NSA Annual Report
Finnish Rail Agency
2006

FINNISH
RAIL AGENCY

A. NSA ANNUAL REPORT – FINNISH RAIL AGENCY

This is a report on Finnish railway safety and the Finnish Rail Agency's activities during 2006. The Finnish Rail Agency was launched on September 1, 2006. Our main goal was to establish the new agency. We started with too few staff members, and our budget for the first four months was very small. Despite these difficulties, we managed to set up the new agency. We focused on planning and recruiting expert staff, preparing our strategies, and building an infrastructure for the organisation.

B. INTRODUCTION

1. Introduction to the report

The Finnish Rail Agency was created when the safety unit/department was separated from the Finnish Rail Administration and made into an entirely new agency. The safety department of the Finnish Rail Administration had been acting as a safety authority before an independent NSA, Finnish Rail Agency was established. In the autumn of 2006, we recruited new staff but were still understaffed. We launched our operations by writing guidelines for railway actors and strategies regarding supervision, for example.

Upon your request we have included a full calendar year in this report, because it would be hard to interpret statistics from only a third of a year.

2. Railway Structure Information

The map of the Finnish railway network can be found in Annex A.1 on page 7.

We only have one Infrastructure Manager, the Finnish Rail Administration and one Railway Undertaking, VR-Group Ltd, which operates both passenger and freight traffic. The list of Railway Undertakings and Infrastructure Managers is in Annex A.2.

3. Summary – General Trend Analysis

The Finnish Rail Agency was founded on September 1, 2006 therefore we do not have enough appropriate data for analysing such trends.

4. The Safety Directive

In Finland the Railway Safety Directive (2004/49/EC) and the whole second railway package was implemented in national legislation by the Railway Act (555/2006) which was passed on June 29, and came into force on September 1, 2006.

The Act on the Finnish Rail Agency was passed on December 22, 2005, and came into force on September 1, 2006.

The Government decree on the Finnish Rail Agency was passed on July 20, 2006, and came into force on September 1, 2006.

The Government decree on the safety and interoperability of the railway system was passed on August 31, 2006, and came into force on September 1, 2006.

The Government decree on fees charged by the Finnish Rail Agency was passed on August 30, 2006, and came into force on September 1, 2006.

C. Organisation

1. Introduction to the organisation

The Finnish Rail Agency started operations on September 1, 2006. Its main task as a national safety authority is to reinforce railway safety in Finland.

The tasks of the Finnish Rail Agency include preparation of both EU and national legislation, implementation of TSI's, technical approval of rolling stock and infrastructure, and issuing safety certificates and safety authorisations. It gives instructions for health inspections as well as competence requirements and training for staff working on the railways. The Finnish Rail Agency also takes care of ticket inspections on trains.

The Finnish Rail Agency is led by a director general. Mr Kari Alppivuori was appointed as the director general in July, 2006. There are 63 members of staff, 33 of whom worked in the ticket inspection office.

The Finnish Rail Agency has two departments: the safety department and the regulation department. The safety department is divided into two units: the Technical Unit and the Supervision and Development Unit. The regulatory body is a separate organisational body, as is the administrative unit. Communications are taken care of by the communications manager.

The organisation chart can be found on page 9.

2. Organisational flow – relationship (diagram) between the NSAs and other national bodies

The Finnish Rail Agency is an independent government agency working under the Ministry of Transport and Communications. It cooperates closely with the Finnish Rail Administration, The Competition Authority, and The Accident Investigation Board.

The organisational flow diagram can be found on page 10.

D. THE DEVELOPMENT OF RAILWAY SAFETY

1. Initiatives to maintain/improve safety performance

As the Finnish Rail Agency has only been in operation for a short period of time, there is insufficient appropriate data to produce such analysis.

No major accidents occurred on railways during 2006.

The most serious collision was when a local train collided with a locomotive in Helsinki, nobody was injured. Trains collided with objects left on the track 8 times during the year.

Freight trains were derailed 3 times, and 2 to 3 wagons derailed. There were no injuries or significant damage to property in these accidents.

One passenger died when he fell out of a coach, and another was seriously injured when he jumped out of a moving train.

There were 60 accidents at level crossings; five persons died in these accidents.

E. IMPORTANT CHANGES IN LEGISLATION AND REGULATION

In Finland the Railway Safety Directive (2004/49/EC) and the whole second railway package was implemented in national legislation by the Railway Act (555/2006) which was passed on June 29, 2006, and came into force on September 1, 2006.

The Act on the Finnish Rail Agency (1094/2005) was passed on December 22, 2005, and came into force on September 1, 2006.

The Government decree on the Finnish Rail Agency was passed on July 20, 2006, and came into force on September 1, 2006.

The Government decree on the safety and interoperability of the railway system was passed on August 31, 2006, and came into force on September 1, 2006.

The Government decree on fees charged by the Finnish Rail Agency was passed on August 30, 2006, and came into force on September 1, 2006.

In 2006, The Finnish Rail Agency issued one order: The health requirements for personnel carrying out the rail system's traffic safety duties (TEV, RVI/829/414/2006). This order was given on December 18 and it came into force on January 2, 2007.

F. THE DEVELOPMENT OF SAFETY CERTIFICATION AND AUTHORISATION

1. National legislation – starting dates – availability

No safety certificates or safety authorisations were issued in 2006 by the Finnish Rail Agency. However, the guidelines for applying safety certificates and safety authorisations were prepared in 2006.

G. SUPERVISION OF RAILWAY UNDERTAKINGS AND INFRASTRUCTURE MANAGERS

Since the Finnish Rail Agency was only launched in the beginning of September, it did not carry out any supervision activities in 2006. Instead it prepared supervision strategies and guidelines.

H. CONCLUSIONS – PRIORITIES – RESULTS OF SAFETY RECOMMENDATIONS

2006 was the founding year for the Finnish Rail Agency. Preparations were carried out throughout the year, and the agency was ready to start its work on September 1. The

Finnish Rail Agency was understaffed, and our budget for 2006 was insufficient. The new agency was, however, set up and operations got under way.

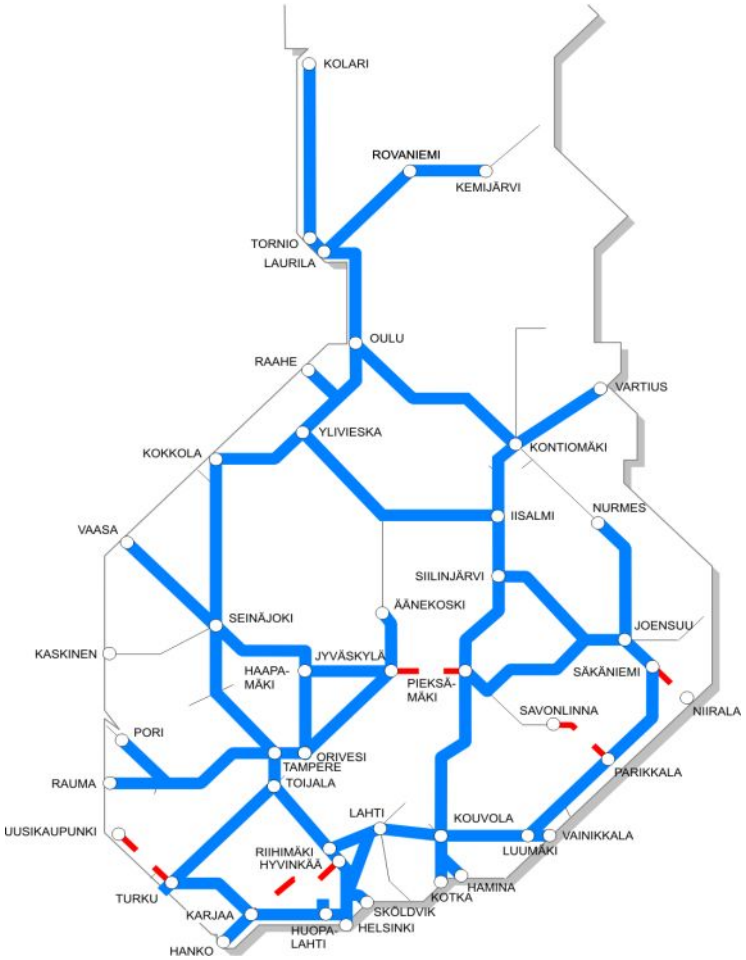
No serious accidents happened on Finnish railways during 2006.

