

Inquiry into e-mobility safety and use in Queensland

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Committee Secretariat
State Development, Infrastructure and Works Committee

Via email: SDIWC@parliament.qld.gov.au

Dear Committee Secretariat

The Queensland Family and Child Commission (the Commission) welcomes the opportunity to contribute to the State Development, Infrastructure and Works Committee's Inquiry into e-mobility safety and use in Queensland. As a statutory authority committed to the safety and wellbeing of children and young people, we recognise the importance of this Inquiry to ensure emerging transport options align with the rights and safety of all Queenslanders. The Commission has published an Insights paper on e-mobility devices, based on learnings from the Child Death Register and associated research; this paper is available on our website.

E-mobility offers promising benefits, including greater independence, access to education and employment, and environmental gains. These benefits must be balanced against growing concerns about safety, including increasing injuries among young users, especially where helmet use, speed, and device misuse are factors. Queensland's current regulations have struggled to keep pace with the rapid uptake of personal mobility devices. Updates to regulation should consider international best practices, be youth-informed, and delivered through trusted channels. A regulatory framework must be future-focused and harmonised across jurisdictions.

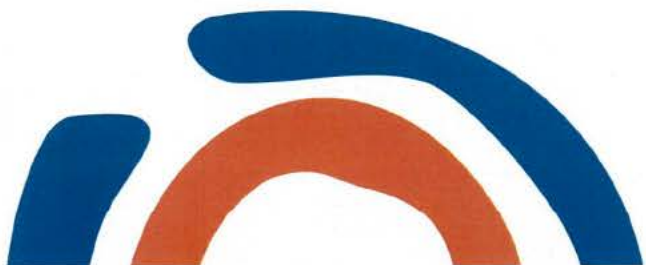
I also attach our public Insights Paper on this topic which we have published in June 2025.

If you have any questions, please don't hesitate to contact me on [REDACTED] or via email at [REDACTED]

Yours sincerely

[REDACTED]
Luke Twyford
Principal Commissioner
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20 June 2025



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Queensland
Family & Child
Commission

Policy Submission

e-Mobility Safety and Use

June 2025

Commissioner Luke Twyford

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Reference: TF25/776 – D25/7447

Background

The Queensland Family and Child Commission (the Commission) is a statutory authority committed to promoting and protecting the safety, wellbeing, and best interests of Queensland children and young people. A fundamental part of our role is monitoring emerging social, environmental, and technological developments to ensure they do not compromise young people's safety or inclusion. The rapid growth in the use of e-mobility devices; including e-scooters, e-skateboards, and electrically assisted bicycles, offers new opportunities for independence, mobility and environmental sustainability. For many children and young people, especially those in urban locations or in regional areas with limited traditional transport options, these devices offer new options to access education, employment, and community connection.

As these devices gain popularity, especially among teenagers and adolescents, there is a need for renewed understanding of how young people use e-mobility devices, and intentional regulation and community awareness specific to these devices to address associated safety risks such as injuries, and potential hazards in both public and private spaces. Young people are over-represented in e-mobility injury data. The Commission is especially concerned by the rising incidence of injuries and hospitalisations related to e-mobility, including head injuries often worsened by inconsistent helmet use and gaps in safety education. Additionally, risks connected to lithium-ion battery fires, improper charging, and disposal present further dangers in family homes and multi-residential settings. These risks are heightened by young people's developmental vulnerability physically, cognitively, and socially, and limited access to clear, age-appropriate information.

In June 2025, the Commission finalised the Insights Paper, *Improving safety when young people ride e-scooters and e-bikes*.¹ This paper was developed following concerning trends observed in serious incidents, injuries, and fatalities for young people using e-scooters and e-bikes on Queensland roads. Drawing on national data which reflects similar trends in other states, the paper highlights the risks that these devices present for all road users and the need for contemporary regulation which adequately responds to the concerns for users and is balanced by the benefits and advantages that accessible personal mobility devices provide. With children under the age of 18 years old represented across incidents involving e-scooters and e-bikes, and the growing increase in shared-use devices particularly in metropolitan regions, it is imperative that education and community awareness campaigns messaging safe usage are informed by adolescents and young people and are adaptable to society.

Through our ongoing engagement with young people, families, and communities, the Commission hears from a diverse range of stakeholder voices. We recognise the role of community consultation in shaping a safe, equitable, and inclusive transport future. This inquiry into e-mobility safety presents an opportunity to embed these principles into policy and practice, ensuring Queensland's transport evolution aligns with the statutory obligations and core values of the Commission to protect the safety, wellbeing, and rights of its youngest citizens.

This inquiry presents an opportunity to develop a balanced, evidence-based regulatory framework that adequately protects young people and supports their full and safe participation in Queensland's evolving transport environment. We advocate for coordinated safety strategies aligned with international best practices which centre on education and safety awareness and are informed by the lived experiences and perspectives of young people.

¹ Queensland Family and Child Commission (2025). *Improving safety when young people ride e-scooters and e-bikes*. <https://www.qfcc.qld.gov.au/sector/insights/topical>

Terms of Reference

The Inquiry before the State Development, Infrastructure and Works Committee will respond to the terms of reference:²

1. Benefits of e-mobility (including both Personal Mobility Devices (PMDs), such as e-scooters and e-skateboards, as well as e-bikes) for Queensland.
2. Safety issues associated with e-mobility use, including increasing crashes, injuries, fatalities, and community concerns.
3. Issues associated with e-mobility ownership, such as risk of fire, storage and disposal of lithium batteries used in e-mobility, and any consideration of mitigants or controls.
4. Suitability of current regulatory frameworks for PMDs and e-bikes, informed by approaches in Australia and internationally.
5. Effectiveness of current enforcement approaches and powers to address dangerous riding behaviours and the use of illegal devices.
6. Gaps between Commonwealth and Queensland laws that allow illegal devices to be imported and used.
7. Communication and education about device requirements, rules, and consequences for unsafe use; and
8. Broad stakeholder perspectives, including from community members, road user groups, disability advocates, health and trauma experts, academia, the e-mobility industry, and all levels of government.

The Commission's submission aligns most strongly with points 1, 2, 4, 5, and particularly 7 of the Committee's Terms of Reference. This emphasis reflects the Commission's statutory focus on promoting the safety and wellbeing of children and young people, as well as its commitment to evidence-informed advocacy and community-level engagement. While the submission does not address every term of reference in detail, this targeted contribution is appropriate given the Commission's research, expertise, and role in advising government on systemic issues affecting child safety across Queensland.

² Queensland Parliament (2025). *State Development, Infrastructure and Works Committee. Inquiry into the e-mobility safety use in Queensland.* <https://www.parliament.qld.gov.au/Work-of-Committees/Committees/Committee-Details?cid=272&id=4522>

Terms of Reference One: Benefits of e-mobility

Summary

- **Sustainable transport opportunity:** E-mobility devices offer a low-emission alternative to car travel, supporting environmental goals and reducing congestion across Queensland roads.
- **Affordability and accessibility:** Particularly for young people, or those living in areas with limited public transport, e-mobility devices like scooters provide an alternative, affordable transport option.

The growing use of e-mobility devices, including e-scooters, e-skateboards, and e-bikes, presents a valuable opportunity to enhance transport accessibility, environmental sustainability, and public health outcomes in Queensland. As part of a modern, multimodal transport system, PMDs can help address congestion, reduce transport-related emissions, and improve connectivity, particularly in urban and suburban environments. These benefits are especially relevant as Queensland continues to experience population growth and rising demand for flexible, low-cost transport options.

E-mobility devices are generally more affordable and accessible than private motor vehicles, offering increased independence and mobility for a diverse range of users, including young people, low-income households, and individuals with limited access to public transport. Their popularity among adolescents and young adults reflects both their ease of use and their appeal as a socially and environmentally conscious transport choice. For children and young people in particular, these devices can support increased participation in community life, access to education and employment opportunities, and social connection; factors that contribute to overall wellbeing and development. From a public health perspective, the promotion of active and sustainable transport alternatives is critical to reducing the burden of preventable injury and chronic disease. E-mobility devices, particularly e-bikes, can encourage physical activity, reduce sedentary behaviour, and facilitate more time spent outdoors. In addition, by lowering reliance on cars for short trips, these devices help reduce air pollution and greenhouse gas emissions supporting broader climate and health goals.

Reducing traffic volumes through greater uptake of PMDs and e-bikes also has the potential to lessen the strain on emergency services, hospitals, and road infrastructure. However, realising these public health and environmental benefits depends on the safe integration of e-mobility into the transport network. This requires a collective effort across government, regulators, the private sector, and communities to ensure appropriate policies, infrastructure, education, and enforcement mechanisms are in place.

Terms of Reference Two: Safety Issues and Fatalities

Summary

- **Risks and challenges:** E-scooters and e-bikes pose emerging road safety challenges, particularly for children, with risk factors including lack of supervision, helmet non-use, high-speed environments, and limited regulation of device capabilities.³
- **Data limitations:** Hinder effective safety planning, as current reporting frameworks do not consistently differentiate between electric, non-electric, shared, or personal devices, making it difficult to track and respond to incident trends.
- **Collective effort:** Action must be undertaken in a holistic manner with involvement from multiple sectors including government, regulators, the private sector, communities, families and individuals.⁴

The rapid uptake of e-mobility devices in Queensland has raised pressing safety concerns. While these devices offer practical and sustainable alternatives to traditional transport, their increasing use (particularly by children and young people) has coincided with a rise in injuries, fatalities, and public concern. Integrating e-mobility into Queensland's road safety framework is essential to meet state and national targets to reduce road trauma, including the vision of zero road deaths by 2050.⁵

In the past twenty years, there have been six deaths recorded in Queensland relating to e-scooters and e-bikes; five of those deaths occurred in 2024.^{6,7} Most children were aged 14 to 15 years and were involved in high-risk behaviours such as riding without helmets or adult supervision, operating at unsafe speeds, and riding on roads with speed limits above 50 km/h. These incidents frequently occurred during school travel hours and resulted primarily in fatal head injuries. In 2024 alone, children accounted for 25% of all road crash deaths involving personal mobility devices and bicycles in Queensland.

