



Brussels, 15.4.2013
SWD(2013) 109 final

COMMISSION STAFF WORKING DOCUMENT

EXECUTIVE SUMMARY OF THE IMPACT ASSESSMENT

Accompanying the document

**Proposal for a Directive of the European Parliament and of the Council
amending Directive 96/53/EC laying down for certain road vehicles circulating within
the Community the maximum authorised dimensions in national and international
traffic and the maximum authorised weights in international traffic**

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1. PROBLEM DEFINITION

Heavy duty vehicles transporting goods and passengers in Europe must comply with certain rules on weights and dimensions. For each vehicle type Directive 96/53/EC (hereafter referred to as such or as the 'Directive') sets the respective maximum authorised length, width, height and weight (total weight and weight per axle). Vehicles which comply with these limits can perform international¹ transport operations within all EU Member States. To avoid that national operators benefit from undue advantages over their competitors from other Member States, they are bound, as a general rule, to comply with the limits set for international transport. In line with the principle of subsidiarity, a number of derogations allow Member States to apply higher limits for transport within their own borders. The derogation concerns the maximum height, the maximum weight and the possibility to employ longer vehicles in special transport, trailers or with modular combinations of vehicles.

The main problem identified following the stakeholder consultation is that the limits of the Directive are one of the obstacles to energy efficiency of road transport and to intermodal transport. Moreover, the effectiveness of the Directive is hampered due to lack of compliance by transport operators. Hence, the main problem consists of two parts, for which several root causes were identified:

Part 1: Certain limits on weights and dimension set by the Directive constitute obstacles to energy efficiency gains of road vehicles and to intermodal transport operations

The current legislation, conceived in the 1990s' to accompany the opening of the international road transport market legislation, reflects the conditions present at the time. Several elements have changed in the meanwhile, implying that current rules no longer balance correctly the various elements and needs be energy efficiency and environment, economic efficiency, safety and infrastructure needs.

In particular, energy dependency and climate change considerations require that greater weight is now given to energy efficiency of vehicles. Developments in maritime transport and containerisation have an impact on the logistics and economy of road operations. Vehicle and infrastructure technology has advanced. Safety concerns have become more prominent. Furthermore, the way manufacturers adapt their vehicle design to demand – within the limits of regulation – is likely to produce suboptimal results.

Consequently, and supported by stakeholders, the following root causes were defined:

Root cause 1: Certain maximum weights and dimensions prevent the market uptake of more aerodynamic, electric and hybrid trucks and reduce the attractiveness of certain coach services.

Maximum dimensions of HGVs imposed by the Directive is mainly an issue for the deployment of aerodynamic solutions for trucks, which – by maintaining the length of standard loading units - would exceed current limitations.

Moreover, maximum weights of HGVs imposed by the Directive are preventing the market uptake of electric/hybrid vehicles, being heavier than conventional vehicles, which consequently would have reduce their payload. Similarly, the growing weight of vehicle safety and comfort equipment, and of passengers, are forcing coach operators to reduce the number of passengers per coach.

¹ International transport refers to intra and extra EU cross-border operations

Root cause 2: Certain maximum weights and dimensions have not kept pace with the technical developments of intermodal transport and containerisation

Containerisation presents an opportunity for the development of intra-EU intermodal/combined transport as an alternative to less energy efficient door-to-door road transport solutions. However, the incomplete standardisation of the transport units hampers this development. As a result certain large containers used in maritime transport, mainly 45' containers, can hardly be accommodated in the land transport legs of the chain due to the Directive (they can only be transported on the basis of special permits).

Part 2: Ineffective application of the Directive

It was highlighted by stakeholders during the public consultation that large numbers of infringements of the Directive occur related to weights of trucks. In a context of fierce competition, operators operating at the edge of the rules by maximising their load can gain a substantial competitive advantage to the detriment of the others.

