#	N°	Reference (e.g. Art, §)	Type	Reviewer	Reviewer's Comments, Questions, Proposals	Reply	Proposal for the correction or justification for the rejection	Organisation
1	1	4.2.1.1	U	Frank Schiffmann	The chapter concerning CSM application is misleading like in TSI CCS Version 2016. A check of change shall be performed by CSM assessment body before start of change. But the issue of safety in case of EC verficiation is referenced to a NoBo. The IOP directive and also the CSM refer to this. The current text leads to a double check or a complexe interface between AsBo and NoBo is case of check of safety vs. technical compatibility e.g. im module SG applies for trackside installation. Any kind of body is able to do, fulfilling the requirements set in CSM document. Thus it shall be clearly given, that the check of safety can be carried out by the NoBo for the TSI-relevant part as preferred solution. The misinterpretation is the fact of "CSM assessment body" treated as AsBo in the sector, due to the lack of knowlegde that "assessment body" in CSM-RA is named.	NWC	The Agency is not sure to fully understand the comment. The CCS TSI must keep separated the requirements for independent safety assessment vs. Reg. 402/2013, and the requirements for 'EC' verification of conformity. Those two types of check are to be fulfilled by two different types of conformity assessment bodies. The reviewer shall however not mix on one hand, the roles of NoBo vs. AsBo, and on the other hand, of the company/companies fulfilling those roles. The same company can be accredited/recognised to act as both NoBo and AsBo, as long as it fulfils the respective requirements of the IOD, ERA scheme for the assessment of NoBos (000MRA1044) and the criteria in Annex II of Reg. 402/2013. In practice all CCS NoBos are also AsBos. Therefore, the comment is purely of academic nature. The applicant selects a NoBo which accredited/recognised also vs. Annex II of Reg. 402/2013 There is thus no need to change the text of CCS TSI.	1-SIGNON
2	2	4.2.3 second (2)	U	Frank Schiffmann	The text concerning track condition is unchanged. But change is made in TSI ENE section 4.3 in parallel. What is the opinion of ERA on the mandatory need of having track conditions for Energy interface in case of trackside ETCS installation? Former chapter 4.3 in TSI ENE could be read as mandatory at-all, also for L1 Mode LS application, but this section was also not in scope according RFU for assessment. What is the impact now? Risk assessment by IM needed according TSI CCS before?	NWC	The TSI ENE section 4.3 has been clarified to be clearer about not imposing additional requirements on the CCS TSI. In fact section 4.3 is about the interfaces and not about requirements. There is no impact now, it is up to the IM to use the ETCS track conditions if available.	1-SIGNON
3	3	4.2.4.1b	G	Frank Schiffmann	The FRMCS documents will not enable to build a system. FRS, SRS, FIS is not on the same level compared to ETCS. Thus, this cannot be any requirement for system certification.	NWC	The FRMCS documents v1 introduced in this revision are targeting the complete definition of the interfaces with ETCS and ATO parts. The general architecture of FRMCS IC is introduced, but no real FRMCS products are expected until FRMCS V2 specifications.	1-SIGNON
4	4	4.2.4.2b	G	Frank Schiffmann	Same as commented against 4.2.4.1b	NWC	See answer to previos comment	1-SIGNON
5	5	4.2.4.3.1b	U	Frank Schiffmann	Why is Level 1 named here? Seems to be only mandatory for ETCS Level 1 plus ATO application. Later on for vehicles in Section 7.3.2 there is a clear split between L1 for Radio Infill with GSM-R and Level R elsewhere in case of FRMCS.	A	clause has been updated, Level 1 is not mentioned anymore, only level R	1-SIGNON
6	6	4.2.5.1.2	U	Frank Schiffmann	"radio" is missing, to link to MNOs. In addition it could be given, that this is a way for early implementation for ATO when FRMCS is not available yet.	A	clause has been updated, MNO is not mentioned anymore in the CCS TSI text. Note: References to the use of MNO is in SS-147 and SS-148.	1-SIGNON
7	7	4.2.12	P	Frank Schiffmann	Change title from ETCS only towards ETCS/ATO	NWC	This proposal has been discussed but not retained as it is considered that ETCS is managing the display information from ETCS and ATO application.	1-SIGNON
8	8	4.2.15	U	Frank Schiffmann	The last sentence seems weak as an requirement. TSI INF and TSI RST focus UIC Leaflet. What shall be the reference here as a compliant vehicle? In addition the naming of harmonised introduction is fine, but can an unnessicity of marker board and light signals derived from this document and annex to TSI OPE? Some installations like Germany add Marker Board to light signals.	R	Art 4.2.15 only defines high-level requirements for the harmonised Marker Boards (definition of interoperable MBs, their optical properties ensuring visibility and their positioning requirements to meet the intended operational purpose). Detailed requirements relative to their visibility under the driver's field of view and infrastructure constraints are set out in the Appendix A 4.2.15b (index 101, doc 21E089 - Engineering rules for harmonised marker boards) under assumption #7: the lateral position of the MB (including height and orientation) relative to the track shall respect the visibility constraints deriving from Appendix F of LOC & PAS TSI (Reg. 1302/2014, as amended) with reference to App. D of UIC Leaflet 651:2002, subject to the constraints of the applicable clearance gauge, which always prevail over any other installation requirement. The kinematic profiles are those defined in EN 15273 1, referenced in art. 5.6 of EN 16494. The size of the MBs shall be determined through art. 5.2.3 of EN 16494. The second part of the comment is not understood. The CCS basic parameter 4.2.15 is is cross-referenced with OPE TSI requirement 4.2.2.8 in CCS Table 4.3.1. There is no conflict if a marker board is added to a light signal.	1-SIGNON
9	9	4.2.17.2	U	Frank Schiffmann	First section seems to weak. The need shall be clearly derived from the function. Otherwise a barrier in track access exists, demanding a generic type of ESC for different trackside installations in the network. This means ESC-Types, RINF and track access criterias must be unique and clear for similar applications but different for different ways. Trackside Approval could be a prestep for this issue. In addition for enabling the assessement demanded in table 6.3 for trackside, the requirements valid for IM/trackside subsystem must be written clearly here in this chapter.	NWC	The ESC/RSC return of experince has been introduced in this revision. The Agency will do a general reflection with the sector in the second half of 2022 on how to approach the future evolution of the testing and validation requirements in the CCS TSI. Your inputs and contributions will be welcomed in that future exercise.	1-SIGNON
10	10	4.2.17.4	U	Frank Schiffmann	Same as commented against 4.2.17.2	NWC	See previous answer	1-SIGNON
11	11	5.3	P	Frank Schiffmann	Table 5.1 Number 1 RBC,Number 9 ATO Trackside: Change FRMCS Trackside towards FRMCS data radio communication	NWC	Comment not understood: there is no FRMCS trackside IC in table 5.2	1-SIGNON
12	12	6.1.2.3	U	Frank Schiffmann	Table 6.3 links to overall chapter 6.1.2. Besides the ESC/RSC is an intermediate mitigiation for achieving the principles stated in 6.1.2 and the subchapters. Several questions occur: - What is the definition here used for the engineering rules now, because the rules of ESC/RSC are changed according TSI Version 2016? - What state does the entries (1) till (3) have from perspective of checks according Table 6.3 now? - How to document the test in case, of not all possible engineering functions and variants are present in a defined trackside subsystem for beeing a base for changes in the subsystem?	NWC	The Operation Test Scenarion are main tool to prove the compliance of the Track Side Subsystem with the TSI. The objective of the ESC/RSC is to demostrate technical compatibility between the on-board and trackside subsystems.	1-SIGNON
13	13	6.3.4	G	Frank Schiffmann	Concerning the new entry (3), it shall be stated that here the meaning of CSM assessment body is the step at the beginning of the project. In addition it shall be marked, that by the NoBo an update of documentation e.g. the Technical File is needed.	NWC	The CSM assessment body shall always be engaged at the beginning of the project. For the NoBo, this is covered by chapter 7 in case of any change.	1-SIGNON
14	14	6.3.4	M	Frank Schiffmann	Table 6.3 Number 9: Under (1) a "(2)" must introduce the second entry for 4.2.16	A	Included	1-SIGNON
15	15	6.3.4	U	Frank Schiffmann	Table 6.3 Number 10: How shall the target "checks are in line with specification" checked, in case of option 2 "valid" test are used? This can only be given if the ESC/RSC covers an information on specification and functions of IM. Otherwise in a project different specification or only parts can be present not fitting to validated ESC/RSC by ERA.	NWC	In case the ESC/RSC are already in "valid" status, the verification has been previously performed by the Agency before publication.	1-SIGNON
16	16	7.2.1b.4	U	Frank Schiffmann	With regard to ESC/RSC what must be ensured now? The 3 years rule is not given here anymore. Is a change of ESC/RSC possible, but a change of track access criteria forbidden for enabling the operation of already certified on-board subsystems? "Shall ensure" is a little bit weak, concerning the new complexe requirements in the TSI and the practical presence of high effort concerning track access criteria in some countries contradicting this approach.	NWC	A transition period definition for the changes in ESC/RSC has been introduced, to be discussed between the IM and Agency to ensure the proper management of changes.	1-SIGNON
17	17	7.2.1.c.2	U	Frank Schiffmann	Last part: Here a statment, "if no further needs of verification is present" could be useful. There could be several triggers in parallel.	NWC	Section 7.2.1c2 refers to the scope, not to the fact if verification is needed	1-SIGNON
18	18	7.2.6	U	Frank Schiffmann	The term "concerned RU's" is not that clear. Are these only the running RUs? But this limit the track access for new RU and might against a free market. In addition, is this limited to new functions of ETCS or also the roll-out? Does this refer e.g. for first implementation of Level R (L3) on a new line? Same applies for 7.4.1.3.	A	Concerned RUs has been replaced by RUs who run services (at the time of establishing the agreement)	1-SIGNON
19	19	7.2.6.2	U	Frank Schiffmann	What is meant with GoA1? This is pure running under Train Control. Functions of ATO come into force in GoA2.	NWC	SS-125 includes DAS functionality which is considered as ATO GoA1 functionality (driver assistance functionality). Note: if ATO is notified by the IM, ATO shall be implemented according to the clause 7.2.6.2	1-SIGNON

20	*20*	7.2.7.3	U	Frank Schiffmann	The first entry is note pure a note, considering the need of impact evaluation and taken mitigiation trackside into account is given to the IM. This shall be given clear as requirement. In addition the 6 month rule must be not only named to TSI, but also to technical opinions and given information e.g. by UNISIG Hazard Log and BCA.	A	See updated proposal. TO will be intregrated into the TSI revision.	1-SIGNON
21	*21*	7.4.1.1	U	Frank Schiffmann	The unchanged requirement seems with regard to (EU) 2017/6 to simple. It is recommended to have a statement, that in case of Highspeed network a ETCS implementation is needed from node to node. This applies also for starting tracks in station, not refering to hihspeed from TSI INS point of view. Otherwise the equipment is usless, if class-B is needed for the first and last mile or any operation in L0 is forbidden by the IM.	NWC	This statement is correct. In the exceptional cases where an IM would not take this logical approach, this will require clear trackside mapping (and this can not be solved by adding a sentence in 4.1.1.1). It is considered that the EDP should align the overall trackside planning including the access to the high-speed lines (as this is done for alignment of the planning of cross-border sections).	1-SIGNON
22	*22*	7.4.1.2	U	Frank Schiffmann	(2): Does this contradict the operation of already certified older versions of on-board or must this assured in addition? (2) and (3) could be misinterpret, that "implement" means require something from the RU instead of doing trackside and measure.	NWC	This should not lead to misinterpretation as this section 7.4.1 is only speaking about trackside requirements.	1-SIGNON
23	*23*	7.4.1.3	U	Frank Schiffmann	Relevant also for other entries. How shall a notification by RINF happen, if the track is not present yet? There is no track edge to fill this information.	NWC	RINF will be adapted in order to announce trackside implementation in future (e.g. RINF will be able to input that ATO will be implemented on line x in year 2031)	1-SIGNON
24	*24*	7.4.4	U	Frank Schiffmann	I miss a central part to develop this view handling all Infrastructure Managers in Member state. This is needed, to take also minor companies in the backbone/last mile into account.	NWC	This is foreseen to be a task of the Member State in order to cover all lines that are part of the TSI scope.	1-SIGNON
25	*1*	7.2.7	G, U	LP	IM members of AGIFI are not integrated into the Agency's CCM. It appears from §7.2.7 that they must now be part of it. Under what procedure should this participation be carried out?	D	To be discussed how practically they can be integrated in the same process.	3.- AGIFI
26	*2*	7.2.7	G,P	LP	The generalization of the error correction process on successive versions of the TSI CCS released every 18 months, may lead to a saturation of the activities of stakeholders and competent technical service providers. We propose that this period between two publications be extended to 2 years so that we can at least complete a full cycle of error correction before starting a new one	NWC	18 month is not defined in the TSI but indicative.	3.- AGIFI
27	*2b*	7.2.7	G	LP	We are surprised that the Agency has not taken financial aspects more into account in the new error handling process. Indeed, specific technical evaluations will have to be carried out by the IMs to be able to answer the ERA questionnaire and evaluate the impact of errors and the corrective measures to be carried out, These evaluations will have to be done by competent external bodies which will have a financial impact on our members.	NWC	The strategy is to move towards an efficient software maintenance proccess for handling error which may prevent normal service. The TSI defines a way forward in case of disagreement between IMs and Rus for solving error corrections, with the target to move to TSI compliant solutions.	3.- AGIFI
28	*3*	7.2.7.1	U, P	LP	§ 7.2.7.1 refers to a questionnaire prepared by the Agency which must receive a response within 3 months of its release. What is the form and content of this questionnaire and how is it distributed? Similarly, how is the summary of questionnaires prepared by the Agency distributed in a transparent manner? We propose that the general error handling process for all stakeholders (manufacturers, RIs and IM) be described more precisely in the CCS TSI guide.	NWC	The details of the process will be provided based on the experience from the previous Technical Opinons. It will be considered for the Application Guide.	3.- AGIFI
29	*4*	7.2.7.3	U, P	LP	In accordance with Directive 2016/797 on the interoperability of the rail system within the European Union, IMs are no longer involved in the Vehicle authorization for placing on the market process (APM) for vehicles and therefore no longer have knowledge of vehicles that have received an APM either from the Agency or the National Safety Authority and that are authorized to circulate or operate on their network. As a result, the IM does not have the possibility to know all the vehicles authorized on his Network except to set up an expensive organization out of proportion to his normal activity. We propose that this paragraph be amended to clarify that the IM opens a consultation with the RUs that have reserved or ordered train paths in order to identify the ERTMS vehicles impacted by the error that the IM deems unacceptable and identify the solutions to be implemented.	NWC	This process has been applied for previous technical opinions and it is considered the most efficient process.	3.- AGIFI
30	*5*	7.2.7.3	P	LP	The 6-month period defined in this paragraph does not seem sufficient to us since a technical evaluation is to be carried out for each error and our members do not have the useful skills within their organization. A tender procedure is to be carried out to find the appropriate technical service provider prior to the completion of the technical study and consultation with the RU, which cannot be achieved within 6 months.	NWC	This process should be integrated and foreseen as part of maitenance of the trackside during the life-cycle of the assest. The proposed timing is the result of the discussion with the stakeholders in the CCS TSI WP.	3.- AGIFI
31	*6*	7.2.7.3	P	LP	To mitigate the effects of the considerations we develop in lines 4 and 5 above, we propose to prioritize mitigation measures if they are equally effective and less costly within an initial 6-month period, then evaluate a complete set of specification errors and estimate the achievable timeline,which would result in a specific agreement between the IM and the RU.	NWC	This is already possible. See footnote #58.	3.- AGIFI
32	*7*	Annexe B2 - CCS Trackside errors	P	LP	Table B2 of Annex B2 provides for a period of 2 years after the entry into force of the TSI for the implementation of the correction of errors identified as unacceptable (7.2.7.1) for the operating soil-based CCS subsystems. It seems to us that this provision should include 2 levels, a first of 2 years which corresponds to the implementation of the correction of errors which allows complete safety for operation of rail traffic, and a second of 6 to 12 additional months which makes it possible to complete all the corrections in order to take into account the cycles of investments on the infrastructures and the deadlines for studying and carrying out the correction of errors.	NWC	Technical Compatibility issues should be also solved to ensure that normal service could be provided.	3.- AGIFI