I. ANNEXES

ANNEX A: Railway Structure Information
ANNEX B: Organisation chart(s) of the National Safety Authority
ANNEX C: CSIs data – Definitions applied

ANNEX A: Railway Structure Information

A.1. Network map



Blue line = Automatic train protection system complete
Red dotted line = Phase III of automatic train protection system under construction
Grey line = No automatic train protection system

A.2. List of Railway Undertakings and Infrastructure Managers

A.2.1. Infrastructure Manager(s)

Name	Address	Website/Network Statement Link	Safety Authorisation (Number/Date)	Start date of 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
Finnish Rail Administration	PO Box 185, Fi-00101 Helsinki	www.rhk.fi		1995	5,794 km	3,047 km	570 km/5,335 km	0 km	Bombardier	3,715	11,000

A.2.2. Railway Undertaking(s)

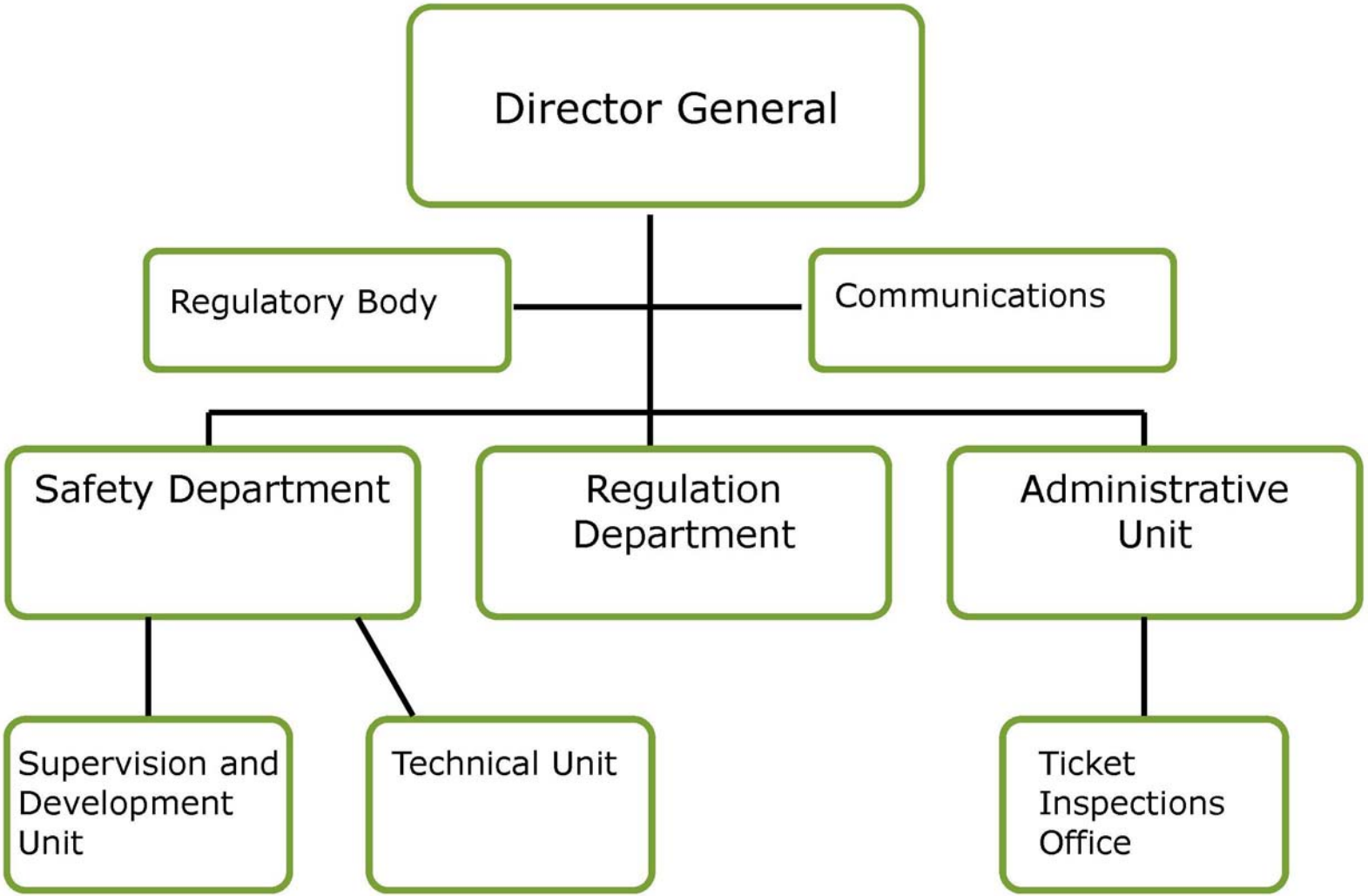
Name	Address	Website	Safety Certificate 2001/14/EC (Number/Date)	Safety Certificate A-B 2004/49/EC (Number/Date)	Start date of commercial activity	Traffic Type (Freight,...)	Number of Locomotives	Number of Railcars/Multiple Unit-sets	Number of Coaches/Wagons	Number of train drivers/safety crew	Volume of passenger transport	Volume of freight transport
VR Group	PO Box 488, 00101 Helsinki	www.vr.fi			July 1, 1995 as VR-Group	Freight, passenger	518	286	12,090	1,878/2,635	65 million trips	43 millions of tons

Abbreviations:

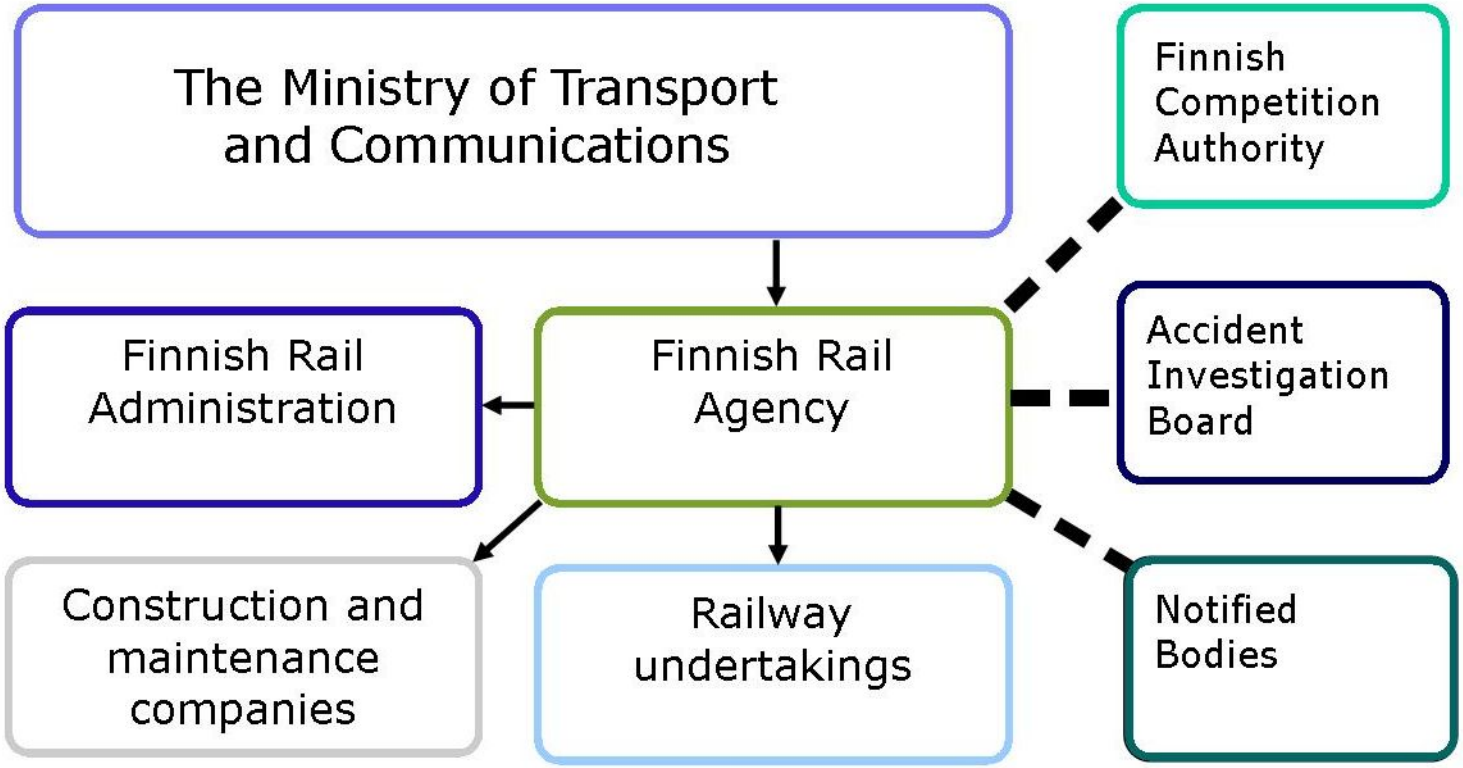
HSL = High Speed Line (Definition acc. Directive 96/48/EC)
ATP = Automatic Train Protection
LC = Level Crossing

