MEDIA STATEMENT

28 January 2021

High definition map collaboration essential to automated vehicle success

The Queensland Government's contribution to high definition (HD) map development, essential for automated vehicle rollout, has been identified through a new report - *Map Creation, Monitoring and Maintenance for Automated Driving.*

A Transport and Main Roads (TMR), Queensland University of Technology (QUT), iMOVE Cooperative Research Centre (iMOVE) and Royal Automobile Club of Queensland (RACQ) partnership has been investigating the government's role in creating, monitoring and maintaining HD maps to deliver accurate, real-time information to help safely guide automated vehicles to their destination.

Transport and Main Roads Director-General Neil Scales said this important research was key to building the foundations for a safe and successful future for automated vehicles in Queensland.

"The Queensland Government is committed to the future of automated vehicles and this review has given us a better understanding of the role we play in managing the technologies associated with it," Mr Scales said.

"We want to eliminate serious trauma on Queensland roads, automated vehicles will play a significant role in achieving this vision."

To access the report, visit https://imoveaustralia.com/project/hd-maps-for-automated-driving/.

The QUT team, led by Professor Michael Milford, carried out an in-depth literature review from jurisdictions around the world to inform the scope of further study.

Professor Milford said most automated vehicles required purpose-built HD maps to operate safely.

"The technology may also enhance the capabilities of vehicles with more limited autonomy, including those already in use on Australian roads," Professor Milford said.

"Our review found major differences in how countries were approaching the issue of HD maps.

"We found that, unlike core autonomous vehicle technology driven primarily by tech companies, governments could and have been more involved in the discussion of how HD maps are created, used and maintained, especially in continents like Europe.

"This is exciting from a technology standpoint because there's still the possibility of further home-grown HD mapping developments in a collaboration between government, private industry and the research sector."

RACQ Head of Public Policy Rebecca Michael said while autonomous vehicles had the potential to improve road safety and alleviate transport disadvantage, Queensland's unique driving environment posed several challenges which could affect an autonomous vehicle's ability to navigate safely.

"HD maps will play an important role in overcoming these challenges. This report is a critical first step in understanding how purpose-built maps can be developed, monitored and maintained to support the roll out of autonomous vehicles in Queensland," Dr Michael said.

The interaction between automated vehicles and road infrastructure has been the subject of an ongoing TMR investigation.

In 2019, TMR, QUT and iMOVE initiated a study in which researchers took an electric car fitted with high-tech sensors, Artificial Intelligence (AI) and computers on a three-month, 1200km Queensland road trip.

The road trip assessed Queensland's road infrastructure in preparation for the introduction of automated vehicles in report, *How Automated Vehicles Will Interact with Road Infrastructure Now and in the Future.*

Published in January 2020*,* the road trip report identified the use and availability of HD maps as a critical enabler for significantly improved performance of automated vehicles, https://imoveaustralia.com/project/automated-vehicles-interact-road-infrastructure/ .

For more information on Transport and Main Roads' automated vehicle project, visit www.qld.gov.au/cavi.

ENDS

Media contact: TMR Media Unit, 3066 7060