**Guidelines to Manufacturers**

**for the notification of errors in the provisional data**

**on CO2 emissions from passenger cars and light commercial vehicles**

Version 1 June 2022

CHECK LIST FOR ERROR NOTIFICATIONS

In order to increase the quality of error notifications and decrease the need for follow-up clarifications, manufacturers are strongly encouraged to use this check list.

Please note that the Mh-field is used to determine the performance of an individual manufacturer and the Mp-field to determine the performance of a pool of manufacturers.

In these guidelines "entry" means the content of a parameter (e.g. mass), while "record" means a series of entries specifying all the parameters for a vehicle in the monitoring data.

1. Include correct error codes for all changed entries

All records that have been changed must include one of the following error codes in the field "MC" (manufacturer comments):

* Error code A shall be used when the entry is changed for a vehicle that can be identified by the manufacturer;
* Error code B shall be used if a vehicle cannot be fully identified and is therefore in principle not accepted for records for which the vehicle identification number (VIN) is available;
* Error code C shall be used for records which have been changed to "UNKNOWN", "OUT OF SCOPE", individually approved or national small series;
* Error code D shall be used only by the final stage manufacturer of multi-stage vans, if it is not the manufacturer of the base vehicle.

Note that error codes B or C should only be used where the available information is clearly insufficient to verify data.

2. Submit the entire dataset

All records attributed to a manufacturer (or pool) according to the Mh-field (or Mp-field) – whether changed or not – need to be submitted with the error notification.

3. Leave entries blank in case of missing data

Entries for which data is missing or which should not contain data (e.g. where a parameter is not applicable for a given vehicle) should be left blank. Please do not use "0" or any other characters for those entries.

4. Use the Vehicle Certification Agency (VCA) ShareFile to return the error notifications.

For the submission of error notifications the VCA ShareFile system should be used. You will be sent a link to the ShareFile with your provisional data.

At the same time a summary declaration in line with the example given in Annex I of these Guidelines, shall be sent to the following mailbox: fleetaverage@vca.gov.uk.

5. Entries requiring particular attention

While all mandatory parameters are important and have to be provided, the completeness and accuracy of the following entries are particularly important for identifying the vehicles concerned and for determining the manufacturer’s compliance situation:

(a) Vehicle identifiers

* Vehicle identification number (VIN)
* Vehicle interpolation family identifier (VFN)
* Type approval number (TAN)
* Type, Variant and Version code (T, Va, Ve)

(b) Compliance data

* NEDC CO2 emissions (Enedc)
* WLTP CO2 emissions (Ewltp)
* Mass in running order (M)

Where applicable, also:

* Eco-innovation savings (Ernedc) and eco-innovation code (IT)
* Deviation factor (De)
* Verification factor (Vf)

**1. INTRODUCTION**

This document provides guidance to manufacturers that wish to notify errors in the provisional CO2 emissions monitoring data1 to the VCA.

Regulation (EU) 2019/631 sets CO2 emission performance standards for new passenger cars and for new light commercial vehicles2. Under Article 7(1) to (6), it sets out the monitoring and reporting requirements, with more details set out in Annexes II and III to that Regulation.

For the 2020 monitoring exercise two new Annexes have been added which cover issues that are specific to that exercise:

 the determination of the WLTP specific emission reference target to be used for the transition to the WLTP based CO2 emission standards from 2021 onwards (Annex IV);

 the reporting of WLTP measured CO2 emissions for the purpose of calculating the starting point for the 2025 and 2030 EU fleet-wide targets (Annex V).

**2. NOTIFICATION OF ERRORS**

2.1. Procedure

Manufacturers can notify the Commission of errors in the provisional CO2 emissions dataset. The notification must be submitted to the Commission within **three months** from receipt of the Commission's notification of the provisional calculation of the average specific CO2 emissions and specific emissions targets (see Article 7 of Regulation (EU) 2019/631).

Manufacturers should notify the errors using the format and error codes indicated in Article 6 of Regulation (EU) 2021/392.

An electronic copy of the notification, including a **summary declaration** in line with the example given in Annex I of these Guidelines, shall be sent to the following mailbox: fleetaverage@vca.gov.uk

The error notification is considered valid if it is uploaded on ShareFile at the latest within **three months from the receipt of the VCA's notification**, accompanied by a summary declaration as mentioned above.

