



23.4.2018

PROVISIONAL AGREEMENT RESULTING FROM INTERINSTITUTIONAL NEGOTIATIONS

Subject: Proposal for a regulation of the European Parliament and of the Council on the monitoring and reporting of CO₂ emissions from and fuel consumption of new heavy-duty vehicles
(COM(2017)0279 - C8-0168/2017 – 2017/0111(COD))

The interinstitutional negotiations on the aforementioned proposal for a regulation have led to a compromise. In accordance with Rule 69f(4) of the Rules of Procedure, the provisional agreement, reproduced below, is submitted as a whole to the Committee on the Environment, Public Health and Food Safety for decision by way of a single vote.

REGULATION (EU) NO .../...
OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of

**on the monitoring and reporting of CO₂ emissions
from and fuel consumption of new heavy-duty vehicles**

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular
Article 192(1) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee¹,

Having regard to the opinion of the Committee of the Regions²,

Acting in accordance with the ordinary legislative procedure,

¹ OJ C , , p. .

² OJ C , , p. .

Whereas:

- (1) A binding target of at least a 40 % domestic reduction in economy-wide greenhouse gas emissions by 2030 compared to 1990 was endorsed in the Conclusions of the European Council of 23-24 October 2014 on the 2030 climate and energy policy framework, and this was reconfirmed at its meeting in March 2016.
- (2) The European Council conclusions of October 2014 provided that the target should be delivered collectively by the Union in the most cost-effective manner possible, with the reductions in the Emissions Trading System (ETS) and non-ETS sectors amounting to 43 % and 30 % respectively by 2030 compared to 2005. ***The Paris Agreement¹, inter alia, sets out a long-term goal in line with the objective to keep the global temperature increase well below 2°C above pre-industrial levels and to pursue efforts to keep it to 1,5°C above pre-industrial levels.*** All Member States should participate in ***the efforts*** and all sectors of the economy, ***including transport,*** should contribute to achieving ***the*** emission reductions ***agreed by the European Council and to fulfilling the long-term objectives of the Paris Agreement.***
- (3) The Commission's 2016 European Strategy for low-emission mobility² ***sets the ambition that by midcentury, greenhouse gas emissions from transport will need to be at least 60 % lower than in 1990, and be firmly on the path towards zero.***

¹ ***Paris Agreement (OJ L 282, 19.10.2016, p. 4).***

² COM(2016) 501 final.

- (3a) *In order to meet this objective, it is appropriate to consider a range of different measures. In addition to setting CO₂ emission standards for heavy-duty vehicles, those measures may include other actions that contribute to improving the efficiency and lower the CO₂ emissions of heavy-duty vehicles, such as load optimisation, platooning, training of drivers, the use of alternative fuels, fleet renewal schemes, low-rolling resistance tyres, congestion reduction and investments in infrastructure maintenance.*
- (4) Greenhouse gas emissions from lorries, buses and coaches, i.e. heavy-duty vehicles, currently represent around a quarter of road transport emissions in the Union and, *if no additional measures are taken*, are expected to increase by **10 % between 2010 and 2030 and by 17 % between 2010 and 2050**. Effective measures to curb emissions from heavy-duty vehicles need to be introduced in order to contribute to the necessary emission reductions in the transport sector.
- (5) In its 2014 Communication on a Strategy for reducing Heavy-Duty Vehicles' fuel consumption and CO₂ emissions¹, the Commission recognised that a prerequisite to introducing such measures is a regulated procedure for the determination of CO₂ emissions and fuel consumption.

¹ COM(2014) 285 final.

- (6) Regulation (EC) No 595/2009 of the European Parliament and the Council¹ provides the framework for the setting up of such a regulated procedure. The measurements will provide robust and comparable CO₂ emissions and fuel consumption data for each vehicle for a significant part of the heavy-duty vehicle fleet in the Union. The purchaser of a specific vehicle and the respective Member State of registration will have access to that information, partially closing the knowledge gap.
- (6a) *Transport companies are to a large extent small and medium-sized enterprises. Moreover, they do not yet have access to standardised information to evaluate fuel efficiency technologies or to compare vehicles in order to make the best-informed purchasing decisions and reduce their fuel bills, which account for more than a quarter of their operating costs.*
- (7) Information on a vehicle's performance in terms of CO₂ emissions and fuel consumption should be made publicly available to enable all vehicle operators to take well-informed purchasing decisions *and to ensure a high level of transparency*. All vehicle manufacturers will be able to compare their vehicles' performance with those of other makes. This will increase the incentives for innovation, *encourage the development of more energy efficient vehicles* and therefore increase competitiveness. That information will also provide policy makers at Union and Member State level with a sound basis for developing policies to promote the uptake of more energy-efficient vehicles.

