INCEPTION IMPACT ASSESSMENT

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<th>TITLE OF THE INITIATIVE</th>
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This Inception Impact Assessment aims to inform stakeholders about the Commission’s work in order to allow them to provide feedback on the intended initiative and to participate effectively in future consultation activities. Stakeholders are in particular invited to provide views on the Commission’s understanding of the problem and possible solutions and to make available any relevant information that they may have, including on possible impacts of the different options. The Inception Impact Assessment is provided for information purposes only and its content may change. This Inception Impact Assessment does not prejudge the final decision of the Commission on whether this initiative will be pursued or on its final content.

A. Context, Problem definition and Subsidiarity Check

Context

General context

The Commission’s Communication ‘Europe on the Move: An agenda for a socially fair transition towards clean, competitive and connected mobility for all’ makes clear that the best low-emission, connected and automated mobility solutions, equipment and vehicles will be developed, offered and manufactured in Europe and that we have in place the most modern infrastructure to support them.

This Communication builds on the earlier Commission’s European Strategy for Low-Emission mobility which recalls that mobility is an essential component of the shift to the low-carbon, circular economy needed for Europe to stay competitive and be able to cater to the mobility needs of people and goods. The strategy set the ambition for the transport sector to reduce greenhouse gas emissions at least by 60% compared to 1990 by mid-century and be firmly on the path towards zero. Action on vehicles’ fuel/CO₂ emission performance is one of the key levers to tilt the transport sector in the right direction.

The shift towards low-emission mobility will contribute towards reducing the EU’s overall emissions, as committed under the Paris Agreement on climate change. The 2030 climate and energy framework agreed by EU Heads of State and Government in October 2014 requires a 30% reduction in non-ETS sector Greenhouse Gas (GHG) emissions by 2030 compared to 2005. Road transport represents a third of the non-ETS GHG emissions and heavy-duty vehicles contribute to about a quarter of road transport emissions. Further action is needed to reduce road transport emissions to contribute to the achievement of the 2030 non-ETS targets. The Commission is therefore proposing several initiatives as part of the mobility package, including new CO₂ standards for cars and vans. This initiative on heavy duty vehicles will complement these proposed measures.

Specific situation in the EU heavy-duty vehicle sector

The May 2014 Strategy Communication on reducing Heavy-Duty Vehicle fuel consumption and CO₂ emissions put the emphasis on lorries and buses (collectively heavy-duty vehicles or HDVs) and in particular on closing the knowledge gap regarding their CO₂ emissions with a view to improving market transparency.

The July 2016 Strategy for low-emission mobility furthermore announced that the "EU will also need to introduce measures to actively curb carbon dioxide emissions from lorries, buses and coaches".

Since 2010 the Commission has developed a software, the Vehicle Energy consumption Calculation Tool ‘VECTO’, simulating the CO₂ emissions and fuel consumption of HDVs on the basis of technical properties of their components, such as engine, transmission, tyres or aerodynamic drag.

On 11 May 2017 the Technical Committee for Motor Vehicles (TCMV) has approved under type approval legislation a certification procedure for the determination of the CO₂ emissions and fuel consumption of new...
HDVs\textsuperscript{a}, using the results from VECTO simulations. HDV manufacturers will have to run VECTO at the end of the production line and declare such information at the time of registration as of 2019\textsuperscript{b}.

On 31 May 2017, as part of the Europe on the Move set of initiatives, the Commission adopted a proposal for the monitoring and reporting of such HDV CO\textsubscript{2} emissions and fuel consumption\textsuperscript{c}. The data collected will be made publicly available by the European Environment Agency on behalf of the Commission, starting in 2020 to cover data monitored in 2019.

This impact assessment will look into different options for setting the first EU measures to actively curb CO\textsubscript{2} emissions from HDVs, including by CO\textsubscript{2} emission standards.

