MINISTERIO
DE FOMENTO

National Railway Safety Authority of Spain

Annual Report

(Article 18 of Directive 49/2004)

2011

(Measures taken up to 31 December 2010)

GOBIERNO DE ESPAÑA
MINISTERIO DE FOMENTO
SECRETARÍA DE ESTADO DE PLANIFICACIÓN E INFRAESTRUCTURAS
SECRETARÍA GENERAL DE INFRAESTRUCTURAS
DIRECCIÓN GENERAL DE INFRAESTRUCTURAS FERROVIARIAS

National Safety Authority

Annual Report

2011

CONTENTS

A.1. CONTENTS OF THE REPORT

This report has been prepared by the Department of Railway Infrastructure, which currently acts as the National Safety Authority in Spain, as laid down by the legislation in force.

The report has been drafted pursuant to Article 18 of Directive 2004/49 on railway safety:

> *'Each year the safety authority shall publish an annual report concerning its activities in the preceding year and send it to the Agency by 30 September at the latest. The report shall contain information on:*
>
> *a) the development of railway safety, including an aggregation at Member State level of the CSIs laid down in Annex I;*
>
> *b) important changes in the legislation and regulations concerning railway safety;*
>
> *c) the development of safety certification and safety authorisation;*
>
> *d) the results of and experience relating to the supervision of infrastructure managers and railway undertakings.'*

The information contained in this report reflects the situation at the end of 2010, i.e. **up to 31 December 2010**.

The report sets out **information relating to the General Interest Rail Network (RFIG)[1] run by the Administrador de Infraestructuras Ferroviarias (ADIF - Railway Infrastructure Manager) and by TP Ferro[2]**, and the services and activities provided on that network. The scope of the report excludes:

a) metros, trams and other light rail systems,

b) networks whose operation is functionally separate from the RFIG run by the Railway Infrastructure Manager or from the other Spanish railway systems and which are only intended for urban, suburban, local or regional passenger transport services, and railway undertakings which operate only on this type of network,

c) privately owned railway infrastructure for use exclusively by the owner of the infrastructure for its own freight operations.

The report also excludes the State-owned metre-gauge rail network managed by FEVE (narrow-gauge network) which, although part of the RFIG, is not regarded as covered by Directive 2001/12/EC and, according to Spanish law, requires the approval of a specific set of rules.

1 Defined as per Article 4 of Law 39/2003 of 17 November.
2 Section situated in the Spanish territory of the International Section between Figueres and Perpignan.

A.2. EXECUTIVE SUMMARY

This report has been prepared by the *'Dirección General de Infraestructuras Ferroviarias*', within the Ministry of Transport, which is the current entity in charge of the Spanish National Safety Authority functions, in accordance with the provisions set up in the legislation in force.

Nevertheless, it is a temporary measure. In the 28/2006 Act (State Agencies for the improvement of public services Law, 18 July 2006) there are provisions for setting up the **Land Transport Safety Agency**, which will take over the responsibilities of the National Safety Authority permanently.

For the coming years, the organisational priorities with regard to safety are the consolidation of the National Safety Authority structure, reinforcing its increasing role in the national railway sector and its participation in the various national and international forums.

Other action priorities, for the next few years, are the following:

- After checking the process followed until now in Spain for the issue of safety certificates and authorisations, continue with its full adaptation to the European regulation by means of the development of different procedures. Some of them are indicated below:
  - Procedure for obtaining of railway safety certificates and authorisations.
  - Procedure for the evaluation of railway safety certificates and authorisations.
  - Procedure for the supervision and audit, by the NSA, of railway undertakings and infrastructure managers with safety certificates and authorisations, respectively.
- Modify the processes followed for the placing in service of rolling stock.
- Ensure that the maintenance of the railway vehicles is carried out suitably. This can be achieved through a better surveillance of the rolling stock maintenance workshops and with the inclusion, within the national legal framework, of the legal concept of 'entity responsible for maintenance'.
- Carry on with the plans for the level crossing elimination or their protection, as well as the fencing and the elimination of improper access points to the track, since they represent the main percentage of accidents involving rolling stock.
- After an accident, monitor the compliance of the safety recommendations of NIB, as well as incorporate the experiences of incidents and accidents into the procedures of the Railway Undertaking.
- Promote the progressive implementation of the Common Safety Methods of risk analysis, through regulatory and diffusion measures.

- Promote the safety culture through active involvement in the different European Working Groups -particularly in the European Railway Agency- and the dissemination of its results to the national railway sector.

Moreover, regarding the accidents, the measures must be aimed at providing a downward and positive trend in relation to the quantity of accidents and incidents that happen in the national railways network.

B. OVERVIEW

1. INTRODUCTION TO THE REPORT

As established in Rail Safety Directive 2004/49, the National Safety Authority must prepare a yearly report to be forwarded to the European Railway Agency with a view to its:

- use as basic information for the Agency from which to draw up the biannual report on safety;
- publication by the European Agency on its website.

The report is therefore addressed to the various players in the rail sector and to the general public through its dissemination by the European Railway Agency.

In order for the National Safety Authority to produce this report, the aforementioned Directive provides that:

> *'Each year all infrastructure managers and railway undertakings shall submit to the safety authority before 30 June an annual safety report concerning the preceding calendar year.'*

Accordingly, the various players in the national rail system must provide the information required by Directive 2004/49 in these reports.

As at 31 December 2010, the applicable Spanish basic legislation was:

- Law 39/2003 (the Rail Sector Act) of 17 November.
- Royal Decree 2387/2004 of 30 December, approving the Rail Sector Regulations, implementing the aforementioned Act .
- Royal Decree 810/2007 of 22 June approving the Regulations on Traffic Safety of the General Interest Rail Network.
- Royal Decree 1434/2010 of 5 November on the Interoperability of the General Interest Rail Network System.

Under those provisions, the functions of the National Safety Authority currently fall to the Department of Railway Infrastructure of the Ministry of Infrastructure and Transport.

In addition, when the data were being compiled for the drafting of this report, a number of problems were discovered which it is intended to solve in subsequent editions of this document, such as:

- the experience of the undertakings providing information in their annual reports is limited as yet.
- the definitions of indicators are not yet fully consistent (Regulation 91/2003 and Annex I to Directive 2004/49).

2. INFORMATION ON THE STRUCTURE OF THE RAIL SYSTEM (ANNEX A)

2.1. THE NETWORK

The Spanish UIC standard and Iberian gauge General Interest Rail Network is run by the public undertaking ADIF (Railway Infrastructure Manager), except for a small border section run by TP Ferro.

Under the Franco-Spanish concession contract, infrastructure manager powers were assigned to the concessionary undertaking TP Ferro. This undertaking was responsible for the construction and will be responsible for the maintenance and traffic management of a border section of line between Figueres and Perpignan (called the 'International Section'), 19.8 km of which is located in Spain, and accordingly falling within the RFIG [General Interest Rail Network].

Annex A.1 contains various maps of the network. For more details, please see the **Network Statements** drawn up by ADIF and TP Ferro, available at the following web addresses:

http://www.adif.es/es_ES/conoceradif/declaracion_de_la_red.shtml

http://www.tpferro.com/sites/default/files/Declaracion-de-Red-TPFERRO-2011.pdf

This Statement is the document that the infrastructure managers provide to the railway undertakings and other candidates to inform them of the characteristics of the infrastructure and terms of access to the network, ensuring transparency and non-discriminatory access.

2.2. LIST OF RAILWAY UNDERTAKINGS AND INFRASTRUCTURE MANAGERS

2.2.1. Infrastructure Managers

- ADIF
- TP Ferro

2.2.2. Railway Undertakings

As of 31 December 2010 the following undertakings held safety certificates:

- RENFE Operadora
- Continental Rail
- Acciona Rail Services
- Comsa Rail Transport

- Tracción Rail
- English Welsh and Scottish Railway International Ltd. (EWSI)
- Logitren Ferroviaria, S.A.U.
- Société Nationale des Chemins de Fer Français [French SNCF]

Annex A.2 contains the main particulars of those undertakings to which the Safety Directive applies.

In addition to these, at the end of 2010, the following undertakings holding railway undertaking licences did not yet have safety certificates (since they had not expressed interest in obtaining them to begin operation or because their applications were being processed):

- Activa Rail, S.A.
- Eusko Trenbideak – FF.CC. Vascos S.A.
- Arcelormittal Siderail, S.A.
- FESUR – Ferrocarriles del Suroeste, S.A.
- FGC Mobilitat, S.A.
- Alsa Ferrocarril, S.A.U.
- Guinovart Rail, S.A.

C. ORGANISATIONAL ASPECTS

1. INTRODUCTION TO THE ORGANISATION

Within the Government of Spain, the Ministry of Infrastructure and Transport is the department responsible for the rail sector as a whole. Under Rail Sector Act No 39/2003 of 17 November, its main areas of competence are:

- strategic planning of the rail sector, for both infrastructures and the provision of services;
- general organisation and regulation of the rail system, in particular in all matters relating to safety and interoperability and to relations between players in the sector;
- setting targets and supervising the activity of the public railway undertakings, ADIF and RENFE, and their financing arrangements.

Further information about its competences and structure can be found at the following web address: www.fomento.es

Within the Ministry of Infrastructure and Transport, the **Department of Railway Infrastructure** is responsible for exercising powers in relation to railways.

Among its other functions, the Department of Railway Infrastructure is temporarily responsible for carrying out the functions covered by this report. Specifically, under Royal Decree 30/2011 of 14 January, developing the basic organic structure of the Ministry of Infrastructure and Transport, it has been allocated the following functions:

> *e) Drawing up draft general provisions relating to railway infrastructures, traffic conditions, rail system safety and interoperability, rolling stock conditions and requirements and to railway staff with regard to safety.*
>
> *f) Exercising the powers falling to the Ministry of Infrastructure and Transport with regard to interoperability and safety of rail traffic in all matters concerning infrastructures, safety systems, rolling stock, their maintenance centres, railway staff relating to safety in rail traffic and training centres and medical examinations of such staff.*
>
> *h) Representing the Ministry of Infrastructure and Transport at international organisations and the European Union with regard to railway infrastructures, interoperability and safety of rail traffic and participation in the coordination and management bodies of the European rail corridors.*

Annex B.1 contains an organisational chart of the Department of Railway Infrastructure.

Those powers are exercised on a transitional basis by the Department of Railway Infrastructure while the State Land Transport Safety Agency, which will take on the role of the National Safety Authority, is being set up.

It has some 260 members of staff (including all of the Department's staff whose functions are unrelated to the National Safety Authority).

Furthermore, for activities related to the functions of the National Safety Authority, an additional 30 members of staff from other undertakings and organisations provide support to the Department of Railway Infrastructure.

2. RELATIONSHIP OF THE NATIONAL SAFETY AUTHORITY WITH OTHER NATIONAL BODIES

In 2010, in addition to the Department of Railway Infrastructure, the main players in the rail system were:

- **Department of Land Transport**

  This department reports on railway matters to the Ministry of Infrastructure and Transport, via the State Secretariat for Transport, and is responsible for issuing licences to railway undertakings.

- **Rail Regulation Committee**

  This is the rail sector regulator. It is a collegiate body reporting to the Under-Secretariat of the Ministry of Infrastructure and Transport. It is composed of officials from the Ministry of Infrastructure and Transport and its principal missions are:

  - To safeguard plurality in the provision of rail services.
  - To ensure equal conditions of access to the market for all operators.
  - To resolve disputes between ADIF and the railway undertakings.

  Further information about its competences and structure can be found at the following web address:

  http://www.fomento.gob.es/MFOM/LANG_CASTELLANO/ORGANOS_COLEGIADOS/CRF/

- **Rail Accident Investigation Commission**

  The Rail Accident Investigation Commission (CIAF) was established in 2007, attached to the Ministry of Infrastructure and Transport[3], but independent of the National Safety Authority, of ADIF and of the operators, as set out in Royal Decree 810/2007, and complies fully with the provisions of Directive 2004/49.

- **ADIF**

  The railway infrastructure manager, ADIF, was established by the Rail Sector Act, Law 39/2003 of 17 December. The articles of association of ADIF were laid down in Royal Decree 2395/2004 of 30 December 2004. It began operation on 1 January 2005. ADIF is a public enterprise, with managerial autonomy within the limits laid down by its governing regulations and is part of the Ministry of Infrastructure and Transport. It has its own legal personality, full capacity to work for the achievement of its ends, and its own assets. Its principal purpose is to manage and construct railway infrastructures.

  ADIF runs the General Interest Rail Network (RFIG), with the exception of the FEVE network and the stretch belonging to the 'International Section' run by the infrastructure manager, TP Ferro. As well as managing the aforementioned railway infrastructures (operation and maintenance), it is responsible for the construction of any lines commissioned by the State, funded either from its own resources, for lines it owns, or out of the State budget, where State-owned.

  Further information about its competences and structure can be found at the following web address: www.adif.es

- **TP Ferro**

  The undertaking TP Ferro is the concessionaire of the new high speed line between Spain and France for a period of 53 years. This concession, approved by the Kingdom of Spain and the French Republic in 2003 and endorsed via the concession contract of 17 February 2004 (BOE [Official State Gazette] 175 of 21/7/2004), authorises TP Ferro to act as Railway Infrastructure Manager of the 'International Section' covered by the concession, in accordance with Directive 2001/14/EC and with the provisions of the applicable legal rules and specifications in the territory of both concession-granting states. It began operation on 19 December 2010.

[3] As laid down by Royal Decree 638/2010 of 14 May, amending and establishing the basic organisational structure of the Ministry of Infrastructure and Transport, this body was attached to the Ministry of Infrastructure and Transport, via the General Secretariat for Transport.

Further information about its competences and structure can be found at the following web address: www.tpferro.com

- **RENFE-Operadora**

  The present undertaking RENFE-Operadora was established by the Rail Sector Act, Law 39/2003 of 17 November, as a public enterprise. RENFE's articles of association were established in Royal Decree 2396/2004 of 30 December 2004. It began operation on 1 January 2005.

  RENFE-Operadora was created by splitting off business units providing rail services and other commercial activities from the former railway undertaking.

  RENFE-Operadora is a public enterprise, with managerial autonomy within the limits laid down by its governing regulations and is attached to the Ministry of Infrastructure and Transport. It has its own legal personality, full capacity to work for the achievement of its ends, and its own assets. Its purpose is to provide passenger and freight rail services and other services or complementary activities or those linked to rail transport.

  Further information about its competences and structure can be found at the following web address: www.renfe.es

- **Other Operators**

  As a result of liberalisation of the goods transport sector new operators are gradually joining the rail sector. Between 2006 and 2009, in addition to RENFE-Operadora, five undertakings obtained the requisite safety certificate. Safety certificates were issued to other railway undertakings in 2010.

Annex B.2 contains an organisational chart setting out the relationships between the main players in the system.

D. EVOLUTION OF RAILWAY SAFETY

1. INITIATIVES FOR MAINTAINING/IMPROVING SAFETY

1.1. GENERAL SAFETY IMPROVEMENT POLICIES

The reference framework for infrastructures and transport in Spain is the **Strategic Infrastructure and Transport Plan** (**PEIT**), approved by the Government on 15 July 2005.

