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► **B** ► **C1** **DIRECTIVE 2004/49/EC OF THE EUROPEAN PARLIAMENT AND OF THE 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

(Railway Safety Directive) ◀

(OJ L 164, 30.4.2004, p. 44)

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► <u>M2</u>	Directive 2008/110/EC of the European Parliament and of the Council of 16 December 2008	L 345	62	23.12.2008
► <u>M3</u>	Commission Directive 2009/149/EC of 27 November 2009	L 313	65	28.11.2009
► <u>M4</u>	Directive 2012/34/EU of the European Parliament and of the Council of 21 November 2012	L 343	32	14.12.2012
► <u>M5</u>	Commission Directive 2014/88/EU of 9 July 2014	L 201	9	10.7.2014

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- **C1** Corrigendum, OJ L 220, 21.6.2004, p. 16 (2004/49/EC)

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**DIRECTIVE 2004/49/EC OF THE EUROPEAN PARLIAMENT
AND OF THE 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**

(Railway Safety Directive)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE
EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and
in particular Article 71(1) thereof,

Having regard to the proposal from the Commission ⁽¹⁾,

Having regard to the opinion of the European Economic and Social
Committee ⁽²⁾,

Having regard to the opinion of the Committee of the Regions ⁽³⁾,

Acting in accordance with the procedure laid down in Article 251 of the
Treaty ⁽⁴⁾, in the light of the joint text approved by the Conciliation
Committee on 23 March 2004,

Whereas:

- (1) In order to pursue efforts to establish a single market for rail transport services, initiated by Council Directive 91/440/EEC of 29 July 1991 on the development of the Community's railways ⁽⁵⁾, it is necessary to establish a common regulatory framework for railway safety. Member States have until now developed their safety rules and standards mainly on national lines, based on national technical and operational concepts. Simultaneously, differences in principles, approach and culture have made it difficult to break through the technical barriers and establish international transport operations.
- (2) Directive 91/440/EEC, Council Directive 95/18/EC of 19 June 1995 on the licensing of railway undertakings ⁽⁶⁾ and Directive 2001/14/EC of the European Parliament and of the Council of 26 February 2001 on the allocation of railway infrastructure

⁽¹⁾ OJ C 126 E, 28.5.2002, p. 332.

⁽²⁾ OJ C 61, 14.3.2003, p. 131.

⁽³⁾ OJ C 66, 19.3.2003, p. 5.

⁽⁴⁾ Opinion of the European Parliament of 14 January 2003 (OJ C 38 E, 12.2.2004, p. 92), Council Common Position of 26 June 2003 (OJ C 270 E, 11.11.2003, p. 25) and Position of the European Parliament of 23 October 2003 (not yet published in the Official Journal). Legislative Resolution of the European Parliament of 22 April 2004 and Council Decision of 26 April 2004.

⁽⁵⁾ OJ L 237, 24.8.1991, p. 25. Directive as amended by Directive 2001/12/EC of the European Parliament and of the Council (OJ L 75, 15.3.2001, p. 1).

⁽⁶⁾ OJ L 143, 27.6.1995, p. 70. Directive as amended by Directive 2001/13/EC of the European Parliament and of the Council (OJ L 75, 15.3.2001, p. 26).

▼ C1

capacity and the levying of charges for the use of railway infrastructure and safety certification ⁽¹⁾ provide the first steps towards regulation of the European rail transport market by opening the market for international rail freight services. However, the provisions on safety have proved to be insufficient and differences between safety requirements remain, which affect the optimum functioning of rail transport in the Community. It is of particular importance to harmonise the content of safety rules, safety certification of railway undertakings, the tasks and roles of the safety authorities and the investigation of accidents.

- (3) Metros, trams and other light rail systems are in many Member States subject to local or regional safety rules and are often supervised by local or regional authorities and not covered by the requirements on Community interoperability or licensing. Trams are furthermore often subject to road safety legislation and could therefore not be fully covered by railway safety rules. For these reasons and in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty, Member States should be allowed to exclude such local rail systems from the scope of this Directive.
- (4) Safety levels in the Community rail system are generally high, in particular compared to road transport. It is important that safety is at the very least maintained during the current restructuring phase, which will separate functions of previously integrated railway companies and move the railway sector further from self-regulation to public regulation. In line with technical and scientific progress, safety should be further improved, when reasonably practicable and taking into account the competitiveness of the rail transport mode.
- (5) All those operating the railway system, infrastructure managers and railway undertakings, should bear the full responsibility for the safety of the system, each for their own part. Whenever it is appropriate, they should cooperate in implementing risk control measures. Member States should make a clear distinction between this immediate responsibility for safety and the safety authorities' task of providing a national regulatory framework and supervising the performance of the operators.
- (6) The responsibility of infrastructure managers and railway undertakings for operating the railway system does not preclude other actors such as manufacturers, maintenance suppliers, wagon keepers, service providers and procurement entities from assuming responsibility for their products or services in accordance with the provisions of Council Directive 96/48/EC

⁽¹⁾ OJ L 75, 15.3.2001, p. 29. Directive as amended by Commission Decision 2002/844/EC (OJ L 289, 26.10.2002, p. 30).

▼ C1

of 23 July 1996 on the interoperability of the trans-European high-speed rail system⁽¹⁾ and of Directive 2001/16/EC of the European Parliament and of the Council of 19 March 2001 on the interoperability of the trans-European conventional rail system⁽²⁾ or of other relevant Community legislation.

- (7) Requirements on safety of the subsystems of the trans-European rail networks are laid down in Directive 96/48/EC and Directive 2001/16/EC. However, those Directives do not define common requirements at system level and do not deal in detail with the regulation, management and supervision of safety. When minimum safety levels of the subsystems are defined by technical specifications for interoperability (TSIs) it will be increasingly important to establish safety targets at the system level as well.
- (8) Common safety targets (CSTs) and common safety methods (CSMs) should be gradually introduced to ensure that a high level of safety is maintained and, when and where necessary and reasonably practicable, improved. They should provide tools for assessment of the safety level and the performance of the operators at Community level as well as in the Member States.
- (9) Information on safety of the railway system is scarce and not generally publicly available. It is thus necessary to establish common safety indicators (CSIs) in order to assess that the system complies with the CSTs and to facilitate the monitoring of railway safety performance. However, national definitions relating to the CSIs may apply during a transitional period and due account should therefore be taken of the extent of the development of common definitions of the CSIs when the first set of CSTs is drafted.
- (10) National safety rules, which are often based on national technical standards, should gradually be replaced by rules based on common standards, established by TSIs. The introduction of new specific national rules which are not based on such common standards should be kept to a minimum. New national rules should be in line with Community legislation and facilitate migration towards a common approach to railway safety. All interested parties should therefore be consulted before a Member State adopts a national safety rule that requires a higher safety level than the CSTs. In such cases the new draft rule should be subject to examination by the Commission, which should adopt a Decision if it appears that the draft rule is not in conformity with Community legislation or constitutes a means of arbitrary discrimination or a disguised restriction on rail transport operation between Member States.
- (11) The current situation, in which national safety rules continue to play a role, should be regarded as a transitional stage, leading ultimately to a situation in which European rules will apply.

⁽¹⁾ OJ L 235, 17.9.1996, p. 6.

⁽²⁾ OJ L 110, 20.4.2001, p. 1.

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- (12) The development of CSTs, CSMs and CSIs as well as the need to facilitate progress towards a common approach to railway safety requires technical support at Community level. The European Railway Agency established by Regulation (EC) No 881/2004 of the European Parliament and of the Council ⁽¹⁾ is set up to issue recommendations concerning CSTs, CSMs and CSIs and further harmonisation measures and to monitor the development of railway safety in the Community.
- (13) In carrying out their duties and fulfilling their responsibilities, infrastructure managers and railway undertakings should implement a safety management system, fulfilling Community requirements and containing common elements. Information on safety and the implementation of the safety management system should be submitted to the safety authority in the Member State concerned.
- (14) The safety management system should take into account the fact that Council Directive 89/391/EC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work ⁽²⁾ and its relevant individual directives are fully applicable to the protection of the health and safety of workers engaged in railway transport. The safety management system should also take account of Council Directive 96/49/EC of 23 July 1996 on the approximation of the laws of the Member States with regard to the transport of dangerous goods by rail ⁽³⁾.
- (15) To ensure a high level of railway safety and equal conditions for all railway undertakings, they should be subject to the same safety requirements. The safety certificate should give evidence that the railway undertaking has established its safety management system and is able to comply with the relevant safety standards and rules. For international transport services it should be enough to approve the safety management system in one Member State and give the approval Community validity. Adherence to national rules on the other hand should be subject to additional certification in each Member State. The ultimate aim should be to establish a common safety certificate with Community validity.
- (16) In addition to the safety requirements laid down in the safety certificate, licensed railway undertakings must comply with national requirements, compatible with Community law and applied in a non-discriminatory manner, relating to health, safety and social conditions, including legal provisions relating to driving time, and the rights of workers and consumers as provided for in Articles 6 and 12 of Directive 95/18/EC.

⁽¹⁾ See page 3 of this Official Journal.

⁽²⁾ OJ L 183, 29.6.1989, p. 1.

⁽³⁾ OJ L 235, 17.9.1996, p. 25. Directive as last amended by Commission Directive 2003/29/EC (OJ L 90, 8.4.2003, p. 47).

