Amendments and additions to the GCU Proposal sheet

GCU Appendix 16

1.- Expose the problem (with examples and, if possible, figures giving a measure of the scope of the problem): According to TAF TSI (1305/2014), keepers must provide administrative and technical data on their freight wagons. The TAF reference data are taken over in the GCU Appendix 16 for what concerns the exchange of those data between Keepers and RUs. As the TAF TSI data catalogue changes over time, Appendix 16 needs to be aligned. The current data set in the GCU does not reflect the latest TAF TSI rolling stock reference dataset.	**2.- Show what the GCU is lacking in this respect:** In the current Appendix 16, the data set does not reflect the latest TAF TSI rolling stock reference data version. According to the current TSI Noise, special information is required on the type of fitted brake blocks and, if applicable, information on exemptions in certain countries. In addition, Keepers shall provide information on the planned date of next overhaul and the end of validity of the current overhaul. Finally, the code lists behind the data elements shall be removed from the GCU text as they also change of time and are already part of the XSD schema in the GCU Broker.
3.- Explain why the problem can only be solved through the GCU contract: Appendix 16 needs to be amended to allow RUs to retrieve the correct data on the equipment ofthe freight wagons with quiet brake blocks as well as data on the planned overhaul for the wagons. In addition, the code lists need to be removed from the text of Appendix 16 as they change over time and are already part of the GCU Broker XSD schema.	**4.- Outline why the problem should be solved as envisaged in the proposed amendment/addition:** The proposed solution will allow all RUs to use the GCU Broker as central communication platform for retrieving technical wagon data. The proposed solution introduces missing elements and deletes unneeded elements.
5.- Describe how the proposed amendments or additions will help solve the problem: With the proposed amendment, GCU Appendix 16 is aligned to legal requirements from TAF TSI (1305/2014): required elements are added, unneeded elements are deleted, and the description of some elements are cleaned up. In addition, with the proposed amendment, the workload for aligning TAF TSI and GCU Appendix 16 shall be reduced as well. Finally, some language related changes should provide a better alignment of the three language versions of Appendix 16. RU shall then be able to retrieve all the relevant information on freight wagons to plan, prepare and operate trains.	**6.- Assess the potential positive and negative impacts (on operations, costs, administration, interoperability, safety, competitiveness, etc.), using a scale from 1 (very low) to 5 (very high):** **4:** The proposed amendment will have a high positive impact on the digitalisation efforts for providing technical wagon data and supports operation and safety while increasing competitiveness of rail freight at low additional costs.

7.- Proposed text

Colour coding of amendments:
Black: Current text (remains unchanged, included for reference purposes)
Red: new text
Blue: (may be struck through): text to be deleted

Text in red is to be included as additions to

APPENDIX 16

TO THE GENERAL CONTRACT OF USE FOR WAGONS

TECHNICAL WAGON ~~VEHICLE~~ DATA

Appendix 16 describes in more detail the information-related requirements laid out in article 7.4.

In accordance with pages 5-8, the keeper must provide the administrative and technical vehicle data for all wagons registered in the GCU database as soon as possible prior to the use of a wagon. The RU has access to this data at all times and may use it for its own operational purposes only.

The GCU Bureau provides a communication platform (GCU Broker) to the signatories for transmission of technical vehicle data.

Additional information - for example, a brief description of any instructions destined for technical inspectors and operational staff - must be made available bilaterally. Information is always required if vehicle-related technical matters are not provided for in Appendix 9 to the GCU.

Description of elements of technical wagon ~~vehicle~~ data

Element Name	Type	Description
WagonNumber-Freight	Mandatory	Identifies uniquely the freight wagon by its number
PreviousWagon-NumberFreight	Optional	For identification of a wagon after renumbering
Registration-Country	Mandatory	ISO country code of registration country
DatePutInto-Service	Mandatory	Date of first operation
AuthorisationValid Until	Conditional	End date for restricted authorisation (applicable only in special cases)
SuspensionOf-Authorisation	Conditional	Information if authorisation has been suspended by the authority
DateSuspension-OfAuthorisation	Conditional	Date of the suspension of authorisation; must be provided in case of suspension
Multilateral-Authorisation-Countries	Conditional	List of countries/railway letter codes where a wagon with a limited interoperable authorisation is allowed to be operated (derogation plate); first entry is the authorising country/railway and following entries are the accepting countries/railways
ChannelTunnel-Permitted	Optional	Indication if wagon is allowed to pass the Channel Tunnel - if the transport is planned between UK and France and should use Eurotunnel infrastructure
QuieterRoutes-Exemption-Country	Conditional	ISO code of country where the wagon has an exemption in accordance with TSI Noise to run on quieter routes although it is not TSI Noise compliant.
KeeperShort-NameVKM	Mandatory	Vehicle Keeper Marking of the wagon keeper as listed in VKM register (http://www.era.europa.eu/Document-Register/Pages/list-VKM.aspx columnB - without special characters)
ECM	Mandatory	Full name of the assigned Entity in Charge of Maintenance
PlannedChange-OfECM	Conditional	Date until the current Entity in Charge of Maintenance is assigned to the wagon and full name of the following Entity in Charge of Maintenance
ECMCertificate	Mandatory	ECM certificate information
InteropCapability	Mandatory	Identification of the general interoperability capability of the wagon. ~~The following values/codes are proposed for the usage (defined in the InteropCapabilityCode):~~ ~~1 = National~~ ~~2 = Bi /Multilateral (with agreement or authorisation grid)~~ ~~3 = RIV~~ ~~5 = TEN~~ ~~6 = TEN GE~~ ~~7 = TEN CW~~ ~~8 = TEN RIV~~
GCUWagon	Mandatory	Indication if wagon is operated under the GCU contract
LetterMarking	Mandatory	Complete wagon category letter code. The Identification marking for freight rolling stock (wagon type) is defined in the Uniform Technical Prescription applicable to Vehicle Numbers and linked alphabetical marking on the bodywork: The Railway Vehicle Marking (UTP Marking), issued by the OTIF.

