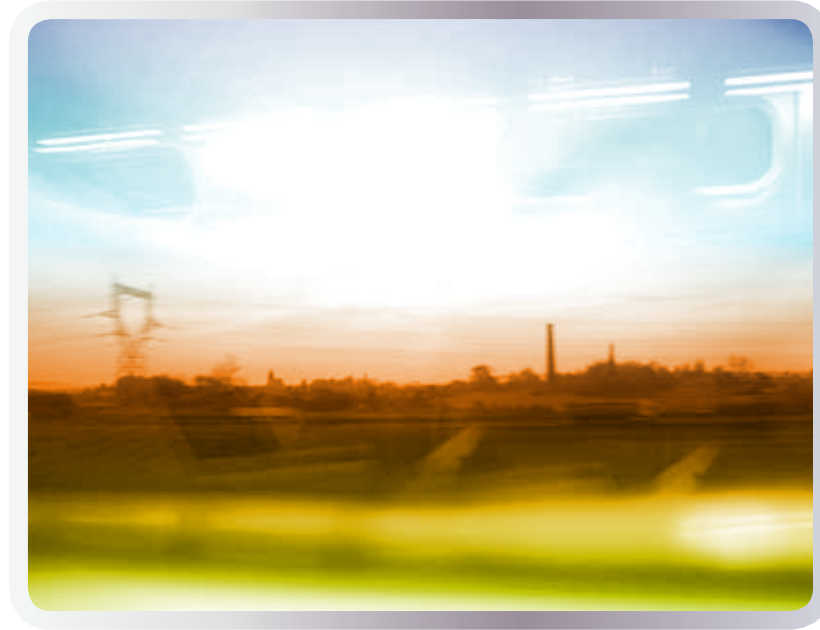
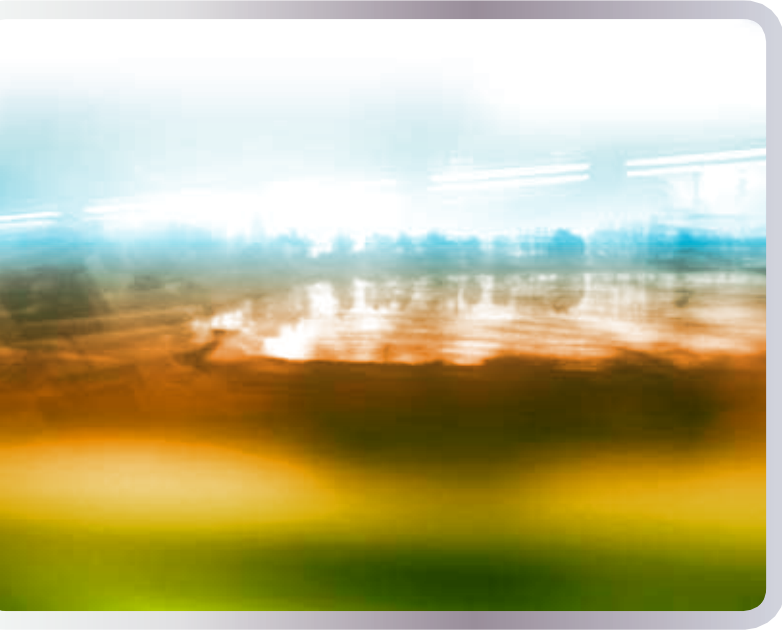
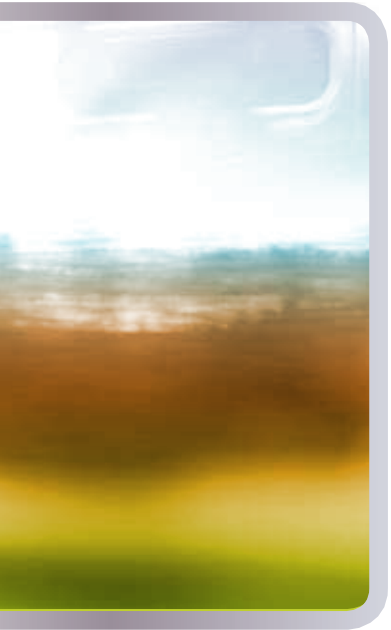


Railway Safety Performance in the European Union 2008

A biennial report from the European Railway Agency





Foreword

The present report on the development of railway safety in the European Union is the first of two major biennial reports that the European Railway Agency is required to deliver according to our founding regulation. The report on the development of interoperability is due to be published in 2009 and the next safety report will then be published in 2010 so that the Agency may publish an important report each year.

The safety report brings proof that the Agency has achieved many of its objectives during the first two years of operation. The safety unit was the first of our business units to be organised, established in spring 2005, and its activities on all important fields were up and running by the end of that year. It should be noted that this was before the Safety Directive was transposed into member state legislation and before all the relevant bodies – safety authorities and investigation bodies – were established. It is much thanks to this early start-up that the report can build on information from a considerable number of reporting national bodies and on other data collected by the unit in collaboration with Eurostat and other organisations. It must also be underlined that the report is the result of common efforts by individuals and units in the whole Agency.

Even if the reader will discover that data and information submitted to the Agency is not always complete or fully reliable the report contains nevertheless important overviews and conclusions on the development of railway safety and the introduction of new regulatory measures that follow the implementation of the Safety Directive. It confirms the assumptions made by the European Union when the Safety Directive was adopted in 2004, that the safety level of the railways is generally high. With the complete picture at hand for the first time, the report can also identify some areas where further analysis and possible improvement measures are needed.

I submit this report to readers of all possible categories: decision makers at European level, the Commission services, governments and regulators, the stakeholders in the railway sector and the public. The report is there to support the further development of safety regulatory measures with the aim to converge the European Union countries and actors to arrive at a common approach to railway safety.

Marcel Verslype
Executive Director



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On the basis of the common safety indicators,
national reports on safety and accidents
and its own information, the Agency shall submit
every two years a report on safety performance,
which shall be made public.

The first such report shall be published
during the Agency's third year of operation.
(REGULATION (EC) No 881/2004 Article 9.2
OF THE EUROPEAN PARLIAMENT
AND OF THE COUNCIL of 29 April 2004
establishing a European Railway Agency)



Introduction

Officially the first year of operation of the European Railway Agency is considered to be 2006. In January that year the Agency was granted its financial independence and the Executive Director was able to fully assume his functions. Consequently 2008 is the third year of operation and here we present the first biennial report covering the years 2005 and 2006. We have included in the report data that was submitted during the year 2007, in particular information collected through the public safety database from national bodies. The reason why the report appears only in 2008 is that the reporting national bodies have until end of September 2007 to report on the year 2006. In practice many of the reports were delivered even after that date.



However, it is only for the year 2006 that the Agency can draw on information in reports from national safety authorities and investigation bodies. To be able to give information on and analyse the development of railway safety over time we have used other sources that are described in the report. In any case, this is the first time that a number of important safety indicators are aggregated at European Union level to provide an overview of how the railways perform.

It must be remembered that data are now submitted by the national bodies for the first time and it is obvious that all of them have not had the possibility or time to put in place efficient quality assurance systems to provide consistent and accurately validated data. We believe, in spite of that, that we have sufficient material to draw some first conclusions and to give the first elements of analysis of safety performance – the main objective of the report.

The report is not issued to give account of the activities of the Agency. There is a specific annual report for that. It might, however, be impossible to understand the background of the new safety regulatory framework in Europe and the impact the Agency has had and will have on its further development if some of these activities are left out of the report.

Finally, the report would not have been possible without the contributions of the national bodies and all the participants in the different working groups and task forces that have been convened by the safety unit of the Agency.

The report is now published and I hope it will give the reader the possibility to understand better the development of railway safety, the achievements and challenges for the future.

*Anders Lundström
Head of Safety Unit*



Summary
commentary
and analysis



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How safe are the railways in Europe?

Until now we have only been able to give an indicative answer to the question above, based on information from some Member States where data on rail accidents have been publicly available. The answer has so far been that rail transport is safe and indeed very safe in comparison with road transport. With this report we try for the first time to give a reply based on facts from data gathered among (almost) all European Union member states.

At a first glance the data confirm that railways are very safe for the users of the rail system, that is primarily for the passengers and the staff involved in its operation. However, the picture is not all bright and with this report we will try give an objective description of the safety situation on Europe's railways.

The development of safety

Over a longer period of time we can notice that safety on the railways has steadily improved. Passenger fatalities in the 15 countries that constituted the EU members until 2004 went down from a total of around 400 in 1970 to less than 100 in 2004 (DG TREN statistical pocket book 2006). This improvement has continued after 2004 and the then 25 member states of the EU accounted for only 58 passenger fatalities in 2006 according to Eurostat data. However, comparison between the two data series is not straightforward.

The positive development over time is of course due to diligent work within the railways on safety as such, but also to the development of new technologies, which is not generally triggered exclusively by the need to improve safety. During the period from 1970 we have, for example, experienced the intro-

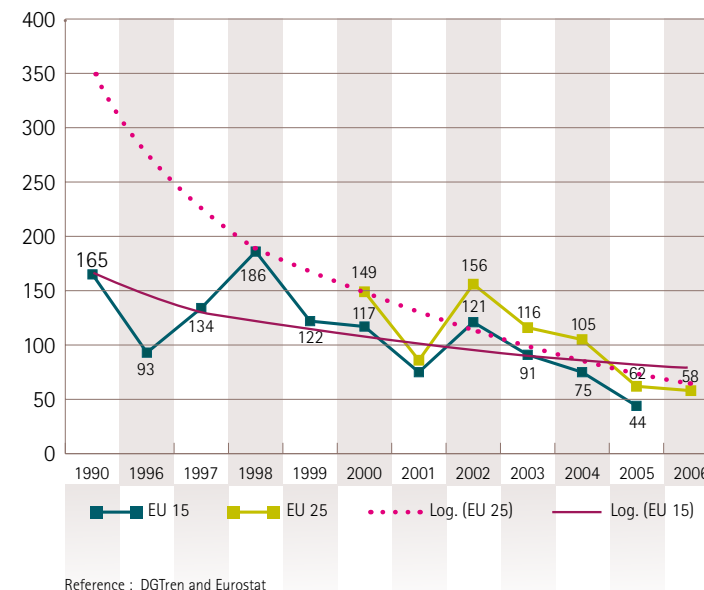
duction of automatic train protection systems and more crash resistant rolling stock and the protection of passengers has improved by increased use of automatic door locking systems. The construction of new high-speed lines from the 1980s and onwards has given rail passenger transport access to the latest and safest technologies and has positively contributed to the continuous improvement of passenger safety.