It should be noted that other parts of the world, such as the United States, China, Japan and Canada, have already introduced HDV fuel economy standards, and some European manufacturers participate in these schemes.

Coherence with other policy initiatives

Transport will need to contribute to the 2030 targets and, in particular, to the 30% reduction effort set for the non-ETS sectors. No sector-specific targets are set, but the reduction effort for the non-ETS sectors (transport, buildings, agriculture, small industry and waste) will be distributed between Member States through the revision of the Effort Sharing Decision. There are two different levels contributing to this reduction effort: the contribution secured by the EU legislation and policies and actions that Member States can take to reduce their own transport emissions. HDV transport will need to take an active part in these emission reduction efforts.

Moreover, this initiative would be in line with the Europe on the Move set of initiatives, in particular with the proposal on HDV CO\textsubscript{2} emission monitoring and reporting, which would provide the compliance tool for the future standards. This initiative is also consistent with the proposal for the revision of the Eurovignette directive, since it would provide CO\textsubscript{2} emission thresholds for HDVs that could be applied for the CO\textsubscript{2} differentiation of the road charges by Member States.

Two current Regulations\textsuperscript{d} set already CO\textsubscript{2} targets for new passenger cars and vans (collectively light duty vehicles or LDVs) for the period to 2021 for cars and to 2020 for vans. This initiative would also be coherent with such emission reduction efforts in the light duty vehicle sector. The latter have clearly shown that regulatory action can contribute to significant CO\textsubscript{2} emission and fuel consumption reduction even if there is already a strong economic incentive for such reduction due to reduced operational costs of the vehicles.

Problem the initiative aims to tackle

Key problems identified

Growing GHG emissions from the heavy-duty vehicle sector

The HDV sector is a significant source of GHG emissions. In 2015, GHG emissions from HDVs represented 5% of total EU emissions, almost a fifth of all transport emissions and slightly more than a quarter of road transport emissions\textsuperscript{e}.

During the period 1990–2015, HDV emissions have increased by around 19%\textsuperscript{f}. Without further action, HDV CO\textsubscript{2} emissions are set to increase by up to 6% between 2015 and 2030\textsuperscript{g}. Given action already taken to curb emissions from cars and vans, HDV CO\textsubscript{2} emissions are bound – particularly as regards emissions from lorries – to represent an increasing share of road transport emissions, from around 25% in 2015 to around 35% in 2050.

At the same time, the EU has set ambitious targets for GHG emission reduction in 2030 to which the transport sector must contribute. The EU has an overall domestic emissions reduction target for 2030 of at least 40% below 1990 levels which has been divided in a cost-effective manner into reductions by 2030 compared to 2005 of 43% for the emissions from the EU ETS sectors and of 30% for the non-ETS sectors, to which transport belongs.

Member States’ transport emissions range from 21% to 69% of total national emissions in the non-ETS sectors

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\textsuperscript{b} COM(2017)279

\textsuperscript{c} Available at the Commission’s Circabc website: https://circabc.europa.eu/w/browse/c99d7c7e-cb39-421a-bb74-f75447b287ec

\textsuperscript{d} Regulation (EU) No 443/2009 setting emission performance standards for new passenger cars and vans (collectively light duty vehicles or LDVs for the period to 2021 for cars and to 2020 for vans. This initiative would also be coherent with such emission reduction efforts in the light duty vehicle sector.

\textsuperscript{e} The latter have clearly shown that regulatory action can contribute to significant CO\textsubscript{2} emission and fuel consumption reduction even if there is already a strong economic incentive for such reduction due to reduced operational costs of the vehicles.


covered by the Effort Sharing Regulation. While no sector-specific targets have been set for 2030, transport will
need to contribute its share to the achievement of the non-ETS emission reduction target in the context of the
Effort Sharing Regulation, together with buildings, agriculture, and waste.

