

Should e-scooters be legalised in Australia?

## The issue at a glance

### What they said...

'Lime is grateful for the opportunity to demonstrate our commitment to providing an affordable, reliable, socially distant, and equitable transport mode.'

*A statement on Lime Australia's website. Lime is one of the three main e-scooter hire operators in Australia*

'The risks, not just for riders but for pedestrians, especially people with disability and the elderly, are obvious.'

*Sydney Lord Mayor, Clover Moore*

On **January 3, 2023**, the Victorian government extended by two months its year-long trial of hired e-scooters in the City of Melbourne, Yarra and Port Phillip council areas. The trial will now end on March 31st. [↗](#)

After the trial, the Victorian Department of Transport will decide whether to permanently legalise the use of hire e-scooters in inner Melbourne suburbs and whether to legalise the on-road use of privately owned e-scooters. (Currently, privately owned e-scooters can only be legally used on private property.) [↗](#)

E-scooters' supporters argue they are cheap, convenient, pollution-free and reduce traffic congestion. Their opponents argue they are hazardous on roads and footpaths and that their supposed advantages have been overstated. This is a debate currently being had all around Australia and the world.

Queensland, Tasmania, and Western Australia allow e-scooters (either hired or privately owned) to be ridden on roads and footpaths. There are varying prohibitions and restrictions in the other states and territories. [↗](#)

### Background

*The information below has been abridged from a Wikipedia entry titled 'Motorized scooter.' The full text can be accessed by clicking here . . .* [↗](#)

A *motorised scooter* is a stand-up scooter powered by either a small utility internal combustion engine or a small electric hub motor in its front and/or rear wheel. Classified as a form of micromobility, they are generally designed with a large centre deck on which the rider stands.

Electric kick scooters have surpassed internal combustion-engined scooters in popularity since 2000. They usually have two wheels 20-28 cm in diameter, one or both of which are fitted with an electric motor, connected by a platform on which the rider stands, with a handlebar for support and steering. Range and speed vary considerably according to model. One reference shows ranges of 3 to 220 km, and maximum speeds from 19 to 120 km/h.

In 2017, some bicycle-sharing companies such as Lime, and some scooter-only companies such as Bird, began offering dockless electric kick scooter sharing services. This segment of the micro-mobility market made large inroads in 2018, with numerous dockless e-scooters appearing in major cities worldwide.

### Regulation of e-scooters in different jurisdictions

#### *Austria*

Electric vehicles with a power up to 600 watts and a speed up to 25 km/h are considered as bicycles.

#### *Belgium*

Belgium's traffic rules were updated on 1 June 2019 to be in line with the European Commission guidelines formed in 2016. It became legal for people over 15 years of age to ride electric motorised scooters with speed limited to 25 km/h on public roads, mirroring e-bikes. Protective gear and insurance are not required by law.

### *Canada*

Commuting in Canada with an e-scooter is becoming increasingly popular for those who are looking for a convenient way to get around. As power-assisted bicycles, e-scooters must follow many of the same federal laws and regulations, such as being limited to 32 km/h and not being allowed over 500 W output. Ontario has recently unveiled a series of laws aimed at ensuring safety while using electric-kick scooters or, e-scooters. The new laws require all riders to carry a valid driver's license, and those under the age of 16 must be accompanied by an adult who also carries a valid driver's license. Riders are now also required to wear an approved helmet when operating their e-scooter and have bright lights installed on the front and back of their vehicles.

### *France*

Currently France only allows e-scooters on footpaths if they have a maximum speed of 6 kilometres per hour (3.7 mph). Those travelling at up to 25 km/h are relegated to bike lanes. Legislators are considering a new law that would force users of e-scooters going faster than 25 kilometres per hour (16 mph) to have a type A1 license-the same as for small motorcycles. The legal framework is very blurry and does not define where e-scooters may or may not be driven or parked. The Deputy Mayor of Paris Christophe Najdovski is lobbying Transport Minister Élisabeth Borne for a clearer framework that would give municipalities the power to tighten the rules on how permits are issued and how authorizations are given to deploy a fleet of e-scooters to operators.

French daily newspaper Le Parisien found that in 2017, e-scooters and roller skates combined caused 284 injuries and five deaths in France, a 23 percent increase on the previous year. The perception of e-scooters is that they are fast, silent and therefore dangerous, causing many accidents, and the need to legislate is urgent.

### *Ireland*

The use of e-scooters and mono-wheels has exploded in Irish urban areas in recent years, with estimated more than 2,000 e-scooters regularly traveling the roads of Dublin.

Under existing road traffic legislation, the use of an e-scooter on public roads is not permitted. According to the Road Traffic Act 1961, all e-scooters are considered to be 'mechanically propelled vehicles.'

Anyone using a mechanically propelled vehicle in a public place must have insurance, road tax, and a driving license. However, it is currently not possible to tax or insure e-scooters or electric skateboards.

In February 2021 Communications Minister Eamon Ryan approved draft legislation which will 'regularise' e-scooters and electric bikes as commonly accepted means of transport under proposed new vehicle category, to be known as 'Powered Personal Transporters' (PPTs), which will not require road tax, insurance or driving license.

### *Netherlands*

The use of e-scooters remains illegal after a fatal electric cart incident in 2018.

### *New Zealand*

E-scooters in New Zealand are classed as a 'Low-powered vehicle that does not require registration', provided that the output power is under 300 watts. They can therefore be ridden on footpaths, roads, and separated cycleways. They cannot be ridden on paint-defined cycleways on the road. Helmets are not required but recommended.

### *United Kingdom*

Privately owned e-scooters are deemed to be Personal Light Electric Vehicles, subject to legal requirements regarding MOT testing, tax, and licensing. In practice they cannot be made to meet the requirements for road use, and they also may not be used on footways.

In some trial areas from mid-2020 to November 2022, rental e-scooters may be ridden on roads and cycle lanes but not footways; riders must be 16 or over and have a driving licence. Using a phone, driving under the influence of alcohol, and other risks, are not allowed, as for other motor vehicles.


### *United States*

Rules in the United States vary by state. Motorized scooters are often not street legal, as they cannot be tagged, titled, insured, and do not meet federal requirements for lights or mirrors. Particular localities may have further ordinances that limit the use of motorized scooters. The top speed of the average motorized scooter is around 20 miles per hour (32 km/h). Due to their small wheels, motorized scooters are not typically safe for street use as even the smallest bumps can cause an accident.

California, for example, requires that a person riding a motorized scooter on a street be 16 years of age or older, have a valid driver's license, be wearing a bicycle helmet, have no passengers, and otherwise follow the same rules of the road the same as cars do. The motorized scooter must have brakes, may not have handlebars raised above the operator's shoulders, and if ridden at night must have a headlight, a taillight, and side reflectors. A motorized scooter may not be operated on sidewalks or on streets if the posted speed limit is over 25 miles per hour (40 km/h) unless in a Class II bicycle lane.

