Inspectie Leefomgeving en Transport
Ministerie van Infrastructuur en Milieu

Netherlands NSA Annual Report 2011

Date	24 September 2012
Status	Final

Colophon

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Rail and road transport domain

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Version 24 September 2012, Final

Colophon 2

A . Foreword

A.1. Annual safety report of the Netherlands Safety Authority

This report is the annual safety report of the Netherlands National Railway Safety Authority (NSA). All duties of the NSA are carried out by the Human Environment and Transport Inspectorate (*Inspectie Leefomgeving en Transport* - ILT) unless assigned and mandated elsewhere. The monitoring and development of a regulatory framework for safety is assigned and mandated to the Directorate-General for Accessibility (*Directoraat-Generaal Bereikbaarheid* - DGB) of the Ministry of Infrastructure and Environment (*Ministerie van Infrastructuur en Milieu* - IenM).

In this annual report, the NSA gives an account of the performance of the Netherlands in terms of the European rail safety indicators. The European Railway Agency (ERA) uses this data to monitor and compare rail safety performance throughout Europe. The Netherlands government uses the data for the same purpose within the Netherlands, but also as the basis for national policy on rail safety.

The ILT (and in part the DGB) performs these duties within the context of Article 16 of the Railway Safety Directive 2004/49/EC. This involves supervision of the safety of the railway system and approval and supervision of the entities in charge of maintenance. Certification of train drivers in accordance with Directive 2007/59/EC is likewise dealt with by the NSA.

Up until 2011, the ILT also published a trend analysis of the national policy objectives. Since the Third Framework Document on Railway Safety (*Derde Kadernota Railveiligheid*) that was published in 2010 was based on the same European safety indicators as are reported on in this annual report it has been decided to combine the two reports. Notes on how to interpret this report are attached. With regard to its structure, this annual safety report follows the guidelines of the ERA for such reports With the publication of the report the requirement of Article 18 of the European Railway Safety Directive has been met.

A.2. Summary

The NSA annual safety report describes developments in the area of rail safety using the European and national safety indicators for the Netherlands railway system. This system covers the main railway network, including shunting yards and lines connecting private company shunting yards to the main railway network.

The Netherlands railway system has a high level of safety and compares favourably with other European countries.

The general safety performance during 2011 meets the objective of continuous improvement, but it should be noted that while the safety of passenger and freight trains in general improved, that of railway staff and society around the railway system dropped slightly.

With regard to licensing, in 2011 the most notable development was the introduction of the train driver's licence (see Annex D to this annual report).

B . Introduction

B.1. Objective, contents and modus operandi

B.1.1 Objective and target audience

The objective of this annual safety report is to:

- Provide an overview of the development of rail safety on the Netherlands railway network in 2011.
- Review the number of accidents and incidents in the context of the objectives set out in the Third Framework Document on Rail Safety.
- Offer an insight into the trends in the various railway accidents resulting in injury using indicators for such accidents.

The European Railway Safety Directive requires each Member State to report annually to the European Rail Agency (ERA) on the safety status of its railways. The Directive contains definitions of the indicators which Member States must use in their reports. Commission Decision 2009/460/EC describes the methods for assessing the Community safety targets and describes how the safety indicators are calculated (see Annex C1.2). The NSA sends the results of the analysis to the ERA.

In 2010 the House of Representatives (the lower house of the Dutch parliament) adopted the Third Framework Document on Rail Safety.[1] This document sets an objective or target value for each indicator which matches the European objective. The framework document contains quantitative target values (aims) for the risks that the various risk categories may incur. Risk categories include passengers, railway staff and level crossing users. The European definitions are used for all risk category groups analysed. An overview of these is included in Annex C2, together with further definitions.

The main target audiences of the annual safety report are:

- The Minister of Infrastructure and Environment.
- The House of Representatives.
- The European Railway Agency.

The annual report is also intended for partners in the industry and other interested parties. It is in the public domain and is published on the www.ILenT.nl website.

B.1.2 Content

The organisation of the 2011 annual report has changed substantially in certain respects compared with previous analyses. The content of the main sections is based on the format for the annual safety report as formulated by the ERA (template EN 2012 v15) and on the European safety indicators and the safety indicators from the Third Framework Document on Rail Safety where these differ from the European indicators.

[1] The Third Framework Document on Rail safety sets *objectives* for the themes of the *Policy agenda 2010-2020* (safe transport, safe working, safe living). Then the desired *outcomes* for each theme are given. For each desired outcome the initiatives to be taken to achieve the intended outcome (and accordingly the objective) are also stated. The rail sector itself is primarily responsible for operational initiatives.

Definitions

Just as in the 2010 trend analysis, it is quite difficult to indicate what the development trends are. The most notable reason for this is the decision to fully adhere to the European safety indicators in the Third Framework Document on Rail Safety published in 2010. Although a number of these safety indicators were previously used in the 2009 trend analysis, the figures used for the calculations were to some extent based on definitions which deviated from those of previous years. The result was to introduce inconsistencies in the figures being considered over a number of years, making a trend analysis no longer possible. With time this problem of definitions will resolve itself, with the establishment of sets of figures which are fully based on the European safety indicators over a number of years.

Since it is generally impossible at this point to provide development trends, where it is possible an effort will be made on the basis of the 2010 and 2011 (and where possible 2009) figures to provide an indication of the current state of affairs.

Deviating figures

The annual figures on rail safety have been compiled as carefully as possible from the incident reports from the railway undertakings. The interpretation of these data and the associated categorisation is an intensive process in which continuous review is an essential factor. The figures presented may as a result (to some extent) deviate from figures published earlier in the year or in the previous year.

Interpretation notes

The starting point for the organisation of this annual report is the EN 2012 v15 template prepared by the ERA. Where the template is not very reader friendly it has been amended slightly.

The trend analysis has also been adjusted to fit the ERA template:

- In Chapter D.2. Detailed trend analysis, the trend analysis for 2011 has been included on the basis of the themes of safe transport, safe working and safe living from the Third Framework Document on Rail Safety.
- The associated definitions and graphs can be found in Annex C. The graphics have where necessary be broken down into 'Third Framework Document' (left-hand side of the pages) and 'ERA' (right-hand side of the page).
- The calculation of the National Reference Values (NRV) and Moving Weighted Averages (MWA) in accordance with the European system of calculation can be found in Annex C1.2, together with the calculation method.
- An overview of the objectives of the Third Framework Document can be found in Annex C1.3.

B.1.3. Methodology used and collection of information

Scope of the analysis

The 2011 annual report uses the definitions of the ERA. This means, amongst other things, that the analysis relates to events on the main-line railways. The Decree on the designation of the main railway network defines which railways are involved.

The ILT supervises the railways as a whole. Because events in areas outside of the main-line railways do not fall within the definitions of the ERA and because the Third Framework Document on Rail Safety is based on those definitions, data on these areas are not included in this analysis.

European reference values methodology

All definitions and abbreviations are included in Annex C2.

The translations in Dutch of the terms used in Directives 2004/49/EC and 2009/149/EC, and Commission Decision 2009/460/EC do not always correspond. This report uses the terms from Directive 2009/149/EC, because this Directive is specifically aimed at the definition of terms.

Commission Decision 2009/460/EC describes how all Member States determine the common safety targets and methods, and how these should be gradually introduced to ensure that a high level of safety is maintained and when and where necessary and reasonably practicable, improved. Instead of a uniform common target for all European Member States, the EU has opted for national reference values, which were established for the first time in 2009. Each year, moving weighted averaging is used to test if the target values are being met.

The European Commission has formulated national reference values (NRV) for different risk categories. These values are based on injuries incurred in and the performance of rail transport. Member States strive to ensure that the actual risk (or the indictor value) in a particular year is equal to or lower than the moving weighted average (MWA). The 2011 year was reviewed in the context of the reference value for 2007 – 2010.

In other words, this system assumes that rail safety will increase. The ultimate aim is for the MWA period to match that covered by the NRV.

The purpose of the NRV and the MWA is to allow a comparison with the common European safety target. The precise calculation formulas for the NRVs and MWAs are described in Commission Decision 2009/460/EC. Annex C1.2 provides an overview of the NRVs, the values of the indicators and the MWAs.

Apart from the NRV and the MWA the 2011 annual report uses the concept of FWSI in order to take account of non-fatal injuries. FWSI stands for fatalities and weighted serious injuries = number of fatalities + (0.1 x number of serious injuries).

In the calculations the number of kilometres of railway plays a part, as do the number of kilometres travelled. Double-track lines are counted twice in determining the number of kilometres of railway.

The Third Framework Document on Rail Safety contains a number of indicators over and above the data required by the ERA.

Naturally, for all multiannual comparisons (of both absolute figures and calculated indicators), it is the case that where definitions differ comparisons will fail. The commentary on the detailed trend analysis also indicates whenever this is the case.

Data collection

This annual report has been compiled on the basis of accident and incident data that the Inspectorate has in part received from ProRail, from the railway undertakings and from other participants in the railway system and data which the Inspectorate has itself generated from research and analysis. In addition the Inspectorate uses its own reports on accidents, inspections, railways workers, tunnel safety, signals passed at danger (SPADs) and so on. Figure 1 gives an overview of the information flows for accident and incident data which form the basis for the analyses in other chapters.

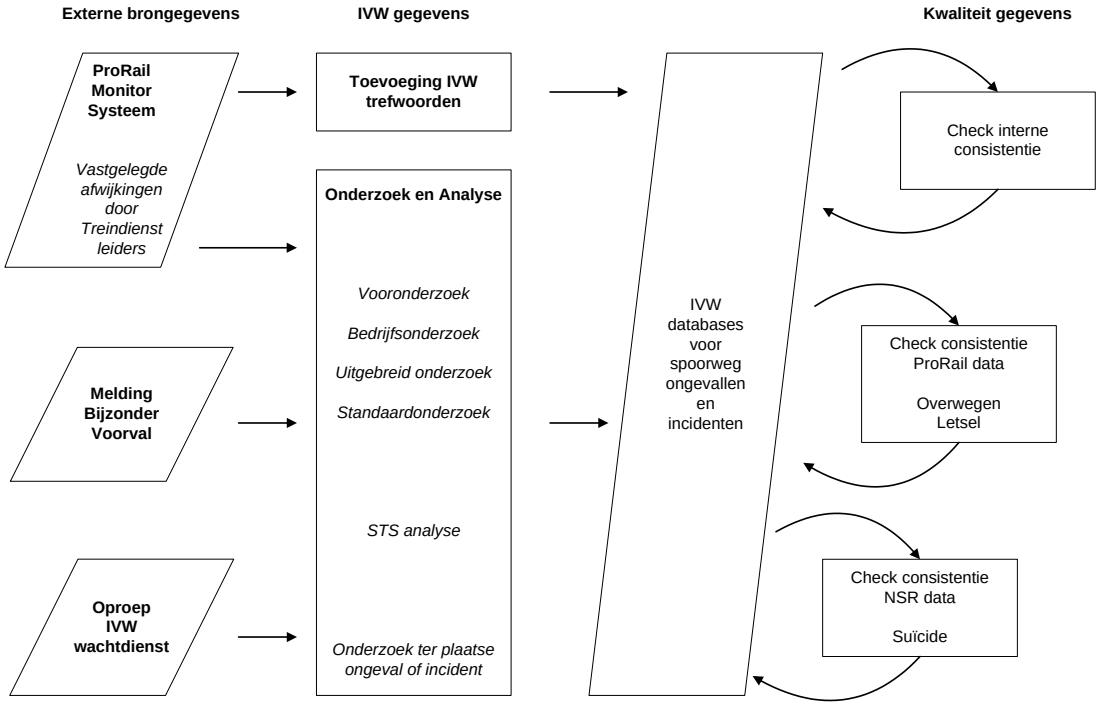


Figure 1: Information flows for accident, incident and other data (see end of document for key)

Figure 1 Key

External source data
IVW data
Quality data

ProRail Monitor System
Deviations discovered by train service managers
Special incident report
Call to IVW on-call service

Entry of IVW key words

Investigation and analysis
Preliminary investigation
Company investigation
In-depth investigation
Standard investigation

SPADs analysis

On-site investigation of the accident or incident

IVW databases for rail accidents and incidents

Check internal consistency

Check ProRail data for consistency

Level crossing
Injuries

Check NSR data for consistency

Suicide

The ILT receives a daily summary of all deviations which have been recorded by the transport management in the monitoring system of the infrastructure manager. Some of these deviations relate to safety. The ILT searches the deviations for safety-related keywords and processes all data in a database.

Some deviations will result in a preliminary investigation being carried out. The information provided by such an investigation is then included in the database.

Carriers and other parties concerned submit a 'special incident report' on safety incidents. These reports may also result in further investigation by the ILT.

Using checklists, the ILT performs standard investigations into SPADs and level crossing accidents. SPADs are similarly included in a database so that they can be analysed statistically. The ILT produces a separate annual report on SPADs.

The information from the monitoring system, the 'special incident reports' and the results of on-site investigations are compared in order to check that the data are totally consistent. Then the Inspectorate reviews these in the context of relevance criteria. The Inspectorate may decide to have the parties involved in an incident perform a more thorough investigation.

The Inspectorate performs extensive consistency checks with ProRail, NS Reizigers (passenger division) and NS Nazorg (customer services division) in order to verify incidents involving injury.

Assessment of injuries

The injury statistics are assessed and presented as follows:

- Did the injury result in a fatality, a serious injury or a slight injury? In the calculation of the indicators for the ERA only the numbers of fatalities and seriously injured are included. A person is counted as a fatality if they lose their life in an accident or if within thirty days of an accident they die as a result of their injuries, with the exception of suicides.
- If a person spends more than 24 hours in hospital, then this is classified as a serious injury. Slight injuries have also been included in the 2011 annual report where information on these is available.

Relevance criteria

The appendix to Directive 2009/149/EC contains all common definitions for indicators and the methods for calculating the economic impact of accidents. By applying the definitions, the ILT determines if an incident is relevant for the various indicators. The accidents included in this annual report correspond to the definitions and are therefore by definition sufficiently relevant to be reported to the ERA.

For accidents the following criteria apply, by way of example:

- Serious accident: 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.
- Significant damage to rolling stock, the rails, other installations or the environment, means damage amounting to € 150 000 or more.

- Serious disruptions to traffic: rail services on a main-line railway are interrupted for six hours or more

This generally means that for example vandalism, theft, slight injuries, collisions not resulting in injury, attempted suicides on the railway not resulting in a fatality and damage amounting to less than € 150 000 for repair or replacement are not relevant for this annual report.

B.2. Information on the railway infrastructure

The legislation makes a distinction between main-line railway undertakings and non-main-line railway undertakings. The annual report covers solely the safety of the main-line railways.

The Minister of Infrastructure and Environment has defined what is covered by the term main-line railways as being roughly the area in which public transport passenger trains and the majority of freight trains travel.

Examples of railways which are not part of the main-line railways are tram, metro and museum lines, railways on company premises and special lines.

B.2.1 Map of the network

The Netherlands infrastructure manager ProRail provided the attached map. Details of the railway infrastructure and the number of train-km were also provided by ProRail. See Annex A1.

B.2.2 List of railway undertakings and infrastructure managers

Details of the certificates and authorisations are attached. See also Annex A2.

B.3. Summary – General Trend Analysis

The general safety performance during 2011 was acceptable, but it should be noted that while the safety of passenger and freight trains in general improved, that of railway staff and society around the railway system dropped slightly.

Within the three themes of the Third Framework Document on Rail Safety (Safe transport, Safe working and Safe living) the developments in 2011 compared with 2010 were as follows:

- Safe transport: The situation in general seems to have remained the same or improved. An exception is level crossings, where the number of collisions and the number of fatalities increased.
- Safe working: The theme of Safe working saw a slight decline in 2011, mainly for the injury and accident at work indicators.
- Safe living: A (slight) decline was noted in all indicators.

Table 1: Passenger injuries 2011

Passengers	Fatalities	Serious injuries
Total (European definition)	0	0

Table 2: Injuries in society as a whole on and around the railway in 2011

Society	Fatalities	Serious injuries	Slight injuries
Passengers	0	0	51
Railway staff	0	2	21
Level crossing users	10	3	9
Unauthorised persons on the railway	3	3	0
Others	1	0	0
Total (European definition)	14	8	81

Table 3: Incidents in 2011

Type	Total (relevant*)	Other accident (not relevant*)
Collision	4	41
Derailment	1	36
Level crossing accident / collisions	14	31
Accidents to persons caused by rolling stock in motion	5	0
Fires in rolling stock	1	39
Other types of accidents	6	0

**For the relevance criteria see page 14.*

Table 4: Near-collisions

Near-collision involving	2011
Infrastructure employee	11
Tooling	2
Machinery	6
Railway construction materials	5
Other vehicles	2
Total	26

Table 5: Injuries to level crossing users 2011

Mode	Collision	Fatal injuries	Serious injuries	Slight injuries
Motor vehicle driver	32	7	2	5
Cyclist	5	2	1	0
Pedestrian	3	1	0	3
Other drivers	5	0	0	1
Total	45	10	3	9

Table 6: Injuries to level crossing users 2011 according to European definition

Mode	Collision	Fatalities	Serious injuries
Motor vehicle driver	9	7	2
Cyclist	3	2	1
Pedestrian	1	1	0
Other drivers	1	0	0
Total (European definition)	12	10	3

Table 7: Staff injuries in 2011

Railway staff	Fatalities	Serious injuries
Track workers	0	2
Shunters	0	0
Engine drivers	0	0
Guards	0	0
Other	0	0
Total	0	2

C . Organisation

C.1. Introduction to the organisation

The Netherlands National Safety Authority (NSA) is the Ministry of Infrastructure NSA duties are performed by divisions of the Directorate-General for Accessibility (Directoraat-Generaal Bereikbaarheid - DGB) and the Human Environment and Transport Inspectorate (Inspectie Leefomgeving en Transport - ILT) of the ministry. The Ministry of Infrastructure and Environment assigns a total of 45 FTE to NSA duties, the vast majority of whom are based at the Human Environment and Transport Inspectorate.

The DGB is responsible for monitoring, promoting and developing legislation and regulations for improving the infrastructure, rolling stock, operating procedures and rail safety.

The ILT is, amongst other things, responsible for supervision and enforcement of the Railways Act. The ILT deals with approvals for the Netherlands rail system by issuing authorisations for engine drivers, operators, rolling stock and infrastructure.

The Dutch Safety Board (Onderzoeksraad voor Veiligheid – OvV) was set up under a separate act (OvV Act). The OvV conducts independent investigations into the causes of accidents. In so doing the Board looks for structural shortcomings in safety and reports on these to the relevant parties and to the public at large. A feature of these investigations is that they seek to find the truth. The purpose is to prevent a future reoccurrence or to limit the consequences should there be a reoccurrence. Establishing fault or responsibility is expressly excluded from the Board's investigations. Statements that are made in the context of investigations by the Board, information that the Board gathers, results of technical investigations and analyses, and documents prepared (including the published report) may not be used as evidence in criminal, disciplinary or civil cases.

C.2. Organisation chart

See Annex B.

D . The development of railway safety

D.1. Initiatives to maintain / improve safety performance

The most important initiatives for maintaining safety during 2011 are shown in this section. Table 8 shows the initiatives resulting from accidents or near-misses.

Table 8: Initiatives resulting from accidents or near-misses

Accidents / near-misses resulting in an initiative			**Resulting safety initiative**
Date	**Location**	**Description of the event**	
14-1-2011	Kijfhoek shunting yard	During gravity marshalling a wagon carrying ethanol was in collision and derailed resulting in a fire.	A risk analysis was performed. This led to a range of initiatives for a manageable gravity marshalling procedure that meets environmental and safety requirements.
11-1-2011	Zevenaar	Train collision as a result of theft of copper	The party under supervision is investing in better braking systems.
28-11-2012	Leiden	Train collision as a result of slippery tracks	Roughness of rails measured and adapted to the standard.
21-12-2010		The ventilation system failed in a stranded train. As a result of the deteriorating environment within the train passengers became unwell.	31-12-2010: safety warning to infrastructure manager. In 2011 enforcement measures were taken to compel the infrastructure manager to rescue stranded trains earlier in future.

Safety initiatives or voluntary initiatives for reasons other than accidents or near-misses are shown in Annex 9.

