OPINION

OPI 2020-3

OF THE EUROPEAN UNION AGENCY FOR RAILWAYS

for

Switzerland

regarding

Negative assessment of the National Rules of Switzerland in addition to the latest TSIs in force for the Rolling Stock and on-board CCS subsystems notified in the Reference Document Database by Member States according to Articles 25 and 26 of the Agency Regulation

General Context

1.1 The scope extension of TSIs (with effect on 01 January 2015), the functional and technical harmonisation of requirements within TSIs made a series of national rules redundant and unnecessary.

1.2 Switzerland committed to incorporating Directive (EU) 2016/797 in its national law in view to maintaining smooth rail traffic between the Switzerland and the EU. Pending the full incorporation of Directive (EU) 2016/797, the EU/Switzerland joint committee adopted transitory measures[1] and amended the Annex 1 to the EU-Switzerland Land Transport Agreement (LTA) by adding thereto the substantive provisions of Directive (EU) 2016/797 which so apply in Switzerland as well. Common technical requirements are essential for implementing the LTA, in particular for the recognition of ERA authorisations and Swiss assessments, as well as the mutual recognition of 'EC' certificates and 'EC' declarations. Switzerland partially incorporated the substantive provisions of Directive (EU) 2016/797. Several TSIs are listed in Annex 1 of the LTA which so apply to Switzerland, in particular the TSIs on rolling stock and CCS TSI. The processes described below are thus in line with the principles set in the LTA and Directive (EU) 2016/797, and the Agency and the "NSA of Switzerland" applied them.

1.3 The articles 13 and 14 of Directive(EU) 2016/797 indicate clearly cases where national rules may continue to apply:

- New national rules may only be adopted in of the following cases (article 14(4)) :
  - when a TSI does not fully meet the essential requirements;
  - as an urgent preventive measure, in particular following an accident.
- Existing national rules (article 13(2)) are limited to :
  - where the TSIs do not cover, or do not fully cover, certain aspects corresponding to the essential requirements, including **open points** as referred to in Article 4(6),
  - Case where non-application of one or more TSIs or parts of them has been notified under article 7 of Directive(EU) 2016/797,
  - Specific cases listed but not described in TSIs,
  - Ensure technical compatibility with existing network not yet in compliance with TSI,
  - Vehicles excluded from the scope of TSIs,
  - Urgent temporary preventive measure, in particular following an accident.

1.4 According to article 14 of Directive (EU) 2016/797, Member States had to notify existing national rules before 16 December 2016. When notifying, Members States have to provide justification for the existence of national rules (e.g. identification of the related open-point).
According to Article 6 of the Decision No 2/2019 of the Joint Committee EU/CH, Switzerland shall notify the Agency of the national rules listed in Annex to such decision with a view to their publication.

1.5 Member States shall notify their national rules for vehicle authorisation. According to the communication of the Commission in RISC (80th Meeting 15/11/2017), until the Single Rules Database is available, the notification is performed in the Reference Document Database (RDD).

1.6 Since 2016, in accordance to the ERA programme plan on cleaning-up of national rules ERA-PRG-006-PPL, Member States and the Agency started the activity on identification and evaluation of national rules in addition to the following TSIs:

- TSI WAG: Commission Regulation (EU) No 321/2013, amended by Regulation (EU) No 1236/2013, amended by Regulation (EU) 2019/776 of 16 May 2019

[1] Decision No 2/2019 of the Community/Switzerland Inland Transport Committee of 13 December 2019 on transitory measures to maintain smooth rail traffic between Switzerland and the European Union (OJ, L 13, 17.1.2020, p. 43).

- TSI LOC&PAS: Commission Regulation (EU) No 1302/2014, amended by Regulation (EU) 2019/776 of 16 May 2019
- TSI PRM: Commission Regulation (EU) No 1300/2014, amended by Regulation (EU) 2019/776 of 16 May 2019
- TSI Noise: Commission Regulation (EU) No 1304/2014, amended by Regulation (EU) 2019/774 of 16 May 2019
- TSI CCS: Commission Regulation (EU) No 2016/919 (including ERA/ERTMS/033281 rev 4.0 dated 20/09/2018).

1.7 From 16 June 2019 and pending the Single Rules Database, the Reference Document Database will be the reference for applicants, NSAs and the Agency in terms of applicable national rules for vehicle authorisation.

1.8 The scope of the technical opinion covers the examination of existing notified Swiss national rules (listed in the Annex to the Decision No 2 of the Joint Committee EU-CH) leading to a negative assessment by the Agency.

1.9 The complete assessment covering the examination of existing national rules in addition to TSIs mentioned in section 1.5 is available in RDD. The Evaluation Report of remaining national rules ERA-PRG-006-REP-RST contains the examination of the previous version of rules.

2. Legal Background

2.1 According to the provisions of article 13.2 of Directive (EU) 2016/797, national rules and where relevant acceptable national means of compliance shall apply in the cases defined below:

a) where the TSIs do not cover, or do not fully cover, certain aspects corresponding to the essential requirements, including open points ;
b) where non-application of one or more TSIs or parts of them;
c) where a specific case requires the application of technical rules not included in the relevant TSI;
d) national rules used to specify existing systems, limited to the aim of assessing technical compatibility of the vehicle with the network;
e) networks and vehicles not covered by TSIs;
f) as an urgent temporary preventive measure, in particular following an accident.

2.2 The Swiss national rules covering the aspects identified in 2.1 are set out in the Annex 1 to LTA as revised by the Decision No 2/2019 of the Joint Committee EU-CH. The LTA provides that some national rules listed therein may be incompatible with TSIs and thus need to be reviewed. The rules referenced in LTA are notified with full details in RDD.

2.3 This opinion supports the review of the areas for national rules applicable for the issuing of a vehicle authorisation to be maintained in the LTA and RDD/SRD.

According to the provisions of article 14 (9) of Directive (EU) 2016/797, national rules referred to in paragraph 1 were examined by the Agency in accordance with the procedures laid down in Article 26 of Regulation (EU) 2016/796 although these provisions are not applicable to Switzerland.

2.4 According to the provisions of Article 26 (3) of the Agency Regulation 2016/796, where the examination referred to in paragraph 1 leads to a negative assessment, the Agency shall inform the Member State concerned and ask it to state its position regarding that assessment. If, following that exchange of views with the Member State concerned, the Agency maintains its negative assessment, the Agency shall within a maximum period of 1 month:

(a) issue an opinion addressed to the Member State concerned, stating that the national rule or rules in question has or have been the subject of a negative assessment and the reasons why the rule or rules in question should be modified or repealed; and

(b) inform the Commission of its negative assessment, stating the reasons why the national rule or rules in question should be modified or repealed.

3. Analysis

3.1. Tasks under the responsibility of the Member States:

In accordance to rules cleaning-up program plan ERA-PRG-006-PPL from March 2016, Member states were asked to:

- Identify and remove national rules covered by TSIs,
- Relate national rules to the TSIs and to the list of parameters defined in decision 2015/2299/EU,
- Clearly refer national rules not related to open point(s) or specific case(s) to TSI requirements in order to identify if they complement/contradict/replace TSIs for compatibility with existing networks,
- Ensure that the requirement is a mandatory rule. Acceptable national means of compliance in accordance to the definition in article 2 (34) of Directive 2016/797 is not considered as a national rule,
- Identify and analyse requirements that don't relate to any of the above, verify, in this case for example if the TSI is deficient/non-exhaustive.

Based on the outcome of this activity, Member States should have:

- Published their national rules in the Reference Document Database and
- Aligned their national legislation for vehicle authorisation with the Reference Document Database.

3.2. Tasks carried out by the Agency

During the project of cleaning up of national rules for vehicle authorisation covered by the Rules cleaning up program plan ERA-PRG-006-PPL, the Agency has:

- Provided technical support to Member States in the cleaning up of the remaining rules by ensuring:
  - That rules relate to: Open points, Specific cases, Legacy system or rule duly justified for compatibility with existing fixed installation (i.e. a specific case not declared up to now).
  - Consistency with the EU framework, including register of infrastructure and responsibilities of actors as defined in the Safety Directive and TSI OPE.
  - That the rule is transparent and not discriminatory.
  - The update of the Reference Document Database.
- Assessed the relevance of the remaining national rules together with the Member states, using the Reference Document Database as a reference.
- Provided regular reporting to European commission on the progress made.
- Updated the Reference Document Database with the status of the evaluation.
- In accordance with article 26(3) of Agency regulation 2016/797, the Agency informed officially the Member States and the European Commission through an assessment report, sent by email, on the national rules in addition to latest TSIs (ERA-PRG-006-REP-RST). This report was published on the ERA website and uploaded on the CIRCABC.
- The Agency asked to the Member States to check the report, to provide comments and to take into consideration the actions proposed.
- Switzerland made a revision of their national rules after the publication ERA-PRG-006-REP-RST report. The new version of the rules have been published in RDD and examined by the Agency. Following the exchange during the examination of the national rules, the NSA Switzerland agreed to modify/repeal some rules – this is reflected in the current technical opinion.
- This technical opinion provides the evaluation on the national rules concerned by the negative assessment.

