



Who are we?

- Silverstone Technology Cluster Member
- Motor and truck enthusiasts
- Regular speakers on automotive and logistics issues



What are we seeing from a legal/regulatory perspective?

- **Driver Assistance Systems already introduced:**
 - Parking assist
 - Emergency brake assist
 - Steering and lane guidance systems
 - Hill start assist
 - Road sign recognition
 - Adaptive Cruise control
 - Distance control
 - Speed limit assist
 - Lane-changing warning and lane-change assist
- **Issues:**
 - Clarity in legal position?
 - Who is responsible?
 - Is it criminal or civil liability?
 - Speed of legal change against speed of innovation?
 - Insurance considerations

The Society of Automotive Engineers International 'levels' of driving automation



SAE J3016™ LEVELS OF DRIVING AUTOMATION

	SAE LEVEL 0	SAE LEVEL 1	SAE LEVEL 2	SAE LEVEL 3	SAE LEVEL 4	SAE LEVEL 5
What does the human in the driver's seat have to do?	You <u>are</u> driving whenever these driver support features are engaged – even if your feet are off the pedals and you are not steering			You <u>are not</u> driving when these automated driving features are engaged – even if you are seated in “the driver’s seat”		
	You must constantly supervise these support features; you must steer, brake or accelerate as needed to maintain safety			When the feature requests, you must drive	These automated driving features will not require you to take over driving	
What do these features do?	These are driver support features			These are automated driving features		
	These features are limited to providing warnings and momentary assistance	These features provide steering OR brake/acceleration support to the driver	These features provide steering AND brake/acceleration support to the driver	These features can drive the vehicle under limited conditions and will not operate unless all required conditions are met	This feature can drive the vehicle under all conditions	
	<ul style="list-style-type: none"> • automatic emergency braking • blind spot warning • lane departure warning 	<ul style="list-style-type: none"> • lane centering OR • adaptive cruise control 	<ul style="list-style-type: none"> • lane centering AND • adaptive cruise control at the same time 	<ul style="list-style-type: none"> • traffic jam chauffeur 	<ul style="list-style-type: none"> • local driverless taxi • pedals/steering wheel may or may not be installed 	<ul style="list-style-type: none"> • same as level 4, but feature can drive everywhere in all conditions
Example Features						

For a more complete description, please download a free copy of SAE J3016: https://www.sae.org/standards/content/J3016_201806/

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How changes are implemented and enforced

- Department for Transport
- Driver and Vehicle Standards Agency
- The Courts (Criminal and Civil) leading to precedent
- Top tip – Go behind the law
- E.g. transport committee debates/House of Commons/report summaries.

DVSA 2030 Vision Recognises Rise of Autonomous Vehicles

The DVSA's published announcements is to set out to ensure road transport is greener and safer. DVSA's job is to ensure road safety and also to prevent anti-competitive behaviour.

DVSA states that their intention is;

1. Make roads safer;
2. Improve services for its customers;
3. Make road transport greener and healthier;
4. Harness the potential of technology and data;
5. Grow and level-up the economy.

“The vision recognises that electric and self-driving vehicles along with connected vehicles and roads will help protect from injury, death, pollution, and climate change. It also seeks to transform services to be more efficient and simpler to use.”

The DVSA core targets for 2030 include:

- Adapting driving standards for vehicles with self-driving features
- Adapting theory tests and driving tests for vehicles with self-driving features
- Making it more convenient to take theory tests and driving tests
- Reviewing the MOT model for HGV's, buses and trailers
- Making sure vehicle approval tests allow new technology to be trialled and rolled out across the country
- Making the best use of data and technology to improve standards of MOT testing and driving instruction

House of Committees session published September 2023

How safe are self-driving vehicles?

This indicates the debate is centred on that topic. HM Government's connected and automated mobility 2025 titled "realising the benefits of self-driving vehicles in the UK" stated:

"self-driving vehicles won't get tired or distracted. They won't worry about the children in the back seat, stress about their next meeting or be anxious to get home for dinner. They are likely to react more quickly than a human, remaining consistently able to assess how to drive safely in a fraction of a second".