Road incident and injury data further confirm the growing prevalence and severity of these events. Children under the legal age continue to be overrepresented in serious injury statistics, including infants under one year of age. These injuries result from falls or collisions and commonly involve high-severity trauma to the head, neck, spine, and internal organs, with a notable proportion triaged as emergencies or requiring resuscitation.⁸ The Queensland Ambulance Service recorded 341 e-scooter incidents involving children aged 0–17 years in 2023–24, with a significant number of riders below the legal riding age. Emergency department data from the Queensland Injury Surveillance Unit indicates that 66% of injuries in children aged 0–11 and 92% of injuries in children aged 12–15 involved e-scooters. Most of these injuries were caused by falls and collisions, and many were classified as urgent or emergency presentations. In several cases, children required immediate resuscitation.⁹ These incidents

³ Department of Transport and Main Roads (TMR) (December 2023) *Strategy and action plans*, Queensland Government, www.tmr.qld.gov.au/Safety/Road-safety/Road-safety-strategy-and-action-plans/Strategy-and-action-plans

⁴ World Health Organization (December 2023) *Road traffic injuries*, www.who.int/news-room/fact-sheets/detail/road-traffic-injuries/

⁵ Queensland Government (2022). *Queensland Road Safety Research and Evaluation Framework*. <https://www.publications.qld.gov.au/dataset/queensland-road-safety-strategy/resource/99285bbd-afbc-4d6b-9f48-60f153270da4#:~:text=The%20purpose%20of%20the%20framework%20is%20to%20ensure,vision%20of%20zero%20serious%20road%20trauma%20by%202050.>

⁶ Queensland Family and Child Commission (2025). *Improving safety when young people ride e-scooters and e-bikes*. <https://www.qfcc.qld.gov.au/sector/insights/topical>

⁷ Centre for Accident Research and Road Safety- Queensland (CARRS-Q) (April 2020) 'e-Scooter safety', *State of the road fact sheets*, Queensland University of Technology, <https://research.qut.edu.au/carrsq/wp-content/uploads/sites/296/2021/12/e-scooter-safety.pdf>.

⁸ Queensland Injury Surveillance Unit (2025). Personal Mobility Device Injury. <https://metronorth.health.qld.gov.au/qisu/>

⁹ Data request 1880 (2025), Queensland Injury Surveillance Unit (QISU).

are not isolated; national and interstate data reflect similar trends, with increasing hospital presentations, especially among younger users.

Device design and infrastructure shortcomings also contribute to injury risk. E-scooters in particular are prone to instability due to small wheels and top-heavy frames, making them susceptible to sudden tipping when encountering minor surface irregularities. This design vulnerability is particularly hazardous in environments where riders must navigate roads and shared pathways in close proximity to vehicles and pedestrians. The growing body of clinical and surveillance data consistently identifies injuries to the head, neck, spine, and limbs as common outcomes, including fractures, dislocations, internal injuries, and, in some cases, multiple trauma regions.¹⁰

Lack of adult supervision, non-use of helmets, and unsafe riding environments are recurring features across fatal and non-fatal incidents and efforts to fully understand these patterns are hampered by gaps in how incidents are recorded.^{11,12} Devices are often categorised under broad labels, such as bicycles or PMDs, limiting the ability to distinguish between electric and non-electric, or private versus shared devices. This lack of specificity impedes efforts to accurately track trends and evaluate the effectiveness of safety interventions.

As e-mobility continues to expand, the associated safety risks must be addressed with urgency and clarity. The rising toll of preventable injuries and fatalities, particularly among children, signals a need for immediate system-wide improvements. This includes better enforcement of existing laws, improved data collection, and a commitment to embedding safety considerations into the regulation, design, and integration of e-mobility into Queensland's transport landscape. Without these measures, the expanding use of e-scooters and e-bikes may continue to outpace the safety responses required to protect all road users.

¹⁰ Berecki-Gisolf, J., Hayman, J. (2024) *Injuries associated with e-scooters, e-bikes and other e-micromobility devices: analysis of Emergency Department presentations and deaths in Victoria, 2016 to 2023* (Hazard Edition 93), page 11, Monash University, <https://doi.org/10.26180/27710193.v2>.

¹¹ Vallmuur, K., Mitchell, G., McCreanor, V. et al (2023) 'Electric personal mobility devices surveillance (E-MODES) study: Injury presentations to emergency departments in Brisbane, Queensland', *Injury*, Volume 54, Issue 6, <https://doi.org/10.1016/j.injury.2023.04.036>.

¹² TMR (January 2025) *2024 Weekly road fatality report* (1404b), Queensland Government, <https://www.publications.qld.gov.au/dataset/road-safety-statistics/resource/bc9fa652-5ca2-4490-9bcb-2dd0a1e4b016> and response to QFCC (RQC43104).

Terms of Reference Four: Suitability and effectiveness of current regulatory frameworks

Summary

- **Regulation struggling to keep up:** Current regulatory frameworks for PMD's and e-bikes in Queensland are not effectively preventing unsafe use by children, with high rates of serious injuries despite existing age and safety restrictions.
- **High injury rates:** Data shows a significant number of injuries occur during school travel hours, on high-speed roads and in shared environments, highlighting gaps in both regulation and urban infrastructure.

The swift rise in the popularity of PMDs has significantly outpaced the development and enforcement of appropriate regulatory frameworks. Across Queensland and other Australian jurisdictions, this regulatory lag is increasingly visible in hospital and injury surveillance data, with a disproportionate number of incidents involving children and adolescents. This indicates not only a growing usage rate but also an alarming incidence of unsafe riding practices among minors.¹³

This pattern of harm is consistent with interstate and international data. A Victorian paediatric injury study identified 210 emergency department presentations for e-scooter-related injuries in children under 14, again reflecting poor compliance with existing age restrictions.¹⁴ Studies conducted in Queensland following the introduction of shared scooter schemes in Brisbane similarly show that serious injuries, fractures, dislocations, and head trauma continue to affect child riders despite a narrow legal allowance for their use. The recurring emergence of severe cases involving illegal use indicates that regulatory frameworks, while legally sound on paper, have not translated into safe behavioural norms or systemic deterrence.

Compounding the regulatory mismatch are design vulnerabilities inherent to e-scooters, such as top-heavy structures, small wheels, and instability on uneven terrain, which increase the likelihood of high-impact injuries. Minor obstacles can cause the front wheel to lock, abruptly ejecting riders over the handlebars. The shared-use environment in which these devices operate, navigating footpaths, bike lanes, and roads with speed limits of 60 km/h or more further amplifies the exposure of young riders to potentially life-threatening hazards.

¹³ Queensland Ambulance Service (2025). *Public Performance Indicator reports*. <https://www.ambulance.qld.gov.au/about/performance-data/public-performance-indicators>

¹⁴ Berecki-Gisolf, J., Hayman, J. (2024) *Injuries associated with e-scooters, e-bikes and other e-micromobility devices: analysis of Emergency Department presentations and deaths in Victoria, 2016 to 2023* (Hazard Edition 93), Monash University, <https://doi.org/10.26180/27710193.v2>.

Terms of Reference Five: Effectiveness of current enforcement approaches and powers to address dangerous riding behaviours and the use of illegal devices

Summary

- **Active but ineffective enforcement:** Enforcement efforts have been active, with over 8,000 infringements issued since 2022, but penalties alone are not deterring dangerous behaviours, particularly among underage and unsupervised riders.
- **Opportunities from International models:** Comprehensive approaches - combining legislation, infrastructure design, education and vendor accountability - are more effective in reducing child injuries and improving safety outcomes.

Current road rules impose clear boundaries: children under 12 must not ride PMDs, and those aged 12 to 15 require adult supervision. While Queensland has taken notable steps to refine its legal framework for PMDs and e-bikes, including the 2022 reforms and the introduction of new penalties set to increase in 2025, the effectiveness of these measures hinge on sustained and adaptive enforcement. Speed limits vary by location, and helmet use is compulsory. Despite this, enforcement outcomes suggest these provisions are not deterring risky behaviour at scale.¹⁵

Since 2022, Queensland Police have issued over 8,000 infringements to PMD riders. The most common violations include failure to wear a helmet, unsafe road conduct, and carrying passengers.¹⁶ Notably, Operation Zappo Stoppie; a targeted police operation in Noosa uncovered systemic issues, such as young riders regularly transitioning to higher-powered, non-compliant or road-registerable vehicles after receiving fines. These findings illustrate a troubling cycle: enforcement responses may be temporarily punitive but are not always preventative, and without corresponding education or infrastructure changes, young riders continue to engage in escalating risky behaviours.

Current enforcement powers, though active, are also limited by resourcing constraints and reactive strategies. Most penalties are financial in nature, ranging from \$161 to over \$1,200, yet fines alone have proven insufficient in modifying behaviours among young users, who are typically less financially accountable and less responsive to monetary deterrents. Furthermore, enforcement agencies report that illegal riding often occurs during high-traffic school travel periods and in locations that are difficult to police consistently, such as suburban footpaths or informal bike trails.

Internationally, jurisdictions such as Singapore and Germany offer instructive counterpoints. Singapore's Active Mobility Act combines mandatory training, registration, and vendor accountability with strong enforcement powers, leading to more effective regulation of PMDs in public spaces¹⁷. In Germany, treating e-scooters like bicycles with insurance requirements, technical standards, and enforced age limits, has created a more coherent

¹⁵ RACQ (19 December 2023) 'Data shows e-scooter riders still not taking safety seriously', Queensland, www.racq.com.au/latest-news/news/2023/12/ns191223-data-shows-e-scooter-riders-still-not-taking-safety-seriously

¹⁶ ABCNews (26 September 2023) Parents urged to change mindset on e-scooters as accidents involving children surge, www.abc.net.au/news/2023-09-26/escooter-accidents-with-children-increase-in-hospital-admissions/102820648

¹⁷ Parliament of Singapore (2025). Active Mobility (Amendment No.2) Bill 2020. [https://www.parliament.gov.sg/docs/default-source/default-document-library/active-mobility-\(amendment-no-2\)-bill-22-2020.pdf](https://www.parliament.gov.sg/docs/default-source/default-document-library/active-mobility-(amendment-no-2)-bill-22-2020.pdf)

and safer use environment. Young people are neurologically predisposed to underestimate danger, overestimate their capabilities, and be influenced by peer behaviour. Without embedding these considerations into enforcement models, penalties risk becoming symbolic rather than transformative. Queensland's framework, while increasingly aligned in principle, has yet to achieve the same operational coherence or behavioural impact.¹⁸

The current regulatory frameworks governing PMDs and e-bikes in Queensland and other Australian jurisdictions are increasingly misaligned with usage trends and risk profiles, particularly among children and adolescents. While legal rules and penalties are in place, their effectiveness is undercut by enforcement limitations, design vulnerabilities, and developmental factors that make young riders uniquely susceptible to harm. A high incidence of severe injuries, often involving illegal or unsafe use, underscores the inadequacy of current deterrence strategies. To meet this challenge, a reimagined approach is needed, one that shifts from punitive enforcement alone to a layered strategy combining education, infrastructure redesign, device regulation, and child-centred safety campaigns. International experiences make clear that effective regulation must be comprehensive, enforceable, and supported by a public safety culture.

Terms of Reference Seven: Communication and Education

Summary

- **Tailored and age-appropriate:** Communication and education efforts must be tailored to young riders' developmental needs, with clear, ongoing messaging about legal requirements, safe behaviours, and the risks of unsafe e-mobility use.
- **Parent and carer involvement:** Parents and carers play a vital role in modelling lawful and responsible riding, while community-led, culturally relevant campaigns can increase engagement and effectiveness.
- **Clarity and persistence in messaging:** A balanced approach that combines visible enforcement with widespread public education is essential to fostering a culture of safety, accountability, and shared responsibility on roads and paths.