3.2.1. National rules subject to assessment by the Agency

The table 1 below provides an overview of national rules notified by Member States and that have been subject or not to an assessment by the Agency:

Table 1 : Overview of national rules notified by Member States and subject or not to an assessment by the Agency

National Rules relates to	Published in RDD	Evaluated	Remarks
Vehicles in the scope of Loc&Pas and WAG TSIs	Yes	Yes	Freight wagons, Locomotives, Trainsets / Electric or Diesel Multiple Unit, Passenger coaches, Track machines/OTMs.
Article 13.2(a): Open points listed in TSIs	Yes	Yes	TSIs clearly identify where a national rule may be kept and notified; traceability between TSIs and possible remaining national rules is clearly established, and the corresponding rules are recorded in RDD. The Agency checked if the national rule covers the scope of the open point.
Article 13.2(a): Other Directives	Yes	No	Switzerland notified in RDD one rule falling in this scope: CH-TSI LOC&PAS-009, related to exhaust gas emissions. As a general principle, the TSIs in force don't cover subjects in the scope of these other EU Directives. This rule ("In Switzerland the requirements for the use of diesel engines (compression ignition) are stricter than those applicable to locomotives with diesel engines in Europe. These are based on the Air Pollution Control Ordinance and thus on FOEN specifications") can be discussed at later stage by the Commission and Switzerland. When informed, ERA will reflect the outcome of this discussion in RDD.
Article 13.2 (b): Non application of TSI	No	No	
Article 13.2 (c): Specific cases mentioned but not described in TSIs	Yes	Yes	TSIs clearly identify where a national rule may be kept and notified. Traceability between TSIs and possible remaining national rules is clearly established, and the corresponding rules are recorded in RDD. The Agency checked if the national rule covers the scope of the specific case.
Article 13.2(d): Technical compatibility between vehicle and existing network(s)	Yes	Yes	This includes vehicles with ETCS pre-baseline 2 versions (e.g. 2.2.2), additional functionality implemented on-board (e.g. NTRs from other MS) and TSI options implemented trackside (e.g. infill).
Article 13.2 (e): Vehicles not covered by TSIs	No	No	Concern vehicles such as Tram-Train, metric gauge vehicle.
Article 13.2 (f):	No	No	

Table 1 : Overview of national rules notified by Member States and subject or not to an assessment by the Agency

National Rules relates to	Published in RDD	Evaluated	Remarks
Urgent temporary preventive measure following an accident			
TSI potentially deficient or not exhaustive	Yes	Yes	National rules when accepted by the Agency are maintained pending the resolution of the potential deficiency.
Previous versions of TSIs not listed in section 3.1.2 of the report ERA-PRG-006-REP-RST	Yes	No	
Vehicle not TSI compliant authorised before TSIs.	Yes	No	Rules are in RDD for reference/history and are not subject to Agency evaluation.

3.2.2. Summary of the results of the examination of national rules

The table 2 below provides an overview of the number of national rules and acceptable national means of compliance notified by the Member State in addition to latest TSIs and the results of the examination leading to a positive or negative assessment.

The annex 1 provides details of the assessment leading to negative assessment. The national rules subject to discussion/clarification with the Member State are also counted in the column “Negative assessment”.

Table 2 : *number of national rules notified by Member states and results of the examination*

Member States	Number of National rules and Acceptable national means of compliance	Results of the examination		Remarks
		Positive assessment	Negative assessment	
Switzerland	52	15	37	27 National rule should be repealed 10 National rule should be modified

4. The opinion

In accordance with article 26(3) of Regulation 2016/796, the opinion covers the examination of national rules by the Agency leading to a negative assessment.

The annex 1 provides to Switzerland:

- The list of actions to be taken into account,
- An assessment table with :
    - The national rules concerned,
    - The Agency assessment of each rule and the reasons why this is not accepted,
    - The status of the assessment indicating whether the rule(s) should be modified or repealed.

Valenciennes, 16/04/2020

Josef DOPPELBAUER
Executive Director

5. ANNEX 1 – Examination of national rules leading to negative assessment

The rules assessed are the rules published in RDD by Switzerland based on the revision from 07/2019.

The following action should be taken into account by Switzerland:

- To update in RDD the National Rules according to the Agency position.

The table below presents the rules where the evaluation performed by the Agency lead to a negative assessment.

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Other rules related to compatibility with network / legacy system	3.1-Vehicle gauge CH rule reference: CH-TSI LOC&PAS-017 Infrastructure gauge: general Justification according to EN 15273 A-derogation (see page 2). Current applicable norms in Switzerland: The norms set out in the implementing provisions of the Railway Ordinance (version 01.07.2016) apply. Please also refer to EN 15273:2013 (esp. Swiss A-derogation) and UIC leaflets 505 and 506. The full details are in the attached document CH-TSI LOC&PAS-017_EN.pdf	The rule refers to clause 4.2.3.1. of TSI Loc&Pas 1302/2014 **NSA CH:** The rules is covering an exception for the calculation method which is already included in the EN 15273 2013. We understand that the relevant part of since in the TSI LOC&PAS reference to the EN 15273-2:2013 only the clause A.3.12 is declared as mandatory. The CH gauge speciality you can only find in the national preamble of the SN EN 15273. So that is why we consider the NNTR necessary. **Agency:** The applicant (who signs the EC declaration of verification) selects freely the reference profile used to design the rolling stock (chosen profile). The outer boundaries of the rolling stock are subsequently assessed against this chosen profile and the result is recorded in the technical documentation. This means that the TSI Loc&Pas does not impose specific reference profiles, but their registration in the technical file. The TSI requires that In case the unit is declared as compliant with one or several of the reference contours G1, GA, GB, GC or DE3, including those related to the lower part GIC1, GIC2 or GIC3, as set out in the specification referenced in EN 15273-2:2013, A.3.12 but also the other relevant clauses, compliance shall be established by the kinematic method as set out in the specification referenced in the referred EN. The applicant is furthermore required to state if the rolling stock is compatible with (one of) the reference profile(s) (i.e. reference profile according to EN 15273) of the categories of line as per the INF TSI. These reference profile(s) the rolling stock complies with (if any) are to be also recorded in the technical documentation; they provide a reference for interoperability purpose. The recorded information will serve the RU to use it for route compatibility checks, in accordance with the provisions of TSI OPE.	Not accepted NR should be repealed

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Other rules related to compatibility with network / legacy system	3.2.1-Running safety and dynamics CH rule reference: CH-TSI LOC&PAS-005 Cant deficiency When speed limits are defined on the Swiss railway network, cant deficiency in the track of 130 mm (freight trains) and 150 mm (passenger trains) is applied without further operating tests. It is therefore essential for rolling stock to be tested for these levels of cant deficiency. Rolling stock not tested for these can't deficiency levels may not be used on the Swiss railway network. Current applicable norms in Switzerland: The norms set out in the implementing provisions of the Railway Ordinance (version 01.07.2016) apply. Please also refer to EN 14363:2005. The full details are in the attached document CH-TSI LOC&PAS-005_EN.pdf	The national rule refers to clause 4.2.3.4.2 of Loc&Pas TSI 1302/2014 and clause 4.2.3.5 of TSI WAG **NSA CH:** We fully understand the principle of the EU/ERA. The EU harmonized approach gives the applicant the opportunity to select the combination(s) of speed and cant deficiency to which he wants the vehicle accepted. On the Swiss network this opportunity does not exist! Vehicles which are not able to run with the maximum speed for their train category in the curves are rejected for any normal operation on the track. Since we have no space on the lines. We cannot allow an applicant to have a choice. They must be able to full fill the maximum or their vehicles are rejected from any normal operation on lines. This is due to the mixed traffic freight and passenger trains with intercity a regional trains all on the same track and absolutely no space in between for more trains. We cannot differentiate the network access to various lines. The permission to operate is given for complete network or denied. Speed reduction are not a solution for regular operation and are allowed only exceptionally (e.g. special transport) **Agency:** In accordance to EN 14363 referenced by the TSI (Loc&Pas and WAG) the applicant has the responsibility to choose the combination(s) of speed and cant deficiency for which the vehicle is intended to be operated. Choosing the inappropriate combination(s) of speed and cant deficiency may lead to operational restrictions, e.g. vehicles may not be able to operate to a certain level of performance. TSI OPE was revised taking the principle below on the route compatibility checks provisions. The EU harmonized approach gives the applicant the opportunity to select the combination(s) of speed and cant deficiency to which he wants the vehicle accepted. As long as the vehicle is verified in accordance to the provisions in EN 14363, on the subject it shall not have the authorisation compromised. Operational/network performance constrains related to the network	Not accepted NR should be repealed

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
			access and not required by TSI are not in the scope of the authorisation process. The rule should not be applicable for freight wagons. The Commission Implementing Regulation (EU) 2020/387, of 9 March 2020 amending Regulations (EU) No 321/2013, (EU) No 1302/2014 and (EU) 2016/919 provides in Appendix C, 'Additional optional conditions', 20. Running dynamic behaviour, the requirements for freight wagons. This means that the TSI WAG was amended in accordance to the change request from Switzerland, meaning that GE wagons (conform to clause 7.1.2 and Appendix C of the TSI WAG) are deemed to have minimum performance V_{adm} <= 120km/h and I_{adm} = 130 mm.	

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Other rules related to compatibility with network / legacy system	3.2.1-Running safety and dynamics CH rule reference: CH-TSI LOC&PAS-006 Authorisation of rolling stock with Series N tilting system In Switzerland tilting trains run on tracks designed for the R-series. For rolling stock homologation on specific lines it must be shown that tipping trains can be driven at the envisaged speed. Currently, in Switzerland only trains constructed with an active tilting system to achieve high cant deficiency are regulated by law and permitted under the term 'tilting trains'. Where necessary, other systems can be similarly defined according to the tilting train specifications. Current applicable norms in Switzerland: The norms set out in the implementing provisions of the Railway Ordinance (version 01.07.2016) apply. Please also refer to regulation SBB R I 20019 The full details are in the attached document CH-TSI LOC&PAS-006_EN.pdf	The national rule refers to clause 4.2.3.4.2 of Loc&Pas TSI 1302/2014 **NSA CH:** This kind of traffic is very country-specific and not completely covered by the TSI and EN requirements as well as dependent on the vehicle characteristics. Since 1996, commercial traffic with railway vehicles with cant deficiency compensation system for higher curve speed has been operated in Switzerland. Higher cant deficiency (= higher curve speed) can be driven only on selected lines that are suitable and approved for the relevant traffic. The requirements for the vehicles are a reduced axle load and a corresponding dynamic behaviour of the train. The dynamic behaviour of tilting trains has to be tested according to EN 14363 (till 2016 according to EN 15868), to be sure that the tested vehicle fulfils the acceptance criteria for a defined combination of speed and cant deficiency (→ steps 1. and 2a. according to R I-20019 chapter 2.). In Switzerland there are three train categories for tilting trains given: cant deficiency 275 mm, 245 mm (train categories N) and 207 mm (future train category W) – analog passenger vehicles (train category R with cant deficiency 150 mm) and freight wagons (train categories A and D with cant deficiency 130 mm). After fulfilling the acceptance criteria's according to EN 14363 (→ steps 1. and 2a. according to R I-20019 below), a line homologation according to R I-20019 has to be tested (→ step 2b. according to R I-20019 chapter 2.). The line homologation ensures safe operation with higher curve speed taking into account the specific line (infrastructure) characteristics. So a negative result of the testing procedure compromises the vehicle authorization for higher curve speed than passenger vehicles (no authorization or only an authorization for the train category R with cant deficiency 150 mm → step 1. according to R I-20019 chapter 2.). References in documents: • AB-EBV: AB 17N chapter: 8 (Aspekte Neigetechnik)	Not accepted NR should be modified. Discussion ongoing with Switzerland