From time to time warnings are raised that opening of the rail transport market to competition and separation of functions between infrastructure managers and railway undertakings might have adverse effects on safety of the rail system. A closer study of the data returned gives no evidence that this fear is justified. The countries where the market has been open since a long time and where the functions have been separated (for example the Netherlands, Germany, Sweden and the United Kingdom) show good records and a continuous improvement. But also some countries, like France, where the market just is beginning to develop, continue to show a good safety performance.

Our conclusion is that opening of the market and separation of functions can be carried out without adverse effects on the development of safety. As a matter of fact the new regulatory framework offers opportunities to specify more clearly and openly safety interfaces that were earlier hidden within a single railway company. Responsibilities are made more transparent through regulations and contractual obligations in an open market regime.

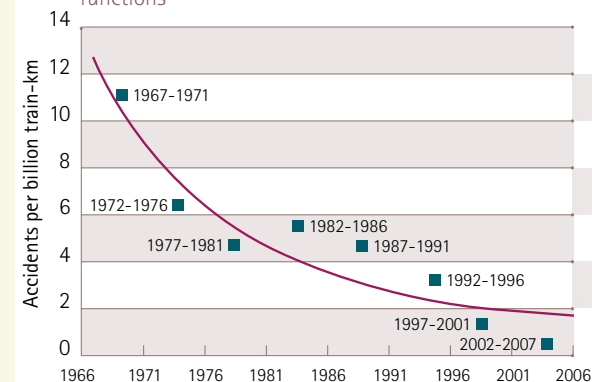
With a consistent safety regulatory approach throughout Europe, supported by the safety directive, the new regime offers possibilities to further improve safety without adding undue costs. The Agency will continue to study this development and pay attention to trends in different types of countries.

Passenger fatalities in railway accidents in Europe 1990-2007



Passenger fatalities in the UK

In the UK passenger fatalities 1970-2007 indicate that safety has not been impacted by the separation of functions



Reference : Evans, A.W, 2008, Fatal train accidents on Britain's main line railways : end of 2007 analysis, Imperial College London)

Train accidents – individual accidents

The figures may appear even better if we take into account that only a limited number of the passenger fatalities occurred in train accidents. Of 58 passenger fatalities reported to Eurostat in 2006 only 10 were related to train accidents. The dominating type is accidents to persons caused by rolling stock in motion (30 fatalities) which includes falls from trains and accidents when passengers are embarking and disembarking. The circumstances behind these figures will be analysed further by the Agency with the support of the reporting authorities. Evidence, for example from UIC data, seem to indicate that a large proportion of these accidents are related to equipment and operation of door locking systems.

Nevertheless, there were some important train accidents with passenger fatalities in 2005 and 2006 which are subject to special notices in this report.



7th January 2005 near Bologna Italy: A serious accident resulted in 17 fatalities

The most severe accident, in terms of fatalities, occurred on the 7th of January 2005 at Bolognina station in the north of Italy. A passenger train passed a signal at danger and collided with a freight train, causing the death of 13 passengers and 4 railway employees. These high impact accidents show that there is still room for improvement of railway safety.

According to requirements of the Safety Directive all such serious accidents will be the subject of a report from an independent accident investigation body. Conclusions and recommendations from these reports will be analysed by the Agency and disseminated to bodies in other Member States and to the concerned actors. By establishing a scheme for dissemination of European level safety recommendations and exchange of safety information across Europe, lessons can be learned and the Agency will thus contribute to the improvement of railway safety over time.

Even if the technological development has given the railways safer components and systems, these safer systems coexist with older technologies due to the long lifetime of most railway equipment and the lack of investment resources. This underlines the need for the application of a systematic approach to safety management. The root causes of almost all accidents are nowadays to be found in operational, organisational and managerial areas of rail transport, where humans interact with the technical system. The requirement for European wide recognised safety management systems for railway undertakings and infrastructure managers is one of the safety improvement measures that will be brought in by the Safety Directive. The Agency is working on a number of issues to improve and standardise approaches to safety management.

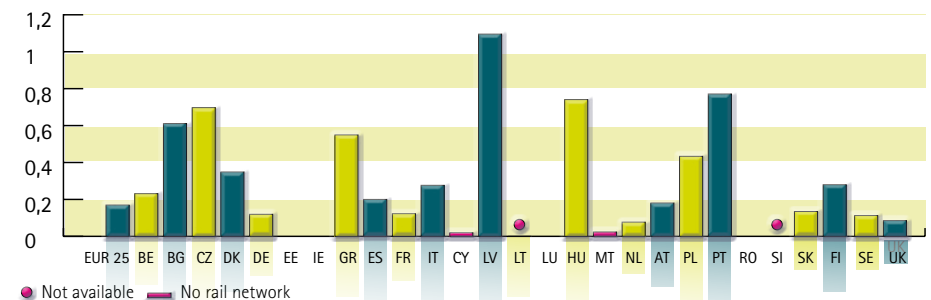
Comparisons between EU member states

We issue a strong warning against drawing too far reaching conclusions on comparisons of data between EU member states. However, based on Eurostat statistics, the Agency has compiled data on passenger risks (probably the most reliable of all rail accident data), normalised by train-kilometres for the years 2004 to 2006. The data show a great variation between different countries. A group of countries with very low risks (Denmark, Germany, France, the Netherlands, Sweden and the United Kingdom, for example) could be placed in contrast to a group of countries with risks substantially above the EU average (Greece, Latvia, Hungary, Poland and Portugal, for example). As a matter of fact the difference between the countries with the lowest and the highest risk is greater than a factor of 20.

It remains to analyse further the origin of these discrepancies. We can assume that differences in reporting criteria and definitions account for part of them, but there are certainly also safety issues that could be identified. These may be related to investment needs in infrastructure or rolling stock or to application of safety management systems. The Agency will carry out individual analyses on country accident data during the coming year to better understand the level of safety performance in the European Union.

Passenger fatalities / billion passenger kilometers in the European Union 2004-6

Source Eurostat



Safety comparisons globally

The Agency has tried to compare EU safety performance of the railways with that of other developed countries outside of Europe. Such comparisons are not easy to carry out, mainly due to the lack of published data and comparable indicators and definitions. However, a small study executed by the Agency has allowed us to compare safety performance in the EU with that of the USA (national rail by AMTRAK and commuter rail, published by the Federal Railroad Administration).

The comparison provides evidence that safety on Europe's railways is at least as good as that on the US railroads. In the period 2004 to 2007 an average of 0,24 passengers fatalities were recorded per billion passenger kilometre in the US. The EU average during the period from 2004 to 2006 was 0,18 fatalities per billion passenger kilometres. The same type of indicators are used both in the US and in Europe.

Modal comparison

Also if we look at a modal comparison the railways are doing reasonably well. The total number of killed passengers and staff on the railways in 2005 were 105, to be compared with more than 40.000 killed on the roads (DG TREN 2004 figures, not including all EU member states). Road statistics at European level are often normalised by population; should we use the same scaling factor for railways, the rail sector would be 40.000/105 times safer than the roads in 2004, i.e. almost 400 times safer.



Third party accidents

There are however some specific features with the railways that often are overlooked when modal comparisons are made. The risks to users of the rail system are relatively low, but in the accident statistics returned from Eurostat and the national safety authorities we can clearly see the high representation of third parties in fatal railway accidents. Eurostat reported, for example, for the two years 2004–2005, a total of 145 passenger fatalities, but 2.841 fatalities in the category "other". From the data we can draw the conclusion that around 1.950 of the victims were unauthorised persons and more than 850 were level crossing users. A similar distribution can be seen in the indicators reported according to the safety directive for 2006: of 1.475 victims in rail accidents only 87 were passengers, but 821 were unauthorised persons (trespassers) and 358 level crossing users.

In railway safety management the issue of third party fatalities is sometimes seen as a problem that is owned by someone else. Most victims have violated rules, for example by crossing the railway where it is forbidden or by passing a level crossing against a red light or not stopping before a lowered barrier. Even if the third party is "guilty" of the accident a correct management of safety should recognise the problem without apportioning blame and try to find relevant mitigation measures. These can be unilateral, to be applied by the railways themselves, but it is also about time that the concept of safety management is not restricted only to safety problems directly owned

by the railways, but extended to include cooperation with other stakeholders, such as road authorities, local authorities and land use planning entities.

It should also be noted that level crossing accidents represent a risk to the users of the rail system that is not negligible. As an average around 8 percent of passenger fatalities (i.e. train occupants) each year are actually accounted for in level crossing accidents.

The Agency has now started to put more emphasis on the exchange of information and best practice on mitigation measures for third party accidents. A number of activities during the coming years will be dedicated to this.





The road rail interface at level crossings presents specific challenges

Level crossing safety

Of particular interest is of course the high percentage of level crossing accidents, not least because these accidents affect also the safety of train movements and the users of the rail system. Level crossings are an historic heritage of the railways, often with origins in concessions granted to land owners when the railway was built. When new railway lines are constructed today, they are in most cases conceived without level crossings. There are more than 130.000 level crossings on the EU railways. Moreover, the existence of level crossings and their degree of protection seem to reflect an approach to safety from which society is gradually distancing itself. Compared to normal road traffic violations (e.g. in road-road crossings) violations of level crossing rules by a road user represent a risk that is ten times higher.

The basic safety principle of railway operations is the principle of separation of train movements: the signalling system is designed to ensure that only one train at a time is allowed to enter a defined segment (block) of the track, in order to avoid collisions with other trains. A lot of engineering efforts are spent to ensure that technical signalling systems are designed to meet the highest possible safety requirements. However, level crossings are in most cases not included in the signalling system and the high safety requirements are not applied to protect trains from collisions at level crossings. To the Agency this seems to be an anomaly in the railway safety concept and should be subject to future analyses and considerations.