Table 9: *Safety initiatives or voluntary initiatives for reasons other than accidents or near-misses*

Description of concern	**Description of reason for initiative**	**The following safety initiative was taken**
Working conditions	Crossing of lines in service.	Fine report / shutdown
Working conditions	Involvement of lookout.	Fine report / shutdown
Working conditions	No safety organisation / lookout.	Fine report / shutdown
Working conditions	Involvement of lookout	Warning

Working conditions	Forgetting shut-off board	Warning
Working conditions	Train on track / signal man	Fine report / shutdown
Working conditions	Activities in zone A / curve	Fine report / shutdown
Working conditions	Mowing work without safety organisation	Preventive shutdown
Working conditions	Hazardous workplace - bridge	Preventive shutdown
Working conditions	No physical screening in place.	Warning
Working conditions	A passenger train travelled on an out-of-service line.	Preventive shutdown
Working conditions	Fitter collision danger	Preventive shutdown
Safe use of railway concerning rails.	An undesirably large number of broken rails. Various causes led to the broken rails.	Broken rails are the subject of mandatory inspection and penalties were imposed on the infrastructure manager (4 x administrative enforcement).
Safe use of railway	Use of unauthorised vehicles	Fine report / shutdown (2x)
Safe use of railway	Insufficient language skills of engine driver from Wallonia	Provisional enforcement order (4x)
Safe use of railway	Incorrect intervention.	Enforcement order
Safe use of railway	Incorrect departure process	Enforcement order
Safe use of railway	Speed limit on curve not observed.	(Driver) compulsion
Safe use of railway	Incorrect departure process	Provisional enforcement order
Safe use of railway	Cracked rail	Speed restriction in consultation with infrastructure manager
Track workers	A number of inspection findings and accidents with track workers were discussed at a meeting with contractors.	Experiences were reviewed in the light of the responsibilities and relationships of the parties involved, as described in the Framework of Standards on Safe Working. Improvements were made.

D.2. Detailed trend analysis

In this chapter developments are dealt with by theme (Safe transport, Safe working, Safe living) from the Third Framework Document on Railway Safety. The definitions of the terms used can be found in Annex C2. The associated graphs also form part of Annex C2. See also Annex C1.2 for the NRV and MWA values and Annex C1.3 for the indicators for the objectives of the Third Framework Document.

D.2.1. Safe transport

Compared with 2010, in 2011 the following developments took place in relation to safe transport:

- The number of rail passengers injured fell by 5 seriously injured and 121 slightly injured to 0 and 51 respectively in 2011. The figure for slightly injured in 2010 (121) is lower than the figure given in the trend analysis for 2010 (145) because persons boarding and alighting from stationary trains and those injured on platforms are no longer counted as passengers[2].
- The number of serious collisions fell from five in 2010 to four in 2011.
- The number of serious derailments stayed the same at three.
- The total number of collisions at level crossings increased from 34 in 2010 to 45 in 2011 while the number of fatalities also increased from 8 in 2010 to 10 in 2011.
- The number of accidents to persons stayed the same at five.
- The number of serious fires stayed the same at one.
- The number of SPADs fell from 169 to 155.
- The number of broken wheels remained the same in 2011 as in 2010 at one. As in 2010, there were no broken axles.
- The number of broken rails fell from 111 to 77.
- The number of buckled rails fell from 14 to 2.
- The social safety of passengers remained the same.

For the points covered by the safe transport theme it can be said in general that the situation stayed the same or improved. An exception is level crossings, where the number of collisions and the number of fatalities increased.

Injuries to passengers

Objective
In accordance with the Third Framework Document the Netherlands continually strives to lower the safety risk for rail passengers.

Result
It is not possible to make a statement here on the development trend. This is because the definition has changed (persons boarding and alighting from stationary trains and those injured on platforms are no longer counted as passengers). This is also the reason why in the annexes the slightly injured are no longer shown in the graphs.

- In 2011, not a single passenger was killed. There were no serious and 51 slight injuries recorded, but it should be noted that not every slight injury is reported. For 2011 these figures were 0, 0 and 51, respectively (although it should be noted that the last figure for the first time excludes the 125 persons slightly injured while boarding and alighting); for 2010 the figures

[2] The figure according to the 'old definition' prior to 2011 can be found in the ILT publication Railveiligheidsindicatoren (*Rail Safety Indicators*) of June 2011: 1 serious and 193 slight injuries.

were 0, 5 and 121. The figure given for the number of slightly injured in 2010 (121) is lower than the number shown in the trend analysis for 2010 (145), because persons boarding and alighting from stationary trains and those injured on platforms are no longer counted as passengers.

Collisions

Objective
The objective of the Third Framework Document is 'continuous improvement'.

Result
In 2011 there were a total of 42 collisions according to the European definition. These resulted in no fatalities, no serious injuries and 3 slight injuries.

Collisions with 'other rolling stock' were not included in the statistics up to and including 2009, but since 2010 the sub-categories of 'other rolling stock' and 'objects' have formed part of the 'rolling stock' category. The term 'other rolling stock' covers vehicles, work trains and similar.

In 2011 there were four collisions with other rolling stock meeting the European definition of a serious accident. These occurred in Zevenaar, de Betuwelijn - Kijfhoek, Amsterdam - Watergraafsmeer and Zutphen. In 2010 the figure was five.

There were 311 collisions (214 in 2010) with objects and animals leading to damage, but which did not cross the threshold for counting as significant accidents. These criteria are explained in paragraph B.1.3. There were 32 collisions with a truck, car or bus, 36 with cyclists on the railway, five with other vehicles and the rest were with other objects or animals. (Source: ProRail).

Derailments

Objective
The objective of the Third Framework Document is 'continuous improvement'.

Result
In 2011 there were a total of 37 derailments according to the European definition. No injuries resulted from these derailments. Of these 37 derailments, 15 involved trains and 22 other railway vehicles. No injuries resulted.

Of the 37 derailments 3 meet the European definition of a 'serious accident'. Of these three, 1 falls under the definition of derailment (in Oldenzaal), and the other 2 fall under the category of 'other types of accidents' (Kijfhoek and Lage Zwaluwe). The number of derailments was the same as for 2010 and 2009.

Collisions with 'other rolling stock' were not included as such in the statistics in the past, but since 2010 this category has been recorded. The category includes work trains, shunting sets of wagons, cranes, tamping machines and so on.

Level crossing accidents

Objective
The objective of the Third Framework Document is 'continuous improvement'.

Result
The number of collisions on level crossings increased, from 34 in 2010 to 45 in 2011, as regrettably did the number of fatalities (from 8 to 10[3]).

[3] The Railveiligheidsindicatoren 2011 publication (ILT, June 2011) still mentions 9 fatalities. The difference has arisen as a result of continuous review regarding categorisation.

In 2011 there were a total of 45 collisions according to the European definition. 14 collisions with vehicles on level-crossings meet the European definition of a serious accident. In these collisions 10 level crossing users died and 3 were seriously injured.

The number of level crossings is in gradual decline. The number of active level crossings has fallen in the last five years from 2 062 in 2007 to 1 928 in 2011. The number of passive level crossings fell from 658 in 2007 to 628 in 2011.

The number of collisions with cars and cyclists in particular increased.

Accidents to persons

Objective
The objective of the Third Framework Document is 'continuous improvement'. The European definition of 'accidents to persons' was introduced from 2010; no information is available from before 2009.

The category of 'accidents to persons caused by rolling stock in motion' covers persons who are hit by railway vehicles in motion or hit by an object fixed to a railway vehicle or which has come loose from a railway vehicle or which has fallen from a railway vehicle.

Result
The number of accidents to persons caused by rolling stock in motion remained the same in 2011 at 5 (2010: 5; 2009: 3).

In 2011 there were five accidents involving persons that meet the European definition of an accident involving persons. All five of these accidents meet the European definition of a serious accident (two fatalities, three serious injuries).

Fires in rolling stock

This definition also covers fires as a result of vandalism or un-extinguished cigarettes. Most fires do not meet the criteria for classification as a serious accident.

Objective
The objective of the Third Framework Document is 'continuous improvement'.

Result
This is the third year for which reporting has taken place according to the European definition of fires. The number of fires in 2011 remained the same (one) as in 2010. In 2009 no (significant) fires took place.

Other types of accidents

Objective
The objective of the Third Framework Document is 'continuous improvement'.

Result
In 2011 6 other types of accidents met the European definitions for other types of accident and serious accident. There were 2 accidents involving dangerous substances, 2 derailments and 2 electric shocks. In both 2010 and 2009 1 other type of accident met the European definition of serious accident.
This is the third year that the Inspectorate has reported on other types of accidents. No data are available for the period up to and including 2008.

Wrong-side signalling failures

Objective
The objective of the Third Framework Document is 'continuous improvement'.

Result
The number of wrong-side signalling failures in 2011 (11) fell compared with 2010 (17) and 2009 (18).

2011 is the fifth year for which wrong-side signalling failures have been reported on. No data are available for the period up to and including 2006.

(SPADs)

The definition of 'signal passed at danger' is used more specifically in the European context. The compass of the European definition is consistent with the definition applied by the SPADs steering group in the Netherlands.

Cancelling of signals and SPADs as a result of rolling do not strictly speaking fall within the European definition, but do in fact come under the Netherlands definitions as they may be a source of danger.

Objective
The objective of the Third Framework Document is 'continuous improvement'. In addition, for 2010, a target has been agreed with the industry of a reduction in absolute terms to 50% of the number of SPADs in 2003 (265) and a reduction in risk of 75% compared with 2003.

Result
The number of SPADs fell in 2011 to 155. In 2010 there were still 169, and 214 in 2009. This represents a gradual decrease, and the reduction in numbers compared with 2003 is 46%. There has certainly been an improvement and the trend is downwards, but the objectives for 2010 had not yet been met even at the end of 2011.

For more information please refer to the SPADs analysis which the ILT prepares annually ('STS-passages 2011, Analyse en resultaten over de periode 2007-2011' (*SPADs, Analysis and results over the period 2007-2011*), 18 June 2011; see www.ILenT.nl).

Broken wheels and axles on rolling stock in service

Objective
The objective of the Third Framework Document is 'continuous improvement'. Because the term 'risk of accident' is not dealt with in more detail in the European definition, the Netherlands only reports broken wheels and axles that have actually led to an accident.

Result
In 2011, as in 2010, there was 1 broken wheel, but the break did not lead to an accident and so this is not included in the graph in the annexes.
There were no broken axles.

Broken rails

Objective
The objective of the Third Framework Document is 'continuous improvement'.

Result
There were 77 broken rails in 2011 (in 2010 there were 111). Since 2009 breaks in welds and junctions have also been included. Since 2008 greater emphasis has been placed on recording. Given the differences in definition and the greater stress on recording, a statement on safety performance is not possible. Nevertheless, the indicator for 2011 is the same as for 2010 (0) because there have been no accidents with broken rails as a precursor.

Track buckles (buckled rails)

Objective
The objective of the Third Framework Document is 'continuous improvement'. In the Netherlands the term buckled rails is used synonymously with track buckles.

Result
A track buckle can be a precursor to an accident on the railway. In 2011 no accidents occurred as a result of track buckles. There were 2 track buckles in 2011 and 14 in 2010.

Since 2008 greater emphasis has been placed on recording. Given the differences in definition and the greater stress on recording, a statement on safety performance is not possible.

Social safety of passengers

Objective
Regarding social safety the Third Framework Document includes an objective that uses 'customer rating' as an indicator (percentage of passengers rating social safety at 7 or higher). This objective is established during the transport planning cycle between the Ministry of Infrastructure and the Environment and Nederlandse Spoorwegen (NS) (Dutch Railways) including for decentralised local rail authorities and regional carriers.

Result
The percentage is a moving average for 2011:
- 92.4% rated their feeling of social safety at 7 or more in the train during the day.
- 67.4% rated their feeling of social safety at 7 or more in the train at night (after 19:00 hours).
- 91.3% rated their feeling of social safety at 7 or more in the station during the day.
- 60.3% rated their feeling of social safety at 7 or more in the station at night (after 19:00 hours).

(Source: Customer Satisfaction Survey)

The value of the indicator for 2011 is the same as that for 2010 (78%). The customer rating for social safety during the day is above the value agreed with the NS for 2011 of 70%.

D.2.2. Safe working

This theme deals with three points, namely injuries to railway staff, the occurrence of accidents at work and training and competence. Objectives are set for each point in the framework document.

- In 2011 no accidents occurred involving railway staff in which a fatality took place. This has been the case since 2007. There were 2 serious injuries, however. This is an increase over 2010 (1) and 2009 (0).
- As a result the value of the indicator for the occurrence of accidents at work has dropped.
- Observance of the conditions concerning the validity of safety staff documentation fell compared with 2010 (a reduction from 97 to 95.4%). The route knowledge of engine drivers rose from 97% (in 2010) to 98% in 2011.

The theme of Safe working saw a slight decline in 2011, mainly for the injury and accident at work indicators.

Injuries to railway staff

Objective
The Third Framework Document on Rail Safety sets an objective of continuous improvement in safety of railway staff in order to avoid fatalities. The objective is zero fatalities. Additionally, the framework document includes an objective of the Netherlands being structurally one of the top four European Member States when it comes to safety of railway staff.

Result
The objective was not reached during 2011; there were 2 serious injuries[4], compared with 1 in 2010[5] and 0 in 2009. Since 2007 there have been no fatalities among track workers.
Based on the moving average for the past three years safety performance can be said to be acceptable with the objective of continuous improvement being achieved.

There were 3 accidents involving power from the overhead line. In two cases of serious injury an electric shock was sustained, namely in Eindhoven and on the bridge over the Van Harinxmakanaal. In the third case, at Zevenaar, as a train was passing major arcing occurred causing a border guard standing next to the track to be hit in the face and eyes by sparks. A number of slight injuries were also reported.

Preventing accidents at work

Preventing accidents at work is closely correlated with safe working according to the rules. The previously mentioned Framework of Standards on Safe Working is an extension of this.

Objective
The objective of the Third Framework Document is continuous improvement, with the aim of no accidents at work.

Result
The objective of continuous improvement has indeed been achieved, but the aim of zero accidents at work in 2011 was not met (see 'Injuries to railway staff' above).

Training and competence

Objective
The objective in the Third Framework Document comprises two compliance rates (having the required papers to demonstrate competence or medical and

[4] Both casualties were initially classified as slight injuries, but were reclassified as seriously injuries in the light of new information.
[5] In the trend analysis 2010 these casualties were incorrectly reported as slight injuries.

psychological suitability and route knowledge of engine drivers). Continuous improvement is the aim for both rates.

Result
The compliance rate for holding the required papers fell from 97% in 2010 to 95.4% in 2011.

Engine drivers must have practised the route that they are travelling in advance so that they know all sign locations and other features. The compliance rate for route knowledge increased from 97% in 2010 to 98% in 2011.

D.2.3. Safe living

The points referred to in the Third Framework Document which relate to the theme of safe living deal with the safety of persons in the railway environment. An objective is defined in the framework document for each point.

The most significant findings for 2011 are as follows:

- The number of fatalities from collisions on level crossings increased from 8 (2010) to 10 (2011). The number of serious injuries increased from 1 (2010) to 3 (2011).
- The number of unauthorised persons killed increased from 0 (2010) to 1 (2011). There were 3 serious injuries in this category, the same as in 2010.
- The number of suicides on the railway increased from 201 (2010) to 215 (2011). The last five years have seen an upward trend.
- There was 1 fatality in the 'others' category (2010: 2).)
- The number of serious incidents in which dangerous substances were released, increased from 0 (2010) to 2 (2011).

Within the theme of Safe living all indicators showed a (slight) decline.

Level crossing safety

Objective
The Third Framework Document sets an objective of continuous improvement in the safety of level crossing users.

Result
In 2011 10[6] level crossing users were killed, compared with 8 in 2010. In total 12 people were injured, 3 seriously. Over the last five years the total number of fatalities has fallen from 19 (2007) to 10 (2011).

The objective of continuous improvement is being met. The safety performance can thus be said to be acceptable.

Accidents on railway level crossings involving (attempted) suicide are not included in the analysis. They come under suicides on the railway.

Unauthorised persons

The term 'unauthorised persons' generally leads to some confusion, despite the definition (see Annex C.2). The term includes all persons who are on the railway when this is prohibited, with the exception of users of a level crossing. Examples of

[6] The 'Railveiligheidsindicatoren 2011' publication (ILT, June 2011) still mentions 9 fatalities. The difference has arisen as a result of continuous review regarding categorisation.

unauthorised persons on the railway are train surfers, vandals and persons crossing lines (including to get from one platform to another) when this is prohibited. Unauthorised persons do not include persons intending to commit suicide.

Objective
The Third Framework Document on Rail Safety sets an objective of continuous improvement in safety performance. The document also contains the objective for the Netherlands to be structurally one of the top three safest European Member States on this point.

Result
Initiatives have been introduced which have resulted in a fall in the number of unauthorised persons on the railways over a number of years. The number of casualties increased in 2011 compared with 2010. In 2011 3 unauthorised persons were killed as a result of an accident on the railway. In 2010, as in 2009, there were no deaths. 3 unauthorised persons were seriously injured in 2011, as in 2010. Up to 2010 the numbers of serious injuries were not reported as no distinction was made between the categories of serious and slight injuries.

Suicides on the railway

In the Netherlands it is the police who determine if an event involves suicide.

Objective
The Third Framework Document sets an objective of keeping the number of suicides as low as possible (or ALARP - 'As low as reasonably practicable').
The national objective for ALARP is determined on the basis of the initiatives taken in previous years. ProRail is looking into additional initiatives to see if they can be implemented in practice.

Result
2011 saw a slight increase in the number of suicides on the railway from 201 in 2010 to 215 in 2011. The number of injuries also rose from 11 in 2010 to 26 in 2011. Over the last five years there has been an increase in this figure (2011: 215 suicides; 2007: 193 suicides). For the period 2004-2011 the average annual number of suicides on the railway was 189.

The ERA uses the following calculation:
Nu is the number of unauthorised persons killed = 3
Nx is the number of unauthorised persons killed suspected of suicide = 0
Ns = Number of suicides = 215

The ratio *Ns* / *Nu* applied to *Nx*

- Number of unauthorised persons killed = $Nu + Nx^* [Nu/(Nu+Ns)] = 3 + 0 * [3/(3+215)] = 3$
- Number of suicides = $Ns + Nx * [Ns /(Nu + Ns)] = 215 + 0 * [215 / (1 + 215)] = 215$

Others

The European definition of 'others' includes, inter alia, persons on platforms who are injured. In the Netherlands approach these persons are included in the 'passengers' category. In this annual report the European definition has been used.

Exceptions are:

- persons on platforms sustaining an injury through contact with rolling stock in motion or loads protruding from rolling stock. Thus persons who maliciously try to prevent a train from departing by standing in its way and thereby

sustain an injury are not counted in the 'others' category (rather in the 'unauthorised persons' category because they are in the safety zone around a train in motion);
- persons who sustain an injury when boarding or alighting from a stationary train (these are counted as being injured on platforms which are not part of the railway system);
- persons who are seriously injured on the train as a result of hard braking of the train, but without a collision, derailment or other accident with the train being involved.

Objective
The objective of the Third Framework Document is 'continuous improvement'. For 2011 this means continuing with 0 fatalities.

Result
In 2011 there was one fatality in the 'others' category. In the calculation of the moving average the objective of continuous improvement appears not to have been met, but this is because of a change in definition of the term 'others'. Up to and including 2009, those injured on platforms were not recorded under the current European definition of 'others'. This why there may have been an increase in the figure from 2010 on.

Accidents involving dangerous substances on the railway

The European Directive requires European Member States to report serious train accidents involving trains carrying dangerous substances. Here the following definitions are important:
European definition of dangerous goods: substances and articles the carriage of which is prohibited by RID[7], or authorised only under the conditions prescribed therein.
European definition of an accident involving the transport of dangerous goods: accident or incident that is subject to reporting in accordance with RID/ADR[8], Article 1.8.5.

Objective
The aim for external safety is total prevention of serious accidents in the transport of dangerous substances on the railway. Almost anything that may result in or cause an accident is covered by this aim, from staff to engineering, and from risk communication and corporate culture to administrative instruments in the field of land-use planning.

Result
In 2011, 13 trains or shunting sets, such as wagons, carrying dangerous substances, were involved in accidents. In two cases dangerous substances were released. Nobody was injured or killed. One case involved a collision as a result of a derailment and fire at the Kijfhoek shunting yard on 14 January 2012. The other also relates to a collision at Kijfhoek on 5 May 2011.
As a result the objective was not achieved. 2011 is the first year for which data has been published in accordance with the European definitions of accidents with dangerous substances.

[7] RID, Regulations concerning the International Carriage of Dangerous Goods by Rail, as adopted under Directive 2008/68/EC of the European Parliament and of the Council of 24 September 2008 on the inland transport of dangerous goods (OJ L 260, 30.9.2008, p. 13).
[8] ADR, (Accord Européen relatif au transport international des marchandises dangereuses par route).