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
			• NNTR CH-TSI LOC&PAS-006 • SBB R I-20019: "... 2. Zulassung von Neigezügen Grundlage des Entscheides des BAV über die Zulassung von Neigezügen sind die gesetzlichen Vorgaben. Insbesondere die AB-EBV, AB 17N, Ziff. 8 sind zu beachten. Die fahrtechnische Prüfung von Neigezügen gliedert sich in folgende Teile: 1. Generelle fahrtechnische Prüfung Zugreihe R zur Erlangung der Typenzulassung und der Betriebsbewilligung für das schweizerische NormalspurSchienennetz: Bezüglich der Schnittstelle Rad-Schiene richtet sich dieses Prüfverfahren nach den entsprechenden internationalen Normen (EN 14363, EN 15686, ...) und ist für den Überhöhungsfehlbetrag für konventionellen Fährbetrieb durchzuführen. Mit erteilter Betriebsbewilligung darf das Fahrzeug in der ganzer Schweiz nach Zugreihe R verkehren. 2. Streckenbezogene Fahrzeughomologation, bestehend aus: a. Spezifische fahrtechnische Prüfung Zugreihe N zum statistischen Nachweis der Eignung des Fahrzeugs für den maximal möglichen Überhöhungsfehlbetrag von 275 mm (gemäss EN 14363 und EN 15686). Anfällige Abweichungen von den Normen aufgrund schweizerischer Gegebenheiten sind vorgängig mit dem BAV abzustimmen. b. Streckenbezogene fahrtechnische Prüfung für die Zugrethe N: Die AB-EBV fordern für die Festlegung der betrieblich zulässigen Fahrgeschwindigkeiten der Zugreihe für Neigezüge die Durchführung von Messungen der dynamischen Fahrzeugreaktionen (AB-EBV, AB 17N, Ziff. 8) im Rahmen der sogenannten streckenbezogenen Fahrzeughomoiogation (siehe Kapitel 5). Diese Messungen werden auf Grundlage des unter Punkt a. festgestellten maximal möglichen Geschwindigkeitsprofils des Fahrzeugs durchgeführt. Ist diese Homologation erfolgt und die entsprechende Betriebsbewilligung erteilt, so darf das Fahrzeug ausschliesslich auf den	

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
			untersuchten Strecken nach Zugreihe N verkehren. Auf allen übrigen Strecken darf es im Rahmen seiner Betriebsbewilligung maximal nach Zugreihe R verkehren. ..." **Agency:** The dynamic behaviour reference of the TSI is the EN 14363. At the level of the acceptance the basic principles are the same for tilting or non-tilting trains, i.e. the vehicle is tested for combination(s) of speed and cant deficiency, and for the select combination(s) the acceptance criteria needs to be fulfilled, independently if the vehicle is equipped or not with Non Compensated Acceleration systems. However tilting trains are normally running on the limits of acceptance criteria and if some lines where these trains are intended to be used are "critical", additional safety related tests are sometimes required at national level. Specific line characteristics are deemed to be dealt with at Route Compatibility Check level. However the provisions in the TSI OPE (in particular Appendix D1) do not consider the scenario addressed by this rule. Due to the referred particularities the rule is acceptable for new type of tilting multiple units (as requested by CH) pending a review/clarification of the EN 14363, covering this topic. Nevertheless, ERA keeps the following doubt in the acceptance criteria of the rule: does the negative result of the testing procedure compromises the vehicle authorisation or imposes that the tilting function is deactivated on specific line? Please provide the reference in the document for this aspect. It is not clear from the provided reply if network performance criteria is imposed. In such a case, operational/network performance constrains related to the network access and not required by TSI are not in the scope of the authorisation process.	

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Other rules related to compatibility with network / legacy system	3.2.1-Running safety and dynamics CH rule reference: CH-TSI LOC&PAS-002 Narrow switches/Test of passage through switches In comparison with other European countries, the line layout in some station areas in Switzerland is technically difficult to exploit due to the presence of tight deflection curves and short intermediate sections of track with correspondingly small distance between track centres. This places specific requirements on the homologation of new rolling stock that shall be taken account of with special testing. Current applicable norms in Switzerland: The norms set out in the implementing provisions of the Railway Ordinance (version 01.07.2014) apply. Please also refer to regulation SBB R I 50007 and UIC leaflets 505 and 506. The full details are in the attached document CH-TSI LOC&PAS-002_EN.pdf	The national rule refers to clause 4.2.3.4.2 of Loc&Pas TSI 1302/2014 and clause 4.2.3.5 of TSI WAG **NSA CH:** In Switzerland we have a minimal Radius of 160 m in the junctions of the stations while in the rest of Europe the minimal radius is 250 m. The trains are running with up to 40 km/h over these junctions with 160 m. The test shows that it is save to run with up to 40 km/h over the junctions and that the forces are below the limits. Sometimes speed restrictions are applied. The rule relates to specific testing conditions to ensure compliance with specific situation on the junctions (combination of curve radius and speed). The relevant document (SBB I R-50007) was uploaded in RDD. The topic is not covered by the EN 14363. **Agency:** From the provided document we understand that the rule goes further than the parameter scope. Therefore, NSA CH should refer in the rule to the applicable specific section(s) of the document. When NSA CH demonstrates that the scenarios referred in the rule are not covered by the EN 14363, ERA may consider the rule acceptable as explained in the comment below. It is recognized that EN 14363 does not cover some switches&crossing. We also know that WG10 of CEN is trying to harmonize test conditions to cover these situations. Taking the principle that the referred analysis leads to the conclusion that the described situations are not covered by EN 14363 the rule may be accepted.	Not accepted NR should be modified. Discussion ongoing with Switzerland.

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Other rules related to compatibility with network / legacy system	3.2.1-Running safety and dynamics CH rule reference: CH-TSI LOC&PAS-003 Tight curves r < 250 m Full description: The Swiss rail network has a relatively large number of lines with curves (R < 250 m) that do not covered by the prescribed technical assessments. Regulations for assessment area 5 (R < 250 m) referring to EN 14363 in progress (FOT, SBB I, BLS I, SOB I working group). The current status can be found in the interim guideline (SBB R I 50127). Current applicable norms in Switzerland: The norms set out in the implementing provisions of the Railway Ordinance (version 01.07.2016) apply. Please also refer to regulation SBB R I 50127. The full details are in the attached document CH-TSI LOC&PAS-003_EN.pdf	The national rule refers to clause 4.2.3.4.2 of Loc&Pas TSI 1302/2014 and clause 4.2.3.5 of TSI WAG **NSA CH:** EN 14363 is not covering small curve radius present on the Swiss network. The referenced document provides the limits for small radius curves. The testing methodology and data processing from EN 14363 remains valid. We refer to SBB R I 50127 where you can find Ziffer 1.2 / Appendix A1 and A2 the relevant information. The amount of lines with small radius is relevant. E.g. the new ICE4 from DB will run from Basel to Interlaken Ost; The line Spiez - Interlaken Ost is one of those lines with small curves. All vehicles to run on these lines must be measured on the representative line with small curves. To operate there this has to be checked in the approval prozess. The comparison between a line and a vehicle is too late because the vehicle must be equipped with all the relevant measuring instruments and the test runs have to be completed so that the relevant information are available when the comparison is carried out. **Agency:** From the provided document we understand that network performance criteria is imposed (e.g. 2.6 of SBB R I 50127). Operational/network performance constrains related to the network access and not required by TSI are not in the scope of the authorisation process. Therefore, NSA CH should refer in the rule to the applicable specific section(s) of the document. When NSA CH demonstrates that the scenarios referred in the rule are limited to aspects not covered by the EN 14363, ERA may consider the rule acceptable.	Not accepted NR should be modified. Discussion ongoing with Switzerland

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Other rules related to compatibility with network / legacy system	3.2.4-Track loading compatibility parameters CH rule reference: CH-TSI LOC&PAS-004 Track displacement force The maximum permitted sum of guiding forces of rolling stock per wheelset is limited by the permitted track displacement resistance of the infrastructure. Due to the design of the superstructure, in Switzerland a coefficient of α = k1 = 0.85 should be generally used as the control value when calculating the maximum sum of guiding forces. A coefficient of α = k1 = 1.0 can only be applied in exceptional cases and requires special verification. On track tests should be carried out on the basis α = k1 = 0.85. Current applicable norms in Switzerland: The norms set out in the implementing provisions of the Railway Ordinance (version 01.07.2016) apply. Please also refer to EN 14363:2005 and UIC leaflet 518. The full details are in the attached document CH-TSI LOC&PAS-004_EN.pdf	The national rule refers to clause 4.2.3.4 of Loc&Pas TSI 1302/2014. **NSA CH:** A lot of the tracks in Switzerland are not yet build to withstand the forces α = k1 = 1 and only α = k1 = 0.85 is accepted We refer to EN 14363 Annex X (informative) A-deviations where you can find 7.5, table 4: For all vehicles the limit value for the sum of guiding forces has to be calculated using k1 = 0.85 This is a must for operating on Swiss lines. An adoption is not possible as long as the lines are not complet upgraded and this will take many years to come. **Agency:** The requirement in subject represents a big deviation for the harmonized requirement in the EN 14363. The value α = k1, as in EN 14363 should be accepted by Switzerland (as a CEN member, it was expected to adopt the referred EN). In case such a rule is applied there is a risk that the access of vehicle compliant with TSI Loc&Pas on the Swiss network may be heavily affected and/or compromised. To apply such restrictive conditions for technical compatibility reasons (e.g. assimilated to a specific case), a detailed justification of the Swiss network conditions requiring this rule is necessary (e.g. identification of lines affected, impact assessment for TSI compliant vehicles affected by this rule etc.).	Not accepted NR should be repealed

