

EUROPEAN COMMISSION

ENTERPRISE DIRECTORATE-GENERAL

Environmental aspects of enterprise policy, resource-based and specific industries Aerospace, defence, rail and maritime industries

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M/334 EN

MANDATE FOR PROGRAMMING AND STANDARDISATION ADDRESSED TO CEN, CENELEC and ETSI in the field of the INTEROPERABILITY OF THE TRANS-EUROPEAN CONVENTIONAL RAIL SYSTEM

1. MOTIVATION.

1.1 Title XV of the Treaty establishing the European Community, considering that trans-European networks are a key element for the consolidation of the Internal Market and the strengthening of economic and social cohesion, determines that the Community shall contribute to the establishment and development of such networks and promote their interconnection and interoperability.

In order to meet those objectives, the Community is required to establish a series of guidelines concerning trans-European networks and implement measures necessary to ensure their interoperability, in particular in the field of technical standardisation.

- 1.2 The Community Guidelines for the Development of the Trans-European Transport Network¹ define, among others, the characteristics of the trans-European conventional rail system and were adopted by the European Parliament and the Council on 23 July 1996.
- 1.3 Implementing Title XV of the Treaty, in particular Article 155, and taking into account Decision 1692/96/EC, the European Parliament and the Council adopted, on 19 March 2001, Directive 2001/16/EC on the Interoperability of the Trans-European Conventional Rail System.

Decision N° 1692/96/EC of 23 July 1996 - Official Journal L 228 of 09/09/1996

Directive 2001/16/EC stipulates that the interoperability of the trans-European conventional rail system is based on all the regulatory, technical and operational conditions which must be met in order to satisfy the essential requirements of the Directive.

In order to meet the essential requirements and ensure interoperability, each subsystem of the trans-European conventional rail system is covered by 'Technical Specifications for Interoperability' [TSIs] that determine the interoperability constituents and interfaces which must be covered by European specifications, including European standards.

1.4 As a consequence, the current mandate is aimed at elaborating the standards supporting the interoperability of the trans-European conventional rail system and falls within the framework of the Directive 2001/16/EC.

It will take due account of the 'Inventory of Standardisation Activities Concerning the Interoperability of the Trans-European Conventional Rail System' produced by the AEIF-European Association for Railway Interoperability² which sets out the industry needs in this area (see Annex).

The document in Annex was subject to consultation with the CEN/CENELEC/ETSI Joint Programming Committee Rail and presented to the Committee provided for in Article 21 of the Directive 2001/16/EC [Interoperability Committee] which approved it on 4 February 2003.

2. <u>DESCRIPTION OF THE MANDATED WORK.</u>

2.1 CEN, CENELEC and ETSI, allowing for the requirements arising from Directive 2001/16/EC, are asked to carry out the work in two phases.

Programming

In the first phase, CEN, CENELEC and ETSI are asked to draw up a common standardisation programme in support of Directive 2001/16/EC, in consideration of:

• The inventory of standardisation activities prepared by AEIF and mentioned in point 1.4;

The AEIF-European Association for Railway Interoperability brings together representatives of the infrastructure managers, railway companies and industry. It was co-founded by UIC-International Union of Railways, UNIFE-Union of European Railway Industries and UITP-International Association of Public Transport.

AEIF is the joint representative body mandated by the Commission to draw up the Technical Specifications for Interoperability [TSIs] and identify the industry needs for standardisation in this field.

- Other standards, specifications and rules currently available or in preparation in this area at national or international level, and specifications established by interested organisations such as (but not limited to) UIC, CER, UITP and UNIFE, in order to avoid duplication of work or overlapping.
- The diversity of climatic conditions across Europe.

The programme should give a clear description of the work to be done, which is necessary to meet the essential requirements of the Directive, with indication of priorities, justifications and, where appropriate, proposals for its execution in phases which should include the relevant timetables.

It should be drawn up in such a way as to permit assessment of the proposals and the allocation of priority to its elements.

Standardisation

In the subsequent phase, CEN, CENELEC and ETSI are asked to undertake to produce the standards identified in phase one, in accordance with the agreed timetable.

2.2 Where equipment falls within the scope of other Directives, existing or known to be in preparation, the standards elaborated under this mandate should not overlap with aspects mandated under other Directives. However, the standards should take account of, and where necessary make reference to, other European standards in the field, either existing or in preparation. Account should be taken of the implications for other aspects of Community policy - for example environmental, health and safety questions.

