Inquiry into e-mobility safety and use in Queensland

Submission No:	1169
Submitted by:	Ario
Publication:	Making the submission and your name public
Attachments:	See attachment
Submitter Comments:	

ARIO

Safer. Smarter. Different.

Ario Submission to the State Development, Infrastructure and Works Committee Inquiry into E-Mobility Safety and Use in Queensland

20 June 2025

Adam Rossetto
General Manager
[redacted]

Mitchell Price
Head of Government Relations
[redacted]

Contents

1. Introduction

Ario welcomes the opportunity to provide a submission to the State Development, Infrastructure and Works Committee as part of its inquiry into e-mobility safety and use in Queensland.

As a major operator of shared e-mobility services in Australia and New Zealand, Ario provides shared e-scooters and other micromobility solutions that offer safe, convenient, sustainable and accessible transport options to communities across the region, including in Queensland.

This submission reflects Ario's operational experience and data-backed insights into the benefits, risks, and regulatory challenges of e-mobility in both public and private use contexts.

2. Context

E-mobility has rapidly emerged as an integral part of Queensland's transport mix. Shared e-scooter schemes are active in multiple local government areas, while privately owned devices continue to grow in number.

While Queensland has implemented one of the more advanced e-mobility frameworks nationally, challenges remain in managing safety, device compliance, and equitable commercial conditions for operators.

This submission draws clear distinctions between shared schemes and private use and provides recommendations on regulatory alignment, enforcement, and the role of technology in ensuring public safety.

3. E-Mobility Use and Benefits

Shared e-mobility services deliver substantial public value. They contribute to climate goals by reducing emissions through the displacement of short car journeys. They enhance accessibility, especially for first- and last-mile connections in areas underserved by conventional public transport. Pricing structures make them more accessible than private vehicle ownership, offering a reliable transport mode to individuals of varying economic backgrounds. In addition, these services support Queensland's tourism and events economy, providing visitors and residents with an efficient way to move through cities and attend large-scale public gatherings. Local businesses benefit from increased footfall and casual visitation by e-mobility users.

4. Safety Issues and Enforcement

Private Devices: Unregulated and Risk-Prone

Privately owned e-scooters are largely unregulated and account for a disproportionate number of safety incidents. These devices frequently exceed permissible power and speed thresholds, operate without safety features and lack rider accountability mechanisms. They are often used by underage riders or those without helmets, and there is no practical mechanism to monitor or intervene when unsafe behaviour occurs. They are frequently marketed in ways that mislead consumers into believing they are legal for public use when they are not.

Shared Schemes: Regulated and Safe by Design

Shared e-scooters, including those operated by Ario, are regulated through local government permit systems and strict internal safety protocols. Ario's fleet includes real-time safety features such as helmet detection, alcohol impairment screening, pedestrian proximity detection, camera vision and remote parking capability. All trips are monitored, enabling rider accountability and data-driven safety interventions.

Ario's helmet detection system uses sensor-based technology that ensures helmets are worn before ride commencement. In addition, tandem riding is actively deterred through Ario's onboard AI camera technology, which detects when more than one person is riding a scooter. When tandem riding is identified, the scooter issues a warning and ends the trip. Repeat offences trigger escalating interventions including education, suspensions and permanent bans. This enforcement is part of Ario's Graded Education and Suspension System which supports rider behaviour improvements over time.

Pedestrian safety is addressed through an advanced AI-driven onboard camera system capable of recognising pedestrian presence and automatically reducing speed in dense areas. When a pedestrian is detected nearby, the vehicle also emits an auditory alert to warn both the pedestrian and the rider, further reducing the risk of collision. This capability complements geofencing, allowing responsive and context-aware enforcement of speed restrictions in real time.

Independent testing conducted in 2024 found that the Ario e-scooter consistently performed better across key safety indicators compared to other leading shared e-scooter brands. Ario scooters stopped safely and within target distance in both wet and dry emergency braking conditions, met all geofencing and speed limit compliance standards, and demonstrated superior resistance to tipping. Ario's three-wheeled design significantly enhanced control, particularly when braking on uneven terrain, while lighting conspicuity tests confirmed Ario's superior visibility to pedestrians and vehicles alike.

