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Dr Kirsten McKillop  
Manager Automated Vehicles  
National Transport Commission  
Level 3, 600 Bourke Street  
Melbourne VIC 3000

Monday 9 September 2019

Dear Dr McKillop,

**Re: Public submission – In-service safety for automated vehicles**

Please find enclosed EasyMile's submission to the consultation on the in-service safety for automated vehicles.

Should you have any queries do not hesitate to contact me via email to [greg.giraud@easymile.com](mailto:greg.giraud@easymile.com) or on my mobile 0403 195 746.

Best regards,

A handwritten signature in blue ink, appearing to be "Greg Giraud".

Greg Giraud  
Managing Director Australia & New Zealand

## About EasyMile

EasyMile is a pioneer in autonomous vehicle technology and smart mobility solutions.

The fast-growing company develops software to automate transportation platforms without the need for dedicated infrastructure. EasyMile's cutting-edge technology is revolutionizing passenger and goods transportation, offering completely new mobility options. It has already deployed over 230 driverless projects in 26 countries and travelled over 600,000 km. Clients include the world's largest transport operators, city authorities, airports, corporations, business parks, and universities.

EasyMile's best known product is the EZ10 driverless electric shuttle, providing first and last mile transportation on private sites or public roads. It offers a powerful fleet management and supervision system, one of the first to be deployed with real world autonomous vehicles. It is also jointly developing a driverless tow truck solution for round-the-clock ground transportation of goods on industrial sites and logistics centers. EasyMile integrates its software in numerous other vehicle platforms.

Founded in 2014, EasyMile has a global presence with headquarters in Toulouse (France) and regional offices in Denver (USA), Berlin (Germany), Adelaide (Australia) and Singapore. The Company employs over 170 highly-skilled and passionate employees specializing in robotics, computer vision and vehicle dynamics.

Besides the two founders, CEO Gilbert Gagnaire & Board Member Philippe Ligier, EasyMile benefits from the backing of minority shareholders and strategic partners, Alstom, Continental and Bpifrance.

In Australia and New Zealand, EasyMile is headquartered in Adelaide and is running projects in the regional cities of Renmark (SA), Coffs Harbour and Armidale (NSW) and in the City of Playford (Adelaide Metropolitan Area). In November 2019 RACQ awarded a project to EasyMile for a last mile service on the island of Karragarra (QLD). All the projects cater for specific uses case and are operating on public roads and mixed traffic environments.



## EasyMile's submission

**A. Have we correctly identified the parties with an influence on the in-service safety of automated vehicles and accurately described their role? If you identify additional parties, please explain what their role is.**

EasyMile's flagship product, the EZ10 autonomous shuttle, is currently deployed in four Australian projects in mixed traffic and open road environments.

It is destined to complement or replace public transport and as such it is generally operated by a Public Transport Operator, which have a critical role and influence on the in-service safety of the vehicle.

Their role is to manage the operations of the autonomous vehicle service and provide fallback-ready users or operators currently, and eventually the control centres that will host the remote operators, as fallback-ready users are being phased out in line with increased automation and safety of autonomous vehicles.

Thus the company that operates the autonomous vehicle needs to be added in the definition of the ADSE, and these additional parties should also be included in the consultation.

**B. Have we accurately assessed each party's influence on the in-service safety of automated vehicles? If not, please provide details.**

As above.

**C. Do you think that a general safety duty to ensure the safe operation of the ADS 'so far as reasonably practicable' is appropriate to address the safety risks?**

Yes, but only if it is demonstrated that the residual risks are As Low As Reasonably Possible (ALARP).

We consider EasyMile's system approach as best practice here: every risk for which our system or design does not reach an ALARP level involves the definition and implementation of additional External Risk Reduction Measures (ERRM).

Hence EasyMile does not stop mitigating risk when it is considered "so far as reasonably practicable" but continue addressing it until the risk is acceptable.

**D. If a general safety duty were introduced, which parties should it apply to?**

It should apply to each party having an influence on the in-service safety of autonomous vehicles.

**E. Do you think there are any new risks posed by second-hand ADS components, after-market modifications or the transfer of ownership of automated vehicles, which may not be adequately addressed by existing regulation designed for conventional vehicles?**

Yes, absolutely. The Product Change Management, as well as the configuration management are key in the risk management.

Installation, replacement and calibration of the autonomous vehicle components are sensitive activities which must fall under the responsibility of the ADSE or the operator of the vehicle/s.

This risk should diminish in the long term as the autonomous vehicle value chain develops itself and becomes more robust.

**F. Do you think there should be specific driving rules for ADSs like the Australian Road Rules, or would it be sufficient to simply require them to ‘drive safely’?**

As autonomous vehicles on roads they should be subject to the same Australia Road Rules as any other traditional road users.

Further research might be required here to ensure all aspects and exceptions have been covered.

For instance, autonomous vehicles on open roads currently travel slower than the speed limit and could be considered as driving abnormally slowly (though this will not be an issue in the longer term as technology improves exponentially).

**G. Which option most effectively addresses the problem statement? And;**

**H. Is there another option or combination of options which could more effectively address the problem statement?**

The path chosen will have a major impact on commercial opportunities and the development and uptake of the autonomous vehicle sector in the country.

Currently there are strong, existing barriers to entry for autonomous vehicles in the Australian market, for instance:

- The current importation process is cumbersome, inadequate (e.g. categorisation of autonomous vehicle, Australian Design Rules unadapted) and expensive
- Limited market
- Regulatory barriers

At a time where autonomous vehicles are not mass produced, and the cost of autonomous vehicle parts and components is high, additional costs generated due to the need to comply with new duties would create an additional barrier to entry and dissuade ADSE to do business, or grow their business in Australia.

A staged approach to regulation may be required to not impede the early development of an autonomous vehicle market in Australia:

- In the short term, Option 1 would create a more favourable environment for the development and early adoption of autonomous vehicle;

- In the longer term and as the autonomous vehicle market becomes more mature, common rules and a national, consistent approach as proposed in Option 2, 3 or 4 will be required.