Consequently, and supported by stakeholders, the following root causes were defined:

Root cause 3: Lack of common and dissuasive enforcement methods

One of the other main reasons of the poor compliance with the Directive is that controls are too infrequent, leaving an impression of impunity for the potential offenders. Furthermore, the enforcement policies and control practices in Member States are lacking effectiveness considering that 1 out of 2 controls affect vehicles which comply with the rules and is thus unnecessary. As regards methods, checks performed by Member States vary from purely manual selection of vehicles to be checked to pre-selection using technical methods to filter vehicles to be checked manually, and tolerances applied by Member States during checks deviate substantially.

What would happen all things remaining equal?

CO2 emissions from HGVs represents approximately a third of total CO2 emissions from transport in 2010 in the EU. This share is likely to increase, measures to reduce the emissions from other transport having been recently introduced (e.g. emissions from new cars, ETS in aviation). Despite the current economic crisis, the number of tonne kilometres (tkm) in Europe is increasing and expected to continue in the long run. If nothing is done, total fuel consumption of HGVs and buses will increase, resulting in increased air pollution and CO2 emissions.

Continuing business-as-usual would result in a missed opportunity to simultaneously reduce aerodynamic drag and also to further reduce numbers of fatalities with HGVs: simulations have shown that rounded fronts would prevent overruns of persons hit by HGVs and therefore reduce the numbers of fatalities.

In the area of intermodal transport and containerisation, the additional administrative burden for 45' containers would put the EU in a position that would risk staying behind the world wide evolution of containerisation, and the additional costs of special permits and derogations would hinder the economic sustainability of the intermodal transport sector already under considerable stress.

Current controls and methods applied by enforcement bodies are reportedly not able to effectively ensure compliance with the Directive. This situation, is likely to increase non-

respect of maximum weight limits and in distortion of competition between hauliers, which would result in damages to the infrastructure and in reduced road safety.

2. ANALYSIS OF SUBSIDIARITY

Action by Member States alone would not be sufficient to ensure an EU-wide harmonisation of maximum lengths and dimensions. A patchwork of differing national rules would hinder the creation of a truly integrated EU road haulage market.

In a context of increasing cross-border road freight transport, common rules and levels of enforcement are increasingly warranted to ensure a level playing field between hauliers. Different levels of enforcement between EU Member States favour certain hauliers and creates incentives for hauliers to plan routes via countries where enforcement levels are the lowest.

3. POLICY OBJECTIVES

General objectives

In line with the problems described in section 2 above, the general objective of this initiative, is twofold, to:

- improve energy efficiency of road transport and intermodal transport by revising certain limits on weights and dimensions of road vehicles while maintaining the balance between the requirements of infrastructure maintenance, road safety and the protection of the environment;
- provide for a fairer playing field and thereby enhance the internal market for road transport.

Specific objectives

The general objectives can be translated into three specific objectives (SO). These objectives must be achieved without upsetting the balance between the requirements of infrastructure maintenance, road safety and the protection of the environment.

1. SO1: To enable the market uptake of more aerodynamic, electric and hybrid trucks and to increase the attractiveness of certain coach services.
2. SO2: To enhance the development of intermodal/combined transport.
3. SO3: To ensure better enforcement of the maximum weights and dimensions across the EU.

4. POLICY OPTIONS

To address the problem and all the problem Root causes in full, and given the substantial list of measures, it is proposed to form policy packages (PP) of measures for further assessment. It is proposed to form three PPs, which are cumulative, meaning that PP 2 would include the measures of PP1, and PP3 would include the measures of PP1 and of PP2. The Policy Packages (see overview table below) are conceived to include measures with increasing intensity addressing respectively energy efficiency and compliance with the rules of the Directive.

Policy Package PP1: Limited revision

This package is based on limited revisions of the Directive as well as on soft measures aiming at an improved implementation of the Directive with minimal changes and costs.

Concerning containerization and intermodal transport, PP1 proposes to extend the possibility to transport 45' containers at 44 tonnes beyond the current scope.

