



30 November 2018

Secretariat
Standing Committee on Infrastructure, Transport and Cities
PO Box 6021
Parliament House
CANBERRA ACT 2600

The Australasian Centre for Rail Innovation (ACRI) welcomes the opportunity to submit to the Inquiry into automated mass transit.

ACRI connects participants across the private sector and government to facilitate the pooling of resources and provide economies of scale in the delivery of independent applied research and tailored, innovative solutions to rail industry needs, aiding industry efficiency. ACRI also fosters international connections in order to leverage that knowledge for Australasian benefit.

ACRI welcomes the Inquiry, especially the focus on both rail and road. Interactivity between the modes remains a vital part of the transport system and this is especially true in regards to automation.

A clear focus of road and rail interactivity is at level crossings. Whilst there has been investment in grade separations, there remain many thousands of actively controlled and passive level crossings across Australia, publicly and privately managed.

The interactions between automated road vehicles and level crossings, most particularly those that are passive, is an issue requiring greater understanding. Primarily this is a concern of safety to confirm that automated vehicles can effectively negotiate this part of the transport system. Existing sensor suites on automated road vehicles cannot detect approaching trains when they are sufficiently in the distance to allow the automated road vehicle to pass safely over the level crossing. Modifying many level crossings to detect trains at a distance and communicate with automated road vehicles would be expensive, and there would need to be decisions on how this would be funded. In the absence of such investment, there is a curtailment on route choice and wider transport system productivity. Knowing that both active and passive crossings can be safely negotiated broadens the connectivity and economic effectiveness of the transport network.

With a number of new active and passive level crossings to be commissioned within the Inland Rail project, ACRI believes this may provide an opportunity to leverage this major infrastructure investment and transport route to test and validate the navigation of passive level crossings by automated vehicles.

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ACRI looks forward to the outcomes of the Inquiry and outcomes to guide the safe, efficient, connected and sustainable future of automated mass transit in Australia.

Yours sincerely

Andrew Meier | Executive Director/Chief Executive Officer