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► **B** REGULATION (EU) 2019/631 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL  
of 17 April 2019

setting CO<sub>2</sub> emission performance standards for new passenger cars and for new light commercial vehicles, and repealing Regulations (EC) No 443/2009 and (EU) No 510/2011

(recast)

(Text with EEA relevance)

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*Article 1*

**Subject matter and objectives**

1. This Regulation establishes CO<sub>2</sub> emissions performance requirements for new passenger cars and for new light commercial vehicles in order to contribute to achieving the Union's target of reducing its greenhouse gas emissions, as laid down in Regulation (EU) 2018/842, and the objectives of the Paris Agreement and to ensure the proper functioning of the internal market.

2. From 1 January 2020, this Regulation sets an EU fleet-wide target of 95 g CO<sub>2</sub>/km for the average emissions of new passenger cars and an EU fleet-wide target of 147 g CO<sub>2</sub>/km for the average emissions of new light commercial vehicles registered in the Union, as measured until 31 December 2020 in accordance with Regulation (EC) No 692/2008 together with Implementing Regulations (EU) 2017/1152 and (EU) 2017/1153, and from 1 January 2021 measured in accordance with Regulation (EU) 2017/1151.

3. This Regulation will, until 31 December 2024, be complemented by additional measures corresponding to a reduction of 10 g CO<sub>2</sub>/km as part of the Union's integrated approach referred to in the Commission's communication of 7 February 2007 entitled 'Results of the review of the Community Strategy to reduce CO<sub>2</sub> emissions from passenger cars and light-commercial vehicles'.

4. From 1 January 2025, the following EU fleet-wide targets shall apply:

- (a) for the average emissions of the new passenger car fleet, an EU fleet-wide target equal to a 15 % reduction of the target in 2021 determined in accordance with point 6.1.1 of Part A of Annex I;
- (b) for the average emissions of the new light commercial vehicles fleet, an EU fleet-wide target equal to a 15 % reduction of the target in 2021 determined in accordance with point 6.1.1 of Part B of Annex I.

5. From 1 January 2030, the following EU fleet-wide targets shall apply:

- (a) for the average emissions of the new passenger car fleet, an EU fleet-wide target equal to a 37,5 % reduction of the target in 2021 determined in accordance with point 6.1.2 of Part A of Annex I;

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- (b) for the average emissions of the new light commercial vehicles fleet, an EU fleet-wide target equal to a 31 % reduction of the target in 2021 determined in accordance with point 6.1.2 of Part B of Annex I.

6. From 1 January 2025, a zero- and low-emission vehicles' benchmark equal to a 15 % share of the respective fleets of new passenger cars and new light commercial vehicles shall apply in accordance with points 6.3 of Parts A and B of Annex I, respectively.

7. From 1 January 2030, the following zero- and low-emission vehicles' benchmarks shall apply in accordance with points 6.3 of Parts A and B of Annex I, respectively:

- (a) a benchmark equal to a 35 % share of the fleet of new passenger cars; and
- (b) a benchmark equal to a 30 % share of the fleet of new light commercial vehicles.

*Article 2***Scope**

1. This Regulation shall apply to the following motor vehicles:
  - (a) category M<sub>1</sub> as defined in Annex II to Directive 2007/46/EC ('passenger cars') which are registered in the Union for the first time and which have not previously been registered outside the Union ('new passenger cars');
  - (b) category N<sub>1</sub> as defined in Annex II to Directive 2007/46/EC with a reference mass not exceeding 2 610 kg, and vehicles of category N<sub>1</sub> to which type-approval is extended in accordance with Article 2(2) of Regulation (EC) No 715/2007 ('light commercial vehicles'), which are registered in the Union for the first time and which have not previously been registered outside the Union ('new light commercial vehicles'). In the case of zero-emission vehicles of category N with a reference mass exceeding 2 610 kg or 2 840 kg, as the case may be, they shall, from 1 January 2025, for the purposes of this Regulation and without prejudice to Directive 2007/46/EC and Regulation (EC) No 715/2007, be counted as light commercial vehicles falling within the scope of this Regulation if the excess reference mass is due only to the mass of the energy storage system.
2. A previous registration outside the Union made less than three months before registration in the Union shall not be taken into account.
3. This Regulation shall not apply to special purpose vehicles as defined in point 5 of Part A of Annex II to Directive 2007/46/EC.
4. Article 4, points (b) and (c) of Article 7(4), Article 8 and points (a) and (c) of Article 9(1) shall not apply to a manufacturer which, together with all of its connected undertakings, is responsible for fewer than 1 000 new passenger cars or for fewer than 1 000 new light commercial vehicles registered in the Union in the previous calendar year, unless that manufacturer applies for and is granted a derogation in accordance with Article 10.

**▼B***Article 3***Definitions**

1. For the purposes of this Regulation, the following definitions apply:
- (a) ‘average specific emissions of CO<sub>2</sub>’ means, in relation to a manufacturer, the average of the specific emissions of CO<sub>2</sub> of all new passenger cars or of all new light commercial vehicles of which it is the manufacturer;
  - (b) ‘certificate of conformity’ means the certificate of conformity referred to in Article 18 of Directive 2007/46/EC;
  - (c) ‘completed vehicle’ means a light commercial vehicle where type-approval is granted following completion of a process of multi-stage type-approval in accordance with Directive 2007/46/EC;
  - (d) ‘complete vehicle’ means any light commercial vehicle which does not need to be completed in order to meet the relevant technical requirements of Directive 2007/46/EC;
  - (e) ‘base vehicle’ means any light commercial vehicle which is used at the initial stage of a multi-stage type-approval process;
  - (f) ‘manufacturer’ means the person or body responsible to the approval authority for all aspects of the EC type-approval procedure in accordance with Directive 2007/46/EC and for ensuring conformity of production;
  - (g) ‘mass in running order’ or ‘M’ means the mass of the passenger car or light commercial vehicle with bodywork in running order as stated in the certificate of conformity and defined in point 2.6 of Annex I to Directive 2007/46/EC;
  - (h) ‘specific emissions of CO<sub>2</sub>’ means the CO<sub>2</sub> emissions of a passenger car or a light commercial vehicle measured in accordance with Regulation (EC) No 715/2007 and its implementing Regulations and specified as the CO<sub>2</sub> mass emissions (combined) in the certificate of conformity of the vehicle. For passenger cars or light commercial vehicles which are not type-approved in accordance with Regulation (EC) No 715/2007, ‘specific emissions of CO<sub>2</sub>’ means the CO<sub>2</sub> emissions measured pursuant to Regulation (EC) No 715/2007, notably in accordance with the same measurement procedure as specified in Regulation (EC) No 692/2008 until 31 December 2020, and from 1 January 2021 in Regulation (EU) 2017/1151, or in accordance with procedures adopted by the Commission to establish the CO<sub>2</sub> emissions for such vehicles;
  - (i) ‘footprint’ means the average track width multiplied by the wheelbase as stated in the certificate of conformity and defined in points 2.1 and 2.3 of Annex I to Directive 2007/46/EC;
  - (j) ‘specific emissions target’ means, in relation to a manufacturer, the annual target determined in accordance with Annex I or, if the manufacturer is granted a derogation in accordance with Article 10, the specific emissions target determined according to that derogation;

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- (k) ‘EU fleet-wide target’ means the average CO<sub>2</sub> emissions of all new passenger cars or all new light commercial vehicles to be achieved in a given period;
- (l) ‘test mass’ or ‘TM’ means the test mass of a passenger car or light commercial vehicle as stated in the certificate of conformity and as defined in point 3.2.25 of Annex XXI to Regulation (EU) 2017/1151;
- (m) ‘zero- and low-emission vehicle’ means a passenger car or a light commercial vehicle with tailpipe emissions from zero up to 50 g CO<sub>2</sub>/km, as determined in accordance with Regulation (EU) 2017/1151;
- (n) ‘payload’ means the difference between the technically permissible maximum laden mass pursuant to Annex II to Directive 2007/46/EC and the mass of the vehicle.

2. For the purposes of this Regulation, ‘a group of connected manufacturers’ means a manufacturer and its connected undertakings. In relation to a manufacturer, ‘connected undertakings’ means:

- (a) undertakings in which the manufacturer has, directly or indirectly:
  - (i) the power to exercise more than half the voting rights; or
  - (ii) the power to appoint more than half the members of the supervisory board, board of management or bodies legally representing the undertaking; or
  - (iii) the right to manage the undertaking's affairs;
- (b) undertakings which directly or indirectly have, over the manufacturer, the rights or powers referred to in point (a);
- (c) undertakings in which an undertaking referred to in point (b) has, directly or indirectly, the rights or powers referred to in point (a);
- (d) undertakings in which the manufacturer together with one or more of the undertakings referred to in point (a), (b) or (c), or in which two or more of the latter undertakings, jointly have the rights or powers referred to in point (a);
- (e) undertakings in which the rights or the powers referred to in point (a) are jointly held by the manufacturer or one or more of its connected undertakings referred to in points (a) to (d) and one or more third parties.

*Article 4***Specific emissions targets**

1. The manufacturer shall ensure that its average specific emissions of CO<sub>2</sub> do not exceed the following specific emissions targets:

- (a) for the calendar year 2020, the specific emissions target determined in accordance with points 1 and 2 of Part A of Annex I in the case of passenger cars, or points 1 and 2 of Part B of Annex I in the case of light commercial vehicles, or where a manufacturer is granted a derogation under Article 10, in accordance with that derogation;

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- (b) for each calendar year from 2021 until 2024, the specific emissions targets determined in accordance with points 3 and 4 of Part A or B of Annex I, as appropriate, or, where a manufacturer is granted a derogation under Article 10, in accordance with that derogation and point 5 of Part A or B of Annex I;
- (c) for each calendar year, starting from 2025, the specific emissions targets determined in accordance with point 6.3 of Part A or B of Annex I, or, where a manufacturer is granted a derogation under Article 10, in accordance with that derogation.

2. In the case of light commercial vehicles, where the specific emissions of CO<sub>2</sub> of the completed vehicle are not available, the manufacturer of the base vehicle shall use the specific emissions of CO<sub>2</sub> of the base vehicle for determining its average specific emissions of CO<sub>2</sub>.

3. For the purposes of determining each manufacturer's average specific emissions of CO<sub>2</sub>, the following percentages of each manufacturer's new passenger cars registered in the relevant year shall be taken into account:

- 95 % in 2020,
- 100 % from 2021 onwards.

