

CAVs in Australia

EUCAD 2019-Plenary session on International collaboration



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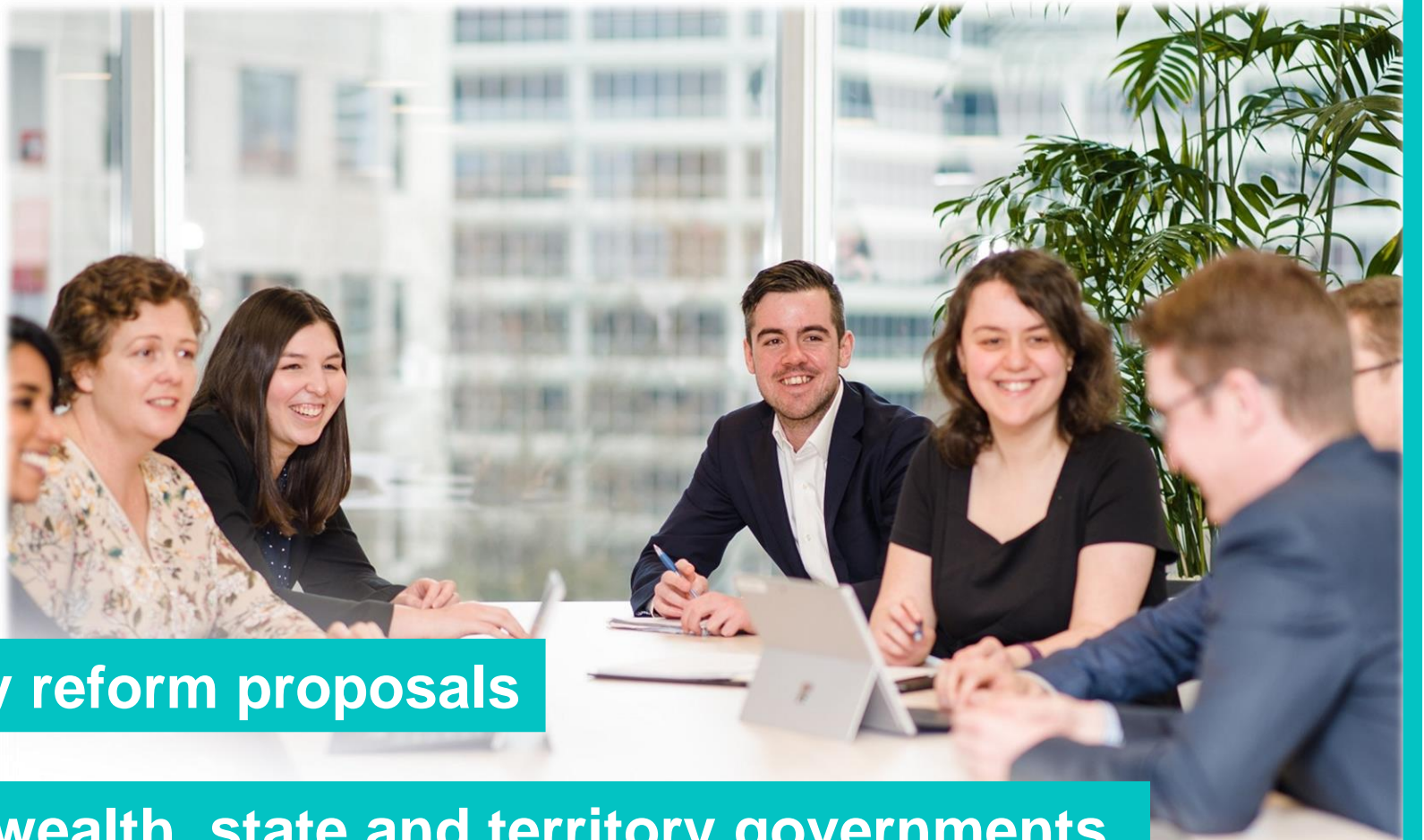
About the NTC