Third party and in particular level crossing accidents represent material damages and costs of disturbances to the traffic for railways. They have a wider impact on the society: medical costs, costs of lost production, lost quality of life, property damage and administrative costs. When Member States approach these accidents it is advised to consider the issue as a societal one. Safety improvements in this field are more effective if all stakeholders work together.

Suicide incidents

Another particular feature of rail accidents is the problems related to suicides. These fatalities are not reported as accidents and they are seldom subject to press reports. It is something that has long been hidden. With the report of indicators for 2006 we have for the first time grasped the volume of the problem. The number of persons killed in suicide incidents by far outweigh the total number of persons killed in all accidents: whilst the accidental deaths on the railways in 2006 were 1.475 (including "normal" trespassers) the suicides (estimated) accounted for 2.303, i.e. more than 60 percent of all fatalities.



A suicide impacts passengers and staff as well as railway operations

The railways cannot be given responsibility to overcome the underlying causes of suicide attempts, but all those involved in railway operations know what the burden of the suicide incidents represents when it comes to trauma for staff, passengers and rescue services, delays and disturbances of trains, and resources devoted to police investigations and contact with authorities.

Recent research holds that the mitigation measures that can be taken to prevent suicidal acts are fairly similar to those that can be taken to prevent other types of trespassing incidents. All in all there are more than 3.000 such fatalities on the railways in Europe every year and good practice examples show that there are preventive measures that can be taken at reasonable cost. It is an important contribution of safety reporting that this problem is brought to the surface and can be subject to rational analysis and investigation of practical actions. The Agency will take initiatives to stimulate further research in this area and to organise the exchange of experience and good practice on mitigation measures taken to prevent trespasser and suicide fatalities.

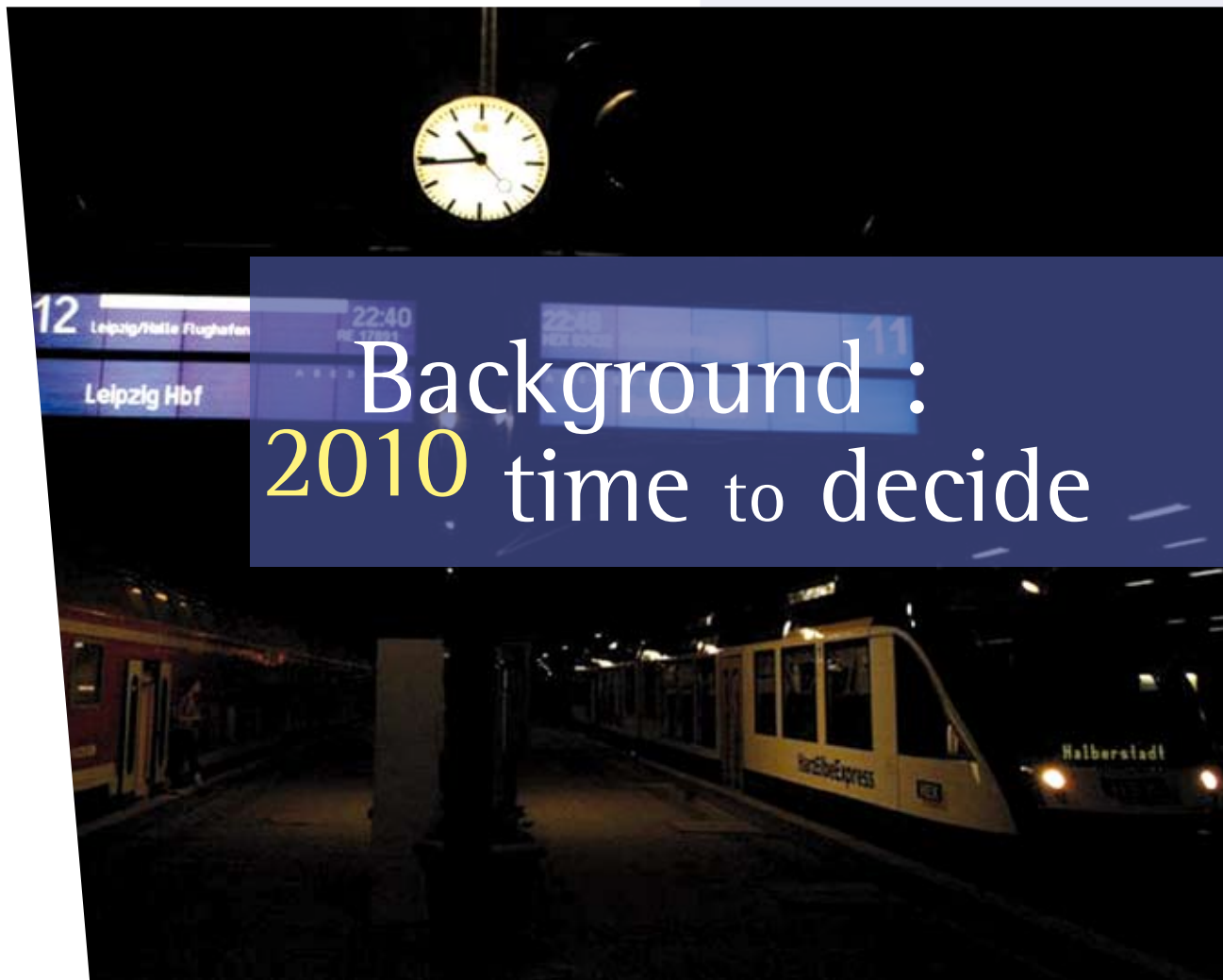
The way forward

This report is the result of the new reporting requirements of the Safety Directive. It gives us the first factual elements to further analyse the development of safety on Europe's railways. Based on statistics from the years 2004 to 2006 and the figures in the separate annex to this report the Agency will focus its analysis on some priority areas:

- ||||| Better understanding, through liaison with Member State authorities, of the reasons behind certain accident types, in particular where differences between Member States indicate higher levels of risk in some countries;
- ||||| Analysis of reports on serious accidents submitted by the investigation bodies in order to disseminate lessons learned, identify critical areas where systematic improvement might be possible and provide elements for development of accident investigation methodologies;
- ||||| Investigation of best practices related to third party accidents and dissemination and discussion of possible measures at European level.

The analyses carried out will be used, among others, when the Agency together with stakeholders identifies priority areas where safety needs to be further improved. A proposal will be made to the Commission in the framework of the second set of common safety targets, due to be delivered towards the end of 2010.





Background : 2010 time to decide

In 2001 the Commission issued the white paper "European transport policy for 2010: time to decide". One of the main goals was to create a competitive railway sector providing a wider modal choice for consumers and giving a positive environmental impact.

To achieve this there was a need to create an internal and open market in the railway sector. This commenced with the first railway package and was continued by the second package including the Railway Safety Directive 49/2009 (RSD). However, by 30 April 2006 implementation of the Railway Safety Directive into national law (or into primary legislation) had been achieved by only a few Member States. By the time of this report at the end of 2007 24 Member States had implemented the Railway Safety Directive (plus Norway and the Channel Tunnel).

By the end of 2007 the Agency had established a clear work programme for Railway Safety Directive implementation with several recommendations already delivered to the European Commission.

The mandates to the Agency progress the European harmonisation of key elements of safety including certification to allow the cross acceptance of rolling stock, essential if safety is not to present a barrier to interoperability; the measurement of safety through common safety methods and indicators; certification to assure safety and facilitate cross acceptance; the development of common safety targets and common safety indicators. This harmonisation underpins the baseline of railway safety performance and the way in which safety is assessed, measured and reported to the Agency. In describing the baseline for safety it is also important to describe the context and the work completed and underway by the Agency at the time of this report and proposed within the timescale leading to the next reporting period.



European coordination and cooperation



The collaboration of the railway sector and its expertise is channelled through two key networks, the network of national safety authorities (NSAs) and the network of national investigation bodies (NIBs). Further technical specialist input is provided through supporting working groups and task forces. These networks meet 3-4 times a year (Art 6.5. & 9.2. Regulation (EC) 881/2004 of the European Parliament and of the Council of 29th April 2004).

Reporting at a European level

From 2007 national safety and investigation bodies are required to submit annual reports detailing the previous year's activity. In 2006 through to 2007 not all such bodies were established in all Member States and so in some cases there was no report issued.

The Agency has worked with the national bodies to establish reporting processes including the development of agreed templates, frameworks and software systems and a public database of safety information.

Reporting directly to the public database of safety documents began in April 2006 with notifications of serious accidents to be investigated and of Part A certification.



Safety performance reporting

National safety authorities

The role of the national safety authorities (NSA) is critical both in maintaining safety and assuring that safety is not a barrier to market opening during the development of interoperability. Their key tasks according to Article 16.2 (Railway Safety Directive):

- |||| Authorising the bringing into service of structural subsystems constituting the trans-European high-speed and conventional rail system;
- |||| Compliance of interoperability constituents with Interoperability Directives 96/48/EC and 2001/16/EC;
- |||| Authorising the placing in service of rolling stock;
- |||| Issue, renewal, amendments and revocation of safety certificates and safety authorisations;
- |||| Monitoring, promoting and, where appropriate, enforcing and developing the safety regulatory framework;
- |||| Registration of rolling stock and the national vehicle register.

Most of the national safety authorities were established in 2006 and 2007 (according to Article 16.1). At the end of 2007 three Member States still have to establish their national safety authority: Greece, Italy and Luxembourg.

In a minority of Member States the national safety authorities are also performing other tasks such as regulatory activities and issuing licences, while the others are delegating one or both of these tasks to the Ministry of Transport. In general the national safety authorities were created under the Ministry of Transport of the Member State.

The network of safety authorities was established on 21st July 2005. The objective is to gradually harmonise decision-making criteria

and develop a European approach to the regulation of railway safety and interoperability by the exchange of experience, opinions and best practice.

National safety authority reporting

According to Article 18 of the RSD, the national safety authorities shall publish an annual report concerning activities in the preceding year and send it to the Agency before 30th September at the latest.