33	*8*	7.4.2	G, P	LP	Compared to the previous version of the CCS TSI, this paragraph no longer provides for an exception for the ETCS equipment of vehicles. This obligation also applies to vehicles used exclusively for infrastructure work. Among these vehicles, there is a special category, rail-road vehicle which is not intended to circulate outside the particular perimeter defined for works operations on infrastructure and which are subject to specific operating rules. Also, with regard to their destination in terms of activity and the cost of installing ETCS on these vehicles, we propose that these vehicles be excluded from the obligation to equip themselves with ETCS.	NWC	The obligation in relation to special vehicles is for those vehicles which are intented to be operated in runing mode as indicated in Section 1.1. Those modes are defined in EN 14033-1:2017 and further explained in CEN TR 17498:2020. Those references will be added in the CCS TSI Application Guide. If a vehicle is operating only in work mode in the construction area there is no obligation to equip it.	3.- AGIFI
34	*1*	Validity of previous comments	*G*	*UTP*	As the TSI was under a review process when it entered in public consultation, the previous comments that have been expressed in the frame of the Draft TSI #62 / #63 on 30/3/2022 and 25/5/2022 are also valid. Below are expressed the most significant comments on which modifications are expected. They are identified with type ""P"".	NWC	Comments provided in the CCS TSI WP context have been analysed and replied by the Agency. The answer are in the extranet area.	4.- UTP
35	*2*	Specification maintenance : §7.2.7 Appendix B - Table B1, B2 and B3	P	*UTP*	**<u>Specification maintenance (error correction)</u>** Several improvements are needed in the process and the timeline to give the capacity to the actors to correct specification errors that affect the safety of operation with an unacceptable level of performance. The suggested timeline of 18 months appears unbearable. It seems irrelevant to fix it in an arbitrary manner. In addition, the Agency has to keep in mind that the authorization process could add 2 more years (ESS, RSC, Nobo, Debo...) The proposals are: 1/ split the timeline between suppliers and operators (IM and RU) as agreed by ERA and to adjust the default transition timeline for operator to an achievable timeline: • X months for suppliers on one hand (the value of "X" will have to be defined by the industry of suppliers for each batch of corrections - this value bein dependant on many factors : availability of components, production capacity...) and •1 8 months up to 2 years for operators on the other hand, once products are updated and available. 2/ Give a possibility to extend the transition timeline for implementation in the TSI to be able e.g. to link it with the upgrade cycle as already planned by RUs and IMs and agreed. 3/ Clearly specify in the CCS TSI that specification error corrections will have no impact on vehicle authorization and will only lead to a new version of the authorization type. In addition, UTP underlines the fact that the global geopolitical situation places severe constraints on the supply of electronic components. Deliveries to the automotive sector will probably be a priority. It is important to distinguish between 3 levels of designation for suppliers: component manufacturer, sub-system manufacturer, overall equipment manufacturer (OEM), and therefore 3 levels of timelines could be appropriate. UTP strongly believes that a cost benefit analysis needs to be done. Indeed, the cost of error correction ranges between 10 M€ and 33 M€ for a series of 30 to 100 vehicles; for infrastructure it ranges between 3 M€ and 100 M€ for 450 km of line. Facing this potential cost every 18 months appears unsustainable. **UTP emphazises the commitment of the sector to accelerate the process in the case of an error correction concerning a safety element.**	NWC	1.- The timeline is already splitted (overlapped) between the suppliers and RU. 2.- The current 2 years is considered enough to adjust with the planned maintenance of the vehicles 3.- The CCS TSI provides the conditions to be fulfilled to avoid a new authorisation, but it can't be excluded in all cases. The defined proccess is not intended to require a full fleet update every 18 months, but only to the identified impacted cases.	4.- UTP
36	*3*	Refusal of ETCS Baseline 4 in 2022 Appendix A indexes 4 (SS-026) and 60 (SS-104)	P	UTP	**<u>Refusal of ETCS Baseline 4 (System Version 3.0) in 2022</u>** The railway sector needs a consolidated CCS TSI to secure the current deployment which are now conducted according to Baseline 3 with an existing installed base of Baseline 2 infrastructures. A new incompatible Baseline 4 (X = 3 for the System Version) runs contrary to ongoing migration / implementation plans and would lead to unjustified cost increases and therefore hamper the ERTMS deployment. Baseline 3 has been really stabilized with its Release 2 in 2016 and will be greatly improved with the introduction of ATO GoA 1/2. The proposals are: 1/ Postpone all CRs (including CR1370) that trigger a need for a new Baseline (new X of the System Version) of ETCS to the next TSI revision after 2022 2/ Postpone ETCS B4 to its consolidated phase with a complete set of FRMCS specifications and a comprehensive train modularity addressing evolvability and updatability 3/ Address a baseline strategy which is set up towards CCS deployment plans that are sustainable and plannable over 15 to 20 years **For the sector, stability of specifications is necessary. Changing the baseline is only justified in case of fundamental change as it generates costs and complexity.**	NWC	This aspect has been discussed intensively. It is considered that ETCS over FRMCS and ETCS over DAC readiness are important triggers to justify a system version 3.0. This has been part of the EC-mandate. Other CRs are amended which are currently linked to not agreed NTRs for which they can contribute to the overall optimisation when migrating to ETCS system version 3.0 The ETCS system version 3.0 is accompagnied by a strict transition framework which provides at least a 7 years migration window for mandating ETCS system version 3.0 (decommissioning of GSM-R or shunting signals).	4.- UTP
37	*4*	CCS On-board Modularity Table B2 + Appendix A Indexes 81 (SS119), 90 (SS147), 91 (SS121), 92 (FRMCS FFFIS)	P	UTP	**CCS On-board modularity** is highly expected to enable the large-scale roll outs in a healthy competition (i.e. ease of adaption, optimized modularity and reusability for retrofit and new fleets, reach sustainable total cost of ownership and avoid project investment risks) Yet, we have concerns on the maturity level of the current versions of the SS119/SS121/S34 which can be reached for TSI 2022 and related cost implication for error corrections Further alignment on the SS147 is also required, to reach sufficient maturity in the next TSI release. The current CCS TSI considers making those subsets mandatory for new vehicles in the frame of a new design in the TSI 2022 release. The long-term discussion on this subject needs to be solved in ERJU SP for subsequent TSI releases. The proposal is: Set up a close collaboration between CER, UNISIG and ERA to solve this issue and bring the specifications to the required level of details and quality/maturity that will satisfy both industry and users. This should be done in parallel of the further development and setup of the EU's rail System Pillar, as no time should be wasted. On a later moment in time the results of this collaboration can be infused in the ERJU SP. Until then, we therefore consider that those subsets should not be made mandatory.	NWC	EECT review is ongoing to evaluate the maturity of the specifications. Currently, SS-121 is being considered to be taken out of the CCS TSI based on the remaining workload. The SS-119/120/147 are considered mature.	4.- UTP

38	5	6.4.3 and 6.1.1.3	P	UTP	**Request for a clause on exceptional deviations to replace Partial fulfilment** Having products and specification which are 100% compliant with the European specifications is the target, but no products or IC are today 100% conform with the specifications. In case a deviation has no impact on interoperability, technical compatibility, nor safety, it should be possible for the NSA and a NoBo to accept such minor deviations and therefore enable a swift roll-out of ERTMS. For instance, deviations on DMI icons size is a typical example of an acceptable **exceptional** deviation. Proposal : We request to provide in the TSI means to accept partial fulfilment of TSI requirements, or to restore the previous clauses .	R	Those exceptional deviations should be treated as product errors and to be corrected in a reasonable time. In the meantime, the applicant should proposed reasonable conditions for use to mitigation those deviations. The Agency will work on the update of Clarification Note ERA1209-115 to give more details of such process.	4.- UTP
39	6	*7.3.1.2*	*P*	*UTP*	As commonly known V1 of FRMCS specification inTSI 2022 will not be mature enough to develop onboard equipment. In our view this will be possible with the publication of FRMCS V2 via Technical Opinion or next TSI. Due to this fact the transition regime shall not start with the the introduction of FRMCS V1 in the TSI 2022, instead of this with the publication of FRMCS V2. Proposal: Request to provide clarification that RMR V1 is not mature for onboard equipment and a clarification on the exact starting point for the transition regime ("7 yrs counter").	A	the text has been amended and reference to on-board specifications V2 has been made.	4.- UTP
40	7	*CR1370*	*P*	*UTP*	Proposal: to have a harmonised long-term solution of CR1370 (relocation without linking issue), preferably in the TSI 2022. Thereby, it is essential to take into account the short/medium term, by offering a solution to continue operating legally during the time until the implementation of the CR1370 solution can be mandated by the involved IMs.	NWC	There is a solution developed for CR 1370 to be part of the CCS TSI 2022. There are 2 discussions ongoing which must be solved before the CCS TSI 2022 vote: - UNISIG request to evaluate a second variant; - How to handle the transition scheme for current products which operate already with alternative (not specified) solutions;	4.- UTP
41	1		G	Denis Garnier	French NSA has been widely involved in all TSI revisions and among others CCS TSI. For each CCS Working Party, comments were raised in meeting and/or sent in written form to the Agency. The comments sent after each focused mainly on the differences with the document of the previous Working Party. The consultation gives the opportunity of a global view on CCS TSI modifications. The comments are related to CCS project introduced in CCS WP 63. The comments and positions do not only reflect French NSA view but also take into account French sector (RUs, IMs, industry, transport authorities), following exchanges between all French stakeholders during mirror groups or other meetings.	NWC	Comments provided in the CCS TSI WP context have been analysed and replied by the Agency. The answer are in the extranet area.	5.- NSA FR
42	2		G	Denis Garnier	CCS TSI is probably the most affected TSI by 2022 revision. French NSA would like to thank here the Agency for the very high amount of work to prepare this important TSI revision, the good organization of meetings despite the sanitary crisis and the careful reading and answer to all comments.	NWC	The Agency appreciate the comment.	5.- NSA FR
43	3		G	Denis Garnier	For France, it is important that ERTMS deployment and enhancement is done in a progressive, proportionate and realistic manner, taking into account the current situation of Member state, the protection of investments already done and an appropriate cost/benefit analysis of expected gains. The current redaction of TSI project regarding various subjects such as the disparition of national derogations, the removal of partial fulfilment clauses, the process for error correction, modularity and baseline 4 are not in line with national expectations and sometimes go far beyond what is needed for safety and interoperability.	NWC	The Agency has drafted the revision of the TSI in cooperation with the sector organisation following the mandate from the European Commission.	5.- NSA FR
44	4	4.2.2	G	Denis Garnier	The implementation of Cold Movement Detection (CMD) in CCS TSI is welcome. The transition regimes for CMD should rather be defined in chapter 7 and/or in appendix B.	NWC	Appendix B includes the transition scheme; It has been requested to add CMD-functionality explicitly as part of 4.2.2 as this provides more clarify for NoBos which assess the essential requirements	5.- NSA FR
45	5	4.2.6.5	G	Denis Garnier	Transition regimes defined in both paragraphs 4.2.6.5.1 and 4.2.6.5.2 should rather be defined in chapter 7 and/or in appendix B.	NWC	It has been requested to refer to the scope in chapter 4 as this provides more transparency to NoBos.	5.- NSA FR
46	6	4.2.17.2	G	Denis Garnier	Please confirm that if there's no modification between the current ESC and ESC in June 2023, no re-notification is necessary. The existing ESC should be maintained.	NWC	The Agency confirms this. The deadline of June 2023 is for the cases were there is no notification of ESC for existing lines.	5.- NSA FR
47	7	4.2.17.2	G	Denis Garnier	The exact conditions for providing the necessary means, laboratory or access to the infrastructure shall be agreed between IM and the applicant. For infrastructure, we suggest to add a reference to article 6 of regulation 2018/545 (EU). It can't be considered as granted that this supply is immediate and free of charge.	NWC	The content of that section indicates the necesary information to be included in the ESC definition, but it is not in the scope of the CCS TSI to define the contractual arrengments between the parties. The reference to Article 6 of Regulation (EU) 2018/545 is already in the proposal	5.- NSA FR
48	8	4.2.17.4	G	Denis Garnier	Please confirm that if there's no modification between the current RSC and RSC in June 2023, no re-notification is necessary. The existing RSC should be maintained.	NWC	The Agency confirms this. The deadline of June 2023 is for the cases were there is no notification of RSC for existing lines.	5.- NSA FR
49	9	4.2.17.4	G	Denis Garnier	The exact conditions for providing the necessary means, laboratory or access to the infrastructure shall be agreed between IM and the applicant. For infrastructure, we suggest to add a reference to article 6 of regulation 2018/545 (EU). It can't be considered as granted that this supply is immediate and free of charge.	NWC	The content of that section indicates the necesary information to be included in the RSC definition, but it is not in the scope of the CCS TSI to define the contractual arrengments between the parties. The reference to Article 6 of Regulation (EU) 2018/545 is already in the proposal	5.- NSA FR
50	10	5.2.2.2	G	Denis Garnier	We take note of the new redaction here. We understand the need for an open market for IC supply. However, we insist on the need for mature specifications for each IC and for their interfaces. We want to avoid any incompatibility (including the possible ones linked to degraded modes of each component) to be discovered at a late stage and endless discussions between stakeholders for solving the difficulties. We also note this will require in any case a higher work load for entities in charge of delivering authorisations (Agency, NSAs) (interfaces check). Regarding the possible grouping within a same part or different parties, it should be precised which IC could be grouped.	A	The text 5.2.2.2 has been amended in the last months to better clarify the scope. If specifications are not considered mature, they will not be integrated (e.g. the TDS IC remains under discussion)	5.- NSA FR
51	11	6.1.1.3	G	Denis Garnier	We see the suppression of the possibility of partial fulfilment as a major step backwards. We understand the suppression of this clause corresponds to the willingness of having at term for all vehicles a kind of "Go everywhere" ETCS. Even if this is possible, there are other limitations linked to the railway system (voltage, gauge, platform height, etc.) or even not (climatic conditions) that will limit the utilization of the vehicle. Furthermore in France, vehicles used for regional or local services are usually not the property of the RU but of the regional transport authority. In case a new RU wins a contract with a regional transport authority, the vehicles are transferred from the previous RU to the new one. Vehicles are usually used within the territory of the region, with a possible utilization until a main station of an other region or of an other country. Regional transport authorities are of course free to transfer, sell, etc. their vehicles but this happens rarely enough not to justify the permanent ability of the vehicle to be used everywhere in Europe. Minor deviations should also be allowed. Please also note this may require a higher amount of verifications by entities in charge of delivering authorisations (Agency, NSAs) and therefore an increased workload. Proposal for amendment: "6.1.1.3 Partial fulfilment of TSI requirements With regard to checking if essential requirements are fulfilled through compliance with the basic parameters, and without prejudice to the obligations set out in Chapter 7 of this TSI, control-command and signalling interoperability constituents and subsystems that do not implement all functions, performance and interfaces as specified in Chapter 4 (including the specifications referred to in Annex A), can obtain EC certificates of conformity or, respectively, certificates of verification, under the following conditions for issuing and using the certificates: (1) The applicant for EC verification of a trackside control-command and signalling subsystem is responsible for deciding which functions, performance and interfaces need to be implemented to meet the objectives for the service and to ensure that no requirements contradicting or exceeding the TSIs are exported to the on-board control-command and signalling subsystems. (2) The applicant for EC verification of a on-board control-command and signalling subsystem is responsible for deciding which functions, performance and interfaces will be implemented in addition to the ones needed for the area of use of the vehicle (the current ones and the ones notified through RINF for future placing in service). For the area of use, the operation of this on-board control-command and signalling subsystem, shall not be subject to conditions and limits of use due to compatibility and/or safe integration with trackside control-command and signalling subsystems. Minor deviations not threatening neither safety nor interoperability are allowed. If a control-command and signalling interoperability constituent or subsystem does not implement all functions, performance and interfaces specified in this TSI, the provisions of point 6.4.3 shall apply."	R	The definition of minor deviations was considered not possible by the Agency in the CCS TSI WP meeitngs. If some functionality in the TSI is not realy needed to reach the interoperability target, it should be discussed and agreed in the relevant Agency WP, but it should be a common agreement and not a case by case choice. In any case it remains possible to request a non application of the CCS TSI according to Interoperability Directive Article 7 for econimical reasons. The Interoperability Constituent needs to fulfil all the requirements, but inside SS-034 it is specified which functionalities may not be available at subsystem level in case some RST input signals to CCS are not provided.	5.- NSA FR
