

Inspectie Leefomgeving en Transport Ministerie van Infrastructuur en Milieu

Netherlands NSA Annual Report 2012

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A . Foreword

1

The annual safety report

This report is the 2012 annual safety report of the Netherlands authority for railway safety (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 has been assigned and mandated to the Directorate-General for Accessibility (Directoraat-Generaal Bereikbaarheid - DGB) of the Ministry of Infrastructure and the Environment (Ministerie van Infrastructure 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 annual report also provides a picture of the railway system in the Netherlands in terms of licensing, operators and vehicles.

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 ILT.

As regards structure, this annual safety follows the guidelines of the ERA for the 'NSA annual safety report'. Publication of this annual safety report fulfils the requirement of Article 18 of the European Railway Safety Directive.

2

Summary 2012

On 21 April 2012, two trains (an intercity and a sprinter) belonging to NS Reizigers were involved in a head-on collision at Amsterdam Westerpark. There was one fatality and more than one hundred people were injured, dozens of them seriously. There was also considerable material damage. NS Reizigers members of staff were also injured. An investigation by the Dutch Safety Board found that the accident was caused not only by the passing of a stop signal (signal passed at danger, SPAD) but also by tight scheduling in a temporary single-track situation on account of work on the tracks. In October 2012 the ILT placed NS Reizigers and the infrastructure manager ProRail under tighter supervision.

In the aftermath of the accident at Amsterdam Westerpark the approach to reducing SPADs was considered in greater depth. During 2012 the number of SPADs increased for the first time in a number of years. The industry aim of a 50% reduction in the 2003 figures and a 75% reduction in the 2003 risk level has not yet been achieved. The ILT is monitoring this objective together with those of the ProRail improvement plan. The measures resulting from the Amsterdam Westerpark collision include providing more signals with the upgraded version of the Netherlands ATC system, pending the roll-out of ERTMS.

In February 2012 the *Tijdelijke commissie onderhoud en innovatie spoor* [Temporary Commission on Rail Maintenance and Innovation] (Kuiken Commission; February 2012) reported on its work. Government policy includes the introduction of ERTMS from 2016 onwards. It has also been decided on the recommendation of the Kuiken Commission to instruct the ILT to perform a five-yearly review of the physical quality and safety of the Netherlands rail infrastructure (main-line railway). The first review is scheduled for 2013.

2012 saw the first journey by a V250 ('Fyra') on the high-speed route (HSL) between Amsterdam and Brussels. During the winter of 2012/2013 serious problems arose with these trains, both in the Netherlands and in Belgium. This led to the use of these trains being halted in both countries. At the time of publication of this annual report both countries have decided to suspend the V250 project and there is an ongoing legal dispute between the Netherlands and Belgium and the manufacturer Ansaldo Breda concerning the financial consequences. The House of Representatives has decided to launch a parliamentary enquiry into events surrounding the V250, which will look at the approval process amongst other issues.

Following a brief review by the ILT of the effects of the use of new forms of contract by the infrastructure managers for the outsourcing of management and maintenance tasks to process contractors, there will be further investigation of this in 2013.

With regard to licensing, in 2012 the most notable developments were the issue of the first train driving licence (see Annexe D to this annual report) and the approval of training institutions for driver training. A start was also made on approval of entities in charge of maintenance.

The safety authorisation for the Hansa Line between Zwolle and Lelystad was also issued in 2012.

In 2012, safety performance on all eight of the main safety indicators was 'acceptable' under the European system. But here the figures are taken over a number of years and a margin of 20% is used. Consideration of the objective of 'continuous improvement' from the Third Framework Document on Rail Safety indicates that over 2012 the objective was not achieved for five of the eight main

safety indicators (in the 'passengers', 'level crossing users', 'railway staff' and 'others' categories). See Table 1.

Table 1: Main indicators for rail safety. If the MWA value is lower than or equal to the NRV value, then there is considered to be 'continuous improvement' according to the objectives of the Third Framework Document on Rail Safety (3KR) (result in column 3KR). If the MWA value is higher than the NRV value, but still within the margin of 20%, then according to the European system there has been an 'acceptable safety performance'.

The references to risk categories relate to the chapters of the Third Framework Document on Rail Safety.

Risk category	Description of indicator	Indicator calculated for 2012	NRV 2006 - 2011	MWA 2008 - 2012	3KR achie ved
<i>Safe transport (Chapter 5)</i>					
Train passengers safety risk	FWSI among passengers / annum / billion passenger train-km	27.46	6.10	6.57	no
	FWSI among passengers / annum / billion passenger- km	0.22	0.05	0.05	yes
<i>Safe working</i> (Chapter 6)					
Prevention of accidents at work	FWSI among railway staff / annum / billion train-km	5.34	1.89	2.25	no
Safe living (Chapter 7)					
Level crossing safety	FWSI among level crossing users / annum / billion train-km	92.19	97.84	97.05	yes
	FWSI among level crossing users / annum / ((train- km*number of level crossings) / track-km)	110.44	106.3	108.7	no
Unauthorised persons on the railway	FWSI among unauthorised persons on the railway / annum / billion train-km	8.02	6.76	7.21	no
	FWSI among `others (third parties)' / annum / billion train-km	8.02	7.84	7.99	no
<i>Relating to all themes (Chapter 8)</i>					
Overall	Total FWSI / annum / billion train-km (excluding suicides and attempted suicides)	139	129	127	yes

B . Introduction

1

Objective, content and process

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 2012.
- Review the number of accidents and incidents in the context of the objectives set out in the Third Framework Document on Rail Safety.
- Provide an insight into 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 common safety targets and describes how the safety indicators are calculated (see Annexe C1.2). The Human Environment and Transport Inspectorate (ILT) sends the results of the analysis to the ERA.

In 2010 the House of Representatives established the Third Framework Document on Rail Safety.¹ For each indicator, this document sets an objective or target value which corresponds to the European objective. The framework document contains quantitative target values (targets) for the risks that various risk categories may incur. Examples of risk categories are passengers, railway staff and level crossing users. The European definitions have been used for all risk category groups analysed. An overview of these is included in Annexe C2, supplemented by further definitions.

The main target audiences of the annual safety report are:

- The European Railway Agency.
- The Minister of Infrastructure and the Environment.

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

Content

The content of the annual safety report 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.

Definitions

Before the Third Framework Document on Rail Safety was published the Netherlands used different definitions for large a number of indicators. The introduction of the European definitions to some extent makes it impossible to identify trends. A limited number of indicators ('passengers', 'others', 'unauthorised persons') were

¹The 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.

recategorised in 2013 so that identifying trends for these indicators is once again possible. This was done for a few indicators only because recategorisation is very labour-intensive (incidents in the past must be reinterpreted) and because for various reasons these particular indicators needed to be reassessed. The effect is that for these categories of 'passengers', 'others' and 'unauthorised persons' the figures presented here may well deviate from those in the ILT publications on 2010 and 2011.

Deviating figures

The annual figures on rail safety have been compiled as carefully as possible from incident reports from railway undertakings. The interpretation of these data and the associated categorisation is an intensive process in which continuous review is an essential factor. More in-depth analysis can lead to recategorisation (see above), so that the figures presented may deviate from figures published during the year or the year before.

The ERA system for calculating the National Reference Values (NRV) and the Moving Weighted Averages (MWA) provides for a different assessment period from that used in previous years².

Interpretation notes

The starting point for the organisation of this annual report is the EN 2012 v15 template prepared by the ERA, supplemented by the themes of safe transport, safe working and safe living from the Third Framework Document on Rail Safety (see Chapter D.2.). Where the structure was difficult to understand it has been amended (slightly).

- The definitions used for the safety categories can be found in Annexe C2.
- Graphs are used differently from in the annual report for 2011. The ERA requires graphs in which absolute figures are related to train kilometres. These graphs can be found in Annexe C1.1. Graphs providing absolute figures only, for ease of understanding, are this time included in the detailed trend analysis in Chapter D.2.
- 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 Annexe C1.2, together with the calculation method.
- The overview of the objectives of the Third Framework Document can be found in Annexe C1.3.

Method used and collection of information

Scope of the analysis

The annual report applies the definitions of the ERA. This means, amongst other things, that the analysis relates to events on the main-line railway. The Decision 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 railway do not fall within the definitions of the ERA and because the Third Framework Document on Rail Safety is based on these definitions, data on these areas are not included in this analysis.

² In the ILT publication 'Railveiligheidsindicatoren 2012' (Rail Safety Indicators 2012) which appeared in June 2013 this amended assessment period is not yet applied. As a result the calculated values presented there differ from those of the present annual report. The 'Railveiligheidsindicatoren 2012' is based on the data calculated in May 2013 so this may also result in deviations.

European reference values methodology

All definitions and abbreviations are included in Annexe 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 shall determine the common safety targets and methods, and how these will 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 so-called 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 for different risk categories National Reference Values (NRV). These values are based on injuries and traffic performance on the railway. Member States strive to ensure that the Moving Weighted Average (MWA) is lower than the NRV. The 2012 year was reviewed in the context of the reference values for 2006 - 2012. A deviation of 20% is acceptable for an 'acceptable safety performance' evaluation.

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. Annexe C1.2 provides an overview of the NRVs, the values of the indicators and the MWAs.

Apart from the NRV and the MWA the 2012 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 + $(0.1 \times number of serious injuries)$.

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 for 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. Additionally the document sets as an objective 'continuous improvement', which can only be achieved if the MWA value is less than or equal to the NRV. By deviation from the 'acceptable safety performance' evaluation used in the European methodology, therefore, no 20% margin is allowed for here.

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 investigation and analysis. In addition the Inspectorate uses its own inspection data on accidents, inspections, railways workers, tunnel safety, stop signal passages and so on. Figure 1 gives an overview of the information system for accident and incident data which provide the basic information for the analyses in other chapters.



Figure 1: Information flows for accident, incident and other data

NL	Target language
Externe brongegevens	External source data
ProRail Monitor Systeem	ProRail Monitor System
Vastgelegde afwijkingen door	Deviations discovered by
Treindienst leiders	train service managers
Melding Bijzonder Voorval	Special incident report
Oproep IVW wachtdienst	Call to IVW on-call service
IVW gegevens	IVW data
Toevoeging IVW trefwoorden	Entry of IVW key words
Onderzoek en Analyse	Investigation and analysis
Vooronderzoek	Preliminary investigation
Bedrijfsonderzoek	Company investigation
Uitgebreid onderzoek	In-depth investigation
Standaardonderzoek	Standard investigation
STS analyse	STS analysis
Onderzoek ter plaatse ongeval of incident	On-site investigation of accident or incident
IVW databases voor spoorweg ongevallen en incidenten	IVW databases for rail accidents and incidents
Kwaliteit gegevens	Data quality
Check interne consistentie	Check internal consistency
Check consistentie ProRail data	Check ProRail data for consistency
Overwegen Letsel	Level crossing injuries
Check consistentie NSR data	Check NSR data for consistency
Suïcide	Suicides

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 are safety-related and will result in a preliminary investigation being carried out.