*Article 5***Super-credits**

In calculating the average specific emissions of CO<sub>2</sub>, each new passenger car with specific emissions of CO<sub>2</sub> of less than 50 g CO<sub>2</sub>/km shall be counted as:

- 2 passenger cars in 2020,
- 1,67 passenger cars in 2021,
- 1,33 passenger cars in 2022,
- 1 passenger car from 2023,

for the year in which it is registered in the period from 2020 to 2022, subject to a cap of 7,5 g CO<sub>2</sub>/km over that period for each manufacturer, as calculated in accordance with Article 5 of Implementing Regulation (EU) 2017/1153.

*Article 6***Pooling**

1. Manufacturers, other than manufacturers which have been granted a derogation under Article 10, may form a pool for the purposes of meeting their obligations under Article 4.

2. An agreement to form a pool may relate to one or more calendar years, provided that the overall duration of each agreement does not exceed five calendar years, and must be entered into on or before 31 December in the first calendar year for which emissions are to be pooled. Manufacturers which form a pool shall file the following information with the Commission:

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- (a) the manufacturers who will be included in the pool;
- (b) the manufacturer nominated as the pool manager who will be the contact point for the pool and will be responsible for paying any excess emissions premium imposed on the pool in accordance with Article 8;
- (c) evidence that the pool manager will be able to fulfil the obligations under point (b);
- (d) the category of vehicles registered as M<sub>1</sub> or N<sub>1</sub>, for which the pool shall apply.

3. Where the proposed pool manager fails to meet the requirement to pay any excess emissions premium imposed on the pool in accordance with Article 8, the Commission shall notify the manufacturers.

4. Manufacturers included in a pool shall jointly inform the Commission of any change of pool manager or of its financial status, in so far as this may affect its ability to meet the requirement to pay any excess emissions premium imposed on the pool in accordance with Article 8, and of any changes to the membership of the pool or the dissolution of the pool.

5. Manufacturers may enter into pooling arrangements provided that their agreements comply with Articles 101 and 102 TFEU and that they allow open, transparent and non-discriminatory participation on commercially reasonable terms by any manufacturer requesting membership of the pool. Without prejudice to the general applicability of Union competition rules to such pools, all members of a pool shall in particular ensure that neither data sharing nor information exchange may occur in the context of their pooling arrangement, except in respect of the following information:

- (a) the average specific emissions of CO<sub>2</sub>;
- (b) the specific emissions target;
- (c) the total number of vehicles registered.

6. Paragraph 5 shall not apply where all the manufacturers included in the pool are part of the same group of connected manufacturers.

7. Except where notification is given under paragraph 3 of this Article, the manufacturers in a pool in respect of which information is filed with the Commission shall be considered as one manufacturer for the purposes of meeting their obligations under Article 4. Monitoring and reporting information in respect of individual manufacturers as well as any pools will be recorded, reported and made available in the central register referred to in Article 7(4).

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8. The Commission may specify, by means of implementing acts, the detailed conditions that shall apply for a pooling arrangement set up pursuant to paragraph 5 of this Article. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 16(2).

*Article 7***Monitoring and reporting of average emissions**

1. For each calendar year, each Member State shall record information for each new passenger car and each new light commercial vehicle registered in its territory in accordance with Parts A of Annexes II and III to this Regulation. That information shall be made available to the manufacturers and their designated importers or representatives in each Member State. Member States shall make every effort to ensure that reporting bodies operate in a transparent manner. Each Member State shall ensure that the specific emissions of CO<sub>2</sub> of passenger cars which are not type-approved in accordance with Regulation (EC) No 715/2007 are measured and recorded in the certificate of conformity.

2. By 28 February of each year, each Member State shall determine and transmit to the Commission the information listed in Parts A of Annexes II and III in respect of the preceding calendar year. The data shall be transmitted in accordance with the format specified in Part B of Annex II and Part C of Annex III.

3. On request from the Commission, a Member State shall also transmit the full set of data collected pursuant to paragraph 1.

4. The Commission shall keep a central register of the data reported by Member States under this Article, and by 30 June of each year, shall provisionally calculate the following for each manufacturer:

- (a) the average specific emissions of CO<sub>2</sub> in the preceding calendar year;
- (b) the specific emissions target in the preceding calendar year;
- (c) the difference between its average specific emissions of CO<sub>2</sub> in the preceding calendar year and its specific emissions target for that year.

The Commission shall notify each manufacturer of its provisional calculation for that manufacturer. The notification shall include data for each Member State on the number of new passenger cars and of new light commercial vehicles registered and their specific emissions of CO<sub>2</sub>.

The register shall be publicly available.

5. Manufacturers may, within three months of being notified of the provisional calculation under paragraph 4, notify the Commission of any errors in the data, specifying the Member State in which they consider that the error occurred.



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The Commission shall consider any notifications from manufacturers and shall, by 31 October, either confirm or amend the provisional calculations under paragraph 4.

6. Member States shall designate a competent authority for the collection and communication of the monitoring data in accordance with this Regulation and shall inform the Commission of the competent authority designated.

The designated competent authorities shall ensure the correctness and completeness of the data transmitted to the Commission, and shall provide a contact point that is to be available to respond quickly to requests from the Commission to address errors and omissions in the transmitted datasets.

7. The Commission shall adopt, by means of implementing acts, detailed rules on the procedures for monitoring and reporting of data under paragraphs 1 to 6 of this Article, and on the application of Annexes II and III. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 16(2).

8. The Commission is empowered to adopt delegated acts in accordance with Article 17 in order to amend the data requirements and data parameters set out in Annexes II and III.

9. Type-approval authorities shall without delay report to the Commission deviations found in the CO<sub>2</sub> emissions of vehicles in-service as compared to the specific emissions of CO<sub>2</sub> indicated in the certificates of conformity as a result of verifications performed in accordance with Article 13.

The Commission shall take those deviations into account for the purpose of calculating the average specific emissions of CO<sub>2</sub> of a manufacturer.

The Commission shall adopt, by means of implementing acts, detailed rules on the procedures for reporting such deviations and for taking them into account in the calculation of the average specific emissions of CO<sub>2</sub>. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 16(2).

10. The Commission shall no later than 2023 evaluate the possibility of developing a common Union methodology for the assessment and the consistent data reporting of the full life-cycle CO<sub>2</sub> emissions of passenger cars and light commercial vehicles that are placed on the Union market. The Commission shall transmit to the European Parliament and to the Council that evaluation, including, where appropriate, proposals for follow-up measures, such as legislative proposals.

11. Member States shall also collect and report data, in accordance with this Article, on registrations of vehicles in categories M<sub>2</sub> and N<sub>2</sub>, as defined in Annex II to Directive 2007/46/EC, with a reference mass not exceeding 2 610 kg, and vehicles to which type-approval is extended in accordance with Article 2(2) of Regulation (EC) No 715/2007.

**▼B***Article 8***Excess emissions premium**

1. In respect of each calendar year, the Commission shall impose an excess emissions premium on a manufacturer or pool manager, as appropriate, where a manufacturer's average specific emissions of CO<sub>2</sub> exceed its specific emissions target.

2. The excess emissions premium under paragraph 1 shall be calculated using the following formula:

(Excess emissions × EUR 95) × number of newly registered vehicles.

For the purposes of this Article, the following definitions shall apply:

— ‘excess emissions’ means the positive number of grams per kilometre by which a manufacturer's average specific emissions of CO<sub>2</sub>, taking into account CO<sub>2</sub> emissions reductions due to innovative technologies approved in accordance with Article 11, exceeded its specific emissions target in the calendar year or part thereof to which the obligation under Article 4 applies, rounded to the nearest three decimal places, and

— ‘number of newly registered vehicles’ means the number of new passenger cars or new light commercial vehicles counted separately of which it is the manufacturer and which were registered in that period according to the phase-in criteria as set out in Article 4(3).

3. The Commission shall determine, by means of implementing acts, the means for collecting excess emissions premiums imposed under paragraph 1 of this Article. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 16(2).

4. The amounts of the excess emissions premium shall be considered as revenue for the general budget of the Union.

*Article 9***Publication of performance of manufacturers**

1. By 31 October of each year, the Commission shall publish, by means of implementing acts, a list indicating:

- (a) for each manufacturer, its specific emissions target for the preceding calendar year;
- (b) for each manufacturer, its average specific emissions of CO<sub>2</sub> in the preceding calendar year;
- (c) the difference between the manufacturer's average specific emissions of CO<sub>2</sub> in the preceding calendar year and its specific emissions target in that year;
- (d) the average specific emissions of CO<sub>2</sub> for all new passenger cars and new light commercial vehicles registered in the Union in the previous calendar year;

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- (e) the average mass in running order for all new passenger cars and new light commercial vehicles registered in the Union in the preceding calendar year until 31 December 2020;
  - (f) the average test mass of all new passenger cars and new light commercial vehicles registered in the Union in the preceding calendar year.
2. The list published under paragraph 1 of this Article shall also indicate whether the manufacturer has complied with the requirements of Article 4 with respect to the preceding calendar year.
3. The list referred to in paragraph 1 of this Article shall, for the publication by 31 October 2022, also indicate the following:
- (a) the 2025 and 2030 EU fleet-wide targets referred to in Article 1(4) and (5), respectively, calculated by the Commission in accordance with points 6.1.1 and 6.1.2 of Parts A and B of Annex I;
  - (b) the values for  $a_{2021}$ ,  $a_{2025}$  and  $a_{2030}$  calculated by the Commission in accordance with points 6.2 of Parts A and B of Annex I.

*Article 10***Derogations for certain manufacturers**

1. An application for a derogation from the specific emissions target calculated in accordance with Annex I may be made by a manufacturer of fewer than 10 000 new passenger cars or 22 000 new light commercial vehicles registered in the Union per calendar year, and which:
- (a) is not part of a group of connected manufacturers; or
  - (b) is part of a group of connected manufacturers that is responsible in total for fewer than 10 000 new passenger cars or 22 000 new light commercial vehicles registered in the Union per calendar year; or
  - (c) is part of a group of connected manufacturers but operates its own production facilities and design centre.
2. A derogation applied for under paragraph 1 may be granted for a maximum period of five calendar years, which is renewable. An application shall be made to the Commission and shall include:
- (a) the name of, and contact person for, the manufacturer;
  - (b) evidence that the manufacturer is eligible for a derogation under paragraph 1;
  - (c) details of the passenger cars or light commercial vehicles which it manufactures including the test mass and specific emissions of CO<sub>2</sub> of those passenger cars or light commercial vehicles; and

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- (d) a specific emissions target consistent with its reduction potential, including the economic and technological potential to reduce its specific emissions of CO<sub>2</sub> and taking into account the characteristics of the market for the type of passenger car or light commercial vehicle manufactured.