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- (17) Every infrastructure manager has a key responsibility for the safe design, maintenance and operation of its rail network. In parallel to safety certification of railway undertakings the infrastructure manager should be subject to safety authorisation by the safety authority concerning its safety management system and other provisions to meet safety requirements.
- (18) Member States should make efforts to assist applicants wishing to enter the market as railway undertakings. In particular they should provide information and act promptly on requests for safety certification. For railway undertakings operating international transport services, it is important for the procedures to be similar in different Member States. Although the safety certificate will contain national parts for the foreseeable future, it should nevertheless be possible to harmonise the common parts of it and facilitate the creation of a common template.
- (19) Certification of train staff and authorisation of placing in service of in-use rolling stock for the different national networks are often insurmountable barriers to new entrants. Member States should ensure that facilities for the training and certification of train staff necessary to meet requirements under national rules are available to railway undertakings applying for a safety certificate. A common procedure should be established for authorisation of placing in service of in-use rolling stock.
- (20) Driving times and rest periods for train drivers and train staff performing safety tasks have an important impact on the safety level of the rail system. These aspects fall under Articles 137 to 139 of the Treaty and are already subject to negotiations between the social partners under the Sectoral Dialogue Committee set up in accordance with Commission Decision 98/500/EC ⁽¹⁾.
- (21) The development of a safe Community railway system requires the establishment of harmonised conditions for delivering the appropriate licences to train drivers and on-board accompanying staff performing safety tasks, for which the Commission has announced its intention to propose further legislation in the near future. As far as other staff charged with safety-critical tasks are concerned, their qualifications are already being specified under Directives 96/48/EC and 2001/16/EC.
- (22) As part of the new common regulatory framework for railway safety, national authorities should be set up in all Member States to regulate and supervise railway safety. To facilitate cooperation between them at Community level, they should be given the same

⁽¹⁾ Commission Decision 98/500/EC of 20 May 1998 on the establishment of Sectoral Dialogue Committees promoting the Dialogue between the social partners at European level (OJ L 225, 12.8.1998, p. 27).

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minimum tasks and responsibilities. The national safety authorities should be granted a high degree of independence. They should carry out their tasks in an open and non-discriminatory way to help to create a single Community rail system and cooperate to coordinate their decision-making criteria, in particular concerning safety certification of railway undertakings operating international transport services.

- (23) Serious accidents on the railways are rare. However, they can have disastrous consequences and raise concern among the public about the safety performance of the railway system. All such accidents should, therefore, be investigated from a safety perspective to avoid recurrence and the results of the investigations should be made public. Other accidents and incidents could be significant precursors to serious accidents and should also be subject to safety investigations, when it is necessary.
- (24) A safety investigation should be kept separate from the judicial inquiry into the same incident and be granted access to evidence and witnesses. It should be carried out by a permanent body that is independent of the actors of the rail sector. The body should function in a way which avoids any conflict of interest and any possible involvement in the causes of the occurrences that are investigated; in particular, its functional independence should not be affected if it is closely linked to the national safety authority or regulator of railways for organisational and legal structure purposes. Its investigations should be carried out under as much openness as possible. For each occurrence the investigation body should establish the relevant investigation group with necessary expertise to find the immediate causes and underlying causes.
- (25) The reports on investigations and any findings and recommendations provide crucial information for the further improvement of railway safety and should be made publicly available at Community level. Safety recommendations should be acted upon by the addressees and actions reported back to the investigating body.
- (26) Since the objectives of the proposed action, namely to coordinate activities in the Member States to regulate and supervise safety and to investigate accidents and to establish at Community level common safety targets, common safety methods, common safety indicators and common requirements of safety certificates, cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale of the action, be better achieved at Community level, the Community may adopt measures in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve those objectives.

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- (27) The measures necessary for the implementation of this Directive should be adopted in accordance with Council Decision 1999/468/EC of 28 June 1999 laying down the procedure for the exercise of implementing powers conferred on the Commission ⁽¹⁾.
- (28) This Directive aims at reorganising and bringing together the relevant Community legislation on railway safety. Consequently, provisions for safety certification of railway undertakings that were previously set out in Directive 2001/14/EC should, together with all references to safety certification, be repealed. Directive 95/18/EC included requirements on safety qualifications of operational staff and on safety of rolling stock that are covered by the requirements on safety certification of this Directive and should therefore no longer be part of the licensing requirements. A licensed railway undertaking should hold a safety certificate in order to be granted access to the railway infrastructure.
- (29) The Member States should lay down rules on penalties applicable to infringements of the provisions of this Directive and ensure that they are implemented. Those penalties must be effective, proportionate and dissuasive,

HAVE ADOPTED THIS DIRECTIVE:

CHAPTER I

INTRODUCTORY PROVISIONS

Article 1

Purpose

The purpose of this Directive is to ensure the development and improvement of safety on the Community's railways and improved access to the market for rail transport services by:

- (a) harmonising the regulatory structure in the Member States;
- (b) defining responsibilities between the actors;
- (c) developing common safety targets and common safety methods with a view to greater harmonisation of national rules;
- (d) requiring the establishment, in every Member State, of a safety authority and an accident and incident investigating body;
- (e) defining common principles for the management, regulation and supervision of railway safety.

⁽¹⁾ OJ L 184, 17.7.1999, p. 23.

▼ C1*Article 2***Scope**

1. This Directive applies to the railway system in the Member States, which may be broken down into subsystems for structural and operational areas. It covers safety requirements on the system as a whole, including the safe management of infrastructure and of traffic operation and the interaction between railway undertakings and infrastructure managers.
2. Member States may exclude from the measures they adopt in implementation of this Directive:
 - (a) metros, trams and other light rail systems;
 - (b) networks that are functionally separate from the rest of the railway system and intended only for the operation of local, urban or suburban passenger services, as well as railway undertakings operating solely on these networks;
 - (c) privately owned railway infrastructure that exists solely for use by the infrastructure owner for its own freight operations;

▼ M2

- (d) heritage vehicles that run on national networks provided that they comply with national safety rules and regulations with a view to ensuring safe circulation of such vehicles;
- (e) heritage, museum and tourist railways that operate on their own network, including workshops, vehicles and staff.

▼ C1*Article 3***Definitions**

For the purpose of this Directive, the following definitions shall apply:

- (a) 'railway system' means the totality of the subsystems for structural and operational areas, as defined in Directives 96/48/EC and 2001/16/EC, as well as the management and operation of the system as a whole;
- (b) 'infrastructure manager' means any body or undertaking that is responsible in particular for establishing and maintaining railway infrastructure, or a part thereof, as defined in Article 3 of Directive 91/440/EEC, which may also include the management of infrastructure control and safety systems. The functions of the infrastructure manager on a network or part of a network may be allocated to different bodies or undertakings;
- (c) 'railway undertaking' means railway undertaking as defined in Directive 2001/14/EC, and any other public or private undertaking, the activity of which is to provide transport of goods and/or passengers by rail on the basis that the undertaking must ensure traction; this also includes undertakings which provide traction only;

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- (d) ‘technical specification for interoperability (TSI)’ means the specifications by which each subsystem or part of a subsystem is covered in order to meet the essential requirements and ensure the interoperability of the trans-European high-speed and conventional rail systems as defined in Directive 96/48/EC and Directive 2001/16/EC;
- (e) ‘common safety targets (CSTs)’ means the safety levels that must at least be reached by different parts of the rail system (such as the conventional rail system, the high speed rail system, long railway tunnels or lines solely used for freight transport) and by the system as a whole, expressed in risk acceptance criteria;
- (f) ‘common safety methods (CSMs)’ means the methods to be developed to describe how safety levels and achievement of safety targets and compliance with other safety requirements are assessed;
- (g) ‘safety authority’ means the national body entrusted with the tasks regarding railway safety in accordance with this Directive or any binational body entrusted by Member States with these tasks in order to ensure a unified safety regime for specialised cross-border infrastructures;
- (h) ‘national safety rules’ means all rules containing railway safety requirements imposed at Member State level and applicable to more than one railway undertaking, irrespective of the body issuing them;
- (i) ‘safety management system’ means the organisation and arrangements established by an infrastructure manager or a railway undertaking to ensure the safe management of its operations;
- (j) ‘investigator-in-charge’ means a person responsible for the organisation, conduct and control of an investigation;
- (k) ‘accident’ means an unwanted or unintended sudden event or a specific chain of such events which have harmful consequences; accidents are divided into the following categories: collisions, derailments, level-crossing accidents, accidents to persons caused by rolling stock in motion, fires and others;
- (l) ‘serious accident’ means any train collision or derailment of trains, resulting in the death of at least one person or serious injuries to five or more persons or extensive damage to rolling stock, the infrastructure or the environment, and any other similar accident with an obvious impact on railway safety regulation or the management of safety; ‘extensive damage’ means damage that can immediately be assessed by the investigating body to cost at least EUR 2 million in total;
- (m) ‘incident’ means any occurrence, other than accident or serious accident, associated with the operation of trains and affecting the safety of operation;

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- (n) ‘investigation’ means a process conducted for the purpose of accident and incident prevention which includes the gathering and analysis of information, the drawing of conclusions, including the determination of causes and, when appropriate, the making of safety recommendations;
- (o) ‘causes’ means actions, omissions, events or conditions, or a combination thereof, which led to the accident or incident;
- (p) ‘Agency’ means the European Railway Agency, the Community agency for railway safety and interoperability;
- (q) ‘notified bodies’ means the bodies which are responsible for assessing the conformity or suitability for use of the interoperability constituents or for appraising the EC procedure for verification of the subsystems, as defined in Directives 96/48/EC and 2001/16/EC;
- (r) ‘interoperability constituents’ means any elementary component, group of components, subassembly or complete assembly of equipment incorporated or intended to be incorporated into a subsystem upon which the interoperability of the high-speed or conventional rail system depends directly or indirectly, as defined in Directive 96/48/EC and 2001/16/EC. The concept of a ‘constituent’ covers both tangible objects and intangible objects such as software;

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- (s) ‘keeper’ means the person or entity that, being the owner of a vehicle or having the right to use it, exploits the vehicle as a means of transport and is registered as such in the National Vehicle Register (NVR) provided for in Article 33 of Directive 2008/57/EC of the European Parliament and of the Council of 17 June 2008 on the interoperability of the rail system within the Community (recast)⁽¹⁾, (hereinafter referred to as the ‘Railway Interoperability Directive’);
- (t) ‘entity in charge of maintenance’ means an entity in charge of maintenance of a vehicle, and registered as such in the NVR;
- (u) ‘vehicle’ means a railway vehicle suitable for circulation on its own wheels on railway lines, with or without traction. A vehicle is composed of one or more structural and functional subsystems or parts of such subsystems.