¹ Regulation (EC) No 595/2009 of the European Parliament and of the Council of 18 June 2009 on type-approval of motor vehicles and engines with respect to emissions from heavy - duty vehicles (Euro VI) and on access to vehicle repair and maintenance information and amending Regulation (EC) No 715/2007 and Directive 2007/46/EC and repealing Directives 80/1269/EEC, 2005/55/EC and 2005/78/EC (OJ L 188, 18.7.2009, p. 1).

- (7a) It is therefore appropriate that *vehicle manufacturers monitor and report to the Commission* the CO₂ emissions and fuel consumption values determined for each new heavy-duty vehicle pursuant to Commission Regulation (EU) [.../...]¹[Opoce to include correct reference] █ .
- (8) In order to acquire a complete knowledge on the configuration of the heavy-duty vehicle fleet in the Union, its development over time and potential impact on CO₂ emissions, it is appropriate *that the competent authorities of the Member States* monitor and report *to the Commission* data on the registration of all new heavy-duty vehicles and all new trailers, including data on the powertrains as well as the relevant bodywork.

¹ Commission Regulation (EU) [.../...] implementing Regulation (EU) No 595/2009 of the European Parliament and of the Council as regards the determination of CO₂ emissions and fuel consumption of heavy-duty vehicles and amending Directive 2007/46/EC of the European Parliament and of the Council and Commission Regulation (EU) No 582/2011 (OJ L...,...).

- (9) *The availability of data on CO₂ emissions and fuel consumption for the different vehicle categories depends on when the categories will be covered by Commission Regulation (EU) [.../...]. In order to provide clarity and legal certainty concerning monitoring and reporting obligations for manufacturers, this Regulation should set out the starting years for monitoring and reporting for each vehicle category falling within its scope. Data will be available for certain new heavy-duty vehicles that are registered in [2019]. Starting from that year manufacturers should be required to monitor and report the technical data relating to those vehicles. For other vehicle categories and vehicle groups the data will only become available at a later date. A reasonable timeframe should be set for determining the starting years for the monitoring and reporting of data for those vehicle categories and vehicle groups. Given the technical complexity of developing the procedures for determining the CO₂ emissions and fuel consumption of the remaining vehicle categories and vehicle groups, the timeframe should be set at seven years from the entry into force of this Regulation.*
- (9b) *It is important that the monitoring and reporting system be user friendly for all transport operators regardless of their size and resources. Likewise, it is important that the Commission actively promotes such a system in order to ensure that it has a meaningful impact on the sector and to raise awareness on the availability of the reported data.*

- (10) *It is in the public interest that technical data essential for determining the CO₂ emissions and fuel consumption performance of a vehicle be actively disseminated to the public to increase the transparency of the vehicle specifications and the related performance, and to foster competition among manufacturers. Data that are sensitive on the grounds of personal data protection and fair competition should not be published. Certain data related to the aerodynamic performance of vehicles should be made available to the public in a range format in order to take account of considerations on fair competition. The data reported should be made available to the public in an easily accessible manner and free of charge. This Regulation is without prejudice to the further rights of public access to environmental information, inter alia in accordance with Regulation 1367/2006.*
- (10b) *The Commission's analysis of the data transmitted by Member States and manufacturers for the preceding calendar year should be presented to the public in a way to show clearly the performance of the heavy-duty vehicle fleet of the Union and of each Member State as well as that of each manufacturer. It should allow comparability of the fleet in terms of the average fuel consumption and CO₂ emissions for each vehicle group by mission profile.*

(10aa) It is essential that the CO₂ emission and fuel consumption values determined pursuant to Regulation (EU) 2017/2400 correctly reflect the performance of the vehicles. That Regulation therefore sets out provisions for verifying and ensuring the conformity of the simulation tool operation as well as of the CO₂ emissions and fuel consumption related properties of the relevant components, separate technical units and systems. That verification procedure should include on-the-road testing. The new type approval framework [insert reference to new Regulation¹] provides the means for ensuring that, in the case of deviations, remedial measures are taken by the manufacturer, and that in case of non-compliance, the Commission is able to impose administrative fines. That new framework also acknowledges the importance of third parties being allowed to perform independent testing of vehicles and having access to necessary data. The Commission should monitor the results of such verification tests and should include an analysis of those results in its annual report.

