

Title: Increasing the maximum speed limit for agricultural tractors IA No: DfT00247 Lead department or agency: Department for Transport Other departments or agencies: Department for Environment, Food and Rural Affairs	Impact Assessment (IA)		
	Date: 25/09/2013		
	Stage: Consultation		
	Source of intervention: Domestic		
	Type of measure: Secondary legislation		
Contact for enquiries:			

Summary: Intervention and Options	RPC: N/A
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Cost of Preferred (or more likely) Option			
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANCB on 2009 prices)	In scope of One-In, Measure qualifies as One-Out?
£970.51m	£970.51m	£-89.72m	Yes
			OUT

What is the problem under consideration? Why is government intervention necessary?

Technical requirements in the Road Vehicles (Construction and Use) Regulations 1986 ("the C&U Regs) specify a set of specifications with which tractors must comply in order to be driven at more than 20 mph. The maximum speed limit for conventional tractors on public roads is currently 40 mph. Most tractors do not comply with the regulations to enable them to be driven at more than 20 mph. It has been suggested by a number of interested parties that setting the relevant speed in the C&U Regs at 20 mph speed limit is too low, on the grounds that it causes unnecessary costs to vehicle operators, congestion and avoidable overtaking accidents. Speed limits are set by Government to balance the private benefits of speed of travel with the social cost of high speeds, particularly potentially increased accident risk/severity. Government intervention is required as speed restrictions are a regulated activity.

What are the policy objectives and the intended effects?

The policy objective is to maximise the productivity and economic performance of the agricultural sector by considering a change to the current 20mph speed above which conventional tractors cannot drive unless they comply with certain further technical specifications. The intention is to ease time delays for tractor drivers and increase productivity for farmers in Great Britain. The industry perceives the current speed specified in the regulations to be outdated; (in some EU countries, conventional tractors can operate at 25mph or even higher speeds). The intention is also to level the playing field for businesses, who take compliance with the law seriously, compared with their competitors abroad and their less scrupulous competitors at home.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

Option 0: Do nothing. This is the baseline comparison.
Option 1: Increase the speed above which conventional tractors cannot drive to 25mph (40km/h) unless they comply with further technical specifications.
Option 1 is the preferred option. Increasing the speed specified in the regulations would maximise the economic performance of the agricultural sector, improving performance for those who currently travel at 20mph. It would ease time delays for tractor drivers and increase productivity for farmers in Great Britain. It would also create a more level playing field for businesses and increased respect for the regulated tractor speed limit. Alternatives to regulation have not been considered because speed limits are set by government regulation and only regulations can amend it.

Will the policy be reviewed? It will be reviewed. **If applicable, set review date:** October 2019

Does implementation go beyond minimum EU requirements?			N/A		
Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base.	Micro Yes	< 20 Yes	Small Yes	Medium Yes	Large Yes
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)			Traded: 0	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. [Note: minor technical changes made to 1st November 2013]

Signed by the Minister responsible: _____  Date: 04/11/13

Summary: Analysis & Evidence

Policy Option 1

Description: Increase the speed limit for regular tractors to 40km/h (25mph) to align with the rest of EU

FULL ECONOMIC ASSESSMENT

Price Base Year 2013	PV Base Year 2014	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: 320.17	High: 1620.84	Best Estimate: 970.51

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	0.0	0.0	0.0
High	0.0	0.0	0.0
Best Estimate	0.0	0.0	0.0

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

There are no monetised costs arising from this proposal.

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

Implementation costs to government, local authorities and information providers.

Possible road maintenance costs.

An increase in noise.

IMPACT UNCERTAIN:

Tractor drivers may experience higher fuel costs as they travel faster.

Tractor drivers may incur higher fuel duty costs as more fuel is consumed (transfer).

There could be an increase in Greenhouse Gas (GHG) emissions and a deterioration in air quality.

Government may take in less fuel duty revenue if fuel consumption falls (transfer).

Possible road safety costs

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	0.0	37.4	320.2
High	0.0	189.3	1620.8
Best Estimate	0.0	113.3	970.5

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

Time savings to tractor drivers from travelling faster (£1.13 billion over 10 years).

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

A more level playing field for businesses and increased respect for the speed specified in the regulation.

Other vehicles can go faster (where they cannot overtake the tractor.)

Farmers will experience a reduction in operating 'costs' - faster travel will lead to savings as journeys take less time and vehicles become more productive.

