Submission to the Commonwealth Department of Infrastructure, Transport, Regional Development, Communications and the Arts

Draft National Road Transport Technology Strategy and Draft 2024-27 National Connected and Automated Vehicle Action Plan

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Introduction

Thank you for the opportunity to provide feedback on the National Road Transport Technology Strategy (the Strategy) and 2024-27 National Connected and Automated Vehicle (CAV) Action Plan (the Action Plan).

The Centre for Connected and Automated Transport (CCAT) is a government and industry collaboration which aims to facilitate the transition to connected and automated transport.

Our two key objectives are to:

- build a strategic vision for the infrastructure that supports connected and automated transport in Australia and New Zealand
- be the public champion for the transition to connected and automated transport in Australia and New Zealand.

Our membership comprises government transport agencies, statutory bodies, infrastructure providers, transport and logistics associations, research bodies, community groups and consultancies amongst others.

We bring together these established groups to create an expert and representative voice on preparations for connected and automated technologies across transport modes.

Context

A CCAT delegation undertook an International Outreach to Europe this year, which provided many important learnings from countries that are well-advanced in their preparations for connected and automated transport. Amongst other things, our learnings focused on the importance of strategic government leadership to prepare for connected and automated transport, the need for strong collaboration between government and industry, the clear links to the decarbonisation agenda and the need to dismantle sector silos.

These learnings have provided invaluable lessons for our own preparations for connected and automated transport. In our report, 'Transport in transition: Preparing for a connected, automated and sustainable future'[1] we collected the learnings and made recommendations about the way forward in Australia and New Zealand. We hope the Commonwealth will find these learnings and recommendations useful in the further development of the Strategy and Action Plan.

Our submission is informed both by the expertise of our members and our international learnings.

[1] CCAT's report, 'Transport in transition: Preparing for a connected, automated and sustainable future' is available here: https://3003125.fs1.hubspotusercontent-na1.net/hubfs/3003125/CCAT%20Int.%20Outreach%20Report%20FA%20SP.pdf.

Submission

CCAT supports the development of the new Strategy and Action Plan. In particular, CCAT supports government planning for road transport technologies that goes beyond just enabling their safe deployment, but also seeks to harness the broader potential benefits these technologies can provide.

We provide the following feedback on the draft Strategy and Action Plan.

FRAMEWORK FOR THE STRATEGY AND ACTION PLAN

CCAT supports the need for a Strategy and Action Plan to guide government preparations for road transport technologies. The concepts within the Strategy provide a good mix of broad strategic direction and practical implementation principles for government agencies to make decisions.

CCAT considers that both the concepts within the Strategy, and the Strategy and Action Plan can be more meaningfully linked to each other. In particular, we consider there can be:

- clarity about how the Strategy's objectives achieve the Strategy's vision
- clarity about how the Strategy guides the Action Plan, and in turn, how the Action Plan implements the Strategy
- clarity about how the role of governments and policy principles fit within the Strategy and Action Plan
- a way to measure progress against the Strategy and Action Plan
- more consistent language between the Strategy and Action Plan.

CCAT has taken the opportunity to outline an amended framework for the Strategy and Action Plan (see over page), which we believe achieves the above points while incorporating the concepts from the existing Strategy and Action Plan. We have modelled the framework on the National Electric Vehicle Strategy, which we consider provides a clear structure. We recommend that the suggested framework can then guide the detailed content of the Strategy and Action Plan.

CCAT's suggested framework amends the current Strategy framework in the following ways.

- It splits out the societal outcomes from the current vision to create a new overarching vision, and creates clear objectives which relate to the new vision drawing from the transport outcomes in the previous vision.
- It aligns the actions in the Action Plan with these new objectives.
- It also creates a set of outcomes, informed by the topics covered in the actions of the Action Plan, to measure progress by.
- It links the role of governments and the policy principles to the actions – showing that they inform the way actions are chosen and delivered.
- Finally, as the Action Plan is intended to implement the Strategy, it renames the Action Plan the 'National Road Transport Technology Action Plan', removing the reference to CAVs.

