

Title: Exemptions from annual roadworthiness testing rules for certain specialised heavy vehicles in Great Britain IA No: DfT00380 RPC Reference No: RPC17-3646(1)-DfT Lead department or agency: Department for Transport Other departments or agencies: Driver and Vehicle Standards Agency	Impact Assessment (IA)			
	Date: 15/08/2017			
	Stage: Final			
	Source of intervention: EU			
	Type of measure: Secondary Legislation			
Contact for enquiries: Robert Leiper roadworthinesstesting@df.t.gsi.gov.uk				

Summary: Intervention and Options **RPC Opinion:** GREEN

Cost of Preferred (or more likely) Option				
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANDCB in 2014 prices)	One-In, Three-Out	Business Impact Target Status
-£64.69m	-£64.05m	£6.7m	Not in scope	Qualifying provision

What is the problem under consideration? Why is government intervention necessary?
 Certain types of specialised heavy vehicles are currently subject to an exemption from annual roadworthiness testing. Some of the most prevalent such types are breakdown vehicles, vehicles used for road construction and engineering plant. Roadworthiness testing is an integral part of the regulatory regime to ensure road safety. With the standardisation of vehicle designs, and a growth in numbers of exempt vehicles, a number of the exemptions are no longer appropriate. In particular, some of the current exemptions are incompatible with EU law and leave the Department liable to be challenged in the European Court of Justice. Government intervention is needed to remove these existing exemptions as they are set out in legislation.

What are the policy objectives and the intended effects?
 The effect of the revisions will be to remove the exemption from annual testing for certain classes of specialised heavy vehicles. This will ensure that all 'HGV-type vehicles' are subject to testing, meaning that their compliance with minimum maintenance requirements will be formally checked. The objectives are to:

- improve road safety by reducing the number of defective specialised heavy vehicles on the road by updating the regulatory regime to align to modern vehicle construction practices; and
- ensure that GB law is fully compliant with EU law, whilst avoiding any excessive regulation (including regulatory "gold plating").

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)
 Doing nothing is not a valid option as this would not achieve the policy objectives (see p.5).
 Policy Option 1: Remove or modify those current annual testing exemptions that are no longer justifiable or are incompatible with EU law. This is our preferred option as it would meet both policy objectives: it would contribute to improved road safety and represents the minimum required to comply with EU law.

Will the policy be reviewed? It will be reviewed. If applicable, set review date: May/2023				
Does implementation go beyond minimum EU requirements?			No	
Are any of these organisations in scope?			Micro Yes	Small Yes
			Medium Yes	Large Yes
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)			Traded: N/Q	Non-traded: N/Q

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible Minister: Jesse Norman Date: 11 September 2017

Summary: Analysis & Evidence

Policy Option 1

Description: Remove or modify those current annual testing exemptions that are no longer justifiable or are incompatible with EU law

FULL ECONOMIC ASSESSMENT

Price Base Year: 2014	PV Base Year: 2018	Time Period Years: 10	Net Benefit (Present Value (PV)) (£m)		
			Low: -106.21	High: -48.23	Best Estimate: -64.69

COSTS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	0.9	1	5.5	48.2
High	1.0		12.3	106.2
Best Estimate	0.9		7.4	64.7

Description and scale of key monetised costs by 'main affected groups'

- Cost to business of testing vehicles which are no longer exempt. This includes the test fee, and also the cost of down-time for the vehicle and for the accompanying driver. Some vehicles will have to make a special trip to an approved testing facility; vehicle running costs (fuel, tyres, maintenance) have been included for these vehicles.
- Familiarisation costs to business, incurred in the first year, as affected vehicle operators become acquainted with the vehicle testing regime.
- One-off enabling costs to Government of implementing the changes and the ongoing costs to Government of plating vehicles.

Other key non-monetised costs by 'main affected groups'

There could be some small environmental costs due to the extra fuel burn and resultant emissions from taking additional vehicles to and from testing stations. In addition, there could also potentially be some additional road wear / damage. These impacts have not been monetised on the grounds of proportionality.

BENEFITS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	N/A	N/A	N/A	N/A
High	N/A		N/A	N/A
Best Estimate	N/A		N/A	N/A

Description and scale of key monetised benefits by 'main affected groups'

- N/A

Other key non-monetised benefits by 'main affected groups'

1. There is expected to be a reduction in road accidents caused by improperly maintained vehicles. However, these potential benefits cannot be monetised with any reasonable reliability because of the limitations of the available evidence on accidents involving the relevant vehicles where vehicle defects were a factor. Based on the available data, our estimates are that the measures could potentially halve the vehicle defect rate for the relevant vehicles, implying an annual reduction in accidents of around 0.07 fatalities, around 0.28 serious injuries and around 1.7 slight injuries, but these estimates are subject to very considerable uncertainty.

2. Approved Testing Facilities (ATFs) could see an increase in profits from the opportunity for ATFs to sell additional maintenance and repair services to vehicle owners that are presenting their vehicles for testing. However, these potential benefits to ATFs have not been monetised as we lack the relevant data to do this (e.g. on the extent of additional services sold to vehicle owners by ATFs).

Key assumptions/sensitivities/risks	Discount rate (%)	3.5%
--	--------------------------	------

Given the limitations of the available evidence base, a significant number of assumptions have been made in the IA. The estimates presented in this IA are very sensitive to these assumptions and the data sources that have been used in this analysis, and are therefore subject to considerable uncertainty. This uncertainty is only partially reflected in the range of estimates that is presented in this IA. Some of the key assumptions that have been made in this IA are as follows: the number of affected vehicles; the percentage of vehicles that will receive the test as part of their regular maintenance check; the time required to travel for a test; the employment costs of the driver; the vehicle's running costs; and the value of the vehicle's time.

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			Score for Business Impact Target (qualifying provisions only) £m: N/A
Costs: 6.7	Benefits: 0.0	Net: -6.7	

Evidence Base (for summary sheets)

Background

1. As set out in our Road Safety Statement¹ published in 2015, the Government will pursue a wide range of policies to help deliver its commitment to reducing the numbers of road users killed or seriously injured each year.
2. Annual roadworthiness testing of heavy goods vehicles (HGVs) was introduced in Britain in 1968. At that time, a decision was taken to exempt a number of categories of vehicle from testing, most likely because they were 'non-standard' types of vehicle, or vehicles which were very limited in number or use.
3. Since its introduction, our roadworthiness testing arrangements have been revised and enhanced many times in the light of changes to vehicle technology, usage and the desire for ever-safer roads. However, until now, the list of exemptions has not been comprehensively reviewed.
4. Having reviewed these exemptions, we have identified that the vehicle testing regulations currently exempt a number of vehicle types where we consider the exemption to no longer be appropriate, and we intend to bring these vehicles into scope of the goods vehicle testing regime.
5. The currently exempt vehicle categories that we are planning to bring into scope of the goods vehicle testing regime (where vehicles in these categories are based on a normal HGV chassis only) are: mobile cranes, breakdown vehicles, vehicles containing engineering (and other) plant, road construction vehicles, tarmac trailers, tower wagons, electric HGVs, tractor units drawing and exempt trailers. These exemptions are set out in Schedule 2 to the Plating and Testing Regulations 1988. We also intend to test vehicles classified as motor tractors or locomotives and vehicles.
6. EU law on roadworthiness testing is set out in the new Directive 2014/45/EU (which enters into force in May 2018 and is broadly similar to the current Directive 2009/40/EC). These directives require vehicles categorised as N and O² (which is established as meaning vehicles including trailers based on a conventional lorry chassis) to be in scope of mandatory roadworthiness testing. National derogations are limited to the following, which are more limited than our current schedule:
 - vehicles used by armed forces, forces responsible for law and order, fire services, civil protection services and emergency or rescue services;
 - vehicles used for agricultural, horticultural, forestry, farming or fishery purposes only on the territory of the Member State concerned and mainly on the terrain of such where such activity takes place, including agricultural roads, forestry roads or agricultural fields;
 - vehicles used exclusively in small islands or sparsely populated areas;
 - specialised vehicles transporting circus and funfair equipment, with a maximum design speed not exceeding 40 km/h, and only operating on the territory of the Member State concerned;
 - vehicles operated or used in exceptional conditions and vehicles which are never, or hardly ever, used on public roads, such as vehicles of historical interest (i.e. older vehicles) or competition vehicles; and
 - vehicles covered by diplomatic immunity.

