

Development of post-Euro 6/VI emission standards for cars, vans, lorries and buses

Fields marked with * are mandatory.

Introduction

The [European Green Deal](#) is a new growth strategy that will foster the transition to a climate-neutral, resource-efficient and competitive economy and the move towards zero-pollution in Europe. The [New Industrial Strategy for Europe](#) lays the foundations for an industrial policy that will help Europe's industry to make this ambition a reality and lead the transition towards climate neutrality and digital leadership. To accelerate the shift to sustainable and smart mobility and thus support the competitiveness of the EU automotive industry on the global market, transport should become significantly less polluting, especially in cities. The EU automotive industry must lead the global transition to zero-emission vehicles rather than follow the lead of others. This will allow the industry to take advantage of the business opportunities offered. Significant efforts have been made over the last 4 years to reduce emissions of air pollutants, in particular in the wake of the [Dieselgate](#). In parallel, new power trains – battery-electric and hydrogen – are emerging as an alternative to the combustion engine. However, although the roll out of such technologies is accelerating, it is still slow. In the meantime, more needs to be done to 'clean' the combustion engine to ensure protection of human health in urban areas and to prevent the internal market from fragmenting due to individual national initiatives (e.g. diesel bans, petrol bans). The European Green Deal roadmap therefore includes a proposal for more stringent air pollutant emission standards for combustion-engine vehicles by 2021.

To address emerging air quality issues in Europe, emission standards for cars, vans, lorries and buses were introduced in 1992. These standards became known as the Euro standards. The existing Euro standards (Euro 6 for cars and vans, and Euro VI for lorries and buses) required further emission reductions compared to the previous Euro 5/V standards. These further requirements mostly focused on the air pollutant emissions of nitrogen oxide and particulate matter. Today, air pollutant emissions are measured accurately both in the laboratory and on the road to ensure that emissions limits are complied with under normal conditions of use.

Before proposing more stringent air pollutant emission standards, it is necessary to evaluate the existing Euro 6/VI standards. This means evaluating the four main regulations that set these standards:

- [Regulation \(EC\) No 715/2007](#) and implementing [Regulation \(EU\) No 2017/1151](#) on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6);
- [Regulation \(EC\) No 595/2009](#) and implementing [Regulation \(EU\) No 582/2011](#) on type-approval of motor vehicles and engines with respect to emissions from heavy-duty vehicles (Euro VI).

For more information, please see the [Inception Impact Assessment](#).

The purpose of this public consultation is to collect evidence and views from a broad range of stakeholders to assess the potential impacts of more stringent air pollutant emission standards, and to evaluate the Euro 6/VI standards thus far and see how these standards might develop in the future. It is therefore important that you complete this questionnaire as fully as possible. Responses can be provided in any EU official language.

About you

* Language of my contribution

- Bulgarian
- Croatian
- Czech
- Danish
- Dutch
- English
- Estonian
- Finnish
- French
- Gaelic
- German
- Greek
- Hungarian
- Italian
- Latvian
- Lithuanian
- Maltese
- Polish
- Portuguese
- Romanian
- Slovak
- Slovenian
- Spanish
- Swedish

* I am giving my contribution as

- Academic/research institution
- Business association
- Company/business organisation
- Consumer organisation
- EU citizen
- Environmental organisation
- Non-EU citizen
- Non-governmental organisation (NGO)
- Public authority
- Trade union
- Other

* First name

* Surname

* Email (this won't be published)

* Scope

- International
- Local
- National
- Regional

* Organisation name

255 character(s) maximum

* Organisation size

- Micro (1 to 9 employees)

- Small (10 to 49 employees)
- Medium (50 to 249 employees)
- Large (250 or more)

Transparency register number

255 character(s) maximum

Check if your organisation is on the [transparency register](#). It's a voluntary database for organisations seeking to influence EU decision-making.

* Country of origin

Please add your country of origin, or that of your organisation.