The framework is intended to be enduring, to provide a long-term guide and yardstick for action.

National Road Transport Technology Strategy – CCAT's suggested framework

Vision							
Support the deployment of road transport technologies to enhance social, environmental and economic wellbeing							
Objectives							
Enable the safe deployment of technologies through regulatory reform		Harness technologies to create a more efficient and productive transport system across all transport sectors		Ensure the deployment of technologies leads to sustainable outcomes		Ensure the deployment of technologies leads to equitable outcomes	
Actions (National Road Transport Technology Action Plan)							
1.1 ADRs for ADAS and ADS 1.2 Coordination for delivery of AV framework 1.3 Implement AV Safety Law 1.4 State and territory AV laws 1.5 Motor accident injury insurance for AVs 2.5 eCall implementation 2.6 ADRs for connectivity 3.1 Holistic approach to CAVs 3.7 Sound and haptic technologies in vehicles		2.1 National plan for C-ITS 2.2 Road manager data repository 2.3 National system for C-ITS messages 2.4 Radiofrequency spectrum for C-ITS 3.2 Data sharing and management for CAVs 3.3 Readiness review for AVs 3.4 Ratings framework for CAV-ready roads 3.5 Guidance on physical road infrastructure for CAVs 3.6 Positioning infrastructure for CAVs 3.10 National coordination for MaaS		3.9 Workforce impacts of CAVs 3.11 Reducing emissions from CAVs		1.6 Education and training repository for ADAS and ADS 1.7 Education for commencement of AV Safety Law 3.8 Guidance on CAV accessibility	
Outcomes							
CAVs can be supplied and operated safely	Infrastructure optimises the benefits of CAVs	CAVs are accessible	C-ITS is deployed in all transport sectors across Australia	Data is collected and exchanged fairly and securely	The public and our workforce are equipped to manage ADAS and CAVs	Transport technologies contribute to decarbonisation outcomes	Rules for transport technologies are holistic and harmonised both nationally and internationally
Role of governments							
Policy leadership		Regulatory stewardship			Targeted and coordinated investment where there is market failure or a clear public benefit		
Policy principles							
Improving transport outcomes	Safe and secure operations	Nationally compatible deployment	Evidence-based, strategic and value for money investment	Leveraging existing investments, market approaches and devices	Encouraging competition and innovation	Sustainable technology deployment	User-centric implementation	Adapting to future change	Transferable, interconnected deployment across transport sectors

POLICY FOCUS OF THE STRATEGY AND ACTION PLAN

Infrastructure

CCAT's major public policy objective is to deliver a strategic vision for the infrastructure that supports connected and automated transport. This goes beyond looking at minimum infrastructure requirements, but looks at the broader safety, productivity, and sustainability outcomes that can be achieved from connected and automated technologies through our infrastructure decisions.

We recommend a heavier focus on infrastructure change as an enabler for broad societal outcomes. For example, we suggest that policy principle 5 (Leveraging existing investments, market approach and devices) could guide governments to consider a balance between leveraging existing infrastructure to support technology and considering the wider safety, productivity and sustainability outcomes that future-proofed infrastructure change could create. The 'Supporting infrastructure' section in the benefits and challenges section of the Strategy could also reflect this. Similarly, we suggest that this approach could inform infrastructure actions in the Action Plan such as 2.1 (C-ITS national plan) and 3.5 (physical infrastructure for CAVs).

Interconnectedness of the transport system

CCAT aims to facilitate the transition to connected and automated transport across transport modes. Technologies such as C-ITS and automation have the potential to create a more efficient and productive transport system, not only because of their use in the road transport sector but in other transport sectors as well. It is therefore important that governments do not plan for these technologies in a road transport vacuum, but consider their implementation across the whole transport system. In doing so, planning should ensure that the core technology requirements for these technologies are transferrable and interconnected across transport sectors to ensure efficient and future-proofed rollout.

