



ΥΠΟΥΡΓΕΙΟ ΥΠΟΔΟΜΩΝ
ΜΕΤΑΦΟΡΩΝ & ΔΙΚΤΥΩΝ

DEPARTMENT OF RAILWAY SAFETY OF GREECE

ANNUAL SAFETY REPORT FOR THE YEAR 2009

Athens, September 2010

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Annex A. Railway Structure Information

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A. General Information

A.1. Scope of the report

The Annual Report for the year 2009 contains information about the activities of the National Safety Authority concerning the preceding year and the situation of the railway transport for the reporting year in Greece.

The information given through this Report has the purpose to fulfill the requirements of Article 18 of Safety Directive and to inform the different actors in the railway field on Member State level, as well as the other NSAs.

The Report has been produced in accordance with the Template “Structure for the content of the NSA Annual safety Report “, version 14, date 25/08/2009 and was written by the Department of Railway Safety.

A.2. Summary in English

All text is in English.

B. Introductory Section

B.1. Introduction to the report

According to Article 18 of the Safety Directive the Report contains information on:

- (a) the development of railway safety, including an aggregation at Member State’s level of the CSIs laid down in Annex I.
- (b) important changes in legislation and regulation concerning railway safety.
- (c) the development of safety certification and safety authorisation.

The Report interests the infrastructure manager, the present and future railway undertakings and the other European national safety authorities as well.

The data provided for the CSIs respects the format of those laid down in Annex I of the SD. Nevertheless the data provided in the fields under heading 3 “Indicators relating to consequences of accidents” are incomplete due to the lack of previous procedures in estimating some economic aspects of the accidents.

Moreover, data provided in the fields under heading 2 and heading 4 are collected following internal procedures of the infrastructure manager applying its definitions.

B.2. Railway Structure Information (Annex A)

Annex A.1 contains the Network map, as presented in the Infrastructure Manager’s Network Statement 2007, with some modifications. The railway network is separated in three different Regions. The Region of Athens, Peloponnesus and Macedonia-Thrace.

Annex A.2 contains the list with the RU and IM in service in the country.

B.3. Summary – General trend analysis

A general trend is not identified.

C. Organisation

C.1. Introduction to the organisation

The *Department of Railway Safety (NSA)* has been established in the Ministry of Infrastructure, Transport and Networks* according to the presidential decree 160 (Official Gazette of the Hellenic Republic A’ 201/23.08.2007), article 15, under the Directorate for Freight Transport of the Ministry. The department has been assigned the exercise of the duties of the National Safety Authority of the Safety Directive 2004/49/EC. These duties are defined in article 2 of the presidential decree 186 (Official Gazette of the Hellenic Republic A’ 221/12.09.2007) and specifically are:

* The Ministry of Transport and Communications was incorporated into the Ministry of Infrastructure, Transport and Networks on October 7th of 2009.

- a. The documentation and follow-up of the developments in the sector of technical certification in Greek, European and international environment, the elaboration of policy and measures and the exercise of the relevant regulating competence of state, in the sector of safety of railway transport of dangerous goods.
- b. The collaboration in Greek, European and international level in the sector of technical certification, the providing of information and the representation of Ministry in the corresponding organisations, the conduct of negotiations and the processing of agreements in European, international and inter-country level regarding the vehicles of transport of dangerous goods
- c. The elaboration of legal framework of exercising the regulating competence of state in the sector of railway safety and control of railway transports of dangerous goods
- d. Authorising the bringing into service of the structural subsystems constituting the trans-European high-speed rail system according to the existing legislation and the checking if they are operated and maintained in compliance with the relevant essential requirements,
- e. Authorising the bringing into service of the structural subsystems constituting the trans-European conventional rail system according to the existing legislation and the checking if they are operated and maintained in compliance with the relevant essential requirements,
- f. Supervising that the interoperability constituents are in compliance with the essential requirements as required by the existing legislation.
- g. Authorising the bringing into service of new and substantially altered rolling stock that is not yet covered by a TSI.
- h. The issue, renewal, amendments and revocation of relevant parts of safety certificates and of safety authorisations and checking that conditions and requirements laid down in them are met and that infrastructure managers and railway undertakings are operating under the requirements of Community or national law.
- i. Keep and update the national vehicle register and the registers of infrastructure of the railway system.
- j. Gathering of information from the infrastructure manager and railway undertakings in order to calculate the common safety indicators.
- k. The proposal to the Minister of Infrastructure, Transport and Networks for issuing new national safety rules

- l. The proposal to the Minister of Infrastructure, Transport and Networks for the modification of the existing national safety rules notified to the European Commission
- m. Issuing of safety certificates to railway undertakings and safety authorisations of infrastructure manager
- n. The publication of the annual safety report,
- o. Exchange of information and experiences with the other National Safety Authorities of European Union with the aim of the harmonisation of the criteria used for decision-making
- p. Cooperation with the National Investigation Body of railway accidents.

Concisely, the Department of Railway Safety observes railway safety and its continuous improvement, as well as of the obligations that derive from the Interoperability Directive, taking into consideration the development of Community legislation, as well as the technical and scientific progress.

More information on the Department and its tasks can be retrieved from the link:

<http://www.yme.gov.gr/index.php?getwhat=1&oid=852&id=&tid=867>

C.2. The Organisational flow

The relationship (diagram) between the NSA and the other national bodies (such as the National Investigation Body, National Regulatory Body, and Ministry of Infrastructure etc.) has been provided in *Annex B.1*.

D. The development of railway safety

D.1. Initiatives to maintain/improve safety performances

The Department of Railway Safety was established on August 23rd 2007. A Working Group consisted of employees from the National Safety Authority and the Infrastructure Manager, was established in 2007 for the enhancement of the cooperation between the different players of the railway sector. The purpose of the Working Group was to support the definition of the requirements stated in the SD 2004/49/EC and the obligations derived, to harmonize national law with the Directive 2007/59/EC on the certification of train drivers operating locomotives and trains on the railway system in the

Community , to analyze the existing legal framework, to classify the national rules and regulations according to the provisions of Annex II of the SD and specify the lack of measures for the improvement of safety performance. This group put a lot of effort into updating the type 3 of the national safety rules of the Annex II *“Rules concerning requirements for the authorisation of placing in service and maintenance of new and substantially altered rolling stock, including rules for exchange of rolling stock between Railway Undertakings, registration systems and requirements on testing procedures”*.

Table D.1.1 - Safety measures triggered by accidents/precursors to these:

Accidents/precursors which triggered the measure			Safety measure decided
Date	Place	Description of the event	

Table D.1.2 - Safety measures (or voluntary measures) with other triggers than accidents/precursors:

Description of the area of concern	Description of the trigger	Safety measure decided

D.2. Detailed data trend analysis

Taking into account the CSIs reported in 2006, 2007 and 2008 the following trend analysis was conducted:

Table D.2.1 - Number of accidents:

2006	2007	2008	2009
70	53	40	34

The total number of accidents occurred in 2009 including all types of accident, was reduced to 34 from 70 reported in 2006 (a 51.4 % reduction)

Table D.2.2 - Number of fatalities:

2006	2007	2008	2009
39	18	17	22

For the time period 2006-2009, we had a reduction of persons killed from 39 reported in 2006 to 22 in 2009 (a 43.6% reduction)

Table D.2.3 - Number of injures:

2006	2007	2008	2009
51	36	29	22

The total number of injures occurred in 2009 including all categories of people, was reduced from 51 reported in 2006 to 22 reported in 2009 (a 56.9 % reduction).

Table D.2.4 - Number of precursors to accidents:

2006	2007	2008	2009
1	271	335	266

It is not possible to compare the data extracted from the specific category, as the previous years were not collected from all the sub categories.

Table D.2.5 - Cost of all accidents, hours worked on safety:

2006	2007	2008	2009
95312	5840	95104	7232

The only data which can be compared in the specific category is the total number of working hours of staff and contractors lost as a consequence of accidents in which we have a decrease from 95312 reported in 2006 to 7232 reported in 2009.

Table D.2.6 - Technical safety of infrastructure and its implementation, management of safety:

2006	2007	2008	2009
1270	1265	1265	1305

The number of level crossings reported this year increased, due to the fact that the infrastructure manager included in the definition the passages of people and animals as well, which are also recognized as level crossings. The safety management system of the Infrastructure Manager and the Railway Undertakings has not been approved, so we have not any audits to be conducted in 2009.