In 2006 the Agency received 25 reports, of which 12 were delivered within the legal deadline. (Malta and Cyprus are excluded as they do not have a railway, Norway and the Channel Tunnel Safety Authority are included).

NSAs should report on:

- |||| The development of railway safety, including an aggregation at Member State level of the CSIs laid down in Annex I;
- |||| Important changes in legislation and regulation concerning railway safety;
- |||| The development of safety certification and safety authorisation;
- |||| Results of and experience relating to the supervision of infrastructure managers and railway undertakings.

The CSIs

To harmonise the approach to key metrics of safety performance there is a need for common safety indicators (CSIs).

The common safety indicators have a twofold purpose; to form a basis for the assessment of common safety targets and to monitor the general development over time of railway safety in Member States. Annex 1 of the Railway Safety Directive specifies the common safety indicators to be reported to the Agency.

This report forms the baseline of reporting of indicators with a single year of data available. Caution should be exercised in looking at the data as the basis of reporting (e.g. definitions) can vary between Member States. In some Member States the Safety Directive was still in the implementation phase in 2006 and the reporting processes were being established both for Member States and within the Agency.

Until Annex 1 is revised (anticipated for April 2009) the indicators do not have commonly agreed definitions.

The key figures which indicate the basic safety information and the type of accidents, fatalities and serious injuries are available here in this section. We can already draw some clear information from this data. The detailed information and data from Member States can be found in the Appendices at www.era.europa.eu/biennialappendices. The following graphs provide a summary of the status of railway safety in the European Union in 2006.

Linking with Eurostat

The Agency is required to work with Eurostat to develop common and harmonised definitions for the reporting of railway safety statistics to avoid overlap in the development of data. There is close liaison between the Agency and Eurostat and cooperation in both the revision of Annex 1 of Directive 2004/48/EC and the harmonisation of the data collected for the CSIs with the reporting under the transport statistics regulation, EUROSTAT regulation" n°1192/2003.

Once the approval of the new set of common definitions is achieved, the data on CSI shall be split in two groups, the first group focuses on accident data and will be used in parallel, and the second group of data related to incidents (precursors to accidents) and economic indicators will be dealt exclusively by the ERA.

Railway accident data reporting in 2006 was made to Eurostat and ERA. Member States were requested to liaise internally to assure a consistent and reliable reporting of data. However, there was variation in the data reported by some Member States, such that basic data, for example, passenger fatalities, varied. The total passenger fatalities reported to Eurostat for 2006 was 58, whilst the total reported to ERA was 87.

Members States have reported statistical data on accidents to Eurostat since 2004 (EUROSTAT regulation" n°1192/2003). The definitions used for Eurostat provide a commonly understood basis for reporting of accident data and a common template for reporting has been agreed by the NSAs.

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

The value for significant damage has been proposed to €50,000 and the extensive traffic disruption to 6h, but those values haven't been yet officially approved.

Accident type

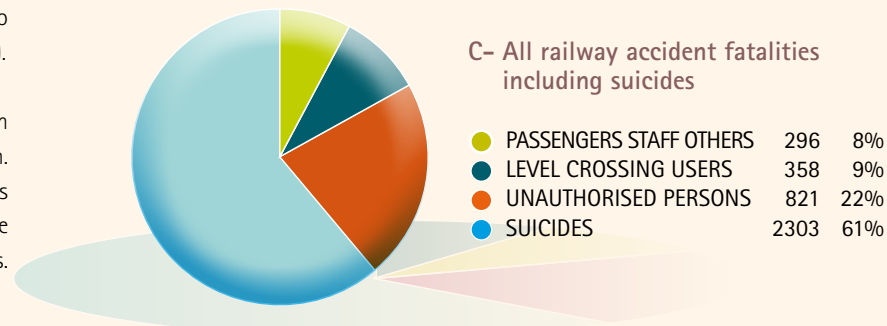
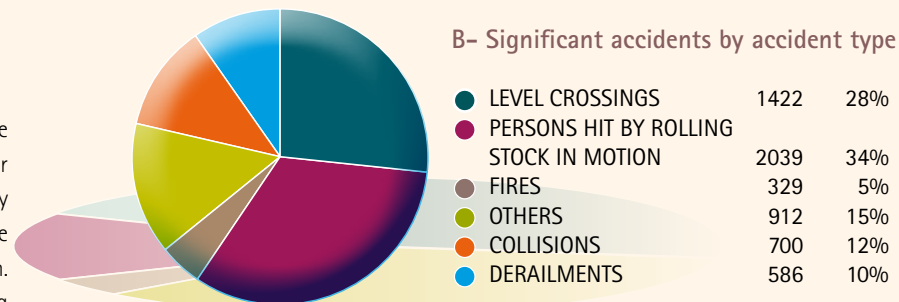
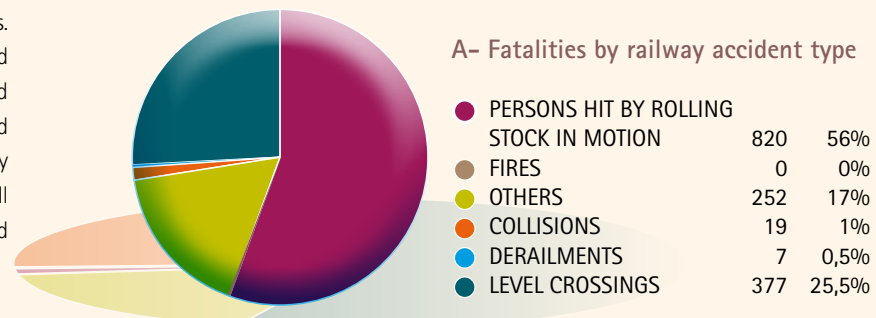
Collisions and derailments are usually considered the most significant accidents in terms of consequence for the railways. In 2006 these were 22 % of all reported accidents, 17% when the data is normalised by train kilometres. This may be contrasted to level crossing accidents and persons hit by rolling stock in motion, together give 58% of all accidents (63% normalised). Fires accounted for only 5% of significant accidents.

Figure A shows railway fatalities by accident type and figure B the same data aggregated by type of accident and the respective number of millions of train-kilometres.

Fatalities and Suicides

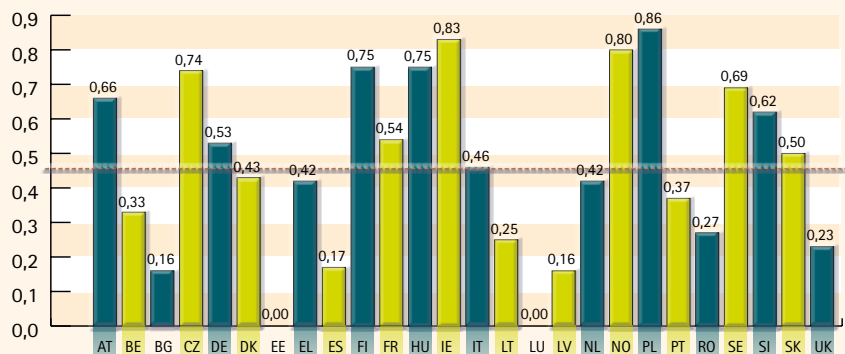
Railway accident fatalities reflect the distribution of type of accident. Passenger deaths are only 6% of the total and railway staff 4%. The largest category of fatality are to persons hit by rolling stock in motion. This includes falls from trains and embarking /disembarking whilst a train is in motion and people who are accessing areas of the railway where they are not authorised to do so (for example, crossing tracks in a station).

There are a total of 132.293 level crossings in the Member States of the European Union. A quarter of all significant railway accidents occur at level crossings, resulting in the same proportion of all railway fatalities.



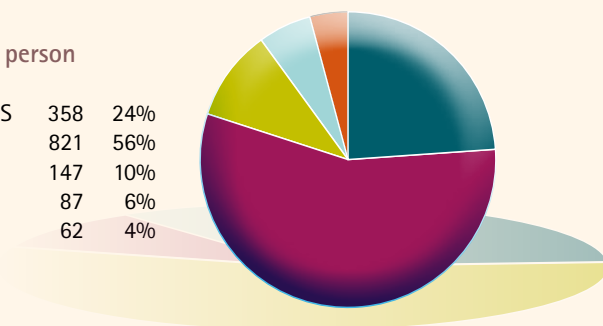
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D- Average number of level crossings per track kilometre by Member State



E- Fatalities by type of person

LEVEL CROSSING USERS	358	24%
UNAUTHORISED	821	56%
OTHERS	147	10%
PASSENGERS	87	6%
RAIL STAFF	62	4%



However, level crossing fatalities account for only a small proportion of road transport fatalities. Only 8% of passenger fatalities occur in level crossing accidents. Evidence from research and accident investigation reports indicate that safety measures may be breached by the road user (e.g swerving around barriers).

The density of level crossings per track kilometre varies between Member States and impacts risk exposure as does the type of crossing and frequency of use. The Finnish investigation body and safety authority undertook a study of level crossing accidents in 2006, publishing the study in 2007 which included recommendations to be shared with other Member States.

Graph C shows the distribution of total railway casualties (deaths and seriously injured persons). Third parties are the largest category with suicides representing 61% of all casualties. Third party railway accident casualties were 31% of the total and accidents to personnel, passengers and others represents only 8% of the total. Whilst the data on suicides may not be exact due to difficulties in classification, it is clearly indicative of the magnitude of the issue this presents to the railway. The impact of a suicide extends beyond the victim and to passengers, staff and railway operations.

Precursors to accidents

Precursors are occurrences which under slightly different conditions may have led to an accident. This includes SPADS (signals passed at danger), broken rails, track buckles, broken wheels and axles and WSSF (wrong side signalling failures). It is common in many Member States to collect data on precursors to provide input into assessment of railway risk and safety.

The data received by the Agency in the 2006 reporting year in this category is irregular, with variation in reporting. It is a new measurement for some Member States and based on the data this year it is not possible to draw conclusions.

Cost of all accidents

Approximately half of the Member States sent data on costs of accidents. Costs were reported under two different approaches.

Some Member States have adopted the value of preventing a fatality (VPF) approach – the value of preventing a fatality or the cost borne by society, whilst others have used the more traditional approach of the cost borne by the railway undertaking and the infrastructure manager. The traditional cost is much lower than the global cost using the methodology for VPF.

