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Clarification note

Conditions for use of the vehicle and other restrictions

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Document History

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0.1	24/09/2024	Initial version for internal review
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1.0	25/02/2025	Final version after VA working party

The purpose of this document is to provide applicants and other external stakeholders of the vehicle authorisation business with information in regard to the specific topic referenced in the title. The clarifications contained in this document may be integrated in the next revision of the guidelines for the practical arrangements for the vehicle authorisation process, without prejudice of the formal process foreseen for updating the guideline.

The present document is a non-legally binding guidance of the European Union Agency for Railways. It is without prejudice to the decision-making processes foreseen by the applicable EU legislation. Furthermore, a binding interpretation of EU law is the sole competence of the Court of Justice of the European Union.

1. Description of the issue

The Agency, when acting as an authorising entity, finds **conditions for use of the vehicle and other restrictions (CfUs) in applications for authorisation that do not actually impose any condition or restriction to the vehicle** nor mitigates a situation of non-conformity with the applicable rules. Instead, those CfUs are:

- > Observations, remarks, comments or reserves without associated actions or tasks;
- > Explanations or and/or clarifications concerning the scope of the assessment by the conformity assessment bodies (CAB), authorising entities, NSAs for the area of use etc.;
- > Repetitions (same CfU stated many times and/or in several languages);
- > References to other documents such as driver manual or maintenance plan, etc.,;
- > Geographical restrictions (e.g. mentioning certain lines within the area of use which are excluded, or limiting the authorisation to certain lines from the whole area of use), and/or
- > Limitations in time to the vehicle type authorisation;
- > Actions plans, checkpoints or agreed deliveries to solve identified issues not hindering the issuing of the authorisation or the operation of the vehicles

This creates several problems:

- > The list of CfU becomes too long, making difficult to identify the ones that are imposing real and necessary conditions for use and restrictions;
- > Contradictions of conflicts between CfU;
- Because CfU are defined as basic design characteristics in the Regulation (EU) 2018/545, any change on them shall be classified pursuant to Articles 15(1)(c) or (d) of the Regulation (EU), which means that every change in the CfU requires either the creation of a version in ERATV or a new authorisation; note that TSIs allow changes in certain basic design characteristics below a threshold to be classified pursuant to Article 15(1)(b);
- The CfU are included in the issued vehicle type authorisation and in the concerned ERATV entry, creating bureaucratic burden when there is the need to modify them even in cases where the underlying principles are not changed (e.g. rewording to improve clarity);
- > Imposing geographical limitations by means of CfU overlaps with the definition of the area of use and also hinders the route compatibility check by RUs;
- > Lack of clarity on the validity of the issued vehicle type authorisation when establishing time limitations by means of CfU, rather than a validity in the issued vehicle type authorisation,
- > Etc.

2. Line to take

2.1. General aspects

CfU should be focused on **important aspects that shall be respected to ensure that the essential requirements defined in Annex III of Directive (EU) 2016/797 are met** (in particular, safety and technical compatibility with the network) and that the subsystems are technically compatible with each other and safely integrated into a vehicle.

Conditions for use of the vehicle and other restrictions define how the vehicle type is intended to be used in the area of use, are part of the technical characteristics of the vehicle and/or vehicle type and:

- Shall be included in the EC declarations and in the EC certificates (both for subsystems and interoperability constituents); the CfU in the application for authorisation should be coherent with the CfU mentioned in the EC declarations of verification (DoV) for the subsystems, although they don't need to be identical, i.e., not all CfU mentioned in an EC DoV are relevant for the vehicle (some CfU are relevant for the integration between mobile subsystems only).
- Are identified by the applicant before submission of an application, considering the design of the vehicle type and the results of the conformity assessments by CABs, and included in the application file; this set of CfU can be modified during the assessment of the application for authorisation;
- > Shall be verified by the conformity assessment bodies (CAB) when they have an impact on compliance with the applicable rules;
- Can be used to mitigate non-conformities with TSIs and/or national rules, when the non-conformity was not known and could not have been reasonably anticipated, and it's only discovered in the latest stages of the EC verification procedure and/or authorisation process;
- > Are established by the authorising entity, in collaboration with the NSAs for the area of use (when applicable), and recorded in the issued vehicle type authorisation;
- > Are basic design characteristics, pursuant to Article 48(c)(iii) of Regulation (EU) 2018/545;
- Are recorded in ERATV, pursuant to Decision 2011/665/EU, by means of parameters 3.1.2.3 (coded restriction) and 3.1.2.4 (non-coded restriction);
- Might require negotiation and agreement between the applicant, the Railway Undertaking (RU), the keeper and/ or the Infrastructure Manager (IM), in particular in the case of exported constraints to operation and/ or maintenance of the vehicle; it should be noted though that not all exported constraints are CfU (see section 2.5;
- > Can be used to close type 3 issues or justified doubts;
- > Should be formulated in technical terms, not by a geographical area;
- Should be clear, unambiguous, easy to understand, realistic to follow, straightforward to apply and practical to implement;
- Should not generally be time limited, unless the TSIs and/or national rules require that the applicant produces a plausible estimate of compliance which requires experience in service. However, if it's necessary to establish a time limit for a CfU, the CfU should clearly specify the conditions to be met for it to be lifted, avoiding the need to change it. In other words, the CfU should outline the actions or requirements needed to render it no longer applicable. This approach is typically used in situations where a time limited CfU is introduced to allow the applicant sufficient time to resolve a defined issue that requires implementation over a specified period;
- > Should be considered by the RU under its Safety Management System (SMS);

CfU are defined in the issued vehicle type authorisation by means of:

- > Coded conditions for use and other restrictions, and
- > Non-coded restrictions for use and other restrictions

It should be noted that:

- > Decision 2010/713/EC refers to "condition for use" (of the subsystem / interoperability constituent)
- > Article 15(4) of Directive (EU) 2016/797 mentions the term "conditions and limits of use".
- Article 21(10)(d) Directive (EU) 2016/797 refers to "conditions for use of the vehicle and other restrictions"
- > Regulation (EU) 2018/545 refers to "conditions for use of the vehicle and other restrictions" in many articles (e.g. 20, 27, 46, 48, etc.)

From this point of view, "conditions and limits of use" derive from the conformity assessment and are applicable at the level of the subsystems or the interoperability constituents / parts to ensure the fulfilment of the requirements of the TSIs. However, "conditions for use of the vehicle and other restrictions" are applicable at the level of the vehicle and/or vehicle type and go beyond meeting the requirements of the TSIs for the subsystems to the fulfilment of the essential requirements at vehicle level. "conditions and limits of use" may also be "conditions for use of the vehicle and other restrictions" (CfU), but not in all cases (e.g. they are related to the integration between subsystems or the integration of an IC into the subsystem, but do not impose any condition for use to the vehicle type).

When the Agency is the authorising entity, applicants are kindly requested to fill-in the template available on the website of the Agency (<u>TEM_VEA_062</u>). This simplifies the assessment of the CfU proposed by the applicant by providing traceability to the source document and the justification for each CfU.

Note: the proposals in this clarification note should be considered for on-going and/or future applications for authorisation. It is not envisaged that already issued vehicle type authorisations and the corresponding ERATV entries and vehicle authorisations for placing on the market in conformity to type are retroactively modified; the convenience of doing so in certain cases is left to the discretion of the holder of the vehicle type authorisation in agreement with the concerned authorising entity, with the condition that there are no actual changes in the CfU but a different way of expressing the same conditions and/or restriction (e.g. rewording, grouping, reduction of redundant or duplicated CfU, removal of CfU which are not imposing any limitation/condition/restriction to the use of the vehicle etc.); such modifications may not require a categorisation pursuant to Article 15(1) of Regulation (EU) 2018/545.