- | | | | |
|---|--|--|--|
| <input type="radio"/> Afghanistan | <input type="radio"/> Djibouti | <input type="radio"/> Libya | <input type="radio"/> Saint Martin |
| <input type="radio"/> Åland Islands | <input type="radio"/> Dominica | <input type="radio"/> Liechtenstein | <input type="radio"/> Saint Pierre and Miquelon |
| <input type="radio"/> Albania | <input type="radio"/> Dominican Republic | <input type="radio"/> Lithuania | <input type="radio"/> Saint Vincent and the Grenadines |
| <input type="radio"/> Algeria | <input type="radio"/> Ecuador | <input type="radio"/> Luxembourg | <input type="radio"/> Samoa |
| <input type="radio"/> American Samoa | <input type="radio"/> Egypt | <input type="radio"/> Macau | <input type="radio"/> San Marino |
| <input type="radio"/> Andorra | <input type="radio"/> El Salvador | <input type="radio"/> Madagascar | <input type="radio"/> São Tomé and Príncipe |
| <input type="radio"/> Angola | <input type="radio"/> Equatorial Guinea | <input type="radio"/> Malawi | <input type="radio"/> Saudi Arabia |
| <input type="radio"/> Anguilla | <input type="radio"/> Eritrea | <input type="radio"/> Malaysia | <input type="radio"/> Senegal |
| <input type="radio"/> Antarctica | <input type="radio"/> Estonia | <input type="radio"/> Maldives | <input type="radio"/> Serbia |
| <input type="radio"/> Antigua and Barbuda | <input type="radio"/> Eswatini | <input type="radio"/> Mali | <input type="radio"/> Seychelles |
| <input type="radio"/> Argentina | <input type="radio"/> Ethiopia | <input type="radio"/> Malta | <input type="radio"/> Sierra Leone |
| <input type="radio"/> Armenia | <input type="radio"/> Falkland Islands | <input type="radio"/> Marshall Islands | <input type="radio"/> Singapore |
| <input type="radio"/> Aruba | <input type="radio"/> Faroe Islands | <input type="radio"/> Martinique | <input type="radio"/> Sint Maarten |
| <input type="radio"/> Australia | <input type="radio"/> Fiji | <input type="radio"/> Mauritania | <input type="radio"/> Slovakia |
| <input type="radio"/> Austria | <input type="radio"/> Finland | <input type="radio"/> Mauritius | <input type="radio"/> Slovenia |
| <input type="radio"/> Azerbaijan | <input type="radio"/> France | <input type="radio"/> Mayotte | <input type="radio"/> Solomon Islands |

- Bahamas
- Bahrain
- Bangladesh
- Barbados
- Belarus
- Belgium
- Belize
- Benin
- Bermuda
- Bhutan
- Bolivia
- Bonaire Saint Eustatius and Saba
- Bosnia and Herzegovina
- Botswana
- Bouvet Island
- Brazil
- British Indian Ocean Territory
- British Virgin Islands
- Brunei
- Bulgaria
- Burkina Faso
- Burundi
- French Guiana
- French Polynesia
- French Southern and Antarctic Lands
- Gabon
- Georgia
- Germany
- Ghana
- Gibraltar
- Greece
- Greenland
- Grenada
- Guadeloupe
- Guam
- Guatemala
- Guernsey
- Guinea
- Guinea-Bissau
- Guyana
- Haiti
- Heard Island and McDonald Islands
- Honduras
- Hong Kong
- Mexico
- Micronesia
- Moldova
- Monaco
- Mongolia
- Montenegro
- Montserrat
- Morocco
- Mozambique
- Myanmar /Burma
- Namibia
- Nauru
- Nepal
- Netherlands
- New Caledonia
- New Zealand
- Nicaragua
- Niger
- Nigeria
- Niue
- Norfolk Island
- Northern Mariana Islands
- Somalia
- South Africa
- South Georgia and the South Sandwich Islands
- South Korea
- South Sudan
- Spain
- Sri Lanka
- Sudan
- Suriname
- Svalbard and Jan Mayen
- Sweden
- Switzerland
- Syria
- Taiwan
- Tajikistan
- Tanzania
- Thailand
- The Gambia
- Timor-Leste
- Togo
- Tokelau
- Tonga

- Cambodia
- Cameroon
- Canada
- Cape Verde
- Cayman Islands
- Central African Republic
- Chad
- Chile
- China
- Christmas Island
- Clipperton
- Cocos (Keeling) Islands
- Colombia
- Comoros
- Congo
- Cook Islands
- Costa Rica
- Côte d'Ivoire
- Croatia
- Cuba
- Curaçao
- Cyprus
- Hungary
- Iceland
- India
- Indonesia
- Iran
- Iraq
- Ireland
- Isle of Man
- Israel
- Italy
- Jamaica
- Japan
- Jersey
- Jordan
- Kazakhstan
- Kenya
- Kiribati
- Kosovo
- Kuwait
- Kyrgyzstan
- Laos
- Latvia
- North Korea
- North Macedonia
- Norway
- Oman
- Pakistan
- Palau
- Palestine
- Panama
- Papua New Guinea
- Paraguay
- Peru
- Philippines
- Pitcairn Islands
- Poland
- Portugal
- Puerto Rico
- Qatar
- Réunion
- Romania
- Russia
- Rwanda
- Saint Barthélemy
- Trinidad and Tobago
- Tunisia
- Turkey
- Turkmenistan
- Turks and Caicos Islands
- Tuvalu
- Uganda
- Ukraine
- United Arab Emirates
- United Kingdom
- United States
- United States Minor Outlying Islands
- Uruguay
- US Virgin Islands
- Uzbekistan
- Vanuatu
- Vatican City
- Venezuela
- Vietnam
- Wallis and Futuna
- Western Sahara
- Yemen