Problem under consideration / Rationale for intervention

¹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/487704/british_road_safety_statement_print.pdf

² Category N: Motor vehicles with at least four wheels designed and constructed for the carriage of goods; Category O: Trailers designed and constructed for the carriage of goods or persons

7. There are two key reasons that Government is intervening at this time. Each is discussed in turn below.

Exempt 'HGV-type vehicles' are less safe than conventional HGVs and are growing in number.

8. Vehicle testing is an important measure for ensuring that vehicles on the road are safe, ultimately reducing casualties in accidents caused by vehicle defects.
9. Unsafe vehicles risk imposing a 'negative externality' whereby the drivers of these vehicles do not take into account the social safety costs they impose on other road users. By undertaking an annual roadworthiness test, unsafe vehicles can be detected, increasing safety and reducing this 'negative externality'.
10. The benefits of annual roadworthiness testing are illustrated by the limited data that is available. This indicates that exempt vehicles are less roadworthy and that vehicle defects are more likely to be a causation factor in their accidents, when compared with conventional HGVs (see below for more details).
11. An important reason for revising the list of exemptions now is because exempt heavy vehicles now represent a large pool (estimated to be around 29,500) of vehicles (see "Number of vehicles affected" section below for detail of estimate) (this constitutes around 6% of all HGVs licensed at the end of March 2016³), logically increasing the aggregate road safety risk that they might be expected to pose.

The UK is exposed to the risk of infraction proceedings

12. The UK has an ongoing legal obligation to ensure compatibility between the list of exempt vehicle classes in domestic legislation and exemptions available under EU law. EU law (Directive 2009/40 and Directive 2014/45) requires testing of all category N and O vehicles,⁴ which aligns to our decision to test vehicles that are based on a standard lorry chassis. The exemptions that we intend to remove are the currently exempt category N and O vehicles: vehicles that are not N or O will remain exempt. To continue to exempt a large number of vehicles that fall inside this group would be to incur the risk of infraction proceedings being brought against the UK.
13. The Government is considering carefully all the potential implications arising from the UK's exit of the EU. Until we leave, EU law will continue to apply to the UK alongside national rules. The process for leaving the EU and determining our future relationship will be a complex one, so time will be needed to think through the UK's objectives and approach. The Department will continue to work alongside the Department for Exiting the European Union, who have the responsibility for leading the negotiations to leave the EU and for establishing the future relationship between the UK and EU.

Policy objectives

14. There are therefore two key policy objectives:
 - improve road safety by reducing the number of defective specialised heavy vehicles on the road by updating the regulatory regime to align to modern vehicle construction practices; and
 - ensure that GB law is fully compliant with EU law, whilst avoiding any excessive regulation (including regulatory "gold plating").

Consultation

15. Between 11 December 2014 and 5 March 2015, the Department for Transport (DfT) consulted on proposals for removing the exemptions from annual roadworthiness testing for some currently exempted categories of goods vehicles. It published the summary of the responses in July 2015. A holding statement was published in January 2016 updating stakeholders on progress and timing of the next steps. The Government Response is published alongside this Impact Assessment.

³ <https://www.gov.uk/government/statistics/vehicle-licensing-statistics-january-to-march-2016>, VEH0101

⁴ Category N: Motor vehicles with at least four wheels designed and constructed for the carriage of goods; Category O: Trailers designed and constructed for the carriage of goods or persons

Description of options considered

Do Nothing

16. The do nothing option would not achieve the policy objectives. It does nothing to bring the legislation up to date or to improve road safety provisions. In addition, under this option, certain vehicles would continue to be exempt, in contradiction of the European Directive. Therefore, doing nothing is not considered to be an acceptable policy option.
17. However, a 'do nothing' counterfactual is used as the baseline against which the impacts of Option 1 are estimated in line with the Better Regulation Framework Manual.

Option 1: Modify the current list of exemptions

Summary

18. This option would rationalise the list of exemptions, removing those for vehicles that, for the purposes of testing, are no different from conventional HGVs (but, for example, with machinery mounted) while retaining exemptions for vehicles that DVSA advise cannot reasonably be accommodated within the testing regime and those of genuinely special types (for example large abnormal load vehicles or road rollers). These latter vehicles would not be suitable for inclusion in the current testing regime without disproportionate expense, for example without ATFs changing their building dimensions and brake testing equipment (as tested at consultation).

Detail

19. This option is to amend the current list of specialised heavy vehicles exempted from testing, removing exemptions for a number of vehicle types. The currently exempt vehicles that will be brought into the testing regime if they are based on an HGV chassis are:
 - Mobile cranes.
 - Break-down vehicles.
 - Plant / engineering plant, i.e. movable plant or equipment being a motor vehicle or trailer (not constructed primarily to carry a load) especially designed and constructed for the special purposes of engineering operations. Volumetric concrete mixers are currently treated as falling into this category and hence exempt: the removal of this exemption will therefore apply to them, amongst other vehicles.
 - Trailers being drying or mixing plant designed for the production of asphalt.
 - Tower wagons.
 - Road construction vehicles (note that we are not proposing to remove the exemption for road rollers and other specialised equipment used in the road construction process as these are not based on an HGV chassis).
 - Electrically-propelled motor vehicles.
 - Tractor units pulling exempt trailers.
 - Motor tractors and locomotives
20. A number of vehicle types will remain exempt from testing, where we consider them to be of non-standard construction and would hence pose practical difficulties for testing facilities, or where their use is exceptional.

21. Vehicles newly falling into scope will be required to be tested as per the current HGV testing regime, where Driver and Vehicle Standards Agency (DVSA) personnel conduct annual tests on HGVs at private 'Approved Testing Facilities' (ATFs) (or potentially non-standard arrangements for some types of vehicle).
22. Vehicles subject to annual roadworthiness testing need to be "plated" in advance of their first test. This involves DVSA issuing a plating certificate to be attached to the vehicle that denotes the maximum vehicle weight and maximum train weight, to assist with vehicle testing and enforcement. The vehicles being brought in scope of testing here will also need to be "plated".

Non-regulatory alternatives

23. It is not possible to enact a non-regulatory alternative as mandatory roadworthiness testing is governed by legislation (Goods Vehicles (Plating and Testing) Regulations 1988) and consequently this legislation needs to be amended to remove the existing exemptions.