Communication and education about device requirements, legal rules, and the consequences of unsafe use are central to ensuring the safe integration of e-scooters and e-bikes into Queensland's transport landscape. Despite the existence of a clear legal framework governing personal mobility devices, high rates of unsafe use, particularly among children and adolescents, suggest that knowledge gaps and developmental vulnerabilities remain significant barriers to compliance. As outlined in the 2023 Road Safety Education Blueprint, a whole-of-life approach to safety education is essential, beginning in early childhood and continuing through adolescence to support cognitive development and build road literacy.¹⁹ Young people, due to their stage of brain development, are more likely to misjudge risk and act impulsively, which heightens their susceptibility to injury in complex traffic environments.²⁰ These factors underscore the importance of communication strategies that are tailored, developmentally appropriate, and supported by caregivers and communities.

¹⁸ European Consumer Centre Germany (2025). *Country overview: E-scooter regulations in Europe*. <https://www.evz.de/en/travelling-motor-vehicles/e-mobility/two-wheelers/e-scooter-regulations.html>

¹⁹ Queensland Government, Department of Transport and Main Roads (2025). *Queensland Road Safety Education Blueprint: Guiding Queensland's Approach to Road Safety Education from Birth to Young Adulthood*. <https://www.tmr.qld.gov.au/Safety/Road-safety/Road-safety-strategy-and-action-plans/Road-safety-blueprint>

²⁰ Developmental Cognitive Neuroscience (2017). *Beyond stereotypes of adolescent risk taking: Placing the adolescent brain in developmental context*. <https://www.sciencedirect.com/science/article/pii/S1878929317301020>

In addition to formal education settings, parents and carers must be equipped to model and reinforce safe e-mobility behaviours. Public campaigns that clearly explain the risks associated with unsafe use, including injury and legal penalties, are necessary to shift social norms and strengthen community expectations. This is particularly important considering evidence showing a rise in unsafe practices among adults who use e-scooters to transport children illegally or without safety gear. Such behaviour not only places children at serious risk but also undermines broader efforts to instil responsible riding practices. The visibility of enforcement, through police operations and penalties must be matched with equally strong educational messaging to ensure that the rules are understood not just as punitive measures, but as protections grounded in safety science and public wellbeing.

The concept of social licence also plays a key role in education and communication efforts. Riders of all ages must earn the trust of the wider community by demonstrating responsible conduct and respecting the rights of others in shared spaces.²¹ Campaigns that highlight this social responsibility, while promoting empathy and mutual respect between riders, pedestrians, and motorists, help to foster safer public spaces and reduce conflict. Community-led and culturally tailored education, especially within First Nations and culturally and linguistically diverse communities, can further improve relevance and uptake. Co-designed messages delivered through trusted local figures or health and education services provide a pathway to address specific needs, dispel misconceptions, and support sustained behavioural change.

While penalties and enforcement will continue to play a role in deterring illegal or dangerous behaviour, they are not a substitute for deep, ongoing investment in public education and awareness. Campaigns such as StreetSmarts and school-based programs like Journi provide valuable platforms but must be scaled and embedded across systems to achieve a broader cultural shift.²² Effective communication around legal requirements, technical standards of devices, and the consequences of unsafe use must be persistent, coordinated, and evidence informed. Only through such an approach can Queensland ensure that all riders—especially children and families, are supported to make safe choices in an increasingly complex e-mobility environment.

²¹ Queensland Government (February 2024) StreetSmarts. *Rules for personal mobility devices*, Queensland, www.qld.gov.au/transport/safety/rules/wheeled-devices/personal-mobility-devices#carrypeople

²² Queensland Government (February 2024) StreetSmarts. *Rules for personal mobility devices*, Queensland, www.qld.gov.au/transport/safety/rules/wheeled-devices/personal-mobility-devices#carrypeople

Improving safety when young people ride e-scooters and e-bikes

Safer Pathways Through Childhood 2022–2027



June 2025



Queensland
Family & Child
Commission



Acknowledgement

The Queensland Family and Child Commission (QFCC) acknowledges Aboriginal and Torres Strait Islander peoples as the Traditional Custodians across the lands, seas and skies where we walk, live and work. We recognise Aboriginal and Torres Strait Islander people as two unique peoples, with their own rich and distinct cultures, strengths and knowledge. We celebrate the diversity of Aboriginal and Torres Strait Islander cultures across Queensland and pay our respects to Elders past, present and emerging.

Appreciation

The QFCC would like to express appreciation to the following agencies for their valuable contributions to the Insights Paper: Department of Transport and Main Roads Queensland; KidSafe Queensland; Professor Kirsten Vallmuur; Queensland Ambulance Services; Queensland Injury and Surveillance Unit; and the Royal Automobile Club of Queensland.

Accessibility



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This report may cause distress for some people. If you need help or support, please contact any of these services:

- **Lifeline** on **13 11 14**
- **Beyond Blue** on **1300 22 4636**
- **Kids Helpline** (for 5–25 years of age) on **1800 55 1800**
- **13 YARN** (for Aboriginal and Torres Strait Islander people) on **13 92 76**

Electric scooters and bikes

Electric scooters and bikes are becoming more popular and appealing among young people due to their affordability, ease of use and the excitement that they offer. These devices are practical modes of transport and seen as fun for recreational use, especially since they do not require a licence to ride.

A young person's age, readiness to ride and their understanding of the road rules will influence their safe and enjoyable riding experience. To minimise risks for young riders it is vital that regulations, road rules and safety measures for these devices are practical, effective, widely known, understood and enforced.

Electric scooters and bikes are commonly known as **e-scooters** and **e-bikes**.



E-scooter¹



E-bike²

When it comes to safe roads and pathways, road safety is deemed to be a preventative public health issue, requiring a collective effort.³

- **Public health issue:** Road traffic injuries place significant pressure on emergency services and health care resources and have a considerable economic cost for individuals, families and nations.
- **Preventable:** Road traffic injuries are avoidable with the right evidence-based measures, interventions and safeguards in place.
- **Collective effort:** Action must be undertaken in a holistic manner with involvement from multiple sectors including government, regulators, the private sector, communities, families and individuals.⁴

Everyone has a role to play to help prevent child injuries and deaths involving e-scooters and e-bikes.

Targets for reducing road fatalities and injuries

Globally, road traffic injuries are the leading cause of death for people aged 5 to 29 years.⁵ In 2020, the United Nations General Assembly adopted *Improving global road safety*, asserting its commitment to a second decade of action for road safety (2021–2030). A new target was set to reduce global road deaths and injuries from road traffic crashes by 50 per cent, by 2030.⁶

The Australian Government expanded on this ambitious target as part of the *National Road Safety Strategy 2021–30* and committed to deliver a significant reduction in road trauma, with a **vision of zero serious injuries and deaths by 2050**.⁷ This is to be achieved through:

- A commitment to a road transport system that does not kill or seriously injure people.
- Designing a road system that does not allow human error to have a serious or fatal outcome.⁸

In alignment with these goals, the *Queensland Road Safety Strategy 2022–31* aims to reduce deaths by 50 per cent and serious injuries by 30 per cent, by 2031.⁹

- Reduce deaths from 248 (average 2018–2020) to 124 or fewer.
- Reduce hospitalised casualties from 6,938 (average 2018–2020) to 4,856 or fewer.

As e-scooters and e-bikes become more common on roads and pathways, governments must be able to clearly assess their impact on road safety and evaluate whether safety measures are helping to prevent injuries and deaths. Accurate data collection on injuries and deaths involving these devices is a crucial step in understanding their role in the broader goal of reducing road trauma.

National fatality data

There are significant challenges to accurately assess and compare injury and fatality rates involving e-scooters and e-bikes in Australian and international contexts. These challenges stem from variations in how devices are defined, categorised and identified in routine data sources, and the lack of distinction between electric, non-electric and illegal devices.

Additionally, there is often an absence of key data characteristics and insufficient detail regarding whether it was a personal or shared (hired) device and the cause of the crash such as, product failure, misuse, or user behaviour.

In the five years from 2016 to 2020, there were 14 deaths of all ages reported to an Australian state or territory coroner where an e-micromobility device contributed to the death of a person. Of these deaths:

- 8 of the 14 occurred in 2020
- 7 were in Queensland
- 7 involved an e-bike
- 6 were aged 35-44 years
- <5 were female (small numbers suppressed)
- 9 involved an incident with a vehicle.¹⁰

E-micromobility is a term used to describe a range of small, lightweight, wheeled, electric-powered, usually single person vehicles that provide transportation over short distances, such as e-scooters, e-bikes and electronic self-balancing devices.

Queensland road crash data

In 2024, Queensland recorded:

- **8 deaths** of all ages from crashes involving personal mobility device (PMD) riders and pillions, and
- **8 deaths** of all ages from crashes involving bicycle riders and pillions.¹¹

The Department of Transport and Main Roads (TMR) publish weekly fatal and non-fatal road crash reports for Queensland. Road user type groups align with definitions in the *Transport Operations (Road Use Management) Act 1995 (Qld)*. This means crash data for e-scooters is recorded within the category for PMD. Crash data for e-bikes is recorded within the broader category for a bicycle.

A **personal mobility device** (PMD) includes e-scooters, e-skateboards, and self-balancing singled wheeled devices.

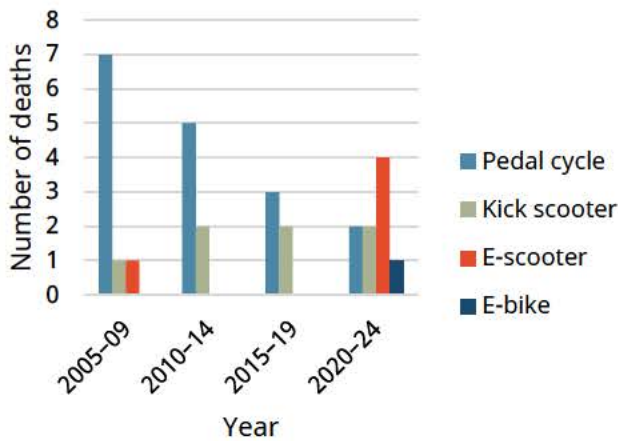
This category excludes e-bikes.

Child deaths

- The first child death involving an e-scooter in Queensland was recorded in 2005.
- Most e-scooter and e-bike child deaths in Queensland occurred in 2024.
- **Children accounted for 25 per cent** of all road crash deaths involving PMDs and bicycle riders and pillions in Queensland, in 2024.

Data in the Queensland Family and Child Commission (QFCC), Child Death Register (CDR) reveals the number of deaths involving pedal cycles is declining, while the number of deaths involving kick scooters is stable, as shown in Figure 1. The recent rise in child deaths involving e-scooters and e-bikes could reflect the current growth in popularity of these devices in Queensland.