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Other rules related to compatibility with network / legacy system	3.2.4-Track loading compatibility parameters CH rule reference: CH-TSI LOC&PAS-029 Safety against derailment Y/Q The alternative verification procedure on respect of coefficient Y/Q in accordance with clause 4.3.10, ERA/TD2012-17 INT rev 3.0 may not be applied in Switzerland for vehicles which are the subject of this TSI. Current applicable norms in Switzerland: EN 14363:2005. The full details are in the attached document CH-TSI LOC&PAS-029_EN.pdf	The national rule refers to clause 4.2.3.4 of Loc&Pas TSI 1302/2014. **Agency:** ERA/TD2012-17 and the subsequent EN 14363:2016 were result of big project (dynotrain) held by dynamic behaviour experts from all EU. The RST TSIs requirements rely on the documents referred above. This was the common agreement taken by the EU MSs. Except if clearly justified, we cannot accept the comment that the new version of EN 14363 is considered less safe. **NSA CH:** After reviewing the situation with SBB Infrastructure we decided to delete this requirement. NNTR is going to be removed	Not accepted NR should be repealed NSA CH agreed to repeal the rule

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Other rules related to compatibility with network / legacy system	3.2.5-Minimum horizontal curve radius, vertical concave curve radius, convex curve radius CH rule reference: CH-TSI LOC&PAS-018 Minimum curve radius The following minimum track requirements shall be met for the free use of train lines in the SBB infrastructure network: -Minimum radius for railcars (and trainsets): Rmin = 125 m -Minimum radius for main-line locomotives: Rmin = 100 m -Minimum radius for passenger carriages: Rmin = 80 m Current applicable norms in Switzerland: The implementing provisions of the Railway Ordinance (version 01.07.2016) apply. Please also refer to SBB regulation R I 50007 The full details are in the attached document CH-TSI LOC&PAS-018_EN.pdf	The requirement refers to clause 4.2.3.1 of Loc&Pas TSI 1302/2014. **Agency:** The minimum curve radius shall be declared in RINF (covering also sidings). This is dealt with at the level of route compatibility checks - see Appendix D1 of TSI OPE in force. Railway networks may have sidings with very low values of curve radius but this shall not impact the vehicle authorisation. **NSA CH:** The specified values are not related to main lines but to sidings. We agree that this can be solved via RINF We will remove this point from the NNTR list	Not accepted NR should be repealed NSA CH agreed to repeal the rule

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Other rules related to compatibility with network / legacy system	4.1-Functional requirements for braking at train level CH rule reference: CH-TSI LOC&PAS-037 ETCS Service Brake New vehicles (newly built by the manufacturer) must be equipped with an ETCS service brake. Reasons/explanation The use of the ETCS service brake is proposed on ETCS Level 2 lines. The full details are in the attached document CH-TSI LOC&PAS-037_EN.pdf	The national rule refers to clause 3.13.2.2.7 of SRS 3.6.0 of CCS TSI 2016/919. **NSA CH:** Correct it is an optional in the TSI and with this requirement it is made mandatory for new vehicles in CH. In that sense it is really an exported constraint. This is necessary due to the BL3 fitness (B3 vehicle on B2 line). Subject of bilateral discussions/clarification. **Agency:** The use of the ETCS Service Brake is optional at decision of the RU/keeper. The option cannot be made mandatory (via a NR) because is an exported constraint. The rule should be moved to parameter 12.2.5.7-Other ETCS requirements (related to existing not interoperable networks)	Not accepted NR should be repealed

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Other rules related to compatibility with network / legacy system	4.2.2-Reliability of traction/braking interlocking CH rule reference: CH-TSI LOC&PAS-031 Safe traction cut-off It shall be ensured that when emergency braking is required by the ETCS on-board unit (OBU), traction is cut off on both the leading vehicle and the non-leading vehicles. The tolerated unavailability for traction cut-off on the leading vehicle and for multi-unit traction vehicles is set at 1*10-7. On manned non-leading traction vehicles (ETCS on-board unit in non-leading mode), it shall be ensured by technical means that the traction is cut off if the leading vehicle reduces the pressure in the main brake pipe. The tolerated unavailability is set at 1*10-5. Traction cut-off comprises the whole chain, from the OBU to the unit which performs the traction cut-off on the vehicle. Reasons/explanation In the case of the emergency brake being activated, safe traction cut-off must also be ensured when trains are running as multi-unit traction vehicles or a traction vehicle is at the rear of the train as a Push-locomotive or Tail-locomotive. Traction is normally cut off 'safely' via two channels, whereby one channel may be the train driver (in the case of a booster locomotive, Q-locomotive or double-headed train) may act as the second channel. A deviation from this two-channel system is only permitted if it can be shown that other measures with an equivalent degree of safety are in place and therefore that the train will stop safely before the point of danger	The national rule refers to clause 4.2.4.4.1 of TSI Loc&Pas 1302/2014, **NSA CH:** The national requirement defines the unavailability for the safe traction cut-off for multiple controlled vehicles and as well as for non-leading vehicles. There no corresponding unavailability requirement for the safe traction cut-off in the TSI. In 4.2.4.4.1 traction cut-off is requested but where is the tolerated unavailability for this function defined? This is also not treated in 6.2.3.5 or Table 3. The core of the requirement is that tolerated unavailability values are defined, for leading and multi controlled vehicles 10E-7 as well as for vehicles that are operating not multi controlled (NL-Mode) 10E-5. Out of experiences main concerns exist for multiple controlled vehicles, We have not yet analysed the Subset-119 and -0120 that are foreseen for the TSI 2022 in detail. A quick glance on the documents indicate that the requirement might be covered with these Subsets. **Agency:** The TSI Loc&Pas 1302/2014, clause 4.2.4.4.1 requires that the activation of the emergency braking (no distinction if by ETCS OBU or other means) shall lead to a traction cut-off. For the non-leading vehicle the activation of the service brake by the leading engine shall trigger a service brake in the non leading engine which shall trigger a cut-off of all tractive effort when speed is above 15/km/h - see the complete requirements in the Loc&Pas TSI 1302/2014, clause 4.2.4.4.2. The TSI provides the braking system safety requirements with the functional failure with its hazardous scenario and the safety requirements to be met.	Not accepted NR should be repealed

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
		The full details are in the attached document CH-TSI LOC&PAS-031_EN.pdf	In the clause 4.2.4.2.2 of the TSI Loc&Pas, in table 3, note 2 the safety requirements for the traction cut-off are provided. Translated in terms of regulation 402/2013 amended by regulation 2015/1136/EU, the frequency of failure of this function shall be 'highly improbable' (an occurrence of failure at a frequency less than or equal to 10E– 9 per operating hour).	

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Other rules related to compatibility with network / legacy system	4.4.1-Emergency braking command CH rule reference: CH-TSI LOC&PAS-022 Resetting the emergency brake It must only be possible to reset an emergency brake applied by the ETCS on-board unit in standstill mode. It must only be possible to reset the brake intentionally. Reasons/explanation In Switzerland, the emergency brake may only be applied in the event of a threat to safety. The vehicle must be brought to a standstill as quickly as possible. It must be a conscious act for the train driver to reset the brake when the train is stationary. The full details are in the attached document CH-TSI LOC&PAS-022_EN.pdf	The national rule refers to clauses 4.2.4.2.2 of Loc&Pas TSI 1302/2014. **NSA CH:** This requirement does not deal with the question when an EB is commanded by ETCS. In case of an EB activated by ETCS the request is, it shall lead to standstill and is just released by a driver action (not automatically). The ETCS parameter (Q_NVEMRRLS) is not respected in all modes. This requirement is requesting that an emergency brake is leading in any case to standstill (also in modes like RV). Second part of the requirement is requesting that the emergency brake can only be released by a "conscious" action of the train driver. The need for this requirement has been identified during risk analyses, first identified with the long tunnel projects. **Agency:** ETCS will provide the emergency brake command in 2 circumstances: 1. When the SBI curve is reached (for the case no service brake is implemented). This command will be revoked by ETCS when the train speed is under a certain supervision curve. Case 1 is to be evaluated in the context of the negative assessment of the rule CH-TSI LOC&PAS-037 (when ETCS service brake is implemented case 1 is not existing/applicable) 2. When the EBI curve is reached. In this case the emergency brake command will remain active until the train is at stand still which is in line with the requirement of this NTR - therefore the NTR is redundant. Q_NVEMRRLS is a national value and we assume it is set to 0 (Revoke emergency brake command at stand still) for CH. National values are taken into account for all modes except NP/SF/IS. CH to clarify under which circumstances this is not the case. Second part: Ss 034 chapter 2.3.3.3.2 state that when ETCS submit "Emergency Brake not commanded" which would be the case for the example above at stand still, the brake is released automatically or not,	Not accepted NR should be modified Discussion ongoing with Switzerland

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
			depending on the decision of the RU. A TSI conform on-board where the RU has ordered an automatic release of the EB would therefore not fulfil the CH requirement which is therefore an exported constraint which cannot be accepted. NSA CH to provide the elements identified during risk analyses (as indicated with the long tunnel projects). Based on this the Agency will re-assess the rule.	