Costs and benefits of Option 1

24. This section sets out our assessment of the costs and benefits of Option 1. A 'do nothing' scenario, whereby no government intervention is undertaken, is used as the baseline against which the costs and benefits of Option 1 are estimated.
25. As this proposal is not time-limited, the costs and benefits of Option 1 have been assessed over a 10 year appraisal period in this IA, which is the default period specified in the Better Regulation Framework Manual. Since this proposal will be implemented in May 2018, the 10 year appraisal period begins on this date.
26. Given the limitations of the available evidence base, a significant number of assumptions have been made in the IA. The estimates presented in this IA are very sensitive to these assumptions and the data sources that have been used in this analysis, and are therefore subject to considerable uncertainty. This uncertainty is only partially reflected in the range of estimates that is presented in this IA.
27. Unless stated otherwise, all values are presented in 2014 prices; and where costs and benefits are expressed in present value terms, they have been discounted to their present value in 2018 using a discount rate of 3.5% per year⁵, the discount rate recommended by the green book.
28. The key groups affected by the proposals are:
 - Owners of currently exempt vehicles - costs arising from removing the exemption for several classes of vehicles are borne by the operators of those vehicles. These costs are the test fee, the costs of travel to and from a test site, the cost of non-productive driver/vehicle time while a vehicle is undergoing testing, plus transitional familiarisation costs.
 - DVSA - DVSA bear one-off enabling costs; and the ongoing costs of plating vehicles. Other ongoing costs to DVSA are covered by the test fee which is paid to DVSA.

Number of vehicles affected

Current vehicles in scope

29. It is estimated that there are currently around 29,500 vehicles which would be affected by the introduction of Option 1. These are vehicles that are currently exempt from annual roadworthiness testing, but would no longer be exempt under Option 1.
30. For most vehicle types, this estimate is based on actual Driver and Vehicle Licensing Agency (DVLA) registration data for 2016 or industry trade body expert estimates; accounting for two thirds of the overall vehicles in scope.
31. However, for some exemptions, such as for 'motor tractors', we do not have (and were not provided by industry consultation respondents) reliable fleet data and so have made a 'best guess' assumption about the number of affected vehicles, using judgement by DfT vehicle market specialists about the market for heavy vehicles. The above estimate is therefore subject to uncertainty and sensitivity testing has been used (90% and 110% of these central estimates).
32. Where possible, the estimates for each of the vehicle types have been amended to account for the fact that certain vehicles will remain exempt because they are not based on a conventional HGV chassis. For example, industry provided estimates on the percentage of mobile cranes that fall into the latter category. However, we do not have information on this for all vehicle types. This is another source of uncertainty.

⁵ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/220541/green_book_complete.pdf

Table 1: Estimate of the additional number of vehicles requiring roadworthiness testing under Option 1 in the first year of the appraisal period, which begins in 2018, rounded to nearest 100. (Sensitivity testing shown below in brackets.)

Vehicle Type	Estimated Number of Vehicles
Breakdown recovery vehicles (DVLA data)	10,700
Road construction vehicles (DfT assumption)	7,900 (range: 7,100 to 8,700)
Engineering plant (DVLA data)	6,100
Tower wagons (DVLA data)	3,200
Other (either DVLA data, DfT assumption or industry estimate)	1,600 (range: 1,500 to 1,700)
TOTAL	29,500 (29,000 to 30,000)

Projections

33. For the vehicles in scope, no projections are available as such we have made assumptions on the future growth of such vehicles using the data available. For two thirds of the total 29,500 affected vehicles we have DVLA registration data (these categories are breakdown vehicles, plant and tower wagons). On aggregate the number of these vehicles has slightly decreased (by an annual average of 0.5%) over the period 2007-2016. Furthermore, it is also possible that the roadworthiness testing requirement may discourage some people from buying new vehicles of these types, however, given the relatively small scale of the costs per vehicle compared to the overall operating costs, the impact of this is likely to be low.
34. For the remaining one-third there is no data available, however we expect the number of electric HGVs (currently around 400 out of the 29,500) to grow due to improvements in battery technology and an increase in model availability. There are no available forecasts for electric HGV growth, but for comparison, electric vans are expected to grow from 2% of haulage undertaken in urban areas only to 8% in 2028. However, we expect growth in electric vans to far outstrip growth in electric HGVs, owing to their lower operating weights making them more commercial viable. However, we expect growth in electric vans to far outstrip growth in electric HGVs. For other vehicles in the remaining one-third, the data is very limited however we believe it is reasonable to assume that they follow a similar trajectory than those vehicles for which we have data (in particular engineering plant and tower wagons as they relate to construction activities) – however there is a high level of uncertainty with this assumption. Given the potential offsetting factors and the high level of uncertainty, we have taken a conservative approach and assumed no growth in in-scope vehicles in our central and low estimates. For the high scenario, in the absence of suitable information, we have assumed a growth rate in overall in-scope vehicles of 3% per annum.
35. The consultation and consultation stage impact assessment referenced the removal of an exemption for HGVs based on a number of small islands but which travel to the mainland, and for HGVs based on Bute. This consultation proposal was subsequently widened and incorporated into a second consultation⁶ and is being considered as part of that work stream. It is not therefore appraised as part of this cost assessment.

Other assumptions

36. The following assumptions have also been used in this analysis. Unless stated otherwise, the values below are assumed to remain constant during the appraisal period. The estimates of the costs to business under Option 1 are very sensitive to these assumptions and the data sources that have been used, and are therefore subject to considerable uncertainty. As a general comment, the consultation stage impact assessment generated minimal response, and where respondents did comment, no data was provided to enable us to improve our key assumptions.

⁶ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/554759/fast-tractor-implementation-consultation.pdf, pp.20-22.

- a) As a conservative simplifying assumption, it is assumed that all currently exempt vehicles brought into testing will be roadworthiness tested and plated in the first calendar year following the implementation of the proposal (2018). Plating is a one-off transitional cost. Roadworthiness tests are conducted on an annual basis.
- b) Some vehicles already submit to voluntary roadworthiness testing and would not incur any additional costs under Option 1. However, we have not been able to identify any evidence on the extent to which the currently exempt vehicles are voluntarily tested and so it is therefore assumed that no such vehicles are voluntarily tested for the purposes of this analysis.
- c) We expect that vehicle operators will choose to take their vehicle for testing at an ATF site whenever possible, principally due to their proximity relative to DVSA sites. At present, the vast majority (94%) of HGV roadworthiness tests are conducted at ATFs, with the remainder conducted at DVSA test sites.⁷ However, the number of DVSA test sites has been decreasing and is expected to fall further, meaning that in future the opportunity cost of going to these sites (primarily in terms of distance travelled) is likely to increase and the remaining DVSA sites will continue to reduce down in the coming years. Thus, our analysis assumes that all vehicles will be tested at an ATF. This is a conservative assumption as removing the DVSA sites from the available pool reduces the choice available to operators, increasing the distance they must travel to a site.
- d) The average speed of a vehicle during the journey to the test centre is assumed to be 49mph. This is based on DfT statistics (SPE0101, 2014) and is the mean average of the average speeds for 4 or more axle rigid HGVs observed on motorways (54mph), dual carriageways (52mph) and single carriageways (42mph) in Great Britain in 2014. This is assumed to be representative of the average affected vehicle.
- e) As roller brake testers (RBTs) are required to be available at all ATFs, it is assumed that vehicles will be tested on a RBT where this is feasible. However, based on DVSA testing expert judgement and industry trade body judgement, it is assumed that 50% of mobile cranes and road construction vehicles will not be able to be tested on a RBT due to their size or configuration, although this is subject to uncertainty. The consultation asked a number of questions about various vehicle types to determine if there were issues accommodating these within ATFs. Respondents indicated that some vehicles may be too wide to use RBTs and that some vehicles (on an individual basis rather than entire vehicle types) may be too large for ATFs. However, consultation responses have not helped us to quantify these numbers. Due to the uncertainty a sensitivity test is used, assuming 40% to 60% of these vehicles will not be able to be tested on a RBT. On the basis of this central assumption, it is estimated that around 4,100 vehicles cannot use an RBT out of the total of around 29,500 currently affected vehicles, which equates to around 14% of the total. Therefore, it is estimated that around 86% of vehicles will be able to use an RBT.⁸ Where a RBT cannot be used (i.e. for vehicles that do not fit onto the brake tester), these vehicles will need to use an ATF which has the facilities to conduct a decelerometer test instead.
- f) Based on DVSA testing specialist judgement, it is conservatively assumed that 60% of vehicles that can use an ATF with a RBT will receive the test as part of their regular maintenance check, given that economic incentives will be strong to avoid multiple trips to garages. This figure was referred to in the consultation stage impact assessment and received no comments. However, given the uncertainty around this assumption a sensitivity test has been applied, assuming between 40% to 80% of vehicles will receive the test as part of their regular maintenance check. For these vehicles, we have not included the cost of time/mileage of travelling to the test site as this cost is not incurred as a direct result of the proposal. Since vehicles that require a decelerometer test are constrained to choosing an ATF with the appropriate facilities, it is conservatively assumed that none of these vehicles would receive the test as part of their regular maintenance check and that a separate trip would be required.
- g) Although RBTs are available at all ATFs, based on information from DVSA, it is assumed that only 80% of ATF premises will accommodate the vehicles that will now fall into scope of roadworthiness testing. The remainder of ATFs may not be large enough to test the size of vehicles being brought into scope, or may choose not to accept third party customers. This assumption relies on DVSA expertise