Member States were also required to report hours worked on safety but the data is neither significant nor consistent and so no conclusions can be drawn.





Infrastructure

Currently two CSIs are reported regarding railway infrastructure.

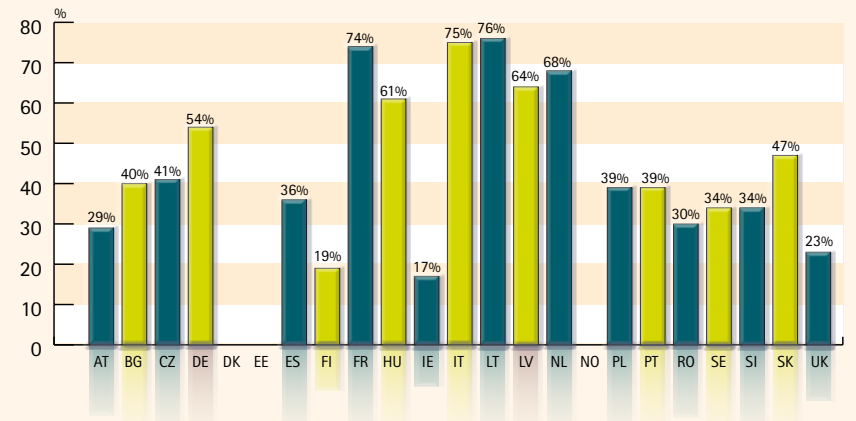
Percentage of tracks equipped with ATP. There is currently no linked information to high speed or conventional lines. The average value is 44%.

Level Crossings, equipped with either automatic or manual protection. Data indicates Latvia, France and Italy have around 75% and the average value is 45%. We currently have no breakdown of the different types of level crossing or the percentage with active protection (manually or automatically activated) compared to passive level crossings (where there may be static warnings only).

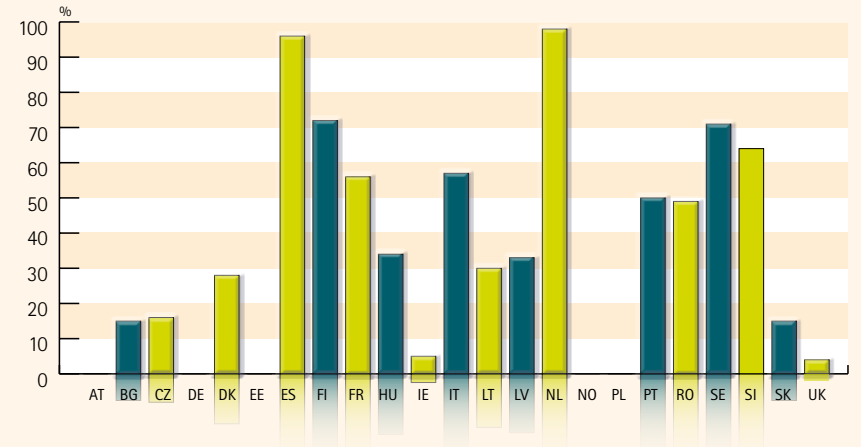
SMS monitoring

The number of audits and inspections is represented as an aggregate as it was clear for 2006 that different definitions for reporting were used and the concept of an audit and an inspection varied across Europe. Clear definitions will be proposed to allow unambiguous reporting in future.

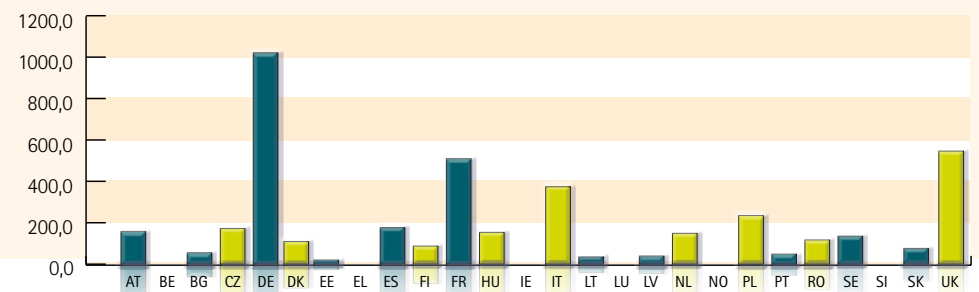
F- Percentage of level crossings fitted with manual or automatic protection in 2006



G- Percentage of lines fitted with automatic train protection in Member State



H- Passenger train kilometres (millions) by Member State



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Important changes in legislation and regulation concerning railway safety

National safety rules play an important role to ensure that rail safety requirements are established and binding in the Member States. To promote their transparency for all parties in the railway market, the Agency registers the notified safety rules in its public database of safety documents.

2006 was the year of implementation of the railway safety directive and this was the reason for most of the important changes in the legislation of the Member States.

This chart shows the ways in which the Member States have achieved this obligation. Some fifteen countries introduced new laws to comply with the Directive. In twelve Member States existing laws were amended. New regulations were introduced in the Netherlands and by the Intergovernmental Commission for the Channel Tunnel Fixed Link to transpose the Directive. Regulations and orders were introduced or amended in fourteen countries to comply with specific sections of the Railway Safety Directive.

In addition, there were changes relating to rolling stock and infrastructure in the Member States. For example, in Portugal, train headlights shall be used in daylight; Slovenia made changes to the legislation on brakes, safety devices, maintenance of vehicles; Sweden introduced nine new provisions to comply with TSIs and one on the approval of technical systems.

The development of safety certification

With the implementation of the Safety Directive in 2006 and a transition period until December 2010, the regime of railway safety certification in Europe has changed. A two step approach replaced a single, operational oriented certification valid on a particular network according to Directive 2001/14/EC. This two step approach comprises an assessment of conformity of a safety management system (SMS) built on the requirements of Article 9 and Annex III of the Safety Directive, which is called a Part A Certificate and valid across all Member States, and a complementary network-specific Part B Certificate.

This new safety certification will facilitate effective interoperability by maintaining the safety level across Europe.

At the end of 2006 only 37% of the Member States (including Bulgaria and Romania as well as Norway and the Channel Tunnel authority) had implemented first level legislation and 22% the secondary legislation. By December 31st 2006, no safety certificates had been issued. For Part A Safety Certificates this was because Member States railway undertakings had just been certified according to Directive 2001/14/EC and this transition period is still underway.

By the end of 2007 considerable progress had been made in the Member States and the necessary legislation implemented in all but 7% as primary legislation. However, in 40% secondary legislation was still missing. The issue of Part A and Part B Certificates has started and they can be seen on the Agency's public safety database.

Progress of Part A certification was supported by the publication of the Agency's "SMS assessment criteria" in May 2007 which is available in all relevant languages.



Figure 1 : The main sources of information for this survey were the Annual reports issued by the National Safety Authorities and the DG TREN's web site on country information: http://ec.europa.eu/transport/rail/countries/index_en.htm.

Results of and experience relating to the supervision of infrastructure managers and railway undertakings

In this first reporting there was no feedback on the experience or results of the supervision of infrastructure managers and railway undertakings.

National investigation bodies

Article 21 "Each Member State shall ensure that investigations of accidents and incidents referred to in Article 19 are conducted by a permanent body, which shall comprise at least one investigator able to perform the function of investigator-in-charge in the event of an accident or incident. This body shall be independent in its organization, legal structure and decision-making from any infrastructure manager, railway undertaking, charging body, allocation body and notified body, and from any party whose interests could conflict with the tasks entrusted to the investigating body. It shall furthermore be functionally independent from the safety authority and from any regulator of railways".

Independent investigation bodies charged with investigating serious accident on the railway are to be established in each Member State.

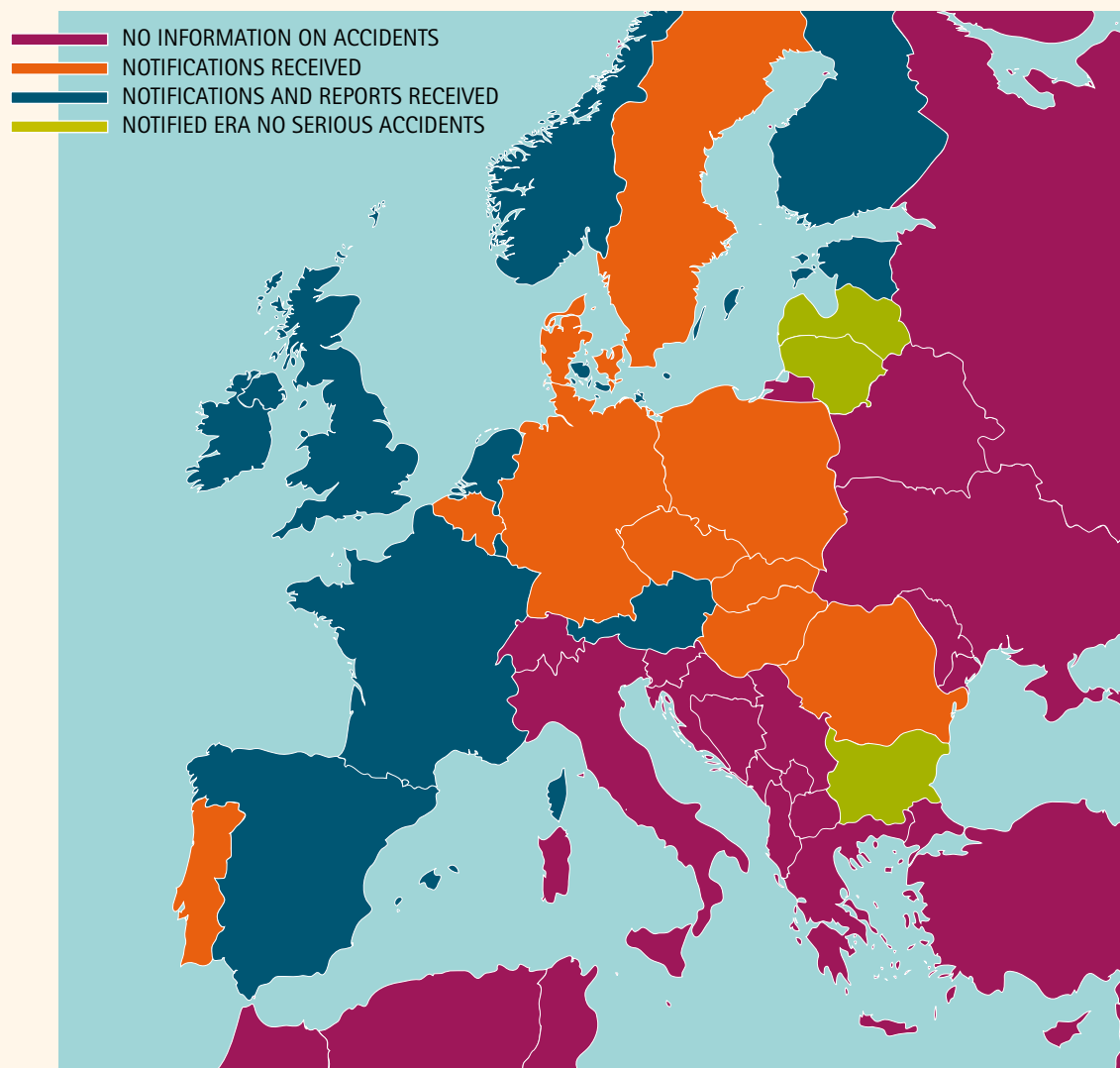
The accident reporting of each Member State is not comparative quantitatively as the bases of reporting vary. Some Member States only investigate serious accidents according to Article 19 of the Railway Safety Directive, others have national laws which give a wider scope and allow discretion to the investigation body on the decision to investigate.