Independent body

National transport policy reform proposals

Funded by the Commonwealth, state and territory governments

Remove regulatory barriers to new, innovative transport services and products



Regulatory context for vehicles

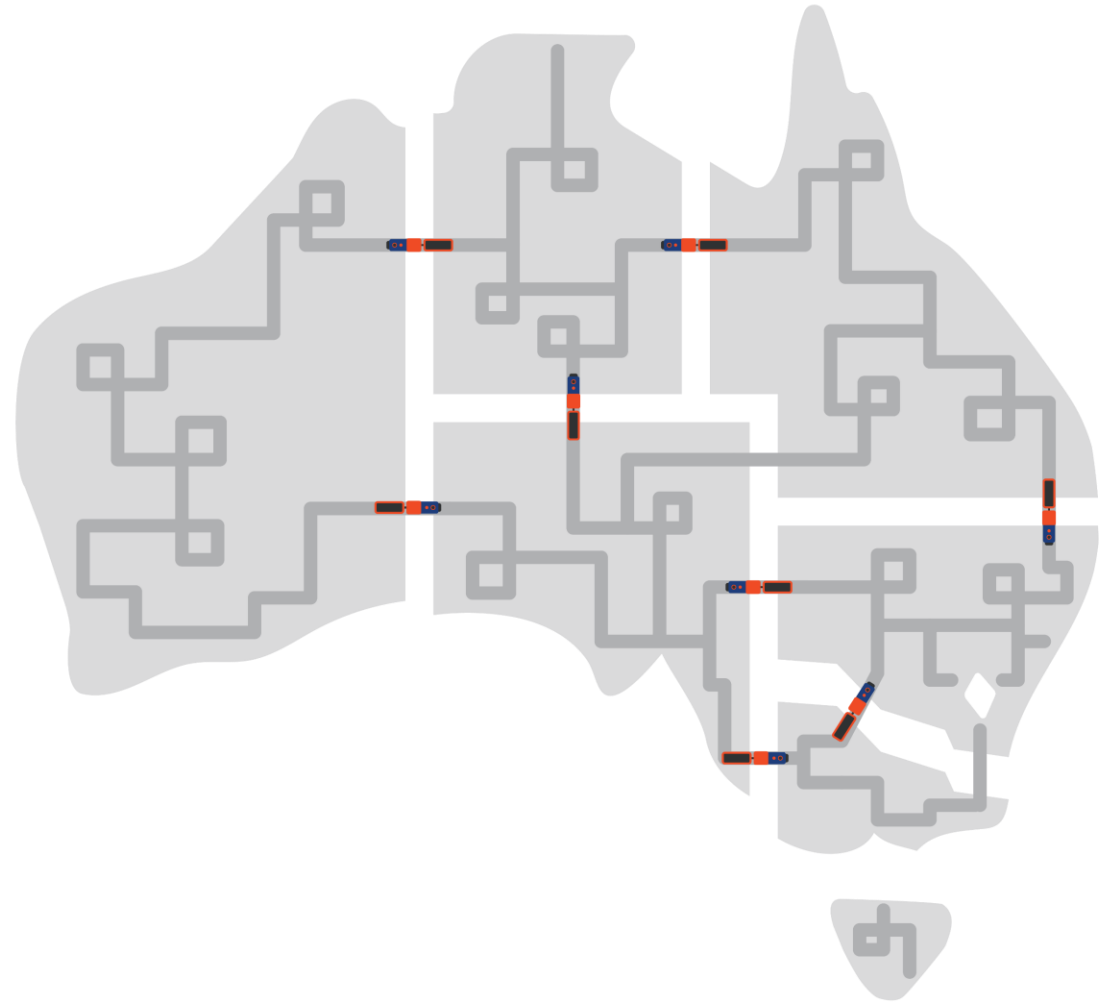
Australia

- **Federal** system
- Eight states and territories and Commonwealth
- **First supply** (type approval) Commonwealth
- **In-service** (including regulation of (human) drivers, vehicle registration, licensing, civil liability, criminal liability-states and territories



Goal

End-to-end regulation to support the safe, commercial deployment and operation of automated vehicles at all levels of automation





About the automated vehicle program

Who is responsible for driving and what are the responsibilities of various parties?

Changing driving laws to support automated vehicles

How do we ensure automated vehicles are safe at first supply and once on roads?

Safety assurance system

How do we protect users' data?

Review of government access to connected and automated vehicle data

How do we ensure people in an accident with an automated vehicle are not in a worse position than people in an accident with a conventional vehicle?

