

Notes:		
- Any relevant change to already supplied documentation requires the respective documents to be re-supplied.		
- Any Re-Submission for a stage must cover all aspects of that stage.		
- Color coding indicating the stage where an issue must be submitted as part of a stage:		Initial submission to RSC
		subsequent and more detailed update

PART 1 (Management of APIS Process)								
No.	National Requirement in the State (NTR for APIS process)	Detailed Requirement	Stage 1 Concept	Stage 2 Preliminary Design (Optional)	Stage 3 Overall (Detailed) Design	Stage 4 Testing	Stage 5 Interim Operation (Optional)	Stage 6 Operation
00.01	Project Submissions							
00.01.01	Project Submission	Project Safety Plan in accordance with Annex 1 of RSC-G-009						
00.01.02	Project Submission	Proposal on level of significance in accordance to CSM-RA 352/2009 (may be included within Safety Plan)						
00.01.03	Project Submission	Project Hazard Record in accordance with Annex 2 of RSC-G-009						
00.01.04	Project Submission	Project Safety- and Compliance Matrix in accordance with Annex 4 of RSC-G-009						
00.01.05	Project Submission	Generic Product Safety Case (highly recommended for CCS/CCT)						
00.01.06	Project Submission	Generic Application Safety Case (highly recommended for CCS/CCT)						
00.01.07	Project Submission	Application Specific Project Safety Case (NWA for CCO/ NRSA for CCT) - Stage 4 in accordance with Annex 3 of RSC-G-009						
00.01.08	Project Submission	Application Specific Project Safety Case (NWA for CCT/ NRSA for CCO) - Stage 5 in accordance with Annex 3 of RSC-G-009						
00.01.09	Project Submission	Application Specific Project Safety Case (NWA for CCT/ NRSA for CCO) - Stage 6 in accordance with Annex 3 of RSC-G-009						
00.01.10	Project Submission	EC-Intermediate Statement(s) of Verification (ISV) (2008/57/EC) (if used)						
00.01.11	Project Submission	EC/ National-Certificate(s) of Verification (2008/57/EC)						
00.01.12	Project Submission	EC/ National-Declaration, including all declarations for constituents and subsystems, Combined Technical File elements, other evidence as appropriate.						
00.01.13	Project Submission	EC-Declaration relating to other EU requirements as appropriate (for each Stage leading to operation on the Network in the State)						
00.02	Assessment Reporting - in case of RSA-APIS							
00.02.01	Independent Assessor Reporting	IA Review Report on overall project at each stage (if used)		(as applicable)	(as applicable)	(as applicable)	(as applicable)	(as applicable)

00.02.02	Other Assessment Reporting	e.g. RU/IM self assessment						
00.03	Assessment Reporting - in case of combined RSA- IOD-APIS							
00.03.01	NoBo Intermediate Reporting	NoBo ISV with associated report and EC-Technical File (as applicable) (if used)		(as applicable)	(as applicable)	(as applicable)	(as applicable)	(as applicable)
00.03.02	DeBo Intermediate Reporting (2011/217/EU)	DeBo National-ISV with associated report and N-Technical File (as applicable) (if used)		(as applicable)	(as applicable)	(as applicable)	(as applicable)	(as applicable)
00.03.03	NoBo final Reporting	NoBo EC Certificates with associated reports and Technical File (as applicable)						
00.03.04	DeBo final Reporting (2011/217/EU)	DeBo National-Certificates with associated report and N-Technical File						
00.04	Assessment Reporting - relating to CSM 352/2009							
00.04.01	CSM-AB Reporting	Status reporting and associated evidence for each stage		(recommended, not mandatory)	(recommended, not mandatory)			
00.05	Management of Works							
00.05.01	Project Submission	Proposed concept on Enabling Works						
00.05.02	Project Submission	Proposed concept of protection of operational railway and other parties during works						

PART 2 List of Parameters for CCO/CCT & related OPE/MAI Sub-System aspects			National requirements in the State	TSI-requirements + associated mandatory and voluntary standards (for information)			TSI-specific cases (for Information)
Ref.	Parameter	Detailed Parameter	NTR for INF & related OPE/MAI Sub-System aspects	Relevant CR TSI and other EU requirements	Mandatory Standards	Voluntary Standards	Specific Cases
TSI CCS refers to 2012/88/EU (applicable from 25.07.2012(Art 8)) TSI L&P CR refers to 2011/291/EU (applicable from 01.06.2011(Art 9)) amend. by 2012/88/EU TSI INF CR refers to 2011/275/EU (applicable from 01.06.2011(Art 9)) TSI SRT refers to 2008/163/EC (applicable from 01.07.2008 (Art 3)) TSI PRM refers to 2008/164/EC (applicable from 01.07.2008(Art 4)) TSI OPE CR refers to 2011/314/EU (applicable from 1.1.2012(Art 6+7)) Projects in the Scope of High Speed must request an updated list from RSC.				Items marked with (SC) are replaced by a Specific Case. (OP) refers to an Open Point.			