In the case of **closed pools**, the notification should be uploaded or submitted by the **pool manager**. Individual pool members may also upload or submit their data separately, but in case of doubt or differences only the data submitted by the pool manager will be considered valid for the finalisation of the data.

In the case of **open pools**, the notification should be uploaded or submitted by its individual members.

In order to deliver the data using ShareFile, a link to the correct file is required. Each manufacturer, or in the case of pools, each pool manager, should therefore provide a contact person to the VCA by sending an email to the following mailbox: fleetaverage@vca.gov.uk. The designated contact persons will receive the ShareFile link as well as permission to upload the delivery for each reporting obligation. Please note that the pool manager should be the person designated to upload the data on ShareFile for the pool.

Once the notification of errors is uploaded to ShareFile, the VCA will assess the error notification and will get back to the manufacturer (or closed pool manager) in case notified errors cannot be accepted without further clarification. The manufacturer (or closed pool manager) responsible should reply to such clarification requests within 10 working days at the latest. Once the VCA has contacted the manufacturer (or closed pool manager) for further clarification, **a maximum period of one month** is available for clarifications. After that period the VCA may not accept any further resubmission and may therefore not be able to take the notified errors into consideration for the final calculations.

2.2. Manufacturer name and contact details

In the notification of errors, manufacturers must indicate the manufacturer name they have notified to the VCA. A manufacturer established outside the EU must provide the VCA with the contact details of its EU representative appointed to represent the manufacturer before type approval authorities. Changes to the manufacturer's contact person should be communicated to the VCA without delay via the following mailbox: fleetaverage@vca.gov.uk A form for the notification of manufacturer name is available on the VCA website [Average Emissions Monitoring - Vehicle Certification Agency (vehicle-certification-agency.gov.uk)](https://www.vehicle-certification-agency.gov.uk/fuel-consumption-co2/average-emissions-monitoring/)

If the errors cannot be clearly attributed to data concerning a specific manufacturer, the VCA may not be able to take them into consideration for the final calculation of the targets.

2.3. Description of the data

Annex II to these guidelines sets out a detailed description and explanation of the different entries in the dataset. Annex III to these guidelines gives examples of the data record and possible false content.

2.4. Multi-stage vehicles

In the case an N1 vehicle is type approved in several stages, the base vehicle manufacturer will be responsible for the CO2 emissions of the completed vehicle (see Point 2 of Part B of Annex III to Regulation 2019/631). The base vehicle manufacturer is responsible for any multi-stage vehicle which is built including an EC type approved base-vehicle (i.e. also if the final completed vehicle is individually approved).

2.5. Manufacturers exempted from meeting a specific emissions target

A car or van manufacturer which, together with all of its connected undertakings, is responsible for less than 1000 new registrations per year is exempt from meeting a specific emission target, unless it has applied for a derogation target. For manufacturers for which no specific emission target applies, the final data to be published will only include information on their average CO2 emissions and vehicle mass.

**3. CORRECTION OF ERRORS IN THE MONITORING DATA**

3.1. Introduction

Except for the number of registrations and the ID number, other entries may be corrected in accordance with the instructions in Section 2.1.

Priority should be given to verifying those entries in the dataset that are directly relevant for the calculation of the specific emission target and the average specific emissions:

* CO2 emissions: verify that the WLTP CO2 emission entries are complete and accurate for each vehicle;
* Mass in running order (M for cars; M, Mb, TPMLM and Mf for vans): verify that the entries are complete and accurate;
* Eco-innovations savings (Ernedc) and codes (IT): verify that both entries are completed for each record where this is relevant.

**As a minimum, manufacturers should verify all of these entries and, where necessary, correct the dataset or complete it where entries are missing.**

In order to ensure the completeness and accuracy of those entries, it is also important to correctly identify the vehicles concerned. For this purpose, manufacturers should also verify the following entries:

* Vehicle interpolation family identifier (VFN);
* Type approval number (TAN) ;
* Type (T), Variant (Va), Version (Ve).

3.2. Correcting the data set

When notifying corrections to the VCA, a manufacturer/pool manager shall include all records and all entries that are relevant, i.e. both those that it considers correct as well as those that have been corrected.