PP 1 thus offers two variants regarding the measures 6 and 7 on respectively combined and intermodal transport of 45' containers:

- In variant "a", the facilitations for the transport of 45' containers would remain restricted to the area of combined transport (measure 6)
- Variant "b", on the other hand, proposes to extend the possibility to transport 45' containers at 44 tonnes beyond the scope of combined transport (measure 7), and enable these to be part of intermodal transport chains as well in order to give a real acceleration to containerization.

Policy Package PP2: A more extensive revision

This package would entail a more intensive (in terms of magnitude of impacts) revision of the Directive, with new measures in addition to the measures proposed in policy package 1. The additional measures will require a certain adaptation effort from the automotive industry and from national administrations. Far reaching measures or those requiring a very large adaptation effort from the industry and administrations would still be excluded.

Policy Package PP3: More binding regulatory approach

Beyond the measures presented in the PP 1 and 2, other measures are envisioned, in order to push forward more actively the realization of the objectives of the revision.

The below table provides an overview of the measures included in the Policy Packages, and of how these measures address the Specific Objectives:

	<i>PP1</i>	<i>PP2</i>	<i>PP3</i>
<i>SO1: To enable the market uptake of more aerodynamic, electric and hybrid trucks and to increase the attractiveness of certain coach services.</i>			
<i>1. Rear flaps</i>	X	X	X
<i>2. Longer cabins</i>		X	X
<i>3. Mandatory rear flaps</i>			X
<i>4. Higher weight limits for electric/hybrid trucks</i>	X	X	X
<i>5. Max. 19.5 t for two-axle coaches</i>	X	X	X
<i>SO2: To enhance the development of intermodal/combined transport</i>			
<i>6. Allow for 45' containers in <u>combined</u> transport</i>	X/Ø	X/Ø	X/Ø
<i>7. Allow for 45' containers in <u>intermodal</u> transport</i>	X/Ø	X/Ø	X/Ø

<i>8. Facilitations for larger containers</i>				X
<i>SO3: To ensure better enforcement of the maximum weights and dimensions across the EU</i>				
<i>9. Guidelines on enforcement</i>	X	X	X	
<i>10. Common categorisation of infringement</i>		X	X	
<i>11. Mandatory preselection of vehicles targeted for manual checks</i>				X
<i>12. Co-liability of the shipper/forwarder</i>		X	X	
<i>13. Standards for on-board weighing</i>		X	X	
<i>14. Compulsory on-board weighing</i>				X
<i>15. Minimum level of checks</i>				X

5. ASSESSMENT OF IMPACTS

The assessment of relevant impacts, identified in the Commission Impact Assessment Guidelines, for the three Policy Packages resulted in the following result:

- Taking into account the possibility to add rear aerodynamic devices to trailers, and to the possibility to develop heavy vehicles with electric or hybrid propulsion, PP 1 will have a positive impact on fuel consumption (5 to 10 %), and on air pollution. The carbon footprint reduction can be estimated at around 24 million tonnes per year for the operational objective of 50 % long-distance trailers equipped in 2030. An improved effectiveness of the directive due to increased enforcement will also have very positive impacts on competition, the functioning of the internal market, the cost of road maintenance, and the number of injured persons in accidents due to overweight vehicles. The impact on economic efficiency of the road transport sector will be improved by promoting containerisation without having a reverse effect on other modes of transport such as rail or inland waterways. Administrative costs for both public and private sectors will go down as a result of the reduction of the number of special permits and as a rationalisation of the manual checks performed by police officers on overweight vehicles. PP 1 will also facilitate the development of intermodal transport by the possibility to transport containers of 45' without a special permit and its administrative cost.
- PP 2 will provide a much larger fuel reduction due to the redesign of the tractor, with potential fuel savings approaching 15 % on motorways. It will lead to an improvement of the carbon footprint of 27 million tonnes per year for the same target of equipped vehicles as above. PP 2 will also have a high positive effect on road safety, due to the saving of a few hundred lives (see chapter 5.3.2) every year with a better design of the tractor. More efficient checks of overweight vehicles with filtering methods will have a considerable positive effect on competition, and on the reduction of unnecessary checks, thus on the administrative costs associated to checks. The cost of the necessary equipment for the filtering will be recovered easily by the savings on road maintenance, and on police forces required for the checks. Lastly, PP 2 will have the same positive impact on the development of intermodal transport than PP 1.

