CLIMATE COUNCIL

NEXT STOP SUBURBIA:

MAKING SHARED TRANSPORT WORK FOR EVERYONE IN AUSSIE CITIES

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The Climate Council acknowledges the Traditional Owners of the lands on which we live, meet and work. We wish to pay our respects to Elders, past and present, and recognise the continuous connection of Aboriginal and Torres Strait Islander peoples to land, sea and sky. We acknowledge the ongoing leadership of First Nations people here and worldwide in protecting Country, and securing a safe and liveable climate for us all.

Hollie Cheung
Researcher

Ben McLeod
Quantitative Analyst

Dr Jennifer Rayner
Head of Policy and Advocacy

Danielle Veldre
Director Climate Media Centre

Dinah Arndt
Head of Strategic Communications

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Key findings

1 Our car-centric transport system is polluting our cities and our climate. It has left many of us in the lurch when it comes to alternatives, with only half of the 15 million Australians living in our five biggest cities having access to frequent, all-day public transport.

- For decades, governments have prioritised the use of private cars in transport planning and investment leaving too many people with no other way to get around. This is making our streets more congested, dangerous and unhealthy.
- Transport is Australia's biggest contributor to climate pollution after energy, making it an important focus of our efforts to slash climate pollution this decade. At the moment, Australia has more registered cars than drivers, and relatively limited use of shared and active transport.
- Using shared and active transport for more trips, more often, simply isn't possible for many people because they don't have access to transport options that meet their needs.
- Given the significant costs involved with car ownership, a lack of effective shared transport can pose an additional barrier to communities who may already struggle to access employment, education and other needs.

2 Too many people living in Australia's largest capital cities lack access to convenient, frequent and reliable public transport, so they are stuck relying on expensive and polluting private cars.

- Climate Council analysed public transport access in the five capital cities where most Australians live. Between a third and up to two thirds of people living in each city don't have access to all-day, frequent services.
- Brisbane has the worst public transport access, with 66.4 percent of its residents missing out on all-day, frequent services, followed by Perth (59.5 percent), Adelaide (52.4 percent), Melbourne (47.5 percent) and Sydney (32.8 percent).
- In most cities, the difference in public transport access is significantly worse when comparing poorer and wealthier areas, with access levels in poorer areas 27 percent lower in both Brisbane and Melbourne, 19 percent lower in Adelaide, and 18 percent lower in Perth.
- People living in high-growth areas in middle and outer suburbs are significantly underserved by public transport. The cost-of-living benefits of affordable transport would often make the biggest difference in these areas.
- Analysis shows public transport frequency in our biggest cities plummets outside of morning and afternoon peak commuting hours, making travel slow and complicated for the many Australians who need to get around outside of these times.
- Investment in public transport has not kept pace with growing demand. Most people who live more than 10km away from the centres of our largest cities generally lack convenient, frequent and reliable access to public transport services. Transport options need to connect people across suburbs, not just to the city.

3 With the right infrastructure and services in place, we can make shared and active transport more attractive for more Australians, cut climate pollution further and faster this decade, and create safer, cleaner streets.

› Climate Council's research shows there are readily-available solutions that can more than halve climate pollution from transport by 2030.

› Enabling more people to use shared and active transport not only cuts climate pollution more quickly than switching every petrol car to an electric one, but it also reduces congestion, makes our streets safer and provides more affordable transport options for all.

4 Governments at all levels should plan and invest in infrastructure and services that enable more Australians to choose cleaner, cheaper transport options more often.

› **Embed the increased uptake of shared and active transport in decarbonisation planning:** All levels of government should make increasing shared and active transport uptake a core objective of transport sector plans to cut climate pollution – for both passenger and freight transport, backed by a big step up in funding.

› **Deliver a Shared Transport Service Standard:** State and territory governments should work towards providing convenient, frequent and reliable public transport services operating at least every 15 minutes from 7am to 7pm within 800 metres of every home in Australia's eight capital cities.

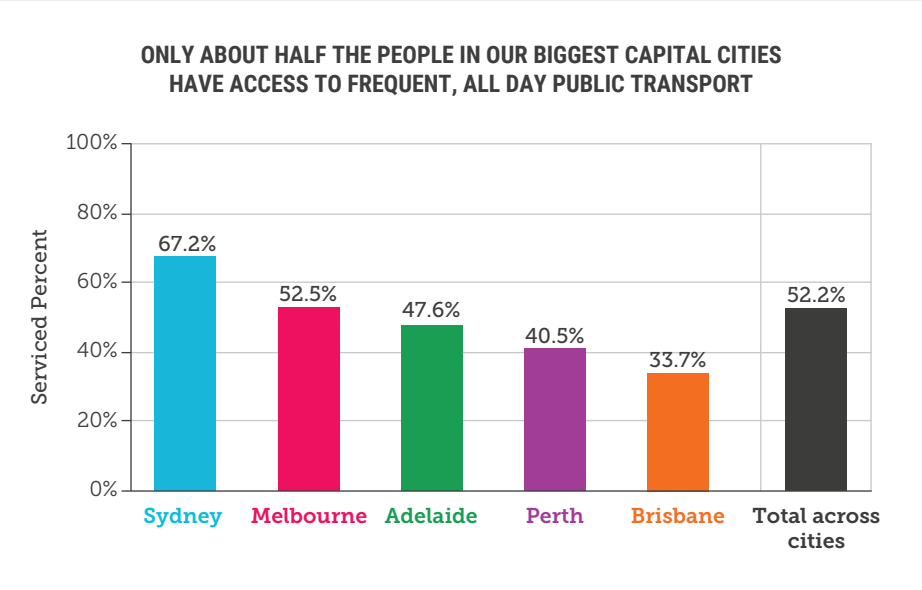
› **Make our cities better connected, compact and efficient:** State and territory governments should set the objective of delivering at least 70 percent of new housing and commercial building developments within the established suburbs of major capital cities, by making sustainable use of brownfields sites and managing increases to density in existing suburban areas.

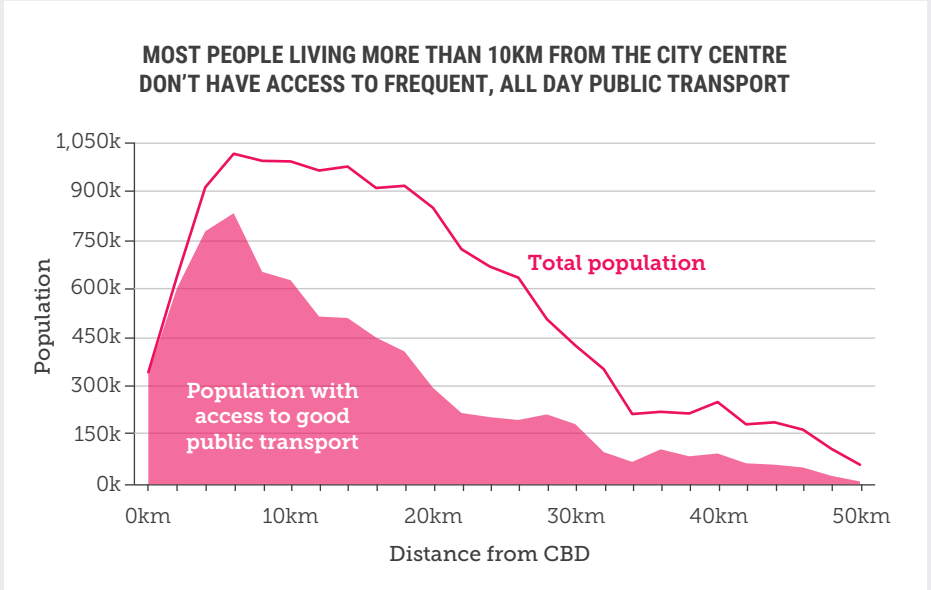
› **Make streets friendly for people, not cars:** Local governments should ensure pedestrians feel safe on Australian streets, protected from cars, and have public spaces where they can move freely. Delivering precincts where pedestrians and bikes have permanent right of way, reducing speed limits to 30km/hour, and where private car use and parking is not supported – except for those with accessibility needs – will help enable safe streets for all.

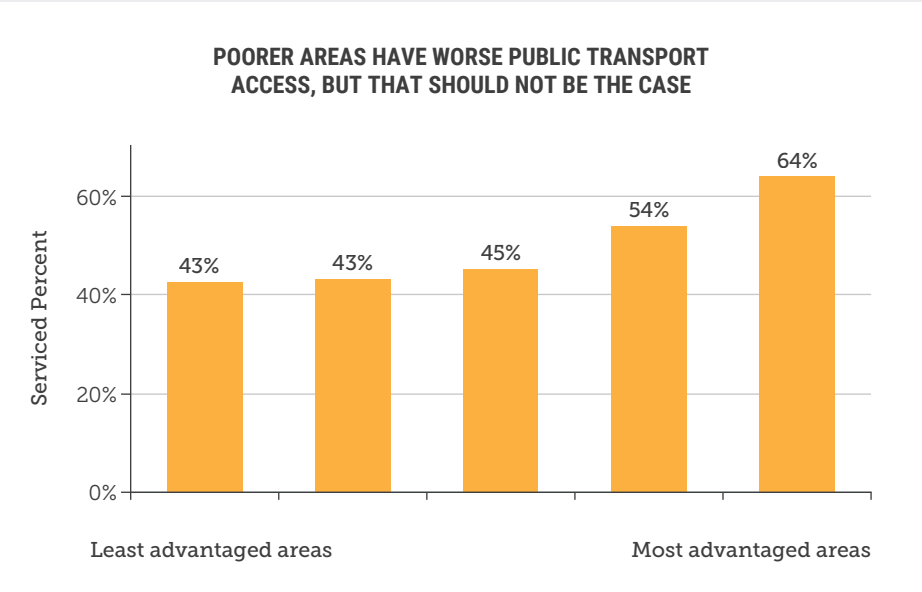
› **Give shared and active transport priority on roads:** State and territory governments should give shared and active transport priority on the major roads needed to travel to and from frequently-visited commercial, service and employment centres, and between suburbs.

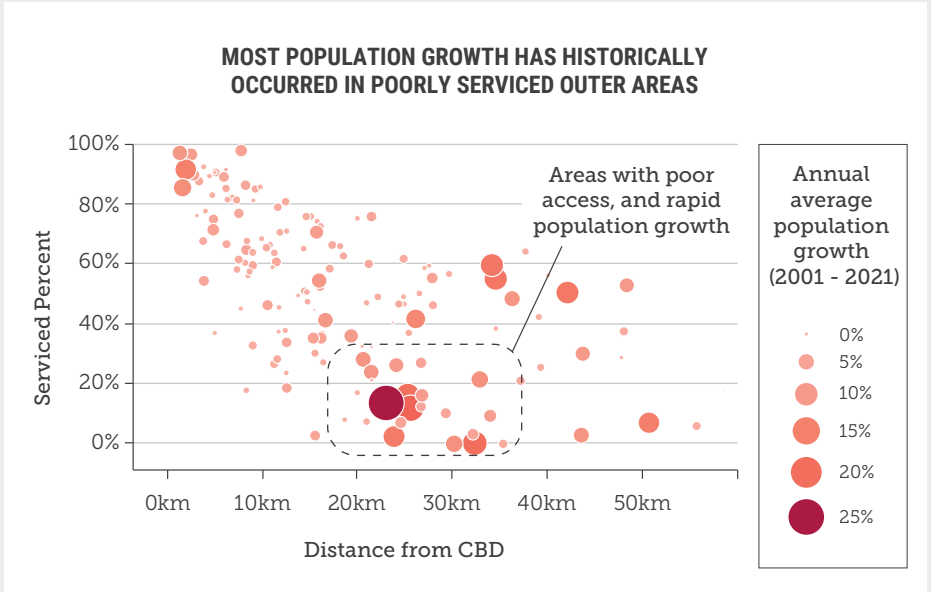
› **Create Shared Transport Zones:** State and territory and local governments should create designated areas in our capital cities where only shared transport options are allowed to travel through. This will encourage people to use shared and active transport when visiting these areas.

Figure 1: Summary of findings.









INTRODUCTION

Transforming how we get around can slash climate pollution this decade and deliver cleaner, safer streets.

We all want to live in cities with clean air and great public spaces, where we can move around in ways that suit our needs, and feel safe on our streets. Getting from A to B with ease means having a choice of convenient, frequent, reliable and affordable transport options that seamlessly connect us to work, school, friends, family and services. This includes great shared options – like electric public transport, rideshare and other on-demand transport – together with active options like bike-riding, using a wheelchair or walking.

At the moment, our car-centric transport system leaves too many Aussies with little choice in how to get around. For decades, governments have prioritised the use of private cars in transport planning and investment. Too often, this means people have no other way to get around. This is driving harmful climate pollution while also making our streets more congested, dangerous and polluted. Australian families are paying more than they should for petrol and maintenance costs, particularly in the outer suburbs of our biggest cities where people often have to drive further and more often.

We can change this by stepping up the availability, frequency and reliability of shared and active transport. Greater uptake of electric vehicles is important, but by itself this won't reduce climate pollution at the speed we need, nor deliver other benefits in improved safety and less traffic. Using shared and active transport for more trips, more often isn't possible for many people because they don't have access to transport that meets their needs.

Australians are clear that they want better transport options and more choice. In Climate Council polling, 80 percent of people said they wanted governments to invest more in public transport, and 67 percent wanted more investment in active transport infrastructure (Climate Council 2022). The lack of services and infrastructure is a key barrier to people across our big cities using these transport options more often.

This report provides recommendations for how governments can plan and invest public money better to put shared and active transport at the centre of transport delivery from now on. The benefits will be huge: we can help slash climate pollution this decade and deliver cleaner air, safer streets, more affordable ways of getting around, as well as more liveable cities with less congestion.

TRANSPORT OPTIONS:

Shared transport

Any transport option that has shared usage. This can include public transport (buses, trains, trams, ferries), rideshare (Uber, Didi), and other options like on-demand e-bikes and e-scooters. Public transport is the focus of this report.

Active transport

Any physical mode of personal travel such as walking, using a wheelchair and bike-riding.

1.

Convenient, frequent and reliable transport options give Australians real choice and freedom

1.1 Stepping up shared and active transport can rapidly cut transport pollution

Climate pollution, caused by burning coal, oil and gas, is fuelling dangerous climate change. Australians are suffering climate whiplash as communities are hurled from storms and floods to extreme heat and fires. Australia has started making important progress in cutting climate pollution in sectors like electricity, but governments need to do everything possible to slash it further and faster this decade from all sources.

Transport is Australia's biggest contributor to climate pollution after energy (DCCEEW 2024). At the moment, passenger transport in Australia is dominated by cars, with relatively limited use of shared and active transport. Only around seven percent of Australian passenger trips are via public transport and less than four percent are by walking or bike riding (BITRE 2023). With 20.1 million registered motor vehicles and 18.7 million licensed drivers, Australia has more cars than drivers (ABS 2021; BITRE 2022).

A car-dominated transport system comes at a considerable cost, with 1,266 national road fatalities in 2023 (King 2024). Health experts estimate that vehicles may also cause more than 11,000 premature deaths from air pollution each year in Australia (Walter and Say 2023).

Fortunately, there are solutions readily available today to more than halve climate pollution from transport by 2030 (Climate Council 2024). The majority of transport pollution (62 percent) comes from cars, utes and vans (DCCEEW 2023). Switching to electric vehicles will help cut this pollution, but given only a small share of people buy a new car each year, there are other practical solutions we need to pursue alongside this. Enabling more Australians to use shared and active transport more often is the fastest and most cost effective way to reduce transport pollution in this critical decade, and limit global warming (Fulton and Reich 2021).

