



INSTITUTE OF THE  
MOTOR INDUSTRY

IMI CONSULTATION  
APRIL/2023

# THE FUTURE OF MOTs

IMI's response to the Department  
of Transport Consultation



# Introduction

## Consultation

**Launched on the 18th of January 2023, the Department for Transport (DfT) sought the views on the future of MOTs in Great Britain, collecting the data by public consultation.**

The headlines of the consultation were:

- **Consultation** launched to seek views on changing MOTs in light of advances to vehicle technology and growing popularity of hybrids and EVs
- **Proposals** include changing the date of the first MOT for new vehicles and boosting the monitoring of emissions to tackle pollution
- **Safety** will be at the heart of the consultation to ensure continued confidence on country's roads

This report is a précis of the IMI response to the consultation.

## Background

**In the UK, all vehicles must undergo an annual MOT (Ministry of Transport) test to ensure that they meet the legal safety and environmental standards<sup>1</sup>.**

**The consultation seeks views on whether or not to change the period for vehicles requiring a first MOT.**

The options proposed are:

- **Option 0:** no change, vehicles that currently require their first MOT at 3 years will continue to do so. The MOT testing frequency for vehicles in the UK depends on the age of the vehicle. If a vehicle is brand new and has never been registered before, it will need to have an MOT test on the third anniversary of its registration (3 years after the first year of registration, referred to as 3.1.1).

- **Option 1:** increase the date at which a first MOT is required for the vehicles listed in Table 1 from 3 to 4 years. For vehicles that are over three years old, the frequency of MOT tests is once every year (4.1.1). So, for example, if a vehicle is four years old, it will need to have an MOT test in the year it turns four, and then every year thereafter.
- **Option 2:** increase the date at which a first MOT is required for the vehicles listed in Table 1 from 3 to 5 years, referred to as 5.1.1.

The government's preference is for option 1.

## Approach

**The Institute of the Motor Industry (IMI) has chosen to take a strong data and evidential approach to responding to this consultation. Completed ground-breaking research with Garage Industry Trends to understand the skills need of emerging technologies. This research included drawing evidence from the data available from DfT records shows there are 82.43 million failure and advisory items recorded in 40.3m lines of test data, which is the latest available (2021).**

To complement this we also conducted a qualitative research by conducting a consumer research to ask motorists their opinion and surveyed its membership community and spoke to a number of senior stakeholders across the sector. Some comments from our members have been included throughout this report.



<sup>1</sup> <https://www.gov.uk/getting-an-mot>

# Headline response

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## Test frequency

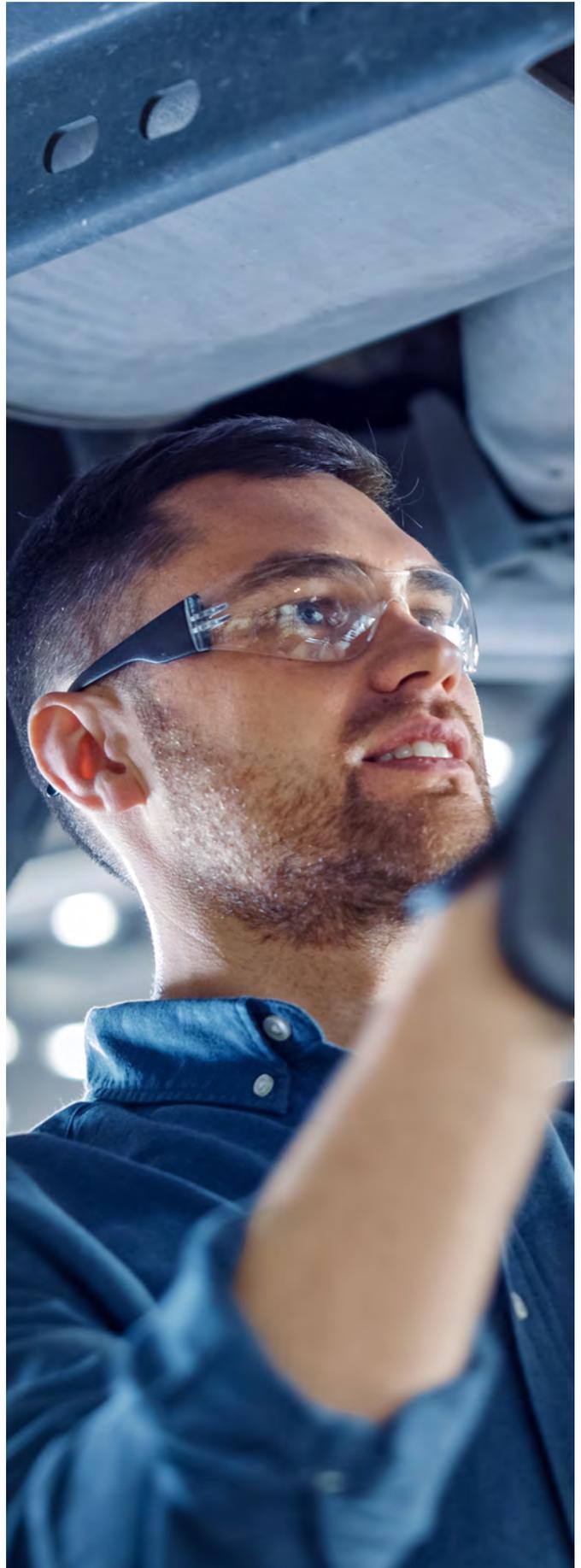
The IMI cannot support the transition to 4.1.1 at this time. It is the Institute's position that the existing 3.1.1 be maintained until evidence is sufficient that electric vehicles are not failing MOT tests on significant dangerous defects at a greater rate than petrol cars.

It is likely that misunderstanding in the differences of the technologies leads to the increased failure rate for EVs. Therefore, the IMI further recommends that education is desperately needed to reduce this failure rate and subsequent threat to road safety.