2.2. Coded restrictions

Coded restrictions represent a description of some key elements that define the operational envelope of the vehicle type (speed, minimum horizontal curve radius, gauge, class B, etc.). They are defined in the technical document <u>ERA/TD/2011-09/INT</u> *"List of harmonized and national restriction codes"*, Appendix 1 table 1:

- > 1.1 Minimum curve radius in meters
- > 1.2 Track circuit restrictions
- > 1.3 Speed restrictions (on the given network) in km/h
- > 1.4 Maximum number of trainsets coupled together (for use in multiple operation)
- > 2.1 Kinematic gauge
- > 2.2 Wheelset gauge
- > 2.3 No CCS on board (for non-CCS equipped vehicles)
- > 2.4 ERTMS on-board (ETCS, GSM-R voice, GSM-R for ETCS)
- > 2.5 Class-B system on-board (signalling, radio) -> Annex 2, tables 3 & 4
- > 2.6 Other CCS systems on-board (signalling, radio) -> Annex 2, tables 5 & 6
- > 2.7 Noise category
- > 3.1 Climatic zone EN 50125-1:2014

- > 4.1 Time based restrictions on use
- > 4.2 Condition based restrictions on use (distance travelled, wear, etc.)
- > 4.3 Strictly local, historical or tourist use
- > 5.1 Recording device -> Annex 2, table 7

The coded restriction 4.1 "*Timed based restrictions on use*" is not linked with the ERATV parameter 3.1.2.2 "*Validity of authorisation (if needed)*" ¹. While the former indicates whether there are CfU (non-coded restrictions) that have an associated time limit, the latter refers to the validity vehicle type authorisation as a whole.

2.3. Non-coded restrictions

Non-coded restrictions relates to any aspect to be considered to ensure that the vehicle type meets the essential requirements and complies with the applicable rules that is not covered by the coded restrictions. Non-coded restrictions are not harmonized, and usually stem from the:

- > EC verification procedure: assessments performed by the CABs against the applicable rules
- > Requirements capture and independent assessment by an AsBo
- > Assessment performed in the framework of the authorisation process by the authorising entity and the NSAs for the area of use (where applicable).

By analogy to the coded restrictions, non-coded restrictions may relate to:

- > Conditions to be respected in order to remain technically compatible with the infrastructure (e.g., with two active pantographs, speed shall be reduced to a given value);
- > Conditions to be respected to ensure safety (e.g., reduction of speed in case of malfunctioning of the secondary pneumatic suspension);
- Exported constraints that are necessary for the safe use of the vehicle (e.g. inspection activities nor normally included in a typical maintenance plan due to specificities of the vehicle type, such as reprofiling the wheels each 10.000 km), see section 2.5;
- > Etc.

The applicant should not consider as CfU aspects that do not impose any condition for the operation of the vehicle, or any other restriction, and are rather related to:

Non-coded restrictions;

¹ Vehicles that receive an authorisation for placing on the market in conformity to an authorised type do not always inherit the time limits or the time limited CfU of the type; it depends on the reasons for the time limitation in the vehicle type authorisation, e.g.:

> The vehicle type authorisation may be valid until a given date, meaning that vehicles in conformity to the type can only be placed on the market until that date, but the APOMs issued before should not have any time limit;

When a vehicle type benefits from a granted request for non-application of a TSI, the granted request normally limits the number of vehicles to be manufactured in conformity to such type or the date until which vehicles can be manufactured, but the vehicles authorised within the allowed boundaries will not have any expiry date in the APOM;

On the other hand, an APOM may have an expiry date inherited from the vehicle type when both the vehicles and the type need to undergo changes that require a new authorisation before that date (e.g. to implement ETCS error corrections).

These type of time limits or time based restriction do not always impose an actual condition for use of the vehicle and cannot be considered CfU. However, they need to be described in the issued vehicle type and/or vehicle authorisation for placing on the market and in ERATV. Because ERATV does not allow to introduce any text for coded restrictions 4.1 and 4.2 (checkbox to be marked to indicate if there are limits), such limitations should be further explained by means of:

> ERATV parameter 3.1.2.2 "Validity of authorisation (if needed), and/or

> ERATV 3.1.3.1.6 "Comments" (when there is no actual conditions for use of the vehicle)

- Validity of the vehicle type authorisation, for which there should be a specific field in the issued authorisation. Only when a time limit does not impact the AoU as a whole, or concerns certain operation modes only, it could be reasonable to treat it as a non-coded restriction.
- Geographical limitations, such as certain lines within the AoU. It's preferrable to find equivalent technical parameters arriving to the same geographical restriction (which are normally the root cause).

For cases where it is not possible to define a technical parameter to achieve the same limitation, adding a non-coded restriction of geographical nature would be acceptable, bearing in mind that this may trigger problems in the future if there is a need to operate the concerned vehicles elsewhere.

- Observations, remarks or statements from conformity assessment bodies (NoBos, DeBos and/or AsBos) or other parties;
- References to documents (e.g., driver or operation manual, maintenance plan, risk assessment, list of constraints exported to operation, maintenance and/or infrastructure, etc.); some topics described in such documents may be real CfU though, and should be summarized elsewhere to avoid that each change in those documents requires an analysis pursuant to Article 15(1) of Regulation (EU) 2018/545 because a basic design characteristic is impacted;
- > Reserves from the authorising entity or the NSAs for the area of use without associated action or task
- > Explanations concerning the scope of the assessment performed by the authorising entity and/or the NSAs for the area of use,

For locomotives and EMUs/DMUs, CfUs related to degraded modes are expected if they have a significant impact in the operation of the vehicle and in the compliance with the applicable rules (TSIs, national rules). These might include instances such as the isolation or failure of brakes, pantograph configuration, single or multiple unit, deflated pneumatic suspension, failure of protection systems in the train, etc.

2.3.1 Examples of non-coded conditions for use

Below there are some aspects which are usually the subject of non-coded restrictions, together with examples of actual non-coded restrictions that can be found in ERATV :

- > Speed limitations in degraded modes, such as failure of the secondary suspension:
 - "In the failure condition emergency suspension system, the speed of the multiple unit shall be reduced to 140 km/h."
 - "The maximum speed is limited to vmax = 120 km/h when towing without main reservoir line HBL (no active air springs)."
- > Speed limitations in certain operation modes :
 - "The maximum speed for towing is limited to 120 km/h")
 - "The use of two locomotives in multiple control is permitted with the following speed limitations:
 - > 80 km/h with the adjacent pantographs raised,
 - > 120 km/h with homologous pantographs raised,
 - > 140 km/h with distant pantographs raised."
- > Mileage restrictions for certain elements
 - "The wheelset shafts of the power bogies are designed for a total mileage of 15 million kilometres. Based on the fatigue strength certificates, the further use of the wheelset shafts must be checked and evaluated again after 15 million kilometres"

- > Operational restrictions
 - "The train must not be operated in a tunnel when there may be trains approaching in the other direction at speeds of > 250 km/h at the same time."
 - Ability/inability to be hump shunted (freight wagons)
 - "The ETCS on-board equipment shall only be operated under level LNTC supervision."
 - "Only the following dynamic transitions between train protection systems are allowed:
 - > From ETCS to PZB and viceversa;
 - > From ETCS to ATB and viceversa."
 - "Transitions between train protection systems ETCS and KVB shall be performed at standstill and following the agreed procedures in the driver's manual and the applicable operational rules."
 - "Mixed multiple composition is allowed with the following types of vehicles: XXX, YYY, ZZZ"
 - "The geographical position shown on the ETCS display must not be used for safety related functions."
 - "The vehicle can be operated in multiple operation: interoperable operation up to four units of the same type is possible."
- > Pantograph configurations allowed
 - "When running in double composition, the pantographs in the coupled powerheads shall not be active at the same time"
- > Load configurations
 - "The removable cradles for transportation of goods shall not be removed when the wagon is not carrying goods"

2.3.2 Examples of aspects that should not be considered a condition for use

Below there are some examples of non-coded restrictions found in applications for authorisation that should not be considered as such:

- > The (reference to the) driver's manual or the maintenance plans are not non-coded restrictions, even if they contain instructions for the use of the vehicle:
 - "The conditions of use / maintenance measures are set out in full in the manuals and must therefore be observed by the operator."
 - "The maintenance rules shall be respected."