52	12	6.2.3 (3)	G	Denis Garnier	The "information to the customers" should be understood only as a targeted information to the customers with which the supplier is in contractual relationship and as non targeted information (information available on supplier's website for example).	A	Changed to "impacted entities"	5.- NSA FR
53	13	6.4.3	G	Denis Garnier	In relationshipo to paragraph 6.1.1.3 amendment proposal, please find hereafer an amedment proposal for paragraph 6.4.3.1 and 6.4.3.2: 6.4.3Partial fulfilment of the requirements due to limited application of the TSI 6.4.3.1Interoperability constituents If an interoperability constituent does not implement all functions, performance and interfaces specified in this TSI as allowed in section 6.1.1.3, an EC certificate of conformity may only be issued if the unimplemented functions, interfaces or performance are not required to integrate the interoperability constituent into a subsystem for the use indicated by the applicant, for example , (1)the on-board ETCS interface to STM if the interoperability constituent is intended for installation on vehicles in which no external STM is needed; (2)the RBC interface to other RBCs, if the RBC is intended for use in an application for which no neighbouring RBCs are planned. The EC certificate of conformity (or accompanying documents) for the interoperability constituent shall fulfil all the following requirements: (1)it indicates which functions, interfaces or performance are not implemented; (2)it provides enough information regarding possible impacts on safety, interoperability or other aspects (ergonomy). The functions partially implemented shall be identified in a single document accompanying the EC certificat of IC and Subsystem. Possible impacts on safety, interoperability or other aspects (ergonomy) should be identified. 6.4.3.2Subsystems If a control-command and signalling subsystem does not implement all functions, performance and interfaces of this TSI (e.g. because they are not implemented by an interoperability constituent integrated into it), the certificate of verification shall indicate which requirements have been assessed and possible impacts on safety, interoperability or other aspects (ergonomy).	R	See answer to comment #11	5.- NSA FR

54	14	Tables 6.1a, 6.2 and 6.3	G	Denis Garnier	More precision should be added about the documents to be provided (column "supporting evidence")	NWC	The content of column "supportign evidence" are in line with current published text (EU) 2016/919 and its amendmends. We are not aware about issues on following the same approach. However, additional clarification can be provided in the AG.	5.- NSA FR
55	15	7.2.3	G	Denis Garnier	Regarding the paragraph: "If trackside that fall [..] Class B Systems", we understand the requirement of this paragraph is met with the existence of the following products: - for "KVB" Class B system: standardized interface (clause (1) of paragraph 4.2.6.1; - for "TVM" Class B system: Class A and Class B integrated within the same equipment (e.g. "bi-standards") (clause (3) of paragraph 4.2.6.1. Please note there are some cases where two Class B system are simultaneously required (example: KVB on TVM high speed lines). These products are currently available and suppliers' names (one for each Class B system mentioned above) are mentioned in national means of compliance linked to vehicle national rules. However, the supply of these components relies on entities in which the Member State is not involved. The Member State cannot commit to ensure the availability of these products until the decommissioning of corresponding Class B system, it can only make its best effort to find a solution in case these products are no more available. Amendment proposal: "If trackside that fall within the scope of this TSI are not equipped with the Class A train protection system, the Member State shall make sure a Specific Transmission Module (STM) or products and/or specifications that would allow the integration of its legacy Class B train protection system with the Class A on-board system exist. Solutions with STM shall be privilegied. In case the products are not available anymore, the Member State shall make its best efforts to find a solution. For lines equipped with more than one Class B system, the requirement applies to at least one of these Class B systems."	NWC	we consider it is covered by the sentence : "In this context, due regard is to be given to ensuring an open market for Class B and STM under fair commercial conditions. If, for technical or commercial reasons the availability of an STM or a Class B with its complete interface specifications to a class A system cannot be ensured, the Member States concerned shall inform the Committee referred to in Article 51(1) of Directive (EU) 2016/797 of the underlying reasons for the problem and of the mitigation measures that it intends to put into place in order to allow operators — and in particular foreign operators — access to its infrastructure"	5.- NSA FR
56	16	7.2.3	G	Denis Garnier	Regarding the sentence: "The Member State shall notify the specifications of the interfaces between class A and class B on-board train protection system within 1 year after the entry into force of the TSI.": this requirement cannot be fulfilled for clause (3) of paragraph 4.2.6.1 in which Class A and Class B are integrated in the same equipment. This requirement cannot have for effect to annihilate the possible solution of clause (3) mentioned above. Furthermore, for all clauses mentioned in paragraph 4.2.6.1 except the STM interface (1), the specifications for interfaces between class A and class B may be covered by intellectual property and therefore not made publicly available. We are also not sure this is technically feasable for some class B systems. Proposal for amendment: "For clauses (2) and (4) of section 4.2.6.1, if they exist and if not protected by intellectual property, the Member State shall notify the specifications of the interfaces between class A and class B on-board train protection system within 1 year after the entry into force of the TSI."	NWC	Having those specifications available is the only way to allow an open market for class A system.	5.- NSA FR
57	17	7.2.3	G	Denis Garnier	Regarding the paragraph: "Member States shall ensure [...] in rolling stock." For all four clauses mentioned in paragraph 4.2.6.1 except the STM interface (1), the specifications for class B product may be covered by intellectual property and therefore not made publicly available. We are also not sure this is technically feasable for some class B systems. See comment 15 for intake of this sentence. The sentence subject of this remark shall be removed.	NWC	Having those specifications available is the only way to allow an open market for class A system.	5.- NSA FR
58	18	7.2.3	G	Denis Garnier		NWC	Empty comment	5.- NSA FR
59	19	7.2.6.2 (2)	G	Denis Garnier	This requirement cannot apply for occasional circulations (transfer of vehicles for maintenance purposes, special vehicles, etc.) Amendment proposal: (2) ATO on-board: except for rare or occasional circulations (IM circulations, circulations for vehicle maintenance, etc.), the fitting of ATO in a CCS on-board Subsystem is mandatory when implementing ETCS for the first time into the vehicle and the vehicle is also intended for use on a line including at least one section equipped with ATO where the IM has notified in RINF the services requiring mandatory ATO on-board implementation. Where ATO GoA1/2 functionality is implemented on ETCS on-board, the specifications of ATO in Appendix A of this TSI shall be applied.	A	The exceptions are amended by point 7.4.3.2: 7.4.3.2 Member States may decide to exclude from the obligations to equip special vehicles (such as rail/road vehicles, shunting locomotives or infrastructure construction and maintenance equipment) with ETCS, RMR or ATO on a specific area of use if the operation of these vehicles are not intended for running mode and it does not prevent the Class B decommissioning. This shall be notified and shall be listed in the Network Statement as part of article 27 of the Access Directive 2012/34/EU.	5.- NSA FR
60	20	7.2.7.1	G	Denis Garnier	The new proposed process will requires an additional workload for the Infrastructure managers. In particular, the obligation for IMs to assess all CRs will require new resources and might not be achievable for all IMs today.	NWC	This part of the maintance of the life cycle of the trackside assets.	5.- NSA FR
61	21	7.2.7.2	G	Denis Garnier	Manufacturers shall have the possibility not to implement error corrections related to items, functions, etc. which are not implemented or used for the area of use of vehicles. See comment to Appendix B for transition requirements (allowed duration for correction implementation). The duration to be defined has to take into account the nature and the amount of corrections to be implemented and the return of experience of all stakeholders.	NWC	For existing vehicles, if the functionality is not used in the area of use, it can't be impacted for the error correction, so this proposal is already included.	5.- NSA FR
62	22	7.2.7.3	G	Denis Garnier	The IM shall not have the possibility here to define an error as "unacceptable" if this error was not previously identied as "unacceptable" in the process described in § 7.2.7.1. On the opposite, it may be possible that an error considered as "unacceptable" at a general level can becomes "acceptable" at the level of a IM network because the related functionality is not implemented or used or because the IM and RUs can find sustainable mitigation solutions for all parties. We still don't see the legal mean for an IM to identify the vehicles authorised to run on their networks or being authorised that have not implemented a solution in the context of 4th RP. Please explain This paragraph does not define the impact neither on trackside nor on vehicles authorisations of error correction. This is a major issue for the sector, with possible infrastructure unavailability and vehicles immobilisations and for entities in charge of delivering authorisations (Agency, NSAs), with a probable significant increase of work load. As well as for partial fulfilment, the proposals above (implementation of error correction only needed for the area of use, mitigation solutions) have for purpose to limit to what is strictly necessary the errors correction. See comment to Appendix B for transition requirements (allowed duration for correction implementation). The duration to be defined has to take into account the nature and the amount of corrections to be implemented and the return of experience of all stakeholders.	NWC	This process has been applied for previous technical opinions and it is considered the most efficient process.	5.- NSA FR
63	23	7.3.1.2	G	Denis Garnier	Current FRMCS specifications are not mature yet. Only the next version of specifications should be considered for the starting of condition 1.	A	the text has been amended and reference to onboard specifications V2 has been made.	5.- NSA FR
64	24	7.4.2.1 and 7.4.2.2	G	Denis Garnier	There are some discrepancies between the wording of these and the one from appendix B related to transitions. "Newly built" vehicles don't exist in appendix B. We see in fact no real content for these paragraphs; they should only refer to the appropriate sections of appendix B.	NWC	Appendix B provides the clarification on the impact on the different vehicle authorisation cases.	5.- NSA FR
65	25	7.4.2.4	G	Denis Garnier	Vehicles that are not equipped yet with ETCS shall only install ETCS if ETCS is implemented or foreseen to be implemented (according to § 7.4.1 and corresponding RINF notifications) in the extended part of the area of use. Partial fulfilment according to § 6.1.1.3 shall be possible. The area of use of vehicles may be extended for other reasons than ETCS and the obligation of ETCS installation may be an obstacle for extending the area of use.	NWC	The requirement is to remove exemptions not to install ETCS. In the past, some applicants restricted the initial area of use to one Member State where there was no obligation to install ETCS and shortly afterwards extended the area of use in order to avoid the installation of ETCS. This practice has led to this TSI clause.	5.- NSA FR
66	26	7.4.2.6	G	Denis Garnier	FRMCS and train integrity specification being not mature enough and given some uncompatibilities between version 2.2 and version 3.0, the introduction of version 3.0 on the basis of this current TSI revision project seems too early and would probably bring more disvadvantages than improvements.	NWC	It is considered that ETCS over FRMCS and ETCS over DAC readiness are important triggers to justify a system version 3.0. This has been part of the EC-mandate. Other CRs are amended which are currently linked to not agreed NTRs for which they can contribute to the overall optimisation when migrating to ETCS system version 3.0 The ETCS system version 3.0 is accompagnied by a strict transition framework which provides at least a 7 years migration window for mandating ETCS system version 3.0 (decommissioning of GSM-R or shunting signals).	5.- NSA FR
67	27	7.4.2.6.2	G	Denis Garnier	The requirement for ETCS version should to be checked at type authorization only. Any ground modification announced through RINF during a vehicles delivery period shall not lead to the implementation of different versions on board and therefore to the creation of different vehicles versions or variants, which exactly goes at the opposite of sector's needs for stability. In case of difficulty during the vehicles delivery period, the best solution has to be found between IM and RU directly. Amendment proposal: A vehicle type shall integrate the appropriate ETCS on-board IC with the required envelope of legally operated ETCS system versions as defined in 7.4.2.6.1. The required envelope of legally operated ETCS system versions shall be defined based on the notified system versions in RINF for the intended area of use of the vehicle. The vehicle type shall implement the ETCS system version which complies as a minimum to the notified ETCS system version which become applicable in the next 5 years according to the timeframe in Appendix B, when: (1)installing for the first time the ETCS part of a Control-Command and Signalling On-board Subsystem; or (2) upgrading the ETCS part of a Control-Command and Signalling On-board Subsystem already on the market in such a way that it changes the functions of the subsystem. This does not apply to modifications deemed necessary to implement error corrections as stated in 7.2.7; In case the envelope of legally operated ETCS system versions is modified during vehicle production, an agreement should be found between IM and RUs.	NWC	The overal agreeement to change the system version is defined in the NIP (see section 7.4.4). Section 7.4.2.6.2 provides the minimum set of implementation rules to be respected.	5.- NSA FR

68	28	7.4.3	G	Denis Garnier	In addition to positions expressed regarding partial fulfilment, error correction and extension of area of use, the role of Member State regarding ETCS implementation has to be maintained; therefore the whole paragraph 7.4.3 should be kept as in current TSI. Please note that the article 3 of French order of 11/06/2019, replaced by the French order of 09/12/2021, was taken in application of the current § 7.4.3, sets conditions for vehicle equipment until the end of 2024. The revised TSI shall be compatible with this order regarding the transition periods. Please note that Member State view may be expressed by other means than the only answer to consultation (RTE-T negotiation, etc.).	NWC	The exemptions are removed based on the EDP trackside implementation requirements (see report EY). THe overall objective is to have both trackside and on-board deployment in a coordinated way.	5.- NSA FR