## How changes to the test frequency may affect businesses

Any changes to the MOT scheme will require great scrutiny to the impact of delivery of qualifications, continuous professional development, and annual assessment for those operating within the scheme. Further to this, any changes will also have to carefully consider the skills required to enact them and if any further training or qualifications are required, focus would be required on those that may fall within the scope of the Electricity at Work Regulations (for example, removal of high voltage systems panels, etc).

Support, on par with that of research, should be extended in the form of tax allowances to businesses investing in training and equipment to support motorists transition to Alternative Fuelled Vehicles (AFVs).



# Evidence

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**Evidence drawn from the data available from DfT records shows there are 82.43 million failure and advisory items recorded in 40.3m lines of data, which is the latest available (2021). The data also shows that comparative to petrol engine vehicles, electric vehicles are much more likely to fail MOT.**

Increasing the time before a periodic inspection of cars can be detrimental for road safety for several reasons:

- **Wear and tear:** Over time, a vehicle's components, including its tyres, brakes, and suspension, will experience wear and tear. Periodic inspections are designed to identify and address these issues before they become serious safety hazards.
- **Mechanical problems:** Regular inspections can also identify potential mechanical problems, such as loose or worn steering components, which can affect the vehicle's handling and stability.
- **Safety defects:** Inspections can also identify potential safety defects, such as faulty brakes, lights, or seat belts, which can be repaired or replaced to improve the vehicle's safety.
- **Tampering deterrence**

Increasing the time between periodic inspections can be bad for road safety because it reduces the frequency of maintenance and inspections that are critical to ensuring that vehicles are in good condition and performing at their best. Regular inspections are important to identify and address potential safety hazards, improve vehicle performance, and maintain the highest level of road safety possible.

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**“Many car owners over estimate what is included in an MOT and don't get their cars serviced. Also cars have long life service intervals often now which are every two years/20000 miles so critical inspections would be missed.”**

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Heavier vehicles can also cause more damage to a more vulnerable road user than lighter vehicular counterparts bringing a lack of confidence to any reliance on historic ICE vehicles data and its relationship to casualty rates being used to forecast damage by a different type of vehicle. Given the heavier weight of electric vehicles, shown through careful examination of DfT data (these vehicles are some 25% heavier than their petrol counterparts), this is a profound concern for road safety. This could have the unintended consequence of deterring greener methods of travel, such as cycling.

The IMI believes that the MOT data should be examined by powertrain to forecast trends of MOT test failures for the car parc post electrification.

Therefore, due to the relatively new implementation and increase in popularity of EVs, it is prudent to only examine car registration dates 2016 to 2018 from the 2021 data set available. Once the 2022 data is available, the Power BI can be updated to further examine trends.

EVs failure rate for 2018 registered vehicles (all classes) was 11.43% which is lower than diesel (15.88%) but higher than petrol (10.85%). This pattern holds for 2017 and 2016 registration years. This is indicating that EVs fail more than petrol. Plus, given the fact that one can assume a lot of EV owners in 2018 would be classed as enthusiast (early adopters) and would likely maintain their vehicles better than today's average EV driver, it's a significant finding.

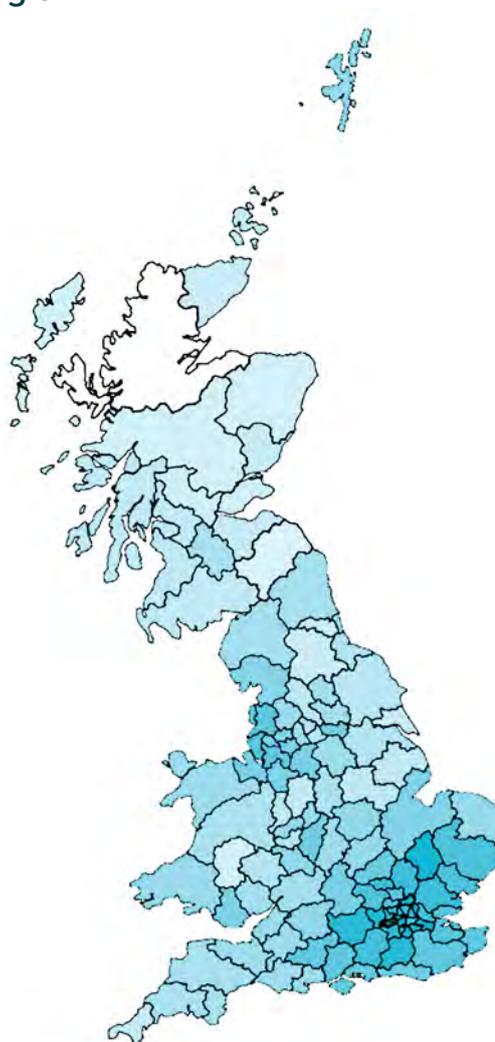


## Figure 1 Tyre analysis for MOT test data compared by power train

Year	Tyre Item % Failure
2021	7.87%
2020	12.00%
2019	28.41%
2018	38.75%
2017	33.12%
2016	29.17%
2015	25.90%
2014	22.03%
2013	17.74%
2012	15.46%
2011	13.83%
2010	12.06%
2009	11.14%
2008	9.96%
2007	9.25%
2006	8.46%
2005	7.68%
2004	7.08%
2003	6.82%
2002	6.63%
<b>Total</b>	<b>13.25%</b>

Fuel	% of Overall Tests	% of Overall Failure Defects
<b>Electric</b>	6.25%	43.03%
<b>Diesel</b>	5.75%	29.42%
<b>Hybrid</b>	4.76%	42.00%
<b>Petrol</b>	4.48%	30.59%
<b>Total</b>	<b>5.09%</b>	<b>30.28%</b>

### Tyres Failures as a % of Overall Defects by Region



Data source: Department for Transport MOT testing data 2021 – Power BI report produced by Garage Industry Trends

