Unlocking the Potential of Rental E-scooters in Melbourne

neuron

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Introduction

Rental e-scooters were introduced into Melbourne in February 2022 as part of the Victorian Government's shared e-scooter trial, which included the City of Melbourne, City of Yarra and City of Port Phillip. Within months of launching, adoption rates skyrocketed, and Melbourne was recognised as Australia's leading city for e-scooters, as well as one of the world's busiest micromobility cities.

Melbourne's rental e-scooter service has provided a sustainable and cost-effective mode of transportation for both residents and visitors. In the first three years of the program, Neuron's e-scooters travelled over 9.1 million kilometres, improving local connectivity, particularly for short trips and to support large-scale events.

With 45% of rides replacing car trips, CO_2 emissions fell by an estimated 660 tonnes, supporting city sustainability goals and assisting riders in dealing with rising living costs. According to research, 65% of all trips resulted in a purchase at a local business, with each e-scooter adding over $70,000 to Melbourne's economy annually.

However, as with many new technologies, the e-scooter trial sparked some controversy and opposition. It became politicised prior to the 2024 Melbourne City Council elections and in September 2024, a council motion passed, by a narrow six-to-four vote, to halt the program in the City of Melbourne. It called for a "reset" to address some concerns that were centred around footpath riding and the perception of safety.

This report examines Neuron trip data over the duration of the trial, before e-scooters left City of Melbourne* and prior to the withdrawal from City of Yarra after a significant hike in council fees. It looks at results from rider focus groups and surveys that were conducted to learn about their demographics, experiences, and perceptions of the service. It also evaluates the program's safety record and technology that could be implemented to further improve it.

It is encouraging that the vast majority of Neuron riders believe rental e-scooters have had a positive impact, and the company is determined to improve by adding new technology and ways of working so that it can "reset" and return to the City of Melbourne while also expanding into neighbouring local government areas.

*Data included in this report is from Neuron's current and past operations in the City of Melbourne, City of Yarra and City of Port Phillip between February 2022 and September 2024.

10 Key Figures

Rental E-scooters in Melbourne

32% of all Neuron riders are female, with 71% being younger women, aged 16-34 years

5% of Neuron riders have a disability or mobility impairment in Australia

85% of trips started or ended in the City of Melbourne

65% of trips result in a direct purchase from a local business

$65.97 spent at local businesses by Neuron riders per e-scooter trip

$70,820 spent at local businesses each year by Neuron riders per e-scooter deployed

25% of trips support the night-time economy (10pm to 6am)

45% of trips replace a car journey

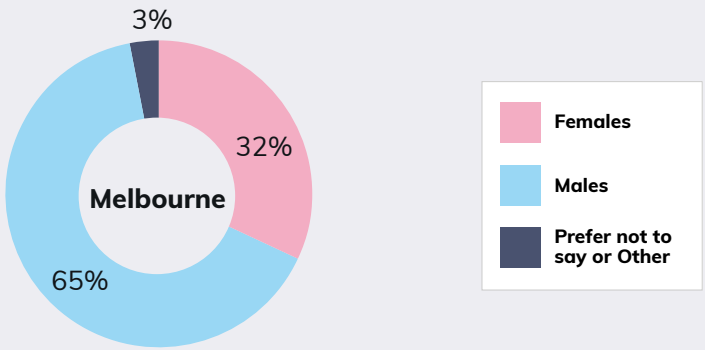
38% of e-scooter trips are used to commute to work or study

96% of users believe Neuron has created a positive impact on their city

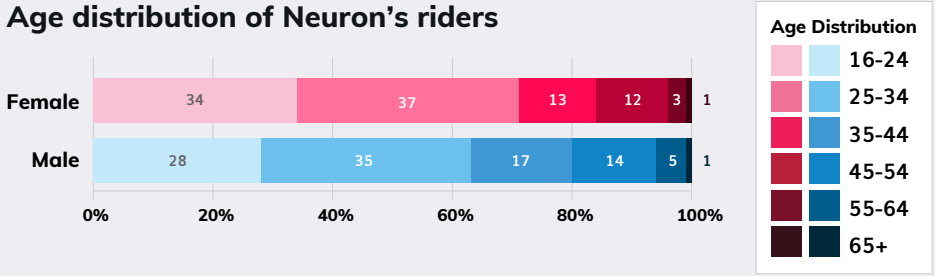
E-scooter riders in Melbourne

Melbourne's rider demographics were recorded as 65% male and 32% female, with 3% preferring not to say. They are most popular with younger riders, with 66% aged between 16 and 34 years. Within this group, more younger women (71%) are embracing e-scooters than their male counterparts (63%). Ages 35 to 54 make up 29% of riders, with 55 and older making up the remaining 5%.

Gender breakdown of Neuron's riders



Age distribution of Neuron's riders



More information on rider demographics can be found in Neuron's *Bridging the E-scooter Gender Gap, Enhancing Adoption and Safety* report.