The investigation bodies established according to the railway safety directive may be single or multimodal. Many are multimodal across transport modes such as marine and aviation, whilst others cover land transport only.

Accidents should be notified to ERA within one week of the decision to open an investigation and final investigation reports are usually submitted within 12 months of the date of the accident. Figure J shows the status of notifications of accidents, final accident reports and notifications that a country has reported no serious rail accidents in a given calendar year.



J- Accident reporting and notifications by national investigation bodies to 31st December 2007





Seven passenger fatalities resulted from an accident at Villada in Spain in August 2006.

National investigation body reporting

According to Article 24 of the Railway Safety Directive, the national investigation bodies shall publish an annual report concerning investigations opened in the preceding year, recommendations made and the actions reported back in response to those recommendations by the NSA. This annual report should be sent to the Agency before 30th September.

In 2007 the Agency received 14 reports (Malta and Cyprus are excluded as they do not have a railway, Norway is included) from the NIBs reporting on 2006. Reports were received from Bulgaria, Czech Republic, Estonia, Finland, Hungary, Ireland, Norway, Romania, the United Kingdom, Denmark, France,

Germany, Portugal, and Sweden. 12 Member States did not submit reports, Austria, Belgium, Spain, Italy, Latvia, Lithuania, Netherlands, Poland, Slovakia, Slovenia and Greece. Latvia and Poland submitted notice that the respective NIB's were not established in 2007, so they didn't plan to send the 2006 report, as no investigations were undertaken nor recommendations issued.

From 30th April 2006 Member States were required to notify the Agency of any serious accidents for which the investigation body opened an investigation. In 2006 the Agency received 188 notifications of investigations commenced. In the interests of sharing lessons learned from accidents some Member States submitted reports of investigations undertaken prior to the legal requirements for notification – this totalled 52 reports of accidents prior to 30th April 2006.

The final investigations received reported 330 recommendations. Feedback on the actions taken and response to recommendations by the NSA is anticipated for the 2007 annual reports.

Each NIB will report according to the Safety Directive but also the national criteria arising from the transposition of the Safety Directive. The information held by the Agency in the public database is therefore only for qualitative purposes and can only be compared where the reporting is on an equal basis – i.e. for Article 19.1 serious accidents. Details of reporting in 2006-7 for all national investigation bodies are outlined in the Annex to this report.

Caution should be exercised in any comparison of accident investigation reporting, because this national legislation varies.

Railways are recognised as a relatively safe form of transport; from April to December 2006, 13 passenger deaths were reported. During 2006 there were 2 major European train accidents with multiple fatalities reported to the Agency. On the 21st August there was a derailment at Villada in Spain which resulted in 7 passenger fatalities. In October a train collision occurred near the Luxembourg – France border at Zoufftgen and 3 passenger fatalities resulted, with also 2 on board staff and one trackside worker fatality.

Derailments or collisions are rare accidents as shown by the statistical reporting of the common safety indicators. The focus of accident investigation by the independent national investigation bodies is to carry out an independent investigation to consider the lessons to be learned from accidents without apportioning blame and to make recommendations to improve safety where appropriate.

The Railway Safety Directive requires an investigation of serious accidents following a derailment or collision or an accident with similar consequences.(Article 19.1). Other articles allow for investigations to be completed where there are lessons to be learned due to a pattern of similar accidents or were the accident may have European level implications.



K- Serious accidents in 2006 with at least one passenger fatality

Date	Location	Accident Type	Passenger fatalities	Total fatalities
14/7/06	Slovakia STURVO	Level crossing	1	1
21/8/06	Spain VILLADA	Derailment	7	7
11/10/06	France Luxembourg ZOUFFTGEN	Collision	3	6
10/11/06	France CHAVILLE	Accident to person caused by rolling stock in motion	1	1
26/12/06	Czech Republic BRANDYS NAD ORLICI	Accident to person caused by rolling stock in motion	1	1

The focus of the accident investigation activity is learning from accidents, the exchange of experience and the development of common methods and approaches to accident investigation. The Agency liaises with its sister organizations EASA (European Aviation Safety Agency) and EMSA (European Marine Safety Agency) to consider how we can harness cross modal practice and accident information.

Public database of safety documents

The Agency Regulation (EC)881/2004 requires that the Agency shall be responsible for keeping a public database which includes documents submitted to the Agency in accordance with the Railway Safety Directive: licences, safety certificates, investigation reports and national safety rules.

The challenge for 2006 was to establish such a database to meet this requirement to support Member States from the date of implementation of the Railway Safety Directive.



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Supporting a safe and interoperable railway

The Agency has a role in supporting the implementation of EU legislation to develop an interoperable railway in which safety does not present a barrier to competition. To support the safety performance of the railways through harmonised methods and approaches the Agency develops and issues:

- |||| **Recommendations** to the Commission;
- |||| **Technical opinions;**
- |||| **Impact assessment reports;**
- |||| **Agency documents** to complement legislative acts adopted by the Commission;
- |||| **Implementation guidelines** to support the railway sector in applying the European railway legislation.

At the time of this report the development of harmonised methods and approaches for:

- |||| Safety certification and conformity assessment
- |||| Authorisation for putting into service
- |||| Common safety targets
- |||| Safety management systems
- |||| Common and harmonised definitions for CSIs are still in process.

The safety performance reported here and the safety performance reports for the next and following biennial periods, 2010 and 2012 sit within this context, and significant developments in common and harmonised methods and approaches over the coming biennial periods will influence reporting.

Developments in safety management

According to the Safety Directive, the railway undertakings and the infrastructure managers must hold a safety certificate or a safety authorisation providing evidence that they have established their safety management system (SMS) and that they can meet the requirements laid down in European or national legislation in order to control risks and operate safely on the network.

A key process of the SMS is change management through risk assessment. The risk assessment of change and the implementation of risk control measures are applied whenever a change of the operating conditions or new material imposes new risks on the infrastructure or on operations and associated infrastructure.

This change management process of the SMS is mainly covered by the development of the common safety method (CSM) for risk assessment.

The harmonisation of the process of risk assessment via a European regulation on CSM is one of the steps to facilitate progress towards a common approach to railway safety and to facilitate cross acceptance.

Developing common safety targets (CST)

Common safety targets aim to provide an harmonised reference system for monitoring railway safety performance among different Member States. The aim is to maintain safety and if and where appropriate to improve it. Indicators (CSIs) are used to assess achievement of the CST.

During 2008/9 reference values for the current safety performances of the railway in each Member State will be established based on harmonised data on accidents, incidents or near-misses (common safety indicators). Common safety targets for all Member States will be established based on these reference values.

The Agency will analyse, each year, the safety performance in each Member State, based on a harmonised methodology and on dialogue with experts from the concerned Member States. The aim is to assess whether each Member State is maintaining/improving its safety performance or not. The results of these assessments will be reported by the Agency to the Commission.

In the first set of CST, the objective for each Member State will consist in maintaining its current safety performances, except if it clearly appears that one of these safety performances is really too low and that a cost/benefit analysis shows that immediate actions are beneficial. The first set of CST should then not have any significant impact on the Member States.





Challenges and changes: the future of railway safety

Changes foreseen up to the next biennial report

The next biennial report on railway safety performance will be published in 2010, covering the years 2007-2008. Significant changes resulting from the further implementation of the Railway Safety Directive will continue in the period up to this report.

Recommendations will be made to the Commission to further develop the common methods and approaches to safety, and to facilitate market opening in the railways of the European Union.

Support for a common framework for safety management systems and recommendations for the common safety method for CST will be proposed. The framework for the first set of CST is already delivered and the framework for the second set will be developed.

It is anticipated that during this period the Agency will develop processes for effective communication to share lessons learned from accidents as the database will have a broader historical basis. This historical perspective will be supported by the completion of a project to populate the database with historical accident information back to 1990.

Reporting of safety indicators will begin to be more reliable and consistent as a recommendation for the revision of Annex 1 will be submitted and common definitions for reporting adopted by all Member States. Harmonisation with the transport statistics reporting of Eurostat to reduce the requirement for 'double' reporting should be in place.

ERA will continue to work with its stakeholders and partners from the railway sector to develop and implement the railway safety directive and its provisions.