01.00	CCO/CCT: General Parameters						
01.01.00	CCO/CCT: General project scope						
01.01.01	general scope	Summary of General Arrangement and Type and Purpose of Project (e.g. CCT: Location/ Line/ chainage/ section of track/ Project boundary/ max. speed/ train frequency, CCO: Type of rolling stock, max. speed)	TSI CCS 2 +add. NTR: TBD	TSI CCS 2			
01.01.02	general scope	Definition of Scope relating New Build/ Upgrade / Renewal (general description and description in the context of any applicable TSI)	TSI CCS 7.2.8+7.3.2.3 2008/57/EC 1+2+5.2+6.9+9.1+20 +add. NTR: TBD	TSI CCS 7.2.8+7.3.2.3 2008/57/EC 1+2+5.2+6.9+9.1+20			
01.01.03	general scope	Declaration of intended design life for each aspect of the project	+add. NTR: TBD				
01.01.04	general scope	CCT: Data sheet containing Infrastructure Register information according to applicable TSIs and to 2011/633/EU CCO: Data sheet containing ERATV Register information according to applicable TSIs and to 2011/665/EU	CCT:TSI CCS 4.8 CCO:TSI L&P CR 4.2.3.3.1 +add. NTR: TBD	CCT:TSI CCS 4.8 CCO:TSI L&P CR 4.2.3.3.1			
01.02.00	CCO/CCT: general requirements relevant in addition to all parameters						
01.02.01	CCO/CCT: general add.requirements	Elaboration of project specific safety requirements relating to all parameters (including interfaces, communications, etc.)	TSI CCS 3.2.1+4.2.1 CSM 352/2009 EN 50126:1999 EN 50128:2001 EN 50129:2003 EN 50159-1:2001 EN 50159-2:2001 EN 50126-2:2007 EN 50128:2011 EN 50159:2010	TSI CCS 3.2.1+4.2.1	CSM 352/2009 EN 50126:1999 EN 50128:2001 EN 50129:2003 EN 50159-1:2001 EN 50159-2:2001	EN 50126-2:2007 EN 50128:2011 EN 50159:2010	
01.02.02	CCO/CCT: general add.requirements	absence and/or control of hazardous materials during installation, operation, maintenance, decommissioning. At min. declaration on absence of Asbestos, PCB, radioactive material, etc.	TSI CCS 3.2.3-3.2.4 1907/2006 REACH +add. NTR: TBD	TSI CCS 3.2.3-3.2.4 1907/2006 REACH			
01.02.03	CCO/CCT: general add.requirements	environmental factors and related protection for all parameters (including drainage and ventilation)	TSI CCS 3.2.5.1.1+4.2.16 EN 50126:1999 EN 50128:2001 EN 50129:2003 EN 50159-1:2001 EN 50159-2:2001 EN 50126-2:2007 EN 50128:2011 EN 50159:2010 +add. NTR: TBD	TSI CCS 3.2.5.1.1+4.2.16	EN 50126:1999 EN 50128:2001 EN 50129:2003 EN 50159-1:2001 EN 50159-2:2001	EN 50126-2:2007 EN 50128:2011 EN 50159:2010	
01.02.04	CCO/CCT: general add.requirements	appropriate tamper protection for all parameters (including mechanical enclosure, locking arrangement, access management, intrusion detection, CCTV, etc.)	+add. NTR: TBD				
01.03.00	CCO/CCT: Electrical/ Electromagnetical requirements relevant in addition to all parameters						
01.03.01	CCO/CCT: E&E add.requirements	electrical safety (protection against unsafe touch potentials, isolation coordination, repercussions into safety critical equipment, etc.)		2006/95/EC low voltage directive EN 50122 EN 60529			
01.03.02	CCO/CCT: E&E add.requirements	bonding, earthing concept (incl. lightning protection and earthing of equipment near OHL equipment)				EN 50153 UIC 533	

01.03.03	CCO/CCT: E&E add.requirements	Electromagnetical Compatibility (emissions, susceptability, EMC plan, compatibility with operating environment, rolling stock, other signalling and telecommunication system equipment and other railways, etc.)		EN 50121series 2004/108/EC EMC Directive 89/336/EC			
01.03.04	CCO/CCT: E&E add.requirements	fire performance and evacuation concept (, detection, suppression, safe degradation of safety critical equipment, etc.)		TSI SRT 4.2.4 TSI SRT 4.2.5			Irish Building Regulations
01.03.05	CCO/CCT: E&E add.requirements	mechanical integrity of lineside CCT equipment (foundations, structures, drainage, structure gauge, etc.)					
