

COMMISSION OF THE EUROPEAN COMMUNITIES



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# COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT

on a Progress Report on the implementation of the Railway Safety Directive and of the Railway interoperability Directives

(text with EEA relevance)

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#### **1. INTRODUCTION**

This report describes the stage reached so far in implementing the Railway Safety Directive and in achieving interoperability of the European rail system since the first report adopted by the Commission in November 2006<sup>1</sup>. It responds to Article 31 of the Railway Safety Directive<sup>2</sup>, Article 24 of the high-speed Interoperability Directive<sup>3</sup> and Article 28 of the conventional rail Interoperability Directive<sup>4</sup>.

To prepare for this report, the European Commission commissioned a study analysing the degree of implementation of rail interoperability and safety legislation and progress in the field<sup>5</sup>, and carried out a public consultation. The results of the consultation are summarised in the annex to this report<sup>6</sup>.

On railway safety, too, the report builds on the findings of the first biennial report on the development of railway safety in the European Community issued by the European Railway Agency in 2008<sup>7</sup>.

Recent amendments to the legal framework for railway safety and interoperability<sup>8</sup> have not been considered in this report as they are still being transposed at national level.

<sup>&</sup>lt;sup>1</sup> Communication from the Commission to the Council and European Parliament: Progress Report on the implementation of the interoperability Directives. COM(2006) 660 final.

<sup>&</sup>lt;sup>2</sup> Directive 2004/49/EC of 29 April 2004 of the European Parliament and of the Council on safety on the Community's railways. OJ L 220, 21.06.2004 p. 16.

<sup>&</sup>lt;sup>3</sup> Council Directive 96/48/EC of 23 July 1996 on the interoperability of the trans-European high-speed rail system. OJ L 235, 17.9.1996, p.6.

<sup>&</sup>lt;sup>4</sup> Directive 2001/16/EC of 19 March 2001 of the European Parliament and of the Council on the interoperability of the conventional rail system. OJ L 110, 20.4.2001, p.1.

<sup>&</sup>lt;sup>5</sup> http://ec.europa.eu/transport/rail/studies/doc/2007\_interoperability\_safety.pdf.

<sup>&</sup>lt;sup>6</sup> Commission staff working document accompanying the Communication from the Commission to the Council and European Parliament: Progress Report on the implementation of the Railway Safety Directive and of the Railway interoperability Directives. SEC(2009) XXX.

<sup>&</sup>lt;sup>7</sup> http://www.era.europa.eu/core/Safety/Documents/our%20products/ERA%20biennial%20reports/Web-ERA\_Rapport\_final\_2008-09-01.pdf.

<sup>&</sup>lt;sup>8</sup> Directive 2008/57/EC of the European Parliament and of the Council of 17 June 2008 on interoperability of the rail system within the Community. OJ L 191, 18.7.2008, p. 1. Directive 2008/110/EC of the European Parliament and of the Council of 16 December 2008 amending Directive 2004/49/EC on safety on the Community's railways. OJ L 345, 23.12.2008, p. 62.

## 2. IMPLEMENTATION OF THE RAILWAY SAFETY DIRECTIVE

## 2.1. Transposition by Member States

All Member States have notified the Commission of their national measures implementing the Railway Safety Directive, except for Luxembourg, against which infringement proceedings are still open. However, in several cases transposition has been delayed and did not meet the legal deadline specified in the Directive (30 April 2006).

The next step is to check that all provisions of the Directive have been correctly implemented; this includes conformity checks and detailed analyses to verify, for example, the capacity of the national bodies to perform the tasks required by the Directives. These analyses are still in hand and it is therefore too early to draw final conclusions on this issue. However, some initial results are available on the notification of national safety rules and the setting up of national bodies.

## 2.2. National safety rules and notification

Article 8 of the Railway Safety Directive requires Member States to establish national safety rules and to notify them to the European Commission. These are rules on safety requirements imposed at Member State level and applicable to more than one railway undertaking.