Its basic aims expressly include improving the already high levels of railway transport safety, paying particular attention to eliminating and improving the safety of level crossings.

In accordance with the PEIT objectives, the **main safety measures of the Ministry of Infrastructure and Transport** during 2010 have been a continuation of the medium-term activities initiated in previous years:

- **2005-2012 Level Crossings Safety Plan**, with a planned investment of EUR 1 080 million aimed at:
  - eliminating more than 50 % of the 3 764 public crossings in operation (including in the FEVE network, not covered by this report);
  - improving the protection system of the remaining crossings.
- **2006-2010 ADIF Strategic Plan**, which has a safety objective of reducing the rate of train accidents attributable to the infrastructure by 60 % in relation to the annual average of the previous administration.

  In order to achieve this target the **Programme of Measures to Improve the Safety and Functionality of the Network** is being implemented which, in the timeframe of the Strategic Plan, has planned investments of EUR 638 million.
- Introduction of the **ASFA Digital** system, after approval was given for prototype tests on 2 500 km and a contract was awarded for the manufacture, supply and assembly of 2 650 sets of equipment.
- **2006-2010 RENFE-Operadora Strategic Safety Plan**, intended to reduce the Acceptable Rate of Risk (TRA) to 0.030 accidents/million kilometres travelled as compared with 0.075 in 2005 (under the previous administration the average was 0.78). Planned investments are EUR 291 million.

1.2. OTHER MEASURES TO IMPROVE SAFETY

In addition to implementing the broad strategies referred to in the previous section, other specific measures were taken during 2010, focused on solving specific problems arising from accident rates and the investigation of events which have occurred.

1.2.1. Measures Taken by the Railway Infrastructure Manager (ADIF)

- **ANNUAL SAFETY PLAN, 2010.** The plan aims to achieve a continuous improvement in safety levels on the General Interest Rail Network and is the most important proactive tool in ADIF's safety system.

  The Annual Safety Plan's main objectives for 2010 were:

  - Preventing accidents and incidents.
  - To carry out each year in chronological order the measures of the ADIF Strategic Plan.
  - To have all departments of the undertaking commit to a gradual reduction in the rate of accidents and incidents.
  - To detect and correct infringements of the regulations, incorrect procedures, unsafe practices and possible shortcomings in the state of the facilities.
  - To establish an annual accident rate index to quantify the target indicator laid down in the Strategic Plan, assisting the continuous improvement in safety levels on the RFIG administered by ADIF.

  The level of compliance with all the measures provided for in the Annual Safety Plan 2010 was practically 100 %, and the accident rate was reduced below the target indicators set, with the exception of the serious accidents attributed to ADIF (2 events occurred in 2010, compared with a target of 1).

1.2.2. Measures Taken by the Railway Undertakings

Generally speaking, the railway undertakings in Spain approach safety through:

- Having the undertaking's management bodies approve their safety policy.
- A strategic traffic safety plan, aimed at continuously reducing risk levels.
- An annual traffic safety plan, which basically determines the annual operational inspection targets, i.e. the frequency and number of inspections to be carried out:
  - Safety inspections, safety checks and safety monitoring.
  - Checks on consumption of alcohol and psychoactive substances or drug abuse.
  - Inspections and audits of vehicles.

- Establishing a series of guidelines regarding Safety based on:
  - Changes in organisation and tools.
  - Consolidation of measures implemented in 2009.
  - Cross-reference guidelines of the undertaking.

More specifically, the main operator in Spain, Renfe-Operadora, took the following measures over the reporting year:

1.2.2.1. Renfe-Operadora

- **TARGETS SET BY THE MANAGEMENT CONTRACT, 2006-2010.** Renfe-Operadora achieved the Acceptable Rate of Risk (TRA) laid down in the Renfe-State Management Contract 2006-2010. For 2010, its reference value was set at 0.028 train accidents per million train-kilometres and the result achieved was 0.027.
- **STRATEGIC SAFETY PLAN.** This rolling strategic plan has a four-year span and contains a set of measures designed to reduce risk levels continuously, addressing issues such as modernising on-board safety facilities, improving rolling-stock equipment, updating training plans and reviewing and improving internal management systems.

  Operational Targets were set for each strategic line to reduce the number of accidents and incidents caused by human or technical error, by introducing new technologies enabling the risk of accidents to be eliminated or reduced, particularly in the context of driving rail vehicles.

  Listed below are the Operational Targets set with the measures carried out for each of them and their degree of achievement:

  1. Developing the Safety Management system;
     - Asegur@ platform development. (100%)
     - Development of equipment heating alarm management. (100%)
     - Review of the Safety Management System. (100%)
     - Evaluation of the Safety Management System. (95%)
  2. Reduction of Risks due to Human Error.
     - Development of Management of Risks due to the Human Factor. (100%)
     - Development of Medical Services Management related to staff qualification. (100%)
     - Verifying service provision conditions. (100%)

3. Reduction of Risks due to Technical Failure.
    - Development of Management of Risks due to Technical Failure. (100%)
4. Improving Safety through Training.
    - Assessment and Improvement of the quality of Training. (100%)

2. TREND ANALYSIS WITH DETAILED DATA

This report sets out statistics for significant accidents[4] occurring on the General Interest Rail Network run by the Railway Infrastructure Manager ADIF during 2010, while since TP Ferro began operating (at the end of December 2010) there have been no accidents or incidents on its network.

A series of graphs have been prepared showing the trend for each of the Common Safety Indicators, according to the criteria and formats supplied by the European Railway Agency.

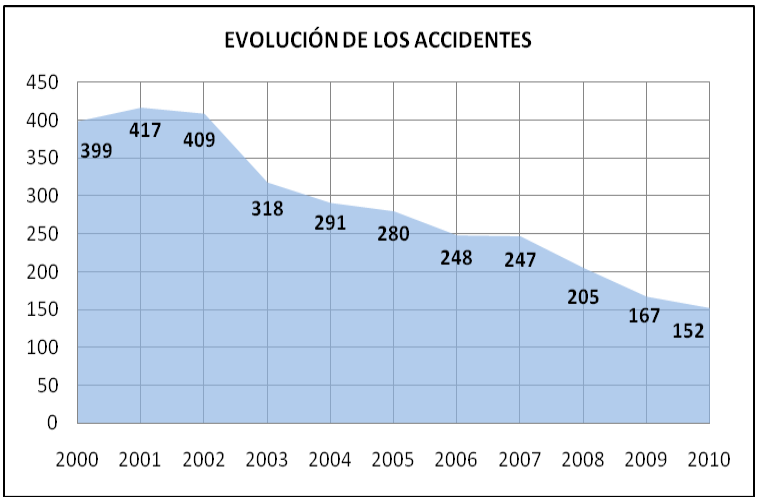
Annex C gives a breakdown of these statistics.

In 2010, 152 accidents occurred compared with 167 the previous year, which means a reduction of 9.0%. The accident rate (number of accidents per million train-kilometres travelled) was 0.814, less than the figure for the previous year of 0.888, representing a fall of 8.3%.

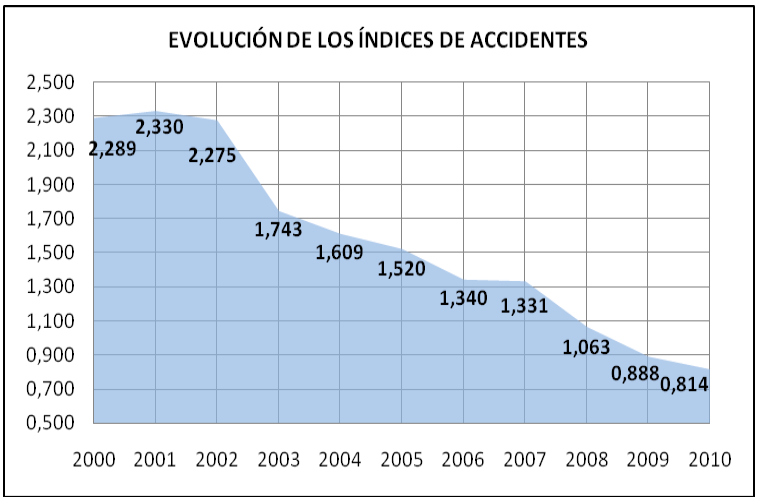
[4] **Accident**: *[as defined by Directive 2004/49]:* an unwanted or unintended sudden event or a chain of such events which have harmful consequences; accidents are divided into the following categories: collisions, derailments, level-crossing accidents, accidents to persons caused by rolling stock in motion, fires and others.

Significant accident *[as defined by Directive 2009/149/EC]:* any accident involving at least one rail vehicle in motion, resulting in at least one killed or seriously injured person, or in serious damage to stock, track, other installations or environment, or serious disruptions to traffic. Accidents in workshops, warehouses and depots are excluded.

Serious accident *[as defined by Directive 2004/49]:* any train collision or derailment, resulting in the death of at least one person or serious injuries to five or more persons or extensive damage to rolling stock, the infrastructure or the environment, and any other similar accident with an obvious impact on railway safety regulation or the management of safety; 'extensive damage' means damage that can immediately be assessed by the investigating body to cost at least EUR 2 million in total.



TREND OF ACCIDENTS

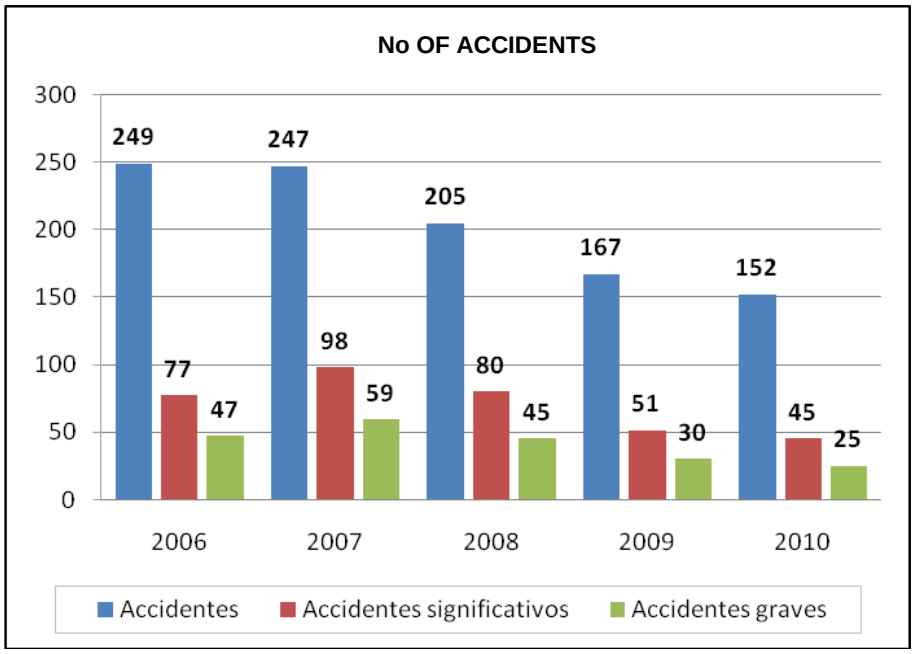


CHANGES IN ACCIDENT RATE

The series of graphs shown here illustrates the trend of the accident rate in recent years on the General Interest Rail Network (RFIG) managed by the Railway Infrastructure Manager, ADIF.

The first graph shows a **downward trend in the total number of accidents in recent years**, the total number having fallen by 97 between 2006 and 2010.

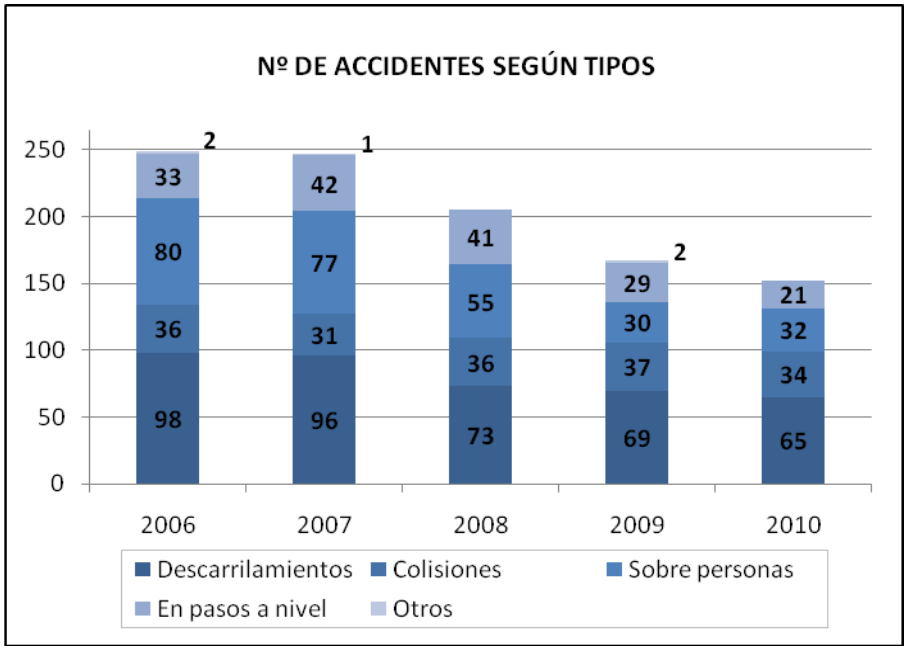
The total **significant and serious accidents that occurred** in 2007 has levelled out from then, and is clearly falling in successive years for both types of accidents (reaching minimum values for 2010):



Legend

Accidentes	**Accidents**
Accidentes significativos	**Significant accidents**
Accidentes graves	**Serious accidents**

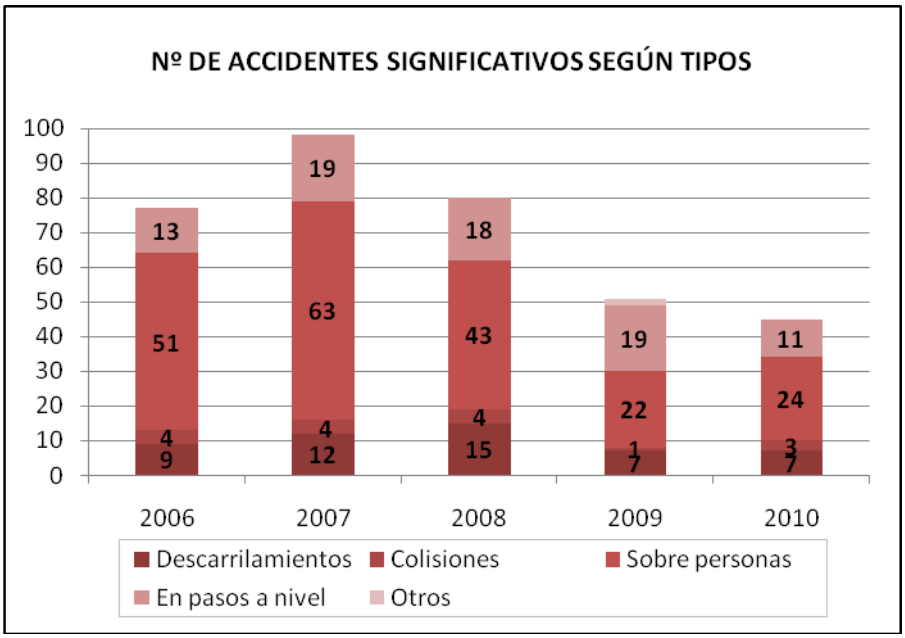
By type of accident, a reduction is observed compared with the previous year in derailments, level crossing accidents and collisions. By contrast, accidents to persons increased slightly.