## Figure 2 Vehicle weight by registration year

Registration	Electric	Petrol
2018	1,673.99	1,297.21
2017	1,728.88	1,262.51
2016	1,664.82	1,233.18
2015	1,615.72	1,220.67
2014	1,666.01	1,205.34
2013	1,509.63	1,209.09
2012	1,503.02	1,241.37
2011	1,528.92	1,277.57
2010	1,534.84	1,274.39
2009	1,534.06	1,272.69
2008	1,552.92	1,314.53
2007	1,533.06	1,334.02
2006	1,585.41	1,324.38
2005	1,529.41	1,330.14
2004	1,466.83	1,328.68
2003	1,461.44	1,322.28
2002	1,356.83	1,314.40
2001	1,377.57	1,326.76
2000	1,212.50	1,333.95
<b>Total</b>	<b>1,618.71</b>	<b>1,273.19</b>

Data source: Department for Transport MOT testing data 2021 – Power BI report produced by Garage Industry Trends

The condition of a vehicle's tyres is critical to safety for several reasons:

- **Traction:** Tyres provide traction between the vehicle and the road. Worn or damaged tyres can reduce traction, making it harder to control the vehicle, especially in wet or slippery conditions.
- **Steering:** Tyres also play a critical role in steering. Proper tyre inflation and tread depth are important for maintaining a vehicle's handling and stability. Worn or damaged tyres can make steering more difficult, increasing the risk of accidents.
- **Braking:** Tyres are a key component of a vehicle's braking system. Tyres with insufficient tread depth or poor condition can reduce the vehicle's ability to stop quickly, increasing the risk of accidents.
- **Blowouts:** Tyres that are worn or damaged can be more prone to blowouts, which can cause a sudden loss of tyre pressure and create a dangerous situation on the road.

The condition of a vehicle's tyres is critical to safety because it affects traction, steering, braking, and stability. Regular tyre maintenance, including regular inspections, proper inflation, and prompt replacement of worn or damaged tyres, can help ensure that the vehicle's tyres are in good condition and able to provide the necessary level of safety on the road.

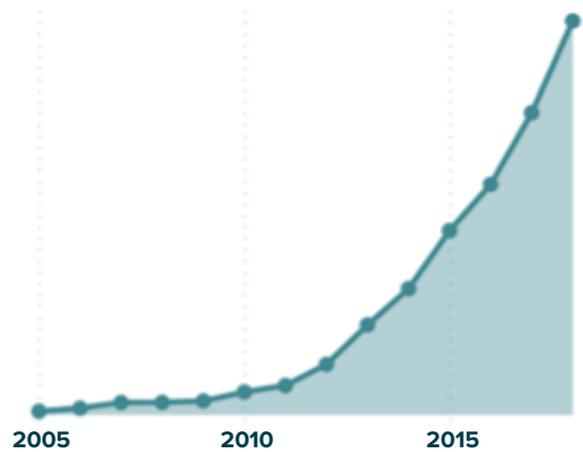
## Figure 3 Failure rate by registration year divided by fuel type

Registration	Diesel	Electric	Hybrid	Petrol
2018	15.06%	11.39%	11.34%	10.74%
2017	15.74%	13.59%	11.97%	12.53%
2016	18.07%	17.17%	13.53%	16.42%
2015	21.39%	21.26%	15.50%	19.14%
2014	24.97%	22.66%	16.83%	22.39%
2013	29.03%	29.01%	19.24%	26.61%
2012	32.42%	24.32%	21.41%	29.74%
2011	35.16%	26.04%	24.95%	32.92%
2010	38.64%	27.58%	27.48%	36.04%
2009	40.35%	27.85%	27.43%	38.64%
2008	42.23%	29.86%	28.20%	41.43%
2007	43.30%	32.11%	31.72%	42.60%
2006	44.99%	34.75%	31.33%	43.67%
2005	45.85%	35.97%	35.83%	44.47%
2004	47.12%	35.10%	38.13%	44.97%
2003	46.67%	30.85%	34.07%	45.04%
2002	45.92%	35.71%	18.18%	44.86%
2001	45.10%	35.48%	31.25%	43.55%
2000	43.99%	44.44%	36.36%	42.12%
<b>Total</b>	<b>29.78%</b>	<b>20.72%</b>	<b>14.78%</b>	<b>29.32%</b>

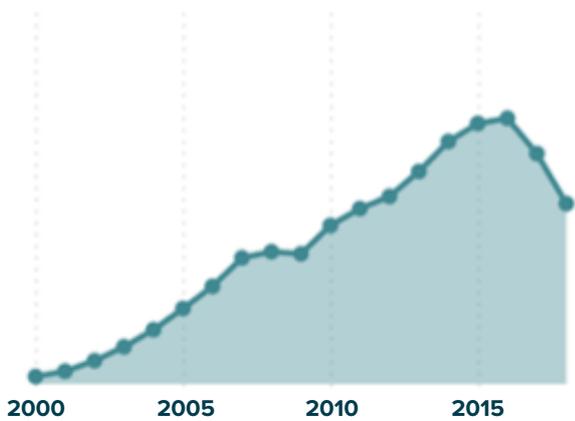
## MOTs Test by Registration Year for Electric



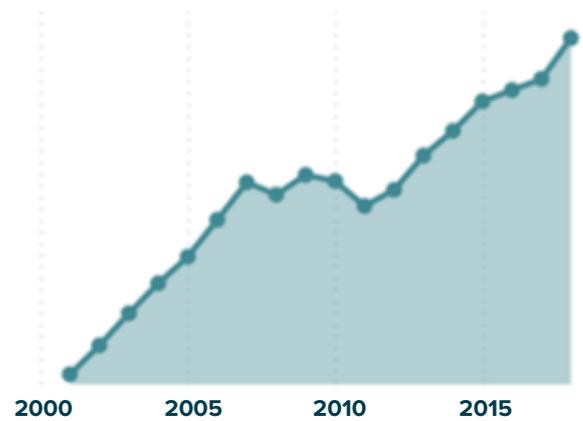
## MOTs Test by Registration Year for Hybrid



## MOT Tests by Registration Year for Diesel



## MOT Tests by Registration Year for Petrol



Data source: Department for Transport MOT testing data 2021 – Power BI report produced by Garage Industry Trends

With the majority of first MOTs taking place coupled with routine maintenance it is shocking that these figures exist for failure rates at all. This suggests that many of these vehicles have not been subject to routine maintenance that would pick these items prior to MOT. The pandemic MOT extension showed that uncoupling the MOT from the service, particularly for newer cars, was extremely difficult. The Motor Ombudsman producing webinars to help workshops communicate with motorists of catching up with routine maintenance.