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Other rules related to compatibility with network / legacy system	4.5.1-Emergency braking performance CH rule reference: CH-TSI LOC&PAS-035 Sufficient braking performance during emergency braking During emergency braking, the calculated ETCS braking curves may not be exceeded with the braking means available. The entire pathway of emergency braking from the output by the ETCS on-board unit to the lowering of the air pressure in the main brake pipe on the vehicle equipped with the ETCS on-board unit shall meet the following value: Tolerated unavailability: 1*10-7 Reasons/explanation If the braking distance is increased in case of emergency braking, this may lead to a hazardous situation. This must especially be taken into account for trains whose number of driving axles is more than 20% of the number of all axles and for all trains with a maximum speed > 160 km/h. If there is a switch of braking means, the changeover times must be taken into account. Requirement relates to CH-TSI CCS-007. The full details are in the attached document CH-TSI LOC&PAS-035_EN.pdf	The national rules refers to clause 6.2.3.8 Loc&Pas TSI 1302/2014. **NSA CH:** This requirement is valid for B2 and B3. We cannot see that the requirement is dealt in the TSI at the referenced chapters. We could not find value for the tolerated unavailability in the references provided. We have not yet analysed the Subset-119 and -120 that are foreseen for the TSI 2022 in detail. A quick glance have not shown that the requirement is covered with these Subsets. If necessary a CR will be considered when the TSI LOC&PAS CR process is established. **Agency:** The TSI provides the braking system safety requirements with the functional failure with its hazardous scenario (Table 3, no1 and no3) and the safety requirements to be met. The demonstration of compliance (conformity assessment procedure) is described in clause 6.2.3.5 of the TSI Loc&Pas 1302/2014. In the Loc&Pas TSI the are no requirements for specific braking performance, except for vehicles of speed above 200 km/h.	Not accepted NR should be repealed

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Other rules related to compatibility with network / legacy system	4.7.4-Eddy current track brake CH rule reference: CH-TSI LOC&PAS-030 Use of braking systems without friction The use of braking systems independent of wheel-rail adhesion conditions (e.g. eddy current track brakes, magnetic track brakes) for service braking is not permissible in Switzerland. The superstructural constructions used in Switzerland and calculated according to IP-RailO on Art. 31, para. 2.1 are not designed for the additional forces and temperatures generated by these braking systems. The weldability limits of long welded rails set according to the stability calculation (IP-RailO on Art. 31, para. 5) (set for Switzerland in R RTE 200.41) do not take account of the additional forces and temperatures generated by these braking systems. Magnetic brakes for emergency braking as required by INF TSI are permitted. The full details are in the attached document CH-TSI LOC&PAS-030_EN.pdf	The national rules refers to clauses 4.2.4.8.2. and 4.2.4.8.3 of Loc&Pas TSI 1302/2014. **Agency:** The requirement for the usage of magnetic track brake (parameter 4.7.3) - allowed as emergency brake is already covered in the TSI: LOC PAS TSI 1302 2014 - 4.2.4.8.2 Magnetic track brake. The sentence “Magnetic brakes for emergency braking as required by INF TSI are permitted.” should be removed as redundant to TSI requirements. **NSA CH:** We will further assess on our side compared with the TSI requirements. To consider possible different approaches for eddy current brake and magnetic track brake.	Not accepted NR should be modified

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Other rules related to compatibility with network / legacy system	5.1.1-Exterior doors CH rule reference: CH-TSI LOC&PAS-028 Gauge, doors Justification according to EN 15273 A-derogation (see page 2). However, entrance doors that utilise the conditions in UIC leaflet 560, sections 1.1.4 to 1.1.4.3 are permitted. Current applicable norms in Switzerland: The norms set out in the implementing provisions of the Railway Ordinance (version 01.07.2016) apply. Please also refer to EN 15273:2013 (esp. Swiss A-derogation) and UIC leaflets 505 and 506 and esp. 560. The full details are in the attached document CH-TSI LOC&PAS-028_EN.pdf	The national rules refers to 4.2.3.1 of Loc&Pas TSI 1302/2014. **Agency:** From the available information seems that it is a gauging issue and therefore not in the scope of the basic parameter - please confirm. The TSI requirements for gauging concerns only the rules for calculation and verification; the applicable methods are set out in EN 15273-2. The TSI does not mandate any specific reference profile. Can you please precise the deviation from the TSI requirements. The rule should be moved to parameter 3.1-Vehicle gauge Note: The LOC&PAS-017 is assessed as not acceptable (redundant to TSI requirements) **NSA CH:** Correct, this is a gauging issue at standstill on 55 cm platforms This is described in the SBB R I-20030, chapter 7. Will be integrated in LOC&PAS-017. Further comments see LOC&PAS-017.	Not accepted NR should be repealed

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Other rules related to compatibility with network / legacy system	6.2.2.3-Pass-by noise impact CH rule reference: CH-TSI-CR-NOI-001 Emission limit values for freight wagons Reference in Swiss regulation: The Federal Act on Railway Noise Abatement Measures (RNAA) was revised as of 1.3.2014 (SR 742.144) (not available in English). https://www.bav.admin.ch/bav/de/home/rechtliches/rechtsgrundlagenvorschriften/ab-ebv.html The federal regulation on Railway Noise Abatement dated of 4.12.2015 (SR 742.144.1). (not available in English) https://www.admin.ch/opc/de/official-compilation/2015/5691.pdf Full description: Limit values are set for all freight wagons currently in operation. It is intended to apply the TSI limit values for converted freight wagons to all freight wagons currently in operation. These values cannot be kept by freight wagons with cast iron brake blocks. In practice, this means that freight wagons with this type of brake block will be prohibited. This new requirement was notified in the legislation process in 2012. Current applicable norms in Switzerland: There are no further normative requirements other than the existing IP-RailO (not in English) and the Noise TSI (2011/229/EU). Test specification for certificate of conformity: There are no further test specifications other than the existing IP-RailO (not in English) and the Noise TSI (2014/1304/EU)	The national rule refers to clause 7.2.2. Additional provisions for the application of this TSI to existing wagons plus Articles 5a, 5b and 5c of NOI TSI 1304/2014 amended by Regulation (EU) 2019/774 of 16 May 2019 **Agency:** The last amendment of the TSI NOI (from 2019) already sets out a procedure to apply the TSI to existing freight wagons. The rule should be repealed as is addressing aspects already covered by the TSI NOI.	Not accepted NR should be repealed

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Other rules related to compatibility with network / legacy system	7.2.2.2-Marker lights CH rule reference: CH-TSI LOC&PAS-010 Optical warning signal at front of train: 3 x red Vehicles shall be able to display 3 x red at the front of the train in order to warn the oncoming train of danger. Requirement goes beyond TSI requirements. Current applicable norms in Switzerland: RSR R 300.2 Section 8.1.2 The full details are in the attached document CH-TSI LOC&PAS-010_EN.pdf	The national rule refers to clauses 5.3.7 and 4.2.7.1.2 of Loc&Pas TSI 1302/2014. **NSA CH:** As in Switzerland we have a - very dense traffic, - short block distances and - mixed traffic on the network (passenger, freight incl. dangerous goods) and not yet everywhere a complete available radio communication system (partly any emergency calls possible), the signalization of 3 red lights has to be considered as a (operational compatibility) caused of the existing network. (Another (theoretical) possibility would be to reduce the speed of all trains to avoid collisions with high speeds, but this would limit the capacity of the network in a way that is - on an economic point of view - impossible.) The aim of Switzerland is to cancel the 3 red lights as soon as possible, but this will only be possible, when the network will have a complete available radio communication and every loc/train is obliged by IM to have the same communication system available. **Agency:** Basically it is not acceptable to have additional requirements beyond TSI requirements unless justified needs of technical compatibility with existing network. The requirement to display 3 red lights (as requested by 8.1.2 of RSR R 300.2) is an obstacle to interoperability and cannot be accepted. As described in the referenced document the 3 red lights are to be displayed only on the front of the vehicle. This limits the protection by such a system to the oncoming vehicles (same line or parallel lines) and direct line of sight of the stopped vehicle. The rule is not a rule for vehicle authorisation, this should be dealt with under the SMS of Railway undertaking (see also OPE TSI 4.2.2.1). There could be many ways that does not require a technical change of a vehicle.	Not accepted NR should be repealed

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Other rules related to compatibility with network / legacy system	8.2.1.4-Maximum power and maximum train current that is permissible to draw from the overhead contact line CH rule reference: CH-TSI LOC&PAS-011 Traction power limitation 1.) Frequency-dependent traction limitation 2.) Voltage-dependent traction limitation Current applicable norms in Switzerland: SBB R I – 50068/50069 The full details are in the attached document CH-TSI LOC&PAS-011_EN.pdf	The national rule refers to the TSI Loc&Pas 1302/2014, clause 4.2.8.2.4 which is referencing EN 50388:2012 and EN 50388:2012/AC:2013 **Agency:** The document SBB R I-50069 referenced in the rule it also make reference to the EN 50388. The document SBB R I-50068 referenced in the rule makes reference to the EN 50163 which specifies characteristics for traction fixed installations. Please clarify what are the additional requirements compared to TSI. **NSA CH:** Question send to SBB Infrastructure - answer pending	Not accepted Discussion ongoing with Switzerland

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Other rules related to compatibility with network / legacy system	9.3.3-Controls and indicators CH rule reference: CH-TSI LOC&PAS-019 The "non leading input signal" 1) The vehicle must give the non-leading input signal to the ETCS on-board unit via the train interface (TI). 2) The non leading input signal many display the value 'nonleading permitted' at the train interface only when it is ensured that the driver's brake valve or brake valve system is closed off. 3) The non-leading input signal be independent of the position of the direction selector. Reasons/explanation Requirement 2) relates to the automatic brake (indirect brake - with main brake pipe). By closing off the driver's brake valve or brake valve system, delayed or obstructed braking of the train is avoided. The requirement in 3) for the non-leading input signal to be independent of the position of the direction selector corrects requirement 2.2.3.3.1 b) in SUBSET-034, Version 3.1.0, which is not suitable for operation. Requirement relates to CH-TSI CCS-006 and CH-TSI CCS-034. The full details are in the attached document CH-TSI LOC&PAS-019_EN.pdf	The national rule refers to clause 2.2.3 of SUBSET-034 of TSI CCS 2016/919. **Agency:** For 1 and 2: In the Subset-034 the requirement is defined and clearly identified for rolling stock. Therefore this requirement is not acceptable as redundant. For 3 (driver selection selector): The requirement is an exported constrain because it contradicts the actual CCS TSI requirements. **NSA CH:** Summarizing the requirement of LOC&PAS-019 1. That the vehicle has to provide the non-leading input signal - There is no requirement in the TSI LOC&PAS requesting that the vehicle must provide the non-leading input signal to the ETCS on-board unit via the train interface (TI). 2. The non leading input signal shall display the value 'nonleading permitted' only when it is ensured that the driver's brake valve or brake valve system is closed off. - There is no requirement in the TSI LOC&PAS that the non leading input signal shall display the value 'nonleading permitted' at the train interface only when it is ensured that the driver's brake valve or brake valve system is closed off. Without this the risk exists that the braking of the train is delayed or obstructed. 3. The non-leading input signal shall be independent of the position of the direction selector. - Requirement 2.2.3.3.1 b) in SUBSET-034, Version 3.1.0 and 3.2.0 requests a dependency between the Non Leading Mode and the position of the direction selector. This is causing a technical solution that is operationally not usable.	Not accepted NR should be repealed.