N° DE ACCIDENTES SEGÚN TIPOS	NO OF ACCIDENTS BY TYPE
Descarrilamientos	**Derailments**
Colisiones	**Collisions**
Sobre personas	**To persons**
En pasos a nivel	**At level crossings**
Otros	**Other**

The third graph shows the number of **significant accidents broken down by type of accident**. By way of a general conclusion, no steady trend can be observed for any type of accident.

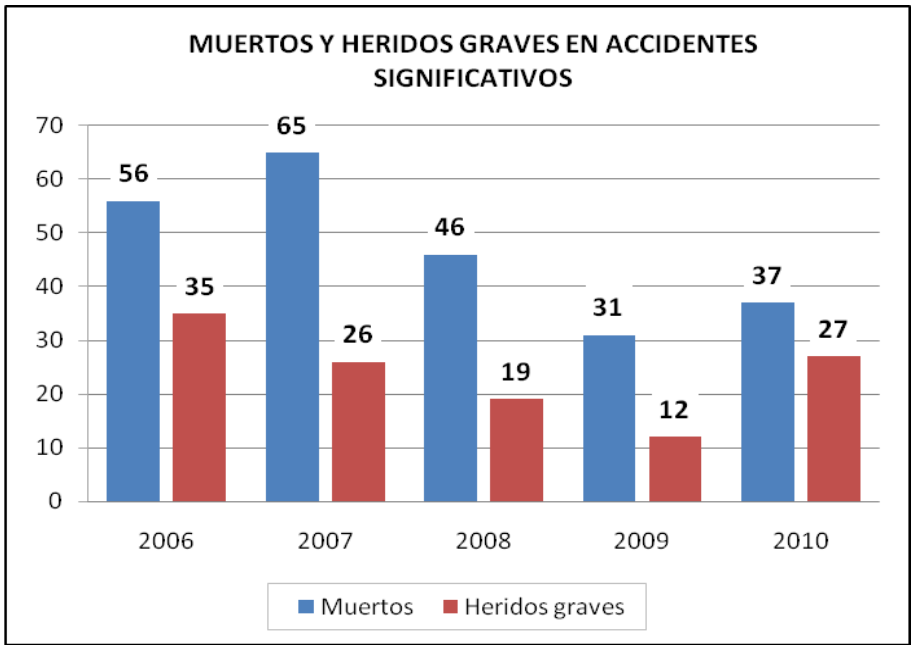
It should be noted that the number of accidents at level crossings fell considerably in 2010. However, accidents to persons have increased slightly. On the other hand, derailments and collisions have remained steady over the last year.



Nº DE ACCIDENTES SIGNIFICATIVOS SEGÚN TIPOS	NO OF SIGNIFICANT ACCIDENTS BY TYPE
Descarrilamientos	**Derailments**
Colisiones	**Collisions**
Sobre personas	**To persons**
En pasos a nivel	**At level crossings**
Otros	**Other**

The graph below shows the number of **fatalities** between 2006 and 2010 in a downward trend over the period 2006-2009, increasing again in 2010. The same thing occurs with **serious injuries**, also increasing in 2010.

It should be pointed out that this increase (in number of fatalities and serious injuries) is distorted by the occurrence of an isolated serious accident on 23 June 2010, at the **Platja de Castelldefels** station, where a Long-Distance, non-stop, passenger train ran into a group of people crossing the track at a prohibited spot. The causes of this accident were not attributable to any employee belonging to the rail sector. This incident caused a total of twelve fatalities, ten people seriously injured and seven slightly injured.

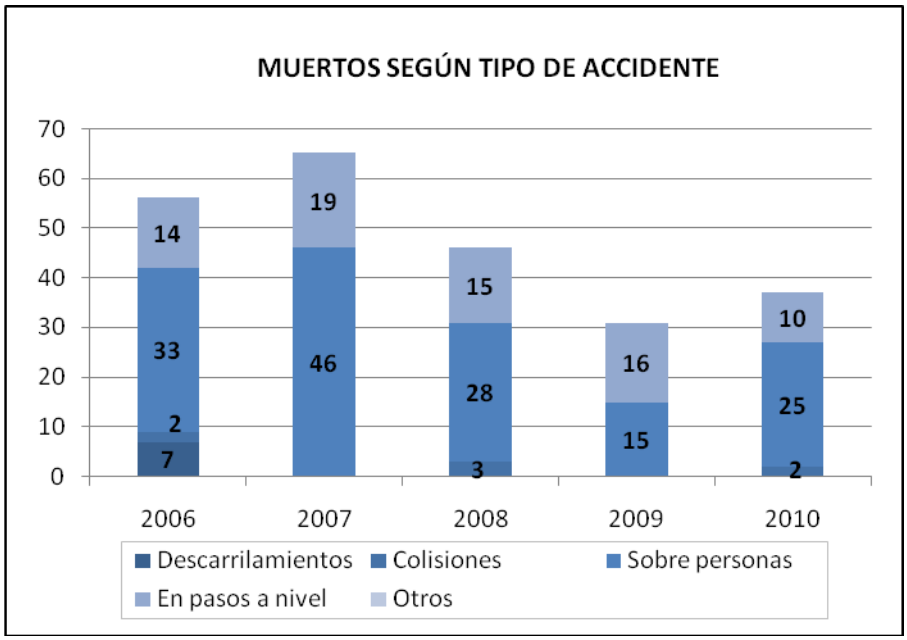


MUERTOS Y HERIDOS GRAVES EN ACCIDENTES SIGNIFICATIVOS	FATALITIES AND SERIOUS INJURIES IN SIGNIFICANT ACCIDENTS
Muertos	**Fatalities**
Heridos graves	**Serious Injuries**

Below is a breakdown of the number of **fatalities by different types of accident**.

If we discount the victims of the accident that happened at Platja de Castelldefels in 2010, given that it was a very rare occurrence, the number of fatalities in accidents to persons fell from 15 in 2009 to 13 in 2010.

Moreover, the number of accident victims at level crossings fell last year.



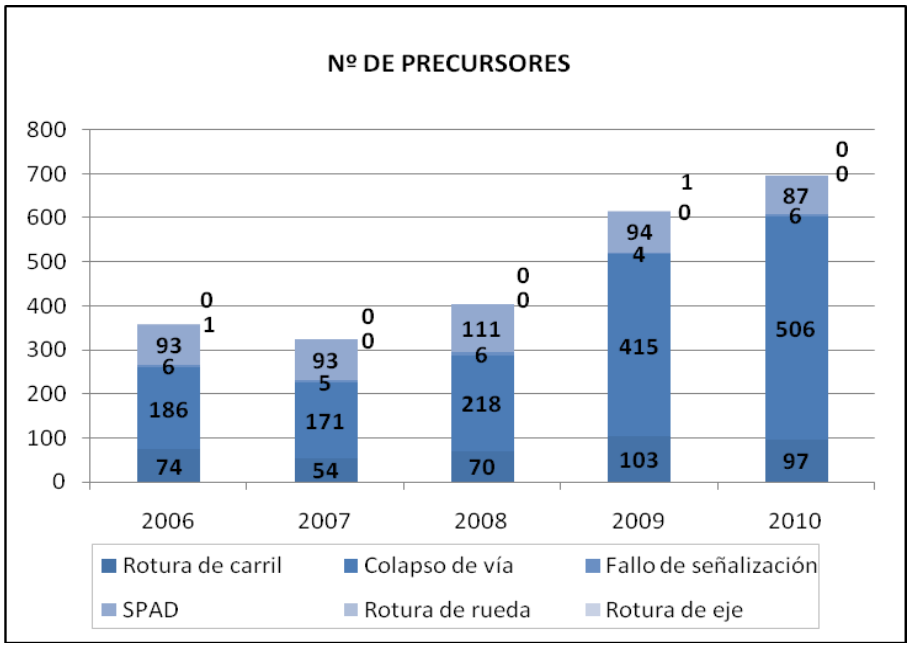
MUERTOS SEGÚN TIPO DE ACCIDENTE	FATALITIES BY TYPE OF ACCIDENT
Descarrilamientos	**Derailments**
Colisiones	**Collisions**
Sobre personas	**To persons**
En pasos a nivel	**At level crossings**
Otros	**Other**

Finally, the graph below compares the various **accident precursors** observed in recent years. The graph illustrates that there is no clear trend in the different types of precursor.

It should be pointed out that there were hardly any broken axles and/or wheels, only two such incidents occurring over the period 2006-2010.

Although the graph apparently shows a considerable increase in the number of track failures (almost doubling in 2009) and broken rails, this does not reflect a real increase in such incidents nor worse system safety, but rather the imposition of a more stringent criterion for assessing them, with the specific intention of stepping up monitoring and improving the safety of the system.

Furthermore, for properly commenting on accident precursors for track failures, the European Railway Agency (ERA) has been asked for a more precise definition of the concept of 'track deformation (or failure)', since a great disparity has been found in the data relating to this precursor coming from different Member States.



N° DE PRECURSORES	**NO OF PRECURSORS**
Rotura de carril	**Broken rail**
Colapso de vía	**Track failure**
Fallo de señalización	**Signal failure**
SPAD	**SPAD**
Rotura de rueda	**Broken wheel**
Rotura de eje	**Broken axle**

The following conclusions can be drawn from the analysis of railway accident data for 2010:

- A fall in the accident rate is observed on the General Interest Rail Network managed by the Railway Infrastructure Manager ADIF compared with previous years (-9% compared with 2009), confirming the downward trend of the last few years.
- The number of casualties underwent a slight rise after the fall experienced in 2009.

  The basic cause was the increase in casualties due to persons being run over. However, it must be pointed out that the main reason for this increase was a single extremely rare event, the multiple accident that occurred at the unmanned station of Platja de Castelldefels on 23 June 2010, which on its own accounted for two-thirds of the casualties for this type of accident during the past year, the causes of which were not attributable to the rail sector.

3. RESULTS OF SAFETY RECOMMENDATIONS

The investigation of accidents and incidents occurring on the network is a fundamental tool in detecting and preventing risk situations. This investigation must include accidents and accident precursors which, although without serious personal or financial repercussions, display particular characteristics such as recurring in time or in a geographical area or the fact that their causes may be attributable to railway management.

Accordingly, for every accident investigated a report is drawn up ascertaining the causes and making specific recommendations with a view to improving railway facilities, seeking possible guidelines for the conduct of persons involved and, in short, preventing it from recurring.

In 2010 the Rail Accident Investigation Commission investigated a total of 21 accidents and 8 incidents on the entire national network, 5 of which were classified as accidents to persons, 6 as level-crossing accidents, 9 as derailments, 1 as a collision, 7 as passing a signal (all resulting in near-collisions) and 1 forcing open of points.

Of the aforementioned total, in 2010, a total of 16 accidents and 7 incidents were investigated within the General Interest Rail Network run by the Railway Infrastructure Manager (ADIF), to which this report relates, according to the definition given in the Safety Directive (2004/49/EC). Of those, 5 were classified as accidents to persons, 3 as level-crossing accidents, 7 as derailments, a collision, 6 as signals passed and 1 as forcing open of points.

A highly significant feature of the accident rate in Spain is that a high proportion of accidents are not caused solely by railway operation; they are due to the involvement of third parties (level-crossing users or third parties improperly accessing railway facilities).

Set out below in summary form are the **most important safety recommendations** submitted by the Rail Accident Investigation Commission (CIAF) to the NSA from the aforementioned occurrences whose investigations were concluded, together with a summary of the responses from the sector, indicating the measures taken as a result of these recommendations.

- **Main recommendations** issued by the CIAF:
  - To insist, by means of training courses aimed at the employees of both the railway undertakings and the infrastructure managers, on strict compliance with the rules and procedures associated with each position.
  - To carry out inspections aimed at eliminating failure to comply with the rules laid down for performing work.

- To bring the conditions of certain level crossings (road signs, type of protection, adaptation of speed, etc.) into line with the provisions of the *Ministerial Order of 2 August 2001 implementing Article 235 of the Regulation of the Law Governing Land Transport, regarding the elimination and protection of level crossings*.
- Study and updating of procedures included in the Safety Management Systems of the infrastructure managers and railway undertakings.
- To carry out inspections and audits of specified track sections, rolling stock, etc.
- To insist on the need for periodic and suitable maintenance of all infrastructure components.

- Due to the special relevance of the accident to persons that occurred on 23 June 2010 at **Platja de Castelldefels**, the conclusion drawn from the investigation is described below separately:
  - No recommendation was made. The Department of Railway Infrastructure, as the National Railway Safety Authority, was sent the information obtained from other European countries on station safety features, in order to analyse the feasibility of introducing any of the existing safety measures in these countries, or other similar procedures, in particularly problematic stations of the General Interest Rail Network (RFIG).

    As a result of the foregoing, the Department of Railway Infrastructure (DGIF) has initiated a contract for a feasibility study on installing intermediate fencing between station tracks, as a measure for preventing improper crossing between platforms.

- Summary of actions taken by the infrastructure managers and railway undertakings **as a result of recommendations issued**:
  - Setting up communication workshops for employees.
  - The need for compliance with current regulations was stressed.
  - Periodic inspections in the field for observing the degree of compliance with current regulations and applicable procedures.
  - Drawing up new procedures.
  - Carrying out audits.
  - Development by the infrastructure manager of programmes for intensifying inspection and monitoring operations on the correct state of rail sleeper fastenings.
  - Communication of the importance of carrying out periodic maintenance programmes on all railway infrastructure components.

- Measures taken with regard to **incidents**.
  - With regard to incidents relating to vehicle components, action is being taken to intensify inspections of wagons to ensure that preventive maintenance tasks are being properly carried out.
  - The increase in shifting of loads is being tracked on a quarterly basis as well as the fulfilment of the corrective measures proposed, in particular proper closure of the containers' side tarpaulins during the loading process and their correct condition.
  - Track failure incidents, apart from seasonal components, require a major effort in main or secondary line maintenance. Accordingly, recommendations were made for addressing the fund for the urgent correction of anomalies (*Fondo para la Corrección Urgente de Anomalías*) detected in inspections and for implementing proposals for urgent improvement of the infrastructure.
  - With regard to signal failures, although the normally small number of incidents of this type means that the percentage value is not very significant, monitoring any activities that might give rise to this type of occurrence was recommended, particularly carrying out modification work to safety facilities.