(11) It is important to ensure that the data monitored and reported is robust and reliable. The Commission should therefore have the means to verify and, where necessary, correct the final data. Parameters allowing the data to be adequately traced and verified should therefore also be provided for in the monitoring requirements.

¹ ***OJ: Please insert reference to PE-CONS 73/17.***

- (11a) *The Commission should have the possibility to impose an administrative fine in the case it finds that the data reported by the manufacturer deviates from the data recorded in accordance with Regulation (EU) 2017/2400 and Regulation (EU) No 582/2011 or where the manufacturer fails to deliver the required data within the deadline set. Those fines should be effective, proportionate and dissuasive.*
- (12) Based on the experience gained from the monitoring and reporting of data on CO₂ emissions pursuant to Regulation (EC) No 443/2009 of the European Parliament and of the Council¹ for new passenger cars and Regulation (EU) No 510/2011 of the European Parliament and of the Council² for new light commercial vehicles, it is appropriate to confer on the European Environment Agency (**EEA**) the responsibility for the exchange of the data with the competent authorities of the Member States and manufacturers, as well as for the management of the final database on behalf of the Commission. It is also appropriate to align as far as possible the monitoring and reporting procedures for heavy-duty vehicles with those already existing for light-duty vehicles.
- (13) In order to ensure uniform conditions for the implementation of the provisions of this Regulation on the verification and correction of the monitored data, implementing powers should be conferred on the Commission. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council³.

¹ Regulation (EC) No 443/2009 of 23 April 2009 of the European Parliament and of the Council setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO₂ emissions from light-duty vehicles (OJ L 140, 5.2.2009, p. 1).

² Regulation (EU) No 510/2011 of 11 May 2011 setting emission performance standards for new light commercial vehicles as part of the Union's integrated approach to reduce CO₂ emissions from light-duty vehicles (OJ L 145, 31.5.2011, p. 1).

³ Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers (OJ L 55, 28.2.2011, p. 13).

(14) In order to ensure that the data requirements and the monitoring and reporting procedure remain relevant over time for assessing the heavy-duty vehicle fleet's contribution to CO₂ emissions **■**; to ensure the availability of data on new and advanced CO₂ reducing technologies, ***and on the results of on-road verification tests and to ensure that the air drag value ranges remain relevant for information and comparability purposes, as well as to supplement the provisions on administrative fines***, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission in respect of: ***specifying the data to be reported by the competent Member States for the monitoring of the results of on-road verification tests; defining the criteria, the calculation and the method of collection of administrative fines imposed on manufacturers; amending the data requirements; amending the air drag value ranges; completing the starting years for monitoring and reporting of the vehicle categories covered; and amending*** the monitoring and reporting procedure laid down in the Annexes. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted in accordance with the principles laid down in the Interinstitutional Agreement ***of 13 April 2016*** on Better Law-Making **■**. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.

(15) Since the objective of this Regulation, namely the monitoring and reporting of CO₂ emissions and fuel consumption from new heavy-duty vehicles in the Union, cannot be *sufficiently* achieved by the Member States but can rather, by reason of its scale and effects, be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality, as set out in that Article, this Regulation does not go beyond what is necessary in order to achieve that objective,

HAVE ADOPTED THIS REGULATION:

Article 1
Subject matter

This Regulation lays down the requirements for the monitoring and reporting of CO₂ emissions from and fuel consumption of new heavy-duty vehicles registered in the European Union.

Article 2
Scope

This Regulation shall apply to the monitoring and reporting by Member States and manufacturers of heavy-duty vehicles of data on new vehicles.

It shall apply with regard to the following vehicle categories:

- (a) heavy-duty vehicles of categories M1, M2, N1 and N2 with a reference mass exceeding 2 610 kg not falling within the scope of Regulation (EC) No 715/2007 of the European Parliament and of the Council¹, and all vehicles of categories M3 and N3;
- (b) vehicles of categories O3 and O4.

For the purposes of this Regulation, these vehicles are referred to as heavy-duty vehicles.

¹ Regulation (EC) No 715/2007 of the European Parliament and of the Council of 20 June 2007 on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information (OJ L 171, 29.6.2007, p. 1).

Article 3
Definitions

For the purposes of this Regulation, the definitions set out in Directive 2007/46/EC of the European Parliament and of the Council¹ and Regulation (EC) No 595/2009 of the European Parliament and of the Council shall apply.