Motor accident injury insurance review

Consultation

Key themes

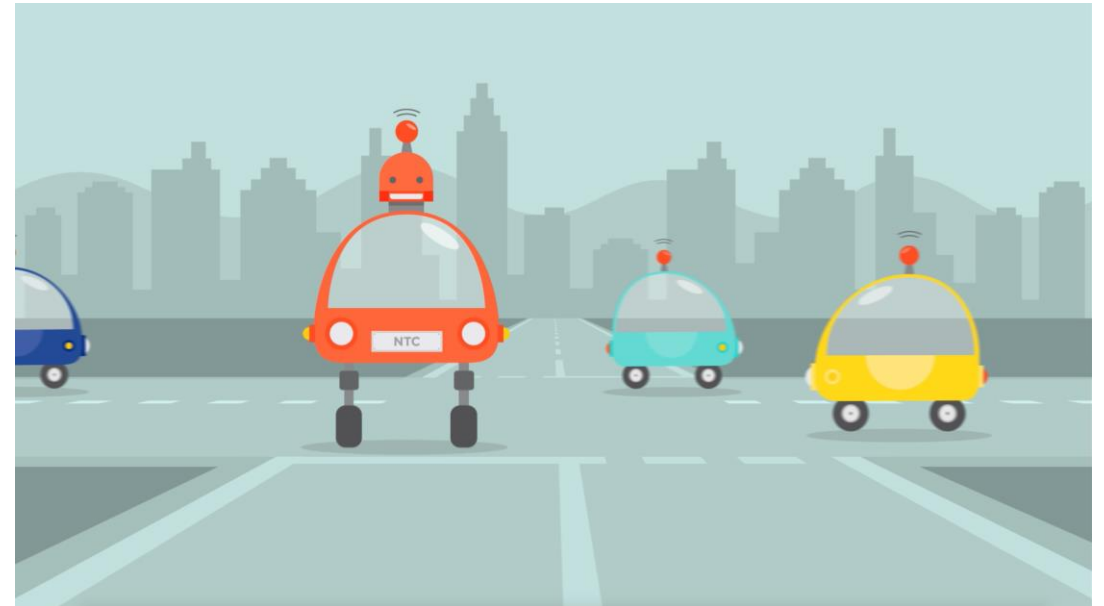
- **National approach** to laws regulating an ADS ‘driver’ and safety assurance.
- **International alignment**
- **Legal certainty** and clarity about:
 - whether an ADS is legally permitted to perform the dynamic driving task.
 - which entity is legally responsible for an ADS when it is performing the dynamic driving task, including responsibility for complying with road traffic laws.
- **No safety gaps** if an ADS performs the dynamic driving task.
- **Equity of insurance coverage** people injured in an accident with an automated vehicle need to be no worse off



Automated Driving System Entity (ADSE)