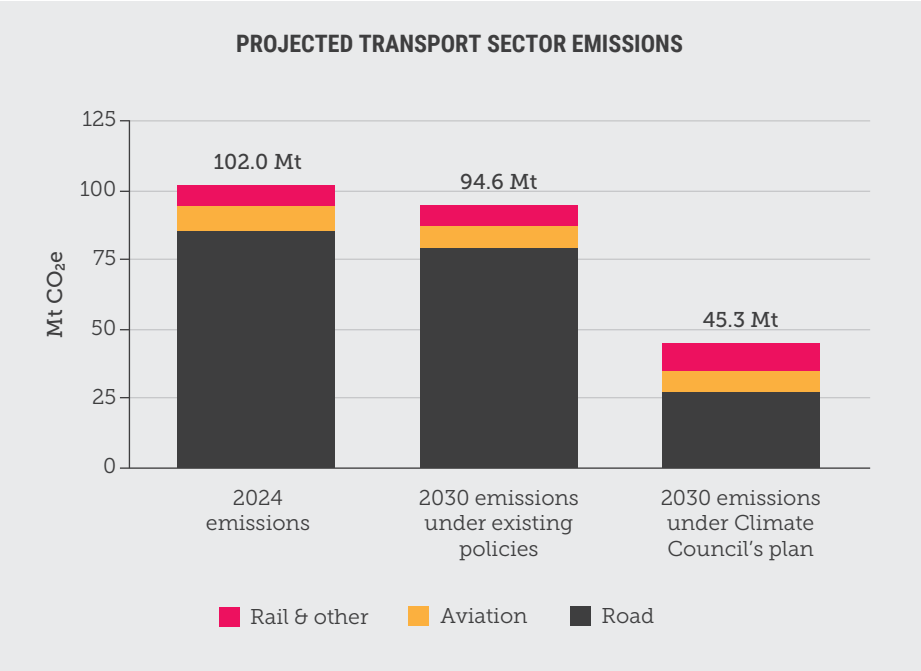
In the Climate Council's (2024) landmark *Seize the Decade* report, we set out a practical pathway to slash climate pollution by 2030 across the Australian economy. This pathway includes some key shifts in how Australians move around:

- Greater uptake of shared and active transport options by shifting 30 percent of projected private vehicle kilometres in 2030 to shared and active transport, at a rate of around 5 percent a year.
- Moving toward long-distance passenger rail services and away from domestic air travel, where possible, to end growth in the use of domestic passenger air travel.[1]
- Greater uptake of electric passenger vehicles – with one-third of all passenger kilometres travelled by electric vehicles by 2030. Vehicles that travel the most kilometres, like taxis, rideshare vehicles and government fleets, should be prioritised.

1 Annual growth in domestic aviation passenger kilometres reduces from the historic growth rate of 2.6 percent to 1.7 percent per annum.

Figure 2: Halving pollution in transport, under Climate Council's *Seize the Decade* plan to cut climate pollution by 75 percent this decade.

From 102 Mt CO_2e in 2024 → **To 45.3 Mt CO_2e in 2030**



Source: *Seize the Decade* modelling, Climate Council (2024). CO_2e refers to Carbon Dioxide Equivalent.

With the right infrastructure and services in place, there is significant potential for more uptake of shared and active transport in Australia. That's because:

- Nationally, 28 percent of Australian workers live and work in the same postcode and about 55 percent of workers live within 10 kilometres of their place of work (Ye and Ma 2019).
- In Sydney, more than two million daily car trips taken are less than two kilometres (Australian Infrastructure Audit 2019).
- In Melbourne, more than two million weekday trips are less than one kilometre, and about 21 percent of these are via private car (Eady and Burtt 2019).
- In Perth, every day there are 2.8 million trips taken by private car which are under five kilometres (Infrastructure Australia 2019).
- In South East Queensland, 79 percent of trips under five kilometres and 39 percent of trips under one kilometre are made by private vehicle (Department of Transport and Main Roads 2016).

With the right infrastructure and services in place, we can make shared and active transport more attractive for more Australians and help cut climate pollution further and faster.

BOX 1: WE NEED BOTH SHARED AND ACTIVE TRANSPORT AND ELECTRIC VEHICLES TO CLEAN UP CLIMATE POLLUTION FROM TRANSPORT

Shifting toward shared and active transport options will deliver the greatest benefits in cleaner air, safer streets and cutting climate pollution. Electric vehicles (EVs) for private use are also an essential part of the puzzle, with Australia lagging behind many countries in uptake of EVs. However, simply switching every private petrol or diesel vehicle for an electric one won't deliver the deep cuts to climate pollution we need this decade. That's because:

- Shared and active transport can cut climate pollution immediately, while the switch to a completely electrified fleet will take decades. Only four percent of our vehicle fleet is replaced each year, with about half of the cars that will be on the road in 2030 having already been sold (Institute for Sensible Transport 2023).
- Electric vehicles still create some climate pollution, because they are powered using electricity which is not yet 100 percent renewable. Walking, bike riding and using a wheelchair produce zero climate pollution during travel.
- The energy required to manufacture bikes, scooters and other mobility options is much lower than an electric vehicle, reducing the climate impacts of manufacturing new vehicles.
- In addition to cutting climate pollution, shared and active transport provide additional benefits that EVs cannot, including reducing traffic congestion, air pollution from tyre and brake wear, and road injuries and fatalities.

1.2 We'll all benefit from a shift towards shared and active transport

1. **Cleaner, healthier air** – As well as producing a lot of climate pollution, road transport is a significant source of air pollutants including nitrogen oxides and particulate matter. These air pollutants are associated with negative health effects, including an estimated 11,000 premature deaths each year in Australia (Walter and Say 2023). Enabling more people to use shared and active transport will deliver cleaner, healthier air with flow-on benefits for public health.

2. **Safer roads** – Road crash deaths are a tragedy, and they're only one small part of road harm. In 2021-22 there were 61,500 road-related hospitalisations. Of these, almost a third were bike riders and pedestrians (AIHW 2023). Shifting toward shared and active travel for more trips will take cars off our roads, reducing the number of crashes and serious accidents, and improving overall safety (Truong and Currie 2019), so that everyone can get where they need to go safely.

3. **Better quality of life** – Transport connects people to education, employment, essential services, recreational activities, friends, family and so much more. Quality shared and active transport boosts access to these services and opportunities in ways that can shorten commutes and make them more enjoyable. More use of shared and active transport can also increase incidental physical exercise. Active commuting has been associated with a number of health benefits including decreased risk of heart disease and cancer (Celis-Morales et al. 2017; Dinu et al. 2019).

4. **Reduced cost of living** – Cars cost a lot to run and maintain, and can be among the most expensive everyday costs for households. The average Australian household spends more than $22,600 on transport annually, 95 percent of which is spent on car-related expenses including loan repayments, fuel, insurance, servicing, tolls and registration (AAA 2024). By contrast, active options like walking are free and public transport can be much cheaper.

5. **Better choice and empowered communities** – Many Australians have limited choices for how they move around and are often forced to rely on the private car – particularly in Australia's outer suburbs and regions (Scheurer et al. 2017). Substantially increasing investment to improve and rapidly expand shared and active transport options provides greater choice to more Australians in how they get around.

6. **Boosting productivity** – Car traffic congestion costs the Australian economy $38.8 billion annually (Infrastructure Australia 2019). Shifting to shared and active transport to reduce private vehicle use is an effective congestion-buster, as increasing road space only serves to increase the number of cars on the road (Aftabuzzaman et al. 2008; Garrard 2009).

1.3 Australian cities have the best opportunities for shared and active transport

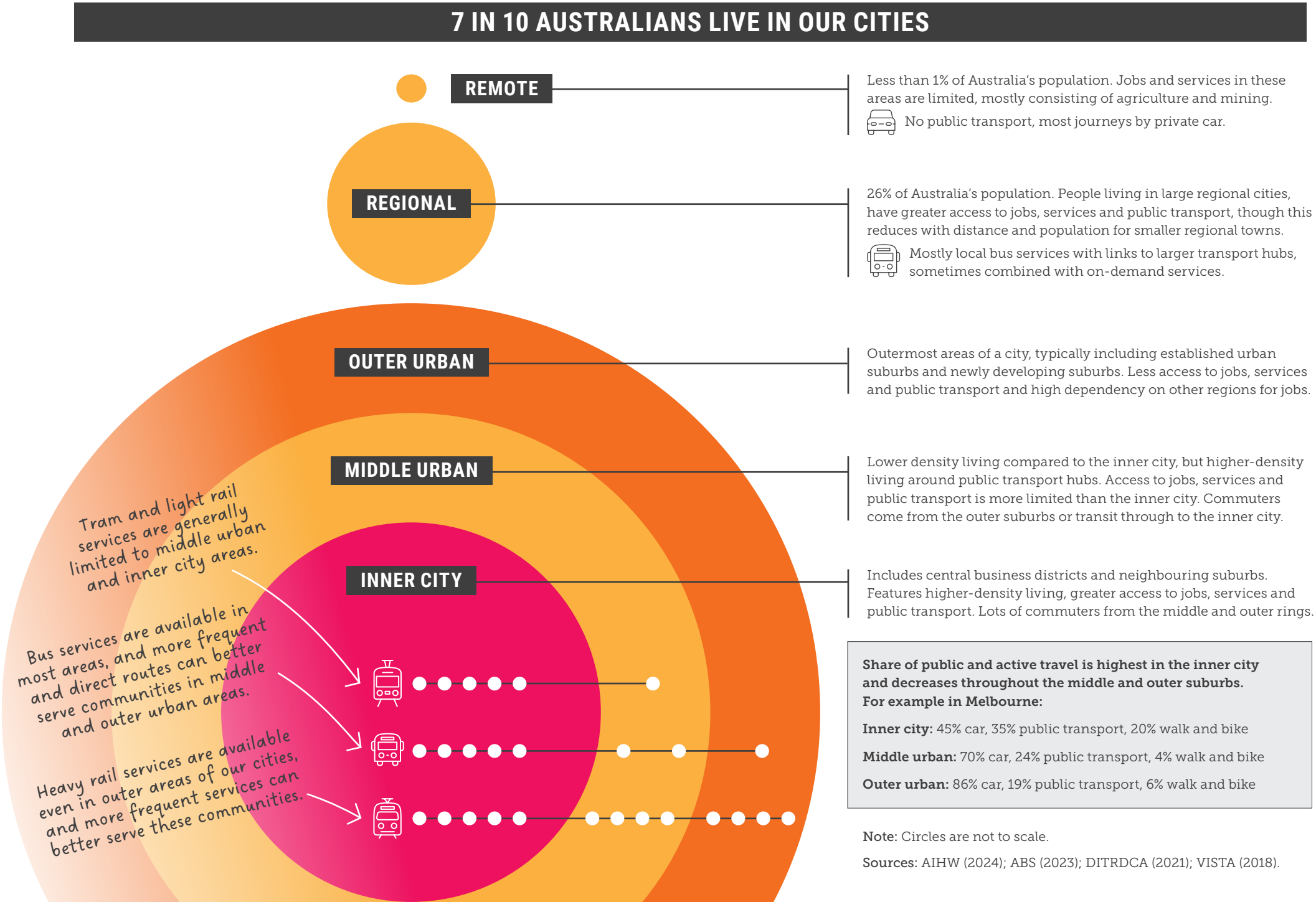
Climate Council's transport agenda focuses on enabling Australians living in our biggest cities to choose shared and active transport more often. There are three key reasons for prioritising our cities for this transport shift:

1. **Most Aussies live in our cities.** The majority of Australia's population (68 percent) lives in one of our capital cities (ABS 2023a) and this is expected to continue. Over the next decade, the number of people living in our capital cities is projected to increase 23 percent. This is more than twice the rate of population growth expected in other non-capital cities, and rural and regional areas (Centre for Population 2023). New and improved shared and active transport options can be designed with this population growth and increased travel demand in mind, so that these cleaner transport options become the default choice for convenient, frequent and reliable travel as our cities continue to grow.

2. **Our cities have greater population density which can be better serviced by convenient, frequent and reliable shared transport.** People in cities live closer together and generally travel shorter distances compared with people living in regional and rural areas. Where more people are living closer together, in suburbs or apartments, shared and active transport can service a greater number of people for each route compared with areas where people are more dispersed. To increase coverage and provide choice for more Australians, transport services need to connect people from suburb to suburb, as well as city-bound trips.

3. **Climate action must be equitable and reflect the different needs and contributions that communities can make.** About 70 percent of climate pollution comes from cities around the world, particularly from energy use and transport (Hopkins et al. 2016). With the right infrastructure and services in our cities, more people can choose shared and active transport more often. For people outside our cities, other options like using electric vehicles will make more sense, as the range and mix of vehicles available increases.

Figure 4: Breakdown of Australian cities and common transport options for each.



1.4 Towards universal shared transport availability: the Shared Transport Service Standard

Shared and active transport options need to be convenient, frequent and reliable for Australians to choose them more often. Whether that's walking to the bus on a safe and well-lit footpath, or transferring from a train to a bus with minimal travel times and waiting, these options need to be genuinely competitive with private vehicles.

They should connect us to where we need to go – linking up with the doctor's surgery, the shopping centre and the daycare centre in the next suburb, as well as the central business district (CBD). When Australians are confident these transport options can get them where they need to go, they are often happy to leave the car behind – as millions of people already do every day.

Climate Council advocates for transport services in Australian cities to meet a Shared Transport Service Standard, which matches evidence and best practice for quality shared transport.

Within the urban footprint of Australia's capital cities, services should operate at least every 15 minutes from 7am to 7pm within 800 metres of every home, at a minimum. Meeting this standard means services are:

- **Convenient** to get to because they're close to home. Having transport stops within 400 to 800 metres of every home is considered best practice because this makes services quick and easy to access (Burke and Brown 2007). People are willing to walk a bit further – 800 metres or 10 minutes – if services are more frequent (Rose et al. 2013).

- **Frequent** enough for people to 'turn up and go' without needing to consult timetables or closely plan their trips. Providing services every 15 minutes throughout the day, and more frequently during peak hours, reduces waiting, makes connections easier, and provides more choice of when to travel (Infrastructure Victoria 2023).

- **Reliable** because they run all day between 7am and 7pm – the times most people will need to travel. Outside of these hours, services should still be available, even if they are not as frequent. Providing frequent services all day, including outside of morning and evening peaks, allows people to move around as they need for work, school and care commitments, appointments and social activities.

Traditional public transport options like buses, trains and trams will be the backbone for delivering a Shared Transport Service Standard across our biggest cities. These are the options Australians already turn to when they are available. To deliver this level of convenient, frequent and reliable services in some locations, other options may also be needed, like on-demand mini-bus services, coordinated carpooling with electric vehicles and other innovative solutions. The mix of options provided to meet the standard will differ across communities: what's important is that most Australians will have good options to get where they need to go without relying on a private car.