IMPACT UNCERTAIN:

Tractor drivers may experience lower fuel costs as they travel faster.

Tractor drivers may incur lower fuel duty costs as less fuel is consumed (transfer).

There could be a decrease in Greenhouse Gas (GHG) emissions and an improvement in air quality.

Government may take in more fuel duty revenue if fuel consumption increases (transfer).

Possible road safety benefits.

Key assumptions/sensitivities/risks	Discount rate (%)	3.5
<p>There is no non-compliance before and after the speed specified in the regulation is changed.</p> <p>Where aggregated data has been provided for certain inputs, these values are assumed to apply on a disaggregated level. For instance, figures showing average distance travelled have not been provided for England, Wales and Scotland separately: so it has been assumed that these values are the same for all countries.</p>		

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			In scope of OIOO?	Measure qualifies as
Costs: 0.0	Benefits: 89.7	Net: 89.7	Yes	OUT

Evidence Base (for summary sheets)

Background

1. The maximum speed limit for conventional tractors with or without a trailer is currently 40mph, as set out in the Road Traffic Regulation Act (1984), schedule 6. However, the Road Vehicles (Construction and Use) Regulations 1986 (the “C&U Regs”) set out certain technical requirements for tractors and requires those that are driven above 20mph to meet certain requirements, including the fitment of brakes meeting truck standards, including Anti-lock Braking System (ABS). Most tractors do not comply with these requirements so legally can only be used at speeds up to and including 20mph. The power to change vehicle speed limits under schedule 6 of the Road Traffic Regulation Act is devolved in Scotland. However the “C&U Regs” are not so we are consulting about the possibility of change across the whole of Great Britain, as these are the regulations which affect maximum speeds that are being considered for change.
2. The Farming Regulation Task Force reported to Government on ways of reducing regulatory burdens on farmers and food processors on 17 May 2011.¹ The Report recommended 200 ways of reducing unnecessary “red tape” and challenges the Department for Environment, Food and Rural Affairs (DEFRA), its agencies and delivery partners to change the way they approach regulation for this industry. The Task Force recommended a new approach to regulation based on trust, responsibility and partnership between Government and industry.
3. The Task Force made a large number of recommendations about how individual regulations and processes could be improved without reducing standards. Speed limits are the responsibility of the Department for Transport and are considered in this Impact Assessment (IA).
4. We are also publishing a separate IA examining the weight limits of agricultural vehicles.

Problem under consideration

5. The industry perceives restricting vehicles to a speed of only 20mph or less unless they comply with certain technical requirements to be outdated and inconsistent with technological developments over the last quarter-century, which includes better braking on tractors and better traction.
6. A risk of an outdated restriction is that if it ignored by less scrupulous farmers and operatives, they will then gain advantages over their more scrupulous colleagues. In other EU countries, all tractors can operate at 25mph (40km/h) and this presents concerns regarding international competitiveness.²

Rationale for intervention

7. Speed limits are set by Government to balance the private benefits of speed of travel with the social cost of high speeds, most clearly identified with accident risk. Government regulates speed limits because road users do not take the full social costs of speed into account when choosing how fast they travel.
8. The main reason for the lower vehicle speed limits for goods and agricultural vehicles is that these vehicles are designed to carry heavy loads and when laden take longer to slow down than a car travelling at the same speed, though there have been significant technical improvements to the capability of the vehicles deployed, especially the ability to stop, as well as to the roads infrastructure, since the current vehicle speed limits were set.
9. Increasing the speed above which tractors cannot be driven unless they comply with further technical requirements could yield improved productivity and competitiveness, and facilitate economic growth in the agricultural sector.
10. Government intervention is required to change speed restrictions as vehicle speed restrictions are regulated.

¹ <https://www.gov.uk/government/publications/independent-farming-regulation-task-force-report>

² In some countries conventional tractors can go faster than 25mph; in Germany they can go up to 60kmh or about 44mph

Policy objective

11. The policy objective is to maximise the benefits of travel to society, taking into account the sum of economic, environmental and safety outcomes by considering a change to the current 20mph speed restriction for conventional tractors.
12. We intend to consult on changing the regulations affecting the speed restriction in order to seek further evidence and views from additional parties.

Description of options considered

13. The options considered in this IA are:
 - Option 0: Do nothing. This is the baseline for comparison.
 - Option 1: Increase the speed above which regular tractors cannot drive to 25mph (40km/h) unless they comply with further technical specifications..