⁷ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/479494/dvsa-com-01-summary-of-annual-tests-for-lorries-buses-and-trailers.csv/preview

⁸ Under the sensitivity testing this ranges from 82% to 90%.

as the agency that inspects and authorises ATFs (DVSA has unsuccessfully attempted to collect this information from ATFs via direct communications). There is no industry body for the sector to provide a single market view to corroborate this assumption. The average one-way distance to one of these ATFs for a vehicle is estimated to be 15 miles, assuming a uniform distribution of vehicles. This is derived from DVSA data on the distribution of all ATFs. However, the distribution of ATFs is not uniform and this is therefore subject to uncertainty. Therefore, it is assumed that the average distance for a roundtrip to an ATF with a RBT is 30 miles for the Best estimates, 15 miles for the Low estimates and 60 miles for the High estimates to reflect this uncertainty.⁹ On the basis of the average speed assumed above (see assumption d), travel time is thus assumed to be around 37 minutes for the Best estimates, 18 minutes for the Low estimates and 73 minutes for the High estimates.

- h) Where a RBT cannot be used (i.e. for vehicles that do not fit onto the brake tester), this constrains the choice of ATF to those with the appropriate facilities. It is assumed that 30% of ATFs have the facilities to conduct a decelerometer test instead; this is based on information provided by DVSA. This assumption relies on DVSA expertise as the agency that inspects and authorises ATFs (DVSA has unsuccessfully attempted to collect this information from ATFs via direct communications). There is no industry body for the sector to provide a single market view to corroborate this assumption. The fact that there are fewer test sites means that we assume that on average the distance to the test site is greater than for other groups of vehicles. The average one-way distance to one of these ATFs for a vehicle is estimated to be 60 miles, assuming a uniform distribution of vehicles. This derived from DVSA data on the distribution of all ATFs. However, again, the distribution of ATFs is not uniform and this is therefore subject to uncertainty. Therefore, it is assumed that the average distance for a round trip to an ATF which can conduct a decelerometer test is 120 miles for the Best estimates, 80 miles for the Low estimate and 200 miles for the High estimates to reflect this uncertainty. On the basis of the average speed assumed above (see assumption d), travel time is thus assumed to be around 147 minutes for the Best estimates, 98 minutes for the Low estimates and 245 minutes for the High estimates.
- i) It is assumed that the test takes 55 minutes to complete for vehicles tested on a RBT. This is based on average test time for a 4-axle motor vehicle without trailer, which we believe conservatively represents the vehicles being brought into scope of testing.¹⁰ DVSA vehicle testing specialists have estimated that tests including decelerometer tests take 65 minutes; this is assumed for the purposes of this IA (DVSA specifies the contents of the test via the test manual and undertakes timing exercises that have informed these assumptions).
- j) It is assumed that the existing range of DVSA approved fees for roadworthiness testing will be applied to vehicles coming into testing. Fees currently range from £91 - £175 at ATFs; the level at which the fee is set will depend on the number of axles the vehicle has and on what day/time the test is booked.¹¹ Vehicles using an ATF pay an additional 'pit fee' of up to £66 including VAT. In the absence of any evidence, we assume that all ATFs charge the full amount (£66) (although in reality, some may charge less or no fee at all). Therefore, as these fees were at the same level in 2014, it is assumed that the total test fee would be £199 (£133¹²+£66) for the Best estimates, £157 (£91+£66) for the low estimates and £241 (£175+£66) for the high estimates in 2014 prices.
- k) Values for the employment costs of a driver are based on Freight Transport Association (FTA) data for 2013,¹³ see appendix. To estimate the average employment costs per hour, it was assumed that drivers work 250 days a year¹⁴ (i.e. full time) and 9 hours a day as this is the maximum a driver can work per day under drivers' hours legislation. The resulting employment costs per hour for 2013 were first converted to 2014 prices using the Treasury GDP deflators.¹⁵ It was then assumed that the

⁹ It is assumed that many of these vehicles will be able to visit an ATF during normal, day-to-day travel, which means that the average distance that they are required to travel could be low. Similarly, for operators with an ATF on their premises, as may be the case for operators with large fleets, travel time and costs are reduced. Hence the central value is assumed to be lower than the mid-point of the low and high estimates.

¹⁰ <https://movingon.blog.gov.uk/2014/06/09/heavy-vehicle-test-times/>

¹¹ <https://www.gov.uk/government/publications/heavy-goods-vehicle-fees/heavy-goods-vehicle-hgv-and-trailer-test-fees>

¹² The mid-point of £91 - £175.

¹³ Data from 2013 is used as the DfT does not have any more updated data from this source.

¹⁴ Based on 8 bank holidays and an average working week of 5 days. The Drivers Hours Rules (Regulation EC561;2006) imposes 45 hours weekly rest, which can be reduced to 24 hours, provided at least one full rest is taken in any fortnight, implying an average working week of 5.5 days full time. This is rounded to the nearest 10.

¹⁵ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/544166/webtag-data-book-summer-2016-v1-6.xls

employment costs per hour increase each year in real terms in line with the growth in GDP per person. This produces an estimate of the average employment costs per hour in 2014 of around £15.63 in 2014 prices. Estimates for other years can be found in Annex A.