E. MAIN CHANGES IN THE LEGISLATION AND REGULATIONS

The legislative development at national level continued during 2010, building on the legal bases laid down in previous years via the publication of the following legislation:

- **ROYAL DECREE 918/2010 OF 16 JULY, AMENDING ROYAL DECREE 810/2007 OF 22 JUNE, APPROVING THE REGULATIONS FOR THE SAFETY OF TRAFFIC ON THE GENERAL INTEREST RAIL NETWORK.**

  Transposition to the Spanish legal system of the new Annex I to Safety Directive 2004/49/EC (defined in Directive 2009/149/EC).

- **ORDER FOM/2257/2010 OF 2 AUGUST SETTING THE DATE FROM WHICH THE DEPARTMENT OF RAILWAY INFRASTRUCTURE WILL ASSUME POWERS IN THE MATTER OF SAFETY CERTIFICATES ESTABLISHED IN THE REGULATIONS FOR THE SAFETY OF TRAFFIC ON THE GENERAL INTEREST RAIL NETWORK.**

- **ROYAL DECREE 1434/2010 OF 5 NOVEMBER ON THE INTEROPERABILITY OF THE GENERAL INTEREST RAIL NETWORK SYSTEM.**

  Transposition into the Spanish legal system of the Interoperability Directive 2008/57/EC.

- **ORDER FOM/2872/2010 OF 5 NOVEMBER DETERMINING THE CONDITIONS FOR OBTAINING OPERATING LICENCES ENABLING THE EXERCISE OF RAILWAY STAFF FUNCTIONS RELATING TO TRAFFIC SAFETY, AS WELL AS THE OPERATING CONDITIONS OF APPROVED TRAINING CENTRES AND THOSE FOR THE MEDICAL EXAMINATION OF SUCH STAFF.**

Details of the above legislation can be found in **Annex D** to this document.

F. EVOLUTION OF SAFETY CERTIFICATION AND AUTHORISATION

1. SPANISH PROVISIONS ON THE ISSUANCE OF SAFETY CERTIFICATES AND AUTHORISATIONS PURSUANT TO DIRECTIVE 2004/49/EC

Until 7 September 2007 it was the Rail Sector Act, Law 39/2003, which required railway undertakings to have **SAFETY CERTIFICATES** prior to providing the service.

From that date Royal Decree 810/2007 entered into force, which provides in Title II:

> *'Title II, on safety authorisation and safety certificates, lays down the requirements and conditions for the granting, maintenance, suspension and revocation of those documents.'*

Accordingly, starting from the entry into force of Royal Decree 810/2007, which transposes Safety Directive 2004/49/EC, into Spanish law, safety certificates began to be issued in accordance with Article 10 of said Directive.

On this basis, **during 2010 eight Safety Certificates were issued to the following railway undertakings** (see section F.3 of this report for more details):

- Comsa Rail Transport;
- EWSI;
- Logitren Ferroviaria
- Continental Rail.
- Renfe – Operadora
- SNCF

The assessment process prior to the issue of safety certificates for the aforementioned railway undertakings was based on (EU) Regulation No 1158/2010[5] of the Commission of 9 December 2010 on a common safety method for assessing conformity with the requirements for obtaining railway safety certificates.

With regard to the obligation of the Infrastructure Manager (in this case ADIF) to have a **SAFETY AUTHORISATION**, under Royal Decree 810/2007 Transitional Provision One of that decree has to be taken into account:

> *'From entry into force of this Royal Decree the Railway Infrastructure Manager shall, for the purposes of performing its functions, be treated as having the safety authorisation referred to in Article 9 of the Rules on Traffic Safety in the General Interest Rail Network.*

[5] Despite (EU) Regulation No 1158 being published in the OJEU on 10/12/2010, throughout the different assessment processes the latest versions of existing drafts prior to its publication were used.

Notwithstanding the foregoing, the Railway Infrastructure Manager shall, within a maximum period of two years from the date of entry into force of this Royal Decree, take the appropriate measures to comply with said rules and to apply formally for the relevant safety authorisation in accordance with these, submitting the documents referred to therein'.

In view of the above, in 2010 the Department of Railway Infrastructure granted the safety authorisation to the Railway Infrastructure Manager, ADIF.

Furthermore, at the end of 2010 the infrastructure manager TP Ferro obtained the safety authorisation for the Spanish stretch of the international section that it manages, in coordination with the French national safety agency under transient operating conditions.

In summary, in 2010 the Department of Railway Infrastructure (DGIF) granted Safety Authorisations to the infrastructure managers listed below (see section F.3 of this report for further information):

- ADIF
- TP Ferro

The assessment process prior to the issue of safety authorisations for the aforementioned railway infrastructure managers was based on (EU) Regulation No 1169/2010[6] of the Commission of 10 December 2010 on a common safety method for assessing conformity with the requirements for obtaining railway safety authorisations.

[6] Despite (EU) Regulation No 1169 being published in the OJEU on 11/12/2010, throughout the different assessment processes the latest versions of existing drafts prior to its publication were used.

2. AVAILABILITY OF SPANISH SAFETY RULES AND ALL OTHER RELEVANT NATIONAL LEGISLATION FOR RAILWAY UNDERTAKINGS AND INFRASTRUCTURE MANAGERS

Information about Spanish safety rules and all other related national legislation can be found on the website of the Ministry of Infrastructure and Transport:

http://www.fomento.es/MFOM/LANG_CASTELLANO/DIRECCIONES_GENERALES/FERROCARRILES/_INFORMACION/NORMATIVA/

This information can also be found in ADIF's Network Statement, which is available at the following web address:

http://www.adif.es/es_ES/conoceradif/declaracion_de_la_red.shtml

The full texts of the Spanish safety regulations and laws can also be obtained on the website of the Official State Gazette (BOE), as they are published there before their entry into force:

www.boe.es

3. PROCEDURAL ASPECTS

3.1. PART A SAFETY CERTIFICATES

A new Part A Safety Certificate was issued in 2010.

RAILWAY UNDERTAKING	TYPE OF CERTIFICATE	DATE OF ISSUE	FEE
Logitren Ferroviaria	New	25/06/10	€10 932.56[7]

3.2. PART B SAFETY CERTIFICATES

The following table sets out some characteristics of the Part B safety certificates issued:

RAILWAY UNDERTAKING	TYPE OF CERTIFICATE	DATE OF ISSUE	REASONS FOR UPDATE	FEE
Comsa Rail Transport	Update	29/03/10	Extension of lines	€5 466.28
EWSI	Update	29/03/10	Extension of lines	€5 466.28
Logitren Ferroviaria	New	25/06/10	--	--
Continental Rail	Update	26/10/10	Extension of lines	€5 466.28
RENFE-Operadora	Update	13/12/10	Extension of lines	€5 466.28
SNCF[8]	New	15/12/10	--	€10 932.56
Logitren Ferroviaria	Update	28/12/10	Extension of lines	€5 466.28

3.3. SAFETY AUTHORISATIONS

In 2010, the Department of Railway Infrastructure issued the following safety authorisations:

INFRASTRUCTURE MANAGER	TYPE OF AUTHORISATION	DATE OF ISSUE	FEE
ADIF	New	29/04/10	no
TP Ferro	New	15/12/10	no

[7] The amount of the fee is for the issue of a new safety certificate, including its Parts A and B.

[8] Safety certificate for international passenger service with restricted territorial scope up to the station of Figueres and under the transient operating conditions of the International Section.

G. SUPERVISION OF RAILWAY UNDERTAKINGS AND INFRASTRUCTURE MANAGERS

Until now, the NSA has audited and supervised railway undertakings' and infrastructure managers' safety management systems indirectly through these undertakings' inspections of their operations rather than by means of direct audits of the safety management system.

With regard to Part A Safety Certificates, given that they cover the safety management system, which comprises the company's operating methods, the following inspections were carried out during traffic operations:

INSPECTIONS		RAILWAY UNDERTAKINGS:
Number of inspections of RUs and IMs in 2010	Loading inspections	818
	Technical Inspection of Equipment in Service (ITMS)	5 237
	Monitoring of train	16 501
	Inspection of trains before they go into service	3 517
	Inspections of manoeuvres	1 667
	Alcohol and drug tests	4 738
	Driving Centres, Residences, Production and Management Centres	578
	INFRASTRUCTURE MANAGERS:	
	5 957 inspections carried out (4 060 scheduled inspections and audits + 1 897 unscheduled inspections) / 3 885 planned inspections. Result: 1 854 anomalies detected, 15% of them low level, 51% medium level and 34% high level[9], the last of these being basically concentrated in wagon inspections.	

[9] **Anomalies, types and measures:**
For handling, analysis and subsequent action, three types of anomalies have been identified, each level being associated with different measures:
Low level: Anomaly not entailing the establishment of immediate restrictions on the infrastructure (speed limits, etc.) or stock.
Medium level: Anomaly entailing the establishment of immediate restrictions on the infrastructure or stock but allowing traffic to continue running on them subject to immediate repair or overhaul.
High level: Anomaly preventing any kind of traffic where it is linked to the infrastructure or the stock.

Inspections for Part B, dealing mainly with the existence of properly qualified staff and authorised rolling stock, are carried out by:

- Checking that staff are properly qualified before authorising operations.
- Inspecting rolling stock and locomotives.

Approximately 95% of these inspections are carried out in accordance with the safety plans.

In any event, in the course of 2010, no significant anomaly arose that could have led to:

- Modification, revocation or suspension of, or a significant warning on safety certificates.
- Complaints by ADIF about operators or vice versa.

H. REPORT ON THE ADOPTION OF COMMON SAFETY METHODS (CSMS) FOR RISK EVALUATION AND ASSESSMENT

In Spain, on 10 December 2008, the Department of Railway Infrastructure approved an internal legal document based on the existing draft versions of Regulation No 352/2009 available at this date:

- **Circular Decision (10/2008) on the validation procedure for applications for authorisation of the placing in service of modified rolling stock, in accordance with Order FOM/233/2006 on the conditions for approval of railway rolling stock.**

The aforementioned decision regulates the procedure for authorising the placing in service of rolling stock which has already been authorised and subsequently modified. This new procedure introduces the most important aspects of Common Safety Method risk assessment and analysis.

With the entry into force of part of Regulation No 352/2009 in mid-2010, the drafting of a new circular decision was initiated with the aim of amending the existing Circular Decision (10/2008), adapting it to the CSM Regulation for Risk Assessment. Its publication is planned for early 2011.

Listed below are several notable examples of the application of Circular Decision No 10:

- Modification of vehicle gauge:
  - Change of variable gauge bogies to Spanish fixed gauge.
  - Adaptation of Iberian gauge to UIC gauge of 1 435 mm (modifying brake and running gear).
- Introduction of communication systems into vehicles (GSM-R).
- Introduction of Spanish train protection and radio communication systems into vehicles originating from another Member State. The driver selects the systems to be used by means of a switch (‘country switch’) when passing from one network to another according to the interoperability instruction in force.
- Adaptation of electric vehicles for operating on tracks without a catenary (diesel-electric operation).
- Installation of devices for signalling incorrect pressure in bogie brake cylinders. This is intended to warn the driver of abnormal situations (like residual pressures in brake cylinders) in order to prevent placing the train in motion in such circumstances and so that the appropriate corrective measures can be adopted.
- Introduction of a system for resetting alarm devices by remote control. The purpose of this modification is that, after a passenger emergency alarm has been activated, the driver may look at the situation and depending on a series of factors, may pinpoint which handle has been pulled and move the train to a safer place or situation and, once the train is stopped, reset the emergency alarm handle or handles that have been activated. The aim of this is to avoid significant

risks in certain situations for trains, as for example, stopping in tunnels, on bridges, faced with a fire in the coaches, etc.

- Adaptation to the service of lines supplied with a catenary voltage of 1.5 kV DC. A push-button has been installed in the cab for changing from the 25 kV AC voltage service to the 1.5 kV DC voltage service.
- Introduction of hook movement restriction in locomotives so that they can travel on international gauge tracks. For this, all that is needed are changes in the running gear and bogie chassis so that they are suitable for running on international track gauge.
- Software modifications in vehicles of a different type, such as:
  - Software for changing speed on passing through gauge changers.
  - Access door control software.
  - Software that affects several systems regarded as non-critical from the safety point of view, which improve operational efficiency, reliability and maintenance.
  - Traction control software.

Finally, it should be pointed out that the Department of Railway Infrastructure (DGIF), acting as the Spanish national safety authority and, waiting for conditions for accreditation and/or recognition of assessment bodies to be defined, recognises safety assessors as laid down in Annex II to (EC) Regulation No 352/2009.

I. CONCLUSIONS OF THE NSA – PRIORITIES

During 2010, as in previous years, the duties of the Spanish National Safety Authority were carried out by the Department of Railway Infrastructure. That task is transitional since the Act on State Agencies for the Improvement of Public Services, Law No 28/2006 of 18 July, provided for the creation of the Land Transport Safety Agency, which is called upon to act as the definitive National Safety Authority.

The organisational priorities with regard to safety for the coming years are to consolidate the structure of the National Safety Authority, reinforcing its growing role in the national rail sector and its involvement in various national and international forums.

Other priorities for action over the coming years are as follows:

- Once the procedure for issuing safety certificates and authorisations which has been followed so far in Spain has been reviewed, to continue bringing it into line with European regulations by means of setting up various procedures, such as:
  - Procedure for obtaining railway safety certificates and authorisations, useful to the sector.
  - Procedure for assessing safety certificates and authorisations.
  - Procedure for the NSA to supervise and audit the railway undertakings and infrastructure managers possessing safety certificates and authorisations, respectively.
- To change the procedures followed for placing rolling stock into service.
- To ensure that railway vehicles are maintained properly. This can be achieved by monitoring rolling stock maintenance workshops more closely and including, within national legislation, the legal concept of ‘entity responsible for maintenance’.
- To proceed with plans to eliminate or protect level crossings and fencing them, and to eliminate unauthorised track access points, since they are responsible for the majority of accidents involving railway rolling stock.
- To monitor compliance with the Rail Accident Investigation Commission (CIAF) safety recommendations after accidents, and ensure that experiences of incidents and accidents are taken into account in the procedures of the railway undertakings.
- To promote the progressive implementation of the Common Safety Methods of risk analysis, through regulatory and dissemination measures.

- To promote a safety culture through active involvement in the various European Working Groups - particularly in the European Railway Agency - and the dissemination of its results to the national railway sector.

Moreover, with regard to accident rates, measures must be directed at promoting consolidation of a downward, and therefore positive, trend in the number of accidents and incidents occurring on the General Interest Rail Network.

J. SOURCES OF INFORMATION

Bibliography:

[1] '*CIRTRA 2010*' – Traffic Operation Department, ADIF.

[2] '*Network Statement 2011* – Update' – Infrastructure Operation Department, ADIF.

[3] '*Network Statement 2011*' – TP Ferro.

[4] *DIRECTIVE 2004/49/EC OF THE EUROPEAN COUNCIL AND OF THE PARLIAMENT* of 29 April 2004.

[5] '*Annual Report of Rail Accidents on the General Interest Rail Network, 2010*' – Department of Traffic Safety, ADIF.

[6] '*2010 Annual Report on Traffic Safety*' – Department of Traffic Safety, RENFE-Operadora.

