



House of Commons
Transport Committee

**Motoring of the future:
Government Response
to the Committee's
Eighth Report of
Session 2014–15**

**Second Special Report of Session
2015–16**

*Ordered by the House of Commons
to be printed 20 July 2015*

HC 349
Published on 24 July 2015
by authority of the House of Commons
London: The Stationery Office Limited
£3.50

The Transport Committee

The Transport Committee is appointed by the House of Commons to examine the expenditure, administration, and policy of the Department for Transport and its Associate Public Bodies.

Current membership

Mrs Louise Ellman MP (*Labour, Liverpool, Riverside*)
Robert Flello MP (*Labour, Stoke-on-Trent South*)
Mary Glendon MP, (*Labour, North Tyneside*)
Karl McCartney MP (*Conservative, Lincoln*)
Stewart Malcolm McDonald MP (*Scottish National Party, Glasgow South*)
Mark Menzies MP (*Conservative, Fylde*)
Huw Merriman MP (*Conservative, Bexhill and Battle*)
Will Quince MP (*Conservative, Colchester*)
Iain Stewart MP (*Conservative, Milton Keynes South*)
Graham Stringer MP (*Labour, Blackley and Broughton*)
Martin Vickers MP (*Conservative, Cleethorpes*)

Powers

The committee is one of the departmental select committees, the powers of which are set out in House of Commons Standing Orders, principally in SO No 152. These are available on the Internet via www.parliament.uk.

Publications

The Reports of the Committee are published by The Stationery Office by Order of the House. All publications of the Committee (including press notices) are on the internet at <http://www.parliament.uk/transcom>. A list of Reports of the Committee in the present Parliament is at the back of this volume.

Committee staff

The current staff of the Committee are Gordon Clarke (Clerk), Nick Beech (Second Clerk), Alexandra Meakin (Committee Specialist), Emma Gordon (Committee Specialist), Adrian Hitchins (Senior Committee Assistant), Stewart McIlvenna (Committee Assistant), and Hannah Pearce (Media Officer)

Contacts

All correspondence should be addressed to the Clerk of the Transport Committee, House of Commons, London SW1A 0AA. The telephone number for general enquiries is 020 7219 6263; the Committee's email address is transcom@parliament.uk

Second Special Report

On 1 July 2015 we received a response from the Government to the Transport Committee's Eighth Report of 2014–15, *Motoring of the future* which we publish with this Special Report.¹

Government Response

The Department for Transport welcomes the findings of the Transport Select Committee on how motoring is changing in response to new technologies, whether that be in control systems, communications or fuel types. This document sets out our responses to the recommendations made by the committee.

Recommendation 1 – *The DfT should develop a comprehensive, accessible vision to shape motoring of the future in partnership with other Government Departments and agencies. This needs to convey a coherent set of objectives, describe a co-ordinated set of actions necessary to deliver those objectives and make links to the delivery of wider policy objectives. We recommend that the strategy includes six key objectives:*

- *reduced or eliminated fatalities and serious injuries on roads;*
- *reduced emissions from road transport;*
- *increased road capacity through the use of technology rather than road building;*
- *protection for citizens against the risk of cyber-attack;*
- *enhanced social inclusion through more accessible road transport; and*
- *support for economic growth.*

There are a number of existing documents, including the *Road Investment Strategy*, *Road Safety Strategic Framework*, *Driving the Future Today* and *The Pathway to Driverless Cars* that together provide a broad framework for directing government activity on motoring in the future. These documents provide details on how we plan to deal with a number of the Transport Select Committee's six key issues. Having individual focused documents enables us to incorporate developments in faster moving areas, deliver changes, and secure the benefits of these changes, more rapidly

Given the various benefits – societal, environmental, and economic – that can be secured from the introduction of new technologies, we will continue to review the landscape and act accordingly. For example, in the field of connected and autonomous vehicles (CAVs), we are working closely with the Department for Business, Innovation and Skills (BIS) to provide a single, seamless point of contact for industry and academia to:

1 [HC 429](#), published on 6 March 2015.

- make the UK a world leader for innovation in CAV technologies including capturing high value research, development, demonstration and deployment investments;
- develop and implement innovative joined-up policies, with safety and security at their heart, that maximises economic as well as transport and consumer benefits; and
- foster cross-sector collaboration and effectively manage the interdependencies.

As part of this, we will consider the committee's finding and recommendations, including how best to articulate our ambitions for how CAVs can transform transport and support economic growth.