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

B.1. Chart: Internal organisation



B.2. Chart: Relationship with other National Bodies



ANNEX C

CSIs data: pages 12 to 19

Definitions applied: pages 20 to 21

Number of accidents and Train*Km

	Type of accident							
Year	Collisions	Derailments	Level crossing accidents	Accidents to persons caused by RS in motion	Fires in RS	Others	Total	Train*Km (MLN)
2006	2	1	60	24	17	23	127	51
2007								
2008								
2009								
2010								
2011								
2012								
2013								
2014								
2015								

Number of accidents/Train*Km

	Type of accident						
Year	Collisions	Derailments	Level crossing accidents	Accidents to persons caused by RS in motion	Fires in RS	Others	Total
2006	3,93E-02	1,96E-02	1,18E+00	4,72E-01	3,34E-01	4,52E-01	2,50E+00
2007							
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							

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

	Category of persons							
Year	Passengers	Employees	Level crossing users	Unauthorised persons	Others	Total	Passenger*Km (BLN)	Train*Km (MLN)
2006	1	0	4	18	0	23	4	51
2007								
2008								
2009								
2010								
2011								
2012								
2013								
2014								
2015								

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

	Category of persons						
Year	Passengers	Passengers	Employees	Level crossing users	Unauthorised persons	Others	Total
2006	1,96E-02	2,78E-01	0,00E+00	7,86E-02	3,54E-01	0,00E+00	4,52E-01
2007							
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							
	related to Train*Km	related to Passenger*Km	related to Train*Km	related to Train*Km	related to Train*Km	related to Train*Km	related to Train*Km

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

	Category of persons							
Year	Passengers	Employees	Level crossing users	Unauthorised persons	Others	Total	Passenger*Km (BLN)	Train*Km (MLN)
2006	1	3	6	10	0	20	4	51
2007								
2008								
2009								
2010								
2011								
2012								
2013								
2014								
2015								

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

	Category of persons						
Year	Passengers	Passengers	Employees	Level crossing users	Unauthorised persons	Others	Total
2006	1,96E-02	2,78E-01	5,89E-02	1,18E-01	1,96E-01	0,00E+00	3,93E-01
2007							
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							
	related to Train*Km	related to Passenger*Km	related to Train*Km	related to Train*Km	related to Train*Km	related to Train*Km	related to Train*Km

Number of precursors and Train*Km

	Type of accident							
Year	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	Total	Train*Km (MLN)
2006	65	10	68	18	14	0	175	51
2007								
2008								
2009								
2010								
2011								
2012								
2013								
2014								
2015								

Number of precursors/Train*Km

	Type of accident						
Year	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	Total
2006	1,28E+00	1,96E-01	1,34E+00	3,54E-01	2,75E-01	0,00E+00	3,44E+00
2007							
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							

Cost of all accidents, safety hours

	Type of accident							
Year	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	Total number of working hours	Train*Km (MLN)
2006								
2007								
2008								
2009								
2010								
2011								
2012								
2013								
2014								
2015								

Cost of all accidents, safety hours: indicators

	Type of accident					
Year	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 €	N°of working hours (MLN) of staff and contractors lost as a consequence of accidents/N°of working hours (MLN) of staff and contractors
2006						
2007						
2008						
2009						
2010						
2011						
2012						
2013						
2014						
2015						
			related to Train*Km			

Technical safety of infrastructure and its implementation, management of safety

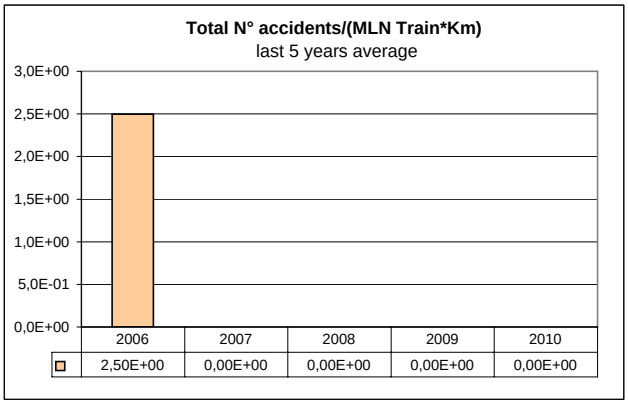
	Type of accident						
Year	Percentage of tracks with Automatic Train Protection (ATP) in operation	Percentage of Train*Km using operational ATP systems	Total number of level crossings	Number of track Km (double track lines are to be counted twice)	Total number of level crossings per track Km	Percentage of level crossings with automatic or manual protection	N°of audits accomplished / N° of audits required (and/or planned)
2006	72,00 %	91,00 %	4430	5905	7,50E-01	19,00 %	91,00 %
2007							
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							

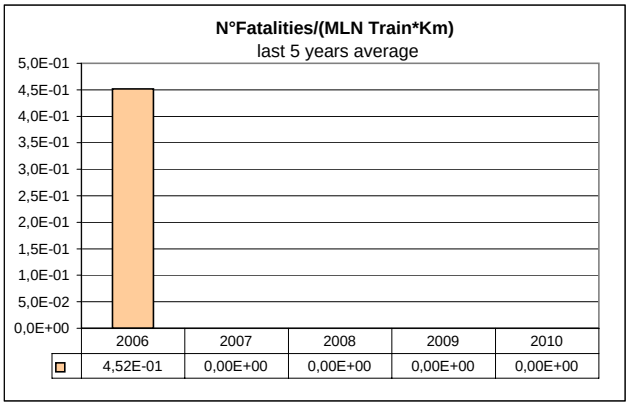
Technical safety of infrastructure and its implementation, management of safety

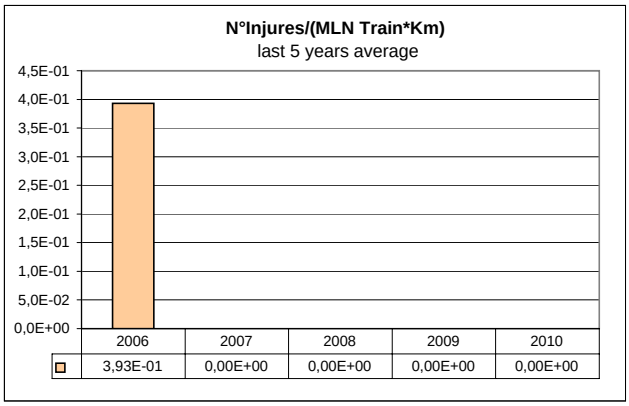
	Type of accident						
Year	Percentage of tracks with Automatic Train Protection (ATP) in operation	Percentage of Train*Km using operational ATP systems	Total number of level crossings	Number of track Km (double track lines are to be counted twice)	Total number of level crossings per track Km	Percentage of level crossings with automatic or manual protection	N°of audits accomplished / N° of audits required (and/or planned)
2006	72,00 %	91,00 %	4430	5905	7,50E-01	19,00 %	91,00 %
2007							
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							

