Consultation questions

General

1. Are you responding as:

- an individual or
- on behalf of an organisation?

This response is from the RAC Foundation, a transport policy and research organisation which explores the economic, mobility, safety and environmental issues relating to roads and their users. The Foundation publishes independent research and analysis to promote informed debate from the perspective of the responsible motorist. Nothing in this response is confidential.

2. (For individuals) Do you have a vehicle or vehicles that require MOT testing?

- yes
- no

3. What vehicle are you referring to during your response?

- motorcycle
- car
- van
- other

4. (For organisations) what is the size of your business by the number of employees?

- 1-9 ✓

- 10-49
- 50-249
- 250+

5. Do you work or own a company that carries out MOT testing?

- yes
- no ✓

Questions relating to part 1: Changing the date of the first MOT and other proposals for change in 2023

For all respondents

1. In your view, should the date of the first MOT

- remain at 3 years ✓
- move from 3 to 4 years
- move from 3 to 5 years

2. Please explain why you hold this view.

We are not persuaded by the evidence published to support this consultation. We suspect the analysis underplays the effect of the year 3 requirement in prompting vehicle owners to get their vehicles checked, be aware of and address as necessary the aspects of roadworthiness on which a vehicle might fail.

We have also undertaken analysis to explore whether the data genuinely supports slipping the first test to year 4, and on the question of whether doing so would create a worthwhile saving for vehicle owners.

Our analyses were conducted on cars/vans (Class 4 tests) due to data availability, though the arguments are likely to hold for other test classes. For purposes of convenience, these have been referred to as ‘cars’ throughout.

Starting with the question about whether the test should be moved from year 3 to year 4, currently around half a million cars, about 13% of those tested, fail every year. For this reason, it is also inadvisable to extend the interval between tests to every two years. This could potentially increase the number of unroadworthy cars to around 25% of the fleet come the time of the next test.

Under the current rule, where cars have to be tested by their 3rd birthday, 13% of them failed in 2022 (300,462 out of 2,392,502). 4% (90,996) of cars tested were found to be 'dangerous'.

There was no marked difference in the fail rate for cars tested between their 3rd and 4th birthdays suggesting that 3-year old cars are not materially safer than 4-year old cars. Based on current MOT results, if cars were not tested until their 4th birthday then failing cars would be driven up to 6.3 billion miles in the year prior to their relevant roadworthiness failings being identified at a test, 2.5 billion more than is currently the case.

We calculated risk profiles for 3- and 4-year-old cars for 2019, 2020 and 2021, based on recorded crashes per million miles driven, for all crashes, KSIs and fatal collisions (See Table 1).

Table 1: Risk of involvement in a crash (Collisions per 1,000,000 miles driven)

	All			KSI			Fatal		
Age of Vehicle	**2019**	**2020**	**2021**	**2019**	**2020**	**2021**	**2019**	**2020**	**2021**
3 years	0.4038	0.2842	0.2861	0.0698	0.0525	0.0525	0.0055	0.0028	0.0032
4 years	0.4235	0.3063	0.3119	0.0744	0.0526	0.0579	0.0046	0.004	0.0032

Differences between the risk of involvement in crashes between the vehicle ages were small and inconsistent. For example, whilst 4-year old cars were less likely to be involved in collisions overall, the difference in risk was neither large nor consistent. The chance of being involved in a fatal crash was actually greater for 3-year old cars in 2019, and the probabilities were equal in 2021.

It is important to bear in mind that we are concerned here not simply with failings in roadworthiness that could themselves be a contributory factor in crashes occurring. Also of concern is the way in which a vehicle's safety performance could be impaired if it is involved in a collision whose causes relate to other, possibly external, factors (i.e., failings that could worsen the consequences of a crash) rather than simply causing it.

Cost to the Motorist

On the issue of the MoT fee, we recognise both the general inflationary pressures on household budgets affecting those paying for the MoT and the specific challenges for MoT testing centres in terms of staffing, equipment and materials in conducting the test.

We would observe that for vehicle owners the cost of the MoT should be viewed in the context of the overall cost of running a vehicle in a properly roadworthy condition. In many instances it is likely that the real budgetary issue for owners is not the current cost of the MoT itself but the cost of getting defects rectified.