Recommendation 2 – *The DfT should prepare for a transition period when manual, semi-autonomous and autonomous vehicles are all running together on UK roads. During the transition period only some of the benefits promised by autonomous vehicles and the application of modern communications technology to motoring will be realised. The full benefits cannot be realised until there is wide uptake of such technologies. It is also important that the DfT clarifies how liabilities will be apportioned in such circumstances.*

We recognise that there will be a transition period where autonomous and semi-autonomous vehicles will have to safely interact with traditional vehicles with a driver in control. Advanced driver assistance systems such as adaptive cruise control, automatic emergency braking and automatic parking are becoming increasingly common and we are already preparing for the introduction of greater levels of automation.

As the share of CAVs in the UK vehicle fleet increases, the benefits in terms of reductions in collisions, deaths and injuries are expected to increase as well. This is why we are actively working to facilitate their safe introduction. *The Pathway to Driverless Cars* sets out 31 actions for government to take and a timeline for their delivery. In line with the actions in the Pathway, we will issue a Code of Practice for testing automated vehicle technologies in the near future, and are working on liability issues.

We have begun a testing phase for CAVs, and our plans include a range of research, from the physical trials of CAVs in real-world environments taking place in Milton Keynes, Coventry, Bristol and Greenwich, and the HGV platooning trials, through to studies of road user behaviours in response to CAVs, and understanding travellers needs.

This involves us working with BIS, vehicle manufacturers, equipment manufacturers and the insurance industry on the CAV agenda. As part of this, we have already started to consider the question of how liabilities should be apportioned.

Recommendation 3 – *The DfT should identify technologies whose introduction needs to be accelerated and devise a range of fiscal and other incentives to increase their rate of adoption. Such an approach would build on current policy in relation to vehicle emissions, where low-emission vehicles are subject to lower rates of vehicle excise duty. In the past, the gradual tightening of certification and testing requirements has reduced engine emissions, and a similar approach could be used now to accelerate take-up.*

Potential levers to nudge behaviour include type certification, road worthiness standards, mandating the fitting of particular technologies to new and existing vehicles by a specified date, scrappage schemes and fiscal incentives. Some of those levers may be helpful in tackling more than one issue—a scrappage scheme could see improvements to emissions and safety—and the DfT might wish to prioritise measures which help to secure more than one benefit. The DfT should also take account of the relative efficiency and effectiveness of these measures in delivering the changes required.

We agree that that the most valuable technologies should be promoted, though the exact mechanism or mechanisms used would need to be determined on a case-by-case basis. One set of technologies where we want to accelerate introduction is that associated with CAVs. The UK is already amongst the leaders in this field – and because of the benefits their introduction can bring, for the UK automotive sector, and society as a whole, we have an ambition to make the UK a world leader for CAV research, development, demonstration, and deployment.

Working with BIS, we will be looking at how to realise this ambition. Some options could be implemented by the UK government directly such as our funding of ongoing driverless vehicle trials in Greenwich, Milton Keynes and Bristol, and others would need international co-operation, such as changing vehicle regulations. Our work will include considering all possible routes for encouraging technological developments and uptake, looking at their effectiveness (including cost-effectiveness) , and when best to implement specific actions.

Recommendation 4 –The DfT should work with representatives from the whole of the insurance industry and others who hold data on driving—for example, motor manufacturers, manufacturers of satellite navigation systems and fleet owners and operators—to see what use it might make of anonymised data from vehicles and how this can be combined with existing information from the Highways Agency to inform policy. In analysing such data, the DfT must take into account the nature of the information and the extent to which its source may skew the conclusions that can be drawn from it—for example, telematics data from insurance companies may be drawn from self-selecting group of drivers and material from fleet operators who have large numbers of delivery drivers may be atypical.

While we recognise there are a multitude of data available that could be utilised and explored further, we need to determine which aspects are most valuable and which ones we could access and use whilst respecting privacy and data concerns.

As an example of work already undertaken, we have been working with the insurance industry to see what use it might make of anonymised data from vehicles. This included commissioning research to compare collision data between new drivers with and without a telematics product to look at the effect of telematics on reducing the number of collisions amongst new drivers and improving road safety generally. The first phase of the research is currently being finalised.

Recommendation 5 – The vast quantity of transport data now available presents tremendous opportunities to provide smarter, more efficient and more personalised transport systems. However, greater clarity is required on the practical application of

data governance legislation. The DfT must ask the Information Commissioner to review the current rules and guidance on access to fleet and driver information and the rights of drivers and other interested parties to access vehicle data and to publish updated guidelines on the collection, access and use of vehicle data.