### E-scooter regulation in some Australian states and territories

*The information below has been taken from an article written by Rebecca MacFarlane titled 'Are E-Scooters Legal in Australia? Understanding E-Scooter Laws in Your Area.' The article was published by Insider Guides: International Student Resources on November 15, 2022.*

*The full text can be accessed by clicking here . . . *

#### *Australian Capital Territory*

It is legal to ride both commercial and privately owned e-scooters, provided you abide by all the relevant laws.

Riders must always give way to pedestrians. One rider at a time per e-scooter. You must not ride on roads or in on-road bike lanes, except on residential streets where there is no footpath.

You must not be under the influence of alcohol or drugs while operating an e-scooter. Helmets are required.

#### *New South Wales*

In NSW, only shared e-scooters hired through approved e-scooter providers can be ridden on roads or related areas, such as shared paths. Privately owned e-scooters are not permitted on NSW roads or related areas.

In general, you must be at least 16 years of age to ride; however, some providers have a minimum age requirement of 18 years old. E-scooters in NSW must only be ridden on roads, shared paths and related areas with a speed limit of up to 50km/h. When riding on a road, bike lane or bike path, you must stay under 20km/h. When riding on a shared path, you must stay below 10km/h. Your blood alcohol content (BAC) level must be 0.05 or less when operating an e-scooter.

#### *Northern Territory*

Private e-scooters are prohibited for use in public areas; you can only operate commercial e-scooters provided by Neuron Mobility.

You must be at least 18 years of age. You must not exceed a speed of 15km/h. Helmets are required. Keep to the left and give way to pedestrians.

#### *Queensland*

It is legal to ride personal mobility devices (including privately owned e-scooters) in public if they meet certain criteria. For example, your personal mobility device must be designed for use by only one person at a time, be a maximum of 60kg (when not carrying a person) and have one or more wheels.

You must keep left and give way to pedestrians. You must be at least 16 years old. Stay below the maximum speeds for each area: footpaths and shared paths (12km/h max); separated paths and bike paths (25km/h max); bike lanes and roads with speed limits of 50km/h or less (25km/h).

#### *South Australia*

Motorised wheeled recreational devices are prohibited in public areas; in approved e-scooter trial areas, you can rent commercial e-scooters through providers like Beam and Neuron. Privately owned e-scooters can only be used on private property.

You must be a minimum of 18 years old to ride. You are required to wear an approved helmet. You cannot

ride in bike lanes or bus lanes. Riders cannot use a mobile phone or other mobile devices when operating e-scooters.

### *Tasmania*

E-scooters that meet the criteria of personal mobility devices (PMDs) can be used in public spaces such as footpaths, shared paths, bike paths and local roads with speed limits of 50km/h or less. Many types of privately owned e-scooters don't meet the relevant requirements and therefore can only be used on private property.

PMDs (including e-scooters) can only be used at night if it has a white light visible from the front, a red light that is visible from the rear and a red reflector visible from the rear. You must not use a mobile phone while operating an e-scooter. You must not be under the influence of drugs or alcohol when operating e-scooters.

### *Victoria*

You are not allowed to ride privately owned electric scooters in public; you are only permitted to ride commercial e-scooters in certain areas. You must not ride e-scooters on footpaths. You must be a minimum of 18 years old. You must not carry passengers (one person per scooter). Wear a bike helmet. Your BAC level must be 0.05 or less when operating an e-scooter.

### *Western Australia*

Privately owned e-scooters (known as eRideables) can legally be used in public. The e-scooter laws in WA changed in December 2021; previously, you could only use these devices on private property. Only one person per device. You must wear a helmet at all times when operating eRideables. You must be at least 16 years old. You must not exceed 10km/h on footpaths or 25km/h on bike paths, shared paths, or local roads. You cannot operate them on roads with speed limits over 50km/h.

## **Internet information**

On January 5, 2023, In Daily published a report titled 'Call for consistent e-scooter laws' which details a group of researchers condemning bans on privately owner e-scooters as 'head-in-the-sand stuff' and calling on the devices to be legalised and properly regulated.

The full text can be accessed at [🔗](#)

On January 3, 2023, The Age published a report titled 'E-scooter trial rolls on despite fears from the footpath' which announced the decision of the Victorian government and relevant councils to extend the state's hire e-scooter trial by a further three months. The article includes argument for and against the trial.

The full text can be accessed at [🔗](#)

On November 22, 2022, the University of New South Wales published an article by Ben Knight titled 'E-scooters could make cities better, so why are we still outlawing them?'. The article considers both the advantages to e-scooters and what needs to be done to make their use feasible.

The full text can be accessed at [🔗](#)

On November 21, 2022, Australian Rural and Regional News published a report titled 'Lake Macquarie welcomes e-scooter trial' which outlines the advantages that supporters of the trial believe it will bring to the area.

He full text can be accessed at [🔗](#)

On November 3, 2022, Stacks published a comment titled 'Electric scooters a legal grey area as trial conducted in NSW'. The article examines the areas uncovered under law by the conditions currently operating in New South Wales.

The full text can be accessed at [🔗](#)

On October 31, 2022, Electrek published an article titled 'Scientific study shows how traffic increases when e-bikes and e-scooters are banned'. The report details data generated in Atlanta ben a 9pm to 4pm curfew was imposed on the use of e-scooters and e-bikes.

The full text can be accessed at [🔗](#)

On October 25, 2022, Zag Daily published a report by Ben Hubbard titled 'New study concludes e-scooters and e-bikes can reduce CO2 emissions'

The report details the findings of a study by the Fraunhofer Institute for Systems and Innovation Research (Fraunhofer ISI) on behalf of e-scooter manufacturer Lime that has concluded that shared e-scooters and e-bikes can reduce greenhouse gas emissions in cities.

The full text can be accessed at [🔗](#)

On October 22, 2022, The Cairns Post published a news report titled 'Cairns e-scooter debate sparks outcry amid changing laws'. The article outlines the debate over recent changes making e-scooter laws in Queensland more rigorous.

The full text can be accessed at [🔗](#)

On October 4, 2022, The Latch published an article by Jack Revell titled 'E-Scooters: Public Menace or Environmental Saviour? The article compares the potential advantages of e-scooters with the growing public safety risks that they present.

The full text can be accessed at [🔗](#)

On September 10, 2022, The Herald Sun published a series of vox pops giving the opinion of people from a variety of different areas in Victoria on the value of e-scooters and whether they should be legalised.

The full text can be accessed at [🔗](#)

On June 22, 2022, Electric Kicks published data on the relative costs of buying and maintaining a car and an e-scooter over a four year period. The Article is titled 'Is Buying an Electric Scooter A Better Idea Than Buying a Car?'