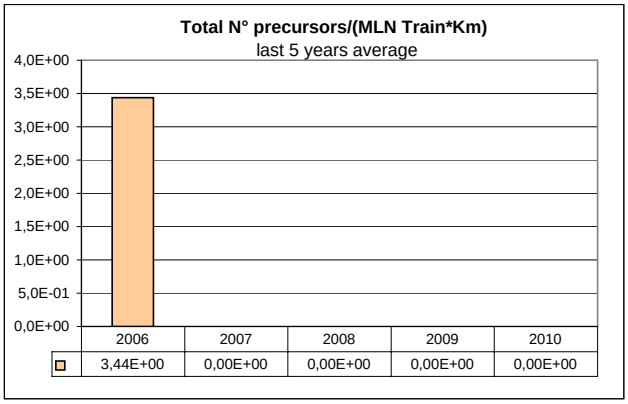
C.1. CSIs data

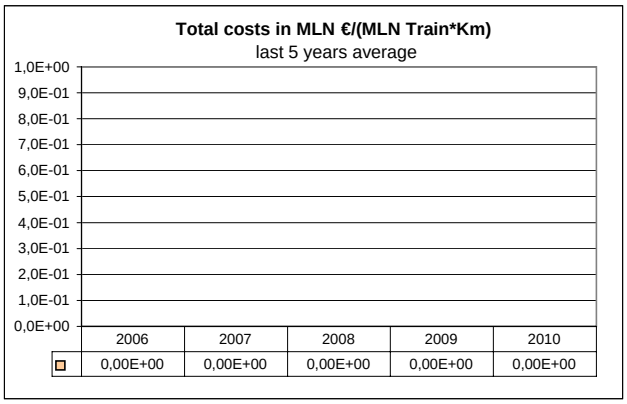
Performances at a glance





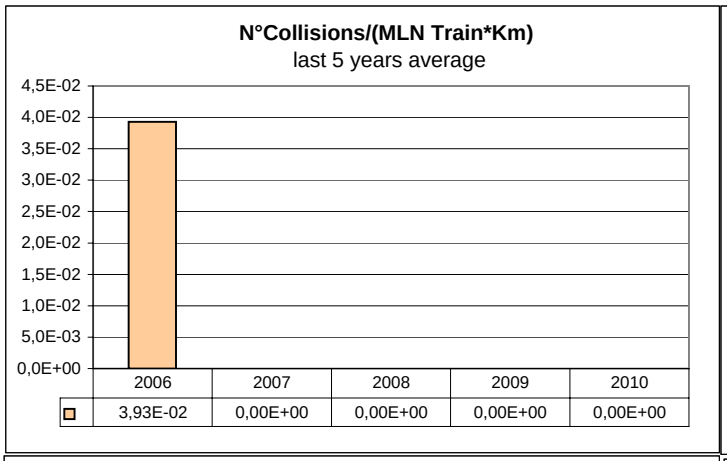


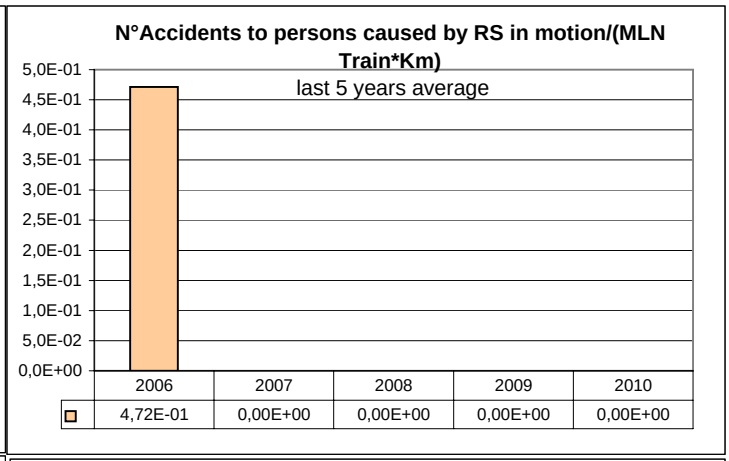


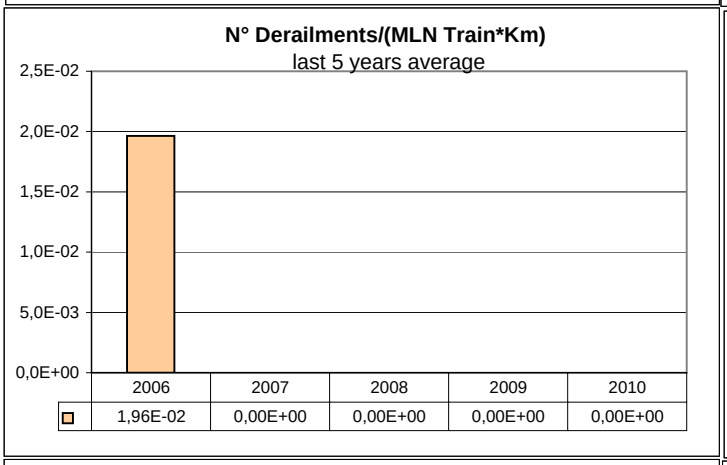


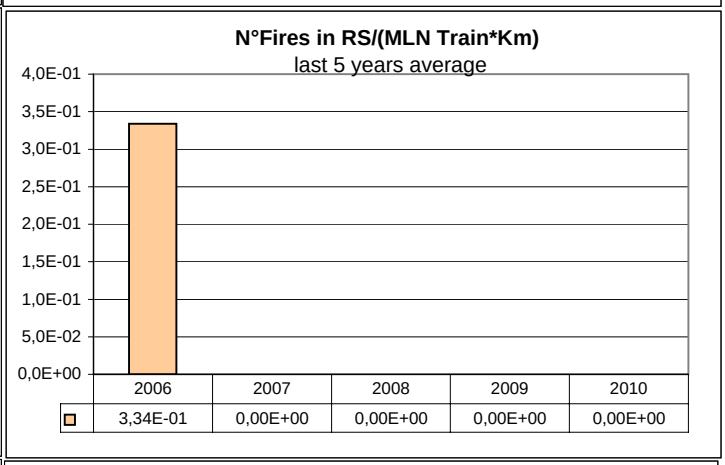
2007 report: values related to 2006.
2008 report: values related to the average between 2006 and 2007.
2008 report: values related to the average among 2006, 2007 and 2008.
2009 report: values related to the average among 2006, 2007, 2008 and 2009.