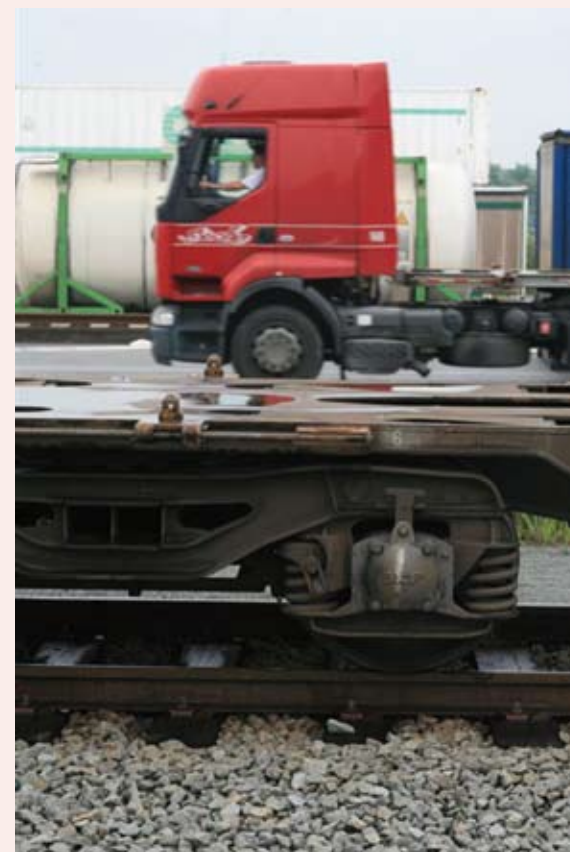
Establishing a reporting baseline – the challenges

In this first year of reporting there are some important issues to note.

Member States are permitted to use their own definitions. Some have done this and others are already using the common definitions of safety indicators. Whilst common definitions are in development, until the revision of Annex 1, the Member States do not have a common point of reference. As a result no conclusive comparison can be drawn this year on performance.

A key challenge is the development of data quality and assisting Member States to report fully and accurately. In this year the formal reporting process is being established in many Member States and national definitions and approaches to annual reporting are evident. Differences in the culture of investigations, reporting and data collection (for example on suicides and safety management) influence data and investigation information.

This is the first year of reporting for many accident investigation bodies and so there is little or no feedback on the actions taken by NSAs, or other bodies, on recommendations. This will develop as reporting and time progresses.



Looking forward – European railway safety performance to 2010 and onwards

The railways in Europe are considered one of the safest modes of transport and evidence shows that this is maintained through the opening of markets and the separation of the functions of infrastructure and railway undertakings of the European railways. This report highlights some of the focus for the Agency's work during the period to 2010.

Whilst the new regime introduced by the Safety Directive offers possibilities to improve safety without additional cost, through the common safety indicators the Agency will continue to monitor the developments in safety and the impact of change and in particular to monitor the trends in different railways and Member States.

Learning lessons from accidents is a key element of maintaining and understanding safety. The Agency will develop processes to monitor accident investigations and to disseminate the lessons to be learned for European railways. In particular the Agency will establish a scheme to disseminate European level safety recommendations and the exchange of safety information across Europe.

The root causes of accidents are often systemic and lie in the organisational and management of safety systems. They may not be well understood among Member States whose pre-Safety Directive culture was blame-focused in the event of an accident. The Agency is working on the topic of safety management systems to allow the introduction of a European wide approach. This will support and underpin the safety culture supporting the development of safety.

The comparison between EU Member States is a cautious one in this report, as the data follows national definitions in most cases. By the next biennial report we will look forward to the beginning of the application of common definitions of common safety indicators. The Agency will work with Member States to develop data quality and consistent reporting.

The Agency will continue to monitor the high representation of accident casualties in third parties, either as level crossing users or as trespassers. The Agency will further develop its work to exchange information and best practice on mitigation measures for third parties. The Agency will work on the dissemination and discussion of possible measures at European level. In particular, it will continue to consider the issue that 25% of fatalities occur at level crossings and the safety principles that are applied to the level crossings context.

Suicides present a challenge to the railways as the impact on operations and associated costs can be significant. The Agency will continue to facilitate the exchange of information, research and best practice in this field.

The Agency will aim to develop a better understanding, through liaison with Member State authorities, of the causes behind certain accident types, in particular where differences between member states indicate higher levels of risk in some countries; Analysis of reports on serious accidents submitted by the investigation bodies in order to disseminate lessons learned, identify critical areas where systematic improvement might be possible and provide elements for development of accident investigation methodologies.

Through the coming two years the Agency will continue to work actively with the national bodies and its industry stakeholders to develop this data and to improve reporting.

Annexes



Annex 1: 2006 Common Safety Indicators (available at www.era.europa.eu)

Annex 2: 2006–2007 Notifications and final accident investigation reports (available at www.era.europa.eu)

Annex 3: National Safety Authorities and National Investigation Bodies: contact information

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Annex 3

List of National Safety Authorities and Investigation Bodies

Note: This list is based on the Communication Protocol between the European Railway Agency and the Competent National Authorities and Bodies relating to the communication of information as described in Regulation (EC) 881/2004 and Directives 96/48/EC, 2001/16/EC and 2004/49/EC (ERA-20070524, 10/03/2008, version 1.2, final), as well as it makes use of other contacts that have been made available to the Agency recently.

Country	Contact information of the National Safety Authority (NSA)	Contact information of the National Investigation Body (NIB)
Austria (AT)	Bundesministerium für Verkehr, Innovation und Technologie (BMVIT), Oberste Eisenbahnbehörde Federal Ministry of Transport, Technology and Innovation, Railway Authority Radetzkystraße 2, AT-1030 WIEN www.bmvit.gv.at	Bundesanstalt für Verkehr (VERSA) Unfalluntersuchungstelle des Bundes, Fachbereich Schiene Lohnnergass 6, AT-1210 WIEN http://versa.bmvit.gv.at
Belgium (BE)	Federale Overheidsdienst Mobiliteit en Vervoer Directoraat-generaal vervoer te Land Dienst Veiligheid en Interoperabiliteit van de Spoorwegen Vooruitgangstraat 56, B-1210 BRUSSEL www.mobiliteit.fgov.be Service Public fédéral Mobilité et Transports Direction générale Transport terrestre Service de Sécurité et d'Interopérabilité des Chemins de Fer Rue du Progrès 56, B - 1210 BRUXELLES www.mobiliteit.fgov.be	Federale Overheidsdienst Mobiliteit en Vervoer Onderzoeksorgaan voor Ongevallen en Incidenten op het Spoor De Heer Patrick Schouteten Vooruitgangstraat 80 – postbus 5, B – 1030 BRUSSEL www.mobiliteit.fgov.be Service Public fédéral Mobilité et Transports Organisme d'enquête sur les Accidents et les Incidents ferroviaires Monsieur Patrick Schouteten Rue du Progrès 80 – boîte postale 5, B – 1030 BRUXELLES www.mobiliteit.fgov.be
Bulgaria (BG)	Ministry of Transport – Railway Administration Executive Agency 5 Gurko str., BG-1080 SOFIA www.railbg.com Ministry of Transport – Railway Administration Executive Agency Directorate General Railway Inspectorate 5 Gurko str., BG-1080 SOFIA www.railbg.com	Responsible for the opening of accident investigation and final accident investigation report: Ministry of Transport – Railway Administration Executive Agency Directorate General Railway Inspectorate 5 Gurko str., BG-1080 SOFIA www.railbg.com Responsible for the annual NIB report: Ministry of Transport – Independent Railway Investigation Body 5 Gurko str., BG-1080 SOFIA www.mt.government.bg

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Country	Contact information of the National Safety Authority (NSA)	Contact information of the National Investigation Body (NIB)
Czech Republic (CZ)	Drazni Urad – Rail Authority Wilsonova 8, CZ-121 06 PRAHA 2 www.du-praha.cz	Drazni Inspekce – The Rail Safety Inspection Office Tesnov 5, CZ-110 00 PRAHA www.dicr.cz
Germany (DE)	Eisenbahn-Bundesamt (EBA) Federal Railway Authority (EBA) Vorgebirgsstr. 49, D-53119 BONN www.eba.bund.de	Eisenbahn-Unfalluntersuchungsstelle beim Bundesministerium für Verkehr, Bau und Stadtentwicklung Referat E 15 Robert-Schuman-Platz 1, 53175 BONN www.bmvbs.bund.de
Denmark (DK)	Trafikstyrelsen National Rail Authority Adelgade 13, DK-1304 COPENHAGEN www.trafikstyrelsen.dk	Havarikommissionen for Civil Luftfart og Jernbane Langebjergvaenget 2, DK-4000 ROSKILDE www.havarikommissionen.dk
Estonia (EE)	Estonian Technical Surveillance Authority Sõle 23 A, EE-10614 TALLINN http://www.tji.ee/?lang=en	Ministry of Economic Affairs and Communications/ Emergency Management Department Harju str. 11, EE-15072 TALLINN www.mkm.ee
Greece (EL)	Hellenic Ministry of Transport and Communications, Safety Authority for Railway Transport 2 Anastaseos and Tsigante str., GR-15669 Papagou-ATHENS www.yme.gr	Hellenic Ministry of Transport and Communications, Committee for Accident Investigation 2 Anastaseos and Tsigante str., GR-15669 Papagou-ATHENS www.yme.gr
Spain (ES)	Ministerio de Fomento Plaza Sagrados Corazones 7, E-28071 MADRID www.fomento.es	Ministerio de Fomento Plaza Sagrados Corazones 7, E-28071 MADRID www.fomento.es
Finland (FI)	Finnish Rail Agency P.O. Box 84, FI-00101 HELSINKI www.rautatievirasto.fi	Accident Investigation Board of Finland Sörnäisten Rantatie 33C, FI-00580 HELSINKI www.onnettomuustutkinta.fi
France (FR)	Etablissement Public de Sécurité Ferroviaire 1 Parvis de La Défense, F-92044 PARIS LA DEFENSE CEDEX www.securite-ferroviaire.fr	BEA-TT Land Transport Investigation Body Tour Pascal B F-92055 PARIS LA DEFENSE cedex www.bea-tt.equipement.gouv.fr