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CHAPTER II

DEVELOPMENT AND MANAGEMENT OF SAFETY*Article 4***Development and improvement of railway safety**

1. Member States shall ensure that railway safety is generally maintained and, where reasonably practicable, continuously improved, taking

⁽¹⁾ OJ L 191, 18.7.2008, p. 1.

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into consideration the development of Community legislation and technical and scientific progress and giving priority to the prevention of serious accidents.

Member States shall ensure that safety rules are laid down, applied and enforced in an open and non-discriminatory manner, fostering the development of a single European rail transport system.

2. Member States shall ensure that measures to develop and improve railway safety take account of the need for a system-based approach.

3. Member States shall ensure that the responsibility for the safe operation of the railway system and the control of risks associated with it is laid upon the infrastructure managers and railway undertakings, obliging them to implement necessary risk control measures, where appropriate in cooperation with each other, to apply national safety rules and standards, and to establish safety management systems in accordance with this Directive.

Without prejudice to civil liability in accordance with the legal requirements of the Member States, each infrastructure manager and railway undertaking shall be made responsible for its part of the system and its safe operation, including supply of material and contracting of services, vis-à-vis users, customers, the workers concerned and third parties.

4. This shall be without prejudice to the responsibility of each manufacturer, maintenance supplier, ► **M2** keeper ◀, service provider and procurement entity to ensure that rolling stock, installations, accessories and equipment and services supplied by them comply with the requirements and the conditions for use specified, so that they can be safely put into operation by the railway undertaking and/or infrastructure manager.

*Article 5***Common safety indicators**

1. In order to facilitate the assessment of the achievement of the CST and to provide for the monitoring of the general development of railway safety Member States shall collect information on common safety indicators (CSIs) through the annual reports of the safety authorities as referred to in Article 18.

The first reference year for the CSIs shall be 2006; they shall be reported on in the annual report the following year.

The CSIs shall be established as set out in Annex I.

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2. Before 30 April 2009 Annex I shall be revised, in particular to incorporate therein the common definitions of the CSIs and the common methods for calculating accident costs. This measure, designed to amend non-essential elements of this Directive, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 27(2a).

▼ C1*Article 6***Common safety methods**▼ M2

1. An initial series of CSMs covering, as a minimum, the methods described in paragraph 3(a) shall be adopted by the Commission before 30 April 2008. They shall be published in the *Official Journal of the European Union*.

A second series of CSMs covering the remaining methods described in paragraph 3 shall be adopted by the Commission before 30 April 2010. They shall be published in the *Official Journal of the European Union*.

These measures, designed to amend non-essential elements of this Directive by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 27(2a).

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2. Draft CSMs and draft revised CSMs shall be drawn up by the Agency under mandates which shall be adopted in accordance with the procedure referred to in Article 27(2).

The draft CSMs shall be based on an examination of existing methods in the Member States.

3. The CSMs shall describe how the safety level, and the achievement of safety targets and compliance with other safety requirements, are assessed by elaborating and defining:

- (a) risk evaluation and assessment methods,
- (b) methods for assessing conformity with requirements in safety certificates and safety authorisations issued in accordance with Articles 10 and 11,

and

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(c) as far as they are not yet covered by TSIs, methods to check that the structural subsystems of the railway system are operated and maintained in accordance with the relevant essential requirements.

4. The CSMs shall be revised at regular intervals, taking into account the experience gained from their application and the global development of railway safety and the obligations on Member States as laid down in Article 4(1). This measure, designed to amend non-essential elements of this Directive, inter alia, by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 27(2a).

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5. Member States shall make any necessary amendments to their national safety rules in the light of the adoption of CSMs and revisions to them.

*Article 7***Common safety targets**

1. The CSTs shall be developed, adopted and revised following the procedures laid down in this Article.

2. Draft CSTs and draft revised CSTs shall be drawn up by the Agency under mandates which shall be adopted in accordance with the procedure referred to in Article 27(2).

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3. ► M2 The first set of draft CSTs shall be based on an examination of existing targets and safety performance in the Member States and shall ensure that the current safety performance of the rail system is not reduced in any Member State. It shall be adopted by the Commission before 30 April 2009 and shall be published in the *Official Journal of the European Union*. This measure, designed to amend non-essential elements of this Directive, inter alia, by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 27(2a).

The second set of draft CSTs shall be based on the experience gained from the first set of CSTs and their implementation. It shall reflect any priority areas where safety needs to be further improved. It shall be adopted by the Commission before 30 April 2011 and shall be published in the *Official Journal of the European Union*. This measure, designed to amend non-essential elements of this Directive, inter alia, by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 27(2a). ◀

All proposals for draft and revised CSTs shall reflect the obligations on Member States laid down in Article 4(1). Such proposals shall be accompanied by an assessment of the estimated costs and benefits, indicating their likely impact for all the operators and economic agents involved and their impact on the societal acceptance of risk. They shall contain a timetable for gradual implementation, where necessary, in particular to take account of the nature and extent of investment required to apply them. They shall analyse the possible impact on TSI for the subsystems and contain, where appropriate, consequential proposals for amendments to the TSI.

4. The CSTs shall define the safety levels that must at least be reached by different parts of the railway system and by the system as a whole in each Member State, expressed in risk acceptance criteria for:

- (a) individual risks relating to passengers, staff including the staff of contractors, level crossing users and others, and, without prejudice to existing national and international liability rules, individual risks relating to unauthorised persons on railway premises;
- (b) societal risks.

▼ M2

5. The CSTs shall be revised at regular intervals, taking into account the global development of railway safety. This measure, designed to amend non-essential elements of this Directive, inter alia, by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 27(2a).

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6. Member States shall make any necessary amendments to their national safety rules in order to achieve at least the CSTs, and any revised CSTs, in accordance with the implementation timetables attached to them. They shall notify these rules to the Commission in accordance with Article 8(3).

▼ C1*Article 8***National safety rules**

1. In application of this Directive, Member States shall establish binding national safety rules and shall ensure that they are published and made available to all infrastructure managers, railway undertakings, applicants for a safety certificate and applicants for a safety authorisation in clear language that can be understood by the parties concerned.

2. Before 30 April 2005 Member States shall notify the Commission of all the relevant national safety rules in force, as set out in Annex II, and indicate their area of application.

The notification shall further provide information on the principal content of the rules with references to the legal texts, on the form of legislation and on which body or organisation is responsible for its publication.

3. Not later than four years after the entry into force of this Directive, the Agency shall evaluate the way in which national safety rules are published and made available in accordance with paragraph 1. It shall also make appropriate recommendations to the Commission for the publication of such rules in order to make the relevant information more easily accessible.

4. Member States shall forthwith notify the Commission of any amendment to the notified national safety rules and of any new such rule that might be adopted, unless the rule is wholly relating to the implementation of TSIs.

5. In order to keep the introduction of new specific national rules to a minimum and thus prevent further barriers from being created, and with a view to the gradual harmonisation of safety rules, the Commission shall monitor the introduction of new national rules by Member States.

6. If, after the adoption of CSTs, a Member State intends to introduce a new national safety rule which requires a higher safety level than the CSTs, or if a Member State intends to introduce a new national safety rule which may affect operations of railway undertakings from other Member States on the territory of the Member State concerned, the Member State shall consult all interested parties in due time and the procedure in paragraph 7 shall apply.

7. The Member State shall submit the draft safety rule to the Commission for examination, stating the reasons for introducing it.

If the Commission finds that the draft safety rule is incompatible with the CSMs or with achieving at least the CSTs, or that it constitutes a means of arbitrary discrimination or a disguised restriction on rail transport operations between Member States, a Decision, addressed to the Member State concerned, shall be adopted in accordance with the procedure referred to in Article 27(2).

If the Commission has serious doubts as to the compatibility of the draft safety rule with the CSMs or with achieving at least the CSTs, or considers that it constitutes a means of arbitrary discrimination or a disguised restriction on rail transport operations between Member States, the Commission shall immediately inform the Member State concerned, which shall suspend the adoption, entry into force or implementation of the rule until a Decision is adopted, within a period of six months, in accordance with the procedure referred to in Article 27(2).