If the train driver does not follow the manual or maintenance is not performed as described in the maintenance plan, essential requirements would be at risk in danger there would be safety risks. Nonetheless, this does not mean that everything needed to ensure that essential requirements are met during operation of the vehicle and that is normally included in the drivers manual or the maintenance plan need to be considered as a non-coded restriction (e.g., measure the wheel profile to ensure that flange thickness, height and angle remain within the acceptable levels)

However, some aspects of the driver's manual or the maintenance plan could be defined as noncoded restrictions though when they address abnormal circumstances or are used to mitigate an uncommon or abnormal safety risk, e.g.:

- Driver shall perform actions on certain scenarios (e.g., reduce speed in case of unavailability of some monitoring systems)

- Periodicity of maintenance should be reduced far below the normal values (e.g., inspect bogie frame for fatigue cracks on certain areas each 2.000 km)
- > EVNs of the vehicles
- > Warnings about misuse and/or failure of equipment and systems
 - "In case of systematic errors from balise telegrams, the causes of such errors must be eliminated."
- > References to technical documentation that is not publicly available, despite the fact that the documents are actually transferred to the parties that need the information (e.g. ECM, RU, etc.)
 - "The availability of the used constituent MESA 23 is defined in /RAN_IC/, chapter 4."
 - "The customer documents must be observed for the LZB80E and the MESA 23 radio."
 - "The open points as mentioned in section 7.7, the limitation of scope / responsibility as mentioned in section 7.8 and the conditions of use as mentioned in section 7.9 of the /Safety Case/ shall be taken into account."
 - "In addition, the results in chapter ## of the Safety Assessment Report must be observed."
- Mentions to whether a wagon meets or not the requirements to receive the GE marking according to WAG TSI
- > Aspects related to training, capacitation or presence of train driver / train crew
 - "During the operation of the vehicle, access to the engine room must be prohibited for personnel with pacemakers."
 - "Deviations from the ergonomic requirements for the DMI require specific training for the driver"
 - "The driver must be authorized by the central operations manager (DCO) to activate the override and pass a protected point."
 - "The driver must follow the shunting procedures defined by the infrastructure manager for the line."
 - "When the train is changing direction (when the train moves forward and then backward), the driver must wait at least 1 second before moving the train after it has come to a stop."
- > Elements that should be on-board of a vehicle:
 - "The vehicle inventory must be equipped with signalling aids for the creation of the signalling markings of the train."
- > Exported constraints to operation, maintenance and/or infrastructure
 - "The Safety Related Application Conditions for the operator must be observed."
 - *"Identified security threats (cyber-attacks) related to the on-board equipment must be reported to the manufacturer and appropriate measures taken to counter the threat."*
 - "If plain text messages and NTC-specific outputs are used to communicate safety-critical information, further measures (e.g. written commands) must be defined to verify the information."
- Technical parameters of the design of the vehicle (e.g. maximum cant deficiency, coefficient of heigh of center of gravity, minimum nominal wheel diameter, rail inclination that a vehicle is compatible with)
 - "Static contact force of the pantograph is 70 N."
 - "The maximum speed limit is 160 km/h."
 - "Temperature range Class T1 according to EN 50125-1:2014"

- "The vehicle gauge is XX"
- "Category A according to TSI SRT (EU) No 1303/2014"
- "Before putting into service, test drives must be carried out in section xy"
- > Duplication of requirements in legal texts (i.e. TSIs)
 - "The on-board CCS subsystem shall only be operated with SIM cards that have an EC declaration of conformity in accordance with /TSI CCS/."
 - "The CCS subsystem on the vehicle may only be operated with SIM cards for which an EC declaration of conformity in accordance with the CCS TSI is available."
- > Conformity assessments not fully performed and/or with deviations
 - "Based on the conclusions of the conformity assessment report, applicant considers as condition of use the execution of further ESC/RSC intended to demonstrate compatibility with the trackside subsystem in the concerned area of use."
 - "The part of the train radio subsystem has not been assessed."
 - "Contrary to the specifications of the applied TSI, subset 036 has not been demonstrated in version 3.6, but only in version 3.5"
 - "The upper design limit of the mean contact force is exceeded in a few cases without consequences for the maximum line speed."
- > Coded restrictions duplicated as non-coded restrictions
- > Obligation for the holder of the vehicle type authorisation to consult with the manufacturer(s) when performing changes to the vehicles and/or vehicle types

2.4. Recording CfU in ERATV: combinations of track gauge, electrification and class B on-board

CfU in the issued vehicle type authorisation shall be recorded in ERATV in parameters 3.1.2.3 (coded restrictions) and 3.1.2.4 (non-coded restrictions). Because of the way in which ERATV is implemented, parameters coded and non-coded restrictions should be filled-in for each combination of gauge, electrification system and train protection system that the vehicle type is compatible with. This would lead to duplication of content, an unnecessary long list of CfU and problems when exporting the information from ERATV (in particular, to PDF).

It is unnecessary to repeat the CfU for all applicable combinations. Instead,

- Coded restrictions shall be filled in for the first applicable combination of track gauge, electrification system and on-board CCS; if the restrictions are the same for all other combinations, they should be left empty (and as a result, they will not be displayed in the published entry). If there are differences, then only the different coded restrictions should be filled in for the applicable combinations. See section 2.4.1 concerning the need to avoid duplicating technical parameters in coded restrictions.
- Non-coded restriction should be recorded for the first applicable combination of track gauge, electrification system and on-board CCS, and a reference ("See CfU for [first applicable combination]") to it should be made in the other relevant combinations (with empty combinations not being displayed after publication). If there are only slight variations for some combinations but the majority of the non-coded restrictions remain the same, refer back to the first entry and only document the differences.

When a specific combination has different non-coded restrictions depending on the MS or network, first record any common aspects that apply to all MSs or networks. Afterward, specify the unique details for each MS or network, clearly mentioning the respective MS or network in the description.

An example of the principles described above is displayed in Figure 1 and Figure 2.

3.1.2.4 Non-coded conditions for use and other restrictions 435mm / AC 25kV-50Hz / ASFA CfU1 CfU2 CfU3 ~ k 1435mm / AC 25kV-50Hz / KVB See CfU for 1435mm / AC 25kV-50Hz / ASFA 1435mm / AC 25kV-50Hz / PZB 90 See CfU for 1435mm / AC 25kV-50Hz / ASFA - A m / DC 3kV / ASFA See CfU for 1435mm / AC 25kV-50Hz / ASFA ~ A m / DC 3kV / KVB - A See CfU for 1435mm / AC 25kV-50Hz / ASFA m / DC 3kV / PZB 90 For France: see CfU for 1435mm / AC 25kV-50Hz / ASFA For Spain: see CfU for 1435mm / AC 25kV-50Hz / ASFA For Germany: see CfU for 1435mm / AC 25kV-50Hz / ASFA, taking into account that CfU3 does not apply. Additionally, CfU 4 applies. ~ **h**

Figure 1: non-coded conditions for use in ERATV with multiple combinations gauge/electrification/class B (edit mode)

3.1.2.4 Non-coded conditions for use and other restrictions:	1435mm / AC 25kV-50Hz / ASFA
	CfU1
	CfU2
	CfU3
	1435mm / AC 25kV-50Hz / KVB
	See CfU for 1435mm / AC 25kV-50Hz / ASFA
	1435mm / AC 25kV-50Hz / PZB 90
	See CfU for 1435mm / AC 25kV-50Hz / ASFA
	1435mm / DC 3kV / ASFA
	See CfU for 1435mm / AC 25kV-50Hz / ASFA
	1435mm / DC 3kV / KVB
	See CfU for 1435mm / AC 25kV-50Hz / ASFA
	1435mm / DC 3kV / PZB 90
	For France: see CfU for 1435mm / AC 25kV-50Hz / ASFA
	For Spain: see CfU for 1435mm / AC 25kV-50Hz / ASFA
	For Germany: see CfU for 1435mm / AC 25kV-50Hz / ASFA, taking into account that CfU3 does not apply. Additionally, CfU 4 applies.