Figure 1: Motorised and non-motorised scooter and bicycle child deaths in Queensland, 2005–2024



Source: QFCC CDR, 2025

An analysis of the six child deaths involving e-scooters and e-bikes identified the following features:

- 5 incidents involved an e-scooter
- 4 of the 6 children were aged 14–15 years
- the children were predominantly male
- most incidents occurred on a weekday during the school term, with all incidents occurring between 8:00am–8:30am and 3:00pm–7:30pm
- in most cases the child was the rider of the device, was riding on the road or attempting to cross a roadway and involved a collision with a vehicle.

Contributing factors across the five incidents involving an **e-scooter** included:

- riding without adult supervision
- not wearing a helmet
- not following the general road rules
- substance use
- in one case riding at night without a light
- in three cases the speed limit at the location of the incident was 60km/h or over
- one e-scooter was recorded to have the capacity to travel up to 70km/h.

Queensland road rules (QRRs) state:

- children aged 11 years and under must not ride e-scooters
- children aged 12 to 15 years can only ride e-scooters if supervised by an adult while riding
- e-scooters can be ridden on roads with a speed limit of 50km/h or less and no dividing line
- e-scooters must not exceed speeds of 25km/h.

Injuries are often considered to be random and accidental events. However, by increasing our understanding of how and where these injuries occur, we are able to better understand how they can be prevented or minimised.¹²

A focus on e-scooter injury data

Road incidents involving e-scooters are becoming more frequent and more severe, with a noticeable rise in ambulance attendance and emergency department (ED) visits across Queensland. This is concerning considering age restrictions and supervision requirements for e-scooters in Queensland.

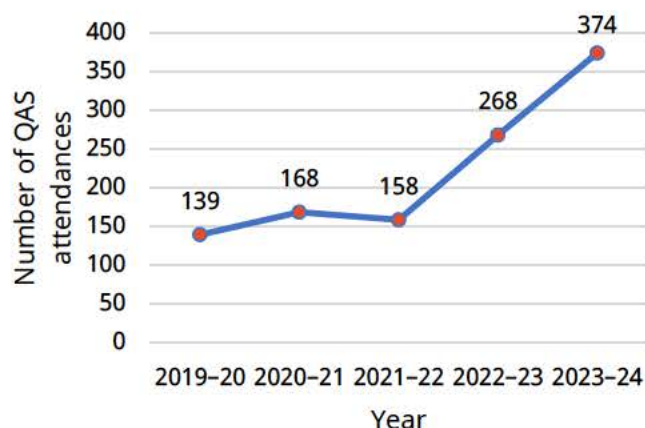
Furthermore, the numbers for injuries involving e-scooters are likely to be under-reported as not all EDs provide data and not everyone injured seeks medical assistance.

Queensland Ambulance Service



The Queensland Ambulance Service (QAS) has seen a **171 per cent increase** in scooter and e-scooter injuries for children aged 0 to 17 years, over the past five years.

Figure 2: Number of QAS attendances involving all scooter types in Queensland, 2019–2020 to 2023–2024

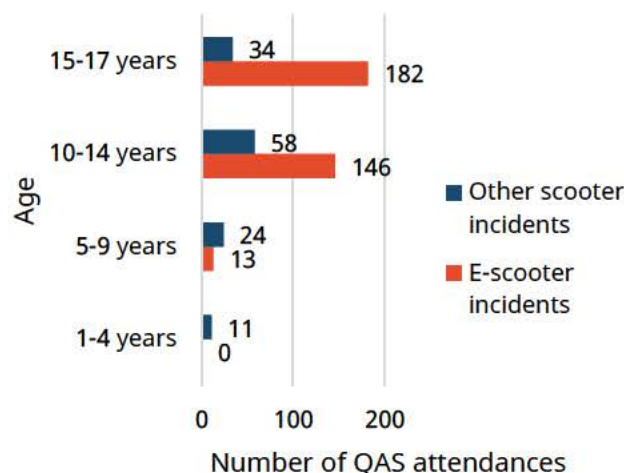


Source: QAS, 2024

Note: The type of scooter was not always further described in the ambulance data. In Figure 3, the category of ‘other scooters’ includes incidents where the scooter type was not specified, hence may include e-scooters, therefore e-scooter incidents may be undercounted. E-scooter incidents may also have been over-counted, as incidents involving a powered scooter or motorised scooter were categorised as e-scooters but could be referring to ‘sit-on’ motorcycle type of scooter such as mopeds. However, the likelihood of this occurring is considered low (as children are not legally allowed to ride these types of vehicles on the road).

➔ **E-scooters made up 341 (or 73%)** of 468 recorded scooter incidents from 1 July 2023 to 30 June 2024, as shown in Figure 3.

Figure 3: Ambulance attendances involving a scooter, Queensland, 1 July 2023 to 30 June 2024



Source: Queensland Ambulance Services, 2025¹³

Note: Figures 2 and 3 use data extracted via a different method by QAS.

Note: Numbers <5 are suppressed for children aged less than 1 year.

Queensland Injury Surveillance

➔ Children aged **15 years and under represented 18%** (or 895) of the 4,902 people who presented to EDs due to a PMD related injury in Queensland from 2021 to 2024.

The Queensland Injury Surveillance Unit (QISU) collects data from 31 participating EDs on the number of presentations due to injuries involving PMDs, including e-scooters.

The characteristics identified in data, as shown in Table 1, are comparable to factors found in data for child deaths involving e-scooters.

Despite laws that prohibit the use of e-scooters for specific age groups in Queensland, QISU data suggests children aged 11 years and under are riders of e-scooters and other PMDs. Furthermore, when children are involved in an incident, they are at risk of needing to present to an ED for assessment and treatment of their injuries.

Table 1: ED presentations aged 0–15 years, PMD-related, in participating Queensland hospitals, 2021–24

Age	Aged 0–11 years	Aged 12–15 years
	<ul style="list-style-type: none"> 365 children 	<ul style="list-style-type: none"> 530 children

QRRs state that children aged 11 years and under must not ride e-scooters and children aged 12 to 15 years can only ride e-scooters if supervised by an adult while riding.

Sex		
	<ul style="list-style-type: none"> 200 (or 55%) were male 165 were female 	<ul style="list-style-type: none"> 341 (or 64%) were male 189 were female

Males, particularly aged 12–15 years, are more likely to present due to injuries involving PMDs than females.

Type of PMD		
	<ul style="list-style-type: none"> 240 (or 66%) involved an e-scooter 116 a hoverboard 5 a Segway 3 an e-skateboard 1 unspecified 	<ul style="list-style-type: none"> 487 (or 92%) involved an e-scooter 24 a hoverboard 3 a Segway 10 an e-skateboard 6 were unspecified

E-scooters, followed by hoverboards, are the main type of PMD involved in injury across all age groups.

Child's involvement		
	<ul style="list-style-type: none"> 321 (or 88%) were the rider of the PMD 18 the pedestrian 15 the passenger of PMD 7 other device rider 4 unspecified 	<ul style="list-style-type: none"> 512 (or 97%) were the rider of the PMD 4 the pedestrian 2 the passenger of the PMD 2 other device rider 10 unspecified

336 children (or 92%) aged 0–11 years were injured in circumstances where they were the rider or passenger of the device. This age group is prohibited from riding PMDs.

QRRs state that another person must not be carried when riding a PMD, including children.

How injury occurred		
	<ul style="list-style-type: none"> 276 (or 76%) from falls 73 from collision 13 unspecified 2 from burn or fire 1 when trying to avoid PMD 0 when stepping off PMD 	<ul style="list-style-type: none"> 394 (or 74%) from falls 96 from collision 38 unspecified 1 from burn or fire 1 when stepping off PMD 0 when trying to avoid PMD

Injuries involving PMDs mainly occur from falls or collisions across all age groups.

Triage score		
	<ul style="list-style-type: none"> 182 (or 50%) semi-urgent (60 mins) 6 resuscitation (Immediate) 51 emergency (10 mins) 113 urgent (30 mins) 13 non-urgent (120 mins) 	<ul style="list-style-type: none"> 198 (or 37%) semi-urgent (60 mins) 14 resuscitation (Immediate) 124 emergency (10 mins) 173 urgent (30 mins) 21 non-urgent (120 mins)

20 children (or 2%) were triaged as requiring immediate attention (resuscitation) due to the severity of injury/mechanism.

There were no PMD-related deaths in the ED during the study period.¹⁴

Note: The triage nurse is reliant on the patient's or second-hand bystander descriptions to complete the narrative that QISU reviews to obtain data on injury risk factors and circumstances. QISU is working with triage staff in participating EDs to improve the quality of data collection and reporting describing PMDs and how the injury occurred.

Queensland studies

Studies in several Queensland EDs have analysed injury data associated with PMDs. One study in 2018-2021, analysed data at three EDs in Brisbane. Children aged under 18 years represented 18 of the 1,048 cases. Injuries mainly involved e-scooters. Of the 18 cases, 14 required medical imaging, 3 required an operation and 8 cases required outpatient support.¹⁵

Another study in 2023-2024, analysed paediatric e-scooter injuries following presentation to the ED at the Sunshine Coast University Hospital. Of the 176 presentations, 18% of cases required computerised tomography scans and 11% sustained life-threatening or potentially life-threatening injuries.¹⁶

A Victorian study


The Victorian Injury Surveillance Unit, Monash University Accident Research Centre, completed a study on injuries associated with ED presentations involving e-scooters, e-bikes and other e-micromobility devices in Victoria from 2016 to 2023.

For **children aged 0 to 14 years** the study found:

- For injuries:
 - 331 cases involved riding a self-balancing device (for example, a Segway)
 - 210 cases involved riding an e-scooter
 - 43 cases involved riding an e-bike.
- Presentations for injuries involving e-scooters and e-bikes were highest in males.
- Presentations for injuries involving self-balancing devices were highest in females.
- Of the 210 cases that presented to ED with injuries involving e-scooters:
 - 92 (or 43.8%) occurred off-road
 - 70 (or 37.6%) occurred on the road
 - 39 (or 18.6%) could not be determined if the injury had occurred on-or off-road.¹⁷

These incidents occurred despite regulations in Victoria requiring e-scooter riders to be aged at least 16 years.

Common risk factors and injuries

 In Queensland, **88 children in 2023** were treated in EDs for head, neck and limb injuries because of falls and crashes on e-scooters, e-bikes and e-skateboards compared to **14 children in 2019**.¹⁸

Research identifies several common reported risk factors and injuries of e-scooter and e-bike incidents.^{19,20,21,22,23,24,25}

Risk factors	Injuries
<ul style="list-style-type: none"> • No helmet • Inexperience • Underage riders • Speed • Mobile phone use • More than one person on a device designed for a single rider • Alcohol and substance use 	<ul style="list-style-type: none"> • Head • Face • Neck, spine, abdomen • Upper and lower limbs • Dislocations • Fractures • Wounds, strains and sprains • Superficial injuries • Injury to internal organ and dental • Multiple body regions

A study that examined children and adolescents with electric and non-electric scooter related injuries from 2019 to 2022 found:

E-scooter riders had a higher risk of being involved in potentially life-threatening traffic incidents and suffered severe head injuries more often than riders of non-electric scooters. E-scooter riders have a higher risk of sustaining serious head injuries requiring surgical intervention than non-electric scooter riders.²⁶

RACQ

The Royal Automobile Club of Queensland (RACQ) has, based on e-scooter injury data and hospital patient interviews, noted that standard open-face bicycle helmets do not provide sufficient

protection from facial injuries and these injuries are more likely to occur from crashes involving stand-up e-scooter devices.²⁷

Due to this, RACQ is advocating for people who use private stand-up scooters to be required to wear full-faced helmets and for hired scooters to transition to more stable 'sit-down' (features a built-in seat) scooters that have a lower centre of gravity.²⁸

Complex safety landscape

The combination of mixed-use environments with limited protective infrastructure, device design and high-speed capability of devices, creates a complex safety landscape for young riders of e-scooters and e-bikes.