Option 1 is the preferred option. Increasing the speed specified in the restrictions would increase the productive capacity of the agricultural sector for those who currently travel at 20mph, by reducing the time farm workers spend driving tractors on public roads.

We are not considering an increase to the speed specified in the restrictions above 25mph as an increase to 25mph will align Great Britain with the majority of other EU member states. A speed limit higher than 25mph would also increase the burden on the agricultural industry by bringing the sector in scope of other regulations and we therefore consider this would be counter-productive.

Alternatives to regulation have not been considered because speed restrictions are set by government regulation and only regulations can amend it.

We would review the change five years after implementation, to assess whether the limit has been set at the right level. DfT accident statistics will help us assess whether there has been a change in road accidents involving agricultural tractors as a result of this proposal.

Do nothing – the reference case against which other options are considered

14. The 'do nothing' case is the counterfactual against which option 1 is compared. For this IA 'do nothing' means retaining the current speed limit for tractors.
15. Under this scenario, it is assumed that drivers continue travelling the same distances they have in the past. Furthermore, it is assumed that the agricultural sectors in Great Britain remain the same size as they are now and – consequently – that annual traffic flows of tractors on public roads are unchanged through time.
16. It is also assumed that all vehicles travel at 20 mph on public roads and that there is no non-compliance. The Department has been made aware of anecdotal evidence suggesting that non-compliance to these speed limits could be widespread. However – as we have no figures demonstrating how big a problem this is – we have assumed that no tractor drivers are breaking the law or would do so in future if the speed limit remained constant. It is important to note that – if non-compliance is wide-spread within the sector – then the savings in the calculations which follow are likely over-estimates of the true time-savings to agricultural tractors.

Monetised and non-monetised costs and benefits of option 1 ;

We have worked with stakeholders to better understand the characteristics of the sector. The following analysis is based on figures from external sources.³

³ Note that – while the policy under consideration is aimed at improving the efficiency of tractor travel – in the analysis that follows it is assumed that the lower generalised cost of tractor travel (arising from farmers being able to make less trips to move a given payload) does not make farmers substitute from moving produce using other modes into using tractors, (i.e. tractor travel does not increase as a result of this proposal).

Monetised Benefits

Time Savings for Agricultural Tractor Drivers:

17. The benefit that has been monetised in this Impact Assessment are the time savings associated with tractor drivers being able to drive faster. A complete list of assumptions and data used in the analysis which follows are provided in Annexes 1 and 2 respectively.
18. The methodology used to calculate the time savings to tractor drivers of being able to travel at 25mph is as follows:
- First, we estimated the amount of time spent travelling on public roads based on the distances tractor drivers currently cover (in miles) on a yearly basis divided by 20 (the current speed above which tractors cannot drive unless they comply with further technical specifications).
 - Next, we estimated the time taken to cover the same distance whilst travelling at 25 mph.⁴ The difference between the two gives us the time saved by increasing the speed limit. The tables below show these estimates of hours saved per tractor per farm:

HIGH ESTIMATE: Time Saved per day per Tractor (hours, High Estimate)

For Tractors carrying Trailers with an average capacity of 16 tonnes⁵

Arable & Mixed	Peak ⁶	Non-Peak	Other	Peak	Non-Peak
England	0.70	0.04	England	1.13	0.05
Wales	0.70	0.04	Wales	1.13	0.05
Scotland	0.70	0.04	Scotland	1.13	0.05

For Tractors carrying Trailers with an average capacity of 12 tonnes

Arable & Mixed	Peak	Non-Peak	Other	Peak	Non-Peak
England	0.33	0.03	England	0.37	0.04
Wales	0.33	0.03	Wales	0.37	0.04
Scotland	0.33	0.03	Scotland	0.37	0.04

LOW ESTIMATE: Time Saved per day per Tractor (hours, High Estimate)

For Tractors carrying Trailers with an average capacity of 16 tonnes

Arable & Mixed	Peak	Non-Peak	Other	Peak	Non-Peak
England	0.31	0.02	England	0.50	0.02
Wales	0.31	0.02	Wales	0.50	0.02
Scotland	0.31	0.02	Scotland	0.50	0.02

For Tractors carrying Trailers with an average capacity of 12 tonnes

Arable & Mixed	Peak	Non-Peak	Other	Peak	Non-Peak
England	0.15	0.01	England	0.16	0.02
Wales	0.15	0.01	Wales	0.16	0.02
Scotland	0.15	0.01	Scotland	0.16	0.02

Note that – for a given farm (and trailer type) – the figures are always the same for England, Wales and Scotland as none of the data used at this point is disaggregated on a country basis.