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Other rules related to compatibility with network / legacy system	9.3.3-Controls and indicators CH rule reference: CH-TSI LOC&PAS-020 Sleeping input signal with multiple-unit control A vehicle running as a multiple unit (further locomotive) or as a vehicle with driving cab must make the sleeping input signal available to the ETCS on-board unit via train interface (TI). Reasons/explanation An ETCS on-board unit in 'Sleeping' mode processes lineside information. If this vehicle becomes the leading vehicle, it then has the information necessary (e.g. national values, RBC number, ETCS level, etc.) for the start of mission. The full details are in the attached document CH-TSI LOC&PAS-020_EN.pdf	The national rule refers to clause 2.2.1.3 of SUBSET-034 of TSI CCS 2016/919. **Agency:** The topic addressed by the rule is covered in the Subset 034 - 2.2.1.3. of TSI CCS, where is clearly stated that the input has to be provided train-wide by the RST. RST shall handle how the input is generated based on the requirements in the TIU document. **NSA CH:** As stated in the ERA Comment it is expected that a signal is requested in the RST TSI. Subset-034 is not explicitly referenced in the TSI LOC&PAS. In addition it is not specified in the TSI LOC&PAS that if the multiple controlled condition is active, the Sleeping Mode is requested.	Not accepted NR should be repealed

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Other rules related to compatibility with network / legacy system	9.3.3-Controls and indicators CH rule reference: CH-TSI LOC&PAS-036 Vehicles with a control panel for both directions of travel In vehicles with a control panel for both directions of travel, it must be technically ensured that the orientation with respect to the ETCS operating mode and the driving direction can be clearly and easily defined. Reasons/explanation A vehicle must be prevented from driving backwards over a level crossing in 'Unfitted mode' and the level does not switch. Requirement relates to CH-TSI CCS-022. The full details are in the attached document CH-TSI LOC&PAS-036_EN.pdf	The national rule refers to clause 2.5.1.4.5 of subset 034 of TSI CCS 2016/919. **Agency:** When the requirement is fully covered in baseline 3 (rule deemed valid only for baseline 2) the requirement is only for CCS on-board - there is no additional requirement for Rolling Stock - only the national rule CCS-022 (which is positively assessed by the Agency) should remain. **NSA CH:** Never the less the requirement will not be notified as NNTR but will be kept as NTR. It is assumed that vehicles where this requirement applies are only national vehicles (yellow fleet).	Not accepted NR should be repealed

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Other rules related to compatibility with network / legacy system	9.3.3-Controls and indicators CH rule reference: CH-TSI LOC&PAS-025 Inhibited operability to disconnect ETCS on-board unit The means of disconnecting the ETCS on-board unit must be configured in such a way that the unit cannot be disconnected unintentionally (e.g. by operating a switch by mistake). Reasons/explanation Disconnecting the ETCS on-board unit poses a considerable hazard. Disconnection results in the train no longer being monitored by the ETCS on-board unit and braking is ineffectual. The full details are in the attached document CH-TSI LOC&PAS-025_EN.pdf	The national rule refers to clause 4.2.2 of TSI CCS 2016/919. **Agency:** In order to disable the ETCS it has to be first put in Isolation mode (chapter 4.4.3 of subset 026). In order to move the ETCS vehicle in No Power mode see chapter 4.4.4 of subset 026. ETCS brake command must be overridden by external means (chapter 4.4.4.3.3 of subset 026). Disconnecting of ETCS is a matter of safe integration of the ETCS on board unit in the vehicle and part of the SMS of the RU. The rule is not acceptable. The rule should be moved to parameter 12.2.5.8-Specification of condition of use where ETCS on-board does not implement all functions, interfaces and performances **NSA CH:** It is not just about unintentionally disconnections (isolation). If there is a switch in the range the probability that it is used is much higher. There must be a barrier so that it is only actuated in very specific cases. Based on which rule should this risk be handled during integration? The current TSI LOC&PAS does not rule this integration aspect.	Not accepted NR should be repealed

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Other rules related to compatibility with network / legacy system	9.7-Remote control function from the ground CH rule reference: CH-TSI LOC&PAS-027 Manual radio remote control in 'Shunting' mode If a vehicle is equipped with radio remote control that permits operation of the vehicle from outside the driver's cab, the following requirement applies: Operating or moving the vehicle via the radio remote control shall only be possible when the ETCS on-board equipment is in shunting mode (SH). Reasons/explanation A range of risks relating to shunting movements on ETCS-L2 routes can only be overcome by requiring the ETCS-OBU to be in shunting mode (SH). The full details are in the attached document CH-TSI LOC&PAS-027_EN.pdf	**Agency:** The requirement to operate or move the vehicle via the radio remote control to only be possible when the ETCS on-board equipment is in shunting mode (SH) can be covered by the SMS of the RU. The ETCS transition from Shunting mode to other modes is possible only with the driver intervention and/or via a mode where the brakes are applied (see table 4.6.2 of the subset 026). General requirements regarding the radio remote control function are covered by TSI Loc&Pas clause 4.2.9.3.6. The rule is related to ETCS CCS on-board functionality. As the rule is an exported constrain cannot be accepted pending the discussion/decision of Extended ERTMS Core Team on the existing CR on this matter. **NSA CH:** Until the aspect is included in the TSI this requirement (NNTR) is required and cannot be repealed. As soon as the CR process for the TSI LOC&PAS is setup, we will come up with a CR for the sofare missing part for the radio remote control.	Not accepted NR should be repealed Discussion ongoing with Switzerland

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	ETCS and GSM-R	12.1.2.2-Other GSM-R requirements CH rule reference: CH-TSI CCS-036 GSM-R interference resistance GSM-R terminals are not required to be equipped with the interference filters required by TSI. Reasons/explanation The CCS TSI 2016/919 contains clauses requiring GSM-R modules with interference filters. These interference filters prevent problems that do not exist in Switzerland. It is therefore not necessary to apply the requirements in Switzerland, and so unnecessary costs (e.g. upgrades) can be avoided. The full details are in the attached document CH-TSI CCS-036_EN.pdf	The national rule refers to clause 4.2.4 of TSI CCS 2016/919. **NSA CH:** As this is a national aspect we could agree that this requirement is not notified in the RDD, but remains valid on national level (NTR). **Agency:** Not acceptable NTR as it requires less than the TSI (Remark: CH has implemented GSM-R trackside in a way that there are no problems with disturbances, therefore no enhanced receivers (with additional costs for the RUs) are needed. In case CH authorise vehicles with lower requirements compared to TSI the discrepancies shall be recorded as condition and restriction of use in order to avoid interoperability issues in case the area of use of the vehicle is extended to another MS (grandfather rights are not applicable in such a case).	Not accepted NR should be repealed

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	ETCS and GSM-R	12.1.2.2-Other GSM-R requirements CH rule reference: CH-TSI CCS-033 GSM-R Voice Functionalities The test specification O-3001-1 reference in SUBSET-093 V2.3.0 “Test specifications for GSM-R MI related requirements. Part 1: CabRadio” should be used. GSM-R terminals on shunting vehicles must meet the following requirements: 1. Support cell change in group calls (as talker and listener) with SI10bis/ter implementation and processing at terminals with resulting cell change times of less than 500 ms. 2. Support PtP calls in ER-GSM bands. 3. Support shunting group call (VGCS) incl. shunting emergency call (SEC) in ER-GSM bands. 4. Support additional SBB Enhanced Automatic Conferencing (eAC) service in SBB's Swisscom Public and GSM-R network. Proof of compliance must be provided by a recognised or certified laboratory that maps the Swiss GSM-R network. Reasons/explanation A short cell change time of 500 ms guarantees an uninterrupted voice connection incl. transmission of the connection monitoring tone thereby avoiding an unintentional stop during shunting. Shunting vehicles are termed ‘shunters’ in the LOC&PAS TSI. These may include maintenance vehicles, depending on their use.	The national rule refers to clauses 6.1.2.5 and 4.2.17.2 of TSI CCS 2016/919. **NSA CH:** Summarizing the requirements of CCS-033 1. The test specification O-3001-1 must be executed. For this aspect a proposal for a CR has been defined. 2. Specific requirements for GSM-R terminals on shunting vehicles. This requirement is (generally) applicable for shunting vehicles and these are usually national vehicles (not international). But as for both, national and internal, vehicles the same authorisation procedure shall be applied, this has to be part of a NNTR. **Agency:** The first part of the requirement has to be repealed and moved to RSC. In addition the failure (reference to Subset-093) has to be corrected and the contact of the laboratory has to be added. The second part of the requirement on shunting vehicles should be modified in a way, that the possibility to achieve this functionality can be reached also with e.g. a handheld. Also this part should be repealed and moved to another place like the Network statement, the "Voraussetzungen für ...".	Not accepted NR should be repealed. RSC requirements should be appropriately notified Discussion ongoing with Switzerland

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
		The full details are in the attached document CH-TSI CCS-033_EN.pdf		

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	ETCS and GSM-R	12.1.2.2-Other GSM-R requirements CH rule reference: CH-TSI CCS-005 Proof of Quality of Service for GSM-R radio transmission The ETCS data channel must meet the QoS parameters in SUBSET-093 V2.3.0 “GSM-R Interfaces Class 1 Requirements”. Version 3.0 is to be used for document O-2475 “ERTMS/GSM-R Quality of Service Test Specification” referenced in SUBSET-093. As proof of compliance, test results obtained with a GSM-R network in operation in Europe or in a laboratory which reproduces such a network are required. Reasons/explanation Compliance with required QoS parameters for GSM-R (EDOR) in order to ensure reliable operation on ETCS L2 track The full details are in the attached document CH-TSI CCS-005_EN.pdf	The national rule refers to clauses 6.1.2.5 and 4.2.17.2 of TSI CCS 2016/919. **NSA CH:** We understand your comment that it must be indicated in the requirement (NNTR) that it is a RSC, correct? **Agency:** ERA considers the NNTR as not acceptable. It therefore should be repealed as NTR and notified as RSC. As the IM has to indicate in which conditions the test are to be performed, the other requirements will be covered too in the RSC. In addition the first part of the requirement has to be adapted with the actual targets that must be met. Note: The topic has already been addressed by ERA. Major issue are the system boundaries not matched between Subset-093/Test specification and the TSI. As state of today a CR most like would have to be postponed until the split of the requirements (EDOR resp. network) is available.	Not accepted NR should be repealed. RSC requirements should be appropriately notified.