[7] *'Safety Report 2010'* – Department of Safety and Training, Continental Rail.

[8] '*Annual Safety Report 2010*' – Department of Safety and Training, EWS.

[9] '*Annual Report 2010*' – Comsa Rail Transport, S.A.

[10] '*Annual Safety Report, 2010*' – ADIF.

[11] '*Annual Safety Report, 2010*' – TP Ferro.

[12] '*Annual Safety Report, 2010*' – Logitren Ferroviaria S.A.

[13] '*SNCF Annual Safety Report* – Travel in Spain – 2010'

[14] '*Strategic Infrastructure and Transport Plan (PEIT)*' – Ministry of Infrastructure and Transport – Approved by the Government on 15 July 2005.

[15] *ROYAL DECREE 810/2007* of 22 June approving the Regulations on Traffic Safety on the General Interest Rail Network.

Websites consulted:

[16] www.fomento.es

In addition to all the above references, further information supplied by the various rail operators and railway infrastructure managers was used in writing this report.

K. ANNEXES

ANNEX A: INFORMATION ON THE RAILWAY STRUCTURE

ANNEX B: ORGANISATIONAL CHART OF THE NATIONAL SAFETY AUTHORITY

ANNEX C: CSI DATA – DEFINITIONS USED

ANNEX D: SIGNIFICANT CHANGES TO LEGISLATION AND REGULATIONS

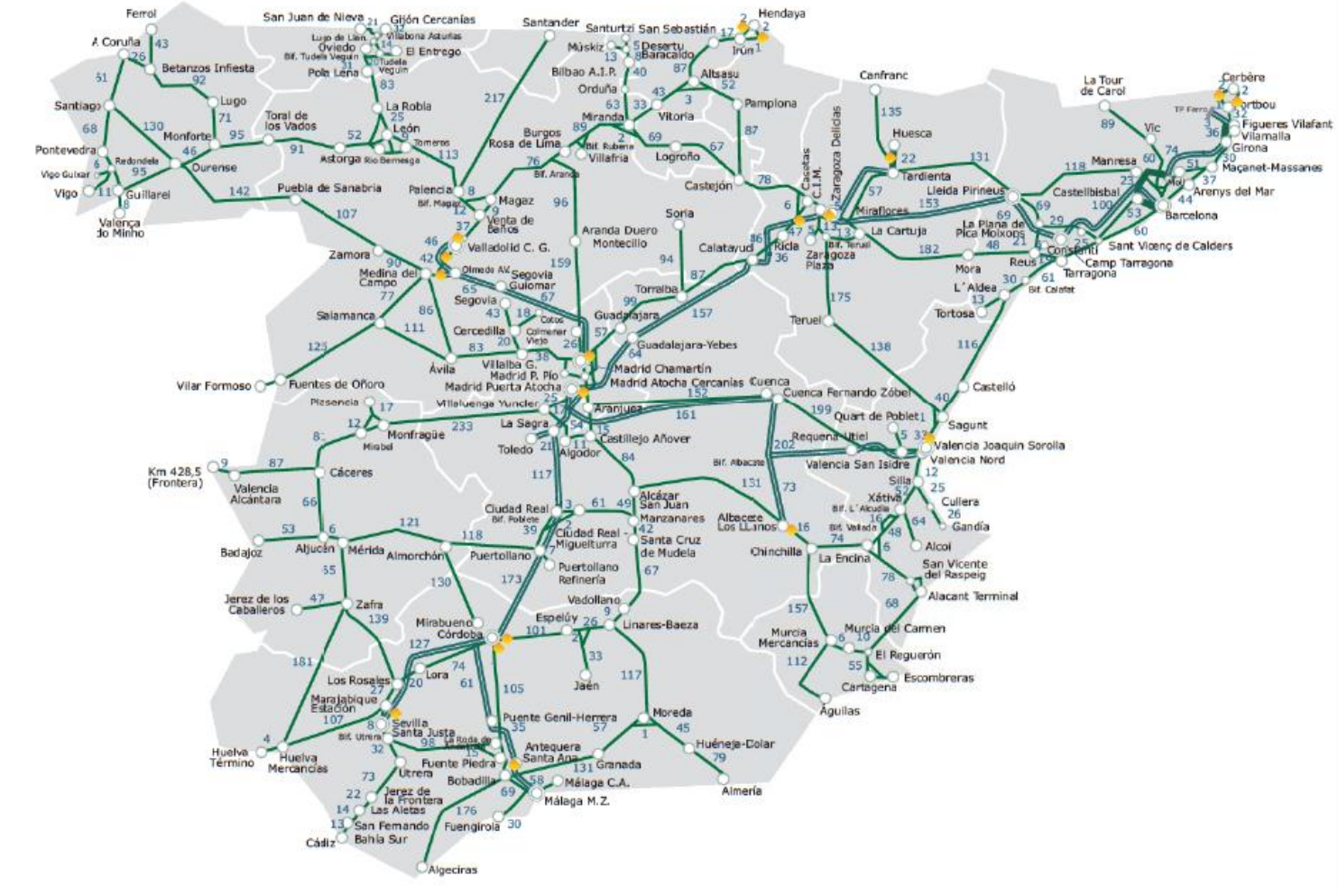
ANNEX E: TRENDS IN SAFETY CERTIFICATION AND AUTHORISATION – NUMERICAL DATA

ANNEX A: Information on the railway structure

ANNEX A.1: Network plans

DISTANCES IN KILOMETRES

DISTANCIAS KILOMÉTRICAS



ESTACIONES CATEGORÍA 1	**CATEGORY 1 STATIONS**
LÍNEAS ALTA VELOCIDAD (1.435 mm)	**HIGH-SPEED LINES (1 435 mm)**
TERCER CARRIL (1.435 mm y 1.668 mm)	**THIRD RAIL (1 435 mm and 1 688 mm)**
RESTO LÍNEAS	**OTHER LINES**
CAMBIADOR	**GAUGE SWITCHER**
31 Diciembre 2010	**31 December 2010**

Fuente: Declaración sobre la Red 2011. ADIF
Source: 2011 Network Statement. ADIF

MAXIMUM SPEEDS

Fuente: Declaración sobre la Red 2011. ADIF
Source: 2011 Network Statement. ADIF

TIPOLOGÍA DE LA ELECTRIFICACIÓN VÍAS ELECTRIFICADAS

TYPES OF ELECTRIFICATION ELECTRIFIED LINES

CATENARY

COMPENSATED

UNCOMPENSATED

HIGH-SPEED

ELECTRIFIED LINE

DOUBLE-TRACK AT 25 kV, 50 Hz

DOUBLE-TRACK AT 3 kV

SINGLE TRACK AT 25 kV, 50 Hz

SINGLE-TRACK AT 3 kV

SINGLE-TRACK AT 1.5 kV

NON-ELECTRIFIED TRACK

DOUBLE

SINGLE

31 December 2010

Fuente: Declaración sobre la Red 2011. ADIF
Source: 2011 Network Statement. ADIF

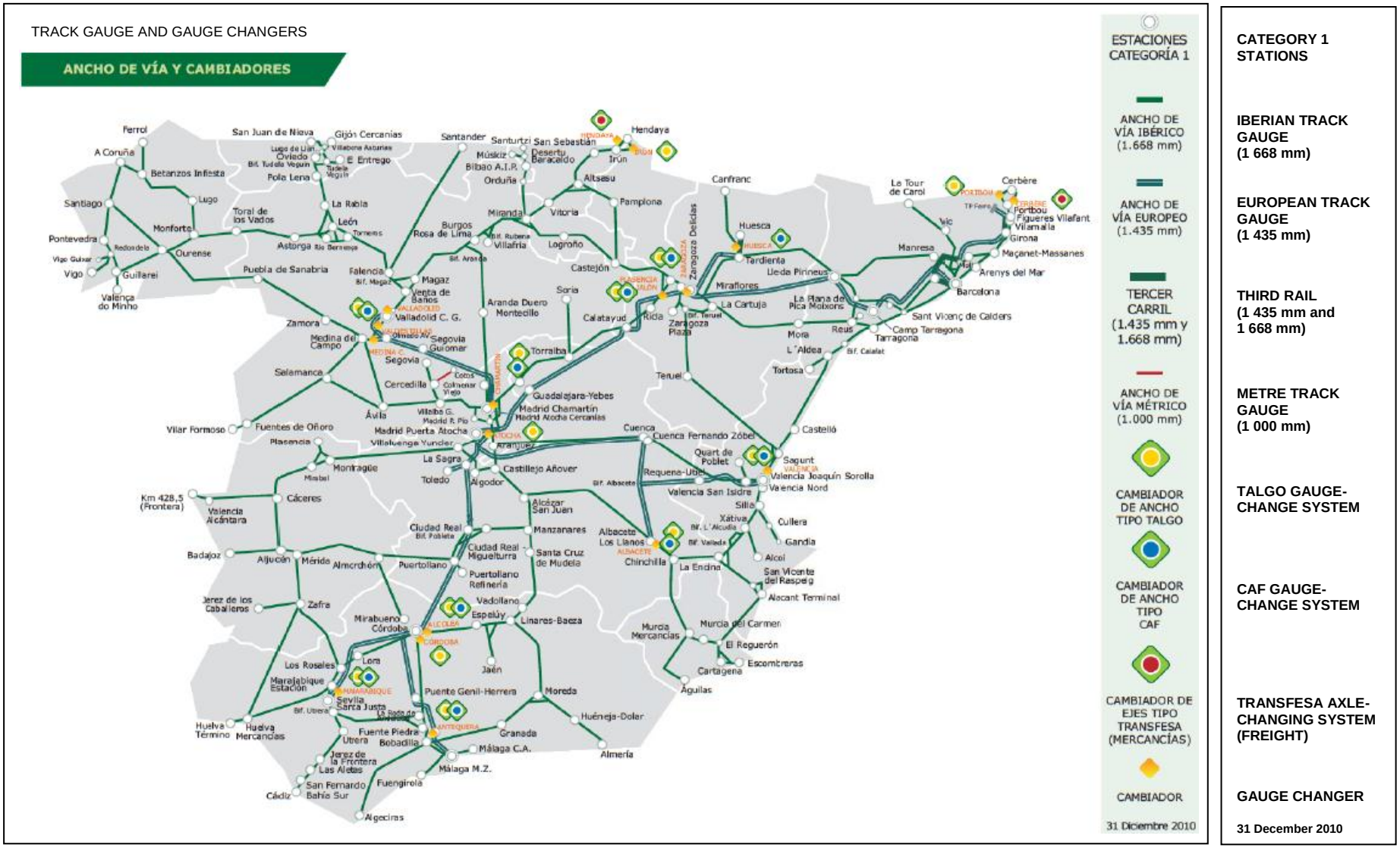
SISTEMAS DE SEGURIDAD — SAFETY SYSTEMS

ERMTS	
LZB	
ASFA	
ATP-EBICAB	
TRAIN-TO-TRACK	
TRAIN-TO-TRACK AND ASFA	
GSMR	
DOUBLE TRACK	
SINGLE TRACK	
HIGH-SPEED LINES (1 435 mm)	
THIRD RAIL (1 435 mm and 1 668 mm)	
31 December 2010	

Fuente: Declaración sobre la Red 2011. ADIF

Source: 2011 Network Statement. ADIF

TRACK GAUGE AND GAUGE CHANGERS



CATEGORY 1 STATIONS	
IBERIAN TRACK GAUGE (1 668 mm)	
EUROPEAN TRACK GAUGE (1 435 mm)	
THIRD RAIL (1 435 mm and 1 668 mm)	
METRE TRACK GAUGE (1 000 mm)	
TALGO GAUGE-CHANGE SYSTEM	
CAF GAUGE-CHANGE SYSTEM	
TRANSFESA AXLE-CHANGING SYSTEM (FREIGHT)	
GAUGE CHANGER	
31 December 2010	

Fuente: Declaración sobre la Red 2011. ADIF
Source: 2011 Network Statement. ADIF

ANNEX A.2: List of infrastructure managers and railway undertakings with safety certificates

A.2.1. Infrastructure manager

Name	Address	Website / Link to network statement	Safety authorisation (number / date)	Date of commence-ment of trading	Total track length/gauge	Length of electrified track / network voltage	Total length of double/single track	Total length of high-speed line	ATP equipment used	Number of level crossings	Number of signals
ADIF	C/ Sor Ángela de la Cruz, 3 Madrid 28020, Spain	www.adif.es	29/04/2010	01/01/2005	2 094 km/1 435 mm 11 623 km/1 668 mm 18 km /1 000 mm 118 km/ mixed **13 853 km total**	**8 581.7 km electrified**	8 738.9 km single track 5 113.9 km double track	2 030.26 km	ERTMS ASFA LZB ATP-EBICAB GSMR	2 522	[No data]
TP Ferro	Ctra. Llers a Hostalets GIP-5107, Km. 1 Llers 17730 Spain	www.tpferro.com	15/12/2010	19/12/2010	20 km/1 435 mm	**20 km / 25 000 V (AC)**	20 km double track	20 km	ERTMS	-	[No data]

A.2.2. Railway Undertakings

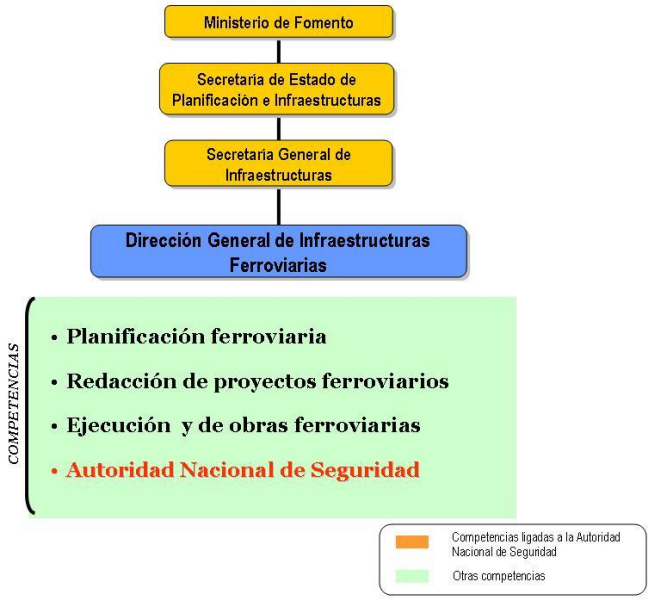
Name	Address	Website	Safety certificate 2001/14/EC (Number / date)	Safety certificate A-B 2004/49/EC (Number / date)	Date of commence-ment of trading	Type of traffic (freight, etc.)	Number of locomotives	Number of train sets/ suburban train set elements	Number of coaches/ wagons	Number of drivers/safety personnel	Volume of passenger transport	Volume of freight transport
RENFE Operadora	Avenida Pío XII, 110 Madrid 28036, Spain.	www.renfe.es	-	13/12/2010 (extension)	1/01/2005	Passengers Freight	524	1 251	Coaches 1 250 Wagons: 12 996	Drivers: 5 051 Safety: 187	>200 mill. passengers / year	>500 mill. ton-km / year
Continental Rail	C/ Orense, 11 – 2ºF Madrid 28020 Spain	www.continentalrail.es	-	26/10/2010 (extension)	15/02/2007	Freight	8	-	133 wagons:		-	< 500 mill. ton-km / year
Acciona Rail Services	Avda. de Suiza, 18 -20 Coslada 28820, (Madrid) Spain	www.acciona.es	26/12/2006	-	28/01/2007	Freight	2	-	32 wagons:	Drivers: 4 Safety: 1	-	< 500 mill. ton-km / year
Comsa Rail Transport	C/ Viriato, 47 – 10ª Barcelona 08014 Spain	www.comsaemte.com	-	29/03/2010 (extension)	15/01/2008	Freight	8 (own) 4 (hired)	-	100 wagons 203 (hired)	Drivers: 42 Safety: 2	-	< 500 mill. ton-km / year
Tracción Rail	C/ Almendralejo, 5 Seville 41019 Spain	www.azvi.es/ferroviario.php	-	24/07/2009 (extension)	23/04/2008	Freight	2	-	-	Drivers: 12 Safety: 1	-	< 500 mill. ton-km / year