01.04.00	CCO/CCT: Fire protection, detection, suppression, safe degradation						
01.04.01	CCO/CCT: Fire&Evac. add.requirements	Overall fire performance evaluation, concept of fire barriers and concept of evacuation (e.g. Emergency Plan)	TSI SRT 4.2.2.11 TSI SRT 4.2.2.13 TSI SRT 4.2.3.3 TSI SRT 6.2.7.5 UIC 779-9 +add. NTR: TBD	TSI SRT 4.2.2.11 TSI SRT 4.2.2.13 TSI SRT 4.2.3.3 TSI SRT 6.2.7.5		UIC 779-9	
01.04.02	CCO/CCT: Fire&Evac. add.requirements	material properties	TSI SRT 4.2.5 +add. NTR: TBD	TSI SRT 4.2.5			
01.04.03	CCO/CCT: Fire&Evac. add.requirements	concept of safe degradation of safety critical equipment in case of fire	UIC 779-9 +add. NTR: TBD			UIC 779-9	
01.04.04	CCO/CCT: Fire&Evac. add.requirements	Fixed fire detection & suppression equipment	UIC 779-9 +add. NTR: TBD			UIC 779-9	
01.04.05	CCO/CCT: Fire&Evac. add.requirements	Portable fire-fighting equipment	UIC 779-9 +add. NTR: TBD			UIC 779-9	
01.04.06	CCO/CCT: Fire&Evac. add.requirements	specific requirements, type of telecommunication system and permitted (normal) operational conditions (e.g. Telephone, Radio, Fax, data-transmission)	TSI SRT 4.2.2.10 UIC 779-9 +add. NTR: TBD	TSI SRT 4.2.2.10		UIC 779-9	
02.00	CCT: General Arrangements of lineside signalling system (Scheme Plan, Signalling Layout, System Layout)						
02.01	CCT general	TSI/ National Class/Level of Train Protection and Radio System and Performance Parameters	TSI CCS 2.2 ERA/TD/2011-11, V1 +add. NTR: TBD	TSI CCS 2.2 ERA/TD/2011-11, V1			
02.02	CCT general	normal operational modes (e.g. normal, reverse direction working, automatic block)	+add. NTR: TBD				
02.03	CCT general	permitted degraded/ back up operational modes	+add. NTR: TBD				
02.04	CCT general	concept for remote operation/ control	+add. NTR: TBD				
02.05	CCT general	track layout, line speeds, gradients, tunnels, stations, level crossings, organisational boundaries etc.	+add. NTR: TBD				
	CCT general	positions of dangerpoints (e.g. points, crossings, catch points, derailment points, movable bridges, etc.)	+add. NTR: TBD				
02.08	CCT general	permitted routes/paths, block margins, block overlap, direction(s) of travel, wrong side working	+add. NTR: TBD				
02.07	CCT general	control table requirements	+add. NTR: TBD				
02.09	CCT general	lineside signals (spacing, co-location, avoidance of reading-through), route indicators, sign/ board, type/ positions	to be compatible with UIC 651 +add. NTR: TBD			to be compatible with UIC 651	
02.10	CCT general	train protection systems (e.g.ETCS/CAWS/ATP) track circuit/ track loop/ balise locations, type/ positions	+add. NTR: TBD				
02.11	CCT general	train detection equipment, type/ positions	+add. NTR: TBD				
02.14	CCT general	hot axle box detection/ hot brake detection, type/ positions	+add. NTR: TBD				
02.15	CCT general	signal cabins, signalling controls, interlocking facilities, type/position	+add. NTR: TBD				
02.16	CCT general	line side telephones, type/ positions	+add. NTR: TBD				
02.17	CCT general	local data communication links (electrical/ mechanical) between interlockings, signalling controls, signal cabins and points, signals, counters, train detection etc.	+add. NTR: TBD				
02.18	CCT general	long range data communication links (electrical/ radio) between interlockings, signalling controls, CTC, signal cabins (e.g. time signal, train ID, route setting, CCTV)	+add. NTR: TBD				
02.19	CCT general	voice communication links (cable/ radio) between line side phones, signalling controls, CTC, signal cabins, emergency communication	+add. NTR: TBD				
02.20	CCT general	power supply and cables for signalling equipment, specification and position	+add. NTR: TBD				
02.21	CCT general	lineside radio equipment, specification and position	+add. NTR: TBD				
02.22	CCT general	other CCT way side equipment	+add. NTR: TBD				

02.23	CCT general	Transition concepts (e.g. transition from/to: CAWS-Token, CAWS 50Hz/CAWS 83.33Hz, AWS-CAWS, interaction at block borders)	+add. NTR: TBD				
03.00	CCT: Interlocking						
03.01	CCT: interlocking	table of routes, speed limits, interlocking type and requirements and permitted normal operational conditions (e.g. normal operations, shunting, automatic block, moving block), Specific Interlocking Application Data	+add. NTR: TBD				