Almost 5000 national safety rules have been notified. On request of the Commission the Agency has examined these notifications and recommended asking for clarification or renotification of national safety rules by most Member States.

As for the question of publishing the national safety rules, in 2009 the Agency is expected to propose ways to improve access.

# 2.3. Setting up of national authorities and bodies

The role of the national safety authorities (NSA) is critical both in maintaining safety and in ensuring that safety is not a barrier to market opening when developing interoperability. Most of the NSAs were established in 2006 and 2007. At the end of 2008 there was only one Member State that had not yet established its NSA. In general most of the NSAs come under the Ministry of Transport.

Member States must also set up independent investigation bodies charged with investigating serious railway accidents. By April 2009, only one Member State had not yet set up its national investigation body (NIB).

The Agency has established networks to facilitate cooperation and sharing of views and experience by these national bodies.

# 2.4. Development and implementation of secondary legislation at European level

The Railway Safety Directive provides for a large amount of secondary legislation to be adopted by the Commission and drafted by the Agency based on mandates issued by the Commission (see  $annex^{6}$ ).

In 2007 the first instrument was adopted: Commission Regulation (EC) No 653/2007 on the use of a common European format for safety certificates and application documents in

accordance with Article 10 of Directive 2004/49/EC and on the validity of safety certificates delivered under Directive  $2001/14/EC^9$ .

Common safety methods for risk assessment and to assess achievement of safety targets were respectively adopted on 24 April 2009  $^{10}$  and 5 June 2009  $^{11}$ while further legislation is in preparation.

## 2.5. Safety Certification

The Railway Safety Directive introduced the obligation for railway undertakings and infrastructure managers to obtain a safety certificate or authorisation. Both safety certificates and authorisations consist of two parts. Part A confirms the acceptance of a railway undertaking's/ infrastructure manager's safety management system whereas Part B is network-specific.

By 31 March 2009, the public database of safety certificates managed by the Agency contained 277 valid Type A certificates. Most of them were issued in 2007 and 2008.

Further information on the status of safety certification, and a proposed strategy for migration towards a single Community safety certificate, will be produced by the Agency in 2010 based on an evaluation of the safety certification procedures in the Member States.

### 2.6. Safety Reporting

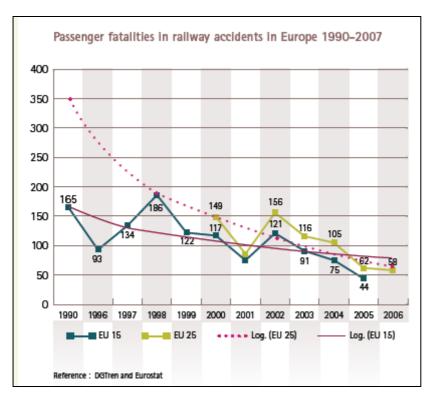
According to Article 18 of the Railway Safety Directive, NSAs must publish annual reports giving information on the railway safety situation. The Agency uses these reports to continuously monitor the development of railway safety in the EU (see biennial ERA report<sup>7</sup>).

Overall, initial figures confirm that railways are very safe for rail users, with fewer than 100 fatalities annually compared to about 40000 on EU roads. Furthermore, the development of railway safety in the EU Member States can be regarded as very positive, as the number of passenger fatalities went down from around 400 in 1970 to only 58 in 2006.

<sup>&</sup>lt;sup>9</sup> OJ L 153 of 14 June 2007, p. 9.

<sup>&</sup>lt;sup>10</sup> JO L 108 of 29 April 2009, p. 4–19

<sup>&</sup>lt;sup>11</sup> JO L 150 of 13 June 2009, p. 11–19



These figures and further analyses on country basis also demonstrate that opening of the market and separation of functions can be carried out without adverse effects on safety.