69	29	7.4.3.2	G	Denis Garnier	This new paragraph goes in the right direction for its content and the role given to Member State. However, we don't understand clearly what are "specific shunting locomotives" and what could be a shunting locomotive in non running mode. We also maintain our position regarding the non equipment of trains dedicated to local passengers service, which should not be equipped in a systematic matter but only if needed for operational purposes.	A/R	Only the reference for the special vehicles is kept and the others are kept as examples. It is always possible to request a non application for some local passenger vehicles providing the applicables jusitifications, for those exceptional cases.	5.- NSA FR
70	30	7.4.4	G	Denis Garnier	In paragraph "Member States shall develop […] last mile connection.", explain what are these last miles connections. Branch lines out of directives scope cannot be taken into account (industrial tracks, etc.). Regarding the sentence "Member States shall report on the needs expressed by the railway undertakings and the infrastructure managers for the CCS subsystem and report on the implementation agreements made for the expressed needs.", we confirm it's useful to inform the European Commission about stakes and difficulties related to ERTMS deployment. But we see as too demanding the requirement for setting an agreement between all stakeholders and to have to notify it to the European Commission. Regarding the sentence "The Commission shall draw up an analysis of the national implementation plans that shall encompass among others comparison of the plans and identification of needs for additional coordination measures.", the Commission shall not impose a solution if te coordination doesn't bring the expected results. Regarding the sentence "details on the benefits they provide for capacity, safety, reliability and performance aspects",it seems not realistic to have a detailed study for each line. What is the details level expected here?	D	NIP requiremetns to be discussed between Member States and the European Commision in the RISC meetings.	5.- NSA FR
71	31	7.6.1	G	Denis Garnier	The date for the closure of specific cases shall be linked to the dismantling of class B systems. At the time being, the date of 2040 is Agency's and Commission's proposal but not yet part of a legal text. The outcome of discussion on legal texts shall not be anticipated here.	D	Specific Cases final wording is to be discussed between Member States and the European Commision in the RISC meetings.	5.- NSA FR
72	32	7.6.2.3	G	Denis Garnier	The quoted text (SAM S 003) is a national acceptable means of compliance but not a national rule. Having it quoted as such a legal text may raise legal issues. Only the table sent should be copied here.	D	In the framework of unique authorisation this existing specific case needs to be revised so it directly refers to a national requirement structured in the same way as the interface document. The reference to the SAM is removed. The demostration of compliance is the vehicle test method as specificied in section 3.2.2.6.	5.- NSA FR
73	33	Appendix B	G	Denis Garnier	Regarding error correction: - the time needed for implementing a batch of error correction shall be agreed for each CCS TSI limited revision, depending on the size of the batch. In any case, the two years may be too short. - the applicant shall have the possibility to limit the corrections to what is needed for the area of use of the vehicle.	NWC	- If for a specific batch a longer timing is required, it will be included in the TSI revision which contains that batch. - The approach after 2025 is that is more effective in the long term, once one vehicle is impacted by an error, to included all the known error corrections.	5.- NSA FR
74	1	2.3	P	Kevin Norris	What transmission system is required? Needs to be more specific, it should detail that an IP-based TCP/IP network is required. It even talks about making a legacy TDM based system compatible with ETCS /FRMCS which is Ludacris.	NWC	Details of transmission will be included in the Appendix A documents.	6.- EWR
75	2	3.1	P	Kevin Norris	What about Cyber security for critical subsystems that may have 3rd party connectivity, thorough assessments need to be carried out on vendor's equipment.	NWC	Cyber security requirements for ETCS and ATO are included in the Appendix A index 10d subset 146	6.- EWR
76	3	7.2.2	P	Kevin Norris	All legacy systems should be recovered and uplifted to a modern base technology	R	The policy is that Class B system should be decomissioned and the traget modern tecnology is ERTMS.	6.- EWR
77	4	7.2.6.2	P	Kevin Norris	ATO- No breakdown of the ATO categories, each category would require a different network architecture, and needs to be more specific around- GOA0 GOA1 GOA2 GOA3 GOA4	NWC	ATO specifications and ATO categories are covered in SS-125 (point 5.1.1.4 - table 1). SS-125 includes ATO GoA1 (DAS) and ATO GoA2 functionality	6.- EWR
78	1	Validity of previous comments	G	CER	As the TSI was under a review process when it entered in public consultation, the previous comments that have been expressed in the frame of the Draft TSI #62 / #63 on 30/3/2022 and 25/5/2022 are also valid. Below are expressed the most significant comments on which modifications are expected. They are indentified with type "P".	NWC	The Agency has provided answers to the comments provided in the context of the CCS TSI WP. The answer are available in the Agency Extranet WP area, as all the other comments received in the Working Party recommendation process.	7.- CER
79	2	Specification maintenance : §7.2.7 Appendix B - Table B1, B2 and B3	P	CER	Specification maintenance (error correction) Several improvements are needed in the process and the timeline to give the capacity to the actors to correct specification errors that affect the safety of operation with an unacceptable level of performance. The **proposals** are: 1/ split the timeline between suppliers and operators (IM and RU) as agreed by ERA and to adjust the default transition timeline for operator to an achievable timeline: •X months for suppliers on one hand (the value of "X" will have to be defined by the industry of suppliers for each batch of corrections) and •18 months up to 2 years for operators on the other hand, once products are updated and available. 2/ Give a possibility to extend the transition timeline for implementation in the TSI to be able e.g. to link it with the upgrade cycle as already planned by RUs and IMs and agreed. 3/ Clearly specify in the CCS TSI that specification error corrections will have no impact on vehicle authorization and will only lead to a new version of the authorization type.	NWC	1.- The timeline is already splitted (overlapped) between the suppliers and RU. 2.- The current 2 years is considered enough to adjust with the planned maintenance of the vehicles 3.- The CCS TSI provides the conditions to be fulfilled to avoid a new authorisation, but it can't be excluded in all cases.	7.- CER
ET	3	Appendix A, Table A2	P	CER	Sectoral agreement requested prior to adoption of ETCS Baseline 4 (ETCS System version 3.0) and RMR Baseline 1. We need stabilisation of the applicability of ERTMS technology. More generally, a stable Baseline roadmap makes it possible to gain control over the roll-out of ERTMS and its continuation. We see limited incentives to invest for the CCS European market from 2023 if there is no sufficient functional added-value and if the specifications are not yet at a sufficient level of maturity to give confidence in the roll-out. **Proposed way forward**: A sectoral agreement between all economic actors is needed to guarantee that deployment in Europe is conducted under a long-term planning of the evolution of the specifications for ETCS and RMR. A major change in system version is taken when the considered step is significant for the roll-out and when it meets customer needs (given the improved competitiveness of the final product). Each mandatory evolution for the On-Board equipment is clearly motivated by the needs of the railway undertakings to reach the market share development and the capability of suppliers to implement a stable solution for new technologies in IC and rolling stock.	NWC	This aspect has been discussed intensively. It is considered that ETCS over FRMCS and ETCS over DAC readiness are important triggers to justify a system version 3.0. This has been part of the EC-mandate. Other CRs are amended which are currently linked to not agreed NTRs for which they can contribute to the overall optimisation when migrating to ETCS system version 3.0 The ETCS system version 3.0 is accompagnied by a strict transition framework which provides at least a 7 years migration window for mandating ETCS system version 3.0 (decommissioning of GSM-R or shunting signals).	7.- CER
81	4	CCS On-board Modularity Table B2 + Appendix A - Indexes B1 (SS119), 90 (SS147), 91 (SS121), 92 (FRMCS FFFIS)	P	CER	CCS On-board modularity is highly expected to enable the large-scale roll outs in a healthy competition (i.e. ease of adaption, optimized modularity and reusability for retrofit and new fleets, reach sustainable total cost of ownership and avoid project investment risks) Yet, we have concerns on the maturity level of the current versions of the SS119/SS121/SS34 which can be reached for TSI 2022 and related cost implication for error corrections Further alignment on the SS147 is also required, to reach sufficient maturity in the next TSI release. The current CCS TSI considers making those subsets mandatory for new vehicles in the frame of a new design in the TSI 2022 release. The long-term discussion on this subject needs to be solved in ERJU SP for subsequent TSI releases. The **proposal** is: Set up a close collaboration between RU's/IM's, supply industry and ERA to solve this issue and bring the specifications to the required level of details and quality/maturity that will satisfy both industry and users. This should be done in parallel of the further development and setup of the EU's rail System Pillar, as no time should be wasted. On a later moment in time the results of this collaboration can be infused in the ERJU SP. Until then, we therefore consider that those subsets should not be made mandatory.	NWC	EECT review is ongoing to evaluate the maturity of the specifications. Currently, SS-121 is being considered to be taken out of the CCS TSI based on the remaining workload. The SS-119/120/147 are considered mature.	7.- CER

82	5	6.4.3 and 6.1.1.3	P	CER	Request for a clause on exceptional deviations to replace Partial fulfilment Current status: TSI chapters about "partial fulfilment" are deleted. Products have to implement all functions in 100 % compliance to the CCS TSI, even if some functions are not requested for the area of use. Partial fulfilment has been quite a common practice until today, all projects make use of this as it enables rolling stock owners to decide what functionality is needed to operate in their chosen area of use. For the future, this must be changed and all functions within the interoperable system core (= all mandatory requirements) must be implemented. Our common goal should be the interoperability and safety of the rail network system – the compliance to the specifications is a means to that goal, not an objective in itself. **Proposal** way forward: /1 Exceptional deviations may be necessary when resulting from immature requirements, (introduced for new functions), immature test cases or errors in the specifications;. /2 Exceptional deviations with the CCS TSI are to be further described for the TSI text. An exceptional deviation is a deviation discovered during the integration, verification or validation activities; /3 Conformity to the CCS TSI is the expected outcome of any project and product. When exceptional deviations have no impact on interoperability, technical compatibility, nor safety, the TSI should clarify how a NoBo can accept deviations in order to avoid blocking projects and products; /4 If the reason for deviation is an error in a specification or in a test case, it has to be ensured by processes that the corresponding requirement or test case is further analysed and if needed corrected; /5 Without a new formulation on the acceptance criteria for deviations and the core functionalities on which it applies, the chapters should remain as in the former CCS TSI	R	For the necesary deviations in case of error found in the specifications during the development of the products, section 6.5 of the CCS TSI should be applied and the process will be clarified in the revision of the VA Clarification Note 115.	7.- CER
83	6	7.3.1.2	P	CER	As commonly known V1 of FRMCS specification inTSI 2022 will not be mature enough to develop onboard equipment. In our view this will be possible with the publication of FRMCS V2 via Technical Opinion or next TSI. Due to this fact the transition regime shall not start with the the introduction of FRMCS V1 in the TSI 2022, instead of this with the publication of FRMCS V2. **Proposal**: Request to provide clarification that RMR V1 is not mature for onboard equipment and a clarification on the exact starting point for the transition regime ("7 yrs counter").	A	the text has been amended and reference to on-board specifications V2 has been made.	7.- CER
84	7	CR1370	P	CER	**Proposal**: to have a harmonised long-term solution of CR1370 (relocation without linking issue), preferably in the TSI 2022. Thereby, it is essential to take into account the short/medium term, by offering a solution to continue operating legally during the time until the implementation of the CR1370 solution can be mandated by the involved IMs.	NWC	There is a solution developed for CR 1370 to be part of the CCS TSI 2022. There are 2 discussions ongoing which must be solved before the CCS TSI 2022 vote: - UNISIG request to evaluate a second variant; - How to handle the transition scheme for current products which operate already with alternative (not specified) solutions;	7.- CER
85	1		G	Alstom	Concerning the CCS TSI we fully support the comments submitted by UNISIG.	NWC	The Agency take note of your support to the comments provided by UNISIG.	8.- Alstom
86	1	4.2.1.1	U	F.Parmentier	The scope of chapter 4 is to describe the characteristics to be meet by the subsystem. 4.2.1.1 is extending the scope by defining that the assessment of this criteria needs to be performed by a CSM Assessment Body. This is contradicting the basic principle of the EC verification activities performed by the NoBo. To be reformulated as the NoBo is competent to assess the compliance of the product with all the requirements of the TSI that apply to it (including 4.2.1) and by applying the methodology(ies) defined by the TSI. The applicant may decide to appoint a CSM Assessment Body instead of a NoBo for the evaluation of the product according to 4.2.1. In such a case, the NoBo will accept the report drafted by a CSM Assessment Body in respect of the provisions of the TSI in combination with the ones of Implementing Regulation (EU) 402/2013. Therefore the correct application of the risk management process as set out in Annex I of the Regulation (EU) N° 402/2013, as well as the appropriateness of the results from this application in the framework of this TSI, shall be independently assessed by the Notified Body performing the conformity assessment; who shall take into account assessment activities performed by a CSM assessment body in any. Such CSM assessment body shall be accredited or recognised	R	The comment is on existing text in the TSI which simply moved from section 3.2.1 into section 4.2.1.1, without extending or reducing the scope. In addition to that, the comment is raised during Public Consultation instead of being raised and discussed in the Working Party with all other representatives. The CCS TSI does not change at all the NoBo responsibility for the 'EC' verification of confomity defined by the Interoperability Directive 2016/797, and thereby does not contradict in any manner the EC verification activities to be perfomred by the NoBo. However, the CCS TSI cannot modify the responsibility of EU legislation concerning the assessment of compliance with the process in Annex I of Reg. 402/2013 According to Regulation 402/2013 independent safety assessements shall be carried out by a body which is accredited, or recognised, vs. the requirements and criteria in Annex II of Reg. 402/2013. The CCS TSI cannot allow that the applicant appoints a NoBo which has not been accredited, or recognised, to act as an AsBo vs. the requirements and criteria in Annex II of Reg. 402/2013. 'EC" verifciation assessments and "independent assessments of the proposer's risk assessments" are tow different types of work for which the body must demonstrate (during accreditation/recognition) to have the knowledge and competence. Concerning the relation between the NoBo and the AsBo, and the acceptance by a NoBo of the AsBo report is clearly specified in the on-going revision of the ERA assessment scheme for the NoBos. The comment cannot be accepted	9.- NB-RAIL
87	2	4.2.1.1	U	F. Parmentier	Specifications as referred in Appendix A, Table A3 are de facto appropriate means of compliance with the CSM-RA methodology.	R	The text is existing. None in the Working Party requested its amendment. The Agency does not understand what is the improvement. In addition to that, the CCS TSI allows (under conditions) the use of other standards than those in Table A3, whereas the proposed wording seems to restrict only to those of Table A3.	9.- NB-RAIL
88	3	4.2.1.1	G	F. Parmentier	Additional text on the correct application of the assessment of the risk management process as the reference to the means of compliance avoiding unnecessary duplication of indepenent assessment work should be part of Chap. 6 instead of Chap. 4 of the TSI as this addition text is related to Assessing activitites and not to Characterisation of the Subsystems.	R	This comment is raised too late in the revisionprocess of the CCS TSI. Such a fundamental modification of the text without prior discussion within the Working Party could compromise teh adoption of the reviesed text. Independently of that, it would be a mistake to dissociate teh requirement for using the CSM-RA for the risk assessment, and the standards in Table A3 as acceptable means of compliance with the requirements of th CSM-RA.	9.- NB-RAIL