We consider the Strategy should emphasise government's role to plan for road transport technologies within the context of whole transport system needs. CCAT has included this concept in the objectives, outcomes and policy principles of our suggested framework. We also suggest that action 2.1 (C-ITS national plan) of the Action Plan clearly incorporates this concept.

Decarbonisation

Decarbonisation is the primary challenge facing the road transport sector. The road transport technologies covered by the Strategy have the ability to contribute to the decarbonisation agenda, and CCAT considers it vital for the Strategy to emphasise the link between low and zero emissions technologies and other road transport technologies. The learnings from CCAT's International Outreach showed the importance of planning for low and zero emissions, connected and automated technologies as part of the same journey (see Learning and Recommendation 8 from our 'Transport in transition' report). Planning for these technologies includes understanding their potential applications, deployment models, interactions and impacts so that the deployment of the technology and necessary infrastructure is efficient, future-proofed and maximises decarbonisation benefits.

Public acceptance

Deployment of road transport technologies, in particular automated vehicles, is heavily contingent on social licence. CCAT considers the Strategy and Action Plan should recognise government's role in raising public trust and acceptance of the technology, so the public takes up the technology and receives its benefits as soon as it is available. Learning and Recommendation 7 of CCAT's report 'Transport in transition' notes that there are multiple factors that can adversely influence public acceptance, including perceptions of safety and potential impacts on jobs.

The Action Plan includes actions 1.6 and 1.7 which focus on developing education materials to help the public to use the technology and understand their responsibilities. We suggest an additional action to immediately address the preceding stage in the public's interaction with the technology, focused on awareness and acceptance of the technology.

SPECIFIC COMMENTS ON THE STRATEGY AND ACTION PLAN

The below comments expand on CCAT's suggest framework for the Strategy and Action Plan and provide additional feedback.

Aligning the Strategy's vision and objectives

CCAT considers the vision and objectives of the Strategy should more clearly interrelate with each other. Currently, the objective of a 'nationally consistent approach to technology deployment where this is needed' is not a concept that is linked to the vision, i.e. it is not clear how national consistency is linked to the transport and societal outcomes currently expressed in the vision.

As shown in CCAT's suggested framework, we consider the vision should be broadened out, with the objectives more closely aligning with the vision. We have replaced the national consistency objective with the broad objectives sought from the deployment of transport technologies (previous 'transport outcomes').

We consider the national consistency objective to be inherent in the Strategy already as it is a national plan. We also consider that this concept is appropriately recognised in both the existing policy principles and in the outcomes in CCAT's suggested framework.

Role of governments

CCAT considers a missing element from the role of governments is to provide strategic leadership on the deployment of technologies in the road transport sector. This goes beyond enabling deployment and uptake, to provide leadership on the broader benefits it seeks to achieve through deployment of the technology. We refer to Learning and Recommendation 1 from our 'Transport in Transition' report, which discusses the importance of identifying the imperatives and desired outcomes from the technology and targeting preparations towards these.

Role of industry

The formal integration of government and industry in the planning and delivery of connected and automated transport in Europe was a key takeaway from CCAT's International Outreach (see Learning and Recommendation 2 from our 'Transport in transition' report). While the

Strategy and Action Plan are meant to guide government decision-making, the vision, objectives and outcomes cannot be achieved without industry. The Strategy and Action Plan provide an opportunity to recognise and guide this collaboration.

CCAT considers it important to emphasise the central role that industry plays in implementing the Strategy and Action Plan. We suggest, for example, that key sector groupings could be noted against actions in the Action Plan, and stronger directions to government on the collaboration required with industry could be included in the 'Role of governments' section and policy principles in the Strategy.

CCAT is a key stakeholder in Australia's preparations for connected and automated transport, and as noted before, brings together a wide range of groups to provide an expert and representative voice on preparations for connected and automated transport. We welcome the opportunity engage with the Commonwealth and state and territory governments in the planning and implementation of the Strategy and Action Plan.