We should clarify that the missing data “Costs of deaths” and “Costs of Injuries” have not been provided, similar to the previous years, due to the fact that, they are calculated according to the methodology used by the RUs/IMs. The problem is that in the situation in which the railway undertaking should pay compensation due to an accident, the amount of it can be defined only after a legal examination, which lasts some years, so any calculation could be based only on assumptions. Relating to the “Costs of delays, disturbances and re-routing of traffic, including extra costs for staff and loss of future revenue” we should clarify that the value reported includes only the extra costs for staff. Generally the methodology used takes into account the costs born by the RUs/IMs.

The above-mentioned data have been provided in *Annex C* according to the definitions of Annex I of the Safety Directive.

D.3. Results of safety recommendations

The National Investigation Body is not operational in our country, so there is not any safety recommendation issued.

E. Important changes in legislation and regulation

- The Safety Directive was transposed into national law with the Presidential Decree 160 (Official Gazette of the Hellenic Republic A' 201/23.08.2007). The P.D provides the essential amendments in the national legislation for the harmonisation to the EU requirements. The responsibilities of the railway players as the Infrastructure Manager, Railway Undertakings, Ministry of Infrastructure, Transport and Networks, National Safety Authority, Investigation Body and Notified Body are precisely defined.
- The National Safety Authority of Greece was constituted with the Presidential Decree 186/2007 (Official Gazette of the Hellenic Republic 221/A'/12.9.2007) as a separate Department of the Directorate for Freight Transport. The P.D defines the tasks of the Department of Railway Safety.
- The authorisation for defining the penalties in the ministerial decision AS.4.2/οικ.26697/2422 (article 32 of Safety Directive 2004/49/EC) has been given by the article 27 of the national law 3534 (Official Gazette of the Hellenic Republic A' 40/23.02.2007).
- The Ministerial Decision AS10/11249/1018 (Official Gazette of the Hellenic Republic 911/B'/19-5-08) amended the previous Ministerial Decision F4/οικ.27887/2166 (Official Gazette of the Hellenic Republic 643/B'/23.5.06) in order to update the type 3 of the national safety rules (Annex II) of the SD.
- The process of the safety certification of railway undertakings and the safety authorization of the infrastructure manager has been defined in the Decision AS.4.2/οικ.26697/2422 (Official Gazette of the Hellenic Republic B' 986/22.05.2009) of the Minister of Transport and Communications, whose issuance was foreseen in articles 10 and 11 of the presidential decree 160 (Official Gazette of the Hellenic Republic A' 201/23.08.2007). This process falls into type 2 rules of Annex II according to ERA classification (rules concerning requirements on safety management systems and safety certification of railway undertakings).

F. The development of safety certification and authorisation

F.1. National legislation – starting dates – availability

1.1. Starting date for issuing Safety Certificates according to Article 10 of Directive 2004/49/EC (if necessary, distinguish between Part A and Part B):

The documents required for issuing Safety Certificates to railways undertakings were determined by a Ministerial Decision published by the Ministry of Transport and Communications (AS.4.2/οικ.26697/2422 Official Gazette of the Hellenic Republic B' 986/22.05.2009).

1.2. Starting date for issuing Safety Authorisations according to Article 11 of Directive 2004/49/EC:

The documents required for issuing Safety Authorisations to Infrastructure Manager were determined by a Ministerial Decision published by the Ministry of Transport and Communications (AS.4.2/οικ.26697/2422 Official Gazette of the Hellenic Republic B' 986/22.05.2009).

1.3. Availability of national safety rules or other relevant national legislation to Railway Undertakings and Infrastructure Managers (website, paper documentation on request, etc.):

National safety rules and other relevant legislation are available to any interested party through the Official Gazette of the Hellenic Republic and on request from NSA, as well as from the link:

<http://www.yme.gov.gr/?getwhat=1&oid=842&id=&tid=856>.

F.2. Numerical data (Annex E)

No safety certificates or authorisations have been issued.

F.3. Procedural aspects

3.1. Safety Certificates Part A

There is no practical experience in the specific field.

3.2. Safety Certificates Part B

There is no practical experience in the specific field.

3.3. Safety Authorisations

There is no practical experience in the specific field.

G. Supervision of Railway Undertakings and Infrastructure Managers

1. Description of the supervision of Railway Undertakings and Infrastructure Managers

1.1. Audits/Inspections/Checklists

No inspections or audits of RUs/IMs were conducted in 2009, since the safety management system has not been approved.

2. Description of the coverage of the legal aspects within the annual reports from the Infrastructure Managers and Railway Undertakings – Availability of the annual reports before 30 June (according to Article 9(4) of the Railway Safety Directive).

The Department of Railway Safety received the Annual Report from the Infrastructure Manager (EDISY S.A) in time.

The Railway Undertaking (TRAINOSE S.A) did not send any Report.

INSPECTIONS		Issued Safety Certificates Part A	Issued Safety Certificates Part B	Issued Safety Authorisations	Other Activities (To specify)
3. Number of inspections of RUs/IMs for 20xx	planned	0	0	0	
	unplanned	0	0	0	
	carried out	0	0	0	

AUDITS		Issued Safety Certificates Part A	Issued Safety Certificates Part B	Issued Safety Authorisations	Other Activities (To specify)
4. Number of audits of RUs/IMs for 20xx	planned	0	0	0	
	carried out	0	0	0	

5. Summary of the relevant corrective measures/actions (amendment, revocation, suspension, important warning, etc.) related to safety aspects following these audits/inspections.

No information available.

6. Short summary/description of the complaints from IM('s) concerning RU('s) related to conditions in their Part A/Part B Certificate.

No information available.

7. Short summary/description of the complaints from RU('s) concerning IM('s) related to conditions in their authorisation.

No information available.

H. Reporting on the application of the CSM on risk evaluation and assessment

No information available.

I. NSA Conclusions on the reporting year – Priorities

The Greek National Safety Authority has originally focused for the year 2009, on the legal actions for the implementation of the provisions of the:

- Directive 2008/110/EC amending Directive 2004/49/EC on safety on the Community's railways,
- Directive 2009/149/EC of 27 November 2009 amending Directive 2004/49/EC as regards Common Safety Indicators and common methods to calculate accident cost,

- Directives 2008/57/EC and 2009/131/EC on the Interoperability of the rail system within the Community and
- Directive 2006/90/EC of 3 November 2006 adapting for the seventh time to technical progress Council Directive 96/49/EC on the approximation of the laws of the Member States with regard to the transport of dangerous goods by rail.
- Directive 2007/59/EC on the certification of train drivers operating locomotives and trains on the railway system in the Community,

The rail sector has not yet fully absorbed the requirements set by the Safety Directive, as it is in a period of reconstruction.

The railway undertaking did not submit the annual safety report, according to its obligation provided in the Article 9 of the presidential decree 160 (Official Gazette of the Hellenic Republic A' 201/23.08.2007), which transposed into national law the Safety Directive. The infrastructure manager submitted the Annual Report in time, but without satisfying all the criteria set by paragraph 4 of article 9 of the SD 2004/49/EC.

The priorities of the Department include the enforcement of the Safety Directive requirements, the supervision of the railway sector and the further enhancement of the legal framework. Above all, immediate pressure is going to be exerted upon railway undertaking and infrastructure manager to develop the safety management system foreseen in the Safety Directive, after having completed their corporate reconstruction.

J. Sources of information

1. Annual Report of the Infrastructure Manager Ref. Number 3019640/30-6-2010.

K. Annexes

ANNEX A: Railway Structure Information

ANNEX B: Organisation chart(s) of the National Safety Authority

ANNEX C: CSIs data – Definitions applied

ANNEX D: Important changes in legislation and regulation

ANNEX E: The development of safety certification and authorisation – Numerical Data

ANNEX A. Railway Structure Information

A.1: Network Map 2008.



A.2. List of Railway Undertakings and Infrastructure Managers ¹

A.2.1. Infrastructure Manager

Name	Address	Website /Network Statement Link	Safety Authorisation (Number/Date)	Start date commercial activity	Total Track Length/Gauge	Electrified Track Length/Voltages	Total Double/Simple Track Length	Total Track Length HSL	ATP equipment used	Number of LC	Number of Signals
EDISY	Karolou 1-3 104 37, Athens	www.ose.gr Network Statement: http://www.ose.gr/ose/files/edisy_2007_networkstatement2329.pdf	not granted	20 December 2005	1) 1.435 gauge: 2.298 km ⁽¹⁾⁽³⁾⁽⁴⁾ 2) 1.000 gauge : 699 km ⁽⁴⁾ 3) Combined 1.435/1.000: 30 km 4) 0.75 gauge: 22 km 5) 0.60 gauge: 21 km Total Track Length in use 3.070 km	264 km 25kv 50Hz	double: 518 km single: 2.034 km Total length of lines in use: 2.552 km	836 km ⁽¹⁾⁽²⁾		1.305 ⁽⁵⁾	1.439

(1) Each track of a double track railway line was counted.