03.02	CCT: interlocking	permitted/ supported degraded operational conditions (e.g. degraded operation concept, emergency& engineering controls), Specific Interlocking Application Data	+add. NTR: TBD				
03.03	CCT: interlocking	interface specification (functional/physical/logical): user interface, remote control, data transmission, power supplies, control&display systems, other interlocking systems, trackside signalling equipment, other equipment, etc.	+add. NTR: TBD				
03.04	CCT: interlocking	concept on withdrawal of authorities (functional/physical/logical concept)	+add. NTR: TBD				
03.05	CCT: interlocking	Transition requirements between Signalling Systems (functional/physical/logical concept)	+add. NTR: TBD				
03.06	CCT: interlocking	specific requirements for mechanical lever frame interlockings	+add. NTR: TBD				
03.08	CCT: interlocking	data recording concept	+add. NTR: TBD				
04.00	CCT: Train ID management						
04.01	CCT: Train ID management	specific requirements, type train ID management system	TSI OPE 4.2.3.2 +add. NTR: TBD	TSI OPE 4.2.3.2			
04.02	CCT: Train ID management	permitted normal and degraded operational conditions (e.g. degraded operation concept, emergency& engineering controls)	+add. NTR: TBD				
04.03	CCT: Train ID management	interface spec. (functional/physical/logical): to data generation, interlocking, data transmission, power supplies, local and remote control&display systems, other equipment	+add. NTR: TBD				
05.00	CCT: Train detection						
05.01	CCT: Train detection	specific requirements, type of detection system (detection loops, axle counters, etc.) (e.g. including impedance bonding))	to be compatible with: TSI L&C 4.2.3.3.1 TSI WAG UIC 512 +add. NTR: TBD				
05.02	CCT: Train detection	permitted normal and degraded operational conditions (e.g. degraded operation concept, emergency& engineering controls)	+add. NTR: TBD				
05.03	CCT: Train detection	interface spec. (functional/physical/logical): to interlocking, data transmission, power supplies, local and remote control&display systems, other equipment	+add. NTR: TBD				
05.04	CCT: Train detection	specific interface requirements to rolling stock (wheel to wheel continuity, axle load, minimum metall massess, sanding, magnetic track brakes, wheel impedance, metal free space around wheels, wheel geometry, vehicle geometry, position of first/ last /intermediate wheelsets in train, requirements on wheelsets, etc.)	to be compatible with: TSI L&C 4.2.3.3.1 TSI WAG UIC 512 TSI L&P CR 7.3.2.8 TSI WAG 7.7.2.2.4 CME-TMS-301 +add. NTR: TBD	to be compatible with: TSI L&C 4.2.3.3.1 TSI WAG UIC 512		TSI L&P CR 7.3.2.8 TSI WAG 7.7.2.2.4 CME-TMS-301	
05.05	CCT: Train detection	specific requirements for track circuit activators (functional/physical/logical)	EN13232-8:2007 +add. NTR: TBD			EN13232-8:2007	
05.06	CCT: Train detection	specific requirements for EMC (to consider e.g. electric traction, traction power supply, static inverters, etc.)	+add. NTR: TBD				
06.00	CCT: hot axle box / hot brake detection						
06.01	CCT: hot axle box / hot brake detection	type of detection system, specific requirements	TSI SRT 4.2.4 +add. NTR: TBD	TSI SRT 4.2.4			
06.02	CCT: hot axle box / hot brake detection	permitted normal and degraded operational conditions (e.g. degraded operation concept, emergency& engineering controls)	+add. NTR: TBD				
06.03	CCT: hot axle box / hot brake detection	interface spec.(functional/physical/logical), e.g. to interlocking, data transmission, power supply, local and remote control&display systems, other equipment	TSI SRT 4.2.4 +add. NTR: TBD	TSI SRT 4.2.4			
06.04	CCT: hot axle box / hot brake detection	specific interface requirements to rolling stock (free view to axle box, wheel, brake disks, geometric position of axle box, wheel, brake disks, etc.)	TSI SRT 4.2.4 +add. NTR: TBD	TSI SRT 4.2.4			
07.00	CCT: Class A ETCS Automatic Train Protection System						
07.01	CCT: ETCS	specific requirements, type/ level of signalling system, RBC functionality	TSI CCS 2.3+4.2.1+4.2.3+4.2.11 +add. NTR: TBD	TSI CCS 2.3+4.2.1+4.2.3 +4.2.11			

