

**Consultation on the possibility of allowing an increase in the
length of articulated lorries (DFT-2011-06)**

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Executive Summary

1. This consultation seeks the views of consultees on whether or not the Department for Transport should amend the Road Vehicles (Construction and Use) Regulations 1986 and Road Vehicles (Approval) Regulations 2009 in order to permit an increase of 2.05 metres in the permitted length of semi-trailers for articulated lorries. This would increase the maximum loading length of a semi-trailer from 13.6 metres to 15.65 metres giving up to 13% increase in capacity. The Department is also seeking views on increasing the overall permitted length of an articulated vehicle to 18.75 metres – in order to allow the development and use of tractor units with safer, more aerodynamic frontal designs in addition to longer semi-trailers - the same as for a rigid truck / drawbar trailer combination currently allowed on UK roads.
2. Road traffic legislation is devolved to Northern Ireland. This consultation therefore principally covers Great Britain. However, the Northern Ireland authorities have been informed and are included in the consultees.

Background

3. In 2006, following developments in other European Union member states and the European Commission, and interest from some haulage companies in the potential for using significantly larger goods vehicles for domestic haulage than are currently allowed, the Department for Transport commissioned research to scope the use of longer, heavier vehicles (LHVs), including longer semi-trailers. This reported in 2008.
4. The report highlighted a number of drawbacks that make the introduction of substantially longer and heavier vehicles – those significantly beyond the existing limits of 18.75 metres length and 44 tonnes gross vehicle weight (GVW) – impractical on either a permanent or a trial basis in the UK. Consequently, the Government has ruled out the introduction of this type of “supertruck” for the foreseeable future.
5. However, the report also indicated that there could be worthwhile benefits from permitting an increase in the length of current articulated vehicles, while remaining within both

the overall permitted weight and the dimensions already permitted for rigid truck / drawbar trailer goods vehicles. In particular, for the transport of low-density consumer goods, vehicles currently reach their maximum payload in volume before reaching the maximum permitted laden weight.

6. In June 2009 the Department for Transport therefore commissioned a further, more detailed study into the feasibility and impacts of allowing articulated lorries with longer semi-trailers to operate in the British road haulage market, within the existing weight limit of 44 tonnes GVW. The primary objective was to establish whether the introduction of these longer, high-volume semi-trailers would deliver overall economic, environmental and societal (including safety) benefits or disbenefits. A table summarising the potential benefits of each of the options considered is included at **Annex A**. The full Impact Assessment is available separately on the Department's website.
7. The current maximum length of semi-trailers in the UK is typically 13.6 metres. The study has considered two main possibilities: increasing this by up to one metre to 14.6m in total, or increasing it by up to 2.05 metres. The latter option would increase the maximum permitted length of a semi-trailer to 15.65 metres, which would provide the same loading length as an existing rigid truck / drawbar trailer combination (see **Figures 1 - 3** for illustration).
8. This represents the greatest increase that could be permitted under EU rules without having to accept longer 25.25m combination vehicles into the UK. (These new semi-trailers have historically been called "longer semi-trailers", but this has created some concern that the Government may be proposing to permit vehicles in excess of 18.75 metres. As explained above, this is not the case. The primary reason that the Government is considering relaxing the current restrictions to allow these semi-trailers is because their greater capacity will enable them to carry up to 13% more goods, while their maximum weight and dimensions will not exceed those of rigid truck / drawbar combination lorries already permitted on UK roads. In order to represent their potential more accurately and avoid any possible confusion with the substantially longer and heavier vehicles, we have

decided to use the term “high-volume semi-trailers” in this document.)

9. In addition, the study considered two possibilities for the construction standards that might be appropriate for the high-volume semi-trailers: either the retention of existing standards or the mandating of tighter standards based on the performance of existing vehicles in cross winds and during low and high speed manoeuvres.

Research Findings

10. On length, the study has concluded that while an increase of one metre could produce some benefits, there are potentially very significant advantages in allowing an increase of up to 2.05 metres, taking them to 15.65 metres in overall length.
11. The study has also concluded that overall, the benefits from maintaining existing standards, other than length, are greater than those that would be gained from tighter standards that would require compliance with standards consistent with the performance of existing articulated vehicles. These would effectively rule out conventional trailer steering technology. While active steer technology would enable the manoeuvrability performance of existing vehicles to be matched, this technology is estimated to be around 18 months away from production.
12. In view of the scale of benefits indicated by the study, Ministers are minded to propose that the Road Vehicles (Construction and Use) Regulations 1986 and Road Vehicles (Approval) Regulations 2009 be amended to permit the approval and operation of semi-trailers up to a maximum length of 15.65 metres. This would embrace the lower increase.
13. However, although it has been possible to consider the findings of other European countries where longer goods vehicles are already permitted for domestic use, there is little empirical evidence for the impacts in Britain of the specific modifications being considered. These have therefore been derived from modelling. The Impact Assessment that accompanies this consultation document is based on the modelling assumptions used in the desk study commissioned by the Department.

