



Council of Mayors
South East Queensland

21 November 2018

Mr Bill Pender
Inquiry Secretary
Standing Committee on Infrastructure, Transport and Cities
PO Box 6021
Parliament House
Canberra ACT 2600

Dear Mr Pender

**Parliamentary inquiry into automated mass transit
Response on behalf of Council of Mayors (SEQ)**

It is my pleasure, on behalf of the Council of Mayors (SEQ), to provide this submission to the *"Inquiry into automated mass transit."*

The Council of Mayors (SEQ) is Australia's largest regional Local Government advocacy organisation, representing the South East Queensland (SEQ) region which is home to one in seven Australians.

Four of Australia's largest Councils are located in SEQ and the membership of the Council of Mayors (SEQ) includes ten Councils of SEQ: Brisbane, Ipswich, Logan, Redland, Lockyer Valley, Moreton Bay, Scenic Rim, Somerset, Sunshine Coast and Toowoomba Councils.

The Council of Mayors (SEQ) acknowledges the Committee's Terms of Reference for this inquiry. The matters outlined in Attachment 1 focus on the Committee's inquiry Terms of Reference specifically automation in land-based mass transit and point to point transport using automated vehicles. SEQ local governments are already thought leaders in automated vehicles, carrying out coordination and facilitation roles with many stakeholders, and arranging an autonomous vehicle trial.

With a projected population growth to 5.35 million by 2041, SEQ faces the challenge of planning for, and delivering, the infrastructure and services needed to improve productivity and reduce cost of living pressures, whilst maintaining and improving the liveability and sustainability of the region. SEQ local governments are particularly supportive of new autonomous buses services, regarding them as a key part of their commitment to community transport. Various ways the Australian government can contribute to these outcomes are outlined in Attachment 1.

Should you have any questions regarding our position or wish to discuss any aspect of our position on this important subject, please do not hesitate to contact me on (07) 3040 3460.

Yours sincerely,

Scott Smith
Chief Executive Officer

Attachment 1:

Policy, legislation and regulation

Issue: Gaining access to bus routes for new autonomous bus services in South East Queensland is problematic, due to requirements for lengthy negotiations with existing bus operators.

In Queensland, if SEQ local governments intend to introduce a new autonomous bus service in an area where the existing bus service is subsidised by government, there is an expectation that SEQ local governments should demonstrate whether the new autonomous bus service would unfairly compete. This is due in part to the assumption that, even if the new autonomous bus is operated without a government subsidy, the new service could reduce passengers on the subsidised services, and therefore increase the gap to be met by the government subsidy. This has the potential to limit the deployment of new autonomous bus services, as SEQ local governments are reluctant to negotiate with existing subsidised operators due to potential delays and the effect of delays on the commerciality of establishing a new autonomous bus service. This situation could lead to SEQ local governments losing opportunities to attract autonomous buses.

Solution: (i) Establish a streamlined process for negotiating with the existing bus operators. (ii) Identify existing bus routes where a new autonomous bus service is permitted to operate in conjunction with the existing subsidised bus operators.

Issue: The meticulous application of regulatory requirements in South East Queensland for new autonomous bus services is disproportionate to the risk.

Currently, autonomous vehicle regulatory issues are covered in a range of papers and publications including *National Transport Commission: Discussion Paper Proposing National Guidelines for Automated Vehicle Trials*, and *NTC Guidelines for Trials of Automated Vehicles in Australia*. In Queensland, regulatory issues are covered by the *Department of Transport and Main Roads (TMR) Automated Vehicle Trial Permit Framework* (which reflects the NTC guidelines). Although this guidance is important and helps SEQ local governments to shape the deployment of autonomous vehicles in Queensland, situations may emerge where the application of the guidance is rigorous, and there are arguably too many requirements for an applicant to address risk, even though the risk is very low. Importantly, the application of the regulatory requirements which seek to mitigate risk, need to be applied with reference to the proposal's context (e.g. often the autonomous bus is proposed to operate in a low risk environment). Furthermore, there should be no hesitancy to operate the new autonomous bus service as demand responsive transport. Since the autonomous bus has this capability, then regulators need to make allowances, and encourage the new technology for use as demand response transport.

Solution: Provide a regulatory system that delivers the flexibility to quickly adjust its regulatory framework to support the fast pace of development of autonomous vehicle technology while safeguarding public safety.

Issue: In order to create a competitive advantage in South East Queensland, the regulatory requirements for new autonomous bus services should be clear and transparent, sending signals which ensure investors know they can invest with confidence.

Although the Australian government and Queensland government's intentions seem to be in favour of regulatory frameworks which are relatively "performance based", in practice, the system for obtaining a permit for an autonomous vehicle in South East Queensland is overly prescriptive. An example is the requirement to comply with the Australian Design Rules (ADR) which require seatbelts and a steering wheel, when in the case of a steering wheel and seatbelts, the risk is mitigated by the fact that the autonomous bus service travels at very low speeds and is controlled by fail safe technology. Therefore, a well-developed performance-based planning regime is the solution, and it should meet modern standards for performance-based regulation, and not be a system which encourages strict adherence to the rules. If developed, the system should be supported with adequate guidelines and advice. This would create greater consistency across State and Territory governments and help to avoid a situation where one State provides a strict interpretation, while another State's requirements are less onerous – creating an uneven platform for the development of autonomous vehicles nationally.