▼ C1*Article 9***Safety management systems**

1. Infrastructure managers and railway undertakings shall establish their safety management systems to ensure that the railway system can achieve at least the CSTs, is in conformity with the national safety rules described in Article 8 and Annex II and with safety requirements laid down in the TSIs, and that the relevant parts of CSMs are applied.
2. The safety management system shall meet the requirements and contain the elements laid down in Annex III, adapted to the character, extent and other conditions of the activity pursued. It shall ensure the control of all risks associated with the activity of the infrastructure manager or railway undertaking, including the supply of maintenance and material and the use of contractors. Without prejudice to existing national and international liability rules, the safety management system shall also take into account, where appropriate and reasonable, the risks arising as a result of activities by other parties
3. The safety management system of any infrastructure manager shall take into account the effects of operations by different railway undertakings on the network and make provisions to allow all railway undertakings to operate in accordance with TSIs and national safety rules and with conditions laid down in their safety certificate. It shall furthermore be developed with the aim of coordinating the emergency procedures of the infrastructure manager with all railway undertakings that operate on its infrastructure.
4. Each year all infrastructure managers and railway undertakings shall submit to the safety authority before 30 June an annual safety report concerning the preceding calendar year. The safety report shall contain:
 - (a) information on how the organisation's corporate safety targets are met and the results of safety plans;
 - (b) the development of national safety indicators, and of the CSIs laid down in Annex I, as far as it is relevant to the reporting organisation;
 - (c) the results of internal safety auditing;
 - (d) observations on deficiencies and malfunctions of railway operations and infrastructure management that might be relevant for the safety authority.

CHAPTER III

SAFETY CERTIFICATION AND AUTHORISATION*Article 10***Safety certificates**

1. In order to be granted access to the railway infrastructure, a railway undertaking must hold a safety certificate as provided for in this Chapter. The safety certificate may cover the whole railway network of a Member State or only a defined part thereof.

▼ M2

The purpose of the safety certificate is to provide evidence that the railway undertaking has established its safety management system and can meet requirements laid down in TSIs and other relevant Community legislation and in national safety rules in order to control risks and provide transport services safely on the network.

▼ C1

2. The safety certificate shall comprise:

(a) certification confirming acceptance of the railway undertaking's safety management system as described in Article 9 and Annex III,

and

▼ M2

(b) certification confirming acceptance of the provisions adopted by the railway undertaking to meet specific requirements necessary for the safe supply of its services on the relevant network. These requirements may concern the application of the TSIs and national safety rules, including the network operating rules, acceptance of staff certificates and authorisation to operate vehicles used by railway undertakings. The certification shall be based on documentation submitted by the railway undertaking as described in Annex IV.

▼ C1

3. The safety authority in the Member State where the railway undertaking first establishes its operation shall grant the certification in accordance with paragraph 2.

The certification granted in accordance with paragraph 2 must specify the type and extent of the railway operations covered. The certification granted in accordance with paragraph 2(a) shall be valid throughout the Community for equivalent rail transport operations.

4. The safety authority in the Member State in which the railway undertaking is planning to operate additional rail transport services shall grant the additional national certification necessary in accordance with paragraph 2(b).

5. The safety certificate shall be renewed upon application by the railway undertaking at intervals not exceeding five years. It shall be wholly or partly updated whenever the type or extent of the operation is substantially altered.

The holder of the safety certificate shall without delay inform the competent safety authority of all major changes in the conditions of the relevant part of the safety certificate. It shall furthermore notify the competent safety authority whenever new categories of staff or new types of rolling stock are introduced.

The safety authority may require that the relevant part of the safety certificate be revised following substantial changes in the safety regulatory framework.

If the safety authority finds that the holder of the safety certificate no longer satisfies the conditions for a certification which it has issued, it shall revoke part (a) and/or (b) of the certificate, giving reasons for its decision. The safety authority that has revoked an additional national certification granted in accordance with paragraph 4 shall promptly inform the safety authority that granted the certification under paragraph 2(a) of its decision.

▼ C1

Similarly, a safety authority must revoke a safety certificate if it is apparent that the holder of the safety certificate has not used it as intended in the year following its issue.

6. The safety authority shall inform the Agency within one month of the safety certificates referred to in paragraph 2(a) that have been issued, renewed, amended or revoked. It shall state the name and address of the railway undertaking, the issue date, scope and validity of the safety certificate and, in case of revocation, the reasons for its decision.

7. Before 30 April 2009 the Agency shall evaluate the development of safety certification and submit a report to the Commission with recommendations on a strategy for migration towards a single Community safety certificate. The Commission shall take appropriate action following the recommendation.

Article 11

Safety authorisation of infrastructure managers

1. In order to be allowed to manage and operate a rail infrastructure the infrastructure manager must obtain a safety authorisation from the safety authority in the Member State where he is established.

The safety authorisation shall comprise:

(a) authorisation confirming acceptance of the infrastructure manager's safety management system as described in Article 9 and Annex III,

and

(b) authorisation confirming acceptance of the provisions of the infrastructure manager to meet specific requirements necessary for the safe design, maintenance and operation of the railway infrastructure including, where appropriate, the maintenance and operation of the traffic control and signalling system.

2. The safety authorisation shall be renewed upon application by the infrastructure manager at intervals not exceeding five years. It shall be wholly or partly updated whenever substantial changes are made to the infrastructure, signalling or energy supply or to the principles of its operation and maintenance. The holder of the safety authorisation shall without delay inform the safety authority of all such changes.

The safety authority may require that the safety authorisation be revised following substantial changes to the safety regulatory framework.

If the safety authority finds that an authorised infrastructure manager no longer satisfies the conditions for a safety authorisation it shall revoke the authorisation, giving reasons for its decisions.

3. The safety authority shall inform the Agency within one month of the safety authorisations that have been issued, renewed, amended or revoked. It shall state the name and address of the infrastructure manager, the issue date, the scope and validity of the safety authorisation and, in case of revocation, the reasons for its decision.

▼ **C1***Article 12***Application requirements relating to safety certification and safety authorisation**

1. The safety authority shall take a decision on an application for safety certification or safety authorisation without delay and in any event not more than four months after all information required and any supplementary information requested by the safety authority has been submitted. If the applicant is requested to submit supplementary information, such information shall be submitted promptly.

2. In order to facilitate the establishment of new railway undertakings and the submission of applications from railway undertakings from other Member States, the safety authority shall give detailed guidance on how to obtain the safety certificate. It shall list all requirements that have been laid down for the purpose of Article 10(2) and make all relevant documents available to the applicant.

Special guidance shall be given to railway undertakings that apply for a safety certificate concerning services on a defined limited part of an infrastructure, specifically identifying the rules that are valid for the part in question.

3. An application guidance document describing and explaining the requirements for the safety certificates and listing the documents that must be submitted shall be made available to the applicants free of charge. All applications for safety certificates shall be submitted in the language required by the safety authority.

*Article 13***Access to training facilities**

1. Member States shall ensure that railway undertakings applying for a safety certificate have fair and non-discriminatory access to training facilities for train drivers and staff accompanying the trains, whenever such training is necessary for the fulfilment of requirements to obtain the safety certificate.

The services offered must include training on necessary route knowledge, operating rules and procedures, the signalling and control command system and emergency procedures applied on the routes operated.

Member States shall also ensure that infrastructure managers and their staff performing vital safety tasks have fair and non-discriminatory access to training facilities.

If the training services do not include examinations and granting of certificates, Member States shall ensure that railway undertakings have access to such certification if it is a requirement of the safety certificate.

The safety authority shall ensure that the provision of training services or, where appropriate, the granting of certificates meets the safety requirements laid down in TSIs or national safety rules described in Article 8 and Annex II.

▼ C1

2. If the training facilities are available only through the services of one single railway undertaking or the infrastructure manager, Member States shall ensure that they are made available to other railway undertakings at a reasonable and non-discriminatory price, which is cost-related and may include a profit margin.

3. When recruiting new train drivers, staff on board trains and staff performing vital safety tasks, railway undertakings must be able to take into account any training, qualifications and experience acquired previously from other railway undertakings. For this purpose, such members of staff shall be entitled to have access to, obtain copies and communicate all documents attesting to their training, qualifications and experience.

4. In every case each railway undertaking and each infrastructure manager shall be responsible for the level of training and qualifications of its staff carrying out safety-related work as set out in Article 9 and Annex III.

▼ M1▼ M2*Article 14a***Maintenance of vehicles**

1. Each vehicle, before it is placed in service or used on the network, shall have an entity in charge of maintenance assigned to it and this entity shall be registered in the NVR in accordance with Article 33 of the Railway Interoperability Directive.

2. A railway undertaking, an infrastructure manager or a keeper may be an entity in charge of maintenance.

3. Without prejudice to the responsibility of the railway undertakings and infrastructure managers for the safe operation of a train as provided for in Article 4, the entity shall ensure that the vehicles for which it is in charge of maintenance are in a safe state of running by means of a system of maintenance. To this end, the entity in charge of maintenance shall ensure that vehicles are maintained in accordance with:

- (a) the maintenance file of each vehicle;
- (b) the requirements in force including maintenance rules and TSI provisions.

The entity in charge of maintenance shall carry out the maintenance itself or make use of contracted maintenance workshops.

4. In the case of freight wagons, each entity in charge of maintenance shall be certified by a body accredited or recognised in accordance with paragraph 5, or by a national safety authority. The accreditation process shall be based on criteria of independence, competence and impartiality, such as the relevant EN 45 000 series European standards. The recognition process shall also be based on criteria of independence, competence and impartiality.

Where the entity in charge of maintenance is a railway undertaking or an infrastructure manager, compliance with the requirements to be adopted under paragraph 5 shall be checked by the relevant national safety authority pursuant to the procedures referred to in Articles 10 or 11 and shall be confirmed on the certificates specified in those procedures.

▼ M2

5. Based on a recommendation by the Agency, the Commission shall, by 24 December 2010, adopt a measure establishing a system of certification of the entity in charge of maintenance for freight wagons. Certificates granted in accordance with this system shall confirm compliance with the requirements referred to in paragraph 3.