- Czechia
- Lebanon
- Saint Helena
Ascension and
Tristan da
Cunha
- Zambia
- Democratic
Republic of the
Congo
- Lesotho
- Saint Kitts and
Nevis
- Zimbabwe
- Denmark
- Liberia
- Saint Lucia

*** Publication privacy settings**

The Commission will publish the responses to this public consultation. You can choose whether you would like your details to be made public or to remain anonymous.

Anonymous

Only your type of respondent, country of origin and contribution will be published. All other personal details (name, organisation name and size, transparency register number) will not be published.

Public

Your personal details (name, organisation name and size, transparency register number, country of origin) will be published with your contribution.

I agree with the [personal data protection provisions](#)

General questions

1. How well informed are you about the following initiatives and policies?

	Very well informed	Moderately informed	Somewhat informed	Little informed	Not at all informed
* Paris Agreement	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* European Green Deal	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* New Industrial Strategy for Europe	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Euro 6/VI standards	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Type-approval of motor vehicles	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* In-service verification of registered vehicles	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Have the Euro standards been effective? To what extent do you agree with the following statements?

	Completely agree	Somewhat agree	Neither disagree nor agree	Somewhat disagree	Completely disagree	I don't know
* The limits for air pollutant emissions for new vehicles are strict enough	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The limits for air pollutant emissions for new vehicles do not cover all relevant air pollutants	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Vehicles comply with pollutant emission limits over their entire lifetime	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
* Vehicles comply with pollutant emission limits in all real-world driving conditions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

3. Over the past 10 years, based on your experience what has happened to:

	Decreased significantly	Decreased slightly	No change	Increased slightly	Increased significantly	I don't know
* The air quality in urban areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Air pollution originating from new cars and vans on EU roads	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Air pollution originating from new lorries and buses on EU roads	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3.1. In your view, what effect did the Euro 6/VI standards have on the price of the following vehicles?

	Decreased significantly	Decreased slightly	No change	Increased slightly	Increased significantly	I don't know
* Price of cars	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Price of vans	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Price of lorries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Price of buses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. To what extent do you agree with the following statements on the need for regulations on air pollutant emissions from road transport?

	Completely agree	Somewhat agree	Neither disagree nor agree	Somewhat disagree	Completely disagree	I don't know
* Regulations on air pollutant emissions are necessary to ensure a high level of environmental and health protection in the EU	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Regulations on air pollutant emissions encourage the development of innovative technologies for cleaner vehicles	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* <u>EU</u> regulations on air pollutant emissions are more efficient than national regulations on air pollutant emissions	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* EU regulations on air pollutant emissions are too costly and make cars unduly expensive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
* Increasing public awareness of the harmful effects of air pollutant emissions from road transport has the same effect as regulations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

5. Are the Euro standards still relevant today? To what extent do you agree with the following statements?

	Completely agree	Somewhat agree	Neither disagree nor agree	Somewhat disagree	Completely disagree	I don't know
* Euro standards <u>for cars and vans</u> have been appropriate for reducing pollutant emissions from road transport	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Euro standards <u>for lorries and buses</u> have been appropriate for reducing pollutant emissions from road transport	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* New Euro standards would be appropriate to further reduce air pollutant emissions <u>from cars and vans</u>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* New Euro standards would be appropriate to further reduce air pollutant emissions <u>from lorries and buses</u>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5.1. Which measures are the most successful to limit pollutant emissions from vehicles? Please rank the following measures from 1 being the most successful measure to 7 being the least successful.

	1	2	3	4	5	6	7
Strict regulations on vehicle air pollutant emissions	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access restrictions to urban areas for air polluting vehicles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Differentiation in taxes based on vehicle air pollutant emissions	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increasing consumer awareness of cleaner vehicles	<input type="radio"/>	<input checked="" type="radio"/>					
Subsidies for cleaner vehicles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shifting towards zero-emission vehicles	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Limiting the demand for transport	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				

6. In your experience, to what extent do the Euro 6/VI standards contribute to the following?

	To a very great extent	To a great extent	Somewhat	Very little	Not at all	I don't know
* Protecting human health	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Reducing air pollutant emissions	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Reducing greenhouse gas emissions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
* Ensuring the functioning of the European internal market	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Reinforcing the competitiveness of EU automotive industry	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Ensuring consumer trust in the type-approval system	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. If you have a good understanding of the Euro standards, would you like to answer the following more detailed questions?