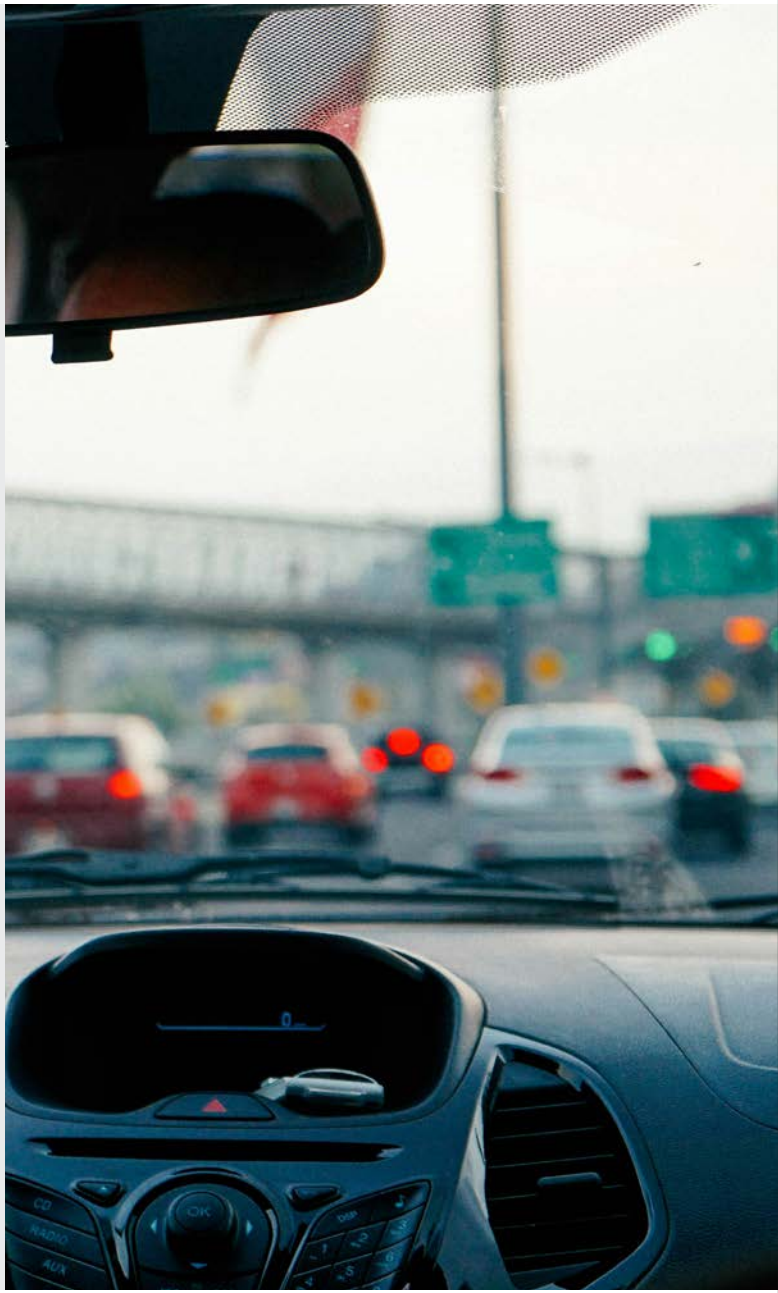
Some states and territories already recommend similar standards. For example, NSW's guidelines for Greater Sydney aim for 90 percent of households to be within 400 metres of a public transport stop between 6am and 10pm each weekday (Transport for NSW 2017). Victoria is aiming for 95 percent of new residential land to have access to public transport within 400 metres, and 200 metres for aged-care, educational, medical and community facilities (Department of Transport 2023a).

It should be noted that even when these standards are met, there are other factors which influence ridership and service quality such as the directness of routes and access between suburbs, as well as to and from central areas. This analysis highlights significant opportunities to step up the delivery of public transport so that it offers more Australians a real choice in how they get around.

Climate Council's analysis, presented in the following section, assesses the public transport provided today across Australia's five biggest cities against this proposed Shared Transport Service Standard.

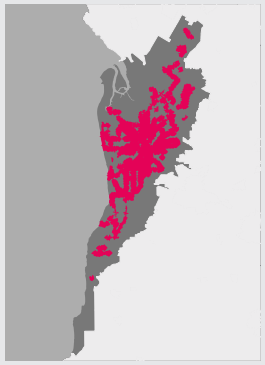
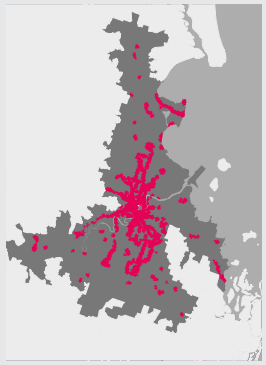
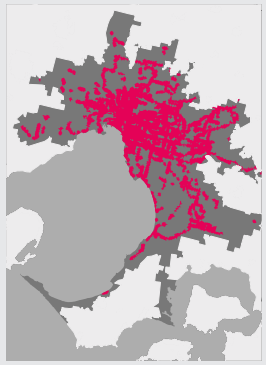
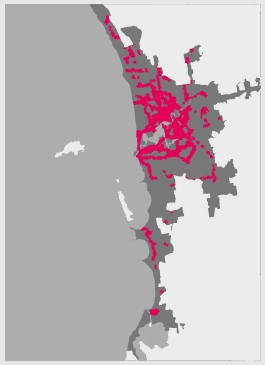
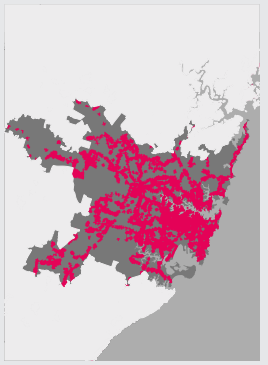
2.

Missing out:
Many people living in major Australian cities don't have convenient, frequent and reliable public transport



More than half of all Australians live in one of our five biggest cities: Adelaide, Brisbane, Melbourne, Perth and Sydney. The Climate Council has analysed public transport access in each of these cities by matching public transport timetables, stop locations and population data.

ACCESS TO PUBLIC TRANSPORT ACROSS AUSTRALIA'S LARGEST CITIES

	ADELAIDE	BRISBANE	MELBOURNE	PERTH	SYDNEY
People with all-day frequent services available near their home	47.6% have access 	33.7% have access 	52.5% have access 	40.5% have access 	67.2% have access 
Population[2]	1.2 million	2.3 million	4.6 million	2.0 million	4.7 million
Population density	1,457 people per km^2	1,129 people per km^2	1,592 people per km^2	1,188 people per km^2	2,141 people per km^2
Land area	854 km^2	2,027 km^2	2,881 km^2	1,720 km^2	2,194 km^2
Transport options used to travel to work[3]	Public: 10% Active: 5% Private: 80% Other: 5%	Public: 14% Active: 5% Private: 75% Other: 6%	Public: 18% Active: 6% Private: 71% Other: 6%	Public: 12% Active: 5% Private: 78% Other: 5%	Public: 27% Active: 6% Private: 62% Other: 5%
Service gap between wealthy and lower income suburbs	Access is 19% lower in lower income suburbs	Access is 27% lower in lower income suburbs	Access is 27% lower in lower income suburbs	Access is 18% lower in lower income suburbs	Access is about the same in lower income suburbs

2 For the purpose of this analysis, the Australian Bureau of Statistics *Urban Centres and Localities* classification has been used as the boundaries of each city. Population and density statistics have been estimated off the basis of aggregated mesh block counts aligned to these boundaries. Population data is sourced from the 2021 Census, based on reported place of usual residence.

3 Journey to work mode share is based on 2016 Census results. As 2021 Census results were impacted by COVID lockdowns, 2016 data is the most recent consistent national data available. 'Other' includes people who worked at home on Census Day.

ABOUT THIS ANALYSIS:

The Climate Council has undertaken a bottom-up analysis of public transport availability in Australia's five biggest cities. The analysis estimates the number of people in each city who have access to public transport services that run at least every 15 minutes from 7am to 7pm, within an 800 metre walk of home. This standard for public transport availability is consistent with the Climate Council's proposed Shared Transport Service Standard.

This analysis is based on public transport timetables published by each city, accounting for all types of scheduled public transport available. Timetables from May 15, 2024 were used as a representative weekday.

To assess the relevance of social and economic status to differences in public transport availability, neighbourhoods were classified into five equal-sized groups (quintiles) based on their level of socioeconomic advantage and disadvantage, relative to other areas across Australia. The population-weighted average service level for each quintile was then estimated for each capital city.

For more detail please refer to the method (p.45).

WHO HAS ACCESS TO ALL-DAY, FREQUENT PUBLIC TRANSPORT IN SYDNEY?

67.2%

of people have access to all-day frequent services

Best availability
Sydney CBD, Botany, Eastern suburbs

Worst availability
Blue Mountains, Penrith, Campbelltown

1ST PLACE

out of Australia's five largest capital cities

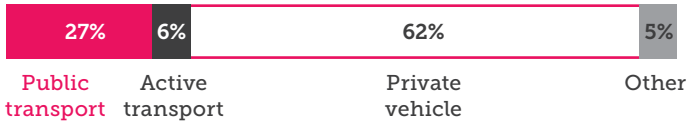
Access to good public transport services ends

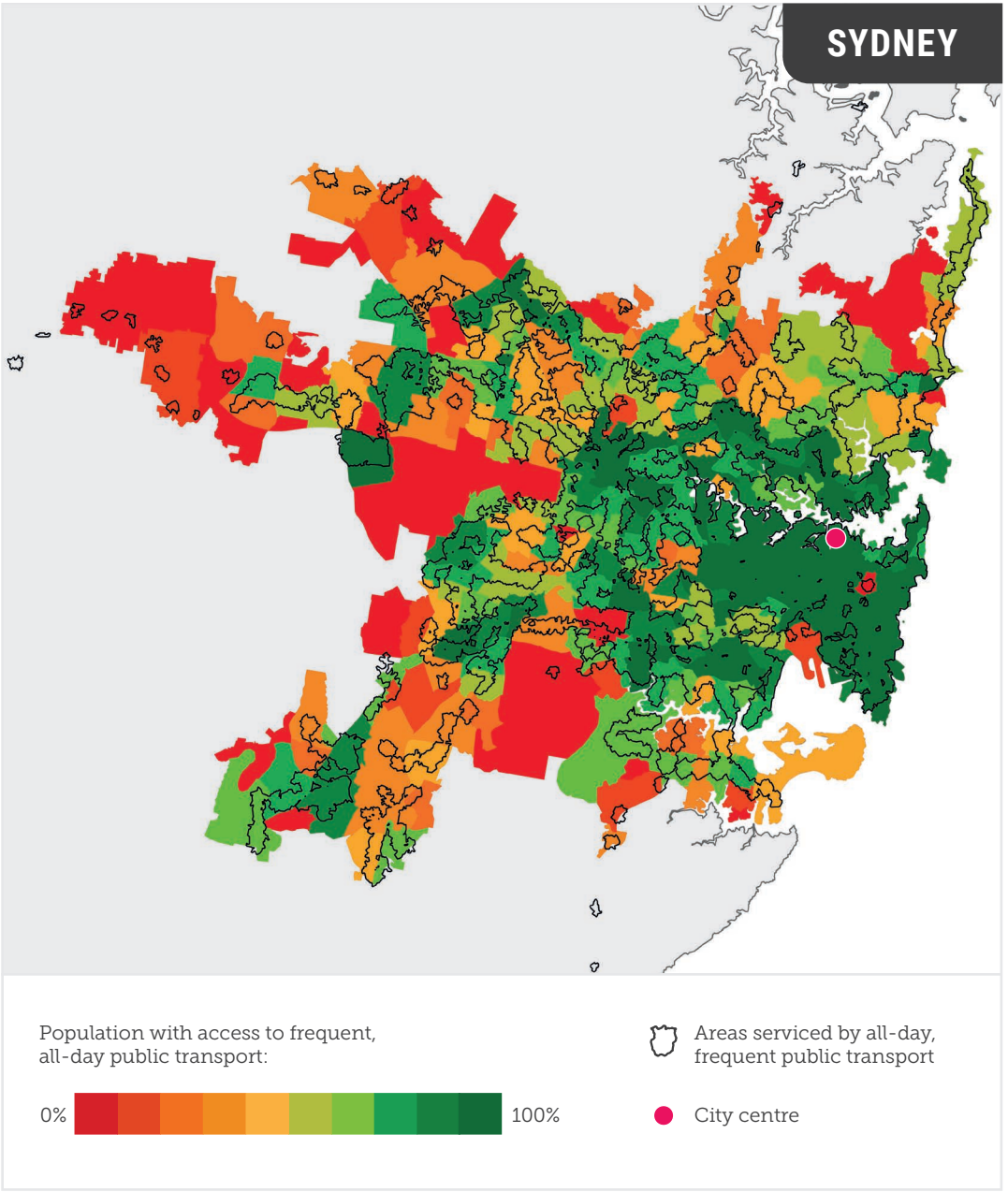
25KMS FROM THE CBD for most people

Access to good public transport is

<1% LOWER in lower income suburbs

Transport options used to travel to work:





WHO HAS ACCESS TO ALL-DAY, FREQUENT PUBLIC TRANSPORT IN MELBOURNE?

52.5%

of people have access to all-day frequent services

Best availability
Melbourne CBD, Albert Park, South Yarra

Worst availability
Cardinia, Mornington Peninsula, Fawkner

2ND PLACE

out of Australia's five largest capital cities

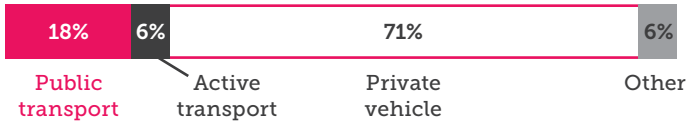
Access to good public transport services ends

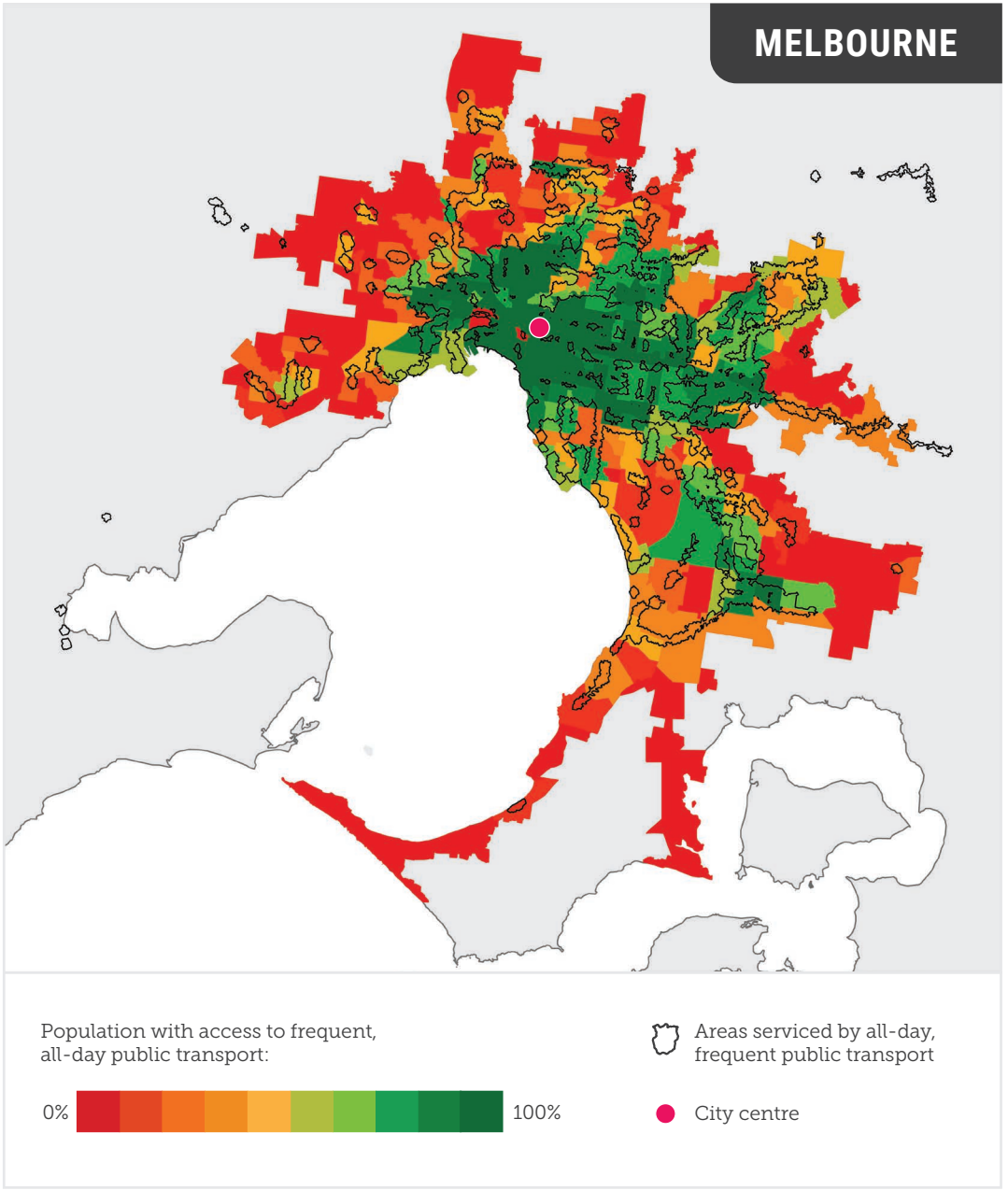
15KMS FROM THE CBD for most people

Access to good public transport is

27% LOWER in lower income suburbs

Transport options used to travel to work:





WHO HAS ACCESS TO ALL-DAY, FREQUENT PUBLIC TRANSPORT IN ADELAIDE?