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	ETCS and GSM-R	12.2.3-Transitions CH rule reference: CH-TSI CCS-024 Train data: NC_TRAIN, M_AXLELOAD, V_MAXTRAIN For ETCS on-board units in accordance with Baseline 2 the requirements in Points 1 to 4 apply. For ETCS on-board units in accordance with Baseline 3 the requirements in Points 5 to 7 apply. The following requirements apply independently of whether the values are fixed specified values (projection), are transmitted automatically by another system or are entered manually by the train driver See the attached document for all the detalis. Reasons/explanation In relation to the various sections of the requirement: 1.1, 5.1: Trains should not have to travel more slowly simply because ETCS train data input is not flexible enough. 1.2, 5.2: Tilting trains must be able to travel in accordance with vehicle type R≤18t depending on the route or when their tilting mechanism is inactive. 2: For obvious reasons, the harmonised train data input in Baseline 3 is preferred. 2.1.1 Example: It should not be necessary to enter or select a cant deficiency (e.g. '150mm') when entering train data. 3.1, 6.1: Safety compliance assumes that train data are safe under normal circumstances. 3.2, 6.2: This makes it easier to demonstrate safety compliance. 4.1.1 NB: In accordance with TSI, trains conforming to Baseline 3 set this bit to 1. 4, 7, Tables 1 to 3: Planning of the ETCS speed profiles is	The national rule refers to clause 4.2.2 of TSI CCS 2016/919. **Agency:** The rule is not acceptable in the current form. For 1: ERA considers this not as a valid NNTR requirement, as this is an operational aspect, not relevant for VA. For. 2: Detailed information on the Bit's not defined are missing. NSA CH to provide the detail information on the Bit's that are not so clear. Based on this ERA will provide feedback for further changes in the rule. For 3: ERA will further investigate the requirements on the changeability of the train data. **NSA CH:** The CH national set of train categories have existed since decades (legacy). One of the aspect of the requirement (there are more things specified) is the matching between the CH national set of train categories with the ETCS train categories. Out of our view it is not useful to try to bring in a national specific aspect like this into the TSI/SRS (via a CR). Due to our understanding the TSI/SRS should regulate things applicable to all. Summarizing the requirement of CCS-024 1. This rule is defining the relation between CH national set of train categories with the ETCS train categories. It is a national aspect (and CH national set of train categories have existed for a long time) 2. It is repeating and detailing the Bit values a train with a certain characteristic to trackside has (important as trackside is selecting the SSP). The SRS does not define all Bit's required sufficiently (could also be subject for a CR) 3. It must be possible that the driver can modify certain train data values. This is something that should be specified in the TSI and therefore a CR proposal has been defined. With this it is ensured that the train can run at planned speed.	Not accepted NR should be modified. Discussion ongoing with Switzerland

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
		based on this. 4.4, 7.4: There is no train category for overspeed test drives in the TSI. 5.1 Example 1: On a multiple unit with fixed train data entry (train types as in ERA_ERTMS_015560 v340 or v360, 11.3.9.6 and Table 39), which can operate with Swiss vehicle type W or R, the23 selectable train types must allow ETCS train data corresponding to line W or R in Table 3 to be entered. Example 2: On a locomotive with fixed train data entry (input fields as in ERA_ERTMS_015560 v340 or v360, 11.3.9.6 and Table 40), which can operate with Swiss vehicle type R, A or D depending on the composition of the train, the input fields must allow ETCS train data corresponding to line R, A or D in Table 3 to be entered The full details are in the attached document CH-TSI CCS-024_EN.pdf		

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	Rules related to compatibility with TDS	12.2.4.5-Compatibility with fixed installations of CCS CH rule reference: CH-TSI LOC&PAS-014 Compatibility with track-free announcing devices Track current interrupted by railway vehicles which lie in the operating frequency range of track circuits. Current applicable norms in Switzerland: The norms set out in the implementing provisions of the Railway Ordinance (version 01.07.2016) apply. EN 50238-1; CLCMS 50238-2/50238-3; SBB R I-50097 and R I-50098 The full details are in the attached document CH-TSI LOC&PAS-014_EN.pdf	The national rule refer to clauses 4.2.3.3.1.1 and 4.2.3.3.1.2 of Loc&Pas TSI 1302/2014 **Agency:** The rule is not in the scope of the 12.2.4.5 parameter. The requirements are acceptable when split as following: 1. For parameter 8.4.2.1.1 Rail return current - R_I-50097_Kompatibilität zwischen Fahrzeugen und Gleisfreimeldesystemen – Gleisstromkreise_DE_20130905 - EN 50238-1 - CLC TS 50238-2 2. For parameter 8.4.2.2.1 Electro-Magnetic fields/Induced voltages in the track/under the vehicle - R_I-50098_Kompatibilität zwischen Fahrzeugen und Gleisfreimeldesystemen – Achszähler_DE_20130905 - EN 50238-1 - CLC TS 50238-3 **NSA CH:** OFT will split the rules as requested by ERA	Not accepted NR should be modified NSA CH agreed to modify the rule

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	ETCS and GSM-R	12.2.5.7-Other ETCS requirements (related to existing not interoperable networks) CH rule reference: CH-TSI CCS-008 Minimally implemented change requests Scope of application ETCS on-board unit Requirement An 'X' in the following table indicates which change requests (CRs) must be implemented in addition to the ETCS on-board unit's SRS version. Please pay attention to the footnotes. See the attached document for all details. 1 CR 138 must be implemented at least as follows: - It must be possible to reset braking in reversing mode when the vehicle is stationary. - When the vehicle is in reversing mode and stationary, monitoring of the resetting distance may never lead to use of the brake, even when the remaining resetting distance is 0m or the permitted resetting distance has been exceeded. NB: The amendment to SRS section 4.4.18.1.3 by CR 138 should be ignored, as CR 907 must be fully implemented. 2 CR 154: Only the part relevant to reversing mode must be implemented. 3 CR 458 must only be implemented if conditions are possible (e.g. owing to odometry problems) under which the ETCS onboard unit sends Packet 1, even though no single balise groups are located on the track. 4 CR 500: Only the amendment to SRS section 3.18.3.4 must be implemented.	The national rule refers to clause 4.2.2 of TSI CCS 2016/919. **Agency:** Concerning CR782 the justification (Memorandum) given is not acceptable, MS to provide proper justification. The rule is therefore not acceptable. Note for baseline 3: CR 1091 is not mandatory for B3 MR1 so it is acceptable CR 1312 is part of Art. 10 so it is acceptable The acceptable requirements may be kept in a separate rule **NSA CH:** CR782/CR870 is including safety relevant aspects. The Memorandum has been replaced by a more precise problem description (DB Netz, CFL, SBB, with support industry). The document has been sent 25.10.2019 to ERA. Today we assume that a solution to this problem will be available in the near future. As CR782 is the only issue raised we consider the rule therefore to be accepted.	Not accepted NR should be modified

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
		5 CR 600: Only the part regarding the sending of position reports according to position report parameters in operating mode UN must be implemented. 6 CR 1091 may be implemented, but this is not a requirement. NB: It has been decided (DAT 329) that when CR 1091 is implemented, CR 1326 should also be implemented. 7 CR 1312: The CR must be implemented at least to the extent that an operating mode must be confirmed before a message is sent. NB: CR 782 has been adopted for SRS versions 3.4.0 and 3.6.0. It has been shown that the adopted functionality leads to restrictions and risks (DAT 358). The SF ETCS should be contacted for further information. Reasons/explanation See description of problem in the relevant CRs. The full details are in the attached document CH-TSI CCS-008_EN.pdf		

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	ETCS and GSM-R	12.2.5.8-Specification of condition of use where ETCS on-board does not implement all functions, interfaces and performances CH rule reference: CH-TSI CCS-026 Online on-board monitoring of line equipment The ETCS on-board equipment must be able to register and transmit information for online monitoring. The requirements set out in the document 'Generisches Lastenheft Online Monitoring auf ETCS Fahrzeugen' (generic specification catalogue on online monitoring on ETCS vehicles) Version 1.3.1 (ETCS system manager baseline configuration) must be met. Reasons/explanation This meets and ensure high availability on track. Greater availability reduces safety risks resulting from the failure of lineside components. In the case of concrete projects, it is recommended to provide the Swiss ETCS system manager with any new information. The full details are in the attached document CH-TSI CCS-026_EN.pdf	The national rule refers to clause 4.2.2 of TSI CCS 2016/919. **NSA CH:** In the revision this requirement remains but has been modified and is now only valid for Baseline 3. This function is also expected from B2 equipped vehicles (has been requested in the past) and is a compromise to the current situation (new vehicles only with B3) that this requirement was abolished with the revision 2019 for B2 vehicles. This requirement could also be considered as a CH specific case in the TSI (if this would be possible for CH), at least it should be considered as a legacy. Indeed, the prospects are good that monitoring will be included in TSI 2022 (E437 EUG), CH is supporting this with vigour. Until then this requirement must remain. **Agency:** On-line monitoring could be a useful feature and may be taken into account in the Agency CCM, nevertheless it is not foreseen in ETCS today and therefore an exported constraint - the rule is not acceptable.	Not accepted NR should be repealed

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	ETCS and GSM-R	12.2.5.8-Specification of condition of use where ETCS on-board does not implement all functions, interfaces and performances CH rule reference: CH-TSI CCS-001 Requirements for the use of rolling stock on ETCS routes The requirements in the document “Voraussetzungen für den Einsatz von Fahrzeugen auf ETCS-Strecken” (Requirements for the use of rolling stock on ETCS routes) apply. The full details are in the attached document CH-TSI CCS-001_EN.pdf	**Agency:** Not acceptable as NTR. The VA requirements referenced in the document are already notified in the RDD. The referenced document contain some useful information (see hereafter) and could be published (e.g. on the FOT website). Chapter 6 provides information for train operation (SMS) Chapter 7 lists the NTR (all of them are notified in the RDD Chapter 9 lists the history and evolution of the NTRs **NSA CH:** From our point of view it is acceptable that it is not published in the RDD. But it must remain valid on national level.	Not accepted NR should be repealed NSA CH agree to repeal the rule.