Yes

No

Specific questions

Complexity

* 8. Please indicate if you consider the Euro 6/VI standards simple or complex.

- Very simple
- Simple
- Neither simple nor complex
- Complex
- Very complex
- I don't know

9. Please assess the following features of the Euro 6/VI standards.

	Very complex	Complex	Somewhat complex	Not at all complex	I don't know
* Separate regulatory frameworks for cars /vans and lorries/buses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
* Differences in emission limits based on fuel and technology	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The number of emission tests	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Procedures of emission tests	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Different dates of entry into force for the stepwise Euro 6/VI approach (6a to d, VI A to E)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Different dates of entry into force for new vehicle types and new vehicles	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Number of reporting requirements	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Compliance checks	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other aspect(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. To what extent do you agree with the following statements? Complexity in Euro 6/VI...

	Completely agree	Somewhat agree	Neither disagree nor agree	Somewhat disagree	Completely disagree	I don't know
* ... leads to misinterpretations among manufacturers	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* ... leads to misinterpretations among type-approval authorities	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* ... hampers optimal environmental protection	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* ... results in significant compliance costs	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* ... results in additional administrative burden	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* ... increases the risk of non-compliance	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Compliance costs are costs incurred by stakeholders to comply with obligations in a piece of legislation. **Administrative burdens** are those compliance costs incurred by stakeholders to comply with information obligations, such as reporting, registration or monitoring.

11. Indicate to what extent the following actions are important to reduce complexity.

	Very important	Important	Of little importance	Unimportant	I don't know
* Introducing a single Euro standard for cars, vans, lorries and buses	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Introducing common dates of entry into force instead of the stepwise Euro 6/VI approach (6a to d, VI A to E) in the Euro standards	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Introducing common dates of entry into force for new vehicle types and new vehicles	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Introducing testing procedures and limits that are technology-neutral and fuel-neutral	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Introducing common testing procedures for cars/vans and lorries /buses	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other actions	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If other actions, please specify:

100 character(s) maximum

To require compliance over the entire vehicle lifetime and in all driving conditions.

Air pollutant limits for new cars, vans, lorries and buses

Difference between cars/vans and lorries/buses

In the existing Euro 6 standards for cars and vans the following air pollutants are regulated: NO_x (*nitrogen oxide*), PM (*particle mass*), PN (*particle number*), CO (*carbon monoxide*), THC (*total hydrocarbons*) and NMHC (*non-methane hydrocarbons*). All these air pollutants are also regulated in the existing Euro VI standards for lorries and buses. In addition, CH₄ (*methane*) and NH₃ (*ammonia*) are regulated in Euro VI.

12. To what extent do you agree with the following statements?

	Completely agree	Somewhat agree	Neither disagree nor agree	Somewhat disagree	Completely disagree	I don't know
* The Euro 6/VI limits for regulated air pollutants are sufficiently strict	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The costs of complying with the Euro 6/VI limits and related test procedures are affordable	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The costs of complying with the Euro 6/VI information obligations are affordable	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The list of regulated air pollutants is sufficient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Currently unregulated pollutants are emerging from road transport	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Current technology creates room for additional reductions in emissions	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12.1. If you disagree that the Euro 6/VI limits for regulated air pollutants are sufficiently strict, the limits of which air pollutants are not strict enough? Please indicate and explain why.

- NO_x (nitrogen oxide)
- PM (particle mass) or PN (particle number)
- CO (carbon monoxide)
- THC (total hydrocarbons)
- NMHC (non-methane hydrocarbons)
- CH₄ (methane) for lorries and buses
- NH₃ (ammonia) for lorries and buses
- I don't know

Please explain why the limit for NO_x is not strict enough:

50 character(s) maximum

Worsens problems in air quality, health and biodiv

Please explain why the limit for PM or PN is not strict enough:

50 character(s) maximum

Still effect to air quality and health risks

Please explain why the limit for CH₄ is not strict enough:

50 character(s) maximum

Need to account for global warming potential

Please explain why the limit for NH₃ is not strict enough:

50 character(s) maximum

Has effect on nitrogen deposite problem

12.2. If you disagree that the list of regulated air pollutants is sufficient, which air pollutants should be added to the Euro standards? Please indicate and explain why.