Article 4
Monitoring and reporting by Member States

1. ***Starting from 1 January 2019, and for each subsequent calendar year, Member States shall monitor the data specified in Part A of Annex I relating to new vehicles registered for the first time in the Union.***

By 28 February each year, starting in [2020], the competent authorities of the Member States shall ***report that data to the Commission in accordance with the reporting procedure set out in Annex II.***

Data relating to new vehicles that were registered previously outside the Union shall not be monitored and reported, unless that registration was made less than three months before registration in the Union. ■

¹ Directive 2007/46/EC of the European Parliament and of the Council of 5 September 2007 establishing a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles (Framework Directive) (OJ L 263, 9.10.2007, p. 1).

2. The competent authorities responsible for the *monitoring* and *reporting* of the data in accordance with this Regulation shall be those designated by the Member States in accordance with Article 8(7) of Regulation (EC) No 443/2009.

Article 5

Monitoring and reporting by manufacturers

1. *In accordance with the starting years set out in point 1 of Part B of Annex I, manufacturers of heavy-duty vehicles shall monitor, on a calendar year basis, the data specified in point 2 of Part B of Annex I, for each new heavy-duty vehicle.*

By 28 February each year, starting *from the years set out in point 1 of Part B of Annex I*, manufacturers of heavy-duty vehicles shall *report that data for each new heavy-duty vehicle* with a date of *simulation* falling within the preceding calendar year *to the Commission in accordance with the reporting procedure set out in Annex II.*

The date of *simulation shall be the date reported in accordance with data entry 70 in point 2 of Part B of Annex I to this Regulation.*

2. Manufacturers shall appoint a contact point for the purpose of reporting data in accordance with this Regulation.

Article 6

Central Register for data on heavy-duty vehicles

1. The Commission shall keep a central register for the data reported in accordance with Articles 4 and 5.

The register shall be publicly available with the exception of *data entry (a) in Part A of Annex I and data entries 1, 24, 25, 32, 33, 39 and 40 specified in point 2 of Part B of Annex I. With regard to data entry 23 specified in point 2 of Part B of Annex I, the value shall be made publicly available in a range format as defined in point 3 of Part B of Annex I.*

2. The register shall be managed by the European Environment Agency  on behalf of the Commission.

Article 6a

Monitoring of the results of on-road verification tests

1. *The Commission shall monitor, where available, the results of on-road tests performed within the framework of Regulation (EC) No 595/2009 to verify the CO₂ emissions and fuel consumption of new heavy-duty vehicles.*
2. *The Commission is empowered to adopt delegated acts in accordance with Article 12 supplementing this Regulation by specifying the data to be reported by the competent authorities of the Member States for the purposes of paragraph 1.*

Article 7
Data quality

1. The competent authorities and manufacturers shall be responsible for the correctness and quality of the data they report pursuant to Articles 4 and 5. They shall inform the Commission of any errors detected in the data reported without delay.
2. The Commission **shall** carry out its own verification of the quality of the data reported pursuant to Articles 4 and 5.
3. Where the Commission is informed of errors in the data or finds, pursuant to its own verification, discrepancies in the dataset, it shall, where appropriate, take the necessary measures to correct the data published in the Central Register referred to in Article 6.

Article 7a
Administrative fines

1. ***The Commission may impose an administrative fine in each of the following cases:***
 - (a) ***where it finds that the data reported by the manufacturer pursuant to Article 5 deviate from the data resulting from the manufacturer's records file or the engine type-approval certificate issued within the framework of Regulation (EU) 595/2009, and the deviation reported is intentional or due to serious negligence;***

(b) where the data is not submitted within the deadline applicable pursuant to Article 5 (1) and the delay cannot be duly justified.

The Commission shall for the purposes of verifying the data referred to in point (a) consult with the relevant approval authorities.

The administrative fines shall be effective, proportional and dissuasive and shall not exceed EUR 30 000 per vehicle concerned by deviating or delayed data as referred to in points (a) and (b).

- 2. The Commission shall adopt, on the basis of the principles set out in paragraph 3, delegated acts in accordance with Article 12 to lay down the procedure, methods for the calculation and collection of the administrative fines referred to in paragraph 1.*
- 3. The delegated acts referred to in paragraph 2 shall respect the following principles:*
 - (a) the procedure by the Commission shall respect the right to good administration, including in particular the right to be heard and the right to have access to the file, while respecting the legitimate interests of confidentiality and of professional and business secrecy;*

(b) in calculating the appropriate administrative fine, the Commission shall be guided by the principles of effectiveness, proportionality and dissuasiveness, taking into consideration, where relevant, the seriousness and effects of the deviation or delay, the number of vehicles concerned by the deviating or delayed data, the good faith of the manufacturer, the degree of diligence and cooperation of the economic operator, the repetition, frequency or duration of the deviation or the delay as well as prior sanctions imposed on the same manufacturer;

(c) administrative fines shall be collected without undue delay by fixing deadlines for the payment and, as appropriate, including the possibility of splitting payments into several instalments and phases.