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Country	Contact information of the National Safety Authority (NSA)	Contact information of the National Investigation Body (NIB)
Hungary (HU)	National Transport Authority HU-1389 BUDAPEST 62 P.O. BOX 102 www.nkh.hu	Transportation Safety Bureau HU-1675 BUDAPEST, Ferihegy P.O. BOX 62 www.kbsz.hu
Ireland (IE)	Railway Safety Commission Trident House Rock Hill Blackrock, CO DUBLIN www.rsc.ie	Railway Safety Commission Trident House Rock Hill Blackrock, CO DUBLIN www.rsc.ie
Italy (IT)	Agenzia Nazionale per la Sicurezza delle Ferrovie Via Luigi Alamanni, n.4 , 50123 FIRENZE http://www.ansf.it/ Temporarily responsible for the tasks concerning the systems, the subsystems and the interoperability constituents connected with the infrastructure: Italian Infrastructure Manager Rete Ferroviaria Italiana S.p.A. Piazza della Croce Rossa, 1 , 00161 ROMA http://www.rfi.it/default.asp	Railway Safety Commission Via Giuseppe Caraci 36, I-00157 ROMA www.infrastrutturetrasporti.it
Lithuania (LT)	Valstybinė geležinkelio inspekcija State Railway Inspectorate 26-2 Pamenkalnio, LT-01114 VILNIUS www.vgi.lt	Katastrofu tyrimu vadovas National Investigation Body Gedimino ave. 17, LT-01505 VILNIUS www.transp.lt
Luxembourg (LU)	Ministère des Transports 11 rue Notre Dame, LU-2938 Luxembourg www.gouvernement.lu	Ministère des Transports 11 rue Notre Dame, LU-2938 Luxembourg www.gouvernement.lu
Latvia (LV)	State Railway Technical Inspectorate (SRTI) 2 Riepnieku Str., LV-1050 RIGA www.vdzti.gov.lv	Responsible for serious accidents: Transport Accident and Incident Investigation Bureau (TAIIB) Brīvības Str. 58, LV-1011 RIGA www.taiib.gov.lv/?lang=en Responsible for accidents and incidents: State Railway Technical Inspectorate (SRTI) Riepnieku Str. 2, LV-1050 RIGA www.vdzti.gov.lv

Country	Contact information of the National Safety Authority (NSA)	Contact information of the National Investigation Body (NIB)
Netherlands (NL)	Inspectie verkeer en Waterstraat Rail Inspectorate St jacobsstraat 16 PO Box 1511, NL-3500 BM UTRECHT www.ivw.nl	The Dutch Safety Board PO Box 95404 NL2509CK DEN HAAG www.safetyboard.nl
Norway (NO)	Norwegian Railway Inspectorate Wergelandsveien 3, NO-0167 OSLO www.sjt.no	Accident Investigation Board Norway Sofie Radichs vei 17, N-2001 LILLESTROM PO Box 213 www.aibn.no
Poland (PL)	Urząd Transportu Kolejowego ul. Chałubińskiego 4, PL-00-928 WARSZAWA www.utk.gov.pl	Państwowa Komisja Badania Wypadków Kolejowych (NIB) ul. Chałubińskiego 6, PL-00-928 WARSZAWA
Portugal (PT)	IMTT (Instituto da Mobilidade e dos Transportes Terrestres) IMTT, I.P., Av. Das Forças Armadas, n°40 – 1649-022 LISBOA www.imtt.pt	Temporarily: IMTT (Instituto da Mobilidade e dos Transportes Terrestres) IMTT, I.P., Av. Das Forças Armadas, n°40 – 1649-022 LISBOA www.imtt.pt In the future: New body under the Ministry of Public Works, Transport and Communications (MOPTC), GISAF – Gabinete de Investigação de Segurança e de Acidentes Ferroviários
Romania (RO)	Autoritatea Feroviară Română (AFER) Romanian Railway Authority (AFER) Romanian Railway Safety Authority (ASFR) Calea Grivitei 393, Sector 1 Ro- Cod 010719 BUCURESTI www.afer.ro	Autoritatea Feroviară Română (AFER) Romanian Railway Authority (AFER) Romanian Railway Investigating Body (OIFR) Calea Grivitei 393, Sector 1 Ro- Cod 010719 BUCURESTI www.afer.ro
Sweden (SE)	Swedish Rail Agency P.O. Box 14, SE-781 21 BORLÄNGE www.jvs.se	Swedish Accident Investigation Board Teknologgatan 8 P.O. Box 12538, SE-102 29 STOCKHOLM www.havcom.se
Slovenia (SI)	Public Agency for Rail Transport of RS Kopitarjeva ul 5, SI-2000 MARIBOR www.azp.si	Ministry of Transport - Railway Accident and Incident Investigation Division Langusova 4, SI-1000 LJUBLJANA www.mzp.gov.si

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Country	Contact information of the National Safety Authority (NSA)	Contact information of the National Investigation Body (NIB)
Slovakia (SK)	Railway Regulatory Authority (URZD) Mileticova 19, SK-820 05 BRATISLAVA <i>www.urzd.sk</i>	Ministry of Transport Posts and Telecommunication Namestie Slobody 6 SK-81005 BRATISLAVA <i>www.telecom.gov.sk</i>
United Kingdom (UK)	Office of Rail Regulation (ORR) 1 Kemble Street, UK-WC2B 4AN LONDON <i>www.rail-reg.gov.uk</i>	Rail Accident Investigation Branch The Wharf Stores Road, UK-DE21 4BA DERBY <i>www.raib.gov.uk</i>
Channel Tunnel	Secrétariat général au Tunnel sous la Manche (SGTM) 22 rue du Général Foy, FR-75008 PARIS <i>tunnelmanche@equipement.gouv.fr</i> Channel Tunnel Safety Authority Office of Rail Regulation (ORR) 1 Kemble Street, UK-WC2B 4AN <i>ctsa@orr.gsi.gov.uk</i>	See the relevant authority or body in France or United Kingdom for the respective part of the Channel Tunnel

Key Events: a European Railway Agency timeline

1/01/2005 European Railway Agency Executive Director appointed
1/05/2005 European Railway Agency begins operational activity

2005

21/07/2005 Inaugural Meeting NSA Network
14/09/2005 1st meeting CST working group
20/09/2005 1st meeting safety certification and authorisation working group
27/09/2005 1st meeting CSM working group
4/10/2005 1st meeting CSI working group
18/10/2005 Inaugural meeting NIB Network
16/12/2005 Mandate to develop the 1st set of CST
16/12/2005 Mandate to develop the 1st set of CSM
16/12/2005 Mandate to develop common harmonised requirements and formats for application guidance documents.

2006

13/01/2006 Recommendation on harmonised formats for safety certification
6/03/2006 Recommendation on European identification number for safety certificates
29/04/2006 Railway Safety Directive (EC/2004/49) comes into force
29/04/2006 Investigations of serious accidents to be notified to ERA
16/12/2006 Recommendation on the notification of national safety rules

2007

- 26/01/2007 Technical note on the use of CSM for TSI subsystems (and 27/8/2007)
- 31/02/2007 Mandate to develop parts of the 2nd set of CSM
- 15/02/2007 Delivery of feasibility study - apportionment of CST to define safety requirements in TSIs
- 31/05/2007 Publication of SMS assessment criteria
- May/2007 Launch of public database of safety documents
- 30/09/2007 Submission of first annual reports of NIBs NSAs and CSIs
- 6/12/2007 Recommendation on the 1st set of CSM

2008

- 25/04/2008 Recommendation on the CSM for calculation, assessment and enforcement to be used in the framework of the 1st set of CST
- 31/08/2008 Guide for application of the 1st set of CSM
- 30/09/2008 Recommendation on harmonisation of part B safety certification requirements and application guidance
- 4/12/2008 Adoption of recommendation on train driver's certificate

2009

- 28/02/2009 Recommendation on 1st set of CSTs

Key documents and references

All documents can be obtained through our web pages www.era.europa.eu

Regulation (EC) no 881/2004 of the European Parliament and Council of 29 April 2004 establishing a European Railway Agency

Directive 2004/49/EC of the European Parliament and Council of 29 April 2004 on safety on the Community's railways and amending Council Directive 95/18/EC on the licensing of railway undertakings and Directive 2001/14/EC on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure and safety certification.

Recommendation on the 1st set of Common Safety Methods

Note on Commonalities and Differences between National Safety Rules and National Technical Rules

Guideline for Member States on the Notification of National Safety Rules

Agency publication of "Safety Management System – Assessment Criteria

The "survey on existing SMS legislation and SMS practices in the railway sector and other safety-critical and high-reliability industries in- and outside of the European Union"

Evaluation of the SAMRAIL/SAMNET projects - the aim of this report is to inform the railway community how the results of this two projects will be used by the European Railway Agency.

The Agency's SafeCert Team Annual Progress Report 2006

The Agency's CSM & CST Team Annual Progress Reports 2006

Recommendation on the Notification of National Safety Rules

Accompanying Report to the Recommendation to the Commission on the Technical Examination of National Safety Rules

Recommendation to the Commission on harmonised formats for Safety Certificates and harmonised Application Formats

Report describing the process about how the harmonised formats for Safety Certificates and the harmonised Application Formats were created

EU energy and transport in figures, Statistical Pocketbook 2007/2008, Directorate General for Energy and Transport

The annual reports of all Member States' NIBs and NSAs submitted to the Agency are available at www.era.europa.eu

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Mission

The Agency's mission is to prepare new and updated legislative acts for adoption by the Commission, after a positive opinion from the Committee of Member States, and to give other technical support to the Commission.

Vision

The Agency is working with a vision to contribute to the creation of an integrated European railway area where trains can run and be organised as transport services freely, safely, effectively and without interruption. The objective is to allow the rail transport sector to realise its inherent competitive advantages in relation to other transport modes.



Staff of the Safety Unit ERA

Our core values

- We support the European dimension and let it guide us in our work
- We carry out our work in full transparency in relation to stakeholders, national authorities, European institutions and the public;
- We safeguard our independence and act with impartiality;
- We have a strong belief in dialogue, consultation and exchange of information;
- We apply a system approach when we develop our products;
- We see professionalism as a key to success in developing and supporting our business.





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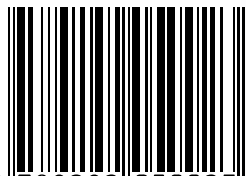
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