Another important consideration is that the erosion of income to the DfT will impact the services provided to test centres, yet the consultation does not explore how this shortfall will be addressed. Special Notice 01/23 doubles the required decelerometer calibration, forces test stations to use external agencies for headlamp and roller brake testing equipment, and other amendments pursuant to the administrative and data security of the MOT lane. For the Driver and Vehicle Standards Agency (DVSA) to ensure compliance within the system for test centres and motorists, in addition to the cost impact of changing the date of first presentation, presents an undisclosed sum that would be ultimately shouldered by all taxpayers to endow a cost saving for the most affluent motorists.



# Further supporting evidence

## Cost savings to consumer

The costs saving only applies to the most affluent motorists and the cost increases for businesses to recoup that loss are therefore likely to be applied in unregulated areas such as repairs, increasing costs for those most vulnerable to transport poverty. During an IMI consumer survey<sup>2</sup> those earning £40k above welcomed cost savings (72%) compared to an average of 45% for those earning £10k or less/£11-19k/£20-39k. This shows that those with a lower income rely heavily on the standardised MOT.

An increased time scale for mandatory inspection increases opportunity for emissions tampering and wilful damage to the environment going undetected.

**“The introduction of MOTs being extended would see a reduction in business and loss of income; more unsafe vehicles on the roads; more accidents; higher emissions omitted from poorly maintained vehicles; and pose a danger to other road users and pedestrians; as well as air pollution within cities/towns.”**



<sup>2</sup> Please see appendix for survey details

## IMI membership survey

 **87% IMI members agree with the opinion that the first MOT should not be extended due to increased road safety risk.**

 **88% IMI members agree with the view that extending the date of the first MOT will also have an impact on garages income.**

 **78% IMI members are very concerned about the safety of motorists and other road users if a change in the frequency of MOT is adopted.**

## IMI consumer survey

 **53% of all respondents claim to check their tyres regularly and change them when necessary.**

 **47% claimed to check them less than once a year, or waited to be told by a professional or the vehicle's dashboard.**

 **26% said they wait to be told by the garage that is conducting an MOT or Service.**



Those between the ages of 18-24 (31%) and 25-34 (42%) are the least likely to conduct regular checks, compared with an average of 60% for all other age groups.

Reducing the number of MOTs would possibly reduce the number of routine maintenance inspections if motorists do not uncouple the two visits to the workshop. Reduction of income would harm investment for skills and equipment necessary for a greener car parc. Loading of the demand would be impacted, this will take a long time to recover from the interruption to testing caused by the MOT extension during the pandemic.

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**“A high percentage of car owners don’t service their cars. The only time they are looked at is on the MOT. The MOT is the minimum standard, so if these cars are left for 2 years. They could become very dangerous vehicles. Lots of bald tyres, broken springs and that’s not the worst case.”**

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**“Many of our customers rely on the MOT for roadworthiness, citing a pass as no further work required for the next year, even when a high percentage fail on basic faults such as lights and tyres. Extending to two years is going to potentially double the number of defective cars on the road.**

**Even cars coming in for their first MOT often fail on tyres, owners/drivers simply do not check their own vehicles.”**

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**“As an MOT tester I personally take the responsibility seriously as do the majority of testers. We view the safety of our roads in the UK with pride as we have a share in this success. We all rely on this service being of a gold standard for the safety of our families, in no other industry would we relax a safety requirement that had prevented the loss the lives of its workers and the public.”**

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## IMI membership survey

From the IMI membership survey, 55% of respondents run MOTs from their business, the following only relates to these respondents:



**20% of respondents who run MOTs from their business are completely reliant on MOTs for custom.**



**62% of respondents who run MOTs from their business, more than 25% of their business relies on MOTs for custom.**



**20% of respondents who run MOTs from their business believe it is fair to assume that any fall in the number of MOTs will free up garage staff and allow them to complete other tasks.**



**60% of respondents who run MOTs from their business are VERY concerned that a potential fall in MOT business will negatively impact the volume of service work to their garage.**