89	4	6.1.1.1	G	F. Parmentier	Assurance of this compliance shall be provided by the Notified Body : (1) assessing the conformity of the IC .... (2) verifying the subsystems	NWC	Reference to section 6.2.1, 6.2.2, etc. makes clear that the compliance shall be demonstrated by assessment performed by a NoBo. The textc is in line with current published text (EU) 2016/919 and its amendmends. We are not aware about issues on following the same approach.	9.- NB-RAIL
90	5	6.3.3 (3)	U	F. Parmentier	The intention of the requirement is not clear in regard to: - responsibility of the NoBo at IC level - responsibility of the NoBo at subsystem level. The impact of a change of the compliance of the subsystem with the TSI can only be assessed by the subsystem NoBo and not by the IC NoBo or the AsBo. IC NoBo certificate / conformity assessment report and AsBo report are welcome as input for the subsystem NoBo as it remains unclear how the "confirmation" shall be reported.	NWC	The NoBo is reponsible for the assessment made at IC or Subsystem level. If all the changes have no impact outside the IC, the TSI does not require the NoBo to do a subsystem assesment. This was proposed and agreed at the CCS TSI WP meetings.	9.- NB-RAIL
91	6	6.3.3 (3)	U	F. Parmentier	It is unclear if the requirements addresses already authorised subsystems or soely ongoing projects.	NWC	This requirement is for all projects that are modified due to the application of the specification maintenance procedure defined in section 7.2.7.	9.- NB-RAIL
92	7	6.4.4	U	F. Parmentier	6.4.4. to be aligned with 6.4.1 concerning the 'parts of subsystem'.	A	Section reworded to be aligned with 6.4.1.	9.- NB-RAIL
93	8	Appendix A Table A3	U	F. Parmentier	Name of Table A3 should be aligned with the text below concerning "means of compliance".	NWC	Title/name of the table refers to its content. I.e. mandatory standards. The text below is a clarification on the use of such standards in the certification proces. We dont see the need to modify the title/name of the table.	9.- NB-RAIL

94	1	7.6.2.12 Ireland - 4.2.12 ETCS DMI "The ETCS DMI interface (including keyboard and display facilities) as well as any other ETCS functions shall facilitate the employment of alphanumeric train running numbers as defined in the national rule notified for this purpose. *Comment: This augments but does not replace the other TSI requirements for management of train running numbers, so that all new equipment shall remain also fully compatible with the interoperability requirements.* *A transition to pure numeric train numbers shall thus become possible and is envisaged as soon as the train management systems in Ireland are all equipped for pure numeric train running numbers."*	P	Reviewer 1	It is proposed to remove this requirement on the basis that Irish Rail does not require the driver to enter the train runing number on the ETCS DMI. This will be either hard coded in the EVC or transferred from the GSM-R radio module to the ETCS.	D	Specific Cases final wording is to be discussed between Member States and the European Commision in the RISC meetings.	10.- Irish Rail
95	2	7.6.2.12 Ireland	P	Reviewer 1	The follwing requirement is proposed to be added to this section: "The ETCS DMI shall be configurable so that it can show the speed in mph in addition to the standard km/h display. The configurable options shall be as follows; •Display the speed dial in both km/h and mph in the Figure below, as indicated as an example for the 180km/h configuration: •Display the speed dial in km/h only *Comments: This augments but does not replace the other TSI requirements for management of the driver interface, so that all new equipment shall remain also fully compatible with the interoperability requirements.* *A transition to the pure km/h speed dial shall thus become possible and is envisaged as soon as the Irish network is fully fitted with ETCS or all lineside speed restriction signs can be changed to km/h (i.e. all existing trains present a km/h speedometer)."*	D	Specific Cases final wording is to be discussed between Member States and the European Commision in the RISC meetings.	10.- Irish Rail
96	3	7.6.2.12 Ireland	P	Reviewer 1	The follwing requirement is proposed to be added to this section: "The ETCS DMI shall -only allow the driver to set the Staff Responsible mode related speed restriction to 30 km/h or 80 km/h" *Comments: This resticts the range of speed selectable in Staff Responsible mode to reduce safety risk and align with the existing rule book of Irish Rail .*	NWC	This comments was withdrawn by the author.	10.- Irish Rail
97	1	7.4.2.1	G	W. Blotnicki	The obligation to install the ETCS system on vehicles intended for the construction and maintenance of railway infrastructure is too strict. These vehicles, such as excavators, move at a very limited speed and the ETCS system is not necessary for them. In view of the above, I am proposing to alleviate this condition, e.g. by making the need to install the ETCS system dependent on the speed of the working vehicle. **Proposal:** Relaxation of the obligation to install the ETCS system for equipment and vehicles intended for the construction and maintenance of railway infrastructure or leave the content of point 7.4.2.1 as in the previous version of TSI CCS	NWC	The obligation in relation to special vehicles is for those vehicles which are intented to be operated in runing mode as indicated in Section 1.1. Those modes are defined in EN 14033-1:2017 and further explained in CEN TR 17498:2020. Those references will be added in the CCS TSI Application Guide. If a vehicle is operating only in work mode in the construction area there is no obligation to equip it.	11.- Budimex
98	1	All the document	G	F. Iannello	Since the latest TSI emission in 2016, these, including the future "TSI 2022" emission, have been constantly reviewed in several ways (TO, CR, etc.). The experience tells us that both the instability of the reference specifications and the continuous run-up to developments make the network more and more heterogeneous, very little interoperable and much more expensive, eventually stretching the ERTMS implementation targets on the network itself. Furthermore, the NSAs contribute to worsen the situation by both subjectively interpreting those specifications and emitting national implementing regulations or integrative restrictive provisions. Therefore, it should be appropriate, once reached a maturity level good enough to guarantee a long absence from specification (hopefully 8 to 10 years, thus until the end of Europe's Rail's works), to take the TSI update as a benchmark.	NWC	In this TSI revision there are elements introduced to decouple the necesary maintenance of the TSI and the specification documents, to remove the identified errors, from the longer perspective introduction of new functionalities, that are more likely to introduce new errors and the need of more frequent maintenance.	12.- ASSIFER
99	2	All the document	G	F. Iannello	The main European countries are involved into an important short/medium-period rollout plan based both on the TSI currently in force and on the National Specifications issued by Infrastructure Operators. Continuous TSI's as well as National Specifications' updates make the substantial investments in which providers are involved often vain. Ongoing contracts, as well as contracts to be allocated, both for ground and on-board subsystems, shall not and could not be impacted by any of the possible TSI (or CR) updates, since they do not comply with the Infrastructure Operators' expectations. Such a process will bring to a non-application of the new TSI even in future rollouts, unless appropriate backwards compatibility strategies between the TSI versions.	NWC/D	The error correction procedure targets to solve part of the issues mentioned in the comment Details on national coordination and the NIP to be discussed in RISC between the Member States and the European Commission.	12.- ASSIFER
100	1	Chapters 4.2.4, 4.2.5	G		CCS TSI relies very strongly on the technical documents, which lays down the functional and technical specifications to be met by the Subsystems and their interfaces vis-à-vis other subsystems. Due to the time constrain the FRMCS related specifications, which are mainly defined in TSI's Annex chapter 4.2.4 Mobile communication functions for railways RMR and chapter 4.2.5 RMR, ETCS and ATO air gap interfaces, are based on limited functional and technical specifications. Therefore Finland encourages continuing of the development work to complement these technical specifications and include also the scenarios of using commercial mobile networks as part of the TSI according to the mandate of the European Commission on spectrum for the future railway mobile communication system contained the Task 4: "Study and assess the technical feasibility and scenarios of using commercial mobile networks, taking into account wireless coverage and reliability needs of the railway system." The answers to the all questions raised in the Commission mandate were answered in CEPT Report 74 (https://docdb.cept.org/download/132). Detailed investigation on the feasibility and scenarios of using commercial mobile networks is contained in section 7 of that report. The report concludes e.g. that "from a technical point of view, the use of commercial mobile networks for critical railway applications is possible under the condition that the relevant parts of the MNO's network fulfil the stringent interoperability, coverage, availability and QoS requirements of railways (including prioritisation and pre-emption)" and that "for the retention of the railway interoperability, the EIRENE SRS and CCS TSI should be amended to make the use of commercial mobile networks possible." Finland urges ERA to take into account the conclusions of this CEPT Report and act accordingly to safeguard railway interoperability within the Union.	NWC	FRMCS V1 specifications do not encompass yet the use of commercial mobile networks, but will be covered in V2 of the FRMCS specifications.	13.- NSA FI
101	1	CCS TSI	G	2	As FOT participates in the TSI CCS WP (Michael Riemenschnitter) there are only few additional comments in the framework of this public consultation.	NWC	Noted.	14.- NSA CH

102	2	4.2.1.1 (1)	U	1	The general risk management procedure according to Regulation (EU) 402/2013 should be also found in the SMS processes and procedures of the RUs and IMs. In this sense, implicitly, the "changes" mentioned under 4.2.1.1(1) for the ETCS Class A system should also be carried out according to the requirements of Regulation (EU) 402/2013. Why Reg. (EU) 402/2013 is not mentioned more explicitly in the TSI CCS draft proposal also under point 4.2.1.1 (1)?	NWC	In terms of risk control, the reviewer is right: all risks shall be identified and managed by an RU/IM, not only those arising from significant changes. However, neither the CSM for SMS (Regulation 2018/762), nor Reg. 402/2013 make compulsory the use of the risk management process in Annex I of Reg. 402/2013 for non significant changes. The RU/IM is free to use other processes that shall be defined in the SMS. For those reasons, when dealing with repairs or preventive maintenance (e.g. replacement of a defective balise) according to the prescriptions of the RU/IM SMS (based on manufacturer's maintenance manuals), they can be discharged from applying the process in Annex I of the CSM-RA. They already have procedrues in their SMS for managing that kind of changes. On the contrary; bullet (2) considers the case where the RU\IM would act as a designer (i.e. work of a manufacturer). In that case, it cannot be relaxed from applying the same process as a manaufacturer would do if it was appointed to carry out the design. Those are the reasons for differences between bullets (1) and (2)	14.- NSA CH
103	3	4.2.1.1	U	1	The following comment concerns the paragraph: *"Additionally, the correct application of the risk management process as set out in Annex I of Regulation (EU) No 402/2013, as well as the appropriateness of the results from this application, shall be independently assessed by a CSM assessment body according to Article 6 of that Regulation. There shall not be restrictions with respect to the type A, B or C of independence of the CSM assessment body permitted by Regulation (EU) No 402/2013. The appointed CSM assessment body shall be accredited or recognised according to the requirements in Annex II of Regulation (EU) No 402/2013 in the field of 'Control-Command and Signalling' sub-system, as listed in item 5 'classification' of ERADIS database entry for Assessment Bodies."* Why not simply "assessment body" is used in a harmonised way accross the text above, as it is the case in art. 6 of Reg (EU) 402/2013? If there is no particular reason for this, we would propose an editorial change to use "assessment body" in singular instead of "CSM assessment body" and "ERADIS database entry for Assessment Bodies". The following comment concerns the paragraph: *"The accreditation, or recognition, in the field of 'Control-Command and Signalling' sub-system, covers the CSM assessment body competence to independently assess the 'safe integration' at the level of an ETCS subsystem, or an ETCS Interoperability Constituent."* We would propose the following editorial change "assessment body's" instead of "assessment body".	NWC	**First part of the commnet:** No, the comment cannot be implemented as it would introduce confusion. "Assessment body" is a generic term whi does not designate only an AsBo. So to avoid thinking that a NoNo or DeBo could equally replace an AsBo, it is preferrable to keep CSM Assessment Body. Concerning the last spelling "ERADIS database entry for Assessment Bodies" it has to be written like that because it is spelled as such in ERADIS. ERADIS does not use AsBo or "CSM Assessment Body". **Second part:** The possessive form with " 's " is grammatically not correct in English. It is to be used only for human beings. In addition to that, it would be necessary to make the same change across the wholde document, for consistency reasons. The Agency does not see the added value it would bring. It is thus preferrable not to proceed to such a change of this moment of revision of the CCS TSI.	14.- NSA CH
104	4	4.2.1.1	U	1	We don't understand why the expression "specifications" is used, when a reference to "Appendix A, Table A 3" is made, where only "mandatory standards" are mentioned. For the sake of an easier understanding, we thus propose to replace the expression "specifications" by the expression "mandatory standards". In this context, we also propose to replace the sentence "When different specifications from the ones referred to in Appendix A, Table A 3 are applied, at least equivalence shall be demonstrated with the specifications in Appendix A, Table 3." There is a certain redundancy by the sentence "When different standards form the ones referred to in Appendix A, Table A 3 are applied, at least equivalence shall be proven."	A	The text is amended according to the comment. The application of the standards as referred in Appendix A, Table A 3 is… and …When different standards form the ones referred to in Appendix A, Table A 3 are applied, at least equivalence shall be proven.	14.- NSA CH
105	1				The CCS TSI takes the first steps towards the industrialisation, standardisation and modularisation of ERTMS, in order to create an easily modifiable and cost-effective European safety system. However, there is no agreement yet on how to achieve these goals. The Netherlands believe this is partly due to the lack of sufficient European and national funding and the lack of clear central direction. Regarding the CCS TSI, a number of change requests have not been addressed due to lack of time. NL considers it important that these change requests are included in the next revision of the CCS TSI (2025). The chapter on partial fulfilment has been deleted in the CCS TSI. The consequence is that subsystems have to fulfil all requirements of the TSI, which means that ERTMS systems that are partially compliant with the TSI cannot be certified anymore. This has a potential impact on ongoing and planned rolling stock projects, as it is unlikely that the industry will be able to comply in the short term. It is expected that this could lead to delays in the roll-out of On-Board Units. NL asks whether there is a migration period, when the new CCS TSI comes into force. The CCS TSI includes a modified process for error corrections. The Netherlands support the standardised roll-out of ERTMS. However, the changes are expected to have a significant financial impact for the RUs. NL therefore requests an extended transition period. NL asks ERA to perform an integral impact assessment (see also the general comments) to determine, among others, how a negative impact can be prevented/minimised. The CCS TSI introduces for the first time a framework for the migration to the new TSI requirements (both infrastructure and rolling stock). When previous TSIs were published, it was not always clear if and when which new TSI requirements had to be met. This led to discussions during the authorisation process or during the expansion of the operating area. NL therefore supports the principle of the migration framework. One of the new requirements introduced by this TSI is the obligation to equip new vehicles with Cold Movement Detection (CMD). NL recognises the added value of this feature.	A	The Agency CCM process for solving CR is a continuous process and will continue after the TSI revision. The migration period for the removal of the partial fulfilment clauses is detailed in Appendix B. There is a qualitative impact assessment without financial data, due to the lack of reliable inputs from the sector. The error correction process only defines how to handle disagreements between RU and IM on identified unacceptable errors. The Agency take note of the support for the migration and transition requirements and CMD introduced.	15.- NL Ministry
