




Basic information	
<p><b>2018/0143(COD)</b></p> <p>COD - Ordinary legislative procedure (ex-codecision procedure) Regulation</p>	Procedure completed
<p>New heavy-duty vehicles: CO2 emission performance standards</p> <p>Amending Regulation (EC) No 595/2009 <a href="#">2007/0295(COD)</a> Amended by <a href="#">2023/0042(COD)</a></p> <p><b>Subject</b></p> <p>2.10.03 Standardisation, EC/EU standards and trade mark, certification, compliance 3.20.05 Road transport: passengers and freight 3.40.03 Motor industry, cycle and motorcycle, commercial and agricultural vehicles 3.70.02 Atmospheric pollution, motor vehicle pollution</p>	




Key players				
European Parliament	<b>Committee responsible</b>		<b>Rapporteur</b>	<b>Appointed</b>
	<a href="#">ENVI</a>	Environment, Climate and Food Safety	<a href="#">EICKHOUT Bas (Verts/ALE)</a>	24/05/2018
			Shadow rapporteur <a href="#">FJELLNER Christofer (PPE)</a> <a href="#">ZOFFOLI Damiano (S&amp;D)</a> <a href="#">PROCTER John (ECR)</a> <a href="#">TORVALDS Nils (ALDE)</a> <a href="#">ECK Stefan (GUE/NGL)</a> <a href="#">EVI Eleonora (EFDD)</a> <a href="#">MÉLIN Joëlle (ENF)</a>	
	<b>Committee for opinion</b>		<b>Rapporteur for opinion</b>	<b>Appointed</b>
	<a href="#">ITRE</a>	Industry, Research and Energy	The committee decided not to give an opinion.	
	<a href="#">IMCO</a>	Internal Market and Consumer Protection	The committee decided not to give an opinion.	
	<a href="#">TRAN</a>	Transport and Tourism	<a href="#">VIRKKUNEN Henna (PPE)</a>	03/07/2018
Council of the European Union	<b>Council configuration</b>		<b>Meetings</b>	<b>Date</b>
	<a href="#">Employment, Social Policy, Health and Consumer Affairs</a>		3698	2019-06-13
	<a href="#">Environment</a>		3666	2018-12-20

	Environment	3640	2018-10-09
European Commission	Commission DG	Commissioner	
	Energy	ARIAS CAÑETE Miguel	
European Economic and Social Committee			
European Committee of the Regions			

Key events			
Date	Event	Reference	Summary
17/05/2018	Legislative proposal published	COM(2018)0284 	Summary
05/07/2018	Committee referral announced in Parliament, 1st reading		
09/10/2018	Debate in Council		
18/10/2018	Vote in committee, 1st reading		
25/10/2018	Committee report tabled for plenary, 1st reading	A8-0354/2018	Summary
14/11/2018	Decision by Parliament, 1st reading	T8-0455/2018	Summary
14/11/2018	Results of vote in Parliament		
14/11/2018	Debate in Parliament	CRE link	
14/11/2018	Matter referred back to the committee responsible for interinstitutional negotiations		
27/02/2019	Approval in committee of the text agreed at 1st reading interinstitutional negotiations	PE636.151 GEDA/A/(2019)001750	
17/04/2019	Debate in Parliament	CRE link	
18/04/2019	Decision by Parliament, 1st reading	T8-0426/2019	Summary
18/04/2019	Results of vote in Parliament		
13/06/2019	Act adopted by Council after Parliament's 1st reading		
20/06/2019	Final act signed		
20/06/2019	End of procedure in Parliament		
25/07/2019	Final act published in Official Journal		

Technical information	
Procedure reference	2018/0143(COD)
Procedure type	COD - Ordinary legislative procedure (ex-codecision procedure)
Procedure subtype	Legislation
Legislative instrument	Regulation
	Amending Regulation (EC) No 595/2009 2007/0295(COD) Amended by 2023/0042(COD)
Legal basis	Rules of Procedure EP 61 Treaty on the Functioning of the EU TFEU 192-p1
Other legal basis	Rules of Procedure EP 165