We recognise the increasing importance of data recorded, stored and used by vehicles in helping to deliver a range of potential benefits for drivers and other road users, especially as vehicles become increasingly connected to other cars, infrastructure, and other data sets (for example, traffic information), and in terms of creating more individually tailored transport solutions for people.

The Data Protection Act sets out clear rules if data is collected and analysed about the behaviour or location of specific individuals. Any data must only be used fairly and lawfully, kept securely and held for no longer than necessary.

The Information Commissioner's Office already provides guidance on how to comply with data protection laws. We will liaise with the Information Commissioner, and other interested parties, to ensure that consumers can be confident in the efficacy of existing laws and that the rights of drivers and other vehicle users are protected appropriately.

Recommendation 6 – *The DfT should ensure that OLEV:*

- **clarifies long-term policies on investment, subsidy and taxation regimes for ULEVs;**
- **sets out an action plan for accelerating the uptake of ULEVs, including an assessment of how different incentives could contribute to that objective; and**
- **defines a strategy to meet European Commission targets on refuelling infrastructure in UK.**

We recognise the importance of a long term and stable fiscal, taxation and regulatory framework in which the UK's thriving automotive sector can plan R&D, production and sales activity. We have therefore set out a long term vision, stating that we want almost every car and van to be a zero emission vehicle by 2050 and that we will invest £500 million over the next five years to help achieve it. We expect the Office for Low Emission Vehicles (OLEV) to remain the delivery agent and, will be confirming details of this investment in due course.

As the Committee notes, ultra-low emission vehicle (ULEV) sales have begun to accelerate in the UK. The UK had the fastest growing ULEV market in Europe in 2014 and the latest figures show grant claims for the Plug-in Car and Vans grants are over 36,000 (as of 10 June) and have quadrupled between 2013 and 2014. The UK's offer on ULEVs continues to attract global investment, capitalising on the ULEV transition and enabling the continued growth of the UK automotive sector into the future. OLEV monitors the market closely, and will be carrying out a review of the Plug-in Car Grant to ensure that funding is targeted to best support continued sales momentum.

A key requirement of the recently published EU Directive 2014/94/EU on alternative fuels infrastructure is for Member States to prepare and publish a National Policy Framework by November 2016. These should set out how infrastructure will develop and contain national

targets and objectives that remain revisable on the basis of national, regional or union-wide demand for each of the alternative fuels within scope. We intend to meet the minimum requirements of the Directive in full and on time, and the framework will provide an opportunity to reiterate government's long term strategic commitment to this agenda. It remains our view that markets, rather than national governments, will drive the development and adoption of common technical standards. We expect a greater consensus on protocols and connectors to emerge from the automotive and chargepoint industries over the coming years and there are already signs of rationalisation in this area.

Recommendation 7 – Legislation covering driving, road use and vehicle type approvals—vehicle type approval confirms that a design will meet a particular performance standard—must be revised if autonomous vehicles are to operate on UK roads. The DfT must not allow UK legislation to fall behind both the pace of technological change and legislation in other countries

A failure to update legislation in line with the development of new technology may disadvantage the UK automotive industry.

We are already regarded as one of the leading countries in the CAV field and we want to maintain this position. As we have stated previously, our ambition is to make the UK a world leader in CAV research, development, demonstration, and deployment. CAVs are expected to help deliver a number of important government policy objectives – from improving mobility and road safety to contributing to reducing congestion, and importantly, they deliver industrial benefits too. Therefore, we are taking a pro-active approach to reviewing and updating all relevant areas of legislation in recognition of the importance of keeping pace with technological change.

The *Pathway to Driverless Cars* review sets out a clear timeline committing to updating UK regulations, and we have already started negotiations with other countries to update international type approval regulations.

Recommendation 8 – We welcome the publication of the Government's regulatory review, The pathway to driverless cars and the roadmap that it sets out for changes to the legislative and regulatory framework. However, this high-level consideration will need to be supported by further work to identify exactly which legislation requires amendment if it is to have a significant impact.

The DfT should provide underpinning detail to support the legislative and other changes that it identified in its regulatory review. In doing so, it should articulate what changes it expects in the processes and systems for checking and enforcing compliance, and how it intends to ensure that its motoring agencies have the appropriate skills and knowledge to maintain and update testing and certification regimes.

It is important that the certification and testing regimes keep pace with developments in technology. These regimes have been used successfully in the past to encourage the take up of particular technologies and they have a role to play now. The DfT must bear in mind that new technologies are already being deployed in production vehicles and that some of the issues that the evidence to our inquiry and the review have identified, such as clarification of liabilities, are already live issues.