Mixed-use environments

The environments where e-scooters and e-bikes can legally be ridden can increase the likelihood of an incident. Shared pathways, where young riders are alongside pedestrians, can become crowded and may increase the risk of a collision. Bike paths and roads expose young riders to moving cyclists and vehicles, which could result in severe consequences if a collision was to occur.

E-scooters and e-bikes can also travel near stationary objects, such as parked cars and poles, and on uneven surfaces, where sudden stops or swerving can result in an incident.

With the rise in e-scooter and e-bike use and related injuries it is important that infrastructure design, development and upgrades help to improve safety for all road and path users.²⁹

Device design

Further compounding risk factors for small-wheeled e-scooters include the top-heavy design of the device that means it can easily topple over and the small size of the wheels that make it difficult to ride on uneven terrain.³⁰ In a recent editorial, Dr Ruth Barker from QISU stressed, "Even a small obstacle can cause the front wheel to turn unpredictably. This effectively stops the scooter dead, and momentum causes the back of the scooter to flip the rider over the handlebars."³¹

Not only do roads need to be safer but e-scooters and e-bikes must be designed to improve the rider's safety.

Lithium-ion batteries

Lithium-ion batteries are the most common batteries used in rechargeable devices, such as e-scooters and e-bikes. Lithium-ion batteries can be highly flammable and if they are not correctly manufactured, handled, stored or disposed of, they can catch fire, explode or vent toxic gas. A lithium-ion battery fire can be very difficult to extinguish as it may reignite. There is no mandatory safety standard for lithium-ion batteries or products containing lithium-ion batteries.³²

The Queensland Electrical Safety Office recommends when buying an e-scooter or e-bike to check that the battery charger has the regulatory compliance mark (RCM) – meaning it meets Australian safety standards. To mitigate risks, it is crucial to follow safety guidelines when purchasing, using, storing, charging, and disposing of devices using lithium-ion batteries.³³

Marty Denham, a forensic fire investigator is reported as stating, "... generic batteries can have a failure rate of one in 10,000 and each battery cell in a battery pack represents a potential for failure... An e-scooter may have 100 battery cells, so the 'real' battery failure rate is more like one in 1,000."³⁴

Fires involving e-scooters and e-bikes powered by lithium-ion batteries are increasingly recognised as a serious safety risk for all riders, including children.

High-speed capability

E-scooters and e-bikes have electric motors that assist the device to be ridden up to speeds of 25km/h. An e-scooter or e-bike travelling at pace can impact the rider's ability to abruptly stop or manoeuvre their device and could result in severe consequences if they were to collide with another object or person or fall from the device.

Information on speeding vehicles suggests:

...the faster you go, the longer it takes to stop and, if you crash, the harder the impact. Even small increases in speed could have severe consequences.³⁵

Injury, disability and death can be prevented by identifying and removing the causes or reducing children and young people's exposure to them.³⁶

Rise in the use of e-micromobility

Riding e-scooters and e-bikes can offer recreational experiences, mobility, independence and contribute to a young person's personal growth through building confidence and responsibility.

Globally, many people are embracing the e-micromobility revolution of transportation, particularly in urban areas where commercially shared schemes for devices operate. These devices are becoming a significant multi-billion-dollar market due to the benefits they offer when compared to other modes of transportation.³⁷ This innovation also brings several challenges, as shown in Figure 5.

A study in 2019 identified children aged 17 years and under were becoming users of both commercially shared and privately owned e-scooters in Brisbane.³⁸

Table 2: Benefits and challenges of e-micromobility

Benefits
<ul style="list-style-type: none"> • Accessible, easy to engage with • Recreation, health and fitness benefits • Reduced environmental impact • Improved mobility and reduced traffic congestion • Convenience and reliability for daily use • Cost efficiency • Technology advancements making devices more user-friendly and support safer navigation

Challenges

- Regulatory issues and safety concerns
- Reduced walking trips
- Weather dependency
- Infrastructure, road and pathway surface needs
- Adequate maintenance
- Modifications that result in illegal devices
- Fire risks from lithium-ion batteries
- Uncertainty around insurance and liability when an incident occurs (compulsory third party insurance is not required in Queensland)^{39,40,41}

The availability, quick uptake and emerging technology of e-scooters and e-bikes can create significant challenges for government and regulators, particularly if existing laws, infrastructure, enforcement and public messaging do not remain relevant, effective or adequately address the realities in the use of these devices. Public safety can potentially be compromised.

Evolving laws

Government and regulators play a fundamental role in safe and effective ways to integrate the safe use of e-micromobility devices in infrastructure and transport systems. Rules for devices are set at different levels of government.

- National level set rules relating to importation, which includes design and construction, as well as consumer protections.
- State level set rules for user licensing and road rules.
- Local level set rules or agreements relating to the operation of shared schemes and where devices can be used or parked.⁴²

Road rules have evolved significantly since the introduction of e-scooters and e-bikes.

1999

- The model Australian Road Rules (ARRs) were approved.⁴³ They form the basis of road rules of each Australian state and territory and are reviewed every two years. It is up to state and territory governments to determine what road rule provisions will apply in their jurisdiction.

- The ARR provided for low-powered motorised scooters that had a maximum speed of 10km/h and did not recognise emerging PMDs.

2012

- Australia's e-bike laws were introduced. Most e-bikes are electronically power-assisted cycles (or EPACs), which must have a permanent marking that it complies with the European EN15194 Standard for power assisted pedal cycles.^{44,45}

2013

- QRRs allowed the use of power-assisted bicycles.⁴⁶
- Segway-style devices had access to paths and local streets and could travel at a maximum speed of 12km/h.⁴⁷

2018

- A shared e-scooter scheme began in Brisbane.⁴⁸
- QRRs broadened to regulate a range of PMDs that fit within certain specifications, including e-scooters and e-skateboards. Maximum speed increased to 25km/h.⁴⁹

2019–2021

- A national project determined PMDs, or innovative vehicles, and motorised mobility devices (for example, a motorised wheelchair or mobility scooter) are inherently different. Amendments to the ARR to include PMDs were endorsed on 30 May 2021 and are now reflected in the ARR.⁵⁰

2022

- Queensland released the Personal Mobility Device Safety Action Plan aimed to improve the safety of PMDs for all path and road users in Queensland.
- QRRs for PMDs were changed and included expanded access to bike lanes, a reduced speed limit of 12km/h on footpaths, general road rules to apply and increased penalties. Protections afforded to pedestrians extended to also protect bicycle and PMD riders, for example, give way protections at intersections.⁵¹

2024

Table 3: Age limits, where to ride and maximum speed limits for e-scooters across Australia

Improving safety when young people ride e-scooters and e-bikes

- The *Transport Operations (Road Use Management) Act 1995* (Qld) was updated and new rules for careless riding and post-crash obligations on road related areas began (for PMD and bicycle riders), including significant penalties.⁵²

Jurisdictional analysis

To better understand the risks for young people in riding e-scooters and e-bikes it is important to be knowledgeable about the elements that define and differentiate these devices from each other and from other devices used by young people that do not require a licence to ride. Common aspects include age restrictions, power limitations for electric motors, speed restrictions, road rules on where to ride devices, and safety measures. These elements are outlined in Appendix A.

E-scooters

Legislation for e-scooters varies across Australian jurisdictions. Queensland has the youngest age limit, where children aged 12 to 15 years can ride an e-scooter, with adult supervision, on the road. Queensland, like some other jurisdictions allows e-scooters to be ridden to a maximum speed of 25km/h in specific locations. Some jurisdictions only allow e-scooters to be ridden on private property but are trialling shared schemes for people aged 16 or 18 years and over.

An overview of the rules existing for e-scooters across Australia, in April 2025, is shown in Figure 6. A detailed Australian jurisdictional review is in Appendix B.

Refer to each state and territory government's website for the most up-to-date legislation and regulations for e-scooters and e-bikes as these are evolving.

Jurisdiction	Age restrictions	Where to ride and maximum speed limit of e-scooter
Queensland	Children must be aged between 12 and 15 years and supervised by an adult while riding a PMD. Children aged 16 years and over can ride a PMD without adult supervision.	E-scooters are permitted on footpaths, shared paths, bicycle paths, bicycle lanes (where the speed limit of the road is 50km/h or less or where the bicycle lane is physically separated from the road), and local 50km/h or less roads with no road markings. E-scooters can be ridden up to 12km/h on footpaths and shared paths and up to 25km/h on bicycle paths and local roads.
Australian Capital Territory	Children under 12 years of age can ride a PMD with adult supervision.	E-scooters are permitted on footpaths, shared paths, bicycle paths and the bicycle side of separated paths. E-scooters can be ridden up to 25km/h.
Tasmania, Victoria and Western Australia (WA)	Children must be aged 16 years and over to ride a PMD.	<ul style="list-style-type: none"> Tasmania: E-scooters are permitted on footpaths, shared paths, bicycle paths and roads and can be ridden between 15km/h and 25km/h. Victoria: Has recently allowed e-scooters on shared-use paths, bicycle paths, roads with a speed limit of up to 60km/h but must not ride on footpaths. E-scooters can be ridden up to 25km/h on level ground. WA: Known as eRideables, are permitted on footpaths, bicycle paths, shared paths, local roads with a speed limit of 50km/h or less with no dividing lines, and bicycle lanes on roads with a speed limit of 50km/h or less. eRideables can be ridden up to 25km/h on level ground.
New South Wales (NSW), Northern Territory (NT) and South Australia (SA)	<p>PMDs can only be ridden on private property, except in selected local government areas with hire schemes.</p> <p>In June 2024, NSW commenced an inquiry into the use of e-scooters, e-bikes and related mobility options. NSW Government provided their response to the Committee's report on 13 May 2025. NSW Government is proposing e-scooters will be legal for independent riders aged 16 year and over and can be ridden on shared paths, with a default speed limit of 10 to 20km/h and a 20km/h speed limit on roads that are signposted at 50km/h and below.</p> <p>E-scooter shared schemes are being trialled in these jurisdictions.</p> <ul style="list-style-type: none"> NSW: Children must be at least 16 years of age to hire and ride. Speed limit varies between 10km/h and 20km/h. NT: A person must be at least 18 years of age. Speed limited to 15km/h. SA: A person must be at least 18 years of age. Speed limited to 15km/h. 	

