

Inquiry into e-mobility safety and use in Queensland

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Committee Secretary
State Development, Infrastructure and Works Committee
Parliament House
George Street
Brisbane Qld 4000

Inquiry into e-mobility safety and use in Queensland

Response to terms of reference No. 2 (safety issues) and No. 8 (broad stakeholder perspectives).

Dear Sir/Madam,

Together with Associate Professor Lyndel Bates and Dr Chloe Keel we make this submission on behalf of vulnerable road users (VRUs) who share paths and roads with e-micromobility. I am currently undertaking a PhD with Griffith University on how to incorporate e-scooters within existing transport systems (A/Prof Bates and Dr Keel are my PhD supervisors). A/Prof Bates and I have co-authored articles and industry reports in road safety, policing, and micromobility (For example: Alexander & Bates, 2024; Bates, Alexander, Seccombe, & McLean, 2024; Bates, Alexander, & Webster, 2022; Bates, Seccombe, Alexander, & McLean, 2023; Rodwell, Alexander, Bates, Larue, & Watson, 2021). Dr Keel is a lecturer and researcher on safety and victimisation with a focus on minority groups in different spatial contexts (For example: Keel & Lee, 2025; Keel, Wickes, & Benier, 2022; Keel, Wickes, Lee, Jackson, & Benier, 2024).

E-mobility is a growing form of active transport with clear environmental, economic, and social benefits including lower CO₂ emissions, reduced noise pollution, cost effective transport, and first and last mile connectivity in urban areas. However, when e-mobility users share paths with pedestrians and other vulnerable groups, public safety can be compromised. This is most likely when e-mobility riders break traffic rules and regulation or ride while under the influence of drugs or alcohol. These risky riding behaviours impact public health and place a heavy burden on public emergency departments.

I would like to respond to the above inquiry in relation to the following stakeholder groups:

- Pedestrians and cyclists (particularly very young and older pedestrians/cyclists).
- People with a disability who use shared paths.
- People who care for others while using shared paths (e.g., those who care for children, the elderly, or people with a physical and/or mental disability).

This response centres on the following road safety, urban planning, and public policy terms and concepts:

- Crash risk and traffic regulation violations.
- Level-of-service (LOS) – for pedestrians and cyclists.
- Varying speed regimes - pedestrians compared to e-mobility.
- Vulnerable road users (VRUs) – without physical protection from harm.
- Modal interaction analysis – how different types of road users interact.
- Liveability – defined as quality of life.
- Equity – fair and just access to community resources and opportunities.
- Subjective safety – feelings of comfort and perceived safety.
- Deliberative democracy and mini-publics- forms of community consultation.

Key issues relating to e-mobility safety and use in Queensland

Queensland shared paths (where e-mobility has been introduced) are increasingly overcrowded, cluttered, and unsafe. The level-of-service for pedestrians (PLOS) and other VRUs is deteriorating. For example, varying speed regimes for e-scooters and pedestrians increases crash risk and decreases perceived safety (subjective safety). Moreover, traffic regulation violations like leaving hire e-mobility across shared paths, create obstacles that block access for pedestrians, people with disabilities, and cyclists. Access to shared paths is important because it allows individuals, regardless of their circumstances, equal access to the wider community. Equity and community participation are key measures of liveability and lead to more just societies.

This parliamentary inquiry is timely as it allows the Queensland Parliament to systematically evaluate current policies and take measures to improve e-mobility laws and regulations. This is critical in ensuring not only safe use of e-scooters but also public support for the related laws and regulations. In view of this aim, the following two recommendations would (1) scrutinise shared path interactions involving e-mobility and vulnerable road users; (2) canvas stakeholder groups about e-mobility safety; and (3) provide a systematic process for the wider community to deliberate on possible solutions.

Recommendations

1. Modal interaction analysis –investigate safety risk and subjective safety

- Use naturalistic (real traffic scenarios) video analysis to quantity safety risk. For example, conflict counts of near misses, stopping behaviours, and changes of direction when VRUs interact with e-mobility.
- Examine VRU subjective safety (feelings of comfort or perceived safety on shared paths) by using surveys and a well-designed Likert scale.

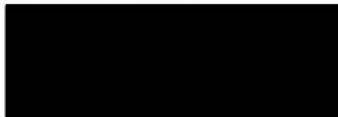
2. Deliberative democracy (DD) and mini-publics – community consultation

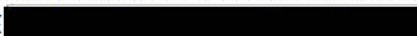
- DD is a technique of reasoned discussion among representative stakeholder groups (mini-publics). The aim of DD is to consider diverse stakeholder perspectives while searching for solutions that are legitimate, justifiable, and equitable.
- A core principle in DD is random selection (sortition) to ensure diversity and independence from lobby groups, business or government organisations, and individual interests.
- DD includes expert testimonies and assessing available evidence (e.g., the results from the above *modal interaction analysis*).
- DD recommendations are based on principles of justice and fairness, considering the perspectives of all affected parties.

These two recommendations will allow the Queensland government to better understand the safety issues associated with e-mobility use from broad community stakeholder perspectives (terms of reference numbers 2 and 8).

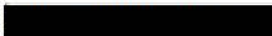
We would be very happy to discuss any aspect of this submission if required. Thank you for the opportunity to respond to this parliamentary inquiry.

Yours sincerely,



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