47.6%

of people have access to all-day frequent services

Best availability
Adelaide CBD, Prospect & Walkerville, Unley

Worst availability
Onkaparinga, Playford, Port Adelaide

3RD PLACE

out of Australia's five largest capital cities

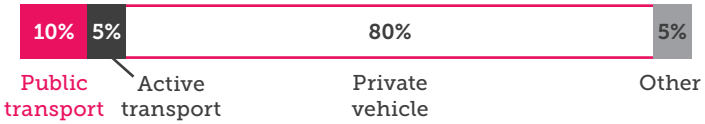
Access to good public transport services ends

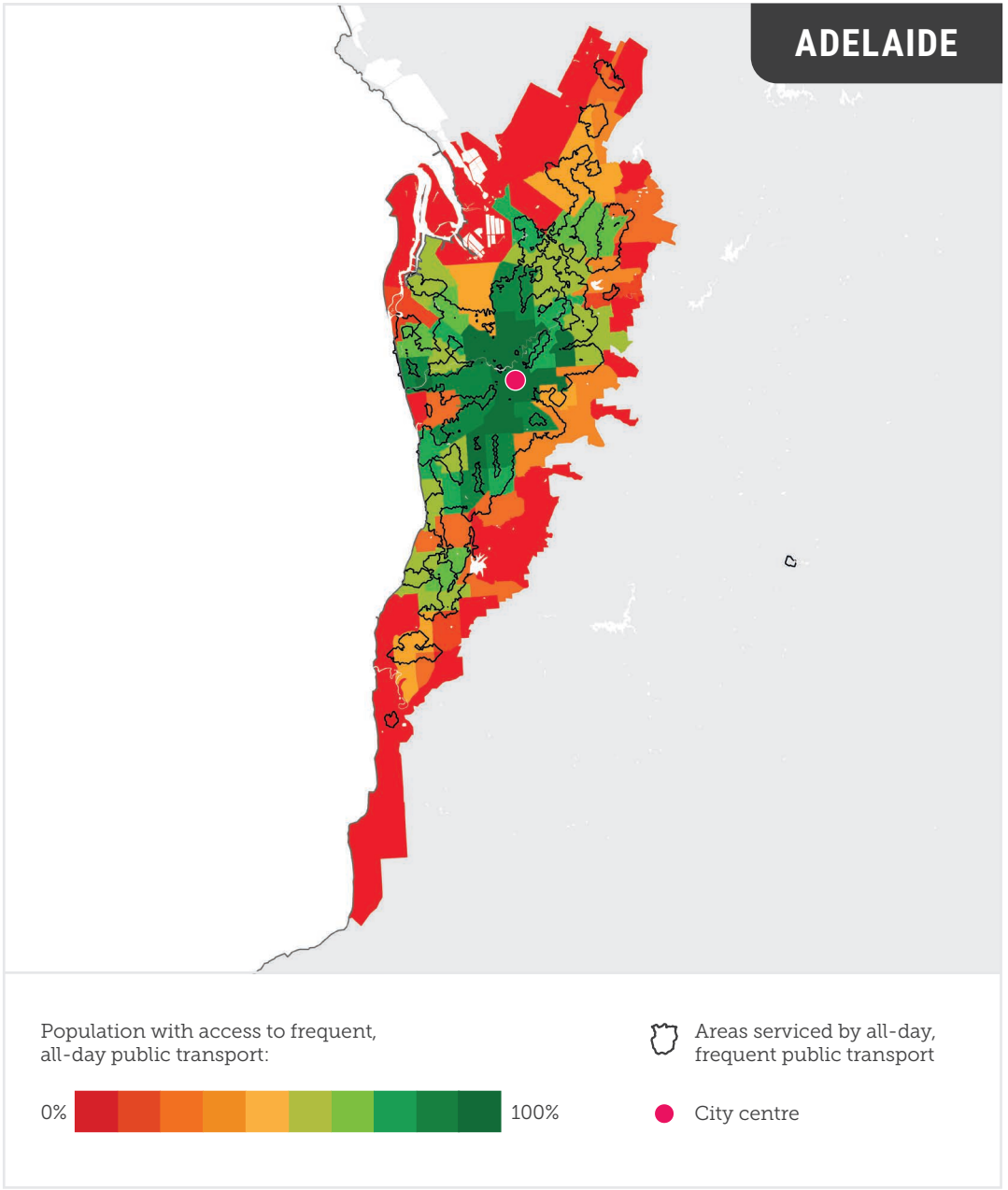
8KMS FROM THE CBD for most people

Access to good public transport is

19% LOWER in lower income suburbs

Transport options used to travel to work:





WHO HAS ACCESS TO ALL-DAY, FREQUENT PUBLIC TRANSPORT IN PERTH?

40.5%

of people have access to all-day frequent services

Best availability
Perth CBD, Belmont / Victoria Park, Fremantle

Worst availability
Kwinana, Mandurah, Armadale

4TH PLACE

out of Australia's five largest capital cities

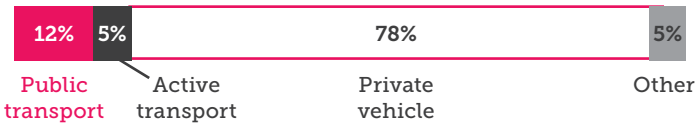
Access to good public transport services ends

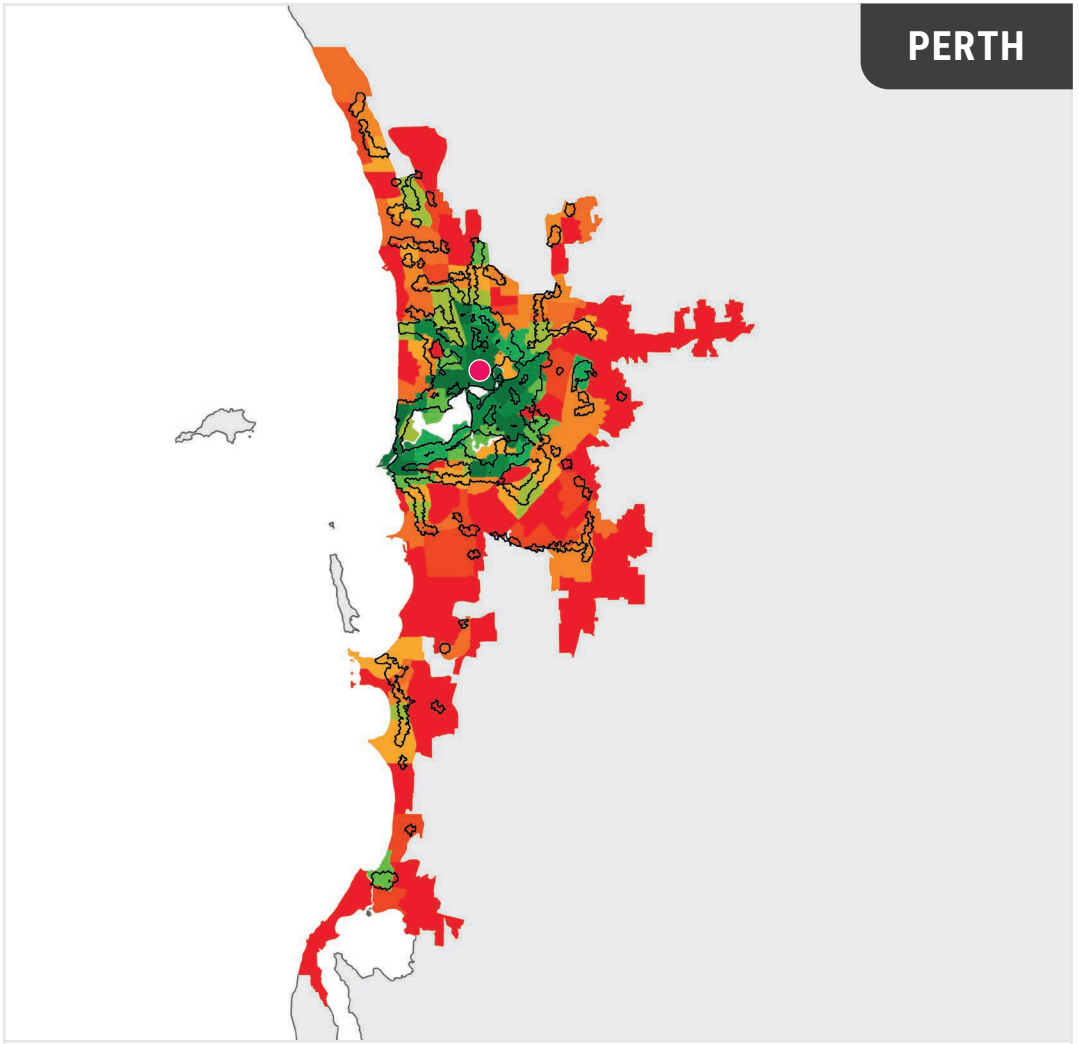
12KMS FROM THE CBD for most people

Access to good public transport is

18% LOWER in lower income suburbs

Transport options used to travel to work:





Population with access to frequent, all-day public transport:

0% 100%

Areas serviced by all-day, frequent public transport

City centre

WHO HAS ACCESS TO ALL-DAY, FREQUENT PUBLIC TRANSPORT IN BRISBANE?

33.7%

of people have access to all-day frequent services

Best availability
Inner Brisbane suburbs, Annerley / Yeronga, Indooroopilly

Worst availability
Hills District, Browns Plains, Beenleigh

5TH PLACE

out of Australia's five largest capital cities

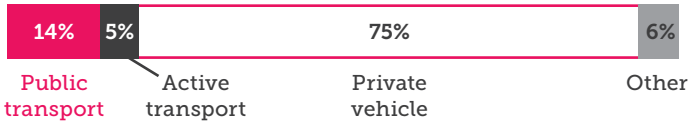
Access to good public transport services ends

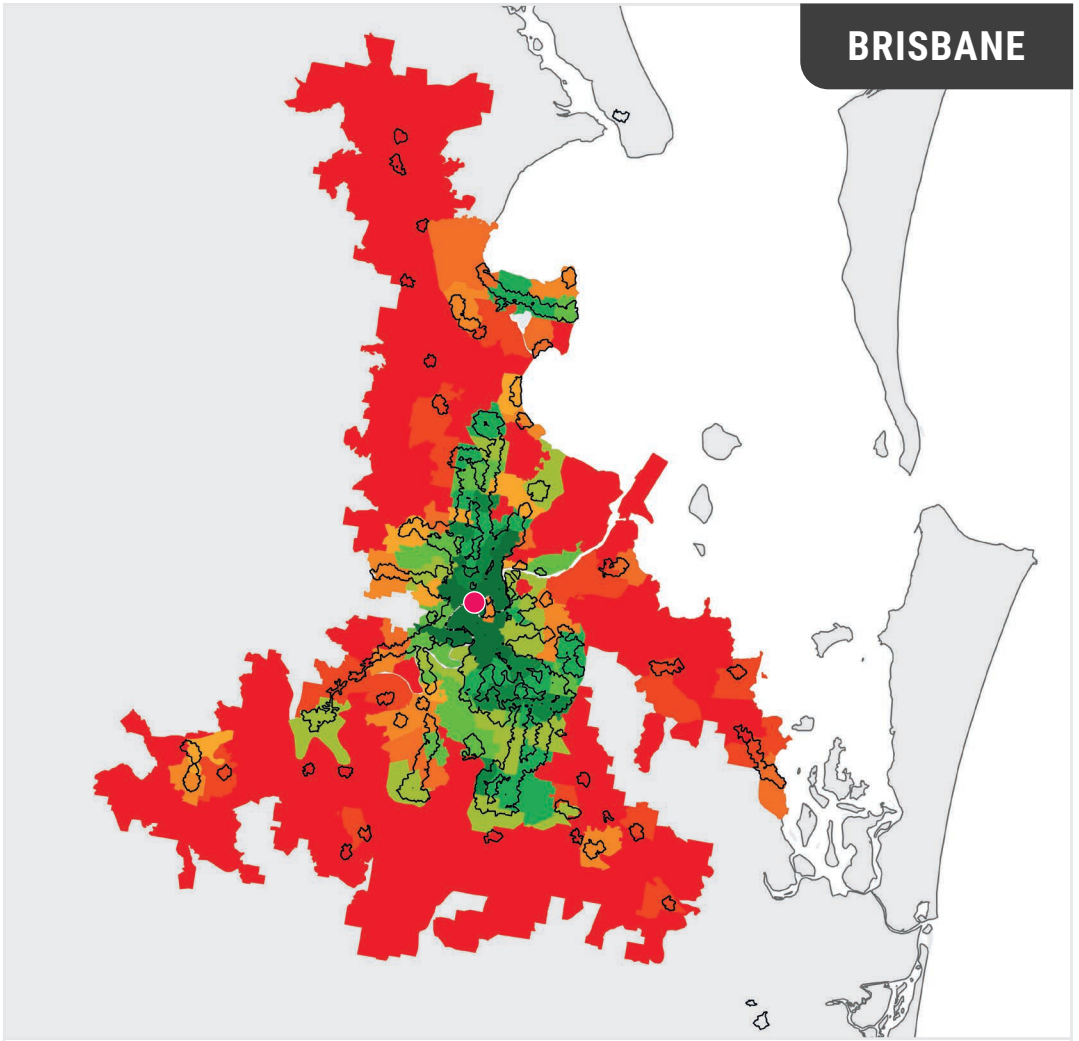
8KMS FROM THE CBD for most people

Access to good public transport is

27% LOWER in lower income suburbs

Transport options used to travel to work:





2.1 Middle and outer suburbs deserve immediate attention, with improvements needed across all our major cities

This analysis shows only half of the 15 million Australians living in our five biggest cities have access to frequent public transport available throughout the day.

Climate Council's analysis identifies some of the areas in Australia's largest cities that are most underserved by public transport:

- Blue Mountains, Penrith and Campbelltown in Sydney;
- Cardinia, Mornington Peninsula and Fawkner in Melbourne;
- Onkaparinga, Playford and Port Adelaide in Adelaide;
- Kwinana, Mandurah and Armadale in Perth;
- Hills District, Browns Plains and Beenleigh in Brisbane.