However, because there is some degree of uncertainty surrounding this assumption (and it would be undesirable to see a big shift from travel using other modes into tractors), we will ask in the consultation the extent to which consultees view this as a risk

⁴ It is clear that no tractor will actually be travelling at 20mph or 25mph for the entire journey: in particular, when a driver is travelling on a windy road (or when they are accelerating or decelerating), they will likely be travelling slightly slower. However – as mentioned earlier – while we have assumed there is no non-compliance there will in reality be times when tractors are travelling above these limits. Therefore – in the absence of any information on actual tractors speeds – use of the speed limits to model vehicle speeds in the do nothing and do something scenarios seems appropriate.

⁵ We specify the type of trailer carried here because – as shown in tables A3 and A4 of Annex 2 – the average number of trips per day and the average distance travelled per trip for any given tractor depends on the capacity of the trailer it's carrying.

⁶ 'Peak' and 'Non-Peak' here refer to months with relatively more and less tractor activity, respectively.

- We then scale the results above to take the following into account: the number of tractors per farm, the number of farms in England, Wales and Scotland and the number of farms external stakeholders have suggested would benefit from this proposal. This gives the following results:

HIGH ESTIMATE: Total Time Saved per day across all tractors and farms (hours)

Total for Tractors carrying 16 tonne trailers

Arable & Mixed	Peak	Non-Peak
England	17,247.04	936.11
Wales	1,121.06	60.85
Scotland	4,083.72	221.65

Other	Peak	Non-Peak
England	25,342.05	1,171.81
Wales	9,883.40	457.01
Scotland	6,526.79	301.80

Total for Tractors carrying 12 tonne trailers

Arable & Mixed	Peak	Non-Peak
England	8,797.66	837.87
Wales	571.85	54.46
Scotland	2,083.09	198.39

Other	Peak	Non-Peak
England	8,834.50	857.52
Wales	3,445.45	334.43
Scotland	2,275.31	220.85

LOW ESTIMATE: Time Saved per day per Tractor (hours, High Estimate)

Total for Tractors carrying 16 tonne trailers

Arable & Mixed	Peak	Non-Peak
England	5,110.24	277.36
Wales	332.17	18.03
Scotland	1,209.99	65.67

Other	Peak	Non-Peak
England	7,508.75	347.20
Wales	2,928.41	135.41
Scotland	1,933.86	89.42

Total for Tractors carrying 12 tonne trailers

Arable & Mixed	Peak	Non-Peak
England	2,606.71	248.26
Wales	169.44	16.14
Scotland	617.21	58.78

Other	Peak	Non-Peak
England	2,617.63	254.08
Wales	1,020.87	99.09
Scotland	674.16	65.44

- Finally – by adjusting the figures to account for the relative peak periods of activity throughout the year – we obtain the total hours saved per year⁷:

TOTAL HOURS SAVED PER YEAR	High Estimate
England	7,278,072
Wales	1,804,751
Scotland	1,808,392
Total	10,891,215

TOTAL HOURS SAVED PER YEAR	Low Estimate
England	2,156,466
Wales	534,741
Scotland	535,820
Total	3,227,027

⁷ This is done using the information provided in Table A2 in Annex 2.

19. After multiplying these hours by the hourly cost of employing a farmer⁸, we obtain a Present Value of the Time Savings equal to £970.51 million.
20. As mentioned earlier, there is anecdotal evidence to suggest that farmers are already travelling at speeds above 20mph. Therefore, it is reasonable to assume that the figure quoted above is an over-estimate of the time savings to tractor drivers obtained from increasing the speed limit to 25 mph, but for the purposes of analysis we have not adjusted the figure.

Non-monetised Benefits

Time Savings for other Vehicles:

21. As the current speed limit for tractors on public roads is significantly lower than it is for most other vehicles, it is reasonable to assume that vehicles driving behind tractors will experience time savings as a result of the speed limit increase. We expect these savings would be most significant on small rural roads, which is where most tractors drive and also where the likelihood of queues developing is greater, (as the roads are small and do not permit overtaking). However, as the Department does not have a detailed breakdown of traffic flows for agricultural vehicles it has not been possible to quantify these savings.