4. *The amounts of the administrative fines shall be considered as revenue for the general budget of the European Union.*

Article 8

Report

1. ***By 31 October every year, the Commission shall *publish an* annual report *with* its analysis of the data transmitted by Member States and manufacturers for the preceding calendar year.***

2. The analysis shall indicate, as a minimum, the performance of the heavy-duty vehicle fleet of the Union as well as that of *each Member State and* each manufacturer in terms of the average fuel consumption and CO₂ emissions *for each vehicle group by mission profile, load and fuel combination*. It shall also, where available, take into account data on the uptake of new and advanced CO₂ reducing technologies, *as well as of alternative powertrains. Moreover, it shall include an analysis of the results of on-road verification tests as monitored in accordance with Article 6a, where available.*
3. The Commission shall prepare the analysis with the support of the EEA.

Article 9

Conferral of implementing powers

The Commission may, by means of implementing acts, determine the verification and correction measures referred to in paragraphs 2 and 3 of Article 7. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 11.

Article 10

Delegation of powers

1. The Commission is empowered to adopt delegated acts in accordance with Article 12 with a view to amending Annex I for the purpose of updating or adjusting the data requirements specified *in Part A and points 1 and 2 of Part B of Annex I*, where this is deemed necessary in order to provide for a thorough analysis in accordance with Article 8, *and to update or adjust the ranges set out in point 3 of Part B of that Annex to take into account changes in vehicle design and ensure that the ranges remain relevant for information and comparability purposes.*
 - 1a. *The Commission is empowered to adopt delegated acts in accordance with Article 12 with a view to amending Annex I for the purpose of completing the starting years in point 1 of Part B. Those delegated acts shall be adopted no later than [7 years after entry into force of this Regulation].*
2. The Commission is empowered to adopt delegated acts in accordance with Article 12 with a view to amending Annex II for the purpose of adjusting the monitoring and reporting procedure set out therein in order to take into account the experience gained from the application of this Regulation.

Article 11

Committee procedure

1. The Commission shall be assisted by the Climate Change Committee established by **Regulation (EU) 525/2013** of the European Parliament and of the Council¹. 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.

Article 12

Exercise of 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 **Articles 6a, 7a and 10** shall be conferred on the Commission for a period of **seven years** from [the date of **entry** into force of this Regulation]. **The Commission shall draw up a report in respect of the delegation of power not later than nine months before the end of the seven-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.**

¹ **Regulation (EU) No 525/2013** of the European Parliament and of the Council of **21 May 2013 on** a mechanism for monitoring **and reporting** greenhouse gas emissions and for **reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC (OJ L 165, 18.6.2013, p. 13).**

3. The delegation of power referred to in *Articles 6a, 7a and 10* 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 **■** .
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 *Articles 6a, 7a and 10* 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 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 13

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*.

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

Done at █ ...,

For the European Parliament

The President

For the Council

The President

ANNEX I



PART A: DATA TO BE MONITORED AND REPORTED BY MEMBER STATES:

- (a) vehicle identification numbers of all new vehicles as referred to in Article 2(a) and (b) that are registered in the Member State territory;
- (b) manufacturer name;
- (c) make (trade name of manufacturer);
- (d) the code for the bodywork as specified in entry 38 of the certificate of conformity, where available;
- (e) in the case of the vehicles referred to in Article 2(a), the information on the powerplant specified in entries 23, 23.1 and 26 of the certificate of conformity.