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	ETCS and GSM-R	12.2.5.8-Specification of condition of use where ETCS on-board does not implement all functions, interfaces and performances CH rule reference: CH-TSI CCS-035 Text to be displayed at the DMI Text and terms displayed at the DMI must correspond to Annex A of the technical specification for interoperability of the 'operation and traffic management' subsystem (Annex A of the OPE TSI) and with the ETCS Driver Machine interface Specification (Index 6 in Annex A of the CCS TSI). Reasons/explanation This prevents misleading terms resulting from different translations that are not in use in Switzerland from being displayed on the DMI. In principle, the English texts in Annex A to the OPE TSI and the ETCS Driver Machine Interface specification (CCS TSI) are considered suitable for this purpose, including the DMI languages commonly used in Switzerland, namely German, French and Italian. These are texts which are displayed in the ETCS on-board equipment, not texts which are transmitted from the track side. The full details are in the attached document CH-TSI CCS-035_EN.pdf	The national rule refers to clause 4.2.2 (communication with the driver) of TSI CCS 2016/919. **Agency:** All information generated by the system and to be displayed to the driver is standardised only for the English version. The keeper/RU can order ETCS with additional multiple languages but the translation content is not standardised. The language chosen by a driver for the DMI, from the available ones, is an operational issue and not in the scope of vehicle authorisation. The communication with the trackside operator has to be performed in the language requested by the IM and is part of the SMS of the RU to use the right communication terms. The rule is an exported constrain and therefore not acceptable. The Agency supports the approach to standardize other language versions than English. **NSA CH:** The FOT supports the approach that the standardized language is English and is involved in the discussion in the OH group. Today this is not available and therefore the NNTR is required. For ERA this NNTR is requesting something that is already requested by the TSI and is therefore not a valid NNTR (rejected). FOT will adapt the NNTR as soon as an agreed list of translations is ruled via the TSI.	Not accepted NR should be repealed

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	ETCS and GSM-R	12.2.5.8-Specification of condition of use where ETCS on-board does not implement all functions, interfaces and performances CH rule reference: CH-TSI CCS-037 SIL2 DMI The safety requirements for DMI functions do not necessarily have to be met using a DMI with a proven safety integrity level (SIL), but can also be met with process assurance. Reasons/explanation CCS TSI 2016/919 contains requirements from which it can be concluded that the DMI must have a SIL 2. Implementation via a SIL 2 DMI is not necessary in Switzerland. The full details are in the attached document CH-TSI CCS-037_EN.pdf	The national rule refers to clause 4.2.2 of TSI CCS 2016/919. **Agency:** No acceptable NTR as it requires less than the TSI. In case CH authorise vehicles with lower requirements compared to TSI the discrepancies shall be recorded as condition and restriction of use in order to avoid interoperability issues in case the area of use of the vehicle is extended to another MS (grandfather rights are not applicable in such a case). **NSA CH:** From our point of view it is acceptable that it is not published in the RDD. But it must remain valid on national level (NTR).	Not accepted NR should be repealed NSA CH accepted to repeal the rule

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	ETCS and GSM-R	12.2.5.8-Specification of condition of use where ETCS on-board does not implement all functions, interfaces and performances CH rule reference: CH-TSI CCS-038 Disclosure of large odometry confidence interval NB: The implementation of this requirement is described in more detail in the letter from the FOT to the sector (September 2019). If there are deviations from the specifications in SUBSET-041 (CCS TSI) clause 5.3.1.1, the train driver must be fully informed. The resulting action to be taken by the train driver is determined by the on-board integrator. Reasons/explanation It must be clear to the train driver that the path measurement deviates from the odometric accuracy required in the specification. The full details are in the attached document CH-TSI CCS-038_EN.pdf	The national rule refers to clause 4.2.2 of TSI CCS 2016/919 and Subset-041. **NSA CH:** We fully agree that the RBC has to recognise an enlarged confidence interval and has to react, this is currently in development. The requirement deals with the vehicle/OBU part that is independent from the incidents (but is a further insight from them). CENELEC standard 50128 is demanding a defensive programming for a SIL4 system. This means in case of wide enlarged confidence intervals with a reaction at least informing the driver. We strongly supported to bring a solution into the TSI 2022 (preferable even before). As soon as this becomes apparent, the NNTV can be repealed. **Agency:** The rule is based on ad-hoc mitigation measures following two incidents in Switzerland. The general problem should be solved in RBC (error in RBC design). It is an exported constrain to the CCS on-board therefore is not acceptable. Even if the solution is providing supporting information to the driver, it cannot be accepted.	Not accepted NR should be repealed

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	ETCS and GSM-R	12.2.5.8-Specification of condition of use where ETCS on-board does not implement all functions, interfaces and performances CH rule reference: CH-TSI CCS-006 Verlust "non leading permitted" in der Betriebsart "Non Leading" When the ETCS on-board unit is in non-leading mode and the non leading input signal does not display “non leading permitted” at the TI, the ETCS on-board unit must display the message “NL not permitted” in the language selected on the DMI. Reasons/explanation This message allows the driver to react immediately when the “non-leading permitted” signal is lost. Requirement relates to CH-TSI LOC&PAS-019 The full details are in the attached document CH-TSI CCS-006_EN.pdf	The national rule refers to clause 4.2.2 of TSI CCS 2016/919 and Subset-026. **NSA CH:** Why is it relevant that it is valid for all baselines and why should this be an exported constraint (guessing an exported constraint from trackside is meant)? This is a safety relevant requirement! Could be subject for a CR. Subject of bilateral discussions/clarification. **Agency:** It is not acceptable that a potential issue in the RST (loosing of NL permitted while running in this case) is solved via exported constrains to ETCS. ETCS will switch to SB mode (transition 47) at standstill.	Not accepted NR should be repealed

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	ETCS and GSM-R	12.2.5.8-Specification of condition of use where ETCS on-board does not implement all functions, interfaces and performances CH rule reference: CH-TSI CCS-019 Acceptance and display of train data An implementation is permitted such that ETCS on-board units use train data from a source other than the train driver in order to display them as default values instead of the previously stored values if the train driver initiates a change in the train data. Reasons/explanation For new train data to become valid, the train driver must carry out an intentional action. Implementations are permitted that neither lead to an automatic change in ETCS train data nor automatically launch a process requiring the train driver to confirm changed ETCS train data. However, the train data from an external source should be displayed as default values when the train driver initiates a change in the train data. The full details are in the attached document CH-TSI CCS-019_EN.pdf	The national rule refers to clause 4.2.2 of TSI CCS 2016/919 and Subset-026. **NSA CH:** The rule is not dictating/insisting a specific solution, it is opening the possibility to implement a specific solution that is not specified in the TSI, but is from a safety point of view of relevance. There is no higher SIL demand for the information coming from the vehicle. **Agency:** It's the decision of the RU, how train data provided from external sources are handled (this is an option in the specifications, train data display is on driver request, train data changes are always possible) and the SMS of the RU how to handle this. From the wording of the rule and from the feedback received it seems that is a not mandatory option but is notified as a mandatory rule for VA. In case it is not mandatory to have this feature it shall not be notified.	Not accepted NR should be repealed

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	ETCS and GSM-R	12.2.5.8-Specification of condition of use where ETCS on-board does not implement all functions, interfaces and performances CH rule reference: CH-TSI CCS-032 Unique number for ETCS on-board equipment and GSM-R cab radio If the train number is entered at the ETCS-DMI, it must be ensured by technical means that the unique number is available to both the ETCS on-board equipment and the CabRadio (GSMR Voice). If the train number is adopted from a subsystem outside of CCS, it must be ensured that this train number is available to both the ETCS on-board equipment and the CabRadio (GSM-R Voice). ETCS on-board unit (OBU) and GSM-R cab radio must share an interface and have the necessary functional components. Reasons/explanation The train driver can be reached by train radio using the train number (functional addressing). In particular in long tunnels it must be ensured that the train driver can be reached immediately (e.g. in the event of an incident). This is possible when the same train number is used. The full details are in the attached document CH-TSI CCS-032_EN.pdf	The national rule refers to clauses 4.2.2 and 4.2.4 of TSI CCS 2016/919. **NSA CH:** Only a technical implementation provides the necessary safety, meaning that the driver in case of an event can be contacted (voice). This is a function requested in the Functional Requirements Specification that has not been further specified in the SRS. The FOT consider this as a major safety relevant aspect. **Agency:** The rule is an exported constrain because the physical connection GSM-R voice and ETCS is not specified. The safety relevant aspects should be covered in the SMS of RU (e.g. the driver is calling the dispatcher before starting the mission). This solution in the rule is limited to level 2 operation. There is no requirement in the FRS referred by the set 1 of TSI CCS Annex A which support this NTR. 99E 5362 (ERTMS/ETCS Functional Statements) which was supporting the FRS and containing this requirement was removed in the 2009/561/EC version.	Not accepted NR should be repealed

Subsystem	Distribution of remaining rules	National rules	Examination of national rules leading to a negative assessment	Agency assessment status
RST/CCS	ETCS and GSM-R	12.2.5.8-Specification of condition of use where ETCS on-board does not implement all functions, interfaces and performances CH rule reference: CH-TSI CCS-016 Application of country-specific project planning and functions When an ETCS on-board unit is used in Switzerland and has nonSwiss ETCS parameter values and non-TSI compliant functions in addition to the ETCS parameter values and functions necessary for Switzerland, it must be assured by technical means that only the ETCS parameter values and functions valid in Switzerland are used on Swiss ETCS routes. Non-Swiss ETCS parameter values and functions must be declared. Reasons/explanation This requirement only applies to parameters that cannot be transmitted by lineside ECTS equipment. The application of the correct parameter values is either important from a safety aspect (e.g. braking curve parameters) or necessary for technical compatibility (e.g. use of correct pantograph). This has an indirect impact on track availability. The full details are in the attached document CH-TSI CCS-016_EN.pdf	The national rule refers to clause 4.2.2 of TSI CCS 2016/919. **Agency:** ERA had proposed in the Control Group meeting of the 23.05.2019 that NSA's define an NNTR, in order to cope with non TSI conformity (additional or missing functionality). The NSA CH considers CCS-016 as the corresponding Swiss version of this NNTR. Only further request in CCS-016 in the request for a technical implementation. The NSA CH will check if the phrasing can be adapted to the ERA proposal. In this case the NTR could be accepted	Not accepted NR should be modified. Discussion ongoing with Switzerland