Figure 2: non-coded conditions for use in ERATV with multiple combinations gauge/electrification/class B (published)

2.4.1 Coded restrictions duplicating technical parameters

There may be a duplication of values between certain coded restrictions and certain technical parameters of an ERATV record. For example, the maximum design speed is typically found in ERATV under parameters 4.1.2.1 and 3.1.2.3, with code 1.3 referring to "Speed restrictions in Km/h." In simple cases, the value for the parameter 3.1.2.3 is equal to the value for parameter 4.1.2.1.

It should be noted that, while parameter 4.1.2.1 represents a unique value in ERATV (regardless of the combinations of gauge, electrification or train protection system), parameter 3.1.2.3 varies depending on the combination of track gauge, electrification system and class B system on-board. As a result, when there is a need to record different speed restrictions per combination, the parameter 3.1.2.3 with code 1.3 should be used.

When there are no differences between the technical parameter and the corresponding coded restriction (e.g. no actual limitation or constraint as compared to the nominal value), this should not be considered as a coded restriction and should not be indicated as such in the application form nor in the issue type authorisation / ERATV.

In other words, duplication of values in ERATV (e.g. repeating the same value in different places, which means there is no restriction as compared to the nominal value) should be avoided; the relevant coded condition for use and other restriction should be left empty. This is not applicable when the duplication happens because there are several combinations of track gauge, electrification system and/or on-board Class B systems, and there is a need to indicate one value per combination even if the value is the same for all combinations (see text under section >).

The coded restrictions that (may) duplicate technical parameters in ERATV can be found in section 8 (Annex IV) of the ERATV application guide.

For the case of wagons with brake regimes S and/or SS and how to consider coded restriction 3.1.2.3 #1.3 and parameter 4.1.2.1, see section 2.9.

2.4.2 Coded restrictions and equipment related to train protection and communication

The coded restrictions related to train protection and communication such as ERTMS, class B systems etc. (2.3, 2.4, 2.5 and 2.6) should be coherent with the values for the parameters in section 4.13 of ERATV, avoiding duplication of values when there are no actual conditions for use or restriction, and reflect the equipment available and in use² in the vehicle type that is also covered by the:

- > EC verification procedure (third party assessment by NoBo and/or Debo);
- > Requirements capture process (independently assessed by an AsBo), and
- > Vehicle type authorisation

Examples:

- > for vehicle types with no CCS on-board, coded restriction 2.3 should be set to "True" and parameters in section 4.13 of ERATV should either be empty or with option "None" selected;
- > when a vehicle is equipped with only one class B signalling system, it should be recorded in parameter 4.13.1.5 and the coded restriction 2.5.1 should be left empty;
- when a vehicle type is equipped with only one class B radio system, it should be recorded in parameter 4.13.2.3 and the coded restriction 2.5.2 should be left empty;

The list of allowed class B systems can be found in Annex II of the Regulation (EU) 2023/1695 (CCS TSI).

The equipment that is available in the vehicle type but is not assessed by the CABs during the EC verification procedure and is not included in the vehicle type authorisation (out of the scope of the assessments performed by the authorising entity and the concerned NSAs for the area of use) should not be mentioned as a coded restriction. However, when the CABs have assessed (fully or partially) the equipment and/or the results of the assessment show that there is no full compliance with the applicable rules but the equipment is used for other purposes (which means is enabled, not switched-off, not isolated etc.), the equipment should be:

- > Included in the relevant coded restriction, and
- > Covered by a non-coded restriction stating the conditions under which it can be used

2.4.3 Conditions for use from a previous authorisation

In case of a new authorisation and/or an extension of the area of use, the applicant should include in the application form in the OSS the CfU from the previous authorisation that are still applicable, despite not being in the scope of the assessments to be performed by the authorising entity (inherited CfU). However, they should be somehow differentiated, to give clarity on what is in the scope of the authorisation.

The assessments to be performed by CABs and the authorising entity (together with the NSAs for the area of use, where applicable) shall be limited to the "delta" in case of new authorisation and/or extension of the AoU:

- > Modified parts and interfaces with the unmodified parts, and/or
- > Rules and requirements for the extended AoU

² A train protection system is available and in use when it's not completely isolated and it is covered by the EC verification procedure and the vehicle type authorisation (for total or partial functional use) at least in a part of the AoU.

The authorising entity should include in the issued type authorisation of the new type/variant/version ("child") the CfU of the previous authorisation. By analogy with how the applicant should reflect CfU in the application form, they should be somehow differentiated, to make clear which CfU are in the scope of the issued authorisation and which CfU are inherited.

When entering into **ERATV** a new type, variant, or version ("child") authorised following a new authorisation and/or an extension of the area of use, the coded and non-coded restrictions from the previous authorisation should not be included in the parameters 3.1.2.3 and 3.1.2.4; these parameters should contain only the coded and non-coded restrictions related to the authorisation issued. The coded and non-coded restrictions from the parent should be added as a comment in parameter 3.1.3.1.6.

The authorising entity should consider the whole set of CfU applicable to the new type/variant/version (new and inherited), and identify and resolve possible duplications, overlaps and/or contradictions. It is also possible that some of the inherited CfU require adaptation because of the changes (new authorisation). Such adaptations need to be discussed with the concerned authorising entity and/or NSAs, when it concerns vehicles authorised by NSAs under Directive 2008/57/EC or before.

An example on how to include coded and non-coded restrictions from a previous authorisation from which a variant/version derives using the parameter 3.1.3.1.6 is displayed in figures Figure 3 and Figure 4.





Figure 4: CfU from a previous authorisation in ERATV read mode)

In ERATV, both coded and non-coded restrictions are not mandatory, meaning it is possible to leave these fields empty. This is particularly relevant for types, variants, or versions that follow a new authorisation, an extension of the Area of Use (AoU), or those under the 15(1)(c) versions, for which only the values that are changed should be filled in.

When there are no differences in coded and/or non-coded restrictions compared to the parent type or variant, the following approach should be taken:

- > The coded and non-coded restrictions from the parent type should be mentioned under parameter 3.1.3.1.6, titled "Comments," as unstructured text.
- For coded restrictions, indicate in this section that there are no differences compared to the parent type or variant.
- > For non-coded restrictions, create a statement specifying: "No additional non-coded restrictions as compared to the parent type/variant."
- > Avoid unnecessary repetitions, such as duplicating the restrictions for all possible combinations.

This approach also helps the Registers team efficiently review drafts before publication.

In case of extension of the area of use, the class B systems in the <u>original area of use</u> that will not be used in the extended area of use should not be mentioned as a coded and/or non-restriction nor as a technical parameter in section 4.13.2 of ERATV.

When there is the need to authorise existing (and already authorised) vehicles in conformity to a vehicle type/variant/version authorised following a new authorisation and/or an extension of the area of use, but there is no evidence about the previous CfU of the vehicles, this should be clearly indicated as a non-coded restriction, e.g.

The conditions for use of the previous authorisation are not documented. The scope of this vehicle authorisation for placing on the market is limited to the type/variant/version authorised following a new authorisation and/or extension of the area of use. As a result, the conditions for use included in this authorisation for placing on the market may not cover the whole set of conditions for use that are needed for the operation of the vehicles. It is the responsibility of the Railway Undertaking to ensure that the conditions for use from the existing authorisation that are applicable are respected.

2.4.4 Dedicated document describing conditions for use

The applicant shall include the identified CfU in the application form in the **OSS**, with all necessary details. Making reference to another document should be also avoided, as it does not provide enough clarity to the AE and the NSAs for area of use concerning which is the set of CfU identified by the applicant, unless this document is also available in the file accompanying the application in the OSS. Similarly, a simple reference to a (draft) ERATV entry in the application form in the OSS for the CfU should be avoided as well, because:

- > CfU in ERATV are a result of the vehicle type authorisation, and not the other way around
- > CfU in a (draft) ERATV entry may evolve over time, jeopardizing the traceability
- > Draft ERATV entries are not publicly available nor visible by NSAs for the area of use

When the set of CfU is long and complex (e.g. typical case in authorisation covering several MSs and with different track gauges, electrification systems and/or train protection systems) it makes it difficult to fillin coded and non-coded restrictions in **ERATV**. In such cases, it is found often that a reference to a standalone document which contains all the CfU is referred to as an actual non-coded restriction. As a rule this should be avoided, because CfU would not be publicly available in ERATV and would not be transparent to other actors (e.g. RUs in charge of performing the route compatibility check) even if the documents are actually transferred to some of the parties that need the information by other means. In ERATV the approach described in section 2.3.1 should be followed, where the CfU are filled-in one time for the first applicable combination and referred to later on for all other combinations.