14. A number of interested parties have already been consulted in the process of undertaking the research. This consultation seeks to extend the Government's understanding of the potential concerns and benefits that may be associated with a relaxation of the Regulations.
15. The purpose of this consultation is therefore to open the debate to the road haulage, logistics, infrastructure providers and other road user sectors. The consultation poses a number of specific questions relating to safety, impact on infrastructure, impact on small and medium enterprises and impact on rail freight, as well as some more general questions.
16. We require further evidence to complement the research and to ensure a comprehensive basis for a decision. In particular this consultation asks for financial and business analysis of the impact of the proposed change. Any evidence supplied of this type will be treated as commercial in confidence, and all data will be anonymised for storage. It will be used in aggregated form with data from other companies. (Please see also the section on Freedom of Information rules at **page 22.**)
17. The consultation also covers the possibility of increasing the overall maximum permitted length of an articulated lorry to 18.75 metres. This would enable the development and use of tractor units with safer, more aerodynamic frontal designs in addition to high-volume semi-trailers.

The proposals

18. The scope of the study was to consider the possibilities for increasing the permitted length of a semi-trailer by up to 2.05m without exceeding either the maximum permitted gross vehicle combination weight of 44 tonnes or the maximum permitted length for a rigid truck / drawbar trailer combination of 18.75 metres.
19. The research therefore excluded those sectors where loads tend to gross out on weight before they bulk out on volume: for example, bulk liquids, sand, gravel, aggregates and coal; steel and alloys; semi-bulk commodities; deep-sea containers etc. It has concentrated on shippers of lighter

weight palletised consumer goods, general cargo and mail parcels.

20. The study has identified two options for a relaxation of the length regulations, each of which includes the possibility of complying either with existing standards or with existing performance:
- The first option would involve an increase of up to one metre in the permitted length of a semi-trailer, to 14.6 metres.
 - The second option would involve an increase of up to 2.05 metres in the permitted length of a semi-trailer, to 15.65 metres.
21. Figures 1 – 3 below illustrate the differences between a current standard articulated lorry, the proposed articulated lorry with high-volume semi-trailer and the standard rigid truck / drawbar trailer combination already permitted to operate in the UK.

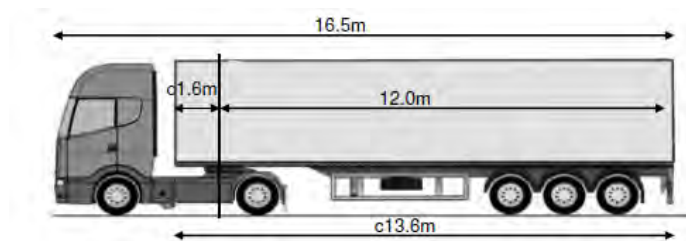


Figure 1: Existing standard articulated lorry: overall length 16.5m

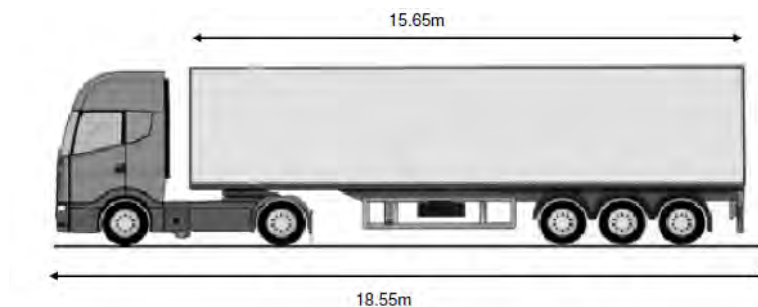


Figure 2: Proposed high-volume articulated lorry: overall length 18.55m

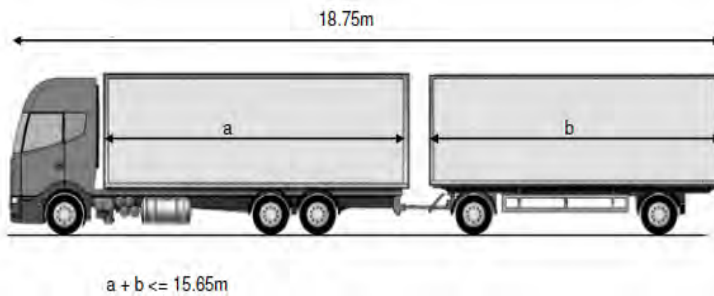


Figure 3: Existing standard rigid truck / drawbar trailer combination allowed on UK roads: overall length 18.75m

22. The research indicated that if an increase of 1 metre in semi-trailer length were to be permitted that met existing standards, industry could choose between two existing conventional technologies (identified as Option 1 and Option 2 in the research): un-steered axles, or a single self-steer axle. However, in order to avoid trailer axle overload, the first option would effectively limit the gross vehicle weight to 40 tonnes and would therefore decrease payload capacity, requiring more lorry trips and as a result increasing congestion and emissions.
23. The research also indicated that one technical possibility, “active” rear steering technology (Option 3), could be used to meet existing performance. However, this technology is estimated to be around 18 months away from production.
24. For the 2.05 metre increase, the research identified three technical possibilities (identified as Options 4, 5 and 6 in the research) for complying with existing standards, using conventional rear steering technology, and one (Option 7) for compliance with existing performance, using the new-generation “active” technology not yet in production.
25. Of these seven Options considered in the research, those complying with existing standards at an increase of 2.05 metres – Options 4, 5 and 6 - provide the greatest potential benefits with the lowest regulatory requirement.
26. Although requiring high-volume semi-trailers to comply with existing standards should involve no regulatory change beyond the relaxation on the permitted length, safety and loading considerations may make it desirable to introduce some technical requirements that are currently achieved without regulation. These are addressed in **questions Q11, Q12, Q13 and Q17**.