Focus on accessibility

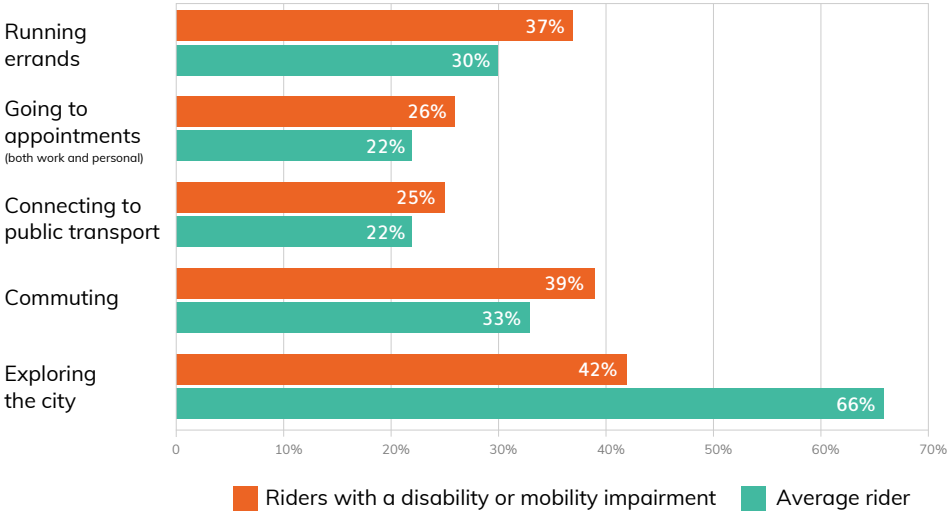
Dependable transport solutions

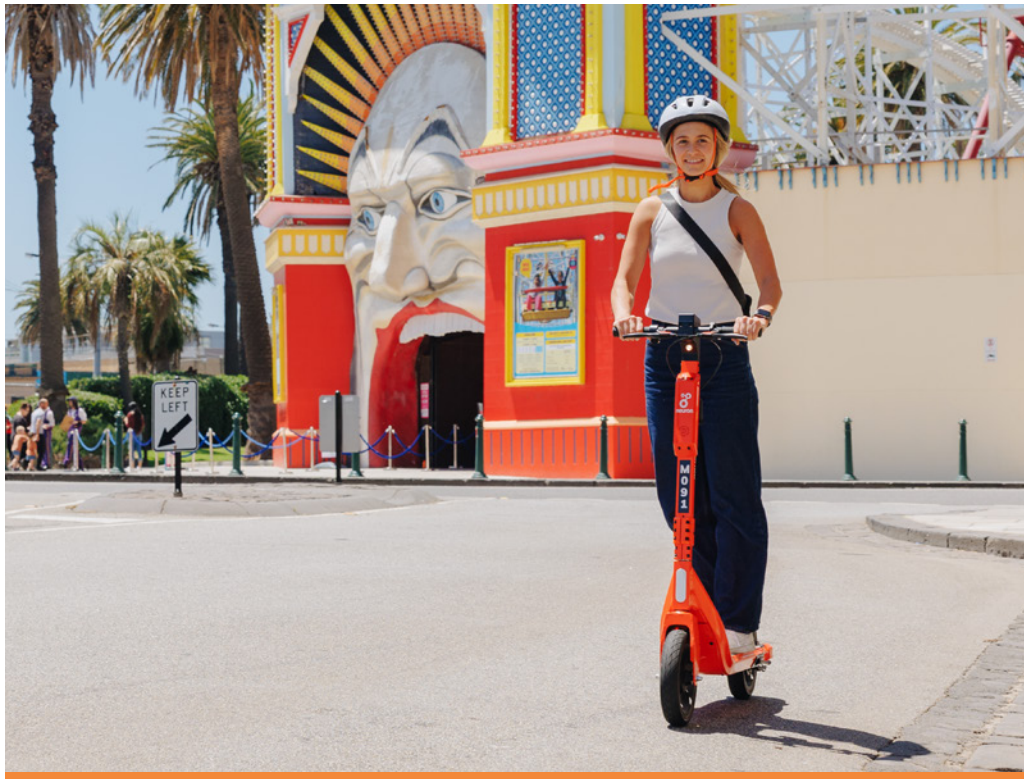
Neuron's e-scooters are providing a dependable transport option for the daily commute, particularly for the 5% of Neuron riders in Australia who have a disability or mobility impairment. The number may seem relatively small, but it represents a significant proportion of users, and underscores the importance of ensuring rental e-scooters are accessible to all.

5%
of Neuron riders in Australia have a disability or mobility impairment

18%
their trips would not have happened if a Neuron e-scooter was unavailable, which is more than double compared to the average rider

Riders with a disability or mobility impairment are more reliant on e-scooters for running errands, getting to appointments, and connecting to public transport.