What does the Government say?

- The government does appear to be seeking to harness self-driving vehicle technology and being behind a thriving automotive sector. Indications being that by 2035 40% of new cars in the UK would have self-driving capabilities.
- Recognising that both driver assistance technologies and self-driving vehicle technologies are likely to play a key role in road transport, alongside drivers of conventional vehicles, for years to come.
- Driver assistance technologies are designed to undertake some elements of the dynamic driving tasks such as braking or steering but require a human driver to monitor the road environment at all times and the human driver remaining responsible for the behaviour of the vehicle at all times.
- This indication of the human driver being responsible for the behaviour of the vehicle at all times is one that we say will clearly evolve.
- A parliamentary committee debate stated that “[under the Government’s legislative proposals, the human driver would no longer be responsible for the vehicle’s behaviour whilst it is driving itself](#)”. They acknowledge that self-driving technologies are designed to undertake all elements of the dynamic driving task.

Legal Responsibility

- Research by the Institute of Engineering and Technology stated that for every 10,000 errors made by drivers, a self-driving vehicle will make just one. Human error being quoted as being the factor in over 80% of collisions which then result in personal injury.
 - Biggest issue from motoring law aspect is autonomous and connected vehicles
 - Highway Code
- Can a driver/‘user’ of a driverless car be guilty of something that the software and mechanics of that device was controlling?
 - The digital network to AV’s is what drivers are to traditional vehicles

Cracking the 'Codes'



Highway Code states:

- Vehicles are capable of safely driving themselves when the self-driving function is correctly turned on and the driver follows the manufacturer's instructions.
- While the vehicle is driving itself, you do not need to monitor it.
- Self-driving vehicles differ from vehicles that are fitted only with assisted driving features (like cruise control and lane-keeping assistance).
- Assisted driving features can do some of the driving, but the driver still needs to be responsible for driving at all times. If you are driving a vehicle using only its assisted driving features.
- A self-driving vehicle's ability to drive itself may be limited to certain situations or parts of a journey. Things like the type of road, time of day, weather, location and speed may affect this. You should follow the manufacturer's instructions about when and how to use the self-driving function safely.
- While a self-driving vehicle is driving itself in a valid situation, you are not responsible for how it drives. You may turn your attention away from the road and you may also view content through the vehicle's built-in infotainment apparatus, if available.

Still follow all relevant laws

- be fit to drive
- must be within the drink-drive legal limits and not be under the influence of drugs. See Rules [90 to 96](#).
 - The vehicle must be road legal (for example, it must have an MOT certificate, if applicable, and it must be taxed and insured).
 - The vehicle must be roadworthy - [Rules 89](#) and [97](#)
- You will also still be responsible for your passengers and anything else you are carrying (RULES [98 to 102](#)).
- You **MUST NOT** do anything illegal – like using a handheld mobile phone, or similar hand-held device.

If a self-driving vehicle needs to hand control back to the driver, it will give you enough warning to do this safely. You **MUST** always be able and ready to take control, and do it when the vehicle prompts you. For example, you should stay in the driving seat and stay awake. When you have taken back control or turned off the self-driving function, you are responsible for all aspects of driving.

Trials of automated/semi automated vehicles

It is important to note that any trials of any automated vehicle technology is possible on any UK road if carried out in line with UK law. Trialling organisations do not need to obtain permits or pay surety bonds when conducting trials in the UK. As part of complying with the law, they will need to ensure that they have

1. A driver or operator, in or out of the vehicle, who is ready, able and willing to resume control of the vehicle;
2. A roadworthy vehicle;
3. Appropriate insurance in place (query: what insurance companies are currently saying to the industry?)

The trial code

The Code also notes that those planning tests should speak with the road and enforcement authorities, develop engagement plans, and have data recorders fitted.

The government have said, “Such trials may not readily fit with current UK legislation, so the Department of Transport and its motoring agencies will introduce and operate a process to support those looking to safely conduct advance trials. The process will be available to support the industry when they are ready to do these trials.”