With the DVSA maximum price set at a shade under £55 per test, the price of an MoT amounts to little over 1% of the annual motoring costs of the average household. Table 2 below, based on the Living Costs and Food Survey, gives the costs across all households, as well as the highest and lowest income deciles.

Table 2: Cost of Year 3 MOT Test as Percentage of 2022 Household Motoring Expenditure (LCFS, 2022)

	Lowest Decile	Highest Decile	All Households
Percentage of Total Motoring Expenditure	1.96	0.61	1.05
Percentage of Car/Van Costs (excl. purchase/hire)	2.87	1.16	1.78

To put the test fee in perspective, at the current level of £54.85 it roughly equates to two thirds of the cost of a single 55 litre[1] tank of fuel (£81 for petrol and £92 for diesel), or only 24-29% more than just the VAT and Duty elements on that tank of fuel alone. These figures are whilst pump prices are currently at a 12-month low.

When considering the savings that might accrue to households from avoiding the Year 3 MoT we note that the saving would only apply for one year in any vehicle's lifetime. As is noted in the consultation document, it is currently possible to find a garage where tests are available for substantially less than the maximum fee.

3. In your view, should changes be introduced alongside changing the date of the first MOT test to mitigate any effects on road safety (for example, re brake and tyre wear) or polluting emissions

- additional safety information campaigns for drivers
- additional odometer checks?
- DfT publicity to ensure that motorists keep their vehicles safe ahead of the date of first MOT test?
- ensure vehicle service packages include items that are also covered in the MOT
- other (please specify)

There must generally be a case for more publicity being given to the safety risks drivers are posing by using a vehicle that would fail a legitimate, timely MoT. This is not least to highlight the responsibility of drivers to ensure that their vehicles are roadworthy day-to-day rather than waiting for an MoT to address issues such as badly worn or damaged tyres.

Whilst noting the statement "*The DfT will accompany any such change with publicity to ensure that motorists are still aware of the obligations they have to keep their vehicle roadworthy*." We doubt very much that any such campaign – one that would actually 'ensure' awareness – would in practice be delivered for any plausibly imaginable budget (we might point to the ongoing challenge the DfT and National Highways face in explaining Smart Motorways).and the

[1] For a Ford Focus as used in https://www.racfoundation.org/research/economy/fuel-fact-sheet-latest-one

fact is that no information campaign is ever going to be as effective as a mandatory, legal requirement.

It is worrying that service checks would not already automatically cover all aspects of a vehicle's status and performance that might affect its roadworthiness. It would be helpful to understand in detail which elements are not being covered and the rationale for that happening.

The point about odometer checks is interesting. MOT test data currently provides a useful means for assessing annual vehicle mileages. The current requirement to only have the first test at 3 years leads to deficiencies in the accuracy of mileage estimates. To delay the test further would introduce further constraints on the accuracy of derivable data, and thus hinder the ability of the government to keep track of its performance in respect of its Net Zero commitments. But where would the responsibility be placed to conduct a check in the absence of an MoT conducted by an authorised garage? Would this be a driver or potentially a manufacturer responsibility? Would there be any independent verification?

4. As part of this package of change, we are proposing to move to particulate number (PN) testing as a more robust emissions assessment for modern diesel vehicles. Do you believe that this is the correct approach, and why?

Given concerns about air pollution concentrations, we consider it appropriate to improve methods for testing particle emissions from diesel engines. As various areas introduce restrictions on vehicle use based upon the emissions performance of vehicles, it would be desirable for as much as possible be done to ensure that the operating performance of these vehicles matches expectations. This is particularly important, not just in cases of inadvertent malfunctioning of pollution control equipment, but also with respect to detecting cases where the DPF has been intentionally removed or bypassed.

5. Do you have any views on how we should implement PN Testing (likely to be post 2013 diesel engine vehicles) such as phasing in the requirement for garages to invest in PN testing equipment?

We recognise the practical challenges posed because of the costs of testing equipment. It would be important for any change to the testing requirement to stay in step with the practical ability of vehicle owners to get their vehicles tested. Hence, any approach to phasing would need to recognise the implications for consumers as well as for the accredited testing garages.