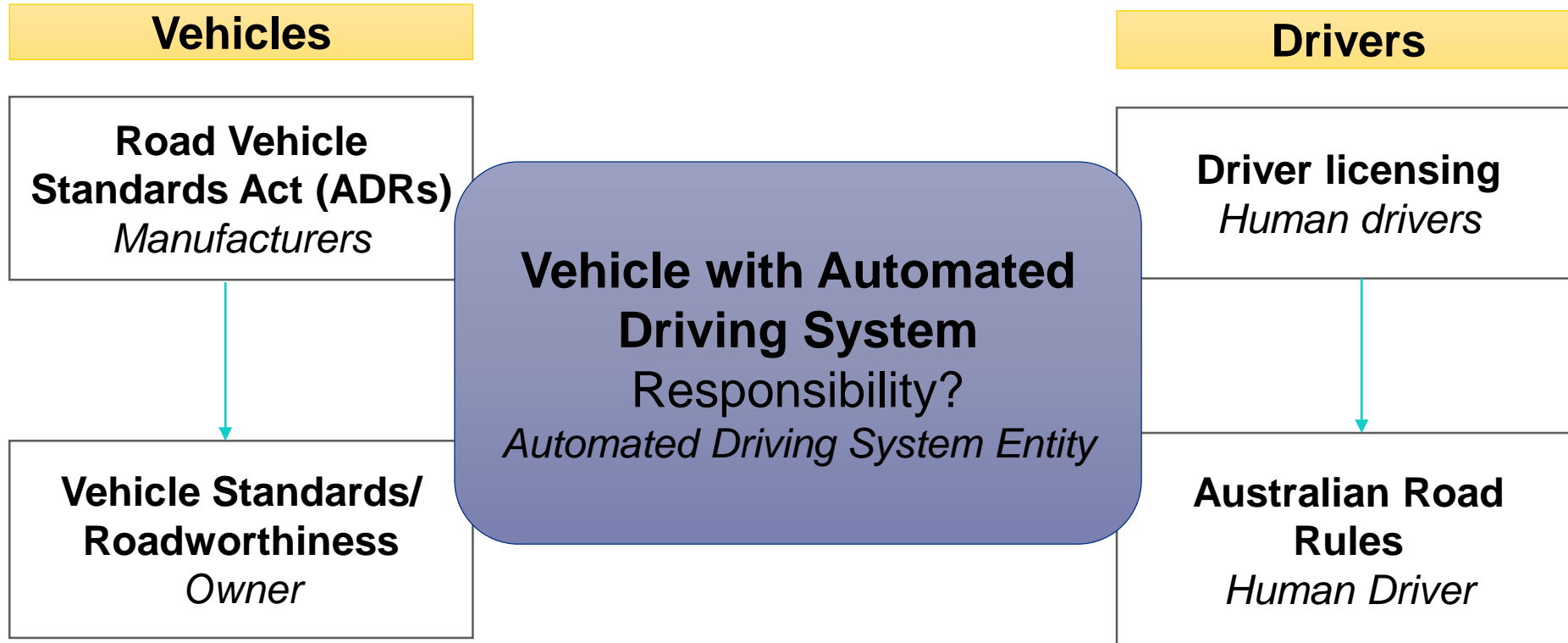
Key concept for our work:

The ADSE is the entity that is certifying that the ADS can safely perform the driving task.



Challenge

Vehicles and drivers



Purpose-built national law

 Uniform approach to driving laws

1. Allows an ADS to perform the dynamic driving task
2. Ensures that there is always a legal entity responsible
3. Clarifies responsibility when the ADS is engaged.
4. Sets out any obligations on relevant entities.
5. Provides a regulatory framework with flexible compliance and enforcement options.

ADSE driving responsibility

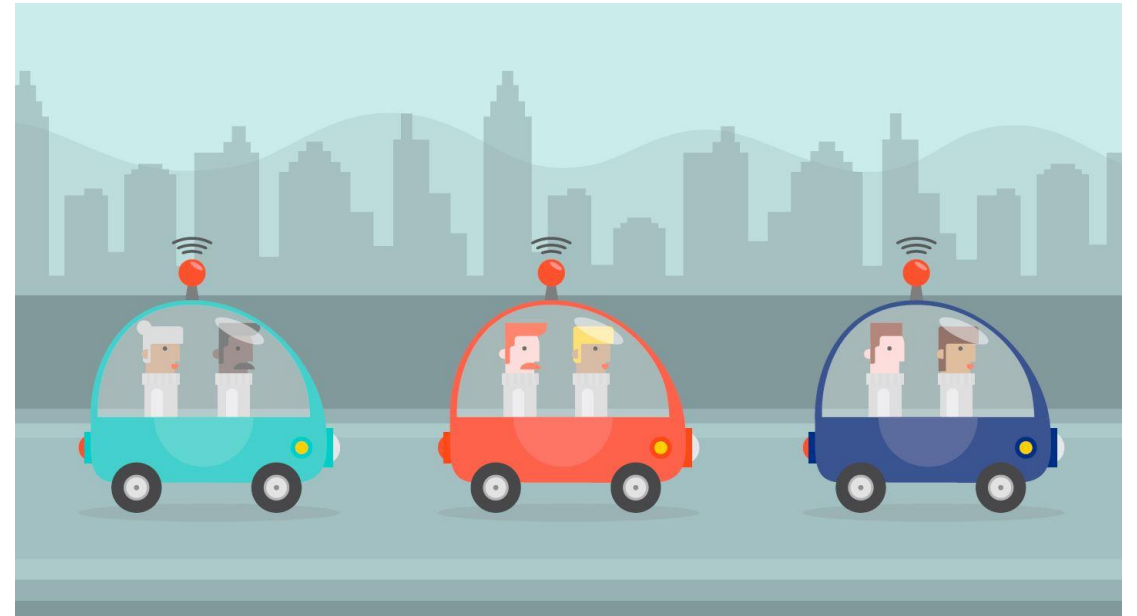
When engaged, the ADS is in control at conditional, high and full automation and the ADSE is responsible for compliance with dynamic driving task obligations.