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

Using checklists, the ILT performs standard inspections into STS passages and level crossing accidents. The inspectorate produces a separate analysis of STS passages.

The information from the 'special incident reports' and the results of on-the-spot inspection are compared in order to check that the data are complete and consistent. Then the Inspectorate reviews these in the context of relevance criteria. The Inspectorate may decide to perform a more thorough investigation among those involved in an incident.

Each year by 30 June at the latest, the ILT receives from the carriers the safety reports required by law. The data on incidents from these reports are compared with the incident data that is already known and included in the analysis.

The Inspectorate performs consistency checks with ProRail, NS Reizigers (passenger division) and NS Nazorg (aftercare division) in order to verify and compare incident data.

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 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 costing € 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 \in 150 000 for repair or replacement are not relevant for this annual report.

2

Information on the railway infrastructure

Main-line railway network (kilometres)	3063
Main-line train-kilometres (2012)	149.7 million
Number of main-line passenger transport railway undertakings	8
Main-line passenger-kilometres (2012)	17.25 billion
Number of freight transport railway undertakings	22
Freight train-kilometres (2012)	12.8 million
Number of main-line infrastructure managers (subject to licensing)	1
Number of main-line infrastructure managers (other)	1
Number of main-line contractors	21

The legislation makes a distinction between main-line railway undertakings and nonmain-line railway undertakings. This annual report concerns the main-line railways only.

The definition of what is covered by the term main-line railway is made by the Minister of Infrastructure and the Environment and roughly covers 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 railway are tram, metro and museum lines, railways on company premises and in repair workshops and special lines.

The main-line railway is characterised for the most part by a screened and controllable main line and the same applies to the stations.

Despite the growth in rail transport in the last ten years, there has not been a proportional drop in safety. The capacity of the infrastructure increasingly seems to be a limiting factor. The growth in rail traffic also results in greater demands on railway management and maintenance.

The inspection duty of the ILT for tram and metro (Railways Act 1875) is limited to inter-city tram and light rail lines (including RandstadRail, Amstelveenlijn, Utrecht-Nieuwegein-IJsselstein, HTM-lijn 1, 15 and 19) and the two metros in Rotterdam and Amsterdam. This category also covers a number of carriers with heritage rolling stock.

On the basis of the Local Railways Act, which was adopted by the House of Representatives in July 2013, the ILT was appointed by the Minister as supervisor. Under this act the decentralised authorities are responsible for the construction, management, maintenance and supervision of local railways. The act allows for a transitional period of two years, during which decentralised authorities must regulate for management and supervision. Designation of those railways which are covered by the Local Railways Act has yet to take place. It is expected that all tram, metro and light rail lines will be affected, therefore including the urban tram lines in the Amsterdam, Haaglanden, Rijnmond and Utrecht regions which thus far have not been under the supervision of the ILT. The area and the number of parties under supervision will therefore expand. The ILT operates within the local railways on behalf of the decentralised authorities.

Map of the network

The Netherlands infrastructure manager ProRail issues the attached map. Details of the railway infrastructure and the number of train-km are also given by ProRail. See Annexe A1.

List of railway undertakings and infrastructure managers

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

3

Summary – General Trend Analysis

In general it can be said that the number of injuries in almost all categories increased. For 'passengers' the train collision at Amsterdam Westerpark was mainly responsible for a considerable and sporadic increase in injuries. The number of injuries to 'level crossing users' increased.

Within the three themes of the Third Framework Document on Rail Safety (Safe transport, Safe working and Safe living) the developments in 2012 compared with 2011 were as follows:

- Safe transport: In 2012 one passenger died as a result of a train collision. Within the theme overall 2012 saw an increase in the number of injuries.
- Safe working: This theme saw a rise during 2012 in the number of injuries, mainly to track workers.
- Safe living: Here again an increase can be seen in the number of injuries, especially to level crossing users. The number of suicides on the railway increased over 2011.

Table 2: Passenger injuries 2012

Passengers	Fatalities	Serious injuries
Total (European definition)	1	28

Table 3: Injuries in society as a whole on and around the railway in 2012, excluding suicides and attempted suicides.

Society	Fatalities	Serious injuries	Slight injuries
Passengers	1	28	204 ³
Railway staff	0	9	27
Level crossing users	13	8	8
Unauthorised persons on the	1	2	1
railway			
Others	1	2	0
Total (European definition)	16	49	240

Table 4: Incidents in 2012 excluding suicides and attempted suicides.

Туре	Total (relevant*)	Other accident (not relevant*)
Collision	3 ⁴	14
Derailment	0	12
Level crossing accident / collisions	19	50
Accidents to persons caused by rolling stock in motion	5	5 ⁵
Fires in rolling stock	0	6
Other types of accidents	3	55

*For the relevance criteria see page 14.

³ The earlier publication Railveiligheidsindicatoren 2012 gives the number of slight injuries as 203; a more in-depth analysis has revealed a higher number.

⁴ Idem for the number of relevant collisions.

⁵ With 5 slight injuries, but figure not included in the total number of relevant accidents.

Table 5: Near-collisions

Near-collision involving	2012
Infrastructure / employee	10
Tooling	0
Machinery	2
Railway construction materials	0
Other vehicles	4
Total	16

Table 6: Injuries to level crossing users 2012

Mode	Collision	Fatal injuries	Serious injuries	Slight injuries
Motor vehicle driver	20	3	5	1
Cyclist	14	3	0	4
Pedestrian	12 ⁶	4	2	3
Other drivers	4	3	1	0
Total	50	13	8	8

Table 7: Injuries to level crossing users 2012 according to European definition

Mode	Collision	Fatalities	Serious injuries
Motor vehicle driver	6	3	5
Cyclist	3	3	0
Pedestrian	6	4	2
Other drivers	3	3	1
Total (European definition)	18	13	8

Table 8: Staff injuries in 2012

Railway staff	Fatalities	Serious injuries
Track workers	0	7 ⁷
Shunters	0	1
Engine drivers	0	1
Guards	0	0
Other	0	0
Total	0	9

⁶ A pedestrian was hit but this did not result in injury.
⁷ The earlier publication Railveiligheidsindicatoren 2012 gives the number of serious injuries as 5; a more in-depth analysis has revealed a higher number.

C . Organisation

1

Introduction to the organisation

The Netherlands National Safety Authority (NSA) is the Ministry of Infrastructure and the Environment (Ministerie van Infrastructuur en Milieu - IenM). The duty of NSA is 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 said ministry. The Ministry of Infrastructure and the Environment assigns a total of 45 FTE to NSA duties, the vast majority of whom are based at the Human Environment and Transport Inspectorate.

It is the duty of the DGB to monitor, promote and develop legislation and regulations for improving the infrastructure, rolling stock, operating procedures and rail safety.

The ILT inter alia is responsible for supervision and enforcement of the Railways Act. The Inspectorate takes care of approvals for the Netherlands rail system by issuing authorisations for engine drivers, operators, rolling stock and infrastructure.

The Safety Board (Onderzoeksraad voor Veiligheid – OvV) was set up under a separate act (OvV statute law). 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 society.

2 Organisation chart

See Annexe B.

1

D . The development of railway safety

Initiatives to maintain / improve safety performance

The most important initiatives for maintaining safety during the 2012 year are shown in this section. Table 9 shows the initiatives resulting from accidents or near-misses.

Safety initiatives or voluntary initiatives for reasons other than accidents or nearmisses are shown in Table 10.

Accidents / near-misses resulting in an initiative			Resulting safety initiative
Date	Location	Description of the event	
6-03- 2012	Groningen Lo- splaats work area	Due to a wrongly con- nected point a freight train carrying hazard- ous substances entered the wrong track.	Procedures for infrastruc- ture projects have been tightened. ILT is carrying out an investigation into protective security in new construction projects.
21-4- 2012	Amsterdam	Train collision as a re- sult of passing a stop signal	The NSR and ProRail are tightening their planning standards. ILT is applying tighter supervision.
12-06- 2012	Maastricht	Train ran past a stop signal and across an open level crossing	Timetable planning has been adapted, ATB-Vv dropout is being monitored
28-11- 2012	Leiden	Train collision as a re- sult of slippery tracks	Roughness of rails meas- ured and adapted to the standard. The shunting programme has been adapted.

Table 9: Initiatives resulting from accidents or near-misses

Table 10: Safety initiatives or voluntary initiatives for reasons other than accidents or near-misses.

		Rail supervision interventions 2012	
	Description of concern	Description of reason for initiative	The following safety ini- tiative was taken
1	Working con- ditions	Driver (mcn) collision danger at TC	Warning Article 3.2
14	Working con- ditions	Collision with lorry, after track incorrectly brought into service during activities.	Fine report / shutdown

22	Working con- ditions	Automatic half-barrier level crossing if guaranteed warning given not to enter danger zone when gate is closed	Shutdown immediately re- voked
28	Working con- ditions	Track worker hit by mcn work train	Dealt with by ISZW
3	Safe use of railways	Mastery of railway vehicle usage procedure	Intended provisional en- forcement order
8	Working con- ditions	Bridge inspection + border guard	Preventive shutdown
9	Safe use of railways	German-speaking driver with no command of the language	Administrative enforcement
10	Safe use of railways	German-speaking driver with no command of the language	Intended provisional en- forcement order € 500
11	Safe use of railways	German-speaking driver with no command of the language	Intended provisional en- forcement order € 500
7	Safe use of railways	Cracked brake blocks	Allowed to rest
19	Working con- ditions	Self-signalling short-circuit link positioned in wrong track	Warning Article 3.2
25	Working con- ditions	Instruction/use of hand-held terminal/use of short-circuit link	Fine report following warn- ing
17	Working con- ditions	Instruction/use of hand-held terminal/use of short-circuit link	Warning Article 3.2
16	Working con- ditions	Short-circuit link on wrong track (while Irregularity Report being drawn up)	Shutdown
21	Working con- ditions	Crane without boundary to the side; inadequate risk inventory and evaluation (RI&E)	Shutdown
24	Working con- ditions	Crane on lorry entered out of service track and missing sign 513	Warning Article 3.2
8	Safe use of railways	Light locomotives G2000 and G1206	Administrative enforcement
5	Safe use of railways	Unauthorised rolling stock (DDAR) with 1700 locomotive	Fine report € 30 000
4	Safe use of railways	Unauthorised locomotive G2000	Fine report € 30 000
27	Working con- ditions	Inadequate safety instruction on 'Beheerste Toelating' (Managed Approval).	Warning Article 3.2