These suburbs are part of a much broader opportunity to provide better shared transport options to middle and outer suburbs across our cities.

Public transport investment has not kept pace with growing demand, with many people living more than 10km away from the CBD lacking convenient, frequent and reliable services.

Figure 5: Suburbs more than 10 km from the CBD in Australia's biggest cities don't yet have good enough public transport, despite being home to a large share of our population.

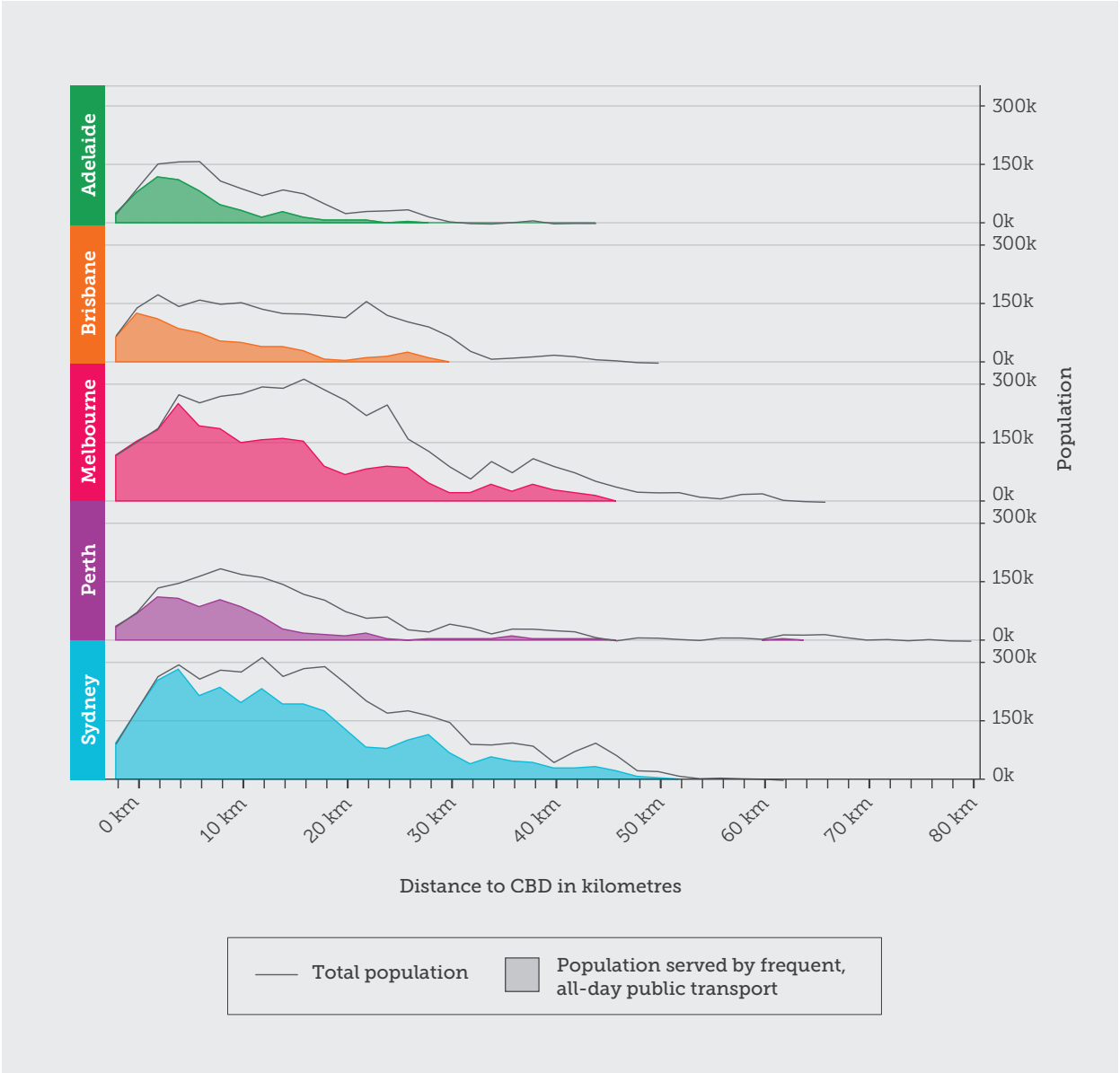


Figure 5 compares each city's population and the population currently served by frequent, all-day public transport. Sydney fares the best with most of the population served by frequent, all-day public transport within 25km of the CBD. Perth and Adelaide sit in the middle of the pack, while Melbourne and Brisbane are falling behind with many communities relatively close to the city centre being poorly served by frequent, all-day public transport. This is in part due to a number of fast-growing suburbs where the delivery of public transport by government has not kept up with growing demand (further discussed in Section 2.3).

Governments are starting to recognise the service gaps for middle and outer suburbs and are investing in new and expanded transport options. However, this investment is mostly focused on huge, capital-intensive projects, such as the Sydney Metro, Brisbane's Cross River Rail, and Melbourne's Suburban Rail Loop. While these projects will benefit our cities, there are other options which are more cost-effective, faster to deliver, and can improve services for people who are missing out.

As described in Box 2, there is a significant opportunity to improve the availability of public transport in our suburbs by rolling out convenient, frequent and reliable bus services. Local bus services that take people from their homes to the places they work, shop and live – or connect seamlessly with other transport options – can dramatically improve how well public transport works in our cities. Prioritising the delivery of more bus services on better-designed networks can lift Australian cities toward the high-frequency and flexible transport systems available in other cities globally.

The benefit of this kind of high-frequency, networked service model comes from offering 'anywhere to anywhere' transport through a consistent set of reliable and interconnected buses, trains and other travel options. This involves a deliberate network of local feeder buses – potentially including on-demand options – connecting seamlessly with trains and light rail, all available at a high frequency to provide users confidence that a connection will be quick and easy.

BOX 2: FAST AND RELIABLE BUSES CAN MEET THE TRANSPORT NEEDS OF AUSTRALIA'S UNDERSERVED SUBURBS

Melbourne's western suburbs have experienced some of Australia's fastest population growth, particularly in Wyndham. However, public transport services have failed to keep up with this growth and meet the community's needs. As a result, households in this region often bear the financial burden of owning and running multiple cars.

Lawrie and Stone (2022) find that even modest increases in public transport spending could transform the bus network, dramatically improving ridership across Melbourne and delivering community benefits quickly. Transforming the bus network would increase overall community access to activity centres within 30 minutes by more than 250 percent during weekday peak periods, and more than 300 percent during evenings and on weekends. These major increases could be achieved with small investments, and once established, the enhanced network could be delivered at similar operating costs to today's current services.

Key steps to achieving this include:

- Setting bus routes in a grid configuration at 1.5km intervals operating along major roads as demonstrated in Figure 6 and 7; putting most homes less than 800 metres walking distance of a bus stop.
- Aligning routes to optimise access to major activity centres such as shopping centres and service hubs.
- Operating all bus services at a standard 10-minute frequency from 6am to 9pm on weekdays, and 7am to 9pm on weekends with very early morning and late evening services at a 12-minute frequency.
- Prioritising bus movement on roads, by separating them from general traffic, with average bus speeds of 30km/hour.

BOX 2: CONTINUED

Figure 6: Existing Melbourne western suburban public transport services and accessibility to key Activity Centres (Laurie and Stone 2022).

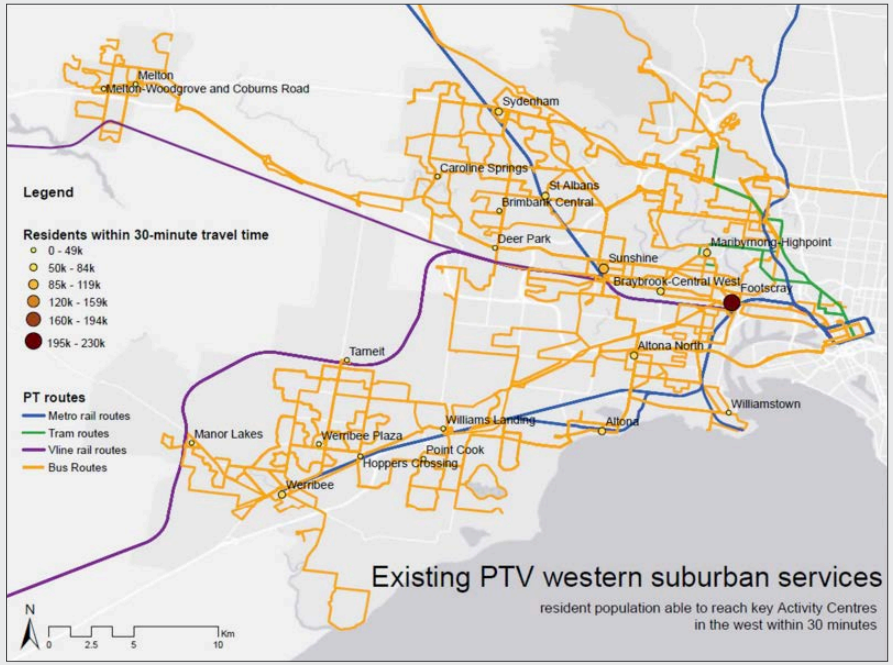
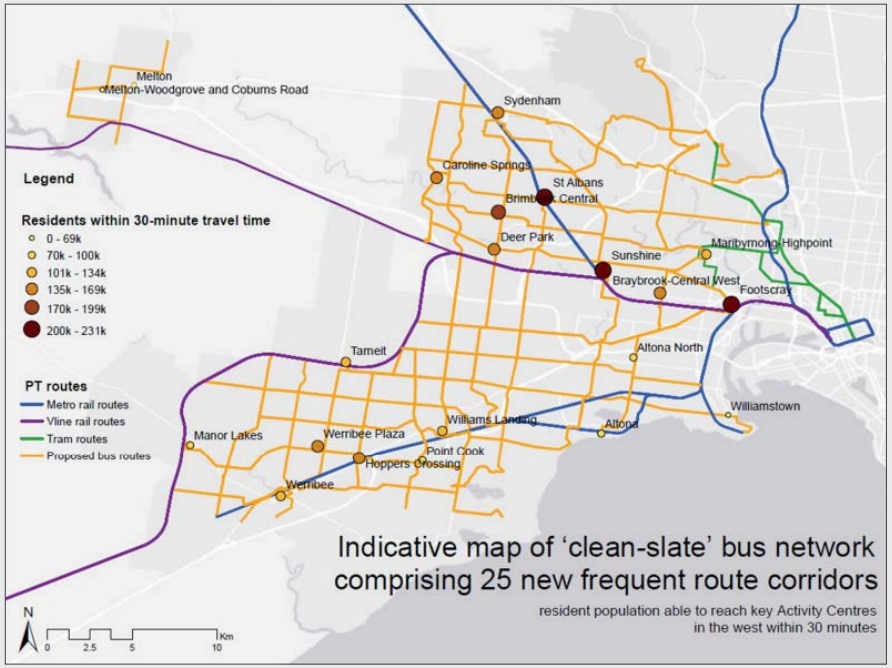


Figure 7: Indicative map of reformed bus network, comprising 25 new frequent service corridors (Laurie and Stone 2022).



As users can easily connect from one travel option to another to reach a larger number of destinations, much higher shared transport use can be achieved. Many European cities with a population density and physical network size comparable to Australian cities already successfully use this style of network. Implementing low-cost service upgrades and infrastructure changes that move towards this style of network can have significant benefits in Australia's cities too. For example, increasing frequency, creating more direct routes, and implementing bus lanes could remove 63,000 vehicles from Melbourne's roads every day while increasing bus boardings by 164,000 people (Infrastructure Victoria 2023).

Electric buses can provide convenient, frequent and reliable transport options to high-growth suburbs which are currently underserved by shared transport.

2.2 More services are needed throughout the day, not just at peak times

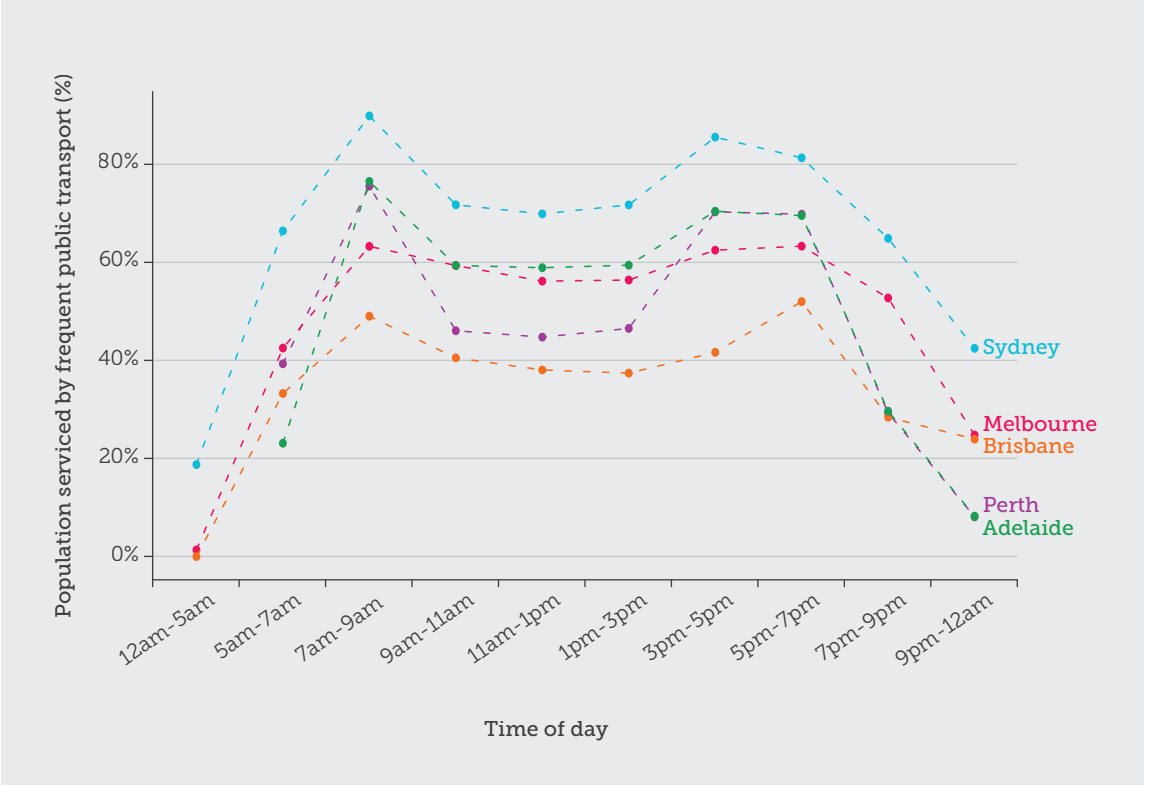
To meet the diverse travel needs of our communities, frequent services need to be available all day. Casual and shift workers, students, retirees and parents – among others – need access to transport outside of the morning and evening peaks when office workers typically travel. Everyone benefits from better transport in the evening to connect with dining, leisure and entertainment destinations.

Figure 8 highlights how transport frequency in our biggest cities plummets outside of peak commuting hours, making travel slow and complicated. Services in Perth and Adelaide are much less frequent outside of peak times compared to other cities. Evening frequencies between 7pm and 9pm drop significantly in all cities, despite this being a time when many Australians are still out and about.

Boosting public transport frequency across the day is one of the biggest opportunities to improve services for communities, and increase its use. In Melbourne, improving bus frequency alone could increase bus usage by 17 percent (Infrastructure Victoria 2023).