Solution: (i) Create regulatory reform which enables efficient and consistent permitting of automated vehicles. (ii) The solution should utilise the principles of many of the town planning systems in Australia e.g. Qld Planning Act for "performance based" regulation.

Issue: It is difficult to create a sustainable/commercial partnership with autonomous vehicle suppliers if a streamlined/reliable permitting system cannot be established.

Any future developments pertaining to automated vehicles (e.g. regulations, funding, collaborative arrangements, infrastructure) should be undertaken in a way that does not inhibit SEQ local government's potential to establish a commercial model with an autonomous vehicle operator. For example, currently the time required to prepare an application, resolve issues, and lodge an application would prevent "multiple permitting" where a steady stream of applications would be lodged, and approvals would be granted. The current situation creates difficulties for SEQ local government's establishment of commercial arrangements with autonomous vehicle suppliers and autonomous shuttle bus operators. SEQ local governments have no confidence to negotiate with partners if the current regulatory/permitting regime remains.

Solution: Create regulations and guidelines that do not inhibit SEQ local government's potential to establish a sustainable commercial model with an autonomous vehicle operator, and regulations that instead, establish a process for streamlined, multiple permitting.

Funding issues

Issue: In various jurisdictions, other than Queensland, autonomous vehicle trials and deployments are heavily funded by State and Territory governments. Funding by the Australian Government is required.

Some State and Territory governments are providing funding to encourage the autonomous vehicle industry. However, greater funding is required in Queensland, particularly due to the level of interest shown in Queensland by several autonomous vehicle suppliers. The announcement in October 2018 that The Australian Government is establishing an *Office of Future Transport Technologies* (The Office) to help prepare for the pending arrival of automated vehicles and other transport

innovations is welcomed by SEQ local governments. The goals of The Office will help to ensure the regulatory settings for autonomous vehicles are workable and nationally consistent, and this might address some of the issues above. However, although the October 2018 announcement mentions that the initiative was made possible through a \$9.7 million investment, CoMSEQ believes more investment is required.

Solution: *Provide funding to SEQ local governments to encourage the autonomous vehicle industry.*

Relationships between stakeholders

Issue: *There is opportunity to use the skills of SEQ local governments to improve collaboration and coordination between stakeholders on developments in autonomous vehicles.*

SEQ local governments have an important role in the development of autonomous vehicles. SEQ local governments provide roads, bus stops, bus drivers, signage, footpaths and other infrastructure, essential for the operation of autonomous vehicles. SEQ local governments are particularly supportive of new autonomous bus services, regarding them as a key part of their commitment to community transport. SEQ local governments are already thought leaders, carrying out the coordination and facilitation roles with many stakeholders, and arranging an autonomous vehicle trial. In the development of autonomous vehicles, good relationships are critical to partnerships working, and all opportunities should be taken to strengthen these working relationships. Achieving coordination is important and will assist stakeholders to take a strategic approach.

Solution: *Prepare a Memorandum of Understanding enabling collaboration by experts from SEQ local governments, the Queensland State government and the Australian government to progress the trials of autonomous vehicles on public roads.*

Innovation in land-based mass transit

Issue: *The need to encourage innovation in all land-based mass transit (e.g. trains, buses).*

Autonomous Rail Rapid Transit: A crossover between a train, a bus and a tram, this rail-less transport, could have a role in the South East Queensland transport system. It would maximise use of existing infrastructure by using sensors to determine the dimensions of the road and make a virtual track for itself to ride along, and not necessarily require a dedicated busway. It resembles a rubber-tyred tram, although it has the flexibility to move around like a normal articulated bus.

Autonomous Train: There is already experience in this area, with the delivery of iron ore by an autonomous train in the Pilbara in Western Australia. This technology could be investigated for use within the South East Queensland passenger rail network. As well as maximising the use of existing rail corridors, the main advantages from the shift from manually operated trains to a fully autonomous system are safety and productivity. In terms of productivity, shorter, quicker, better scheduled stops could be provided. In terms of safety, the technology could register and respond to level crossings and utilise autonomous technology to reduce this high-risk activity.

Autonomous Buses: In modern buses of the future, information from sensors would be used to navigate the vehicle through existing infrastructure networks. The

technology would prevent incidents and accidents by identifying objects approaching the bus, adjusting its speed accordingly, or stopping the bus.

Solution: *Maximise the use of existing infrastructure networks by encouraging innovation in all land-based mass transit.*

Apply lessons from trials of shuttle buses to city/regional buses

Issue: *Extension of trials from shuttle buses to trials of city/regional buses.*

Feeder services: It has been said, of bus transport: "Our current business model is transporting people from locations where they aren't, to places that are not their destination." To solve that misalignment, opportunities should be explored to have regular autonomous buses circulating between neighbourhoods and bus stops, as feeder services for the "busway" bus routes.

Corridor based: Work could be undertaken to investigate opportunities to use driverless bus services on routes that use a "rapid transit corridor", or lanes with special road markings, or allowing autonomous buses to share HOV lanes.

Platooning: "Platooning" technology, which places a vehicle at the head of a convoy, with a string of automatically driving vehicles trailing behind it could apply to city/regional buses. This could improve traffic safety, cut fuel use and - because it controls speed - cut down on the risk of increasing congestion.

Solution: *As well as cars and ten seater automated buses, encourage creative and innovative solutions for city/regional buses designed for the successful delivery and provision of community services.*