6	Working con- ditions	Inadequate Workplace Safety Instruction regarding changed rail traffic	Preventive shutdown
2	Safe use of railways	Incorrect backing movement	Intended provisional en- forcement order
20	Working con- ditions	Incorrect action by border guard (200 m) and no valid instruction - entries to zone B	Preventive shutdown
1	Safe use of railways	Incorrect departure process	Provisional enforcement order € 500
3	Working con- ditions	Incorrect indication of position of self-signalling short-circuit link	Warning Article 3.2
6	Safe use of railways	Insufficient maintenance guar- antee (Article 46 Railways Act)	Intended provisional en- forcement order
12	Working con- ditions	Platform painting without local RI&E	Fine report following warn- ing
7	Working con- ditions	Positioning screening acting as 'own lookout'/2 man	Preventive shutdown
10	Working con- ditions	Acting as own lookout for < 30 sec visibility, garaging point across tracks	Fine report + shutdown
23	Working con- ditions	Points inspection not conform- ing to workplace safety in- struction	Fine report / shutdown
11	Working con- ditions	Wrong track BD taken due to miscommunication	Preventive shutdown
2	Working con- ditions	Confusion between Workplace Safety Instruction - Work Train Instructions - pictorial instruc- tions	Warning Article 3.2
4	Working con- ditions	Confusion between Workplace Safety Instructions and Work Train Instructions sign 513	Non-compliance Article 3.2
5	Working con- ditions	Confusion between Workplace Safety Instructions and Work Train Instructions sign 513	Warning Article 3.2
26	Working con- ditions	Preparatory activities without safety organisation	Warning Article 3.2
15	Working con- ditions	Working as own lookout dur- ing the night (out-of-service area) - spraying	Fine report / shutdown
18	Working con- ditions	Activities in zone B (railway bridge) without screen- ing/marking out	Preventive shutdown

9	Working con- ditions	Acting as own lookout for > 4 minutes when working on a point fault	Preventive shutdown
13	Working con- ditions	Self-signalling short-circuit link placed on wrong track / danger of collision	Shutdown

2

Detailed trend analysis

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

Due to changes in the definitions of the terms used in a number of categories a comparison of trends is not possible. As regards the 'passengers', 'others', 'unauthorised persons' and 'other passengers'⁸ categories, the ILT has reconsidered the incident reports for the years 2007 to 2011 inclusive. This has led to a recategorisation of a number of incidents in each year and thus to adjustments to the annual figures, as well as to the NRVs and MWAs. As a result, the historic data now presented for these categories may differ from the figures published in previous years.

Safe transport

For the points covered by the theme of safe transport it is generally the case that there has been an increase in the number of injuries. In 2012 one person died in a train collision.

Compared with 2011, in the year 2012 the following developments took place in relation to safe transport:

- The number of rail passengers sustaining an injury rose from 0 serious and 51 slight injuries in 2011 to 1 fatality, 28 serious and 204⁹ slight injuries in 2012. Since 2011 persons boarding and alighting from stationary trains and those injured on platforms have no longer been counted as passengers¹⁰; on this point see the in-depth trend analysis under 'other passengers'. The considerable increase in injuries is mainly due to the train collision at Amsterdam Westerpark on 21 April 2012.
- The number of serious collisions remained the same at three, but in 2012 there were in fact two collisions placed in the 'other collisions' category, compared with one in 2011.
- The number of serious derailments fell to zero.
- The total number of collisions at level crossings increased to 50 (of which 19 were relevant) in 2012, while the number of fatalities increased from 10 in 2011 to 13 in 2012.
- The number of accidents to persons stayed the same at five serious injuries.
- The number of serious fires in rolling stock stayed the same at zero.
- The number of stop signal passages increased from 155 to 173.
- The number of broken wheels fell from 1 in 2011 to 0 in 2012. The number of broken axles increased from 0 to 1, with relatively little damage.
- The number of broken rails fell from 77 in 2011 to 64 in 2012, without physical damage to rail traffic.
- The number of buckled rails increased from 2 to 3.

⁸ 'Other passengers': those who are not reported under the ERA guidelines.

⁹ The earlier publication Railveiligheidsindicatoren 2012 gives the number of slight injuries as 203; a more in-depth analysis has revealed a higher number.
¹⁰The figure according to the 'old definition' prior to 2011 can be found in the ILT publication

Railveiligheidsindicatoren (Rail Safety Indicators) 2012: 1 serious and 193 slight injuries.

Injuries to passengers

Objective

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

Result

The objective of continuous improvement has not been met. There was a considerable increase in injuries in 2012 compared with previous years. The main cause of this was the train collision at Amsterdam Westerpark.

- In 2012 one passenger was killed in the train collision at Amsterdam Westerpark. Throughout 2012 there were 28 serious and 204 slight injuries¹¹ recorded, but it should be noted that not every slight injury is reported. For 2011 the figures were 0, 0 and 51, respectively.
- In the train collision at Amsterdam Westerpark, apart from the passenger fatality, there were 24 serious and 167 minor injuries.



Figure 2: Passengers killed or seriously injured in a train accident

Legend

cychu
Passengers killed in a train accident
Passengers seriously injured

Collisions

Objective

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

Result

The objective of continuous improvement has been met. In 2012 there were a total of 46¹² collisions, of which 14 met the European definition of a collision with the other collisions being another type of accident. Of these five were 'serious collisions' according to the European definition. Three of these were 'relevant' (one between passenger and the second between freight trains and 1 relating to a collision between a train and a buffer stop). The collisions concerned were those at

¹¹ The earlier publication Railveiligheidsindicatoren 2012 gives the number of slight injuries as 203; a more in-depth analysis has revealed a higher number.
¹² In the earlier publication Railveiligheidsindicatoren (Rail Safety Indicators) 2012 buffer stop collisions were

in the earlier publication Railveiligheidsindicatoren (Rail Safety Indicators) 2012 buffer stop collisions were incorrectly omitted from the figure. This also meant that the published figure for 'serious relevant collisions' was lower.

Rotterdam Europoort, Amsterdam Westerpark and Zutphen. The figure for 2011 was also 3.

In addition, in 2012 there were two 'serious collisions' between shunting sets (these two fall under the category of 'other types of accidents', q.v.).

The collisions involved 1 fatality, 23 serious injuries and 168 slight injuries among passengers. Among members of staff one driver was seriously injured, and 3 drivers and 2 guards were slightly injured.



Figure 3. Number of collisions by category

Legend

Passenger and freight train collisions
Passenger train collisions
Freight train collisions

Derailments

Objective

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

Result

The objective of continuous improvement has been met. In 2012 there were a total of 35 derailments. 11 of these meet the European definition of 'derailment'; the remainder meet the definition of 'other types of accidents', of which 1 also meets the European definition of 'serious accident' (derailment of an empty passenger train during shunting in Groningen; for more details see 'Other types of accidents').

This means that the number of serious derailments fell from 1 in 2011 to 0 in 2012.

No injuries resulted from derailments.



Figure 4. Number of derailments by category

Legend

Passenger and freight train derailments
Passenger train derailments
Freight train derailments

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 onwards; no information is available from prior to 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.¹³

Result

The objective of continuous improvement has not been reached. The number of accidents to persons caused by rolling stock in motion remained the same as 2011 in 2012 at five serious injuries.



Figure 5: Accidents to persons

¹³ There is some uncertainty about which accidents do or do not belong to this category. The ERA has been asked for a definitive answer. The interpretation of the European definition of the author is applied here.

Legend:

Serious accidents to persons caused by rolling stock in motion, not falling under another category

Fatalities to persons caused by rolling stock in motion, not falling under another category

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

The objective of continuous improvement has been met. In 2012 there were 6 fires, which meet the European definition of 'fires in rolling stock'. None of these fires meets the European definition of a 'serious accident'.



Figure 6: Fires in the 'serious accident' category

Other types of accidents

Objective

The objective of the Third Framework Document is 'continuous improvement'. This category includes work trains, shunting sets of wagons, cranes, tamping machines and similar.

Derailments as 'other types of accidents' (also 'other rolling stock') were not included as such in the statistics in the past, but since 2010 this category has been recorded. No data are available for the period up to and including 2008.

Result

The objective of continuous improvement has been met. In 2012 there were 55 other types of accidents meeting the European definition. 4 of these also meet the European definition of a 'serious accident'. 2 of these accidents involved collisions with shunting sets (Bokkeduinen and Nijmegen), 1 a derailment (Groningen) and 1 a person falling between train and platform. In 2011 there were 5 'other types of accidents'.



Figure 7: Other types of accidents

Legend:

Other types of accidents, not falling under another category
Other types of accidents, (derailments)
Other types of accidents, (collisions)

Wrong-side signalling failures

Objective

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

Result

The objective of continuous improvement has been met. The number of wrong-side signalling failures increased in 2012 (15) compared with 2011 (11) and fell compared with 2010 (17).

2012 is the sixth year for which wrong-side signalling failures have been reported on. No data are available for the period up to and including 2006.

Stop signal passages (STS)

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 STS steering group in the Netherlands for an STS-passage.

Cancelling of signals and STS-passages 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, an objective was agreed with the industry of a reduction in absolute terms to 50% of the number of STS-passages in 2003 (265) and a reduction in risk of 75% compared with 2003, to be achieved in 2010.

Result

This objective was not met. The number of stop signal passages increased in 2012 to 173 compared with 2011 when there were 155 STS passages. In 2010 there were still 169, and in 2009 214.

The risk reduction was 62% at the end of 2012. The fall in the reduction is approximately 4% lower than in the year before.

For more information please refer to the STS analysis which the ILT prepares annually ('STS-passages 2012, Analysis and results over the period 2008-2012', see www.ILenT.nl)





NL	Target language
Aantal STS passages	Number of STS passages
Doelstelling voor 2010	Objective for 2010

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 2012 there were no broken wheels. The objective was met. In 2012 there was one broken axle, with limited material damage. The objective was not met.

Broken rails

Objective

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

Result

The objective of continuous improvement has been met. There were 64 broken rails in 2012 (in 2011 there were 77). 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 2012 is the same as for 2011 and 2010 (0) because there have been no accidents with broken rails as a precursor.



Figure 9: Numbers of broken rails

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

The objective of continuous improvement has not been met. A track buckle can be a precursor to an accident on the railway. In 2012 no accidents occurred as a result of track buckles. There were 3 track buckles in 2012 and 2 in 2011.

The 3 incidents (at Nijmegen, Sloe and Utrecht) concerned independent incidents with only limited deviations. None of the accidents involved a safety risk.



Figure 10: Numbers of buckled rails

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 NS including for decentralised local rail authorities and regional carriers.

Result

The objective was met. 78% rated their feeling of social safety at 7 or more (Source: NS Reizigers)

The value of the indicator for 2012 is the same as that for 2011 (78%). The customer rating for social safety during the day is above the value agreed with the NSR for 2012 of 70%.

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.

- The objective in terms of occurrence of fatalities has been met.
- There were 9 serious injuries to railway staff in 2012, however: 7 track workers, one driver and one shunter. So the objective of 'striving for continuous improvement' was not met for 2012. The main reason for this is the trend in serious injuries to track workers. For the drivers, shunters and (head) guards, however, the trend is favourable.

Injuries to railway staff

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

Objective

The objective of the Third Framework Document for the occurrence of accidents at work is continuous improvement, striving for 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 in terms of occurrence of fatalities has been met. In 2012 there were 9 serious injuries to railway staff. These involved 7 track workers (2011: 2), one shunter and one driver (in 2011 there were no serious injuries in either case). So the objective of 'striving for continuous improvement' was not met for 2012. The main reason for this is the trend in serious injuries to track workers.