(2) Includes lines $v_{\text{κικλσφ}} \geq 160$ km/h.

(3) Difference with previous year numbers: 8 km of single line (section Piraeus- Ruf) were upgraded to double track line .

(4) Difference with previous year numbers due to round up.

(5) Increase in the amount of LC from 1265 reported last year to 1305, due to the inclusion of passages of persons and animals in the definition of LCs.

A.2.2. Railway Undertaking

Name	Address	Website	Safety Certificate 2001/14/EC (Number/Date)	Safety Certificate A-B 2004/49/EC (Number/Date)	Start date commercial activity	Traffic Type (Freight,...)	Number of Locomotives	Number of Railcars/Multiple Unit-sets	Number of Coaches/Wagons	Number of train drivers/safety crew	Volume of passenger transport	Volume of freight transport
TRAI NOSE	Karolou 1-3 104 37, Athens	www.trainose.com	Not granted	Not granted	1st of January 2007	Passenger, Freight	172*	EMUs 20 DMUs 103	372 passenger coaches 3.568 freight wagons	580 train drivers/ 605 safety crew ^(**)	1.414 ^(***) passenger x km (in millions)	3.601 tonnes in thousands 612,224 Tonne-km (in millions)

(*) 143 Diesel, 29 Electric

(**) On-board staff

Abbreviations:

HSL = High Speed Line (Definition acc. Directive 96/48/EC)

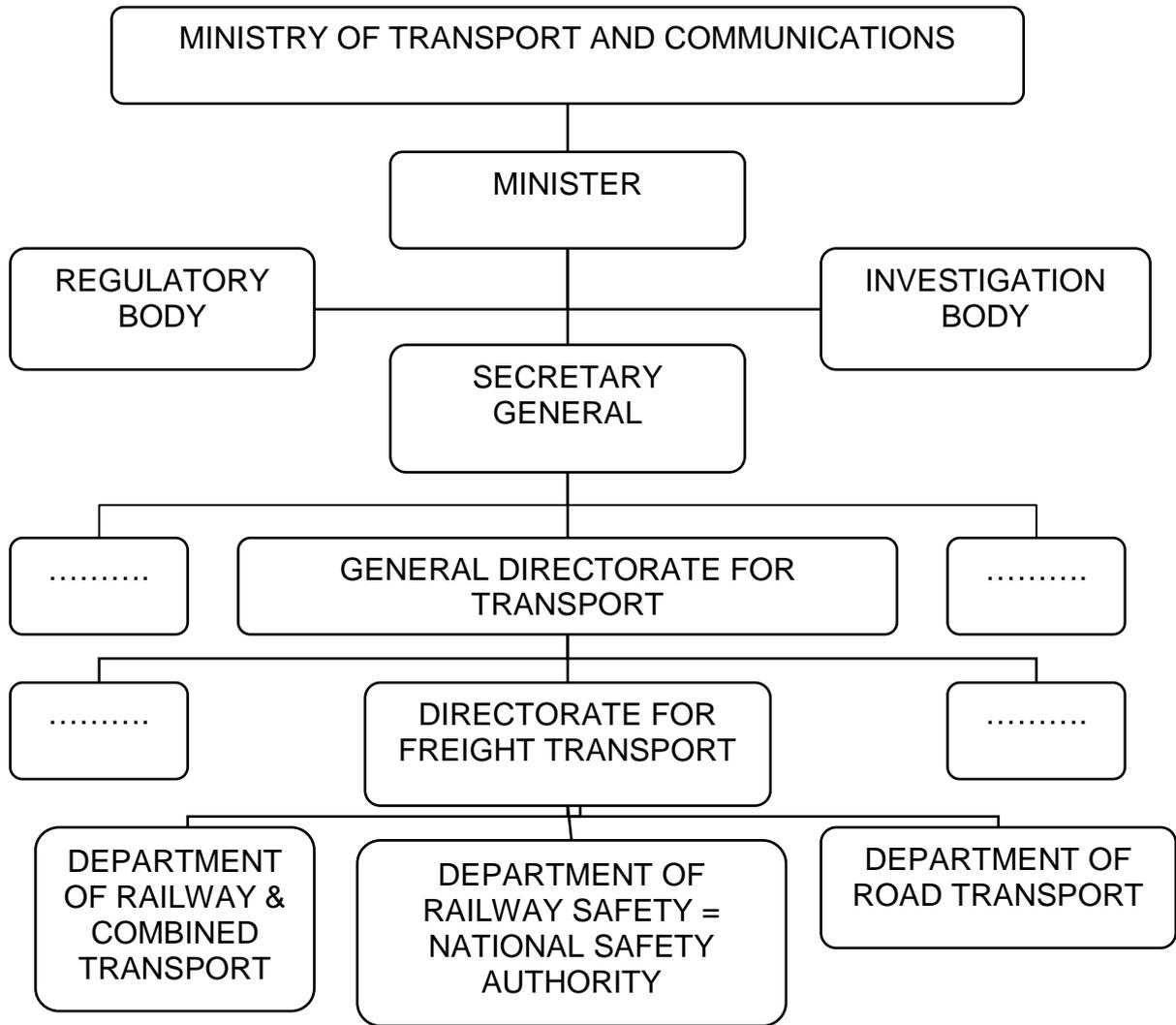
It concerns PATHE/P (Patra-Athina-Thessaloniki-Evzoni/Promachonas) axis, excluding parts of the abovementioned axis for which upgrading has not yet been completed.

ATP = Automatic Train Protection

LC = Level Crossing

ANNEX B. Organisation Chart(s) of the National Safety Authority

B. Chart: Internal organisation and Relationship with other National Bodies



Annex C: CSIs data

C.1. CSIs values

Number of accidents and Train*Km

Year	Type of accident							Train*Km (MLN)
	Collisions	Derailments	Level crossing accidents	Accidents to persons caused by RS in motion	Fires in RS	Others	Total	
2006	4	4	25	35	2	0	70	19071
2007	3	8	22	20	0	0	53	19905
2008	1	2	17	19	1	0	40	21164
2009	2	2	18	11	0	1	34	19613
2010								
2011								
2012								
2013								
2014								
2015								

Number of accidents/Train*Km

Year	Type of accident						
	Collisions	Derailments	Level crossing accidents	Accidents to persons caused by RS in motion	Fires in RS	Others	Total
2006	2.10E-04	2.11E-04	1.31E-03	1.84E-03	1.05E-04	0.00E+00	3.67E-03
2007	1.80E-04	3.08E-04	1.21E-03	1.41E-03	5.13E-05	0.00E+00	3.16E-03
2008	1.33E-04	2.33E-04	1.09E-03	1.23E-03	4.99E-05	0.00E+00	2.71E-03
2009	1.25E-04	2.01E-04	1.03E-03	1.07E-03	3.76E-05	1.25E-05	2.47E-03
2010							
2011							
2012							
2013							
2014							
2015							

N° of fatalities, Train*Km and Passenger*Km

Year	Category of persons						Passenger*rKm (BLN)	Train*Km (MLN)
	Passengers	Employees	Level crossing users	Unauthorised persons	Others	Total		
2006	3	1	12	22	0	38	1811	19071
2007	0	0	5	13	0	18	1930	19905
2008	1	2	6	8	0	17	1657	21164
2009	0	1	13	8	0	22	1414	19613
2010								
2011								
2012								
2013								
2014								
2015								

N° of fatalities/Train*Km and Passenger*Km

Year	Category of persons						
	Passengers	Passengers	Employees	Level crossing users	Unauthorised persons	Others	Total
2006	1.57E-04	1.68E-03	5.24E-05	6.29E-04	1.15E-03	0.00E+00	1.99E-03
2007	7.70E-05	8.02E-04	2.57E-05	4.36E-04	8.98E-04	0.00E+00	1.44E-03
2008	6.65E-05	7.41E-04	4.99E-05	3.82E-04	7.15E-04	0.00E+00	1.21E-03
2009	5.02E-05	6.87E-04	5.02E-05	4.51E-04	6.39E-04	0.00E+00	1.19E-03
2010							
2011							
2012							
2013							
2014							
2015							