Element Name	Type	Description
TankCode	Conditional	Tank code (applies only for tank wagons). The codes are defined in the RID regulation, chapter 4.3.3 and 4.3.4.1.1
WagonNumberOf-Axles	Mandatory	Number of Axles for a wagon
WheelSetType	Optional	Type name of the wheel sets, and the name of the type depends on the manufacturer.
WheelDiameter	Optional	Diameter of wheels measured in mm. Reference wheel diameter at maximum.
WheelsetGauge	Mandatory	Track Gauge measured in mm; multi-entry for wagons with changeable wheel set gauge
WheelSet-Transformation-Method	Conditional	Description of the wheel set transformation method for wagons with a changeable wheel set gauge. ~~Code list:~~ ~~1 = Automatic,~~ ~~2 = Bogie/axle change~~
NumberOfBogies	Conditional	Number of bogies.
BogiePitch	Conditional	Bogie Wheelbase measured in mm.
BogiePivotPitch	Conditional	Largest distance between two adjacent bogie pitches in mm.
InnerWheelbase	Mandatory	Maximum distance between two adjacent axles in mm
CouplingType	Optional	Classification of coupling. ~~0 = without coupler~~ ~~1 = non-reinforced coupler less than 85t~~ ~~2 = reinforced coupler equals to 85t~~ ~~3 = ultra-reinforced coupler greater than 85t~~ ~~4 = automatic coupling~~
BufferType	Optional	Classification of buffer. The following values are mostly used in the sector: A, AX, B, C, CX, L0 (130), L0 (150), L2 (130), L2 (150), L4 (130), L4 (150)
NormalLoading-Gauge	Conditional	Indicates the wagon loading gauge. When the wagon loading gauge is marked on the wagon the information must be provided in the RSRD message. Codes are defined in UIC leaflet 505-1/503 and EN 15273-2:2013 Code list.
MinCurveRadius	Mandatory	Minimum allowed curve radius of the wagon. Measured in Metres.
MinVerticalRadius YardHump	Mandatory	Minimum allowed vertical radius over yard humps. Measured in Meters.
WagonWeight-Empty	Mandatory	The weight of an empty wagon according to the entry in the rolling stock database. Measured in kg.
LengthOver-Buffers	Mandatory	Length over buffers is expressed in cm.
MaxAxleWeight	Mandatory	Indicates the maximum design axle weight (to).
LoadTable	Mandatory	Indicates the load tables marked on the wagon. When load tables are marked on the wagon the information must be provided in the RSRD message. Several load tables (international, product specific for LPG wagons and additional/country specific) can be specified by providing the element several times consecutively. For special wagons with specific load tables (e.g. heavy haul wagons) no load table need to be provided. The complete load table must be provided including the empty load row (if existent).
NumberOfBrakes	Mandatory	Number of air brake control valves.

Element Name	Type	Description
BrakeSystem	Optional	Abbreviation of air brake system. Following values are examples: Kk; Dr; Bo; Hik; Bd; Ch; O; KE; WE; DK; WU; WA; DM; MH, SW; KE 435; through brake pipe
AirBrakeType	Mandatory	Classification of air brake. ~~0 = through brake pipe~~ ~~1 = G~~ ~~2 = P~~ ~~3 = G/P~~ ~~8 = No air brake or brake pipe~~ ~~9 = non coded~~
BrakingPower-VariationDevice	Mandatory	Type of braking power variation device. ~~0 = No braked weight variation device~~ ~~1 = Manual or automatic device with 1 changeover weight and 2 positions~~ ~~2 = 2 or more changeover weights and 2 or more positions~~ ~~8 = Linear auto continuous device with indication of max braked weight~~ ~~9 = Non- coded variation device~~
AirBrakedMass	Mandatory	Different uses depending on air brake variation device: No variation device = sole braked mass of wagon Brake device with changeover weights = braked mass empty Brake with auto continuous device = maximum braked mass
ChangeOver-Weight	Conditional	Change over weight of braked weight in tonnes variation device.
AirBrakedMass-Loaded	Conditional	Braked weight in tonnes loaded for change over weight.
BrakeSpecial-Characteristics	Mandatory	General brake characteristics. Code list refers to UIC leaflet 920-13. ~~0 = Cast Iron Brake Blocks~~ ~~1 = Disc Brake~~ ~~2 = K-Brake Blocks~~ ~~3 = Cast Iron Brake Blocks, single release brake~~ ~~4 = Composite Brake Blocks, single release brake~~ ~~5 = L-Brake Blocks~~ ~~6 = LL-Brake Blocks~~ ~~9 = Unknown or non-coded information~~
HandBrakeType	Mandatory	Classification of hand brake. ~~0 = No hand brake~~ ~~1 = Ground-operated hand brake~~ ~~2 = Platform-operated hand brake~~ ~~In case the wagon is equipped with a ground and platform operated hand brake, code 2 (platform-operated hand brake) has to be used.~~
HandBraked-Weight	Conditional	Braked weight of the hand brake in tons.
ParkingBrake-Force	Conditional	Braked weight of the hand brake in tons.
BrakeBlockName	Optional	Name of the brake block type, including the length in mm.
CompositeBrake-BlockRetrofitted	Conditional	Indication if composite brake blocks are retrofitted or originally equipped.
CompositeBrake-BlockInstallation-Date	Conditional	Date of composite brake block installation, for originally equipped wagon = date put into service.