The *Pathway to Driverless Cars* review set out a series of 31 actions which government will take to ensure both UK and international regulatory frameworks support the development and commercialisation of driverless vehicle technologies.

We have already started working to identify the details of what changes will be required. It will be important to work closely with all stakeholders to identify, carefully consider, and agree robust solutions in this emerging landscape, given the potential that CAVs have to transform how we use road vehicles.

As *The Pathway to Driverless Cars* review makes clear, this process will include reviewing aspects such as vehicle type approval, roadworthiness testing processes and legislation and driver training and licencing. The Department will work closely with the VCA, DVLA and DVSA to identify what revisions need to be made, how these will be enforced and whether additional actions are required to ensure personnel have the skills and knowledge to implement these changes.

Recommendation 9 – We welcome the trials of driverless cars announced in December 2014 and the leadership shown by Innovate UK on ensuring the UK is well positioned to seize the commercial opportunities created by new automotive technologies... Public confidence will depend on knowing that these technologies can be deployed safely on real roads and with all the unpredictability of real traffic flows.

We welcome the approach set out by the DfT in The pathway to driverless cars and look forward to seeing the proposed code of conduct.

We are working hard, in cooperation with BIS, to ensure the UK is in the best possible position to capture the economic opportunities that driverless vehicle technologies create. We believe the UK is a premier location for their development and commercialisation and are working to maintain that position.

Nevertheless we recognise that there may be public concern about the testing and development of these technologies on public roads. The Code of Practice, which is due for publication in the near future, will set out clear guidelines and recommendations for measures that should be taken to maintain safety as autonomous vehicles are tested on our roads.

Driverless vehicles are expected to substantially reduce collisions, deaths and injuries. Manufacturers have a responsibility to ensure that highly and fully automated vehicle technologies undergo thorough testing and development before being brought to market. While much of this development can be done in test laboratories, or on dedicated test tracks and proving grounds, it may help ensure that these technologies are capable of safely handling the many varied situations that they may encounter throughout their service life through controlled ‘real world’ testing. Testing of automated vehicle technologies on public roads or in other public places should therefore be facilitated while ensuring that this testing is carried out with the minimum practicable risk.

Recommendation 10 – As well as updating the regulatory framework, the DfT will need to examine how drivers are taught and how driving standards are monitored and enforced. New technologies open up possibilities for monitoring driving and periodically testing drivers, but those technologies also raise serious questions about privacy. The DfT

faces the challenge of ensuring that drivers keep up with evolving technology and maintain an appropriate standard of driving. The DfT should undertake research on emerging models for driver training and the role new technologies might play in improving driving standards. Such research would need to address privacy, data ownership and data protection.

We will continue to work to make sure that driver training and the driving test remains current and take account of new technologies that affect motoring.

For example, there are many behavioural interventions, including telematics, which can be used before or after the driving test. Therefore, we plan to commission further research into the efficacy of a range of interventions on improving road safety. This may include new technologies such as simulations and electronic feedback interventions.

Recommendation 11 – *The Government should engage positively in setting European and international standards to allow UK manufacturers to exploit new technology by developing products that are suitable for export and to secure the benefits of new technology for UK drivers.*

We are actively engaged in the development of both European and International standards for road vehicles, with an aim of ensuring they support the delivery of government policy, including securing benefits for UK drivers, and facilitating the growth and development of the automotive industry and enabling it to contribute to UK exports.

For example, one of our officials currently chairs the UN ECE working party under which international type approval regulations to allow autonomous steering functions are being drafted. Officials are also working closely with the European Commission to ensure that the UK is able to influence regulation and maximise funding opportunities for intelligent transport systems.

Recommendation 12 - *The DfT should set out how it will address barriers to the adoption of new technology other than the regulatory ones it has identified in The pathway to driverless cars.*

All new technologies must overcome a range of barriers before they come to market including functionality, durability, cost, safety and public acceptability. Addressing many of these barriers will be something that the companies developing the technology will be best placed to do. However the Department for Transport also has a role to play, particularly in respect of understanding how these new technologies are likely to affect the behaviour of road users and ensuring the public is well informed about their appropriate use and potential benefits.

This is why the Department is commissioning a behavioural study examining the likely impacts of driverless cars on all road users and public perceptions about them. Where appropriate, the department is also encouraging testing organisations to explain what tests are planned and the potential benefits of these new technologies.