3. Where the Commission considers that the manufacturer is eligible for a derogation applied for under paragraph 1 and is satisfied that the specific emissions target proposed by the manufacturer is consistent with its reduction potential, including the economic and technological potential to reduce its specific emissions of CO<sub>2</sub>, and taking into account the characteristics of the market for the type of passenger car or light commercial vehicle manufactured, the Commission shall grant a derogation to the manufacturer.

The application shall be submitted at the latest by 31 October of the first year in which the derogation shall apply.

4. An application for a derogation from the specific emissions target calculated in accordance with points 1 to 4 and 6.3 of Part A of Annex I may be made by a manufacturer which is responsible, together with all of its connected undertakings, for between 10 000 and 300 000 new passenger cars registered in the Union per calendar year.

Such application may be made by a manufacturer in respect of itself or in respect of itself together with any of its connected undertakings. An application shall be made to the Commission and shall include:

- (a) all of the information referred to in points (a) and (c) of paragraph 2, including, where relevant, information about any connected undertakings;
- (b) in relation to applications referring to points 1 to 4 of Part A of Annex I, a target which is a 45 % reduction on the average specific emissions of CO<sub>2</sub> in 2007 or, where a single application is made in respect of a number of connected undertakings, a 45 % reduction on the average of those undertakings' average specific emissions of CO<sub>2</sub> in 2007;
- (c) in relation to applications referring to point 6.3 of Part A of Annex I to this Regulation, a target applicable in the calendar years 2025 to 2028 which is the reduction specified in point (a) of Article 1(4) of this Regulation on the target calculated in accordance with point (b) of this paragraph taking into account the CO<sub>2</sub> emissions measured pursuant to Regulation (EU) 2017/1151.

Where information on a manufacturer's average specific emissions of CO<sub>2</sub> does not exist for the year 2007, the Commission shall determine an equivalent reduction target based upon the best available CO<sub>2</sub> emissions reduction technologies deployed in passenger cars of comparable mass and taking into account the characteristics of the market for the type of car manufactured. That target shall be used by the applicant for the purposes of point (b) of the second subparagraph.

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The Commission shall grant a derogation to the manufacturer where it is demonstrated that the criteria for the derogation referred to in this paragraph have been met.

5. A manufacturer which is subject to a derogation in accordance with this Article shall notify the Commission immediately of any change which affects or may affect its eligibility for a derogation.

6. Where the Commission considers, whether on the basis of a notification under paragraph 5 or otherwise, that a manufacturer is no longer eligible for the derogation, it shall revoke the derogation with effect from 1 January of the next calendar year and shall notify the manufacturer thereof.

7. Where the manufacturer does not attain its specific emissions target, the Commission shall impose the excess emissions premium on the manufacturer, as set out in Article 8.

8. The Commission is empowered to adopt delegated acts in accordance with Article 17 laying down rules to supplement paragraphs 1 to 7 of this Article, as regards the interpretation of the eligibility criteria for derogations, the content of the applications, and the content and assessment of programmes for the reduction of specific emissions of CO<sub>2</sub>.

The Commission is also empowered to adopt delegated acts in accordance with Article 17 to amend Part A of Annex I for the purpose of setting out the calculation formulae of the derogation targets referred to in point (c) of the second subparagraph of paragraph 4 of this Article.

9. Applications for a derogation, including the information supporting it, notifications under paragraph 5, revocations under paragraph 6, any imposition of an excess emissions premium under paragraph 7 and measures adopted pursuant to paragraph 8, shall be made publicly available, subject to Regulation (EC) No 1049/2001 of the European Parliament and of the Council<sup>(1)</sup>.

*Article 11***Eco-innovation**

1. Upon application by a supplier or a manufacturer, CO<sub>2</sub> savings achieved through the use of innovative technologies or a combination of innovative technologies ('innovative technology packages') shall be considered.

Such technologies shall be taken into consideration only if the methodology used to assess them is capable of producing verifiable, repeatable and comparable results.

The total contribution of those technologies to reducing the average specific emissions of CO<sub>2</sub> of a manufacturer may be up to 7 g CO<sub>2</sub>/km.

<sup>(1)</sup> Regulation (EC) No 1049/2001 of the European Parliament and of the Council of 30 May 2001 regarding public access to European Parliament, Council and Commission documents (OJ L 145, 31.5.2001, p. 43).

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The Commission is empowered to adopt delegated acts in accordance with Article 17 in order to amend this Regulation by adjusting the cap referred to in the third subparagraph of this paragraph with effect from 2025 onwards to take into account technological developments while ensuring a balanced proportion of the level of that cap in relation to the average specific emissions of CO<sub>2</sub> of manufacturers.

2. The Commission shall adopt, by means of implementing acts, detailed provisions for a procedure to approve the innovative technologies or innovative technology packages referred to in paragraph 1 of this Article. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 16(2). Those detailed provisions shall be based on the following criteria for innovative technologies:

- (a) the supplier or manufacturer must be accountable for the CO<sub>2</sub> savings achieved through the use of the innovative technologies;
- (b) the innovative technologies must make a verified contribution to CO<sub>2</sub> reduction;
- (c) the innovative technologies must not be covered by the standard test cycle CO<sub>2</sub> measurement;
- (d) the innovative technologies must not:
  - (i) be covered by mandatory provisions due to complementary additional measures complying with the 10 g CO<sub>2</sub>/km reduction referred to in Article 1(3); or
  - (ii) be mandatory under other provisions of Union law.

With effect from 1 January 2025, the criterion referred to in point (d)(i) of the first subparagraph shall not apply with regard to efficiency improvements for air conditioning systems.

3. A supplier or a manufacturer that applies for a measure to be approved as an innovative technology or innovative technology package shall submit a report, including a verification report undertaken by an independent and certified body, to the Commission. In the event of a possible interaction of the measure with another innovative technology or innovative technology package already approved, that report shall mention that interaction and the verification report shall evaluate to what extent that interaction modifies the reduction achieved by each measure.

4. The Commission shall attest the reduction achieved on the basis of the criteria set out in paragraph 2.

*Article 12***Real-world CO<sub>2</sub> emissions and fuel or energy consumption**

1. The Commission shall monitor and assess the real-world representativeness of the CO<sub>2</sub> emissions and fuel or energy consumption values determined pursuant to Regulation (EC) No 715/2007.

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Furthermore, the Commission shall regularly collect data on the real-world CO<sub>2</sub> emissions and fuel or energy consumption of passenger cars and light commercial vehicles using on-board fuel and/or energy consumption monitoring devices, starting with new passenger cars and new light commercial vehicles registered in 2021.

The Commission shall ensure that the public is informed of how that real-world representativeness evolves over time.

2. For the purpose referred to in paragraph 1, starting from 1 January 2021, the Commission shall ensure that the following parameters relating to real-world CO<sub>2</sub> emissions and fuel or energy consumption of passenger cars and light commercial vehicles are made available at regular intervals to it, from manufacturers, national authorities or through direct data transfer from vehicles, as the case may be:

- (a) vehicle identification number;
- (b) fuel and/or electric energy consumed;
- (c) total distance travelled;
- (d) for externally chargeable hybrid electric vehicles, the fuel and electric energy consumed and the distance travelled distributed over the different driving modes;
- (e) other parameters necessary to ensure that the obligations set out in paragraph 1 can be met.

The Commission shall process the data received under the first subparagraph to create anonymised and aggregated datasets, including per manufacturer, for the purposes of paragraph 1. The vehicle identification numbers shall be used only for the purpose of that data processing and shall not be retained longer than needed for that purpose.

3. In order to prevent the real-world emissions gap from growing, the Commission shall, no later than 1 June 2023, assess how fuel and energy consumption data may be used to ensure that the vehicle CO<sub>2</sub> emissions and fuel or energy consumption values determined pursuant to Regulation (EC) No 715/2007 remain representative of real-world emissions over time for each manufacturer.

The Commission shall monitor and report annually on how the gap referred to in the first subparagraph evolves over the period 2021 to 2026 and shall, with the view to preventing an increase in that gap, assess, in 2027, the feasibility of a mechanism to adjust the manufacturer's average specific emissions of CO<sub>2</sub> as of 2030, and, if appropriate, submit a legislative proposal to put such a mechanism in place.

4. The Commission shall adopt, by means of implementing acts, the detailed procedure for collecting and processing the data referred to in paragraph 2 of this Article. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 16(2).



### *Article 13*

#### **Verification of the CO<sub>2</sub> emissions of vehicles in-service**

1. Manufacturers shall ensure that the CO<sub>2</sub> emission and fuel consumption values recorded in the certificates of conformity correspond to the CO<sub>2</sub> emissions from, and fuel consumption of, vehicles in-service as determined in accordance with Regulation (EU) 2017/1151.

2. Following the entry into force of the procedures referred to in the first subparagraph of paragraph 4, type-approval authorities shall verify for those vehicle families for which they are responsible for the type-approval, on the basis of appropriate and representative vehicle samples, that the CO<sub>2</sub> emission and fuel consumption values recorded in the certificates of conformity correspond to the CO<sub>2</sub> emissions from, and fuel consumption of, vehicles in-service as determined in accordance with Regulation (EU) 2017/1151 while considering, inter alia, available data from on-board fuel and/or energy consumption monitoring devices.

Type-approval authorities shall also verify the presence of any strategies on board or relating to the sampled vehicles that artificially improve the vehicle's performance in the tests performed for the purpose of type-approval by, inter alia, using data from on-board fuel and/or energy consumption monitoring devices.

3. Where a lack of correspondence of CO<sub>2</sub> emission and fuel consumption values or the presence of any strategies artificially improving a vehicle's performance is found as a result of the verifications performed pursuant to paragraph 2, the responsible type-approval authority shall, in addition to taking the necessary measures set out in Chapter XI of Regulation (EU) 2018/858, ensure the correction of the certificates of conformity.

4. The Commission shall determine, by means of implementing acts, the procedures for performing the verifications referred to in paragraph 2 of this Article. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 16(2).

The Commission is empowered, prior to adopting the implementing acts referred to in the first subparagraph of this paragraph, to adopt a delegated act in accordance with Article 17 in order to supplement this Regulation by setting out the guiding principles and criteria for defining the procedures referred to in the first subparagraph of this paragraph.