07.02	CCT: ETCS	permitted normal and degraded operational conditions (e.g. degraded operation concept, emergency& engineering controls)	+add. NTR: TBD				
07.03	CCT: ETCS	national parametrisation: (packet 44, National Values, etc.)	SUBSET-026 +add. NTR: TBD				SUBSET-026
07.04	CCT: ETCS	Eurobalise/ Euroloop type and parameters	+add. NTR: TBD				
07.05	CCT: ETCS	air gap definition, incl. radio infill (physical/ electrical/ availability/ communication protocol/ GSM-R interface etc.)	TSI CCS 4.2.5+4.2.7+4.2.11 +add. NTR: TBD	TSI CCS 4.2.5+4.2.7+4.2.11			
07.06	CCT: ETCS	interface spec.(functional/physical/logical), e.g. to interlocking, data transmission, power supplies, local control&display systems, RBC, braking rates, other equipment	TSI CCS 4.2.7+4.2.11+4.3 I-SIG-2145 +add. NTR: TBD	TSI CCS 4.2.7+4.2.11+4.3		I-SIG-2145	
07.07	CCT: ETCS	cryptographic key management	TSI CCS 4.2.8 +add. NTR: TBD	TSI CCS 4.2.8			
07.08	CCT: ETCS	ETCS-ID management	TSI CCS 4.2.9 +add. NTR: TBD	TSI CCS 4.2.9			
08.00	CCO: Class A ETCS Automatic Train Protection System						
08.01	CCO: ETCS	specific requirements, type/level of on board train protection system	TSI CCS 2.3+4.2.2+4.2.11 +add. NTR: TBD	TSI CCS 2.3+4.2.2+4.2.11			
08.02	CCO: ETCS	permitted normal and degraded operational conditions (e.g. degraded operation concept, emergency& engineering controls)	+add. NTR: TBD				
08.03	CCO: ETCS	permitted normal and degraded operational conditions (e.g. degraded operation concept, emergency& engineering controls)	+add. NTR: TBD				
08.04	CCO: ETCS	national parametrisation: (packet 44, National Values, etc.)	SUBSET-026 TSI CCS 2.2+3.1+4.1 +add. NTR: TBD				SUBSET-026 TSI CCS 2.2+3.1+4.1
08.05	CCO: ETCS	air gap definition, incl. radio infill (physical/ electrical/ availability/ communication protocol/ GSM-R interface, etc.)	TSI CCS 4.2.5+4.2.7+4.2.11 +add. NTR: TBD	TSI CCS 4.2.5+4.2.7+4.2.11			
08.06	CCO: ETCS	train integrity function (for level 3)	+add. NTR: TBD				
08.07	CCO: ETCS	odometry function	+add. NTR: TBD				
08.08	CCO: ETCS	interface spec.: to rolling stock, brake curves, data transmission, power supplies, local control&display systems, track side equipment, other equipment	+add. NTR: TBD				
08.09	CCO: ETCS	DMI Interface	TSI CCS 4.2.10 +add. NTR: TBD	TSI CCS 4.2.10			
08.10	CCO: ETCS	cryptographic key management	TSI CCS 4.2.8 +add. NTR: TBD	TSI CCS 4.2.8			
08.11	CCO: ETCS	ETCS-ID management	TSI CCS 4.2.9 +add. NTR: TBD	TSI CCS 4.2.9			
09.00	CCT: Class B (National) Train Protection System						
09.01	CCT: Class B (National) Train Protection System	specific requirements, type of signalling system	TSI CCS 2.2+3.1+4.1 +add. NTR: TBD				TSI CCS 2.2+3.1+4.1
09.02	CCT: Class B (National) Train Protection System	permitted normal and degraded operational conditions (e.g. degraded operation concept, emergency& engineering controls)	I-SIG-2145 TSI CCS 2.2+3.1+4.1 +add. NTR: TBD			I-SIG-2145	TSI CCS 2.2+3.1+4.1
09.03	CCT: Class B (National) Train Protection System	air gap definition (physical/ electrical/ availability/ communication protocol/ etc.)	TSI CCS 2.2+3.1+4.1 +add. NTR: TBD				TSI CCS 2.2+3.1+4.1
09.04	CCT: Class B (National) Train Protection System	interface spec.(functional/physical/logical), e.g. to interlocking, braking rates, block length/ overlap, data transmission, power supplies, local control&display systems, other equipment	I-SIG-2145 TSI CCS 2.2+3.1+4.1 +add. NTR: TBD			I-SIG-2145	TSI CCS 2.2+3.1+4.1
10.00	CCO: Class B (National) Train Protection System						
10.01	CCO: Class B (National) Train Protection System	specific requirements, type of signalling system	TSI CCS 2.2+3.1+4.1 +add. NTR: TBD				TSI CCS 2.2+3.1+4.1
10.02	CCO: Class B (National) Train Protection System	permitted normal and degraded operational conditions (e.g. degraded operation concept, emergency& engineering controls)	I-SIG-2145 TSI CCS 2.2+3.1+4.1 +add. NTR: TBD			I-SIG-2145	TSI CCS 2.2+3.1+4.1
10.03	CCO: Class B (National) Train Protection System	air gap definition (physical/ electrical/ availability/ communication protocol/ etc.)	TSI CCS 2.2+3.1+4.1 +add. NTR: TBD				TSI CCS 2.2+3.1+4.1
10.04	CCO: Class B (National) Train Protection System	odometry function					TSI CCS 2.2+3.1+4.2