The full text can be accessed at [🔗](#)

On May 12, 2022, The Fifth Estate published an article by Andrew Sadauskas titled 'Australia's terrible urban streets and why we build them'. Sadauskas compares Australian suburban streets with those in the Netherlands and Holland and suggests ways in which improvements could be made to make them more pedestrian-, bike- and e-scooter-friendly.

The full text can be accessed at [🔗](#)

On May 25, 2022, The Fifth Estate published an article by Andrew Sadauskas titled 'Want more cycling, e-bikes and scooters? It's time to start asking the right questions'. Sadauskas argues that Australia's transport issues will not be adequately addressed while politicians and city planners remain car-centric rather than commuter-centric.

The full text of the article can be accessed at [🔗](#)

On May 11, 2022, the British automobile magazine Autocar published an opinion piece by James Attwood titled 'There are real benefits to legalising e-scooters'. Attwood compares opposition to the e-scooters with early opposition to motorcars and argues that properly regulated they offer more advantages than risk.

The full text can be accessed at [🔗](#)

On March 21, 2022, Science Daily published a report explaining some of the hazards associated with e-scooters and how these could be studied to help reduce the risks.

The full text can be accessed at [🔗](#)

On February 27, 2022, The Brisbane Times published an opinion piece by author and journalist Sue Williams titled 'Back off nanny, legalising e-scooters will kill the buzz'. Williams supports the use of e-scooters but argues that legalising them would lead to over-regulation and destroy the pleasure of many riders.

The full text can be accessed at [🔗](#)

On February 10, 2022, The Age published an article titled 'Battle for footpaths drives increase in injuries linked to e-scooters' which details some of the deaths and injuries which have occurred since the introduction of e-scooter trials in Australia.

The full text can be accessed at [🔗](#)

On September 27, 2021, Zag Daily published an article titled 'An infrastructure that is usable for e-scooters is crucial to improve safety' which outlines some of the infrastructure requirements necessary if e-scooter accidents and fatalities are to be avoided.

The full text can be accessed at [🔗](#)

In September 2020, Science Direct published the results survey conducted among Arizona State University (ASU) staff in Tempe, Arizona. The article is titled 'To scoot or not to scoot: Findings from a recent survey about the benefits and barriers of using E-scooters for riders and non-riders' and outlines what those surveyed saw as the advantages and disadvantages of e-scooting.

The full text can be accessed at [🔗](#)

In February 2020, Science Direct published an article titled 'Integrating e-scooters in urban transportation: Problems, policies, and the prospect of system change' The article examines some of the major problems associated with the introduction of e-scooters and suggests some of the infrastructure changes needed to overcome these.

The full text can be accessed at [🔗](#)

On December 14, 2019, The Globe and Mail published an article titled 'Do e-scooters actually reduce traffic congestion in cities?' The article argues that depending on the previous mode of transport of e-scooter users, the micromobility vehicles do not necessarily reduce traffic congestion.

The full text can be accessed at [🔗](#)

On November 1, 2019, You Matter published a report titled 'Sustainable Mobility: Are Electric Scooters Eco-Friendly?' which argues that the ecological advantages of e-scooters have been exaggerated.

The full text can be accessed at [🔗](#)

## **Arguments in favour of legalising e-scooters in Australia**

### **1. Legalising e-scooters will allow Australia to reduce the pollution generated by private transport**

Those who favour the legalisation of e-scooters and their increased use claim that these vehicles will allow Australia to reduce the pollution caused by private vehicles in terms of both greenhouse gas emissions and particulate matter.

On June 16, 2022, Australia lodged a new greenhouse gas emissions target with the United Nations Framework Convention on Climate Change (UNFCCC) secretariat. Australia committed to reducing its emissions by 43 percent from 2005 levels. This target is to be reached within the next seven years, by 2030. Australia also reaffirmed its commitment to have achieved zero greenhouse gas emissions by 2050.

[🔗](#) These are demanding targets; however, some scientists note that the problem of global warming is so severe that the reduction targets of the world ((including Australia) should be even more rigorous. This means Australia needs to employ all feasible measures to reduce its emission levels.

A significant proportion of Australia's greenhouse gas emissions comes from private vehicle use. The Australian Federal Government's Green Vehicle Guide notes, 'Light vehicles account for around 11 percent of Australia's greenhouse gas emissions.' These are primarily composed of carbon dioxide, with some nitrous oxide and methane. [🔗](#)

A new study by the Fraunhofer Institute for Systems and Innovation Research (Fraunhofer ISI) on behalf of the multinational e-vehicle hire company Lime has concluded that the shared operators e-scooters and e-bikes can significantly reduce greenhouse gas emissions in cities.

Fraunhofer researchers evaluated survey data from Lime riders in six cities - Berlin, Dusseldorf, Paris, Stockholm, Melbourne, and Seattle. The team compared lifecycle emissions from trips on Lime's Gen-4 e-scooters and e-bikes to the lifecycle emissions of the mode of transport that people would have otherwise used.

The largest effects for shared e-scooters were in Melbourne. This is mainly due to the higher CO<sub>2</sub> intensity of the coal-fire produced electricity used to power public transport and electric cars in Victoria. Riders in Melbourne saved around 42.4 grams of CO<sub>2</sub> per kilometre compared to the means of transport that would otherwise have been used, while Seattle saved around 37.7 grams per kilometre. The researchers also calculated savings of 22.1 grams of CO<sub>2</sub> per kilometre in Dusseldorf, 20.7 grams for both Paris and Stockholm, and 14.8 grams in Berlin. [↗](#) One of the reasons for the e-scooters high level of success in reducing emissions is that the e-scooters used in these trials are solar-powered. [↗](#) The dramatic reductions shown in carbon dioxide emissions in these six cities demonstrates the extent to which e-scooters and similar vehicles could help reduce Australia's greenhouse gas emissions.

Particulate matter pollution is another major problem associated with conventional petrol-fueled motor vehicles. This exhaust or tailpipe pollution is typically composed of carbon-based solids and heavy hydrocarbons derived from the fuel and lubricating oil. In cases where the fuel contains significant sulfur, hydrated sulfuric acid can also be a major component. It includes small solid primary soot particles of diameters below 40 nm as well particles consisting almost entirely of condensed liquid. [↗](#)

Studies around the world have shown that particulate matter pollution causes increased disease and death among human populations. Those living in or near areas with high levels of particulate matter pollution suffer ill effects. Some studies have shown a significant association between traffic-related air pollution and premature death. Other studies have shown increased risk of respiratory and cardiovascular disease associated with close proximity to traffic pollution. [↗](#)

Studies in Paris have shown e-scooters' capacity to reduce particulate matter pollution. Parisians' use of Lime e-scooters instead of motor vehicles resulted in a significant reduction in particulate matter pollution. Projections indicate that by 2030, the increasing adoption of e-scooters could prevent 300 kg of local particulate pollution annually. [↗](#)

## 2. Legalising e-scooters will allow Australia to reduce road congestion

Those who favour the legalisation of e-scooters and their increased use claim that these vehicles significantly reduce traffic congestion and improve transit times.