Living with a disability

Thalia Salt lives with fibromyalgia, which causes chronic pain and fatigue. A hip replacement six years ago has also led to nerve damage, which impacts Thalia's mobility today.

"Before Neuron's e-scooters, a trip into Melbourne could take days to recover from."

"But since Neuron's e-scooters have arrived, I have gained my confidence and independence back. They allow me to travel further for longer without experiencing pain or exhaustion."

Seated e-scooter

Neuron's all-new Seated N4 e-scooter is designed to appeal to a wider range of demographics, including some with reduced physical mobility as well as older, less mobile riders who sometimes steer away from rental e-scooters.

It is equipped with the same upgraded features as the N4 but comes with a padded seat and shortened handlebar stem for added comfort and ergonomics.

Neuron Access

In Melbourne Neuron supports concession pass holders with discounted rides through our Neuron Access program. From low-income earners, students, veterans, jobseekers, healthcare card holders, through to people with mobility issues and disabilities and their carers - helping more people move around their city.

The Neuron Access program has provided over 5,000 passes to Melbourne riders, representing hundreds of thousands of kilometres on Neuron vehicles.

Enhancing safety with new technology and rider education

Despite some over-reporting of issues in Melbourne by the media, which can happen with new forms of transport, more than 99.99% of all trips have ended safely and without incident. However, there have been some valid concerns, particularly some cases of footpath riding, poor parking, and lapses of helmet use.

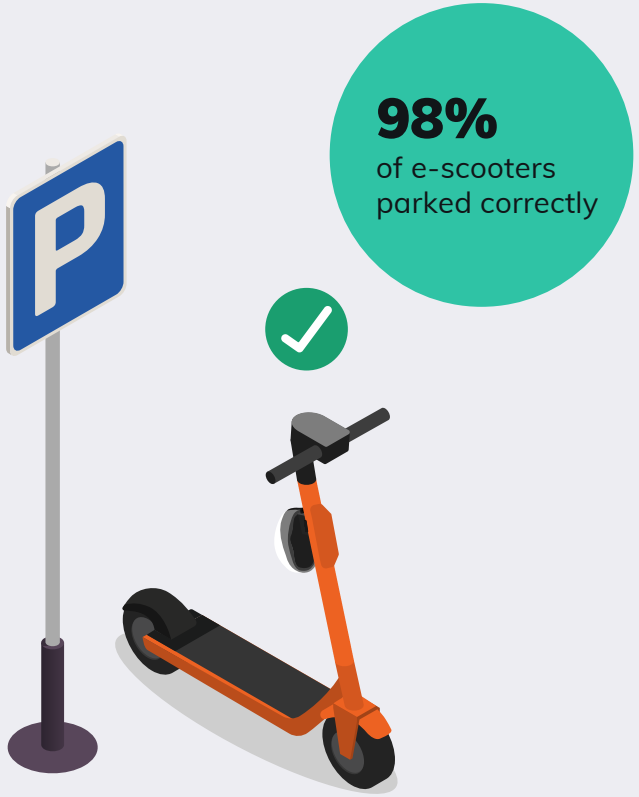
Improving parking etiquette

Neuron has invested in several innovative technologies to improve parking. In many parts of Melbourne we switched to a designated parking model to ensure that riders can only end their trips in approved parking stations. Parking compliance has also significantly improved due to the introduction of clearly marked e-scooter parking bays in the City of Yarra and City of Port Phillip.

Geofencing controls where e-scooters are ridden and parked and to improve compliance further, we launched our Augmented Reality (AR) Parking Assistant system. It uses augmented reality with Google's street view database to accurately locate the e-scooter and direct the rider to the nearest designated parking station if required. Finally, an end-of-trip photo is required to verify that e-scooters are parked in a compliant manner.

Parking in the City of Yarra

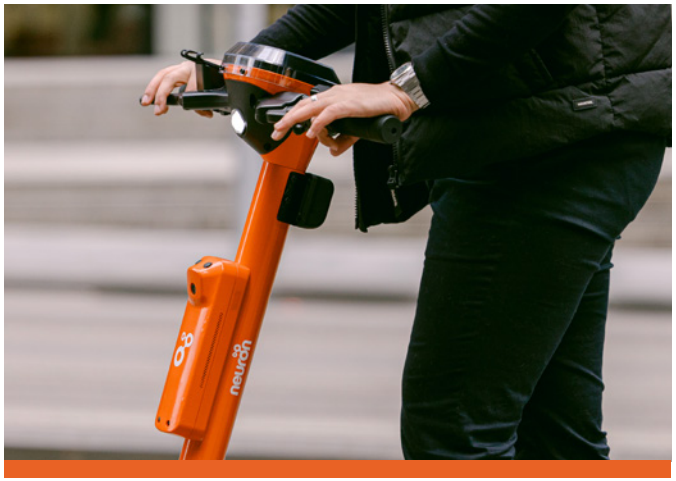
In February 2025, Neuron transitioned from free-floating parking to a 'designated parking' model across the majority of the city's riding area, requiring riders to end trips only at approved locations. This change made the City of Yarra one of the most highly-regulated e-scooter cities in Australia. The new parking model resulted in:

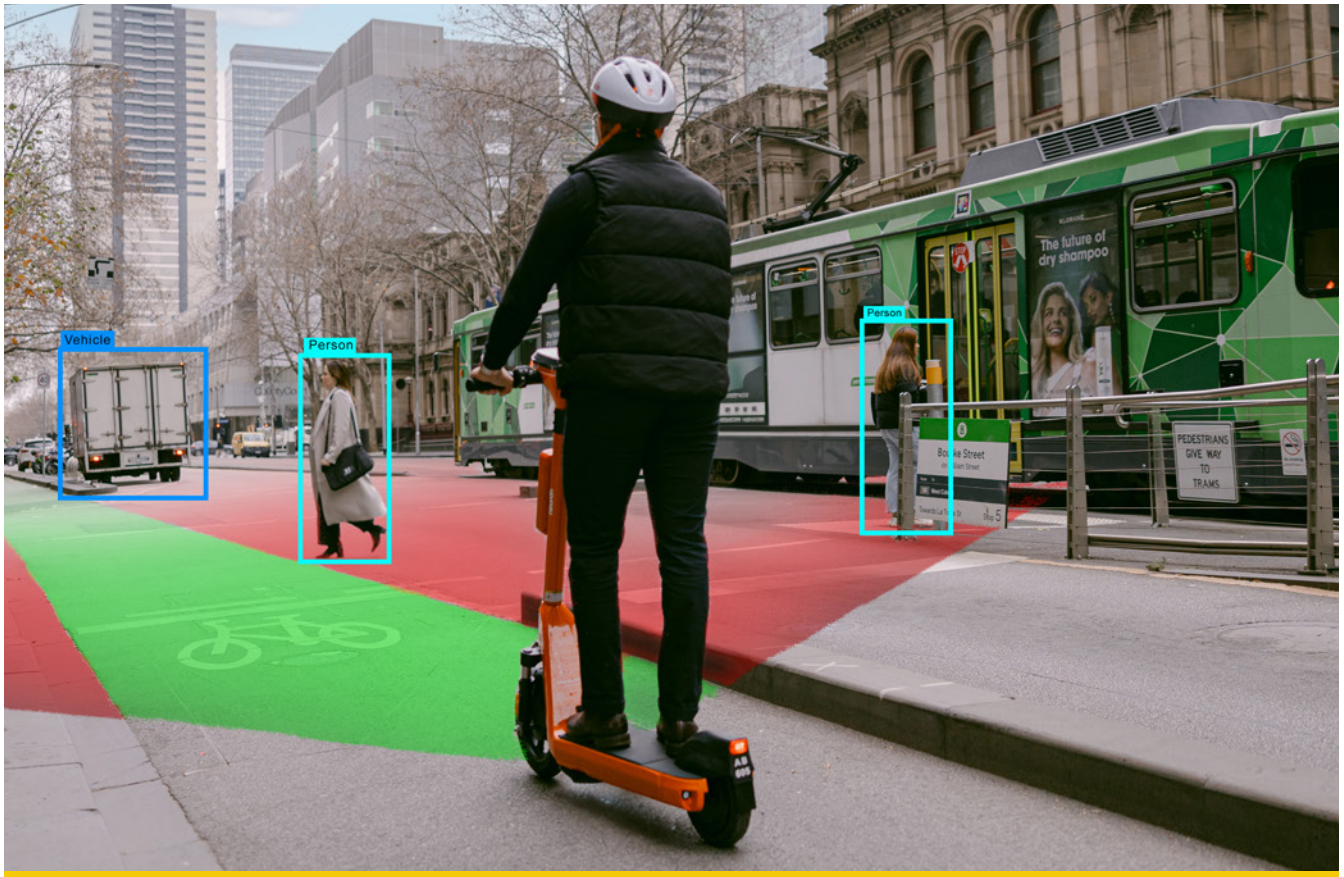


Addressing footpath riding

Neuron has significantly reduced footpath riding in Melbourne through a range of measures, including increased enforcement and the introduction of cutting-edge technology. Since launching front-facing AI-powered cameras as part of our ScootSafe Vision system at the end of 2024, research showed that Neuron riders followed the rules and used roads, shared paths, and bike lanes 95% of the time.

For the small percentage of time people did ride on the footpath (5%), ScootSafe Vision's new audio warnings have further reduced footpath riding by 30% leading to a 96.5% compliance rate. Data also revealed that 55% of footpath riding incidents occurred within the first or last minute of a trip, typically when riders were leaving or arriving at a footpath parking station. This suggests that expanding on-street parking bays could further reduce footpath riding.





ScootSafe Vision

Neuron's proprietary ScootSafe Vision system uses AI-powered camera technology to detect and correct footpath riding. Offending riders receive a real-time audio alert, "Footpath riding detected; please ride on the road," as well as follow-up warnings, educational material, and suspensions for repeat offenders after their trip. It can also be configured to enforce a reduction in power, and detect pedestrians.