10.05	CCO: Class B (National) Train Protection System	interface spec.(functional/physical/logical), e.g. to rolling stock, braking curves, data transmission, power supplies, local control&display systems, other equipment	I-SIG-2145 TSI CCS 2.2+3.1+4.3 +add. NTR: TBD			I-SIG-2145	TSI CCS 2.2+3.1+4.3
10.06	CCO: Class B (National) Train Protection System	Driver Interface	TSI CCS 4.2.10 TSI CCS 2.2+3.1+4.4 +add. NTR: TBD	TSI CCS 4.2.10			TSI CCS 2.2+3.1+4.4
11.00	CCT: overspeed detection						

11.01	Specification, application conditions	type of detection system, specific requirements	+add. NTR: TBD				
11.02	Specification, application conditions	permitted normal and degraded operational conditions (e.g. degraded operation concept, emergency& engineering controls)	+add. NTR: TBD				
11.03	Specification, application conditions	interface spec.(functional/physical/logical): to interlocking, data transmission, power supplies, local control&display systems, other equipment	+add. NTR: TBD				
11.04	Specification, application conditions	interface spec.(functional/physical/logical), e.g. to interlocking, data transmission, power supplies, local control&display systems, to train detection, other equipment	+add. NTR: TBD				
12.00	CCT: Lineside Signals of variable aspects						
12.01	CCT: variable aspect signals	specific requirements, type of signal	+add. NTR: TBD				
12.02	CCT: variable aspect signals	permitted normal and degraded operational conditions (e.g. remotely controlled, local setting, route indicator, degraded operation concept, emergency& engineering controls)	to be compatible with UIC 651 +add. NTR: TBD			to be compatible with UIC 651	
12.03	CCT: variable aspect signals	interface spec.(functional/physical/logical): to interlocking, data transmission, power supplies, local control&display systems, other equipment	+add. NTR: TBD				
13.00	CCT: Lineside Signals/ Signs/ Boards of fixed aspect						
13.01	CCT: fixed aspect signals	specific requirements, type of signal (retroreflective properties, design, size, etc.)	TSI CCS 4.2.15 to be compatible with UIC 651 +add. NTR: TBD	TSI CCS 4.2.15		to be compatible with UIC 651	
14.00	CCT: Point equipment (point machine, sensors, heating, etc.)	(incl. Derailment points, catch points, etc.)					
14.01	point equipment	specific requirements, type of point equipment (actuator, locking, detection, heater, ect.)	+add. NTR: TBD				
14.02	point equipment	permitted normal and degraded operational conditions (e.g. remotely controlled, local setting, emergency and engineering controls, point securing, position indication, degraded operation concept, emergency& engineering controls)	+add. NTR: TBD				
14.03	point equipment	interface spec.: remote control, data transmission, power supplies, control&display systems, interlocking systems, other equipment	+add. NTR: TBD				
15.00	CCT: Level Crossings						
15.01	CCT: Level Crossings	specific requirements, type of level crossing, speed limits, interlocking requirements and permitted (normal) operational conditions (e.g. normal operations, CCTV surveillance, automatic working)	+add. NTR: TBD				
15.02	CCT: Level Crossings	permitted degraded operational conditions (e.g. degraded operation concept, emergency& engineering controls)	+add. NTR: TBD				
15.03	CCT: Level Crossings	interface spec.: remote control, data transmission, power supplies, control&display systems, interlocking systems, external roadside and trackside signalling equipment, other equipment	+add. NTR: TBD				
15.04	CCT: Level Crossings	positioning of associated equipment (road signals, track signals, traffic signs and road markings, barriers, track side boards, equipment housing, etc.)	+add. NTR: TBD				
16.00	CCT: Staff protection systems						
16.01	CCT: Staff protection systems	specific requirements, type of staff protection system and permitted (normal) operational conditions, positioning of associated equipment, coverage/range	+add. NTR: TBD				
16.02	CCT: Staff protection systems	permitted degraded operational conditions (e.g. degraded operation concept, emergency& engineering controls)	+add. NTR: TBD				