PART B: DATA TO BE MONITORED AND REPORTED BY MANUFACTURERS OF HEAVY-DUTY VEHICLES

1. Starting years for the monitoring and reporting of data for the vehicle categories set out in Article 2(a) and (b):

<i>Vehicle category</i>	<i>Vehicle group for vehicle category (as referred to in Annex I to Commission Regulation (EU) [...])</i>	<i>Starting year Monitoring</i>	<i>Starting year Reporting</i>
<i>N1</i>	-	-	-
<i>N2</i>	<i>1 and 2</i>	<i>2020</i>	<i>2021</i>
<i>N3</i>	<i>3</i>	<i>2020</i>	<i>2021</i>
	<i>4, 5, 9 and 10</i>	<i>2019</i>	<i>2020</i>
	<i>11, 12 and 16</i>	<i>2020</i>	<i>2021</i>
<i>M1</i>	-	-	-
<i>M2</i>	-	-	-
<i>M3</i>	-	-	-
<i>O3</i>	-	-	-
<i>O4</i>	-	-	-

2. *Data to be monitored and reported:*

No	Monitoring parameters	Source <i>Part I of Annex IV to Commission Regulation (EU) [.../...], unless otherwise specified</i>	Description
1	vehicle identification number (VIN)	1.1.3	Vehicle and component identification
2	engine certification number	1.2.2	
3	CdxA certification number (if applicable)	1.8.3	
4	transmission certification number	1.3.2	
5	axle certification number	1.6.2	
6	tyre certification number, axle 1	1.9.2	
7	tyre certification number, axle 2	1.9.6	
8	tyre certification number, axle 3	1.9.10	
9	tyre certification number, axle 4	1.9.14	
10	vehicle category (<i>N1, N2, N3, M1, M2, M3</i>)	1.1.4	Vehicle classification
11	axle configuration	1.1.5	
12	maximum gross vehicle weight (<i>t</i>)	1.1.6	
13	vehicle group	1.1.7	
14	<i>name and address of manufacturer</i> ■	1.1.1	Vehicle and chassis specification
15	make (trade name of manufacturer)	1.1.7 Part II of Annex IV to Commission Regulation (EU) ■	
16	corrected actual curb mass (<i>kg</i>)	1.1.8	

No	Monitoring parameters	Source <i>Part I of Annex IV to Commission Regulation (EU) [.../...], unless otherwise specified</i>	Description
17	engine rated power (<i>kW</i>)	<i>1.2.3</i>	Main engine specifications
18	engine idling speed (<i>1/min</i>)	<i>1.2.4</i>	
19	engine rated speed (<i>1/min</i>)	<i>1.2.5</i>	
20	engine capacity (<i>ltr</i>)	<i>1.2.6</i>	
21	engine reference fuel type (<i>diesel/ LPG/CNG...</i>)	<i>1.2.7</i>	
22	Certification option used for generation of CdxA (default <i>values/measurement</i>)	<i>1.8.2</i>	Aerodynamics
23	CdxA value (<i>air drag value</i>)	<i>1.8.4</i>	
24	name and address of <i>transmission</i> manufacturer	-	Main transmission specifications
25	make (trade name of <i>transmission</i> manufacturer)	-	
26	certification option used for the generation of <i>simulation tool loss maps (Option1/Option2/Option3/Standard values I)</i>	<i>1.3.3</i>	
27	transmission type (<i>SMT, AMT, APT-S, APT-P</i>)	<i>1.3.4</i>	
28	number of gears	<i>1.3.5</i>	
29	transmission ratio final gear	<i>1.3.6</i>	
30	retarder <i>type</i>	<i>1.3.7</i>	
31	power take off (yes/no)	<i>1.3.8</i>	

No	Monitoring parameters	Source <i>Part I of Annex IV to Commission Regulation (EU) [.../...], unless otherwise specified</i>	Description
32	name and address of <i>axle</i> manufacturer	-	Main axle specifications
33	make (trade name of <i>axle</i> manufacturer)	-	
34	certification option used for the generation of <i>a simulation tool</i> loss map (standard values/measurement)	1.7.3	
35	axle type (<i>e.g. standard single driven axle</i>)	1.7.4	
36	axle ratio	1.7.5	
37	Certification option used for the generation of <i>a simulation tool</i> loss map (standard values/ measurement)	1.6.3	
38	angle drive ratio	1.6.4	
39	name and address of <i>tyre</i> manufacturer	-	Main tyre specifications
40	make (trade name of <i>tyre</i> manufacturer)	-	
41	tyre dimension, axle 1	1.9.1	
42	specific rolling resistance coefficient (RRC) of all tyres on axle 1	1.9.3	
43	tyre dimension axle 2	1.9.4	
44	twin axle (yes/no) axle 2	1.9.5	
45	<i>specific</i> RRC of all tyres on axle 2	1.9.7	
46	tyre dimension axle 3	1.9.8	
47	twin axle (yes/no) axle 3	1.9.9	