### *Article 14*

#### **Adjustment of M<sub>0</sub> and TM<sub>0</sub> values**

1. The M<sub>0</sub> and TM<sub>0</sub> values referred to in Parts A and B of Annex I shall be adjusted as follows:

- (a) by 31 October 2020, the M<sub>0</sub> value in point 4 of Part A of Annex I shall be adjusted to the average mass in running order of all new passenger cars registered in 2017, 2018, and 2019. That new M<sub>0</sub> value shall apply from 1 January 2022 until 31 December 2024;



**▼B**

- (b) by 31 October 2022, the  $M_0$  value in point 4 of Part B of Annex I shall be adjusted to the average mass in running order of all new light commercial vehicles registered in 2019, 2020 and 2021. That new  $M_0$  value shall apply in 2024;
- (c) by 31 October 2022, the indicative  $TM_0$  value for 2025 shall be determined as the respective average test mass of all new passenger cars and new light commercial vehicles registered in 2021;
- (d) by 31 October 2024, and every second year thereafter, the  $TM_0$  value in point 6.2 of Parts A and B of Annex I shall be adjusted to the respective average test mass of all new passenger cars and new light commercial vehicles registered in the preceding two calendar years, starting with 2022 and 2023. The new  $TM_0$  values shall apply from 1 January of the calendar year following the date of the adjustment.

2. The Commission is empowered to adopt delegated acts in accordance with Article 17 in order to supplement this Regulation by establishing the measures referred to in paragraph 1 of this Article.

*Article 15***Review and report**

1. The Commission shall, in 2023, thoroughly review the effectiveness of this Regulation and submit a report to the European Parliament and to the Council with the result of the review.

2. In the report referred to in paragraph 1, the Commission shall consider, inter alia, the real-world representativeness of the CO<sub>2</sub> emission and fuel or energy consumption values determined pursuant to Regulation (EC) No 715/2007; the deployment on the Union market of zero- and low-emission vehicles, in particular with respect to light commercial vehicles; the roll-out of recharging and refuelling infrastructure reported under Directive 2014/94/EU of the European Parliament and of the Council<sup>(1)</sup>, including their financing; the potential contribution of the use of synthetic and advanced alternative fuels produced with renewable energy to emissions reductions; the CO<sub>2</sub> emissions reduction actually observed at the existing fleet level; the functioning of the incentive mechanism for zero- and low-emission vehicles; the potential effects of the transitional measure set out in point 6.3 of Part A of Annex I; the impact of this Regulation on consumers, particularly on those on low and medium incomes; as well as aspects to further facilitate an economically viable and socially fair transition towards clean, competitive and affordable mobility in the Union.

The Commission shall, in that report, also identify a clear pathway for further CO<sub>2</sub> emissions reductions for passenger cars and light commercial vehicles beyond 2030 in order to significantly contribute to achieving the long-term goal of the Paris Agreement.

<sup>(1)</sup> Directive 2014/94/EU of the European Parliament and of the Council of 22 October 2014 on the deployment of alternative fuels infrastructure (OJ L 307, 28.10.2014, p. 1).

**▼B**

3. The report referred to in paragraph 2 shall, where appropriate, be accompanied by a proposal for amending this Regulation, in particular, the possible revision of the EU fleet-wide targets for 2030 in light of the elements listed in paragraph 2, and the introduction of binding emissions reduction targets for 2035 and 2040 onwards for passenger cars and light commercial vehicles to ensure the timely transformation of the transport sector towards achieving net-zero emissions in line with the objectives of the Paris Agreement.

4. As part of the review referred to in paragraph 1 of this Article, the Commission shall assess the feasibility of developing real-world emission test procedures using portable emission measurement systems (PEMS). The Commission shall take into account that assessment as well as those made pursuant to Article 12 of this Regulation and may, where appropriate, review the procedures for measuring CO<sub>2</sub> emissions as set out under Regulation (EC) No 715/2007. The Commission shall, in particular, make appropriate proposals to adapt those procedures to reflect adequately the real-world CO<sub>2</sub> emissions of passenger cars and light commercial vehicles.

5. As part of the review referred to in paragraph 1 of this Article, the Commission shall evaluate the possibility to assign the revenue from the excess emissions premiums to a specific fund or a relevant programme, with the objective to ensure a just transition towards a climate-neutral economy as referred to in Article 4.1 of the Paris Agreement, in particular to support re-skilling, up-skilling and other skills training and reallocation of workers in the automotive sector in all affected Member States, in particular in the regions and the communities most affected by the transition. The Commission shall, if appropriate, make a legislative proposal to that effect by 2027 at the latest.

6. By 31 December 2020, the Commission shall review Directive 1999/94/EC considering the need to provide consumers with accurate, robust and comparable information on the fuel consumption, CO<sub>2</sub> emissions and air pollutant emissions of new passenger cars placed on the market, as well as evaluate the options for introducing a fuel economy and CO<sub>2</sub> emissions label for new light commercial vehicles. The review shall, where appropriate, be accompanied by a legislative proposal.

7. The Commission shall, by means of implementing acts, determine the correlation parameters necessary in order to reflect any change in the regulatory test procedure for the measurement of specific emissions of CO<sub>2</sub> referred to in Regulations (EC) No 715/2007 and (EC) No 692/2008 and, where applicable, Regulation (EU) 2017/1151. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 16(2) of this Regulation.

8. The Commission is empowered to adopt delegated acts in accordance with Article 17 in order to amend this Regulation by adapting the formulae set out in Annex I, using the methodology adopted pursuant to paragraph 7 of this Article, while ensuring that reduction requirements of comparable stringency for manufacturers and vehicles of different utility are required under the old and new test procedures.



### Article 16

#### Committee procedure

1. The Commission shall be assisted by the Climate Change Committee referred to in point (a) of Article 44(1) of Regulation (EU) 2018/1999 of the European Parliament and of the Council<sup>(1)</sup>. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.
2. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply.
3. Where the committee delivers no opinion, the Commission shall not adopt the draft implementing act and the third subparagraph of Article 5(4) of Regulation (EU) No 182/2011 shall apply.

### Article 17

#### Exercise of the delegation

1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.
2. The power to adopt delegated acts referred to in Article 7(8), Article 10(8), the fourth subparagraph of Article 11(1), Article 13(4), Article 14(2) and Article 15(8) shall be conferred on the Commission for a period of six years from 15 May 2019. The Commission shall draw up a report in respect of the delegation of power not later than nine months before the end of the six-year period. The delegation of power shall be tacitly extended for periods of an identical duration, unless the European Parliament or the Council opposes such extension not later than three months before the end of each period.
3. The delegation of power referred to in Article 7(8), Article 10(8), the fourth subparagraph of Article 11(1), Article 13(4), Article 14(2) and Article 15(8) may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the *Official Journal of the European Union* or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.
4. Before adopting a delegated act, the Commission shall consult experts designated by each Member State in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making.

<sup>(1)</sup> Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council (OJ L 328, 21.12.2018, p. 1).

**▼B**

5. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.

6. A delegated act adopted pursuant to Article 7(8), Article 10(8), the fourth subparagraph of Article 11(1), Article 13(4), Article 14(2) and Article 15(8) shall enter into force only if no objection has been expressed either by the European Parliament or by the Council within a period of two months of notification of that act to the European Parliament and to the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or of the Council.

*Article 18***Repeal**

Regulations (EC) No 443/2009 and (EU) No 510/2011 are repealed with effect from 1 January 2020.

References to the repealed Regulations shall be construed as references to this Regulation and shall be read in accordance with the correlation table in Annex V.

*Article 19***Entry into force**

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

It shall apply from 1 January 2020.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

**▼B**

## ANNEX I

## PART A

## SPECIFIC EMISSIONS TARGETS FOR PASSENGER CARS

1. For the calendar year 2020, the specific emissions of CO<sub>2</sub> for each new passenger car shall, for the purposes of the calculations in this point and in point 2, be determined in accordance with the following formula:

$$\text{Specific emissions of CO}_2 = 95 + a \cdot (M - M_0)$$

where:

M = Mass in running order of the vehicle in kilograms (kg)

$$M_0 = 1\,379,88$$

$$a = 0,0333$$

2. The specific emissions target for a manufacturer in 2020 shall be calculated as the average of the specific emissions of CO<sub>2</sub> determined according to point 1, of each new passenger car registered in that calendar year of which it is the manufacturer.
3. The specific emissions reference target for a manufacturer in 2021 shall be calculated as follows:

$$\text{WLTP specific emissions reference target} = \text{WLTP}_{\text{CO}_2} \cdot \left( \frac{\text{NEDC}_{2020\text{target}}}{\text{NEDC}_{\text{CO}_2}} \right)$$

where:

WLTP<sub>CO2</sub> is the average specific emissions of CO<sub>2</sub> in 2020 determined in accordance with Annex XXI to Regulation (EU) 2017/1151 and calculated in accordance with the second indent of Article 4(3) of this Regulation, without including CO<sub>2</sub> savings resulting from the application of Articles 5 and 11 of this Regulation;

NEDC<sub>CO2</sub> is the average specific emissions of CO<sub>2</sub> in 2020 determined in accordance with Implementing Regulation (EU) 2017/1153 and calculated in accordance with the second indent of Article 4(3) of this Regulation, without including CO<sub>2</sub> savings resulting from the application of Articles 5 and 11 of this Regulation;

NEDC<sub>2020target</sub> is the 2020 specific emissions target calculated in accordance with points 1 and 2.

4. For the calendar years 2021 to 2024, the specific emissions target for a manufacturer shall be calculated as follows:

$$\text{Specific emissions target} = \text{WLTP}_{\text{reference target}} + a [(M_o - M_0) - (M_{o2020} - M_{0,2020})]$$

where:

WLTP<sub>reference target</sub> is the 2021 WLTP specific emissions reference target calculated in accordance with point 3;

a is 0,0333;

M<sub>o</sub> is the average of the mass in running order (M) of the new passenger cars of the manufacturer registered in the relevant target year in kilograms (kg);

**▼B**

$M_0$  is 1 379,88 in 2021, and as defined in point (a) of Article 14(1) for the years 2022, 2023 and 2024;

$M_{\theta 2020}$  is the average of the mass in running order (M) of the new passenger cars of the manufacturer registered in 2020 in kilograms (kg);

$M_{0,2020}$  is 1 379,88.

5. For a manufacturer that has been granted a derogation with regard to a specific NEDC based emissions target in 2021, the WLTP based derogation target shall be calculated as follows:

$$\text{Derogation target}_{2021} = \text{WLTP}_{\text{CO}_2} \cdot \left( \frac{\text{NEDC}_{2021\text{target}}}{\text{NEDC}_{\text{CO}_2}} \right)$$

where:

$\text{WLTP}_{\text{CO}_2}$  is  $\text{WLTP}_{\text{CO}_2}$  as defined in point 3;

$\text{NEDC}_{\text{CO}_2}$  is  $\text{NEDC}_{\text{CO}_2}$  as defined in point 3;

$\text{NEDC}_{2021\text{target}}$  is the 2021 derogation target granted by the Commission pursuant to Article 10.