- PP 3 on the other hand will not provide real additional benefits in comparison to PP 2 in terms of fuel saving and pollution, due to its negative impact on the financial burden on SMEs if the aerodynamic equipments were rendered mandatory. A similar difficulty would occur with a mandatory introduction of onboard weighing devices, even if PP 3 would certainly improve the effectiveness of the directive: the cost of a mandatory equipment is currently considered too high for SMEs. In terms of containerisation, PP 3 proposes to deal with larger containers than 45', but the real benefit of this measure would be questionable when the reverse effects on road safety and modal shift to rail and inland waterways would need to be verified much more deeply. The added value of PP 3 in comparison to PP 2 is questionable, but all the positive impacts of PP 2, as described above are kept in PP 3.

6. COMPARISON OF OPTIONS

The policy options were compared with respect to the following evaluation criteria:

- **effectiveness** – the extent to which options achieve the objectives of the proposal;
- **efficiency** – the extent to which objectives can be achieved at least cost;
- **coherence** – the extent to which policy options are likely to limit trade-offs across the economic, social, and environmental domain.

Moreover, a partial cost-benefit analysis has been performed quantifying policy measures where it was feasible. Considering the different states of maturity and costs of the technologies proposed, it is assumed that by 2030, 75% of long distance HGVs will be equipped with aerodynamic rear devices and that 50% of all HGVs will have adopted the new cabin design. Buses as well as the measure on hybridisation could not be included in the calculations below as figures needed for the calculations were not readily available.

	Effectiveness	Efficiency	Coherence	Benefit-cost ratio
PP 0	-	-	-	-
PP 1	Medium	Low costs	No trade-off	>1
PP 2	High	Low costs	No trade-offs	>1
PP 3	High	High costs	High trade-off	<1

It can therefore be concluded that PP 2, ensuring a high likelihood of achieving the objectives of the IA at a reasonably low cost and without causing undue trade-offs between environmental, social and economic impacts, should be the preferred option. This conclusion is supported by the partial cost-benefit analysis performed in this IA indicating that PP 2 would result in a benefit-cost ratio higher than one.

7. MONITORING AND EVALUATION

The level of attainment of the operational objectives will be monitored in the year the proposed legislation enters into force and regularly afterwards supported by a general provision in the Directive requiring Member States to provide the Commission with relevant information.

The evaluation and monitoring by the Commission will be carried out with regular intervals, at least every five years, based on three Operational Objectives. The Commission will report the findings of the evaluation and the monitoring to the European Parliament and to the Council.

<i>Operational objectives</i>	<i>Monitoring</i>
<i>OO1: Achieve a significant share of trailers equipped with rear aerodynamic devices and aerodynamic cabins</i>	The Commission will gather evidence from statistics from Member States, automotive manufacturers and hauliers associations on the number of trailers equipped with aerodynamic devices
<i>OO2: Achieve a significant share of 45' containers transported as part of a combined/intermodal transport operation</i>	The Commission will gather evidence from statistics from Member States, shippers and hauliers associations on the use of 45' containers in intermodal transport
<i>OO3: Increase the effectiveness of checks (number of infringements /number of checks). Such an increase will improve the reliability of checks and at the same time avoid annually 100.000 unnecessary checks by 2020</i>	The monitoring will be performed using statistical data that Member States will provide as proposed in Measure 10 of PP2