TMR Comments on the National Transport Future Summit's Discussion Paper
24 July 2025

General Comment

The Discussion Paper adopts a commendable long-term focus. However, incorporating more specificity around the immediate future (2–5 years) would enhance its practicality. This could include insights drawn from international developments in technology, industry, and regulation. A sharper near-term focus would support the development of actionable recommendations.

Consultation Question: What challenges are missing, and how would they address the vision?

Safety

The integration of human and automated operations presents significant safety challenges. Transitioning to automated systems requires careful management to mitigate risks. For instance, the adoption of automated vehicle (AV) technology is already underway through Advanced Driver Assistance Systems (ADAS). This iterative approach contrasts with the "big bang" narrative often associated with AV deployment. If regulatory and operational settings are not optimised now, Australia risks falling behind in broader AV adoption.

Key focus areas should include:

- Accelerating the adoption of European vehicle standards.

- Establishing clear regulations to govern the safety of ADAS technologies throughout their lifecycle on Australian roads.

Current gaps in the regulatory framework could lead to safety risks and industry exploitation. Additionally, ADAS technologies are shaping community and industry expectations, influencing perceptions of AVs (as noted on page 29) and human behaviour during early deployments. These technologies are already contributing to safety improvements, and lessons learned from their adoption can inform responses to the 'social legitimacy' challenge.

Productivity

Developing a nationally efficient supply chain network is hindered by the fragmented ownership of individual network elements, which often have conflicting incentives. Addressing this challenge requires a coordinated approach to align interests and optimise outcomes.

Sustainability

Automation, connectivity, electrification, and shared mobility represent interconnected technological transformations. Advanced AI and automated technologies offer significant potential for optimising vehicle-to-grid (V2G) integration, enabling electric vehicles to act as distributed storage assets. This could supplement grid capacity and absorb daytime renewable energy generation spikes. However, realising this potential requires:

- Significant coordination with energy regulators and operators.

- Cross-sector collaboration between the transport and energy industries.

These challenges extend beyond the transport ecosystem and demand a holistic, multi-sector approach.

Consultation Question: Do you agree with the challenges described, and how might these affect you or your industry?

Sustainability

While advanced AI and automated technologies hold promise for transport decarbonisation, near-term progress relies on practical, deployable solutions as these technologies mature. Until rigorous validation ensures their safety, reliability, and operational feasibility, they remain unsuitable for widespread deployment. This limits their immediate contribution to sustainability outcomes in the short to medium term.

Consultation Question: What are your solutions or recommendations for addressing the challenges?

Safety

- Strengthen collaboration through the National Transport Commission to improve coordination across national agencies.

- Emphasise the critical role of safety not only in automation technology itself but also in the processes of integrating these technologies into operational environments.

Sustainability

- Foster stronger partnerships with the energy sector to ensure transport electrification aligns with sustainable energy generation.

- Address the risk of shifting emissions from the transport sector to the energy sector by working with energy regulators to promote renewable energy use.

- Leverage automation to optimise energy efficiency and grid integration.

Infrastructure

- Establish appropriate ownership structures to build and maintain rail networks.

- Standardise national requirements for connected and automated infrastructure, ensuring compliance through national oversight.

- Prioritise deploying new locomotives with connected and automated capabilities, which may be more cost-effective and beneficial than retrofitting existing fleets.

- Explore opportunities for reform in fleet ownership and leasing to support asset renewal and modernisation.

Consultation Question: How would you prioritise the proposed solutions, and what would be the first steps?

The first priority should be fostering greater collaboration, particularly among government agencies. However, collaboration alone is insufficient. Political will is essential to deliver reforms swiftly, enabling industry development and driving safety improvements. Initial steps should include:

- Establishing clear regulatory frameworks for ADAS and AV technologies.

- Aligning transport and energy sector strategies to support sustainable electrification.
- Developing a roadmap for standardising infrastructure requirements and compliance mechanisms.