106	2	Specific Cases			In CCS TSI 7.6. Specific Cases it is stated under 7.6.1. to be removed before 2040 (case 'T'). In TSI CCS 7.6.2.11 it is stated that the Dutch Specific Case for ATBEG has been classified as temporary and therefore has to be removed before 2040. However, in the Netherlands ATB must first be phased out before GRS can be phased out. Depending on our impact assessment of the TEN-T revision, the deadline of 2040 is not feasible for the Dutch situation. Underlying the L&P TSI and CCS TSI is the interface document ERA/ERTMS/033281. The latest version does not support (any more) non-coded track circuits such as GRS, as futureproof interoperable system. The Netherlands is one of the few countries that still have non-coded track circuits. The related technical requirements are currently defined by national technical rules, complementary to a specific case. NL notes that a discussion with ERA is ongoing and that NL is waiting for a final outcome of this discussion before NL comes with a final position on this subject.	D	Specific Cases final wording is to be discussed between Member States and the European Commision in the RISC meetings.	15.- NL Ministry
107	1	Global	G	Dieter Michels	We are against the change of name from level 2 to level R because: •It will create a lot of misunderstandings because ETCS level 2 will be used for many years in onboard units on the DMI and thousands of train drivers use for the moment the name level 2. •A very large number of documents have to be changed, just to change level 2 into level R. •Using a letter to indicate a ETCS level has consequences for the pronunciation. In not every language its is pronounced in the same way and when you follow the TSI OPE appendix C.1 the driver has to say "level ROMEO" (We prefer level 2…). Level 3 is for the moment not really in use, so very few users (train drivers, signalers) use the name "level 3". For merging level 2 with level 3, it seems far more logic to keep the name level 2 and to add the optional train integrity to level 2.	NWC	THis comment has been discussed in the CCS TSI WP. The users (EUG) consider it important to provide clear transparency that the merging is don by creating a new icon 'R'. Note: it has been indicated that the DMI change from '2' to 'R' can be done by amending it by 1 overall clause and updating the complete set of documents once they need to be upgraded, e.g. when implementing Level R using train integrity (formerly ETCS Level 3).	16.- SNCB
108	1	Partial fulfilment, former chapter 6.1.1.3	U	1	In the proposed text certification with deviations has been deleted. For ongoing or new ERTMS onboard upgrade projects this could be a blocking issue. Such projects are unlikely to be feasible without deviations. It is noted that onboard installations according to previous specifications may require hardware changes for full compliance with current specifications. Such changes are likely to be prohibitive from a cost perspective and could block software upgrades which would improve interoperability and safety for the trains. It is unclear if and how this will affect: 1. Ongoing projects according to previous or current B3 specifications, 2. Upgrade of existing ERTMS equipped trains from previous specifications(e.g. B2 or earlier) to B3.	R	It remains possible to request a non application of the CCS TSI according to Interoperability Directive Article 7 for econimical reasons.	17.- Bandedanmark
109	2	4.2.2 On-board ETCS functionality (2)	P	1	The note explains that the requirement is only applicable for "newly developed vehicle designs". It is not clear how this related to the terminology of VA (2018/545) "Type Authorisation" and "Authorisation to place on the marked". In order to prevent misunderstanding it would be preferable to relate the definition of "newly developed vehicle designs" to the terminology of 2018/545. The terminology "newly developed vehicle designs" is used in several other places of the TSI text as well.	A	A footnote has been included in the current version with a reference to 'first authorisation' :Newly developed vehicle designs requiring a first authorisation as defined in Article 14 clause 1(a) of Commission Implementing Regulation 2018/545 are considered vehicle designs where the NoBo assessment covers the complete RST subsystem in the framework of a new vehicle design.	17.- Bandedanmark
110	3	Annex B table B1, error corrections	U	1	In the transition regime for Production phase and vehicle in operation the delineation before and after Jan 1st 2025, makes it unclear what applies in the case b). A next TSI release (TSI2025) is likely to be applicable from Jan 1st 2025. Please clarify if: 1. The error corrections of the TSI2022 only applies in full for these onboards together with the error corrections of the next TSI2025 with an implementation deadline of 1st Jan 2027? or 2. The error corrections of the TSI2022 applies in full for all onboards with a deadline of 1st Jan 2025.	NWC	The error correction procedure is not formally linked with the TSI revision cycle, but it will be overlapped with the TSI 2025, which does not have a fixed date yet. Note: In your example we can consider it is point 1.	17.- Bandedanmark

111	*4*	Table B1, row Appendix A - 7.4.2.6.1 and 7.4.2.6.2	P		1	For GPRS which is mandatory now in system version 2.1 the transition period seems misaligned with the operational needs. To use GPRS it would now need notification and it could not be mandated until 2029 at the earliest. This could be a problem for many current ERTMS deployments in nodes/stations. It is suggested that v2.0 and v2.1 in the TSI since 2016 need a shorter transition regime from v2.2 and v3.0 introduced in the TSI2022.	A	It should normally not be a problem for many current ERTMS deployments compared to today's situation as today ETCS system version 2.1 can not be mandated at all with the current TSI in force, while in TSI 2022 it will be possible to mandate it according to a transition period. Appendix B will indicate different transition regimes. A shorter timeframe for mandating system version 2.1 will be possible compared to mandating the new system version 2.2 and 3.0 whihc require some development time.	17.- Bandedanmark
112	*5*	7.3.1.2	U		1	The conditions for taking GSM-R out of service is likely challenged by the availability of the FRMCS specifications and products. Assuming that the FRMCS specifications are delivered and published in the TSI end of 2025, then end of 2032 is the earliest time for switching off GSM-R under the assumption that products and solutions for FRMCS are available and implemented. The cost of keeping GSM-R in service until then may be high and some networks may have difficulty ensuring support and system maintainance so long. In order to achieve a switch off in 2032 a notification must be made end of 2027 which are likely to be very early in the development and implementation cycle for FRMCS on the railways.	NWC	The comments are noted.	17.- Bandedanmark
113	*6*		G			The suggested amendments to the "TSI CCS" regulation contains inter alia stricter requirements for compatibility between onboard and infrastructure, the requirements for certification by an independent third party (NoBo) and removes access to technical exemptions. There is still a general access to derogations in Article 7 of the Interoperability Directive (2016/797) itself, but it seems that the usability of this provision and type of derogation will be limited by the new TSI. In 2017, Banedanmark obtained a general derogation from the interoperability requirements in TSI CCS 2016, which enables approval of trains with the current onboard solution provided by Alstom. The derogation is issued by the Danish Transport Authority and was accepted in 2017 by the European Railway Agency (ERA). When the regulation implementing the new TSI-CCS enters into force, this derogation will have to be renewed. It is immediately considered difficult to obtain a dispensation with similar terms on the basis of the new TSI requirements, as access to "partial compliance" dispensations is deleted from the new TSI. It is thus of paramount importance to Banedanmark that the possibility of obtaining a dispensation on terms that the supplier is able to live up to are clarified within a short time frame. If this is not achieved, it is expected to have significant consequences for the Signal Program's equipment plan for trains and may ultimately prevent the introduction of ERTMS in the infrastructure as provided for in Banedanmark's construction plan and the national ERTMS implementation plan.		The TSI can't modify the Directive Articles if not explicitely mentiond. CCS TSI can't limit the applicability of Art 7 of Interoperability Directive, so they are still possible to be requested and granted, even if the partial fulfillment clauses have been removed. Non application requests are addressed to the European Commission. The Agency has no direct role on the acceptance of the non application, just consider if they are granted or not in the Vehicle Authorisation or Trackside Approval activities.	17.- Bandedanmark
114	*1*	7.6.2.12 Ireland - 4.2.12 ETCS DMI "The ETCS DMI interface (including keyboard and display facilities) as well as any other ETCS functions shall facilitate the employment of alphanumeric train running numbers as defined in the national rule notified for this purpose. *Comment: This augments but does not replace the other TSI requirements for management of train running numbers, so that all new equipment shall remain also fully compatible with the interoperability requirements.* *A transition to pure numeric train numbers shall thus become possible and is envisaged as soon as the train management systems in Ireland are all equipped for pure numeric train running numbers."*	P	Reviewer 1		NSA IE supports the Irish Rail proposal to remove this requirement on the basis that Irish Rail do not require the driver to enter the train runing number on the ETCS DMI. This will be either hard coded in the EVC or transferred from the GSM-R radio module to the ETCS.	D	Specific Cases final wording is to be discussed between Member States and the European Commision in the RISC meetings.	18.- NSA IE
115	*2*	7.6.2.12 Ireland	P	Reviewer 1		The follwing requirement is proposed to be added to this section: "The ETCS DMI shall be configurable so that it can show the speed in mph in addition to the standard km/h display. The configurable options shall be as follows; •Display the speed dial in both km/h and mph in the Figure below, as indicated as an example for the 180km/h configuration: •Display the speed dial in km/h only *Comments: This augments but does not replace the other TSI requirements for management of the driver interface, so that all new equipment shall remain also fully compatible with the interoperability requirements.* *A transition to the pure km/h speed dial shall thus become possible and is envisaged as soon as the Irish network is fully fitted with ETCS or all lineside speed restriction signs can be changed to km/h (i.e. all existing trains present a km/h speedometer)."*	D	Specific Cases final wording is to be discussed between Member States and the European Commision in the RISC meetings.	18.- NSA IE
116	*3*	7.6.2.12 Ireland	P	Reviewer 1		Irish Rail propose to add the following requirement to this section: "The ETCS DMI shall -only allow the driver to set the Staff Responsible mode related speed restriction to 30 km/h or 80 km/h" *Comments: This resticts the range of speed selectable in Staff Responsible mode to reduce safety risk and align with the existing rule book of Irish Rail .*	NWC	This comments was withdrawn by the author.	18.- NSA IE

117	1	**TSI CCS, Appendix B, page 135-136**	M	Daniel Wuhrmann	**The deletion of the partial fulfilment provision is incompatible with European law in various respects. It violates the right to freedom to conduct a business under Article 16 CFR (1.), and the planned legal act is also disproportionate within the meaning of Article 5 (4) TFEU (2.) and equally incompatible with the right to equality under Article 20 CFR (3.).** **1. Infringement of the right to freedom to conduct a business** The Union and its institutions are directly bound by the CFR. Accordingly, the rights under the CFR must also be taken into account in the legislative process, i.e. in the revision of the TSI. This also includes the right to entrepreneurial freedom from Art. 16 CFR. The content of the fundamental right overlaps in parts with that from Art. 15 CFR, freedom of occupation, although it is disputed whether the latter is only applicable to private individuals. In this respect, only Art. 16 CFR is referred to here. "The protection afforded by Art. 16 includes the freedom to pursue an economic or business activity," esp. "free competition." (ECJ , C-283/11 - Sky Österreich, 22.1.2013 para.42; C-101/12 - Schaible, 17.10.2013 para.25; C-134/15 - Lidl, 30.6.2016 para.28; C-277/16 - Polkomtel, 20.12.2017 para.50: Sasse, EuR 2012, 628 f.) The commencement and termination of the entrepreneurial activity as well as all aspects of its implementation are protected. The same applies to the way in which one manages and operates one's business, in particular to the disposal of economic, technical and financial resources. Especially the aspect of the implementation of entrepreneurial activity will have to be affirmed regarding corresponding regulations. An encroachment on a fundamental right, and thus a restriction of a fundamental right, exists if a party obligated by a fundamental right adopts a regulation that is intended to cause a disadvantage for the holder of the fundamental right regarding the entrepreneurial activities. All measures that have "sufficiently direct and significant effects on the free exercise of the profession" are covered. This also applies to the discontinuation of a favourable regulation, since it has the same effect as a burden. This interference cannot be justified and is therefore unlawful. In the present case, it is already doubtful whether the restriction in the form of the deletion of the exemption from items 6.1.1.3 and 6.4.3 of the Annex corresponds to the objectives of the Community serving the common good. It may be undisputed that interoperability regulations serve Community objectives. Interoperability leads to deeper cooperation and networking, which leads to desirable economic cooperation, especially in the railroad sector. Therefore, it also makes sense to define uniform standards in this respect to ensure interoperability. However, it is doubtful whether the deletion of the regulations in question will promote interoperability. It should be borne in mind that the current regulations have already led to interoperability of the radio systems, but in a different way. Abolishing this privilege would probably lead to a relief in the short term in the context of the examination process, since corresponding exceptions probably lead to a higher examination effort, but in the medium term even an opposite effect could be achieved.	R	The mandate from the European Commission to the Agency for the revision of the TSIs, which are under public consultation, in action #14 ERTMS deployment requirements, requires the Agency to support a coherent deployment of ERTMS throughout the railway network within the Union. The partial fulfulment provisions on the CCS TSI open the door to a non harmonised deployment of ERTMS through rail system in the European Union. The target of the CCS TSI is to provide the optimal level of harmonisation to ensure the essential requirements. In any case is always possible to request a non-application of the TSI following the cases described in Interoperability Directive (EU) 2016/797 Article 7. The Agency is responsible for its recommendation to the European Commission in line with the applicable EU requirements establishing the revision procedure for TSI revision. The legislative process entails checks of the legal proposals at numerous instances before adoption of a legally binding text.	19.- Reuchlaw
118	2	**TSI CCS, Appendix B, page 135-136**	P	Daniel Wuhrmann	**For the reasons set out in section 1, it is mandatory to keep clauses 6.1.1.3 and 6.4.3.**	R	See previous answer	19.- Reuchlaw