Rider education and safety campaigns

Neuron runs regular safety campaigns with in-person safety events in collaboration with various safety, community, and accessibility groups at key times throughout the year. The company drives riders to its industry-leading ScootSafe Academy website, which was designed in collaboration with the Australian Road Safety Foundation (ARSF).

Helmet Safety Awareness Week

In September 2024, Neuron held its fourth annual Helmet Safety Awareness Week, utilising online and in-person rider education, incentives, and providing free trips for those who rode an e-scooter fitted with a special edition golden helmet, which were added to the fleet for the duration of the week.

Key metrics from the 2024 campaign, also referred to as Golden Helmet Week:

- **330,000 Melbourne riders** received safety messages via the app, rider emails and through social media
- **230,000 unique individuals were reached** through a paid social media campaign
- **Two ScootSafe events were held** where Safety Ambassadors provided in-person rider education
- **20% more riders** used the ‘helmet selfie’ feature over the course of the campaign

Accelerating the local economy

Helping city centres and hospitality districts thrive

For both locals and visitors, rental e-scooters can make it easier to get to and from key city locations, like central business districts (CBDs), shopping centres, and hospitality precincts. This can be particularly true for destinations that are harder to reach by car, where there is limited parking, or for locations that are underserved by round-the-clock public transport.

Neuron's Neighbourhood Connect program supports local businesses by connecting riders with local shops, venues and attractions. Working closely with businesses in Melbourne, Neuron stimulates visitor traffic through in-app promotions, designated parking locations, rider rewards and more. The company has also launched an Explore Melbourne video guide in the app.

According to our rider survey:

6%
of trips wouldn't have happened at all if an e-scooter hadn't been an option

65%
of e-scooter trips resulted in a purchase from a local business

62%
of riders spent $50 or more at a local business on their most recent trip

Where our riders spend their money*:

38%
Restaurants, bars and cafes

30%
General shopping

16%
Leisure and recreational venues

Why our riders use e-scooters*:

32%
Commuting to work or study

21%
Getting to appointments

27%
Running errands such as shopping

61%
Exploring the city

* Respondents were able to select more than one option

Quantifying e-scooter's economic impact

In an independent report, Australian Economic Advocacy Solutions (AEAS) calculated that during the first 12 months of Melbourne's e-scooter trial, Neuron's services contributed 11 cents out of every $100 by enabling affordable and convenient trips to local businesses.

Nick Behrens, Economist and Director of Australian Economic Advocacy Solutions, said: "Neuron Mobility's rental e-scooters contribute significantly to the Melbourne economy. They offer an all-in-one transport solution that makes Melbourne commutes more convenient, accessible and productive while reducing greenhouse gas emissions and contributing to the local economy.

"Furthermore, Neuron Mobility is estimated to have created and supported 800 Melbourne-based jobs over the 12 months."

According to AEAS:

$65.97
spent at local businesses by Neuron riders per e-scooter trip

$70,820
of direct, indirect and enabled spend by each Neuron e-scooter per year

$135.7 million
of direct, indirect and enabled spend by all Neuron e-scooters during the first 12 months of the trial