Fallback-ready user

Recommended duties for fallback-ready users:

- a) remain sufficiently vigilant to respond without undue delay when required
- b) hold the appropriate licence
- c) comply with drug, alcohol and fatigue driver obligations



First supply of vehicles with an ADS

November 2018, transport ministers decided:

- Mandatory self-certification at first supply based on 11 safety criteria and 3 additional obligations
- Incorporated into existing framework for first supply (Road Vehicle Standards Act)
- Transition to pre-market approval as international standards are developed.

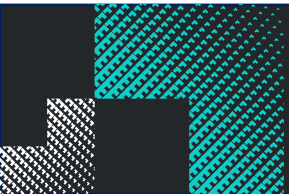
Safety assurance for automated vehicles





Safety assessment criteria

1. Safe system design and validation processes
2. Operational design domain
3. Human-machine interface
4. Compliance with relevant road traffic laws
5. Interaction with enforcement and other emergency services
6. Minimal risk condition
7. On-road behavioural competency
8. Installation of system upgrades
9. Verifying for the Australian road environment
10. Cybersecurity
11. Education and training



Additional obligations

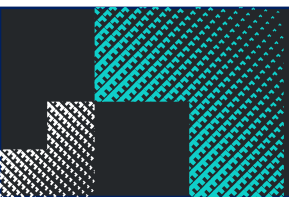
1. Data recording and sharing
2. Corporate presence in Australia
3. Minimum financial requirements



In-service safety – What is the problem?

In our current regulatory environment, when vehicles with automated driving systems become ready for deployment:

- they may introduce new in-service safety risks that the market will not eliminate or mitigate
- nationally inconsistent approaches to in-service safety and multiple regulators without clearly defined roles could be a regulatory barrier to market entry.



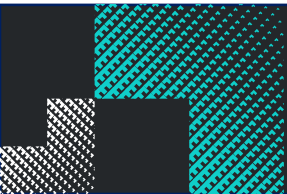
In-service safety – Key issues

1. Parties – which parties influence on-road safety? ADS entities, OEMs, owners, modifiers, repairers, ...
2. Duties – what duties should these parties have? Should there be a general safety duty or more prescriptive requirements?
3. Institutional arrangements – who is the regulator for in-service safety of ADSs? Does it need to be national regulator?

In-service risks

Considering types of safety duties

- Non-prescriptive, overarching and positive general safety duty on the ADSE to ensure the safety of the ADS 'as far as reasonably practicable'.
- Safety duties on others such as modifiers, repairers, registered owners?
- Similar to WHS or HVNL duties. It is likely that the WHS safety duty would apply in many cases so this would not be create an additional burden
- Allows ADSEs to integrate compliance systems with existing WHS systems

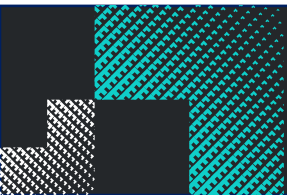




How do we protect users' data while ensuring the benefits of government access are realised?



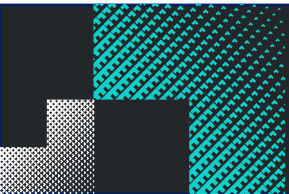
- What is different about C-ITS and automated vehicle data?
- How would current privacy and information access laws apply?
- Is there a need for reform to manage government access?





Motor accident injury insurance (MAII)

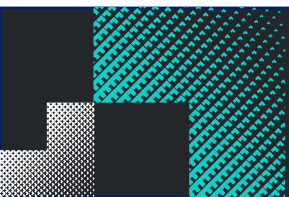
- What happens when an AV crashes and injures someone?
- Are they covered by existing compulsory third party insurance?





Areas where international co-operation are beneficial?

- Testing-share information, avoid unnecessary duplication
- Vehicle standards-development of standards through WP 29-maximum involvement of countries in this
- Regulatory approaches-share information-approaches to regulation and adopt successful approaches where possible





How can international co-operation activities be improved?

- Streamline number of forums, avoid duplication
- Aim for as much consistency of organisational representation as possible
- Focus on industry/ government international forums