119	3	**TSI CCS, clause 7.2.7. et al**	M	Daniel Wuhrmann	**The proposed regulations on error correction are incompatible with European law. They violate the requirement of certainty (1.) and are also incompatible with the right to freedom to conduct a business under Art. 16 CFR (2.). They also infringe the prohibition of retroactivity, which derives from the rule of law (3.).** **1. Violation of the requirement of certainty** According to the requirement of certainty, legal provisions with adverse consequences for individuals and companies must be clear, specific, and foreseeable in their effects. However, the requirements for the definiteness of a standard depend on its inherent content. Thus, standards that are accompanied by sanctions will have to meet higher requirements than purely descriptive standards. Overall, the more serious the obligations, the more specific and concrete the requirements of a standard must be. The proposed amendments to the error correction do not meet this standard. The specific scope of any updating obligations regarding errors to be corrected cannot be foreseen at the time the product is placed on the market. Although this is not a sanction, the standard does impose specific obligations on the manufacturer. The standard neither specifies in detail what is to be understood by a defect, nor when it is necessary to rectify a defect. It will be seen as quite too undifferentiated if every error is to be accompanied by a chargeable update. This is because non-safety-relevant errors are also conceivable, for which an update is also sufficient in the context of the next cycle. **2. Infringement of the right to freedom to conduct a business, Art. 16 CFR** The scope of protection is also affected according to the above-mentioned standard, since additional legal obligations are imposed on entrepreneurs, which actually and financially burden them during their entrepreneurial activities. However, such interference cannot be justified. From the point of view of manufacturers, the standard is disproportionate. The standard places a one-sided and excessive burden on them. The standard has legal effects for manufacturers that cannot be expected of them. It is true that it must be possible for the standard setter to improve errors, but the corresponding proposals in their current form are formulated too unilaterally and place an excessive burden on manufacturers. It is incomprehensible why manufacturers alone and at their own expense should correct errors made by the standard setter. It should be borne in mind in this context that this is not a case of warranty for defects. In such cases, the manufacturer is not responsible for the defectiveness of the product: At the time of the transfer of risk, the manufacturer delivered a product that conformed to the standard. The defectiveness is due to a subsequent normative act. It is unreasonable to impose the risk on the manufacturer alone. The design proposed here leads to a one-sided burden that completely disregards the interests of the manufacturer. It is therefore disproportionate. **3. Infringement of the prohibition of retroactivity** The existence of a retroactive effect is to be assumed against the background of the actual effects of the error correction. Thus, the regulations lead to the situation that a situation which has at least begun in the past is affected to the disadvantage of the manufacturer: Insofar as products that fully complied with the legal requirements at the time they were placed on the market are denied conformity with those requirements by a later "correction" of those same regulations, it is difficult to dismiss a retroactive effect out of hand.	R	The mandate from the European Commission to the Agency for the revision of the TSIs, which are under public consultation, in action #15 Incorporation of error corrections, requires the Agency to provide a mechanism for a swift correction of errors. The CCS TSI does not address the market aspects and contractual relations between suppliers and operators for the maintenance of the subsystems and products. The proposal on the CCS TSI for error corrections describes the necessary maintenance process to solve the identified specification errors which impacts safety and interoperability which prevents the normal operation of the railway system, and therefore not addressing the essential requirements from Directive. Therefore the Agency don't consider the proposal as illegal or in conflict with market aspects. The Agency is responsible for its recommendation to the European Commission in line with the applicable EU requirements establishing the revision procedure for TSI revision. The legislative process entails checks of the legal proposals at numerous instances before adoption of a legally binding text.	19.- Reuchlaw
120	4	**TSI CCS, clause 7.2.7. et al**	P	Daniel Wuhrmann	**The proposed regulations should either be removed from the draft altogether or provided with a cost provision that does not disadvantage manufacturers.**	R	See previous answer	19.- Reuchlaw
121	1	section 4.2.17.2	P	1	*Infrastructure Managers, with the support of the ETCS suppliers for their network, shall submit to the Agency the definition of the necessary checks on their network. The minimum information that should be included:* *(1) Definition of each check to be performed* *(2) Criteria to pass each check* *(3) If a check is only required for trains compatible with a specific M_VERSION functionality,* *(4) If checks are to be performed in laboratories or on the track, the respective locations shall be specified.* *(5) Contact details in order to request the performance of each check* *(6) Description of the representative configuration of a check whenever defined by the relevant IM to be performed in a laboratory,* *(7) Specification of the transition period between the new version of ESC Types definition and prior version, or the national procedure. It shall also be indicated the validity of the previous ESC Types.* According with the point 2.6.14 & 2.6.23 of application guide, point (3) it is only applicable to RSC, not for ESC. Therefore, only it would by right in 4.2.17.4 of next CCS TSI 2022. Also, it is included (6) and (7) regarding what it is included in application guide. **Proposal:** To update the point 2.6.14 and 2.6.13 of Application Guide in consequence.	NWC	The CCS TSI will be updated and aligend with the revised TSI, after the positive opinion for the RISC Committee. The work is currently plan to be performed during 2023	20.- NSA ES
122	2	section 4.2.17.1 & 4.2.17.3	P	1	*Regarding responsibilities for incompatible errors reported during ESC/RSC checks. Effectively, in the application guide annex 5 flowchart there are steps to deal with issues while executing the checks.* We understand is very important to harmonize the complete process, and it is considered very useful principles referred as additional guidance on the execution of the ESC/RSC refer to Annex 5 (ESC principles) and Annex 6 (RSC principles). Nevertheless, it would be very difficult to use the information to force the involved stakeholders to follow the principles marked in both annex if is only include as in the application guide, i.e., not as mandatory requirements. **Proposal:** In the own CCS TSI to make clearly reference to the Annex 5 and to the Annex 6. For example: o In the following paragraph of 4.2.17.1: *Using the ESC principles provided in the CCS TSI Application Guide Annex 5. The ESC of the specific on-board CCS subsystem with respect to one or more ESC Type(s) is laid down in the ESC Statement. The template provided in Appendix C.1 shall be used.* o In the following paragraph of 4.2.17.3: *Using the RSC principles provided in the CCS TSI Application Guide Annex 6. The RSC of the specific on-board CCS subsystem with respect to one or more RSC Type(s) is laid down in the RSC Statement. The template provided in Appendix C.3 shall be used.*	NWC	The Application Guide is by nature an informative document. If some parts of them are to be made mandatory, the proper procedure is copy the relevant part into the TSI. This has been already done for several parts of ESC/RSC. At this stage of the CCS TSI Revision is dificult to consider to include more elements from the Application Guide into the CCS TSI, but the Agency do a general reflection with the sector in the second half of 2022 on how to approach the future evolution of the testing and validation requirements in the CCS TSI. Your inputs and contributions will be welcomed in that future exercise.	20.- NSA ES
123	3	section 7.2.5	P	1	In the CCS TSI appears the following paragraph: *The Member State concerned may restrict the use of an on-board Class B system on lines where the corresponding system is not installed trackside* . It is not clear which is the *"corresponding system"* , and it is understood is Class B. In that case, for better understanding, our **proposal** would be indicate it specifically as: *The Member State concerned may avoid ~~restrict~~ the use of an on-board Class B system on lines where the Class B system ~~corresponding system~~ is not installed trackside.*	A	As proposed, except change of "restrict"	20.- NSA ES
124	4	section 7.2.7.1. / Appendix B	U		As expressed before, the error correction specifications to be included in the next TSI include all the BCAs and TOs produced so far. Which will be the scope included in the questionnaires to be sent by ERA following the new TSI?	D	To be discussed during the drafring of the questionnaires to find the appropiate balance.	20.- NSA ES
125	5	section 7.4.1.2	U		This chapter allows to exceptionally continue to use former set of specifications #1 under the described conditions and as long as the intended scope and plan is sent to the European Commission 2 years after the publication date of this TSI. It should be interpreted that there is no legal restriction in the frame of the new single set of specifications to continue to use this former set of specifications in projects and the relevant constituents from the very next day of the TSI publication, bearing in mind that the intented scope and plan may have not been sent yet (deadline: 2 years after publication).	NWC	The set #1 can still be used for trackside before the two years notification process. Note that all other conditions in the section shall be fulfilled.	20.- NSA ES
126	6	Annex B2	P	1	Regards transition regimes for CCS Trackside Subsystems, include in the table of Annex B2, for Marker-board definition based on 06E068 (index 38). Index 101 will be included in the annex A, the current available draft for this index is the following: "Harmonised_MB_overview_table_V0.16.xlsx" where it is included in the sheet 'assumptions&definitions' detailed for different use cases where standard MBs shall be used. It is considered neccesary to clarify in transition regime also this assumption, in base that the provisions governing the migration to these marker boards respect current investments and do not enforce the replacement of existing marker boards before this would otherwise be due. Therefore, proposal to clarify this point it is neccesary to include: Detailed provisions for applicable requirements for fitting the harmonised Marker Boards are stated in the Appendix A – Table A.2 – Index 101 document.	A	Included	20.- NSA ES
127	1	4.2.1 (1)	P	Siebert	It is common practice that constraints are exported to other subsystems and/or entities. Of course, these should be limited to the absolute minimum. However, it should be described how the case should be handled that requirements cannot be solved on a certain subsystem level.	NWC	This section gives requirement for the target system as described in this TSI. TSI non application (entirely or for a part of the TSI) is described in Interoperability directive	21.- Vossloh

128	2	4.2.1.1	U	Siebert	Does the following passage mean that trackside is allowed to export any constraint to the on-board system? This does not seem to be appropriate to us. *"Nevertheless, less stringent safety requirements are acceptable for trackside ETCS provided that, in combination with TSI-compliant Control-Command and Signalling On-board subsystems, the safety level for the service is met."*	NWC	It means that for on-board the requirement is SIL4. Higher safety level required for on-board by the trackside would be considered as an exported constraint and not accepted	21.- Vossloh
129	3	7.2.1a.4	U	Siebert	Why is it a condition that no SRAC or interoperability constraint is removed?	NWC	The removal of a Condition for Use may also lead to the need of a new authorisation, for example, removing the restriction of not operating in ETCS. Therefore it has been considered that the current wording was not appropiate and deleted.	21.- Vossloh
130	4	7.4.2.6.1.	U	Siebert	How shall the notified ETCS system versions which become applicable in the next 5 years be known? Why is the reference to appendix B made / which timeframe is meant?	NWC	Notifications will be implemented in RINF (Future RINF will allow to announce future changes in infrastructure, e.g. indicating in 2023 that on lines ATO will be implemented in year 2032). Appendix B provides more details as the transition regime for vehicles is depending on the state in which they are (design phase not yet started; design phase started; production phase; vehicle in operation).	21.- Vossloh
131	5	7.2.6.2	G	Siebert	Why shall ATO implementation be optional for trackside while it is mandatory for On-Board?	NWC	It is only mandatory on-board if implemented on trackside (and notified by the IM)	21.- Vossloh
132	6	7.4.2.6.1.	M	Siebert	Ch. 7.4.2.6.1. should propably be 7.4.2.6.3	A	Corrected	21.- Vossloh
133	1	7.2.5	P	ASSTRA	"Rolling stock may be equipped with both Class A and Class B systems to enable operation on several lines. The Member State concerned may restrict the use of an on-board Class B system on lines where the corresponding system is not installed trackside. A vehicle equipped with both class A and class B shall demonstrate technical compatibility with trackside Class A on lines double equipped with Class A in parallel with Class B. Being equipped with a Class B system in addition to Class A shall not be a requirement for the compatibility of a vehicle with lines where Class B is installed in parallel with Class A. On lines doubly equipped with class A in parallel with class B, a vehicle equipped with both class A and class B can operate in class B demonstrating the non-intrusiveness of the class A system. (…)". **Justification of the amendment:** *To ensure an effective migration plan towards CCS Class A, it is necessary to permit vehicles equipped with Class B Systems to continue running on lines double equipped with Class A in parallel with Class B pending the completion of the technical compatibility activities (ETCS system and GSM-R system) in order to guarantee the continuity of the service for the Railway Undertakings while speeding up the migration to the 'dual on board' solution which, as known, represents the indispensable condition for the implementation of the Plan ERTMS (SST ERTMS L2 stand alone).*	R	The proposal would be in contradiction with ETCS specifications. It is up to the trackside to define in the level priority list which level (ETCS or NTC) is the priority one. In other word if trackside orders to switch to ETCS L1, with L NTC in backup for instance, an ETCS equipped vehicle shall switch to ETCS L1. For a vehicle only equipped with class B, this clause has no effect	22.- ASSTRA
134	1	7.2.5	P	ASSTRA	"Rolling stock may be equipped with both Class A and Class B systems to enable operation on several lines. The Member State concerned may restrict the use of an on-board Class B system on lines where the corresponding system is not installed trackside. A vehicle equipped with both class A and class B shall demonstrate technical compatibility with trackside Class A on lines double equipped with Class A in parallel with Class B. Being equipped with a Class B system in addition to Class A shall not be a requirement for the compatibility of a vehicle with lines where Class B is installed in parallel with Class A. On lines doubly equipped with class A in parallel with class B, a vehicle equipped with both class A and class B can operate in class B demonstrating the non-intrusiveness of the class A system. (…)".	R	The proposal would be in contradiction with ETCS specifications. It is up to the trackside to define in the level priority list which level (ETCS or NTC) is the priority one. In other word if trackside orders to switch to ETCS L1, with L NTC in backup for instance, an ETCS equipped vehicle shall switch to ETCS L1. For a vehicle only equipped with class B, this clause has no effect	23.- FerCargo
135	1	art 1.1 and art 1.2	D		What about locomotives for shunting operations only, are not considered?	NWC	The special vehicles definition is aligned with the Annex I of the Directive (EU) 2016/797. In section 7.4.3.2, the shunting locomotives are mentioned as special vehicles	24.- NSA IT
136	2	art 2.2 last paragraph	P		Suggested to reword: "All Control-Command and Signalling Subsystems shall be fully assessed according with Commission Implementing Regulation (EU) No 402/2013, even regarding functions, performance and interfaces for which this TSI does not specify mandatory requirements for interoperability"	NWC	Comment not understood: Same meaning as current text.	24.- NSA IT
137	3	art 4.2.1.1	U		The statement "There shall not be restrictions with respect to the type A, B or C of independence of the CSM assessment body permitted by Regulation (EU) No 402/2013" should be completed with a reference to the relevant article of reg 402/2013.	NWC	There is no such Article in Regulation 402/2013 because that Regulation does not forbid, or does not give preference, to any of those three cases. Unfortunately, when applied some stakleholders wish to restrict the use of only Type A AsBos. That is agains the law. That's why in every EU legal act that kind of sentence is to be included. In future, the same sentence can be written in Regulation 402/2013 when it will be revised	24.- NSA IT
138	4	art 4.2.1.1	U		the text of this section mentions several times "ETCS subsystem", while the correct wording is "CCS trackside / on-board subsystems" into which ETCS interoperability constituents are integrated	NWC	This section is specifically addressing the ETCS part of the subsystem and this is the meaning of the expresion.	24.- NSA IT
139	5	art 4.2.5.1.2	U		what does "out of scope" mean? Probably a clarification, also regarding comment above on condition under which ATO is mandatory, is advisable (for example: is it permitted that a Member State select a public network for ATO and prevents trains not equipped with it to run on its railway network?)	A	clause has been updated, MNO is not mentioned anymore.	24.- NSA IT
140	6	art 4.2.6.5.1	U		what does "unless otherwise specified" mean? Who can specify? Under which conditions?	NWC	There are some specific interfaces which do not consider yet Ethernet (e.g. GSM-R and ETCS on-board interfaces)	24.- NSA IT
141	7	art 4.2.15	U		a reference for driver's field of view seems necessary (LOC&PAS TSI ?)	R	Art 4.2.15 only defines the high-level requirements for the harmonised Marker Boards (definition of interoperable MBs, their optical properties ensuring visibility and their positioning requirements to meet the intended operational purpose). Detailed requirements, also relative to the driver's field of view, are set out in the Appendix A 4.2.15b (index 101, doc 21E089 - Engineering rules for harmonised marker boards): under assumption #7 of this document it is mentioned that the lateral position of the MB (including height and orientation) relative to the track shall respect the visibility constraints deriving from Appendix F of LOC & PAS TSI (Reg. 1302/2014, as amended) with reference to App. D of UIC Leaflet 651:2002, subject to the constraints of the applicable clearance gauge, which always prevail over any other installation requirement.	24.- NSA IT
142	8	art 4.2.17.1 & art.4.2.17	U		fourth paragraph should be clarified. What is a "configuration"? Do you mean different hw or sw modules? But, if modules are changed, how is it possible to speak of the "same IC" ? When can two configurations be considered "equivalent"? How is it possibe to prove that modifying a hw or sw module compatibility is not affected, without repeating at least some ESC test (and applying reg 402/2013)?	NWC	This sentence was initially proposed by Testing and Validation group from the ERTMS Stakeholder's platform. It was required the authors to provide a more detailed description to be included in the application guide. The intention is to cover all possible parameter range that can be adjusted without impacting the certification and technical compatibility of an IC or Subsystem.	24.- NSA IT