Advocates of the legal use of e-scooters claim that they have a substantial capacity to take cars off the road and encourage the complementary use of public transport.

Traffic congestion has been identified as a major issue across Australian cities. Between 2013 and 2018, the Australian Automobile Association (AAA) conducted a study of road use and travel times in major cities. It found, 'Road performance across Australia is deteriorating. Average speed and reliability have declined, and congestion is growing worse.' Examining the situation in particular cities it noted that Melbourne has had the largest decline in average speeds - a fall of 8.1 percent over the 5.5-year reference period. Melbourne's annual rate of reduction in speed is more than twice that of Sydney. Brisbane had the second-largest decline in speed - 3.6 percent since 2013. While Sydney was close behind with a 3.5 percent decline. Only Darwin achieved speed improvements, increasing by about 5.1 percent. [↗](#)

There are a number of ways in which it has been claimed that e-scooters and other micromobility devices can get cars off the roads and so reduce congestion. The Royal Automobile Club Tasmania (RACT) has explained one of the main ways in which e-scooters help to reduce car use. They state, 'PMDs (personal mobility devices) can help to reduce congestion by allowing people to ride [on a PMD] to public transport or to work, at distances where they wouldn't normally walk or cycle.' [↗](#)

The online retailer of electric bikes, scooters, and skateboards, Jetscooters, promotes its e-scooters by stressing their capacity to speed trips and avoid congestion. It states, 'One of the major concerns in highly dense cities is traffic. According to McCrindle Research, commuters in Sydney spend 71 minutes travelling on average, making it one of the longest commute times in Australia. Electric scooters help cut down your travel time by allowing you to bypass traffic and arrive at your destination faster.

Electric scooters for commuting also help you go through narrow or alternative routes, which help you cut time travelling... you avoid road congestion and cut down your commute time.' [↗](#)

There has been an Atlanta study that, rather than focusing on the improved arrival times for those using micromobility devices, has measured the time added to car drivers' commutes when e-scooters are removed, using this as a measure of increased congestion.

In 2019 Atlanta restricted its citizens access to e-scooters, prohibiting their use between 9pm and 4am. The Georgia Institute of Technology conducted a study comparing the effect on traffic congestion and

commute times created by this ban. The researchers found the e-scooter curfew caused drivers to spend an extra 10-11 percent more time in traffic than if the scooter ban had not been in place, adding 2 to 5 minutes per trip on average for all impacted drivers. They estimated that this translated to between 325,000 and 780,000 additional hours of travel for Atlanta drivers per year. The impacts were even more pronounced on days with major sporting events. When the Atlanta United soccer team played, drivers spent an additional 37 percent more time in traffic than if the city had not implemented a scooter curfew.



The study's authors estimated that this increased time spent in travel had a negative impact on the city's economy, particularly in terms of reducing retail spending. The authors of the study noted, 'Although a 2- to 5-minute delay for evening commuting and a 12-minute delay for special events could appear to be a minor inconvenience, the cost of additional time in traffic quickly adds up when aggregated across large commuter populations.' The economic impact on the city of Atlanta was calculated at US \$4.9M. The study estimated this impact on the national level could be in the range of US \$408M to \$573M.

### 3. Legalising e-scooters will provide a cheaper, convenient option for Australian commuters

Those who support the legalisation of e-scooter use, both for individual owners and hired e-scooter riders, argue that they offer commuters a high degree of convenience at an affordable price.

The convenience of e-scooters is one of their most noted features. This is generally attributed to their portability and their maneuverability in different traffic settings. E-scooter manufacturer Mearth has noted in one of their promotions 'One major reason that commuters prefer riding commuter electric scooters is their convenience. E-scooters offer a compact, lightweight, and foldable ride that is smaller and slimmer than a motorcycle...

As a result, these micro-mobility devices make great rides in traffic-prone areas. Riders can bypass traffic easily because of their small size...

[Additionally,] their portability makes them convenient to bring anywhere or store in small spaces. Riders can fold their e-scooter and bring it inside buses and subways if allowed. E-scooters are also small enough to fit under office desks or large lockers, making them easy to store. Overall, their portability makes them a convenient ride, especially for those who are looking for a short-range ride to and from work.' United States e-scooter manufacturer, Razor, makes similar claims, noting, 'You can pack up a scooter and take it anywhere. Whether you're cruising around town or taking it with you on a trip to somewhere new, it's compact enough to be an alternative mode of transportation at home or away... There's a lot to be said about the convenience of having something so slim and speedy available to you at all times. It makes getting to and from places a whole lot easier.'

A 2020 survey conducted among Arizona State University (ASU) staff in Tempe, Arizona, identified the main reasons why a majority of riders valued them. The study authors noted, 'E-scooters are popular among men and women of a variety of ages and races/ethnicities. E-scooters are primarily valued for their convenience and the ability to get somewhere faster than walking while not having to drive...' Another study conducted in the United States made similar findings. The Portland survey showed most e-scooter riders valued e-scooters as a convenient mode of day-to-day transportation. Most users were locals rather than tourists and most claimed they used their scooters 'to get to work, school, or a work-related meeting.'



E-scooters are also favoured for their affordability. Numerous studies have been done to show the savings to be derived from buying an e-scooter rather than a car. One published by Electro Kicks on June 22, 2022, found that over a four-year period the purchase and running costs of a mid-range car compared to a e-scooter were \$95,892 for the car compared to \$8,500 for the e-scooter. Increasing petrol prices worldwide are making e-scooters progressively more attractive. A news report published by the ABC on April 8, 2022, reported that an increasing number of Victorians are taking to riding e-scooters as petrol prices remain high across Australia. For example, in Ballarat, trips increased by close to 30 per cent for weekday trips across the first three weeks of March, as fuel prices climbed around 23 percent in Victoria.

Hire e-scooters provide an even cheaper alternative as they do not require riders to meet the initial expense of buying the scooter outright or taking out a loan. In the United States many cities have legalised hire e-scooters primarily so that they could provide an affordable means of transport for their more impoverished communities. Numerous areas are trying to make it easier for their poorer residents to access these vehicles. For example, Washington, D.C., is making policies to promote dockless transportation in low-income areas. The city has made it possible to check out a scooter using pre-loaded



cash instead of a credit card or unlock them using a text message rather than scanning a code with a smartphone. While Los Angeles has capped the number of scooters in most areas, it allows more in disadvantaged neighborhoods. Further, several cities require discounted rates for people on public assistance. The scooters typically cost \$US1 to unlock and 15 cents per minute to use. Lime cuts that in half and Bird waives the \$US1 fee. [↗](#)

#### 4. Increased, legalised use of e-scooters will force governments and councils to improve micromobility infrastructure

Those who support the legalisation of e-scooter use, both for individual owners and hired e-scooter riders, argue that this will lead to improved infrastructure for e-scooters, e-bikes and conventional bikes. They claim that growing numbers of legal users of these devices will pressure governments and councils to supply the correct infrastructure to use their vehicles safely.