Moreover, from 2010 to 2050, freight transport is expected to grow by 60%\(^\text{12}\). The EU road freight transport sector
uses about 2.1 million barrel of oil per day (13% of the global total), almost entirely diesel\(^\text{13}\). Over time, the rising
oil demand from growing road freight transport increases the EU’s dependency on fossil fuel imports.

**Increasing competitiveness challenges for vehicle manufacturers**

In 2015, according to industry data, the exports of lorries generated a trade balance surplus of € 5.1 billion. This
sector is part of an automotive industry which generates 12.1 million direct and indirect jobs in Europe (5.6% of
total EU employment)\(^\text{14}\).

EU HDV manufacturers face increasing global competitive pressures. Significant markets such as the United
States, Canada, Japan and China have in recent years implemented certification and fuel efficiency measures in
the form of fuel consumption and/or emission standards in order to stimulate innovation and rapidly improve
vehicle efficiency. The EU HDV manufacturing sector will need to keep up with the technological improvements in
these markets to preserve its current market position and its current leading role in vehicle fuel efficiency.

The competitive position of EU manufacturers operating globally would be strengthened with respect to
manufacturers of other regions mainly operating locally (e.g. Cummins in the US), if they have to meet similar
regulatory conditions in their home market. In addition, in a longer-term perspective, the absence of regulatory
pressure for improving HDV fuel efficiency in the EU could potentially even risk to put manufacturers only present
in the European markets on losing track with respect to better prepared competitors from other regions, which
would then be likely to enter the European market in the future.

**Transport operators and their clients miss out on possible fuel savings and reduced fuel bills**

Freight transport operators can experience fuel costs greater than a quarter of their total operational costs\(^\text{15}\). Such
significant cost is particularly critical especially for the more than half a million transport companies in the EU
which are SMEs, or even micro enterprises. While the fuel efficiency of HDVs has improved over past decades,
the rate of the efficiency improvement has been around 1% per year, and the penetration level of CO\(_2\) reducing
technologies, including the use of alternative fuels, has been hampered by the lack of transparency in the market.
The proposal on monitoring and reporting of CO\(_2\) emissions from HDVs is meant to close the knowledge gap on
the efficiency performance of the vehicles and of the CO\(_2\) reducing technologies. However such measure will most
likely not be enough to encourage the efficiency improvement and technology penetration level needed for
contributing meaningfully to the EU CO\(_2\) emission reduction target in a way that is cost-effective for transport
operators, their clients and eventually to consumers. Due to the very small revenue margins in the sector, fuel
costs are at least to some extent passed on to clients of freight operators and eventually to consumers.

**Main drivers of the problems**

Several market barriers have been reported in the HDV market\(^\text{16}\). As a result, there is a lack of uptake by HDV
freight transport of the most cost effective fuel saving technologies. Furthermore, end-users do not necessarily
purchase the most efficient new vehicles available on the market even where this would be their optimal choice
from an economic perspective, i.e. when the fuel economy benefit outweighs the additional costs for a more
efficient vehicle.

Some of the drivers are split incentives but also financial constraints. One example of split-incentive is the case
where small companies purchase and make investment decisions regarding fuel-saving technologies on tractors
(e.g. tyre and aerodynamic features, use of alternative fuels). These companies then lease tractors often together
with a driver (to limit wage costs) to larger logistics companies or end-users (e.g. big supermarket chains)
operating the tractor-trailer combinations. Only the latter would receive the potential fuel consumption benefits,
while the purchasers of the tractors would have to bear the investment costs of fuel saving technologies.


\(^{15}\) SWD(2017)188, section 5.6 and Annex 7.

Another example of split incentive interlinked with financial constraints relates the borrowing or leasing of the purchase of a new truck for which the fuel efficiency of the vehicle is not taken into account by lending financial institutions.

Furthermore, the main actors follow different business models, in particular HDV manufacturers and transport operators. The observed amortisation period for investment costs of transport operators is significantly below the average lifetime of vehicles and limits the uptake of innovation. This may be due to the difficulty of long-term planning in micro-enterprises and rapid renewal of the large enterprises’ fleets. The fuel efficiency is also rarely taken into account for the price of second or third hand trucks.