<b>Mandatory consultation of other institutions</b>	European Economic and Social Committee European Committee of the Regions
<b>Stage reached in procedure</b>	Procedure completed
<b>Committee dossier</b>	ENVI/8/13213

<a href="#">Documentation gateway</a>				
<b>European Parliament</b>				
Document type	Committee	Reference	Date	Summary
Committee draft report		<a href="#">PE625.231</a>	18/07/2018	
Amendments tabled in committee		<a href="#">PE626.983</a>	11/09/2018	
Amendments tabled in committee		<a href="#">PE627.698</a>	11/09/2018	
Amendments tabled in committee		<a href="#">PE627.052</a>	14/09/2018	
Committee opinion	<a href="#">TRAN</a>	<a href="#">PE625.564</a>	10/10/2018	
Committee report tabled for plenary, 1st reading/single reading		<a href="#">A8-0354/2018</a>	25/10/2018	<a href="#">Summary</a>
Text adopted by Parliament, partial vote at 1st reading /single reading		<a href="#">T8-0455/2018</a>	14/11/2018	<a href="#">Summary</a>
Text agreed during interinstitutional negotiations		<a href="#">PE636.151</a>	22/02/2019	
Text adopted by Parliament, 1st reading/single reading		<a href="#">T8-0426/2019</a>	18/04/2019	<a href="#">Summary</a>
<b>Council of the EU</b>				
Document type		Reference	Date	Summary
Coreper letter confirming interinstitutional agreement		<a href="#">GEDA/A/(2019)001750</a>	22/02/2019	
Draft final act		<a href="#">00060/2019/LEX</a>	20/06/2019	
<b>European Commission</b>				
Document type		Reference	Date	Summary
Legislative proposal		<a href="#">COM(2018)0284</a> 	17/05/2018	<a href="#">Summary</a>
Document attached to the procedure		<a href="#">SWD(2018)0185</a> 	17/05/2018	
Document attached to the procedure		<a href="#">SWD(2018)0186</a> 	17/05/2018	
Commission response to text adopted in plenary		<a href="#">SP(2019)440</a>	08/08/2019	
<b>National parliaments</b>				
Document type	Parliament /Chamber	Reference	Date	Summary
Contribution	<a href="#">CZ_SENATE</a>	<a href="#">COM(2018)0284</a>	17/08/2018	
Contribution	<a href="#">CZ_CHAMBER</a>	<a href="#">COM(2018)0284</a>	13/09/2018	
Contribution	<a href="#">ES_PARLIAMENT</a>	<a href="#">COM(2018)0284</a>	28/09/2018	

Contribution	<a href="#">FR_ASSEMBLY</a>	<a href="#">COM(2018)0284</a>	23/11/2018	
<b>Other institutions and bodies</b>				
Institution/body	Document type	Reference	Date	Summary
ESC	Economic and Social Committee: opinion, report	<a href="#">CES3137/2018</a>	17/10/2018	

<b>Additional information</b>		
Source	Document	Date
EP Research Service	Briefing	

<b>Final act</b>	
<p><a href="#">Corrigendum to final act 32019R1242R(01)</a>  <a href="#">OJ L 039 09.02.2023, p. 0067</a></p> <p><a href="#">Regulation 2019/1242</a>  <a href="#">OJ L 198 25.07.2019, p. 0202</a></p>	<a href="#">Summary</a>

## New heavy-duty vehicles: CO<sub>2</sub> emission performance standards

2018/0143(COD) - 25/10/2018 - Committee report tabled for plenary, 1st reading/single reading

The Committee on the Environment, Public Health and Food Safety adopted the report by Bas EICKHOUT (Greens/EFA, NL) on the proposal for a regulation of the European Parliament and of the Council setting CO<sub>2</sub> emission performance standards for new heavy-duty vehicles.