The measure shall include the requirements concerning:

- (a) the maintenance system established by the entity;
- (b) the format and validity of the certificate granted to the entity;
- (c) the criteria for accreditation or recognition of body or bodies responsible for issuing certificates and ensuring controls necessary for the functioning of the certification system;
- (d) the date of application of the certification system, including a transition period of one year for existing entities in charge of maintenance.

This measure, designed to amend non-essential elements of this Directive, by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 27(2a).

Based on a recommendation by the Agency, the Commission shall, by 24 December 2018 review this measure in order to include all vehicles and to update, if necessary, the certification system applicable to freight wagons.

6. The certificates granted in accordance with paragraph 5 shall be valid throughout the Community.

7. The Agency shall evaluate the certification process implemented in accordance with paragraph 5 by submitting a report to the Commission, no later than three years after the entry into force of the relevant measure.

8. Member States may decide to fulfil the obligations to identify the entity in charge of maintenance and to certify it through alternative measures, in the following cases:

- (a) vehicles registered in a third country and maintained according to the law of that country;
- (b) vehicles which are used on networks or lines the track gauge of which is different from that of the main rail network within the Community and for which fulfilment of the requirements referred to in paragraph 3 are ensured by international agreements with third countries;
- (c) vehicles identified in Article 2(2), and military equipment and special transport requiring an ad hoc national safety authority permit to be delivered prior to the service. In this case derogations shall be granted for periods not longer than five years.

Such alternative measures shall be implemented through derogations to be granted by the relevant national safety authority:

- (a) when registering vehicles pursuant to Article 33 of the Railway Interoperability Directive, as far as the identification of the entity in charge of maintenance is concerned;

▼ M2

- (b) when delivering safety certificates and authorisations to railway undertakings and infrastructure managers pursuant to Articles 10 and 11 of this Directive, as far as the identification or certification of the entity in charge of maintenance is concerned.

Such derogations shall be identified and justified in the annual safety report referred to in Article 18 of this Directive. Where it appears that undue safety risks are being taken on the Community rail system, the Agency shall immediately inform the Commission thereof. The Commission shall make contact with the parties involved and, where appropriate, request the Member State to withdraw its derogation decision.

▼ C1*Article 15***Harmonisation of safety certificates**

1. Before 30 April 2009 decisions on common harmonised requirements in accordance with Article 10(2)(b) and Annex IV and a common format for application guidance documents shall be adopted in accordance with the procedure referred to in Article 27(2).
2. The Agency shall recommend common harmonised requirements and a common format for application guidance documents under a mandate which shall be adopted in accordance with the procedure referred to in Article 27(2).

CHAPTER IV

SAFETY AUTHORITY*Article 16***Tasks**

1. Each Member State shall establish a safety authority. This authority may be the Ministry responsible for transport matters and shall be independent in its organisation, legal structure and decision making from any railway undertaking, infrastructure manager, applicant and procurement entity.
2. The safety authority shall be entrusted with at least the following tasks:

▼ M2

- (a) authorising the placing in service of the structural subsystems constituting the rail system in accordance with Article 15 of the Railway Interoperability Directive and checking that they are operated and maintained in accordance with the relevant essential requirements;

▼ C1

- (c) supervising that the interoperability constituents are in compliance with the essential requirements as required by Article 12 of Directives 96/48/EC and 2001/16/EC;
- (d) authorising the placing in service of new and substantially altered rolling stock that is not yet covered by a TSI;

▼ C1

- (e) the issue, renewal, amendments and revocation of relevant parts of safety certificates and of safety authorisations granted in accordance with Articles 10 and 11 and checking that conditions and requirements laid down in them are met and that infrastructure managers and railway undertakings are operating under the requirements of Community or national law;
- (f) monitoring, promoting, and, where appropriate, enforcing and developing the safety regulatory framework including the system of national safety rules;

▼ M2

- (g) supervising that vehicles are duly registered in the NVR and that safety related information contained therein, is accurate and kept up to date;

▼ C1

3. The tasks referred to in paragraph 2 may not be transferred or subcontracted to any infrastructure manager, railway undertaking or procurement entity.

*Article 17***Decision-making principles**

1. The safety authority shall carry out its tasks in an open, non-discriminatory and transparent way. In particular it shall allow all parties to be heard and give reasons for its decisions.

It shall promptly respond to requests and applications and communicate its requests for information without delay and adopt all its decisions within four months after all requested information has been provided. It may at any time request the technical assistance of infrastructure managers and railway undertakings or other qualified bodies when it is carrying out the tasks referred to in Article 16.

In the process of developing the national regulatory framework, the safety authority shall consult all persons involved and interested parties, including infrastructure managers, railway undertakings, manufacturers and maintenance providers, users and staff representatives.

2. The safety authority shall be free to carry out all inspections and investigations that are needed for accomplishment of its tasks and it shall be granted access to all relevant documents and to premises, installations and equipment of infrastructure managers and railway undertakings.

3. Member States shall take the measures necessary to ensure that decisions taken by the safety authority are subject to judicial review.

4. The safety authorities shall conduct an active exchange of views and experience for the purpose of harmonising their decision-making criteria across the Community. Their cooperation shall in particular aim at facilitating and coordinating the safety certification of railway undertakings which have been granted international train paths in accordance with the procedure laid down in Article 15 of Directive 2001/14/EC.

The Agency shall support the safety authorities in these tasks.

▼ C1*Article 18***Annual report**

Each year the safety authority shall publish an annual report concerning its activities in the preceding year and send it to the Agency by 30 September at the latest. The report shall contain information on:

- (a) the development of railway safety, including an aggregation at Member State level of the CSIs laid down in Annex I;
- (b) important changes in legislation and regulation concerning railway safety;
- (c) the development of safety certification and safety authorisation;
- (d) results of and experience relating to the supervision of infrastructure managers and railway undertakings;

▼ M2

- (e) the derogations that have been decided in accordance with Article 14a(8).

▼ C1

CHAPTER V

ACCIDENT AND INCIDENT INVESTIGATION*Article 19***Obligation to investigate**

1. Member States shall ensure that an investigation is carried out by the investigating body referred to in Article 21 after serious accidents on the railway system, the objective of which is possible improvement of railway safety and the prevention of accidents.

2. In addition to serious accidents, the investigating body referred to in Article 21 may investigate those accidents and incidents which under slightly different conditions might have led to serious accidents, including technical failures of the structural subsystems or of interoperability constituents of the trans-European high-speed or conventional rail systems.

The investigating body shall, at its discretion, decide whether or not an investigation of such an accident or incident shall be undertaken. In its decision it shall take into account:

- (a) the seriousness of the accident or incident;
 - (b) whether it forms part of a series of accidents or incidents relevant to the system as a whole;
 - (c) its impact on railway safety on a Community level,
- and
- (d) requests from infrastructure managers, railway undertakings, the safety authority or the Member States.

3. The extent of investigations and the procedure to be followed in carrying out such investigations shall be determined by the investigating body, taking into account the principles and the objectives of Articles 20 and 22 and depending on the lessons it expects to draw from the accident or incident for the improvement of safety.

▼C1

4. The investigation shall in no case be concerned with apportioning blame or liability.

Article 20

Status of investigation

1. Member States shall define, in the framework of their respective legal system, the legal status of the investigation that will enable the investigators-in-charge to carry out their task in the most efficient way and within the shortest time.

2. In accordance with the legislation in force in the Member States and, where appropriate, in cooperation with the authorities responsible for the judicial inquiry, the investigators shall, as soon as possible, be given:

- (a) access to the site of the accident or incident as well as to the rolling stock involved, the related infrastructure and traffic control and signalling installations;
- (b) the right to an immediate listing of evidence and controlled removal of wreckage, infrastructure installations or components for examination or analysis purposes;
- (c) access to and use of the contents of on-board recorders and equipment for recording of verbal messages and registration of the operation of the signalling and traffic control system;
- (d) access to the results of examination of the bodies of victims;
- (e) access to the results of examinations of the train staff and other railway staff involved in the accident or incident;
- (f) the opportunity to question the railway staff involved and other witnesses;
- (g) access to any relevant information or records held by the infrastructure manager, the railway undertakings involved and the safety authority.

3. The investigation shall be accomplished independently of any judicial inquiry.

Article 21

Investigating body

1. 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 organisation, 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.

2. The investigating body shall perform its tasks independently of the organisations referred to in paragraph 1 and shall be able to obtain sufficient resources to do so. Its investigators shall be afforded status giving them the necessary guarantees of independence.

▼ C1

3. Member States shall make provision that railway undertakings, infrastructure managers and, where appropriate, the safety authority, are obliged immediately to report accidents and incidents referred to in Article 19 to the investigating body. The investigating body shall be able to respond to such reports and make the necessary arrangements to start the investigation no later than one week after receipt of the report concerning the accident or incident.
4. The investigating body may combine its tasks under this Directive with the work of investigating occurrences other than railway accidents and incidents as long as such investigations do not endanger its independence.
5. If necessary the investigating body may request the assistance of investigating bodies from other Member States or from the Agency to supply expertise or to carry out technical inspections, analyses or evaluations.
6. Member States may entrust the investigating body with the task of carrying out investigations of railway accidents and incidents other than those referred to in Article 19.
7. The investigating bodies shall conduct an active exchange of views and experience for the purpose of developing common investigation methods, drawing up common principles for follow-up of safety recommendations and adaptation to the development of technical and scientific progress.

The Agency shall support the investigating bodies in this task.

*Article 22***Investigation procedure**

1. An accident or incident referred to in Article 19 shall be investigated by the investigation body of the Member State in which it occurred. If it is not possible to establish in which Member State it occurred or if it occurred on or close to a border installation between two Member States the relevant bodies shall agree which one of them will carry out the investigation or shall agree to carry it out in cooperation. The other body shall in the first case be allowed to participate in the investigation and fully share its results.