* For each correction made, an error code – A, B, C or, in the case of vans, D – should be indicated in a separate column with the heading "MC" (manufacturer comments) together with the record concerned. The error codes represent different possible modifications of the dataset as explained below.
* The column "Notes" allows for providing additional information in the case of error codes C and D or for any other relevant information that the manufacturer would like to provide.
* For any correction notified, the VCA may request supporting documents (e.g. a copy of the certificate of conformity) before approving the correction in the final dataset.
* As the Driver and Vehicle Licensing Agency (DVLA) is responsible for the entry for registration, this entry may not be changed by the manufacturer.
* A short description of the possible modifications and their implications is given below.

3.2.1. Error Code A

Error Code A shall be used when an entry is changed for a vehicle that can be identified by the manufacturer. This concerns corrections of records where the manufacturer, through the VIN number, has the necessary information about the vehicle to correct or complete the data.

For example, in case eco-innovation savings have not been reported by national authorities, a manufacturer may correct the dataset by completing the entries "IT" and "Ernedc" using Error Code A and add the certified savings for the vehicle version concerned.

Following verification by the VCA, the corrected record will be considered for the calculation of the target and specific CO2 emissions of the manufacturer.

Should the record include the Error Code A but not have been corrected, i.e. the entries concerned are left unchanged, the VCA will use the original record for the final calculation.

3.2.2. Error Code B

Error Code B should only be used when a record that can be attributed to a specific manufacturer contains entries for CO2 emissions and mass but the vehicle referred to in the record cannot be fully identified, e.g. the VIN is not reported, is clearly wrong or is incomplete. The use of Error Code B should therefore be **exceptional.**

Records with Error Code B will be taken into account for the final calculations, but an error margin will be applied to take account of the fact that the values could not be verified by the manufacturer.

*3.2.3*. Error Code C

Error Code C shall be indicated in column "MC" if the record refers to a vehicle that is either:

* out of the scope of Regulation (EU) 2019/631;

or

* individually approved or approved as national small series (see exception below with regard to completed N1 vehicles);

or

* unknown.

Records with Error Code C **will not be taken into account** for the final calculation of the specific emissions target and the average specific emissions. There is no need to modify numerical or text values (except the columns MH and MC as indicated below).

A vehicle falls outside the scope if it is a special purpose vehicle or a second hand vehicle or the production of the vehicle is definitively discontinued and Article 49 of Regulation (EU) 2018/858 (type approval framework Regulation) is no longer applicable. It should be noted that N1 vehicles with a reference mass exceeding 2840 kg are also out of scope.

In these cases Column "MH" should be changed to indicate "OUT OF SCOPE".

A record is "unknown" if it has been attributed to a manufacturer that is unable to identify the vehicle concerned after considering all parameters available in the record.

In this case the entry in column "MH" should be changed to "UNKNOWN".

For records where the VIN is not available or cannot be identified and where the values for CO2 or mass are unrealistic or do not fall within the range for the TAN, type, variant or version concerned, the record should be changed to unknown (Mh = “UNKNOWN”) and Error Code C applies.

3.2.4. Error Code D (multi-stage vehicles)

The Error Code D and the additional column “Notes” should be used in cases where only the manufacturer of the final completed vehicle is recorded in the dataset, but the responsibility for the record should be attributed to the base vehicle manufacturer in accordance with Section 2 Part B of Annex III to Regulation (EU) 2019/631. Where available, the final vehicle manufacturer should provide in the column "Notes" the name of the base vehicle manufacturer as well as the TAN of the base vehicle as stated in the type approval documents or the certificate of conformity. Records with Error Code D will remain in the dataset but **will not be used** for the calculation of the specific emissions or the emission targets.

3.2.5. Other cross-cutting issues

3.2.5.1. Errors in the attribution of manufacturer

If a manufacturer considers that another manufacturer is responsible for a record that has been attributed to it or if it has been incorrectly reported by the national authorities as AA-IVA (individual approvals) or AA-NSS (national small series), Error Code A should be used. The correction to be made in this case is a change of the manufacturer name in the column "MH".

If the record is transferred from one manufacturer to another, **both manufacturers** have to correct the relevant MH entries and use Error Code A. In case of a transfer of a record, a copy of the certificate of conformity of the vehicles should be included in the error notification.

Error Code A may also be used in case of a record relating to an individually approved, completed N1 vehicle, if it is not correctly attributed to the EC type approved base vehicle manufacturer.

If a manufacturer considers that it is not responsible for a record and cannot identify the responsible manufacturer, the record should be considered as unknown and Error Code C should be used. In the case of multi-stage vehicles and the attribution of a record to a manufacturer of the final completed vehicle – see Section 3.2.4 (Error Code D).