Name	Address	Website	Safety certificate 2001/14/EC (Number / date)	Safety certificate A-B 2004/49/EC (Number / date)	Date of commence-ment of trading	Type of traffic (freight, etc.)	Number of locomotives	Number of train sets/ suburban train set elements	Number of coaches/ wagons	Number of drivers/safety personnel	Volume of passenger transport	Volume of freight transport
EWSI	Mendez Álvaro, 84 Madrid 28053 Spain	www.eurocargorail.com	-	29/03/2010 (extension)	01/10/2008	Freight	5	-	46 wagons		-	< 500 mill. ton-km / year
Logitren Ferroviaria	Av. Blasco Ibañez, 18 Valencia 46010 Spain	www.logitren.es	-	28/12/2010 (extension)	30/06/2010	Freight	1	-	-		-	< 500 mill. ton-km / year
SNCF[10]	76 Boulevard Magenta Paris 75010 France	www.snfc.com	-	15/12/2010 (new)	19/12/2010	Passengers	10				< 200 mill. passengers / year	-

[10] On 19 December, SNCF began the passenger transport service on the line between Perpignan (France) and Figueres (Spain), with daily return journeys.

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

B1. Diagram: Internal organisation



Ministry of Infrastructure and Transport

Secretariat of State for Planning and Infrastructure

General Secretariat for Infrastructure

Department of Railway Infrastructure

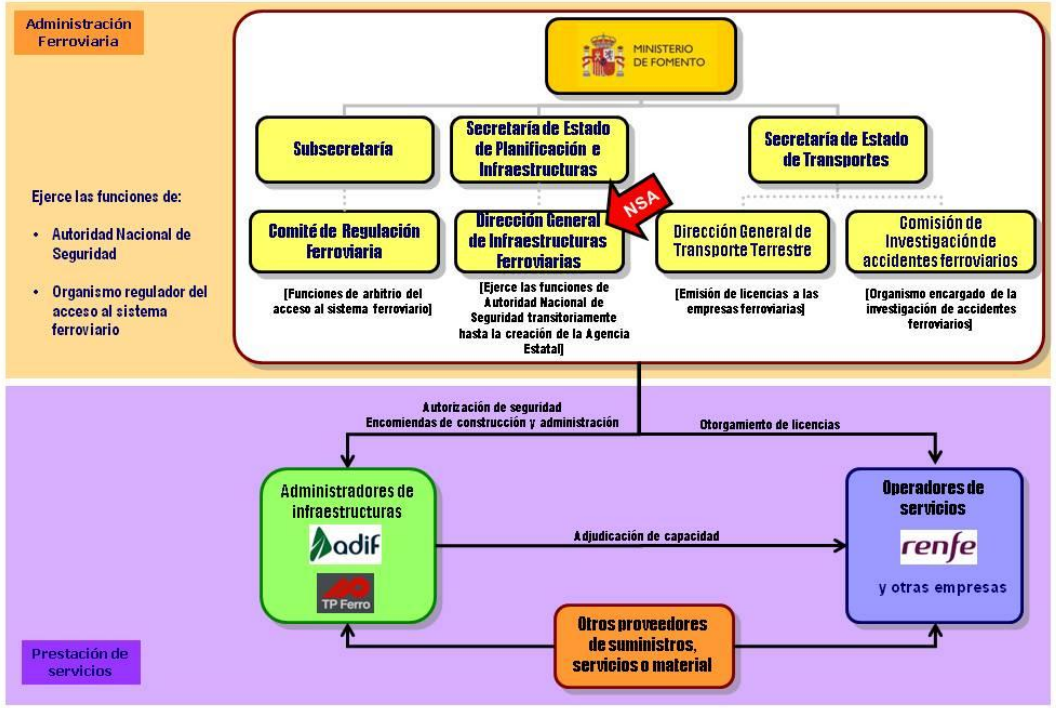
COMPETENCES

- **Railway planning.**
- **Drafting railway projects**
- **Execution of railway works**
- National Safety Authority

Competences linked to the National Safety Authority

Other competences

B.2. Diagram: Relationship with other national bodies



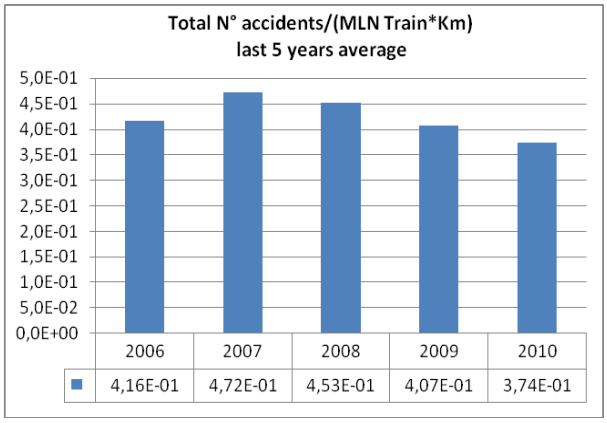
Railway Administration Acts as: • National Safety Authority • Body regulating access to the railway system			
Ministry of Infrastructure and Transport **Under-Secretariat** **Rail Regulation Committee** (Arbitration body for access to the railway system)	**Secretariat of State for Planning and Infrastructure** **Department of Railway Infrastructure** (Temporarily acting as National Safety Authority until the State Agency is set up)	**Secretariat of State for Transport** **NSA** **Department of Land Transport** (Issue of licences to railway undertakings)	**Rail Accident Investigation Commission** (Body responsible for investigating rail accidents)

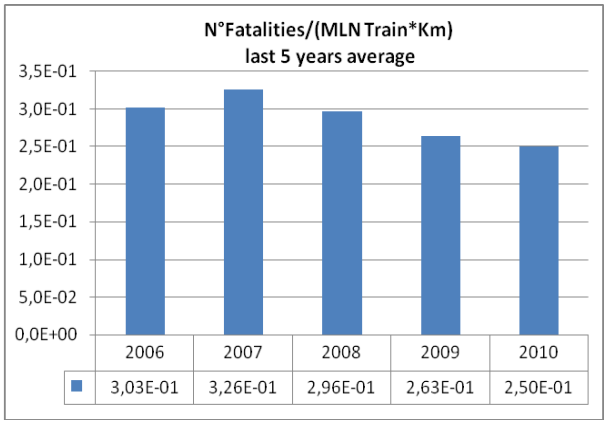
Safety authorisation **Construction and administration orders** **Infrastructure manager ADIF** **Provision of services**	**Granting of licences**	**Award of capacity** **Other providers of supplies, services or equipment**	**Service operators** *renfe* **and other undertakings**

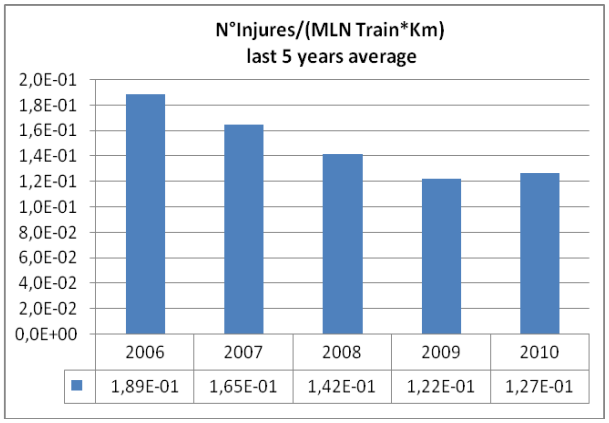
ANNEX C: CSI data – Definitions used

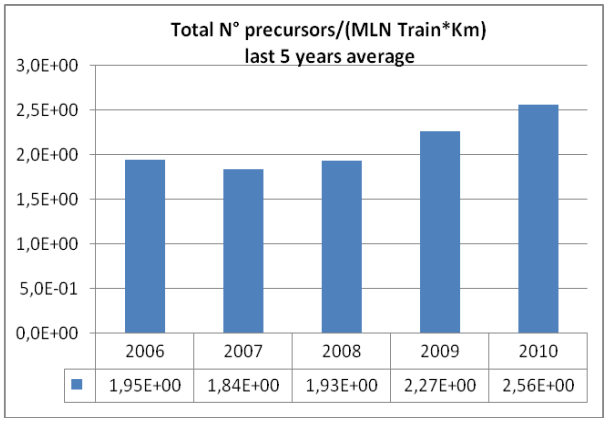
C.1 CSI DATA

OVERVIEW OF RESULTS



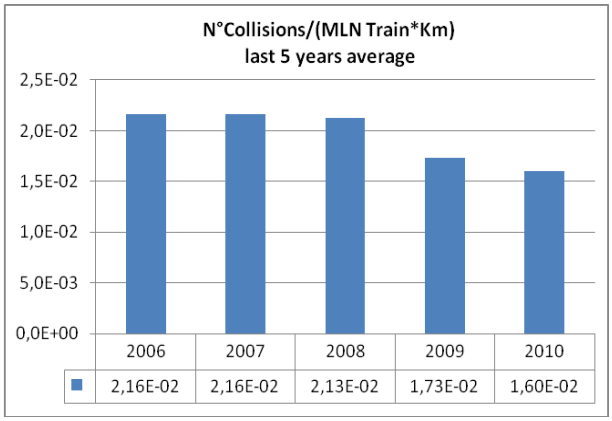


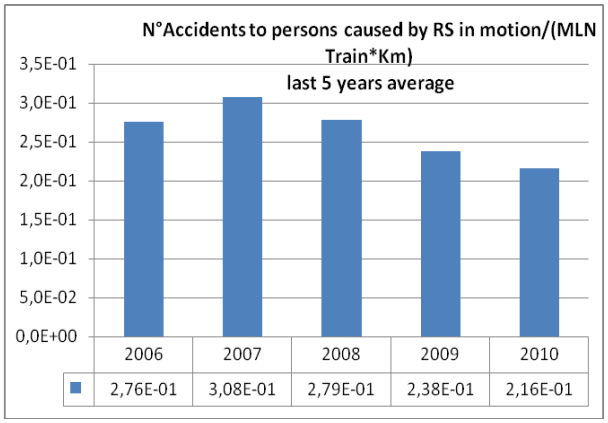


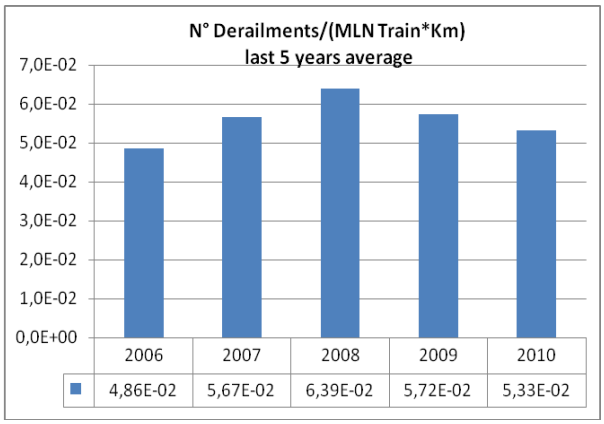


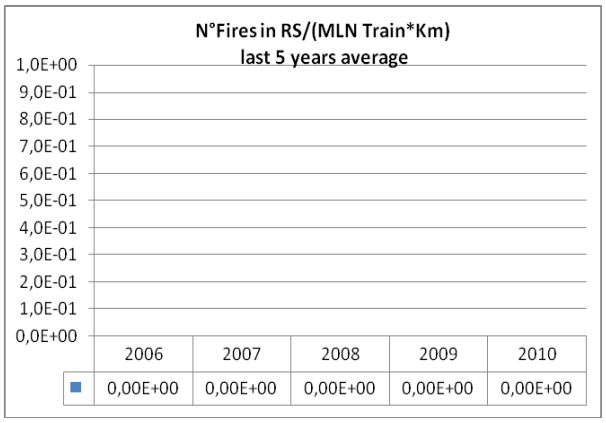
2011 report: values related to the average over 2006, 2007, 2008, 2009 and 2010.