However, when submitting an application and a standalone document is considered the only feasible option to describe in a comprehensive but easy to read way the non-coded restrictions, this document shall be:

- > referred in the EC declarations of verification for the mobile subsystems;
- > attached to the EC declarations, so that it is <u>publicly available</u> in ERADIS
- > referred to in the application form in the OSS;
- > uploaded to the library of the application in the OSS, and
- > referred to in the parameter non-coded restrictions in ERATV.

2.4.5 Content of ERATV parameter 3.1.3.1.6 "Comments" with regards to CfU

The ERATV parameter 3.1.3.1.6 should contain, for types/variants/versions authorised as a result of a new authorisation or an extension of the area of use:

- > The AoU of the parent type or variant;
- CfU (coded and non-coded restrictions) inherited from the parent type or variant (see section 2.4.3), and/or

> Explanations to the applicable time limits when coded restrictions 4.1 and/or 4.2 are ticked in ERATV but there is no actual conditions for use or restriction to be considered for the use of the vehicle (see footnote 2 in section 2.2).

Other observations, remarks, clarifications can be included in this parameter when deemed relevant by the authorising entity, while ensuring the avoidance of "hidden" CfU in the scope of the authorisation. This includes the case of vehicle type authorisations with a time validity in parameter 3.1.2.2 "Validity of Authorisation (until)", with regards to further explanations concerning the time-bound authorisation.

2.5. Exported constraints vs conditions for use

The applicant is responsible for ensuring that the constraints that are exported to other actors and/or activities (e.g., maintenance, operation, etc.) are properly considered in the relevant documents (e.g., maintenance plan, drivers manual, requirements capture etc.). According to chapter 4.2.1(1) of CCS TSI, exporting requirements from the CCS on-board to CCS trackside and/or other subsystems (e.g. infrastructure) is not allowed.

It should be noted that such exported constraints are not always CfU, from the point of view that they do not always impose a condition for the use of the vehicle. Each exported constraint needs to be analysed by the applicant to decide whether they should be considered a CfU for the vehicle and/or vehicle type, following Article 20 of the Regulation (EU) 2018/545 or not.

2.6. Language of the CfU

Having all CfU in the official language of an application for authorisation is the preferred way, to facilitate understanding and avoid contradictions and/or repetitions. The applicant should provide all CfU (both in the application form and by means of <u>TEM_VEA_062</u>, see section 2.1) in the official language of the application.

In some cases, the NSAs for the area of use are not in a position to provide translations of the CfU that they are proposing in their assessment files. The Agency, when acting as authorising entity, will not translate such CfU, and will include them as provided in the issued vehicle type authorisation. Before that, the Agency will coordinate with the NSAs for the area of use as needed, to ensure the correct understanding of the proposed CfU, and avoid contradictions or duplications with other CfU in other languages.

2.7. Consistency of CfU

A key aspect of the authorising entity's work is ensuring consistency across various documents and sources to achieve reasonable assurance that the applicant has performed its duties. This involves verifying that the information provided is coherent and aligned, in particular the consistency of CfUs in the following areas:

- > The application form
- > EC declarations of verification and accompanying technical files (which also include EC certificates and EC declarations for interoperability constituents, ESC/RSC statements etc.)
- > Requirements capture
- > Reports from Notified Bodies (NoBo), Designated Bodies (DeBo), and Assessment Bodies (AsBo)

However, the applicant is the sole responsible for proposing a suitable set of CfU and shall perform this consistency check before submitting the application for authorisation, in addition to ensure that criteria in sections 2.2 and 2.3.

2.8. CfU in applications in conformity to type

The CfU are basic design characteristics and are therefore an integral part of the vehicle type design. Vehicles conforming to a particular type must be identical to that specified type, which means that they shall have the same basic design characteristics. As a result, there should be no discrepancies between the CfU included in the:

- > application for vehicle authorisation for placing in the market in conformity to a type
- > vehicle type authorisation as recorded in ERATV
- > vehicle authorisation for placing on the market

In justified cases, some rewording or revision of the CfU may be permissible to enhance clarity, provided that such modifications do not alter the fundamental nature of the CfU.

If the CfU indicated by the applicant and included in the application for vehicle authorisation for placing on the market in conformity to an already authorised type differ from the coded and non-coded restrictions that can be found in the ERATV entry of the reference type but they are the same as the CfU laid down in the relevant issued vehicle type authorisation, the concerned authorising entity should modify the ERATV entry to make it consistent with the issued vehicle type authorisation. When amending ERATV is not possible within the legal timeframe for assessment (1 month), the authorising entity could still authorise, using the CfU in the vehicle type authorisation and describing the situation in the APOM.

All CfU that are applicable to a vehicle shall be recorded in the authorisation for placing on the market and shall be registered in section 11.9 of EVR. In case of vehicle authorisation for placing on the market in conformity to a type/variant/version authorised following a new authorisation and/or an extension of the area of use, the APOM should contain all applicable CfU, but making a difference between CfU:

- > inherited from the parent type, and
- > related to the child type/variant/version authorised following the new authorisation and/or extension of the area of use that the vehicles conform to.

2.9. Speed restrictions in wagons

The values for the maximum speed for authorisation of a vehicle can be found in several ERATV parameters:

- Parameter 3.1.2.3, code 1.3 "Speed restrictions in Km/h", to be understood as a deviation from the nominal value (it can be a higher value, not only lower); ERATV allows a free text per combination of track gauge, electrification system and CCS on-board
- Parameter 3.1.2.4, non-coded restriction, any other particularity not fitting into the other parameters (to be left empty in normal circumstances; ERATV allows one free text value per combination of track gauge, electrification system and CCS on-board
- Parameter 4.1.2.1, "Maximum design speed": nominal value referring to the normal operating conditions; ERATV allows one numeric value per entry, regardless of the combinations of track gauge, electrification system and CCS on-board

For simple cases where there are no speed restrictions as compared to the maximum design speed, parameter 3.1.2.3 should be left empty, and the maximum speed should be indicated in parameter 4.1.2.1 only (see section 2.4.1 concerning duplication of coded restrictions and parameters).

For other cases, certain overlap between some ERATV parameters cannot be avoided. This is typically the case of freight wagons, due to the different possible brake regimes (S, SS) and loads (empty, laden 20 t/axle, laden 22.5 t/axle etc.).

Considering that the nominal (design) operating status of a wagon is laden, the criteria to be followed is described in the ERATV application guide for parameter 4.1.2.1.

3. Background

a) Directive (EU) 2016/797

> Article 4(2). Content of TSIs

"[...]

Vehicles shall comply with TSIs and national rules in force at the time of the request for authorisation of placing on the market in accordance with this Directive and without prejudice to point (f) of paragraph 3.

[...]″

> Article 15. Procedure for establishing the 'EC' declaration of verification

"1. In order to establish the 'EC' declaration of verification necessary for placing on the market and placing in service referred to in Chapter V, the applicant shall request the conformity assessment body or bodies that it has selected for that purpose to apply the 'EC' verification procedure set out in Annex IV.

2. The applicant shall establish the 'EC' declaration of verification of a subsystem. The applicant shall declare on his sole responsibility that the subsystem concerned has been subject to the relevant verification procedures and that it satisfies the requirements of relevant Union law and any relevant national rule. The 'EC' declaration of verification and the accompanying documents shall be dated and signed by the applicant.

[...]

4. The applicant shall be responsible for compiling the technical file that is to accompany the 'EC' declaration of verification. That technical file shall contain all the necessary documents relating to the characteristics of the subsystem and, where appropriate, all the documents certifying conformity of the interoperability constituents. It shall also contain all the elements relating to the conditions and limits of use and to the instructions concerning servicing, constant or routine monitoring, adjustment and maintenance.