D.2.4. Overarching aspects

The Third Framework Document on Rail Safety mentions a number of aspects which relate to all three themes of safe transport, safe working and safe living or which are general in nature. Where possible, the framework document sets an objective for these 'overarching' aspects.

A number of aspects in the Third Framework Document on Rail Safety have no indicator with target value. For this reason no account is given of these aspects in the present annual report. These relate to integrated cooperation within the rail sector and with relevant organisations outside of this in common areas of responsibility, innovation and safety management.

Society

This category covers all deaths and serious injuries as a result of accidents on the railway to passengers, staff, level crossing users, unauthorised persons and others. The unit of measurement is the total number of fatalities and serious injuries (FWSI) per annum divided by the number of train kilometres in millions.

Objective
The Third Framework Document sets as an objective of continuous improvement in safety in society and for the Netherlands to be one of the top five socially safe European Member States.

Result
The calculation of the reference value (NRV) and the moving weighted average (MWA) has shown a positive development in the past three years. The objective of continuous improvement in safety has thus been achieved. As a result, safety performance can be said to be acceptable.

Safety culture

Objective
In order to improve the safety culture in rail organisations, the awareness of railway staff must be increased and unsafe working practices prevented.

The Framework of Standards on Safe Working (*Normenkader Veilig Werken* - NVW), a manual of safety rules prepared by the RailAlert institute which helps to improve the safety culture, was updated with effect from 1 December 2011. The NVW is applicable to all clients and contractors/employers who perform or have performed on a process or project basis activities on or near the railways. It sets out the responsibilities for safety when performing these activities, thereby achieving a higher level of safety for track workers in terms of the danger of collision and electric shock.

Result
A direct quantitative comparison of compliance rates from various years in relation to different enforcement actions is not possible. After all, in the context of risk-based supervision a supervisor will focus precisely on those aspects where there is a suspicion that actual compliance leaves something to be desired. The reason for this is that there can be no such thing as objective compliance measurement. The percentages given are therefore indications of the safety culture.

The level of compliance with the safety rules by track workers and shunters determined by risk-based inspections increased between 2006 (54%) and the end of 2011 (80%). In this last percentage, the outcome of the investigations among the two above-mentioned staff groups is incorporated as a single indicator. With the

advent of the Third Framework Document on Rail Safety this was split into two indicators: one for track workers and one for shunters.

D.2.5. Cost of accidents

In addition to providing more precise common definitions, Directive 2009/149/EC also sets out methods for calculating the economic impact of accidents. The indicators for assessing the economic impact of accidents now include the new concept of 'value of preventing a casualty' (VPC) and 'value of time'[9]. The costs of the occurrence of a serious injury in the Netherlands transport system according to the HEATCO calculation are expressed in millions of Euros per million train-km: MLN €/(MLN Train*Km). See Annex C.

Using this method, the costs of all significant accidents in 2011 came to € 35 423 253 for rolling stock and infrastructure, € 7 892 723 for delays (excluding suicides on the railway) and € 2 489 116 for capitalised costs of fatalities and serious injuries.

The cost of *all* accidents on the railway in 2011 have been capitalised at € 37 912 376, excluding the consequences of suicides.

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

The technical safety of the infrastructure is sufficient. Management of the safety of the railway infrastructure is a matter for ProRail and for Keyrail with regard to the Betuweroute, which is 50% owned by the infrastructure manager ProRail and 50% by the Rotterdam and Amsterdam port authorities.

D.3. Result of safety warnings

During inspections a number of deviations from the safety standards were noted. Where necessary rail traffic was shut down and/or legal action was taken. In exceptional cases where major danger was involved, the ILT issued a safety warning. For cross-border issues, such as breaches by vehicles from abroad, the NSAs of other European countries were informed.

Investigations into (major) incidents are led by both the Safety Board and the ILT. In its investigation the Board concentrates on establishing the truth to allow lessons to be learned by the railway sector as a whole. The ILT investigation concentrates on compliance. Where safety recommendations are made on the basis of investigation reports from the Safety Board and from the ILT it can take time for initiatives to be implemented in practice. Where there is an acute danger, however, the ILT will always take direct action, including where breaches of the law have been discovered.

[9] Implementation Guidance for use of Common Safety Indicators, v21_1 (ERA/GUI/03-2012), ERA, 6 June 2012

E . Major adaptations to the legislation and regulations

In the Netherlands the European Directive on the Certification of Train Drivers (Directive 2007/59/EC) was transposed into national law in Chapter 3(5) of the Railways Act, the Decree on railway staff 2011 and the (ministerial) Regulations on railway staff 2011. Because this national legislation also governs the requirements for other safety functions changes were made in respect of these at the same time. These amendments are the result of the evaluation of the railway legislation that was carried out in 2008/2009, but also stem from the TSIs (Technical Specifications for Interoperability).

The transposition of the Train Drivers Directive and of the new Railway Interoperability Directive, as well as the amendments to the Safety Directive, resulted in amendments to a number of legal texts and the amendment and issue of new implementation orders for these pieces of legislation.

Chapter F shows development relating to safety certification and authorisation.

Annex D contains a list of important legislation and regulations which have been significantly amended.

F . The development of safety certification and authorisation

F.1. National laws – start data - availability

F.1.1. Start date for the issue of safety certificates in accordance with Article 10 of Directive 2004/49/EC (Part A and Part B).

The start date is the date when the Act on operational safety of the railways came into force, namely 13 May 2011 [Bulletin of Act, Orders and Decrees 2011, No 218].

F.1.2. Start date for the issue of safety authorisations in accordance with Article 11 of Directive 2004/49/EC.

The start date is the date when the Act on operational safety of the railways came into force, namely 1 January 2005 [Railways Act 2005].

F.1.3. Ensuring the availability of national safety rules or other relevant legislation for consultation by railway undertakings and infrastructure managers

The national safety rules are officially published in the Government Gazette and can be consulted at any time on the wetten.overheid.nl website.

Certification of train drivers: In accordance with Commission Decision 2010/17/EC of 29.10.2009, the following timetable commenced in November 2011:

- November 2011 Introduction of registers
- November 2011 Issue of licences and certificates for cross-border services
- November 2013 Issue of new licences and certificates
- November 2018 All train drivers must be in possession of the new documents
- November 2018 Transitional provision with existing documents valid until seven years after establishing the registers.

It will be possible to issue the new train driver licences from April 2012.

F.2. Numerical data

See Annex E.

F.3. Procedural aspects

In the Netherlands there are three categories of operating licence:

- the EU operating licence, for general passenger and freight services;
- the restricted operating licence A, for shunting, for own transport and for involvement in rail transport without carriage;
- the restricted operating licence B, for travel within stations and for self-propelled equipment on out-of-service tracks.

The EU licence is valid in all EU countries. A railway undertaking applies for and receives the licence in the country in which it is based. Category A and B operating licences are valid solely within the Netherlands.

The safety certificate is issued by the Inspectorate to a railway undertaking where it has in place a proper and working safety management system. The safety management system must be suited to the organisation and activities of the carrier.

Part A of the safety certificate is issued in the country in which the railway undertaking is based. Part B is issued in the country in which the undertaking travels.

F.3.1. Part A safety certificates

F.3.1.1. Reasons for updating/amending Part A certificates (e.g. change in the type of service, scale of traffic operations, size of company).

Not applicable.

F.3.1.2. Most important reasons why the average time for the issue of Part A certificates (limited to those mentioned in Annex E and following receipt of the necessary information) exceeds the 4 months set out in Article 12(1) of the Railway Safety Directive.

Lack of human resources or inadequate provision of documentation accompanying the application for Part A.

F.3.1.3. Overview of requests from other NSAs to verify/access information relating to Part A certificates for a railway undertaking certified in the Netherlands, but applying for a Part B Certificate in another Member State.

Not applicable.

F.3.1.4. Summary of problems concerning the mutual acceptance of Part A certificates valid throughout the Community

Delay in the issuing of Part A by Germany.

F.3.1.5. Part A certificate application fees:

- *Article 6 Railways Act Tariff Regulations 2011*

  1. For the processing of an application for a safety certificate as referred to in Article 32 of the Act the tariffs shown in the following table apply:

Safety certificate	Part A	Part B
Safety certificate for a railway undertaking with less than 300 safety-critical employees	€ 11 671.00	€ 7 779.00
Safety certificate for a railway undertaking with 300 or more safety-critical employees	€ 24 801.00	€ 16 534.00
Safety certificate for a railway undertaking using the main-line railways at a location for the exchange of railway vehicles or with self-propelled equipment or an equivalent vehicle in order to perform activities on or near the main-line railways on a part of the main-line railways that has been placed out of service for the purpose	€ 4 455.00	-

2. For the processing of a safety certificate renewal application as referred to in Article 32 of the Act the tariffs shown in the following table apply:

Renewed safety certificate	Part A	Part B
Renewed safety certificate for a railway undertaking with less than 300 safety-critical employees	€ 9 148.00	€ 6 905.00
Renewed safety certificate for a railway undertaking with 300 or more safety-critical employees	€ 12 516.00	€ 5 836.00
Renewed safety certificate for a railway undertaking using the main-line railways at a location for the exchange of railway vehicles or with self-propelled equipment or an equivalent vehicle in order to perform activities on or near the main-line railways on a part of the main-line railways that has been placed out of service for the purpose	€ 4 455.00	-

- *Article 7 Railways Act Tariff Regulations 2011*

  For the processing of an application for a revised safety certificate as referred to in Article 33 (6) of the Act the tariffs shown in the following table apply:

Revised safety certificate	Part A	Part B
Revised safety certificate for a railway undertaking with less than 300 safety-critical employees	€ 5.836.00	€ 3.890.00
Revised safety certificate for a railway undertaking with 300 or more safety-critical employees	€ 8.753.00	€ 5.836.00
Revised safety certificate for a railway undertaking using the main-line railways at a location for the exchange of railway vehicles or with self-propelled equipment or an equivalent vehicle in order to perform activities on or near the main-line railways on a part of the main-line railways that has been placed out of service for the purpose	€ 1.485.00	-

F.3.1.6. Summary of the problems with using harmonised formats for Part A certificates, specifically with regard to the categories for the type and scope of service.

Not applicable.

F.3.1.7. Summary of the common problems/difficulties for the ILT with application procedures for Part A certificates.

Not applicable.

F.3.1.8. Summary of problems mentioned by railway undertakings when applying for a Part A certificate.

Not applicable.

F.3.1.9. Feedback procedures (e.g. questionnaire) that allow railway undertakings to express their opinion on issuing procedures / practices or to file complaints

Not applicable.

F.3.2. Safety certificates Part B

F.3.2.1. Reasons for updating / amending Part B certificates (e.g. change in type of service, scale of traffic operations, lines to be operated, type of rolling stock, crew category, etc.).

Not applicable.

F.3.2.2. Most important reasons why the average time for the issue of Part B certificates (limited to those mentioned in Annex E and following receipt of the necessary information) exceeds the 4 months set out in Article 12(1) of the Railway Safety Directive.

Lack of human resources or inadequate provision of documentation accompanying the application for part A.

F.3.2.3. Part B certificate application fees

See tables in 3.1.3 for Part A certificate fees.

F.3.2.4. Summary of the problems when using harmonised formats for Part B certificates, specifically with regard to the categories for the type and scope of service.

Not applicable.

F.3.2.5. Summary of the common problems/difficulties for the ILT with application procedures for Part B certificates.

Not applicable.

F.3.2.6. Summary of problems mentioned by railway undertakings when applying for a Part B certificate.

Not applicable.

F.3.2.7. Feedback procedures (e.g. questionnaire) that allow railway undertakings to express their opinion on issuing procedures / practices or to file complaints

Not applicable.

F.3.3. Safety authorisations

Safety authorisations relate to infrastructure under the management of ProRail. The safety authorisation was renewed in 2011 for a period of three years. This authorisation is issued under the national regulations. As a result the questions below do not apply.

F.3.3.1. Reasons for updating or amending safety authorisations.

Not applicable.

F.3.3.2. Main reasons for the time to issue safety authorisations (each of which is indicated in Annex E and following receipt of all information) exceeding the 4 months provided for in Article 12 (1) of the Railway Safety Directive.

Not applicable.

F.3.3.3. Summary of problems or difficulties that regularly arise in connection with safety authorisation application procedures.

Not applicable.

F.3.3.4. Summary of problems mentioned by railway undertakings when applying for a safety authorisation.

Not applicable.

F.3.3.5. Feedback procedures (such as a questionnaire) that allow the infrastructure managers to express their opinion on the procedures and practices to be followed for the issue of certificates, or which they may use to file a complaint.

Not applicable.

F.3.3.6. No fee was set for the issue of a safety authorisation in 2011.
From 2012 onwards the processing of an application for an authorisation will be subject to a fee of € 106 per hour.

G . Supervision of railway undertakings and infrastructure managers

G.1. Description of the supervision of railway undertakings and infrastructure managers

G.1.1. Audits / Inspections / Checklists

In the Netherlands the railway field is under the supervision of the Human Environment and Transport Inspectorate. Supervision is intended to ensure safe transport on the railways, which involves the approval and certification (licensing) of operators and vehicles and enforcement of laws and regulations (Railways Act, Working Conditions Act, relevant European legislation) concerning infrastructure, staff and safety procedures. Railway lines on industrial premises and urban tram systems are not covered by this supervision.

Supervision covers:

- The railway infrastructure.
- The railway infrastructure manager.
- The operators providing transport services using the railway infrastructure.
- Certain officials whose employment is connected with the railway infrastructure.
- The vehicles travelling on the railway infrastructure.
- Operators performing inspections on infrastructure, vehicles or persons.
- Operators providing training and which may set examinations.

The ILT supervises the operators, using the issuing or revoking of authorisations and certificates to achieve its ends; it also checks compliance by means of inspections and/or audits. The Inspectorate makes a distinction between the following types of undertakings subject to inspection:

- Railway undertaking
- Infrastructure manager
- Examination institute (medical examination)
- Examination institute (psychological examination)
- Inspection body (infrastructure and/or rolling stock)
- Examining body
- Training institute
- Rolling stock owner and rolling stock keeper
- Maintenance company
- Staff provider / agency
- Contractor
- Shunting operator
- Historical rolling stock

In 2011 the ILT performed 2 641 inspections / audits and took measures on 800 occasions (675 warnings, 125 sanctions). The available manpower for rail safety was 45 FTE. In 2011 € 952 391 was received for processing authorisation applications.

G.1.2. Focus points for the Netherlands NSA

- Introduction of European legislation and regulations.
- Introduction of supervision of training institutions and examinations.
- Issue of train driver licences for the first time.
- Introduction of the "entity in charge of maintenance".

- The number of injuries and incidents, reviewed in the context of the objectives set out in the Third Framework Document on Rail Safety, lead to the conclusion that the level of safety achieved in the previous year could not be maintained in all respects. There were some improvements, however, and the moving weighted average figures reveal that most trends are positive.

G.2. Assessment of the annual reports of infrastructure managers and railway undertakings

Infrastructure managers, railway undertakings and contractors for railway activities submit their safety reports to the Minister of Infrastructure and Environment by 30 June of each year (in accordance with Article 9(4) of the Railway Safety Directive). There is one infrastructure manager (ProRail), plus its subsidiary Keyrail (in which it has a part share), twenty-five freight carriers, thirteen passenger carriers and twenty contractors holding a safety certificate in 2011 with an undertaking to report on their safety management system and incidents on the railways.

The annual reports are assessed on the implementation of the safety management system and reviewed in the context of the substantive standards. Reports on incidents and accidents on the railway are used in the preparation of the report.

The ILT carries out inspections and audits. For the infrastructure managers and railway undertakings the following were assessed:

Table 10: Number of inspections of railway undertakings and infrastructure managers in 2011

INSPECTIONS AND AUDITS	Part A safety certificates issued	Part B safety certificates issued	Safety authorisations issued	Other activities
Planned	0	0	0	0
Unplanned	0	0	0	164
Performed	1510	124	33	164

Summary of the initiatives/actions taken (amendment, revocation, suspension, serious warning, etc.) regarding safety as a result of these audits/inspections

Of the 800 actions taken, 675 were warnings and 125 legal actions such as enforcement orders, fines and administrative enforcement. One part B certificate was also revoked.

Brief summary of complaints from the infrastructure manager concerning the railway undertakings and relating to the conditions laid down in the part A/B safety certificates

No complaints were received in 2011.

Brief summary of complaints from the railway undertakings concerning the infrastructure manager and relating to the conditions laid down in their licences.

No complaints were received in 2011.

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

European Regulation 2009/352/EC applies in full in the Netherlands. This establishes common safety methods for risk evaluation and assessment as referred to in Article 6(3)(a) of Directive 2004/49/EC of the European Parliament and of the Council.

When modifications are made to railway vehicles in the Netherlands there is an obligation to report fully on these to the Human Environment and Transport Inspectorate. In 2011 no CSM reports were submitted with an application.

Approximately 2% of the applications submitted in 2011 related to the ERTMS train protection system. In all these cases a submission was included from an assessment body which had performed the independent safety assessment.

No experience was gained on interface management in the application of CSM for risk evaluation and assessment.

The NSA has no ongoing trials of risk evaluation and assessment.

There is no procedure, such as a questionnaire, that gives railway undertakings and infrastructure managers the opportunity to state what their experience has been of the European rules on CSM in risk management.

The national legislation introducing the European Regulation will not be revised. Regulation 2009/352/EC simply applies in full in the Netherlands without revision.

I . Alternative measures as a result of deviations from the ECM certification approach

The ILT is part of the Entity in Charge of Maintenance (ECM) taskforce. The result of this taskforce is the Commission Regulation (EU) 445/2011 on ECMs. Apart from this regulation a number of manuals have been written which clarify the various paths to be followed by the ECM, the certification body and the NSAs.

Following the entry into force of Regulation 445/2011 the ILT concentrated mainly on the next stage. Thus during the regular audits for safety certificates information was provided on the Entity in Charge of Maintenance. The ILT also established a link with Article 48 of the Railways Act. In order to dovetail with the national legislation regulations have recently come into force governing the management of other railway vehicles since Regulation 445/2011 applies solely to freight wagons.

In the meantime the Inspectorate has drawn up checklists for assessing applications for the Entity in Charge of Maintenance in the sense of both Regulation 445/2011 and that of Article 48 of the Railways Act. These lists are modular and are being tested in an on-going pilot project. The expectation is that the lists, along with the associated manual and process description, will be ready for use at the end of 2012 for normal applications.

J . Conclusions on the 2011 reporting year - Priorities

The information provided in the report relates to the four main themes of the Third Framework Document on Rail Safety, namely licensing and certification, safe transport, safe working and safe living.

As regards licensing and certification the priority for the ILT is the further implementation of the regulations concerning ECMs and train driver licences. In the latter case, this is in addition to the issuing of permits for the certification of training.

As regards safe transport, the priorities for the ILT based on the information contained in this report are tackling SPADs, management and maintenance of the infrastructure, the relationship between the infrastructure manager and contractors (provision of information, regulations, standards and frameworks) and tackling problems following incidents. The ILT is increasingly switching to enforcement investigations into (major) incidents.

For safe working the priority for ILT is also to concentrate on compliance with the safety rules. Again, this forms part of the relationship between the infrastructure manager and the contractor.

For safe living the priority is the problem of level crossings and the transport of dangerous substances by rail.

K . Sources of information

- Internal information from inspection and investigation data
- Information from railway undertakings
- Information from infrastructure managers
- Publications on the Internet

L . Annexes

Annex A1: Railway network in the Netherlands, the main-line railways for rail traffic

Annex A2: Undertakings in the railway sector in the Netherlands having a safety certificate, certificate, authorisation, or approval from the ILT.