Questions relating to part 2: Call for evidence on changes to MOT testing

General

1. What do you think are the advantages of the current system of requiring vehicles to undergo an annual MOT test:

- road safety ✓
- environmental protection ✓
- fewer breakdowns ✓
- other advantages
- there are no advantages
- unsure

2. Why do you hold this view?

Roadworthiness must predominantly be a matter of road safety, and encompass the regular testing of safety-critical aspects of the vehicle. Emissions performance would also be a relevant factor, given environmental and health concerns about carbon, NOx and particulate emissions, with avoidance of breakdowns third.

Frequency of testing

3. In your view, should MOT tests for cars be required:

- annually (from the time the car is 3 years old) ✓
- every 2 years (from the time the car is 3 years old)
- every 2 years (from the time the car is 3 years old up to 10 years and annually thereafter
- other (please specify)?

4. Please could you explain your view further? (150 words max)

We have set out our reasoning in answer to the earlier question –the increasing adoption of ADAS systems and over-the-air software updates suggests that, if anything, the date of the first independent roadworthiness test should be brought forward.

5. In your view, should MOT tests for motorbikes be required:

- annually (from the time the motorbike is 3 years old) ✓
- every 2 years (from the time the motorbike is 3 years old)
- every 2 years from the time the motorbike is 3 years old up to 10 years and annually thereafter
- other (please specify)?

6. Please could you explain your view further? (150 words max)

We see no reason to have a different cycle for motorbikes.

7. In your view, should light goods vehicles up to 3.5 tonnes be required:

- annually (from the time the vehicle is 3 years old) that is, no change✓
- every 2 years from the time the vehicle is 3 years old
- every 2 years from the time the vehicle is 3 years old up to 10 years and annually thereafter
- other (please specify)

8. Please could you explain your view further? (150 words max)

We see no reason to have a different cycle for LGVs.

9. What effect do think that any move to less frequent MOTs could have on:

- road safety
- the environment
- vehicle crime
- consumer protection
- any other factor
- I can't think of any effects of having less frequent MOT testing

Please provide any evidence that supports your view.

We have set out our analysis on the negative road safety and environmental implications of moving to less frequent MOTs in earlier question responses.

10. If MOT frequency is reduced, to what extent do you think vehicles are more or less likely to be maintained to legal standards:

- much more likely
- more likely
- no change
- less likely ✓
- much less likely
- don't know

11. Why do you think this (include any evidence that supports your view)? (150 words max)

Attitudes may change over time, but a relaxation from year 3 to year 4, and any associated lengthening of the gap between tests, would send a wholly unhelpful message to drivers about the importance of maintaining the roadworthiness of the vehicles they drive. This is a well-established building block of a safety system that has made us amongst the world-leaders in road safety. If we are serious about achieving further improvements in our road safety record we should not be contemplating a change that would create even a minimal increase in the use of unroadworthy vehicles, and we should

recognise that even a minimal increase would be a fraction of a very large number.

Testing of specific vehicles

14. How does the MOT (or other roadworthiness testing) need to change to accommodate the differences between electric and hybrid vehicles and traditional internal combustion engine vehicles?

Battery performance and longevity are concerns we are hearing about as BEVs make their way in number through to the used vehicle market. Though not specifically a roadworthiness issue, we see value in the development of independently applicable battery integrity and battery performance tests that could usefully be incorporated into the MoT, though not be restricted to MoT deployment alone – see our response to Q25.

16. Goods vehicles typically have higher mileage than cars / motorbikes and will therefore have more wear and tear, what specific mitigating measures for large vans should we consider? (for example, MOT tests for vans could be required every 50,000 miles)

We are aware of there being a relationship between mileage and vehicle component wear, most obviously in tyres, which will have been raised by other respondents, but we don't currently have analysis of sufficient van-only data to justify a mileage-related obligation being created. The likelihood that there would be road safety benefits to having a mileage-based requirement for certain high mileage vehicles suggests there would be merit in this being explored in more detail.