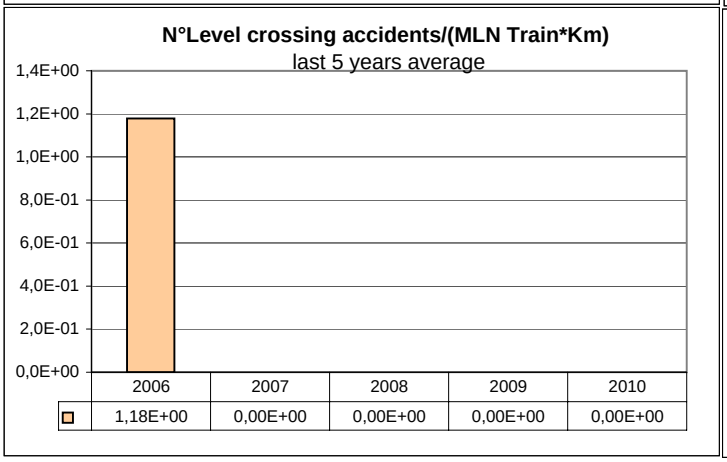
Accidents divided by type

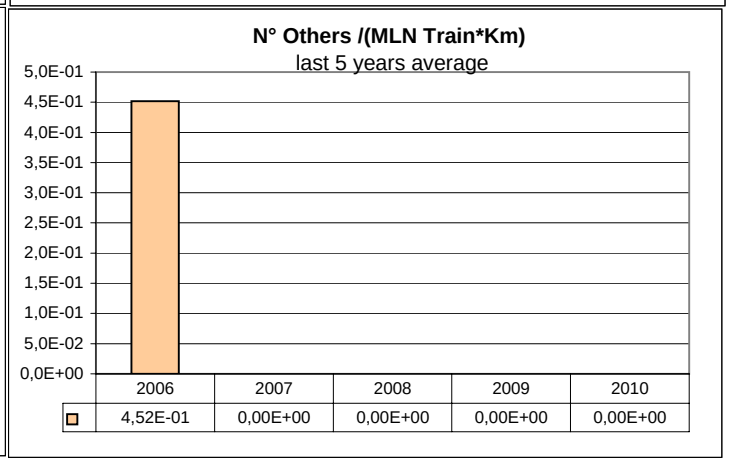






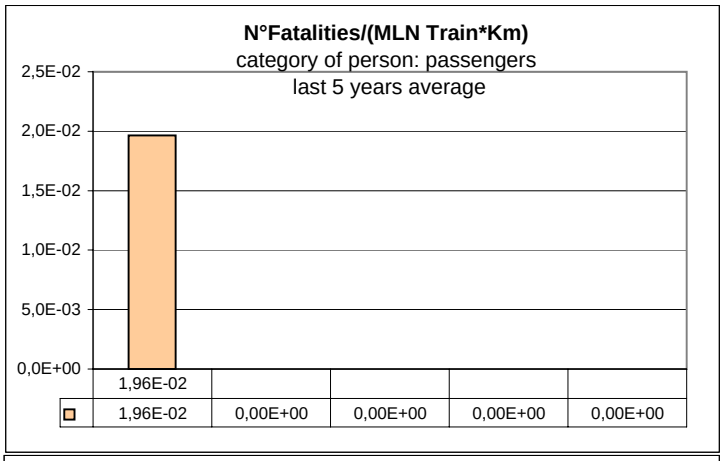


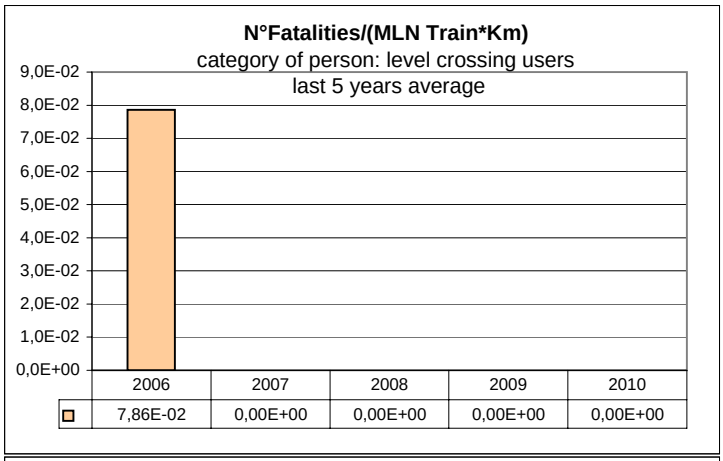


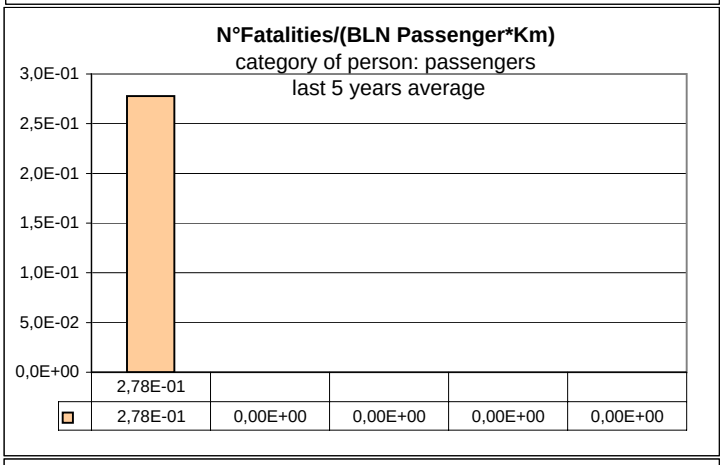


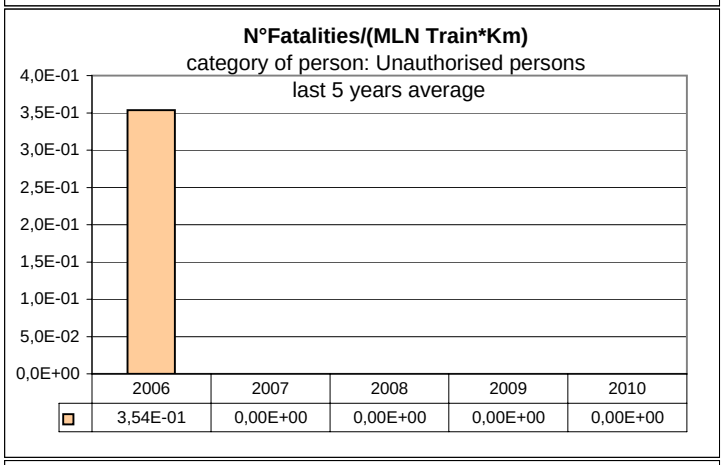
2007 report: values related to 2006.
2008 report: values related to the average between 2006 and 2007.
2008 report: values related to the average among 2006, 2007 and 2008.
2009 report: values related to the average among 2006, 2007, 2008 and 2009.

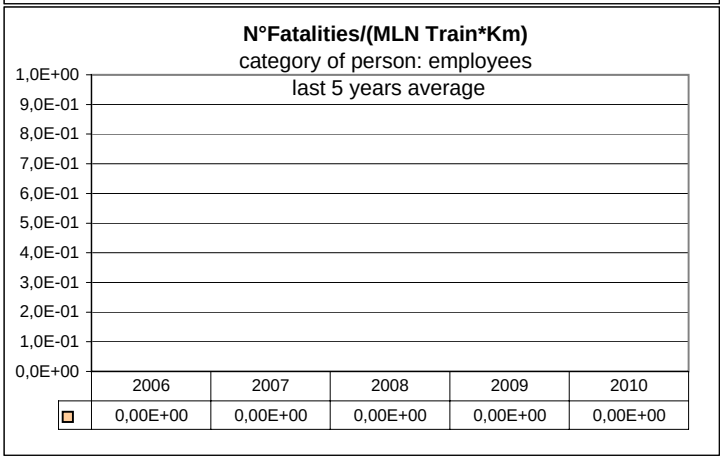
Fatalities divided by category of people involved