3. BODIES TO BE ASSOCIATED.

3.1 The elaboration of the standards should be undertaken in co-operation with the broadest possible range of interested groups, including international and European associations. Those involved should include railway operators, infrastructure managers and regulatory railway bodies; manufacturers and installers of railway equipment and rolling stock; other industries associated with the railway industry and passenger groups. In particular, co-operation with AEIF, UIC, CER, UITP and UNIFE is regarded as essential.

4. EXECUTION OF THE REQUEST.

4.1 Taking into account the development of the TSIs, the tasks included in the first phase of this Mandate shall be completed within six months of its acceptance. They will result in a Standardisation Programme for the interoperability of the trans-European conventional rail system, which the Commission will present for

information to the Committee on Standards and Technical Regulations and to the Interoperability Committee.

The tasks included in the second phase of this Mandate shall be carried out according to the programme produced in the previous phase and shall respect the agreed timetable.

4.2 This mandate could be amended later, if necessary. The programme itself could be adapted and/or added to depending on the progress made. The European standards bodies will transmit possible amendments to this programme to the Commission, which will present them to the Committee on Standards and Technical Regulations and to the Interoperability Committee.

The work to be undertaken and its results should be inter-connected, compatible and mutually acceptable to CEN, CENELEC and ETSI.

- 4.3 CEN, CENELEC and ETSI will have to present the draft standards mentioned above by the dates agreed. The European standards will have to be adopted by the agreed dates. On these dates, the three linguistic versions (DE, EN, FR) must be available as well as the correct titles in the other official Community languages.
- 4.4 The European standards adopted should be transposed into national standards and differing national standards will have to be withdrawn from the catalogues of the national standards organisations in the Member States within six months of their adoption.
- 4.5 The acceptance of this standardisation mandate by CEN, CENELEC and ETSI will open the standstill period referred to in Article 7 of the amended Directive 98/34/EC³ of 22 June 1998 (ex 83/189/EEC of 28 March 1983).

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³ OJ L204 of 21.07.98

Annex: 'Inventory of standardisation activities concerning the interoperability of the Trans-European conventional rail system'

Annex

'INVENTORY OF STANDARDISATION ACTIVITIES CONCERNING THE INTEROPERABILITY OF THE TRANS-EUROPEAN CONVENTIONAL RAIL SYSTEM'

(DIRECTIVE 2001/16/EC)

Standardisation activities concerning the interoperability of the trans-European conventional rail system (Directive 2001/16/CE)

Item N°	Technical Subject	Allocated to:	Standard Available	Other Ref. Doc.	Work needed	Forecast Date of	TSI	Basic Parameter/ Interop. Constit./ Other/	Ref. in TSI	Comments
		(Standard. Body(s)		Available		Issue	Involved	Involved	(Y/N)	

INFRASTRUCTURE

1	Rail	CEN	EN 50 122-1 prEN 13674-1 EN 1003-1	UIC leaflet 861, 712, 715-2, 721		Infra	Rail	
2	Track geometry	CEN/ O0256132			Limit of discrete top fault and track geometry		Rail fastening system, Track sleeper and bearers, Switches and crossing	

3	Track and structure mechanical characteristics	ENV 1991-2 (edition 2002) EN 13145 EN 13146 PrEN 13230 PrEN 13481 PrEN 13803-1	UIC leaflet 702, 717, 717-3, 719, 722, 770 to 779		Infra	Rail, Rail fastening system, Track sleepers and bearers	
4	Electrical characteristics of tracks and switches and crossing	PrEN 13146-1 PrEN 13481-2 (to be checked)			Infra	Rail, Rail fastening system, Track sleeper and bearers, Switches and crossing	
5	Switches and crossing	PrEN 12232-1 to 9	UIC leaflet 711, 716		Infra	Switches and crossing	
6	Underground structures- emergency access, evacuation and ventilation – Fire resistance		Eurocode 1 ISO 834		Infra		
7	Aerodynamic effects on CEN/ structures 00256127 and 128	PrEN 14067	UIC leaflet	Yes: pressure variation in tunnels	Infra		

8	Infrastructure clearance	CEN/	UIC leaflet	Yes	Infr	ra		
		00256150 to 153	Serie 505					
9	Cross wind		Deufrako works	Yes	Infr	ra		
10	Passenger platform	CEN/ 00256156	UIC leaflet 741	Yes	Infr	ra		
11	Train arresting devices				Infr	ra	Buffers stop	
12	Replenishment and supplying			?	Infr		Consumables (water, fuel, etc) Emptying and replenishing	
13	Recording and reporting			?	Infr	ra		