6. From 1 January 2025, the EU fleet-wide targets and the specific emissions targets for a manufacturer shall be calculated as follows:

6.0. EU fleet-wide target<sub>2021</sub>

EU fleet-wide target<sub>2021</sub> is the average, weighted by the number of new passenger cars registered in 2021, of the reference-values<sub>2021</sub> determined for each individual manufacturer for which a specific emissions target applies in accordance with point 4.

The reference-value<sub>2021</sub> shall be determined, for each manufacturer, as follows:

$$\text{reference - value}_{2021} = \text{WLTP}_{\text{CO}_2, \text{measured}} \cdot \left( \frac{\text{NEDC}_{2020, \text{Fleet Target}}}{\text{NEDC}_{\text{CO}_2}} \right) + a(M_{\theta 2021} - M_{0,2021})$$

where:

$\text{WLTP}_{\text{CO}_2, \text{measured}}$  is the average, for each manufacturer, of the measured CO<sub>2</sub> emissions combined of each new passenger car registered in 2020, as determined and reported in accordance with Article 7a of Implementing Regulation (EU) 2017/1153;

$\text{NEDC}_{2020, \text{Fleet Target}}$  is 95 g/km;

$\text{NEDC}_{\text{CO}_2}$  is as defined in point 3;

$M_{\theta 2021}$  is the average of the mass in running order of the new passenger cars of the manufacturer registered in 2021 in kilograms (kg);

$M_{0,2021}$  is the average mass in running order in kilograms (kg) of all new passenger cars registered in 2021 of those manufacturers for which a specific emissions target applies in accordance with point 4;

a is as defined in point 4.

**▼B**

## 6.1. EU fleet-wide targets for 2025 and 2030

## 6.1.1. EU fleet-wide target for 2025 to 2029

EU fleet-wide target<sub>2025</sub> = EU fleet-wide target<sub>2021</sub> · (1 – reduction factor<sub>2025</sub>)

where:

EU fleet-wide target<sub>2021</sub> is as defined in point 6.0;

reduction factor<sub>2025</sub> is the reduction specified in point (a) of Article 1(4).

## 6.1.2. EU fleet-wide target for 2030 onwards

EU fleet-wide target<sub>2030</sub> = EU fleet-wide target<sub>2021</sub> · (1 – reduction factor<sub>2030</sub>)

where:

EU fleet-wide target<sub>2021</sub> is as defined in point 6.0;

reduction factor<sub>2030</sub> is the reduction specified in point (a) of Article 1(5).

## 6.2. Specific emissions reference targets from 2025 onwards

## 6.2.1. Specific emissions reference targets for 2025 to 2029

The specific emissions reference target = EU fleet-wide target<sub>2025</sub> + a<sub>2025</sub> · (TM – TM<sub>0</sub>)

where:

EU fleet-wide target<sub>2025</sub> is as determined in accordance with point 6.1.1;

a<sub>2025</sub> is  $\frac{a_{2021} \cdot \text{EU fleet - wide target}_{2025}}{\text{Average emissions}_{2021}}$

where:

a<sub>2021</sub> is the slope of the best fitting straight line established by applying the linear least squares fitting method to the test mass (independent variable) and the specific emissions of CO<sub>2</sub> (dependent variable) of each new passenger car registered in 2021;

average emissions<sub>2021</sub> is the average of the specific emissions of CO<sub>2</sub> of all new passenger cars registered in 2021 of those manufacturers for which a specific emissions target is calculated in accordance with point 4;

TM is the average test mass in kilograms (kg) of all new passenger cars of the manufacturer registered in the relevant calendar year;

TM<sub>0</sub> is the value in kilograms (kg) determined in accordance with point (d) of Article 14(1).

## 6.2.2. Specific emissions reference targets for 2030 onwards

The specific emissions reference target = EU fleet-wide target<sub>2030</sub> + a<sub>2030</sub> · (TM – TM<sub>0</sub>)

where:

EU fleet-wide target<sub>2030</sub> is as determined in accordance with point 6.1.2;

**▼B**

$$a_{2030} \quad \text{is} \quad \frac{a_{2021} \cdot \text{EU fleet - wide target}_{2030}}{\text{Average emissions}_{2021}}$$

where:

$a_{2021}$  is as defined in point 6.2.1;

average emissions<sub>2021</sub> is as defined in point 6.2.1;

TM is as defined in point 6.2.1;

TM<sub>0</sub> is as defined in point 6.2.1.

### 6.3. Specific emissions targets from 2025 onwards

Specific emissions target = specific emissions reference target · ZLEV factor

where:

specific emissions reference target is the specific emissions reference target of CO<sub>2</sub> determined in accordance with point 6.2.1 for the period 2025 to 2029 and point 6.2.2 for 2030 onwards;

ZLEV factor is (1 + y - x), unless this sum is larger than 1,05 or lower than 1,0 in which case the ZLEV factor shall be set to 1,05 or 1,0, as the case may be;

where:

y is the share of zero- and low-emission vehicles in the manufacturer's fleet of new passenger cars calculated as the total number of new zero- and low-emission vehicles, where each of them is counted as ZLEV-specific in accordance with the following formula, divided by the total number of new passenger cars registered in the relevant calendar year:

$$\text{ZLEV}_{\text{specific}} = 1 - \left( \frac{\text{specific emissions of CO}_2 \cdot 0,7}{50} \right)$$

For new passenger cars registered in Member States with a share of zero- and low-emission vehicles in their fleet below 60 % of the Union average in the year 2017 <sup>(1)</sup> and with less than 1 000 new zero- and low-emission vehicles registered in 2017, ZLEV<sub>specific</sub> shall, until and including 2030, be calculated in accordance with the following formula:

$$\text{ZLEV}_{\text{specific}} = \left( 1 - \left( \frac{\text{specific emissions of CO}_2 \cdot 0,7}{50} \right) \right) \cdot 1,85$$

Where the share of zero- and low-emission vehicles in a Member State's fleet of new passenger cars registered in a year between 2025 and 2030 exceeds 5 %, that Member State shall not be eligible for the application of the multiplier of 1,85 in the subsequent years;

x is 15 % in the years 2025 to 2029 and 35 % from 2030 onwards.

<sup>(1)</sup> The share of zero- and low-emission vehicles in the new passenger car fleet of a Member State in 2017 is calculated as the total number of new zero- and low-emission vehicles registered in 2017 divided by the total number of new passenger cars registered in the same year.



**▼B**

## PART B

## SPECIFIC EMISSIONS TARGETS FOR LIGHT COMMERCIAL VEHICLES

1. For the calendar year 2020, the specific emissions of CO<sub>2</sub> for each new light commercial vehicle shall, for the purposes of the calculations in this point and in point 2, be determined in accordance with the following formula:

$$\text{Specific emissions of CO}_2 = 147 + a \cdot (M - M_0)$$

where:

M = Mass in running order of the vehicle in kilograms (kg)

M<sub>0</sub> = 1 766,4

a = 0,096

2. The specific emissions target for a manufacturer in 2020 shall be calculated as the average of the specific emissions of CO<sub>2</sub> determined according to point 1 of each new light commercial vehicle registered in that calendar year of which it is the manufacturer.
3. The specific emissions reference target for a manufacturer in 2021 shall be calculated as follows:

$$\text{WLTP specific emissions reference target} = \text{WLTP}_{\text{CO}_2} \cdot \left( \frac{\text{NEDC}_{2020\text{target}}}{\text{NEDC}_{\text{CO}_2}} \right)$$

where:

WLTP<sub>CO<sub>2</sub></sub> is the average specific emissions of CO<sub>2</sub> in 2020 determined in accordance with Annex XXI to Regulation (EU) 2017/1151 without including CO<sub>2</sub> savings resulting from the application of Article 11 of this Regulation;

NEDC<sub>CO<sub>2</sub></sub> is the average specific emissions of CO<sub>2</sub> in 2020 determined in accordance with Implementing Regulation (EU) 2017/1152, without including CO<sub>2</sub> savings resulting from the application of Article 11 of this Regulation;

NEDC<sub>2020target</sub> is the 2020 specific emissions target calculated in accordance with points 1 and 2.

4. For the calendar years 2021 to 2024, the specific emissions target for a manufacturer shall be calculated as follows:

$$\text{Specific emissions target} = \text{WLTP}_{\text{reference target}} + a [(M_o - M_0) - (M_{o,2020} - M_{0,2020})]$$

where:

WLTP<sub>reference target</sub> is the 2021 WLTP specific emissions reference target calculated in accordance with point 3;

a is 0,096;

**▼M1**

M<sub>o</sub> is the average of the mass (M) of the new light commercial vehicles of the manufacturer registered in the relevant target year in kilograms (kg):

where:

— in the case of a complete vehicle, M is the mass in running order of that vehicle

— in the case of a complete base vehicle related to a completed vehicle, M is the mass in running order of that base vehicle

**▼ M1**

— in the case of an incomplete base vehicle related to a completed vehicle, M is the monitoring mass ( $M_{\text{mon}}$ ) of that base vehicle, determined in accordance with the following formula:

$$M_{\text{mon}} = \text{MRO}_{\text{base}} \times B_0$$

where:

$\text{MRO}_{\text{base}}$  is the mass in running order of the base vehicle concerned

$B_0$  is as defined in point 1.2.4(a) of Part A of Annex III;

**▼ M2**

$M_0$  is 1 766,4 in 2020, 1 825,23 for the years 2021, 2022 and 2023, and for 2024 the value adopted pursuant to point (b) of Article 14(1);

**▼ B**

$M_{\text{ø}2020}$  is the average of the mass in running order (M) of the new light commercial vehicles of the manufacturer registered in 2020 in kilograms (kg);

$M_{0,2020}$  is 1 766,4.

5. For a manufacturer that has been granted a derogation with regard to a specific NEDC based emissions target in 2021, the WLTP based derogation target shall be calculated as follows:

$$\text{Derogation target}_{2021} = \text{WLTP}_{\text{CO}_2} \cdot \left( \frac{\text{NEDC}_{2021\text{target}}}{\text{NEDC}_{\text{CO}_2}} \right)$$

where:

$\text{WLTP}_{\text{CO}_2}$  is  $\text{WLTP}_{\text{CO}_2}$  as defined in point 3;

$\text{NEDC}_{\text{CO}_2}$  is  $\text{NEDC}_{\text{CO}_2}$  as defined in point 3;

$\text{NEDC}_{2021\text{target}}$  is the 2021 derogation target granted by the Commission pursuant to Article 10.