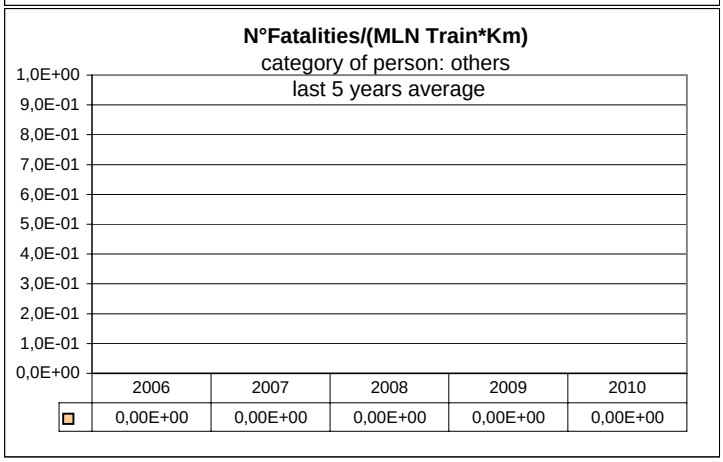












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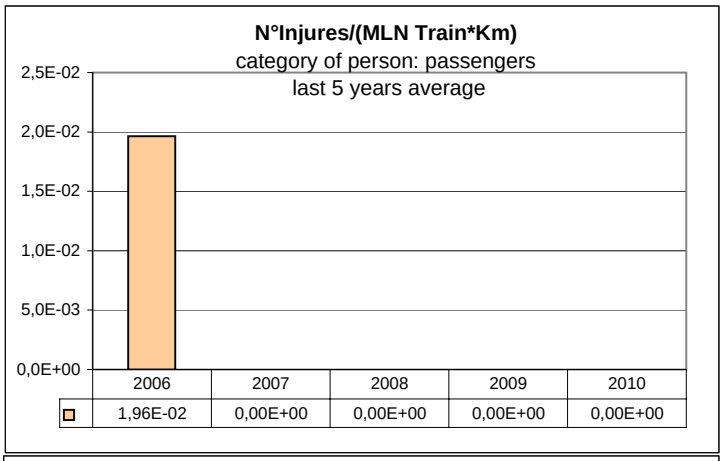
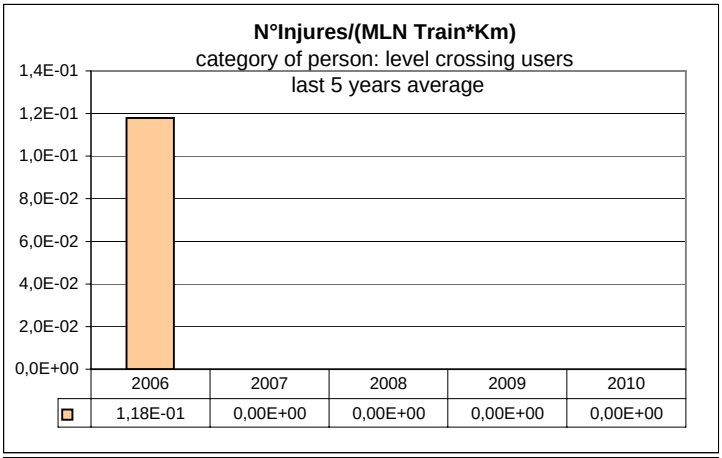
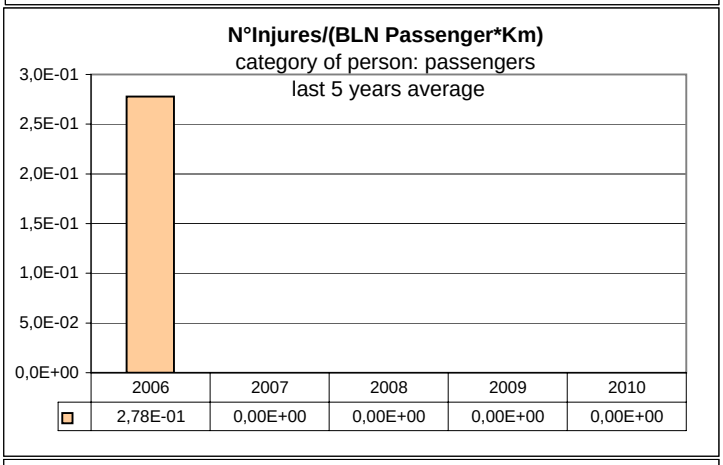
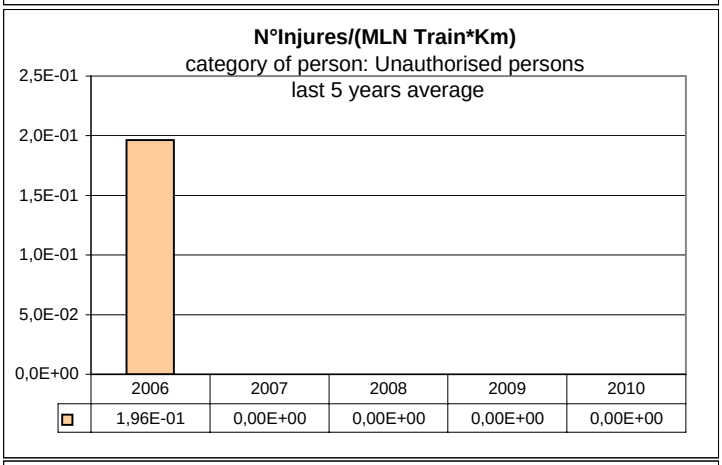
2009 report: values related to the average among 2006, 2007, 2008 and 2009.

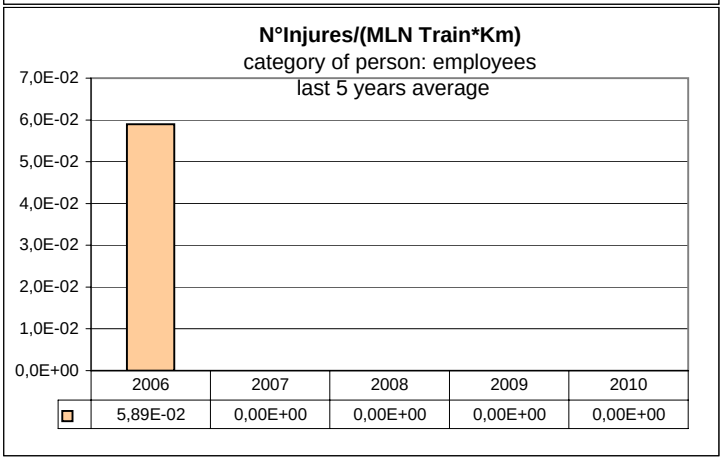
Injures divided by category of people involved

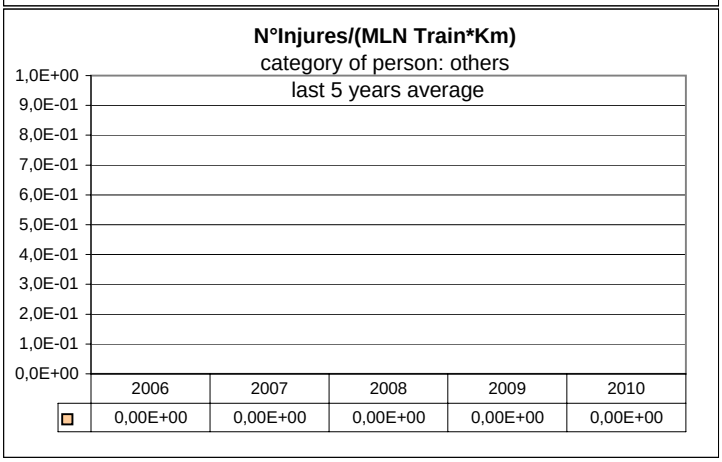












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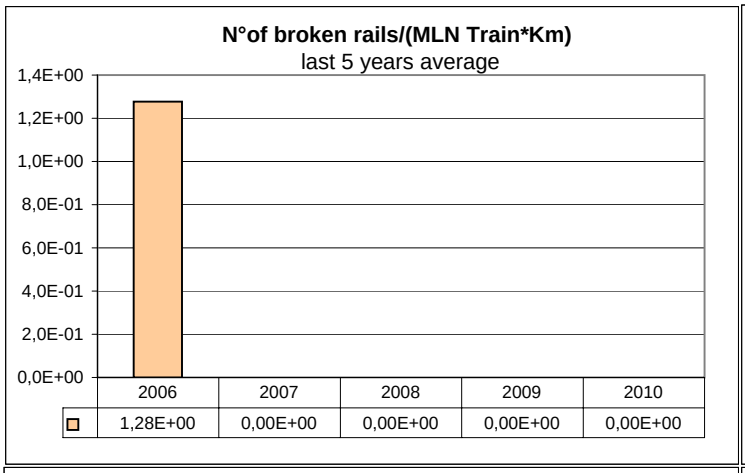
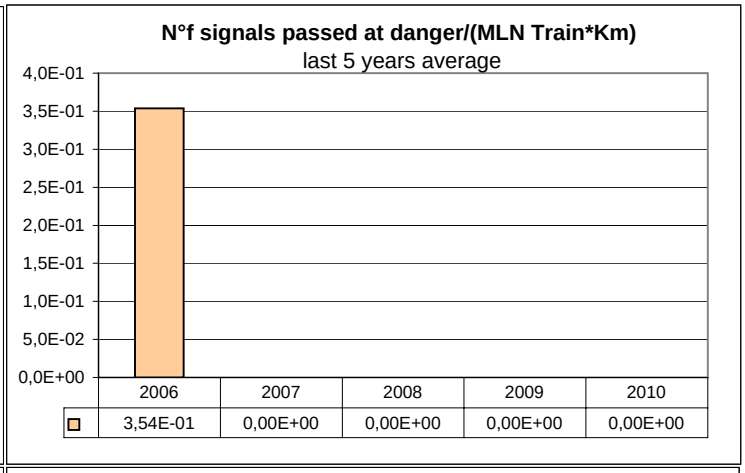
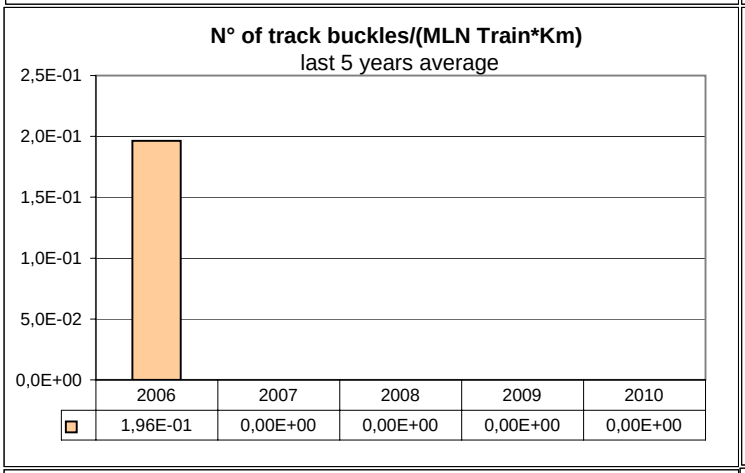
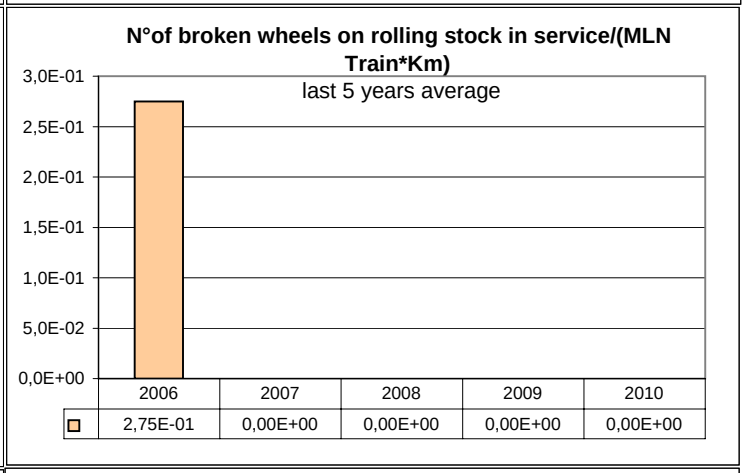
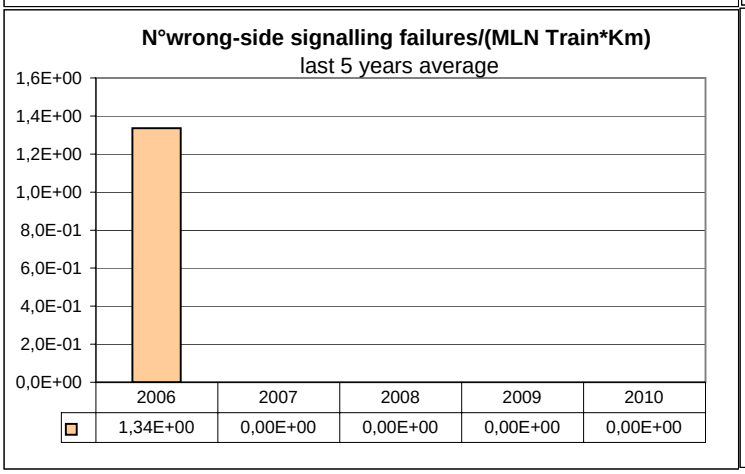
Precursors to accidents