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1. ENERGY

14	Contact line geometry	CENELEC	EN 50119	UIC leaflet 794, 794-1, 799, 799-1, 606-1,-2, 791	Energy	Overhead/Third Rail Contact line Pantograph Collector shoes Collector strips	
15	Contact line material		EN 50149	UIC leaflet 791	Energy	Overhead/Third Rail Contact line Pantograph Collector shoes Collector strips	
16	Electrical protection co- ordination		PrEN 50388	UIC leaflet 797, 792, 605	Energy		

17	External interference and EMC	EN 500121-2 EN 50122-1 EN 50122-2	UIC leaflet 704	Energy	
18	Internal radiated EMI (Electro Magnetic Interference)	EN 50121 and EN 50122-2 series		Energy	
19	Power supply traction – voltage and frequency	EN 50163	UIC leaflet 796, 600	Energy	
20	Power supply traction - Specified performance of the system	EN 50119 EN 50206	UIC leaflet 795	Energy	Overhead/Third Rail Contact line Pantograph Collector shoes Collector strips
21	Power supply auxiliary - Specified performance of the system	EN 50163 EN 50122-2		Energy	Energy meters

22	Dynamic behaviour and current collection quality		UIC leaflet 794-1, 791	Yes: Interface Pantograph/cat	0,	Overhead/Third Rail Contact line	
	, , , , , , , , , , , , , , , , , , , ,	EN 50317	·	enary ⁴ : Assessment		Pantograph	
		EN 50318		procedures		Collector shoes	
		PrEN 50367				Collector strips	

Remark: AEIF proposes to treat the items which concern rolling stock (pantograph,...), in the CR RS TSI and not in the CR EN TSI

ROLLING STOCK

Item N°	Technical Subject	Allocated to: (Standard. Body(s)	Standard Available	Other Ref. Doc. Available	Work needed	Forecast Date of Issue	TSI Involved	Basic Parameter/ Interop. Constit./ Other/ Involved	Ref. in TSI (Y/N)	Comments
23	Kinematic Gauge	CEN	00256153 in preparation)	UIC 505, 505-1, 503, 596 UIC 430- 1OR, 430- 2OR,430-3, TC 256	New EN for definition and conformity assessment	June 2004 (1)	CR RS 1 st priority	RST-210-ac,		Existing systems required to be retained: UK loading gauge GA, GB. Spanish gauge, Finnish gauge. Incl. gauge GC for future use.

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24	Coupling between vehicles (electrical, pneumatic and mechanical), buffers			521, 526-1,	New ENs for definition and conformity assessment	June 2004 (1)	CR RS 1 st priority	RST-210-ad Int. constituents: Buffer, Emergency coupler		Buffers without greasing requirement for future. Increased buffer and coupler strength. A calculation method for train length and load has to be developed and agreed (EN requested).
25	Safe access and egress for rolling stock	CEN	none		New ENs for definition and conformity assessment	June 2004 (1)	CR RS 1 st priority	RST-210-al		Upgrade UIC leaflets: EN Berne rectangle, steps and hand grips

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26	Functional requirements: Strength of main vehicle structure	CEN	EN 12663	UIC 507, 535-2, 536, 577, 581, ERRI B12 RP 17	New ENs for definition and conformity assessment	June 2004 (1)	CR RS 1 st priority	RST-210-aw		Upgrade UIC leaflets: Arrangement and loads of fastening points for ferry boats, where required by operation (incl. Clearance. Strength requirements (load and direction) on rope hooks. Collision tests (general requirements)
27	Doors closing and locking	CEN		UIC 576, UIC 427, UIC 571-2	New ENs for definition and conformity assessment	June 2004 (1)	CR RS 1 st priority	RST-210-c		Upgrading of UIC leaflets to EN
28	Emergency Exits and Signposting	CEN	ISO 7001	RIV	New ENs for definition and conformity assessment	June 2004 (1)	CR RS 1 st priority	RST -210-e		New EN for sign posting