It should also be underlined that one of the drivers of the problems identified is the expected increase in EU road freight transport activity under current trends and adopted policies, albeit at a slower pace than in the past. Despite profound shifts in mobility being underway, such as shared mobility services and easier shifts between modes, road freight traffic is still projected to increase by about 47% from now until 2050. While this increased activity has positive impacts for growth and the economy, it brings with it negative impacts in terms of GHG emissions and air quality impacts, if no additional measures are taken.

Who is affected

Major stakeholder groups affected include heavy-duty vehicle manufacturers and component suppliers, freight transport operators as well as logistics companies (i.e. the buyers and users of HDVs) due to fuel representing a large share of vehicle operating costs. Transport operators and logistics companies, which are mostly SMEs and micro-enterprises, would be expected to benefit from fuel savings.

The general population as consumers of transport services or goods that include an intermediate transport cost that may be reduced due to improved fuel efficiency is also indirectly affected, as well as Member States, notably in their capacity of tax raising authorities, as transport fuels are potentially highly taxed goods.

Evaluation/REFIT

This will be a new policy, HDV CO₂ emissions are currently not subject to EU legislation and consequently no evaluation has been undertaken. This policy will be developed in line with the REFIT and better regulation principles, in particular effectiveness and efficiency with minimisation of administrative burden.

Subsidiarity check (and legal basis)

Legal basis giving the EU the right to act

Articles 191 to 193 of the Treaty on the Functioning of the European Union confirm and further specify EU competencies in the area of climate change. In particular, the TFEU provides the legal basis for acting on HDV fuel consumption and CO₂ emissions.

The EU has already acted in the area of vehicle CO₂ emissions, adopting Regulations (EC) 443/2009 and (EU) 510/2011 which set limits for CO₂ emissions from cars and vans. These Regulations were based upon the Environment chapter of the Treaty and namely on Article 192 TFEU.

Necessity check & Added-value test

Climate change is a trans-boundary problem and at the same time is a competence shared between the EU and Member States. Coordination of climate action at European level is therefore necessary and EU action is justified on grounds of subsidiarity.

Furthermore, EU action is justified on the grounds of subsidiarity since there is a single market for new HDVs. It is most cost-effective to ensure harmonised action and set CO₂ targets on new HDVs across the whole of the EU single market due to the economies of scale. It is unlikely that Member States acting individually would set targets in an equally consistent manner as shown by the widely differing tax treatment of new vehicles across the EU.

B. Objectives and Policy options

Policy objectives

1) Reduce the climate impact of HDVs in line with the requirements of EU climate policy and the 2030 climate and energy framework. This should be done in a cost-effective, technology and competitively neutral manner. Correspondingly reduce fuel demand from the HDV sector, given the direct correlation between CO₂ emissions and vehicle fuel consumption, in line with the objectives of the EU Energy Security Strategy.¹⁸

2) Contribute to the improvement of the competitiveness of HDV manufacturers and component suppliers.

3) Facilitate a reduction in the total cost of ownership for transport operators, most of which are SMEs.

Intervention logic

HDV emissions of CO₂ represent 5% of current EU GHG emissions. As HDV CO₂ emissions are currently unregulated and transport demand is increasing they are expected to increase, as a share of total transport emissions as well as in absolute terms. Ensuring that GHG emissions from these vehicles are reduced forms a key part of meeting the EU's climate objectives.

Currently, CO₂ emissions and fuel consumption of heavy duty vehicles are strongly correlated, i.e. one quantity is strictly proportional to the other for a given fuel. Therefore in the following the two quantities are discussed in the same breath.

Major world HDV markets, such as the US, Canada, Japan and China have already set fuel economy standards for their HDV fleets, EU manufacturers will need to keep up with the speeded efforts in these markets to improve HDV fuel efficiency in order not to lose their current market position.