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Legend:
Drivers killed in a train accident
Drivers seriously and slightly injured in a train accident







Figure 13: Shunters seriously injured





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

Result

Having the required papers was not structurally measured in 2012. Occasional spotchecks did not reveal any deviations. The compliance rate in 2011 was 98%.

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.

Within this theme it is the case that the number of injuries and collisions at level crossings increased. For the categories of 'unauthorised persons' and 'others', there can be no mention of continuous improvement either. The fall in the number of suicides on the railway marks an end to the increase in recent years. But it is too early to draw any conclusion from this.

The most significant findings for 2011 are as follows:

- The number of fatalities from collisions on level crossings increased from 10 (2011) to 13 (2012). The number of serious injuries increased from 3 (2011) to 8¹⁴ (2012). The total number of collisions on level crossings increased to 50 (19 of which were relevant) in 2012.
- The number of people in the 'unauthorised persons' category who were • killed rose from 0 (2011) to 1 (2012). The number of serious injuries to 'unauthorised persons' increased from 1 (2011) to 2 (2012).
- The number of suicides fell from 215 (2011) to 202^{15} (2012).
- The number of persons in the 'others' category who were killed remained at 1 (2012), as in the previous year (2011).
- The number of serious incidents in which dangerous substances were released as a result of accidents with trains fell from 2 (2011) to 0 (2012).

Level crossing safety

Objective

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

Result

The objective of continuous improvement is not being met.

In 2012 there were a total of 50 collisions at level crossings that meet the European definition. 18 collisions with vehicles on level crossings meet the European definition of a 'serious accident'. There were 20 collisions with a truck, car or bus, 14 with cyclists, 12 with pedestrians and 4 with other vehicles.¹⁶

In total 13 people died on level crossings (2011: 10) and 8 were seriously injured¹⁷.

An analysis of incidents shows that many cases involved deliberate disregard for warning and stop signals. The level crossing programme provides for measures to restrict access to the railway and work areas, shunting yards, sidings and so on, as well as measures to prevent unauthorised access to railway tracks and property. Improved security at level crossings is also a goal, together with a reduction in level intersections.

¹⁴ In the earlier publication Railveiligheids indicatoren 2012 the number of serious injuries is given as 10. More indepth analysis has revealed a lower number.

¹⁵ Two cases did not appear to involve suicide, in contrast with the figure published in the Railveiligheidsindicatoren 2012.

¹⁶ Source: ProRail ¹⁷ The earlier publication Railveiligheidsindicatoren 2012 gives the number of serious injuries to level crossing users as 10; a more in-depth analysis has revealed a lower number.



Figure 15: Level crossing collisions







Legend:

Legenar	
Active level crossings	
Passive level crossings	



Figure 17: Level crossing users killed in a train accident at a level crossing or passenger board crossing

Unauthorised persons

Objective

The Third Framework Document on Rail Safety sets an objective of continuous improvement in safety performance. Additionally the document has a stated objective for the Netherlands of being structurally one of the top three safest European Member States on this point.

Result

The objective of continuous improvement has not been met. In 2012 one unauthorised person¹⁸ was killed as a result of an accident on the railway (2011: 2¹⁹). 2 unauthorised persons were seriously injured in 2012 (2011:0). Initiatives have been introduced to prevent unauthorised access to the railway as far as possible: cameras, screening of the railway, information actions, more intensive supervision.



Figure 18: Number of unauthorised persons killed/seriously injured in an accident

Legend:
Unauthorised persons killed in an accident
Unauthorised persons seriously injured

¹⁸ The earlier publication 'Railveiligheids indicatoren 2012 reported figures of 2 fatalities and 3 serious injuries. More in-depth analysis has led to the figures given here.

¹⁹ This figure seems open to debate due to the absence of adequate incident descriptions. The figures for 2011 deviate from those indicated in the NSA annual report 2011; the reason for this is a recategorisation.

Suicides on the railway

In the Netherlands it is the Police who determine if a suicide is involved.

Objective

The Third Framework Document sets an objective of keeping the number of suicides on the railway 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.

Result

After a rise in the number of suicides in recent years, 2012 saw a slight drop (from 215 in 2011 to 202^{20} in 2012). The number of serious injuries rose from 3 in 2011 to 18 in 2012. The average number of suicides per year on the railway in the period 2007 - 2012 is approximately 195.



Figure 19: Number of suicides on the railway

Others

All persons not defined as 'passengers', 'employees including the staff of contractors', 'level crossing users' or 'unauthorised persons on railway premises' come under this category.

Objective

The objective is continuous improvement.

Result

The objective of continuous improvement has not been met. In 2012 one fatality and 2 serious injuries²¹ were placed in the 'others' category (2011: 1 fatality and 1 serious injury).

²⁰ A more in-depth analysis of these suicides shows that in two cases suicide was not involved. As a result the figure shown deviates from that published in Railveiligheidsindicatoren 2012.
²¹ The earlier publication 'Railveiligheidsindicatoren 2012 reported figures of no fatalities and 1 serious injury.

²¹ The earlier publication 'Railveiligheidsindicatoren 2012 reported figures of no fatalities and 1 serious injury. Recategorisation of a number of categories resulted in the figures shown here.




Legend:

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

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

Accidents with 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 RID²², 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/ADR²³ regulations, 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 management tools in the area of land-use planning.

Result

In 2012, 2 trains or sets of wagons, carrying dangerous substances, were involved in accidents (2011: 13, including non-serious accidents). No hazardous substances were released. No train staff or passengers were injured or killed during these.

As a result the objective was achieved. 2011 is the first year for which data was published in accordance with the European definitions of accidents with dangerous substances.

²² 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 24.09.2008 on the inland transport of dangerous goods (O) L 260, 30.9.2008, p. 13).

²³ ADR, European Agreement concerning the International Carriage of Dangerous Goods by Road, the counterpart to RID Regulations concerning the International Carriage of Dangerous Goods by Rail.

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 it in common areas of responsibility, innovation and safety management.

Society ('Overall objective')

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

Objective

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

Result

The objective of permanent improvement has been met. The national reference value (NRV) achieved over the past three years shows a positive development. The moving weighted average (MWA) has seen a fall (see Annexe C1.2.). The reason is an increase in injuries and incidents. The large number of injuries from the train collision on 21 April 2012 in Amsterdam contributed to this to a major extent. The objective was met, however.

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 and which helps to improve the safety culture, is up to date. 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. This is because a supervisor in the context of risk-based supervision will correctly focus 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 findings of the risk-based inspections by the ILT of the level of compliance with the safety rules by track workers and shunters show an increase from 2006 (54% of

inspections demonstrated compliance) up to and including 2011 (80%). In 2012 this fell again to 61%.

In 2012 insufficient inspections were carried out of compliance with the safety rules by shunters in order to be able to present a picture for these as well.

'Other passengers' (previously: platform injuries)

'Other passengers' are taken to mean passengers who are outside of the railway system, i.e. in the station building, on escalators and platforms and who are boarding or alighting a stationary train. This category was previously referred to as 'platform injuries'.

Objective

The legislator has placed the safety of 'other passengers' under the laws on passenger rights. An objective of the Third Framework Document was to allow the parties involved in the rail sector to flesh out the issues of safety in the rail sector, as set out in the document. Cooperation is needed on matters arising in the common area of infrastructure and transport. The responsibility to cooperate is discharged through the safety guidelines and the safety management systems of the infrastructure manager and the railway undertakings.

Result

In 2012 3 'other passengers' were seriously injured, compared with 3 fatalities and 4 serious injuries in 2011.





Cost of accidents

Directive 2009/149/EC, in addition to providing more precise common definitions, 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'²⁴. 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 $\notin/(MLN Train*Km)$. See Annexe C.

Using this method, the costs of all significant accidents in 2012 came to €34,777,800 for rolling stock and infrastructure, €12,975,373 for delays (including

²⁴ Implementation Guidance for use of Common Safety Indicators, v21_1 (ERA/GUI/03-2012), ERA, 6 June 2012

suicides on the railway) and $\in 2,500,000$ for capitalised costs of fatalities and serious injuries (excluding suicides and attempted suicides).

The costs of *all* accidents and injuries on the railway in 2012 are capitalised at \notin 97,653,173.00.

The graph of total costs relates to the new definition from 2010 onwards, see Annexe C1.1.1. There is little information prior to 2009. Delay costs up to and including 2010 have still not been included due to lack of data. The graphical representation of total costs in Annexe C1.1.1 includes the capitalised costs of fatalities and serious injuries, excluding suicides and attempted suicides.

Result of safety warnings

During the inspections that were carried out deviations from the legislation and regulations and the safety standards prescribed therein were identified. 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.

In 2012 no safety warnings were issued by the ILT.

Investigations into (major) incidents are carried out by the Safety Board. In its investigation the Board concentrates on establishing the truth to allow lessons to be learned by the railway sector as a whole. If requested, the ILT assists the Safety Board in its investigations.

The ILT assesses the hundreds of reports from railway undertakings on incidents on the railway and on this basis decides whether a further inspection is advisable. The ILT has an officer on standby for this purpose. If breaches of the legislation and regulations are discovered then the ILT moves to enforcement. Where traffic safety is involved the Inspectorate may act to halt transport.

In the autumn of 2012 the ILT placed both ProRail and NSR under tighter supervision. The reason for this was changes in the timetable as a result of maintenance activities which played a part in the train collision at Amsterdam Westerpark on 21 April 2012. The Inspectorate is mainly looking at how the recommendations of OvV and the Inspectorate are being implemented. At the time of publication of this annual report the tighter supervision was still in force.

In the winter of 2012/2013 problems arose in both the Netherlands and Belgium concerning the V250 which had only been in operation for a few months on the high-speed line between Amsterdam and Brussels. At the start of 2013 this resulted in a decision in both countries to abandon the V250 project. The ILT is monitoring further developments concerning the HSL. The House of Representatives has decided to hold a parliamentary enquiry into the process followed in the purchase of vehicles for the HSL.

On the basis of indications from its own inspections and from the railway industry the ILT performed inspections on asset management (relationship between infrastructure manager/process contractor and design management), traffic management, the problems of train detection and the approach to overcrowded and stranded trains. Some of these were brief reviews and some were directed at the industry in order to improve an identified situation (inter alia in the case of stranded trains). The results led to a broadening of asset management inspections in 2013.