No	Monitoring parameters	Source <i>Part I of Annex IV to Commission Regulation (EU) [.../...], unless otherwise specified</i>	Description
48	<i>specific</i> RRC of all tyres on axle 3 ■	1.9.11	
49	tyre dimension ■ axle 4	1.9.12	
50	twin axle (yes/no) ■ axle 4	1.9.13	
51	<i>specific</i> RRC of all tyres on axle 4 ■	1.9.15	
52	engine cooling fan technology ■	1.10.1	
53	steering pump technology ■	1.10.2	
54	electric system technology ■	1.10.3	
55	pneumatic system technology ■	1.10.4	
56	mission profile (long haul, <i>long haul (EMS)</i> , regional, <i>regional (EMS)</i> , urban, <i>municipal</i> , construction)	2.1.1	Simulation parameters (for each mission profile/load/fuel combination)
57	load (as defined in the <i>simulation tool</i>) (kg)	2.1.2	■
57a	<i>fuel type (diesel/petrol/LPG/CNG/...)</i>	2.1.3	
58	Total vehicle mass in simulation (kg)	2.1.4	■
59	average speed (km/h)	2.2.1	Vehicle driving performance (for each mission profile/load/fuel combination)
60	minimum instantaneous speed (km/h)	2.2.2	
61	maximum instantaneous speed (km/h)	2.2.3	
62	maximum deceleration (m/s ²)	2.2.4	
63	maximum acceleration (m/s ²)	2.2.5	
64	full ■ load percentage on driving time	2.2.6	

No	Monitoring parameters	Source <i>Part I of Annex IV to Commission Regulation (EU) [.../...], unless otherwise specified</i>	Description
65	total number of gear shifts	2.2.7	
66	total driven distance (<i>km</i>)	2.2.8	
67	CO ₂ emissions (expressed in g/km, g/t-km, g/p-km, g/m ³ -km)	2.3.13-2.3.16	CO ₂ emissions and fuel consumption (for each mission profile/load/fuel combination)
68	fuel consumption (expressed in <i>g/km, g/t-km, g/p-km, g/m³-km, l/100km, l/t-km, l/p-km, l/m³-km, MJ/km, MJ/t-km, MJ/p-km, MJ/m³-km</i>)	2.3.1-2.3.12	
69	<i>Simulation tool</i> version (<i>X.X.X.</i>)	3.1.1	Software and user information
70	Date and time of the <input type="checkbox"/> simulation	3.1.2	
71	<i>Number of licence to operate the simulation tool</i>	<input type="checkbox"/> -	
72	Cryptographic hash <i>of simulation tool result</i>	3.1.4	
73	Advanced CO ₂ reducing technologies	-	Vehicle CO ₂ reducing technologies
74	CO ₂ mass emission of the engine over WHTC (g/kWh)	<i>point 1.4.2 of the addendum to Appendix 5 or point 1.4.2 of the addendum to Appendix 7 to Annex I to Commission Regulation (EU) 582/2011, whichever is applicable</i>	<i>Engine CO₂ emission and specific fuel consumption</i>

No	Monitoring parameters	Source <i>Part I of Annex IV to Commission Regulation (EU) [.../...], unless otherwise specified</i>	Description
75	<i>Specific fuel consumption of the engine over WHTC (g/kWh)</i>	<i>point 1.4.2 of the addendum to Appendix 5 or point 1.4.2 of the addendum to Appendix 7 to Annex I to Commission Regulation (EU) 582/2011, whichever is applicable</i>	
76	<i>CO₂ mass emission of the engine over WHSC (g/kWh)</i>	<i>point 1.4.1 of the addendum to Appendix 5 or point 1.4.1 of the addendum to Appendix 7 to Annex I to Commission Regulation (EU) 582/2011, whichever is applicable</i>	
77	<i>Specific fuel consumption of the engine over WHSC (g/kWh)</i>	<i>point 1.4.1 of the addendum to Appendix 5 or point 1.4.1 of the addendum to Appendix 7 to Annex I to Commission Regulation (EU) 582/2011, whichever is applicable</i>	

3. *CdxA ranges for the purpose of publication according to Article 6*

For the purpose of making publicly available the CdxA value specified in data entry 23 in accordance with Article 6, the Commission shall use the ranges defined in following table containing the corresponding range for each CdxA value:

<i>Range</i>	<i>CdxA value [m²]</i>	
	<i>Min CdxA (CdxA >= min CdxA)</i>	<i>Max CdxA (CdxA <MaxCdxA)</i>
<i>A1</i>	<i>0.00</i>	<i>3.00</i>
<i>A2</i>	<i>3.00</i>	<i>3.15</i>
<i>A3</i>	<i>3.15</i>	<i>3.31</i>
<i>A4</i>	<i>3.31</i>	<i>3.48</i>
<i>A5</i>	<i>3.48</i>	<i>3.65</i>
<i>A6</i>	<i>3.65</i>	<i>3.83</i>
<i>A7</i>	<i>3.83</i>	<i>4.02</i>
<i>A8</i>	<i>4.02</i>	<i>4.22</i>
<i>A9</i>	<i>4.22</i>	<i>4.43</i>
<i>A10</i>	<i>4.43</i>	<i>4.65</i>
<i>A11</i>	<i>4.65</i>	<i>4.88</i>
<i>A12</i>	<i>4.88</i>	<i>5.12</i>
<i>A13</i>	<i>5.12</i>	<i>5.38</i>
<i>A14</i>	<i>5.38</i>	<i>5.65</i>
<i>A15</i>	<i>5.65</i>	<i>5.93</i>

<i>Range</i>	<i>CdxA value [m²]</i>	
	<i>Min CdxA (CdxA >= min CdxA)</i>	<i>Max CdxA (CdxA <MaxCdxA)</i>
<i>A16</i>	<i>5.93</i>	<i>6.23</i>
<i>A17</i>	<i>6.23</i>	<i>6.54</i>
<i>A18</i>	<i>6.54</i>	<i>6.87</i>
<i>A19</i>	<i>6.87</i>	<i>7.21</i>
<i>A20</i>	<i>7.21</i>	<i>7.57</i>
<i>A21</i>	<i>7.57</i>	<i>7.95</i>
<i>A22</i>	<i>7.95</i>	<i>8.35</i>
<i>A23</i>	<i>8.35</i>	<i>8.77</i>
<i>A24</i>	<i>8.77</i>	<i>9.21</i>

ANNEX II

Data reporting and management

1. Reporting BY MEMBER STATES

■

- 1.2 The data specified in Part A of Annex I ■ shall be transmitted in accordance with Article 4 by the contact point of the competent authority via electronic data transfer to the Central Data Repository managed by the EEA.

The contact point shall notify the Commission and the EEA when the data is transmitted by email to the following addresses:

[EC-CO2-HDV-IMPLEMENTATION@ec.europa.eu] and

HDV-monitoring@eea.europa.eu.

2. Reporting by manufacturers

- 2.1 Manufacturers shall notify the Commission without delay and not later than by [31 December 2018] of the following information:

- (a) The manufacturer name indicated in the certificate of conformity or individual approval certificate;

- (b) The World Manufacturer Identifier code (WMI code) as defined in Commission Regulation (EU) No 19/2011¹ to be used in the vehicle identification numbers of new heavy-duty vehicles to be placed on the market;
- (c) The contact point responsible for uploading the data to the Business Data Repository of the EEA.

They shall notify the Commission without delay of any changes to that information.

The notifications shall be sent to the addresses referred to in point 1.2.

- 2.2 New manufacturers entering the market shall inform the Commission without delay of the information referred to in point 2.1.

- 2.4 The data referred to in *Article 5 (1)* shall be transmitted by the contact point of the manufacturer via electronic transfer to the Business Data Repository managed by the EEA.

The contact point shall notify the Commission and the EEA when the data is transmitted by email to the functional mailboxes specified in point 1.2 of this Annex.

¹ Commission Regulation (EU) No 19/2011 of 11 January 2011 concerning type-approval requirements for the manufacturer's statutory plate and for the vehicle identification number of motor vehicles and their trailers and implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council concerning type-approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefor (OJ L 8, 12.1.2011, p. 1).

3. DATA PROCESSING

- 3.1 The EEA shall process the data transmitted in accordance with points 1.2 and 2.4 and shall record the processed data in the Central Register for data on heavy-duty vehicles.
- 3.2 The data relating to vehicles registered in the preceding calendar year and recorded in the Register shall be made public no later than by [31 October] each year, starting from [2020], with the exception of the data entries specified in Article 6(1).
- 3.3 Where a competent authority or manufacturers identify errors in the data submitted, they shall without delay notify those to the Commission and the EEA by submitting an error notification report to the Central Data Repository or the Business Data Repository and by email sent to the functional mailboxes referred to in point 1.2.
- 3.4 The Commission shall with the support of the EEA verify the notified errors and, where appropriate, correct the data in the Register.
- 3.5 The Commission, with the support of the EEA, shall make available electronic formats for the data transmissions referred to in points 1.2 and 2.4 in due time before the transmission deadlines.