Investigation bodies from another Member State shall be invited to participate in an investigation whenever a railway undertaking established and licensed in that Member State is involved in the accident or incident.

This paragraph shall not preclude Member States from agreeing that the relevant bodies should carry out investigations in cooperation in other circumstances.

2. For each accident or incident the body responsible for the investigation shall arrange for the appropriate means, comprising the necessary operational and technical expertise to carry out the investigation. The expertise may be obtained from inside or outside the body, depending on the character of the accident or incident to be investigated.

▼ C1

3. The investigation shall be carried out with as much openness as possible, so that all parties can be heard and can share the results. The relevant infrastructure manager and railway undertakings, the safety authority, victims and their relatives, owners of damaged property, manufacturers, the emergency services involved and representatives of staff and users shall be regularly informed of the investigation and its progress and, as far as practicable, shall be given an opportunity to submit their opinions and views to the investigation and be allowed to comment on the information in draft reports.

4. The investigating body shall conclude its examinations at the accident site in the shortest possible time in order to enable the infrastructure manager to restore the infrastructure and open it to rail transport services as soon as possible.

*Article 23***Reports**

1. An investigation of an accident or incident referred to in Article 19 shall be the subject of reports in a form appropriate to the type and seriousness of the accident or incident and the relevance of the investigation findings. The reports shall state the objectives of the investigations as referred to in Article 19(1) and contain, where appropriate, safety recommendations.

2. The investigating body shall make public the final report in the shortest possible time and normally not later than 12 months after the date of the occurrence. The report shall, as close as possible, follow the reporting structure laid down in Annex V. The report, including the safety recommendations, shall be communicated to the relevant parties referred to in Article 22(3) and to bodies and parties concerned in other Member States.

3. Each year the investigating body shall publish by 30 September at the latest an annual report accounting for the investigations carried out in the preceding year, the safety recommendations that were issued and actions taken in accordance with recommendations issued previously.

*Article 24***Information to be sent to the Agency**

1. Within one week after the decision to open an investigation the investigating body shall inform the Agency thereof. The information shall indicate the date, time and place of the occurrence, as well as its type and its consequences as regards fatalities, injuries and material damage.

2. The investigating body shall send the Agency a copy of the final report referred to in Article 23(2) and of the annual report referred to in Article 23(3).

*Article 25***Safety recommendations**

1. A safety recommendation issued by an investigating body shall in no case create a presumption of blame or liability for an accident or incident.

▼ C1

2. Recommendations shall be addressed to the safety authority and, where needed by reason of the character of the recommendation, to other bodies or authorities in the Member State or to other Member States. Member States and their safety authorities shall take the necessary measures to ensure that the safety recommendations issued by the investigating bodies are duly taken into consideration, and, where appropriate, acted upon.

3. The safety authority and other authorities or bodies or, when appropriate, other Member States to which recommendations have been addressed, shall report back at least annually to the investigating body on measures that are taken or planned as a consequence of the recommendation.

CHAPTER VI

IMPLEMENTING POWERS▼ M2*Article 26***Adaptation of the Annexes**

The Annexes shall be adapted to scientific and technical progress. This measure, designed to amend non-essential elements of this Directive, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 27(2a).

▼ C1*Article 27***Committee procedure**

1. The Commission shall be assisted by the Committee set up by Article 21 of Directive 96/48/EC.

2. Where reference is made to this paragraph, Articles 5 and 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.

The period laid down in Article 5(6) of Decision 1999/468/EC shall be set at three months.

▼ M2

2a. Where reference is made to this paragraph, Article 5a(1) to (4) and Article 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.

▼ C1

3. Where reference is made to this paragraph, Article 3 and 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.

▼ M2

▼ C1*Article 28***Implementing measures**

1. Member States may bring any measures concerning the implementation of this Directive to the attention of the Commission. Appropriate decisions shall be adopted in accordance with the procedure referred to in Article 27(2).

▼ C1

2. At the request of a Member State or on its own initiative the Commission shall, in a specific case, examine the application and enforcement of provisions concerning safety certification and safety authorisation, and within two months of receipt of such a request decide in accordance with the procedure referred to in Article 27(2) whether the related measure may continue to be applied. The Commission shall communicate its decision to the European Parliament, the Council and the Member States.

CHAPTER VII

GENERAL AND FINAL PROVISIONS

▼ M4

▼ C1*Article 31***Report and further Community action**

The Commission shall submit to the European Parliament and to the Council before 30 April 2007 and every five years thereafter a report on the implementation of this Directive.

The report shall be accompanied where necessary by proposals for further Community action.

*Article 32***Penalties**

The Member States shall lay down the rules on penalties applicable to infringements of the national provisions adopted pursuant to this Directive and shall take all measures necessary to ensure that they are implemented. The penalties provided for must be effective, proportionate, non-discriminatory and dissuasive.

The Member States shall notify those rules to the Commission by the date specified in Article 33 and shall notify it without delay of any subsequent amendment affecting them.

*Article 33***Implementation**

Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 30 April 2006 at the latest. They shall forthwith inform the Commission thereof.

When Member States adopt those measures, they shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official publication. The methods of making such reference shall be laid down by Member States.

▼ C1

Article 34

Entry into force

This Directive shall enter into force on the day of its publication in the *Official Journal of the European Union*.

Article 35

Addressees

This Directive is addressed to the Member States.

▼ **M5***ANNEX I***COMMON SAFETY INDICATORS**

Common safety indicators (CSIs) shall be reported annually by the safety authorities defined in Article 3(g).

Indicators relating to activities referred to in Article 2(2), (a) and (b), should be accounted for separately, if they are submitted.

If new facts or errors are discovered after the submission of the report, the indicators for one particular year shall be amended or corrected by the safety authority at the first convenient opportunity and at the latest in the next annual report.

Common definitions for the CSIs and methods to calculate the economic impact of accidents are laid down in the Appendix.

1. Indicators relating to accidents

1.1. Total and relative (to train-kilometres) number of significant accidents and a break-down for the following types of accidents:

- collision of train with rail vehicle,
- collision of train with obstacle within the clearance gauge,
- derailment of train,
- level crossing accident, including accident involving pedestrians at level crossing, and a further break-down for the five types of level crossings defined in point 6.2,
- accident to persons involving rolling stock in motion, with the exception of suicides and attempted suicides,
- fire in rolling stock,
- other.

Each significant accident shall be reported under the type of the primary accident, even if the consequences of the secondary accident are more severe (e.g. a derailment followed by a fire).

1.2. Total and relative (to train-kilometres) number of persons seriously injured and killed by type of accident divided into the following categories:

- passenger (also relative to total passenger-kilometres and passenger train-kilometres),
- employee or contractor,
- level crossing user,
- trespasser,
- other person at a platform,
- other person not at a platform.

▼M5**2. Indicators relating to dangerous goods**

Total and relative (to train-kilometres) number of accidents involving the transport of dangerous goods by rail divided into the following categories:

- accident involving at least one railway vehicle transporting dangerous goods, as defined in the Appendix,
- number of such accidents in which dangerous goods are released.

3. Indicators relating to suicides

Total and relative (to train-kilometres) number of suicides and attempted suicides

4. Indicators relating to precursors of accidents

Total and relative (to train-kilometres) number of precursors to accidents and a break down on the following types of precursor:

- broken rail,
- track buckle and other track misalignment,
- wrong-side signalling failure,
- signal passed at danger when passing a danger point,
- signal passed at danger without passing a danger point,
- broken wheel on rolling stock in service,
- broken axle on rolling stock in service.

All precursors are to be reported, both those resulting and those not resulting in accidents. (A precursor resulting in a significant accident shall also be reported under indicators relating to precursors; a precursor not resulting in a significant accident shall only be reported under indicators relating to precursors).

5. Indicators to calculate the economic impact of accidents

Total in euro and relative (to train-kilometres):

- number of deaths and serious injuries multiplied by the Value of Preventing a Casualty (VPC),
- cost of damages to environment,
- cost of material damages to rolling stock or infrastructure,
- cost of delays as a consequence of accidents.

Safety authorities shall report the economic impact of significant accidents.

The VPC is the value society attributes to the prevention of a casualty and as such shall not form a reference for compensation between parties involved in accidents.

▼ M5

6. **Indicators relating to technical safety of infrastructure and its implementation**
- 6.1. Percentage of tracks with Train Protection Systems (TPSs) in operation and percentage of train-kilometres using on-board TPSs, where these systems provide:
 - warning,
 - warning and automatic stop,
 - warning and automatic stop and discrete supervision of speed,
 - warning and automatic stop and continuous supervision of speed.
- 6.2. Number of level crossings (total, per line kilometre and track kilometre) by the following five types:
 - (a) passive level crossing
 - (b) active level crossing:
 - (i) manual,
 - (ii) automatic with user-side warning,
 - (iii) automatic with user-side protection,
 - (iv) rail-side protected.