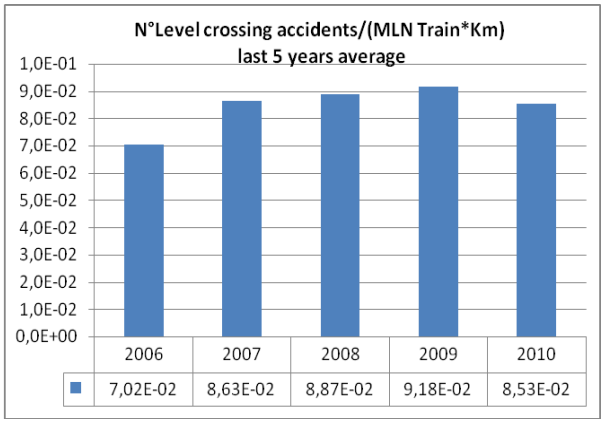
ACCIDENTS, BY TYPE

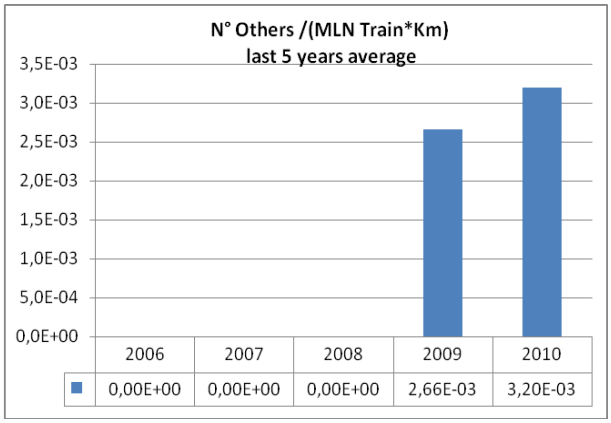






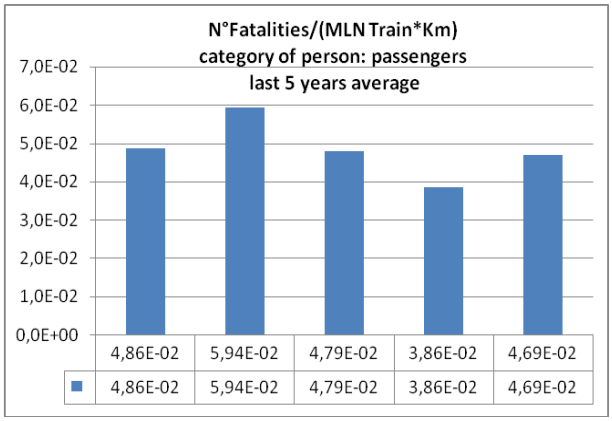


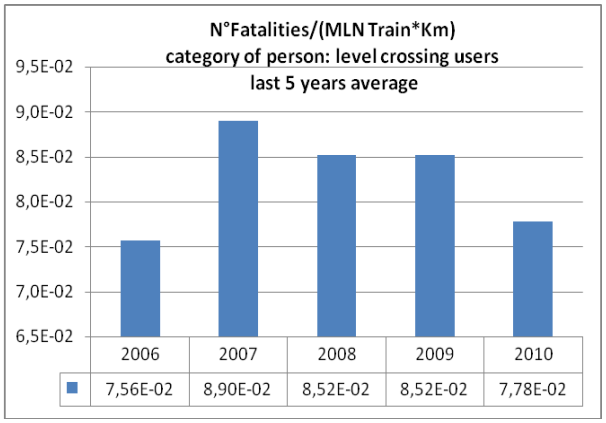


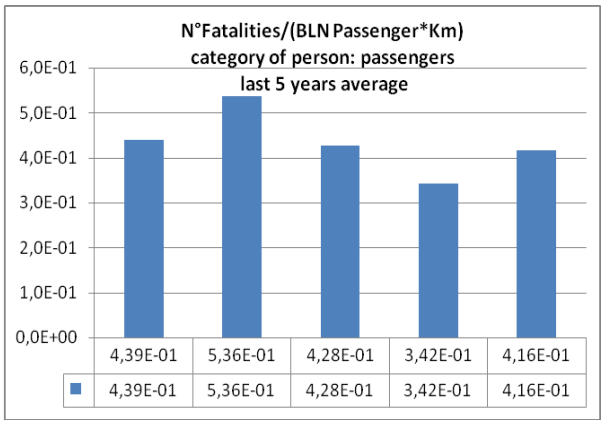


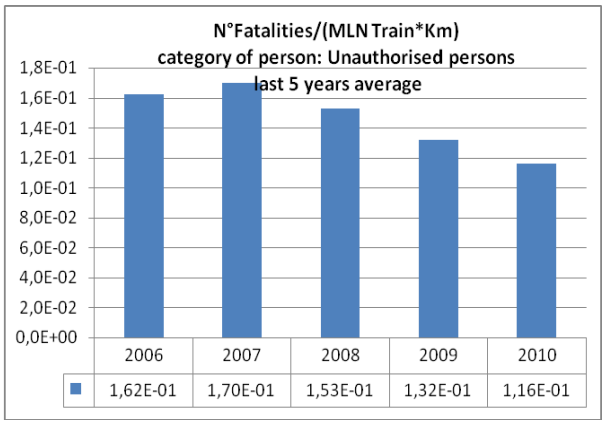
2011 report: values related to the average over 2006, 2007, 2008, 2009 and 2010.

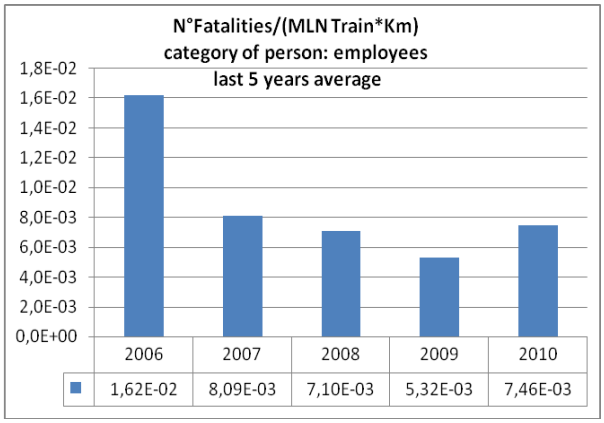
FATALITIES, BY CATEGORY OF PERSONS INVOLVED

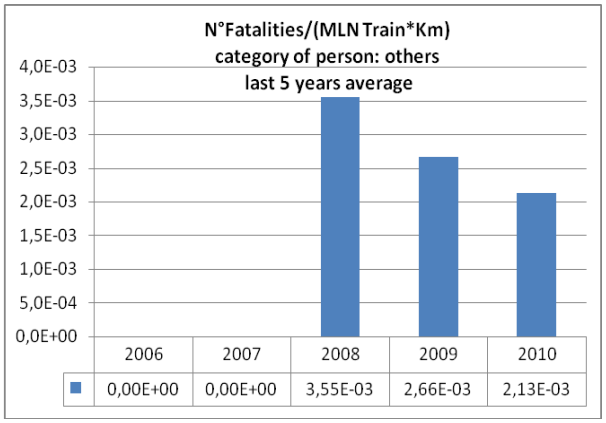






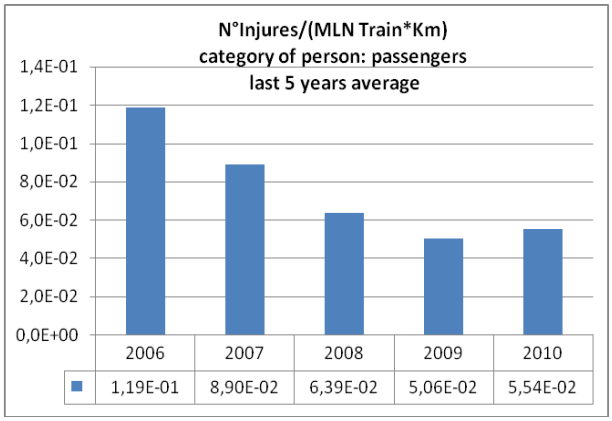


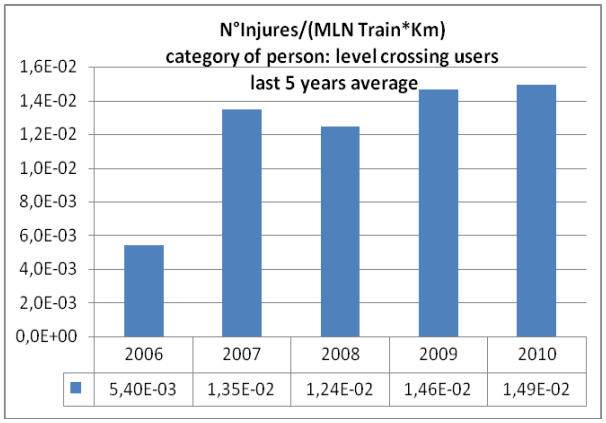


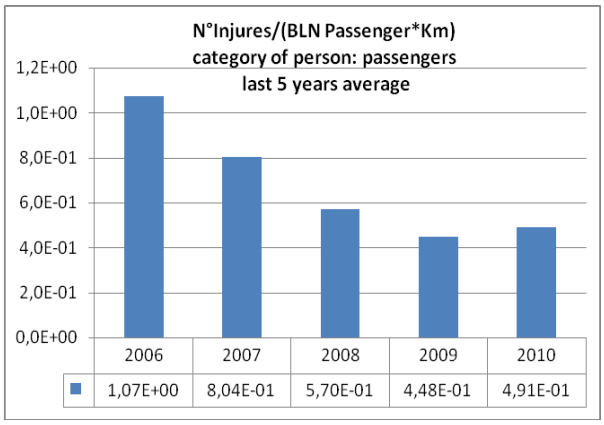


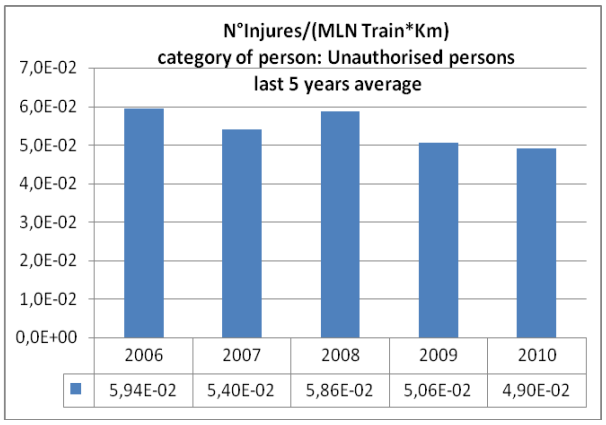
2011 report: values related to the average over 2006, 2007, 2008, 2009 and 2010.

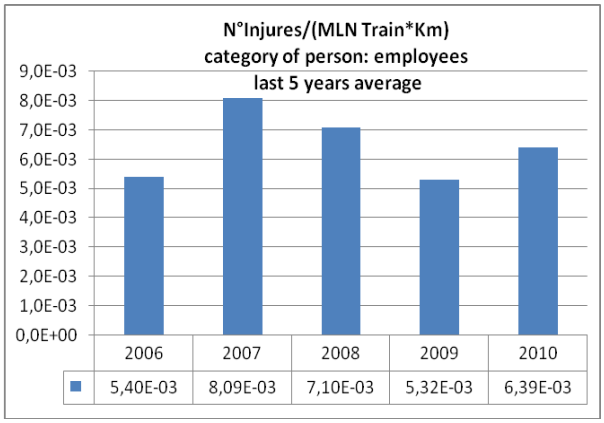
INJURIES, BY CATEGORY OF PERSONS INVOLVED

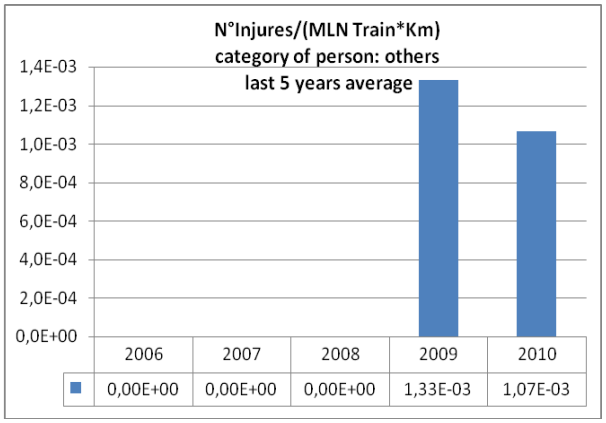






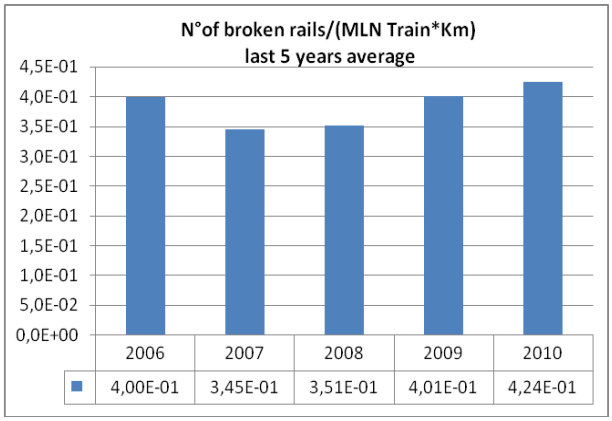


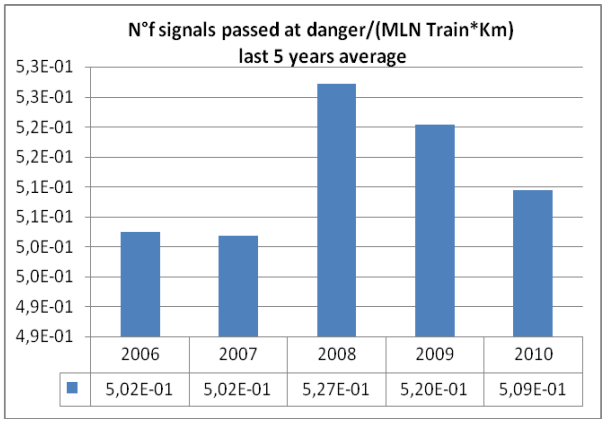


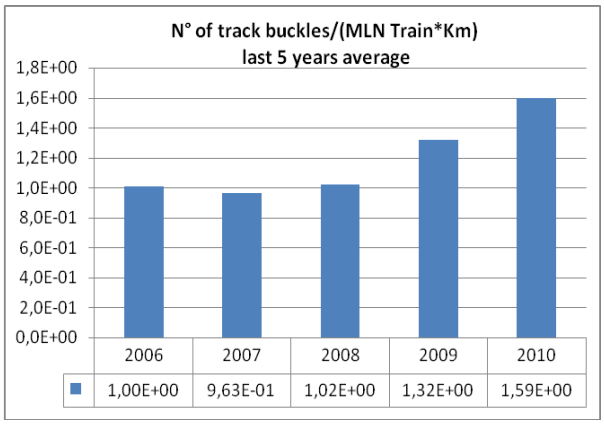


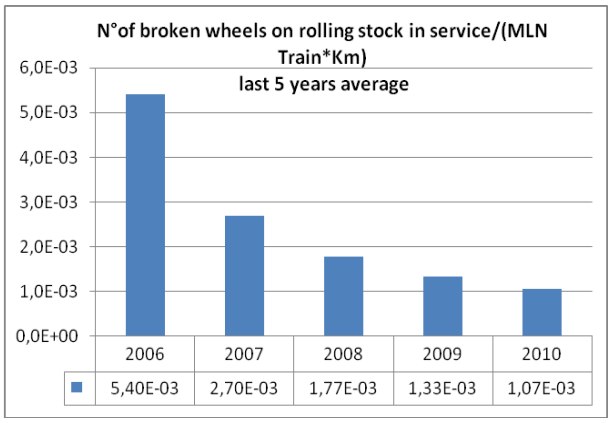
2011 report: values related to the average over 2006, 2007, 2008, 2009 and 2010.