[...]"

> Article 21. Vehicle authorisation for placing on the market

"10. Vehicle authorisations for placing on the market shall state:

[...]

(d) the conditions for use of the vehicle and other restrictions."

b) Regulation (EU) 2018/545

> Article 2. Definitions

(15) 'vehicle authorisation for placing on the market' means the decision issued by the authorising entity based on a reasonable assurance that the applicant and the entities involved in the design, manufacture, verification and validation of the vehicle have fulfilled their respective obligations and responsibilities in order to ensure conformity with essential requirements of the applicable legislation or to ensure conformity with the authorised type enabling that the vehicle may be placed on the market and may be used safely in the area of use according to the conditions for use and other restrictions, when applicable, specified in the vehicle authorisation and in the vehicle type authorisation;

(16) 'vehicle type authorisation' means the decision issued by the authorising entity based on reasonable assurance that the applicant and the entities involved in the design, manufacture, verification and validation of the vehicle type have fulfilled their obligations and responsibilities in order to ensure conformity with the essential requirements of the applicable legislation enabling that a vehicle manufactured according to this design may be placed on the market and

may be used safely in the area of use of the vehicle type according to the conditions for use of the vehicle and other restrictions, when applicable, specified in the vehicle type authorisation and to be applied to all vehicle authorised in conformity to this type;

> Article 20. Identification of the intended conditions for use of the vehicle and other restrictions

"The applicant shall identify the intended conditions for use of the vehicle and other restrictions linked to the vehicle type."

> Article 25. Conformity assessment

"Each conformity assessment body shall be responsible for compiling the documents and producing all necessary reports related to its conformity assessments performed pursuant to Article 26."

> Article 27. Correction of non-conformities

"1. The correction of non-conformities with TSIs and/or national rules requirements shall be carried out by the applicant, unless a non-application of TSI in accordance with Article 7 of Directive (EU) 2016/797 has been granted. That may apply mutatis mutandis for national rules when allowed by the Member State's national legal framework.

2. In order to mitigate a situation of non-conformity the applicant may, alternatively, do one or more of the following:

- a) change the design; in which case the process shall begin anew from the requirements capture set out in Article 13, for the modified elements only and those elements affected by the change;
- b) establish conditions for use of the vehicle and other restrictions in accordance with Article 20; in which case the conditions for use of the vehicle and other restrictions shall be defined by the applicant and checked by the relevant conformity assessment body.

3. The applicant's proposal for conditions for use of the vehicle and other restrictions as pursuant to Article 20 to correct a non-conformity shall be based on the necessary conformity assessments pursuant to Article 25."

 Article 37. Coordination between the authorising entity and the concerned NSAs for the area of use for the assessment of the application.

"4. Before the authorising entity takes its final decision and before the concerned NSAs for the area of use submit their assessment files, the authorising entity and relevant NSAs for the area of use shall:

- a) discuss the outcome of their respective assessment; and
- b) agree on conditions for use and other restrictions and/or exclusions of area of use to be included in the vehicle type authorisation and/or in the vehicle authorisation for placing on the market

5. On the basis of outcome of the coordination activities referred to in paragraph 4 of this Article, the authorising entity shall provide to the applicant its documented reasons for the decision. In so doing it shall take into account the assessment files of the concerned NSAs for the area of use, referred to in Article 40(6), regarding the issuing or refusal of the vehicle type authorisation and/or vehicle authorisation for placing on the market, including any conditions for use of the vehicle and other restrictions and/or exclusions of area of use to be included in the vehicle type authorisation and/or vehicle authorisation for placing on the market."

- > Article 39. The assessment of the application by the authorising entity.
 - "5. An assessment file shall be issued by the authorising entity and shall contain the following: a) clear statement on whether the result of the assessment is negative or positive as per the applicant's request for the concerned area of use and, where appropriate, conditions for use or restrictions; [...]"

> Article 41. Categorisation of issues.

"The authorising entity and, when applicable the concerned NSAs for the area of use, shall record issues identified during the course of their assessment of the application file in an issues log and categorise them as follows:

[...]

(c) 'type 3': issue that requires an amendment to the application file by the applicant but does not prevent the issuing of the vehicle type authorisation and/or vehicle authorisation for placing on the market with additional and/or more restrictive conditions for use of the vehicle and other restrictions as compared to those specified by the applicant in its application, but the issue must be addressed in order to issue the vehicle type authorisation and/or vehicle authorisation for placing on the market; any action to be performed by the applicant to resolve the issue shall be proposed by the applicant and shall be agreed with the party that identified the issue;

[...]"

> Article 42. Justified doubts

"6. Where it is possible to remove a justified doubt by introducing additional and/or more restrictive conditions for use of the vehicle and other restrictions as compared to those specified by the applicant in its application and the applicant so agrees, a vehicle type authorisation and/or vehicle authorisation for placing on the market may be issued under such conditions for use of the vehicle and other restrictions."

> Article 46. Decision for the authorisation or the refusal of the application

"4. The authorising entity shall state the following in its decision:

- a) any conditions for use of the vehicle and other restrictions;
- b) the reasons for the decision;
- c) the possibility and means of appealing the decision and the relevant time limits

5. The conditions for use of the vehicle and other restrictions shall be defined according to the basic design characteristics of the vehicle type.

6. The authorisation decision shall not contain any time limited conditions for use of the vehicle and other restrictions, unless the following conditions are fulfilled:

- a) it is required because the conformity to the TSIs and/or national rules cannot be completely proven before the issuing of the authorisation; and/or
- b) the TSIs and/or national rules require that the applicant produces a plausible estimate of compliance.

The authorisation may then include a condition that real use demonstrates performance in line with the estimate within a specified period of time.

[...]

8. Where the decision either refuses the application or issues the vehicle type authorisation and/or vehicle authorisation for placing on the market subject to different conditions for use of the vehicle and other restrictions when compared to those specified by the applicant in its application, the applicant may request that the authorising entity reviews its decision in accordance with Article 51 of this Regulation. Where the applicant is not satisfied with the reply of the authorising entity, it may bring an appeal before the competent authority in accordance with Article 21(11) of Directive (EU) 2016/797.

[...]"

> Article 47. Final documentation for the vehicle type authorisation and/or vehicle authorisation for placing on the market.

"3. Different conditions for use of the vehicle and other restrictions when compared to those specified by the applicant in its application may be included in the vehicle type authorisation and/or vehicle authorisation for placing on the market."

> Article 48. The information in the issued vehicle type authorisation

"The vehicle type authorisation issued by the authorising entity shall contain the following information:

[...]

(c) an identification of the basic design characteristics of the vehicle type:

(i) stated in the type and/or design examination certificates;

(ii) the area of use of the vehicle;

(iii) the conditions for use of the vehicle and other restrictions;

[...]"

> Article 51. Review under Article 21(11) of Directive (EU) 2016/797

"1. Where the decision of the authorising entity contains a refusal or different conditions for use of the vehicle and other restrictions when compared to those specified by the applicant in its application, the applicant may request the review of the decision within one month from the date of its receipt. That request shall be submitted by the applicant through the one-stop shop."

> Annex I Content of the application

"[...]

14. Conditions for use of the vehicle and other restrictions (to be specified according to Decision 2011/665/EU Annex II) (M):

14.1. Coded restrictions

14.2. Non-coded restrictions

[...]"

c) Regulation (EU) 2019/250

ANNEX I TEMPLATE FOR 'EC' DECLARATION OF CONFORMITY OR SUITABILITY FOR USE OF INTEROPERABILITY CONSTITUENTS, ANNEX II TEMPLATE FOR 'EC' DECLARATION OF VERIFICATION OF SUBSYSTEM, ANNEX III TEMPLATE FOR 'EC' DECLARATION OF VERIFICATION FOR SUBSYSTEM INITIALLY PLACED IN SERVICE WITHOUT AN 'EC' DECLARATION

"[...]

The following conditions of use and other restrictions apply ⁽³⁾:

[List or reference to the list of conditions of use and other restrictions]

[...]