16.03	CCT: Staff protection systems	interface spec.: user interfaces, remote control, data transmission, power supplies, control&display systems, other telecommunication systems, signalling system, to train detection, other equipment	+add. NTR: TBD				
16.04	CCT: Staff protection systems	positioning of associated equipment, coverage	+add. NTR: TBD				
17.00	CCT/CCO: Data recording equipment						

17.01	CCT/CCO: Data recording	specific requirements, type of equipment (normal) permitted normal and degraded operational conditions, positioning of associated equipment, information/signals/frequency to be recorded	TSI CCS 4.2.14 TSI OPE 4.2.3.4.2+4.2.3.5 TSI L&P CR 4.2.9.6 (OP) CME-TS- +add. NTR: TBD	TSI CCS 4.2.14 TSI OPE 4.2.3.4.2+4.2.3.5 TSI L&P CR 4.2.9.6 (OP)			CME-TS-
17.02	CCT/CCO: Data recording	interface spec.: remote control, data transmission, power supplies, control/display/read-out systems, other equipment	+add. NTR: TBD				
18.00	CCO/CCT: Tele communications/ Mobile communications						
18.01.00	CCO/CCT: general parameters Tele/Mobile communications						
18.01.01	CCO/CCT: Tele/mobile communications general	specific requirements, type of tele/ mobile communication system and permitted (normal) operational conditions (e.g. Telephone, GSM-R, National Radio, Fax, data-transmission)	2008/57/EC(15)2 2004/49/EC TSI OPS TSI CCS 4.2.4+4.2.5.1 +add. NTR: TBD	2008/57/EC(15)2 2004/49/EC TSI OPS TSI CCS 4.2.4+4.2.5.1			
18.01.02	CCO/CCT: Tele/mobile communications general	permitted degraded operational conditions (e.g. degraded operation concept, emergency& engineering controls)	+add. NTR: TBD				
18.01.03	CCO/CCT: Tele/mobile communications general	interface spec.: user interfaces, remote control, data transmission, power supplies, control&display systems, other telecommunication systems, external telecommunication equipment, emergency services, data recording, other equipment	+add. NTR: TBD				
18.01.04	CCO/CCT: Tele/mobile communications general	positioning of associated equipment (coverage, router, repeater, switch boards, equipment housing, etc.)	+add. NTR: TBD				
18.02.00	additional for CCT GSM-R compliant radio system						
18.02.01	add. CCT GSM-R parameters	specific requirements, type of CCT GSM-R radio installation (switchbord, network, powersupply, antennas, poles, etc.)	+add. NTR: TBD				
18.02.02	add. CCT GSM-R parameters	interface spec.: interface to RBC	+add. NTR: TBD				
18.03.00	additional for CCO GSM-R compliant radio system						
18.03.01	add. CCO GSM-R parameters	specific requirements, type of CCO GSM-R radio	+add. NTR: TBD				
18.03.02	add. CCO GSM-R parameters	functionality parameters: see parameters of 2009/965/EC 12.1.2	+add. NTR: TBD				
18.03.03	add. CCO GSM-R parameters	interface spec.: data transmission, power supply, interface to RST/CCO equipment, other equipment	+add. NTR: TBD				
19.00	provisions for operation						
19.01	provisions for operation	operating rules/ specific training requirements for normal operations + degraded operations + emergency operations relating to this INF (network/route) To cover at least documentation relating to the safety critical tasks of: -train preparation, -train despatch, -authorisation for train movement (e.g. signalman), -driving of train, -accompanying a train	TSI CCS 4.3.1+4.4+4.7 TSI OPE CR 2.1 TSI OPE CR 2.2.1 TSI OPE CR 4.2.1.1 TSI OPE CR 4.2.3.6.2 TSI OPE CR 4.6.1 TSI OPE CR 4.6.1.1b TSI OPE CR 4.6.1.2 TSI OPE CR App J.2.4+J.3 TSI OPE CR App L.2.3+L.3 TSI OPE CR App B TSI OPE CR App C3.4 +add. NTR: TBD	TSI CCS 4.3.1+4.4+4.7 TSI OPE CR 2.1 TSI OPE CR 2.2.1 TSI OPE CR 4.2.1.1 TSI OPE CR 4.2.3.6.2 TSI OPE CR 4.6.1 TSI OPE CR 4.6.1.1b TSI OPE CR 4.6.1.2	TSI OPE CR App J.2.4+J.3 TSI OPE CR App L.2.3+L.3 TSI OPE CR App B TSI OPE CR App C3.4		
19.02	provisions for operation	training and examination requirements relating to this INF (analysis of training needs, training content, content of examinations)	TSI OPE CR 4.6.3.1.B+C TSI OPE CR 4.6.3.2 TSI OPE CR App J.2.3+J.3 TSI OPE CR App L.2.2+L.3 +add. NTR: TBD	TSI OPE CR 4.6.3.1.B+C TSI OPE CR 4.6.3.2	TSI OPE CR App J.2.3+J.3 TSI OPE CR App L.2.2+L.3		
19.03	provisions for operation	Safety Assessment of comprehensiveness and suitability of operating rules/ specific training requirements for normal and degraded operations	TSI OPE CR 2.2.1 RSD+CSM 352/2009 +add. NTR: TBD	TSI OPE CR 2.2.1	RSD+CSM 352/2009		