17. In your view, should the exemption for historic vehicles need to be reviewed? Why?

We were never persuaded that the exemption made any sense in the first place. We do not have sufficient data to indicate whether re-introducing the legal obligation would be a priority today, though such data should be explored if the opportunity to re-open the question presented itself.

Content of testing

25. Should we explore options for assessing the health of an electric vehicle-specific components, for example, battery, motor?

As per Q14 – It is battery performance and longevity that are the specific concerns we are hearing about as BEVs make their way in number through to the used vehicle market. Though not specifically a roadworthiness issue we see value in the development of independently applicable battery integrity and battery performance tests that could usefully be incorporated into the MoT, though not be restricted to MoT deployment alone. Consumers are aware that motors in vehicles are subject to mechanical wear and tear, and this is likely to relate to their use, and therefore relate to vehicle mileage, but battery-life, degradation and damage are far less well understood.

27. Should EV conversions (also known as retrofit) be checked at an MOT to verify that an EV conversion has taken place - enabling the DVLA to verify a conversion prior to amending the vehicle record (and VED rate). If this was introduced, do you think the check should be extended to check the safety of any conversion – in which case do you think additional training would be needed to ensure safety for MOT testers?

If the practice of EV conversion takes off in greater volume, as has been the case in other countries (e.g., France), we see there being a case for independent safety approval. It is less clear whether this would be needed on the same cycle as subsequent MoTs. There is a bigger question here about the capability of the auto sector to recruit and train technicians with the skills, knowledge and access to the technical equipment needed to enable them to check and work on electric vehicles and the very complex the levels of computer code behind their operation.

28. In your view, should we use the MOT to encourage drivers to have faults on recalled vehicles rectified?

Yes.

29. Do you think we should move to failing vehicles at MOT where the vehicle has a longstanding recall that has not been rectified?

It would be helpful to see the data on the incidence of this occurring.

Longer term

47. What alternatives might there be to assure roadworthiness of cars, vans and motorbikes that might replace or supplement the MOT?

Please see responses to questions 47-56 below, after Q 56

48. To what extent do you agree/disagree with the following statement "the MOT system needs to change to include tests of new features/types of vehicles for example Advanced Driver Assistance Systems (ADAS)"

- strongly agree
- agree ✓
- neither agree nor disagree
- disagree
- strongly disagree

49. Please could you explain your view further? (150 words max)

This is a developing area that needs careful consideration, and consultation with relevant organisations and experts over the coming years.

50. Should a vehicle fail an MOT if an ADAS safety feature, such as Advanced Emergency Braking (AEB), is indicated as malfunctioning by the vehicle? If so, should this be only for mandated features or include features fitted voluntarily?

51. In the longer term there could be the potential to use data from vehicles to continually monitor key roadworthiness features. At such a point do you still think that the periodic inspection of a vehicle is necessary?

52. Do you think automated systems could enable all safety critical systems and components to be checked without garage inspection?

53. What would a test for hydrogen powered vehicles need to look like?

Vehicles with self-driving features

54. At what point could the Authorised Self-Driving Entity (ASDE) take on responsibility for roadworthiness requirements, and for what elements should it be responsible?

55. What should the MOT test on vehicles with self-driving features, and how should these be tested?

56. Do any elements of the testing of self-driving features need to be addressed through a different mechanism?

Response to questions 47 to 56 – We welcome the fact that the DfT is opening up the question of how the MoT system might need to develop to reflect and accommodate changes to vehicle technology which include, and go beyond, those mentioned above. This thinking needs to start with the design and coverage of the type-approval regime and run through the vehicle's life, not least because features such as over-the-air updates mean the performance of many more vehicles may change significantly over their lives, rather than this being a minority practice for those tuning their vehicles to improve their performance. Aspects such as self-driving technology might put more weight on the case for more continuous monitoring of the vehicle's performance ('behaviour' even), on top of the fact that a great deal of telemetry is already being generated from conventionally-driven vehicles.

Many options are possible, but we would highlight the generation, stewardship, integrity and availability of vehicle-generated data as being the single most important factor that needs to be considered – and cracked – if the concept of roadworthiness being subject to a genuinely independent safety audit process is to be maintained.

RAC Foundation

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