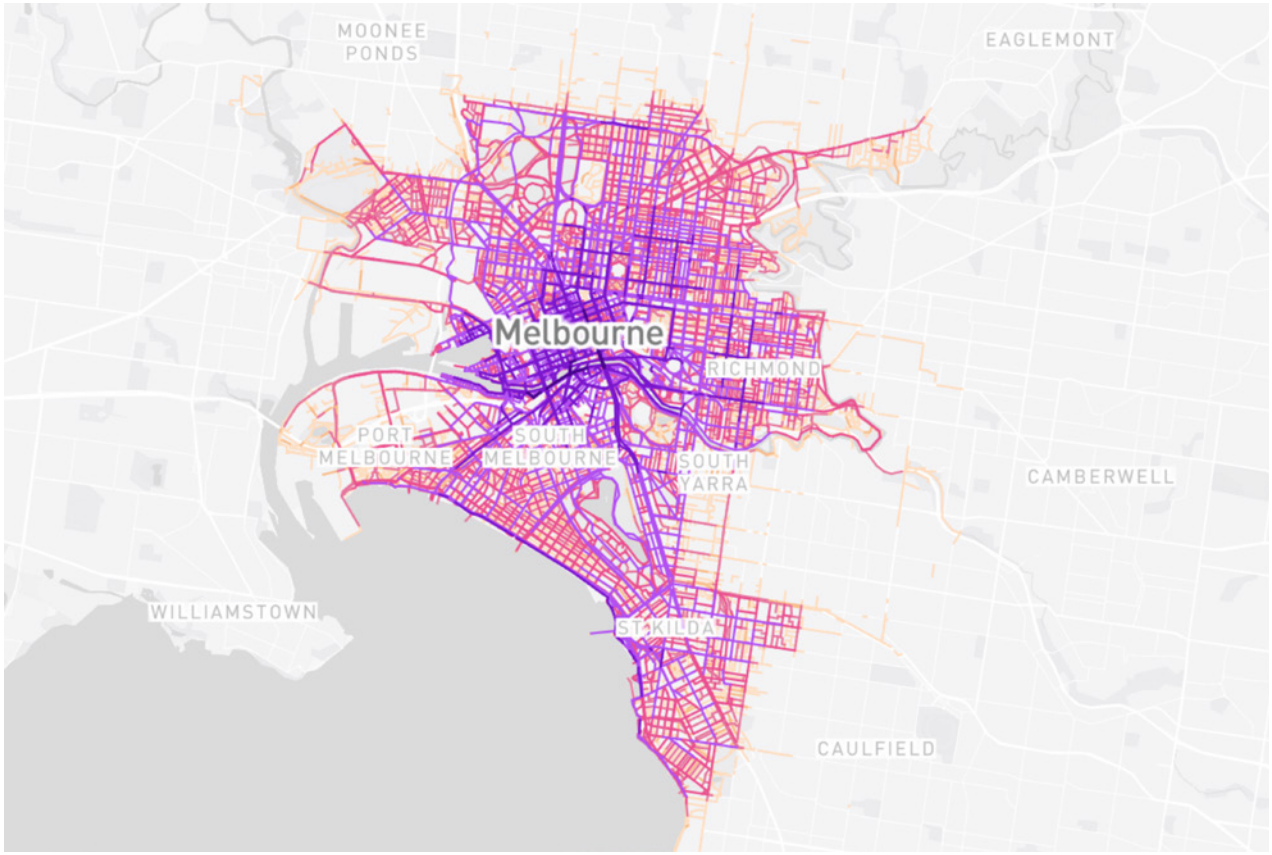
Strengthening city transport systems

Bridging public transport gaps

Not everyone lives or works close to a bus stop or train station, and the operational hours of public transport are often restricted, particularly in quieter suburban areas. This can lead to “transport deserts," which limit opportunities and reduce economic productivity.

A large majority, 85%, of all Neuron’s e-scooter trips started or ended within the City of Melbourne, with Flinders Street Station and Southern Cross Station consistently being among the most popular parking stations. Almost half of all trips in the City of Yarra (45%) and City of Port Phillip (49%) are made to and from the City of Melbourne, with many starting or ending at residential areas.

Trip data enables Neuron to identify gaps in public transport as well as predict areas and times of high demand. Neuron’s e-scooters are frequently moved to areas where the community needs them most.



Heat map of all e-scooter trips taken in Melbourne from February 2022 to September 2024 (Source: Ride Report)

Supporting the daily commute

Mitch Smith, CEO of Shockbyte and a Forbes 30 Under 30 entrepreneur, previously used rental e-scooters to get from his home in North Melbourne to his office on Collins Street. Since the City of Melbourne cancelled the shared e-scooter service, he and his team spend far longer on their daily commute, and he estimates it costs the company thousands of dollars per day.

"It now takes me over 50 minutes to get to the office by tram with multiple transfers, whereas with Neuron's e-scooters, the trip could take under 15 minutes, allowing me to use the extra time to be far more productive at work."

"Since we opened our Melbourne office six months ago, 60% of our team used e-scooters for their commute. It is unfortunate that they are now forced to rely on less efficient, less environmentally friendly, and more expensive modes of transportation. It appeared to lack proper community consultation prior to the program's cancellation, and I would like to see the City of Melbourne reinstate it."

Helping to eradicate homelessness

Neuron partnered with Launch Housing to provide free e-scooter trips for its workforce of over 400 caseworkers and staff across 15 locations in metropolitan Melbourne. In addition to providing complimentary transport for their outreach efforts, Neuron also helped raise awareness and funds to tackle the problem of homelessness in the city.

In July 2024, Neuron teamed up with Launch Housing for a series of guided e-scooter tours during the Open House Melbourne weekend to highlight the cause.

Replacing car trips and reducing transport costs

Car ownership and usage is increasingly becoming financially difficult for millions of Australians, with many looking at new ways of travelling for some, or all, of their journeys.

The Australian Automobile Association (AAA) reported that Melburnian households spent a weekly average of $568.19 on transport between April and June 2024. Surpassing the national average of $458.82 per week over the same period, Melbourne retains the top spot for the highest total cost of transport across Australia.

To cope with the rising cost of living, many of our Melbourne riders stated that renting e-scooters, while using subscription passes, for greater cost savings, significantly lowered the high transportation expenses compared to owning or using a car.

Trip data and rider research revealed:

45%
of trips replaced a car journey

660
tonnes of CO_2 avoided

Supporting the night-time economy and its workforce

Using public transport is an excellent way to move around the city without a car; however, most bus and train lines do not run late into the night. Neuron's e-scooters are available around the clock, providing a vital alternative.