Annex B: ILT organisation chart

Annex C: Safety indicators: statistical data and definitions used

Annex D: Major changes to legislation and regulations

Annex E: The development of safety certification and authorisation – statistical data

Annex A1: Railway network in the Netherlands, the main-line railways for rail traffic

Legend

	1 track
	2 tracks
	3 or more tracks
O	Station/node point
75	Distance in kilometers

Main-line railways
Situation as at January 2012
Source: ProRail, Network Statement 2012

Annex A2: Undertakings issued with a safety certificate, certificate, authorisation or approval by the ILT in relation to the railway sector in the Netherlands

Table 11: Keepers of railway vehicles

RAILWAY VEHICLE KEEPER	Type	Total EVN	Registered	Out of service	Deregis-tered
AAEC	Freight	552	552		
Arriva Openbaarvervoer NV	GTW DMU 2 2/8	4	4		
Arriva Openbaarvervoer NV	GTW DMU 2/6, Bk1	22	22		
Arriva Openbaarvervoer NV	GTW DMU 2/6, Bk2	22	22		
Arriva Openbaarvervoer NV	GTW DMU 2/6, m2	22	22		
Arriva Openbaarvervoer NV	GTW DMU 2/8, B	27	27		
Arriva Openbaarvervoer NV	GTW DMU 2/8, Bk1	29	29		
Arriva Openbaarvervoer NV	GTW DMU 2/8, Bk2	29	29		
Arriva Openbaarvervoer NV	GTW DMU 2/8, m2	31	31		
Arriva Openbaarvervoer NV	GTW DMU-2 2/8	4	4		
Arriva Openbaarvervoer NV	GTW EMU 2/6, Bk1	1	1		
Arriva Openbaarvervoer NV	GTW EMU 2/6, Bk2	1	1		
Arriva Openbaarvervoer NV	GTW EMU 2/6, m2	1	1		
Arriva Openbaarvervoer NV	GTW EMU 2/8, B	6	6		
Arriva Openbaarvervoer NV	GTW EMU 2/8, Bk1	6	6		
Arriva Openbaarvervoer NV	GTW EMU 2/8, Bk2	6	6		
Arriva Openbaarvervoer NV	GTW EMU 2/8, m2	6	6		
Arriva Openbaarvervoer NV	GTW-2 2/6	3	3		
BAM RAIL B.V.	08-275 3S	1	1		
BAM RAIL B.V.	08-275 3S+	1	1		
BAM RAIL B.V.	08-275-4 ZW	1	1		
BAM RAIL B.V.	09-16 CAT-ZW	1	1		
BAM RAIL B.V.	09-32 4S	1	1		
BAM RAIL B.V.	BR703	1	1		
BAM RAIL B.V.	EV1 BN-GF-66	1	1		
BAM RAIL B.V.	EV2 BN-GF-67	1	1		
BAM RAIL B.V.	EV3 BN-GF-68	1	1		
BAM RAIL B.V.	FRB 25.1	1	1		
BAM RAIL B.V.	FRB 25.2	1	1		
BAM RAIL B.V.	Freight	38	38		
BAM RAIL B.V.	MOSI 27	1	1		
BAM RAIL B.V.	Inspection vehicle 2	1	1		

BAM RAIL B.V.	SSP 110 SW	1	1		
BAM RAIL B.V.	Noise measurement wagon 4-axle DM	1	1		
BAM RAIL B.V.	Mobile workshop wagon 01	1	1		
BASF SE	Freight	111	111		
BGTransport DVVO	Freight	248	248		
BLP Wiebe Logistik GmbH	Maxima 40CC	1	1		
Connexxion NV	Protos, A	5	5		
Connexxion NV	Protos, B	5	5		
Corus staal	Freight	6	6		
Crossrail Benelux NV	JT42CWRM	4	4		
DB Schenker Rail Deutschland	BR 185	3	3		
DB Schenker Rail Deutschland	Freight	660	659		1
DB(L) Schenker Rail Nederland N.V.	BR204	5	4		1
DB(L) Schenker Rail Nederland N.V.	BR363	7	7		
DB(L) Schenker Rail Nederland N.V.	DE6400	120	114		6
DB(L) Schenker Rail Nederland N.V.	E1600	23	20	3	
DB(L) Schenker Rail Nederland N.V.	E3000	4	4		
DB(L) Schenker Rail Nederland N.V.	Freight	1011	838		173
Deutsche Bahn AG		1	1		
Ermewa s.a.s	Freight	80	80		
ERS Railways BV	Class 66	2	2		
ERS Railways BV	G1206	2	2		
Eurailscout Inspection & Analysis	2200/2300	3	3		
Eurailscout Inspection & Analysis	Freight	1	1		
Eurailscout Inspection & Analysis	UST96	1	1		
Euro-Express Treincharter	E1250	4	4		
Euro-Express Treincharter	V-60	3	3		
Euro-Express Treincharter	V60 II	2	2		
GATX Rail Austria GmbH	Freight	445	445		
GATX Rail Germany GmbH	Freight	948	948		
Havelländische Eisenbahn AG	Maxima 40CC	1	1		
Herik Rail Events B.V.	Passenger	3	3		
Herik Rail Events B.V.	Passengers	2	2		
Het Spoorwegmuseum (*The Railway Museum*)	Bs 28 101	1	1		
Het Spoorwegmuseum	DE I 41	1		1	
Het Spoorwegmuseum	DE III 114	1		1	
Het Spoorwegmuseum	DE III 27	1		1	
Het Spoorwegmuseum	DE loc 2215	1		1	

Het Spoorwegmuseum	DE loc 2264	1		1	
Het Spoorwegmuseum	DE loc 2498	1		1	
Het Spoorwegmuseum	DE loc 311	1		1	
Het Spoorwegmuseum	DE loc 345	1		1	
Het Spoorwegmuseum	DE loc 362	1		1	
Het Spoorwegmuseum	DE loc 629	1		1	
Het Spoorwegmuseum	DE loc 673	1		1	
Het Spoorwegmuseum	Eloc 1010	1		1	
Het Spoorwegmuseum	Eloc 1107	1		1	
Het Spoorwegmuseum	Eloc 1125	1		1	
Het Spoorwegmuseum	Eloc 1202	1		1	
Het Spoorwegmuseum	Eloc 1302	1		1	
Het Spoorwegmuseum	Eloc 1312	1		1	
Het Spoorwegmuseum	Eloc 1656	1	1		
Het Spoorwegmuseum	Freight	30		30	
Het Spoorwegmuseum	mat'24 BD 9107	1		1	
Het Spoorwegmuseum	mat'36 252, BCk	1		1	
Het Spoorwegmuseum	mat'36 252, CDk	1		1	
Het Spoorwegmuseum	mat'46 273	1		1	
Het Spoorwegmuseum	mat'54 386	1		1	
Het Spoorwegmuseum	mat'64 876 Abk	1	1		
Het Spoorwegmuseum	mat'64 876 Bk	1	1		
Het Spoorwegmuseum	mP 3031	1		1	
Het Spoorwegmuseum	Passenger	3		3	
Het Spoorwegmuseum	Passengers	11		11	
Het Spoorwegmuseum	Steam locomotive SJ B 1289	1		1	
HSA Beheer N.V.	Passengers	59	59		
HSA Beheer N.V.	TRAXX 186 F140MS DABNL (variant KF)	2	2		
HSA Beheer N.V.	Traxx, DABNL	12	12		
Husa Tranportation Ralway Services Nederland BV	DE5800	3	3		
Husa Tranportation Ralway Services Nederland BV	DH6000 / V60-Ost	3			3
Husa Tranportation Ralway Services Nederland BV	G1206	2	2		
Husa Tranportation Ralway Services Nederland BV	Freight	1	1		
Lloyds Register Rail Europe B.V.	Passengers	1	1		
LOCON Benelux BV	DE6700	4	4		
LOCON Benelux BV	Freight	4	4		
LOCON Benelux BV	Loc 1800	2	2		
NACCO S.A.S	Freight	364	364		
NedTrain B.V.	Bemo B2675	1	1		

NedTrain B.V.	G400B - 701	13	13		
NedTrain B.V.	Freight	11	2		9
NedTrain B.V.	Niteq 4000H	1	1		
NedTrain B.V.	Niteq RRM1500	2	2		
NedTrain B.V.	Niteq RRM2000	1	1		
NedTrain B.V.	Niteq4000U	3	3		
NedTrain B.V.	Passenger	1	1		
NS Internationaal B.V	Passengers	57	57		
NS Reizigers BV	DD IRM 4 mBvk1	1	1		
NS Reizigers BV	DDM2_3 Abv	77	77		
NS Reizigers BV	DDM2_3 bv	102	101		1
NS Reizigers BV	DDM2_3 Bvk	79	77		2
NS Reizigers BV	DDM2_3 mDDM	50	50		
NS Reizigers BV	DM90 Abk	36	36		
NS Reizigers BV	DM90 Bk1	36	36		
NS Reizigers BV	Freight	2		1	1
NS Reizigers BV	ICM-III AB	87	87		
NS Reizigers BV	ICM-III mBk	87	87		
NS Reizigers BV	ICM-III sBFk	87	87		
NS Reizigers BV	ICM-IV A	50	50		
NS Reizigers BV	ICM-IV mB	50	50		
NS Reizigers BV	ICM-IV mBdK	50	50		
NS Reizigers BV	ICM-IV sbfk	50	50		
NS Reizigers BV	Loc 1700	80	80		
NS Reizigers BV	Loc 1800	32	31		1
NS Reizigers BV	Mat 64 II Abk	189	146		43
NS Reizigers BV	Mat 64 II Bk	189	145		44
NS Reizigers BV	Mat 64 IV AB	27	2		25
NS Reizigers BV	Mat 64 IV B	27	2		25
NS Reizigers BV	Mat 64 IV Bk1	27	2		25
NS Reizigers BV	Mat 64 IV Bk2	27	2		25
NS Reizigers BV	Passengers	198	198		
NS Reizigers BV	SGM-II Bk1	30	30		
NS Reizigers BV	SGM-II Bk2	30	30		
NS Reizigers BV	SGM-III AB	60	60		
NS Reizigers BV	SGM-III Bk1	60	60		
NS Reizigers BV	SGM-III Bk2	60	60		
NS Reizigers BV	SLT IV B1	6	6		
NS Reizigers BV	SLT IV mABk1	6	6		
NS Reizigers BV	SLT IV mABk2	6	6		
NS Reizigers BV	SLT IV mB1	6	6		
NS Reizigers BV	SLT VI AB	7	7		

NS Reizigers BV	SLT VI B2	7	7		
NS Reizigers BV	SLT VI mABk1	7	7		
NS Reizigers BV	SLT VI mABk2	7	7		
NS Reizigers BV	SLT VI mB2	7	7		
NS Reizigers BV	SLT VI mB3	7	7		
NS Reizigers BV	SLTIV, B1	18	18		
NS Reizigers BV	SLTIV, mAbk1	18	18		
NS Reizigers BV	SLTIV, mABk2	18	18		
NS Reizigers BV	SLTIV, mB1	18	18		
NS Reizigers BV	SLTIV,B1	36	36		
NS Reizigers BV	SLTIV,mABk1	36	36		
NS Reizigers BV	SLTIV,mABk2	36	36		
NS Reizigers BV	SLTIV,mB1	36	36		
NS Reizigers BV	SLTVI, AB	16	16		
NS Reizigers BV	SLTVI, B2	16	16		
NS Reizigers BV	SLTVI, mAbk1	3	3		
NS Reizigers BV	SLTVI, mAbk3	27	27		
NS Reizigers BV	SLTVI, mABk4	2	2		
NS Reizigers BV	SLTVI, mB2	16	16		
NS Reizigers BV	SLTVI, mB3	16	16		
NS Reizigers BV	SLTVI,AB	38	38		
NS Reizigers BV	SLTVI,B2	38	38		
NS Reizigers BV	SLTVI,mABk3	38	38		
NS Reizigers BV	SLTVI,mABk4	38	38		
NS Reizigers BV	SLTVI,mB2	38	38		
NS Reizigers BV	SLTVI,mB3	38	38		
NS Reizigers BV	VIRM 4 Abv 3	51	51		
NS Reizigers BV	VIRM 4 Abv 6	51	51		
NS Reizigers BV	VIRM 4 mBvk 1/2	102	102		
NS Reizigers BV	VIRM Abv3/4	127	127		
NS Reizigers BV	VIRM Abv5	80	80		
NS Reizigers BV	VIRM Abv6	127	127		
NS Reizigers BV	VIRM Bvk1/2	258	258		
NS Reizigers BV	VIRM mBv7	80	80		
On Rail Gesellschaft für Eisenbahnausr. GmbH	Freight	420	420		
Onrail	Freight	470	470		
ORV On Rail Gesellschaft für Vermietung und Verwaltung von Eisenbahnwaggons mbH	Freight	120	120		
Ox traction N.V.	Maxima 40CC	1	1		
Proberen	Freight	2		1	1
Railinsight BV	Passengers	4	4		

RailMotion AG	Freight	305	232		73
Railpool München	TRAXX E186 F140MS variant KF (D-A-B-NL)	2	2		
Rotterdam Rail Feeding	BR 203	8	8		
Rotterdam Rail Feeding	Freight	2	2		
Rotterdam Rail Feeding	NS 600	5	5		
Rotterdam Rail Feeding	T 73.3	8	8		
SBB Cargo Deutschland GmbH	E 186, KF	2	2		
Shunter B.V.	BR 203	2	2		
Shunter B.V.	DR6000	1	1		
Shunter B.V.	MB11N	1	1		
Shunter B.V.	MB125N	2	2		
Shunter B.V.	MB170N	2	2		
Shunter B.V.	MB200N	3	3		
Shunter B.V.	MB360N	1	1		
Shunter B.V.	MB5N	1	1		
Shunter B.V.	MB9N	6	6		
Shunter B.V.	MC14N	2	2		
Shunter B.V.	MC500N	1	1		
Shunter B.V.	MEC 500	3	3		
Shunter B.V.	Niteq 4000H	1	1		
Shunter B.V.	RW110DH	2	2		
Sncf	Freight	1			1
STIBANS	Freight	1			1
Stichting Stadskanaal Rail	Freight	17	17		
Stock transport	Maxima 40CC	1	1		
Stoom Stichting Nederland	Passengers	1	1		
Stoomtram Hoorn Medenblik	Freight	7	7		
Strukton Rail Equipment	Beaver 23 / 08-275 ZWL	1	1		
Strukton Rail Equipment	CSM 2 / 09-32	1	1		
Strukton Rail Equipment	CSM 3 / 09-16	1	1		
Strukton Rail Equipment	CSM 4 / 09-3X	1	1		
Strukton Rail Equipment	CSM 5 / 09-3X	1	1		
Strukton Rail Equipment	CSM 6 / 09-16	1	1		
Strukton Rail Equipment	Gemma / FUM 100	1	1		
Strukton Rail Equipment	Freight	116	116		
Strukton Rail Equipment	HBA / FM 7	1	1		
Strukton Rail Equipment	HBA XL / FM 9	1	1		
Strukton Rail Equipment	HBW de Merel	1	1		
Strukton Rail Equipment	KTH 3 / RM80 UHR	1	1		
Strukton Rail Equipment	KTH 4 / C750	1	1		

Strukton Rail Equipment	KTH 860 AHM / RM 860 AHM	1	1		
Strukton Rail Equipment	Loc Ankie / DG1200	1	1		
Strukton Rail Equipment	Loc Carin / G1206	1	1		
Strukton Rail Equipment	Loc Danique / G1206	1	1		
Strukton Rail Equipment	Loc Demi / G1206	1	1		
Strukton Rail Equipment	Loc Herma / MB 9N	1	1		
Strukton Rail Equipment	Loc Irene / DG1200	1	1		
Strukton Rail Equipment	Loc Janine / DG1200	1	1		
Strukton Rail Equipment	Loc Monique / DG1200	1	1		
Strukton Rail Equipment	Loc TD Zutphen / LK60	1	1		
Strukton Rail Equipment	Loc Tiny / MC 14N	1	1		
Strukton Rail Equipment	Loc Willy / G1206	1	1		
Strukton Rail Equipment	MFS 19 / MFS 33	1	1		
Strukton Rail Equipment	MFS 20 / MFS 33	1	1		
Strukton Rail Equipment	MFS 21 / MFS 100	1	1		
Strukton Rail Equipment	MFS 22 / MFS 100	1	1		
Strukton Rail Equipment	MFS 23 / MFS 100	1	1		
Strukton Rail Equipment	MFS 24 / MFS 100	1	1		
Strukton Rail Equipment	MFS 25 / MFS 101	1	1		
Strukton Rail Equipment	MFS 26 / MFS 102	1	1		
Strukton Rail Equipment	MFS 27 / MFS 100	1	1		
Strukton Rail Equipment	MFS 28 / MFS 100	1	1		
Strukton Rail Equipment	MFS 29 / MFS 100	1	1		
Strukton Rail Equipment	MFS 30 / MFS 100	1	1		
Strukton Rail Equipment	Conversion train 2 / P95	1	1		
Strukton Rail Equipment	Crew 12 / SSP110SW	1	1		
Strukton Rail Equipment	Crew 14 / SSP110SW	1	1		
Strukton Rail Equipment	Crew 15 / SSP110SW	1	1		
Strukton Rail Equipment	Crew 16	1	1		
Strukton Rail Equipment	Crew 21 / R21LS	1	1		
Strukton Rail Equipment	Ravot 2 / TG 80 4NS	1	1		
Strukton Rail Equipment	Ravot 3 / Mosi	1	1		
Strukton Rail Equipment	RDBW / LK 60	1	1		
Strukton Rail Equipment	Stab 10 / DGS-42N	1	1		
Strukton Rail Equipment	Stab 11 / DGS-62N	1	1		
Strukton Rail Equipment	ULS3000-D / loading station	1	1		
Strukton Rail Equipment	Unimat 4 / 08-275	1	1		

Strukton Rail Equipment	Unimat 5 / 08-475 4S	1	1		
Strukton Rail Equipment	Unimat 7 / 08-475 4S	1	1		
Strukton Rail Equipment	Unimat 8 / 08-475 4S	1	1		
Strukton Rail Equipment	Unimat 9 / 08-475 4S	1	1		
Strukton Rail Equipment	Unimobiel 25.1 / FRB 25	1	1		
Strukton Rail Equipment	Unimobiel 25.2 / FRB 25	1	1		
Strukton Rail Equipment	Unimobiel 25.3 / FRB 25	1	1		
Strukton Rail Equipment	Unimobiel 25.4 / FRB 25	1	1		
Swietelsky Baugesellschaft m.b.H	KTH 2 / RM80	1	1		
Swietelsky Baugesellschaft m.b.H	MFS 33 1953	1	1		
Swietelsky Baugesellschaft m.b.H	MFS 33 1954	1	1		
Swietelsky Baugesellschaft m.b.H	MFS 33 1955	1	1		
Swietelsky Baugesellschaft m.b.H	MFSD 33 1956	1	1		
Swietelsky Baugesellschaft m.b.H	MFSD 33 1957	1	1		
Swietelsky Baugesellschaft m.b.H	MFSD 33 1958	1	1		
Swietelsky Baugesellschaft m.b.H	MFSD 33 1959	1	1		
Swietelsky Baugesellschaft m.b.H	MFSD 33 1960	1	1		
Swietelsky Baugesellschaft m.b.H	MFSD 33 1961	1	1		
Swietelsky Baugesellschaft m.b.H	MFSD 33 1962	1	1		
Swietelsky Baugesellschaft m.b.H	MFSD 33 1963	1	1		
Swietelsky Baugesellschaft m.b.H	MFSD 33 1964	1	1		
Swietelsky Baugesellschaft m.b.H	MFSD 33 1965	1	1		
Swietelsky Baugesellschaft m.b.H	MFSD 33 1966	1	1		
Swietelsky Baugesellschaft m.b.H	MFSD 33 1967	1	1		
Swietelsky Baugesellschaft m.b.H	MFSD 33 1968	1	1		
Swietelsky Baugesellschaft m.b.H	MFSD 33 1969	1	1		
Swietelsky Baugesellschaft m.b.H	MFSD 33 1970	1	1		
Syntus B.V.	DM90 Abk	2	2		
Syntus B.V.	DM90 Bk1	2	2		
Syntus B.V.	DM90, ABK	12	12		
Syntus B.V.	DM90, BK	12	12		
Syntus B.V.	Lint, A	24	24		
Syntus B.V.	Lint, B	24	24		
Veluwsche Stoomtrein Maatschappij	Freight	20	19		1