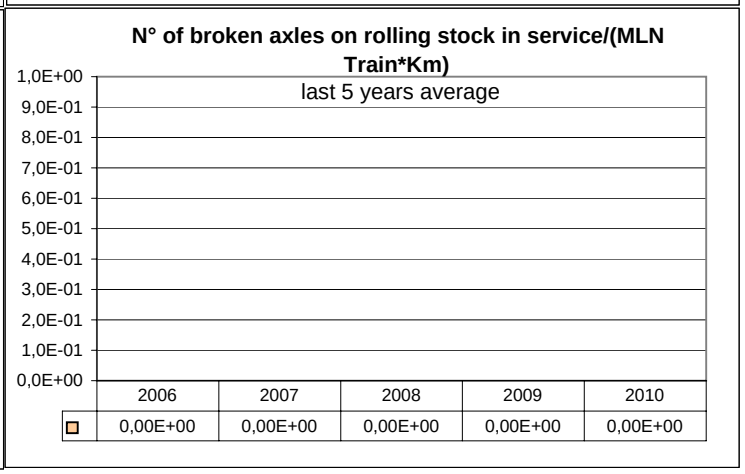






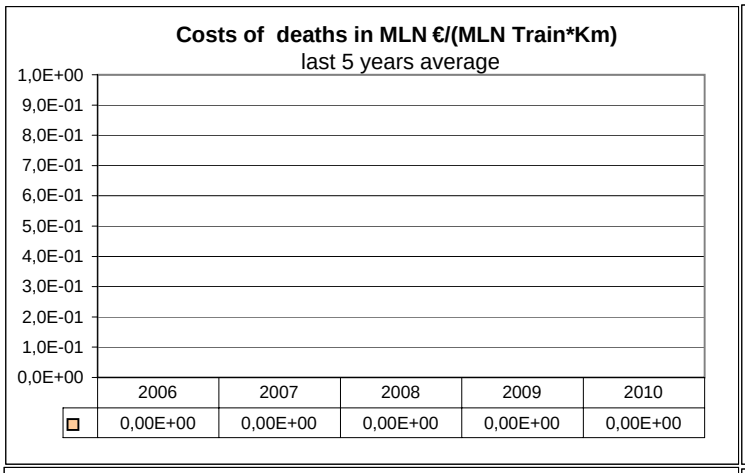


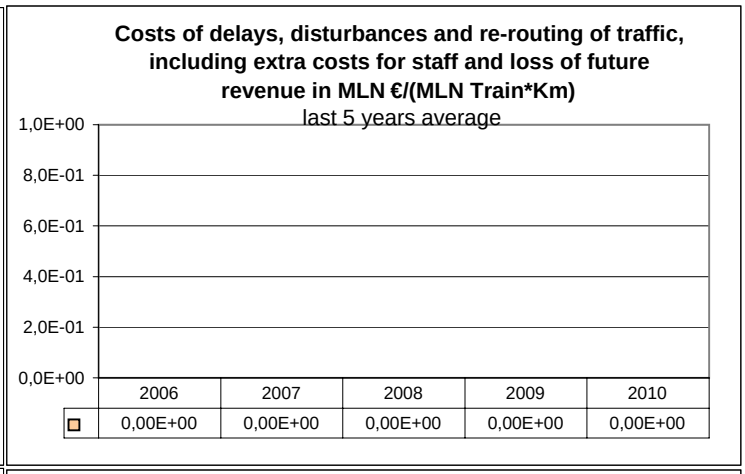


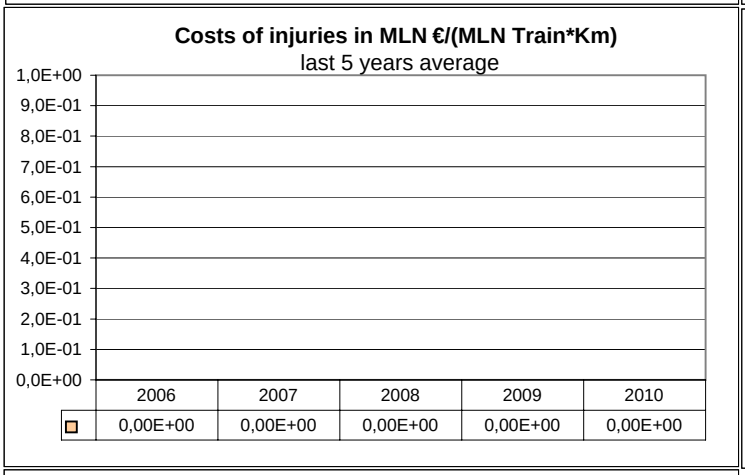


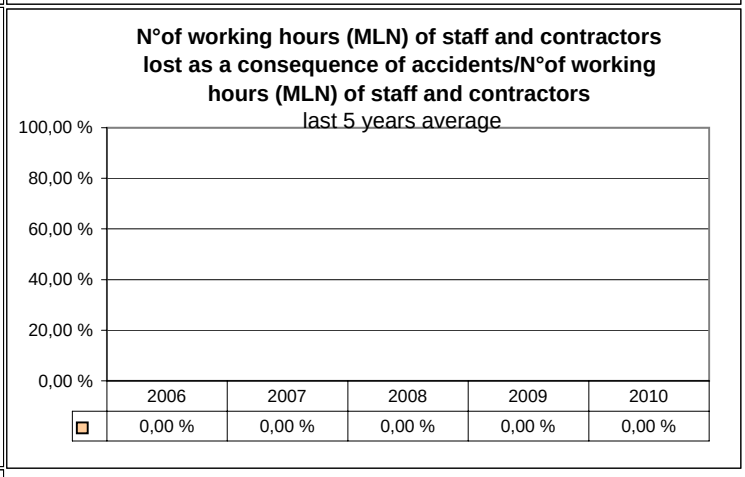
2007 report: values related to 2006.
2008 report: values related to the average between 2006 and 2007.
2008 report: values related to the average among 2006, 2007 and 2008.
2009 report: values related to the average among 2006, 2007, 2008 and 2009.

