

11 December 2018

Mr Marcus Burke  
Project Director  
Automated Vehicle Program  
National Transport Commission  
Level 3/600 Bourke Street  
Melbourne VIC 3000

Dear Mr Burke,

**Re: Deloitte's response to the NTC's Discussion Paper on *Regulating Government Access to C-ITS and Automated Vehicle Data***

Agreeing to the approach in which government regulates the use of data generated by automated vehicle (AV) technology and cooperative intelligent transport systems (C-ITS) and manages privacy concerns, is vital if these new systems are to deliver the full extent of their social and economic benefits for Australia.

As such, Deloitte Touche Tohmatsu (Deloitte) is pleased to provide this submission to the National Transport Commission (NTC) in response to the discussion paper on *Regulating Government Access to C-ITS and Automated Vehicle Data* (Discussion Paper).

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With a deep understanding of both the current and future themes and technologies disrupting the transport sector, Deloitte works across the industry enabling public and private clients to deliver a 21st century transport system for all Australians. We provide expertise across the full lifecycle of transport assets and service delivery to ensure clients get the most out of transport investments and help them to future proof our road, rail, air, and sea transport systems.

Options to address the privacy challenges

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In the Discussion Paper, NTC has outlined a number of options to prepare for the creation of more and potentially new data from AV technology and C-ITS.

Of the four options proposed by the NTC in relation to new privacy challenges of AV technology, option two is supported in the first instance, that is, implement broad principles to limit government collection, use and disclosure with a view to move to option four, once the technology has had sufficient time to mature in the market.

Further, of the three options relating to the new privacy challenges of C-ITS, we support option two, that is, agree broad principles on limiting government collection, use and disclosure with a view to transition to option three once the operation of C-ITS is better understood.

The above recommends a staged approach to regulating a developing industry without unnecessarily stifling the potential to achieve the full benefits. To support the successful roll-out of AVs and C-ITS, the following response highlights opportunities to enhance consumer confidence and trust in the technology for further consideration by the NTC, largely capturing the 13 questions posed by the NTC in this Discussion Paper.

#### The potential benefits of AVs and C-ITS

Data is vital to the operation of AVs and C-ITS which in turn have the potential to drastically impact and improve mobility. Data is also central to the success of concepts such as Mobility as a Service, smart cities and internet-of-things.

In addition to expected improvements in safety and efficiency, data generated from AVs and C-ITS might create new opportunities for commercial applications in both government and the private sector. The digital age is going to empower the travelling customer and disrupt the way transport providers operate and manage their services. This will put an emphasis on the need for transport systems to intelligently integrate and facilitate passenger journeys.

#### Data creation from AVs and C-ITS

Our data-centric and data-dependent society will ultimately have millions of sensors embedded into transport services, cities, infrastructure, homes and other production environments likely to be operated by artificial intelligence residing in new local 'clouds' and 'fog' environments. For example, a typical new vehicle with vehicle electronics will have within its engine control unit a further 80 electronic components from engine control modules to brake control modules. In-car-infotainment systems also rely on data and communication networks with new vehicles having in-built Bluetooth technology and capacity to connect smart phones with voice commands and physical controls. In-car systems typically have smart phone links, vehicle telematics, and diagnostics.

A single AV depends on a number of sensors that collect vast amounts of data from GPS, radar, LiDAR, cameras, and odometry for autonomous operation. One AV will connect to other AVs, the automated driving system entity, and

surrounding infrastructure ranging from static to dynamic signage and the road environment, which will require sensors to send and receive real-time updates.

Considering new connections that will need to be made between the millions of vehicles in the public and private fleet, personal smart devices, public infrastructure as well as parking and charging stations, payment systems, emergency and traffic updates, the generation of new data will be exponential.

The extent of data collection, access and usage will also vary depending on the mobility model that Australia moves to whether that may be a fleet made up by privately owned vehicles or a connected transport sharing, urban intermodal mobility ecosystem. We suggest exploring and mapping the effects of these future scenarios on data collection, access and usage to better inform the opportunities and challenges which are specific to each transport model.

#### Opportunities to build consumer confidence

A literature review of articles relating to the definition of privacy states that broadly speaking, it is the right of an individual to determine what information and what access to themselves is given to other individuals<sup>1</sup>. The legal protection of individual privacy and the right to privacy becomes complex in situations where the distinction between private and public space is blurred (for example, private discussions in public spaces) or what information pertaining to the individual requires legal protection and compliance by others (for example, gossip or defamation). The collection of data and its uses will need to be clear, transparent and accountable, and further supported by robust legal frameworks including freedom of information provisions and the right to appeal.

While comparative privacy regulation such as the EU's General Data Protection Regulation (GDPR) and the Australian Privacy Principles may not differ too much from the perspective of the amount of information it will collect, concepts such as Privacy by Design, Data Minimisation, and Right to be Forgotten found in the GDPR more explicitly protects the privacy interests of individuals. A default system based on GDPR principles may reassure the consumer about the right to their personal and private data.

Communications networks resemble the nervous system for these new smart system paradigms. For example, advancements in 5G and Dedicated Short-Range Communications made a significant step towards developing a low latency tactile access network by providing new additional wireless nerve tracts. The increase of large autonomous systems requires the protection of the 'nervous system' against both intentional and unintentional misuse and abuse. Consumers will need assurance that their vehicles and the supporting infrastructure can withstand malicious attacks as well as misuse and abuse of these connected networks.

AVs needs to communicate with C-ITS while collecting information relating to the user and their proposed journey, which could be matched with other existing data

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<sup>1</sup> See, Julie Inness, (1996), "Common Debates in the Philosophical and Legal Privacy Literature", Oxford University Press, for further commentary on philosophical and legal definitions of privacy.

available to government and private service providers. Consumers will need to clearly understand the public and private sectors' collection and usage of their data. An opt-in system based on informed consent, as seen in the health sector, is a possible solution. Importantly, the NTC will need to clarify the government's role in regulating data collection and usage by the private sector.

As mentioned, agreeing to the principles which guide the collection and use of personal data and data generated from AVs and C-ITS is an important step to building consumer confidence in the technology as well as regulating a growing industry that is likely to bring about a number of benefits to the wider community and to the Australian economy.

We thank you again for the opportunity to respond to this Discussion Paper. Should you require further information regarding the above, please do not hesitate to contact Anna Sawyer, Associate Director at [Ansawyer@deloitte.com.au](mailto:Ansawyer@deloitte.com.au).

Yours sincerely



**Liesbet Spanjaard**

Partner

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