The committee recommended that the European Parliament's position adopted at first reading under the ordinary legislative procedure should amend the Commission's proposal as follows.

**Emission reduction targets:** Members considered that the specific CO<sub>2</sub> emissions of the EU fleet of new heavy vehicles should be reduced compared to the reference CO<sub>2</sub> emissions as follows:

- **from 1 January 2025 to 31 December 2029, by 20%** (15% in the Commission proposal);
- **from 1 January 2030, by at least 35 %** (instead of 30 %), subject to review in 2022.

In addition, the minimum binding share of zero-emission buses in a manufacturer's fleet of new city buses should be:

- **50% from 1 January 2025 to 31 December 2029;**
- **75% from 1 January 2030.**

The Commission shall adopt, by 1 July 2019 at the latest, delegated acts specifying the technical criteria for determining the professional destination of a vehicle and defining the urban buses covered by the Regulation.

**Zero and low-emission heavy-duty vehicles:** starting from **1 January 2025**, the specific share of zero- and low-emission heavy-duty vehicles in the manufacturer's fleet in a calendar year shall be benchmarked against the following values:

- **as of 2025: at least 5 %;**
- **as of 2030: 20 %, subject to the review.**

Related manufacturers may form a pool to meet their obligations

**Excess emissions:** if a manufacturer or group of manufacturers has excess emissions, the Commission may impose a financial penalty in the form of an excess emissions premium at a level of EUR 6 800 per g/tkm.

Premiums on excess emissions shall be included in the revenue of the general budget of the Union. Members proposed that those amounts shall be used to complement Union or national measures which, in close cooperation with the social partners and competent authorities, promote the **development of skills or the 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, in order to contribute to a just transition towards zero- and low-emission mobility.

**Actual CO2 emissions and energy consumption:** the Commission shall adopt, by **31 December 2019** at the latest, delegated acts in order to supplement this Regulation by introducing an on-road in-service conformity test which ensures that on-road CO2 emissions and fuel consumption of heavy-duty vehicles do not exceed the monitoring data reported pursuant to Regulation (EU) 2017/2400 and to Regulation (EU) 2018/956 by more than 10%.

**Life-cycle emissions:** in its report to be published in 2022, the Commission shall assess the feasibility of developing a method for assessing CO2 emissions throughout the life cycle of heavy vehicles. On the basis of this assessment, the Commission shall propose, where appropriate, to establish reporting obligations for manufacturers and specify the rules and procedures necessary for such reporting.

The report shall also include an assessment of the effectiveness of the modalities for the roll-out of the necessary recharging and refuelling infrastructure.

The 2022 review should take full account of the evolution of the **VECTO simulation tool**, which should be continuously and timely updated by the Commission.

## New heavy-duty vehicles: CO<sub>2</sub> emission performance standards

2018/0143(COD) - 17/05/2018 - Legislative proposal

**PURPOSE:** to set mission performance standards for new heavy-duty vehicles.

**PROPOSED ACT:** Regulation of the European Parliament and of the Council.

**ROLE OF THE EUROPEAN PARLIAMENT:** the European Parliament decides in accordance with the ordinary legislative procedure and on an equal footing with the Council.

**BACKGROUND:** the European strategy for low-emission mobility sets a clear ambition: by mid-century, greenhouse gas emissions from transport will need to be at least **60% lower than in 1990 and be firmly on the path towards zero**.

Emissions of air pollutants from transport that harm our health need also to be drastically reduced without delay.

Light-duty vehicles (LDV) – passenger cars and light commercial vehicles (vans) - are already delivering their share of emission reductions and [legislation](#) has been proposed in 2017 so that they continue doing so after 2020.

