory activities)**

- One (1) inspection of infrastructure (tunnel EP)– December.
- One (1) supervision meeting – August.

- **TRAINOSE RU (2 supervision activities)**

- One (1) activity supervision (RID Regulation) - November
- One (1) activity supervision (GKK - Rule Book - Control before departure - Cross border traffic) - December

- **TRAINOSE RU - ECM (1 supervision activity)**

- One (1) audit of the Safety Management System (SMS) -December

The supervision was carried out on Thursday 16/12/2021 at the premises of the Thessaloniki Plant. The inspection report as well as the authorization of the Action Plan for the withdrawal of recognised Non-Compliances is expected at the beginning of 2022.

- **STASY IM (2 supervisory activities)**

- One (1) Safety Management System audit (Safety Culture) - Common Safety Methods (CSM) - November
- One (1) supervision meeting - October

- **PEARL RU (1 supervision activity)**

- One (1) supervision meeting - October

- **RAILCARGO RU (1 supervisory activity)**

- One (1) supervision meeting - September

- **IM and all RUs (1 supervision activity)**

- Joint supervision meeting - December

The outcomes of the above activities showed five (5) cases of non-compliance and also four (4) suggestions for improvement indicated by the auditors of RAS.

The implementation of the required corrective actions for non-compliances is monitored by RAS.

7.3 Coordination and cooperation

There have been no discussions on supervision results with other NSAs during 2021.

7.4 Follow-up audit of the RAS performance and decision making by the European Railway Agency

Within the framework of Article 33 of Regulation (EU) 2016/796, RAS was audited by a team of ERA inspectors, the scope of the audit being: a) the adequacy of the personnel performing supervision activities and assessing the applications for granting safety certificates and vehicle authorizations and b) the supervision of railway agencies. The audit started on 25/01/2019, the date of the first contact between RAS and the Agency and was completed on 25/11/2019. The on-site audit was carried out during 25-28 June 2019 at the offices of RAS.

The audit report and the agreed upon action plan were sent to RAS on 15/01/2020. In the framework of monitoring of the implementation of the aforementioned action plan, RAS submitted to the Agency four (4) relevant interim reports on the following dates: 20/01, 03/04 and 08/05, 10/07 and 08/11, attaching as well the relevant implementation evidence for the plan activities, in order to remedy the findings of the audit.

In 2021, RAS continued the execution of the aforementioned action plan by implementing relevant actions aiming to withdraw the above audit findings.

APPLICATION OF CSMs BY RUs and IMs

- 8.1 Application of Regulation (EU) 2018/762 on the CSM for the Safety Management System
- 8.2 Application of Regulation (EU) 402/2013 on the CSM for risk evaluation and assessment
- 8.3 Application of Regulation (EU) 1078/2012 on the CSM for the Safety Management System for Monitoring
- 8.4 Participation in and implementation of EU projects



8. APPLICATION OF CSMs BY RUs and IMs

8.1 Application of Regulation (EU) 2018/762 on the CSM for the Safety Management System

The implementation of the new JMD with regard to the requirements for the Safety Management System RUs and IMs must apply (Commission Regulation (EU) 2018/762) was carried out for the first time in Greece by STASY RU in the context of issuance of the single safety certificate.

In **04/06/2021**, STASY RU submitted via the OSS an application for the issuance of a single safety certificate with application id S-20210604-002 and selected the Regulatory Authority for Railways (RAS) as the safety certification body. The application was accompanied by evidence for the coverage of the SMS part, the Technical Specification for Interoperability for the Conduct and Management of Traffic (TSI CMT) and the national part with regard to compliance with national rules in the safety sector. The Safety Management System (SMS), one of the accompanying documents to the application met the requirements defined in Annex I of the Delegated Regulation (EU) 2018/762 and in the Implementing Regulation (EU) 2019/773.

The application of the above regulations by the national railway sector is deemed satisfactory.

8.2 Application of Regulation (EU) 402/2013 on the CSM for risk evaluation and assessment

The new CSM for risk evaluation and assessment has not been applied in Greece yet.