Baseline

The baseline scenario does not entail any action at EU level. The certification procedure and the system for the monitoring and reporting of the CO₂ emissions and fuel consumption data from new HDVs would be in place, but no measure would be proposed to actively curb HDV CO₂ emissions. This means that HDV CO₂ emissions will continue to increase due to the higher road freight transport demand.

Options

A list of elements to be explored in the impact assessment to build the options is illustrated below in a non-exhaustive manner:

Non-regulatory or soft measures, e.g.

- Voluntary agreements by HDV manufacturers
- labelling scheme to categorise the CO₂ emission performance of whole vehicles calculated with VECTO
- best practice dissemination

Options for regulatory standards

- CO₂ standards for heavy-duty vehicle engines only
- CO₂ standards for the whole vehicles
- CO₂ standards for the whole vehicles combined with separate engine standards

Options for the scope of the standards

- all vehicle categories and groups covered by the HDV CO₂ certification
- possible exemptions, for instance for special purpose vehicles to be specifically defined

Options for setting the standards

- target levels defined ex-ante by relative technology-improvements over some baseline (as for cars and vans)
- target levels for the year \( y + n (n \geq 1) \) defined by the performance of a certain percentile of best performing vehicles in the year \( y \) ("top runner" approach).
- metric for expressing the targets of CO₂ emissions: g/km, g/(t \times km) or g/(m³ \times km)
- timing of the targets: fixed dates of application or annual reduction targets over a longer period
- specific (additional) incentives for the deployment of low or zero emission vehicles

Options for the type of targets

- targets at the level of each individual vehicle
- average targets per vehicle group and per driving cycle
- average target per vehicle group taking into account weighted driving cycles

¹⁸ COM(2014)330
Options for considering the utility of vehicles

- all vehicles within a group have to comply with the same targets, regardless of their design
- if the design of a vehicle (e.g. stronger engine or higher transport volume) has an impact on CO₂ emissions and the vehicle's utility, it may have to be factored into the applicable target (e.g. by choosing appropriate utility factors)

Options for elements supporting the cost-effective implementation of the standards

- pooling
- banking and borrowing
- trading
- transfer between vehicle groups

Regulated entities

HDV manufacturers would be the most appropriate entities to be regulated, as producers of new HDVs. Generally fuel efficiency technologies cannot be (cost-effectively) retrofitted to existing vehicles. HDV manufacturers are all very large international companies, namely mainly: Daimler, Volvo Trucks (which is also the owner of Renault Trucks), MAN and Scania which are part of the VW group, Iveco (CNH Industrial Group) and DAF (Paccar Group).

Alternative policy instruments

CO₂ emission reductions could be the subject of voluntary agreements with HDV manufacturers. However, there is no guarantee such an approach would deliver the needed emission reductions or a level playing field, as experienced in the field of the CO₂ emissions of cars. In addition, this approach has not been proposed by stakeholders.

Technological developments

The options that will be investigated in this impact assessment will look into the CO₂ reducing potential of different vehicle CO₂ reducing technologies including use of alternative fuels, also taking into account the technologies which are not yet at a commercial stage but could be introduced when future standards would be applied to new vehicles.

Proportionality

HDVs cause about 5% of EU CO₂ emissions and their levels are expected to grow further if no action is taken. In view of their scale, measures to reduce HDV CO₂ emissions and fuel consumption for new vehicles appear necessary to meet the EU's climate and energy goals. At this preliminary stage action is therefore considered to be proportionate; proportionality will be further examined in the current impact assessment.

C. Preliminary Assessment of Expected Impacts [max 20 lines]

Likely economic impacts

The Commission will rely on a support study for the quantification of the impacts, based on an extended input-output model from TNO. The JRC will also provide its expertise for the design of cost curves for different technology combinations. In particular the payback periods of different technology combinations will be assessed.