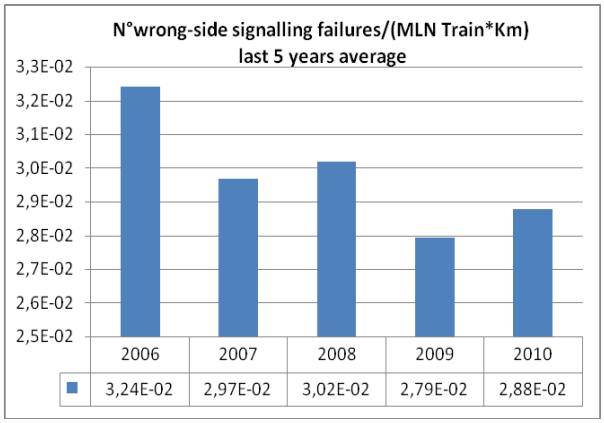
ACCIDENT PRECURSORS

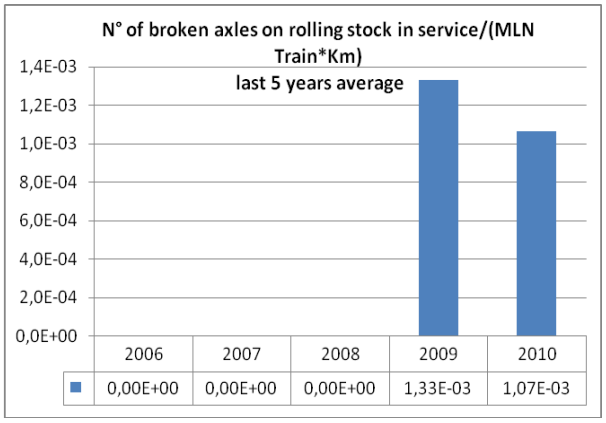






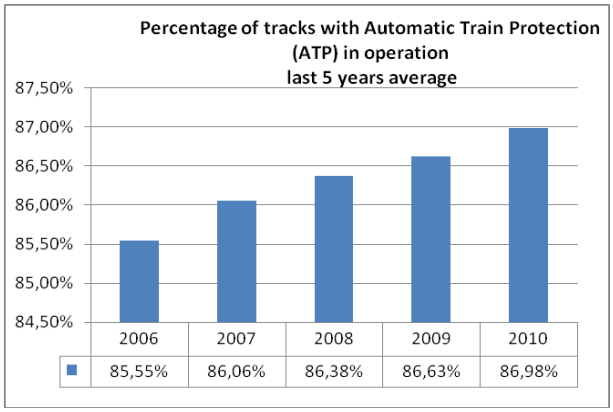


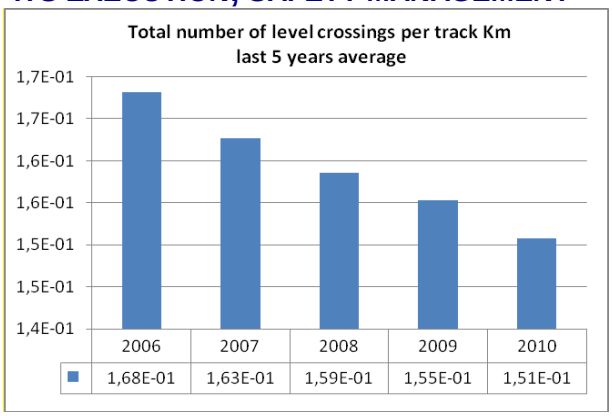


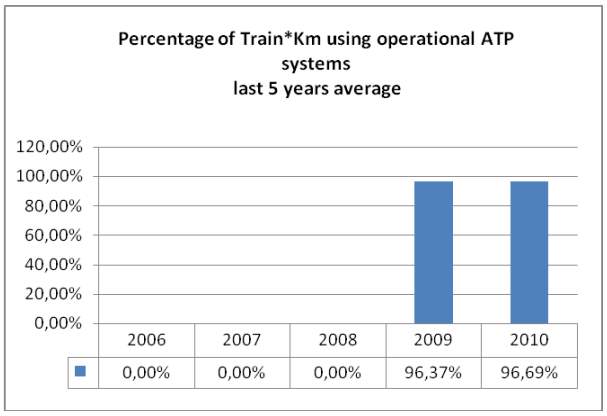


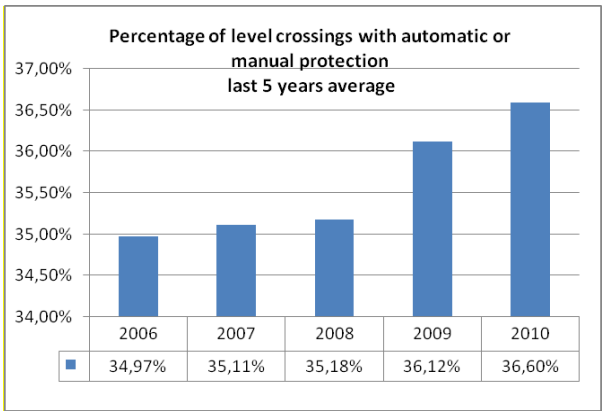
2011 report: values related to the average over 2006, 2007, 2008, 2009 and 2010.

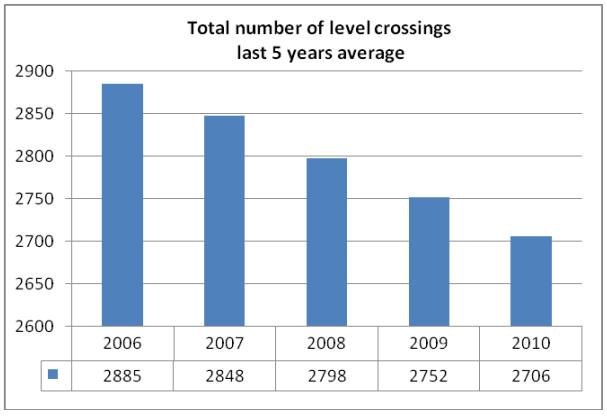
TECHNICAL SAFETY OF INFRASTRUCTURE AND ITS EXECUTION; SAFETY MANAGEMENT

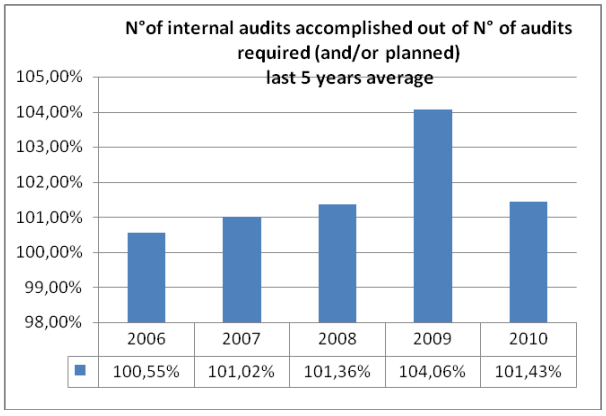


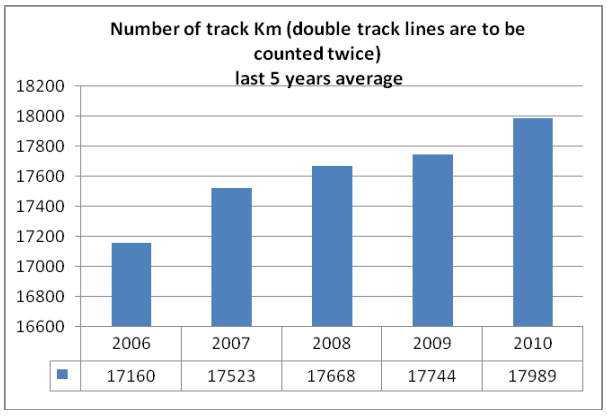












2011 report: values related to the average over 2006, 2007, 2008, 2009 and 2010.

C.2. DEFINITIONS USED IN THE ANNUAL REPORT

During the period covered by this report (2010), Directive 2009/149/EC was published, and the transposition to the Spanish legal system entered into force, approving the amended New Annex I to the Safety Directive 2004/49/EC regarding Common Safety Indicators and common methods for calculating accident costs.

Accordingly, the Common Safety Indicators will be notified in two different ways:

- As laid down by **DIRECTIVE 2004/49/EC.**

  The data of indicators for 2006, 2007, 2008, 2009 and 2010 will be given in the format laid down by this legislation, to produce the comparative graphs shown in Annex C.1 to this report.

- As laid down by **DIRECTIVE 2009/149/EC**

  For the period covered by this report, i.e. 2010, the indicators will also be notified in accordance with these definitions, so that the Common Safety Indicators can be adapted to those required by this New Annex I.

In addition, in the spreadsheet (in Excel format) supplied by the European Railway Agency for submitting Common Safety Indicator data for 2010, the reference data relating to traffic is subdivided into three different categories, namely:

R04: No of other trains-km

R05: No of passenger trains-km

R06: No of goods trains-km

Since the advent of the Spanish NSA, we wish to repeat the national traffic data for the last few years in light of this new classification (see the table shown below):

	R04: 'OTHER'	R05: 'PASSENGER'	R06: 'GOODS'	TOTAL
2006	2 829 002	143 531 671	38 726 940	185 087 613
2007	3 047 746	145 119 103	37 402 270	185 569 118
2008	2 940 082	155 392 369	34 431 935	192 764 386
2009	2 537 293	160 493 732	25 102 555	188 133 579
2010	2 688 917	158 205 795	25 815 179	186 709 891

C.2.2. NATIONAL DEFINITIONS

There follows a series of comments on the Common Safety Indicator data provided:

- Only **significant accidents**, as defined in Directive 2009/149/EC, occurring on the General Interest Rail Network (RFIG) run by the Railway Infrastructure Manager (ADIF) have been included, since the accident rate on the network run by TP Ferro was zero in 2010.

- The '**Other persons**' category, as defined in Regulation No 91/2003, has been broken down into the following groups:
  - Level-crossing users
  - Unauthorised persons
  - Other persons

ANNEX D: Significant changes to legislation and regulations

	Legal reference	Date of entry into force of the provision	Reason for adoption (state whether it is a new provision or an amendment of an existing provision)	Description
General national rail safety legislation				
Legislation on the national safety authority				
Legislation on notified bodies and assessment, registration, examination, etc. bodies				
National rail safety regulations				
Regulations on national safety targets and methods				
Regulations on the requirements applicable to safety management systems and to the safety certification of railway undertakings	Order FOM/2257/2010 of 2 August	15/09/2010	Amendment to Royal Decree 810/2007, assigning powers in the matter of safety certificates to the Department of Railway Infrastructure (DGIF), acting as the Spanish NSA	The DGIF assumes the powers in the matter of safety certificates established in Royal Decree 810/2007
Regulations on the requirements applicable to Safety Management Systems and to safety authorisation of infrastructure managers				
Regulations on the requirements applicable to wagon keepers				
Regulations on the requirements applicable to maintenance workshops				
Regulations concerning requirements for the authorisation of	Royal Decree 1434/2010	7/11/2010	Transposition into the national legal system of the Interoperability	Regarding interoperability of the General Interest

	Legal reference	Date of entry into force of the provision	Reason for adoption (state whether it is a new provision or an amendment of an existing provision)	Description
placing in service and maintenance of new and substantially altered rolling stock, including rules for exchange of rolling stock between railway undertakings, registration systems and requirements on testing procedures.	of 5 November		Directive 2008/57/EC	Rail Network (RFIG) system
Common operating regulations of the railway network, including rules relating to signalling and traffic management procedures				
Regulations on the requirements applicable to any internal operating rules (company rules) that must be adopted by infrastructure managers and railway undertakings.				
Regulations on the requirements applicable to staff carrying out safety-critical tasks, including selection criteria, medical fitness and vocational training and certification.	Order FOM/2872/2010 of 5 November	9/11/2010	Transposition into the national legal system of Directive 2007/59/EC	Determining the conditions for obtaining operating licences enabling the exercise of railway staff functions relating to traffic safety, as well as the operating conditions of approved training centres and those for the medical examination of such staff.
Regulations relating to the investigation of accidents and incidents, including the making of recommendations.				
Regulations on the requirements applicable to national safety indicators, including the requirements relating to the method of gathering and analysing indicators.	Royal Decree 918/2010, of 16 July, amending Royal Decree 810/2007	6/08/2010	Transposition into the national legal system of Directive 2009/149/EC	Amendment of Annex 1 to Safety Directive 2004/49/EC
Regulations on the requirements applicable to authorisation for putting infrastructure into service (tracks, bridges, tunnels, energy supply, automatic train protection, radio,				

	Legal reference	Date of entry into force of the provision	Reason for adoption (state whether it is a new provision or an amendment of an existing provision)	Description
signalling, interconnection, level crossings, platforms, etc.).				

ANNEX E: Evolution of safety certification and authorisation

E.1. Safety certificates pursuant to Directive 2001/14/EC

Number of safety certificates issued to licensed railway undertakings pursuant to Directive 2001/14/EC in 2010	In the Member State of the undertaking	0
	in a different Member State	0

E.2. Safety certificates under Directive 2004/49/EC

		New	**Updated or amended**	**Renewed**
E.2.1. Number of valid Part A safety certificates issued in 2010 to registered railway undertakings	in the Member State	1	-	-
	in a different Member State	-	-	-

		New	**Updated or amended**	**Renewed**
E.2.2. Number of valid Part B safety certificates issued in 2010 to registered railway undertakings	in the Member State	1	6	-
	in a different Member State	1	-	-

			A	**R**	**P**
E.2.3. Number Part A safety certificate applications submitted in 2010 by registered railway undertakings	in the Member State relating to	new certificates	1	-	1
		updated / amended certificates	-	-	-
		renewed certificates	-	-	-
	in a different Member State relating to	new certificates	-	-	-
		updated / amended certificates	-	-	-
		renewed certificates	-	-	-

			A	R	P
E.2.4. Number of applications for Part B safety certificates submitted in 2010 by registered railway undertakings	in the Member State relating to	new certificates	1	-	1
		updated / amended certificates	6	-	1
		renewed certificates	-	-	
	in a different Member State relating to	new certificates	1	-	
		updated / amended certificates	-	-	
		renewed certificates	-	-	

A = Application approved, certificate already issued
R = Application rejected, no certificate issued
P = Case pending, no certificate issued to date

E.2.5. List of countries in which railway undertakings applying for a Part B safety certificate in the Member State have already obtained their Part A safety certificate

As of 31 December 2010, railway undertakings with a Part A safety certificate issued in another Member State are as follows:

- English Welsh and Scottish Railway International Ltd. (EWSI) of the **UK**.
- Société Nationale des Chemins de Fer Français (SNCF) of **France**.

E.3 Safety authorisations under Directive 2004/49/EC

	New	Updated or amended	Renewed
E.3.1. Number of valid safety authorisations issued in 2010 to infrastructure managers registered in the Member State	2	-	-

		A	R	P
E.3.2. Number of applications for safety authorisations submitted in 2010 by infrastructure managers registered in the Member State	new authorisations	2	-	-
	updated / amended authorisations	-	-	-
	renewed authorisations	-	-	-

A = Application approved, authorisation already issued
R = Application rejected, no authorisation issued
P = Case pending, no authorisation issued to date

E.4. Procedural aspects – Part A Safety Certificates

		New	Updated or amended	Renewed
Average time in 2010 between receipt of an application and final issue of a Part A safety certificate to railway undertakings, once all necessary information has been received	licence issued by the Member State	4 months	-	-
	licence issued by a different Member State	-	-	-

E.5. Procedural aspects – Part B Safety Certificates

		New	Updated or amended	Renewed
Average time in 2010 between receipt of an application and final issue of a Part B safety certificate to railway undertakings, once all necessary information has been received	licence issued by the Member State	4 months	4 months	-
	licence issued by a different Member State	4 months	4 months	-

E.6. Procedural aspects – Safety authorisations

		New	Updated or amended	Renewed
Average time in 2010 between receipt of an application and final issue of a safety authorisation to infrastructure managers, once all necessary information has been received	licence issued by the Member State	4 months	-	-
	licence issued by a different Member State	-	-	-