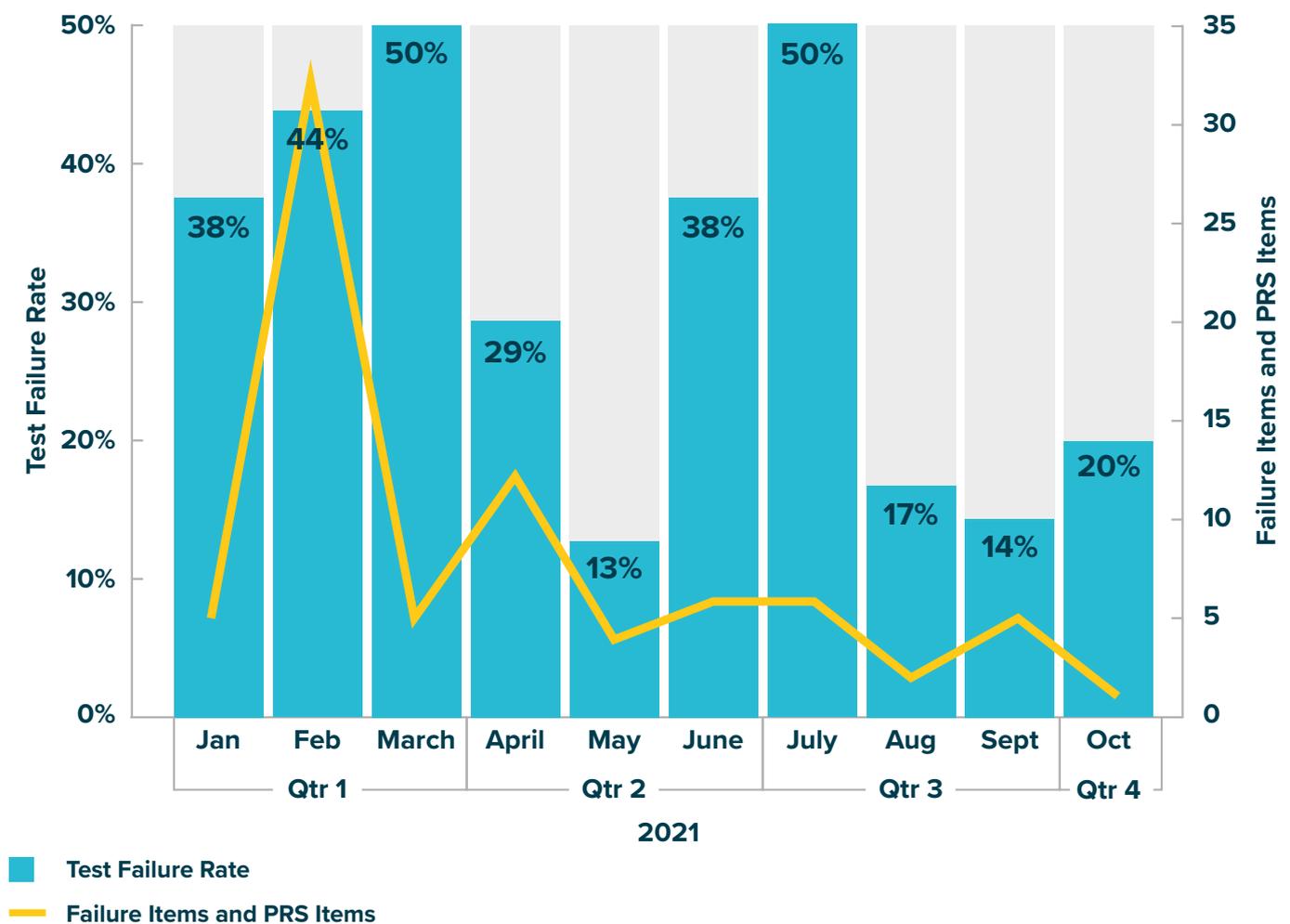
## Consideration of light goods vehicles up to 3.5 tonnes

The increased mileage by light goods vehicles means that more inspections are required. Higher commercial pressures may increase this risk if very low standards are set. If the trends follow the electric power train, these vehicles are highly likely to fail on tyres earlier. If they follow the trends for the heavier class 7 electric vehicles, they are more likely to fail on brakes than other items.

Figure 4 MOT initial failure rate by item

Item Set	Failure Rate
<b>Brakes</b>	9.76%
<b>Lamps, Reflectors and Electrical Equipment</b>	9.76%
<b>Suspension</b>	9.76%
<b>Visibility</b>	8.54%
<b>Seat Belts and Supplementary Restraint Systems</b>	3.66%
<b>Tyres</b>	3.66%
<b>Steering</b>	2.44%
<b>Body, Chassis, Structure</b>	1.22%
<b>Noise, Emissions and Leaks</b>	1.22%
<b>Road Wheels</b>	1.22%

MOT Initial Failure Rate by Item and Count of Failure Items



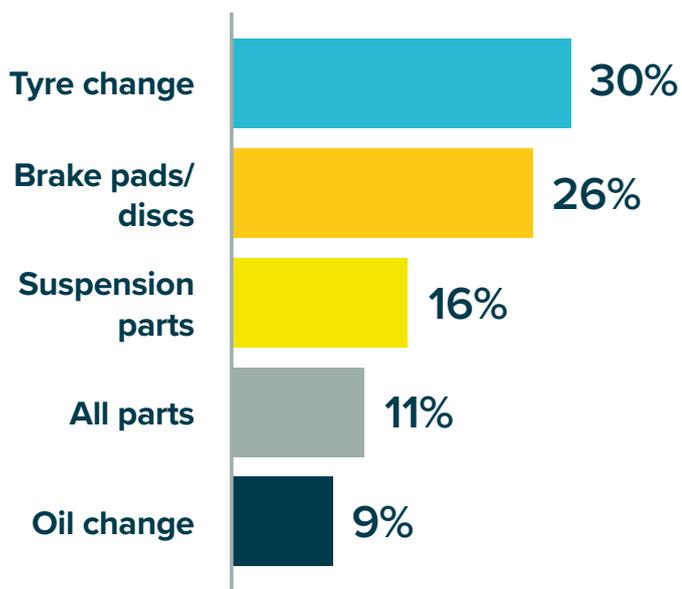
Date source: Department for Transport MOT testing data 2021 – Power BI report produced by Garage Industry Trends