Lorries carry around 70% of freight transported over land, delivering also essential public services. While CO2 emissions from heavy-duty vehicles (HDV), i.e. lorries, buses and coaches, account for about **6% of total EU emissions and 25% of road transport CO2 emissions in the EU**, they are currently not regulated at EU level. This poses three main problems:

without any further action, CO2 emissions from HDV are projected to **grow by 9%** over the period 2010– 2030 due to increasing transport activities ;

transport operators, mainly SMEs or micro enterprises, and their clients currently miss out on possible fuel savings and reduced fuel bills;

EU HDV manufacturers face increasing global **competitive pressures** as the United States, Canada, Japan and China have already implemented regulatory measures to reduce HDV CO2 emissions. However, it is necessary for the EU car industry to keep up with the technological improvements introduced in these markets.

This proposal is part of the third '**Europe on the move**' package which delivers the new industrial policy strategy of September 2017. The aim of the package is to make European mobility safer and more accessible, European industry more competitive, European jobs more secure and the mobility system cleaner and better adapted to the imperative of tackling climate change.

**IMPACT ASSESSMENT:** the policy options considered in the impact assessment are grouped into **five key elements**, aimed to address the identified problems and achieve the policy objectives: (i) EU fleet-wide CO2 emission targets; (ii) distribution of EU fleet-wide target across vehicle groups and manufacturers; (iii) incentives for zero and low-emission vehicles; (iv) elements for cost-effective implementation; and (v) governance related issues.

**CONTENT:** the proposed Regulation sets **CO2 emission performance standards for new heavy-duty vehicles** whereby the specific CO2 emissions from the EU fleet of new heavy-duty vehicles are reduced compared to the reference CO2 emissions as follows:

- from 1 January 2025 to 31 December 2029 by **15 %**;
- from 1 January 2030 by at least **30 %**, subject to review in 2022.

The targets are set as a relative reduction of the average specific emissions of the vehicles registered in the reference year 2019 which is the first year for which official monitored CO2 emissions data will be available. The targets are **attributed to each vehicle sub-group** as defined in Section 1 of Annex I.

In addition, the proposal:

- defines the vehicles that fall within the **scope** of this Regulation by reference to the relevant categories defined in type approval legislation and to the four vehicle groups for which certified CO2 emissions data will be available from 2019 onwards;
- provides that the Commission shall **determine and publish annually** the average specific CO2 emissions of each manufacturer starting from 2019 on the database provided by the relevant manufacturers;
- incentivises the deployment of **zero- and low-emission heavy-duty vehicles**, those vehicles shall be counted multiple times for the purpose of determining a manufacturer's average specific emissions starting from 2019. A specific incentive is also provided for zero-emission heavy-duty vehicles of the categories M2 (buses) and M3 (coaches) as well as certain category N vehicles (small lorries), including zero-emission vocational vehicles;
- provides for the calculation of annual manufacturer specific emission targets for the preceding calendar year, starting in 2026. The first annual targets will therefore be determined for the calendar year 2025;
- sets out a '**banking and borrowing**' mechanism, allowing a manufacturer to balance an underachievement of its specific emission target in one year by the overachievement in another year. For that purpose, the manufacturer may 'bank' emission credits, if its emissions are lower than a reduction trajectory determined as a linear trajectory from the 2019 reference CO2 emissions to the 2025 targets and from the 2025 targets;

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- imposes **financial penalties** in case of non-compliance with the specific CO<sub>2</sub> emission targets.

The level of the premium is set at EUR 6 800 per g/tkm, equivalent to EUR 570 per g/km based on an average payload of 12 tonnes, of excess emissions which reflect the marginal cost of CO<sub>2</sub> reducing technologies.

BUDGETARY IMPLICATIONS: the budgetary impact resulting from the implementation of the proposed Regulation is very limited. It is estimated at EUR 1.888 million for the years 2019-2020.