N° of injuries, Train*Km and Passenger*Km

Year	Category of persons						Passenger*rKm (BLN)	Train*Km (MLN)
	Passengers	Employees	Level crossing users	Unauthorised persons	Others	Total		
2006	14	7	20	10	0	51	1811	19071
2007	5	2	22	7	0	36	1930	19905
2008	9	2	12	6	0	29	1657	21164
2009	0	3	16	3	0	22	1414	19613
2010								
2011								
2012								
2013								
2014								
2015								

N° of injuries/Train*Km and Passenger*Km

Year	Category of persons						
	Passengers	Passengers	Employees	Level crossing users	Unauthorised persons	Others	Total
2006	7.34E-04	7.73E-03	3.67E-04	1.05E-03	5.24E-04	0.00E+00	2.67E-03
2007	4.87E-04	5.08E-03	2.31E-04	1.08E-03	4.36E-04	0.00E+00	2.23E-03
2008	4.65E-04	5.19E-03	1.83E-04	8.98E-04	3.83E-04	0.00E+00	1.93E-03
2009	3.51E-04	4.11E-03	1.78E-04	8.78E-04	3.26E-04	0.00E+00	1.73E-03
2010							
2011							
2012							
2013							
2014							
2015							

Number of precursors and Train*Km

Year	Type of accident						Total	Train*Km (MLN)
	Number of broken rails	Number of track buckles	Number of wrong-side signalling failures	Number of signals passed at danger	Number of broken wheels on rolling stock in service	Number of broken axles on rolling stock in service		
2006			0	1			1	19071
2007	269		0	1	1	0	271	19905
2008	223	110	0	1	1	0	335	21164
2009	172	89	0	5	0	0	266	19613
2010								
2011								
2012								
2013								
2014								
2015								

Number of precursors/Train*Km

Year	Type of accident						Total
	Number of broken rails	Number of track buckles	Number of wrong-side signalling failures	Number of signals passed at danger	Number of broken wheels on rolling stock in service	Number of broken axles on rolling stock in service	
2006				0.00E+00	5.24E-05		5.24E-05
2007	1.38E-02			0.00E+00	5.13E-05		6.89E-03
2008	1.23E-02	5.49E-03		0.00E+00	4.98E-05		1.91E-02
2009	1.11E-02	4.99E-03		0.00E+00	1.00E-04		1.09E-02
2010							
2011							
2012							
2013							
2014							
2015							

Cost of all accidents, safety hours

Year	Type of accident							Total number of working hours	Train*Km (MLN)
	Costs of deaths in MLN €	Costs of injuries in MLN €	Costs of replacement or repair of damaged rolling stock and railway installations in MLN €	Costs of delays, disturbances and re-routing of traffic, including extra costs for staff and loss of future revenue in MLN €	Total costs in MLN €	Total number of working hours of staff and contractors lost as a consequence of accidents			
2006			1933255	186148	2119403	5840	16027	19071	
2007			618441	1574745	2193186	95104	14608	19905	
2008			1974940	147419	2122359	7232	15048	21164	
2009								19613	
2010									
2011									
2012									
2013									
2014									
2015									

Cost of all accidents, safety hours: indicators

Year	Type of accident					N° of working hours (MLN) of staff and contractors lost as a consequence of accidents/N° of working hours (MLN) of staff and contractors
	Costs of deaths in MLN €	Costs of injuries in MLN €	Costs of replacement or repair of damaged rolling stock and railway installations in MLN €	Costs of delays, disturbances and re-routing of traffic, including extra costs for staff and loss of future revenue in MLN €	Total costs in MLN €	
2006						594.70%
2007			9.92E+01	9.55E+00	1.09E+02	324.61%
2008			6.36E+01	4.39E+01	1.08E+02	428.80%
2009			7.57E+01	3.19E+01	1.08E+02	334.59%
2010						
2011						
2012						
2013						
2014						
2015						

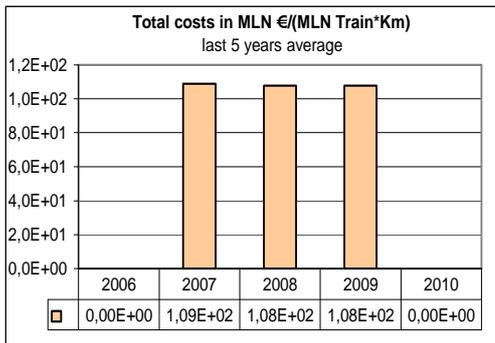
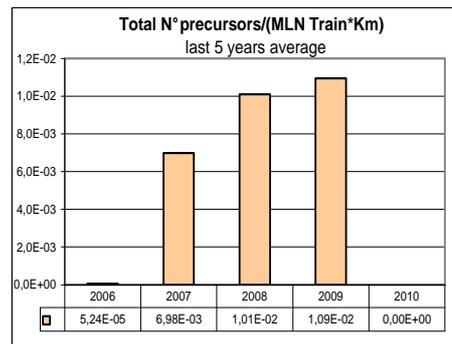
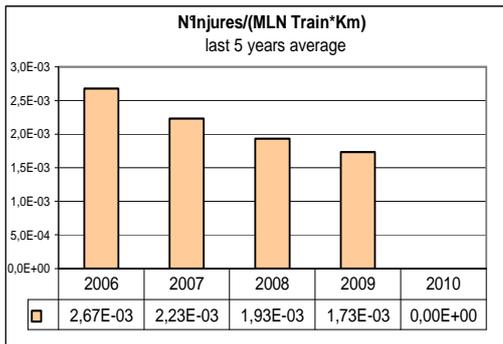
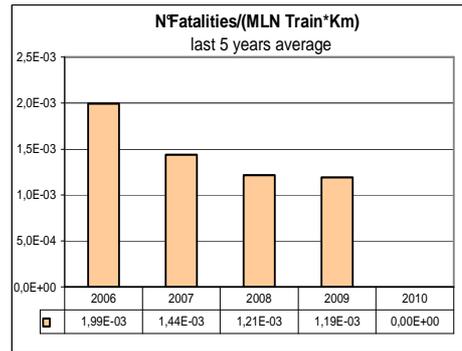
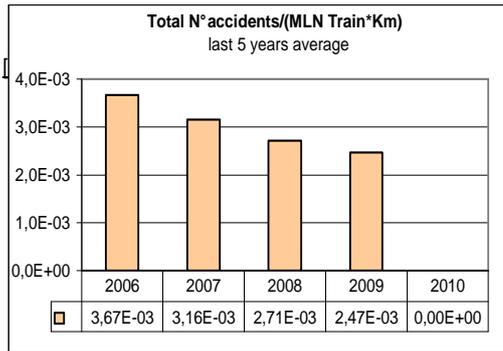
Technical safety of infrastructure and its

Year	Type of accident						
	Percentage of tracks with Automatic Train Protection (ATP) in operation	Percentage of Train*Km using operational ATP systems	Total number of level crossings	Number of track Km (double track lines are to be counted twice)	Total number of level crossings per track Km	Percentage of level crossings with automatic or manual protection	N° of audits accomplished / N° of audits required (and/or planned)
2006	0.00%	0.00%	1270	2997	4.24E-01	61.00%	0.00%
2007	0.00%	0.00%	1265	3060	4.13E-01	65.61%	0.00%
2008	0.00%	0.00%	1265	3062	4.13E-01	72.00%	0.00%
2009	0.00%	0.00%	1305	3070	4.25E-01	56.10%	0.00%
2010							
2011							
2012							
2013							
2014							
2015							

Technical safety of infrastructure and its implementation, management of

Year	Type of accident						
	Percentage of tracks with Automatic Train Protection (ATP) in operation	Percentage of Train*Km using operational ATP systems	Total number of level crossings	Number of track Km (double track lines are to be counted twice)	Total number of level crossings per track Km	Percentage of level crossings with automatic or manual protection	N° of audits accomplished / N° of audits required (and/or planned)
2006	0.00%	0.00%	1270	2997	4.24E-01	61.00%	0.00%
2007	0.00%	0.00%	1268	3029	4.19E-01	63.31%	0.00%
2008	0.00%	0.00%	1267	3040	1.00E+00	66.20%	0.00%
2009	0.00%	0.00%	1276	3047	4.19E-01	63.68%	0.00%
2010							
2011							
2012							
2013							
2014							
2015							