27. Many vehicles currently achieve better performance than is required by existing regulatory standards. If high-volume semi-trailers were introduced, the effect of the additional length means that requiring consistency with existing performance would in effect mean introducing stricter regulatory standards, which all but the high-volume vehicles would already satisfy. However, the technology that would enable the high-volume vehicles to comply with tighter standards is the new generation “active steer” technology mentioned above.

Safety considerations

28. The research findings indicate (paragraphs 3.2.6 – 3.2.9, pp 11-12) that high-volume semi-trailers with unsteered axles or conventional steering systems will have greater tail swing than current vehicles. Moreover, their longer wheel base will make them more susceptible to cross-winds than existing vehicles. However, on other performance parameters, they are expected to perform better than existing shorter wheelbase vehicles.
29. The new generation of active steering technology currently being developed for production could provide significant reductions in tail swing. However, as noted above, this is not expected to reach the market for around eighteen months.
30. Overall, the performance of high-volume semi-trailers complying with existing standards is expected to be within existing tolerances and is not expected to result in a noticeable increase in road traffic accidents. Although the risk per vehicle may be marginally higher, the reduction in the number of vehicle movements means that the overall number of HGV accidents is expected to fall.

Preferred option

31. The Government’s preference is to relax the existing Road Vehicles (Construction and Use) Regulations 1986 and the Road Vehicles (Approval) Regulations 2009 to permit the operation of semi-trailers up to a maximum length of 15.65 metres. In view of the requirement to seek clearance from the European Commission before amending the existing legislation, the Government proposes a twin-track approach consisting of a trial operating under Vehicle Special Orders issued under Section 44 of The Road Traffic Act to pilot the

concept whilst obtaining the necessary clearances and the legislative changes to the Regulations through the Parliamentary process.

32. The potential standards for the trial, and the amendments to legislation, permitting high-volume semi-trailers to comply either with existing performance or with existing standards, are set out in the draft Technical Requirements at **Annex B**. The requirements in parentheses at Level 2 reflect options for decision that this consultation seeks to explore.

Improved frontal design

33. In parallel with the research into an increase in the length of semi-trailers, the Department for Transport commissioned TRL to draw together the various strands of safety and environmental research relating to the frontal design of trucks, where the flat front commonly in use in the UK has been identified as a contributory factor in certain types of HGV accidents resulting in road traffic fatalities.
34. It is possible to re-design the frontal shape of trucks in a way that would reduce the numbers of pedestrian, truck occupant, car occupant and other casualties. Recent UK research suggests¹ that when estimated costs and implementation dates were considered, introducing a curved profile at the front of a truck was one of the top safety priorities for heavy vehicles. Other recent European research² suggests that aerodynamic improvements resulting from changes to the frontal shape of trucks could result in a reduction of fuel consumption of between 5% and 10%.
35. The TRL report, “Safer aerodynamic frontal structures for trucks: final report” is included in the published research on high-volume semi-trailers. It identifies potential incremental benefits to be gained from permitting a “nosecone” of around 0.2 - 0.5 metres. The report’s findings have been summarised and extended in the Impact Assessment (Annex 10). An overall increase in the permitted length of an articulated lorry to 18.75 metres would accommodate the introduction of a nosecone of between 0.2 metres (for artic

¹ **Robinson & Chislett (2010)**. *Commercial vehicle safety priorities – ranking of future priorities in the UK based on detailed analysis of data from 2006-2008*. TRL published project report PPR486 available from www.trl.co.uk

² **Feist & Gugler (2009)**. *Guidelines for integrated design and evaluation of advanced vulnerable road user protection systems*. APROSYS deliverable D.2.1.7.

with standard coupling systems) and around 0.4 metres (for those with modern close-coupling arrangements). This could save up to nine lives, and between 29,000 to 61,000 tonnes of CO₂, a year.

36. The Government is therefore minded to increase the overall permitted length of an articulated lorry to 18.75 metres, the same length as is already permitted for rigid truck / drawbar trailer combination goods vehicles. It is interested in gaining the views of industry through this consultation.

Consultation Questions

Cross-references in these questions to the research relate to the Final Summary Report.