Because most services run at higher frequencies at peak times, transport agencies already own enough trains, buses and trams to increase frequencies during the day, in the evening, and on weekends. Providing more frequent services is a win-win, creating more jobs for drivers and a range of support staff at the same time as boosting transport options for communities.

Figure 8: Access to frequent public transport drops significantly outside of peak hours.



2.3 Matching population growth to communities with great shared transport options

Our capital cities have grown rapidly in the past 20 years, adding more than four million people (ABS 2023b). Much of this growth has been in middle and outer suburbs, which are not well serviced by existing shared and active transport infrastructure. In Melbourne, Sydney and Perth, three quarters of total population growth has occurred more than 10km from the city centre. Figure 9 demonstrates that many of the suburbs with the fastest rates of population growth also have the worst public transport services when it comes to frequency and access.

As these outer-suburban areas have grown rapidly, effective planning and investment in shared transport has not kept up. Almost all of the highest growth suburbs have lower-than-average public transport availability, and are centred around the outer areas of existing cities.[4] Fortunately, there are readily-available solutions which can provide more shared transport options to people in growing suburbs, like rolling out more bus services on better-designed networks as discussed in Section 2.1.

As Australia's major cities continue to grow, we can avoid making the same mistakes. Governments have an opportunity to encourage population growth in communities that already have good transport options. Australia's cities have much lower population density than others internationally, so there is a significant opportunity to use our existing land footprint better. Interestingly, this analysis highlights that suburbs with a mix of mid-rise, townhouse and single-occupancy dwellings are generally well serviced by public transport, like Sydney's inner west and Melbourne's inner north. These areas are often considered desirable places to live because of the combination of homes, services and activities on offer. Lifting density towards the level seen in these popular suburbs would be enough to give many more Australians access to great transport services as well as deal with housing pressures.

Some state and territory governments have already taken the first steps towards sensible increases in density. For example, both New South Wales and Victoria are using state planning powers to encourage higher density development around transport hubs to accommodate more population growth within existing urban boundaries (NSW Government 2023; State of Victoria 2023). More directly, the ACT Planning Strategy supports sustainable growth by delivering 70 percent of new housing within the existing urban footprint (ACT Government 2018). Change is also occurring at a federal level, with the promotion of medium and high-density housing in well-located areas close to existing shared transport, services and jobs included as a measure of the National Planning Reform Blueprint (Treasury 2024).

Together with providing better access to shared transport services in our historic growth areas, managing where future population growth occurs will mean better access to shared transport options for more people, now and in the future.

4 Adelaide is an exception to this, which may be partly due to overall lower population growth coupled with lower starting levels of population density at the start of the analysis period (2001).

Figure 9: Suburbs with poor public transport services have experienced some of the highest population growth.

2.4 Wealthier areas have better public transport access, but that shouldn't be the case

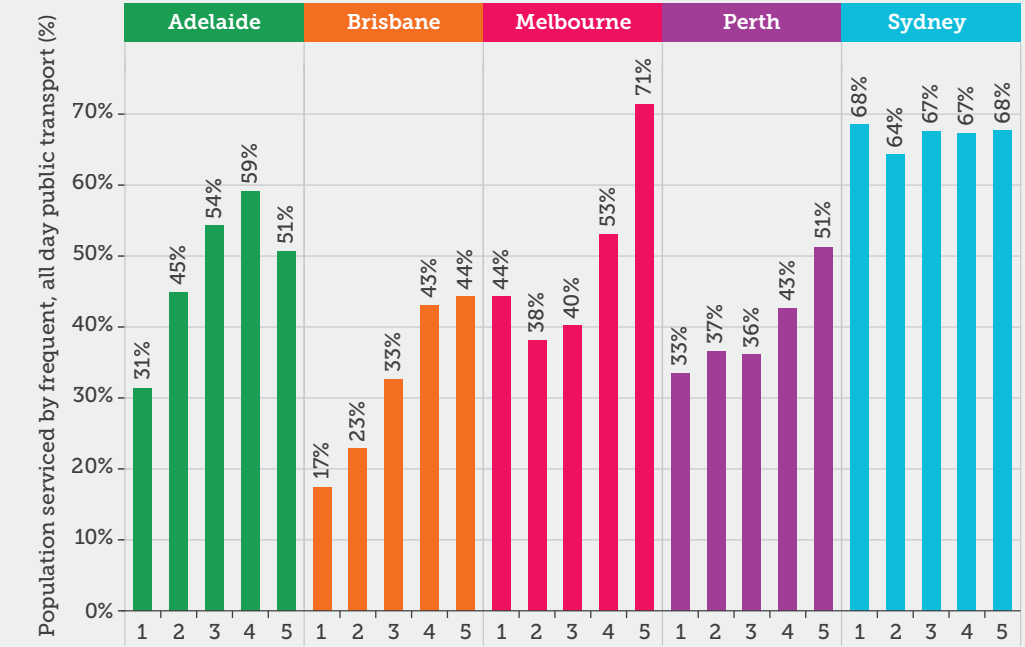
In most of Australia's capital cities, areas with a greater share of low-income households are much worse off when it comes to public transport availability. Too often, this means those who can least afford it have to pay the most to run and maintain their cars. The gaps in service quality between communities with the lowest incomes and those with the highest are particularly large in Melbourne, Adelaide and Brisbane. Sydney has a much smaller gap (see Figure 10), showing that it is possible to service communities more equitably.[5]

Future transport planning should prioritise improvements to services within lower income areas with significant populations, as another practical way to boost uptake of public transport.

Some examples of these areas include:[6]

- Campbellfield, Broadmeadows and St Albans in Melbourne
- Cabramatta and Fairfield in Sydney
- Salisbury North, Paralowie and Davoren Park in Adelaide
- Parmelia, Clista and Gosnells in Perth
- Marsden, Eagleby and Inala in Brisbane.

Figure 10: Analysing communities in our big cities on income level and public transport service quality.



Note: The Australian Bureau of Statistics' Socioeconomic Index of Advantage and Disadvantage was adapted into quintiles for presentation purposes. A quintile of one indicates the most socio-economically disadvantaged 20 percent of areas nationally, while a quintile of five indicates the most advantaged 20 percent of areas.

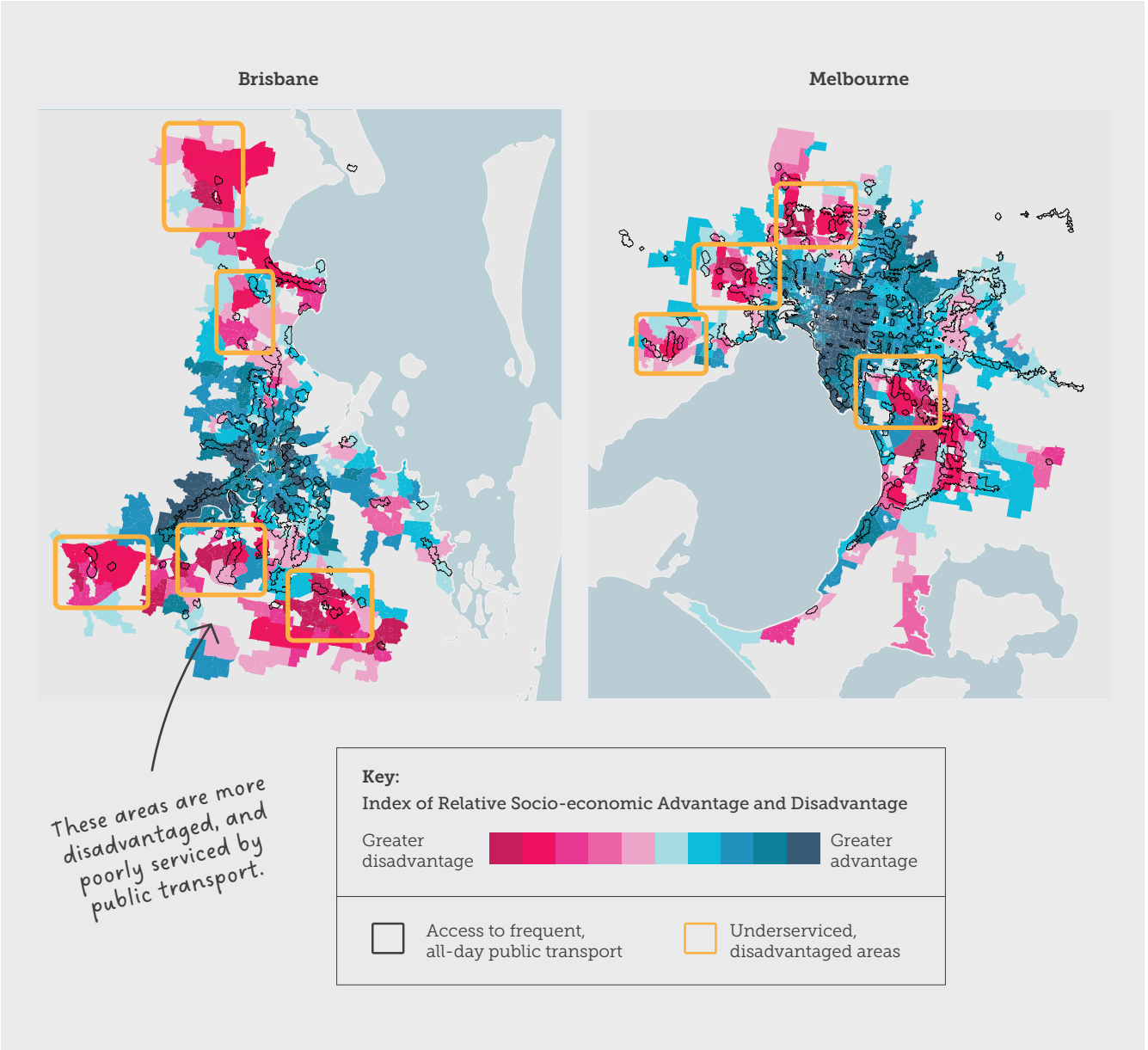
5 Transport inequity in Sydney is lower than other Australian cities in the mean. Notwithstanding this success relative to other cities, some of Sydney's most affluent suburbs such as Mosman and Leichhardt still receive the best service levels (>90 percent) while lower income areas such as Penrith and Campbelltown receive lower service levels (below 50 percent).

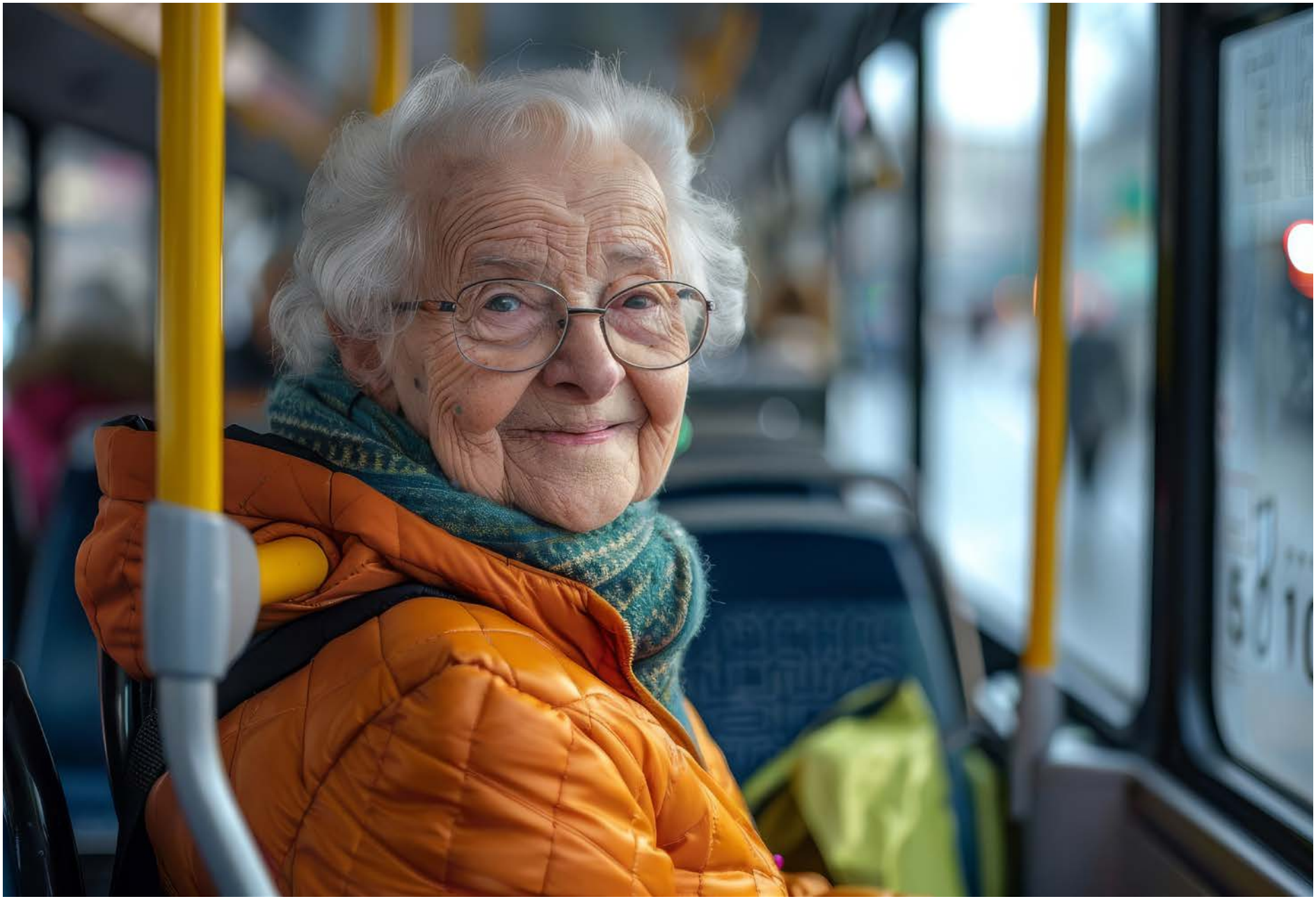
6 Area service levels and level of disadvantage were assessed based on 2021 SA2 areas.

This pattern of transport inequity is closely linked to housing cost and distance to city centres, as households with limited resources often live in outer suburbs where housing is more affordable. Figure 11 maps Melbourne and Brisbane's networks as an example, showing outer suburbs where people experience socioeconomic disadvantage are under-serviced when it comes to public transport.

Given the significant costs involved with car ownership, this lack of good shared transport can be an additional barrier for communities who may already struggle to access employment, education and other daily destinations. It doesn't have to be this way: convenient, frequent and reliable shared transport should be available for everyone in our big cities – making it easier for people to move around when and where they need to while also slashing climate pollution.

Figure 11: Socioeconomic advantage and disadvantage by area, compared to frequent, all-day public transport service catchment.





3.

Governments can enable Aussies to choose shared and active transport more often with focused investment and smart policies

This analysis has highlighted the gaps in service quality and availability that prevent many Australians in our big cities from choosing cleaner transport options right now. For people to choose shared and active transport more often, governments at all levels will need to structurally shift investment and planning towards these modes, and use a range of enabling policies to deliver better services and experiences.

There is an opportunity to provide more convenient, frequent and reliable transport options now, to slash climate pollution this decade and deliver huge benefits for communities in cleaner air, safer streets and more liveable cities. With focused government action, all Australians in our cities can enjoy transport options that meet their needs, letting them leave the car at home when they choose.

PRINCIPLES FOR PEOPLE-CENTRIC TRANSPORT

Prioritising shared and active transport options calls for a shift in how governments plan and deliver services and investment. There are five key principles which can guide this shift to deliver people-centric transport for Australians.