- l) Values of the vehicle running costs per mile (fuel, tyres and maintenance) are based on FTA data for 2013 for a 16-18 tonne box or curtain sided HGV, which is assumed to be representative of the average affected vehicle, with average mileage. They are updated to 2014 prices using the Treasury GDP deflators, producing an average running cost per mile of £0.56 in 2014 prices. Further details of these calculations can be found in Annex A.
- m) The value of the vehicle's time (i.e. the opportunity cost of HGV utilisation) is estimated under the assumption that the commercial value of operating an HGV is at least equal to the cost of operating it. Based on FTA data for 2013 for a 16-18 tonne box or curtain sided HGV, the cost of operating an HGV is estimated as fixed costs (Vehicle Excise Duty, insurance, depreciation and transport overheads) plus running costs (fuel, tyres, maintenance). Fixed costs are divided over a working year of 250 days and 9 hours per day to estimate an hourly rate. Running costs are subtracted from the final hourly rate since while attending the testing centre, the vehicle does not incur these as it is not burning fuel etc. They are updated to 2014 prices using the Treasury GDP deflators. The monetised value of vehicle's downtime is therefore estimated at £6.56 per hour in 2014 prices. As explained above, running costs associated with the return journey to the testing facility have been included separately. Further details of these calculations can be found in Annex A.
- n) It is assumed that there is no ongoing cost to operators of ensuring that their vehicles meet the requirements of the test. This is because they are already legally required to ensure that their vehicles are roadworthy against the same requirements. (The difference is that testing is a means of checking and enforcing these requirements.)
- o) It is assumed that there will be a familiarisation cost associated with some vehicle operators needing to learn about the new roadworthiness test requirements. It is conservatively assumed that this will take one hour per vehicle, implying a cost of one hour of the operator's time (at the estimated employment costs per hour). The information that operators need to be aware of is minimal: several short pages of accessible gov.uk guidance¹⁶ about testing and identifying a suitable ATF (also available on gov.uk¹⁷). It is not necessary for vehicle operators to familiarise themselves with the technical roadworthiness requirements, as this is an existing legal obligation (see assumption n). It is possible that this is an overestimate in cases where operators have more than one vehicle in the fleet.
- p) It is assumed that exempt vehicles do not already have "plates", and will hence require one as a consequence of the policy, as this is the conservative approach given that we lack any data on this.

Non-Monetised benefits

- 37. There will be an increase in revenue for ATFs as a result of conducting a larger number of tests, as this is a resource used in complying with regulation, this is excluded from the NPV. The 'pit fee' that ATFs can charge for each vehicle test is strictly capped (at £66) and therefore highly constrains any potential profit generation from this source. ATFs could however see a second-order increase in their revenue and profits given the additional number of tests and the consequential increased opportunity for them to sell additional maintenance and repair services to vehicle owners that are presenting their vehicles for testing. These potential benefits to ATFs have not been quantified in the IA, as we lack the relevant data to do this (e.g. on the extent of additional services sold to vehicle owners by ATFs). No information on this was provided at the consultation stage.
- 38. The introduction of roadworthiness testing for these vehicles could also result in a reduction in casualties. It is difficult to assess this with accuracy as there is insufficient data to provide robust estimates. As such, the following figures are used for illustrative purposes only: the actual benefits realised could significantly differ from these estimates and as such we do not consider it appropriate to monetise this benefit in this IA.

¹⁶ <https://www.gov.uk/annual-test-for-lorries-buses-and-trailers>

¹⁷ <https://www.gov.uk/find-atf-dvsa-test-station>

Fleet roadworthiness

39. Research by TRL consultancy¹⁸ indicates that vehicle roadworthiness is linked to vehicle age - more so than to vehicle mileage. For this reason, we do not consider the low mileage of the exempt vehicles to be a reason, in itself, for maintaining their testing exemption.
40. DVSA data shows that as vehicles get older they are more likely to fail an annual roadworthiness test. This is in spite of vehicles being maintained/repared in order to pass their annual inspection. DVSA testing data indicates that on average 17.2% of HGVs initially failed their annual test due to having vehicle defects in 2015-16.¹⁹ The failure rate increases with vehicle age. It is logical that exempt vehicles that do not undergo such mandatory testing will have a higher defect rate, although it is difficult to estimate the extent of this as we do not know how much maintenance they already undergo.

Table 4: HGV initial test failure rates by vehicles age, 2015-16²⁰

Vehicle age	Failure rate
Up to 1 year	4.80%
2 years	5.30%
3 years	5.70%
4 years	7.10%
5 years	8.30%
6 years	10.10%
7 years	12.30%
8 years	15.80%
9 years	18.30%
10 years	21.10%
11 years	24.20%
12+ years	35.40%

41. In DVSA roadside vehicle checks in GB from 2013-15 to 2015-16,²¹ around 64% of all exempt vehicles that have been examined have been prohibited for roadworthiness non-compliance. This is significantly higher than the average for all HGVs, which had a defect rate of around 31%. However, while all roadside checks are targeted, it may be the case that the targeting of exempt vehicles is more successful than for other HGVs. The exempt vehicles measured here are all forms of currently exempt vehicle, including those affected by this policy.

Reduced road casualties

42. It is expected that by improving the roadworthiness of vehicles, this policy will result in a reduction in road accidents (with a consequent reduction in the reputational risk to Government of serious incidents involving these currently-exempt vehicles).

¹⁸ <http://www.dft.gov.uk/rmd/project.asp?intProjectID=12889>

¹⁹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/570667/dvsa-com-01-summary-of-annual-tests-for-lorries-buses-and-trailers_1_csv/preview

²⁰ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/482208/dvsa-com-05-vehicle-initial-test-fail-rate-by-age.csv/preview

²¹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/570651/dvsa-enf-01-vehicle-enforcement-checks-at-roadside-and-operators-premises.csv/preview. Currently exempt vehicles are shown as 'Non Testable'.

43. Accident data held by the Department (the STATS19 database) is generally not detailed enough to identify the vehicle categories in question here. However, the Department does have accident data for breakdown vehicles, mobile plant and tower wagons, which comprise around 68% of the affected vehicles.
44. Between 2005 and 2014, breakdown vehicles, mobile plant and tower wagons were involved in accidents resulting in 55 fatalities, 231 serious injuries and 1,405 slight injuries in total; this equates to around 5 fatalities, 21 serious injuries and 128 slight injuries per year on average. Assuming that accident rates per vehicle were the same for other affected vehicles, the Department estimates that accidents involving affected vehicles resulted in around 7 fatalities, 31 serious injuries and 189 slight injuries per year on average.
45. In this period, a total of 842 exempt vehicles involved in accidents for which we have details of the causation factors. Of these, vehicle defects were a contributory factor in around 1.8% of accidents. This compares with around 0.9% for the HGV fleet as a whole (excluding these exempt vehicles). This data excludes the overloading and poor loading as a causation factor as vehicle testing is not likely to impact on this.
46. A TRL report²² on vehicle defects and accidents stated that the main relationship is the common sense approach, where the greater the number of defects, especially the most safety critical ones, the greater the likelihood of accidents being caused, at least in part, by roadworthiness issues. The benefits from reducing accidents are wide-ranging, including avoiding loss of life and serious injury, human grief, lost earnings, property damage and emergency response costs. There are also some congestion costs associated with accidents that would be avoided.
47. The following estimate of casualty reduction is based on the following assumptions:
 - Roadworthiness testing will identify vehicle defects in annual tests. This will improve the roadworthiness of the currently exempt vehicles.
 - Fewer unroadworthy vehicles will result in fewer accidents with a vehicle defect contributory factor.
 - Consequently, following the introduction of testing, the vehicle defect contributory factor rate will converge on the rate for all HGVs (excluding exempt vehicles) of 0.9% (from the current level of 1.8%).
48. Therefore, on the basis of these assumptions, it is estimated that the introduction of roadworthiness tests for affected vehicles could potentially reduce fatalities by around 0.07 per year, serious injuries by around 0.28 per year, and slight injuries by around 1.70 per year on average²³.
49. However, these estimates are very sensitive to the above assumptions, and are therefore subject to very considerable uncertainty. As such, these are not included in the monetised benefits.
50. The TRL report states that vehicle defects are typically understated in reports of contributory factors to accidents. Also, it is possible that the accidents involving the exempt vehicles are recorded as accidents involving HGVs, without recording the specific bodytype. Both of these factors would imply a greater reduction in casualties than we have estimated here, though we cannot determine the extent of these factors.
51. Vehicles coming into scope will also require plating certificates indicating the maximum weights permitted for the vehicle. This will help to provide greater clarity to enforcement authorities as to whether a particular vehicle is being operated within the maximum permitted weight.