General

- Q1. Do you agree that the research has identified the correct sectors** that would be engaged in the introduction of high-volume semi-trailers? (See Report Section 4.4, page 20). If not, how and why would other sectors be engaged?
- Q2.** In light of the impact assessment and the lead time on the active steering technology, the Government is minded to opt for existing standards instead of tighter standards, at least initially. **Under such circumstances what types of trailers would manufacturers and operators expect to develop / purchase as a result of the full 2.05m deregulation and why?**
- Q3.** Table 5 of the Impact Assessment and the accompanying text (pages 39 – 41) explains the approach to estimating the likely take-up of high-volume semi-trailers in the sectors engaged. **Do you have any evidence on the likely take-up** that would increase the Government's understanding of the impacts? Please supply business analysis or other evidence to support your position, showing the tonne-km anticipated to move to high-volume semi-trailers.
- Q4.** The research concludes that the greatest benefit derives from allowing increases of up to 2.05 metres in semi-trailer

length (Section 6.3, pp 35-39). **Do you agree with this assessment?** If not, please give your reasons including supporting evidence. If there is particular data in the Impact Assessment that you disagree with please supply us with evidence to update our assessment.

- Q5.** The magnitude of benefits is largely dependent on the switch to high-volume semi-trailers. Our assumptions for different types of loads are shown in table 5 of the Impact Assessment. **Do you agree with these categories and associated assumptions? Can you provide evidence that either supports these assumptions or suggests different figures?**

Financial impacts

- Q6.** We require financial analysis of the impact on capital and operational costs for different types of business resulting from this change (including whether there is likely to be early write-down of assets which are not fully depreciated) **If you represent a company can you supply us in confidence with financial analysis regarding how your business would implement a change of up to 2.05m? (costs of the high-volume trailers are shown in table 4a of the Impact Assessment)** If you represent a trade association can you assist us in gathering data to show how industry sectors are likely to react to the change?
- Q7.** Large, medium and small businesses in varied sectors of the freight industry are likely to react differently to the introduction of high-volume semi-trailers. **Can you help us segment the impact on different sizes of companies in the sectors concerned? In particular can you provide financial analysis for individual businesses to show how they are likely to respond?**
- Q8.** Are there any other costs or benefits that we have not identified of introducing high-volume semi-trailers? Can you provide evidence on their magnitude to individual companies or to the industry as a whole?

Safety Considerations (see page 8 above)

- Q9.** Assuming that, at least initially, the requirement is for high-volume semi-trailers to comply with existing standards, **how could commercial development of the active steering technology be maintained? For example, would you be supportive of attaching conditions to Vehicle Special Orders (VSOs) to encourage the use of active steering technology or do you see another, more effective mechanism?**
- Q10.** If the Government were to opt for tighter standards in the future, **when would trailer manufacturers be in a position to supply sufficient actively steered trailers to meet the likely demand?**
- Q11.** **What should the performance criteria be if cross-wind stability were to be controlled by a metric other than a height limit of 4.57 metres?**
- Q12.** Both standards assume that, like many existing systems, the steering axles are locked at speed. **Should this be introduced as a regulatory requirement (as suggested in the draft Technical Requirements for the trial), and at what speed? Do you see difficulties in making the locking of steering axles a regulatory requirement? If so, please explain. If not, would locking at a speed of 50km/h be appropriate? And what should the performance criteria be if high speed stability were to be controlled by a means other than a locking requirement?**
- Q13.** Both standards also assume that semi-trailers with steering systems should also comply with certain relevant type approval requirements (as suggested in the draft Technical Requirements for the trial). **Do you see difficulties in specifying these requirements for the trial?**

Improved Frontal Design (see above, page 9)

- Q14.** An overall increase in the permitted length of an articulated lorry to 18.75 metres would accommodate a safer more

aerodynamic frontal design of between 0.2 – 0.4 metres in parallel with an increase of 2.05 metres in the length of a semi-trailer, depending on whether or not the semi-trailer were fitted with a close coupling arrangement. **What advantages or disadvantages do you see in allowing an increase in overall length to 18.75 metres? If there are both advantages and disadvantages, which do you see as the most important?**

- Q15.** The implications of an improved frontal design for operators and other road users are discussed in section 7 of the TRL report, “Safer aerodynamic frontal structures for trucks: final report”. **Do manufacturers agree with the results of the modelling work and in particular do they have any of their own evidence from investigation of this subject? If you represent an operator would you expect to take up these vehicles given the costs and benefits discussed in section 7? In particular, do these results suggest the payback would be sufficient to justify investment?**

Impact on Infrastructure

- Q16.** The Impact Assessment assumes (see Summary tables) that there will not be a need for significant changes to road infrastructure from the introduction of high-volume semi-trailers, as the overall length would not exceed that of a rigid truck / drawbar trailer combination already allowed on the UK’s roads. **Do you agree that this is a valid assumption? If not, please give your reasons: eg are there potential constraints with loading bays? or at lorry parking facilities?**
- Q17.** The Impact Assessment also indicates (Option 1 summary; paragraph 41 p 22) that an increase in semi-trailer length of 1 metre with un-steered axles would effectively reduce the gross vehicle weight from 44 to 40 tonnes, thereby reducing loading capacity and introducing a risk of axle or axle group overload. **Do you see a need for on board weighing devices to ensure that axles on this type of semi-trailer are not overloaded? Do you feel that the potential additional costs would affect the take-up of these semi-trailers?**