International comparison for e-scooters

New Zealand

In New Zealand e-scooters are generally referred to as low powered vehicles. The motors of an e-scooter must not have a combined maximum power output in excess of 300 watts. E-scooters can be ridden on footpaths or the road but not in designated cycle lanes.⁵³

Europe

The European Consumer Centre of Germany provides an overview of regulations for e-scooters (defined as a battery-powered, self-balancing vehicles without a seat, with a handlebar and a maximum speed of 25km/h due to the design) in 30 European countries. Some of the e-scooter regulations for children include:

- no legal age limit or varying age restrictions, including supervision while riding
- require a 'bike pass' or 'bike licence' to ride, or to pass a theory test about road traffic regulations
- no riding on the road.⁵⁴

United Kingdom

Privately owned e-scooters are not legal to use on public roads. E-scooter trials are operating across the United Kingdom until May 2026. The rider must hold, at a minimum, a provisional driver's licence which includes entitlement for a category Q to ride an e-scooter. The maximum speed limit for an e-scooter is 15.5m/h (or approximately 25km/h) however lower limits apply in some areas, such as London which is capped at 12.5m/h (or approximately 20km/h).⁵⁵ In London, all first-time riders must do a mandatory education on how to ride safely.⁵⁶

America

The American Academy of Pediatrics recommends that children under 16 years – who are too young to have a driver's licence – should not operate or ride on motorised scooters or e-scooters.⁵⁷

Queensland road rules and penalties

Laws and penalties can help mitigate the risks associated with riding e-scooters and e-bikes. To be effective, laws must be appropriately designed to set clear usage rules and discourage unsafe and high-risk rider behaviour. They also need to evolve to respond to emerging data and safety trends. Law enforcement combined with public awareness and education campaigns ensure young riders are aware of the rules and the risks of unsafe riding.

The law and penalty in Queensland for common risk factors for injuries and deaths involving PMDs (including e-scooters) is shown in Table 4. Penalties are the same for riders of any type of PMD. These penalty amounts are set to increase during 2025. Refer to the websites listed at the end of Table 4 for up-to-date penalty amounts.

Table 4: Law and penalty in Queensland for common risk factors for injuries and deaths involving PMDs

Current laws for PMD riders^{58,59}	Current penalty⁶⁰
<ul style="list-style-type: none"> PMDs must not be used by children 11 years and under. Children aged 12–15 years can only ride a PMD with adult supervision. Young people aged 16 years and over can ride PMD. 	\$161 fine
<ul style="list-style-type: none"> PMDs are designed for single riders only and it is against the law to carry another person, no matter how small, including children.⁶¹ 	\$161 fine
<ul style="list-style-type: none"> The maximum speed for a PMD rider is 12km/h on footpaths and shared paths, unless signed otherwise. The maximum speed for a PMD rider is 25km/h on separated paths and bicycle paths, unless signed otherwise. The maximum speed for a PMD rider is 25km/h (or to obey speed limits lower than 25km/h) for on-road bicycle lanes where the speed limit applying to the road is 50km/h or less, any bicycle lane which is physically separated from the road, regardless of the speed limit applying to the road (physical separation can include concrete kerbing, bollards or median strips) and local streets where the speed limit is 50km/h or less and there is no dividing centre line or median strip. A safe speed for the circumstances may be far less than the speed limits. Ride safely and to the circumstances. 	Riding on a prohibited road, \$193 fine Speeding, up to \$645 fine
<ul style="list-style-type: none"> PMDs must have front and rear lights and reflectors to use at night or in hazardous conditions and be fitted with effective brakes. 	\$161 fine
<ul style="list-style-type: none"> PMD riders must wear an approved bicycle or motorcycle helmet with the straps fastened unless an exemption applies. Additional protective gear, like elbow and knee pads and high visibility clothing is highly recommended. 	\$161 fine
<ul style="list-style-type: none"> PMD riders must not hold a mobile phone in their hand or rest it on any part of their body when riding a PMD. The phone does not need to be turned on for it to be an offence. The phone should be kept in a pocket of clothing or in a pouch and the rider must not be able to see the screen. The phone can be mounted on the handlebars of the PMD so it can be used for GPS navigation or as a speedometer. A mobile phone can be used in the hand when the rider is stationary on paths or nature strips. 	\$1,209 fine
<ul style="list-style-type: none"> PMD riders are required to obey general road rules in the same way as other drivers/riders, for example traffic lights and signs, give way rules and rules for making turns. 	Fines apply

A full list of QRRs and fines for e-scooters and e-bike riders can be found at:

- StreetSmarts, <https://streetsmarts.initiatives.qld.gov.au/>
- E-scooters, www.qld.gov.au/transport/safety/fines/personal-mobility-device-riding-rules-and-fines
- E-bikes, www.qld.gov.au/transport/safety/rules/wheeled-devices/electric-bicycle-rules.

Enforcement

Road rules for e-scooters and e-bikes in Queensland are enforced by the Queensland Police Service (QPS).⁶² Police have been urging all e-scooter and e-bike riders to put safety first and to take the laws associated with these devices seriously.

*We want all riders to be aware of the rules, particularly parents and caregivers who may not realise they're buying their children a non-complaint e-bike or e-scooter. Some e-scooters and e-bikes being sold in Queensland exceed speed limits and are classified as motorbikes, meaning they require registration, insurance, and a licence.*⁶³

Since the 2022 QRR reforms, there have been more than 8,000 infringements issued to PMD riders of all ages who break the rules.⁶⁴ Between November 2022 and December 2024, helmet offences, illegal road use, and carrying passengers made up more than 65 per cent of all PMD-related infringements.⁶⁵

Operation Zappo Stoppie

Operation Zappo Stoppie was launched by QPS in Noosa from 1 July 2024 to 4 November 2024 to identify, prevent and disrupt illegal use of non-compliant e-bikes and high-risk behaviours. Police completed 27 street checks identifying and warning 31 young people, issued eight infringements and impounded three bikes. It was reported that in some instances police were "...seeing young people who have been caught offending on e-bikes move to the use of even more powerful road registerable sports style motorcycles." Police stressed the need for parents to carefully consider if it is appropriate for their child to be riding these devices.⁶⁶

Non-compliant electric bikes

A motorised bike is non-compliant and cannot be ridden on public roads or paths if it has any of the following:

- a petrol-powered or internal combustion engine

- an electric motor capable of generating over 200 watts (that is not an electrically power-assisted cycles)
- an electric motor that is the primary source of power.

A bike is non-compliant if, for example:

- it has a petrol-powered engine attached before or after purchase
- it has an electric motor that can help reach speeds more than 25km/h without cutting off
- it has non-functioning pedals that do not propel the bike
- you can twist a throttle and ride the bike using the bike's motor power only, without using the pedals.

Non-compliant bikes may only be ridden on private property with no public access. If a non-compliant bike is to be ridden legally on a road, it must comply with the Australian design rules requirements for a motorcycle and be registered.⁶⁷

Schools

Children are known to travel to and from schools on e-scooters and e-bikes. Schools provide opportunities to intervene and promote consistent, safe and compliant riding of e-scooters and e-bikes among students and to set clear expectations for students who travel to school on these devices.

The Department of Education (DoE) is responsible for the safe management of e-scooters and e-bikes on state school grounds. A Traffic Management Plan template is available for schools to complete in communicating how hazards associated with pedestrians/vehicle and vehicle/vehicle interactions are managed across the school to minimise risk of harm. This document includes a section for schools to complete in relation to securely parking, storing and charging e-scooters, e-bikes and other personal mobility devices at school. The document also prompts the school to list other considerations or risk controls to manage personal travel devices and provides examples

such as, the prohibition of certain devices and education programs for road safety rules.⁶⁸

A *Safety Alert – Lithium-ion battery hazards* information document is also available for state schools on the DoE's website. This document states that schools should ensure staff, students and parents are provided information about the risks of lithium-ion batteries. It states that local management processes can be implemented for actions such as, charging personal devices (e.g. phones and laptops and especially e-scooters and e-bikes) at school, and may include a 'charge at home' policy, and for the storage of items while not on charge (e.g. e-rideables, battery packs and laptop banks).⁶⁹

These processes are both locally managed making it difficult to identify the level of consistency in processes across Queensland state schools or the types of risk controls adopted by schools.^{70,71}

Education campaigns

- **'StreetSmarts'** initiative by TMR is an education platform where people can learn more about road safety. Children and young people can specifically learn about the facts, tools, tips and latest campaigns for electric devices.⁷² StreetSmarts initiative has provided draft newsletter articles and e-posters to Queensland schools and offered free brochures to help educate students and parents on the rules for e-scooters and e-bikes.
- **Journi**, is an online road safety resource in Queensland designed for children aged 10-12 years (in years 5 and 6) to teach the skills needed to develop healthy road safety attitudes and behaviours.⁷³ Learn more about road safety education at www.qld.gov.au/transport/safety/road-safety/education.

Road safety

The *Road safety education blueprint: Guiding Queensland's approach to road safety education from birth to young adulthood* (the Blueprint) was re-released in 2023 and has two key objectives:

- to embed a whole-of-life road safety education approach across childhood and adolescence
- to build a positive road safety culture.⁷⁴

The Blueprint has six areas of focus, with 27 actions that are based on:

- cognitive, social and physical developmental milestones during childhood and youth
- the differing travel modes that children undertake at each stage of life
- the unique road safety risk factors facing higher risk communities
- the importance of leadership and governance in strengthening the effectiveness of road safety education.

Road safety education is critical for young people to become safe and responsible road users.

Readiness to ride

A young person's safe and enjoyable riding experience is influenced by their cognitive development and maturity level. Young people are more likely than adults to make quick decisions without thinking through the consequences of their actions. The developing brain is sensitive to immediate rewards (increasing dopamine levels) over future consequences.

Young riders of e-scooters and e-bikes must be able to anticipate, assess and react to risks and potential hazards while riding. They need to be able to follow multiple road rules and safety advice and make sound decisions to ensure their own safety and the safety of others.⁷⁵

In pre-teens and teenagers, the consequences of impulsive decisions, distorted risk perception and inexperience on the road can be life-threatening. The 'Voice of reason' response, a crucial element for safe riding, develops during teens to about 25 years.⁷⁶ Measure to help address developmental challenges include:

- Parental involvement and role modelling can play a significant role in shaping safe riding behaviour among young people.

- Awareness and education campaigns that help young people to understand the challenges they will face when riding and the importance of safe road practices.
- Young riders can be influenced by their peers and children who experience profound and chronic stress can have a heightened 'fight, flight or freeze' response, so creating a culture of safe and responsible riding is important.⁷⁷

Social licence – sharing the road and footpath

Everyone, including young riders, need to understand their role in the broader context of road safety.