Performances at a glance



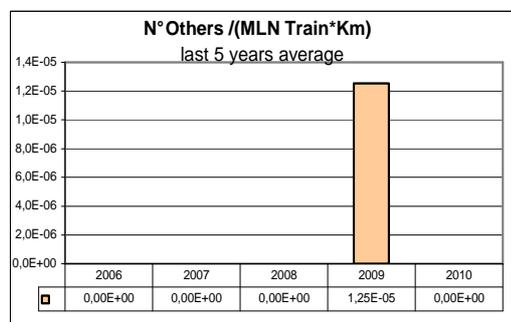
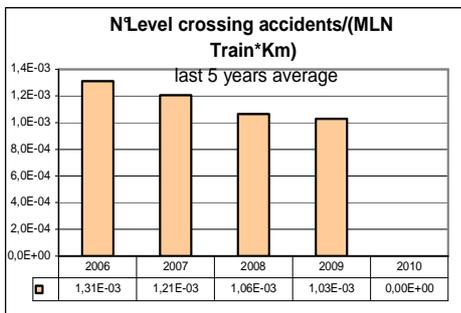
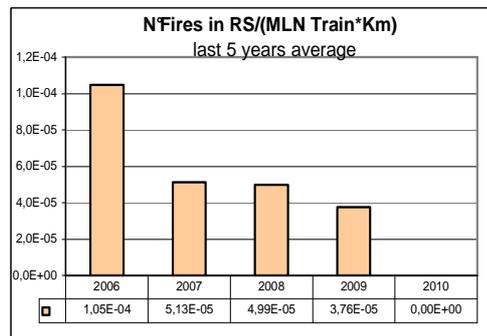
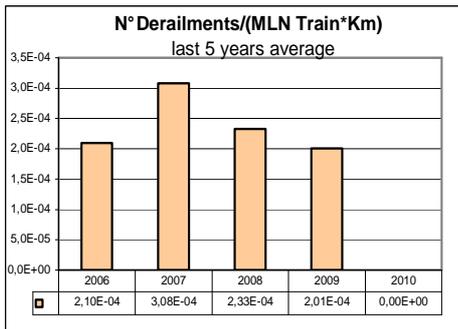
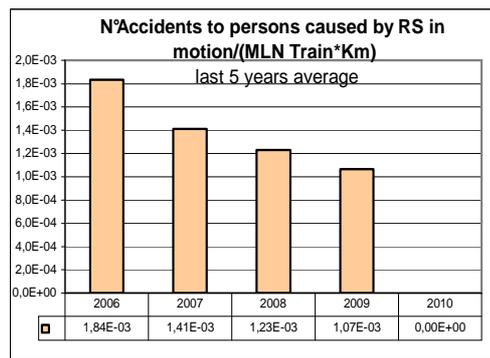
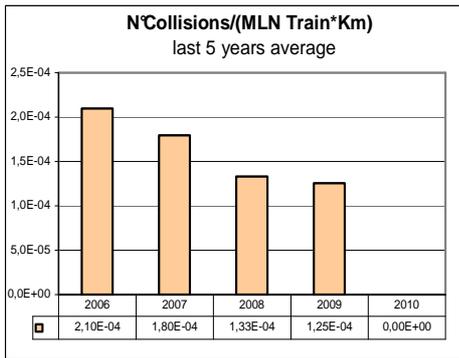
2007 report: values related to 2006.

2008 report: values related to the average between 2006 and 2007.

2008 report: values related to the average among 2006, 2007 and 2008.

2009 report: values related to the average among 2006, 2007, 2008 and 2009.

Accidents divided by type



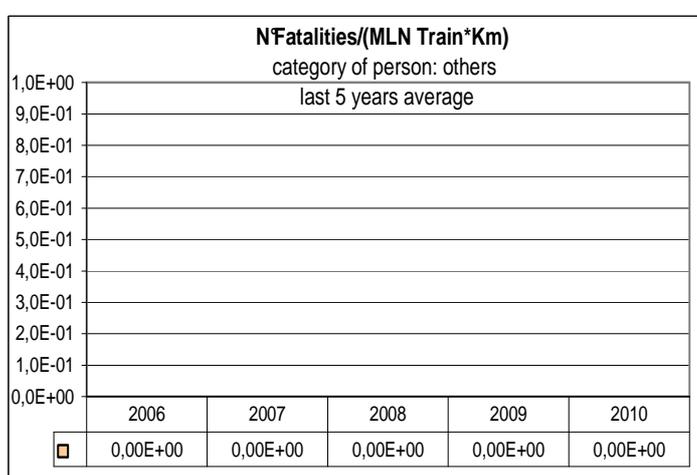
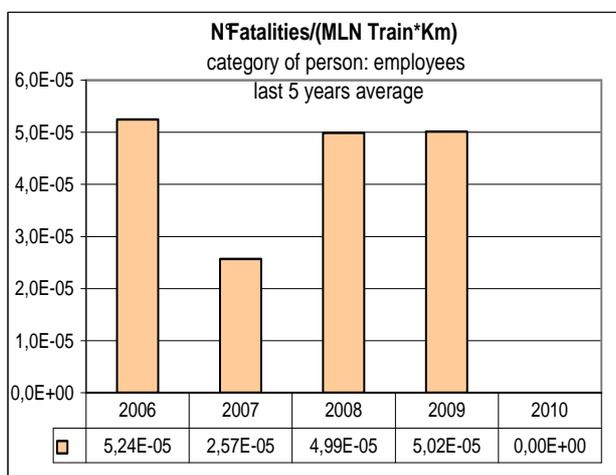
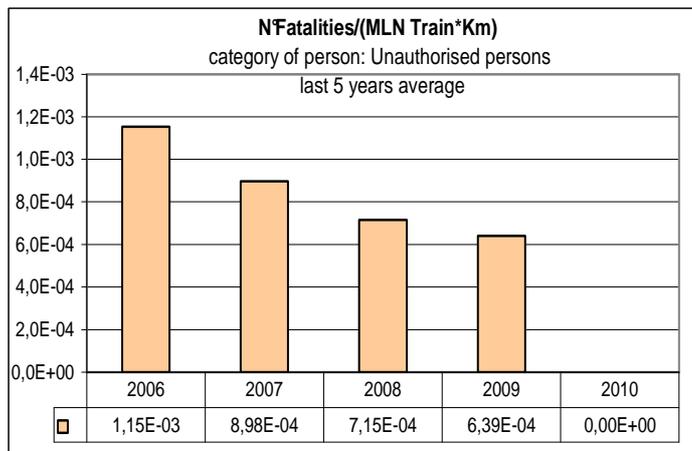
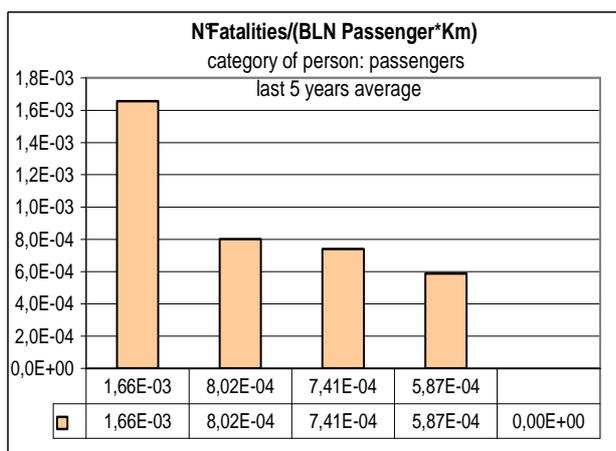
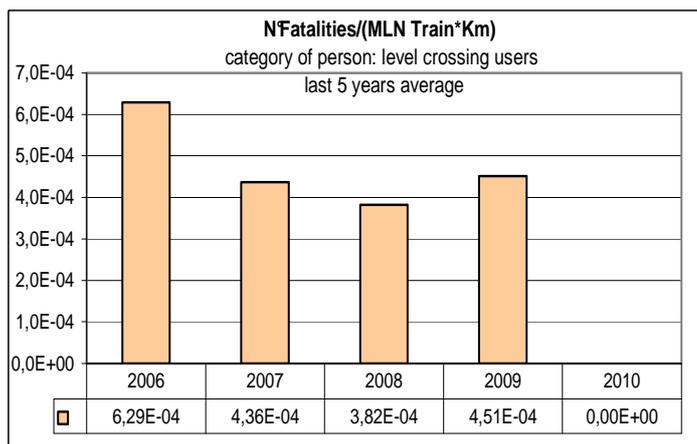
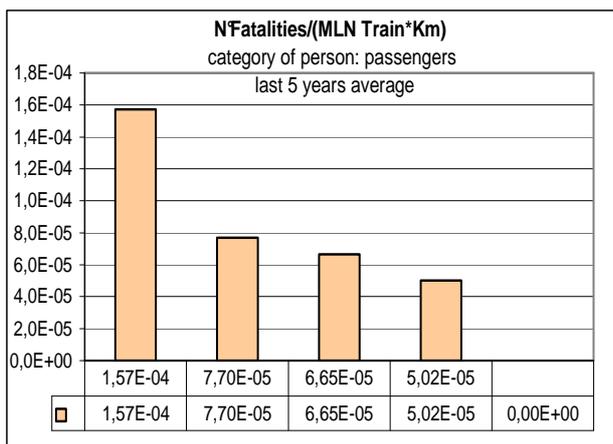
2007 report: values related to 2006.