Non-Fuel Operating Costs:

22. Farmers will experience a reduction in non-fuel operating costs as tractors travel faster. The elements making up non-fuel vehicle operating costs include oil, tyres, maintenance, depreciation and vehicle capital savings. However, as the Department does not have a standard set of parameters regarding the non-fuel operating costs of agricultural tractors; it has not been possible to quantify these savings.

Competition:

23. There is a potential competition benefit associated with changes whereby the option to increase the speed limit for regular tractors would level the playing field for businesses. We have anecdotal evidence obtained through informal dialogue with industry suggesting that – at present – a proportion of businesses are breaching these limits. Those farmers and operators currently speeding have a competitive advantage over those who adhere to the maximum speed limits; a change in these limits could ensure that the latter group are not unfairly disadvantaged in this manner.
24. Furthermore, in other EU countries tractors can already operate at 25mph (40km/h). This proposal could address concerns regarding international competitiveness.

Non-monetised Costs

Road Maintenance:

25. The effects on road maintenance arising from this proposal are not known. If this proposal were to change the requirements for maintenance then this could impose some additional costs to those who maintain the roads in question. However, as we suspect that some tractors are already travelling above the current speed limit and this proposal is not expected to increase the number of tractors on the road, any effect is anticipated to be negligible. We welcome views in response to the consultation regarding the effects of the policy on wear and tear and road maintenance requirements.

Noise:

26. It is reasonable to assume that as tractors travel faster the noise they produce will increase. The impact of this additional noise will depend upon the number of people living in areas closest to the roads which tractors travel on. Unfortunately, we have been unable to quantify these impacts at this stage. However, there are at least two reasons to believe these impacts will be small: first – as mentioned above – we have anecdotal evidence suggesting tractors that are non-compliant with regulations permitting travelling at above 20 mph are already travelling above 20 mph, so the increase in the speed limit will not affect the behaviour of these drivers. Second, it is reasonable to assume that the majority of tractor travel takes place on rural roads, where population density is lower, meaning relatively few people will be affected.

⁸ Equal to: "Cost of Employing a Farmer for an 8 hour day" (Table A1, Annex 2) divided by 8.

Transition costs:

- 27. There would also be a direct transition cost of implementation, as yet un-quantified, accruing to both government and the private sector as a result of the speed limit change. For example, government (central and local) would incur some publicity costs where literature and publications will need to be updated to reflect the new vehicle speed limit. We will seek views in the consultation on transition/publicity costs.
- 28. There will be no change to enforcement costs as enforcement practices will remain the same.

Non-monetised: Direction of Impact Uncertain

Fuel:

- 29. We are unable to establish how fuel consumption will change in response to the speed limit change proposed, in part because there is no fuel consumption equation which explains how fuel consumption varies with respect to changes in the average speed of an agricultural tractor. Intuitively, it could be assumed that as vehicles travel faster they consume more fuel per unit of distance travelled. Interestingly however, this might not be the case. It is true that above a certain speed the faster a vehicle travels the more fuel it will consume. However at relatively slow speeds it is possible that this relationship is inverted.
- 30. For instance using the fuel consumption equation and parameters from Web Tag⁹ – the speed at which fuel consumption per kilometre travelled is minimised for “OGV1” vehicles (which includes 2 and 3-axle rigid HGVs) is 64 km/h (or 39.8 mph). For illustrative purposes, the table below shows the litres consumed per km travelled for the same representative vehicle at 20 mph and 25 mph:

Litres of Fuel Consumed per km	20mph	25mph
	0.208271	0.188199

- 31. As it is not possible to establish how increasing the speed limit for agricultural tractors from 20 to 25 mph would impact total fuel consumption, we will seek to gather evidence on the impact of this proposal on fuel consumption during the consultation.

Fuel duty:

- 32. As we are unable to establish the impact on fuel consumption of this proposal, it is impossible to assert what the impact on fuel duty paid by tractor drivers will be. In any case, the net impact of the change can be treated as a transfer between tractor drivers and tax payers: a cost to one and a benefit to the other depending on whether fuel consumption increases or decreases.

Greenhouse Gas (GHG) and Air Quality impacts:

- 33. As GHG emissions and impacts on air quality are a function of fuel consumption – and we don’t know the impact on fuel consumption – we are unable to determine how these items will be affected in response to the speed limit change. However, if we are able to quantify the effect on fuel consumption at final stage then we will be able to establish the impacts on GHGs and air quality.