1. Plan transport around moving people, not cars

Traditional transport planning follows a clear hierarchy where cars are accommodated first and pedestrians and bike riders share whatever space is left (WHO 2022). To create healthier communities where Australians have cleaner, safer travel options, we need to flip this paradigm. Governments can plan our cities and design our transport systems with a focus on moving *people* efficiently through a combination of transport options, rather than moving cars.

This means prioritising shared and active travel as the most efficient travel options, capable of moving the most people, while taking up the least amount of space. For example, a standard bus can carry 50-60 passengers, while it would take eight to 12 five-seater cars at full capacity to carry the same number of people- and cars usually only carry 1 - 2 people. At a street level, a mixed-transport street made up of shared and active travel, alongside cars, is capable of moving more than 30,000 people each hour; a car-orientated street cannot move even half that number (Global Designing Cities Initiative 2023). Prioritising the movement of people over cars can bring major productivity benefits by using our existing infrastructure to its fullest capacity. This is particularly important in Australia's big cities, where there may be limited space or community appetite to keep delivering new roads in urban areas as more people call them home.

Mixed transport streets made up of shared and active travel, alongside cars, can move double the amount of people that purely car-orientated streets can.

PRIORITISING PEOPLE (RATHER THAN CARS) ON OUR STREETS MEANS WE CAN MOVE MORE THAN DOUBLE THE NUMBER OF PEOPLE

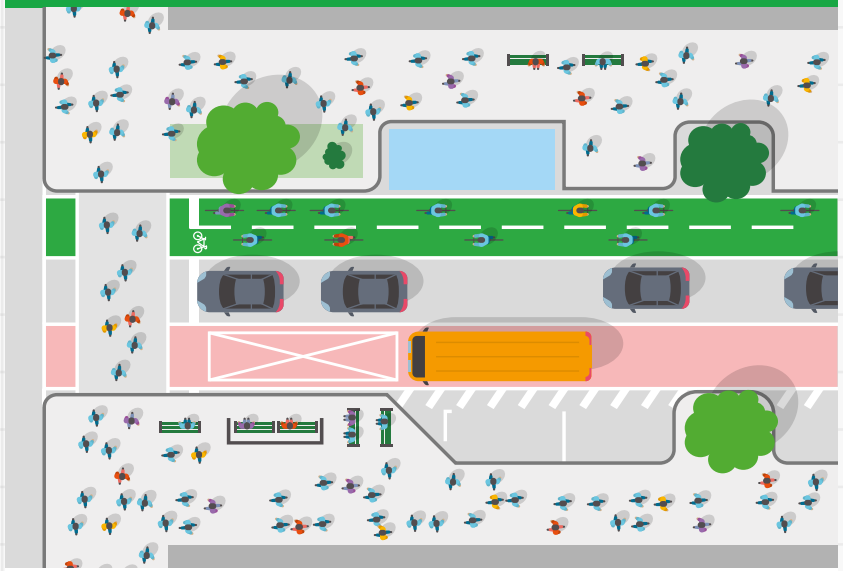
CAR-ORIENTED STREET

Hourly capacity of a car-oriented street

4,500	x	2 footpaths = 9,000 people
1,100	x	3 lanes = 3,300 people

Total people capacity per hour **12,300**

MIXED TRANSPORT STREET



Hourly capacity of a multimodal street

8,000	x	2 footpaths = 16,000 people
1,100	x	1 lane = 1,100 people
7,000	x	1 bike lane = 7,000 people
6,000	x	1 bus lane = 6,000 people

Total people capacity per hour **30,100**

Source: Global Designing Cities Initiative (2023).

2. Focus investment on the cleanest and most efficient transport options

At the moment, a disproportionate share of transport infrastructure spending still goes into roads – particularly when it comes to new projects. To boost shared and active transport, we need a structural shift in investment towards these cleaner, more efficient options. This can happen at all levels of government, from a shift in federal priorities for funds provided to state and territory and local governments; to state and territory governments' allocation of transport budgets toward shared and active transport; and local governments' prioritisation of safety on local streets and quality footpaths and bike lanes.

Shifting toward electrified shared transport and private vehicles will occur alongside the shift towards renewables in our energy grid. This will need to be considered in future planning. On one hand the electrification of vehicles will create extra demand, but on the other hand technologies like vehicle-to-grid capability can provide frequency control, grid congestion management, and reduce energy prices (Jones et al. 2021).

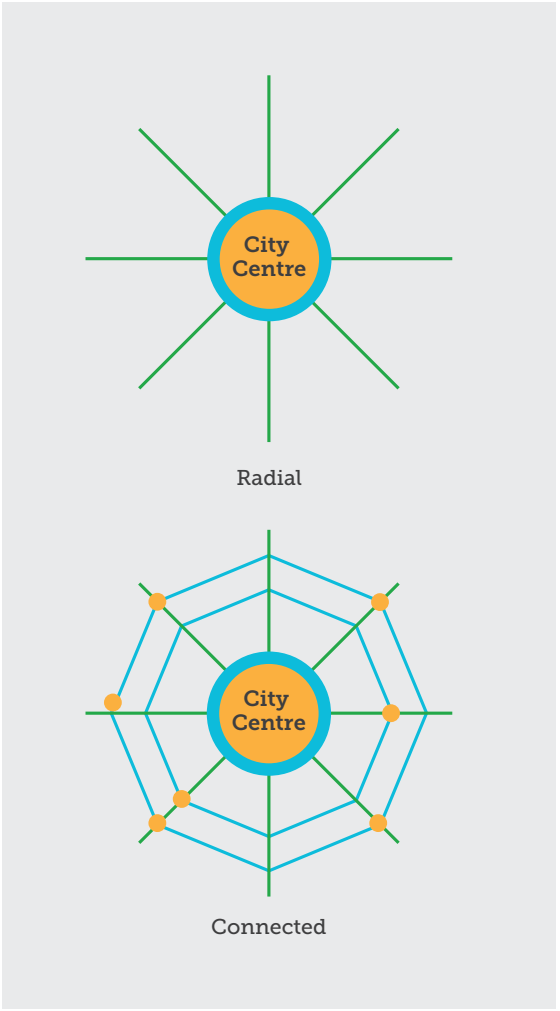
The evidence is clear that building more roads to address car traffic congestion simply increases the number of cars on the road, as traffic fills the available road space and increases climate pollution (Climate Council 2018; Garcia-López et al. 2021; Marsden et al. 2022). In contrast, shared and active transport can be designed to use existing infrastructure more efficiently and reduce overall climate pollution through a shift away from private vehicles.

3. Prioritise connections across types of transport and between suburbs

Shared and active transport needs to meet the diverse needs of Australians in our cities, no matter where they live or where they need to go. Most Australian networks were designed to meet one specific need (Stone 2011): networks are radial, going from the city outwards, mainly ferrying workers into the city centre in the morning peak and away from the city in the evening peak (see Figure 12). This no longer meets the community's modern travel needs – with many people needing to travel outside of peak hours to access education, do shift work, care for children, or travel to appointments during the day. And as the diverse number of destinations we need to access grows, so does the need to travel across suburbs or areas of a city – rather than just to and from the city centre.

Shifting to a connected transport system offers many more benefits, by increasing cross-suburb interchanges that connect people to far more places, not just to the city and back. In middle and outer suburbs, prioritising convenient, frequent and reliable bus services can significantly improve service ability and take people from their homes to the places they work, shop and live, or connect with other travel options (see Section 2.1, Box 2).

Figure 12: Comparing a radial transport network to a connected transport network.



Source: Transport for NSW (2017).

Ensuring positive and safe transport experiences for everyone will encourage greater uptake of public transport, whether that means meeting accessibility standards or protecting commuters from the rain and sun.

4. Focus on ensuring positive transport experiences

Positive experiences with shared transport will attract and keep Australians onboard. Communities want services that are convenient, frequent and reliable, as well as safe, accessible and comfortable. As our analysis shows, only half of all Australians living in our five biggest cities have access to all-day, frequent public transport. Stepping up services to Climate Council's recommended Shared Transport Service Standard would mean many more people have the opportunity to travel easily, without long walks or waits.

Accessibility and safety are key considerations in whether Australians can access and feel comfortable using shared transport for more of their journeys. Across the country, only 50 percent of public transport meets accessibility standards, despite an aim to have all public transport and associated infrastructure fully accessible by the end of 2022 (ABC 2023). In Penrith, where temperatures on the ground can reach over 50°C in summer, only 30 percent of bus stops have shelter, shade and seating (Sweltering Cities 2024). In 2021-22 over 90 percent of men who used public transport alone after dark felt safe; for women this dropped to just 77 percent (ABS 2023c). These are just a few examples of the need to create more accessible, safe and comfortable shared transport, so Australians can take up these options more often. Governments must ensure shared transport services and infrastructure meet accessibility standards; that journeys, including waiting periods, are sheltered from weather; and that all kinds of safety are factored in, including physical safety from cars and personal safety from discrimination and harm.

5. Properly integrate transport and land use

Transport infrastructure needs to go hand in hand with land use planning and development. This can be done by bringing people to where transport options and services already exist, and stepping up services and infrastructure where significant urban growth has already happened. As this analysis highlights, Australia's capital cities have grown rapidly in the last 20 years, but most of these new residents lack access to all-day frequent shared transport options, as growth is occurring in middle and outer suburbs with undeveloped transport infrastructure.

Areas with greater urban density can be better serviced by convenient, frequent and reliable shared transport to access all of life's essentials quickly and easily. This can look different depending on where you are in the city – in the inner city with more compact apartment living, key services and amenities could be accessed in a 15 minute walk. In the outer suburbs with more detached houses, it may mean there is a smaller village with a corner supermarket, doctor's surgery and chemist, which is complemented by all-day, frequent shared transport services taking people to larger hubs.

Most of Australia's future population growth will be focused in our capital cities. Governments today have the opportunity to harness the benefits of higher-density living in our cities and ensure that Australians can access a mix of services close to home with quality shared and active transport options. State and territory governments should enable better connected, compact and efficient cities by reforming planning policies and setting targets for future development to occur within the existing city footprint.

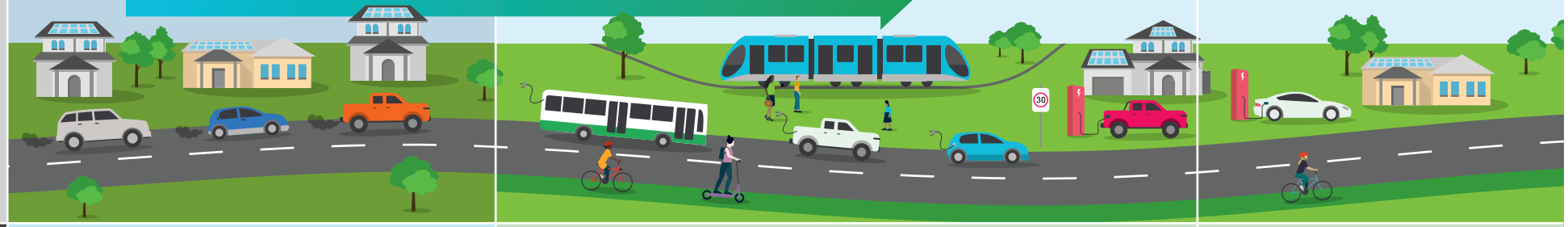
Changes such as easing height restrictions, minimum parking requirements and excessive heritage restrictions can also support sensible increases in density. At the same time, government changes to zoning can support a greater mix of appropriate commercial activity in residential areas, providing more shops, cafes, healthcare and child care services close to where people live.

4.

Policies to get us there

Enabling Australians to choose shared and active transport more often is a clear priority this decade and beyond, as part of cutting climate pollution and making our cities more liveable. Fortunately, there are proven solutions available right now which can do this. Every level of government – federal, state and territory and local – has a role to play in enabling this shift to shared and active options, from planning and investment through to delivery of infrastructure.

HOW WE CAN CREATE CONVENIENT, FREQUENT AND RELIABLE SHARED TRANSPORT WITH THE RIGHT POLICIES

	CURRENT	FUTURE	
WHAT WE CAN SEE	Travel is dominated by cars with low uptake of poor-quality shared and active transport.	Governments provide an abundance of high-quality clean transport options, which are embraced by Australians.	**Enabling policies:** ✓ Deliver a Shared Transport Service Standard.
	Prioritise connections across types of transport and between suburbs **Focus investment on the cleanest and most efficient options**		
			
DRIVERS UNDERNEATH	Repeated poor experiences using shared and active transport deter people choosing cleaner modes more often.	Governments prioritise the safety and accessibility of shared and active transport and actively encourage its uptake. Rideshare and public transport are all electrified.	**Enabling policies:** ✓ Reduce speed limits to 30km/h in local streets. ✓ Give shared and active transport priority on roads.
	Focus on ensuring positive transport experiences		
	Private car use is incentivised and reinforced through structures such as government regulation, planning and budgeting processes.	Governments prioritise shared and active transport, reflected in significant investment, planning and regulation.	**Enabling policies:** ✓ Embed mode shift in all transport sector decarbonisation planning. ✓ Make our cities better connected, compact and efficient.
	Integrate transport and land use		
	Australian society is car-dominated, with cars seen as the most convenient mode of travel.	Australians take pride in our convenient, safe and accessible shared and active transport and rely on this to get around for most of our journeys.	**Enabling policies:** ✓ Create Shared Transport Zones where only shared vehicles can travel through. ✓ Create precincts where pedestrians and bikes have right of way.
	Plan transport around moving people, not cars		

POLICY

Embed mode shift in all transport sector decarbonisation planning

All levels of government can make increasing shared and active transport uptake a core objective of transport sector plans to cut climate pollution – for both passenger and freight transport, backed by sufficient funding.

Impact on shared transport uptake	Expanding shared and active transport presents a significant opportunity to cut climate pollution in a way that also contributes to many government objectives, including improving health, reducing congestion and easing cost of living. Often these broader objectives are considered separate to transport planning and by different departments. As a result, the opportunities of increasing the use of shared and active transport have not been fully realised. Embedding mode shift targets into transport sector decarbonisation at both the federal and state and territory level can establish shared goals and baselines against which future funding, legislative and policy changes can be coordinated.
Implementation pathway	The federal government can make mode shift a priority objective of the *Transport and Infrastructure Net Zero Roadmap and Action Plan* currently under development in 2024. This would include setting targets and policy directions that enable: > a significant shift towards cleaner shared and active transport away from private cars, for people living in Australia's cities > growth in more efficient rail freight transport that can cut climate pollution, rather than polluting road and aviation freight transport. Targets should disclose the overall target share of each transport mode by 2030, then at regular intervals thereafter.
Required legislative or regulatory change	Mode shift targets could be legislated, or incorporated into subordinate legislation under existing frameworks like federal and state and territory emissions reduction laws.
Required funding	Appropriate funding should be allocated at both a federal and state and territory level to support progress against the target, contributing to infrastructure and service improvements such as the policy recommendations outlined below. In the longer term, governments should work towards a funding mix which reflects the desired shares of use for different transport modes. This would mean having the largest share of transport budgets directed to shared transport, followed by active transport.
Existing examples	Victoria's Transport emissions reduction pledge set a target to increase active transport mode share to 25 percent by 2030 (from 18 percent in 2021) (State of Victoria 2021).

POLICY

Deliver a Shared Transport Service Standard

State and territory governments can work towards providing convenient, frequent and reliable shared transport services operating at least every 15 minutes from 7am to 7pm, within 800 metres of every home within the existing urban footprint of Australia's eight capital cities.