Impact on Rail

Q18. Has the research correctly identified the rail market that will be affected by the introduction of high-volume semi-trailers? (Report Section 5.4, p 28). If not, **can you provide evidence to show why other markets could be affected?**

Q19. Is it likely that longer intermodal loading units would be developed as a response to allowing high-volume semi-trailers, and **would they be used giving an increased loading capacity for domestic intermodal trains?** (See Annex 6 of Impact Assessment). **Are there any operational issues or costs that have not been accounted for that arise as a result?**

Impact on Small Firms

Q20. The Small Firms Impact Test in Annex 8 to the Impact Assessment explains our knowledge to date of the effect of this proposal on small firms. However, we are keen to gain direct assessments from micro, small and medium size firms³ of the impact that allowing high-volume semi-trailers would have on their businesses. The Impact Assessment provides detailed figures at paragraphs 79-80 of the characteristics and costs of high-volume semi-trailers which could help smaller firms assess the impacts on their business. In particular, what costs would firms expect to incur, and what benefits would they expect to gain, from the use of the vehicles?

Q21. We would like to further understand the payment methods for small firms when delivering to large retailers: for example, we would like to get evidence from firms of whether they are paid per load or per pallet, and how rates are decided or negotiated.

³ Micro firms: 9 employees or fewer
Small firms: 10 – 49 employees
Medium firms: 50 – 249 employees

Q22. We would like a better understanding of the reported **pressures on small firms to invest in the largest available vehicles** even where this means operating on part loads at reduced fuel efficiency.

Way forward

Q23. If the proposed modifications to articulated lorry and semi-trailer length are permitted (either in a trial or through amendment of existing legislation), **what is a reasonable estimation of the time that would be needed** to enable industry to make the appropriate investment and acquire new vehicles?

Q24. Assuming the proposed modifications are introduced in the first place through a trial involving Vehicle Special Orders (VSOs), **how rapidly would interested operators expect to apply for a VSO, how many vehicles would they expect to apply for, how many applications would this imply and by when?** (Information about Vehicle Special Orders can be found at www.vca.gov.uk.)

Q25. If high-volume semi-trailers were permitted permanently, **what proportion of its fleet would your company or organisation expect to switch to these vehicles by 2015 and by 2020?** Please supply evidence on your current fleet and your operations to explain the change you anticipate.

How to Respond

The consultation period began on Wednesday 30 March 2011 and will run until Tuesday 21 June 2011; please ensure that your response reaches us by that date. If you would like further copies of this consultation document it can be found at <http://www.dft.gov.uk/consultations/open/2011-06/> or you can contact Deborah Phelan if you would like alternative formats (Braille, audio CD, etc).

Please send consultation responses to

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When responding, please state whether you are responding as an individual or representing the views of an organisation. If responding on behalf of a larger organisation please make it clear who the organisation represents, and where applicable, how the views of members were assembled.

A list of those consulted is attached at page 26. If you have any suggestions of others who may wish to be involved in this process please contact us.

Annex A

Summary Comparison of options according to research

Regulatory Option	Technical options for industry	Safety implications	Carbon implications	Implications for domestic intermodal rail freight	Financial Impact on industry	Other monetised impacts (environmental / social etc.)	Net impact over appraisal period
	(Identified options in Impact Assessment)		<i>Annual average CO₂ impact</i>		<i>present value, 2010 prices, best estimate</i>	<i>Annual, present value, 2010 prices, best estimate</i>	<i>Total 2011-2025, present value, 2010 prices, best estimate</i>
1 metre increase, existing standards	Fixed steer (Option 1) - GVW reduced to 40 tonnes	No statistically significant impacts on safety	58.7 thousand tonnes increase due to reduction in effective loading weight	Modelling suggests rail freight would rise by 466% by 2025 instead of by 732% in base case – losing 5.2m tonnes to road	Net benefit of £45m (Marginal extra cost per vehicle ⁴ £514 - £590⁵)	Net costs of £15m due to increased HGV miles	Best estimate: £381m benefit (range -£496m to £743m benefit)
	Single self-steer axle (Option 2) +£2,300 per axle	No statistically significant impacts on safety	115.7 thousand tonnes reduction	<i>Annual</i> As above	Net benefit of £142m (Marginal extra cost per vehicle £2814 - £2890)	Net benefit of £39m	Best estimate: £2,055m benefit (range £206m to £2,768m benefit)
1 metre increase, existing performance⁶	Active steering (Option 3) +£6000 per	No statistically significant impacts on safety	112.6 thousand tonnes decrease	As above	Net benefit of £105m (Marginal extra cost per vehicle	Net benefit of £28m	Best estimate: £1,616m benefit (range £80m to £2,204m benefit)

⁴ The increased cost per vehicle should be offset by the smaller number of vehicles required to carry the same volume of goods. However, there may be an additional cost element if operators replace their existing fleets in advance of need, in effect writing off their previous investments early. We are not able easily to assess this potential cost in advance of consultation.