Road safety: Potential Benefits

- 34. No study has been carried out which specifically examines the road safety implications of increasing the maximum speed at which tractors can be driven with less stringent technical specifications in Great Britain. As most studies of speed-casualty relationships are based on changes in speed across all vehicles types, very little evidence is available on the effects of a speed limit change only for tractors.
- 35. It could be argued that raising the speed specified in the restriction for tractors from 20mph to 25mph would make legal the speeds which – anecdotal evidence suggests – these vehicle drivers

⁹ WebTag Unit 3.5.6. WebTAG (Transport Analysis Guidance), is the Department for Transport’s website for guidance on the conduct of transport studies: http://www.dft.gov.uk/webtag/documents/expert/pdf/u3_5_6-vot-op-cost-120723.pdf

adopt already and that therefore the increase in the average speed of these vehicles would be small in reality.

36. Furthermore, implementing these changes could yield road safety benefits through decreased speed differentials on the road. There is an argument that mismatched speed is one of the greatest contributory factors to road incidents; the accident rate for these vehicles is highest on single carriageways where the vehicle specific speed limits range from 20mph for tractors to a 60mph signed road speed.¹⁰ Between 2005 and 2012, the proportion of accidents involving all vehicles (other than agricultural ones) for which “Driving too slow for conditions” was listed as a factor contributing to the accident relative to *all* accidents involving the same vehicles was – on average – 0.1%. The same ratio for Agricultural Tractors is 2.7%, suggesting that slow speeds are a disproportionately larger problem for Agricultural Tractors than other vehicles.¹¹
37. In addition, the desire to overtake will be lower where the speed of the vehicle in front is higher.¹² The report ‘A review of accidents involving agricultural and other types of working vehicle’ found that accidents involving a direct collision between a car and an agricultural vehicle, where at least one car occupant was killed, accounted for 16 of 45 accidents involving agricultural vehicles. Of these, 7 fatal incidents involved some kind of overtaking manoeuvre (four where the agricultural vehicle was directly involved and three where the agricultural vehicle was not directly involved).
38. Between 1989 and 2012, the proportion of accidents involving all vehicles (other than agricultural ones) for which “overtaking moving vehicle on the offside” was listed as a manoeuvre occurring during the time of the accident relative to *all* accidents involving the same vehicles was (on average) 4.1%. The same ratio for agricultural tractors over the same period is 20.9%. Furthermore, for approximately 90-95% of the accidents involving tractors (for which this manoeuvre is listed), it was the *other* vehicle overtaking the tractor (and not the other way around). This suggests that tractors being overtaken is an issue which could be mitigated by allowing them to driver faster.¹³
39. We will seek views in the consultation on what effect an increase in speed limits for these vehicles would have on the safety of national public roads, including the effect it might have on other road users.

Road safety: Potential Costs

40. Modelling to forecast the effects of increased speed on road safety (i.e. the numbers of casualties and collisions) has not been carried out. The probability and severity of road incidents occurring could increase as a result of tractors travelling faster.
41. The reported numbers of accidents involving at least one agricultural vehicle in the years spanning 2007-2012 total 4,534, and the reported numbers of agricultural vehicles in personal injury accidents in the same period total 4,567.¹⁴ In Great Britain in 2011 there were 151,474 reported personal injury accidents in total – meaning agricultural vehicles were involved in 0.3% of all accidents. In terms of severity they were involved in 1% of fatal accidents, 0.5% of serious accidents, and 0.3% of slights.
42. It would be logical to assume that as a result of this proposal as the distance and time required to overtake tractors would increase,¹⁵ the severity of collisions would increase (when they occur) and tractors would take longer to brake. However, the magnitude of these changes could be rather limited because – as mentioned earlier – we suspect that a number of the vehicles in question are already travelling above 20 mph.

¹⁰ 84% of 45 accidents involving agricultural vehicles occurred on a single carriageway road with two lanes according to, ‘A review of accidents involving agricultural and other types of working vehicle, 1996-2001’, by T L Smith (TRL) and R Gard (Richard Gard Associates), p 9. TRL’s report ‘HGV speed limit increase evaluation: final report’ by I Summersgill, G Buckle, T Robinson and S Smith stated that the number of agricultural vehicles involved in injury accidents on 60mph single carriageway roads, 2005-2007 was 1232 in total. (However this included diggers and other agricultural vehicles not relevant to this IA.) P.15.