Independent from the options, it is expected that there is likely to be an additional cost for the deployment of CO₂ reducing technology in HDVs. The level of this additional cost will depend on the level of CO₂ reduction required which will be primarily linked to the level of future targets.

Supplying the needed technology is likely to increase business for component suppliers. For the purposes of the assessment, it is assumed that the additional technology cost is passed on to vehicle purchasers.

The proposal, regardless of the option selected, should lead to a reduction of fuel consumption, which is currently strongly proportional to the reduction in CO₂ emissions for HDVs. Therefore it will reduce EU dependency on fuel imports and also reduce the operational costs of HDVs. The total amount of these savings is dependent on the oil price and on levels of fuel taxation. The net impacts also depend on the scale of these various factors including the level of ambition of the standards. Depending on such level of ambition and payback times of the technologies needed for complying with it, fuel consumption savings could offset the additional upfront costs. This issue will be further analysed in the impact assessment.

Impacts on SMEs

The majority of companies directly affected are large vehicles manufacturers, and not SMEs. It is likely that if there are SMEs directly covered by the Regulations, they will produce only small numbers of vehicles and options would consider the creation of an exemption. SMEs may however be positively affected when they are supplying HDV components of a higher quality and value.

Transport operators, which are mainly SMEs, may benefit from the fuel savings of more efficient vehicles in the
market, if payback times are sufficiently short to depreciate the initial cost of the vehicle.

**Impacts on competitiveness and innovation**

The proposed legislation should foster innovation for the development of new CO₂ emission saving technologies. More indirectly the legislation is likely to benefit the competitiveness of the European industry as a whole as transport costs are expected to be reduced due to the fuel savings.

**Impacts on third countries, international trade or investment**

Independent on the option, the proposed legislation should foster innovation for the development of new CO₂ emission saving technologies. Since HDVs for the European market are mainly produced by European manufacturers, the development of such technologies should also make them more competitive on a global scale. Since other main HDV markets in the world, like the US, Japan, China and Canada have already HDV fuel economy measures in place, the introduction of measures in the EU should help EU HDV manufacturers to keep their current market position.

### Likely social impacts

The social impacts that could arise from the changes to new HDV prices are expected to be limited, given that the expected additional technology cost could be compensated by the costs of the saved fuel. This means that the sale of new vehicles is not expected to be reduced by the measures, and therefore no or small positive impact on jobs is expected for OEMs.

On the suppliers' side a positive impact on jobs, in particular of those requiring a higher qualification is expected, because the legislation will foster the development and production of new technologies, which would be also available in other markets where CO2 standards are already in force or foreseen. It is however difficult to quantify this effect.

It is likely that the social impacts are progressively positive in that fuel savings would also be realised by second and third hand owners of the vehicles. As HDV operators appear to depreciate vehicles over three years, i.e. significantly below the estimated average HDV lifetime of eleven years, a significant part of the fuel savings will benefit owners who have paid less than the full cost for the fuel saving technology.

These issues will be further analysed in the impact assessment.

### Likely environmental impacts

The main environmental impact is the reduction of GHG emissions from HDVs. This is beneficial to society as a whole due to the reduction in climate change and is also beneficial to other economic sectors within the EU who will not have to make as large GHG reductions as they would have to without action in this sector.

Regulated pollutant (PM, NOₓ, CO, THC, NMHC, CH₄, NH₃) emissions are constraint by the Euro VI legislation in terms of emission masses per work unit produced by the engine. The reduction of CO₂ emissions by measures outside the engine (e.g. lower aerodynamic drag, lower tyre rolling resistance) reduces the engine work needed per transport utility, therefore a (small) reduction of regulated pollutant emission is expected to occur. This issue will be further analysed in the impact assessment.

### Likely impacts on fundamental rights

The initiative will have no consequences for the protection of fundamental rights.