Night-time economy workers, including those in the hospitality and healthcare sectors, are increasingly using e-scooters to get to and from their places of work instead of relying on their own cars or taxis.

The night-time economy is a key driver of business recovery in CBDs. A 2023 report commissioned by the Council of Capital City Lord Mayors observed a strong 8% year-on-year growth in sales turnover from Melbourne's night-time economy as it emerged from the pandemic, creating over 30,000 jobs between 2021 and 2022.

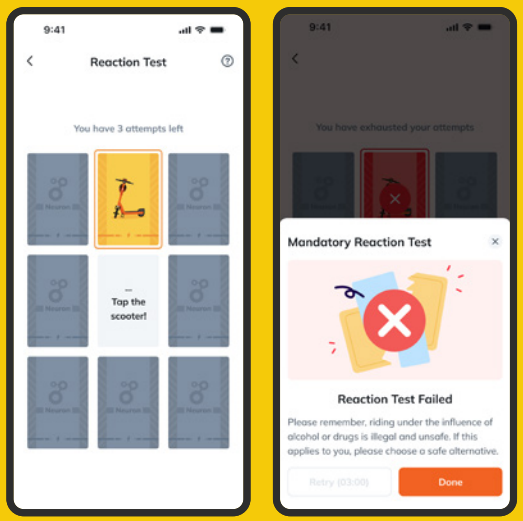
25% of trips happen between 10pm and 6am to support the night-time economy

57% of riders prefer e-scooters to public transport at night due to their flexibility and convenience

48% of riders felt safer riding an e-scooter than walking or travelling on public transport alone at night

Combating intoxicated riding

To deter users from riding under the influence of alcohol or drugs, mandatory cognitive reaction tests are required for trips starting at certain times and specific parts of the city. The tests promote self-reflection and help riders assess their suitability to use an e-scooter. Riders who fail the test are locked out of the service.



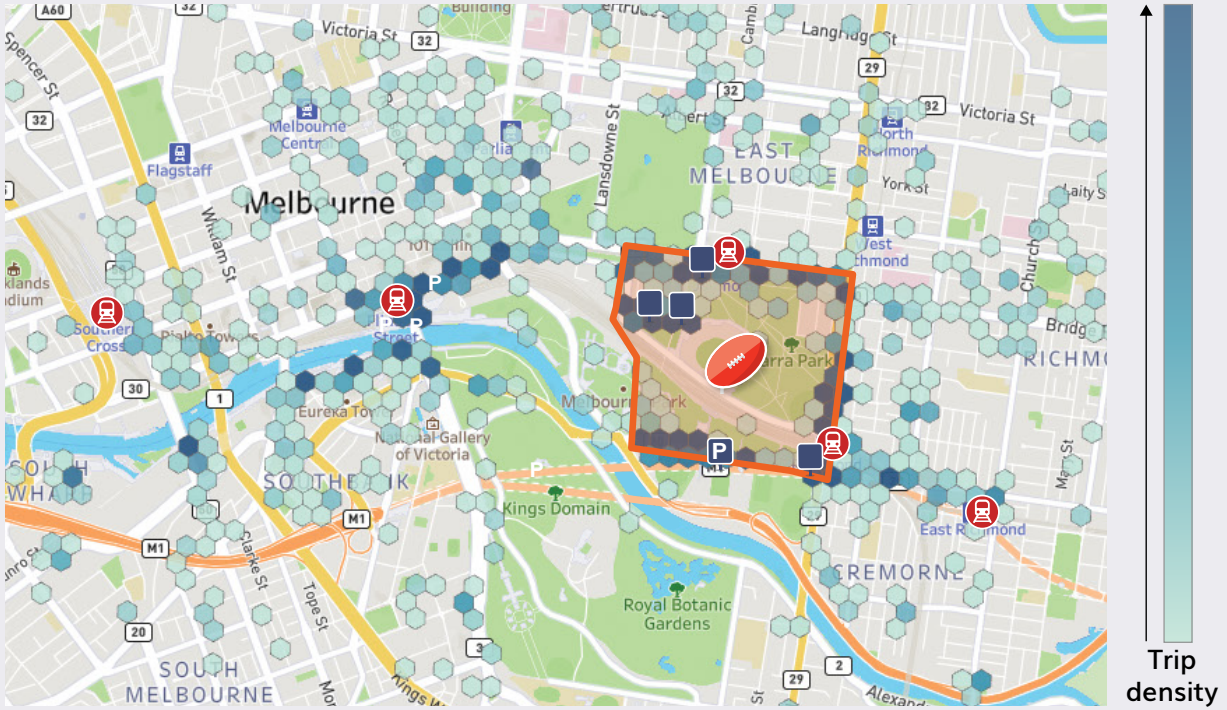
Enhancing transport solutions at large-scale events

Melbourne is considered the events capital of Australia. Neuron partners with the organisers of Formula 1, the Australian Football League, the Australian Open and many others to provide a valuable mode of transport for eventgoers. This mitigates the strain on public transport and alleviates traffic congestion, which usually increases when large numbers of visitors arrive in the city.