3.2.5.2. Contradictory identifiers

In the case of contradictory identifiers, the VIN should be considered for identifying the record. E.g. where the VIN does not match the TAN or the TVV-code, the VIN should be used.

3.2.5.3. Duplicates

This concerns cases where more than one record is associated to the same VIN. These records can have different entries in the Mh- and/or MS-field or different entries for mass and/or emissions. These records have been marked as "DUPLICATE" in the Mh-field and are not included in the provisional calculations.

**Duplicate records are also reported in a separate file.**

Manufacturers should verify these duplicate records and confirm which record should be kept for the final calculations by correcting the Mh-field using Error Code A. Duplicate records should be marked with Error Code C.

ANNEX I **Notification Standard Format**

**"Notification of error** – [***CO2 from M1 category vehicles / N1 category vehicles*]"**

In accordance with Article 7(5) of Regulation (EU) 2019/631, [*name of the manufacturer or pool and its members*] hereby notifies the Commission of certain errors in the data on CO2 emissions from vehicles, on the basis of which the following corrections should be made to the provisional calculations provided by the Commission for [*calendar year*]:

* the average specific emissions of CO2 of [*notified provisional figure*] should be replaced by [*corrected figure*];
* the specific emissions target of [*notified provisional target*] should be replaced by [*corrected target*];
* the difference between the average specific emissions of CO2 and the specific emissions target should be [*difference*];
* the average mass in running order for all our new [*passenger cars/vans*] in that calendar year was [*average mass in running order*]:
* the correction factor of [*notified provisional figure*] should be replaced by [*corrected figure*];

The above corrections are based on the errors identified in the provisional data on CO2 emissions published by the Commission as specified in the data files attached.

I hereby declare that I [*name*] am legally empowered to represent [*name of the manufacturer / pool and its members*] and that the information provided in this notification is true and accurate to the best of my knowledge.

Signature

Date

*[name, function]*

*[name of the manufacturer / pool and its members]*

ANNEX II **Description of the data**

**1. Parameters to be reported by national authorities**

|  |  |  |  |
| --- | --- | --- | --- |
| **Data Parameters**  | **Cars**  | **Vans**  | **Section in certificate of conformity** (unless otherwise specified) 1  |
| Year  | √  | √  | N/A  |
| Country  | √  | √  | N/A  |
| ID number (ID)  | optional  | optional  | N/A  |
| Vehicle identification number (VIN)  | √  | √  | 0.10  |
| Vehicle family identification number (VFN)  | √  | √  | 0.2.3.1  |
| Name of the manufacturer EU standard denomination (Mh)  | √  | √  | 0.5 2  |
| Name of the manufacturer OEM declaration (MAN)  | √  | √  | 0.5  |
| Name of the manufacturer National registry denomination (MMS)  | √  | √  | N/A  |
| Type approval number (TAN)  | √  | √  | 0.10 or 0.11  |
| Type (T)  | √  | √  | 0.2  |
| Variant (Va)  | √  | √  | 0.2  |
| Version (Ve)  | √  | √  | 0.2  |
| Make (Mk)  | √  | √  | 0.1  |
| Commercial name (Cn)  | √  | optional  | 0.2.1  |
| Category of the vehicle type approved (Ct)  | √  | √  | 0.4  |
| Category of the vehicle registered (Cr)  | √  | √  | Point J of Part I of the Registration certificate  |
| Registrations (r)  | √  | √  | N/A  |
| Mass in running order (M) 3  | √  | √ 3  | 13  |
| WLTP test mass (MT)  | √  | √  | 47.1.1  |
| Technically permissible maximum laden mass (TPMLM)  | N/A  | √  | 16.1  |
| Default added mass (DAM)  | N/A  | optional  | N/A  |
| Specific emissions of CO2 (Enedc)  | √  | √  | 49.1  |
| Specific emissions of CO2 (Ewltp)  | √  | √  | 49.4  |
| Foot-print – Wheelbase (W)  | √  | √  | 4  |
| Foot-print – track width steering axle (At1)  | √  | √  | 30  |
| Foot-print – track width other axle (At2)  | √  | √  | 30  |
| Fuel type (Ft)  | √  | √  | 26  |
| Fuel mode (Fm)  | √  | √  | 26.1  |
| Engine capacity (Ec)  | √  | √  | 25  |
| Engine power (Ep)  | √  | optional  | 27  |
| Electric energy consumption (Z) 4  | √  | √  | 49.5.1 (pure EV) or 49.5.2 (OVC-HEV)  |
| Electric range (Zr)5  | √  | √  | 49.5.1 (pure EV) or 49.5.2 (OVC-HEV)  |
| Code for innovative technology or group of innovative technology (IT)  | √  | √  | 49.3.1  |
|  |  |  |  |
| Total WLTP CO2 emissions reduction due to an innovative technology (Erwltp) 6  | N/A in 2020  | N/A in 2020  | 49.3.2.2  |
|  |  |  |  |
|  |  |  |  |