## New heavy-duty vehicles: CO<sub>2</sub> emission performance standards

2018/0143(COD) - 25/07/2019 - Final act

PURPOSE: to establish CO<sub>2</sub> emission performance standards for new heavy-duty commercial vehicles

LEGISLATIVE ACT: Regulation (EU) 2019/1242 of the European Parliament and of the Council setting CO<sub>2</sub> emission performance standards for new heavy-duty vehicles and amending Regulations (EC) No 595/2009 and (EU) 2018/956 of the European Parliament and of the Council and Council Directive 96/53/EC.

CONTENT: this Regulation sets binding CO<sub>2</sub> emission reduction targets for heavy duty vehicles. CO<sub>2</sub> emissions from heavy commercial vehicles, including lorries, buses and coaches, represent around 6% of total CO<sub>2</sub> emissions in the EU and 27% of total CO<sub>2</sub> emissions from road transport.

The Regulation is part of the Commission's third mobility package of 17 May 2018, entitled "Europe on the move - sustainable mobility for Europe: safe, connected and clean". Its objective is to contribute to achieving the Union's target of reducing its greenhouse gas emissions by 30 % below 2005 levels in 2030 in the sectors covered by [Regulation \(EU\) 2018/842](#) and to achieving the objectives of the Paris Agreement, and to ensure the proper functioning of the internal market.

### ***Binding emission reduction targets***

To this end, the Regulation provides for a binding CO<sub>2</sub> reduction target of 30% by 2030 for new heavy-duty vehicles, such as trucks and lorries, with an intermediate target of 15% by 2025.

The reference CO<sub>2</sub> emissions shall be based on the monitoring data reported pursuant to [Regulation \(EU\) 2018/956](#) for the period from 1 July 2019 to 30 June 2020, excluding vocational vehicles.

### ***Incentives for zero-emission and low-emission vehicles***

In order to ensure the smooth transition towards zero-emission mobility and to provide incentives for the development and deployment on the Union market of zero- and low-emission heavy-duty vehicles, the Regulation introduced a dedicated mechanism in the form of super credits for the reporting periods before 2025 and a benchmark for the share of zero- and low-emission heavy-duty vehicles in a manufacturer's fleet for the reporting periods as from 2025.

The incentive system shall be designed so as to ensure investment certainty for charging infrastructure providers and manufacturers in order to promote the rapid deployment on the Union market of zero- and low-emission heavy-duty vehicles, while allowing certain flexibility for the manufacturers to decide on their investment timeline.

### ***Specific measures to ensure the availability of solid and reliable data***

The Commission shall monitor and assess the real-world representativeness of the CO<sub>2</sub> emissions and energy consumption values of heavy-duty vehicles using on-board fuel and/or energy consumption monitoring devices, starting with new heavy-duty vehicles registered from the date of application of the measures. It shall also ensure that the public is informed of how that representativeness evolves over time.

### ***Sanctions***

The Commission shall impose a financial penalty, in the form of an excess CO<sub>2</sub> emissions premium, where a manufacturer is found to have excess CO<sub>2</sub> emissions, taking into account the emission credits and emission debts. Information about excess CO<sub>2</sub> emissions of manufacturers shall be made publicly available.

In order to provide manufacturers with sufficient incentive to take measures to reduce the specific CO<sub>2</sub> emissions from heavy-duty vehicles, it is important that the premium exceed the average marginal costs of the technologies needed to meet the CO<sub>2</sub> emissions targets.

The premium should be considered as revenue for the general budget of the European Union.

### ***Just transition***

A text stressed the need for a socially acceptable and fair transition to zero emission mobility as well as the importance of taking into account the social effects of the transition throughout the whole automotive value chain and anticipating the implications on employment.

Targeted programmes at Union, national and regional levels are therefore to be considered for the re-skilling, up-skilling and redeployment of workers, as well as education and job-seeking initiatives in adversely affected communities and regions, in close dialogue with the social partners and competent authorities.