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Major adaptations to the legislation and regulations

Reference	Date of coming into	Reasons for amendment	Description of the amendment
Official Journal, 1 March 2012, No 3923; Order amending the Railways Act Tariff Regulations	force 1 April 2012	Introduction of tariffs in Articles 11 and 11a of the Railways Act Tariff Regulations.	Establishment of tariffs in Articles 11 and 11a of the Railways Act Tariff Regulations.
Official Journal 2012, 112; Decision of 9 March 2012 setting the date of coming into force of a number of components of the act of 16 December 2010 amending the Railways Act, the Passenger Transport Act 2000 and the Economic Offences Act by implementation of Directives 2007/58/EC, 2007/59/EC, 2008/57/EC and 2008/110/EC (Official Journal 2011, 218), the Decision on Railway Staff 2011 (Official Journal 2011, 240), and the Decision of 23 August 2011 (Official Journal 2011, 438).	1 April 2012	Decision on the coming into force of a number of components of the act of 16 December 2010 (Official Journal 2011, 218), the Decision on Railway Staff 2011 (Official Journal 2011, 240), and the Decision of 23 August 2011 (Official Journal 2011, 438)	Decision on coming into force.
Official Journal, 2 April 2012, No 6607; Order establishing the Railways Act Tariff Regulations 2012	3 April 2012 (with the exception of Article 15 which came into force on 1 July 2012)	Establishment of new Railways Act Tariff Regulations 2012 due to changes relating to the implementation of the Railway Interoperability Directive, the Railway Safety Directive and the Train Drivers Directive, as a result of which the underlying regulations, such as the present regulations, require amendment.	
Official Journal 2012, 213; Act of 19 April 2012 amending the Railways Act and the Passenger Transport Act 2000 in connection with implementation of the	During 2012; the entire act as at 1 January 2013	Implementation of the first tranche of legislation from the cabinet position paper 'Spoor in beweging'	

cabinet position paper			
'Spoor in beweging'.			
Official Journal 2012, 429;	1 January 2013	This decision is aimed at	See opposite.
Decision of 10 September	,	a short-term initiative.	
2012 amending the		This will provide more	
Decision on allocation of		capacity for the	
capacity of the main-line		increasing passenger rail	
railway infrastructure		traffic on regional lines	
together with a change in		where there is a shortage	
the order of priorities of		at peak times. Where	
the transport submarkets		there is congestion at	
		peak times, all forms of	
		public passenger	
		transport will take	
		precedence over freight	
		transport, with the	
		exception of sections with	
		regional stations where	
		this would cause	
		insurmountable problems	
		for freight traffic.	
Official Journal 24	1 July 2012	Change required as a	See opposite.
September 2012, No		result, inter alia, of the	
19216; Decision to		coming into force of the	
mandate, empower and		Penalty Payments (Failure	
authorise ProRail		to Give Timely Decisions)	
concerning powers under		Act and the making of a	
the Railways Act		number of technical	
		changes concerning the	
		application of regulations	
		on compensation for loss.	
Official Journal 2012, 522;	1 December	Change required as a	See opposite.
Decision of 13 October	2012	result of the coming into	
2012, amending the		service of the new	
Decision on allocation of		Lelystad-Zwolle railway	
capacity of the main-line		line (Hansa Line),	
railway infrastructure as a		including the new	
result of the coming into		stations at Dronten and	
service of the Hansa Line		Kampen-Zuid.	
Official Journal, 25 October	(In part) 1 April	The order relates partly	
2012, No 21904; Order	2012 and (in	to the implementation of	
amending the Order on	full) 1 January	European legislation.	
Placing in Service of	2013		
Railway Vehicles in			
connection with the			
implementation of the TSI			
CCS and repair of faults			
Official Journal 2012, 653;	Comes into	Implementation of the	See opposite.
Decision of 11 December	force by Royal	first tranche of	
2012 amending a number	Decree.	subordinate legislation	
of decisions, including		from the cabinet position	
decisions on		paper 'Spoor in beweging'	
implementation of the			
cabinet position paper			

'Spoor in beweging'			
Official Journal 2012, 654; Decision of 11 December 2012 setting the date of coming into force of a number of components of the act of 19 April 2012 (Official Journal 2012, 213) and of Articles I - VIII of the abovementioned decision (inter alia) implementing the cabinet position paper 'Spoor in beweging'	1 January 2013	Decision on coming into force of a number of components of the act of 19 April 2012 (2012, 213) and the abovementioned decision of 11 December 2012 (Official Journal 2012, 653	See opposite.
Official Journal, 21 December 2012, No 26348; order amending a number of ministerial orders concerning amendments to various terms	22 December 2012	Change to various terms as a result of the act of 19 April 2012 (Official Journal 2012, 213) and the applicable European legislation.	See opposite.
Official Journal, 31 December 2012, No 27305	1 January 2013	Additional details on Article 80(6) of the Railways Act	Application of Article 80 of the Railways Act

Annexe D contains a list of important laws and regulations and essential amendments.

Chapter F shows the development relating to safety certification and authorisation.

1

F . The development of safety certification and authorisation

National laws – start data - availability

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 law on operational safety of the railways came into force, namely 13 May 2011 [Official Journal 2011, No 218].

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 law on operational safety of the railways came into force, namely 1 January 2005 [Railways Act 2005].

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 Official Journal. These are available for consultation on the wetten.overheid.nl website.

Certification of train drivers: In the Netherlands the issue of the new train driver licences commenced in April 2012. In 2012 the first training institute for train drivers was approved.

Numerical data

See Annexe E.

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 traffic without carriage;
- the restricted operating licence B, for travel within stations and for selfpropelled equipment on out-of-service tracks.

The EU licence is valid in all EU countries. A railway undertaking makes an application for and receives this 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.

Part A safety certificates

2

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

Not applicable.

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

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

Summary 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.

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

Not applicable.

Part A certificate application fees

- Article 6 Railways Act Tariff Regulations 2012
 - For the processing of an application for a safety certificate as referred to in Article 32 of the Act a tariff applies as shown in the following Table 11:

Table 11: Safety certificate tariffs

Safety certificate	Part A	Part B
Safety certificate for a railway undertaking with less than 300 safety-critical employees;	€ 12 202.00	€ 8 133.00
Safety certificate for a railway undertaking with 300 or more safety-critical employees;	€ 25 930.00	€ 17 287.00
Safety certificate for a railway undertaking using the main-line railway at a point for the exchange of railway vehicles or with self-propelled equip- ment or an equivalent vehicle in order to perform activities on or near the main-line railway on a part of the main-line railway that has been placed out of service for the purpose.	€ 4 658.00	-

2. For the processing of a renewed application for a safety certificate as referred to in Article 32 of the Act a tariff applies as shown in the following table:

Table 12: Renewed safety certificate tariffs

Renewed safety certificate	Part A	Part B
Renewed safety certificate for a railway under- taking with less than 300 safety-critical employ- ees;	€ 9564.00	€ 6 101.00
Renewed safety certificate for a railway under- taking with 300 or more safety-critical employ- ees;	€ 13 086.00	€ 7 219.00
Renewed safety certificate for a railway under- taking using the main-line railway at a point 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 railway on a part of the main-line railway that has been placed out of service for the pur- pose.	€ 4658.00	-

• 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 a tariff applies as shown in the following table:

Table 13: Revised safety certificate tariffs

Revised safety certificate	Part A	Part B
Revised safety certificate for a railway undertak- ing with less than 300 safety-critical employees;	€6101.00	€ 4 067.00
Revised safety certificate for a railway undertak- ing with 300 or more safety-critical employees;	€9151.00	€ 6 101.00
Revised safety certificate for a railway undertak- ing using the main-line railway at a point 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 railway on a part of the main-line railway that has been placed out of service for the pur- pose.	€ 1 552.00	-

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.

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

Not applicable.

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

Not applicable.

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

Not applicable.

3

Part B safety certificates

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.

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

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

Part B certificate application fees

See Table 11 on page 45.

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.

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

Not applicable.

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

Not applicable.

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

Not applicable.

4

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.

Reasons for updating or amending safety authorisations

Not applicable.

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

Not applicable.

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

Not applicable.

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

Not applicable.

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.

Does the NSA charge a tariff for issuing an infrastructure safety authorisation? (Yes/No – tariff)

No

G.

1

Supervision of Railway Undertakings and Infrastructure Managers

Description of the Supervision of Railway Undertakings and Infrastructure Managers

Audits/inspections/checklists

In the Netherlands the railway field is under the supervision of the Human Environment and Transport Inspectorate. Supervision is aimed at 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 are not covered by this supervision. City tram systems fall under the supervision of the ILT. This will change when the new Local Railways Act is introduced (2013, with a transitional period of two years).

The supervision of rail traffic takes the form of system supervision, based on the target legislation as laid down in the Railways Act and aimed at the parties involved in the rail sector being in control as a result of their safety management system.

The inspection 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 offer exams.

The ILT is responsible for supervising the operators. This takes the form of issuing and revoking licences and certificates, and checking compliance by means of object 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
- Entity in charge of maintenance
- Staff provider / agency
- Contractor
- Shunting operator
- Heritage rolling stock

Staff employed by ILT: 44 FTE were available for supervision of rail safety.

The complete multi-annual programme of the ILT and the responsibility for this are set out in the ILT Multi-annual Plan and ILT Annual Report published each year (<u>www.ilent.nl</u>)

Focus points for the Netherlands NSA

The priorities for the supervision provided by the Inspectorate are determined on the basis of risks, political-social issues, policy aims, at both national and European levels, and the results of its own inspections.

The audits involve an assessment of whether the safety management systems of authorised operators actually work (in part) in practice. Where breaches of the legislation and regulations are found, enforcement measures are taken.

Object inspections look at whether infrastructure, operations (including transport management, departure processes, personnel) and vehicles meet the legislation and regulations. The ILT also inspects track work activities to ensure compliance with the Working Conditions Act.

The most important risks for rail traffic are:

• Stop signal passages (STS)

Most cases of train collisions in which passengers were seriously injured in the last ten years have been due to the passing of a stop signal (red signal or stop board). Some of the causes are due to human error (observation, anticipation and distraction). Technical means (including automatic train protection systems), inter alia, can significantly limit the risk of passing a stop signal.

In 2004 the minister and the rail industry set up a steering group in order to take action on reducing the number of STS passages. The objective was to reduce the number of STS passages in 2010 by 50% compared with the figure for 2003 and to lower the risk by 75% compared with 2003. Following the introduction of the measures up until 2012 there was a drop in the number of passages per annum to 155. In 2012 the number of STS passages increased to 173. The objectives of the steering group have as yet not been met. The ILT is monitoring STS policy.

• Infrastructure does not meet the safety specification

The infrastructure manager itself draws up safety specifications for the railway infrastructure and these form part of the safety management system assessed by the Inspectorate. The specifications are crucial for contractors which the manager hires for maintenance and construction. The Inspectorate speaks to the infrastructure manager if the latter is not providing adequate safety assurance.

The entire main-line railway in the Netherlands is fitted with an automatic train control (ATC) system. These systems play an important role in reducing STS passages. The cabinet has decided to extend the implementation of ERTMS from 2016, inter alia as a result of the report from the Temporary Commission on Rail Maintenance and Innovation (Kuiken Commission; February 2012). The measures as a result of the Amsterdam Westerpark collision include providing further signals with the upgraded version of the Netherlands ATC system, pending the roll-out of ERTMS.