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29	Securing of Freight	CEN	EN 283 EN 284 EN 452	RIV 2000 – Annex II – Books 1 and 2; COTIF – Annex I – RID UIC 571-1 UIC 571-2 UIC 571-4 UIC 576 UIC 577 UIC 578 UIC 590 UIC 591 UIC 592-2 UIC 592-4 UIC 596-6 UIC 597, UIC 597, UIC 432, Erri B 12	definition and conformity assessment	(1)	CR RS 1 st priority	RST-210-n Int. constituents: UIC spigots		Upgrading of UIC leaflets to EN

Item N°	Technical Subject	Allocated to: (Standard. Body(s)	Standard Available	Other Ref. Doc. Available	Work needed	Forecast Date of Issue	TSI	Basic Parameter/ Interop. Constit./ Other/ Involved	Ref. in TSI (Y/N)	Comments
30	Fire Safety	CEN/ CENELEC	EN 50306	<u>UIC 564-2,</u> 567-1, 642, 895, 543 RID	conformity assessment	June 2004 (1)	CR RS 1 st priority	RST-210-s		Check if relevant parts of UIC leaflets are already incorporated into ENs
31	Static axle load, dynamic wheel load and linear load	CEN	EN 14363	UIC 700, UIC 518, UIC510, UIC 432, UIC 517, 530.2	definition and conformity	June 2004 (1)	CR RS 1 st priority	RST-221-a		Upgrading of UIC leaflets to EN
32	Electrical protection of the train	CENELEC	EN50153,	UIC 797, UIC 533, point 3.3,	New ENs for definition and conformity assessment	June 2004 (1)	CR RS 1 st priority	RST- 221-ab		Check if relevant parts of UIC leaflets are already incorporated into ENs

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33	Environmental conditions for rolling stock (Range of functioning of components)	CEN/ CENELEC	EN 50125-1, EN 50124-2, EN 60721-3-5, EN 61373, EN 61373, EN 50121-3, IEC 61133		New ENs for definition and conformity assessment	June 2004 (1)	CR RS 1 st priority	RST-221-ad		Work to be done not defined.
34	Braking performance	CEN/ CENELEC	prEN 14478, prEN 14198, prEN 13452-1, ISO 8573-1, ISO 8573-1, CEN/TC 256/SC3/WG25	126.15, UIC	New ENs for definition and conformity assessment	June 2004 (1)	CR RS 1 st priority	RST-221-ag Int. constituents: Brake distributor, driver's brake controller, WSP (Wheel Slide Protection system)		A CEN-standard for WSP* is required. The ERRI working group on WSP should have an input to this. Check if relevant parts of UIC leaflets are already incorporated into ENs. * wheel slide protection

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35	Vehicle capability to transmit information from vehicle to vehicle in freight and passenger train	CENELEC	IEC 61375-1, CENELEC's SC9XB WG B14	none	New ENs for definition and conformity assessment	June 2004 (1)	CR RS 1 st priority	RST-221-bd1		CENELEC's SC9XB subcommittee has mandated WG B14 to write the associated EN standard according to the decisions of AEIF.
36	Vehicle capability to transmit information between ground and vehicle	CENELEC	CENELEC'S SC9XB WG B14	none	New ENs for definition and conformity assessment	June 2004 (1)	CR RS 1 st priority	RST-221-bd2 Int. constituents: Receivers / transmitters / ground-stations.		CENELEC's SC9XB subcommittee has mandated WG B14 to write the associated EN standard according to the decisions of AEIF In order for these interoperable constituents to be fully specified, there will be a need to register the technologies supporting train-to-ground information transmission.
37	Aerodynamic effects (slip stream)	CEN	prEN 14067	none	New ENs for definition and conformity assessment	June 2004 (1)	CR RS 1 st priority	RST-221-be		Work to be continued.

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38	Rolling stock parameters which influence ground based train monitoring systems (signalling systems / train detection systems, like track circuits, axle counters. Level crossing devices, hot box detectors,) (see also Item n° 48)	CEN/ CENELEC	EN 50121	UIC 512, UIC 430-1, UIC 430-3, UIC 511, UIC 550	New ENs for definition and conformity assessment	Urgent	CR RS 1 st priority	RST-221-e		Check if relevant parts of UIC leaflets are already incorporated into ENs.
39	Vehicle dynamic behaviour (wheel-rail interaction)	CEN	prEN 14363	UIC 518, 519, 432	New ENs for definition and conformity assessment	June 2004 (1)	CR RS 1 st priority	RST-221-g		Check if relevant parts of UIC leaflets are already incorporated into ENs. Task for standardisation: Simple or minor modifications or similar new vehicles should be allowed without testing (ref.: UIC 432) Use of approved running gear with new vehicles should be also allowable without testing.