However, figures show that there is high representation of third parties in fatal railway accidents. These are mostly unauthorised persons (trespassers) and level crossing users (together around 1 500 fatalities per year). Suicides constitute another particular feature of rail accidents: these fatalities are not reported as accidents and they are seldom subject to press reports. In 2006 they accounted for about 2 300, i.e. more than 60% of all fatalities.

### 3. PROGRESS TOWARDS INTEROPERABILITY

#### **3.1.** Implementation of the Interoperability Directives

All Member States have notified national measures implementing the Interoperability Directives 96/48/EC (High-Speed), Directive 2001/16/EC (Conventional Rail) and Directive 2004/50 (alignment of High-Speed and Conventional Rail Directives and extension of the scope).

The Railway Interoperability Directives provide for a large amount of secondary legislation. Beside the technical specifications for interoperability (TSIs, see 3.2) the Commission adopted Decision 2007/756/EC on a common specification of the national vehicle register<sup>12</sup>. Other registers are specified by the Directives (e.g. register of infrastructure, register of rolling stock) and are being developed by the Agency.

<sup>12</sup> 

OJ L 305, 23.11.2007, p. 30.

## **3.2. TSIs: state of play**

TSIs are technical specifications meeting the essential requirements defined by the Interoperability Directives at sub-system and interoperability constituent level.

For high-speed rail since 2002 a series of TSIs has been adopted covering all relevant subsystems followed by a revision of several TSIs in 2008. A list of all TSIs and Decisions amending TSIs is provided in the annex<sup>6</sup>.

The Commission also adopted several TSIs for conventional rail covering telematics applications for freight services (TAF), noise emissions, control command and signalling (CCS), freight wagons, and traffic operation and management (OPE). In addition two transversal TSIs applicable to high-speed and conventional rail deal with safety in railway tunnels and persons with reduced mobility. All these TSIs have been drafted by the European Association for Railway Interoperability (AEIF) appointed to act as the joint representative body established under Directive 96/48/EC.

Since 2006 the European Railway Agency is preparing the remaining group of conventional rail TSIs covering infrastructure, energy, rolling stock (locomotives, multiple units, passenger coaches) and telematics applications for passengers (TAP). The adoption of those TSIs is expected by 2010.

However, this legal framework needs to be further developed, e.g. to correct errors and close open points in TSIs and to extend their geographical scope (see 3.5).

For this reason the Agency is currently working on revisions of the following conventional rail TSIs: freight wagons, OPE and CCS. These revised TSIs are expected to be adopted in 2010. For the other TSIs, a process of change management is in place.

### **3.3.** Analysis of derogations

Derogations allow exceptions from the application of TSIs under certain conditions laid down by the Interoperability Directives. Between the adoption of the first TSIs in 2002 and the entry into force of Directive 2008/57/EC on 19 July 2008, the Commission received 43 derogations from 9 Member States. The full list of derogations is provided in the annex<sup>6</sup>.

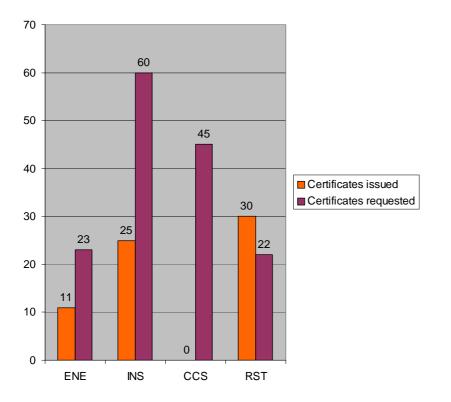
These derogations relate to almost all TSIs in force. The highest numbers of derogations have been received for the TSIs on noise (18 derogations), freight wagons (11), energy (high-speed, 6), CCS (high-speed, 5) and infrastructure (high-speed, 5).