In February 2022, the Micro Mobility Report stated that industry feedback suggests more than 250,000 electric scooters and personal mobility devices had been sold and were being used throughout Australia, irrespective of whether States had legalised their public use. [↗](#) With legalisation, two things are likely to occur: e-scooter numbers will continue to increase rapidly and the pressure their owners will be able to put on governments as a consumer group will also become greater.

Currently many e-scooter advocacy groups are focusing their attention on having their devices legalised. Electric Riders South Australia state on their site, 'Our primary goal is the legalisation of personal mobility devices in South Australia...[conducting] advocacy to all levels of government.' [↗](#) The Northern Territory group has the same objective within its jurisdiction, while the Victorian group is calling on its members to sign a petition to the premier and leader of the opposition to have e-scooters legalised. [↗](#) However, in Tasmania, where e-scooters are legal, the micromobility advocacy group is demanding that governments and councils 'promote awareness and increase infrastructure investment for micro-mobility.' [↗](#)

Atlanta Georgia shows the power of legal e-scooter riders as an advocacy group. In 2019, after previously making e-scooters legal, the city banned them between 9pm and 4am. Low paid shift workers who had formerly been able to use hired e-scooters complained that the increased cost of getting home from work was seriously affecting them. E-scooter owners launched dramatic protests, highlighting the far greater danger posed by cars. They demanded transportation infrastructure improvements to make streets safer for all. Activists called for 'complete streets' upgrades-sacrificing car lanes to make way for Light Individual Transportation (LIT) lanes and wider sidewalks. They also wanted reduced speed limits to 25 miles per hour, to make all roads safer and to make them friendlier for micromobility vehicles. Atlanta's mayor issued an executive order for 'an accelerated plan for changes to our streets, creating safer, dedicated spaces for cyclists and scooter riders.' [↗](#) The initial stage of the plan called for temporary adjustments to the streetscapes to make them safer for micromobility vehicles. By 2021, Atlanta was implementing and testing temporary protected infrastructure along the city's busy 10th Street corridor. 87 percent of cyclists and 83 per cent of scooter riders said they felt safer during the popup, leading to a 58 percent increase in bike and scooter rides. [↗](#) Atlanta demonstrates that when e-scooters are legalised their riders acquire a stronger political voice, resulting in infrastructure improvements which increase rider numbers and so further increase their power as a lobby group to influence governments and councils.

A similar pattern is emerging in Queensland, the first state in Australia to legalise e-scooters. Queensland allows e-scooters to be ridden on footpaths at restricted speeds but denies them access to bike paths. There has been citizen pressure to review this. Lagging infrastructure has been singled out as a key problem with calls for a state government to allow e-scooters on bike lanes. Currently, as part of a 12-month separated cycle lane trial along Elizabeth, Edward and William streets in the CBD, along with Grey Street in South Bank via the Victoria Bridge, e-scooters have been able to use some of the key road routes. Almost 100,000 trips have been recorded on the so-called CityLink Cycleways since its staggered rollout. Three-quarters of the 635 responses to a survey around the trial believed the inclusion of e-scooters improved pedestrian safety. [↗](#) These developments show the power of legal e-scooter riders as a pressure group prompting infrastructure development.

#### 5. Increased, legalised use of e-scooters will prompt better regulation and the greater availability of improved e-scooter models

Those who support the legalisation of e-scooter use, both for individual owners and hired e-scooters,

argue that this will lead to improved regulation of the scooters' construction and use and better regulation of them, especially regarding insurance for those who suffer injuries.

Hussein Dia, a professor of future urban mobility at Swinburne University, has claimed that legalising private ownership might make enforcing uniform limits on e-scooter speeds and powers easier. [↗](#)

Currently, in states such as Victoria where riding a privately owned e-scooter off private property is illegal, on-road users know they are operating outside the law.

Their e-scooters are likely to be imported from overseas suppliers. These e-scooters are completely unregulated and are often able to travel at very high speeds. Victoria Police Acting Inspector Darren Kenos has stated, 'We're hearing reports of e-scooters being able to travel at 110kph now, and that's frightening when you think about that speed and the nature of these scooters.' The illegality of these e-scooters means their owners will actively avoid their vehicles being inspected for speed and safety.

Acting Inspector Kenos stated, 'Effectively, a privately owned scooter is an unregistered motor vehicle, so [if] they're caught, they can cop a fine for an unregistered motor vehicle, as well as for being unlicensed.'

[↗](#) The fine is about \$1,000 and there is the likelihood that their expensive e-scooter will be impounded.

Supporters of privately owned e-scooters being legalised argue that this would allow them to be registered and their performance features monitored in the same way as cars are.

A further issue that may be addressed if e-scooters were legalised is the question of injury compensation.

Currently the insurance available to those using share e-scooters is limited and is available through the rider's contractual arrangement with the hire company. The only redress of those injured by an illegally ridden privately owned e-scooter is to sue the rider. Critics argue that where councils and state governments legally allow e-scooters to be hired, they assume at least some of the legal liability in the event of injury. Mark Giancaspro, Lecturer in Law, University of Adelaide and David Brown, Co-Director, Bankruptcy and Insolvency Scholarship Unit, University of Adelaide have stated, 'State and local governments have a duty to consider and protect all members of the community when they allow and control e-scooter trials.' [↗](#) If e-scooters were fully legalised, the relevant governments would be obliged to ensure proper insurance provisions were in place.

It has also been argued that legalising e-scooters would encourage improvements in the models available.

While e-scooter use in Australia is focused on trials of the hire model with its current limited one-size fits all approach, the type of scooter made available to riders is reduced. This restricts their utility and safety.

The limitations of this kind of e-scooter were explained in an article published in Fast Company on October 27, 2020. The writers stated, 'The shared electric scooters in service today require the rider to stand. This creates a number of...problems. First, the ergonomics of the standing posture puts the rider's center of gravity in a precarious position. Without much ability to bend their knees or widen their stance, any disruption to the scooter's forward motion—from a crack in the sidewalk to the need to brake quickly—threatens to spill the rider from the scooter and send them to the emergency room.' [↗](#) Another key limitation is restricted or no stowage for bags and other personal items.

Fast Company note that e-scooter designs already exist that address these problems. 'A more successful one-size-fits-most electric scooter features much larger wheelbases and a seated position. A vehicle with bigger wheels and a seated rider is far more resilient against uneven surfaces and sudden stops... [also available is] a basket on the back that isn't a garbage trap, and a locking hook for bags located under the vehicle seat. These features account for the everyday reality that people carry bags but don't compromise the rider's balance.' There are also models without a seat that feature a wider base and wheels for improved balance. [↗](#)

The readiness of e-scooter share companies to invest in a more stable and diverse range of models will depend on their customer base and profitability. In the e-scooter-sharing segment of the market in Australia, the number of users is expected to amount to 3.8m users by 2027. The average revenue per user is expected to amount to AU\$33. [↗](#) Such projections are based on the expectation that e-scooter hire becomes or remains legal across Australia. If e-scooter companies are not given that assurance, there is no reason for them to upgrade their hire stock.