* **2. Provisional database:**
* The provisional detailed database includes the following entries:
* ID number;
* Vehicle family identification number;
* Name of the Pool;
* Name of the Manufacturer – EU standard denomination;
* Name of the Manufacturer – Manufacturer declaration;
* Name of the Manufacturer – national registry denomination;
* Type approval number with its extension;
* Type;
* Variant;
* Version;
* Make;
* Commercial name (optional for N1 category);
* Category of the vehicle type approved;
* Category of the vehicle registered ;
* Registrations;
* Mass in running order (complete / completed vehicle)
* Mass in running order (base vehicle for multi-stage vehicles) (for N1 category);
* WLTP test mass;
* TPMLM (for N1 category);
* Default added mass (for N1 category);
* Final mass (for N1 category);
* Specific CO2 emissions (NEDC);
* Specific CO2 Emissions (WLTP);
* Foot-print – wheel base;
* Foot-print – the track width steering axle;
* Foot-print – the track width other axle;
* Fuel type;
* Fuel mode.
* Engine capacity;
* Engine power (optional for N1 category);
* Electric energy consumption;
* Electric range
* Innovative technologies – code of the innovative technology or group of innovative technologies;
* Innovative technologies – CO2 emissions savings due to that/those technology/ies (WLTP)

***following entries require a short description and clarification of their meaning:***

* ID number

The ID number is the unique record number attributed to each record that is useful in order to streamline and simplify exchanges over errors in the dataset. The ID number must not be changed.

* Vehicle identification number (VIN)

The complete VIN (17 characters) should be taken from section 0.10 of the certificate of conformity and must comply with the VIN stamped on the vehicle body and stated on the

manufacturer's statutory plate attached by the vehicle manufacturer on the vehicle. The VIN is defined in point (2) of Article 2 of (EU) No 19/2011, i.e.

(a) the world manufacturer identifier (WMI), comprising **three** alphanumeric characters, capital roman letters or Arabic numerals;

(b) the vehicle descriptor section (VDS), comprising **six** alphanumeric characters, capital roman letters or Arabic numerals;

(c) the vehicle indicator section (VIS), comprising **eight** alphanumeric characters, capital Roman letters or Arabic numerals, of which the last four shall consist of digits only.

As regards multi-stage vehicles, there may be cases where two VINs are stamped on the vehicle and two manufacturer's plates are attached to the vehicle. In such cases the VIN for the base vehicle shall be delivered.

* Vehicle family identification number (interpolation family identifier) (VFN)

The VFN is the interpolation family identifier as specified in section 0.2.3.1. of the certificate of conformity.

For vehicles type approved until 31 December 2017, the identifier should have the following format: IP-TA-WMI-yyyy-nnnn.

For vehicles type approved from 1 January 2018, the identifier consists of 24 characters in the format set out in point 5.0 of Annex XXI to Regulation (EU) 2017/1151: IP-nnnnnnnnnnnnnnn-WMI-x

Where

- IP is the interpolation family,

- the ‘n’ string consists of a maximum 15 characters restricted to using the characters 0-9, A-Z and the underscore character ‘\_’,

- WMI is as defined above;

- ‘x’ is set to ‘1’ or ‘0’ in accordance with the provisions set out in point 5.0 of Annex XXI to Regulation (EU) 2017/1151

* Name of the Pool

This entry concerns manufacturers that have formed a pool in accordance with Article 6 of Regulation (EU) 2019/631. The average mass, average specific CO2 emissions and specific CO2 emission target will be calculated for each pool as identified by its pool name.

