![ITS Australia - Intelligent Transport Systems logo]

Harnessing Data and Digital Technology Interim Report

ITS Australia Submission

September 2025

Data and Digital Impacts for the Transport Technology Sector

ITS Australia sincerely appreciates the opportunity the Commonwealth Government and the Productivity Commission has provided to make a submission on this important topic. ITS Australia is the peak body for the transport technology sector and many of our 150+ member organisations play a role at the leading edge of new and emerging technologies to improve safety and efficiency on our transport networks.

With more than 1,200 people dying and over 30,000 people being seriously injured each year on Australia's roads, the only long-term goal we can have is for zero fatal and serious injuries. To that end, we believe transport technology are one of the key opportunities available to support achieving that target.

The Productivity Commission's interim report acknowledges the transformative role of data, AI, and digital infrastructure in productivity growth. For the transport technology sector, already at the forefront of connected vehicles, Cooperative ITS, digital twins, and telematics, the report provides both validation and caution. The emphasis on outcomes-based regulation for AI is particularly important.

If realised, this could prevent the effect of rigid, prescriptive guardrails and instead allow transport innovators to leverage AI for real-time traffic optimisation, predictive maintenance, and automated freight while maintaining public trust. However, the report's recommendation to pause mandatory AI guardrails until regulatory "gap analyses" are complete carries risks. Transport operators, infrastructure managers, and technology providers face immediate challenges including; cybersecurity threats, algorithmic bias in safety-critical systems, and emissions from high-computing power applications, that require timely regulatory clarity.

The call to expand data access pathways is highly relevant to transport. The ability for logistics companies, state and city authorities, and communities to securely access and integrate mobility, telematics, and environmental data could unlock more efficient freight corridors, safer intersections, and personalised MaaS (Mobility as a Service) offerings. But without a clear governance framework and protections for vulnerable groups it could erode trust which can slow change.

Opportunities Beyond the Industry

The report highlights a potential $10 billion annual GDP boost from more mature data-sharing regimes data-digital-interim. Transport is central to achieving this, as mobility data underpins commerce, trade, and daily life. The adoption of digital financial reporting may seem peripheral to transport at first glance, but for publicly listed mobility firms, infrastructure investors, and EV fleet operators, it could improve transparency, reduce compliance costs, and attract capital for large-scale decarbonisation and automation projects.

The broader societal risks identified—privacy erosion, labour market disruption, and AI misuse—resonate deeply with transport technology. Automated driving systems, mobility pricing platforms, and AI-enabled surveillance for all transport users all sit at the intersection of innovation and public trust. A poorly designed regulatory response could delay life-saving and emission-reducing technologies and importantly create a backlas from transport users, while a well-designed approach which considered the importance of end user perception could accelerate Australia's journey towards Vision Zero and Net Zero.

Benefits of Data Sharing for Transport Technologies

Expanded and secure data access can deliver transformative benefits across the mobility ecosystem:

- **Safety outcomes**: Near-miss, and incident data can be used to develop surrogate safety indicators, helping agencies target black spots before crashes occur.

- **Network optimisation**: Access to high-frequency telematics data enables AI-driven signal control, congestion prediction, and adaptive speed harmonisation—reducing travel times and emissions.

- **Freight efficiency**: Logistics firms could combine vehicle telematics, port scheduling, and weather data to create seamless, cross-border freight corridors, cutting delays and increasing supply chain resilience.

- **Customer-centric MaaS**: Data portability across platforms would empower passengers to integrate trip planning, ticketing, and payments across multiple modes—supporting equity and accessibility for all users.

- **Evidence-based investment**: Governments could use anonymised but detailed usage data to prioritise infrastructure upgrades where benefits are greatest, ensuring efficient allocation of public funds.

Guardrails: Cybersecurity and Data Sovereignty

The sector must, however, be clear that data access does not mean data exposure. Several guardrails are essential to maintain trust and national capability:

- **Cybersecurity standards**: Mandating compliance with international standards such as ISO/IEC 27001 and AI-specific risk frameworks ensures that connected transport data streams cannot be exploited for malicious purposes.
- **Data sovereignty provisions**: Critical mobility and telematics data should be stored, processed, and governed under Australian jurisdiction, particularly where linked to national security (e.g., freight corridors, emergency response). This reduces reliance on foreign cloud providers and maintains operational control.
- **Outcomes-based privacy protections**: Reforms to the Privacy Act should enshrine safeguards tailored to transport contexts, where location and trajectory data is highly sensitive. An outcomes-based model can balance innovation with strong protections against re-identification.
- **Tiered access regimes**: Differentiated access (e.g., aggregated vs. identifiable data) ensures that while innovation flourishes, personally identifiable or commercially sensitive information is only available with strict permissions and accountability.
- **Resilience against systemic risks**: Ensuring redundancy in critical systems (such as V2X communications and traffic management platforms) protects against cyberattacks, outages, or data manipulation that could compromise safety.