143	9	art 4.2.17.3	U		as above	NWC	See previous answer	24.- NSA IT
144	10	art 4.2.20.1 - bullet 1	P		We propose to add "**the effects of failure**" As under (1) all maintenance requirements and procedures (including health monitoring, diagnosis of events, test methods and tools and also the required professional competence) necessary for achieving essential requirements and values quoted in the mandatory requirements of this TSI throughout the equipment life-cycle (transport and storage before installation, normal operation, **failures and effects of failure**, repair work, checking and maintenance, decommissioning, etc.). For further details on error corrections see sections 6.5 and 7.2.7;	A	Included as proposed	24.- NSA IT
145	11	art 4.2.20.1 - bullet 2	U		is it possible for manufacturer to define in advance requirements and procedure for updates according to future corrections, obviuously not yet known? This seems more in the scope of management of modifications according to reg 402/2013...	NWC	The target of this section is not define the solution of the future error correction, but to indicate what are the foreseen procedures to do the maintenance of the IC when needed.	24.- NSA IT
146	12	art 6.3.3 bullet 3	U		it is advisable to clarify: "the update of EC Subsystem verification, following modification of an already integrated IC due to specifications maintenance, will not require..."	NWC	The meaning of the sentece is that if all the changes have no impact outside the IC, the TSI does not require the NoBo to do a subsystem assesment. Please provided a alternative proposal.	24.- NSA IT
147	13	art 6.3.3.1	U		mentioning the "main task" of NoBo is unclear. What are the other tasks (if any)?	A	Deleted main	24.- NSA IT
148	14	art 6.3.4 bullet 3	U		it is advisable to clarify: "the update of EC Subsystem verification, following modification of an already integrated IC due to specifications maintenance, will not require..."	NWC	The meaning of the sentece is that if all the changes have no impact outside the IC, the TSI does not require the NoBo to do a subsystem assesment. Please provided a alternative proposal.	24.- NSA IT
149	15	art 7.2.1a.2 bullet 3	U		why not refer to original risk analysis and AsBo report?	NWC	Because the original AsBo report migth be updated after the change	24.- NSA IT

150	16	art 7.2.1a.2 bullet 6 (a) art 7.2.1a.3 bullet 3 (a)	P		why are not listed all modules without Quality System approval (i.e. also CB and SB) ? We propose the following reformulation: "Without prejudice for urgent actions decided by the relevant safety authorities in case the severity of the error is not compatible with safety of railway system, defective products shall be corrected and corresponding certificates and supporting documentation updated accordingly".	A (partial)	Reference to modules are removed. The need to correct defective products is already included in Section 6.5	24.- NSA IT
151	17	art 7.2.1b1 bullet 7	U		this does not seems a rule, but a definition applicable for all subsystems (and also ICs): consider repositioning it	NWC	It is true, but there it is introduced here in equivalence of the refernce to Regulation (EU) 2018/545 for the on-board subsystem	24.- NSA IT
152	18	art 7.2.1b.2	U		same comments as for 7.2.1a.2	NWC	See previous answer	24.- NSA IT
153	19	art 7.2.1b.3	U		same comments as for 7.2.1a.3	NWC	See previous answer	24.- NSA IT
154	20	art 7.2.1c	U		Several statements of this section refer to "coming into force" of TSIs while other refer to "applicable TSIs". It could be useful to better specify the difference between the two expression.	NWC	This wording is aligned with the TSI LOC&PAS as agreed in the TWG Transition and Migration.	24.- NSA IT
155	21	art 7.2.1c.1.1	P		Considering the third sentence of art.7.2.1.c.1.2, the "initial assessment framework" is also mentioned for the "trackside", the definitions currently in 7.2.1c.1.1 should also apply to trackside and not just on-board.	NWC	There was no agreement possible to have similar definitions for design and production phase for trackside project. There are currently no similarity such as 'type authorisation' for trackside. It was indicated that the sector, with ERA, should work on such framework and align the definitions between NSAs. This is considered part of optimisation of the ERTMS trackside approval process based on network wide trackside rules.	24.- NSA IT
156	22	art 7.2.1c.2	U		why are rules of art 7.2.1c.1.1 and 7.2.1c.1.2 not repeated for trackside subsystems?	NWC	There was no agreement possible to have similar definitions for design and production phase for trackside project. There are currently no similarity such as 'type authorisation' for trackside. It was indicated that the sector, with ERA, should work on such framework and align the definitions between NSAs. This is considered part of optimisation of the ERTMS trackside approval process based on network wide trackside rules.	24.- NSA IT
157	23	art 7.2.4	U		does "not compatible yet" include the case of on-board CCS that has not completed the relevant ESC test?	NWC	clause 7.2.4 applies for trackside, therefore it does not include the case when vehicle has not demonstrated ESC/RSC.	24.- NSA IT
158	24	art.7.2.5	P		It is proposed to add after the third sentence of 7.2.5 the following sentence: "On lines double equipped with Class A in parallel with Class B, a vehicle equipped with both class A and class B cannot operate with class A until technical compatibility with trackside class A is demonstrated; on these lines, the same vehicle can operate with class B only if it is demonstrated that, in all possible operational conditions, the class A system does not activate to avoid interfering with the vehicle's functioning or compromising the safety of the trains' running which shall remain under the exclusive control of the class B system." Justification: To ensure an effective migration plan towards CCS Class A, it is necessary to permit vehicles equipped with Class B Systems to continue running on lines double equipped with Class A in parallel with Class B pending the completion of the technical compatibility activities (ETCS system and GSM-R system) in order to guarantee the continuity of the service for the Railway Undertakings while speeding up the migration to the 'dual on board' solution which, as known, represents the indispensable condition for the implementation of the Plan ERTMS (SST ERTMS L2 stand alone).	R	The proposal would be in contradiction with ETCS specifications. It is up to the trackside to define in the level priority list which level (ETCS or NTC) is the priority one. In other word if trackside orders to switch to ETCS L1, with L NTC in backup for instance, an ETCS equipped vehicle shall switch to ETCS L1. For a vehicle only equipped with class B, this clause has no effect	24.- NSA IT
159	25	art 7.2.6.2 bullet 2	U		note 38 to be clarified. If ATO on-board is made mandatory to avoid incentives for RUs, the economic viability (increased costs for RUs compared to which benefits?) should be evaluated	NWC	Footnote amended repeating that no incentive mechanism is required to mandate ATO when implementing ETCS for the first time. It is considered a balanced approach that RU should order ETCS and ATO in such case, instead of only ATO.	24.- NSA IT
160	26	art 7.2.6.2	G		With reference to ATO: Indicate the conditions for which it is mandated, based on the essential requirements.	NWC	Essential requirements are listed in Annex III of the interoperability directive. ATO is considered part of point 2.3.2 Technical compatibility with the Control-Command and Signalling subsystem. The 2 conditions are listed in 7.2.6.2: - IM has notified that trackside has or shall implement ATO; - ETCS is not yet installed; (no mandatory implementation of ATO in case of ETCS already being implemented);	24.- NSA IT
161	27	art 7.2.7.3	U		the assessment of inacceptability of an error and the identification of vehicles concerned should be supported by AsBo evaluation and opinion of relevant NSA.	NWC	This process has been applied for previous technical opinions and it is considered the most efficient process.	24.- NSA IT
162	28	art 7.3.1.2 and art 7.3.1.3	U		last paragraph: agreement between IM and incumbent RUs may create prejudice for other RUs planning to extend their activity on the infrastructure...	NWC	The statement is correct. The current proposal is restricted to those who operate as there is currently no legal proposal on how to define 'RUs planning to extend their activity'. This proposal should cover the majority of impacted RUs. Member States might on a voluntary base include some known RUs (planning to extend their activity) in the establishment of an overall agreement if deemed necessary.	24.- NSA IT
163	29	Appendix B	G		general comment. . Confirm please if it is correct to interprete the statements in this table in the following way: for "design phase not yet started" or "started but not completed" the applicability date or the period after a specific event (publication of TSI, notification of IM) identify the transition period, i.e., before that date subsystems may still be certified according to "old" requirements.. Anyway, the table is not fully clear, because in some cases (like the first rows on error correction and, in general when vehicles in operation are concerned) the deadlines seem related to the upgrade of equipment already in service, while in other cases (like the cases of design phase not started / started) the deadlines seem related to possibility of certifying new equipment on the basis of "old" versions of specifications. . A separation of the two cases would be advisable (deadlines for possibility of certifying new subsystems and deadlines for ugrade of subsystems in operation). There is also an additional issue: . if it is possible to certify a subsystem according to "old" specifications, what happens when it is installed on a vehicle and put in operation? . Shall the subsystem be upgraded according to the deadlines for vehicle in operation?. This would be strange: for example (row on clause 7.3.2.2) a subsystem could be certified without FRMCS 7 years after publication of CCS TSI according to the rules for "design phase started", but, as soon as put in service, it should be immediately upgraded according to the rules for "vehicles in operation". (should it not be easier to specify a date for the obligation to apply the clause for "design phase not started" and a date for obligation to upgrade subsystems installed on "vehicles in operation"?. For clarity, moreover, the tables in appendix B should also make reference to the clause 7.2.1c.1.3 on validity of certificates.	NWC	table in the following way: for "design phase not yet started" or "started but not completed" the applicability date or the period after a specific event (publication of TSI, notification of IM) identify the transition period, i.e., before that date subsystems may still be certified according to "old" requirements. Answer: this is confirmed that both these triggers are needed. An application guide will be developed to provide some examples. Anyway, the table is not fully clear, because in some cases (like the first rows on error correction and, in general when vehicles in operation are concerned) the deadlines seem related to the upgrade of equipment already in service, while in other cases (like the cases of design phase not started / started) the deadlines seem related to possibility of certifying new equipment on the basis of "old" versions of specifications. A separation of the two cases would be advisable (deadlines for possibility of certifying new subsystems and deadlines for upgrade of subsystems in operation). Answer: there is no distinction in Appendix B between upgrade of systems or certifying new subsystems. If a distinction is made, this is explicitly mentioned in the clauses within chapter 7.	24.- NSA IT
164	30	Appendix B - table B1	U		ETCS system version, second row: what does "version 2.1 is applicable" mean? Is it permitted or is it mandatory? Why "not applicable" for production phase and for vehicles in operation? Existing vehicles may be incompatible with version 2.1 trackside... In addition, the content of this row seems contradictory with the original principe that "y digit" of version x.y indicates compatible versions.	NWC	It is correct that the original principle of a compatible version should not lead to new mandatory on-board implementation requirements and that incentives or performance schemes for such on-board implementation requirements should be handled by the Access Directive. This topic has been discussed with DGMove how a coherent approach can be applied for such compatible changes. At a first step, it was suggested to allow some on-board mandatory requirements for compatible enhancements in order to balance the different economic interests between IMs and RUs. See also 7.2.6.2 and the footnote on ATO on-board implementation.	24.- NSA IT

165	31	Appendix B - table B3	U		third row: here the concept of "advanced stage of development" is used, while in the rest of the TSI only design phase started / not started is used (by the way: where is the definition of "advanced"? The concept is introduced by the Directive, but it can be expected that TSIs provide clarification for its application)	NWC	Advanced stage of development is indeed mentioned in the directive and it is referring to this defnition. Table B3 refers to advanced stage of development as there are no distinction in table B2 between (design phase started/not started/production phase). Also the 4RP does not define the notion 'type trackside authorisation' which could be based on generic ETCS trackside network requirements. Therefore, it is expected that these trackside projects based on an existing generic framework contract will be notified by the Member States as being trackside projects in 'advanced stage of development'.	24.- NSA IT
166	32	Appendix C2 and appendix C4	U		the template refers to IC, but the text says "the following subsystem", moreover, ESC/RSC Types are mentioned, instead of ESC/RSC IC Types"	A	Correction about to refer to the IC. The ESC Types are the complete definition. An IC Statement executed the possible part of the ESC Type.	24.- NSA IT
167	1		P	FC	General comment There appear to be many changes which, a)have not been highlighted as changes b)do not identify exactly what change is proposed e.g. 'TBD') We kindly request that ERA review draft documents and highlight all changes as it is likely that many reviewers may not have identifed all changes. We would be grateful for another opportunity to comment when the draft TSIs have been progressed and items currently identified as "TBD", etc. are drafted.	NWC	The CCS TSI public consultation version was not provided with track changes toward the current CCS TSI in force. Susch version has been provided in the context of the Agency working party meetings and it is available in the Agency extranet. The version provided is a working version from the Agency at that time. It contains the main elements of the proposal impacting the TSI text. The indexes of the technical documents for Table A.2 will be updated one the work of the CCM procedure for those documents will be completed by the Agency and the sector organistations, but the foreseen impact on the TSI text (new ATO part for ERTMS, new ICs, ...) it is already included in the proposal.	25.- Irish Rail (2)
168	2		G	FC	Observations – Many changes have been identified in the CCS TSI which were not marked as changes e.g. Throughout - Widespread introduction of new term 'RMR' 2.2 – expansion of scope e.g. addition of point no. '(5) automatic train operation' ; other edits to scope e.g. RMR, FRMCS. 4.2.4.3.2 – added 4.2.6.2 added 4.2.6.2.1 added 4.2.6.2.2 added 4.2.6.2.3 added 4.2.6.2.4 added 4.2.17.1 and 4.2.17.2 - Expansion of text in existing points 4.2.17.3 added 4.2.17.4 added 4.2.18 added 4.2.19 added 4.2.20 added 4.2.20.1 added 4.2.20.2 added Table 7.1 – section 7.2.2. legacy systems – added The above are examples of unmarked changes to the text. As these were identified only through spot checking, we anticipate that there may be other unmarked changes / deletions. Table A2 –many index version numbers have been left as 'TBD' i.e. no review comment can be provided where the change has not been specified. This approach in the CCS TSI raises concern that proposed changes in other draft TSI's may not have been adequately highlighted and therefore may not have been identified as needing review. Suggest that consultation should be repeated once more clarity exists about the changes proposed and all proposed changes are clearly marked.	NWC	The CCS TSI public consultation version was not provided with track changes toward the current CCS TSI in force. Such version has been provided in the context of the Agency working party meetings and it is available in the Agency extranet. The version provided is a working version from the Agency at that time. It contains the main elements of the proposal impacting the TSI text. The indexes of the technical documents for Table A.2 will be updated one the work of the CCM procedure for those documents will be completed by the Agency and the sector organistations, but the foreseen impact on the TSI text (new ATO part for ERTMS, new ICs, ...) it is already included in the proposal.	25.- Irish Rail (2)
169	1	Clause 7.6.2.2 (Annex)	M		Clause 7.6.2.2 (Specific case for United Kingdom) has been intentionally deleted. Elements of this UK specific case are applicable for Northern Ireland and therefore must remain in this TSI due to the requirements under the UK withdrawal agreement/NI Protocol for NI to continue to comply with TSIs.	D	Specific Cases final wording is to be discussed between Member States and the European Commission in the RISC meetings. The Agency will note this specific situation on Northen Ireland to the Commission.	26.- UK (OTIF)