Ario also ensures precise and responsible parking behaviour through its remote parking system. At the end of each trip, the vehicle captures a 360° image using its onboard cameras to assess parking compliance.

These images are reviewed by our in-house safety team and if improperly parked, can be relocated in minutes using remote parking technology. The system uses the onboard cameras and sensors to remotely pilot the scooter to a safer place. This prevents obstruction of footpaths and maintains public amenity.

Ario's vehicle design further enhances stability and safety. The three-wheeled configuration reduces tipping risk and makes the device easier to control, while bright lighting and indicators improve visibility. Double wishbone suspension and braking systems allow safe travel over imperfect surfaces.

We note that 1,094 infringement notices have been issued this year by Queensland Police, with approximately 65% related to helmet non-compliance, tandem riding, and illegal road use. While recognising the limits on police resourcing, Ario emphasises the importance of consistent enforcement to shape long-term behavioural norms, just as it has with traditional vehicle use. Notably, these compliance challenges are significantly more manageable in the shared fleet context due to the application of smart technology. Ario's systems have effectively eliminated non-compliance with these key safety requirements—demonstrating that the technology to address these issues already exists and can be deployed at scale.

5. Suitability of Current Regulation

Queensland's framework sets a strong foundation, but there are areas for refinement.

Minimum Age Limit

The current minimum age provision allowing children as young as 12 to operate e-scooters under adult supervision has created legal ambiguity. Parents often believe that it is lawful to purchase high-powered devices for children when, in fact, their use on public infrastructure is restricted. Ario supports the establishment of a clear, uniform minimum riding age of 16 years, without exceptions, consistent across both private and shared use.

In addition, Ario urges the Queensland Government to develop and deliver a state-wide education and awareness campaign targeted at parents. This campaign should clearly communicate the legal risks and safety dangers associated with purchasing high-powered e-scooters and e-bikes for children under 16. Such a campaign would help address misconceptions in the community, complement enforcement efforts, and support responsible purchasing behaviour. Ario would actively support and promote such a campaign through its digital platforms and local community partnerships.

Retail and Import Regulation

Despite domestic regulation, high-powered and non-compliant e-scooters and e-bikes continue to be sold online and in stores, frequently without accurate safety disclosures. These devices often resemble legal models but feature enhanced performance capabilities and are advertised in misleading ways. Better coordination between federal and state governments is needed to control imports and prosecute unlawful retail practices. Importation loopholes remain a serious threat to state-level safety enforcement.

6. Role of Local Government and Technology

Local councils play a central role in regulating shared mobility schemes. Councils determine fleet caps, designate slow and no-ride zones, and set out parking enforcement obligations.

Ario supports local management but urges greater regulatory consistency across jurisdictions. Inconsistent rules create compliance challenges for users and unequal commercial conditions for operators. Key areas that would benefit from standardisation include helmet detection requirements, tandem riding detection, alcohol detection, pedestrian and path detection, geofencing capabilities, and data sharing standards.

It is critical that councils mandate minimum safety technology standards when entering into permit agreements with e-scooter operators. The technology exists today to address the vast majority of safety concerns associated with e-mobility. Ario's systems are capable of enforcing helmet use, preventing tandem riding, detecting intoxicated riders, limiting speed in high-risk zones, and ensuring responsible parking behaviour. Without a consistent baseline requirement across all operators, those who invest in best-in-class safety measures are commercially disadvantaged compared to operators that do not. This undermines both safety outcomes and public confidence.

Councils are uniquely positioned to elevate safety standards by requiring that all permit holders deploy proven safety technologies. Doing so will level the playing field and ensure that communities benefit from innovation that has already been deployed and tested successfully in Queensland and interstate.

7. National Reform and Importation Controls

Ario has formally written to the Federal Minister for Infrastructure, Transport, Regional Development and Local Government, the Hon Catherine King MP, to request that the National Transport Commission conduct a review of the national e-mobility regulatory framework.