Similarly on the basis of the report from the Kuiken Commission, the ILT has been instructed to perform a five-year review of the physical quality and safety of the Netherlands railway infrastructure (main-line railway). The first review takes place

in 2013. The results of this will inform the annual object inspections of the infrastructure.

Rail traffic authorisations	Realisation
Number of operating licences and rolling stock authorisations	178
Infrastructure authorisations	1
Train driving licences	962
% within quality standard	64

In April 2012 the European legislation (Railway Interoperability Directive 2008/57), upon which the Authorisation for Placing in Service (infrastructure authorisation) of main-line railway infrastructure is based, was implemented in the legislation of the Netherlands. The legislation calls for coordination between authorisation issuers and managers on deciding inter alia for which infrastructure adaptations an information sheet must be considered. On the basis of this sheet the Inspectorate will decide if an authorisation is necessary. For new main-line railways an authorisation is always required.

In the autumn the Inspectorate issued the first infrastructure authorisation for the Hanzelijn main-line railway.

As a result of the coming into force of the new European legislation in, inter alia, the Railways Act, training institutes were able in 2012 to apply for approval to provide train driver training. A train driver may only perform his job if he has been issued with a train driver's licence by an approved training institute.

The IT application for processing train driver licences is not yet running as it should, so that the processing of these applications within the time allowed has not been possible in all cases.

Passenger rights in rail transport	Realisation
Number of complaints	18
% within standard	95

Since 4 October 2011 the Inspectorate has been a designated body for protection of the rights of passengers in rail traffic and for advising them of their obligations. With effect from 2011 passengers have thus also been able to report incidents via the Inspectorate's Meld- en Informatiecentrum (MIC) (Notification and Information Centre).

Most complaints relate to inadequate or refusal of compensation for delays or cancellations or for missed connections due to delays or cancellations.

Despite the fact that EU Regulation 1158/2010 has already been in force for a considerable time, the majority of authorisation applications from the rail operators do not meet the requirements. The regulation concerns the requirements for the safety management system of rail operators. The major difference from previously is that in the past the rules mainly established a framework which allow a lot of room for individual interpretation. Regulation 1158/2010 has now been made more authoritative. There is also a risk of an authorisation not being issued. In February 2013 the ILT organised a supplementary information event for the industry.

Supervision of rail traffic	Realisation
Audits for issue of authorisation	70
Object inspections	4 556
(Object) inspections regarding passenger rights	9
Incident processing and enforcement investigation	1 230

The Inspectorate performed brief reviews into the use of maintenance service contracts (PGO contracts) in railway maintenance (including design management). The Inspectorate concluded that the PGO can systematically serve as a basis for the outsourcing of small-scale maintenance provided that this is organised differently, with the relationship and positions of the infrastructure manager and the contractors being less formal and legal, allowing mutual reliance and shared responsibility for management and maintenance to be achieved.

Changes to the timetable as a result of maintenance activities played a part in the train collision at Amsterdam Westerpark. As a result of its own findings, and those of the OvV, the Inspectorate has instituted tighter supervision at NSR and ProRail, with the main focus being on how the recommendations of OvV and the Inspectorate are implemented.

2

Assessment of the annual reports of infrastructure managers and the railway undertakings

Infrastructure managers, railway undertakings and contractors for railway activities submit their safety reports to the Minister of Infrastructure and the Environment by 30 June of each year (in accordance with Article 9 (4) of the Railway Safety Directive). This involves one infrastructure manager (ProRail) and the subsidiary Keyrail (in which it has a part share), nineteen freight carriers, ten passenger carriers and twenty contractors holding a safety certificate in 2012 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 standards in terms of their content. Reports on incident and accidents on the railway are used in the preparation of this report.

3 Complaints

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 2012.

Brief summary of complaints from the railway undertakings concerning the infrastructure manager and relating to the conditions laid down in its licence

No complaints were received in 2012.

Η.

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

CSM on Supervision makes it clear in consideration 6 and Article 1.3 of Directive 2004/49/EC what the objective is of the legislator: where the responsibilities lie. The risk evaluation and assessment should be based on our supervision activities and directed to the Minister. ILT has a system of bimonthly policy signals which, inter alia, relate to the sufficiency of policy, legislation and regulations.

European Regulation 2009/352/EC is in full force in the Netherlands. This establishes a common safety methodology 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.

Approximately 1% of the applications submitted in 2012 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 Regulation for CSM in risk management.

The national legislation introducing the European Regulation on CSM for risk management will not be revised. European Regulation 2009/352/EC is in force in the Netherlands without revision.

At the end of 2012 Commission Regulation (EU) No 1077/2012 was published which came into force on 7 June 2013. In this a common safety method for supervision by national safety authorities after issuing a safety certificate or safety authorisation came into force (CSM on supervision).

Ι.

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

National vehicle register

Every railway vehicle that is registered in the National Vehicle Register (NVR) is only registered once the railway vehicle has been assigned to a certified ECM. From 2012 onwards every railway undertaking has access to the NVR.

From 2013 the presence of twelve digit registration numbers on vehicles will be enforced and on rail vehicles that are present on the main-line railway and not yet included in the NVR.

It is the responsibility of the railway undertaking to check that the railway vehicles it uses are entered in the NVR. It has been found that such checks are not being made by all undertakings.

J.

Conclusions on the 2012 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.

For licensing and certification the priority for the NSA is the further implementation of regulations concerning ECMs and train driver training. The issue of authorisations for the training of train drivers and of the train driver licences has had a successful launch.

For the points covered by the theme of safe transport it is generally the case that there has been an increase in the number of injuries. As a result, of the eight main safety indicators in five cases the objective of continuous improvement of the Third Framework Document has not been met.

The priorities for the NSA based on the information contained in this report are enforcement of the safety assurance obligation, the approach to STS passages, management and maintenance of the infrastructure, the relationship between the infrastructure manager and contractors (provision of information, regulations, standards and frameworks) and the approach to problems following incidents.

The increase in the number of injuries to track workers comes under the theme of safe working. Attention is being paid to compliance with the safety regulations by contractors and the responsibility of ProRail as the infrastructure manager.

Within the theme of safe living it is the case that the number of injuries and collisions at level crossings increased. Developments concerning the category of 'unauthorised persons' are not favourable either. Under safe living the priority is safety around level crossings. Despite all the measures taken such as creating overpasses the number of fatalities and injuries at level crossings is increasing.

κ . Sources of information

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

L . Annexes

Annexe A1: Railway network in the Netherlands, the main-line railway for rail traffic

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

Annexe B: ILT organisation chart

Annexe C: Safety indicators: statistical data and definitions used

Annexe C1.1 Performance at a glance

Annexe C.1.1.1 Annual figures and five-year averages

Annexe C1.1.2 Accidents broken down by type

Annexe C.1.1.3 Fatalities broken down by category of people involved

Annexe C1.1.4 Injuries broken down by category of people involved

Annexe C1.1.5 Precursors to accidents

Annexe C1.1.6 Cost of all accidents, number of working hours of staff and contractors lost as a consequence of accidents

Annexe C1.1.7 Technical safety of infrastructure and its implementation, management of safety (according to ERA template only)

Annexe C1.2: Calculated NRV and MWA values

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

Annexe C2.: Definitions used

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

Annexe C2.2: National definitions

Annexe C3.: Abbreviations

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

Annexe E: The development of safety certification and authorisation – Statistical data

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

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

Annexe E3./E4.: Procedural aspects - Safety certificates Parts A and B

Annexe E5.: Procedural aspects - Safety authorisation of infrastructure managers

Annexe E6.: Number of train driver licences issued in 2012

75

Distance in kilometres



Annexe A1.: Railway network in the Netherlands, the main-line railway for rail traffic

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

Table 14: Keepers of railway vehicles

Name of keeper	Name of owner	Number
		of vehi-
		NVR ²⁵
Arriva Openbaarvervoer NV	Arriva Openbaarvervoer NV	211
BGTransport DVVO	Ministry of Defence	248
Connexxion NV	Connexxion NV	10
Corus staal	Corus staal	6
CRS-Continental Rail Services BV	CBRAIL S.à.r.l.	1
DB(L) Schenker Rail Nederland N.V.	DB(L) Schenker Rail Nederland N.V.	337
DB(L) Schenker Rail Nederland N.V.	AAE Railcar S.à r.l.	407
DB(L) Schenker Rail Nederland N.V.	Onrail	5
DB(L) Schenker Rail Nederland N.V.	VTG Aktiengesellschaft	69
ERS Railways	Alpha Trains	2
ERS Railways	CB Rail Leasing S.a.r.l.	2
Eurailscout Inspection & Analysis	Eurailscout Inspection & Anal- ysis	3
Euro-Express Treincharter	Euro-Express Treincharter	90
Euro-Express Treincharter	Veluwsche Stoomtrein Maatschappij	1
Het Spoorwegmuseum	Het Spoorwegmuseum	71
HSA Beheer N.V.	Alpha Trains	12
HSA Beheer N.V.	HSA Beheer N.V.	72
HSA Beheer N.V.	NS Reizigers BV	53
HSL Logistik BV (NL)	HSL Logistik BV (NL)	1
Husa Transportation Railway Services Nederland BV	Alpha Trains	2
Husa Transportation Railway Services Nederland BV	Husa Transportation Railway Services Nederland BV	3
Lloyds Register Rail Europe B.V.	Lloyds Register Rail Europe B.V.	1
LOCON Benelux BV	LOCON Benelux BV	10
NedTrain B.V.	NSFSC	35
NS Internationaal B.V	NS Reizigers BV	62
NS Reizigers BV	NS Reizigers BV	1 992
NS Reizigers BV	NSFSC	1 336
Railinsight BV	Railinsight BV	4
Rotterdam Rail Feeding	SC Rail Leasing Europe B.V.	12
Shunter B.V.	Shunter B.V.	2
STIBANS	Voestalpine Railpro B.V.	1
Stichting DE III	Stichting DE III	1

 25 NVR = National Vehicle Register; Note: The actual number may be greater than shown here due to a data input backlog.

Stichting Mat'64	Stichting Mat'64	3
Stichting Stadskanaal Rail	Voestalpine Railpro B.V.	17
Stoom Stichting Nederland	Stoom Stichting Nederland	1
Stoomtram Hoorn Medenblik	Voestalpine Railpro B.V.	7
Strukton Rail Equipment	Strukton Rail Equipment	78
Syntus BV	Voith Railservices BV	46
Veluwsche Stoomtrein Maatschappij	Voestalpine Railpro B.V.	19
Veolia Transport Rail B.V.	Railpool München	28
Voestalpine Railpro B.V.	Voestalpine Railpro B.V.	1 104
VolkerRail Materieel	VolkerRail Materieel	74
Zuid-Limburgse Stoom Maatschappij	Voestalpine Railpro B.V.	2

Total number of railway vehicles registered in the railway vehicles register by Netherlands railway undertakings, infrastructure managers and other organisations as at 31 December 2012: 6441.