Impact on shared transport uptake	Convenient, frequent and reliable shared transport options will give Australians more affordable and clean choices for their daily trips. Currently, the lack of quality services is a major barrier to more Australians in our biggest cities choosing these options more often. When Australians have access to convenient, frequent and reliable services, they will be able to leave the car at home more often, as people in other big cities globally regularly do.
Implementation pathway	Meaningfully implementing the Shared Transport Service Standard would require collaboration of federal, state and territory and local governments. The federal government should lead the way by facilitating an intergovernmental agreement (IGA) to establish the Standard, alongside funding and operational arrangements. The Standard would then be implemented over a transition period to 2030 at the state and territory level. Implementation would require appropriate funding reform incorporating federal funding under the IGA, and a reallocation of state and territory funding towards shared transport, away from road expansion. Shared transport should be planned and designed with the accessibility, inclusivity and the diversity of Australians in mind and meet the Disability Standards for Accessible Public Transport. In the immediate term, expansions to shared transport would be best provided by bus services, as discussed in Section 2.1. Expanding bus services creates the opportunity for local economic development, such as procuring new electric buses, bus stops and depot construction from local businesses, expanding a workforce of mechanics, drivers and support staff. Shared transport options like on-demand minibus services, coordinated carpooling and other new service models also need to be tested and scaled up where successful, to meet the diversity of community needs through integrated delivery of services.
Required legislative or regulatory change	State and territory governments can legislate the Standard through relevant jurisdictional transport administration legislation. The Standard should also be reinforced by planning regulations by requiring any development proposals to address the Standard as part of government planning approvals.
Required funding	Federal funding is likely to be necessary to support necessary initial infrastructure works, such as bus lanes, stops and depots. Operational funding could also be provided under reformed transport funding arrangements, which is currently provided to state and territory and federal governments through a dispersed system of infrastructure grants and direct funding of major projects.
Existing examples	Some states and territories already have guidelines similar to the Shared Transport Service Standard, though these are yet to be legislated. NSW's guidelines for Greater Sydney for example, aim for 90 percent of households to be within 400 metres of a public transport stop between 6am to 10pm each weekday (Transport for NSW 2017).

POLICY

Make our cities better connected, compact and efficient

State and territory governments can set the objective of delivering at least 70 percent of new housing and commercial building developments within the established suburbs of major capital cities by making sustainable use of brownfields sites and well-managed increases to density in existing suburban areas.

Impact on shared transport uptake	The majority of Australians live in our capital cities and this trend is set to continue. Ensuring our major cities are more connected, compact and efficient – and avoiding further urban sprawl – is a key enabler to providing convenient, frequent and reliable shared and active transport options. More compact cities also make it easier to implement new shared transport routes, such as building on existing hub and spoke transport networks with suburban and regional routes that connect activity centres of housing, education and businesses.
Implementation pathway	Implementation at the state and territory level can first occur through reforms to both planning policies and the planning scheme, to set targets for greater infill housing development and address barriers to the development of higher density housing. Supportive planning reforms include: > re-upzoning areas around hubs of frequent shared transport services, especially those with high-capacity heavy and light rail services > making modest changes to height and occupancy restrictions, such as allowing duplexes and two-storey townhouses and apartments in neighbourhoods which have traditionally prevented them > making pragmatic changes to heritage restrictions which balance considerations of character and historic value against the need to provide more housing in our urban centres > removing or reducing car-parking minimums to reduce the cost and lead-time of building higher density in-fill housing.
Required legislative or regulatory change	Tied to recommendation above for the Shared Transport Service Standard: > state and territory governments should agree to legislate the Standard into relevant transport administration legislation > the Standard should be reinforced by planning regulations by requiring any development proposals to address the Standard as part of government planning approvals.
Required funding	State and territory governments should consider opportunities to invest in urban renewal projects which protect the liveability of infill areas, such as increasing public open and green space. Increasing density must also go hand-in-hand with improvements to public services – including shared transport – to ensure the quality and availability of service does not degrade as local demand increases.
Existing examples	The ACT's planning strategy set a target of delivering up to 70 percent of new housing within the existing urban footprint, including prioritising housing development within 800 metres of frequent public transport services (ACT Government 2018).

POLICY

Make streets friendly for people, not cars

Local governments can ensure pedestrians feel safe on Australian streets, protected from cars, and have public spaces where they can move freely. Delivering precincts where pedestrians and bikes have permanent right of way, and where private car use and parking is not supported – except for those with accessibility needs – will help enable safe streets for all.

Impact on shared transport uptake	Local governments can create safer spaces by planning to meet the needs of all transport users, not just those travelling by car. Major arterial roads can continue to be designed for vehicles, but activity centres, local and suburban streets should be designed to meet the needs of shared transport users, pedestrians and bike riders. By deliberately designing roads for a considered purpose, we can make moving around our cities better for everyone. Pleasant, safe streets make it easier for people to walk or bike ride to their destination. These walkable streets encourage people to use shared transport options by providing confidence that the trip from their shared transport stop to their final destination will be safe and enjoyable.
Implementation pathway	State and territory governments can facilitate the development of street networks which prioritise people, not cars. This includes: > developing a streamlined process for councils to prioritise, design and implement pedestrian priority streets, linked to project funding > setting clear design standards for pedestrian streets, including 30km/hour speed limits and guidelines on car use and parking > working with local governments to manage connections with state and territory managed arterial roads and public transport to ease conflict between roads with different purposes. Local governments have a key role in developing and maintaining these streets. Consulting with the community is important to ensure that street designs reflect the needs of local users. Both state and territory and local governments should also progress broader transport reforms, especially the implementation of 30km/hour speed limits across all local streets.
Required legislative or regulatory change	This measure will not require proactive legislative or regulatory change. However, local government actions in this vein are sometimes blocked by state and territory planning rules or other existing regulations. State and territory governments can clarify that local governments may pursue all reasonable measures to make streets friendlier for people and avoid intervening on, or overruling, local initiatives.
Required funding	State and territory governments should provide funding to local governments on a competitive basis for new infrastructure works on people-centric streets.
Existing examples	A pilot for Safe Active Streets has been undertaken in Western Australia, by reducing street speeds to 30km/h where the streets also form part of a broader bicycle network (Department of Transport 2023b). Streets with reduced speeds have also been established in Manly, New South Wales and in some school zones across Sydney (Transport for NSW 2024). The City of Yarra in Melbourne also recently approved a trial of 30 km/h speed limits on all local streets.

POLICY

Give shared and active transport priority on roads

State and territory governments can give shared and active transport priority on the major roads needed to travel to and from frequently visited commercial, service and employment centres, and travel between suburbs.

Impact on shared transport uptake	Shared transport that uses public roads – like buses, trams and light rail – is highly efficient, moving a large number of passengers while taking up less road space. However, too often shared transport vehicles are stuck in traffic caused by private vehicles which are far more polluting and move far less people. When shared transport has priority on our roads, passengers get to where they need to go more quickly than if they drove a car, directly encouraging the use of shared transport.
Implementation pathway	To provide all communities with the access to convenient, frequent and reliable shared transport options, bottlenecks which currently slow shared transport vehicles need to be removed. State and territory governments should establish shared transport priority for arterial roads which are used by buses and have traffic volumes above a certain level, and any roads used by light rail. Options to deliver this can include converting car lanes to dedicated spaces for shared transport and providing priority signals at intersections. Importantly, dedicated lanes and signalling treatments should apply throughout the day – not just in one direction at peak periods. Maintaining competitive travel times for shared transport users is an important incentive at all times of day, including for travel outside of peak hours. Delivery of priority treatments should be implemented to support the Shared Transport Service Standard, by increasing vehicle speeds within reason and the subsequent capacity of public transport services. Active transport can be prioritised by providing physically-separated bike lanes, signalling treatments, pedestrian crossings, low speed limits, and traffic calming features like speed-bumps, barriers, chicanes and narrower lanes. State and territory governments can plan implementation of active transport priority routes in broader active transport networks, in collaboration with local governments. This will ensure that priority streets are connected to allow people to quickly, safely and directly reach popular employment, shopping and entertainment destinations.
Required legislative or regulatory change	This measure will not require proactive legislative or regulatory change.
Required funding	State and territory governments can provide new target funding to transport agencies to plan and deliver a suite of shared transport priority upgrades. In addition, funding to deliver active transport infrastructure and priority on our streets can be provided to local governments who agree to implement priority routes which fit into broader active transport networks.
Existing examples	Since 2007, Sydney has built 25km of separated cycleways, 60km of shared paths and 40km of other bike infrastructure. In some locations bike riding rates are six times higher than in 2010 (City of Sydney 2023).

POLICY

Create Shared Transport Zones

A Shared Transport Zone is a designated area within a city – like the central business district – where only shared vehicles are allowed to travel through. State and territory governments and local governments can implement these zones in our capital cities to encourage people to use shared and active transport when visiting these areas.

Impact on shared transport uptake	Our central business districts should be spaces that are pleasant, safe for pedestrians and bike riders, and have clean air free of climate pollution. They should prioritise shared and active transport options as the cleanest, most efficient uses of space compared to private vehicles. A Shared Transport Zone has high foot traffic at all hours of the day. Ensuring the streets between workplaces, restaurants, shops and essential services allocate this space efficiently, means giving right of way to shared and active travel and restricting all non-essential private vehicles and parking.
Implementation pathway	State and territory governments can work with local governments to plan and implement Shared Transport Zones. These zones would apply a hierarchy to vehicles, which for example could provide: > free access to shared transport vehicles (including public transport and carpooling) and vehicles with accessibility permits > free access to private vehicles owned by a resident of the shared transport zone, and customers of businesses which provide off-street parking – such as hotels > fee-based access to commercial vehicles based on vehicle size to incentivise the use of more compact delivery vehicles > fee-based access for all other private vehicles. The zones could be readily implemented with automatic licence plate recognition, which is readily used for similar zones and toll roads in Australia and globally.
Required legislative or regulatory change	Implementation of these zones would require new legislation providing relevant powers to an administrator – such as transport departments. Similar Acts already exist in many states and territories for toll roads.
Required funding	Shared Transport Zones should be operated on at least a cost recovery basis, including initial setup costs, and as such could be implemented at no additional cost in the medium-term.
Existing examples	London's Ultra Low Emissions Zone sets a climate pollution limit for cars, motorcycles, vans and minibuses. If vehicles exceed this limit there is a $24 daily charge, which is in effect 24 hours a day, every day of the year (except Christmas Day). By 2025, 507 low-emissions zones will be in place in Europe (Transport and Environment 2022).

5.

We know where we need to go, so let's get onboard

We rely on transport to get us to where we need to go dozens of times each week. The quality of our trips affects our quality of life: will the commute to a better paid job take too long? Will an extra hour spent with friends mean missing the last train? Can the kids get home from school independently and safely, like everyone used to? Are we stuck breathing fumes on a freeway that's barely moving?

Giving Australians living in our biggest cities better transport options is an opportunity to make a meaningful difference in the lives of so many. When more of us can use shared and active transport for more trips, more often, we'll have less climate pollution, lower cost of living, streets that are safer and more pleasant to be on, and less time spent commuting. For the millions of Australians living in our capital cities, convenient, frequent and reliable shared transport should be a genuine option. But we're not there yet. There are major gaps in our public transport networks, which mean around half of Aussies living in our biggest cities don't yet have access to the kinds of services that offer a real alternative to the car.

We can fix this: the solutions we need are available today to provide better transport options for all communities. More buses in our growth suburbs, running on networks that link up to more than just our CBDs. Improved connections across transport modes, so it's quick and easy to move between walking, bus, rail and tram to get where you need to go.

Sensible increases to density in the places where shared transport is already convenient, frequent and reliable, so more people can live in well-connected places.

It's time to embrace these solutions. Governments at all levels can get onboard with a Shared Transport Service Standard, providing access to convenient, frequent and reliable shared transport for everyone in our big cities.

As our cities continue to grow, we can design them around moving people, not cars. Every new investment governments make in transport can be carefully chosen to move us closer to the goal of cleaner, more accessible and enjoyable commutes, where shared and active transport is the top choice for more Aussies in our cities, more often.

6.

Method

IDENTIFYING STOPS SERVICED BY FREQUENT PUBLIC TRANSPORT

Analysis presented in this report was developed using public General Transit Feed Specification (GTFS) data for each of the five cities analysed. GTFS data includes details of all of a city's public transport stops, routes and timetables from which frequency and availability data can be derived. GTFS data for Sydney, Melbourne, Perth, Adelaide and Brisbane was accessed on 16/04/2024. Timetable data for 15/05/2024 was analysed as a representative standard weekday.

After accessing all public transport stops and timetables within a given city, stop frequencies in each direction were assessed across two hour intervals throughout the day (5am to 7am, 7am to 9am, and so on). Stops serviced by eight or more trips in at least one direction during a given two hour interval (an average of one trip every 15 minutes) were assessed as frequent.

IDENTIFYING SERVICED AREAS

A service catchment was prepared for each frequent stop. Catchments were generated using Mapbox's Isochrone API, based on an 800 metre walking distance from the stop. Catchments are returned as geospatial polygons, which represent a specific area which can be presented on a map. These areas respect real world walking distances, so catchments do not include areas that are not accessible to pedestrians. For example, the catchment would exclude areas bound by a river, railway line, or freeway that does not have pedestrian crossing options.

Catchments for each frequent stop within each time interval are then merged together, creating one combined service catchment representing all of the areas in a city from which a frequent stop can be reached within an 800 metre walking distance. A service area is also produced for the Shared Transport Service area, including from only stops which are frequent during every interval between 7am and 7pm. This Shared Transport Service area is the frequent, all-day public transport service area presented in Section 3.

IDENTIFYING SERVICED POPULATIONS

Previously prepared service catchments were overlaid with geospatial mesh block population data to assess the populations serviced at each time interval. Population data was sourced from the 2021 Census, based on place of usual residence.

The proportion of people serviced by public transport in each mesh block was assumed to be equivalent to the percentage of the meshblock covered geographically by the service catchment. This explicitly assumes that the population density within different areas of a meshblock are approximately equal. This assumption holds due to some key design features of meshblocks:[7]

- **Geographic size:** Meshblocks, particularly in the densely populated cities considered in this analysis, represent very small geographic areas, which means they are generally homogenous areas. For example, the average size of a mesh block in this analysis is 40k m^2, the equivalent of a 200 metre by 200 metre area.
- **Population size:** Residential meshblocks are designed to have between 30 to 60 dwellings. As a result, high-density residential areas (such as apartments) receive individual meshblocks, while maintaining more consistent population density in meshblocks containing detached and semi-detached dwellings.
- **Land use categorisation:** Wherever possible, each mesh block is designed to have a single land use. This includes separating highly-populated residential areas from less populated commercial and industrial areas, and unpopulated waterways, roads and parks. Separating high density areas prevents the results from being biassed if an unpopulated area is not serviced by public transport.

Once the serviced population – in terms of percentage and number of people – was estimated for each meshblock at each time interval, meshblocks were then aggregated into various other ABS statistical geography classifications for further analysis. The classifications used in this report include:

- **Urban Centres and Localities,** which was used to define the boundaries of each of the five capital cities presented in Section 3
- **Statistical Area Level 1,** which was used to join transport service data to small area SEIFA indexes to produce the maps and analysis presented in Section 3.4
- **Statistical Area Level 2,** which was used to produce the maps presented in Section 3, and joined to time series population data to produce the analysis present in Section 3.3.

7 Australian Statistical Geography Standard (ASGS) Edition 3, Mesh Blocks.

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The Climate Council acknowledges the Traditional Owners of the lands on which we live, meet and work. We wish to pay our respects to Elders, past and present, and recognise the continuous connection of Aboriginal and Torres Strait Islander peoples to land, sea and sky. We acknowledge the ongoing leadership of First Nations people here and worldwide in protecting Country, and securing a safe and liveable climate for us all.

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