2008 report: values related to the average between 2006 and 2007.

2008 report: values related to the average among 2006, 2007 and 2008.

2009 report: values related to the average among 2006, 2007, 2008 and 2009.

Fatalities divided by category of people involved



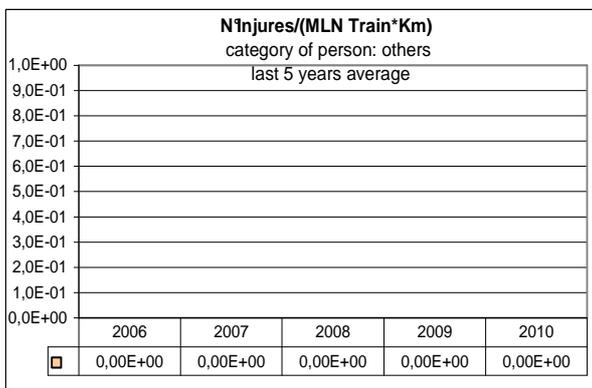
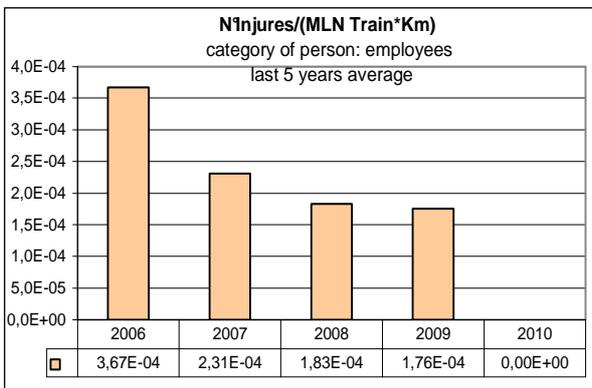
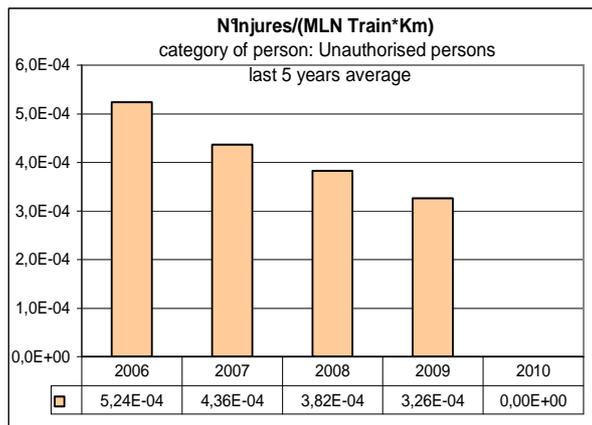
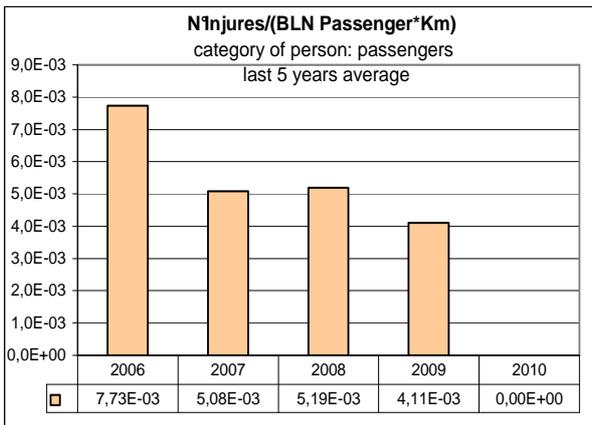
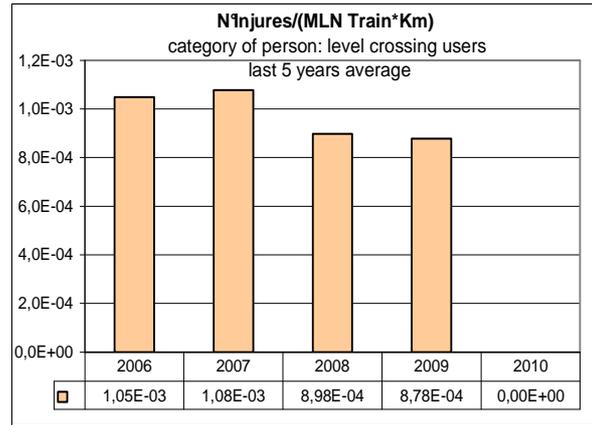
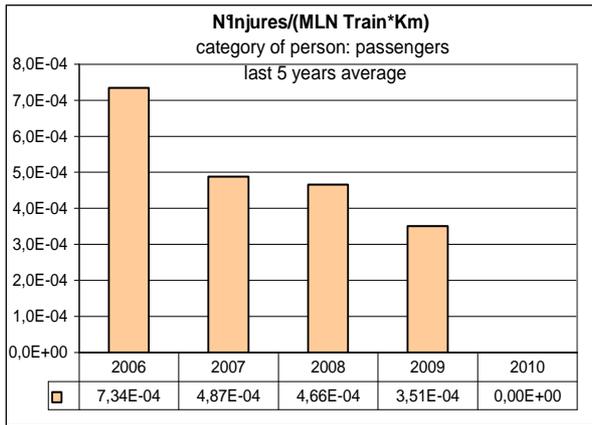
2007 report: values related to 2006.

2008 report: values related to the average between 2006 and 2007.

2008 report: values related to the average among 2006, 2007 and 2008.

2009 report: values related to the average among 2006, 2007, 2008 and 2009.