* Name of the manufacturer – EU standard denomination

The database contains three names for each manufacturer. The EU *standard denomination* is assigned by the Commission on the basis of the information submitted by the national authorities and the notification by manufacturers in accordance with Article 5 of Regulation (EU) 2021/392. The average mass, average specific CO2 emissions and specific CO2 emission target will be calculated for the manufacturer as identified by its EU *standard denomination.*

* Name of the manufacturer – Manufacturer declaration

This entry reports the information provided by the manufacturer to the VCA. For those manufacturers who did not provide information on their name, the manufacturer name was assigned by the VCA. Any changes in the official name of the manufacturer should be communicated to the VCA without delay in accordance with Article 5 of Regulation (EU) 2021/392.

In the case of **multi-stage vans**, the base vehicle manufacturer should be indicated in the column “Notes” by final vehicle manufacturer together with Error Code D.

* Type approval number (TAN)

The TAN – including the extension number – is set out in section 0.10. (format according to Directive 2007/46/EC) or 0.11 (format according to Implementing Regulation (EU) 2020/683) of the certificate of conformity.

The TAN should consist of four sections, each separated by the '\*'-character. Except for the lower case letter 'e' and, in case of small series or national type-approvals, the letters 'KS', resp. 'NKS', the TAN must include numbers and asterisks only.

* Type (T), Variant (Va), Version (Ve)

The Type, Variant and Version entries are set out in section 0.2 of the certificate of conformity. In case of multi-stage vans, for base vehicles the type is set out in section 0.2.2.

* Make (Mk)

The make of the vehicle is set out in section 0.1 of the certificate of conformity.

* Commercial name (Cn)

The commercial name of a vehicle is set out in section 0.2.1 of the certificate of conformity.

* Category of vehicle type approved (Ct)

The vehicle category type approved (M1, N1 etc.) is set out in section 0.4 of the certificate of conformity. It should be noted that a vehicle may be type approved in one category and registered in another.

* Category of vehicle registered (Cr)

This vehicle category in which the vehicle was registered is set out in point J of Part I of the Registration Certificate. **It is the vehicle category registered that determines whether a vehicle is considered as M1 or N1 for the purpose of the CO2 emission standards**.

In the case of multi-stage vehicles, indicate the vehicle category registered of the completed vehicle.

* Registrations (r)

The data entry for this field will by default be '1' since each vehicle will be reported separately.

* Mass in running order (complete/completed vehicle) (m)

The mass in running order is the mass of the vehicles with bodywork in running order, i.e. the vehicle with its fuel tank(s) filled to at least 90 % of its or their capacity/ies, including the mass of the driver, of the fuel and liquids, fitted with the standard equipment in accordance with the manufacturer’s specifications and, when they are fitted, the mass of the bodywork, the cabin, the coupling and the spare wheel(s) as well as the tools (Regulation (EU) No 1230/2012). It should be noted that the mass in running order is different from the actual mass of the vehicle.

The mass in running order is set out in section 13 of the certificate of conformity.

The value to be reported is the single value recorded in the certificate of conformity and not a range taken from the type approval documentation.

* Mass in running order (Mb) of the base vehicle (for N1 category)

In case of multi-stage vans, the mass in running order of the base vehicle is provided in section 14 of the certificate of conformity. This value should be reported together with the technically permissible maximum laden mass (TPMLM). The Mb value is used together with the TPMLM to calculate the default added mass (DAM).

* Final mass (Mf) (for N1 category)

The final mass in running order is used for the calculation of the specific emission target.

In the case of **complete vehicles**, this is the same as the mass in running order (M).

For **completed vehicles,** the final mass in running order is:

- the reference mass (RM), determined in accordance with point 5.2 of Annex XII to Regulation (EC) No 692/2008, plus the default added mass determined in accordance with point 5.3 of that Annex , plus 25, or,

- where the preceding value is not provided, the mass in running order of the completed vehicle.

* WLTP test mass

The WLTP test mass is stated in section 47.1.1 of the certificate of conformity.

Please note that the WLTP test mass is not the same as the actual mass of the vehicle.

* Technically permissible maximum laden mass (TPMLM) (for N1 category)

The technically permissible maximum laden mass stated by the vehicle manufacturer is the value set out in point 16.1. of the certificate of conformity.

In the case of multi-stage N1 vehicles, the TPMLM of the base vehicle is provided. The TPMLM is needed to calculate the mass of the multi-stage vehicle to be used for the target calculation.

* Default added mass (for N1 category)(DAM)

The DAM value is calculated in accordance with point 5.3 of Annex XII to Regulation (EC) No 692/2008 as a function of the reference mass and TPMLM of a base (incomplete) vehicle.