²² <http://www.dft.gov.uk/rmd/project.asp?intProjectID=12889>

²³ For the low vehicle estimates this reduces fatalities by around 0.06 per year, serious injuries by around 0.27 per year, and slight injuries by around 1.65 per year on average. For the high vehicle estimates this reduces fatalities by around 0.07 per year, serious injuries by around 0.29 per year, and slight injuries by around 1.75 per year on average.

Monetised costs

Transition costs

Public sector costs

52. DVSA estimate that it will cost them around £62,000 to set-up the capability to process the new vehicles' roadworthiness testing, and around £233,000 to recruit and train additional vehicle testers in 2014 prices.
53. In addition, vehicles in scope of the goods vehicle testing regulations are required to be "plated" in advance of their first test. A plate sets out certain information needed to conduct the test and for legal operation of the vehicle. DVSA estimate that it costs them approximately £5.40 per plating certificate issued in 2014 prices. It is estimated that around 29,500 vehicles would require plating in the first year of testing under the Best estimates, 28,600 vehicles under the low estimates, and that around 32,200 vehicles would require plating in the first year under the High estimates. So, the total costs to DVSA of plating these vehicles are estimated around £159,000 under the Best estimates and £155,000 under the low estimates; and around £174,000 under the High estimates in 2014 prices.
54. Therefore, it is estimated that the overall total costs for DVSA in the first year of implementation are around £454,000 for the Best estimates, £450,000 for the low estimates, and around £469,000 for the High estimates in 2014 prices.

Private sector costs

55. There are no separate costs to operators for plating: this is an administrative cost borne by DVSA. Vehicles are typically plated before the point of purchase, or as part of a vehicle's first test.
56. The cost to businesses of familiarising themselves with the changes is assumed to be low, given that many will already be undergoing routine maintenance checks. Assuming an hour per vehicle of the operator's time to read communications on the proposal at the estimated employment costs per hour for a driver in 2018, the cost is estimated at around £17 per vehicle in 2014 prices. (See assumption o for rationale.)
57. It is estimated that around 29,500 vehicles would be affected under the Best estimates, 28,600 vehicle under the low estimates, and that around 32,200 vehicles would be affected under the High estimates.
58. Therefore, the total cost to business in the first year of the proposal's implementation is estimated at approximately £487,000 under the Best estimates, £473,000 under the low estimates, and around £533,000 under the High estimates in 2014 prices.

Ongoing costs

59. There is no additional ongoing cost to DVSA of additional roadworthiness testing as the testing regime operates on a 'cost recovery' basis, where the fees paid by vehicle owners covers DVSA costs.
60. For the purposes of estimating the costs to operators of roadworthiness testing we have divided the vehicles affected into three different groups. The groups are defined based on the testing methods that must be employed on the vehicles, where they can be accommodated and existing maintenance arrangements:

Group 1

Vehicles that can be tested at an ATF using a RBT to test braking performance but do not already make such a trip for the purposes of a maintenance visit. It is assumed around 34% of affected vehicles are in Group 1 under the best estimate (i.e. around 86% x 40%) (see assumptions (e) and (f)). Under the low and high estimate it is assumed 18% and 49% of vehicles are in group 1 respectively.

Group 2

Vehicles that can be tested at an ATF using a RBT to test braking performance and which already make such a trip for the purposes of a maintenance visit. It is assumed that around 52% of affected vehicles are in Group 2 under the best estimate (i.e. around 86% x 60%) (see assumptions (e) and (f)). Under the low and high estimate it is assumed 72% and 33% of vehicles are in group 2 respectively.

Group 3

Vehicles which cannot use an RBT due to their construction, e.g. unusual width. The braking performance for these vehicles will be tested by decelerometer. A decelerometer test requires a vehicle to accelerate to a set speed, then brake to a stop. This requires a clear area for the vehicles to drive; not all ATFs will have this facility. These vehicles do not already make such a trip for the purposes of a maintenance visit. It is assumed that around 14% of vehicles affected are in Group 3 (see assumption (e)). Under the low and high estimate it is assumed 10% and 18% of vehicles are in group 3 respectively.

61. It is possible that vehicles subject to mandatory testing that are not able to be accommodated in ATF sites. For these vehicles, DVSA will be able to make arrangements to test these vehicles outside of an ATF site. Such vehicles will undergo decelerometer brake testing and associated costs are comparable to the vehicles in Group 3. However, for the purposes of this IA, we assume that there are no such vehicles (see assumption c).

Group 1: Vehicles that are tested at an ATF using a RBT but do not already make such a trip for the purposes of a maintenance visit

62. The total costs per vehicle for this group are made up of the test fee, pit fee, the driver and vehicle time, and journey costs, and are estimated as follows:

Table 5: Cost per vehicle (2014 prices, £) for Group 1 vehicles

	<i>Low estimates</i>	<i>Best estimates</i>	<i>High estimates</i>
Test fee, inc. pit fee	157	199	241
Cost of vehicle downtime	8	10	14
Cost of driver's time in 2018	20	25	35
Travel costs	8	17	33
Total cost per vehicle per test	194	251	324

63. The cost of driver's time varies each year. Only the costs for 2018 are shown above as an example.
64. The above costs have been estimated using the calculations shown in Table 5 below. These calculations also used to estimate the costs for Group 2 and Group 3 below. The values used in these calculations are shown in Annex B and are based on the assumptions described above.

Table 6: Cost calculations

Test fee, inc. pit fee	Test fee + pit fee
Cost of vehicle downtime	(Time for test + time for travel) * Value of Vehicle's time (£ per hour)
Cost of driver's time	(Time for test + time for travel) * Employment costs of driver (£ per hour)
Travel costs	Miles for round trip * Running Costs (£ per mile)

Group 2: Vehicles that can be tested at an ATF using a RBT and which already make such a trip for the purposes of a maintenance visit

65. For these vehicles, the cost of this policy is made up of the test fee, pit fee and driver/vehicle waiting time while the test takes place. There is no travel costs since the trip would have taken place anyway.
66. Total costs per vehicle for this group are estimated as follows:

Table 7: Cost per vehicle (2014 prices, £) for Group 2 vehicles

	Low estimates	Best estimates	High estimates
Test fee, inc. pit fee	157	199	241
Cost of vehicle downtime	6	6	6
Cost of driver's time in 2018	15	15	15
Travel costs	0	0	0
Total cost per vehicle per test	178	220	262

Group 3: Vehicles that make a trip to the nearest suitable ATF: vehicle cannot be tested on an RBT

67. Total costs per vehicle for this group are made up of the test fee, pit fee, the driver and vehicle time, and journey costs, and are estimated as follows:

Table 8: Cost per vehicle (2014 prices, £) for Group 3 vehicles

	Low estimates	Best estimates	High estimates
Test fee, inc. pit fee	157	199	241
Cost of vehicle downtime	18	23	34
Cost of driver's time in 2018	45	58	85
Travel costs	45	67	112
Total cost per vehicle per test	264	348	472

Totals for all vehicles

68. For each of the groups, the costs per vehicle are multiplied by the number of vehicles affected in each year (see annex A) and the proportion of vehicles in each group (see above) to give total costs for all vehicles in the group.
69. The estimated annual costs for all vehicles for the entire appraisal period are shown below, calculated by summing the annual totals for each of the three groups and adding in the transition costs for the first year.