▼ **M5***Appendix***Common definitions for the CSIs and methods of calculating the economic impact of accidents**

1. **Indicators relating to accidents**
 - 1.1. '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, excluding accidents in workshops, warehouses and depots;
 - 1.2. 'significant damage to stock, track, other installations or environment' means damage that is equivalent to EUR 150 000 or more;
 - 1.3. 'extensive disruptions to traffic' means that train services on a main railway line are suspended for six hours or more;
 - 1.4. 'train' means one or more railway vehicles hauled by one or more locomotives or railcars, or one railcar travelling alone, running under a given number or specific designation from an initial fixed point to a terminal fixed point, including a light engine, i.e. a locomotive travelling on its own,;
 - 1.5. 'collision of train with rail vehicle' means a front to front, front to end or a side collision between a part of a train and a part of another train or rail vehicle, or with shunting rolling stock;
 - 1.6. 'collision of train with obstacle within the clearance gauge' means a collision between a part of a train and objects fixed or temporarily present on or near the track (except at level crossings if lost by a crossing vehicle or user), including collision with overhead contact lines;
 - 1.7. 'derailment of train' means any case in which at least one wheel of a train leaves the rails;
 - 1.8. 'level crossing accident' means any accident at level crossings involving at least one railway vehicle and one or more crossing vehicles, other crossing users such as pedestrians or other objects temporarily present on or near the track if lost by a crossing vehicle or user;
 - 1.9. 'accident to persons involving rolling stock in motion' means accidents to one or more persons who are either hit by a railway vehicle or by an object attached to, or that has become detached from, the vehicle, this includes persons who fall from railway vehicles as well as persons who fall or are hit by loose objects when travelling on board vehicles;
 - 1.10. 'fire in rolling stock' means a fire or explosion that occurs in a railway vehicle (including its load) when it is running between the departure station and the destination, including when stopped at the departure station, the destination or intermediate stops, as well as during re-marshalling operations;

▼ **M5**

- 1.11. ‘other (accident)’ means any accident other than a collision of train with rail vehicle, collision of train with obstacle within the clearance gauge, derailment of train, level crossing accident, an accident to person involving rolling stock in motion or a fire in rolling stock;
- 1.12. ‘passenger’ means any person, excluding a member of the train crew, who makes a trip by rail, including a passenger trying to embark onto or disembark from a moving train for accident statistics only;
- 1.13. ‘employee or contractor’ means any person whose employment is in connection with a railway and is at work at the time of the accident, including the staff of contractors, self-employed contractors, the crew of the train and persons handling rolling stock and infrastructure installations;
- 1.14. ‘level crossing user’ means any person using a level crossing to cross the railway line by any means of transport or by foot;
- 1.15. ‘trespasser’ means any person present on railway premises where such presence is forbidden, with the exception of a level crossing user;
- 1.16. ‘other person at a platform’ means any person at a railway platform who is not defined as ‘passenger’, ‘employee or contractor’, ‘level crossing user’, ‘other person not at a platform’ or ‘trespasser’;
- 1.17. ‘other person not at a platform’ means any person not at a railway platform who is not defined as ‘passenger’, ‘employee or contractor’, ‘level crossing user’, ‘other person at a platform’ or ‘trespasser’;
- 1.18. ‘death (killed person)’ means any person killed immediately or dying within 30 days as a result of an accident, excluding any suicide;
- 1.19. ‘serious injury (seriously injured person)’ means any person injured who was hospitalised for more than 24 hours as a result of an accident, excluding any attempted suicide.

2. Indicators relating to dangerous goods

- 2.1. ‘accident involving the transport of dangerous goods’ means any accident or incident that is subject to reporting in accordance with RID ⁽¹⁾/ADR section 1.8.5;
- 2.2. ‘dangerous goods’ means those substances and articles the carriage of which is prohibited by RID, or authorised only under the conditions prescribed therein.

3. Indicators relating to suicides

- 3.1. ‘suicide’ means an act to deliberately injure oneself resulting in death, as recorded and classified by the competent national authority;
- 3.2. ‘attempted suicide’ means an act to deliberately injure oneself resulting in serious injury.

⁽¹⁾ RID, Regulations concerning the International Carriage of Dangerous Goods by Rail, as adopted under Directive 2008/68/EC of the European Parliament and of the Council of 24 September 2008 on the inland transport of dangerous goods (OJ L 260, 30.9.2008, p. 13).

▼ M5**4. Indicators relating to precursors of accidents**

- 4.1. 'broken rail' means any rail which is separated in two or more pieces, or any rail from which a piece of metal becomes detached, causing a gap of more than 50 mm in length and more than 10 mm in depth on the running surface;
- 4.2. 'track buckle or other track misalignment' means any fault related to the continuum and the geometry of track, requiring track to be placed out of service or immediate restriction of permitted speed;
- 4.3. 'wrong side signalling failure' means any technical failure of a signalling system (either to infrastructure or to rolling stock), resulting in signalling information less restrictive than that demanded;
- 4.4. 'Signal Passed at Danger when passing a danger point' means any occasion when any part of a train proceeds beyond its authorised movement and travels beyond the danger point;
- 4.5. 'Signal Passed at Danger without passing a danger point' means any occasion when any part of a train proceeds beyond its authorised movement but does not travel beyond the danger point.

Unauthorised movement as referred to in points 4.4 and 4.5 above means to pass:

- a trackside colour light signal or semaphore at danger, or an order to STOP where a Train Protection system (TPS) is not operational,
- the end of a safety related movement authority provided in a TPS,
- a point communicated by verbal or written authorisation laid down in regulations,
- stop boards (buffer stops are not included) or hand signals.

Any case in which a vehicle without any traction unit attached or a train that is unattended runs away past a signal at danger is not included. Any case in which, for any reason, the signal is not turned to danger in time to allow the driver to stop the train before the signal is not included.

Safety Authorities may report separately on the four indices of unauthorised movement listed in the indents in this point and shall report at least an aggregate indicator containing data on all four items indices.

- 4.6. 'broken wheel on rolling stock in service' means a break affecting the wheel and creating a risk of accident (derailment or collision);
- 4.7. 'broken axle on rolling stock in service' means a break affecting the axle and creating a risk of accident (derailment or collision).

▼ M5**5. Common methodologies to calculate the economic impact of accidents****5.1. The Value of Preventing a Casualty (VPC) is composed of:**

- (1) Value of safety per se: Willingness to Pay (WTP) values based on stated preference studies carried out in the Member State for which they are applied.
- (2) Direct and indirect economic costs: cost values appraised in the Member State, composed of:
 - medical and rehabilitation cost,
 - legal court cost, cost for police, private crash investigations, the emergency service and administrative costs of insurance,
 - production losses: value to society of goods and services that could have been produced by the person if the accident had not occurred.

When calculating the costs of casualties, fatalities and serious injuries shall be considered separately (different VPC for fatality and serious injury).

5.2. Common principles to appraise the value of safety per se and direct/indirect economic costs:

For the value of safety per se, the assessment of whether available estimates are appropriate or not shall be based on the following considerations:

- estimates shall relate to a system for valuation of mortality risk reduction in the transport sector and follow a Willingness to Pay (WTP) approach according to stated preference methods,
- the respondent sample used for the values shall be representative of the population concerned. In particular, the sample has to reflect the age/income distribution along with other relevant socioeconomic/demographic characteristics of the population,
- method for eliciting WTP values: survey design shall be such that questions are clear/meaningful to respondents.

Direct and indirect economic costs shall be appraised on the basis of the real costs borne by society.

5.3. Definitions

5.3.1. 'Cost of damage to environment' means costs that are to be met by Railway Undertakings and Infrastructure Managers, appraised on the basis of their experience, in order to restore the damaged area to its state before the railway accident.

5.3.2. 'Cost of material damage to rolling stock or infrastructure' means the cost of providing new rolling stock or infrastructure, with the same functionalities and technical parameters as that damaged beyond repair, and the cost of restoring repairable rolling stock or infrastructure to its state before the accident, to be estimated by Railway Undertakings and Infrastructure Managers on the basis of their experience, including also costs related to the leasing of rolling stock, as a consequence of non-availability due to damaged vehicles.

▼ **M5**

5.3.3. 'Cost of delays as a consequence of accidents' means the monetary value of delays incurred by users of rail transport (passengers and freight customers) as a consequence of accidents, calculated by the following model:

VT = monetary value of travel time savings

Value of time for a passenger of a train (an hour)

$$VT_p = [VT \text{ of work passengers}] * [\text{Average percentage of work passengers per year}] + [VT \text{ of non-work passengers}] * [\text{Average percentage of non-work passengers per year}]$$

VT_p is measured in EUR per passenger per hour

'Work passenger' means a passenger travelling in connection with their professional activities excluding commuting.

Value of time for a freight train (an hour)

$$VT_f = [VT \text{ of freight trains}] * [(Tonne-Km)/(Train-Km)]$$

VT_f is measured in EUR per freight tonne per hour

Average tonnes of goods transported per train in one year = (Tonne-Km)/(Train-Km)

CM = Cost of 1 minute of delay of a train

Passenger train

$$CM_p = K1 * (VT_p/60) * [(Passenger-Km)/(Train-Km)]$$

Average number of passengers per train in one year = (Passenger-Km)/(Train-Km)

Freight train

$$CM_f = K2 * (VT_f/60)$$

Factors K1 and K2 are between the value of time and the value of delay, as estimated by stated preference studies, to take into account that the time lost as a result of delays is perceived significantly more negatively than normal travel time.

Cost of delays of an accident = CM_p * (Minutes of delay of passenger trains) + CM_f * (Minutes of delay of freight trains)

Scope of the model

Cost of delays is to be calculated for significant accidents, as follows:

— real delays on the railway lines where accidents occurred as measured at terminal station

— real delays or, if not possible, estimated delays on the other affected lines.