The majority of the derogations (34) have been based on Article 7(a) of both Directives granting exemptions from the application of TSIs for new, renewed or upgraded sub-systems at an advanced stage of development at the time of publication of a TSI. Due to the specific nature of this type of derogation they can only be granted a short time after the publication of the TSI, and the number of new derogations can therefore be expected to decline significantly in the coming years once all TSIs are adopted.

Overall, the moderate number and the types of derogations indicate that the application of TSIs can be regarded as successful.

# 3.4. Interoperability in the field

To analyse the progress towards interoperability of European railways, the number of conformity certificates issued by Notified Bodies for sub-systems can provide an indication as to how the TSIs are being applied. As the TSIs for conventional rail are not yet complete, figures are given for high-speed rail. The following chart shows the number of certificates issued and requested by July 2007 (source: NB Rail):



These figures indicate significant activity in the certification of sub-systems, each of which contributes to the interoperability of European railways.

The introduction of ERTMS on the European interoperable network is another important indicator of progress towards interoperability. By the end of 2008 approximately 2000 kilometres of lines equipped with ERTMS were in commercial service in different European countries, in particular high speed lines.

The difficulties related to the definition of a single common and compatible technical standard were overcome in 2008, with the signature of a MoU between the European Commission and the rail sector.

Contracts signed recently and the national deployment plans submitted by Member States show that we will face an exponential increase over the next years: 11500 kilometres will be in service by the end of 2012, and 23000 by the end of 2015.

A binding European Deployment Plan was adopted on 22 July 2009<sup>13</sup> and aims at a swift and coordinated deployment of the system. Specifically, it plans to equip the first outline of a

<sup>&</sup>lt;sup>13</sup> OJ L 194 of 25 July 2009

network by 2015 (including key links such as Rotterdam–Genoa, Munich–Verona, Antwerp– Basel, Valencia–Lyon–Budapest, Dresden–Budapest–Constanta or Berlin–Terespol). By 2020, the main European freight hubs will be 'ERTMS-linked' thus providing a new business opportunity for rail freight operators.

Both analyses show that the interoperability of the European railway system is steadily increasing.

# **3.5.** Obstacles to interoperability

For more than a century the development of the railways has been managed nationally on the basis of national requirements rather than a common European approach. As a result international rail transport in Europe is still complex and costly to operate. This segmentation is still a barrier to a Europe-wide rail area even though substantial financial, political and human resources have been invested in integrating the railway systems.

The lifespan of rail assets is long, ranging from 30-40 years for rolling stock to a century for infrastructure. So for technical harmonisation to be feasible, migration to an interoperable rail system mainly involves applying the interoperability requirements to new, renewed and upgraded sub-systems. This requires time and consequently progress is to be expected in the medium to long term. In certain cases, such as ERTMS, it is only possible to reap the benefit of interoperability when the system is deployed in a coordinated manner along a whole corridor. In such cases, it is necessary to upgrade existing line sections before the end of life of the subsystem.

Another barrier to interoperability is the continuation of differing national practices where European harmonisation has already started. This may be due either to the incomplete European legal framework or to loopholes allowing differences in interpretation. While the legal framework for high-speed rail is already complete, that for conventional rail is still under development, as the TSIs for infrastructure and energy subsystems and for traction units and passenger carriages have not yet been finalised and adopted. This obstacle will be overcome by 2010.

In this context, the existence of so-called 'open points' in TSIs can lead to gaps in interoperability, as national requirements with different interface solutions are applied. By the end of 2008 there were over 100 different open points in the TSIs in force. A possible solution to this problem is to close the open points when the TSIs are revised.

In addition, the existing TSIs only cover parts of the railway system, as the scope of the two Interoperability Directives is limited to trans-European rail networks as defined in Decision 1692/96/EC<sup>14</sup>. Directive 2004/50/EC provided for the scope to be extended progressively to the whole network and all vehicles when new TSIs are adopted or existing ones revised. To implement this provision in a proportional manner, in 2007 the Commission mandated the Agency to analyse the feasibility of extending the geographical scope of newly revised TSIs. The analysis is expected to be finalised in 2009.