Veolia Transport Rail B.V.	GTW DMU 2/6, Bk 2	1	1		
Veolia Transport Rail B.V.	GTW DMU 2/6, Bk1	6	6		
Veolia Transport Rail B.V.	GTW DMU 2/6, Bk2	5	5		
Veolia Transport Rail B.V.	GTW DMU 2/6, m2	6	6		
Veolia Transport Rail B.V.	GTW DMU 2/8, B	10	10		
Veolia Transport Rail B.V.	GTW DMU 2/8, Bk1	10	10		
Veolia Transport Rail B.V.	GTW DMU 2/8, Bk2	10	10		
Veolia Transport Rail B.V.	GTW DMU 2/8, m2	10	10		
Veolia Transport Rail B.V.	GTW EMU 2/6, Bk1	5	5		
Veolia Transport Rail B.V.	GTW EMU 2/6, Bk2	5	5		
Veolia Transport Rail B.V.	GTW EMU 2/6, m2	5	5		
Veolia Transport Rail B.V.	GTW EMU 2/8, B	3	3		
Veolia Transport Rail B.V.	GTW EMU 2/8, Bk1	3	2	1	
Veolia Transport Rail B.V.	GTW EMU 2/8, Bk2	3	3		
Veolia Transport Rail B.V.	GTW EMU 2/8, m2	3	3		
Voestalpine Railpro B.V.	Freight	1587	1533	1	53
Voith Turbo Lokomotivtechnik GmbH & Go. KG	Maxima 30CC	2	2		
Voith Turbo Lokomotivtechnik GmbH & Go. KG	Maxima 30CC L06-30004	1	1		
Voith Turbo Lokomotivtechnik GmbH & Go. KG	Maxima 40CC	7	7		
VolkerRail Materieel	Beaver 1500	1	1		
VolkerRail Materieel	Beaver 1900	1	1		
VolkerRail Materieel	BR 203	5	5		
VolkerRail Materieel	DGS 42N	2	2		
VolkerRail Materieel	Freight	70	69		1
VolkerRail Materieel	Henschel 209	1	1		
VolkerRail Materieel	Mosi 28	1	1		
VolkerRail Materieel	P&T USP 403 ZW	1	1		
VolkerRail Materieel	Ravot1	1	1		
VolkerRail Materieel	V60	2	2		
VolkerRail Materieel	VST-VR01	1	1		
VPS Verkehrsbetriebe Peine-Salzgitter GmbH	Freight	8	8		
VTG Aktiengesellschaft	Freight	634	624		10
VTG Austria Ges.m.b.H.	Freight	20	20		
Wagon Care	Freight	172	172		
(carriers)	Freight	260	260		
Zuid-Limburgse Stoom Maatschappij	Freight	2	2		
Total		**13 075**	**12 474**	**75**	**526**

Table 12: List of addresses of undertakings
Version of 11 October 2011

Name	Address	Postcode + city
Railway undertakings		
Arriva Personenvervoer Nederland BV	Postbus 626	8440 AP Heerenveen
BAM Rail B.V.	Postbus 3172	4800 DD Breda
B-Cargo (NV Nationale Maatschappij der Belgische Spoorwegen)	Hallepoortlaan 40	B-1060 Brussels
CapTrain Belgium BV	Italiëlei 2	2000 Antwerp
Connexxion Openbaar Vervoer NV	Postbus 224	1200 AE Hilversum
Crossrail Benelux NV	Luchthavenlei 7A	2100 Deurne (Antwerp)
CRS-Continental Rail Services BV	Moezelweg 151	3198 LS Rotterdam - Europoort
DB Regio NRW GmbH	Hafenstraβe 69	48153 Münster
DB Schenker Rail Nederland NV	Postbus 2060	3500 GB Utrecht
Euro-Express Treincharter BV	Burgemeestersrand 57	2625 NV Delft
ERS Railways BV	Postbus 59018	3008 PA Rotterdam
Eurailscout Inspection & Analysis BV	Postbus 349	3800 AH Amersfoort
Häfen und Güterverkehr Köln AG (HGK)	Postbus 250348	50519 Keulen
HSA Beheer NV	Postbus 767	1000 AT Amsterdam
HSL Logistiek BV	Bruistensingel 160-A	5232 AC 's-Hertogenbosch
HTRS (voorheen ACTS Nederland BV)	Postbus 59179	3008 PD Rotterdam
KombiRail Europe BV	Postbus 540	3190 AL Hoogvliet (Rotterdam)
Lloyd's Register Rail Europe BV	Postbus 2016	3500 GA Utrecht
Locon Benelux	Noordzeelaan 20 B	8017 JW Zwolle
NS Reizigers B.V.	Postbus 2025	3500 HA Utrecht
NedTrain BV	Postbus 2167	3500 GD Utrecht
Rotterdam Rail Feeding B.V.	Europaweg 855	3199 LD Rotterdam
RTS Rail Transport Service GmbH	Puchstraβe 184b	A-8055 Graz
Rurtalbahn Benelux BV	Postbus 59169	3008 PD Rotterdam
Shunter Tractie BV	Postbus 5185	3000 AD Rotterdam
Spitzke Spoorbouw BV	Peppelkade 3	3992 AL Houten
Strukton Rail Materieel BV	Postbus 1281	5200 BH 's-Hertogenbosch
Syntus BV	Postbus 17	7000 AA Doetinchem
TX Logistik AG	Rhöndorfer Straße 85	D-53604 Bad Honnef
Veolia Transport Rail BV	Postbus 1533	6201 BM Maastricht
VolkerRail Nederland BV	Postbus 240	4130 EE Vianen
Contractors		
Asset Rail	Postbus 204	6680 AE Bemmel
BAM Infratech NO	Postbus 7	6730 AA Ootmarsum
BAM Infratech MW en NW	Postbus 14	1160 AA Zwanenburg
BAM Rail	Postbus 3172	4800 DD Breda
Berg van den Nijmegen BV	Kerkenbos 12-02	6546 BE Nijmegen
Dura Vermeer	Postbus 466	2130 AL Hoofddorp

Eiffage Rail B.V.	Postbus 3195	5203 DD 's-Hertogenbosch
Gelder van	Postbus 15	8050 AA Hattem
GTI Infra	Reedijk 9	3274 KE Heinenoord
Imtech	Postbus 377	3800 AS Amersfoort
Nacap	Bijdorp-West 19	2992 LC Barendrecht
NedRail Spoorwegbouw VOF	Postbus 466	2130 AL Hoofddorp
Spitzke Spoorbouw	Peppelkade 3	3992 AL Houten
Strukton Civiele Proj	Postbus 1025	3600 BA Maarssen
Strukton Infratechnieken	Postbus 1025	3600 BA Maarssen
Strukton Rail BV	Postbus 1025	3600 BA Maarssen
TechRail BV	Taurusavenue 100	2132 LS Hoofddorp
Tubex BV	Brugsevaart 6	4501 NE Oostburg
Voestalpine Railpro	Postbus 888	1200 AW Hilversum
Wilde de	Postbus 43	3417 ZG Montfoort

Shunting operators

Arkema Rotterdam BV	Postbus 6030	3196 XH Vondelingenplaat / Rotterdam
ConRail BV	Postbus 322	4600 AH Bergen op Zoom

Historical rolling stock

Stichting Elektrische Museumtramlijn	Amstelveenseweg 264	1075 XV Amsterdam
Friese Stoomtrein Maatschappij	Dr. Boumaweg 17b	8601 GM Sneek
VSM BV	Rijnstraat 68	7332 AX Apeldoorn
ZLSM Bedrijf BV	Postbus 21071	6369 ZH Simpelveld

Medical / Psychological examination institute

Active Medical Check BV	Postbus 8234	3009 AE Rotterdam
365 B.V. (formerly ArboNed)	Zwarte Woud 10	3524 SJ Utrecht
Arbo Unie BV	Daltonlaan 500	3584 BK Utrecht
Bijleveld & Van Vriesland BV	Postbus 30105	3001 DC Rotterdam
Frink BV	Radarweg 511 - 513	1043 NZ Amsterdam
HP Select BV	Raadhuispark 2	6191 AG Beek
Human Company BV	Stationsplein 61	3800 BB Amersfoort
i-Test & Selectie Center Nederland BV	Boschdijk 135	5612 HB Eindhoven
MaetisArdyn	Postbus 405	3990 GE Houten
Meurs HRM BV	De Bleek 10	3447 GV Woerden
PKG	Postbus 132	3700 AC Zeist
Polikliniek Mens & Arbeid	Postbus 22660	1100 DD Amsterdam

Staff agencies

Baygül Spoorwegveiligheid VOF	Kolkgriend 69	1356 BE Almere
Consolid Rail BV	Lodewijk Pincoffsweg 503	3071 AS Rotterdam
Flex Railmasters BV	Laan van Westmolen 70	3271 BK Mijnsherenland
Machinext B.V.	Bergselaan 188a	3037 CK Rotterdam
MEV Nederland BV	Jansbuitensingel 20	6811 ADV Arnhem
NS International B.V.	Postbus 767	1000 AT Amsterdam

Railwork BV	Bruistensingel 160-A	5232 AC 's-Hertogenbosch
Locoflex BV	Spoorstraat 23	4702 VV Roosendaal
Safelines BV	Bruistensingel 202	5232 AD 's-Hertogenbosch
Thalys Nederland N.V.	Postbus 767	1000 AT Amsterdam
TrainStaffing B.V.	Perengaarde 45	3344 PR Hendrik Ido Ambacht

Examining bodies

Stichting railAlert	Postbus 2696	3500 GR Utrecht
Stichting Examens Railvervoer	Postbus 347	3800 AH Amersfoort

Infrastructure managers

ProRail	Postbus 2038	3500 GA Utrecht
Keyrail	Postbus 108	3330 AC Zwijndrecht

Notified Bodies

DeltaRail BV	Postbus 8125	3503 RC Utrecht
HHC / DRS Inspecties BV	Postbus 75	1723 HX Noord Scharwoude
KEMA Rail Transport Certification BV	Postbus 11	6800 AA Arnhem
Lloyd's Rail Register Rail Europe BV	Postbus 2248	3500 GE te Utrecht
Luxcontrol Nederland BV	Graadt van Roggenweg 328 - 334	3531 AH Utrecht
RailCert	Postbus 2027	3500 GA Utrecht

Maintenance providers

Eiffage
Strukton Rail
Wilde de
EMA
RailSolid
Kaminski
Stoomstichting Nederland (SSN)
TSN Amersfoort Bokkeduinen
Stork Railway Services

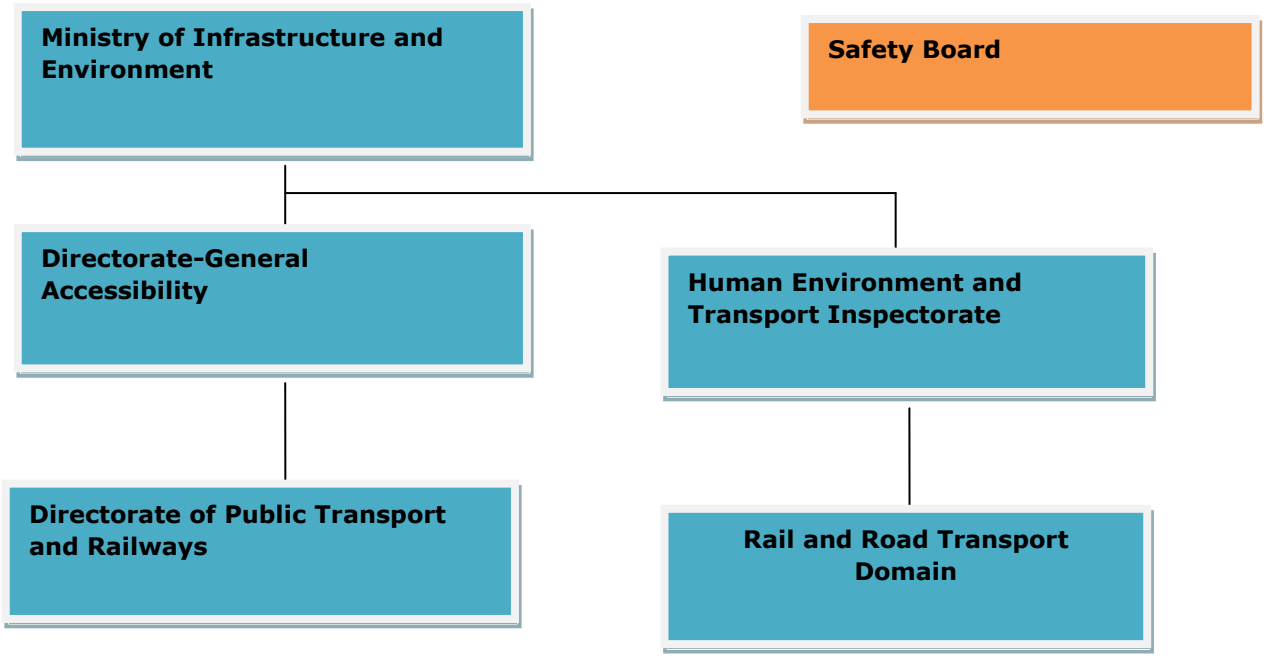
Annex A2.1: Infrastructure manager key figures

In calculating the indicators in this annual report, use was made of the figures in Table 13.

Table 13: Key figures for the railways 2011, used in calculating the indicators from the Third Framework Document on Rail Safety.

Subject	Value	Source
Train-km	1.47E+08	2011: figures from annual reports and submissions from ProRail
Passenger train-km	1.36E+08	2011: figures from annual reports and submissions from ProRail
Passenger-km	1.69E+10	2011: figures from annual reports by the railway undertakings
Number of level crossings	2556	ProRail submission
Km of track	7000	ProRail submission
Km of line	3035	ProRail submission
Percentage of track with ATP	96%	ProRail submission
Percentage train-km using line with ATP or ERTMS (main-line railways)	99%	Submissions from carriers

Annex B1.: NSA organisation chart

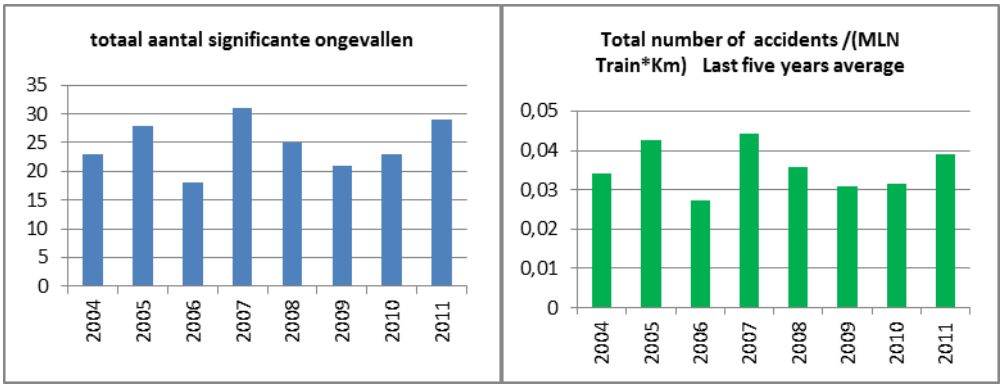


Annex C.: Safety indicators: statistical data and definitions used

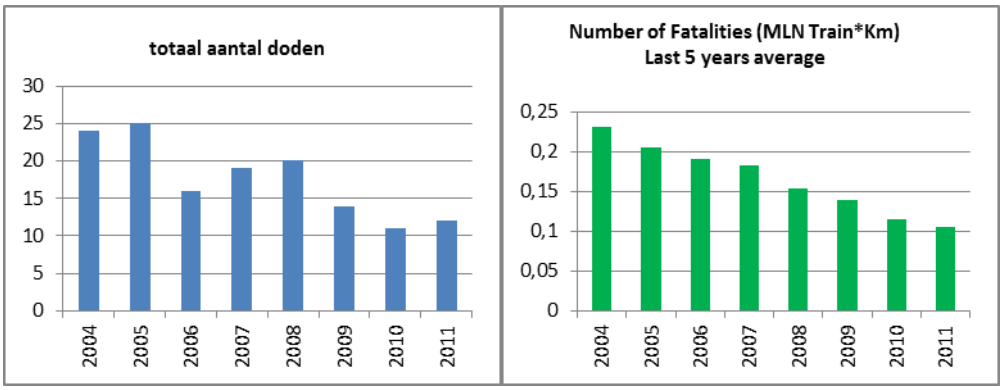
Annex C1.: CSI data

C1.1 Performance at a glance – five-year averages

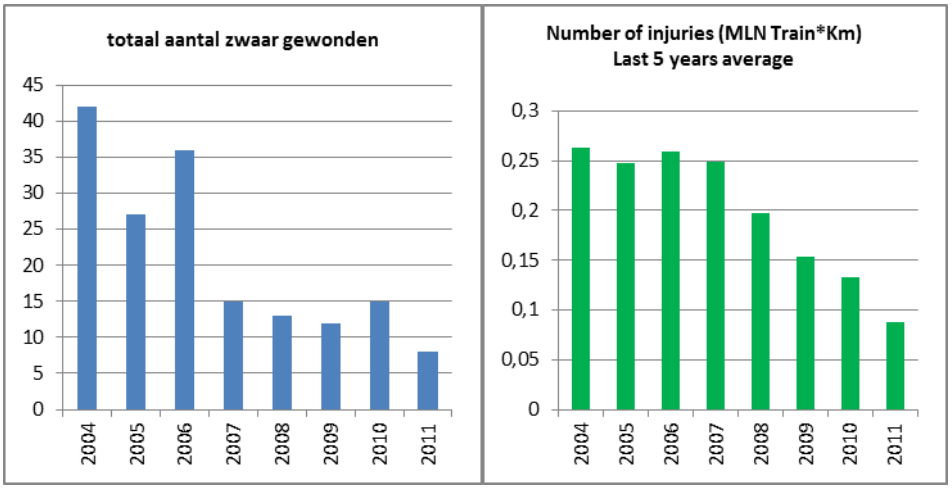
Presentation of the data in accordance with the Third Framework Document on Rail Safety with annual figures (left-hand column) and using the structure of the ERA with five-year averages (right-hand column).



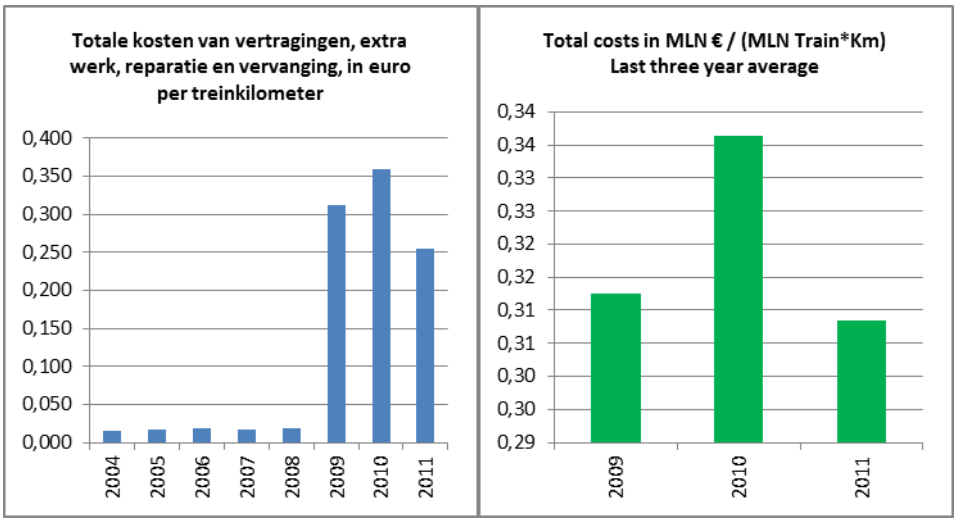
Total number of significant accidents



Total number of fatalities



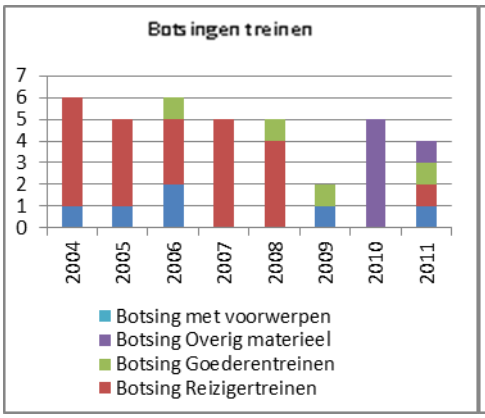
Total number of serious injuries

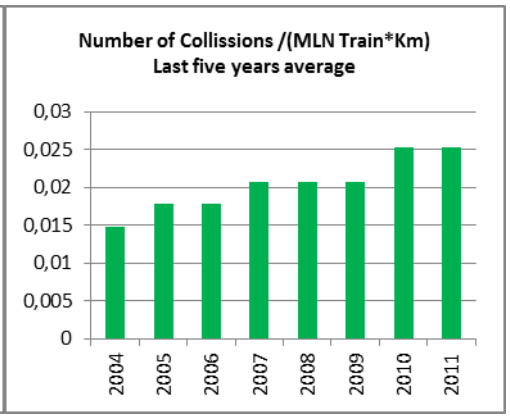


Total costs of delays, additional work, repairs and replacement in euros per train-km

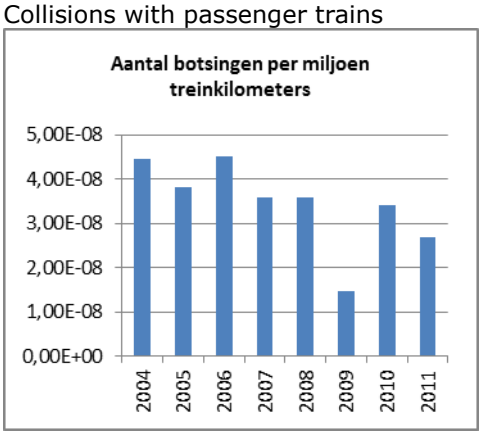
This is a new definition from 2010 onwards; there is little information from before 2009.