¹¹ DfT STATS 19. Statistics on personal injury road accidents used for this IA are based on information collected by the police in a system known as STATS19. STATS19 covers road accidents involving injury occurring on the public highway.

¹² Opportunities to overtake are however constrained by many factors other than speed – such as road geometry and sight distance, and predicting behaviour such as overtaking is difficult, i.e. whether the driver makes use of the opportunities presented depends on the driver, and vehicle, characteristics.

¹³ DfT STATS 19

¹⁴ DfT STATS 19

¹⁵ TRL’s report, ‘HGV speed limit increase evaluation: final report’ by I Summersgill, G Buckle, T Robinson and S Smith, investigated the distance and time requirements for overtaking in various scenarios and found that “for an increase in the speed of the overtaken vehicle of 1mph the estimated increases in distance and time were as follows: 6m to 14m (distance required to complete overtaking); and 9m to 24m (distance gap required to overtake.) Even if HGVs increased their speed from 40mph to 50mph only a further 2-3 seconds would be required for an overtake.” P. 75.

43. As most studies of speed-casualty relationships are based on changes in speed across all vehicle types, very little evidence is available on the effects of a speed restriction changes only for tractors. We will seek views in the consultation on what effect an increase in speed at which tractors with less stringent technical specifications can be driven would have on the safety of national public roads, including the effect it may have on other road users.

Direct costs and benefits to business calculations (following OITO methodology);

44. As the monetised time savings arising from this proposal accrue entirely to business and the proposal is clearly deregulatory, this measure is an 'Out' with an Equivalent Annual Net Cost to business of £-89.72m, (i.e. an annual net benefit to UK business of £89.72 million).¹⁶

45. It is worth noting however that this figure may be an over-estimate for at least two reasons. First – as stated earlier – there is anecdotal evidence to suggest that tractor drivers are already driving above the speed at which tractors with less stringent technical requirements should be driven on public roads. If their behaviour does not change in response to this proposal, then the number of those affected is actually smaller than estimated here and – accordingly – the time savings will be lower. Secondly, there are numerous other impacts for which we don't know the direction of the impact: in particular fuel consumption. If fuel consumption were to increase as a result of this proposal, then the EANCB estimated here will be too high.

Impact Assessment examining the maximum weights of agricultural trailers and combinations

46. As mentioned earlier, we are publishing a separate IA examining the weight limits of agricultural vehicles alongside this one. As with this proposal, the core benefits associated with the intervention take the form of time savings for tractor drivers. We cannot know prior to consultation when or if these proposals will come into force. However, it is worth noting that if they are both introduced then the sum of the benefits associated with the time savings arising from both interventions will be an over-estimate of the actual total time savings to tractor drivers arising from the proposals. This is because – as in the calculations for each Impact Assessment it is assumed that the other proposal will not come into effect – the sum of the numbers doesn't take into account that there are decreasing returns associated with the extra interventions. We will endeavour to accurately quantify the total size of the time savings at final stage if both proposals are to come into effect.

Specific Impact Tests

Small and Micro Business Assessment (SMBA)

1. This proposal will affect small firms, but as it is beneficial to business it would be counter-productive to not apply these changes to them. We will ask in the consultation how the proposals impact on small firms.

Competition Impact Test

2. The Office of Fair Trading (OFT) indicates that four questions should be considered to examine whether there would be significant impacts on competition. Would the proposal:

- Directly limit the number or range of suppliers?
- Indirectly limit the number or range of suppliers?
- Limit the ability of suppliers to compete?
- Reduce suppliers' incentives to compete vigorously?

¹⁶ This figure was obtained using the latest version of the Impact Assessment calculator (Available here: <https://www.gov.uk/government/publications/impact-assessment-calculator--3>)

3. We have considered all four questions in turn. The proposal would in no way, directly or indirectly, limit the number or range of suppliers. It also wouldn't limit the ability of suppliers to compete: it would create a more level playing field between those who currently obey the law and those who travel faster than legally permitted, as well as between farmers in Great Britain and those in other EU member states. We also consider that there would be no reduction in suppliers' incentives to compete vigorously.

Equalities Impact Test

4. Any possible negative impacts on equalities have been considered. These include possible negative impacts on race, sexual orientation, religious belief, transgender/transsexual persons, disability, pregnancy and maternity, gender, age, etc. The new speed limit would apply to all tractor drivers regardless of these factors, and we therefore believe that there are no impacts on equalities arising from these proposals.