⁽³⁾ When a reference to a list of conditions of use and other restrictions is made, such list shall be accessible to the authorising entity"

> ANNEX V TEMPLATE FOR CERTIFICATE

"[...]

The following conditions and limits of use apply ⁽⁴⁾:

[List or reference to the list of conditions of use and other restrictions]

[...]

⁽⁴⁾ When a reference to a list of conditions of use and other restrictions is made, such list shall be accessible to the authorising entity

[...]"

d) Regulation (EU) 2023/1695 (CCS TSI)

 4.2.1 Control-Command and Signalling reliability, availability and safety characteristics relevant to interoperability

"[...]

(1) The design, implementation and use of a Control-Command and Signalling On-board or Trackside subsystem shall not export any requirements:

- a) across the interface between Control-Command and Signalling On-board and Trackside subsystems in addition to the requirements specified in this TSI;
- *b)* to any other subsystem in addition to the requirements specified in the corresponding TSIs [...]"

> 6.5.1 Content of EC certificates

"As per Commission Implementing Regulation (EU) 2019/250 (15) the notified bodies shall describe the restrictions and conditions for use of interoperability constituents and subsystems in the relevant EC certificates.

Notified bodies shall coordinate with the Agency the way in which errors, restrictions and conditions for use of interoperability constituents and subsystems are managed in the relevant EC certificates for verification and their accompanying technical files in the working group set up under Article 29 of Regulation (EU) 2016/796."

> 6.5.2 Content of EC declarations

"As per Implementing Regulation (EU) 2019/250 the interoperability constituent's manufacturer or the subsystem applicant shall describe in the EC declaration of conformity or verification the restrictions and conditions for use.

In the accompanying technical files the template of Appendix D shall be used."

e) VA guidelines 2.1 (ERA1209/222)

> 3.3.8. Article 20: Identification of the intended conditions for use of the vehicle and other restrictions

Conditions for use of the vehicle and other restrictions are part of the technical characteristics of the vehicle and/or vehicle type and form the boundaries for how the vehicle is intended to be used. The CfUs:

- > Are basic design characteristics, pursuant to Article 48(c)(iii) of Regulation (EU) 2018/545 (see section 3.8.2);
- > Should be formulated in technical terms, not by geographical area (e.g., the line between A and B).
- > Are covered by Decision 2011/665/EU on ERATV by means of:
 - Coded conditions for use and other restrictions (parameter 3.1.2.3), and
 - Non-coded restrictions for use and other restrictions (parameter 3.1.2.4)
- Might require negotiation and agreement between the applicant, RU, keeper and/ or IM, in particular in the case of exported constraints to operation and/ or maintenance of the vehicle;
- > Should be considered by the user of the vehicle under its SMS;

There are three broad stages to the identification of CfUs:

- Design stage: during the first stage of the vehicle authorisation process (stage 1: preparation of the application, see section 3.3), the applicant should identify the intended CfUs (such as gauge, maximum speed, speed limits arising from the isolation of parts of the braking system, temperature range etc.) that are applicable, taking into account the technical characteristics of the vehicle and/or vehicle type and its intended operation conditions.
- Conformity assessment: it may be necessary to add further CfUs as a result of the conformity assessment (stage 3: conformity assessment, see section 3.5) in order to comply with the relevant requirements (e.g. limitation in the maximum operating speed in degraded operating conditions such as the unavailability of some brake modules or a limitation in the number of allowed configurations of pantographs, etc.). These CfUs are to be defined by the applicant, in agreement with the concerned assessment bodies. See section 3.5.3 for further information of mitigation of non-conformities with TSIs by means of CfU.

There may be some CfU arising from equipment failure, such as a reduction in speed when the air suspension is deflated, that may be identified as part of the conformity assessment against the harmonised standards that are applicable. It is not intended that the effect of every potential component failure is incorporated into the CfUs. Nonetheless the assessment of these scenarios forms a part of the design process.

Some of the CfUs will be derived from the requirements capture as well as the risk assessment process, in particular, the use of the risk assessment process specified in the Annex I of CSM RA for the safety related requirements (essential requirement safety within the subsystems and safe integration of subsystems).

Where the CfUs are safety related, they should be cross-checked by the concerned AsBo, in order to ensure that they are consistent with the risk assessment process performed by the applicant and do not introduce additional safety risks; role is to check that the risk assessment process set out in Annex I of CSM RA has been applied when required. It is not the role of the AsBo to check whether the CfUs that the applicant has included in the application for vehicle authorisation:

- May hinder the operation of the vehicle from a commercial point of view or not (e.g., reduction in the maximum operating speed, low mileage between maintenance operations, etc.); or
- To perform the technical evaluation of possible CfUs which are necessary to remedy non-conformities with TSIs and/ or national rules.

NoBos and/ or DeBos, each for the parts they are responsible for, should also cross-check the CfUs, in order to confirm that they are consistent with the assessments performed (including CfU for ICs and how they are transferred to CfU for subsystems, where relevant). The applicant will then compile the file accompanying the application for authorisation and submit the application for authorisation through the OSS (stage 4: submitting the application, see section 3.6). All the CfU identified until this stage should be specified in the application for authorisation.

CfU should be focused on important aspects that shall be respected in order to ensure that the essential requirements are met (including technical compatibility with the network) and that the subsystems are technically compatible with each other and safely integrated into a vehicle, e.g., operational constraints (speed limitations in degraded modes, pantograph configurations allowed etc.). The applicant should not consider as CfU aspects that do not impose any condition for the operation of the vehicle, or any other restriction, and are rather:

- Observations, remarks or statements from conformity assessment bodies (NoBos, DeBos and/or AsBos) or other parties;
- References to documents (e.g., driver or operation manual, maintenance plan, risk assessment, list of constraints exported to operation, maintenance and/or infrastructure, etc.);
- Duplication of values for technical parameters,
- Etc.

The applicant is responsible for ensuring that the constraints that are exported to other actors and/or activities (e.g., maintenance, operation, etc.) are properly considered in the relevant documents (e.g., maintenance plan, drivers manual, etc.). It should be noted that such exported constraints are not always CfU, from the point of view that they do not impose a condition for the use of the vehicle. Each exported constraint needs to be analysed by the applicant to decide whether they should be considered a CfU in the sense of Article 20 of the Regulation (EU) 2018/545 or not.

The applicant for authorisation shall also ensure that the EC certificates of verification, the EC DoVs, and the application file are consistent. If there is a need to update the certificates or the declarations to align them with the CfU that the applicant wants to propose, it shall liaise with the conformity assessment bodies and/or with the applicants for placing on the market of the mobile subsystems / manufacturers.

Please note that CfU for the vehicle and/or vehicle type are to be indicated in:

- OSS application form (vehicle and/or vehicle type level), and
- When the Agency is the authorising entity, see section 3.11.1.2 (template to be filled-in)

CfUs for mobile subsystems are to be described in the EC DoV (which will rely upon the conditions and limits for use in the EC certificates of verification), either directly in the declarations or in a separate document when they are long and/or complex. In such case, the document shall be referenced and attached to the declaration and shall be considered as a part of the declaration.

Authorisation process: the authorising entity and/ or the NSAs for the area of use can specify further CfUs as a result of their assessment of the application and the file accompanying the application (stage 5: processing the application, section 3.7, and stage 6: final documentation and authorisation, section 3.8.2).

The authorising entity and/ or the concerned NSAs for the area of use should not check if the CfU (including exported constraints) proposed by the applicant are reasonable from a commercial point of view (e.g. risk not meeting the contractual obligations of the manufacturer with the RU by imposing CfU that may render the operation of the vehicle difficult) nor to check if the exported constraints have been accepted by the concerned actor. The scope of the assessment should be limited to the consistency, completeness, relevance and understandability of the set of CfU proposed by the applicant, and to verify that the concerned CABs have cross-checked the CfU with regards to the results of the conformity assessments performed.

The authorising entity and the concerned NSAs for the area of use can also remove some of the CfUs proposed by the applicant, if the proposal of the applicant does not actually impose any condition for use of the vehicle or any other restriction.

