

SUBMISSION 7 – THE AMY GILLET FOUNDATION

Preparedness of the NSW Government

1. Your submission notes that other jurisdictions have insisted on guarantees, significant risk management procedures and insurance for car manufacturers for the legal risks associated with crashes due to automated vehicles.

- Could you expand on this and the procedures in place by other jurisdictions?

Actions taken by other jurisdictions are referenced in the comprehensive UK document on Pathways to driverless vehicles – see in particular pp135-156

(https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/401565/pathway-driverless-cars-main.pdf) .

- What model do you see as being best suited for NSW to follow?

There are a number of potential models for NSW. The choice depends on the particular technologies being considered and the Government's strategic view.

From a technology perspective it is useful to distinguish based on NHTSA vehicle automation categories (0-4). We recommend that NSW embrace level 1 automation and require it as a minimum for all vehicles registered in NSW with a particular focus on autonomous emergency braking and other technologies that detect and protect vulnerable road users.

For level 2-4 automation NSW has strategic choices. One strategy might be for NSW to position itself as a leader in encouraging driverless vehicles in the State – to, in a sense, be an “early adopter”. This seems to be the position implicit in the UK report cited above.

A second strategic approach is a risk management focus where NSW seeks to protect its residents and visitors to the maximum amount possible by restricting untried technologies and at the same time encouraging technologies with established benefits.

I recommend the emphasis should be placed on the second strategic view. There are always risks in being an early adopter. It is unlikely that NSW would gain significant competitive advantages over other jurisdictions in seeking to be a test-bed for this technology by adopting a laissez-faire approach.

NSW may however become a model jurisdiction, for Australia and more broadly, by establishing good rules around autonomous vehicle features at level 3 and 4 that are not onerous on innovators but are effective in insuring safe deployment of tested technology.

These rules may need to be introduced at two levels – a testing phase and a commercial phase. Initially, NSW will need to introduce the testing regime and, based on the testing experience, place restrictions or requirements for commercial sale and general operation.

The UK report cited above suggests a code of practice as being the best compromise between risk management and encouragement of technology (p122). However, it is reasonable to question the effectiveness of codes of practice without “teeth” when it comes to ensuring safety in the testing phase. The community may have justifiable concerns about relying on a code of practice without monitoring or sureties. The issue in economic terms is whether externalities associated with operating autonomous vehicles (especially crash risks) can be internalised. This is unlikely with a code of practice unless there are specific penalties associated with a breach of the code.

The Californian approach has required certification of carmakers testing higher level driverless vehicle technology. NSW may be able to rely on Californian certification or certification by other recognised international assessment regimes. This may see NSW forgo the opportunity to be a test-bed for new technology but, as already mentioned, the potential gains from being at the forefront in testing may be derisory.

Nevada and Florida have required bonds of between \$1m and \$5m. These amounts seem trivial relative to the size of the companies involved and to the potential liabilities if there are safety related incidents. Given the substantial size of the players, it seems reasonable to request a formal surety or guarantee in support of potential liability if special permits are sought for driverless vehicle trials.

As an adjunct to regulation of testing and wider distribution of level 3 vehicles, NSW may want to consider requirements for “test” drivers to be monitored by driver monitoring systems such as those offered by Seeing Machines (seeingmachines.com). This may mitigate the risks associated with driver distraction while the vehicle is operating in autonomous mode.