6. From 1 January 2025, the EU fleet-wide targets and the specific emissions targets for a manufacturer shall be calculated as follows:

- 6.0. EU fleet-wide target<sub>2021</sub>

EU fleet-wide target<sub>2021</sub> is the average, weighted by the number of new light commercial vehicles registered in 2021, of the reference-values<sub>2021</sub> determined for each individual manufacturer for which a specific emissions target applies in accordance with point 4.

The reference-value<sub>2021</sub> shall be determined, for each manufacturer, as follows:

$$\text{reference - value}_{2021} = \text{WLTP}_{\text{CO}_2, \text{measured}} \cdot \left( \frac{\text{NEDC}_{2020, \text{Fleet Target}}}{\text{NEDC}_{\text{CO}_2}} \right) + a(M_{\text{ø}2021} - M_{0,2021})$$

where:

$\text{WLTP}_{\text{CO}_2, \text{measured}}$  is the average, for each manufacturer, of the measured CO<sub>2</sub> emissions combined of each new light commercial vehicle registered in 2020, as determined and reported in accordance with Article 7a of Implementing Regulation (EU) 2017/1152;

$\text{NEDC}_{2020, \text{Fleet Target}}$  is 147 g/km;

$\text{NEDC}_{\text{CO}_2}$  is as defined in point 3;

$M_{\text{ø}2021}$  is the average of the mass in running order of the new light commercial vehicles of the manufacturer registered in 2021 in kilograms (kg);

**▼ B**

$M_{0,2021}$  is the average mass in running order in kilograms (kg) of all new light commercial vehicles registered in 2021 of those manufacturers for which a specific emissions target applies in accordance with point 4;

a is as defined in point 4.

6.1. The EU fleet-wide targets for 2025 and 2030

6.1.1. EU fleet-wide target for 2025 to 2029

EU fleet-wide target<sub>2025</sub> = EU fleet-wide target<sub>2021</sub> · (1 – reduction factor<sub>2025</sub>)

where:

EU fleet-wide target<sub>2021</sub> is as defined in point 6.0;

reduction factor<sub>2025</sub> is the reduction specified in point (b) of Article 1(4).

6.1.2. EU fleet-wide target for 2030 onwards

EU fleet-wide target<sub>2030</sub> = EU fleet-wide target<sub>2021</sub> · (1 – reduction factor<sub>2030</sub>)

where:

EU fleet-wide target<sub>2021</sub> is as defined in point 6.0;

reduction factor<sub>2030</sub> is the reduction specified in point (b) of Article 1(5).

6.2. Specific emissions reference targets from 2025 onwards

6.2.1. Specific emissions reference targets for 2025 to 2029

The specific emissions reference target = EU fleet-wide target<sub>2025</sub> +  $\alpha$  · (TM – TM<sub>0</sub>)

where:

EU fleet-wide target<sub>2025</sub> is as determined in accordance with point 6.1.1;

$\alpha$  is  $a_{2025}$  where the average test mass of a manufacturer's new light commercial vehicles is equal to or lower than TM<sub>0</sub> determined in accordance with point (d) of Article 14(1) and  $a_{2021}$  where the average test mass of a manufacturer's new light commercial vehicles is higher than TM<sub>0</sub> determined in accordance with point (d) of Article 14(1);

where:

$a_{2025}$  is  $\frac{a_{2021} \cdot \text{EU fleet – wide target}_{2025}}{\text{Average emissions}_{2021}}$

$a_{2021}$  is the slope of the best fitting straight line established by applying the linear least squares fitting method to the test mass (independent variable) and the specific emissions of CO<sub>2</sub> (dependent variable) of each new light commercial vehicle registered in 2021;

**▼ B**

average emissions <sub>2021</sub>	is the average of the specific emissions of CO <sub>2</sub> of all new light commercial vehicles registered in 2021 of those manufacturers for which a specific emissions target is calculated in accordance with point 4;
TM	is the average test mass in kilograms (kg) of all new light commercial vehicles of the manufacturer registered in the relevant calendar year;
TM <sub>0</sub>	is the value in kilograms (kg) determined in accordance with point (d) of Article 14(1).

## 6.2.2. Specific emissions reference targets from 2030 onwards

The specific emissions reference target = EU fleet-wide target<sub>2030</sub> +  $\alpha \cdot (TM - TM_0)$

where:

EU fleet-wide target<sub>2030</sub> is as determined in accordance with point 6.1.2;

$\alpha$  is  $a_{2030}$  where the average test mass of a manufacturer's new light commercial vehicles is equal to or lower than TM<sub>0</sub> determined in accordance with point (d) of Article 14(1) and  $a_{2021}$  where the average test mass of a manufacturer's new light commercial vehicles is higher than TM<sub>0</sub> determined in accordance with point (d) of Article 14(1);

where:

$a_{2030}$  is  $\frac{a_{2021} \cdot EU \text{ fleet - wide target}_{2030}}{Average \text{ emissions}_{2021}}$

$a_{2021}$  is as defined in point 6.2.1;

average emissions<sub>2021</sub> is as defined in point 6.2.1;

TM is as defined in point 6.2.1;

TM<sub>0</sub> is as defined in point 6.2.1.

## 6.3. Specific emissions targets from 2025 onwards

## 6.3.1. Specific emissions targets for 2025 to 2029

The specific emissions target = (specific emissions reference target – ( $\emptyset_{\text{targets}}$  – EU fleet-wide target<sub>2025</sub>)) · ZLEV factor

where:

specific emissions reference target is the specific emissions reference target for the manufacturer determined in accordance with point 6.2.1;

$\emptyset_{\text{targets}}$  is the average, weighted on the number of new light commercial vehicles of each individual manufacturer, of all the specific emissions reference targets determined in accordance with point 6.2.1;

**▼B**

ZLEV factor is  $(1 + y - x)$ , unless this sum is larger than 1,05 or lower than 1,0 in which case the ZLEV factor shall be set to 1,05 or 1,0, as the case may be;

where:

y is the share of zero- and low-emission vehicles in the manufacturer's fleet of new light commercial vehicles calculated as the total number of new zero- and low-emission vehicles, where each of them is counted as  $ZLEV_{\text{specific}}$  in accordance with the following formula, divided by the total number of new light commercial vehicles registered in the relevant calendar year:

$$ZLEV_{\text{specific}} = 1 - \left( \frac{\text{specific emissions of CO}_2}{50} \right)$$

x is 15 %.

### 6.3.2. Specific emissions targets from 2030 onwards

The specific emissions target = (specific emissions reference target –  $(\theta_{\text{targets}} - \text{EU fleet-wide target}_{2030})$ ) · ZLEV factor

where:

specific emissions reference target is the specific emissions reference target for the manufacturer determined in accordance with point 6.2.2;

$\theta_{\text{targets}}$  is the average, weighted on the number of new light commercial vehicles of each individual manufacturer, of all the specific emissions reference targets determined in accordance with point 6.2.2;

ZLEV factor is  $(1 + y - x)$ , unless this sum is larger than 1,05 or lower than 1,0 in which case the ZLEV factor shall be set to 1,05 or 1,0, as the case may be;

where:

y is the share of zero- and low-emission vehicles in the manufacturer's fleet of new light commercial vehicles calculated as the total number of new zero- and low-emission vehicles, where each of them is counted as  $ZLEV_{\text{specific}}$  in accordance with the following formula, divided by the total number of new light commercial vehicles registered in the relevant calendar year:

$$ZLEV_{\text{specific}} = 1 - \left( \frac{\text{specific emissions of CO}_2}{50} \right)$$

x is 30 %.

*ANNEX II***MONITORING AND REPORTING OF EMISSIONS FROM NEW PASSENGER CARS****PART A****Collection of data on new passenger cars and determination of CO<sub>2</sub> emissions monitoring information**

1. Member States shall, for each calendar year, record the following detailed data for each new passenger car registered as an M<sub>1</sub> vehicle in their territory:
  - (a) the manufacturer;
  - (b) the type-approval number and its extension;
  - (c) the type, variant, and version (where applicable);
  - (d) make and commercial name;
  - (e) category of vehicle type-approved;
  - (f) total number of new registrations;
  - (g) mass in running order;
  - (h) the specific emissions of CO<sub>2</sub> (NEDC and WLTP);
  - (i) footprint: the wheel base, the track width of the steered axle and the track width other axle;
  - (j) the fuel type and fuel mode;
  - (k) engine capacity;
  - (l) electric energy consumption;
  - (m) code for the innovative technology or group of innovative technologies and the CO<sub>2</sub> emissions reduction due to that technology (NEDC and WLTP);
  - (n) maximum net power;
  - (o) vehicle identification number;
  - (p) WLTP test mass;
  - (q) deviation and verification factors referred to in point 3.2.8 of Annex I to Implementing Regulation (EU) 2017/1153;
  - (r) category of vehicle registered;
  - (s) vehicle family identification number;
  - (t) electric range, where applicable.

Member States shall make available to the Commission, in accordance with Article 7, all data listed in this point, in the format as specified in Section 2 of Part B.

**▼B**

2. The detailed data referred to in point 1 shall be taken from the certificate of conformity of the relevant passenger car. In the case of bi-fuelled vehicles (petrol/gas), the certificates of conformity of which bear specific emissions of CO<sub>2</sub> values for both types of fuel, Member States shall use only the value measured for gas.
3. Member States shall, for each calendar year, determine:
- (a) the total number of new registrations of new passenger cars subject to EC type-approval;
  - (b) the total number of new registrations of new individually approved passenger cars;
  - (c) the total number of new registrations of new passenger cars subject to national type-approval of small series.

**PART B****Format for the transmission of data**

For each year, Member States shall report the information specified in points 1 and 3 of Part A in the following formats:

## SECTION 1

## AGGREGATED MONITORING DATA

Member State <sup>(1)</sup>	
Year	
Total number of new registrations of new passenger cars subject to EC type-approval	
Total number of new registrations of new individually approved passenger cars	
Total number of new registrations of new passenger cars subject to national type-approval of small series	

<sup>(1)</sup> ISO 3166 alpha-2 codes with the exception of Greece and the United Kingdom for which the codes are 'EL' and 'UK', respectively.

