

Submission 76 – RVS Legislation Consultation

Submission to Commonwealth Government

Discussion paper – Importing an Autonomous Vehicle (February 2018)

Prepared by ADVI Centre of Excellence



The Australia and New Zealand Driverless Vehicle Initiative (ADVI) is the national peak advisory body for autonomous vehicle technology and is a trusted adviser to government and industry partners and is well placed to provide wide, expert input into importing autonomous vehicles (AV).

ADVI is a cooperative partnership program comprising of more than 110 Australian and international organisations including insurance, technical, industry, policy, regulator, academic and infrastructure partners.

The ADVI initiative is managing the safe and successful introduction of automated vehicles onto Australian roads and will ultimately position Australia as an international role model in the development of new technologies and attract developers, innovators and investors.

ADVI has three core programs of work:

1. **Scientific research:** field trial development and evaluation, research programme development, knowledge transfer and dissemination, scientific quality and rigour.
2. **Informing policy and risk:** identification of emerging risks and concerns, social research, development of position papers and supporting materials.
3. **Media and advocacy:** promotion and public participation, industry and media engagement, government relations and public awareness.

ADVI's role is to investigate and help inform the development of robust national policy; performance criteria; legislation; regulation; business models and operational procedures; and processes to pave the way for the introduction of automated vehicles to Australian roads.

Running parallel with those efforts, work is also underway to raise public awareness and encourage a change in mindset through knowledge-sharing, demonstrations, and simulated and in-field investigation trials.

ADVI brought the first successful on-road test of a driverless vehicle in the southern hemisphere, and more on-road testing in real-world conditions will be a key part of future research and evaluation efforts. ADVI and its partners individually have, and continue to, work very closely across industry and with all levels of Government across the nation, to safely run events, pilots and demonstrations on and around public roads. To this end, we are well placed to understand, support and protect the interests of the Australian community in relation to these emerging disruptive technologies.

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Summary

Significant barriers currently exist in importing Autonomous Vehicles (AV).

There are two perspectives to the issues:

- Importation of AV “vehicles” for demonstration & trial purposes •
Full volume importation of AV vehicles for on-going use.

An AV may be any class of vehicle (MA — MC) including omnibuses (MD, ME) and shuttles (no category?). Common across all classes, these vehicles may not have “steering wheel” nor Type approval as per traditional method (especially shuttles).

Our understanding of current ADR and MVSA restricts “standard” process for importation? Opportunities exist for Australia to create “new categorisation” and approval process of such “vehicles” in order to provide Australia significant economic and social benefits through early implementation and even lead WP29 discussions in categorisation discussion.

Example – for demonstration of AV vehicles – shuttles, what category to apply the import approval? – engineering evaluation or marketing evaluation suggest vehicles are “prototypes” and to be returned or destroyed (after evaluation), when in fact these units are full production vehicles and to be used on public roads without driver (hence no steering wheel) – import approval states “...operated by persons engaged by applicant to perform evaluation...”

ADVI welcomes discussion with DIRD for a robust process which caters for current legislation as well as any amendments to the future legislation to accommodate these disruptive technologies.

Current issues

- AV’s already are beginning to offer the greatest improvement on road safety which will only further improve as the technology further develops while also providing significant opportunities for early adoption for the Australian economy/ productivity, the environment, reduction of congestion and to assist those most disadvantaged in our community – see attached (Attachment 1) – Economics Impacts of Automated Vehicles on Jobs and Investment in Australia highlighting the means for AVs to drive economic and social benefits.
- It is estimated that 94% of road deaths are due to driver error that can be reduced by AV technology.
- Amongst the many barriers faced by AV technology it is also critical to build community trust in AVs as we move away from private vehicle ownership towards MaaS.
- The referenced paper highlights the critical need to address the legislative and policy barriers restricting the early adoption of AV technology and fail to engage the public.
- AV technology is commonly recognised as 0-5 levels. Level 0 having no automation while level 5 has full automation, able to drive on any road surface. While level 5 may be some years away, early prototypes of Level 4 vehicles are already available with limited or no driver

controls available. The vehicles are typically very lightweight (shuttles) and may be unable to meet required safety standards of general access vehicles (as per current regulations). Risks are mitigated due to low speed and operation in pedestrian or low traffic, first/ last mile, environments.

- Currently the Australian Design Rules contain no standards for an AV and present a significant barrier for AV technology that do not have driver controls. See attached (Attachment 2) example comparing Aurigo Pod compliance with selected ADR.
- Current conditions of importation limit the ability to allow other organisations to gain experience using the AV – must be exported/ modified or destroyed – and can only be deployed by the original organisation. This impacts for example on NAVYA and Easymile who are vehicle manufacturers who have imported vehicles and can't allow likely customers to test-drive? The vehicles are currently not manufactured in Australia and current importation process is a significant barrier as highlighted below.
- Cost of vehicles is typically very high due to significant development costs and low production volumes rather than any specific luxury or other features.
- Currently market vehicles in Australia are commonly fitted with L2 autonomous driver assistance and the rapid move towards higher levels of technology will see significant increase in the importation of AVs that may not comply with the current ADR. (Just as LEDs lamps were introduced when regulation still reference filaments, thus prohibiting the new safer LED technology).

Current Importation

- It is understood that up to twelve (12) L4 vehicles have been imported into Australia under various means permitted under the Australian Vehicle Standards including Demonstration/ Special Purpose Vehicles and as light vehicles. See attached (Attachment 3) example highlighting differences and issues associated with recent imports of AVs.
- Consequently, this has resulted in:
 - varying import fees being applied – e.g. LCT on shuttles (it is not a “car”)?
 - lack of clarity for industry and individuals seeking to import same model AV vehicle at varying times with differing rules. Details can be provided if required.
 - ✦ impost on DIRD seeking same details from different applicants seeking to import the same / similar technology vehicle. Details can be provided if required.
 - Considerable delays in assessment of applications — Details can be provided if required.

Future opportunities

- ADVI is aware of the Australian Vehicle Standards legislative review currently being pursued by the Commonwealth. It is noted that this provides sufficient flexibility to provide for the expected increase in AVs.
- It is noted that the detail of the flexibility is currently not available.
- ADVI welcomes the opportunity to work with DIRD now to develop a framework and approval process for the safe importation of AVs under current exemption powers to reduce the barriers for associated imports and enable greater Australian leadership.
- This new (application) model can be readily transitioned to a new legislative structure saving time during implementation.

Attachments

1. Economics Impacts of Automated Vehicles on Jobs and Investment in Australia
2. Comparison of Aurriego Pod compliance with selected ADR
3. Differences and issues associated with recent imports of AVs