▼ **M5****6. Indicators relating to technical safety of infrastructure and its implementation**

- 6.1. ‘Train Protection System (TPS)’ means a system that helps to enforce obedience to signals and speed restrictions.
- 6.2. ‘On-board systems’ mean systems assisting the driver to observe line-side signalling and in cab signalling and thus providing protection of danger points and enforcement of speed limits. On-board TPSs are described as follows:
- (a) Warning, providing automatic warning to driver.
 - (b) Warning and automatic stop, providing automatic warning to driver and automatic stop when passing a signal at danger.
 - (c) Warning and automatic stop and discrete supervision of speed, providing protection of danger points, where ‘discrete supervision of speed’ means supervision of speed at certain locations (speed traps) at the approach of a signal.
 - (d) Warning and automatic stop and continuous supervision of speed, providing protection of danger points and continuous supervision of the speed limits of the line, where ‘continuous supervision of speed’ means continuous indication and enforcement of the maximal allowed target speed on all sections of the line.

Type (d) is regarded as Automatic Train Protection (ATP) system.

- 6.3. ‘level crossing’ means any level intersection between a road or passage and a railway, as recognised by the infrastructure manager and open to public or private users. Passages between platforms within stations are excluded, as well as passages over tracks for the sole use of employees.
- 6.4. ‘road’ means, for the purpose of railway accident statistics, any public or private road, street or highway, including adjacent footpaths and bicycle lanes.
- 6.5. ‘passage’ means any route, other than a road, provided for the passage of people, animals, vehicles or machinery.
- 6.6. ‘passive level crossing’ means a level crossing without any form of warning system or protection activated when it is unsafe for the user to traverse the crossing.
- 6.7. ‘active level crossing’ means a level crossing where the crossing users are protected from or warned of the approaching train by devices activated when it is unsafe for the user to traverse the crossing.
- Protection by the use of physical devices includes:
 - half or full barriers,
 - gates.

▼ M5

- Warning by the use of fixed equipment at level crossings:
 - visible devices: lights,
 - audible devices: bells, horns, klaxons, etc.

Active level crossings are classified as:

- (a) Manual: a level crossing where user-side protection or warning is manually activated by a railway employee.
- (b) Automatic with user-side warning: a level crossing where user-side warning is activated by the approaching train.
- (c) Automatic with user-side protection: a level crossing where user-side protection is activated by the approaching train. This shall include a level crossing with both user-side protection and warning.
- (d) Rail-side protected: a level crossing where a signal or other train protection system permits a train to proceed once the level crossing is fully user-side protected and is free from incursion.

7. Definitions of the scaling bases

- 7.1. 'train-km' means the unit of measure representing the movement of a train over one kilometre. The distance used is the distance actually run, if available, otherwise the standard network distance between the origin and destination shall be used. Only the distance on the national territory of the reporting country shall be taken into account.
- 7.2. 'passenger-km' means the unit of measure representing the transport of one passenger by rail over a distance of one kilometre. Only the distance on the national territory of the reporting country shall be taken into account.
- 7.3. 'line km' means the length measured in kilometres of the railway network in Member States, whose scope is laid down in Article 2. For multiple-track railway lines, only the distance between origin and destination is to be counted.
- 7.4. 'track km' means the length measured in kilometres of the railway network in Member States, whose scope is laid down in Article 2. Each track of a multiple-track railway line is to be counted.

▼ C1*ANNEX II***NOTIFICATION OF NATIONAL SAFETY RULES**

National safety rules that are to be notified to the Commission according to the procedure described in Article 8 include:

1. rules concerning existing national safety targets and safety methods;
2. rules concerning requirements on safety management systems and safety certification of railway undertakings;

▼ M2

▼ C1

4. common operating rules of the railway network that are not yet covered by TSIs, including rules relating to the signalling and traffic management system;
5. rules laying down requirements on additional internal operating rules (company rules) that must be established by infrastructure managers and railway undertakings;
6. rules concerning requirements on staff executing safety critical tasks, including selection criteria, medical fitness and vocational training and certification as far as they are not yet covered by a TSI;
7. rules concerning the investigation of accidents and incidents.

▼ C1

ANNEX III

SAFETY MANAGEMENT SYSTEMS

1. *Requirements on the safety management system*

The safety management system must be documented in all relevant parts and shall in particular describe the distribution of responsibilities within the organisation of the infrastructure manager or the railway undertaking. It shall show how control by the management on different levels is secured, how staff and their representatives on all levels are involved and how continuous improvement of the safety management system is ensured.

2. *Basic elements of the safety management system*

The basic elements of the safety management system are:

- (a) a safety policy approved by the organisation's chief executive and communicated to all staff;
- (b) qualitative and quantitative targets of the organisation for the maintenance and enhancement of safety, and plans and procedures for reaching these targets;
- (c) procedures to meet existing, new and altered technical and operational standards or other prescriptive conditions as laid down
 - in TSIs,
 - or
 - in national safety rules referred to in Article 8 and Annex II,
 - or
 - in other relevant rules,
 - or
 - in authority decisions,and procedures to assure compliance with the standards and other prescriptive conditions throughout the life-cycle of equipment and operations;
- (d) procedures and methods for carrying out risk evaluation and implementing risk control measures whenever a change of the operating conditions or new material imposes new risks on the infrastructure or on operations;
- (e) provision of programmes for training of staff and systems to ensure that the staff's competence is maintained and tasks carried out accordingly;
- (f) arrangements for the provision of sufficient information within the organisation and, where appropriate, between organisations operating on the same infrastructure;
- (g) procedures and formats for how safety information is to be documented and designation of procedure for configuration control of vital safety information;

▼ C1

- (h) procedures to ensure that accidents, incidents, near misses and other dangerous occurrences are reported, investigated and analysed and that necessary preventive measures are taken;
- (i) provision of plans for action and alerts and information in case of emergency, agreed upon with the appropriate public authorities;
- (j) provisions for recurrent internal auditing of the safety management system.

▼ C1*ANNEX IV***DECLARATIONS FOR NETWORK SPECIFIC PART OF SAFETY CERTIFICATE**

The following documents must be submitted to enable the safety authority to deliver the network-specific part of the safety certificate:

- documentation from the railway undertaking on the TSIs or parts of TSIs and, where relevant, national safety rules and other rules applicable to its operations, its staff and its rolling stock and how compliance is ensured by the safety management system,
- documentation from the railway undertaking on the different categories of staff employed or contracted for the operation, including evidence that they meet requirements of TSIs or national rules and have been duly certified,
- documentation from the railway undertaking on the different types of rolling stock used for the operation, including evidence that they meet requirements of TSIs or national rules and have been duly certified.

To avoid duplication of work and to reduce the amount of information only summary documentation should be submitted concerning elements that comply with TSIs and other requirements of Directives 96/48/EC and 2001/16/EC.

▼ C1*ANNEX V***PRINCIPAL CONTENT OF ACCIDENT AND INCIDENT INVESTIGATION REPORT**1. *Summary*

The summary shall contain a short description of the occurrence, when and where it took place and its consequences. It shall state the direct causes as well as contributing factors and underlying causes established by the investigation. The main recommendations shall be quoted and information shall be given on the addressees.

2. *Immediate facts of the occurrence*

1. The occurrence:

- date, exact time and location of the occurrence,
- description of the events and the accident site including the efforts of the rescue and emergency services,
- the decision to establish an investigation, the composition of the team of investigators and the conduct of the investigation.

2. The background to the occurrence:

- staff and contractors involved and other parties and witnesses,
- the trains and their composition including the registration numbers of the items of rolling stock involved,
- the description of the infrastructure and signalling system – track types, switches, interlocking, signals, train protection,
- means of communication,
- works carried out at or in the vicinity of the site,
- trigger of the railway emergency plan and its chain of events,
- trigger of the emergency plan of the public rescue services, the police and the medical services and its chain of events.

3. Fatalities, injuries and material damage:

- passengers and third parties, staff, including contractors,
- cargo, luggage and other property,
- rolling stock, infrastructure and the environment.

4. External circumstances:

- weather conditions and geographical references.

3. *Record of investigations and inquiries*

1. Summary of testimonies (subject to the protection of identity of the persons):

▼ C1

- railway staff, including contractors,
 - other witnesses.
2. The safety management system:
- the framework organisation and how orders are given and carried out,
 - requirements on staff and how they are enforced,
 - routines for internal checks and audits and their results,
 - interface between different actors involved with the infrastructure.
3. Rules and regulations:
- relevant Community and national rules and regulations,
 - other rules such as operating rules, local instructions, staff requirements, maintenance prescriptions and applicable standards.
4. Functioning of rolling stock and technical installations:
- signalling and control command system, including registration from automatic data recorders,
 - infrastructure,
 - communications equipment,
 - rolling stock, including registration from automatic data recorders.
5. Documentation on the operating system:
- measures taken by staff for traffic control and signalling,
 - exchange of verbal messages in connection with the occurrence, including documentation from recordings,
 - measures taken to protect and safeguard the site of the occurrence.
6. Man-machine-organisation interface:
- working time applied to the staff involved,
 - medical and personal circumstances with influence on the occurrence, including existence of physical or psychological stress,
 - design of equipment with impact on man-machine interface.
7. Previous occurrences of a similar character.

▼ C14. *Analysis and conclusions*

1. Final account of the event chain:

- establishing the conclusions on the occurrence, based on the facts established in heading 3.

2. Discussion:

- analysis of the facts established in heading 3 with the aim of drawing conclusions as to the causes of the occurrence and the performance of the rescue services.

3. Conclusions:

- direct and immediate causes of the occurrence including contributory factors relating to actions taken by persons involved or the condition of rolling stock or technical installations,
- underlying causes relating to skills, procedures and maintenance,
- root causes relating to the regulatory framework conditions and application of the safety management system.

4. Additional observations:

- deficiencies and shortcomings established during the investigation, but without relevance to the conclusions on causes.

5. *Measures that have been taken*

- Record of measures already taken or adopted as a consequence of the occurrence.

6. *Recommendations*