The issued vehicle type authorisation and/ or vehicle authorisation for placing on the market (stage 6: final documentation and authorisation, see section 3.8.2) should reflect all the CfU identified.

The applicant has the possibility to appeal in a case of disagreement with CfU imposed by the authorising entity, see section 3.8.5.

In case of a new authorisation and/or an extension of the area of use, the applicant should include in the application form the CfU from the previous authorisation that are still applicable, despite not being in the scope of the assessments to be performed by the authorising entity (inherited CfU), see also section 3.8.2.3. The CfU in the application for authorisation should be coherent with the CfU mentioned in the EC DoVs, although they don't need to be identical, i.e., not all CfU mentioned in an EC DoV are relevant for the vehicle (some CfU are relevant for the integration between mobile subsystems only).

3.8.2.2. Modification of the CfU in the issued vehicle type authorisation

The vehicle type authorisation and the vehicle authorisation for placing on the market shall specify the CfU, according to article 21(10)(d) of the Directive and articles 48 and 49 of Regulation (EU) 2018/545. Authorisation for placing in service under on Directive 2008/57/EC may also contain conditions and other restrictions, pursuant to article 21(6) of the Directive.

CfU are basic design characteristics, pursuant to articles 46(5) and 48(c)(iii) of the Regulation (EU) 2018/545. Therefore, changes in the CfU that are stated in the issued authorisation should be dealt with by the application of article 15 of Regulation (EU) 2018/545.

3.8.2.2.1. The modification of the CfU requires changes in the vehicle and/or vehicle type

Depending on the categorisation of the change (which should take into account the impact in the CfU) according to article 15(1) of the Regulation and depending on whether the entity managing the change is also the holder of the vehicle type authorisation, there are several possibilities.

Where the entity managing the change is the holder of the vehicle type authorisation:

- If the change is categorized as 15(1)(b), the concerned authorising entity or NSA can modify the CfU without the need to issue a new authorisation through the OSS. It may be an update of the existing authorisation, a letter overriding the limitation etc.
- If the change is categorized as 15(1)(c), in addition to the modification of the CfU, there
 is a need to create a version of the vehicle type in ERATV, pursuant to article 15(3) of
 the Regulation. The entity that would be the authorising entity in case such change
 would require a new authorisation should take the responsibility of creating the
 version, based on the information provided by the entity managing the change and on
 the data available in ERATV for the vehicle type.

In order to move existing vehicles from the parent type/variant to the versions as a result of a 15(1)(c) change, there is no need to submit an application for authorisation for placing on the market in conformity to the newly created version. The keeper shall update its records (configuration management of the vehicles) and request an update of the NVR/ECVVR/EVR.

If the change is categorized as 15(1)(d), there shall be an application for a new authorization through the OSS. The entity managing the change can choose the authorising entity (Agency or concerned NSA) if the area of use covers one MS; if the area of use covers more than one MS, the Agency shall be the authorising entity.

If the entity managing the change is not the holder of the vehicle authorisation or there is no vehicle type authorisation and therefore there is no holder of the vehicle type authorisation, all changes categorized as 15(1)(b), (c) or (d) of Regulation (EU) 2018/545 trigger a new authorisation pursuant to Article 14(1)(d) of Regulation (EU) 2018/545.

When a change is classified as 15(1)(b) or (c), and it only impacts vehicle(s), the entity managing the change that is not the holder of the vehicle type authorisation can submit a notification pursuant to Article 16(4) of Regulation (EU) 2018/545.

 3.8.2.2.2. The modification of the CfU does not require further changes in the vehicle and/or vehicle type

When the modification of the CfU do not require any further changes to the vehicle and/or vehicle type nor impacts the values for technical parameters, and the concerned CfU:

- Were not recorded in the concerned ERATV entry (coded and non-coded restrictions) but were properly included in the issued vehicle type authorisation;
- Don't have any impact in the operational envelope of the vehicle type (e.g., speed, load, cant deficiency, number of units coupled, etc.);
- Are not related to parameters linked to technical compatibility with the network (e.g., load, gauge, active pantograph layout, etc.);
- Duplicate values of technical parameters (e.g., basic parameter 4.2.1 Reference profile vs coded restriction 3.1.2.3 2.1, basic parameter 4.1.3 wheelset gauge vs coded restriction 3.1.2.3 2.2 wheelset gauge, etc.);
- Impose an obligation to the applicant to provide additional evidence or documentation, specify the criteria that the additional evidence or documentation shall fulfil in order to be considered acceptable and do not entail any change in the operational envelope or in the area of use, and/or
- Do not impose any particular CfU of the vehicle or restriction (e.g., observations, remarks or statements from the conformity assessment bodies and/or authorising entities, references to the drivers manual, reference to the maintenance plan, reference to the risk assessment, etc.)

this can be considered as a change that does not actually impact the basic design characteristic "Conditions for use of the vehicle and other restrictions" and can then be classified pursuant to Article **15(1)(a)** of Regulation (EU) 2018/545, when there is no impact in the files accompanying the EC DoVs, or **15(1)(b)** when there is a need to update the accompanying technical files (which will normally be the case).

The authorising entity or the NSA that issued the authorisation should withdraw the concerned CfU and issue a new revision of the issued authorisation without the need for the applicant to apply for a new authorisation pursuant to Article 14(1)(d) of the Regulation (EU) 2018/545, and update ERATV accordingly.

For other cases, the entity managing the change shall analyse the effect of modifying the CfU (i.e., the change) and decide whether this can be allocated to article 15(1)(c) or 15(1)(d) of the Regulation. In the case where the entity managing the change is the holder of the vehicle type authorisation:

- If the change is categorized as 15(1)(c): the concerned authorising entity or NSA can modify the CfU without the need to issue a new authorisation, and a version of the vehicle type in ERATV needs to be created.
- The keeper shall update its records (configuration management of the vehicles) and request an update of the NVR/ECVVR/EVR. There is no need to apply for an authorisation for placing on the market in conformity to the new version. If the change is categorized as If 15(1)(d): there shall be an application for a new authorization through the OSS.

If the entity managing the modification of the CfU is not the holder of the vehicle authorisation, and the modification is categorized as 15(1)(c) or (d) of Regulation (EU) 2018/545, a new authorisation pursuant to Article 14(1)(d) of the Regulation is required.

When the modification in the CfU is classified as 15(1)(b) or (c), and it only impacts vehicle(s), the entity managing such modification can submit a notification pursuant to Article 16(4) of Regulation (EU) 2018/545.

> 3.8.2.3. CfU inherited from the existing authorisation

In case of a new authorisation and/or an extension of the area of use, the vehicle type authorisation to be issued shall contain all CfU that are relevant for the use of the vehicles after the change and/or extension of the area of use, including CfU from the parent type/variant or vehicle that are inherited and should be preserved (they are basic design characteristics from a previous authorisation process). The authorising entity should only modify such CfU in case of conflict with the new CfU (e.g., a CfU applicable before the change is not anymore applicable, or a CfU in the original area of use is not valid for the extended area of use), following consultation with the concerned NSA.

The issued vehicle type authorisation should differentiate between the CfU that are inherited, the inherited CfU that are impacted by the changes and/or the extension of the area of use (if any) and the new CfU arising from the new authorisation process.

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> A.1.1 Concept of "Conditions and Limits of Use":

This terminology has been introduced with (EU) 2016/797 and replaces various similar terms (e.g. compatibility, restrictions, constraints) which have been used in 2010/713/EU and several TSIs to represent the same concept.

"Conditions and Limits of Use" define any information necessary to enable and ensure the intended use of a constituent or a subsystem in its surrounding only related to the fulfilment of the TSI requirements (related to the intended Placing in Service/Placing on the market). This information can e.g. be pre-defined minimum or maximum values, definitions of technical scope, technical interfaces or operational and maintenance requirements.

A limitation is a special kind of condition and both can be included under the same headline and no distinction between limitations and conditions is necessary or useful.

Conditions and Limits of Use may typically be a combination of those which were predefined by the applicant and those which resulted from the conformity assessment process.

Conditions and Limits of Use shall never be abused if the object of assessment does not comply with the relevant TSI requirements.

[...]