How to set up trials

- Contact the Centre for Connected and Autonomous Vehicles (“CCAV”) in advance.
- It states that a failure to follow the Code may be relevant to liability in any legal proceedings. Please note the question “may”.
- It also states that compliance with the expectations set by the Code does not guarantee immunity from liability and such circumstances.

1. Take all reasonable steps to ensure compliance and to ensure that the vehicles remain roadworthy and compliant with the construction and use regulation;

2. Contact the Centre for Connected and Autonomous Vehicles; 3. Speak to the DVSA, there are local transport enforcement officers and/or those in policy if required;

3. Check with your insurance company that all is covered.

Purpose of the code

The Code is intended to be used by organisations or individuals planning to trial or pilot automated vehicle technologies with the aim to:-

1. Support and promote the safe trialling of automated technologies;
2. Support cooperation between organisations and those responsible for the management of traffic, infrastructure, law, and law enforcement;
3. To encourage the sharing of information to help uphold and develop the highest standards of safety.

Liability for automated vehicles – The Automated and Electric Vehicles Act 2018

Automated and Electric Vehicles Act 2018

UK Public General Acts > 2018 c. 18 > Table of contents

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Explanatory Notes ?

More Resources ?

Plain View

Print Options

What Version ?

✓ Latest available (Revised)

Original (As enacted)

▼ Opening Options ?

▼ More Resources

Changes to legislation:

Automated and Electric Vehicles Act 2018 is up to date with all changes known to be in force on or before 12 February 2024. There are changes that may be brought into force at a future date. ?

▼ View outstanding changes

Collapse all -

Introductory Text

Collapse -

PART 1 Automated vehicles: liability of insurers etc

1. Listing of automated vehicles by the Secretary of State
2. Liability of insurers etc where accident caused by automated vehicle
3. Contributory negligence etc
4. Accident resulting from unauthorised software alterations or failure to update software
5. Right of insurer etc to claim against person responsible for accident

Section 3 contributory negligence

3Contributory negligence etc

(1)Where—

(a)an insurer or vehicle owner is liable under section 2 to a person (“the injured party”) in respect of an accident, and

(b)the accident, or the damage resulting from it, was to any extent caused by the injured party,the amount of the liability is subject to whatever reduction under the Law Reform (Contributory Negligence) Act 1945 would apply to a claim in respect of the accident brought by the injured party against a person other than the insurer or vehicle owner.

(2)The insurer or owner of an automated vehicle is not liable under section 2 to the person in charge of the vehicle where the **accident that it caused was wholly due to the person's negligence in allowing the vehicle to begin driving itself when it was not appropriate to do so.**

Section 8 interpretation

vehicle....

is driving itself if it is operating in a mode in which it is not being controlled and does not need to be monitored by an individual.

The meaning of automated vehicle is “the one designed or adapted to be capable in at least some circumstances or situations or driving themselves.”

Liability

- Civil - “On the balance of probabilities”
- Criminal – “Beyond reasonable doubt”

Criminal Culpability

- Most crimes require an act and intent
- Many motoring offences are strict liability, e.g.
 - Speeding
 - Drink driving
- No intention required to commit offence but still require LIABILITY – i.e. fault
- In an autonomous or connected vehicle, who would be held responsible?
 - The registered keeper, driver, hirer, car-sharer or other user?
 - The manufacturers of the vehicle itself?
 - If not the manufacturer, the AI developer?

Standard of driving

- Careless / dangerous driving
- “Competent and careful driver” test
- “In determining what would be expected of, or obvious to, a careful and competent driver in a particular case, regard shall be had not only to the circumstances of which he could be expected to be aware but also to any circumstances shown to have been within the knowledge of the accused.”
- How would this apply?
- How will autonomous vehicles coexist with human drivers?

Remote Controlled Parking

- Came into force on 11 June 2018
- Road Vehicles Construction and Use Regulations
 - No infringement if:
- **“Using a mobile telephone or other device to preform a remote control parking function if parking the motor vehicle**
- Future – “Mobility as a Service” – Will cars be constantly circulating rather than parking?

Summary

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