Young riders of e-scooters and e-bikes must be able to build and operate within a 'social licence' so they can co-exist safely alongside all other path and road users.⁷⁸ A social license here refers to the informal acceptance and trust that the public and other road users give young riders of e-scooters and e-bikes, as long as they demonstrate responsible riding behaviour, adhere to the road rules and contribute to a safe and respectful shared road culture. Ensuring young people understand their responsibilities is key to fostering this social licence.

E-scooter and e-bike riders of any age can pose a significant risk to vulnerable pedestrians, such as the elderly, children and people with disabilities, either by a collision with the rider or tripping over a parked device on a footpath.⁷⁹ Riders must know how to ride with due care and attention and avoid being a traffic hazard by not riding into the path of a driver or pedestrian.⁸⁰

Motorists must also take extra care around e-scooter and e-bike riders, as riders can sometimes be unpredictable, especially young riders. Motorists must follow the road rules, obey minimum passing distance rules, and give way to PMD and e-bike riders when turning at intersections. They must also prepare to slow down and stop, if necessary. Likewise, pedestrians

must not cause a traffic hazard by moving into the path of an e-scooter or e-bike rider.⁸¹

Training

Like learning to ride a bike or driving a vehicle, providing opportunities for young riders of e-scooters and e-bikes to engage in learner rider training can help build experience and significantly enhance safety and confidence. Finding local organisations that offer in-person riding lessons is challenging.

Creating a culture of safe riding

Across several decades Queensland government has developed priorities and action plans for improving safety outcomes for cyclists. In comparison, policies and initiatives for PMDs and e-bikes are in its early stages. Policies and initiatives that highlight best practice and key learnings in innovation and fit-for-purpose funded projects for cycling, could help guide a culture of safe riding for both non-motorised and motorised scooters and bicycles.

TMR engagement and work with cyclists, local governments and industry across the state is helping to achieve its objectives to make riding safer and more convenient for everyone. For example, between 2020 and 2022, TMR Queensland awarded more than \$432,000 in Community Road Safety Education Grants to 51 community organisations to deliver workshops to children. The workshops taught children essential bike riding skills, the importance of wearing safety equipment when riding and how to safely navigate where they ride. TMR report that these skills gave the children confidence to ride their bicycle safely and encouraged them to ride to school or for fun within their local community.⁸²

Improving safety outcomes

To improve safety outcomes and effectively reduce the risk of injuries and deaths for young riders of e-scooters and e-bikes in Queensland, **safety needs to be a first thought, not an afterthought.**

A multifaceted approach led by federal and state governments is required to continually review and adapt existing safety measures to ensure they remain relevant and effective in ending these preventable tragedies and the injury burden associated with e-scooter and e-bike use by young people.

Laws and enforcement

Public health, safety, injury prevention and evidence-based research needs to be considered when passing state and local e-scooter and e-bike laws. In addition, clear, relevant, consistent and effective laws, rules and safety measures, can help prevent injuries and deaths involving young riders of e-scooters and e-bikes.

Mandating legislation... sets a standard and provides an incentive to change behaviour.⁸³

Ongoing monitoring of product safety for e-scooters and e-bikes available for sale in Queensland and of emerging risks, is also necessary to help determine if mandatory safety or information standards could help reduce and prevent the risk of injury to riders of e-scooters and e-bikes.

On 1 May 2025, the Queensland Government launched a Parliamentary Inquiry into the use of e-scooter, e-bikes and other personal e-mobility devices to improve safety and address community concerns.

The Inquiry will focus on the:

- benefits of e-mobility devices
- safety risks
- current rules and how they compare with other jurisdictions
- enforcement approaches
- importation laws
- communication and education
- stakeholder views.⁸⁴

The committee is due to report on its findings by 30 March 2026.



The QFCC recommends Queensland aligns with other jurisdictions and sets a minimum age of 16 years for riding an e-scooter.

Tightened and consistent regulation and law enforcement to ensure compliance for e-scooters and e-bikes could help enhance safety and injury prevention and make it easier for riders to understand and comply with the law.

Safety information and road rules for devices at the point of sale would be highly beneficial for everyone. This could better assist consumers to make an informed choice about the type of device they buy and encourage young people and families to have safety as their first thought when buying and riding e-scooters and e-bikes.

Engineering and research

Partnerships with young people, researchers, industry and experts to improve data collection, enhance research and integrate emerging technologies can help contribute to the evidence base for best practice recommendations involving holistic device design solutions and injury prevention measures for e-scooters and e-bikes.

Construction of more comprehensive off-street active transport infrastructure networks would also help create a safer landscape and environment for all active transport users, including pedestrians, cyclists and e-scooter and e-bike riders.

By better understanding differences in the way young people use e-scooters and e-bikes, safety measures can be more effectively tailored to meet the unique needs of each community. Thereby, helping to improve young rider's ongoing safe

travel, prevention of injuries and death, and providing insight to the broader impacts of e-scooter and e-bike use on the health of young people beyond physical injuries.

Some areas that would benefit from further focus include:

- differences in psychology, risk perception and behaviour for riding e-scooter and e-bikes between young male and female riders
- young people's use of e-scooter and e-bikes including why they ride, where they ride and how often they ride
- adults, young people, family, and community attitudes and perceptions about e-scooters and e-bikes and associated road rules (specifically helmet use and adult supervision)
- potential communication barriers.

In 2020, the International Transport Forum identified e-scooter, e-bike, and other micromobility trip data as essential for assessing and monitoring risks associated with these devices. The International Transport Forum called on national governments to start collecting measures of trip data from e-scooters and e-bikes. This presents some data challenges as consistent e-scooter and e-bike device codes need to be added to crash and injury data and best practice guidance implemented for interpreting and using the data collected.⁸⁵

Improved data collection would support enhanced evaluation into whether safety measures for e-scooters and e-bikes are effective in reducing harm over time and monitoring of progress towards reaching state, national and international road death and injury reduction goals.



Strengthened data collection, enhanced research and integration of emerging technologies provide opportunities to anticipate needs, better identify risk factors, trends, emerging safety hazards and accident hotspots involving e-scooters and e-bikes.

Awareness and education

Road safety is everyone's responsibility.

Parents, schools, communities, clubs and organisations where young people gather, or ride e-scooters and e-bikes all have a role to play when it comes to promoting and teaching the safe use of e-scooters and e-bikes by young riders. They need to act as positive role models for young riders and influence positive attitudes towards road safety and safe use of devices.

Adults must be aware of current laws, regulations and risks for e-scooters and e-bikes if they are to encourage discussions with children about road rules, road safety and safe riding and storing practices to help reduce the risk of injury and death. Campaigns and initiatives must also inform adults, motorists and pedestrians about how to co-exist safely with e-scooter and e-bikes.

Increased and ongoing public awareness campaigns that are culturally informed and led by young people and the community could include:

- delivery of safety education and messages through trusted figures such as Elders, youth leaders, multicultural workers or public role models like sports persons, and via schools and community hubs
- providing safety materials that include visual storytelling and are culturally specific
- designing messages, particularly in relation to adult supervision, which reflect the extended family and community-based care that is common in many cultures.

Between December 2024 and January 2025, the Victoria Government launched a new road safety campaign showing the painful and potentially deadly consequences of the dangerous and illegal use of e-scooters. The campaign followed the introduction of new laws targeting dangerous riding behaviour and increased penalties for riding without a helmet, riding on a footpath, and

carrying a passenger. Central to the campaign was a series of videos that showcased toy characters riding dangerously and end with images of riders suffering serious injuries. The concept was backed by research that showed many Victorians see e-scooters as toys and fail to understand the key laws relating to e-scooter use which can have painful consequences.⁸⁶

Education and messaging should be provided alongside opportunities for young people to engage in, in-person learner rider training programs that incorporate knowledge, hazard perception and practical riding skills.

The effectiveness of campaigns, initiatives and training programs must be regularly evaluated to remain influential in promoting and teaching safe riding habits and behaviours.



Public awareness and education campaigns must appeal to young people and inform both young people and adults about the safe use of e-scooters and e-bikes and how these devices can safely exist alongside other path and road users.

In-person training programs for young people on the safe use of e-scooters and e-bikes, road rules, and how to safely maintain, park and store devices is an area requiring further attention.

The Queensland Child Death Register

The Queensland Family and Child Commission (QFCC) maintains Queensland's Child Death Register in accordance with Part 3 of the *Family and Child Commission Act 2014*, under which it is required to produce an annual report on the deaths of all children in Queensland. Our annual report is available at <https://www.qfcc.qld.gov.au/sector/child-death/child-death-reports-and-data>.

The Child Death Register was established in 2004 and currently contains records of all child deaths classified by cause of death, demographic and incident characteristics. It is a critical resource that allows the QFCC to analyse trends and patterns in child mortality, including risk factors for death. We use this information to contribute to research, inform policy improvements and support community safety initiatives to help reduce the likelihood of child deaths.

More information about the QFCC's child death prevention activities and research framework are available at <https://www.qfcc.qld.gov.au/safer-pathways-through-childhood>.

Data for research and prevention activities




We work with researchers, government agencies and non-government organisations to raise community awareness and develop prevention programs and policies by identifying risk factors, trends and emerging safety hazards.

The QFCC can provide detailed Queensland child death data to researchers and organisations at no cost.

Email: child_death_prevention@qfcc.qld.gov.au.

Appendix A

A Comparison between wheeled recreational devices, PMDs and bicycles including e-bikes, in Queensland is provided in the following table.

	Wheeled recreational device ⁸⁷	Personal mobility device ^{88,89}	Bicycle, including an e-bike ^{90,91}
Examples of the device⁹²	<ul style="list-style-type: none"> Rollerblades, roller skates, skateboards, pedal cars and foot scooters (or a low powered foot scooter). Does not include a wheeled toy – a child’s pedal car, scooter or tricycle or a similar toy when it is being used by a child who is under 12 years old.⁹³ 	<ul style="list-style-type: none"> E-scooters, e-skateboards, self-balancing single wheeled devices (like e-unicycles or Solowheels and e-boards or Segways). <p>Note: Mopeds, sometimes referred to as scooters, fall under motorcycles.</p> 	<ul style="list-style-type: none"> Bicycle, Pedicab, a penny-farthing, a tricycle and a power-assisted bicycle (known as an e-bike, including electrically power-assisted cycles (EPACs) and Pedal bicycle with a motor). 
Restriction on age and carrying other people	<ul style="list-style-type: none"> No age limit. 	<ul style="list-style-type: none"> Children aged 11 years and under must not use PMDs. Children aged 12–15 years can only use PMDs if supervised by an adult while riding. Children aged 16 years and over can use PMDs without adult supervision. Another person must not be carried when riding a PMD, including children. 	<ul style="list-style-type: none"> Children of any age are allowed to ride a bicycle, including an e-bike. A rider can carry another person only if the bicycle is designed to carry more than one person, has a passenger seat, and each person is wearing an approved helmet.