Table 9: Total costs to business per year (including transition costs) (2014 prices, £m)

Year	Low estimates	Best estimates	High estimates
2018	5.9	7.8	11.2
2019	5.4	7.3	11.0
2020	5.4	7.4	11.3

2021	5.5	7.4	11.7
2022	5.5	7.4	12.1
2023	5.5	7.4	12.4
2024	5.5	7.4	12.8
2025	5.5	7.4	13.3
2026	5.5	7.4	13.7
2027	5.5	7.5	14.1
Total	55.2	74.4	123.6
Total (Present Value)	47.6	64.0	105.5

70. To estimate these costs, we have assumed that the policy places additional burden on *all* vehicles affected. However, in reality some operators already subject their vehicles to voluntary tests either for the brakes only, headlamp aim only, the smoke test only or a multipoint test. There is no separate figure for voluntary HGV checks undertaken by the affected vehicles, but
71. Table 10, extracted from VOSA effectiveness report 2013/14²⁴, details voluntary tests by type for both HGVs and PSVs.

Table 10: Number of voluntary tests undertaken per year in the HGV and PSV sector

HGVs & PSVs	2013/14	2012/13	2011/12
Brake (axles)	21,239	21,378	21,398
Headlamp aim	37,367	37,711	38,720
Smoke	115	122	253
Multi check	7,932	10,465	13,421

72. Other vehicles that fall within the currently exempt categories may be tested by private vehicle dealerships etc. that will not be recorded by DVSA, so any figures are likely to under-represent the number of voluntary checks taking place. Holding all else constant, the total cost to business of Option 1 is therefore likely to be an over-estimate, since it does not take into account the fact that some voluntary testing already takes place.

Ongoing “plating costs”

73. The DVSA will incur ongoing costs for the replacement of plates and for notifiable alteration processes²⁵ from the second year of implementation (2019) onwards. DVSA has estimated this cost at approximately £25,000 per year in 2014 prices. This cost has been scaled up and down for the low and high vehicle estimates to give £24,000 and £26,000 respectively.
74. In addition, for the high estimates, it is assumed that the number of currently exempt vehicles grows at a rate of 3% per year. The new vehicles introduced each year under this scenario will also require plating. On the basis of the above assumptions, it is estimated that the number of new vehicles that require plating is around 1,000 in the second year (2019) rising to around 1,200 in the tenth year (2027) ; and that this would result in additional costs to the DVSA for plating these vehicles will be around £6,000 per year on average.

²⁴ <https://www.gov.uk/government/publications/vosa-effectiveness-report-2013-to-2014>

²⁵ Notifiable alterations are changes to a vehicle’s specification or plating details, for example changes to the vehicle body, brake systems, weight changes of which operators are required to inform DVSA.

Non-Monetised costs

75. Public communications regarding the changes will be made through trade associations and web material. It is assumed that this can be carried out through business as usual communications. The cost of publishing this information is therefore assumed to be neutral or very small and has not been quantified.
76. There may theoretically be some environmental costs involved in testing additional HGVs. This would principally arise due to the extra fuel burn and resultant emissions due to taking additional vehicles to and from testing stations. Similarly, road wear/damage may be caused by vehicles running to and from testing stations.
77. However, emissions and road wear may be entirely offset by the fact that the vehicles in question could have been in use on the road anyway even if they had not been travelling to a testing station. Therefore, we believe that the overall environmental impact of the proposal is likely to be neutral or negligible.
78. Consequently, it is not considered proportionate to seek to monetise any of the above impacts in this IA.

Other costs to specific industries

79. Representatives of operators of bitumen application machinery ('tarmac trailers') indicated that they would incur significant costs of cleaning vehicles for test, in the region of £1,500 to £2,000 per vehicle. We do not consider that this is likely to be an incremental cost of testing, since these vehicles are required to be in a roadworthy condition and therefore could reasonably be expected to undergo regular maintenance, which would also require the vehicles to be in a reasonably clean state.
80. The consultation referenced the linked issue of the weights at which volumetric concrete mixers are able to operate and we received consultation responses relating to these impacts. The Government's decision relating to this issue will be set out in a separate communication.

Rationale and evidence that justify the level of analysis used in the IA

81. The level of analysis used in this IA is considered to be proportionate given the limitations of the available evidence base (e.g. the uncertainty around the number of vehicles that would be affected under Option 1) and the policy context (i.e. this is an EU-derived measure and we consider what we are proposing is in line with the Government's transposition principles which includes not "gold plating" it).

Risks

82. The main uncertainty is that there are no official statistics on the current numbers of vehicles for some of the vehicle types being brought into scope of testing (or forecasts for them), so there may in fact be a greater number of vehicles and greater provision of testing required. However, we believe that in total the number of vehicles in scope is relatively few (when compared to the overall vehicle population).
83. There is a risk that some vehicle owners will have difficulty finding a nearby test site that is able to accommodate their specific vehicle. Our costs are based on the estimated average travel time to a testing facility. This may mean that we have significantly underestimated the costs for some vehicles owners.

Direct costs and benefits to business calculations

84. All vehicles coming into scope of the testing regime are thought to be used for commercial purposes. The cost of roadworthiness testing (including the fee, travel costs, and driver and vehicle downtime) is therefore treated as a direct cost to business.

85. The Equivalent Annual Net Direct Cost to Business (EANDCB) is estimated to be around £6.7m (2014 price base year, 2015 present value base year), and the business net present value is - £64.24m (2014 price base year, 2018 present value base year).

Wider Impacts

Small and Micro Business Assessment

86. It is estimated that around 40% of HGV operators have just one vehicle.²⁶ So, it is likely that some small and micro businesses could be affected by Option 1. However, it is important to recognise that vehicle testing requirements are not differentiated on the basis of business size, as all vehicles can pose the same road safety risk if not properly maintained.

Competition Assessment

87. In some sectors, the policy may help to ensure a level playing field between businesses with vehicles that are currently subject to roadworthiness testing (who bear the associated costs) and others with vehicles that are currently exempt. For example, currently breakdown vehicles are exempt from testing despite serving a similar role to recovery vehicles.²⁷ Similarly, electric HGVs are directly competing with conventionally-fuelled HGVs, but are not required to undergo mandatory testing. As such, the measures will help to level the playing field in some sectors.
88. In the mobile crane sector, it introduces a distinction that does not currently exist between vehicles that are based on an HGV chassis (which will be brought into the scope of testing) and those which are on a bespoke chassis (which will remain exempt), which could potentially affect competition. However, we have no evidence to suggest that this will cause a distortion in the sector. Industry experts have informed us that mobile cranes based on an HGV chassis are less expensive to purchase and operate than the bespoke models, and the introduction of roadworthiness testing for them is unlikely to materially alter this dynamic.

Equalities Impact Assessment

89. This proposal is not expected to have an equalities impact.

Greenhouse Gases Impact Test

90. There is expected to be a neutral or negligible impact on greenhouse gas emissions. The act of taking the affected vehicles to and from testing stations will result in extra fuel burn and resultant emission of gaseous pollutants, but is expected to be offset by these vehicles not conducting their typical on-road activities during that time.

Wider Environmental Impact

91. Overall a neutral impact on the wider environment is expected.

Family Test

92. A neutral impact on family life is expected.

²⁶ This estimate is derived from data in the Traffic Commissioners Annual Report 2015-16 (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/567036/tc-annual-report-2015-2016.pdf) and is rounded to the nearest 10%. It relates to all HGV operators rather than those affected by Option 1.

