Are automated vehicles legal in Australia?

Vehicles with automated features such as lane-keep assist and autonomous emergency braking are already commercially available in Australia. These features assist with driving, but a licensed human driver is still in control of the vehicle at all times.

Vehicles with higher levels of automation are not yet commercially available in Australia, although trials of these vehicles are currently underway both here and overseas. These more sophisticated vehicles – where an automated driving system is responsible for all aspects of driving – are not currently consistent with the requirement under current driving laws that a licenced human driver is in control of the vehicle. These driving laws are administered by state and territory governments. The Australian Government is working to ensure reforms to our driving laws take place in advance of manufacturers bringing these vehicles to the Australian market.

What role do Governments play in supporting automated vehicles?

The Australian Federal Government and all State and Territory Governments, are members of the COAG Transport Infrastructure Council. The Council set priorities and makes decisions on nationally consistent preparation for automated vehicles, informed by work from bodies such as the National Transport Commission and Austroads.

In general terms, the Australian Government is responsible for ensuring the safety of cars coming into the country (first supply), and State and Territory Governments are responsible for the on-road operation of cars, including road rules, registration and approval of automated vehicle trials.

The Australian Government is also working on a number of policies which will impact the safety and success of automated vehicles, including cyber security, communications technology and innovation. This work is being coordinated by the Office of Future Transport Technology.

What is the Office of Future Transport Technology?

The Office coordinates the Australian Government's work to prepare for automated vehicles and works closely with state and territory transport and road agencies through the Transport and Infrastructure Council to:

- Position Australia for the early and safe deployment of transport technology through the development of a nationally consistent policy and regulatory framework
- Enable all Australians to experience the safety, productivity and accessibility benefits of transport technology
- Increase understanding and awareness of the opportunities and challenges presented by transport technology
- Support the nationally consistent uptake of transport technology, across both urban and regional areas, and in all Australian states and territories
- Support technological developments which are interoperable to enable the broadest range of applications

What are the 'levels' of automation?

Governments and industry both in Australia and overseas have adopted Society of Automotive Engineers' (SAE) International Standard J3016 as a common language for describing the capabilities of an automated vehicle.

Levels 1 and 2 vehicles – sometimes known as 'partially automated' vehicles – are those with a limited automated features that may assist the driver with speed or steering control, for example, lane-keep assist or adaptive cruise control.

Level 3 vehicles – sometimes known as 'conditionally automated' vehicles – not only manage speed and steering control, but is also responsible for monitoring the road environment, requiring the human driver to perform a 'fallback' role.

Level 4 vehicles – sometimes known as 'highly automated' vehicles – are capable of operating in some driving modes without a human ready to take control. These driving modes may be limited by factors such as speed, weather conditions, or access to high quality digital mapping.

Level 5 vehicles – sometimes known as 'fully automated' vehicles – are capable of operating in all driving modes and are truly 'driverless'.

When will automated vehicles be available?

We are already seeing new vehicles with some automated features such as lane-keep assist and park-assist on our roads, and it is expected that automated features will continue to be rolled out incrementally.

There are differing views about when developments in automotive technology will enable more sophisticated automated vehicles to be ready for use on our roads. There is further uncertainty about when these vehicles will be commercially available in Australia, and when they may represent a significant part of our vehicle fleet.

Noting this uncertainty, Australia's transport ministers have agreed to a phased reform program to enable Level 3 'conditionally automated' vehicles to operate safely and legally on our roads by 2020.

What trials of automated vehicles are happening in Australia?

Trials are planned or underway in almost every state and territory and will help to inform future approaches to policy, regulation, investment and operations. A list of the trials currently underway is available from Austroads.

Are trials of automated vehicles safe?

In May 2017, Australia's National Transport Commission and Austroads (which represents Australian road operators) published *Guidelines for Trials of Automated Vehicles*. The Guidelines establish minimum standards of safety, and support largely consistent conditions for Australian trials of automated vehicles.

Will automated vehicles increase road use?

The social impacts of automated vehicles depend on how they are used, which business models become popular, and which complementary technologies they are deployed with. Appropriate policy and regulatory decision-making will be key to ensuring that the potential benefits of automation materialise, and that any risks are managed.

If an automated vehicle crashes, who is liable?

Australian road rules do not currently permit the operation of highly or fully automated vehicles that require limited or no driver input (with the exception of approved trials). However, the National Transport Commission is currently working with states and territories to ensure consistency in road rules and ensuring that a legal entity is identified for driving performance when an automated driving system is in use.

Can automated vehicles co-exist with existing vehicles?

Automated vehicles can co-exist with existing vehicles in a mixed fleet. This will be required to ensure a safe transition through an increasing amount of automated vehicles being introduced onto public roads as control of the vehicle moved towards high and full automation.

Are new transport technologies likely to be cost-effective?

Analysis of the cost-effectiveness of Connected Intelligent Transport Systems (C-ITS) conducted by the Queensland Department of Transport and Main Roads found that moderate penetration of C-ITS in Southeast Queensland would hold a cost-benefit ratio of 3.4 over 30 years; that its, it would generate $3.4 in benefits over 30 years for every $1 spent.

For further information about the Australian Government's work to prepare for emerging transport technologies, please see www.infrastructure.gov.au/automatedvehicles or contact automatedvehicles@infrastructure.gov.au.

For further information on what is happening in your State or Territory, you can contact:

Jurisdiction	Agency	Website
Australian Capital Territory	Road Transport Authority	www.rego.act.gov.au
New South Wales	Transport, Roads and Maritime Services	www.rms.nsw.gov.au
Northern Territory	Department of Planning and Infrastructure	www.dlp.nt.gov.au
Queensland	Department of Transport and Main Roads	www.tmr.qld.gov.au
South Australia	Department of Planning, Transport and Infrastructure	www.transport.sa.gov.au
Tasmania	Department of State Growth	www.stategrowth.tas.gov.au
Victoria	VicRoads	www.vicroads.vic.gov.au
Western Australia	Department of Transport	www.transport.wa.gov.au