## Likelihood of failure rates

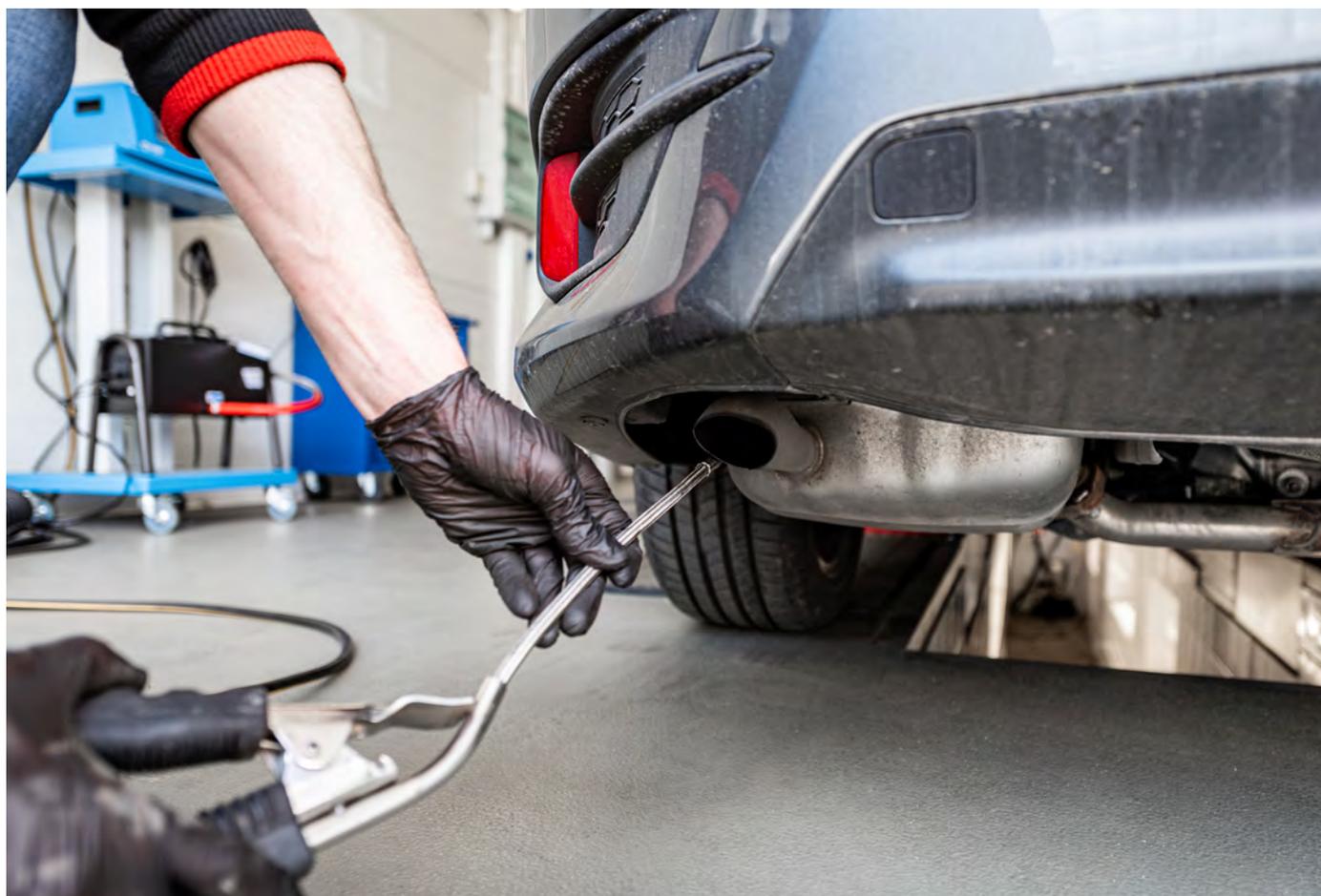
The current fail rate of vehicles indicates that repairs are only made once the MOT is completed. Further to this, analysis from GiPA has shown that most repairers report at least one operation that is avoided by customers at an MOT advisory, tyres and braking parts are both safety critical parts, but they are the most quoted operations avoided.

## GiPA MOT analysis of advisory operations avoided by drivers

### Top MOT advisory operations avoided by drivers



Most repairers report at least one operation that is avoided by customers at an MOT advisory, tyres, and braking parts are both safety critical parts, but they are the most quoted operations that are avoided.



# Response to other aspects of the consultation

## Inclusion of hybrid vehicles within scope of MOT emissions testing

As these vehicles were first readily available for purchase in the late 1990's there is a plausible demand that they be subject to emissions testing and not be allowed to act as a "loop hole", especially if such vehicles are not able to bring their high voltage systems online due to a fault with the high voltage system, such as cooling failure or an issue battery management components. These vehicles are therefore effectively simply very heavy internal combustion engine vehicles that have access to ultra-low emission zones and possibly financial benefits. As these benefits were introduced to reduce vehicle emissions, the correct use of these systems should be assessed. Therefore, the high voltage system could be checked for functionality, with a lack of this system being a cause for failure, this could allow the continuation of no emissions testing. If this is not possible, emissions testing should then be applied. The protocol could follow the existing Basic Emissions Test, if no high voltage system can be brought online, then an emissions test applied. If high voltage systems are operating as they should, and the vehicle is emitting visible smoke from the tail pipe, this failure item should be applied.

## Options for assessing the health of an electric vehicle-specific components

Cooling systems should have greater focus as testable items. Presence of function should be a testable item for hybrid vehicles. It would be difficult to assess an electric motor as it is difficult to assess the internals of a gearbox (which are currently not inspected). Faults on the dash concerning the high voltage system should be failure items and could be agreed with consultation.

State of health checks for the high voltage battery pack would either require communication through the vehicle infotainment or access through the OBD port, this is an area that could benefit from additional exploration, but it could also be considered in the context of how internal combustion engine vehicles were assessed on the environmental impact of the failing items such as piston rings, they are assessed at the tailpipe. Many electric vehicles communicate through the dash the headline information of the state of health for battery, therefore this could become a testable item in the same way as the malfunction indication lamp or the airbag lamp.

## Should the current 3.5t weight limit for MOTs be increased to 4.25t for zero emission vans, removing the need for them being subject to HGV testing

This would be in line with the changes for HGVs with zero emission vehicles and would make sense. However, there would be a profound need for education that these heavier vehicles are tested with equipment suitable to lift them. Those MOT stations without the sufficient lifting equipment that would have been appropriate prior to the limit change would be operating on grandfather rights and therefore would have reason to refuse to test. As vehicles have got heavier generally, an impact assessment should be made to consider what MOT stations would not be able to test should this change take place before a decision is made.