Table 15: List of railway undertakings and infrastructure managersInfrastructure manager, as at 31 December 2012

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Railway undertakings, as at 31 December 2012

Name	Address	Postcode + city
Arriva Personenvervoer Nederland BV	Postbus 626	8440 AP Heerenveen
BAM Rail B.V.	Postbus 3172	4800 DD Breda
Connexxion Openbaar Vervoer NV	Postbus 224	1200 AE Hilversum
CRS-Continental Rail Services BV	Moezelweg 151	3198 LS Rotterdam - Europoort
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
HSA Beheer NV	Postbus 767	1000 AT Amsterdam
HSL Logistiek BV	Bruistensingel 160- A	5232 AC `s-Hertogenbosch
HTRS 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
LTE Netherlands BV	Moezelweg 151	3198 LS Rotterdam
NS Reizigers BV	Postbus 2025	3500 HA Utrecht
NedTrain BV	Postbus 2167	3500 GD Utrecht
Rotterdam Rail Feeding BV	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
Veolia Transport Rail BV	Postbus 1533	6201 BM Maastricht
VolkerRail Nederland BV	Postbus 240	4130 EE Vianen

Annexe A2.1: Infrastructure manager key figures

In calculating the indicators in this annual report, use was made of the figures in Table 16.

Table 16: Key figures for the railways 2012, used in calculating the indicators from the Third Framework Document on Rail Safety.

Туре	Value	Source
Train-km	1.496E+08	2012: figures from annual reports and
		submissions from ProRail
Passenger train-km	1.38E+08	2012: figures from annual reports and
		submissions from ProRail
Passenger-km	1.72E+10	2012: figures from annual reports by the
		railway undertakings
Number of level crossings	2557	ProRail submission
Km of track	3063	ProRail submission
Km of line	7033	ProRail submission
Percentage of track with	100%	ProRail submission
ATC		
Percentage train-km using	100%	Submissions from carriers
line with ATC or ERTMS		
(main-line railways)		

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Annexe B: NSA organisation chart



Annexe C: Safety indicators: statistical data and definitions used Annexe C1.: CSI data

Annexe C1.1 Performance at a glance

C.1.1.1 Presentation of data















The graph of total costs relates to the new definition from 2010 onwards; there is little information prior to 2009. It includes the capitalised costs of fatalities and serious injuries, excluding suicides and attempted suicides.

C1.1.2 Accidents



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















C.1.1.3 Fatalities broken down by category of people involved













C1.1.4 Injuries broken down by category of people involved









C1.1.5 Precursors to accidents











Number of broken axles on rolling stock

in service /(MLN Train*Km) Last five

years average






C1.1.6 Cost of all accidents, number of working hours of staff and contractors lost as a consequence of accidents

0,20



Costs of death in MLN €/(MLN Train*Km)

excluding suicides Last five years average













C.1.1.7 Technical safety of infrastructure and its implementation, management of safety











Annexe C1.2: Calculated NRV and MWA values²⁶

The NRV (national reference value) and the MWA (moving weighted average) are calculated in the same way, but each covers a different period: 2006 2007 2008 2009 2010 2011 2012

|-----| ←-----→ NRV 2012 ←-----→ MWA 2012

The NRV 2012 covers the period from 2006 to 2011 inclusive, and the MWA 2012 covers the period 2008 to 2012 inclusive. The indicator in Table 17 covers 2012 only.

Table 17:	Calculated	national	reference	values	and	moving	weighted	averages	for
2011									

			Assessment	t year 201	2
No	Risk category	Description of indicator	Calculated indicator	NRV	MWA
1.1	Passengers	FWSI among passengers / annum / billion passenger train-km	27.46	6.10	6.57
1.2	Passengers	FWSI among passengers / annum / billion passenger-km	0.22	0.05	0.05
2	Staff	FWSI among railway staff / annum / billion train-km	5.34	1.89	2.25
3.1	Level crossing users	FWSI among railway staff / annum / billion train-km	92.19	97.84	97.05
3.2	Level crossing users	FWSI among level crossing users / annum / ((train-km*number of level crossings) / line-km)	110.44	106.3	108.7
4	Others	FWSI among 'others (third parties)' / annum / billion train-km	8.02	7.84	7.99
5	Unauthorised persons	FWSI among unauthorised persons on the railway / annum / billion train-km	8.02	6.76	7.21
6	Society (third parties)	Total FWSI / annum / billion train-km	139	129	127

Table 18 below in Annexe C1.3 shows whether the objective has been met or not.

²⁶The stated results may deviate (slightly) from the figures given in reports appearing previously. The reason for this is that the background to the figures is incidents on the railway. More in-depth analysis can lead to recategorisation of data and thus to deviations in NRVs, MWAs and FWSIs.

Annexe C1.3: Meeting of the objectives for the risk categories from the Third Framework Document on Rail Safety²⁷

To make the analysis easier to read and understand, the meeting of an objective is `translated' as `yes' or `no'.

The objectives from the *Third Framework Document* generally relate to a moving average (MWA and NRV). Table 18 shows whether the objective of the Third Framework Document has been met. This is the case if the MWA is less than or equal to the NRV, unless a trend break has occurred. Where a trend can be calculated with NRV or MWA, this is shown and an entry made under 'objective met', otherwise the calculated indicator for 2012 is compared with 2011. The indicator data for 2011 are not shown here. They are contained in the NSA Annual Report 2011.

Risk category	Description of indicator	Calculated indicator	NRV 2006 - 2011	MWA 2008 - 2012	Obje ctive met
Safe transport					
Train passengers safety risk	FWSI among passengers / annum / billion passenger train-km	27.46	6.10	6.57	no
	FWSI among passengers / annum / billion passenger-km	0.22	0.05	0.05	yes
	Number of seriously injured passengers per annum	28			no
	Number of fatalities among passengers per annum	1			no
	Number of slight injuries to passengers / annum / billion passenger-km	12.08			no
Accidents involving passenger, freight and other trains	Total number of serious accidents / million train- km	0.24			no
	Number of serious train collisions / million train- km	0.02			yes
	Number of serious derailments / million train-km	0.00			yes
	Number of serious collisions on level crossings / million train- km	0.13			no
	Number of serious accidents to persons	0.07			no

Table 18: Objectives from the Third Framework Document on Rail Safety

²⁷The stated results may deviate (slightly) from the figures given in reports appearing previously. The reason for this is that the background to the figures is incidents on the railway. More in-depth analysis can lead to recategorisation of data and thus to deviations in NRVs, MWAs and FWSIs.

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	caused by rolling stock in				
	motion / million train-km				
	Number of serious fires in rolling stock / million train-km	0.00			yes
	Number of other serious accidents / million train- km	0.02			yes
	Number of wrong-side signalling failures / million train-km	0.07			yes
	Number of STSs (/ million train-km)	1.17			no
	Risk reduction of STSs 2011 compared with STSs in 2003, objective 75% reduction.	62%			no
Rail infrastructure	Number of broken rails / million train-km	0.43			yes
	Number of track buckles / million train-km	0.02			no
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	0.01			no
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					
Prevention of accidents at work	FWSI among railway staff / annum / billion train-km	5.34	1.89	2.25	no
	Number of fatalities among track workers	0			yes
	Number of fatalities among shunters	0			yes
	Number of collisions with track workers	1			no
	Number of electric shocks	1			yes
	IF-rate (# accidents with a loss of > 24h * 1 billion / number of working hours inclusive	No informati on			
	of staff and contractors).				

Training and competence	Percentage compliance with administrative duty:	No informati			
	possession of the	on			
	demonstrate competence				
	or medical and				
	psychological suitability.				
	Percentage compliance	No			
	for route knowledge of	informati			
	unvers	on			
Safe living					
Level crossing safety	FWSI among level crossing users / annum / billion train-km	92.19	97.84	97.05	yes
	FWSI among level crossing users / annum / ((train-km*number of level crossings) / track- km)	110.44	106.3	108.7	no
Unauthorised	FWSI among	8.02	6.76	7.21	no
persons on the	unauthorised persons on				
raliway	the railway / annum / billion train-km				
	Number of suicides on	202			yes
	the railway				,
	Number of suicides on	1350			yes
	train-km				
	FWSI among 'others (third parties)' / annum / billion train-km	8.02	7.84	7.99	no
External safety (carriage of dangerous substances)	Number of broken wheels on rolling stock in service / million train-km	0.03			yes
	Number of such accidents in which dangerous goods are released / million train-km	0			yes
	Number of fatalities as a result of such accidents	0			yes
Relating to all themes					
Overall	Total FWSI / annum / billion train-km (excluding suicides and attempted suicides)	145	130	129	yes
Integrated cooperation on common areas of responsibility	-				
Innovation	-				
Safety management	-				
Safety culture	Level of compliance with	61%			no
	safety rules (NVW) by				

track workers			
Level of compliance with safety rules (NVW) by shunters	No informati on		

Annexe C2.: Definitions used

Annexe 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, accidents 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 measurement 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 embark /disembark onto / from a moving train.

Suicide

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

Annexe C2.2: National definitions

National definitions are not applicable in this annual report.