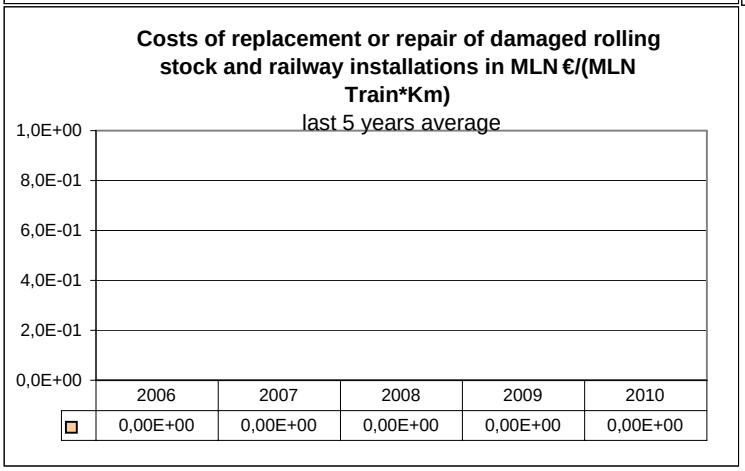
Cost of all accidents, number of working hours of staff and contractors lost as a consequence of accidents





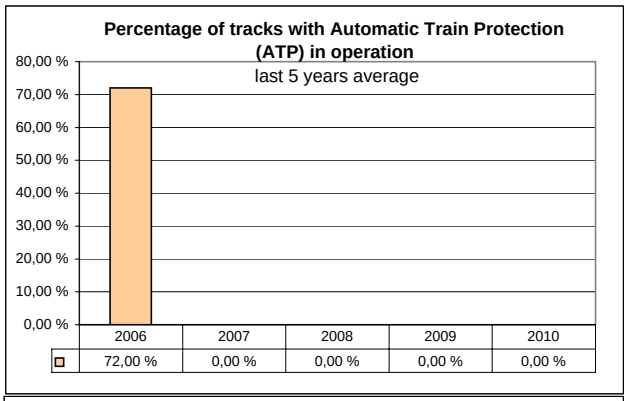


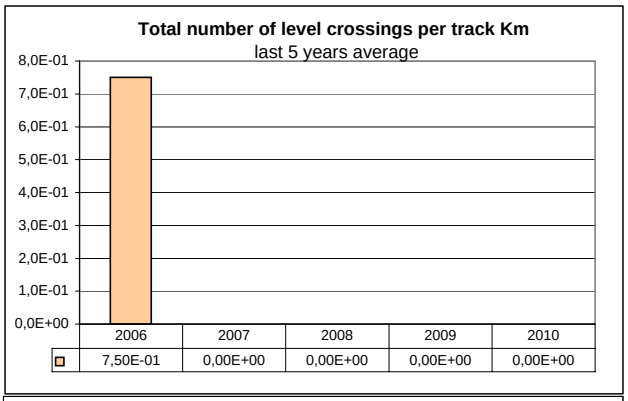


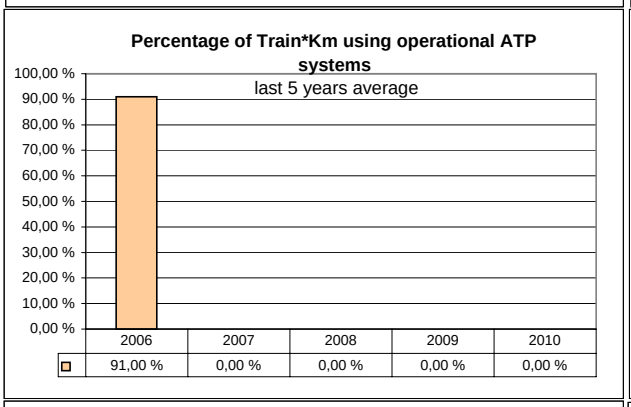


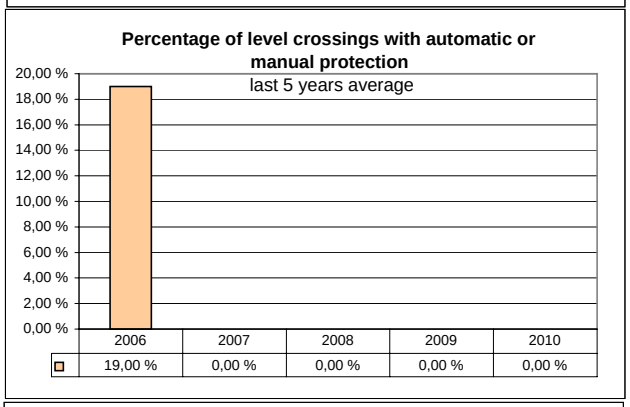
2007 report: values related to 2006.
2008 report: values related to the average between 2006 and 2007.
2008 report: values related to the average among 2006, 2007 and 2008.
2009 report: values related to the average among 2006, 2007, 2008 and 2009.

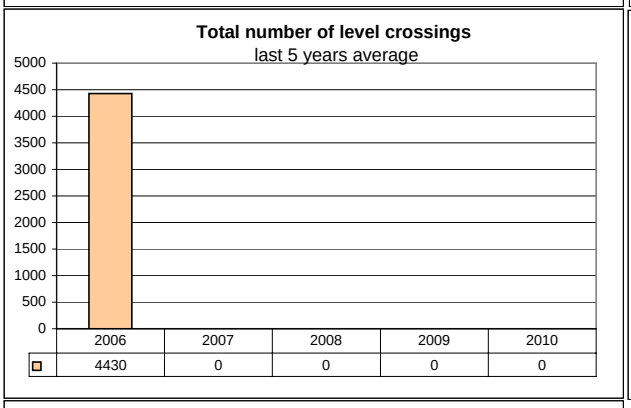
Technical safety of infrastructure and its implementation, management of safety

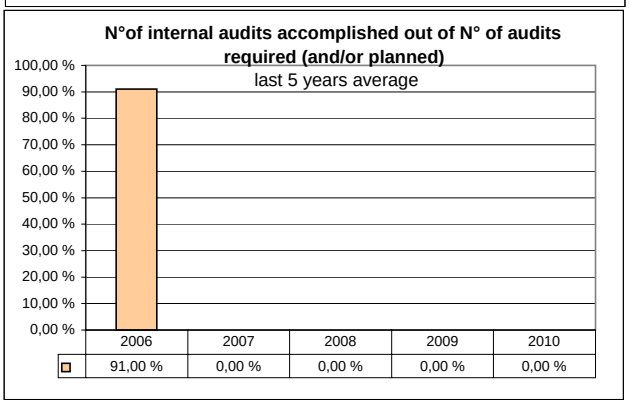


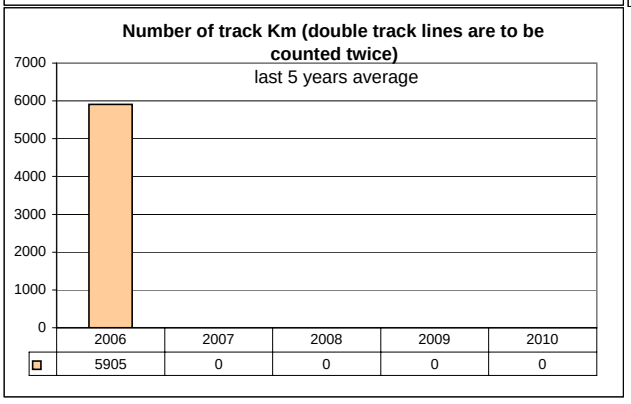












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2008 report: values related to the average among 2006, 2007 and 2008.
2009 report: values related to the average among 2006, 2007, 2008 and 2009.

C.2. Definitions used in the annual report

C.2.1. Definitions in Regulation 91/03 to be applied:

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

Directive 2004/49/EC lays down in Annex 1, point 6:

"Definitions

The reporting authorities may use nationally applied definitions of the indicators and methods for calculation of costs when data according to this Annex are submitted. All definitions and calculation methods in use shall be explained in an Annex to the annual report described in Article 18."

National definitions and methods to calculate costs concerning the items listed in the Annex 1 to Directive 2004/49/EC are to be reported in this paragraph, whether not defined in this legal act and in the Reg.91/03.

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