* Monitoring mass

The monitoring mass is not required for the calculation of the specific emission target in 2020 but may be provided on a voluntary basis.8

8 For incomplete vans subject to multi-stage type approvals, the value Mf will, from 2021, be determined using the values reported by the manufacturer in accordance with point 1.2.2 (vi) of Annex III to Regulation (EU) 2019/631. In the absence of such values the mass in running order of the completed vehicle will be used.

* Specific NEDC CO2 emissions (Enedc)

The specific NEDC CO2 emissions value is stated in section 49.1 of the certificate of conformity (entry "combined" or "weighted combined" in case of OVC hybrid-electric vehicles).

See under point “Fuel type/fuel mode”below which CO2 value to be reported for bi-fuel and flex-fuel vehicles.

* Specific WLTP CO2 emissions (Ewltp)

The specific WLTP CO2 emissions value is stated in section 49.4 of the certificate of conformity (entry "combined" or "weighted combined" in case of OVC hybrid-electric vehicles). Since this value is vehicle specific, the only data source is the certificate of conformity.

See under point “Fuel type, fuel mode”below which CO2 value to be reported for bi-fuel and flex-fuel vehicles.

* Footprint – wheelbase (w), track width of steering axle (at1), track width of other axles (at2)

The wheelbase is stated in section 4 of the certificate of conformity.

Foot-print - axle track(s) are stated in Section 30 of the certificate of conformity. In case the front and rear axle have different widths, the maximum value should be reported.

* Fuel type, fuel mode

Fuel type is specified in section 26 of the certificate of conformity.

Fuel mode is specified in section 26.1 of the certificate of conformity.

For the **fuel mode** the permitted entries are:

* "M" for mono-fuel vehicles, i.e. vehicles able to run on only one fuel, either petrol, diesel, LPG, natural gas (NG) or hydrogen. The latter category also covers Fuel Cell electric vehicles, i.e. vehicles equipped with a powertrain containing exclusively fuel cell(s) and electric machine(s) as propulsion energy converter(s).
* "B" for bi-fuel vehicles, i.e. vehicles with two separate fuel storage systems, which are designed to run primarily on only one fuel at a time. This covers vehicles that can run on petrol and either LPG, NG/biomethane or hydrogen.
* “F” for flex-fuel vehicles, i.e. vehicles with one fuel storage system that can run on different mixtures of two or more fuels; this concerns more specifically ‘flex fuel ethanol vehicles’, which can run on petrol or a mixture of petrol and ethanol up to an 85 per cent ethanol blend (E85).
* "E" for battery electric vehicles (BEV), i.e. "pure" electric vehicles (NOT hybrid vehicles). These vehicles can be identified using section 23 of the certificate of conformity. In the case of M1 BEVs with a reference mass exceeding 2 610 or 2 840 kg, i.e. not having a WLTP approval, this should be indicated in the “Remarks”.
* “P” for off-vehicle charging hybrid electric vehicles (OVC-HEV), i.e. plug-in hybrid vehicles. These vehicles can be identified using section 23.1 of the certificate of conformity. Their weighted combined CO2 values are specified in section 49.1 (NEDC) and section 49.4 (WLTP) of the certificate of conformity.
* “H” for Not-Off vehicle charging hybrid electric vehicles (NOVC-HEV). These vehicles can be identified using section 23.1 of the certificate of conformity. They cannot take electric energy from external sources and are only fuelled with one of fuel types specified in section 26 of the certificate of conformity. The CO2 values for that fuel shall be reported.

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| The following table specifies the entries for fuel type and fuel mode, for each fuel combination. For the fuel mode the permitted entries are: **Fuel combination**  | **Fuel type to be reported**  | **Fuel mode to be reported**  | **Fuel for which the CO2 value should be reported** (entry "combined" unless mentioned otherwise)  |
| Petrol  | Petrol  | M  | Petrol  |
| Diesel  | Diesel  | M  | Diesel  |
| LPG  | LPG  | M  | LPG  |
| Natural Gas (NG)  | NG  | M  | NG  |
| Hydrogen  | Hydrogen  | M  | Hydrogen In case of Fuel Cell vehicles, the value is zero  |
| Petrol-LPG  | LPG  | B  | LPG  |
| Petrol-NG  | NG-biomethane  | B  | NG  |