### ***Evaluation and reporting***

By 31 December 2022 at the latest, the Commission shall present a report on (i) the effectiveness of the Regulation, (ii) the CO<sub>2</sub> emission reduction target and the level of the incentive mechanism for low- and zero-emission heavy duty vehicles applicable from 2030, (iii) on the setting of CO<sub>2</sub> emission reduction targets for other types of heavy-duty vehicles, including trailers, buses and coaches and professional vehicles, and (iv) on the introduction of binding CO<sub>2</sub> emission reduction targets for heavy-duty vehicles for 2035 and 2040 and beyond.

The report shall include, among other things, an evaluation of the VECTO calculation tool to ensure its continuous and timely update.

ENTRY INTO FORCE: 14.8.2019.

## New heavy-duty vehicles: CO<sub>2</sub> emission performance standards

2018/0143(COD) - 14/11/2018 - Text adopted by Parliament, partial vote at 1st reading/single reading

The European Parliament adopted by 373 votes to 285, with 16 abstentions, amendments to the proposal for a regulation of the European Parliament and of the Council setting CO<sub>2</sub> emission performance standards for new heavy-duty vehicles.

The European Parliament's position adopted at first reading under the ordinary legislative procedure amended the Commission's proposal as follows.

**Emission reduction targets:** this draft Regulation is part of the third 'Europe on the Move' package. Its aim being to make European mobility safer and more accessible, European industry more competitive, European jobs more secure, and the sector to be firmly on the path **towards zero emission by mid-century** and fully in line with the Paris Agreement .

To this end, Parliament considered that the specific CO<sub>2</sub> emissions of the EU fleet of new heavy vehicles should be reduced compared to the reference CO<sub>2</sub> emissions as follows:

- **from 1 January 2025 to 31 December 2029, by 20%** (15% in the Commission proposal);
- **from 1 January 2030, by at least 35 %** (instead of 30 %), subject to review in 2022.

The Commission shall adopt, by 1 July 2019 at the latest, delegated acts specifying the technical criteria for determining the professional destination of a vehicle and defining the urban buses covered by the Regulation.

**Zero and low-emission heavy-duty vehicles:** in order to ensure the smooth transition towards zero-emission mobility and to provide incentives for the development and deployment on the Union market of zero- and low-emission heavy-duty vehicles, the Regulation should set a reference value for the proportion of zero and low-emission vehicles in all manufacturers' fleets by 2025 and 2030.

Members proposed that starting from **1 January 2025**, the specific share of zero- and low-emission heavy-duty vehicles (whose specific CO<sub>2</sub> emissions are less than 50% of the value of the reference CO<sub>2</sub> emissions for each subgroup determined) in the manufacturer's fleet in a calendar year shall be benchmarked against the following values:

- **as of 2025: at least 5 %;**
- **as of 2030: 20 %, subject to the review.**

Related manufacturers may form a pool to meet their obligations

**Excess emissions:** if a manufacturer or group of manufacturers has excess emissions, the Commission may impose a financial penalty in the form of an excess emissions premium at a level of **EUR 5 000 per g/tkm during the period 2025-2029 and at EUR 6 800 per g/tkm from 2030**.

Premiums on excess emissions shall be included in the revenue of the general budget of the Union. Members proposed that those amounts shall be used to complement Union or national measures which, in close cooperation with the social partners and competent authorities, promote the **development of skills or the 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, in order to contribute to a just transition towards zero- and low-emission mobility.

**Actual CO<sub>2</sub> emissions and energy consumption:** the Commission shall adopt, by **31 December 2019** at the latest, delegated acts in order to supplement this Regulation by introducing an on-road in-service conformity test which ensures that on-road CO<sub>2</sub> emissions and fuel consumption of heavy-duty vehicles do not exceed the monitoring data reported pursuant to Regulation (EU) 2017/2400 and to Regulation (EU) 2018/956 by more than 10%.

The Commission shall ensure that the public is informed of how the real world representativeness.

**Life-cycle emissions:** in its report to be published in 2022, the Commission shall assess the feasibility of developing a method for assessing CO<sub>2</sub> emissions throughout the life cycle of heavy vehicles. On the basis of this assessment, the Commission shall propose, where appropriate, to establish reporting obligations for manufacturers and specify the rules and procedures necessary for such reporting.