Injures divided by category of people involved



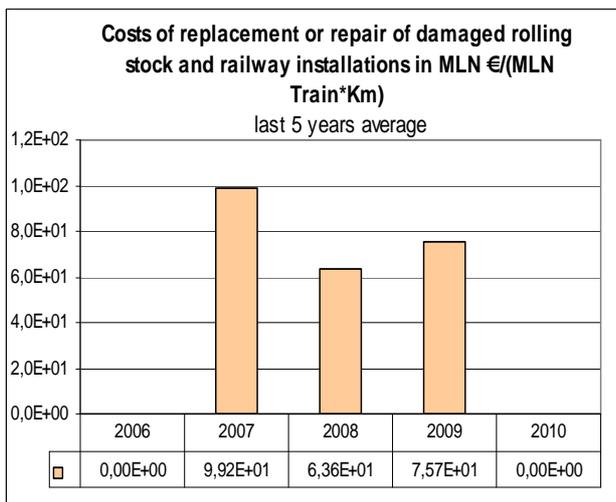
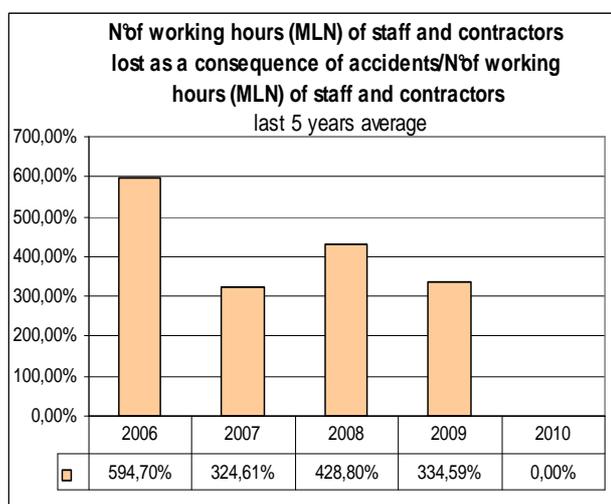
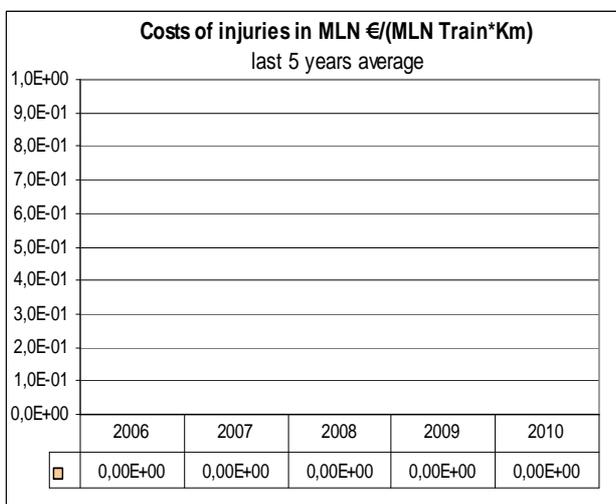
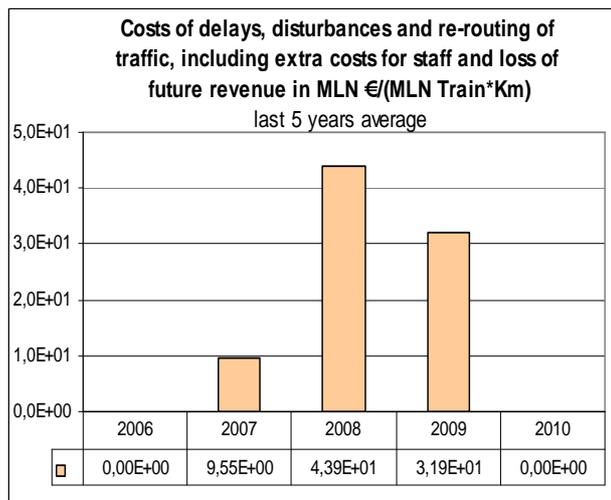
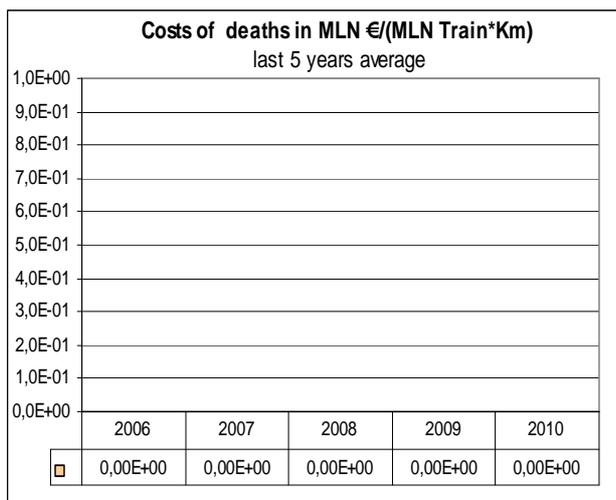
2007 report: values related to 2006.

2008 report: values related to the average between 2006 and 2007.

2008 report: values related to the average among 2006, 2007 and 2008.

2009 report: values related to the average among 2006, 2007, 2008 and 2009.

Cost of all accidents, number of working hours of staff and contractors lost as a consequence of accidents



2007 report: values related to 2006.

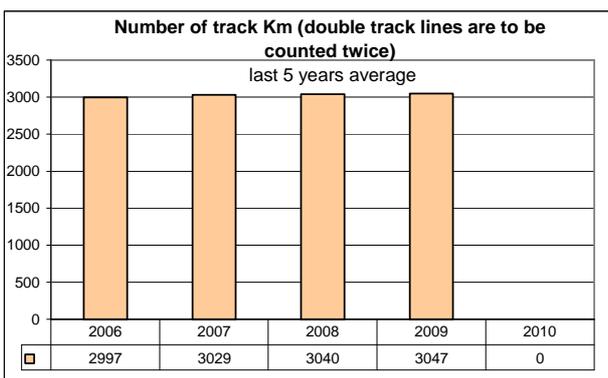
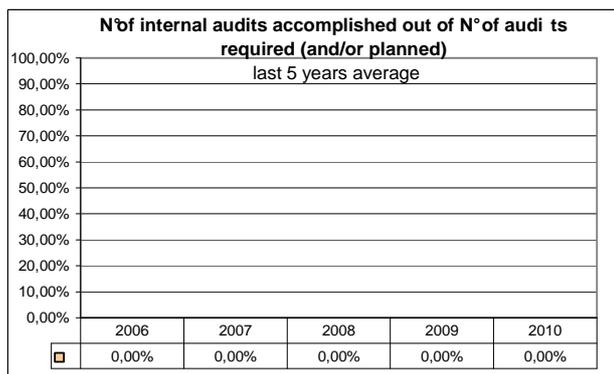
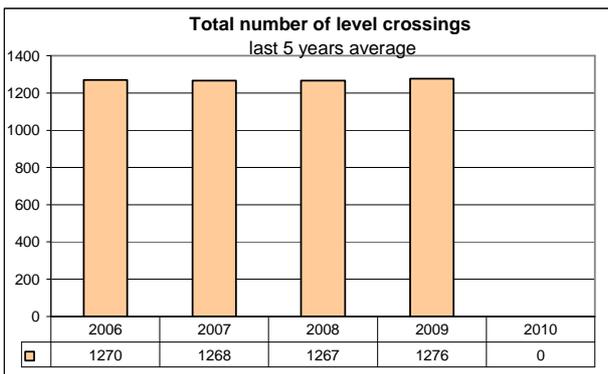
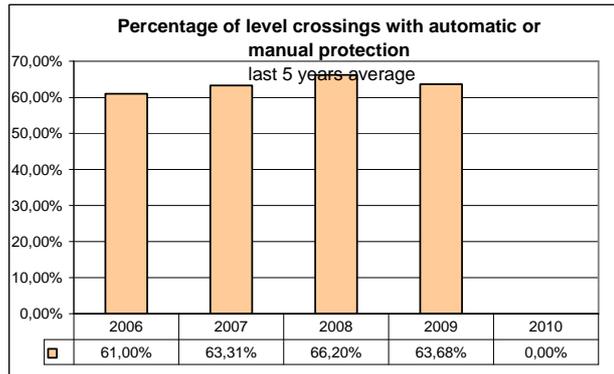
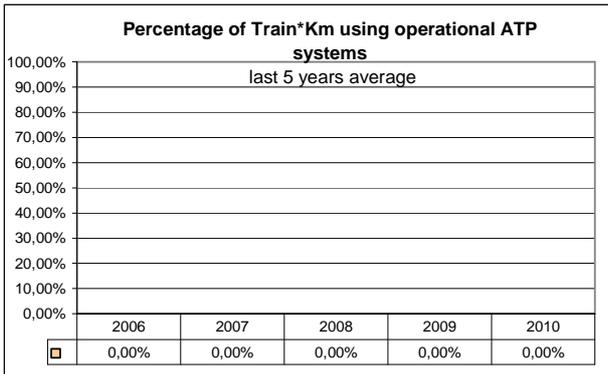
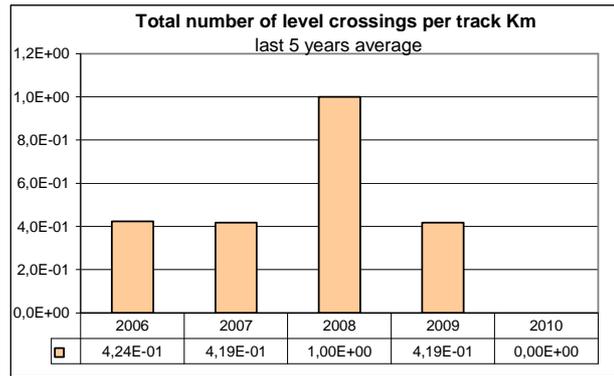
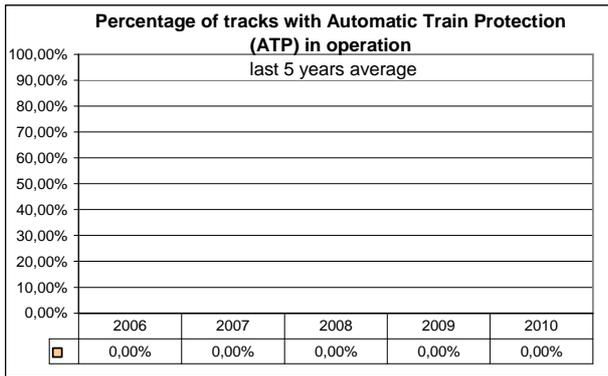
2008 report: values related to the average between 2006 and 2007.