## Should EV conversions (also known as retrofit) be checked at an MOT to verify that an EV conversion

A robust inspection of the high voltage system would require a relevant qualification for the work, such qualifications are currently not required for the visual inspection during the MOT, guidance has been very clear from DVSA that unfamiliarity with the high voltage powertrain is not a reason to refuse to test.

There is a significant gap presented for understanding this proportion of the car parc. Changes could be noted at MOT but would not include those vehicles that are exempt from MOT, such as historic vehicles. Individual Vehicle Assessments (IVAs) are also not required for vehicles that are over 10 years old.

This should be noted by the MOT station that a conversion has been completed and it would then be followed up by a Vehicle Examiner. The DfT should review if retro fitted High Voltage Systems should fall under the scope for an IVA and the criteria when a vehicle requires presentation for such should be examined. As historic vehicle is not required for MOT, and a large portion of interest falls within this community, the MOT station would not effectively capture all of the conversions that could be covered by the IVA should the scope allow.

Due to the very small numbers of interested parties at this time, it could be considered over kill for 23127 testing stations to all become and remain up to date for this niche area of motoring. Should uptake for conversion change in significant numbers, then this area should be reviewed.

## Should we use the MOT to encourage drivers to have faults on recalled vehicles rectified?

This would require all vehicle manufacturers to make this information available to the MOT service for it to be effective as currently there can be recalled vehicles that do not have this information available to the service. If it were to be communicated through the MOT service, the marketing necessary to make this effective would be laborious if it had to explain that the message was accurate some of the time and an absence of a safety recall on the MOT certificate would not mean that the vehicle was without a recall.

## Failing vehicles at MOT where the vehicle has a longstanding recall that has not been rectified

If all manufacturers engaged with this scheme, this could be considered an advisory item for the first year of presentation, and then progress to a failure the year after. This would give the motorist the benefit of the doubt as required in the scheme.

## Should DfT take additional measures to combat mileage fraud

This would be required if commercial vehicles were to be MOT tested according to mileage. Should this be the case then assessment of the affected vehicles would need to be made to develop a strategy of deployment. This information could be accurately monitored through connected vehicle technology should that data be made available and would not have to be communicated through the MOT station.

For vehicles without connected technology, this could potentially be more appropriate deployed through routine maintenance and authenticating mileage could be a matter during that process for claims, remaining within mileage allowances, and resale values. Collection of mileage data at MOT and access to that data through the MOT History (MOTH) service is a useful tool to help combat mileage fraud. Additional methods could be to include any spot checks from other agents acting on behalf of the government to that history, such as Vehicle Examiner or Police Officer.

## Costs and fees

A re-examination of the test fee to motorists is well overdue and does not encourage investment in MOT testing stations. Transition to green transport solutions will require the maintenance and repair of this technology, the Super Deduction needs reintroduction to support the ambition to move to a carbon net zero ambition.

Sharing of data insights and trends would encourage investment and when to train or take a holiday. This might help business decisions be made and demonstrate the advantages of investment in equipment, training, and rest. This would ultimately offer a better service to the motorist as the environments accessed would be more informed and professional.

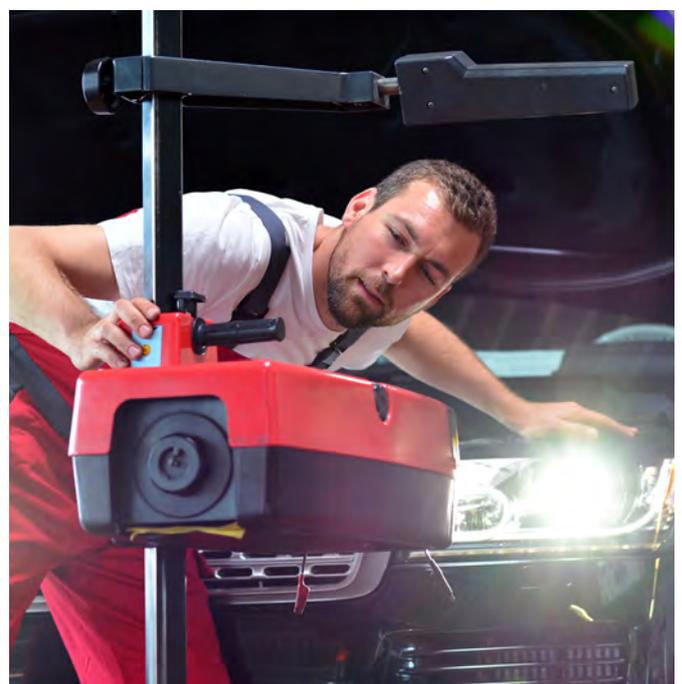
## Longer term

## Alternatives to assure roadworthiness of cars, vans and motorbikes that might replace or supplement the MOT

Additional inspections would be subject to VAT and the operational costs of the workshop. They would therefore be more expensive than the current MOT fee. This is at odds with the ambition to reduce costs to the motorist but may provide lucrative advantages of revenue collection from concerned motorists.

This method could also be fiscally advantageous to workshops that are not MOT stations to offer a non-standard inspection more commensurate with their usual fees. There is a disadvantage to the motorist that it would not be as clear as a standardised test when comparing offerings that are not regulated by the Department for Transport.

The unintended consequence of non-standardised and unregulated alternatives to assure roadworthiness is that unethical or fraudulent activity could be encouraged, particularly in the sales of second-hand vehicles.



## Advanced Driver Assistance Systems (ADAS)

Much understanding as to the need for a calibration or repair of ADAS can be understood from the symptoms of poor wheel alignment. Expanding from the current scope of only applying wheel alignment to vehicles that have fly by wire steering to those that have ADAS would prompt attention in these areas.

Attempting to assess the systems themselves would present the same challenges as inspecting systems that are currently relied upon from evidence of symptoms, such as the air bag systems or tyre pressure monitoring systems.

Recognised faults will be communicated through the dashboard, the danger of misalignment, or a vehicle that is out of calibration, is that it can exist without prompting a fault light communicated through the dash. Looking for other areas of concern, such as tyre wear and moving these items out of the scope for advisory for vehicles that are fitted with ADAS technology will provide protection to road safety in this area.