## Arguments against legalising e-scooters in Australia

### 1. E-scooters are not environmentally friendly

Those who oppose Australia legalising e-scooters and so encouraging their wider use argue that these scooters do not offer the environmental benefits often claimed for them. In fact, it is argued, they may be no better, if not worse, than the cars they are partially replacing.

Studies have shown that e-scooters are not the environmental boon they are often claimed to be.

According to under-graduate research conducted for the North Carolina State University Department of Civil, Construction, and Environmental Engineering Research and published on August 2, 2019, the environmental benefits of e-scooters are currently over-stated. The researchers found that scooters emit about 202 g of CO<sub>2</sub> per km and per passenger over their entire life cycle. This is about as much as a conventional car and 3.5 times more than an electric car. [↗](#) The problem with e-scooters in terms of their environmental burden lies primarily in the ecological impact of their manufacture and the recycling of their component parts, together with the current inefficiency of recharging their batteries. The researchers stated, 'The manufacturing phase is quite heavy: it is necessary to build a battery for each scooter that then only allows for the transportation of one person. Ultimately, 50 percent of the carbon impact is linked to the vehicle's production.' [↗](#) The next issue is battery recharging. The study showed, 'The second biggest problem is charging electric scooters. Indeed, they must be collected and moved to be recharged, and that means using trucks that emit CO<sub>2</sub>. This weighs heavily on the balance sheet: 43% of greenhouse gas emissions are linked to recharging.' [↗](#) The final concern is how the e-scooter is disposed of when it is no longer rideable. Recycling is important because electric scooters are made of rare and potentially polluting materials. It is, therefore, necessary to reprocess their batteries (and the vehicle cell itself). This is also energy expensive. [↗](#)

Part of what makes the manufacture and recycling of e-scooters so environmentally burdensome is that these vehicles do not last as long as a conventional or electric cars. On average, e-scooters in a ride-share fleet last for 9 to 18 months, while personal ones last for up to three years. The efficiency of a personal e-scooter reduces after the first two years. [↗](#) This is about four times less than the life span of the average petrol-fueled car. According to Consumer Reports, the average lifespan of today's cars is about eight years or 240,000 kilometres. That's shorter, however than many well-built cars that are properly maintained. [↗](#) E-vehicles are estimated to last for as long as conventional vehicles. [↗](#) This makes the heavy environmental impact of the e-scooters' component parts, especially their batteries, more significant. Another factor that needs to be considered is that e-scooters are not all-purpose vehicles. They offer no protection from the weather, limited storage capacity and will carry only one passenger. The speed of an e-scooter depends on the brand, model, and purpose of the e-scooter. Average commuter electric scooters can reach from 25 kph to 40 kph. Meanwhile, high-speed electric scooters can go up to 80 kph. A few electric scooters in the market can go over 100 kph. [↗](#) However, the speed of the scooter is affected by the terrain, the weight of the rider and the capacity of the battery. [↗](#) For these reasons, for many users, e-scooters are supplementary transportation, used for short trips in built-up areas. From an environmental perspective this means that e-scooters are unlikely to replace cars for most users and that most e-scooter riders will also own a car. The environmental impact of the manufacture of the scooter is therefore an additional burden to that involved in the manufacture of the rider's car.

Finally, the large environmental advantage e-scooters offer is that they contribute no greenhouse gas emissions to the atmosphere while being ridden; however, in states such as Victoria, where no more than 50 percent of electricity is generated from renewable energy, then the electricity used to charge the e-scooter's battery becomes an additional burden. [↗](#)

## 2. E-scooters are dangerous and are not well-suited to current urban environments

Those who oppose Australia legalising e-scooters and so encouraging their wider use argue that these scooters are a hazard and unsuited to the urban environments where they are usually ridden.

Opponents of the e-scooters note that they are dangerous whether ridden on footpaths or on roadways. Dr Lee Roberts, an urban planner and active transport researcher at UNSW City Futures Research Centre, has noted that our current cityscapes do not allow for micro-mobility transport such as bikes and e-scooters to be ridden without risk. Dr Roberts has stated, 'In a place like greater Sydney, the infrastructure has lagged behind the innovations in technology. There are only so many places where you can ride a bike and feel completely comfortable and safe.' The same claims have been made with regard to e-scooters. [↗](#)

Referring to the risks in Melbourne, the Alfred Hospital's acting director of trauma services, Joseph Mathew, has stated, 'Our spaces at the moment are not designed to share a new transport modality.' The increased use of e-scooters is resulting in dramatic rises in injuries in Australia and around the world. Research by Monash University's Victorian Injury Surveillance Unit recorded 124 visits to emergency departments for electric scooter related injuries in the year to July 1, 2021, a 359 per cent increase on the previous year. [↗](#) On August 26, 2022, The Herald Sun reported, 'E-scooter and e-bike-related admissions to the state's trauma centre have doubled from 24 in 2020-21 to 49 in 2021-22, while the number of

people needing intensive care almost quadrupled over that same period.' [↗](#) Similar patterns of spiraling injuries have been observed in other countries. In the United Kingdom, more than 1,000 people were injured in e-scooter accidents in 2021, including over 300 who were seriously injured. In 2020, there had been less than 60 injuries and less than 15 serious injuries involving e-scooters. [↗](#)

In September 2022, three Australian e-scooter riders were killed in accidents, doubling the number of fatalities since 2018, when the first rental scheme was rolled out in Queensland. Moustafa Abou-Eid, 28, lost control of a scooter on a speed hump in Pascoe Vale in Melbourne on 22 September, 19-year-old Laura Wallace died when the scooter she was riding collided with a car in Canberra on 26 September, and a 37-year-old man died on 29 September after losing control of his scooter on a Brisbane street. [↗](#)

Referring to the risks posed when these scooters are ridden on footpaths, Sydney lord mayor Clover Moore has stated, 'The data from emergency departments both nationally and internationally on e-scooter injuries is sobering. The risks, not just for riders but for pedestrians, especially people with disability and the elderly, are obvious.' [↗](#) Vision Australia has warned that those who are blind or have low vision are especially at risk, with a new survey revealing 50 percent of vision impaired people have been involved in an accident or near-miss with an e-scooter. Chris Edwards, Vision Australia's manager of government relations and advocacy, has stated, 'Imagine how frightening it is knowing this could knock you over at any time you're walking down the street.' Of the 120 people who completed the survey, 82 percent said they did not feel safe walking on footpaths and about 40 per use now use footpaths less often. [↗](#)

E-scooters on footpaths pose a particular hazard to vulnerable pedestrians. On roads, however, e-scooters place their riders at greater risk. Factors such as the speed differences between e-scooters and motorised vehicles, the vulnerability of e-scooters (e.g., a lack of a protective vehicle body) and e-scooter riders being less visible to motorists increase the possibility of collisions in which riders will be severely hurt. [↗](#) Critics argue that e-scooters are safe neither on most roads (as they are currently configured), nor on footpaths. A recent UCLA study found that the injuries associated with e-scooters were more frequent than those associated with other forms of motorized transportation. Researchers studied over 1,300 e-scooter-related accidents involving riders and pedestrians occurring between 2014 and 2020. They determined that e-scooters caused 115 injuries per million trips. For comparison, the national injury rate for cars is eight injuries per million trips. The injury rate for bicycles is 15 per million trips, and the injury rate for motorcycles is 104 injuries per million trips. [↗](#)

### 3. E-scooters may not significantly reduce congestion

Those who oppose Australia legalising e-scooters and so encouraging their wider use argue that these scooters may not be the solution to traffic congestion that some claim.