- NH₃ for cars and vans

- CH₄ for cars and vans
- Ultra-fine particles (sub-23 nm)
- N₂O (nitrous oxide)
- NO₂ (nitrogen dioxide)
- CH₂O (formaldehyde)
- Non-methane organic gases (NMOG)
- Brake emissions
- Tyre and road-wear emissions
- Other(s)
- I don't know

Please explain why NH₃ should be added to the Euro standards:

50 character(s) maximum

Use of Adblue causes new problems with NH3.

Please explain why CH₄ should be added to the Euro standards:

50 character(s) maximum

Apply to all vehicles for technology neutrality

Please explain why ultra-fine particles should be added to the Euro standards:

50 character(s) maximum

Technology available & helps against health issues

Please explain why N₂O should be added to the Euro standards:

50 character(s) maximum

because it is also a greenhousegas

Please explain why NO₂ should be added to the Euro standards:

50 character(s) maximum

NO2 has direct impact on air quality

Please explain why CH₂O should be added to the Euro standards:

50 character(s) maximum

Carcinogene effect; follow US legislation

Please explain why brake emissions should be added to the Euro standards:

50 character(s) maximum

relative contribution to air quality is increasing

Please explain why tyre and road-wear emissions should be added to the Euro standards:

50 character(s) maximum

Increasingly affects health and air quality.

13. Indicate to what extent the following actions are important to improve the effects of emission limits.

	Very important	Important	Of little importance	Unimportant	I don't know
* Developing stricter limits for regulated pollutants	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Setting new emission limits for non-regulated pollutants and related new testing procedures	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Developing fuel-neutral and technology-neutral limits	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Introducing 'geo-fencing' that puts a vehicle automatically into zero-emission mode depending on its geolocation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other actions	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If other actions, please specify.

100 character(s) maximum

ensuring the existing limits over the entire vehicle lifetime and in all driving conditions

Real-world air pollutant emissions of cars, vans, lorries and buses

14. To what extent do you agree with the following statements?

	Completely agree	Somewhat agree	Neither disagree nor agree	Somewhat disagree	Completely disagree	I don't know
* Real-world emissions are not adequately monitored over the entire lifetime of a vehicle in Euro 6/VI	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Real-world emissions are not adequately limited over the entire lifetime of a vehicle in Euro 6/VI	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* On-board diagnostics (OBD) ensures that new vehicles are compliant with the pollutant limits over their entire lifetime	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
* Real driving emission (RDE) testing ensures that cars and vans are compliant with the pollutant limits in all driving conditions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Portable measurement systems (PEMS) testing ensures that lorries and buses are compliant with the pollutant limits in all driving conditions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. To what extent do the following concerns possibly contribute to an increase in air pollutant emissions?

	To a very great extent	To a great extent	Somewhat	Very little	Not at all	I don't know
* Vehicle ageing	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Cost of vehicle maintenance	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Tampering	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Shortcomings of the existing on-road test	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Limited effect of on-board diagnostics	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Inadequate periodic technical inspections for vehicles	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Inadequate technical roadside inspections for vehicles	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. Please indicate to what extent the following actions are important to measure real world emissions.

	Very important	Important	Of little importance	Unimportant	I don't know
* Improving the comprehensiveness of existing emission tests for cars, vans, lorries and buses	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Implementing on-board monitoring of air pollutant emissions from cars, vans, lorries and buses	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Improving the rules for the emission tests carried out during periodic technical inspections for cars, vans, lorries and buses	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other actions	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If other actions, please specify

100 character(s) maximum

Simplify TA tests to facilitate PTI, OBM, road-side inspections, incl. idle, regeneration tests

Other problem(s)

17. Do you think there are other problem(s) that hamper the functioning of the Euro standards? If yes, please specify and explain how they can be addressed.

500 character(s) maximum

The lack of effective lifetime verification is hampering the functioning of Euro standards. A prerequisite for being able to control lifetime emissions performance is a clear distribution of responsibility. If this is settled, requirements can be extended to the full vehicle lifetime. Enforcement can be performed by simplified tests under ISC verification, Market surveillance programs and PTI. The introduction of Euro 7 / VII should not lead to any delay in the transition to ZE vehicles.

Document upload and contact

18. You may attach supporting documents for your replies to the questions above.

The maximum file size is 1 MB

Only files of the type pdf,txt,doc,docx,odt,rtf are allowed

927f8039-38b2-4fbb-9097-427ed057156d/E7_Lifetimecompliance_final29Oct2020.pdf

*** 19. Please indicate whether the Commission may contact you for further details on the information submitted, if required.**

- Yes
- No

Contact

grow-c4@ec.europa.eu