2008 report: values related to the average among 2006, 2007 and 2008.

2009 report: values related to the average among 2006, 2007, 2008 and 2009.

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Technical safety of infrastructure and its implementation, management of safety



2007 report: values related to 2006.
 2008 report: values related to the average between 2006 and 2007.
 2008 report: values related to the average among 2006, 2007 and 2008.
 2009 report: values related to the average among 2006, 2007, 2008 and 2009.

C.2. Definitions used in the annual report

C.2.1. The definitions used in the annual report are in compliance with the Regulation 91/03 concerning:

deaths (killed person)

means any person killed immediately or dying within 30 days as a result of an injury accident, excluding suicides

injures (seriously injured person)

means any person injured who was hospitalized for more than 24 hours as a result of an accident, excluding attempted suicides

passenger-km

means the unit of measure representing the transport of one passenger by rail over a distance of one kilometre. Only the distance on the national territory of the reporting country shall be taken into account

rail passenger

means any person, excluding members of the train crew, who makes a trip by rail. For accident statistics, passengers trying to embark/disembark onto/from a moving train are included

suicide

means an act to deliberately injure oneself resulting in death, as recorded and classified by the competent national authority

significant accident

means any accident involving at least one rail vehicle in motion, resulting in at least one killed or seriously injured person, or in significant damage to stock, track, other installations or environment, or extensive disruptions to traffic. Accidents in workshops, warehouses and depots are excluded

train

means one or more railway vehicles hauled by one or more locomotives or railcars, or one railcar traveling alone, running under a given number or specific designation from an initial fixed point to a terminal fixed point. A light engine, i.e. a locomotive traveling on its own, is not considered to be a train

train*Km

means the unit of measure representing the movement of a train over one kilometre. The distance used is the distance actually run, if available, otherwise the standard network distance between the origin and destination shall be used. Only the distance on the national territory of the reporting country shall be taken into account

C.2.2. National definitions

National definitions used by the Infrastructure Manager have been applied for the collection of “number of incidents and near-misses” and “costs of accidents” in which it was included only the “costs of replacement or repair of damaged rolling stock and railway installations” and the “extra costs for staff and loss of future revenue”.

C.3. Abbreviations

CSI	Common Safety Indicator
ERA	European Railway Agency
LC	Level Crossing
MLN	10 ⁶
BLN	10 ⁹
NSA	Network Safety Authorities
RS	Rolling Stock
RU/IM	Railway Undertaking and Infrastructure Manager

ANNEX D: Important changes in legislation and regulation

D: Important changes in legislation and regulation

	Legal reference	Date legislation comes into force	Reason for introduction (Additionally specify new law or amendment to existing legislation)	Description
General national railway safety legislation				
Legislation concerning the national safety authority	-P.D 186/2007, -P.D 160/2007	-Official Gazette of the Hellenic Republic A' 221/12.9.2007, - Official Gazette of the Hellenic Republic A' 201/23.8.2007	-Obligation from the Directive 2004/49/EC -Transposition into national law of the Safety Directive 2004/49/EC	
Legislation concerning notified bodies, assessors, third parties bodies for registration, examination, etc.	NONE			
National rules concerning railway safety				
Rules concerning national safety targets and methods	Ministerial Decision F4/οικ.27887/2166	-Official Gazette of the Hellenic Republic B' 643/23.5.2006	Obligation of the Directive 2004/49/EC	
Rules concerning requirements on safety management systems and safety certification of	Ministerial Decision AS 4.2/οικ.26697/2422	-Official Gazette of the Hellenic Republic B' 986/22-5-09	Obligation of the Directive 2004/49/EC	

Railway Undertakings				
Rules concerning requirements on safety management systems and Safety Authorisation of Infrastructure Managers	Ministerial Decision AS 4.2/oik.26697/2422	-Official Gazette of the Hellenic Republic B' 986/22-5-09	Obligation of the Directive 2004/49/EC	
Rules concerning requirements for wagon keepers	NONE			
Rules concerning requirements for maintenance workshops	NONE			
Rules concerning requirements for the authorisation of placing in service and maintenance of new and substantially altered rolling stock, including rules for exchange of rolling stock between Railway Undertakings, registration systems and requirements on testing procedures.	Ministerial Decision AS10/11249/1018	-Official Gazette of the Hellenic Republic B' 911'/19-5-08	-Enhance railway safety and update of type 3 of the national safety rules (Annex II) Amendment of F4/oik.27887/2166/23.5.2006	
Common operating rules of the railway network, including rules relating to the signalling and traffic procedures	NONE			
Rules laying down requirements on additional internal operating rules (company rules) that must be established by the Infrastructure Managers and Railway Undertakings	NONE			
Rules concerning requirements on staff executing safety critical tasks, including selection criteria, medical fitness and vocational training and certification	NONE			

Rules concerning the investigation of the accident and incidents including recommendation	NONE			
Rules concerning requirements for national safety indicators including how to collect and analyse the indicators	NONE			
Rules concerning requirements for authorisation of placing in service the infrastructure (tracks, bridges, tunnels, energy, ATC, radio, signalling, interlocking, level crossing, platforms, etc.)	NONE			

**ANNEX E: The development of safety certification and
authorisation – Numerical Data**

E.1. Safety Certificates according to Directive 2001/14/EC

Number of Safety Certificates issued according to Directive 2001/14/EC, held by Railway Undertakings in year 2009 being licensed	in your Member State	0
	in another Member State	0

E.2. Safety Certificates according to Directive 2004/49/EC

		New	Updated / amended	Renewed
E.2.1. Number of valid Safety Certificates Part A held by Railway Undertakings in the year 2009 being registered	in your Member State	0	0	0
	in another Member State	0	0	0

		New	Updated / amended	Renewed
E.2.2. Number of valid Safety Certificates Part B held by Railway Undertakings in the year 2009 being registered	in your Member State	0	0	0
	in another Member State	0	0	0

			A	R	P
E.2.3. Number of applications for Safety Certificates Part A submitted by Railway	in your Member State for	new certificates	0	0	0
		updated / amended certificates	0	0	0
		renewed certificates	0	0	0
	in another Member State for	new certificates	0	0	0
		updated / amended certificates	0	0	0

Undertakings in year 2009 being registered		renewed certificates	0	0	0
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			A	R	P
E.2.4. Number of applications for Safety Certificates Part B submitted by Railway Undertakings in year 2009 being registered	in your Member State for	new certificates	0	0	0
		updated / amended certificates	0	0	0
		renewed certificates	0	0	0
	in another Member State for	new certificates	0	0	0
		updated / amended certificates	0	0	0
		renewed certificates	0	0	0

A = Accepted application, certificate is already issued

R = Rejected applications, no certificate was issued

P = Case is still pending, no certificate was issued so far

E.2.5. List of countries where RUs applying for a Safety Certificate Part B in your Member State have obtained their Safety Certificate Part A

E.3. Safety Authorisations according to Directive 2004/49/EC

	New	Updated / amended	Renewed
E.3.1. Number of valid Safety Authorisations held by Infrastructure Managers in the year 2009 being registered in your Member State	0	0	0

		A	R	P
E.3.2. Number of applications for Safety Authorisations submitted by Infrastructure Managers in year 2009 being registered in your Member State	new authorisations	0	0	0
	updated / amended authorisations	0	0	0
	renewed authorisations	0	0	0

A = Accepted application, authorisation is already issued

R = Rejected applications, no authorisation was issued

P = Case is still pending, no authorisation was issued so far

E.4. Procedural aspects – Safety Certificates part A

		New	Updated / amended	Renewed
Mean time after having received all necessary information between the receipt of an application and the final delivery of a Safety Certificate Part A in year 2009 for Railway Undertakings holding	a licence released by your Member State	0	0	0
	a licence released by another Member State	0	0	0

E.5. Procedural aspects – Safety Certificates part B

		New	Updated / amended	Renewed
Mean time after having received all necessary information between the receipt of an application and the final delivery of a Safety Certificate Part B in year 2009 for Railway Undertakings holding	a licence released by your Member State?	0	0	0
	a licence released by another Member State?	0	0	0

E.6. Procedural aspects – Safety Authorisations

		New	Updated / amended	Renewed
Mean time after having received all necessary information between the receipt of an application and the final delivery of a Safety Authorisation in year 2009 for Infrastructure Managers holding	a licence released by your Member State	0	0	0
	a licence released by another Member State	0	0	0