Carbon Impact Test

5. As mentioned earlier, we are unable to establish at this stage what the impact of this proposal will be on fuel consumption. We will seek to gather evidence on the impact of this proposal on fuel consumption during the consultation, and officials will continue to work with officials in the Department for Environment, Food and Rural Affairs, and the Department of Energy and Climate Change to understand possible impacts.

Annex 1: List of Assumptions used in the analysis

- Speeds travelled in the *do nothing* and *do something* scenarios are 20 mph and 25 mph respectively. There is no non-compliance.
- Driver values of time grow in line through time with forecast changes in real GDP per capita.
- Where sensitivity testing is conducted and a range has not been provided, the "high" and "low" estimates of the inputs are calculated as 20% above and below the values provided.
- Where aggregated data has been provided for certain inputs, these values are assumed to apply on a disaggregated level. For instance, figures showing average distance travelled have not been provided for England Wales and Scotland separately: so it has been assumed that these values are the same for all countries.
- "Take up" estimates are included in this analysis because - despite the fact that the new speed limit would apply to all tractor drivers (who are under no obligation to undertake any additional tests to drive at these faster speed), stakeholders have indicated that these "take-up" estimates are more representative of the number of farmers that would own the vehicles likely to benefit from these changes than the raw numbers of farms and trailers alone.
- The Best Estimate is equal to the average of the "high" and the "low" estimates of the policy.
- The number of farms does not vary through time. Also, all ratios are the same through time (e.g. the ratio of Arable and Mixed farms to 'other' farms in England is constant, as is the number of trailers with a capacity of 16t per farm).
- Nobody replaces their tractors or trailers in response to the changes in speed limits.
- All travel time saved is spent working.
- For all farms in scope, there is one tractor for every trailer.
- The lower generalised cost of tractor travel does not make farmers substitute from moving produce using other modes into using tractors (i.e. tractor travel does not increase as a result of this proposal).

Annex 2: Data used in the analysis

Key:

Centre-Point estimate

Range¹⁷

Table A1: Cost of Employing a Farmer for an 8 hour day

	High	Low
£103.82	£124.59	£83.06

Table A2: Peak Months for using Trailers

Jan	9.2%
Feb	8.8%
Mar	9.2%
Apr	11.2%
May	14.0%
Jun	20.0%
Jul	68.8%
Aug	87.2%
Sep	79.6%
Oct	41.2%
Nov	19.6%
Dec	14.0%
No Peaks	8.8%

Table A3: Average number of trips per day

		High	Low
NON-PEAK 12 tonnes	0.4	0.48	0.32
		High	Low
NON-PEAK 16 tonnes	0.4	0.48	0.32
		High	Low
PEAK 12 tonnes	3.5	4.2	2.8
		High	Low
PEAK 16 tonnes	6.4	7.68	5.12

Table A4: Average Distance Travelled per Journey (miles)

	Arable & Mixed	High	Low	Other	High	Low
NON-PEAK 12 tonnes	5.5	6.6	4.4	6.2	7.44	4.96
	Arable & Mixed	High	Low	Other	High	Low
NON-PEAK 16 tonnes	6.6	7.92	5.28	9.1	10.92	7.28

¹⁷ As stated in the Assumptions (Annex 1), where sensitivity testing is conducted and a range has not been provided, the "high" and "low" estimates of the inputs are calculated as 20% above and below the values provided.

	Arable & Mixed	High	Low	Other	High	Low
PEAK 12 tonnes	6.6	7.92	5.28	7.3	8.76	5.84
	Arable & Mixed	High	Low	Other	High	Low
PEAK 16 tonnes	7.6	9.12	6.08	12.3	14.76	9.84

Table A5: Proportions of Farm Types in different countries

	Arable & Mixed	Other	Total Number of Farms
England	0.4	0.6	50000
	Arable & Mixed	Other	Total Number of Farms
Wales	0.1	0.9	13000
	Arable & Mixed	Other	Total Number of Farms
Scotland	0.38	0.62	12462

Table A6: Take up estimates by Farm Type

Arable & Mixed	High	Low	Other	High	Low
0.38	0.456	0.304	0.23	0.276	0.184

Table A7: Average Number of Trailers per Farm

Average number of Trailers with 12t capacity	2.9
Average number of Trailers with 16t capacity	2.7

Table A8: Average Number of Days per Month

30