19.04	provisions for operation	INF specific IM network access requirements (Technical/ Operational)	TSI OPE CR 4.1 +add. NTR: TBD	TSI OPE CR 4.1			
19.05	provisions for operation	CCO/CCT specific IM information for Drivers Rule Book - normal, degraded, emergency situations - safety assessment to ensure completeness and accuracy of information	TSI OPE CR 4.2.1.2.1 +add. NTR: TBD	TSI OPE CR 4.2.1.2.1			

19.06	provisions for operation	INF specific IM information for Route Book - normal, degraded, emergency situations - safety assessment to ensure completeness and accuracy of information	TSI OPE CR 4.2.1.2.2 +add. NTR: TBD	TSI OPE CR 4.2.1.2.2			
19.07	provisions for operation	INF specific IM Route Book Real Time Information for drivers	TSI OPE CR 4.2.1.2.3 +add. NTR: TBD	TSI OPE CR 4.2.1.2.3			
19.09	provisions for operation	operating rules for track brakes	TSI INF CR 4.3.4 TSI OPE +add. NTR: TBD	TSI INF CR 4.3.4 TSI OPE			
19.10	provisions for operation	Changes to existing SMS, to interfaces to other SMS	2008/57/EC(15)2 2004/49/EC TSI OPE +add. NTR: TBD	2008/57/EC(15)2 2004/49/EC TSI OPE			
19.11	provisions for operation	new/changed operational procedures	2008/57/EC(15)2 2004/49/EC TSI OPE +add. NTR: TBD	2008/57/EC(15)2 2004/49/EC TSI OPE			
19.12	provisions for operation	Training/ operational handbook	2008/57/EC(15)2 2004/49/EC TSI OPE +add. NTR: TBD	2008/57/EC(15)2 2004/49/EC TSI OPE			
19.13	provisions for operation	Procedures relating prolonged stop in tunnel	TSI SRT 2.2.3 TSI OPE +add. NTR: TBD	TSI SRT 2.2.3 TSI OPE			
19.14	provisions for operation	Tunnel specific competence of staff	TSI SRT 4.6.1 TSI OPE +add. NTR: TBD	TSI SRT 4.6.1 TSI OPE			
20.00	Maintenance Requirements and Maintenance Plan						
20.01.00	general requirements						
20.01.01	general requirements	All limits for CCO/CCT must be co-ordinated with RST requirements.	TSI CCS 4.5+4.6+4.7 +add. NTR: TBD	TSI CCS 4.5+4.6+4.7			
20.01.02	general requirements	For each immediate action limit, the intended measures to be taken (speed restriction, repair time) must be stated.	TSI CCS 4.5+4.6+4.7 +add. NTR: TBD	TSI CCS 4.5+4.6+4.7			
20.02.00	provisions for maintenance						
20.02.01	provisions for maintenance	Occupational Health & Safety, specific training	2008/57/EC(15)2 2004/49/EC TSI CCS 3.2.1+3.2.3+4.5+4.6+4.7 +add. NTR: TBD	2008/57/EC(15)2 2004/49/EC TSI CCS 3.2.1+3.2.3+4.5+4.6+4.7			

20.02.02	Safety Critical Maintenance	Concept on scope, intervals, maintenance records, tools, training	2008/57/EC(15)2 2004/49/EC TSI OPS TSI CCS 4.2.1.2+4.5+4.7 +add. NTR: TBD	2008/57/EC(15)2 2004/49/EC TSI OPS TSI CCS 4.2.1.2+4.5+4.7			
20.02.03	Traceability of Safety Critical Components, Configuration Management	Component identifiers (unique ID, type, version, origin)	2008/57/EC(15)2 2004/49/EC TSI OPS +add. NTR: TBD	2008/57/EC(15)2 2004/49/EC TSI OPS			
20.02.04	Traceability of SW Components	Software identifiers (unique ID, type, version, origin)	2008/57/EC(15)2 2004/49/EC TSI OPS +add. NTR: TBD	2008/57/EC(15)2 2004/49/EC TSI OPS			
20.02.05	specific provisions for tunnel maintenance	Tunnel specific competence of staff	TSI SRT 4.6.1 TSI INF CR 4.5.2 (1b+c) UIC 779-10 +add. NTR: TBD	TSI SRT 4.6.1 TSI INF CR 4.5.2 (1b+c)		UIC 779-10	
21.00	CCO/CCT: Provisions during construction work						
21.01	CCO/CCT: during construction work	health and safety at worksite	+add. NTR: TBD				
21.02	CCO/CCT: during construction work	protection of passengers/ running rail traffic/ other parties during execution of work	+add. NTR: TBD				
21.03	CCO/CCT: during construction work	protection of environment	+add. NTR: TBD				
21.04	CCO/CCT: during construction work	structural evaluation of scaffolding or any non-permanent structural works or earthworks during construction	+add. NTR: TBD				
21.05	CCO/CCT: during construction work	specific operating rules update during pre-planned work (temporary modifications to route book) (informing the driver in real time)	TSI SRT 4.4.1 TSI OPE CR 4.2.1.2.2.2 TSI OPE CR 4.2.1.2.2.3 +add. NTR: TBD	TSI SRT 4.4.1 TSI OPE CR 4.2.1.2.2.2 TSI OPE CR 4.2.1.2.2.3			