⁵ Additional cost varies depending on height of semi-trailer

⁶ Many vehicles currently achieve better performance than is mandated by the standards in force. Requiring consistency with existing performance would therefore mean mandating stricter standards.

Regulatory Option	Technical options for industry	Safety implications	Carbon implications	Implications for domestic intermodal rail freight	Financial Impact on industry	Other monetised impacts (environmental / social etc.)	Net impact over appraisal period
	(Identified options in Impact Assessment)		<i>Annual average CO₂ impact</i>		<i>present value, 2010 prices, best estimate < £6590)</i>	<i>Annual, present value, 2010 prices, best estimate</i>	<i>Total 2011-2025, present value, 2010 prices, best estimate</i>
≤ 2.05 metre increase, existing standards	semi-trailer Two self-steer axles (Option 4) +£2300 per axle one command-steer axle (Option 5) +£4000 per semi-trailer two command-steer axles (Option 6) +£6,600 per semi-trailer	These options would increase tail swing at roundabouts beyond that currently generated (para 189) – but safety implications likely to be statistically insignificant. Longer wheel-base vehicles more susceptible to cross-winds.	163.3 thousand tonnes reduction 97.3 thousand tonnes reduction 103.6 thousand tonnes reduction	Modelling suggests rail freight would rise by 262% by 2025 instead of by 732% in base case – losing 9.2m tonnes to road. <i>(NB This makes no assumption on the potential for the rail industry to mitigate by investing in longer ILUs – however, Annex 6 of the IA covers this.)</i>	Net benefit of £296m - £321m depending on technical solution chosen Marginal extra cost per vehicle: Option 4 < £5810 Option 5 < £5210 Option 6 < £7810	Net benefit of £67m - £72m depending on technical solution chosen	Best estimate: £4,106m - £4,387m benefit dependent on technical solution (range £502m to £5,859m benefit)
≤ 2.05 metre increase, existing performance	Active steer (Option 7) +£6,000 per semi-trailer	No statistically significant impacts on safety	100.4 thousand tonnes reduction	Modelling suggests rail freight would rise by 262% by 2025 instead of by 732% in base case – losing	Net benefit of £268m Marginal extra cost per vehicle:	Net benefit of £67m due to decreased HGV miles	Best estimate: £3,789m benefit (range £369m to £5,123m benefit)

Regulatory Option	Technical options for industry	Safety implications	Carbon implications	Implications for domestic intermodal rail freight	Financial Impact on industry	Other monetised impacts (environmental / social etc.)	Net impact over appraisal period
	(Identified options in Impact Assessment)		<i>Annual average CO₂ impact</i>		<i>present value, 2010 prices, best estimate</i>	<i>Annual, present value, 2010 prices, best estimate</i>	<i>Total 2011-2025, present value, 2010 prices, best estimate</i>
				9.2m tonnes to road. (NB This makes no assumption on the potential for the rail industry to mitigate by investing in longer FLUS – however, Annex 6 of the IA covers this.)			
≤2.05 metre increase in semi-trailer + 0.2 metre increase in tractor unit, giving 18.75m overall length	As options 4-6 above (This option assessed at Annex 10)	Would enable introduction of aerodynamic fronts with potential improvements in pedestrian safety, while maintaining overall limit of 18.75m (as long as this does not also apply to rigids)	Small potential additional reduction in CO ₂ (c 2%) – but also allows for small CO ₂ savings where high-volume semis not adopted	As above		Minor improvements to above from minor potential CO ₂ reductions plus potential improvements in road safety.	

DRAFT TECHNICAL REQUIREMENTS
FOR TRIALS OF
LONGER ARTICULATED GOODS VEHICLES

The technical requirements that shall apply to the trials on roads of longer articulated vehicles for general haulage are as follows:

LEVEL 1 ($\leq 2.05\text{m}$ increase, existing performance)

The overall length shall not exceed 18.75m

The longitudinal distance from the axis of the king pin to the rear of the semi-trailer shall not exceed 14.05m

No point in the semi-trailer forward of the transverse plane passing through the axis of the king pin shall be more than 2.04m from the axis of the king pin

The maximum distance measured parallel to the longitudinal axis of the semi-trailer from the foremost point of the loading area to the rear of the trailer shall not exceed 15.65m

Any semi-trailer equipped with axles that employ a steering arrangement shall be constructed such that the steering system is locked in the straight ahead position at speeds exceeding [50]km/h

Any semi-trailer equipped with a steering arrangement shall satisfy the technical provisions of paragraph 5 of Annex I to Directive 70/311/EEC as amended by 1999/7/EC

The overall height of an articulated vehicle combination that complies with the above technical requirements shall not exceed [4.57]m

Every articulated vehicle combination that complies with the above technical requirements shall be able to move on either lock, both with and without all wheels on which the combination normally runs being in contact with the road surface and disregarding the items exempted from the definitions of “overall width” and “overall length”, into an area contained between two concentric circles with radii of 12.5m and 5.3m, from any tangent to the outer circle, such that when travelling at a speed of [not more than 5]km/h no part of the articulated vehicle projects outside the area contained between the circles or more than 0.2m outside the tangent