Critics of the legalisation of e-scooters and of their increased use argue that their capacity to reduce congestion has been exaggerated. They further claim that where e-scooter use does reduce road congestion it increases the hazards to which riders are exposed.

The extent to which e-scooters reduce road traffic congestion depends on the quality of the transport services already available to commuters. In cities already well serviced with footpaths, public transport, bike lanes and bike paths, all that is likely to happen if e-scooter use becomes popular is that commuters will swap one low-congestion form of transport for another. When Paris Lime users were asked in a survey how they would have made their trips if they had not had a scooter, 47 percent said they would have walked, 29 percent would have used public transport, 9 percent would have biked and only 8 percent would have used a car. [↗](#) The areas where e-scooter use is likely to reduce car use and so road congestion are those where other low-congestion transport options are not readily available. Unfortunately, these are also likely to be areas where e-scooter use is unsafe because there is no specifically designed infrastructure.

It has also been noted that while e-scooters might reduce congestion on roads, they are currently increasing it on footpaths and in other public spaces given over to pedestrians.

United States research has noted that the proliferation of e-scooters immediately generated spatial conflicts on streets and sidewalks. News articles and social media postings highlighted concerns over e-scooters and where and how they were parked. During the first e-scooter pilot in Portland, Oregon, in 2019, 14 percent of the complaints mentioned misplaced scooters. 76 percent of e-scooters observed failed at least one of the Portland's parking compliance requirements and 59 percent failed at least two. [↗](#) For example, Portland required that e-scooters not be parked near disabled parking places, alleyways, crosswalks, fire hydrants or taxi loading

zones. [↗](#)

The misparking or dumping of e-scooters is claimed to be a particular problem when the scooters are hire vehicles. The various expediencies the companies adopt to ensure the scooters are parked appropriately are claimed to be ineffective. Clive Hamilton, a Canberra-born environmentalist and a professor of public ethics at Charles Sturt University, has complained, 'Unlike privately owned scooters, rented e-scooters can be seen parked on roads, on median strips and across cycle lanes. One was seen abandoned on the footpath over Commonwealth Avenue Bridge, a path crowded enough on weekends already.' [↗](#) The hazards created by blocked walkways has also been raised by the pedestrians' lobby group, Victoria Walks. The group have noted, 'Pedestrians who are forced to veer off the overcrowded footpaths are at serious risk of being injured by oncoming cyclists and motorists. Obstruction of the footpaths also creates particular problems for parents with prams and those who rely on mobility aides.' [↗](#) This issue has been raised by the Queensland Transport and Main Roads Minister, Mark Bailey, who has complained, 'Too often I see them left in locations blocking paths which creates significant problems for people walking - especially those with limited mobility.' [↗](#)

It has been claimed that the misparking or dumping of e-scooters poses particular hazards for those who are vision impaired. The problem of poorly parked e-scooters has been noted in Canberra. Kendra Wells, Vision Australia Canberra's regional client services manager, has warned, 'I've seen them in front of ramps, in front of stairs and around corners so people can't see them. They're not actually easy to move then when they're stopped.' [↗](#) A survey conducted by Vision Australia found that 61 percent of respondents had 'encountered a trip hazard by a vehicle being left on the footpath.' [↗](#)

#### 4. There should be appropriate infrastructure before e-scooters are legalised

In February 2022, industry feedback suggested more than 250,000 e-scooters and personal mobility devices had been sold and were being used throughout Australia. The industry predicted that the number of privately owned vehicles would continue to grow at record rates with legalisation likely to lift this beyond the anticipated 100,000 sales a year. [↗](#)

Those who oppose Australia immediately legalising e-scooters and so encouraging their wider use argue that there should be major infrastructure modifications before legalisation. In August 2021, the International Transport Forum (ITF) - an intergovernmental organisation that acts as a think tank for transport policy - recommended that safe use of e-scooters required the immediate installation of appropriate infrastructure.

ITF analyst Pierpaolo Cazzola stated, 'An infrastructure that is usable for e-scooters is crucial to improve safety. This has different characteristics compared to a road considered for a car. The road network currently in place in most cities is not conceived for these types of vehicles. It will be important to adapt it.' [↗](#) Such infrastructure adaptation includes the establishment of parallel transport systems such as the extension of existing bike lanes which could be used by all forms of micromobility. Another ITF analyst Alexandre Santacreu explained, 'Best practice from cycling countries like the Netherlands and Denmark is effectively transposable to e-scooters. There is nothing to change - just build protected, wide bike lanes and you should not have much problem in terms of serious crashes. Just apply best practices in bike lane design.' [↗](#)

Countries such as Australia, which are less well equipped with bike lanes, would need to make more modifications to infrastructure to properly allow for the safe use of e-scooters. Alexandre Santacreu stated, 'We make the case for better infrastructure, one that offers physical protection from motor vehicle traffic, one that is self-explaining, and one that is forgiving. Improving infrastructure is the number one recommendation from the safety report. It is the most urgent and most efficient solution to promote the use of micromobility but also to make it safe.