## SECTION 2

## DETAILED MONITORING DATA — ONE VEHICLE RECORD

Reference to point 1 of Part A	Detailed data per vehicle registered
(a)	Manufacturer name EU standard denomination
	Manufacturer name OEM declaration
	Manufacturer name in Member State registry <sup>(1)</sup>
(b)	Type-approval number and its extension
(c)	Type
	Variant
	Version
(d)	Make and commercial name

▼B

Reference to point 1 of Part A	Detailed data per vehicle registered
(e)	Category of vehicle type-approved
(f)	Total number of new registrations
(g)	Mass in running order
(h)	Specific emissions of CO <sub>2</sub> (combined) NEDC value until 31 December 2020 except for vehicles that fall within the scope of Article 5 for which the NEDC value shall be determined until 31 December 2022 in accordance with Article 5 of Implementing Regulation (EU) 2017/1153
	Specific emissions of CO <sub>2</sub> (combined) WLTP value
(i)	Wheel base
	Track width steered axle (Axle 1)
	Track width other axle (Axle 2)
(j)	Fuel type
	Fuel mode
(k)	Engine capacity (cm <sup>3</sup> )
(l)	Electric energy consumption (Wh/km)
(m)	Code of the eco-innovation(s)
	Total NEDC CO <sub>2</sub> emissions savings due to the eco-innovation(s) until 31 December 2020
	Total WLTP CO <sub>2</sub> emissions savings due to the eco-innovation(s)
(n)	Maximum net power
(o)	Vehicle identification number
(p)	WLTP test mass
(q)	Deviation factor De (where available)
	Verification factor (where available)
(r)	Category of vehicle registered
(s)	Vehicle family identification number
(t)	Electric range, where available

Notes:

(<sup>1</sup>) In the case of national type-approval of small series (NSS) or individual approval (IVA), the manufacturer's name shall be provided in the column 'Manufacturer name in Member State registry' whilst in the column 'Manufacturer name EU standard denomination' either of the following shall be indicated: 'AA-NSS' or 'AA-IVA', as the case may be.



**▼B***ANNEX III***MONITORING AND REPORTING OF EMISSIONS FROM NEW LIGHT COMMERCIAL VEHICLES**

A. Collection of data on new light commercial vehicles and determination of CO<sub>2</sub> emissions monitoring information

1. Detailed data

1.1. Complete vehicles registered as N<sub>1</sub>

In the case of EC type-approved complete vehicles registered as N<sub>1</sub>, Member States shall, for each calendar year, record the following detailed data for each new light commercial vehicle the first time that it is registered in their territory:

- (a) the manufacturer;
- (b) the type-approval number and its extension;
- (c) the type, variant, and version;
- (d) make;
- (e) category of vehicle type-approved;
- (f) category of vehicle registered;
- (g) the specific emissions of CO<sub>2</sub> (NEDC and WLTP);
- (h) mass in running order;
- (i) technically permissible maximum laden mass;
- (j) footprint: the wheel base, the track width steered axle and the track width other axle;
- (k) the fuel type and fuel mode;
- (l) engine capacity;
- (m) electric energy consumption;
- (n) code of the innovative technology or group of innovative technologies and the CO<sub>2</sub> emissions reduction due to that technology (NEDC and WLTP);
- (o) the vehicle identification number;
- (p) WLTP test mass;
- (q) deviation and verification factors referred to in point 3.2.8 of Annex I to Implementing Regulation (EU) 2017/1152;
- (r) vehicle family identification number determined in accordance with point 5.0 of Annex XXI to Regulation (EU) 2017/1151;
- (s) electric range, where applicable.

Member States shall make available to the Commission, in accordance with Article 7, all data listed in this point, in the format as specified in Section 2 of Part C of this Annex.

**▼M1**

1.2. Completed vehicles registered as N1 vehicles

1.2.1. Reporting by Member States

The format set out in Section 2 of Part C shall be used for the reporting of data relating to completed N1 vehicles.

The vehicle identification number referred to in point (o) of point 1.1 shall not be made public.

**▼ M1**

## 1.2.1.1. Completed vehicles type-approved in accordance with Regulation (EC) No 692/2008

Member States shall for calendar year 2020 record the following detailed data with regard to:

- (a) the incomplete base vehicle: the data specified in points (a), (b), (c), (d), (e), (g), (h), (i), (n) and (o) of point 1.1, or, instead of the data specified in points (h) and (i), the default added mass provided as part of the type-approval information specified in point 2.17.2 of Annex I to Directive 2007/46/EC;
- (b) the complete base vehicle: the data specified in points (a), (b), (c), (d), (e), (g), (h), (i), (n) and (o) of point 1.1;
- (c) the completed vehicle: the data specified in points (a), (f), (g), (h), (j), (k), (l), (m) and (o) of point 1.1.

Where any of the data referred to in points (a) and (b) of the first subparagraph cannot be provided for the base vehicle, Member States shall provide data with regard to the completed vehicle instead.

## 1.2.1.2. Completed vehicles of category N1 type-approved in accordance with Annex XXI to Regulation (EU) 2017/1151

For each new completed vehicle registered in 2020 and subsequent calendar years, Member States shall as a minimum report the detailed data specified in points (a), (f), (g), (h), (o), (p) and (r) of point 1.1.

## 1.2.2. Reporting by manufacturers

For each new completed vehicle of category N1, type-approved in accordance with Annex XXI to Regulation (EU) 2017/1151 registered in 2020 and subsequent calendar years, the manufacturer of the related base vehicle shall report to the Commission by 28 February each year, starting from 2021, the following data relating to the base vehicle:

- (a) where the completed vehicle is based on an incomplete base vehicle:
  - (i) vehicle identification number;
  - (ii) vehicle family identifier as referred to in paragraph 5.0 of Annex XXI to Regulation (EU) 2017/1151;
  - (iii) monitoring CO<sub>2</sub> emissions determined in accordance with point 1.2.4;
  - (iv) frontal area, specifying the applicable option as referred to in point 1.2.4(c);
  - (v) rolling resistance, as referred to in point 1.2.4(b);
  - (vi) monitoring mass, determined in accordance with point 4.1 of Part B of Annex I;
  - (vii) mass in running order;
  - (viii) mass representative of the vehicle load as defined in point 1.2.4(a);
- (b) where the completed vehicle is based on a complete base vehicle:
  - (i) vehicle identification number;
  - (ii) vehicle family identifier as referred to in point (a)(ii) of this paragraph;
  - (iii) specific CO<sub>2</sub> emissions of the base vehicle;
  - (iv) mass in running order.

▼ **M1**1.2.3. Calculation of the average specific emissions of CO<sub>2</sub> and the specific emission target

The Commission shall use the values reported by a base vehicle manufacturer in accordance with point 1.2.2 to calculate its average specific emissions of CO<sub>2</sub> and the specific emission target in the calendar year in which the related completed vehicle is registered, except where the conditions referred to in point 1.2.5 are met in which case the data for the completed vehicles shall be used.

Where the data referred to in point 1.2.2 is not reported by the manufacturer of the base vehicle, the specific CO<sub>2</sub> emissions reported by the Member States in accordance with point 1.2.1 with regard to the related completed vehicle shall be used for the calculation of the average specific emissions of CO<sub>2</sub> and the specific emissions target of the manufacturer concerned.

1.2.4. Calculation of the monitoring CO<sub>2</sub> emissions in the case of incomplete base vehicles

A manufacturer shall, starting from calendar year 2020, calculate the monitoring CO<sub>2</sub> emissions for each of its individual incomplete base vehicles in accordance with the interpolation method referred to in points 3.2.3.2 or 3.2.4 of Sub-Annex 7 to Annex XXI to Regulation (EU) 2017/1151, using the same method as that applied for the EC type-approval of the base vehicle with regard to its emissions, where the terms shall be as defined in those points with the following exceptions:

## (a) Mass of the individual vehicle

The term 'TM<sub>ind</sub>' referred to in points 3.2.3.2.1 or 3.2.4.1.1.1 of Sub-Annex 7 to Annex XXI to Regulation (EU) 2017/1151 shall be replaced by the base vehicle default mass, DM<sub>base</sub>. Where DM<sub>base</sub> is lower than the test mass of vehicle low, TM<sub>L</sub>, of the interpolation family, TM<sub>ind</sub> shall be replaced by TM<sub>L</sub>. Where DM<sub>base</sub> is higher than the test mass of vehicle high, TM<sub>H</sub>, of the interpolation family, TM<sub>ind</sub> shall be replaced by TM<sub>H</sub>.

DM<sub>base</sub> shall be determined in accordance with the following formula:

$$DM_{base} = MRO_{base} \times B_0 + 25 \text{ kg} + M_{VL}$$

where:

MRO<sub>base</sub> is the mass in running order of the base vehicle as defined in point 3.2.5 of Annex XXI to Regulation (EU) 2017/1151;

B<sub>0</sub> is the body mass value of 1,375;

M<sub>VL</sub> is the mass representative of the vehicle load, which means 28 per cent of the maximum vehicle load, where maximum vehicle load is defined as the technically permissible maximum laden mass minus the mass in running order of the base vehicle multiplied by B<sub>0</sub>, minus 25 kg.

The value of B<sub>0</sub> shall be adjusted by 31 October 2021 on the basis of the mass in running order of the incomplete base vehicles for all completed vehicles registered in calendar years 2018, 2019, and 2020, calculated in accordance with the below formulas. The new B<sub>0</sub> value shall apply from 1 January 2022 until 31 December 2024.

Formula 1:

$$B_0 = \frac{\sum_{i=2018}^{2020} A_i n_i}{\sum_{i=2018}^{2020} n_i}$$

where:

A<sub>i</sub> is the value A<sub>y</sub> as calculated in Formula 2 for the relevant calendar year

▼ M1

$n_i$  is the number of incomplete base vehicles related to completed vehicles registered in the calendar year

Formula 2:

$$A_y = \frac{\sum_{i=1}^n M_{fi}}{\sum_{i=1}^n M_{bi}}$$

where:

$A_y$  is the average of the ratio between  $M_{fi}$  and  $M_{bi}$  for each of the calendar years 2018 to 2020;

$M_{fi}$  is the mass in running order of the incomplete base vehicle increased by the default added mass as defined in Section 5 of Annex XII to Regulation (EC) No 692/2008;

$M_{bi}$  is the mass in running order of the incomplete base vehicle;

$n$  is the number of incomplete base vehicles related to completed vehicles registered in the calendar year.

(b) Rolling resistance of the individual vehicle

The rolling resistance of the base vehicle shall be used for the purposes of point 3.2.3.2.2.2 or 3.2.4.1.1.2 of Sub-Annex 7 to Annex XXI to Regulation (EU) 2017/1151.