Any semi-trailer equipped with a steering arrangement controlled by a complex electronic system shall satisfy the technical provisions of Directive 72/245/EEC as amended by Directive 2006/28/EC and the special requirements of Annex 6 of UN ECE Regulation No.79.01

LEVEL 2 ($\leq 2.05\text{m}$ increase, existing standards)

The overall length shall not exceed 18.75m

The longitudinal distance from the axis of the king pin to the rear of the semi-trailer shall not exceed 14.05m

No point in the semi-trailer forward of the transverse plane passing through the axis of the king pin shall be more than 2.04m from the axis of the king pin

The maximum distance measured parallel to the longitudinal axis of the semi-trailer from the foremost point of the loading area to the rear of the trailer shall not exceed 15.65m

[Any semi-trailer equipped with axles that employ a steering arrangement shall be constructed such that the steering system is locked in the straight ahead position at speeds exceeding [50]km/h]

[Any semi-trailer equipped with a steering arrangement shall satisfy the technical provisions of paragraph 5 of Annex I to Directive 70/311/EEC as amended by 1999/7/EC]

[Any semi-trailer equipped with a steering arrangement controlled by a complex electronic system shall satisfy the technical provisions of Directive 72/245/EEC as amended by Directive 2006/28/EC and the special requirements of Annex 6 of UN ECE Regulation No.79.01]

[Any semi-trailer, when comprised in an articulated vehicle, that by virtue of paragraph 7.6.1.2 of Annex I of Community Directive 97/27/EC is deemed to comply with paragraph 7.6.1 of that Annex, shall be equipped with an on-board weighing device to indicate any overload of the axles or axle groups]

The vehicles may comply with the requirements of either Level 1 or Level 2 and shall comply in all other respects with the Road Vehicles (Construction and Use) Regulations 1986 S.I. 1986 No 1078, as amended, and the Road Vehicles Lighting Regulations 1989 S.I. 1989 No 1796 as amended

What will happen next

A summary of responses, including the next steps, will be published on <http://www.dft.gov.uk/consultations/closed/2011-06/> within three months of the consultation closing; paper copies will be available on request.

Freedom of Information

Information provided in response to this consultation, including personal information, may be subject to publication or disclosure in accordance with the Freedom of Information Act 2000 (FOIA) or the Environmental Information Regulations 2004.

If you want information that you provide to be treated as confidential, please be aware that, under the FOIA, there is a statutory Code of Practice with which public authorities must comply and which deals, amongst other things, with obligations of confidence.

In view of this it would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the Department.

The Department will process your personal data in accordance with the Data Protection Act (DPA) and in the majority of circumstances this will mean that your personal data will not be disclosed to third parties.

Impact Assessment

The Impact Assessment can be found at <http://www.dft.gov.uk/consultations/open/2011-06/>. When

responding to the consultation, please comment on the analysis of costs and benefits, giving supporting evidence wherever possible.

Please also suggest any alternative methods for reaching the objective and highlight any possible unintended consequences of the policy, and practical enforcement or implementation issues.

The Consultation criteria

The consultation is being conducted in line with the Government's Code of Practice on Consultation. The criteria are listed at Annex C below; a full version of the Code of Practice on Consultation is available on the Better Regulation Executive web-site at:

<http://www.bis.gov.uk/files/file47158.pdf>

If you consider that this consultation does not comply with the criteria or have comments about the **consultation process** please contact:

Giada Covallero
Consultation Co-Ordinator
Department for Transport
Zone 2/25
Great Minster House
London SW1P 4DR

Email address consultation@dft.gsi.gov.uk

Code of Practice on Consultation

The Government has adopted a Code of Practice on consultations. The Code sets out the approach Government will take to running a formal, written public consultation exercise. While most UK Departments and Agencies have adopted the Code, it does not have legal force, and cannot prevail over statutory or other mandatory external requirements (e.g. under European Community Law).

The Code contains seven criteria. They should be reproduced in all consultation documents. Deviation from the code will at times be unavoidable, but the Government aims to explain the reasons for deviations and what measures will be used to make the exercise as effective as possible in the circumstances.

The Seven Consultation Criteria

1. When to consult: Formal consultation should take place at a stage when there is scope to influence the policy outcome.
2. Duration of consultation exercises: Consultations should normally last for at least 12 weeks with consideration given to longer timescales where feasible and sensible.
3. Clarity of scope and impact: Consultation documents should be clear about the consultation process, what is being proposed, the scope to influence and the expected costs and benefits of the proposals.
4. Accessibility of consultation exercises: Consultation exercises should be designed to be accessible to, and clearly targeted at, those people the exercise is intended to reach.
5. The burden of consultation: Keeping the burden of consultation to a minimum is essential if consultations are to be effective and if consultees' buy-in to the process is to be obtained.
6. Responsiveness of consultation exercises: Consultation responses should be analysed carefully and clear feedback should be provided to participants following the consultation.