Accidents broken down by type

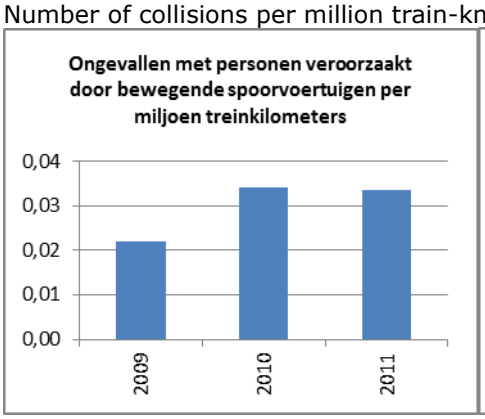


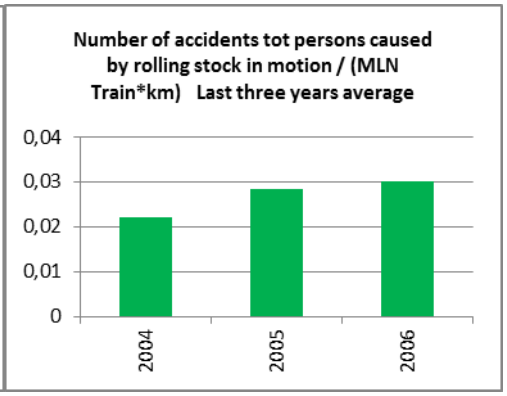


Train collisions
Collisions with objects
Collisions with other rolling stock
Collisions with freight trains
Collisions with passenger trains



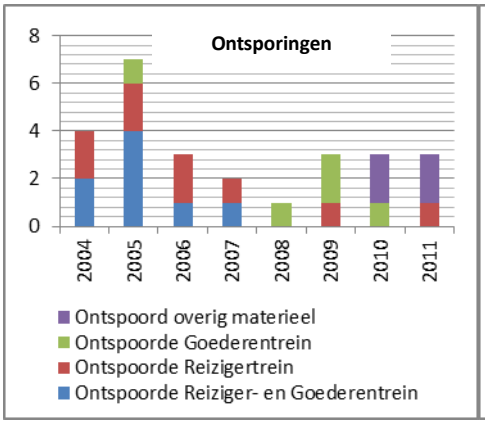
Number of collisions per million train-km

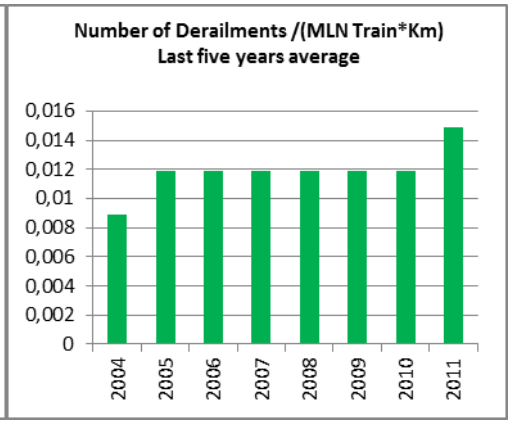




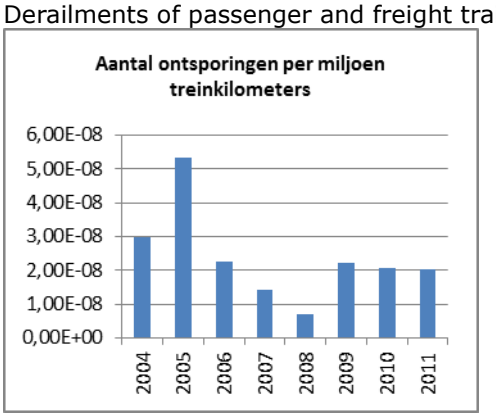
Accidents involving persons caused by rolling stock in motion per million train-km

This is a new definition from 2010 onwards; there is no information from before 2009.

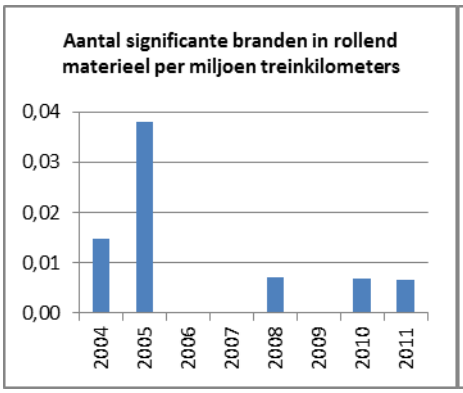


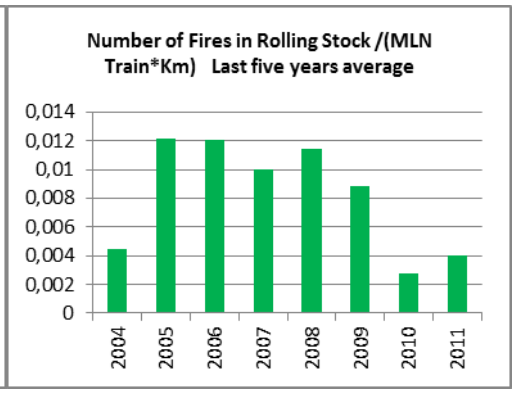


Derailments
Derailments of other rolling stock
Derailments of freight trains
Derailments of passenger trains
Derailments of passenger and freight trains

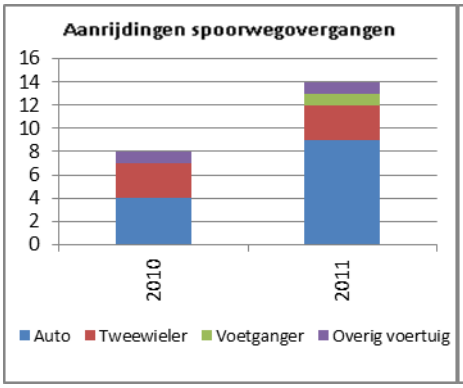


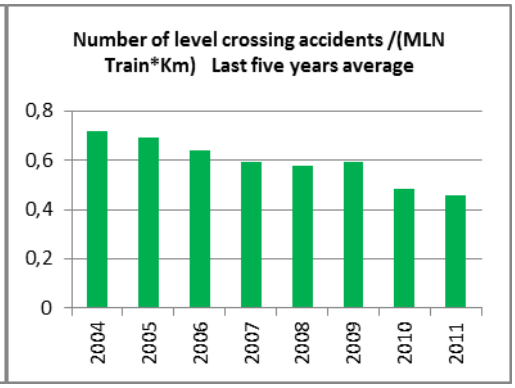
Number of derailments per million train-km



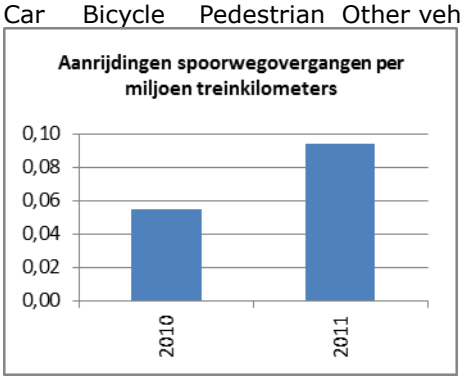


Number of significant fires in rolling stock per million train-km

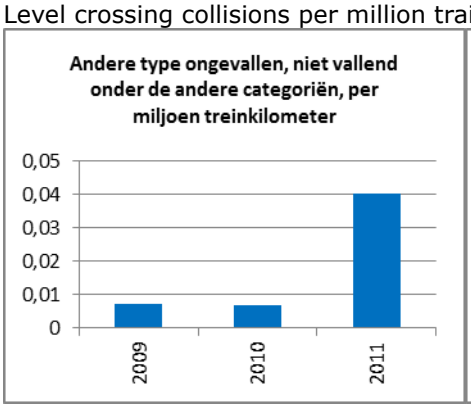


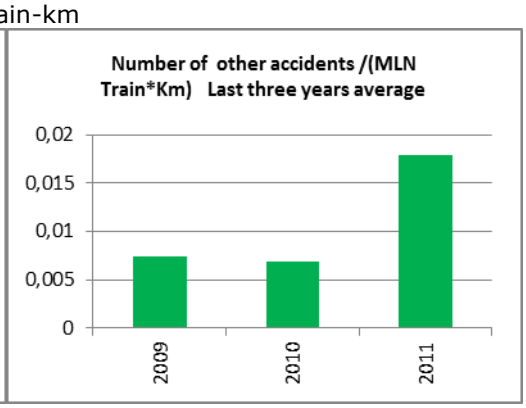


Level crossing collisions
Car Bicycle Pedestrian Other vehicle



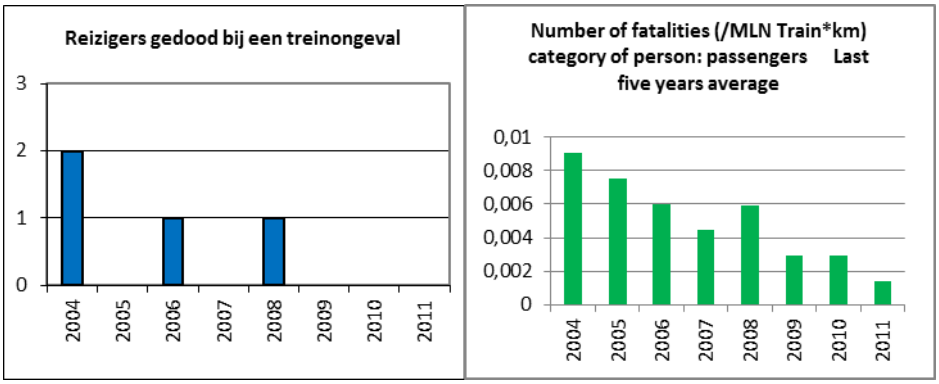
Level crossing collisions per million train-km





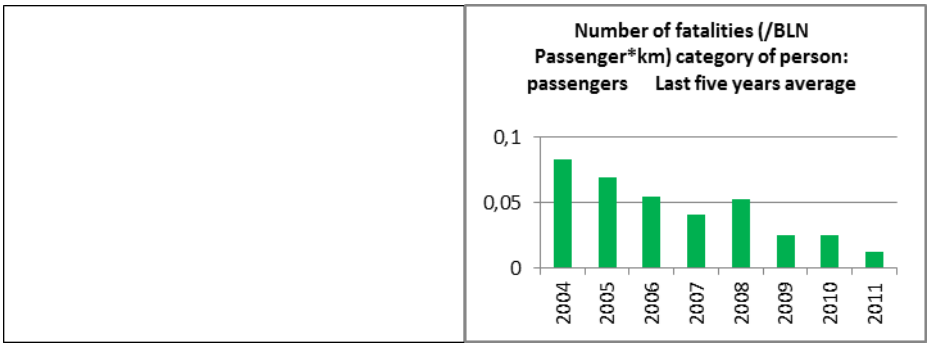
Other types of accidents not falling under other categories, per million train-km

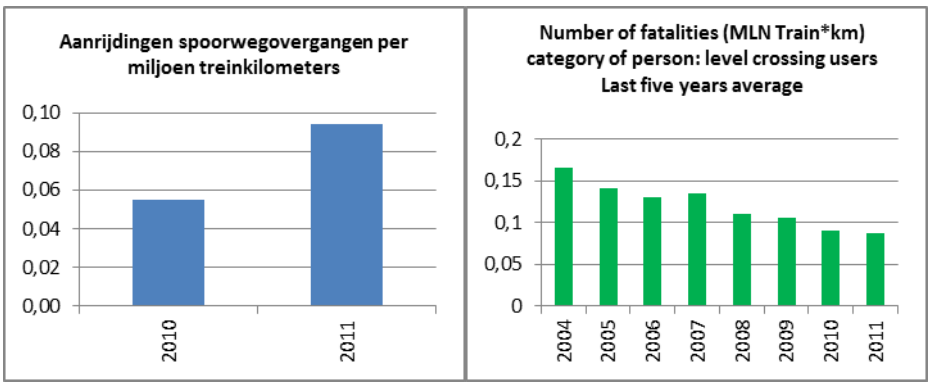
Fatalities broken down by category of people involved



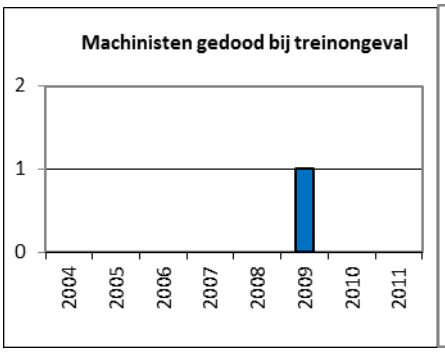
Passengers killed in a train accident

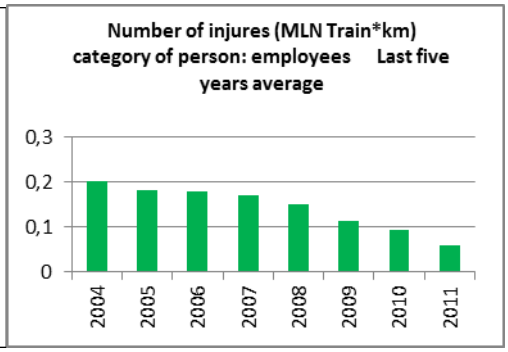
The period up to and including 2008 includes figures for 'platform fatalities'. In subsequent years this category was no longer included, in accordance with the European definition.



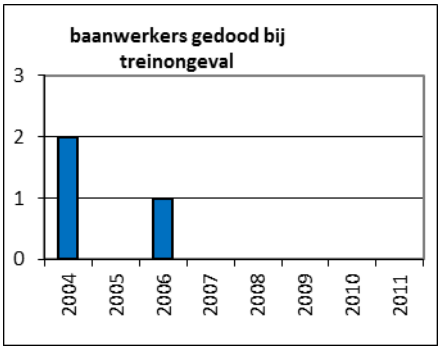


Level crossing collisions per million train-km

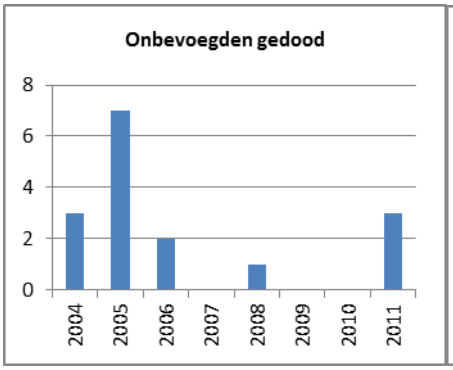


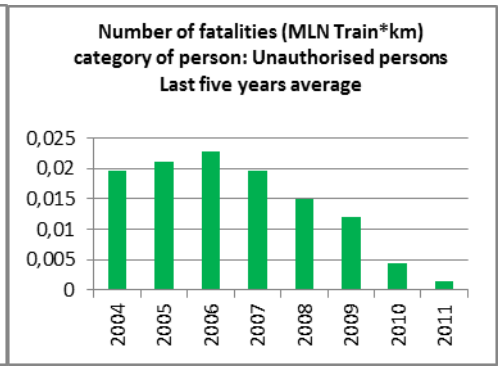


Drivers killed in a train accident

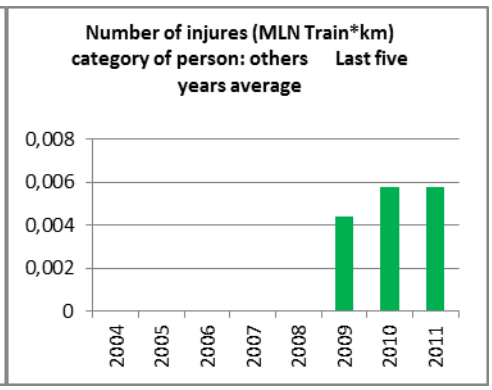


Track workers killed in train accidents

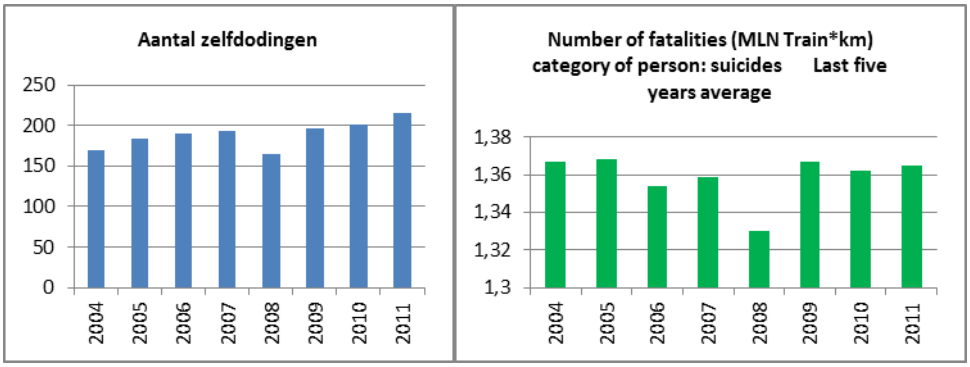




Unauthorised persons fatalities

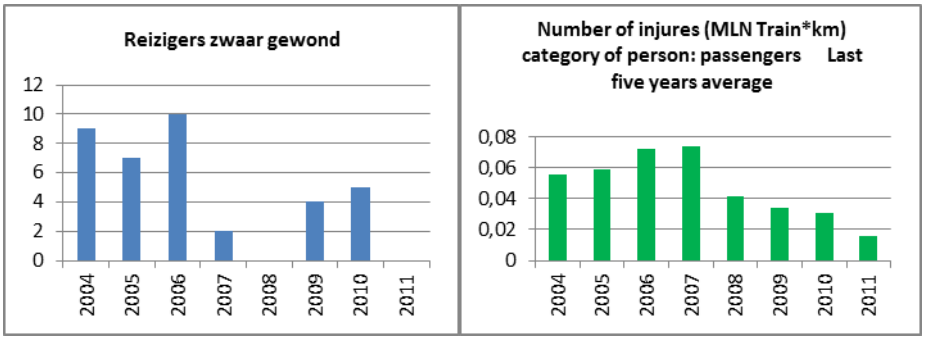


Other fatalities not defined as passengers, employees, level crossing users or unauthorised persons on the railway.