The implementation of Regulation (EU) 402/2013 was part of RAS's supervision activity in 2021 in accordance with the authorized supervision plan. An audit team comprised by RAS's officers visited STASY RUs offices in order to assess its continuous compliance with the criteria requirements of Annex I to Regulation (EU) 2018/762 and the requirements of the relevant Safety Management System (SMS) with regard to the requirements of Regulation (EU) 402/2013. In this context, the RU officers mentioned that during the operation of the undertaking no significant change has taken place making the implementation of Article 4 of Regulation EU 402/2013 necessary. During the discussion RAS's audit team mentioned the change of OSE's General Traffic Regulation (GKK) and whether this change was deemed significant by the RU. The officers of the RU mentioned that the change of the GKK did not bring any significant change to the manner of operation of the RU and that the only change was the inclusion in the SMS of a document named "Train Road Map" filled in by the train

driver. This change was not deemed significant and for this reason Article 4 of Regulation EU 402/2013 was not activated. Furthermore, the officers of the RU mentioned that in 2021 there was no significant change in the operation of the RU, in order for Regulation EU 402/2013 to be implemented and this shall be registered in the Minutes for the review of those two years.

RAS shall continue auditing the implementation of Regulation (EU) 402/2013 in the coming years and it shall be introduced as a supervision activity in the 2022 supervision plan again for other Railway Operators as well.

8.3 Application of Regulation (EU) 1078/2012 on the CSM for the Safety Management System for Monitoring

The implementation of Regulation (EU) 1078/2012 was part of RAS's supervision activity in 2021 in accordance with the authorized supervision plan. An audit team comprised by RAS officers visited the offices of STASY RU in order to assess its continuous compliance with the criteria requirements of Annex I to Regulation (EU) 2018/762 and the requirements of the relevant Safety Management System (SMS) with regard to the requirements of Regulation (EU) 1078/2012. The RU after granting the single safety certificate collects and surveys information regarding the operation and maintenance, surveys and non-compliance that may occur, prepares and implements an action plan. In accordance with the inspection report the RU has been informed about Regulation (EU) 1078/2012.

RAS shall continue auditing the implementation of Regulation (EU) 1078/2012 in the coming years and this shall be included as a supervision activity again in the 2022 supervision plan of other Railway Operators.

8.4 Participation in and implementation of EU projects

The "European Railway Safety Culture Declaration" has been signed by OSE, TRAINOSE, RAIL CARGO, and PEARL. The remaining R.U.s are willing to sign it in the near future.

In the context of 2021 having been declared as the European year for railways, RAS cooperated with the Ministry of Infrastructure and Transport for the planning of actions and undertaking of relevant initiatives, such as the promotion of railway as a safe and green means of transport, the promotion of the safety culture, the training of young people for a career in railway etc.

8. SAFETY CULTURE

9.1 Safety Culture Assessment and Surveillance

9.2 Safety Culture Initiatives/Projects

9.3 Safety Culture Communication



9. SAFETY CULTURE

9.1 Evaluation and Monitoring

The Fourth Railway Package, and in particular the Directive on railway safety, [Directive (EU) 2016/798] requires that Member-States promote a culture of mutual trust, good faith and learning. Through the Safety Management Systems implemented, railway undertakings and infrastructure managers are called to promote the above culture with staff being encouraged to contribute to the development of safety. Safety culture development and its manner of promotion was an area of supervision activity for RAS in 2021, in accordance with the approved supervision plan. An audit team comprised by RAS officers visited STASY R.U.s offices in order to assess its continuous compliance with the criteria requirements of Annex I to Regulation (EU) 2018/762 and the requirements of the relevant Safety Management System (SMS) as regards the promotion of safety culture. In accordance with the assessors' report the RU has been informed about safety culture and the RUs and its officers' effort to promote it is obvious, as is their commitment to this direction. However, there is room for continuous improvement in STASY RU, in the context of which a discussion and exchange of views took place between the audit team of RAS and the RUs officers.

9.2 Safety Culture Initiatives / Projects

RAS encouraged the railway sector to participate in ERA's research "European Research on the safety environment of railways" (ERA-SCS) conducted in 2021. It is a research (on-line) for the perception of safety, open to all professionals in the railway sector working in the European Union and in the countries thereof, hosted by the EUSurvey platform, accessible in 22 European languages on smartphones, tablets, and computers.