Confusion caused by varying rules across states and territories presents a barrier to compliance and public understanding. National harmonisation will support safer outcomes, reduce enforcement burden, and simplify the responsibilities of users and retailers alike.

We also call on the Federal Government to strengthen importation controls. Illegal, high-powered and non-compliant e-scooters and e-bikes are entering the country through poorly regulated supply chains. This undermines the integrity of Queensland's otherwise robust safety regime. Without national coordination, state laws will continue to be undermined by the availability of dangerous products at point of sale.

8. Emerging Regulatory Issues

Ario is aware of proposals under consideration such as mandatory full-face helmets for private e-scooter riders and the requirement that shared schemes use only seated scooters.

We caution against adopting these requirements without clear supporting evidence. Full-face helmets, while offering enhanced protection, pose practical challenges. In Queensland's hot and humid climate, such requirements would significantly deter ridership. Helmet compliance is already a barrier; increasing that burden without improved enforcement or education is unlikely to yield positive results.

Similarly, there is insufficient data to support the proposition that seated e-scooters are inherently safer. While Ario offers a seated scooter, Ario's three-wheeled standing models offer exceptional stability, outperforming many seated alternatives in terms of balance and ease of control. Arbitrarily mandating seated vehicles would ignore the proven safety of current fleet designs and limit user choice and accessibility without demonstrable safety benefit.

9. Recommendations

Ario recommends that the Committee:

1. Legislate a minimum age of 16 for all e-scooter use, without exception.

2. Develop and deliver a Queensland-wide education campaign targeted at parents, warning against the purchase of high-powered e-mobility devices for underage riders, and promoting safe, legal use. Ario commits to actively supporting this effort.

3. Introduce mandatory baseline technology standards for shared mobility operators, including helmet detection, pedestrian and path detection, tandem riding prevention and real-time compliance tools.

4. Enhance Commonwealth-State cooperation to strengthen importation controls and prevent unsafe products from entering the market.

5. Enforce retail penalties for misleading advertising and the illegal sale of non-compliant e-scooters and e-bikes

6. Promote consistency across local governments to ensure equitable enforcement and Operator conditions.

7. Refrain from mandating full-face helmets or seated scooter models without rigorous evidence and consultation.

10. Conclusion

Queensland has been a national leader in the integration of e-mobility into the transport system. E-scooters have become an essential mode of transport in cities like Brisbane and Townsville, supporting accessibility, sustainability and economic activity. The benefits are clear, and with appropriate regulation, e-mobility will continue to play a vital role in the future of urban transport across the state.

As this inquiry considers the path forward, it is important not to lose sight of what is working. We urge the Committee not to "throw the baby out with the bathwater." Above all, it is essential to distinguish between shared and private e-scooters and e-bikes. Shared schemes, when properly regulated, are accountable, data-driven, and supported by safety technology that is already making a measurable difference.

Ario has made significant investments in technology and operations to lift safety standards and deliver a safe, high-quality service. These investments include industry-leading helmet detection, pedestrian awareness systems, and intelligent parking enforcement. We are doing our part—and we believe all operators must be held to the same standards. With a consistent regulatory baseline and clear expectations, we can collectively lift the bar across the entire industry.

By contrast, the real opportunity to improve safety lies in addressing the unregulated and high-risk nature of private e-scooter and e-bike use. That is where enforcement must be focused, and where meaningful reform can make the greatest difference.

We thank the Committee for its consideration of this submission and would welcome the opportunity to contribute further to the development of policy and practice in this critical area, including presenting to and demonstrating Ario's technology to the Committee.

ARIO

Safer. Smarter. Different.

3KM

3KM TECHNOLOGY PTY LTD
ABN: 15 671 729 258
[redacted]

Ario acknowledges Traditional Owners of Country throughout Australia and recognises the continuing connection to lands, waters and communities. We pay our respect to Aboriginal and Torres Strait Islander cultures; and to Elders past and present.