²⁷ Breakdown vehicles lift two wheels of the broken down vehicle; recovery vehicles carry the entire vehicle onto a flat-bed truck body

Health Impact Assessment

93. Aside from the expected improvement in road safety, there are no significant implications for health or wellbeing.

Human Rights Impact

94. The proposals to remove the roadworthiness exemption for certain HGVs does not impact on human rights.

Justice Impact Test

95. The proposals increase the number of tests DVSA are required to conduct. Therefore, it is reasonable to expect a commensurate increase in related offences, for example for vehicles being 'out of test'. This implies an additional cost to the criminal justice system. However, a decrease in the number of non-roadworthy vehicles is anticipated as a result of the changes which would see a reduction in the number of roadworthiness offences that are pursued through the justice system. This cost has not been calculated within the impact assessment on the grounds of proportionality as it is expected to be small given the number of vehicles affected.

Rural Proofing Toolkit

96. It is possible that vehicle operators in remote locations will have to travel further to their nearest test site. However, as these are commercial operators and the vehicles themselves will travel for day-to-day business, we assume that travel times can be minimised by efficient planning. For example, by taking the vehicle to be tested when it is receiving maintenance services or when the course of its day-to-day use brings it near to a test site.

Sustainable Development

97. The proposal is not expected to have implications for sustainable development.

One-In, Three-Out

98. This measure has been classified as out of scope of one in three out and as a non-qualifying provision for the purposes of the Business Impact Target as it is an EU-derived measure and we consider what we are proposing is in line with the Government's transposition principles which includes not "gold plating" it. In particular, the proposed implementation complements domestic legislative objectives in terms of road safety and fair competition and the proposed implementation delivers the outcomes required by the Directive, but does so in a way that avoids going beyond the minimum requirements, thereby minimising the cost to business.

Summary and preferred option with description of implementation plan

99. It has been easier to quantify the costs than the benefits of removing certain HGV annual test exemptions. However, it is undesirable from a road safety perspective that certain heavy vehicles that are frequently used on public roads are exempt from basic annual testing requirements. In addition, based on the estimates in this IA, it is expected that the cost of roadworthiness testing is a very small percentage of the overall cost of owning and operating a heavy vehicle.
100. Testing will be required from May 2018. This is aligned to the entry into force date of the most recent roadworthiness directive (2014/45/EU). DVSA will likely offer the ability for operators to voluntarily test their vehicle prior to then.

Post Implementation Review (PIR) Plan

1. **Review status:** Please classify with an 'x' and provide any explanations below.

<input type="checkbox"/>	Sunset clause	<input checked="" type="checkbox"/>	Other review clause	<input type="checkbox"/>	Political commitment	<input type="checkbox"/>	Other reason	<input type="checkbox"/>	No plan to review
--------------------------	---------------	-------------------------------------	---------------------	--------------------------	----------------------	--------------------------	--------------	--------------------------	-------------------

2. **Expected review date** (month and year, xx/xx):

0	5	/	2	3
---	---	---	---	---

Rationale for PIR approach:

Describe the rationale for the evidence that will be sought and the level of resources that will be used to collect it.

- Will the level of evidence and resourcing be low, medium or high? (See Guidance for Conducting PIRs)

The post implementation review will follow a medium evidence approach as the measure involves a significant estimated cost to businesses, but does not institute a new policy framework. It extends long-established provisions that are considered to be proportionate to a wider pool of vehicles.

- What forms of monitoring data will be collected?

The review will use existing monitoring data covering:

- Vehicle defect rates (DVSA)
- Road accident contributory defect rates (Stats 19)
- Stakeholder feedback

- What evaluation approaches will be used? (e.g. impact, process, economic)

The post-implementation review will use process evaluation and light-touch impact evaluation. The process evaluation will draw upon stakeholder feedback while the light-touch impact evaluation will involve comparing available monitoring data post-implementation and pre-implementation.

- How will stakeholder views be collected? (e.g. feedback mechanisms, consultations, research)

A feedback mechanism will be used to collect data.

Annex A: Vehicle Operating Costs and Number of Affected Vehicles

Total Annual Vehicle Costs¹

Standing Costs	VED (2013 prices)	£650
	Insurance (2013 prices)	£2,371
	Depreciation (2013 prices)	£6,232
Overheads	Transport (2013 prices)	£5,276
Total annual cost (2013 prices)		£14,529
Vehicle Cost per hour (£2013 prices)²		£6.46
Vehicle Cost per hour (£2014 prices)		£6.56

Source: Freight Transport Association Operating Costs Estimates for a 16-18 tonne box or curtain sided HGV, with average mileage

Employment Costs of Driver

Employment costs of driver (£/annum) in 2013 (2013 prices)	£33,815
Driver costs per hour in 2014 (£2014 prices)	£ 15.63

Source: Freight Transport Association Operating Costs Estimates for a 16-18 tonne box or curtain sided HGV, with average mileage

Running costs – Pence per mile

Fuel (2013 prices)	42.17
Tyres (2013 prices)	2.34
Maintenance (2013 prices)	10.41
Total Running Cost (pence per mile, 2013 prices)	54.92
Total Running Cost (pence per mile, 2014 prices)	55.82

Source: Freight Transport Association Operating Costs Estimates for a 16-18 tonne box or curtain sided HGV, with average mileage

Total number of affected vehicles

Year	Low estimates	Best estimates	High estimates
2018	28,621	29,501	32,231
2019	28,621	29,501	33,198
2020	28,621	29,501	34,194
2021	28,621	29,501	35,220
2022	28,621	29,501	36,277
2023	28,621	29,501	37,365
2024	28,621	29,501	38,486
2025	28,621	29,501	39,640
2026	28,621	29,501	40,830
2027	28,621	29,501	42,054

¹ Based on fixed costs only. Running costs (fuel, tyres, maintenance) are excluded on the basis that these costs associated with commercial activity would not be incurred while the vehicle is attending the test centre.

² Based on assumed working time of 250 days per year, 9 hours per day.

Annex B: Assumptions about costs to business

Common Assumptions (2014 prices)

	<i>Low estimates</i>	<i>Best estimates</i>	<i>High estimates</i>
Value of Vehicle's time (£ per hour)	6.56	6.56	6.56
Employment costs of driver in 2018 (£ per hour)	16.52	16.52	16.52
Employment costs of driver in 2019 (£ per hour)	16.75	16.75	16.75
Employment costs of driver in 2020 (£ per hour)	17.00	17.00	17.00
Employment costs of driver in 2021 (£ per hour)	17.29	17.29	17.29
Employment costs of driver in 2022 (£ per hour)	17.60	17.60	17.60
Employment costs of driver in 2023 (£ per hour)	17.91	17.91	17.91
Employment costs of driver in 2024 (£ per hour)	18.25	18.25	18.25
Employment costs of driver in 2025 (£ per hour)	18.60	18.60	18.60
Employment costs of driver in 2026 (£ per hour)	18.96	18.96	18.96
Employment costs of driver in 2027 (£ per hour)	19.33	19.33	19.33
Running Costs (£ per mile)	0.56	0.56	0.56
Pit Fee (£)	66	66	66
ATF Test Fee (£)	91	133	175

Group 1

	<i>Low estimates</i>	<i>Best estimates</i>	<i>High estimates</i>
Time for Test, hours	0.92	0.92	0.92
Time for travel, hours	0.31	0.61	1.22
Miles for round trip	15.00	30.00	60.00

Group 2

	<i>Low estimates</i>	<i>Best estimates</i>	<i>High estimates</i>
Time for Test, hours	0.92	0.92	0.92
Time for travel, hours	0	0	0
Miles for round trip	0	0	0

Group 3

	<i>Low estimates</i>	<i>Best estimates</i>	<i>High estimates</i>
Time for Test, hours	1.08	1.08	1.08
Time for travel, hours	1.63	2.45	4.08
Miles for round trip	80.00	120.00	200.00