Measuring progress

Currently there is no clear way to measure the success of the Strategy and Action Plan in achieving specific road transport outcomes. In CCAT's suggested framework we have added a set of outcomes, with the intention that they be used to measure progress over time. The outcomes would be enduring, to be used beyond the 2024-27 Action Plan to future iterations, until they are achieved.

Benefits and challenges of road transport technologies

The Strategy includes a separate section outlining the benefits and challenges of road transport technologies. CCAT considers that the inclusion of this section in the Strategy could be more valuable if it provided guidance to government on how to balance these benefits and challenges when making transport decisions.

Action Plan implementation of the Strategy's objectives

As the Action Plan is intended to implement the Strategy, we consider the Action Plan should refer to the Strategy in some way. As shown in our suggested framework, we suggest this could be done by linking each action to one of the Strategy's objectives.

We consider this linkage should replace the 'readiness pillar' which currently sits alongside each action, particularly given this concept is not mentioned in the Strategy.

Relationship to other strategies

The Strategy mentions other government strategies it complements. Further explanation of how the Strategy complements these other strategies would provide guidance for government agencies about how their decisions on road transport technologies relate to whole-of-transport system government decision-making.

CCAT also suggests a separate column in the Action Plan which refers to government strategies and plans that each action must complement. For example, even though the development of strategies for reducing greenhouse gas emissions under action 3.11 excludes electric vehicle uptake, these strategies will still need to complement the National Electric Vehicle Strategy.

Action Plan timeframes

All the actions in the Action Plan show timeframes ending within the Action Plan's 'life' – 2024 to 2027. For those ending in 2027, it is not clear if this is the actual planned completion date, or if these actions are expected to continue beyond the life of the 2024-27 Action Plan.

While highly desirable for all actions to be achieved by 2027, we do consider it challenging and possibly unnecessary for some actions to be completed in this time. We note the importance of public timeframes as a clear signal to industry on when they can expect to deploy their technology in Australia.

Feedback on specific actions in the Action Plan

CCAT has the following feedback on specific actions in the Action Plan.

1.1 Monitor and harmonise Australian Design Rules (ADRs) as necessary to provide for additional Advanced Driver Assistance System (ADAS) and automated driving system (ADS) functionalities as international vehicle regulations are developed	CCAT supports the harmonisation of ADRs on ADAS and ADS functionality with international standards. However, the introduction of ADRs to enable these technologies prior to the development of international standards should also be a priority where waiting for international standards would create a barrier for entry of these technologies into the Australian market when they can be deployed safely. We consider that any Australian-specific ADRs should be outcomes-focused and not prescriptive to accommodate both technology-neutral entry to market and international harmonisation over time.
3.4 Examine efforts in key international markets and nationally to develop a rating framework/s for assessing the readiness of roads for CAVs and consider their applicability to the Australian context.	CCAT supports this action, particularly noting that harmonised road infrastructure for CAVs is important for safe and undisrupted deployment. Noting that this action is subject to Austroads Board approval, we suggest that should this approval not be forthcoming, another body should take forward this action.
3.11 Identify potential strategies for reducing greenhouse gas emissions from road transport through the optimal deployment of CAVs, including C-ITS, across the technology lifecycle	CCAT supports this action, and particularly notes its importance given broader government goals around decarbonisation. It is important that CAVs are not deployed in a way that detracts from decarbonisation outcomes, both because of the importance of decarbonisation and because of the potentially adverse effect on CAV uptake that such deployment could cause. Noting that this action is subject to Austroads Board approval, we suggest that should this approval not be forthcoming, another body should take forward this action.
New recommended action: Operational reforms to support the regulatory framework for automated vehicles	CCAT considers a new action should be added which focuses on developing a roadmap of nationally consistent operational reforms necessary to implement the regulatory framework for automated vehicles. For example, procedures around roadworthiness inspections, traffic infringements, IT systems and data exchange will all be necessary to support the commencement of the regulatory framework and deployment.