Element Name	Type	Description
MaxLengthOf-Load	Optional	Loading length in mm for flat wagons and covered wagons with a flat floor, minus the thickness of any intermediate partitions (useful length).
LoadArea	Optional	Surface area in m² of the floor of covered wagons and wagons with an opening roof and flat floor.
HeightOfLoading-PlaneUnladen	Optional	Height of the loading plane when wagon is empty measured in mm.
Removable-Accessories	Optional	The type and number of removable accessories are to be indicated.
LoadingCapacity	Mandatory	Usable Cube - measured in M3.
MaxGrossWeight	Mandatory	Weight of max Gross Load Weight plus the tare weight of the equipment.
VapourReturn-System	Optional	Indication if tank wagon is equipped with a vapour return system.
FerryPermitted-Flag	Optional	~~Indication if wagon is permitted to be used on ferries and the maximum allowed angle of the ferry ramp (in grades: °).~~ Indication whether the wagon may be used on ferries between Great Britain and Continental Europe.
FerryRampAngle	Conditional	Maximum allowed angle of the ferry ramp (in grades °). ~~Applicable if ferry permitted.~~
Temperature-Range	Optional	Allowed environmental temperature range.
~~Noise~~	~~Optional~~	~~Noise limit on reference track and noise level at standstill in decibels~~
Technical-Forwarding-Restrictions	Conditional	This element is designed to identify any special aspects or restrictions which might be relevant to wagon handling operations in train formation yards or in trains because of technical feature of the wagon or its load. All codes of transport restrictions for Freight Traffic (cf. UIC 920-13) and Passengers Traffic are in the same list which is contained in the code list “RestrictionCodes”. In this element only those codes are used, that have "T - Technical" characteristics and "F - Freight" as type. ~~The codes below are sorted out from the RestrictionCodes. Only these codes should be used in this element.~~ ~~07 Shunt only when hand brake operable with ground staff~~ ~~11 Wagon other than bogie wagon with wheelbase of more than 9 metres~~ ~~12 Bogie wagon with distance between wheels of more than 14 metres and up to and including a distance of 17,50 metres~~ ~~13 Bogie wagon with distance between wheels of more than 17,50 metres~~ ~~15 Wagon not allowed over the hump~~ ~~16 Do not fly shunt or gravity shunt (3 red triangles)~~ ~~18 Must not use active braking equipment~~ ~~25 Gas carrying tank wagon with orange side stripe~~ ~~41 Place this wagon at the front of the train~~ ~~42 Place this wagon at the rear of the train~~ ~~63 Special consignment or (for Passengers trains) loading/cinematic gauge larger than the planned one~~ ~~70 Shunt with care (1 red triangle)~~ ~~71 Shunt with special care (2 red triangle)~~ ~~94 Gas carrying wagon without orange side stripe~~
DateLastOverhaul	Mandatory	Date of the last overhaul. For wagons newly placed on the market, date put into service shall be used.
OverhaulValidity-Period	Conditional	Validity period of last overhaul in years as marked on the wagon. At least “OverhaulValidityPeriod “or “PlannedDateNextOverhaul” shall be provided.
~~DateNext-Overhaul~~	~~Mandatory~~	~~Date of next planned overhaul.~~

Element Name	Type	Description
Permitted-Tolerance	Mandatory	Permitted tolerance after date of overhaul (in months). In case no tolerance is allowed, value shall be "0".
PlannedDate-NextOverhaul	Conditional	Date of planned next overhaul. It must be within the validity period of the last overhaul. The element serves as indication of the actually planned date of next overhaul by the wagon keeper/ECM. At least “OverhaulValidityPeriod” or “PlannedDateNextOverhau”l shall beprovided.
DateOfNextTank-Inspection	Conditional	Date of the next tank inspection applies only for tank wagons.

Remarks

Values and codes list for the different data elements are part of the XSD schema and referenced in the GCU Broker website. The XSD schema and sample files are available to download from the GCU Broker website.