For major events, Neuron establishes temporary no-riding, no-parking, slow zones, and preferred parking locations. Neuron's Safety Ambassadors also conduct briefings to onboard new riders, promote responsible riding, and reinforce the rules.

Keeping Melbourne moving

During the AFL Grand Final and Footy Festival in late September 2023, a massive 9,100 Neuron trips were taken. There were also more than twice as many e-scooter trips taken in the two hours before and after the game, compared with an average Saturday.



Nearby major transport hub

Designated event parking station

Australian Football League Grand Final 2023

Heat map of trips taken to and from the AFL Grand Final and Footy Festival at the MCG precinct from 27 to 30 September 2023

Building sustainable and financially viable programs

For e-scooter programs to succeed, they must be financially sustainable for both councils and operators. Ideally, they should be cost-neutral for councils while allowing operators to generate a positive return — enabling ongoing investment in safety, accessibility, and new technology to boost adoption and better integrate with city transport networks.

Excessive council fees risk making programs unsustainable. They can lead to reduced service levels, higher prices for riders, or even operators to exit the market — all of which undermine the program's core aim of providing an affordable and convenient alternative to private car use while meeting cities sustainability goals.

A balanced and transparent approach is needed. With fees set at the right level, e-scooter schemes can thrive, benefiting cities, riders, and the wider transport network.

E-scooters as a form of public transport

Unlike traditional forms of public transport, such as buses and trains, rental e-scooters are not subsidised, making the need for a profitable and sustainable service even more important. However, e-scooters should be considered an integral part of a city's public transport network. They offer an inexpensive, accessible, and convenient mobility option that complements existing transport services.

Like buses and trains, e-scooters help reduce reliance on private cars, ease congestion, and lower carbon emissions. Additionally, they serve as a "first-mile, last-mile" solution, connecting riders to major transport hubs and filling gaps in public transport coverage.

The impact of fees in the City of Yarra

On 11 March 2025, City of Yarra councillors voted to increase e-scooter fees from $1 to $5 per day — a 400% rise. With each e-scooter only generating around $9.50 per day, more than half of this would have gone to fees, making the program unsustainable.

We chose not to pass this steep cost onto riders and made the difficult decision not to extend our contract. Neuron's e-scooter programs are designed to be affordable and accessible, and such a significant fee hike would have drastically reduced rider adoption.

As a result, the program ended on 4 April after three years. However, we believe there is still a bright future for e-scooters in Yarra and look forward to the possibility of the city joining a Greater Melbourne e-scooter program in the future.

Conclusion

Supporting cities and the “road to reset"

It is very encouraging that many of Melbourne's local businesses, residents, and tourists have provided positive feedback on Neuron’s rental e-scooters, with the City of Port Phillip continuing to reap the benefits. In addition, there are a growing number of neighbouring councils that have signalled their intention to join the next procurement cycle so they can run their own rental e-scooter programs.

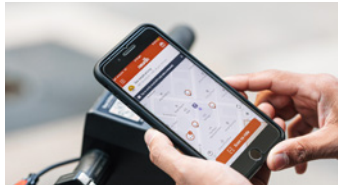
Despite the disappointment over the cancellation of the program in the City of Melbourne, we are confident that we will be able to demonstrate the "reset" that the councillors requested, and we have a plan in place to accomplish this. We look forward to working closely with many Greater Melbourne councils as they look to introduce e-scooters into their cities in the future.

Our commitment to enhance the service:

Utilise the latest tech to better manage the program. Implement our new AI-powered camera system, ScootSafe Vision, to address the issue of footpath riding. While adding new features and ways of working to improve parking, helmet compliance, and riding behaviour.

Work with councils to expand parking infrastructure and designated parking areas. By increasing the number of well-marked, well-lit e-scooter parking stations across the riding area we will improve footpath access for pedestrians, increase accessibility and improve adoption.

Continue to focus on safety and accessibility by working with safety organisations, rider focus groups, and disability advocacy groups to make our service safer and more accessible for the entire community. Also, we will add the Seated N4 e-scooter to the fleet.



Improve local transport networks by tailoring our services for new and existing local government areas to better meet the needs and movement habits of city residents and visitors. Help them mitigate the gaps created by the City of Melbourne’s program cancellation.

Drive more customers to local businesses by setting up parking stations nearby, collaborating on promotions, and expanding our Neighbourhood Connect program and integrating them in the Explore Melbourne feature on the Neuron app.

Boost tourism and support large-scale events. Collaborate with major attractions, businesses, and event organisers to enable visitors and tourists to see more, do more, and spend more. Assist the city in meeting increased transport demand during peak periods.

neuron

We are driven to help the world build a more prosperous and sustainable future through new ways of moving and connecting.

www.rideneuron.com