In the same manner that all seat belts are fitted, regardless of original fitment, then ADAS as a safety critical feature should be assessed.

## Hydrogen powered vehicles

Hydrogen can power vehicles in a number of ways, hydrogen as a combustible fuel would require a different approach to hydrogen use in a high voltage system. This would require a technical readiness level and further consultation.

The method of steering, stopping, and sticking to the roads applies regardless of powertrain so the visual inspection for a hydrogen powered vehicle would largely be the same as an electric vehicle. The pressures involved in a hydrogen system would mean that any fault in the system would be immediately apparent in a dramatic fashion possibly making a visual inspection of the hydrogen element of the vehicle largely fruitless.

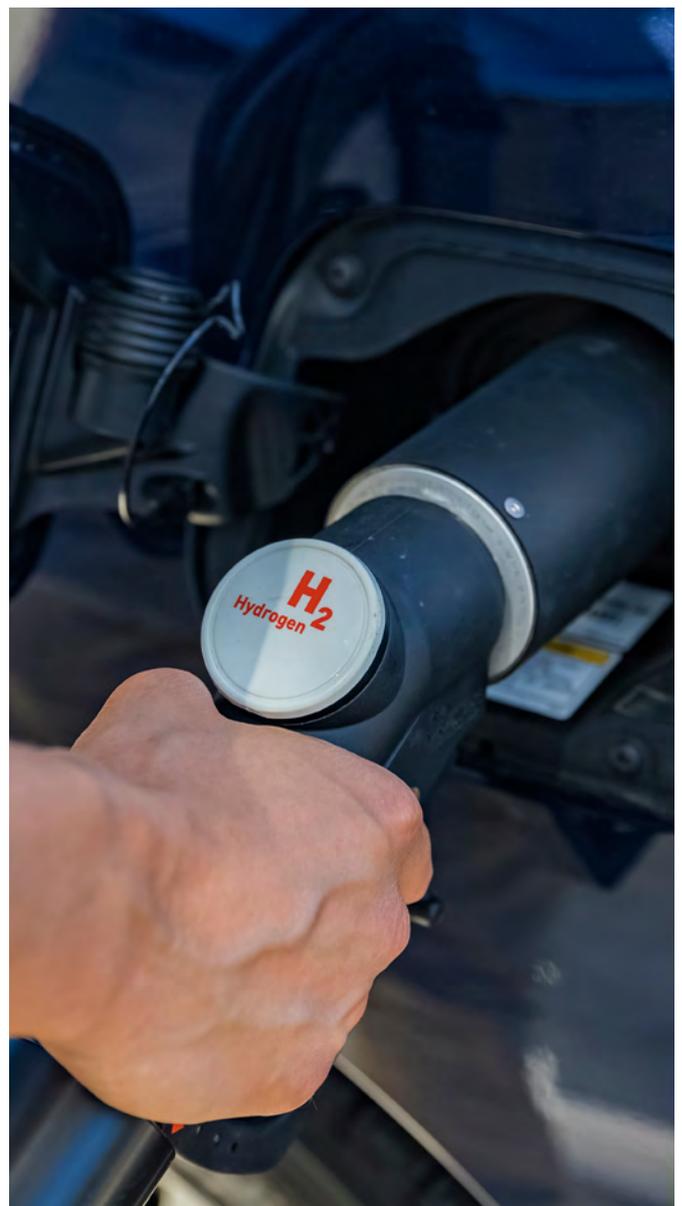
Further information could be considered along with manufacturers and researchers in this field before committing to changes within the MOT test and should operate under a separate consultation.

## Vehicles with self-driving features

When established as Authorised Self-Driving Entity (ASDE) as the very definition means that the ASDE is responsible for the vehicle, and this would include road worthiness. It should be responsible for all elements as it is self-driving, the driver is responsible for road worthiness, so as the driver, it is responsible.

Wheel alignment should be a testable item for vehicles with self-driving features owing to their reliance on correct alignment. The method of inspection would be through the tyre wear, which would necessitate the divorce of failure items within tyres that are currently bundled together. Evidence of calibration could be communicated through the infotainment system to check it up to date. Any fault lights concerning ADAS should be testable items.

Communication to the motorist of their obligation to road worthiness needs urgent deployment. Maintenance is demonstrated as being a desired extra than can be disregarded and this is evidenced by the number of failed items and attitudes that the MOT failure sheet is a "shopping list" to be addressed when pushed. For self-driving technology to flourish, the attitude to maintenance needs adjustment.



# About the data

## MOT data analysis

Research was conducted with Garage Industry Trends<sup>3</sup> to understand the skills need of emerging technologies. This research included drawing evidence from the data available from DfT 2021 (latest available) records, which included 40.3 million lines of data. Garage Industry Trends have placed this data within Microsoft Power BI and created the architecture to analyse the data.

### Calculations

- **MOTs** are based on the count of “test\_id” entries for “Normal Test”
- **Initial Fail rate** is based on the count of MOT tests for “Fail” + “PRS” divided by the total of “Normal Test” MOT Tests
- **Final Fail Rate** is based on the count of MOTs for “Fail” divided by the total of “Normal Test” MOTs
- **Pass Rate** is based on the count of MOTs for “Pass” divided by the total of “Normal Test” MOTs
- **Failure Items** are based on the count of “rfr\_id” where the type code is “Fail”
- **Item Failure % of Overall MOTs** is based on the count of MOTs with a failure item for “Fail” + “PRS” divided by the total of “Normal Test” MOTs
- **MOT Initial Failure Rate** by Item is based on the count of an Item Failure divided by the total number of Item Failures

### Survey data

Response rates for each of the surveys conducted are as follows:

- **Consumer survey** – 500 responses
- **IMI membership survey** – 1078 responses



<sup>3</sup> <https://www.garageindustrytrends.com/>

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