Another potential barrier is related to the integration of a sub-system into the railway system at the time of the placing in service procedure specified in the Interoperability Directives.

<sup>&</sup>lt;sup>14</sup> OJ L 228, 9.9.1996, p. 1.

Before a NSA can authorise placing in service, the sub-system must be shown to be compatible with the railway system as a whole. TSIs cannot provide all the necessary requirements for this assessment. There is a risk that specific operational procedures will be introduced and will lead to reduced interoperability. This aspect of 'integration' has been improved in the new Interoperability Directive and will also be addressed by the Commission Regulation on CSM on risk analysis that is expected to be adopted in the first half of 2009.

## 4. CONCLUSIONS

The progress made thanks to the Community regulatory framework for railway safety and interoperability should encourage further development of the internal rail market, helping the emergence of new businesses, the cutting of entry costs and, ultimately, the competitiveness of rail as compared to other modes of transport.

The analyses carried out in this report show mixed results for the time being.

As for rail safety, statistics indicate that the railway system in the Community is safe and the organisational changes stemming from the Community framework not only had no negative impact on safety but are expected to raise safety levels in the short and medium terms.

From the market perspective, safety requirements still impose significant entry barriers. These relate mainly to the cost and the duration of the procedures involved at national level, their disparity across Europe and the lack of transparency/predictability. Substantial progress in this field is expected, partly due to the harmonisation of safety certificates for railway undertakings and the introduction of Common Safety Methods, and partly due to the cross-acceptance of national rules when authorising the placing into service of rail vehicles.

The success of these activities will depend on two conditions:

- The full establishment of the newly created bodies, especially NSAs, operating at similar levels of competence and efficiency. This is necessary to create mutual trust between NSAs. The Commission will therefore continue to check that Community legislation has been correctly transposed as far as new structures and tools are concerned.
- The leading role of the European Railway Agency in gradually harmonising safety rules and procedures and progressively replacing them with common methods. This role may evolve even further in the future towards complementing or supplementing the activities of NSAs in the certification and authorisation processes.

The secondary legislation on interoperability is expected to be completed in 2010 as far as the TEN-T network is concerned. This is certainly a priority for the Commission, as no real interoperability can be achieved without TSIs for all sub-systems. Another priority for the Commission is to manage the transition from the old regime (with the International Wagon Regulations (RIV) as the industry's main agreement on rules for international and national traffic) to the new regime created by the TSIs and the registers of infrastructure and rolling stock.

The increasing number of conformity certificates issued for sub-systems and the limited number of derogations indicate that overall the existing TSIs are being successfully applied. This also underlines the importance of Notified Bodies and their role in increasing

competence and mutual trust. However, residual open points in TSIs and the limited geographical scope of the TSIs may hamper the future integration of the European rail system as they constitute obstacles to interoperability. Therefore it will be essential to close the open points and toextend the scope of TSIs in a reasonably short period of time.

Progress towards interoperability is a slow process. Because of the long lifetime of rail infrastructure and rolling stock and the need to keep investment costs for the sector at an acceptable level, radical changes towards harmonized solutions are not possible. This is why the Commission intends to concentrate efforts on implementing those technical specifications that will deliver significant benefits in the short and medium term, namely the CCS, TAF, TAP and OPE TSIs.

It will also be necessary for future revisions of TSIs to give a higher consideration to the principles developed under the strategy for simplifying the regulatory environment and to ensure the relevance, effectiveness and proportionality of the railway legislation. For example, more use of voluntary European standards will be considered. This report has given the Commission an opportunity to highlight these issues. It will continue to check how the legal framework for railway safety and interoperability is implemented in practice, ensuring that all the secondary legislation is introduced (mainly TSIs for conventional rail and common safety methods) and the new Directives are transposed. Then the Commission intends to prepare a Communication reviewing its policies on interoperability and the safety of the Community railway system.