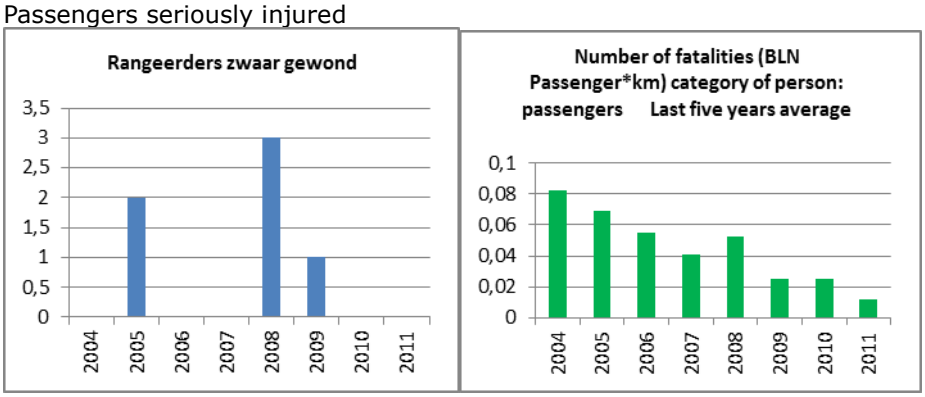


Number of suicides

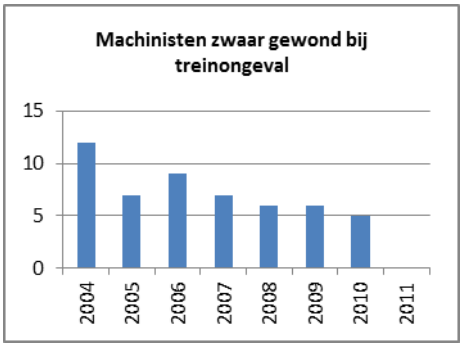
Injuries broken down by category of people involved



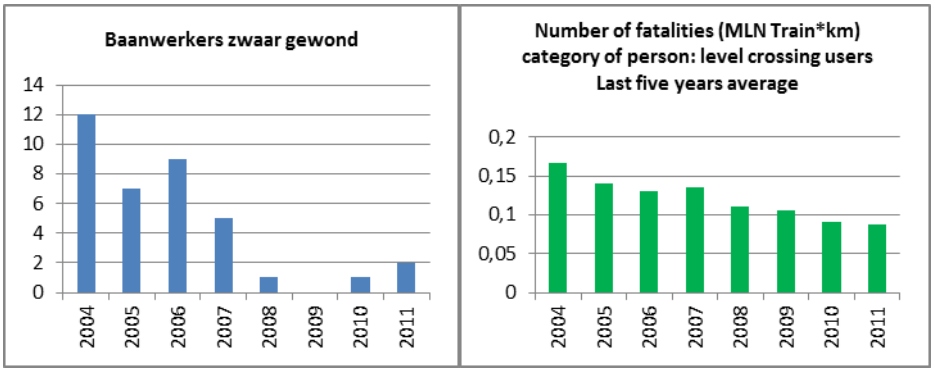
Passengers seriously injured



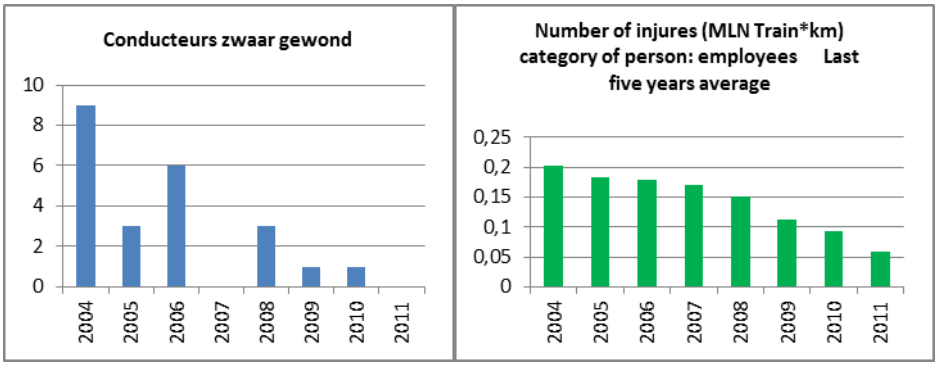
Shunters seriously injured



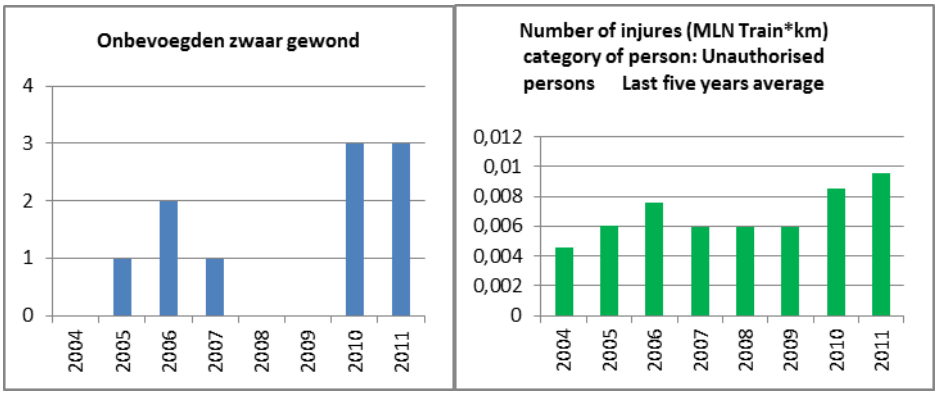
Drivers seriously injured in a train accident



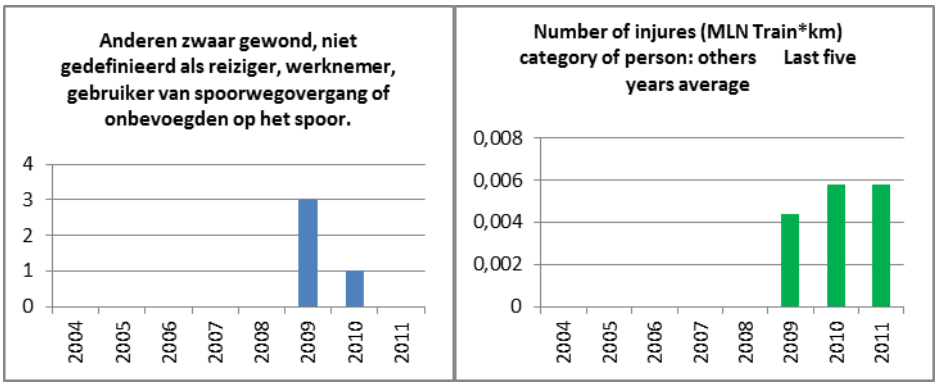
Track workers seriously injured



Guards seriously injured

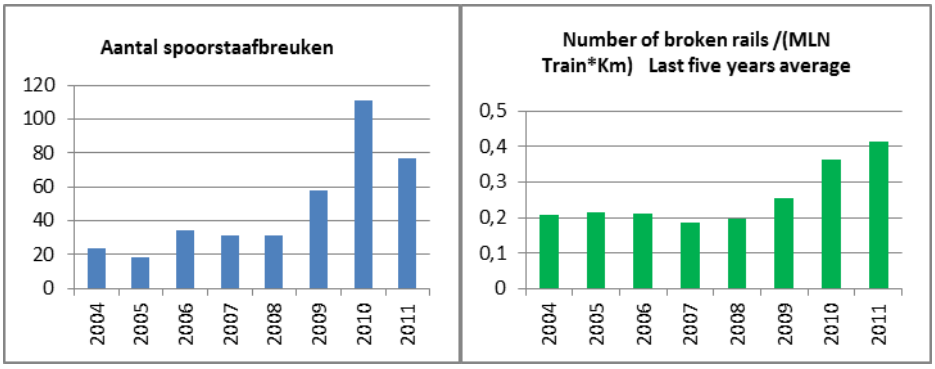


Unauthorised persons seriously injured

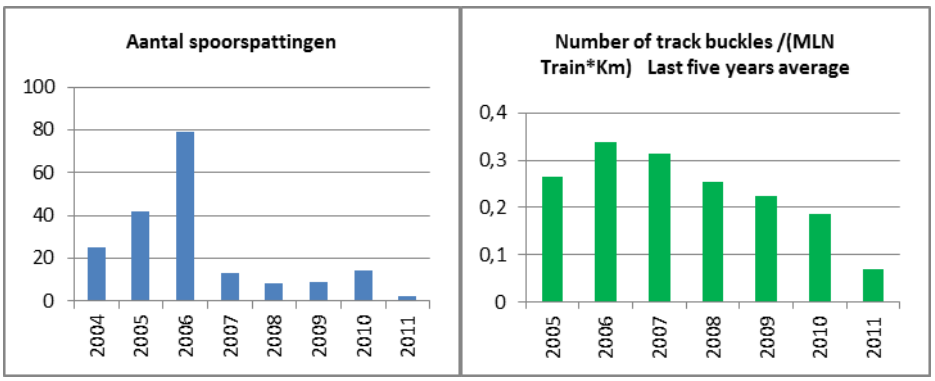


Others seriously injured not defined as passengers, employees, level crossing users or unauthorised persons on the railway

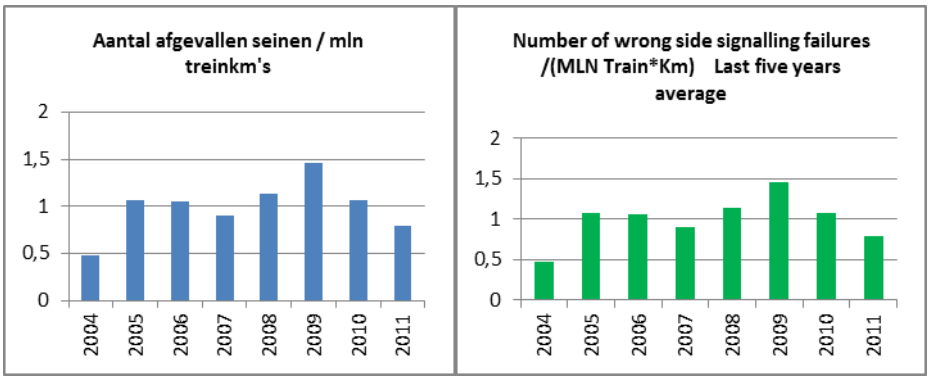
Precursors to accidents



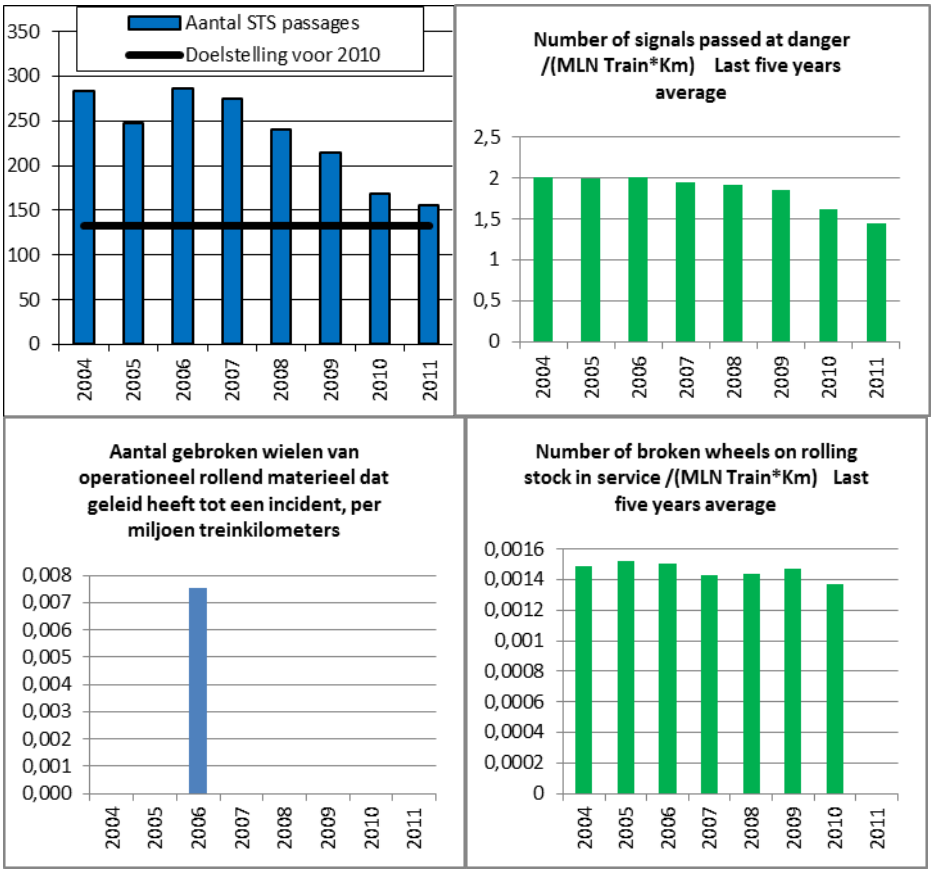
Number of broken rails



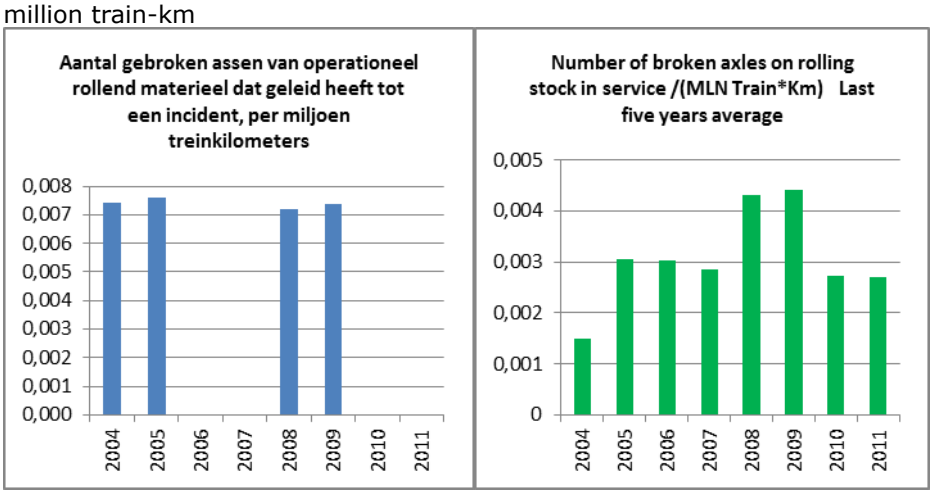
Number of track buckles



Number of wrong side signalling failures / mln train-km

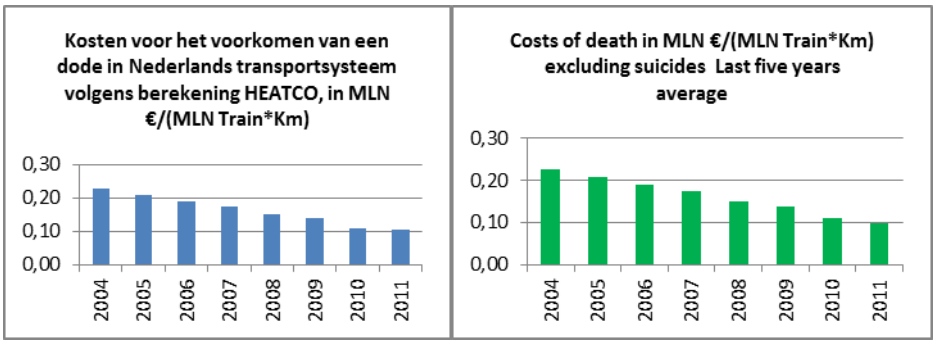


Number of SPADs
Objective for 2010
Number of broken wheels on rolling stock in service resulting in an incident, per million train-km

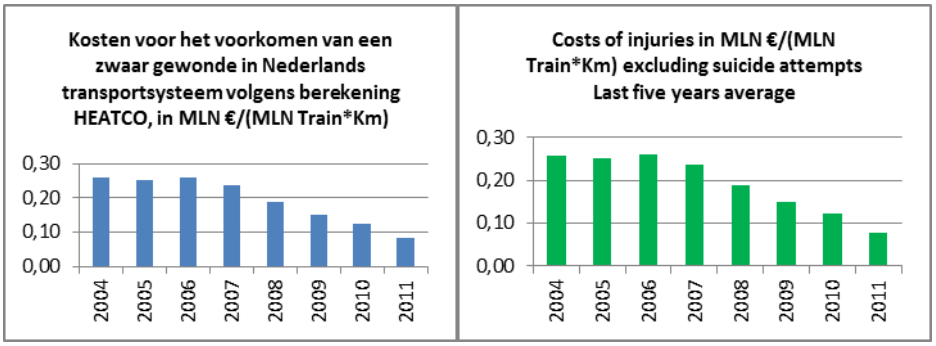


Number of broken axles on rolling stock in service resulting in an incident, per million train-km

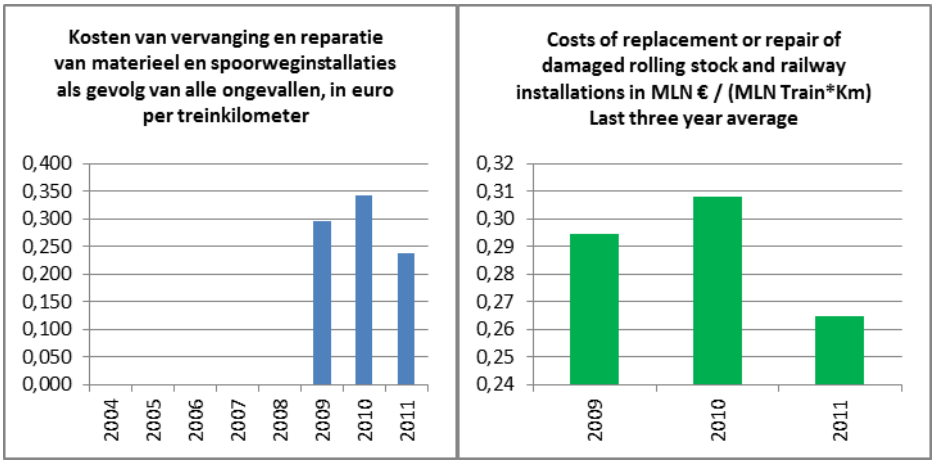
Cost of all accidents, number of working hours of staff and contractors lost as a consequence of accidents



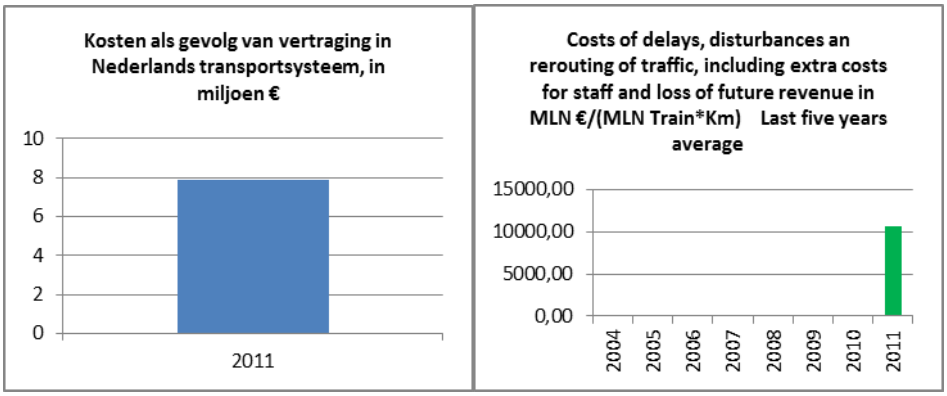
Cost of a death in the Netherlands transport system according to the HEATCO calculation in MLN €/(MLN Train*Km)



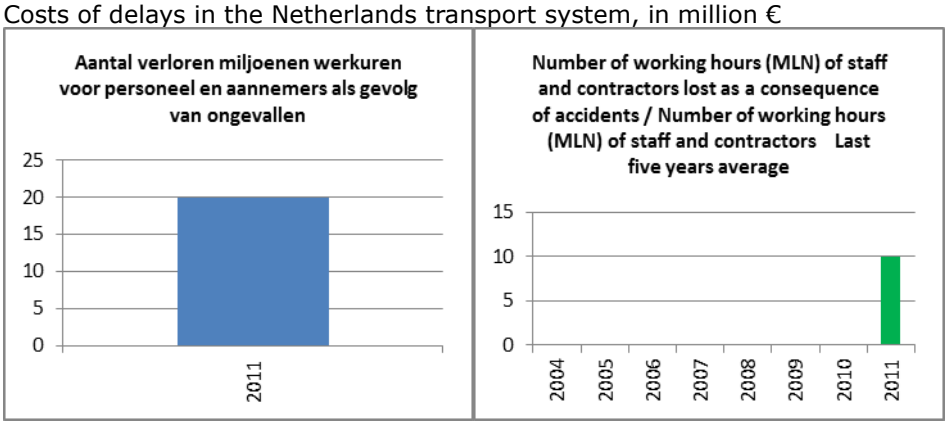
Cost of a serious injury in the Netherlands transport system according to the HEATCO calculation in MLN €/(MLN Train*Km)



Cost of replacement or repair of damaged rolling stock and railway installations in euro per train-km

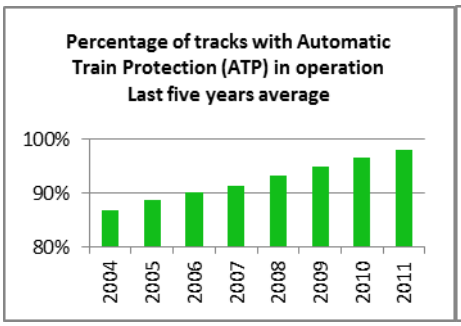


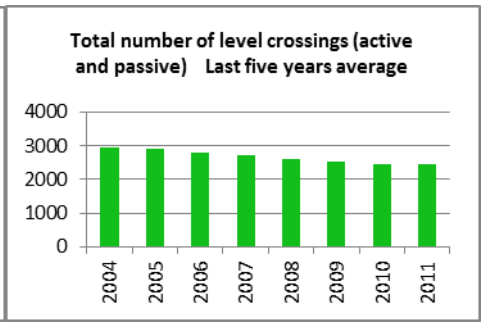
Costs of delays in the Netherlands transport system, in million €