The report shall also include an assessment of the effectiveness of the modalities for the roll-out of the necessary recharging and refuelling infrastructure.

The 2022 review should take full account of the evolution of the **VECTO simulation tool**, which should be continuously and timely updated by the Commission.

## New heavy-duty vehicles: CO<sub>2</sub> emission performance standards

2018/0143(COD) - 18/04/2019 - Text adopted by Parliament, 1st reading/single reading

The European Parliament adopted by 474 votes to 47, with 11 abstentions, a legislative resolution on the proposal for a regulation of the European Parliament and of the Council setting CO<sub>2</sub> emission performance standards for new heavy-duty vehicles.

The European Parliament's position adopted at first reading under the ordinary legislative procedure has amended the Commission proposal as follows:

### **Emission reduction targets**

This draft Regulation is part of the third 'Europe on the Move' package. Its aim being to make European mobility safer and more accessible, European industry more competitive, European jobs more secure, and the sector to be firmly on the path towards zero emission by mid-century and fully in line with the Paris Agreement.

To this end, it provides for a binding CO2 reduction target of 30% by 2030 for new heavy-duty vehicles, such as trucks and lorries, with an intermediate target of 15% by 2025.

The European Commission shall also propose new post-2030 targets by 31 December 2022 at the latest, in accordance with the Paris Agreement.

#### ***Assessment of reference CO2 emissions***

In order to ensure the robustness and representativeness of the reference CO2 emissions as a basis for determining the Union fleet-wide CO2 emissions targets, the Commission shall, by means of implementing acts, establish the methodology for assessing the application of the conditions under which the reference CO2 emissions have been determined and establish the criteria to determine whether those emissions have been unduly increased and, if so, how they are to be corrected.

#### ***Real-world CO2 emissions and energy consumption***

The Commission shall monitor and assess the real-world representativeness of the CO2 emissions and energy consumption values determined within the framework of Regulation (EC) No 595/2009. Furthermore, the Commission shall regularly collect data on the real-world CO2 emissions and energy consumption of heavy-duty vehicles using on-board fuel and/or energy consumption monitoring devices.

In order to prevent the real-world emissions gap from growing, the Commission shall assess how fuel and energy consumption data may be used to ensure that the vehicle CO2 emission and energy consumption values determined pursuant to that Regulation remain representative of real-world emissions over time for each manufacturer.

#### ***Verification of the CO2 emissions from heavy-duty vehicles in service***

Manufacturers shall ensure that the CO2 emissions and fuel consumption values recorded in the customer information file referred to in Regulation (EU) No 2017/2400 correspond to the CO2 emissions and fuel consumption of heavy-duty vehicles in service as determined in accordance with that Regulation.

#### ***Just transition***

A new recital underlined the need for a socially acceptable and fair transition to zero emission mobility as well as the importance of taking into account the social effects of the transition throughout the whole automotive value chain and anticipating the implications on employment.

Targeted programmes at Union, national and regional levels are therefore to be considered for the re-skilling, up-skilling and redeployment of workers, as well as education and job-seeking initiatives in adversely affected communities and regions, in close dialogue with the social partners and competent authorities.

#### ***Evaluation and reporting***

By 31 December 2022 at the latest, the Commission shall present a report on (i) the effectiveness of the Regulation, (ii) the CO2 emission reduction target and the level of the incentive mechanism for low- and zero-emission heavy duty vehicles applicable from 2030, (iii) on the setting of CO2 emission reduction targets for other types of heavy-duty vehicles, including trailers, buses and coaches and professional vehicles, and (iv) on the introduction of binding CO2 emission reduction targets for heavy-duty vehicles for 2035 and 2040 and beyond.

The report shall include, among other things, an evaluation of the VECTO calculation tool to ensure its continuous and timely update.