### Likely impacts on simplification and/or administrative burden

The proposed legislation will create very limited new administrative burden since standards will be established on the basis of existing type approval and compliance would make use of the monitoring data.

If any of the options will consider creating a averaging, banking and trading system to provide flexibilities for compliance with the targets, a new administrative burden is to be expected for the management of such system either by the Commission or by Member States.

It is likely that the instrument to be used will be a Regulation and therefore no transposition will be required.

### D. Data Collection and Better Regulation Instruments

**Impact assessment**

An impact assessment is being prepared to support the preparation of this initiative and to inform the Commission's decision.

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19 Study by CE Delft; Market barriers to increased efficiency in the European on-road freight sector; 2012; http://www.theicct.org/market-barriers-increased-efficiency-european-road-freight-sector
### Data collection

Information is required on:
- The CO\(_2\) emission performance of the existing HDV vehicle fleet or engines (i.e. baseline)
- The available technologies that can be deployed on HDVs to reduce their CO\(_2\) emissions as well as the costs of these technologies
- Other structural elements, e.g. the necessity of utility parameters or the handling of special purpose vehicles, for rendering the legislation effective

Available data:
- CO\(_2\) emission data for existing engines are available from type approval
- Previous studies of the JRC and some other sources provide some limited data on new technologies reducing the CO\(_2\) emissions of HDVs

Data collection:
- Real life fuel consumption data are being collected from fleet operators
- VECTO simulation data of the existing 2016 fleet are being collected from vehicle manufacturers
- Data on available technologies improving the CO\(_2\) emissions of future vehicles are collected from a wide range of stakeholders
- Two studies support this work:
  a) Analysis of fuel economy and GHG emission reduction measures from Heavy Duty Vehicles in other countries and of options for the EU, carried out by Ricardo Energy and Environment
  b) Heavy Duty Vehicles - support for preparation of impact assessment for CO\(_2\) emissions standards, carried out by a consortium of TUG, TNO, CE Delft and ICCT.

The JRC also supports this process through own research and in close collaboration with the consortium.

### Consultation strategy

The main purpose of the consultation is to verify the accuracy of the information available to the Commission and to enhance and verify its understanding of the views of stakeholders with regard to different aspects of the proposed legislation. The focus of the stakeholder consultations will be on the structural elements of the legislation as well as on the input data (i.e. CO\(_2\) emission performance of the existing HDV fleet as well as impact of future technological improvements) needed for defining the quantitative target values.

The main stakeholder groups to be consulted will cover:
- Member States
- Vehicle manufacturers
- Component suppliers
- HDV fleet operators Consumers of transport services
- Environmental NGOs and consumer organisations
- Academia

The consultation strategy contains a number of elements:
- Ongoing bilateral and multilateral consultation of stakeholders
- Results of a studies commissioned by the Commission and by stakeholders
- A broad public consultation on the basis of a questionnaire will be launched in autumn 2017, announced at: [http://ec.europa.eu/yourvoice/consultations/index_en.htm](http://ec.europa.eu/yourvoice/consultations/index_en.htm)

A first online public consultation on the monitoring and reporting of HDV CO\(_2\) emissions with some questions on setting CO\(_2\) emission standards took place from 20 July to 28 October 2016. The questionnaire, stakeholder replies and a statistical summary are available at [https://ec.europa.eu/clima/consultations/articles/0031_en](https://ec.europa.eu/clima/consultations/articles/0031_en). The analysis of the stakeholder responses will be included in this impact assessment.

A stakeholder workshop will also be held to collect views, information and data to inform the preparation of the inception impact assessment.

### Will an Implementation plan be established?

No. It is likely that the legislative instrument to be used will be a Regulation. In view of this and the fact that no margin of appreciation will be left with regard to its application by Member States to avoid distortion of competition, there is no specific need to assist with implementation in Member States. Arrangements with expert groups will be set up to address different aspects of the future Regulation, mirroring the successful approach followed for cars and vans.