Seville in Spain implemented a very wide network of protected bike lanes in just a few years. They totally changed the shape of the city and cycling use exploded. So, it is feasible, and it is not necessarily expensive.' [↗](#)

The need for separate infrastructure comes from the fact that the greatest hazard to the rider of an e-scooter is collision with a motor vehicle. Alexandre Santacreu explained, 'We concluded that what determines the risk of death on low-speed, lightweight vehicles is contact with motor vehicles. That is the same whether you're on a bicycle or on an e-bike. Eight deaths out of 10 on a bike or an e-scooter involve a motor vehicle.' [↗](#)

Cities around the world are recognising that they must make adequate provision for micromobility

vehicles before their numbers grow even larger. After four scooter deaths in a matter of months, Atlanta Mayor Keisha Lance Bottoms promised an infrastructure overhaul including temporary barriers, painted demarcations and 'any tool we can find to complement' its 188 miles of dedicated bike and scooter lanes. Lance stated, 'This new trend in micro-mobility compels us to find the safest, most pragmatic ways to manage these options, and facilitate their proliferation, without endangering users and others.'<sup>1</sup> Finally, providing appropriate parking for e-scooters is an infrastructure priority to reduce the pedestrian risk and the congestion otherwise created. Paris has led the way in making infrastructure provision for e-scooters. The city has built on-street corrals especially for e-scooters, as well as extending existing parking locations traditionally used by two-wheelers (that is, mopeds and motorcycles). Currently, scooters can only park in dedicated scooter spots or in motorised two-wheel parking spots.<sup>2</sup> In an observation that could be made about most Australian urban centres, transport researcher at the UNSW City Futures Research Centre, Dr Lee Roberts, has stated, 'In a place like greater Sydney, the infrastructure has lagged behind the innovations in technology. There are only so many places where you can ride a bike and feel completely comfortable and safe.'<sup>3</sup>

##### **5. There should be appropriate regulation before the e-scooters are legalised.**

Those who oppose Australia immediately legalising e-scooters and so encouraging their wider use argue that there should be appropriate regulation of riders, e-scooters, and the riding environment before such legalisation occurs.

Critics argue that a suit of regulations needs to be put in place across all Australian jurisdictions where e-scooters are legalised. Requirements are currently inconsistent. In some Australian States and Territories, such as South Australia, Queensland, Northern Territory and Western Australia, you can ride e-scooters with a normal driver's license. In other Australian States and Territories like New South Wales, Australian, Tasmania and Victoria, riders need to have specific training. This tends to be the requirement of the e-bike hire companies. In no jurisdiction is there enforcement of this for private owners of e-scooters.

The rideability of privately owned e-scooters is also not consistently regulated. There are no requirements for mirrors. Under Queensland regulations there is the requirement that e-scooters must have an effective stopping system controlled by using brakes, gears or motor controlled and a working bell, horn or a similar warning device (if the e-scooter has handlebars). The mobility device must also not have sharp protrusions. If the e-scooter is ridden at night or in obscuring weather conditions, the scooter must have a front-mounted white light and a rear-mounted red light and a red reflector. These provisions are not uniform across all states and territories. Some states, for example, do not allow night riding at all and some will only allow it with lights that meet their specific specifications.<sup>4</sup>

Further, rental e-scooters within approved trials have strict construction requirements that privately owned e-scooters do not. For example, hired e-scooters have pre-set speed limits. In contrast, it is possible to toggle speeds on a private e-scooter, and they are capable of much faster speeds than the usual 25km/h limit.<sup>5</sup> Australian jurisdictions would need to decide if they wanted privately owned e-scooters fitted with speed governors. Further, although the National Transport Commission recommended in 2020 that e-scooters be limited to a speed of 10 km/h on footpaths and 25km/h on roads or bike lanes, some states have allowed higher speeds on roads and footpaths.<sup>6</sup>

Another unresolved question is that of injury compensation. Third parties who are injured by an e-scooter rider on a hired bike are in a difficult position. This is because only parties to a contract can incur rights and obligations under the contract. E-scooter contracts are between the user and the respective company, so those who are struck by e-scooters, or trip over a poorly parked one, have no contractual rights against the company. The injured person would need to sue the individual rider.

If hit by a rider of a privately owned e-scooter the injured person would also need to sue the individual rider. Without a registration scheme requiring riders to take out compulsory third party insurance, injured pedestrians may never receive payment.<sup>7</sup>

Finally, there is the question of whether some road laws need to be altered to better accommodate e-scooter riders. For example, there is the suggestion that the speed limit on suburban side streets be significantly lowered. Professor Matthew Burke, the chair of Transport Academic Partnership (TAP), and the Transport Innovation and Research Hub (TIRH) chair at Griffith University's Cities Research Institute, has stated, 'Australia hasn't done a lot of that, most of Europe has turned all its little local neighbourhood streets, the small little ones in the suburbs, to 30 km/h. That gets the cars, the cyclists, the scooters and

everything else all travelling at pretty much the same speed.

Cars don't tend to crash into anything at 30 km/h and if they do, they tend to stop or will be running at very low speed with very little impact when they do. They tend not to kill pedestrians or cyclists. That just creates a very low risk environment.' [↗](#) Again, critics argue, decisions such as those involving road laws should also be made prior to legislation.

### Further implications

It is beginning to seem that conventional automobiles are a terminal technology, at least in urban settings. Cars are expensive for the individual to purchase and maintain, a fact brought home painfully by the recent rapid rise in petrol prices. It has been estimated that the average weekly cost of owning and running a car in Australia in August 2019 was \$378.65. [↗](#) It will be significantly higher now.

Though the costs for the individual are burdensome, the costs environmentally and in terms of social amenity are even greater. From a global perspective, transport accounts for around one-fifth of global CO2 emissions, with road travel accounting for three-quarters of transport emissions. Most of this comes from passenger vehicles - cars and buses - which contribute 45.1 percent. The other 29.4 percent comes from trucks carrying freight. [↗](#)

Relative to much of the rest of the developed world, Australia's transport-related greenhouse gas emissions are particularly high. An international scorecard comparing 23 of the largest energy-using countries, ranked Australia second worst for transport energy efficiency. This was due to several factors. Relative to the rest of the world, Australia has high emitting cars, and a lack of greenhouse gas emissions standards in place for cars and heavy vehicles. Australia also has a low use of public transport (currently only some 12 percent of trips are made in this way) and a low ratio of public spending on developing public transport relative to roads. [↗](#) The total amount of funding for road-related expenditure by the Australian, state, territory, and local Governments in 2008-09 was \$15.8 billion This cost has been estimated to rise by over 2 percent a year. [↗](#) In terms of effect, it cannot be considered money well spent. Within Australia's fastest-growing cities, Sydney, Melbourne, Brisbane and Perth, congestion is a major barrier to the quality of life and economic prosperity of communities. [↗](#) Road performance across Australia is deteriorating. Average traffic speed and reliability of reaching a destination within a reasonable time (based on maximum road speeds along a particular route) have declined. [↗](#)

Electric cars are proposed as a way of reducing Australia's greenhouse gas emissions; however, they will do nothing to reduce the growing congestion and consequent inefficiency of Australia's urban road networks. Greater use of public transport and other expedients such as ride share arrangements have been proposed as partial solutions.

Critics of Australia's urban transport planning argue that it remains too car centric. They point to solutions which involve integrated networks of share cars, public transport and micromobility vehicles such as bikes, e-bikes and e-scooters. They call for a readiness to reimagine Australia's urban streetscapes and infrastructure with protected micromobility vehicle lanes, reduced speeds and less reliance on the use of individually owned cars. [↗](#) The rapid uptake of e-scooters around the world suggests that many commuters are ready for such a mix. That said, devices such as e-scooters are likely to be the beginning of a solution, not the end.