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40	Bogie and Running Gear	CEN	prEN: 13749, 13260, 13298, 13597, 13802, 13913, 14200, 14363	none	New ENs for definition and conformity assessment	June 2004 (1)	CR RS 1 st priority	RST-221-ic2 Int. constituents: Bogies and running gear		Work has to be continued. Check if relevant parts of UIC leaflets are already incorporated into ENs.
41	2. Wheelsets		prEN 13979-1, prEN 13715 EN 13262 EN 13103 EN 13261 EN 12080 EN 12081, EN 12082 EN 13260	UIC 510-5, 510-x, ORE S 1002, UIC 430-1	New ENs for definition and conformity assessment	June 2004 (1)	CR RS 1 st priority	RST-221-ic3 Int. constituents: Wheels, Axles, Rolling bearing, Wheel sets		Work has to be continued. Check if relevant parts of UIC leaflets are already incorporated into ENs.

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42	3. Noise Emitted by Freight Wagons	CEN	prEN ISO 3095: 2001		New ENs for definition and conformity assessment	June 2004 (1)	CR RS 1 st priority	RST-221-nF		Work has to be continued.
43	4. Cross winds	CEN		GE 12 (SC 12)	New ENs for definition and conformity assessment	June 2004 (1)	CR RS 1 st priority	RST-223-d		Work has to be continued.
44	Labelling of freight wagons	CEN/ CENELEC		UIC 438-2, RIC; RIV 2000; COTIF - Annex I - RID; UIC 541.1; 543; 545; 564.2; 569; 571-3; 571-4; 573; 580; 596-5; 596-6	New ENs for definition and conformity assessment	June 2004 (1)	CR RS 1 st priority	RST-223-g		Upgrading of UIC leaflets to EN

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45	Special vehicles for the transport of dangerous goods and pressured gases -	CEN	RID, EN 14025, EN 13445, EN 12561, EN 12972	PED,	New ENs for definition and conformity assessment	June 2004 (1)	CR RS 1 st priority	RST-223-i		Check if relevant parts of UIC leaflets are already incorporated into ENs.
46	5. LONGITUDINAL COMPRESSIVE FORCES	CEN		UIC 530-2, 421	New ENs for definition and conformity assessment	June 2004 (1)	CR RS 1 st priority	RST-299-a		Upgrading of UIC leaflets to EN
47	6. MAINTENANCE PLAN & MAINTENANCE WORK SHOP ACCREDITATION CRITERIA	CEN/ CENELEC	EN 13306	UIC 579.2	New ENs for definition and conformity assessment	June 2004 (1)	CR RS 1 st priority	RST-310-b Int. constituents: Maintenance plan		Work has to be defined. In Terms of certification and assessment of workshops, maintenance documentation and record of data.

^{(1):} wished date to be confirmed by the European standardisation bodies

CONTROL COMMAND

48	EMC interaction between RS and CCS infrastructure equipment			Yes	Urgent	CCS/ RS 1 st priority		
49	Train detection systems			Yes		CCS/ RS 1 st priority		
50	Driven Machine Interface (DMI)	CENELEC	PrEN 50xx6-1 to 6	Yes		CCS/ RS 1 st priority		
51	Hot box detector	?	?			?		To be checked in the future

Iter N°	n Technical Subject	Allocated to:	Standard Available	Other Ref. Doc.	Work needed	Forecast Date of	TSI	Basic Parameter/ Interop. Constit./ Other/	Ref. in TSI	Comments
		(Standard. Body(s)		Available		Issue	Involved	Involved	(Y/N)	

TRAFFIC OPERATION AND MANAGEMENT

52	Numbering system for Vehicles identification	UIC leaflet 438-2-3, 800-09	OPE TSI Vehicles identification 1st priority
53	Loading rules	RIV and RID for dangerous goods	OPE TSI 1 st priority
54	Electronic format for timetables	UIC leaflet 411	OPE TSI 1 st priority
55	Recording of supervision data pertaining to the running of the train	ETCS/FRS chap 4.3.10	OPE TSI 1 st priority

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TELEMATIC APPLICATIONS											
	Electronic data exchange for European freight transport on rail – in XML format						TA TSI 1 st priority	All TSI		Work in progress; need to confirm in the next months	