The main questionnaire prepared with the support of experts from all the professions of the railway system and of the Institute for industrial safety culture, is comprised by a total of 48 safety statements aligned with the European railway safety culture model. The first of its kind to be launched on a European level during the European Railway Year, the development of the ERA-SCS includes two consecutive phases. All the results from both phases shall be collected and analysed on a European level, in order to further extend safety at the European railway system.

RAS's prime consideration is to ensure the observation of safety rules at the Greek railway. In this context, it participated as a partner in a research organised by ERA, in order to acquire a more comprehensive picture of the way in which the personnel perceives operational and

professional safety. The research's results shall allow the planning and implementation of suitable actions for the improvement and further promotion of safety culture.

9.3 Safety Culture Communication

In 2021, RAS wishing to get closer to the Greek society on issues of safety in the railway sector, undertook the following initiatives and actions:

- RAS created an information program for the prevention of accidents on the railway network entitled: "Safe co-existence of students with the railway network". The programme is addressed to students of primary schools and secondary schools located near the railway network. The programme is available on RAS's website (<https://ras-el.gr/enhmerwsou/>). In 2021, it was not possible to carry out the programme due to the COVID-19 pandemic.
- For the third consecutive year, RAS, in cooperation with the "Panos Mylonas" Road Safety Institute participated in the events of the "International Level Crossing Awareness Day (ILCAD 2021)", which was held on 10 June 2021 and is organised by the International Union of Railways (UIC). RAS and the Panos Mylonas Institute issued a joint press release and produced a poster. Moreover, at a teleconference organized by the International Union of Railways (UIC), they presented the actions and initiatives concerning safety at level crossings that they have undertaken.



**Η ΑΠΟΣΠΑΣΗ ΠΡΟΣΟΧΗΣ
ΣΚΟΤΩΝΕΙ!**

**Κινούμαι με προσοχή
στις ισόπεδες διαβάσεις
του τραίνου**

Διεθνής Ημέρα
Ευαισθητοποίησης
για την Ασφάλεια
στις Ισόπεδες Διαβάσεις (ILCAD)
10 Ιουνίου 2021

ΜΗΝ ΕΙΣΑΙ
ΑΛΛΟΥ!

THEME CHAPTER



Not applied.

ANNEX: PROGRESS WITH INTEROPERABILITY



ANNEX I: Progress with interoperability

1. Lines excluded from the scope of IOP/SAF Directive (end of year)

1a	Length of lines excluded from the scope of application of the IOP Directive [km]	115.30
1b	Length of lines excluded from the scope of application of the SAF Directive [km]	115.30

Please provide the list of lines excluded:

2. Length of new lines authorized by NSA (during the reporting year)

2a	Total length of lines [km]	
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3. PRM adapted stations (end of year)

3a	PRM TSI compliant railway stations	0
3b	PRM TSI compliant railway stations - partial TSI compliance	2
3c	Accessible railway stations	40
3d	Other stations	208

4. Train driver licenses (end of year)

4a	Total number of valid European licenses issued in accordance with the TDD	
4b	Number of newly issued European licenses (first issuance)	

5. Number of vehicles authorized under the interoperability Directive (EU) 2008/57 (during the reporting year)

5a	First authorization – total	
5aa	Wagon	
5ab	Locomotives	
5ac	Hauled passenger vehicles	
5ad	Fixed or pre-defined formation	
5ae	Special vehicles	
5b	Additional authorization - total	2
5ba	Wagon	
5bb	Locomotives	2
5bc	Hauled passenger vehicles	
5bd	Fixed or pre-defined formation	
5be	Special vehicles	
5c	Type authorization – total	5
5ca	Wagon	
5cb	Locomotives	

5cc	Hauled passenger vehicles	
5cd	Fixed or pre-defined formation	5
5ce	Special vehicles	
5d	Authorizations granted after upgrade or renewal - total	
5da	Wagon	
5db	Locomotives	
5dc	Hauled passenger vehicles	
5de	Fixed or pre-defined formation	
5df	Special vehicles	

6. ERTMS adapted stations (end of year)

6a	Tractive vehicles including trainsets equipped with ERTMS	0
6b	Tractive vehicles including trainsets – no ERTMS	0

7. Number of NSA staff (full time equivalent employees) by the end of year

7a	FTE staff involved in safety certification	
7b	FTE staff involved in vehicle authorization	
7c	FTE staff involved in supervision	
7d	FTE staff involved in other railway-related tasks	

Appendix to Annex I: Definitions – Progress with interoperability

Applicable definitions are those contained in the relevant articles of the legal documents.