	Wheeled recreational device ⁸⁷	Personal mobility device ^{88,89}	Bicycle, including an e-bike ^{90,91}
Defining features	<ul style="list-style-type: none"> A wheeled device, built to transport a person, generally propelled by human power or gravity (exception being low powered foot scooters) and ordinarily used for recreation and play.⁹⁴ 	<ul style="list-style-type: none"> A vehicle designed to be used by one person and is prescribed by regulation to be a PMD. A PMD is a vehicle if it: <ul style="list-style-type: none"> has one or more wheels is powered by an electric motor weighs 60kg or less is not more than 1,250mm in length by 700mm in width by 1,350mm in height, or 700mm in length by 1,250mm in width by 1,350mm in height is not a vehicle with pedals, a low powered toy scooter, or a motorised mobility device (for example a wheelchair). 	<ul style="list-style-type: none"> A vehicle with two or more wheels that is built to be propelled by human power through a belt, chain or gears, whether it has one or more auxiliary motors. Does not include any vehicle with one or more auxiliary motors, other than a power-assisted bicycle.⁹⁵
Electric motor	<ul style="list-style-type: none"> A low powered foot scooter can have a small electric motor, 200 watts or under, that has a maximum speed of 10km/h.⁹⁶ 	<ul style="list-style-type: none"> Powered by an electric motor. Must not exceed 25km/h. 	<ul style="list-style-type: none"> E-bike is powered by an electric motor however the motor provides assistance only. To ride an e-bike on the road the electric motor/s must not: <ul style="list-style-type: none"> generate more than 200 watts of power, or if generating up to 250 watts of power the motor cuts out at 25km/h, and the pedals must be used to keep the motor operating. At speeds up to 6km/h, the electric motor can operate without pedalling but over 6km/h to 25km/h, the motor must be pedal assist only.

	Wheeled recreational device ⁸⁷	Personal mobility device ^{88,89}	Bicycle, including an e-bike ^{90,91}
		<ul style="list-style-type: none"> Some e-scooters and e-bikes being sold in Queensland exceed speed limits and are classified as motorbikes, meaning they require registration, insurance, and a licence. Parents and caregivers may not realise they are buying their child a non-complaint e-bike or e-scooter.⁹⁷ 	
Mandatory standards for device	<ul style="list-style-type: none"> A voluntary consensus standard exists – ASTM F2641-23 Standard Consumer Safety Specification for Recreational Powered Scooter and Pocket Bikes. 	<ul style="list-style-type: none"> There are no mandatory safety or information standards for PMDs. Mandatory standards exist for self-balancing scooters, such as hoverboards, in relation to the safe design and construction of the cells and batteries used.⁹⁸ 	<ul style="list-style-type: none"> Mandatory standards apply for certain types of pedal bicycles. These standards do not apply to power-assisted bicycles.⁹⁹ Most e-bikes are EPACs, which must have a permanent marking that it complies with the European EN15194 Standard.¹⁰⁰
		<ul style="list-style-type: none"> Lithium-ion batteries are the most common batteries used in rechargeable devices, such as PMDs and e-bikes. There is no mandatory safety standard for lithium-ion batteries or products containing lithium-ion batteries.¹⁰¹ However, there are International Electrotechnical Commission (IEC) standards that mainly focus on battery and electrical safety. IEC International Standards are always voluntary and based on the international consensus of experts from many countries.¹⁰² 	
Riding on roads and paths	<ul style="list-style-type: none"> In general, wheeled recreational devices must not: <ul style="list-style-type: none"> travel on a road with a centre line or median strip, or a one-way road with more than one marked lane travel on a road with a speed limit greater than 50km/h 	<ul style="list-style-type: none"> PMDs can be ridden on roads in some locations unless prohibited by local council or landowners and must not exceed 25km/h or comply with speed limits lower than 25km/h on the following road locations: <ul style="list-style-type: none"> bicycle lanes on roads with a speed limit of 50km/h or less a bicycle lane that is physically separated from other lanes of traffic local streets with 50km/h or less and no dividing line. 	<ul style="list-style-type: none"> E-bikes can be ridden on all Queensland roads and paths, except where bicycles are prohibited. Non-compliant e-bikes must not be ridden on public roads or paths. If a non-compliant bike is to be ridden legally on a road, it must comply with the Australian design rules requirements for a motorcycle and be registered. Non-compliant e-bikes may only be ridden on private property with no public access.

	Wheeled recreational device ⁸⁷	Personal mobility device ^{88,89}	Bicycle, including an e-bike ^{90,91}
	<ul style="list-style-type: none">– travel on a road at night, unless an exception applies– be ridden where there is a sign prohibiting their use.	<ul style="list-style-type: none">• PMDs can be ridden on paths unless there is a sign prohibiting PMDs.• The following speed limits must be obeyed:<ul style="list-style-type: none">– Footpaths and shared paths: 12km/h maximum (unless signed otherwise)– Separated paths and bicycle paths: 25km/h maximum (unless signed otherwise).	
Road rules	<ul style="list-style-type: none">• Must follow all road rules for wheeled recreational devices and obey the general road rules.	<ul style="list-style-type: none">• Must follow all road rules for PMDs and obey the general road rules.	<ul style="list-style-type: none">• Must follow bicycle road rules and obey the general road rules.
	<ul style="list-style-type: none">• Local laws can prohibit the use of devices on roads and footpaths.		
Safety measures	<ul style="list-style-type: none">• Not legally required to wear a helmet when using human-powered wheeled recreational devices.¹⁰³		
	<ul style="list-style-type: none">• Riders of a low powered foot scooter, PMDs and bicycles (including e-bikes), must wear a securely fitted and fastened approved bicycle helmet, unless an exemption applies.• PMD riders can also wear an approved motorcycle helmet.		
	<ul style="list-style-type: none">• To reduce injuries, wearing protective gear is highly recommended and can include an approved helmet (if not already mandatory), knee and elbow pads, wrist guards, high visibility clothing and closed-toe shoes.		

Appendix B

A review of legislation for PMDs (including e-scooters) across Australian jurisdictions was completed in April 2025, with findings outlined in the following table. Refer to each state and territory government's website for the most up-to-date legislation and regulations for e-scooters and e-bikes as these are evolving.

Jurisdiction	Age restrictions	Where to ride	Speed limits
Queensland	<p>To ride a PMD, a person must be either:</p> <ul style="list-style-type: none"> aged 16 years or over or aged between 12 and 15 years and supervised by an adult while riding the device. <p>Children aged 11 years and under must not ride a PMD.</p>	<ul style="list-style-type: none"> Footpaths and shared paths. Separated paths and bicycle paths. <p>Ride on roads in some locations:</p> <ul style="list-style-type: none"> bicycle lanes on roads with a speed limit of 50km/h or less any bicycle lane that is physically separated from other lanes of traffic, for example, by bollards or raised median strip local streets – 50km/h or less and no dividing line. 	<ul style="list-style-type: none"> Footpaths and shared paths a maximum speed limit of 12km/h unless signed otherwise. Separated paths and bicycle paths a maximum speed of 25km/h unless signed otherwise. <p>Riding on permitted roads:</p> <ul style="list-style-type: none"> 25km/h maximum. Obey speed limits lower than 25km/h.¹⁰⁴
Australian Capital Territory	<p>Children under the age of 12 must not use a PMD without adult supervision.</p>	<p>PMDs are permitted on footpaths, shared paths, bicycle paths and the bicycle side of separated paths.</p> <p>PMDs are not permitted on roads unless there is no footpath, shared path or nature strip next to the road or it is impracticable to travel on one of those areas. If required to use the road when riding a PMD, the shortest, safest route must be taken. Must not stay on the road for longer than necessary.</p>	<p>Any PMD that travels more than 25km/h is considered a motor vehicle and is therefore forbidden from travelling on paths.¹⁰⁵</p>

Jurisdiction	Age restrictions	Where to ride	Speed limits
		PMDs can be used on private property where the road transport law does not apply.	
New South Wales (NSW)	<p>Children must be age 16 years or over to hire and ride a shared e-scooter within a trial area.¹⁰⁶</p> <p>NSW are carrying out trials of shared e-scooters in response to the growing popularity of e-scooters.</p>	<p>PMDs can only be used on private property.</p> <p>PMDs remain illegal on NSW roads and road-related areas, including footpaths, shared paths and bicycle lanes.</p>	<p>Hired PMDs must not exceed speeds of 10km/h on shared paths and 20km/h on roads and bicycle lanes.¹⁰⁷</p>
	<p>In June 2024, NSW commenced an inquiry into the use of e-scooters, e-bikes and related mobility options. NSW Government provided their response to the Committee's report on 13 May 2025. As part of the review, NSW Government is proposing e-scooters will be legal for independent riders aged 16 years and over and can be able to be ridden on shared paths, with a default speed limit of 10-20km/h and a 20kmh speed limit on roads that are signposted at 50kmh and below.¹⁰⁸</p>		
Northern Territory	<p>E-scooters can only be used in public places if Beam Mobility Australia provides them.</p> <p>To hire and ride an e-scooter, a person must be aged 18 years or over.</p>	<p>E-scooters and e-bikes can only be hired in the Darwin area and can only be ridden on footpaths, shared paths and bicycle lanes, unless prohibited.</p> <p>A privately owned e-scooter can be ridden on private property. It cannot be ridden on roads, footpaths or other public spaces.</p>	<p>Hired e-scooters must not exceed speeds of 15km/h.¹⁰⁹</p>
South Australia	<p>A trial of e-scooters has been approved to take place in the Adelaide CBD.</p> <p>A person must be aged 18 years or over.</p>	<p>In trial areas an e-scooter can be ridden on footpaths and shared paths, unless otherwise prohibited. They can be ridden on the road only when crossing or to avoid an obstruction for up to 50m.</p> <p>E-scooter is an example of a motorised wheeled recreational device. These devices can only be used on private property.</p>	<p>Hired e-scooters must not exceed speeds of 15km/h.¹¹⁰</p>

Jurisdiction	Age restrictions	Where to ride	Speed limits
Tasmania	A person must be aged 16 years or over to ride a PMD.	PMDs can be ridden on footpaths, shared paths, bicycle paths and local roads which have a speed limit of 50km/h or less, no dividing lines or median strip, and no multiple lanes if a one-way road.	<ul style="list-style-type: none"> • Footpaths a maximum speed of 15km/h • Shared paths, bicycle paths and roads a maximum speed of 25km/h.¹¹¹
Victoria	<p>E-scooters that comply with specifications outlined in the Victorian road rules are now legal to use across Victoria.</p> <p>A person must be aged 16 years or over to ride an e-scooter.</p>	E-scooters can be ridden on shared-use paths, bicycle paths, roads with a speed limit of up to 60km/h, never riding on footpaths.	E-scooter can be ridden a maximum speed limit of 20km/h. ¹¹²
Western Australia	A person must be aged 16 years or over to ride an 'eRideable'.	eRideables can be ridden on footpaths, bicycle paths, shared paths, local roads with a speed limit of 50km/h or less and with no dividing lines, and bicycle lanes on roads with a speed limit of 50km/h or less.	eRideable can be ridden between 10km/h and 25km/h in designated areas. ¹¹³

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