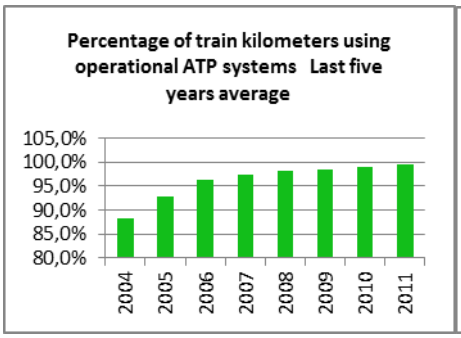


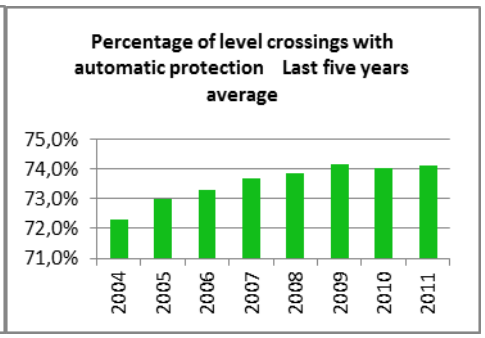
Number of working hours of staff and contractors lost as a consequence of accidents, in millions

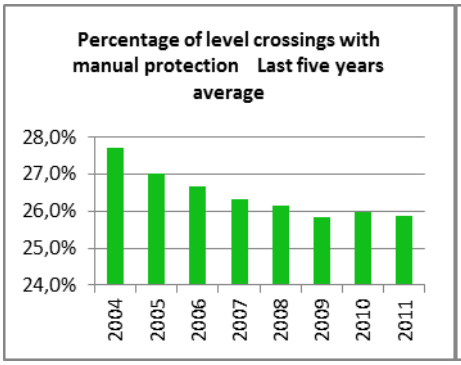
Technical safety of infrastructure and its implementation, management of safety (according to ERA template only)

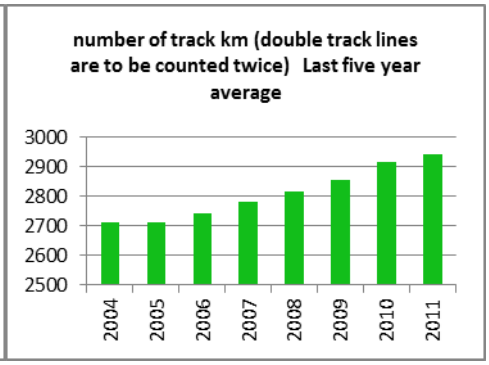


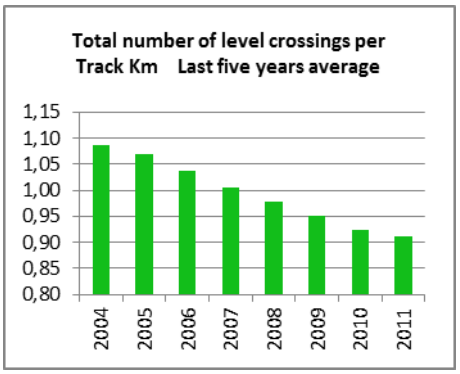


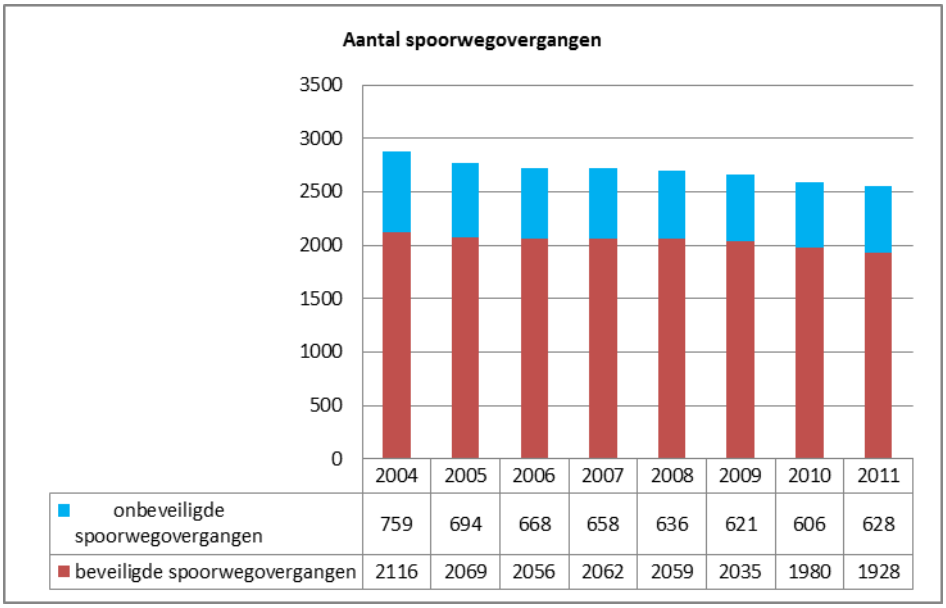












Number of level crossings
Passive level crossings
Active level crossings

Annex C1.2: Calculated NRV and MWA values[10]

The NRV (national reference value) and the MWA (moving weighted averages) are calculated in the same way, but each covers a different period:

2006 2007 2008 2009 2010 2011
|-----|-----|-----|------|-----|-----|
←--------------------→ NRV 2011
←---------------------→ MWA 2011

The NRV 2011 covers the period from 2007 to 2010 inclusive, and the MWA 2011 covers the period 2008 to 2011 inclusive. The NRV 2011 is therefore the same as the MWA for 2010.

Table 14: Calculated national reference values and moving weighted averages for 2011

			Assessment year 2011		
No	**Risk category**	**Description of indicator**	Calculated indicator	NRV	MWA
1.1	Passengers	FWSI among passengers / annum / billion passenger train-km	0.00	3.43	3.04
1.2	Passengers	FWSI among passengers / annum / billion passenger-km	0.00	0.03	0.02
2	Staff	FWSI among railway staff / annum / billion train-km	1.36	1.27	1.24
3.1	Level crossing users	FWSI among level crossing users / annum / billion train-km	70.04	106.92	85.96
3.2	Level crossing users	FWSI among level crossing users / annum / ((train-km*number of level crossings) / line km)	79.98	117.02	94.70
4	Others	FWSI among "others (third parties)" / annum / billion train-km	6.80	2.38	9.56
5	Unauthorised persons	FWSI among unauthorised persons on the railway / annum / billion train-km	22.44	1.91	7.04
6	Society (third parties)	Total FWSI / annum / billion train-km	100.64	119.29	105.70

[10] The stated results may deviate (slightly) from the figures given in reports appearing previously. This is because the background to the figures is incidents on the railway. The interpretation and then categorisation of incident reports is complex and under continuous review.

Annex C1.3: Meeting of the objectives for the risk categories from the Third Framework Document on Rail Safety

To make the analysis easier to read and understand, the meeting of an objective has been 'translated' into "yes" or "no".

The objectives from the *Third Framework Document* generally relate to a moving average (MWA and NRV). Table 15 shows whether the objective of the Third Framework Document has been met. Where such a trend can be calculated with NRV or MWA, this is shown and an entry made under "objective met", otherwise the calculated indicator for 2011 is compared with 2010. The indicator data for 2010 are not shown here. They are contained in the Trend analysis 2010 report.

Table 15: Objectives from the Third Framework Document on Rail Safety

Risk category	Description of indicator	Calculated indicator	NRV	MWA	Objective met
Safe transport (Chapter 5)					
Train passengers safety risk	FWSI among passengers / annum / billion passenger-km	0.00	3.43	3.04	yes
	FWSI among passengers / annum / billion passenger train-km	0.00	0.03	0.02	yes
	FWSI among passengers / annum / billion passenger-km	0			yes
	Number of fatalities among passengers per annum	0			yes
	Number of slight injuries to passengers / annum / billion passenger-km	3.02			yes
Accidents involving passenger, freight and other trains	Total number of serious accidents / million train-km	0.20			no
	Number of serious train collisions / million train-km	0.03			yes
	Number of serious derailments / million train-km	0.01			yes
	Number of serious collisions on level crossings / million train-km	0.10			no
	Number of serious accidents to persons caused by rolling stock in	0.02			no

	motion / million train-km				
	Number of serious fires in rolling stock / million train-km	0.01			yes
	Number of other serious accidents / million train-km	0.04			no
	Number of wrong-side signalling failures / million train-km	0.07			yes
	Number of SPADs (/ million train-km)	1.05			no
	Risk reduction of SPADs 2011 compared with SPADs in 2003, objective 75% reduction.	38%			no
Rail infrastructure	Number of broken rails / million train-km	0.52			yes
	Number of track buckles / million train-km	0.01			yes
Rolling stock	Number of broken wheels on rolling stock in service / million train-km	0.00			yes
	Number of broken axles on rolling stock in service / million train-km	0.00			yes
Railway tunnels	-				
Disaster organisation and crisis management	-				
Security	Audit in 2014				
	Customer rating of social safety: % of passengers rating social safety at higher than 7	0.78			yes
Safe working (Chapter 6)					
Prevention of accidents at work	FWSI among railway staff / annum / billion train-km	1.36	1.27	1.24	yes
	Number of fatalities among track workers	0			yes
	Number of fatalities among shunters	0			yes
	Number of collisions with track workers	0			yes
	Number of electric shocks	2			no
	IF-rate (# accidents with a loss of > 24h * 1 billion / number of working hours inclusive of staff and contractors).	No information			
Training and	Percentage compliance	95.4%			no

competence	with administrative duty of care: possession of the required papers to demonstrate competence or medical and psychological suitability.				
	Percentage compliance for route knowledge of drivers	98%			yes
Safe living (Chapter 7)					
Level crossing safety	FWSI among level crossing users / annum / billion train-km	70.04	107	85.96	yes
	FWSI among level crossing users / annum / ((train-km*number of level crossings) / track-km)	79.98	117	94.70	yes
Unauthorised persons on the railway	FWSI among unauthorised persons on the railway / annum / billion train-km	22.44	1.91	7.04	no
	Number of suicides on the railway	215			no
	Number of suicides on the railway / billion train-km	1 462			no
	FWSI among "others (third parties)" / annum / billion train-km[11]	6.80	2.38	9.56	no
External safety (carriage of dangerous substances)	Number of accidents involving at least one railway vehicle carrying dangerous substances / million train-km	0.09			no
	Number of such accidents in which dangerous goods are released / million train-km	0.01			yes
	Number of fatalities as a result of such accidents	0			yes
Relating to all themes (Chapter 8)					
Overall	Total FWSI / annum / billion train-km (excluding suicides and attempted suicides)	100.64	119	105.70	yes
Integrated cooperation on common areas of responsibility	-				yes

[11] The European definition of "others (third parties)" is: all persons not defined as "passengers", "employees including the staff of contractors", "level crossing users" or "unauthorised persons on railway premises". This includes people living in the neighbourhood and people in the vicinity of the railway. The Netherlands have scored 0 for this indicator for a number of years. It was decided to define the Netherlands NRV as the average for Belgium and Germany.

Innovation	-				
Safety management	-				
Safety culture	Level of compliance with safety rules (NVW) by track workers	74%			yes
	Level of compliance with safety rules (NVW) by shunters	No information			

Annex C2.: Definitions used

Annex C2.1: Definitions according to Directive 91/03

Others (third parties)
All persons not defined as 'passengers', 'employees including the staff of contractors', 'level crossing users' or 'unauthorised persons on railway premises'.
Other types of accidents
All accidents other than those mentioned elsewhere (train collisions, train derailments, at level crossing, accidents to persons caused by rolling stock in motion and fires in rolling stock).

ATP
Automatic Train Protection. ATP is automatically activated to bring the train to a standstill if the train movement detected does not meet a set constraint or constraints.

Audit
European definition: a systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which audit criteria are fulfilled.

Fatality
European definition: means any person killed immediately or dying within 30 days as a result of an accident, excluding suicides.

Accidents to persons caused by rolling stock in motion
Accidents to one or more persons who are either hit by a railway vehicle or by an object attached to, or that has become detached from, the vehicle. Persons who fall from railway vehicles are included, as well as persons who fall or are hit by loose objects when travelling on board vehicles.

Serious accident
An 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.

Serious disruptions to traffic
Suspension of train services on a main railway line for six hours or more

Injuries (seriously injured persons)
Any person injured who was hospitalised for more than 24 hours as a result of an accident, excluding attempted suicides.

Line-km (also: track-km)
Line-km means the length measured in kilometres of the railway network in Member States, whose scope is laid down in Article 2 of Directive 2009/149/EC. For multiple-track railway lines, only the distance between origin and destination is to be counted.

Track buckles (also: buckled rails)
Faults related to the continuum and the geometry of track, requiring track

obstruction or immediate reduction of permitted speed to maintain safety.

Passenger-km
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.

Train
One or more railway vehicles hauled by one or more locomotives or electric railcars, or one railcar travelling 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 travelling on its own, is not considered to be a train.

Train-km
The unit of measure representing the movement of a train over one kilometre. Where available this shall be the actual distance travelled, so that the standard distance between origin and destination is not used. Only the distance on the national territory of the reporting country shall be taken into account.

Rail passenger
Any person, excluding members of the train crew, who makes a trip by rail, including passengers trying to board or alight from a moving train.

Suicide
An act to deliberately injure oneself resulting in death, as recorded and classified by the competent national authority.

Annex C2.2: National definitions

Not applicable in this annual report.

Annex C3.: Abbreviations

ALARP	As low as reasonably practicable
CSI	Common Safety Indicator
CSM	Common Safety Method
DGB	Directoraat-Generaal Bereikbaarheid van het Ministerie van IenM (*Directorate-General of the Ministry of Infrastructure and Environment*)
EC	European Community
ERA	European Railway Agency
FWSI	Fatalities and Weighted Serious Injuries
IenM	Infrastructuur en Milieu (*Infrastructure and Environment*)
ILT	Inspectie Leefomgeving en Transport van het Ministerie van IenM (*Human Environment and Transport Inspectorate of the IenM*)
MLN	Million (10^6)
MWA	Moving weighted average
NRV	National reference value
NSA	National Safety Authority
NVW	Normenkader Veilig Werken (*Framework of Standards on Safe Working*)
OvV	Onderzoeksraad voor Veiligheid (*Safety Board*)
STS	Stop tonend sein (*Stop Signal*)
VPC	Value of preventing a casualty

Annex D.: Status of transposition of European legislation into Netherlands law

Reference:	**Date of e into force**	**Reasons for amendments**	**Description of the amendment:**
Bulletin of Acts, Orders and Decrees 2011, No 218; amendment to Railways Act and Passenger Transport Act 2000	Publication: 13 May 2011, applicable with effect from: Various	Implementation of Directives 2007/ 58/EC, 2007/59/EC/ 2008/57/EC and 2008/110/EC	The change to the law is the transposition of the following Directives: - Railway Safety Directive - Train Drivers Directive - Railway Interoperability Directive - Liberalisation Directive
Bulletin of Acts, Orders and Decrees 2011, No 240: Decree on Railway Staff 2011	Publication: 24 May 2011 applicable with effect from: 15 November 2011	Setting of conditions for railway staff	Setting of conditions concerning the competence and suitability of railway staff
Bulletin of Acts, Orders and Decrees 2011-19262: Regulations on Railway Staff 2011	Publication: 21 October 20 11, applicable with effect from: 15 November 2011	Setting of examination requirements	These regulations cover the examination requirements for medical and psychological examinations as well as the approval of EC professional qualifications
Bulletin of Acts, Orders and Decrees 2011/518: Royal Decree implementing the Railways Act, staff section, Decree on Railway Staff 2011 and Regulations on Railway Staff 2011	Publication: 14 November 2011 applicable with effect from: 15 November 2011	Implementation of Act (Bulletin of Acts, Orders and Decrees 2011, No 218)	This decree brings into force the Railways Act in respect of staff. The Decree on Railway Staff 2011 and the Regulations on Railway Staff 2011 also came into force by the Decree of 15 November 2011.
Bulletin of Acts, Orders and Decrees 2011/436	Publication: 24 August; applicable with effect from 25 Aug. 2011	Implementation of law (Bulletin of Acts, Orders and Decrees 2011, 218)	The extension of the validity of the safety certificate for railway undertakings from three to five years and the implementation of Regulation (EC) No 1371/2007 of the European Parliament and of the Council of23 October 2007 on rail passengers' rights (OJ L 315) (hereinafter: Regulation 1071/1009/EC).

Annex E.: Development of safety certification and authorisation – statistical data

Annex E1.: Safety certificates according to Decision 2004/49/EC

		Total number of certificates	Number of Part A certificates in ERADIS[12]
E1.1 Number of valid Part A safety certificates issued in 2011 and before, valid in 2011		25	23
E1.2 Number of valid Part B safety certificates issued in 2011 and before, valid in 2011	Number of Part B safety certificates, for which Part A was issued in the Netherlands	27	25
	Number of Part B safety certificates, for which Part A was issued outside the Netherlands	5	2

			A	R	P
E1.3 Number of valid Part A safety certificates issued in 2011 and before, valid in 2011		New certificates	2	0	0
		Revised certificates	0	0	0
		Renewed certificates	11	0	1
E.1.4 Number of new Part B safety certificates granted for railway undertakings, issued in 2011	Of which Part A was issued in the Netherlands	New certificates	2	0	0
		Revised certificates	0	0	0
		Renewed certificates	10	0	2
	Of which Part A was issued outside the Netherlands	New certificates	1	0	0
		Revised certificates	0	0	0
		Renewed certificates	4	0	0

[12] ERADIS is an ERA data information system on certificates issued by the National Railway Safety Authorities.

A = Application accepted, certificate issued in 2011.
R = Application rejected, no certificate issued.
P = Application pending, certificate not yet issued in 2011.

	Total certificates revoked in 2011	Number of revoked certificates shown in ERADIS in 2011
E.1.5 Number of Part A safety certificates revoked in 2011	0	0
E.1.6 Number of Part B safety certificates revoked in 2011	1	1

E.1.7 List of countries in which railway undertakings applying for a Part B certificate in the Netherlands obtained their Part A.

Name of railway undertaking	European Member State in which the Part A safety certificate was issued
B-Cargo (NV Nationale Maatschappij der Belgische Spoorwegen)	Belgium
Captrain Belgium	Belgium
Crossrail Benelux	Belgium
DB Regional Bahn NRW	Germany
Häfen und Güterverkehr Köln AG (HGK)	Germany
TX Logistik	Germany
RTS Austria	Austria
Arriva Personenvervoer Nederland BV	Netherlands
BAM Rail B.V.	Netherlands
Connexxion Openbaar Vervoer NV	Netherlands
CRS-Continental Rail Services BV	Netherlands
DB Schenker Rail Nederland NV	Netherlands
Euro-Express Treincharter BV	Netherlands
ERS Railways BV	Netherlands
Eurailscout Inspection & Analysis BV	Netherlands
HSA Beheer NV	Netherlands
HSL Logistiek BV	Netherlands
HTRS (formerly ACTS Nederland BV)	Netherlands
KombiRail Europe BV	Netherlands
Lloyd’s Register Rail Europe BV	Netherlands
Locon Benelux	Netherlands
NS Reizigers B.V.	Netherlands
NedTrain BV	Netherlands
Rotterdam Rail Feeding B.V.	Netherlands
Rurtalbahn Benelux BV	Netherlands
Shunter Tractie BV	Netherlands
Spitzke Spoorbouw BV	Netherlands
Strukton Rail Materieel BV	Netherlands
Syntus BV	Netherlands
Veolia Transport Rail BV	Netherlands
VolkerRail Nederland BV	Netherlands

Annex E2.: Safety authorisations in accordance with Decision 2004/49/EC

	Total number of safety authorisations
E2.1 Number of valid safety authorisations in 2011 and in previous years still valid at the end of 2011	1

		A	R	P
E2.2 Number of applications for safety authorisations granted to infrastructure managers, issued in 2011	New certificates	0	0	0
	Revised certificates	0	0	0
	Renewed certificates	1	0	0

A = Application accepted, certificate issued in 2011.
R = Application rejected, no certificate issued.
P = Application pending, certificate not yet issued in 2011.

E2.3 Number of applications for safety authorisations from an infrastructure manager rejected in2011	0

Annex E3./E4.: Procedural aspects – Safety certificates Parts A and B

		New	Revised	Reissued
Average time from receipt of an application until issue of a Part A safety certificate		15.6 weeks	2	1
Average time from receipt of an application until issue of a Part B safety certificate	Where Part A was issued in the Netherlands	15.6 weeks	2	1
	Where Part B was issued outside the Netherlands	40	0	0

Annex E5.: Procedural aspects – Safety authorisation of infrastructure managers

		New	Revised	Reissued
Average time from receipt of an application until issue of a safety authorisation		-	-	23