(c) Frontal area

In the case of an incomplete base vehicle that belongs to a road load matrix family, the manufacturer shall determine the term 'Af' referred to in point 3.2.3.2.2.3 of Sub-Annex 7 to Annex XXI to Regulation (EU) 2017/1151 in accordance with one of the following options:

- (i) frontal area of the representative vehicle of the road load matrix family, in  $m^2$ ;
- (ii) the mean value of the frontal area of vehicle high and vehicle low of the interpolation family, in  $m^2$ ;
- (iii) the frontal area of the vehicle high of the interpolation family, in case the interpolation method is not used, in  $m^2$ .

In the case of an incomplete base vehicle that does not belong to a road load matrix family, the frontal area value of vehicle high of the interpolation family shall be used.

1.2.5. Representativeness of the monitoring CO<sub>2</sub> value

The Commission shall each year assess the representativeness of the average of the monitoring CO<sub>2</sub> emissions reported by the base vehicle manufacturer as compared to the average of the specific emissions of CO<sub>2</sub> of the related completed vehicles registered in the relevant calendar year. The Commission shall inform the manufacturer of the base vehicle of the divergence found between those values.

**▼ M1**

In case a divergence by 4 % or more is found during each of two successive calendar years, the Commission shall use the average of the specific emissions of CO<sub>2</sub> of the completed vehicles in the following calendar year to calculate the average specific emissions of CO<sub>2</sub> of the base vehicle manufacturer or the pool in that year.

2. The details referred to in point 1 shall be taken from the certificate of conformity issued by the manufacturer of the relevant light commercial vehicle or be consistent with it. For those details that are not available in the certificate of conformity, details shall be taken from the type approval documentation or from the information reported by the base vehicle manufacturer pursuant to point 1.2.3. Member States shall put the necessary measures in place to ensure adequate accuracy in the monitoring procedure. Where the certificate of conformity specifies both a minimum and a maximum mass for a light commercial vehicle, the Member States shall use only the maximum figure for the purpose of this Regulation. In the case of bi-fuelled vehicles (petrol/gas) the certificates of conformity of which bear specific CO<sub>2</sub> emission figures for both types of fuel, Member States shall use only the figure measured for gas.

**▼ B**

3. Member States shall, for each calendar year, determine:
  - (a) the total number of new registrations of new light commercial vehicles subject to EC type-approval;
  - (b) the total number of new registrations of new light commercial vehicles subject to multi-stage type-approval, where available;
  - (c) the total number of new registrations of new light commercial vehicles subject to individual approval;
  - (d) the total number of new registrations of new light commercial vehicles subject to national type-approval of small series.

- B. Methodology for determining CO<sub>2</sub> monitoring information for new light commercial vehicles

Monitoring information which Member States are required to determine in accordance with points 1 and 3 of Part A shall be determined in accordance with the methodology in this Part.

1. Number of new light commercial vehicles registered

Member States shall determine the number of new light commercial vehicles registered within their territory in the respective monitoring year divided into vehicles subject to EC type-approval, individual approval and national type-approval of small series and, where available, subject to multi-stage type-approval.

2. Completed vehicles

In the case of multi-stage vehicles, the specific emissions of CO<sub>2</sub> of completed vehicles shall be allocated to the manufacturer of the base vehicle.

In order to ensure that the values of CO<sub>2</sub> emissions, fuel efficiency and mass of completed vehicles are representative, without placing an excessive burden on the manufacturer of the base vehicle, the Commission shall come forward with a specific monitoring procedure and shall, where appropriate, make the necessary amendments to the relevant type-approval legislation.

Notwithstanding that for the purpose of the calculation of the 2020 target in accordance with point 2 of Part B of Annex I the default added mass shall be taken from Part C of this Annex, where that mass value cannot be determined, the mass in running order of the completed vehicle may be used for the provisional calculation of the specific emissions target referred to in Article 7(4).

**▼B**

Where the base vehicle is a complete vehicle, the mass in running order of that vehicle shall be used for the calculation of the specific emissions target. However, where that mass value cannot be determined, the mass in running order of the completed vehicle may be used for the provisional calculation of the specific emissions target.

## C. Formats for transmission of data

For each year, Member States shall report the information specified in points 1 and 3 of Part A in the following format:

## Section 1

## Aggregated monitoring data

Member State <sup>(1)</sup>	
Year	
Total number of new registrations of new light commercial vehicles subject to EC type-approval	
Total number of new registrations of individually approved new light commercial vehicles	
Total number of new registrations of new light commercial vehicles subject to national type-approval of small series	
Total number of new registrations of new light commercial vehicles subject to multi-stage type-approval (where available)	

<sup>(1)</sup> ISO 3166 alpha-2 codes with the exception of Greece and the United Kingdom for which the codes are 'EL' and 'UK', respectively.

## Section 2

## Detailed monitoring data — one vehicle record

Reference to point 1.1 of Part A	Detailed data per vehicle registered <sup>(1)</sup>
(a)	Manufacturer name EU standard denomination <sup>(2)</sup>
	Manufacturer name OEM declaration COMPLETE VEHICLE/BASE VEHICLE <sup>(3)</sup>
	Manufacturer name OEM declaration COMPLETED VEHICLE <sup>(3)</sup>
	Manufacturer name in Member State registry <sup>(2)</sup>

## ▼B

Reference to point 1.1 of Part A	Detailed data per vehicle registered <sup>(1)</sup>
(b)	Type-approval number and its extension
(c)	Type
	Variant
	Version
(d)	Make
(e)	Category of vehicle type-approved
(f)	Category of vehicle registered
(g)	Specific emissions of CO <sub>2</sub> (combined) NEDC value until 31 December 2020
	Specific emissions of CO <sub>2</sub> (combined) WLTP value
(h)	Mass in running order BASE VEHICLE
	Mass in running order COMPLETED VEHICLE/COMPLETE VEHICLE
(i) <sup>(4)</sup>	Technically permissible maximum laden mass
(j)	Wheel base
	Axle width steered axle (Axle 1)
	Axle width other axle (Axle 2)
(k)	Fuel type
	Fuel mode
(l)	Engine capacity (cm <sup>3</sup> )
(m)	Electric energy consumption (Wh/km)
(n)	Code of the eco-innovation(s)
	Total NEDC CO <sub>2</sub> emissions savings due to the eco-innovation(s) until 31 December 2020
	Total WLTP CO <sub>2</sub> emissions savings due to the eco-innovation(s)
(o)	Vehicle identification number
(p)	WLTP test mass
(q)	Deviation factor De (where available)
	Verification factor (where available)
(r)	Vehicle family identification number
(s)	Electric range, where available

**▼B**

Reference to point 1.1 of Part A	Detailed data per vehicle registered <sup>(1)</sup>
Point 2.17.2 of Annex I to Directive 2007/46/EC <sup>(5)</sup>	Default added mass (where applicable in the case of multi-stage vehicles)

Notes:

- <sup>(1)</sup> Where, in the case of multi-stage vehicles, data cannot be provided for the base vehicle, the Member State shall as a minimum provide the data specified in this format for the completed vehicle.
- <sup>(2)</sup> In the case of national type-approval of small series (NSS) or individual approval (IVA), the manufacturer's name shall be provided in the column 'Manufacturer name in Member State registry' whilst in the column 'Manufacturer name EU standard denomination' either of the following shall be indicated: 'AA-NSS' or 'AA-IVA', as the case may be.
- <sup>(3)</sup> In the case of multi-stage vehicles the base (incomplete/complete) vehicle manufacturer shall be indicated. If the base vehicle manufacturer is not available, the manufacturer of the completed vehicle only shall be indicated.
- <sup>(4)</sup> In the case of multi-stage vehicles, the technically permissible maximum laden mass of the base vehicle shall be indicated.
- <sup>(5)</sup> In the case of multi-stage vehicles, the mass in running order and the technically permissible maximum laden mass of the base vehicle may be replaced by the default added mass specified in the type-approval information in accordance with point 2.17.2 of Annex I to Directive 2007/46/EC.



*ANNEX IV***REPEALED REGULATIONS WITH LISTS OF THEIR SUCCESSIVE AMENDMENTS**

Regulation (EC) No 443/2009 of the European Parliament and of the Council	(OJ L 140, 5.6.2009, p. 1).
Commission Regulation (EU) No 397/2013	(OJ L 120, 1.5.2013, p. 4).
Regulation (EU) No 333/2014 of the European Parliament and of the Council	(OJ L 103, 5.4.2014, p. 15).
Commission Delegated Regulation (EU) 2015/6	(OJ L 3, 7.1.2015, p. 1).
Commission Delegated Regulation (EU) 2017/1502	(OJ L 221, 26.8.2017, p. 4).
Commission Delegated Regulation (EU) 2018/649	(OJ L 108, 27.4.2018, p. 14).
Regulation (EU) No 510/2011 of the European Parliament and of the Council	(OJ L 145, 31.5.2011, p. 1).
Commission Delegated Regulation (EU) No 205/2012	(OJ L 72, 10.3.2012, p. 2).
Regulation (EU) No 253/2014 of the European Parliament and of the Council	(OJ L 84, 20.3.2014, p. 38).
Commission Delegated Regulation (EU) No 404/2014	(OJ L 121, 24.4.2014, p. 1).
Commission Delegated Regulation (EU) 2017/748	(OJ L 113, 29.4.2017, p. 9).
Commission Delegated Regulation (EU) 2017/1499	(OJ L 219, 25.8.2017, p. 1).



## ANNEX V

## CORRELATION TABLE

Regulation (EC) No 443/2009	Regulation (EU) No 510/2011	This Regulation
Article 1, first paragraph	Article 1(1)	Article 1(1)
Article 1, second paragraph	Article 1(2)	Article 1(2)
Article 1, third paragraph	—	Article 1(3)
—	—	Article 1(4)
—	—	Article 1(5)
—	—	Article 1(6)
—	—	Article 1(7)
Article 2(1)	Article 2(1)	Article 2(1)
Article 2(2)	Article 2(2)	Article 2(2)
Article 2(3)	Article 2(3)	Article 2(3)
Article 2(4)	Article 2(4)	Article 2(4)
Article 3(1), introductory wording	Article 3(1), introductory wording	Article 3(1), introductory wording
Article 3(1), points (a) and (b)	Article 3(1), points (a) and (b)	Article 3(1), points (a) and (b)
—	Article 3(1), points (c), (d) and (e)	Article 3(1), points (c), (d) and (e)
Article 3(1), points (c) and (d)	Article 3(1), points (f) and (g)	Article 3(1), points (f) and (g)
Article 3(1), point (f)	Article 3(1), point (h)	Article 3(1), point (h)
Article 3(1), point (e)	Article 3(1), point (j)	Article 3(1), point (i)
Article 3(1), point (g)	Article 3(1), point (i)	Article 3(1), point (j)
—	—	Article 3(1), points (k), (l) and (m)
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