7. Capacity to consult: Officials running consultations should seek guidance in how to run an effective consultation exercise and share what they have learned from the experience.

A full version of the code of practice is available on the Better Regulation Executive web-site at:
<http://www.bis.gov.uk/files/file47158.pdf>

If you consider that this consultation does not comply with the criteria or have comments about the consultation process please contact:

Giada Covallero
Consultation Co-ordinator
Department for Transport
Zone 2/25 Great Minster House
76 Marsham Street
London, SW1P 4DR
email: consultation@dft.gsi.gov.uk

List of those consulted

3663
AIM Commercial Services Ltd
Alliance of Independent Retailers Ltd
Andover Trailers
Argos Ltd
Arla Foods
Asda Stores Ltd
ASLEF
Association for Road Traffic Safety Management
Association of British Insurers
Association of Chief Police Officers (ACPO)
Association of Chief Police Officers Scotland
Association of Independent Businesses
Association of Industrial Road Safety Officers
Association of International Couriers and Express Services
Association of Vehicle Recovery Operators
Automobile Association (AA)
B & Q Plc
BIS
Boots
BP Connect
BRAKE
British Aggregates Association
British Association of Removers
British Chambers of Commerce
British European Transport
British Independent Motor Trade Association
British Industrial Truck Association
British International Freight Association (BIFA)
British Parking Association
British Safety Council
British Sugar PLC
British Vehicle Rental and Leasing Association (BVRLA)
Cairn Lodge
Campaign for Better Transport
Campaign to Protect Rural England
Canute Group
Carbon Trust
Cartwright Group
Chartered Institute of Logistics and Transport
Confederation of British Industry (CBI)
Consumers Association
Convention of Scottish Local Authorities
Co-Op
CTC
Davie Malcolm Transport Ltd
DB Schenker (Rail)
Defra

Denby Transport
Dennison Trailers
Department of Environment for Northern Ireland (DOENI)
Department of Regional Development for Northern Ireland
DHL
Direct Rail Services Ltd
Don-Bur
D-Tec Containertrailers BV
Environmental Transport Association
Euro Garages
Eurotunnel
Extra MSA
Federation of Environmental Trade Associations
Federation of Petroleum Suppliers
Federation of Small Businesses
FedEx
First Motorway Services
Ford Motor Co Ltd
Ford Motor Co Ltd
Freight on Rail
Freight Transport Association (FTA)
Freightliner
Friends of the Earth
GB Railfreight
Gray & Adams
Highways Agency
HM Treasury
Honda Logistics Centre (UK) Ltd
HSE
IKEA
Information Commissioner
Institute of Advanced Motorists
Institute of Grocery Distribution
Institute of Highway Incorporated Engineers
Institute of Road Safety Officers
Institute of Road Transport Engineers
Institute of Transport Administration
International Road Freight Office (IRFO)
Intermodal Logistics
Jaguar
John G Russell (Transport) Ltd
John Lewis Partnership
Kaessbohrer & Talson Trailers
Kel-Berg Trailers
Kellogg
Kimberley Clark
King Trailers
Krone UK
Kuehne & Nagel
Lawrence David

LCC
Local Government Association
M&G Trailers
Malcolm Logistics
Marks & Spencer
Mineral Products Association
Montracon
Morrison's
Moto
Motor Insurers Bureau
Muldoon Transport Systems
National Association of Agricultural Contractors
National Express Group
National Society for Clean Air and Environment Protection
Nestle
Network Rail
Norbert Dentressangle
P&O Ferries
Parcel Force Worldwide
Parliamentary Advisory Council for Transport Safety
Pedestrian Association
Police Federation for England and Wales
Port of Dover
RAC
Rail Freight Group
RMT
Road Chef
Road Haulage Association (RHA)
Road Operators Safety Council
Road Rescue Recovery Association (RRRA)
Road Safety Council of Wales
Road Safety GB
Royal Mail
Royal Society for the Prevention of Accidents
Ryder
Sainsbury
Schmitz Cargobull UK
Scottish Accident Prevention Council
Scottish Chamber of Commerce
Scottish Consumer Council
Scottish Council for Development of Industry
Scottish Environment Protection Agency
Scottish Executive
SDC Trailers
Skills for Logistics
Small Business Service
Society of Motor Manufacturers and Traders
Society of Operations Engineers
Stobart Group
Stop 24

Sustrans
Tandem Transport
Tarmac
TDG
Tesco
The Forum of Private Business
The Traffic Commissioners
The Union of Shop, Distributive and Allied Workers
The United Road Transport Union
TNT Logistics
Trades Union Congress (TUC)
Transport and General Workers Union
Transport for London (TFL)
Transport Tribunal
Truckstop News
UK Major Ports Group Ltd
Unilever UK
Unipart Logistics
United Biscuits
Van Eck
Van Hool Trailer Marque
VCA
VOSA
W Trailer
Wales TUC
Welcome Break
Welsh Assembly Government
Welsh Consumer Council
Welsh Local Government Association
Westmorland
Wincanton