The interim report is both a challenge and an opportunity for the transport technology sector. By engaging directly with government, demonstrating safe innovation through pilots, and pushing for flexible but robust guardrails, the sector can secure a regulatory environment that fosters trust while unlocking data's full potential. The path forward is clear: shape the rules, share the benefits, and safeguard the systems. This balance will determine whether Australia becomes a leader in digital transport transformation—or risks lagging as others set the pace.

The interim report is a pivotal moment. For transport technology, it creates a dual imperative: push for regulatory clarity without rigidity, and demonstrate through evidence-based pilots how safe, ethical, and outcomes-focused data and AI practices can deliver measurable safety, productivity, and sustainability benefits.

Industry and Government Collaboration

Recognition of Data and AI as Productivity Drivers

The interim report strongly emphasises that data and digital technologies—including AI—are "modern engines of economic growth" and can lift Australia's productivity by up to 4.3% in labour terms over the next decade. For the transport technology sector, this endorsement validates existing efforts to use AI and big data for intelligent transport systems (ITS), connected vehicles, and digital twins. The report's framing positions transport as a natural testbed for AI-driven optimisation—whether in traffic signal control, freight routing, or infrastructure maintenance, there is real opportunity to responsibly implement technology in partnership with government and industry to deliver real benefits.

Co-Design of Regulatory Frameworks

By engaging directly with Treasury, the Department of Infrastructure, and state transport agencies, the industry can ensure that privacy, cybersecurity, and data sovereignty frameworks are fit for transport realities. Collaborative policy design would help strike the balance between enabling innovation and maintaining public trust. There is a critical need to ensure the community and other stakeholders are included in these conversations and decision making.

Pilot Programs and Regulatory Sandboxes

Government-backed demonstrator projects could test new approaches in real-world transport settings—such as AI-based freight prioritisation, digital congestion pricing, or predictive safety analytics. These sandboxes would provide evidence for policymakers while reducing investment risks for industry and will also enable opportunities for the public to be included in better understanding how these technologies can work to make transportation safer and more efficient.

National Data Standards and Interoperability

Industry working with government on harmonised data standards would accelerate deployment of connected vehicle systems across jurisdictions. Aligning with international frameworks (EU, US, Japan) will also ensure Australian solutions are globally interoperable, boosting export potential.

Public Investment in Digital Infrastructure

The report stresses government's role in providing digital infrastructure such as high-speed internet. In transport, this means investment in V2X communications, 5G coverage for highways, and secure cloud platforms—all critical enablers of AI-driven mobility solutions. Industry partnerships can help ensure that infrastructure meets operational needs.

Building Community Trust

Public confidence in data sharing and AI is essential. By working with government and the community on transparent communication strategies, the sector can demonstrate tangible benefits—reduced congestion, improved safety, and lower emissions—while showing that strong guardrails protect privacy and sovereignty. This will accelerate uptake and ensure community licence for reform.

Conclusion

ITS Australia commends the Federal Government and the Productivity Commission in undertaking this important work to better understand the impacts and opportunities for data and digital technology and is supportive of continuing the investigation on the impacts and opportunities.

By engaging directly with Treasury, the Department of Infrastructure, state transport agencies, and the public the industry can ensure that privacy, cybersecurity, and data sovereignty frameworks are fit for transport realities. Collaborative policy design would help strike the balance between enabling innovation and maintaining public trust.

For the transport technology sector, AI is not a distant prospect—it is already a proven enabler of safety, productivity, and sustainability. This makes it all the more important that regulatory frameworks strike the right balance: enabling continued innovation while delivering safe systems, safeguarding citizens' privacy, data security, and trust.

To facilitate any future engagement, ITS Australia Policy Manager Stacey Ryan can be contacted at Stacey.ryan@its-australia.com.au.
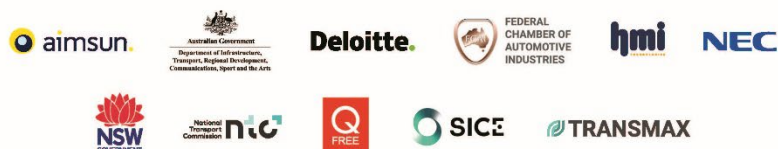
Yours sincerely,

Susan Harris
Chief Executive Officer

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