Annexe C3.: Abbreviations

dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road). ALARP As low as reasonably practicable Arbo Arbeidsomstandighedenwet (Working Conditions Act) ATPVV Automatic Train Control, enhanced version BD Out of service BLN Billion (10 ⁹) CSI Common Safety Indicator CSM Common Safety Indicator CSM Common Safety Method DGB Directorate-General for Accessibility of the Ministry of Infrastructure and Environment ECM Entity in charge of maintenance EC European Community ERA European Railway Agency FWSI Fatalities and Weighted Serious Injuries IenM Ministerie van Infrastructure n Milieu (Ministry of Infrastructure and the Environment) ILT Inspectie Leefomgeving en Transport van het Ministerie van IenM (Human Environment and Transport Inspectorate of the IenM) ISZW Inspectie van Sociale Zaken en Werkgelegenheid (Inspectorate of Social Affairs and Employment) Km kilometre LOD Enforcement order MLN Million (10 ⁶) MO/PO Medical examination/psychological examination MWA Moving Weighted Average NRV National Reference Value NSA National Safety Authority NSR National Reference Value NSA National Reference Value NSA National Passenger Railway NVW Normenkader Veilig Werken (Framework of Standards on Safe Working) OvV Onderzoeksraad voor Veiligheid (Safety Board) RID Reglement betreffende het internationale spoorwegvervoer van gevaarlijke goederen (Regulations concerning the International Carriage of Dangerous Goods by Rail) RI&E Risk Inventory and Evaluation	ADR	Accord Européen relatif au transport international des marchandises
International Carriage of Dangerous Goods by Road). ALARP As low as reasonably practicable Arbo Arbeidsomstandighedenwet (Working Conditions Act) ATPVV Automatic Train Control, enhanced version BD Out of service BLN Billion (10 ⁹) CSI Common Safety Indicator CSM Common Safety Method DGB Directorate-General for Accessibility of the Ministry of Infrastructure and Environment ECM Entity in charge of maintenance EC European Community ERA European Railway Agency FWSI Fatalities and Weighted Serious Injuries IenM Ministerie van Infrastructure en Milieu (Ministry of Infrastructure and the Environment) ILT Inspectie Leefomgeving en Transport van het Ministerie van IenM (Human Environment and Transport Inspectorate of the IenM) ISZW Inspectie van Sociale Zaken en Werkgelegenheid (Inspectorate of Social Affairs and Employment) Km kilometre LOD Enforcement order MLN Million (10 ⁶) MO/PO Medical examination/psychological examination MWA Moving Weighted Average NRV National Reference Value NSA National Safety Authority NSR National Safety Authority NSR National Safety Authority NSR National Safety Authority Reglement betreffende het internationale spoorwegvervoer van gevaarlijke goederen (Regulations concerning the International Carriage of Dangerous Goods by Rail) RIBE Risk Inventory and Evaluation		dangereuses par route (European Agreement concerning the
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 ERA European Railway Agency FWSI Fatalities and Weighted Serious Injuries IenM Ministerie van Infrastructuur en Milieu (Ministry of Infrastructure and the Environment) ILT Inspectie Leefomgeving en Transport van het Ministerie van IenM (Human Environment and Transport Inspectorate of the IenM) ISZW Inspectie van Sociale Zaken en Werkgelegenheid (Inspectorate of Social Affairs and Employment) Km kilometre LOD Enforcement order MLN Million (10⁶) MO/PO Medical examination/psychological examination MWA Moving Weighted Average NRV National Reference Value NSR National Passenger Railway NVW Normenkader Veilig Werken (Framework of Standards on Safe Working) OvV Onderzoeksraad voor Veiligheid (Safety Board) RID Reglement betreffende het internationale spoorwegvervoer van gevaarlijke goederen (Regulations concerning the International Carriage of Dangerous Goods by Rail) RI&E Risk Inventory and Evaluation 	EC	European Community
 FWSI Fatalities and Weighted Serious Injuries IenM Ministerie van Infrastructuur en Milieu (Ministry of Infrastructure and the Environment) ILT Inspectie Leefomgeving en Transport van het Ministerie van IenM (Human Environment and Transport Inspectorate of the IenM) ISZW Inspectie van Sociale Zaken en Werkgelegenheid (Inspectorate of Social Affairs and Employment) Km kilometre LOD Enforcement order MLN Million (10⁶) MO/PO Medical examination/psychological examination MWA Moving Weighted Average NRV National Reference Value NSA National Safety Authority NSR National Passenger Railway NVW Normenkader Veilig Werken (Framework of Standards on Safe Working) OvV Onderzoeksraad voor Veiligheid (Safety Board) RID Reglement betreffende het internationale spoorwegvervoer van gevaarlijke goederen (Regulations concerning the International Carriage of Dangerous Goods by Rail) RI&E Risk Inventory and Evaluation 	ERA	European Railway Agency
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NVWNormenkader Veilig Werken (Framework of Standards on Safe Working)OvVOnderzoeksraad voor Veiligheid (Safety Board)RIDReglement betreffende het internationale spoorwegvervoer van gevaarlijke goederen (Regulations concerning the International Carriage of Dangerous Goods by Rail)RI&ERisk Inventory and Evaluation	NSR	National Passenger Railway
OvVOnderzoeksraad voor Veiligheid (Safety Board)RIDReglement betreffende het internationale spoorwegvervoer van gevaarlijke goederen (Regulations concerning the International Carriage of Dangerous Goods by Rail)RI&ERisk Inventory and Evaluation	NVW	Normenkader Veilig Werken (Framework of Standards on Safe Working)
 RID Reglement betreffende het internationale spoorwegvervoer van gevaarlijke goederen (Regulations concerning the International Carriage of Dangerous Goods by Rail) RI&E Risk Inventory and Evaluation 	OvV	Onderzoeksraad voor Veiligheid (Safety Board)
gevaarlijke goederen (Regulations concerning the International Carriage of Dangerous Goods by Rail) RI&E Risk Inventory and Evaluation	RID	Reglement betreffende het internationale spoorwegvervoer van
of Dangerous Goods by Rail) RI&E Risk Inventory and Evaluation		gevaarlijke goederen (Regulations concerning the International Carriage
RI&E Risk Inventory and Evaluation		of Dangerous Goods by Rail)
	RI&F	Risk Inventory and Evaluation
SPW Railways Act	SPW	Railways Act
STS Stop signal	STS	Stop signal
VPC Value of preventing a casualty	VPC	Value of preventing a casualty

Annexe D: Status of transposition of European legislation into Netherlands law

In 2012 in a number of areas of railway legislation European laws came into being.

The most important change was the recasting of the 1^{st} railway package [2012/34]. This set of amended Directives concerns the organisation of the railway market. This Directive replaces Directives 91/440, 95/18 and 01/14.

In the area of safety two important Regulations were established for the maintenance by operators of their Safety Management System [1078/2012] and supervision by the safety authorities of the SMS [1077/2012]. The second set at the safety level with which Member States must comply has been drawn up [2012/226] and replaces the first set from 2010.

A third important group of amended documents comprises the Technical Specifications for Interoperability. These specifications to be drawn up under the Directive are undergoing modification. Firstly because more harmonised solutions continue to be found, and secondly due to the integration of the high-speed TSIs and the conventional TSIs to form a single set of requirements applicable to both types of railway line.

The Operation TSIs 2008/231 and 2011/314 are being combined to form a new 2012/757 and the signalling TSI 2012/88. The latter replaces to the HS-TSI [2008/860] and the conventional TSI-CCS [2006/679].

As a result of ongoing development changes the following have been amended: TSI - Control-command and signalling subsystems (ERTMS) 2012/696, Annexe III to TSI-TAP [665/2012] and TSI-TAF [328/2012].

There have also been three 'verzamelbesluiten' combining a large number of amendments to older TSIs: 2002/731: TSI-CCS/HS, 2002/732: TSI-INS/HS, 2002/733: TSI-ENE/HS, 2002/735: TSI-RST/HS, 2006/66: TSI-NOI (omnibus 1 Decision)

2006/679: TSI-CCS/CR, 2006/860: Annexe A to TSI-CCS/HS (omnibus 2 Decision) 2006/861: TSI-WAG, 2008/163: TSI-SRT, 2008/164: TSI-PRM, 2008/217: TSI-INS/HS, 2008/231: TSI-OPE/HS, 2008/232: TSI-RST/HS, 2008/284: TSI-ENE/HS, 2011/229: TSI-NOI/CR, 2011/274: TSI-ENE/CR (omnibus 3 Decision).

Annexe E.: The development of safety certification and authorisation -**Statistical data**

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

		Total number of certificates:	Number of Part A certificates in ERADIS ²⁸
E1.1 Number of valid Part A safety certificates issued in 2012 and before, valid in 2012		26	26
<i>E1.2 Number of valid Part B safety certificates issued in</i>	Number of Part B safety certificates, for which Part A was issued in the Netherlands	26	26
2012 and before, valid in 2012	Number of Part B safety certificates, for which Part A was issued outside the Netherlands	7	7

			Α	R	Р
E1.3 Number of valid		New certificates	2	1	0
Part A safety certificates issued in		Revised certificates	0	1	0
2012 and before, valid in 2012		Renewed certificates	19	0	0
E.1.4 Number of new	Where Part A was issued in the	New certificates	2	1	0
<i>Part B safety</i> certificates granted for	Netherlands	Revised certificates	2	1	0
railway undertakings, issued in 2012		Renewed certificates	20	0	0
-	Where Part A was issued outside the	New certificates	0	0	0
	Netherlands	Revised certificates	2	0	0
		Renewed certificates	1	0	0

 $\begin{array}{l} \mathsf{A} = \mathsf{Application} \ \mathsf{accepted}, \ \mathsf{certificate} \ \mathsf{issued} \ \mathsf{in} \ \mathsf{2012}. \\ \mathsf{R} = \mathsf{Application} \ \mathsf{rejected}, \ \mathsf{no} \ \mathsf{certificate} \ \mathsf{issued} \ \mathsf{in} \ \mathsf{2012}. \\ \mathsf{P} = \mathsf{Application} \ \mathsf{pending}, \ \mathsf{certificate} \ \mathsf{not} \ \mathsf{yet} \ \mathsf{issued} \ \mathsf{in} \ \mathsf{2012}. \\ \end{array}$

²⁸ ERADIS is an ERA data information system on certificates issued by the National Railway Safety Authorities.

	Total certificates revoked in 2012	Number of revoked certificates shown in ERADIS in 2012
<i>E.1.5 Number of Part A safety certificates revoked in 2012</i>	0	0
<i>E.1.6 Number of Part B safety certificates revoked in 2012</i>	0	0

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
NMBS Logistics NV	Belgium
Captrain Belgium	Belgium
Crossrail Benelux NV	Belgium
DB Regio AG	Germany
RheinCargo GmbH	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
ERS Railways BV	Netherlands
Eurailscout Inspection & Analysis BV	Netherlands
Euro-Express Treincharter BV	Netherlands
HSA Beheer NV	Netherlands
HSL Logistiek BV	Netherlands
HTRS Nederland BV	Netherlands
KombiRail Europe BV	Netherlands
Lloyd's Register Rail Europe BV	Netherlands
Locon Benelux BV	Netherlands
LTE Netherlands BV	Netherlands
NedTrain BV	Netherlands
NS Reizigers B.V.	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
Zuid Limburgse Stoomtrein Maatschappij	Netherlands

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

	Total number authorisation	Total number of safety authorisations					
<i>E2.1 Number of valid safety in 2012 and in previous yeal the end of 2012</i>	authorisations rs still valid at	1					
		Α	R	Р			
	New certificates	0	0	0			
E2.2 Number of	Revised certificates	0	0	0			
applications for safety authorisations granted to infrastructure managers, issued in	Renewed certificates	1	0	0			

A = Application accepted, certificate issued in 2012.

R = Application rejected, no certificate issued in 2012.

P = Application pending, certificate not yet issued in 2012.

	Total number of safety authorisations rejected
<i>E2.3 Number of applications for safety authorisations from an infrastructure manager rejected in 2012</i>	0

America Ebij Emi Frocedarar aspects - Sarety certificates Farts A and B				
		New	Revised	Renewed
Average time from receipt of an application until issue of a Part A safety certificate		23 weeks	2	17
Average time from receipt of an application until	Where Part A was issued in the Netherlands	23 weeks	0	17
issue of a Part B safety certificate	Where Part A was issued outside the Netherlands	2	2	0

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

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

	New	Revised	Renewed
Average time from receipt of an	-	-	0
application until			
authorisation			

Annexe E6.: Number of train driver licences issued in 2012

	Positive decision	Negative decision	No longer under consideration decision
January	N/A	N/A	N/A
February	N/A	N/A	N/A
March	N/A	N/A	N/A
April	N/A	N/A	N/A
Мау	8	N/A	N/A
June	36	N/A	N/A
July	142	N/A	1
August	79	N/A	N/A
September	91	1	22
October	209	3	7
November	261	N/A	6
December	136	5	7
Total	962	9	43

N/A: Not applicable.