In addition, the following definitions apply:

1. Lines excluded from the scope of IOP/SAF Directive (end of year)

Railway lines excluded by the Member States from the scope of the application of RSD/IOD: DIRECTIVE (EU) 2015/797, Art. 4 a-d; DIRECTIVE (EU) 2015/798, Art. 3 a-d, as of 31.12.20xx (reporting year).

2. Length of new lines authorized by NSA (during the reporting year)

Length of lines constituting the Union rail system authorized for placing in service in accordance with Article 18(2) of Directive (EU) 2015/797 during the reporting year.

3. PRM adapted stations (end of year)

Railway stations as of 31.12.2019 (reporting year), that complies with the requirements of the Commission Regulation (EU) No 1300/2014 on the technical specifications for interoperability relating to accessibility of the Union's rail system for persons with disabilities and persons with reduced mobility (PRM TSI).

Full TSI compliance means full conformity with PRM TSI requirements, as demonstrated with the NoBo certificate. Partial TSI compliance means conformity with some (but not all) PRM TSI requirements, as demonstrated with the NoBo certificate. Accessible station means a station considered accessible under national legislation. (No NoBo certificate available.).

Railway station means a location on a railway system where a passenger train service can start, stop or end.

4. Train driver licenses (end of year)

Newly issued and valid driver licenses as of 31.12.2019 (reporting year), issued in accordance with the 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 EU railway system.

5. Number of vehicles authorized under the interoperability Directive (EU) 2008/57 (during the reporting year)

The number of issued, renewed and amended vehicle authorizations for placing on the market in accordance with Article 21(8) of Directive (EU) 2015/797 during the reporting year.

6. ERTMS adapted stations (end of year)

Number of operated tractive vehicles (owned, leased, and rented minus rented-out) equipped with ETCS.

Vehicles without power units are excluded. Multiple units to be counted once. Includes only vehicles which are operated to transport freight or passengers. Yellow fleet and other IM vehicles are not included. Includes only vehicles which are registered in the country of main business activities of RUs.

7. Number of NSA staff (full time equivalent employees) by the end of year

Total number of full time equivalent NSA employees as of 31.12.2019 (reporting year).

Only staff dealing with railways is to be included

ANNEX II: ACRONYMS AND DEFINITIONS

Acronym	Meaning
GKK	General Traffic Regulation
DDEA	National Passport and Secure Document Centre
IM	Infrastructure Manager
NSA	National Safety Authority
EU	European Union or European Commission
EESSTY	Hellenic Company for Rolling Stock Maintenance
EMAM	National Register of Train Driver Licences
CSI	Common Safety Indicators
KEE	Central Examination Committee
KEK	Vocational Training Centre
CSM	Common Safety Methods
JMD	Joint Ministerial Decision
RSIU	Rail Safety & Interoperability Unit
PD	Presidential Decree
RAS	Regulatory Authority for Railways
HSRL	High-Speed Railway Line
SMS	Safety Management System
RU	Railway Undertaking
TSI	Technical Specification for Interoperability
ECM	Entity in Charge of Maintenance
YYM	Ministry of Infrastructure and Transport
Gov. Gaz.	Government Gazette

Acronym	Meaning
ASBO	Assessment Body
DEBO	Designated Body
ERA	European Railway Agency
ERADIS	European Railway Agency Database for Interoperability and Safety
ERTMS	European Railway Traffic Management System
ETCS	European Train Control System
GSMR	Global System Mobile for Railways
NIB	National Investigation Body
NSA	National Safety Authority