

MOBILITY NOW

CONNECTING COMMUNITIES: SMARTER, SOONER, SAFER



Mobility Now has been prepared collectively by the members of the Urban Mobility Task Force of the Smart Cities Council Australia New Zealand. SCCANZ brings together key practitioners, public sector leaders and stakeholders to raise awareness about the smart cities strategies that are improving the liveability, workability and sustainability of communities. The task force advocates for sustainable and inclusive mobility solutions that build liveable cities.

This document is a framework for the Taskforce's advocacy work, and to thoughtfully engage in dialogue around policy and practice as it relates to the future of mobility in Australia.



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Section 1

Why Mobility Now?

Mobility Now outlines the essential early steps required to improve urban mobility and enhance our cities.

Advancing technological capabilities and new service models combined with unprecedented city growth, create great opportunities and urgent pressures to deliver new mobility solutions more rapidly than ever.

Australian cities have seen increasing population densities through urban renewal while experiencing a continued expansion of residential development in outer urban areas. In the next 15 years, Australia's population is projected to grow by another 24% to reach 31.4 million. Nearly 80% of population growth is projected to occur in our fast-growing cities, leading to \$40 billion in road and public transport congestion costs should action not be taken.¹

¹ <https://www.infrastructureaustralia.gov.au/sites/default/files/2019-08/Australian%20Infrastructure%20Audit%202019%20-%20Executive%20Summary.pdf>

Continuing today's dominant focus in many of our cities on automobile-based transport solutions will not alleviate the significant threats that traffic and congestion represents to people, places and the environment.

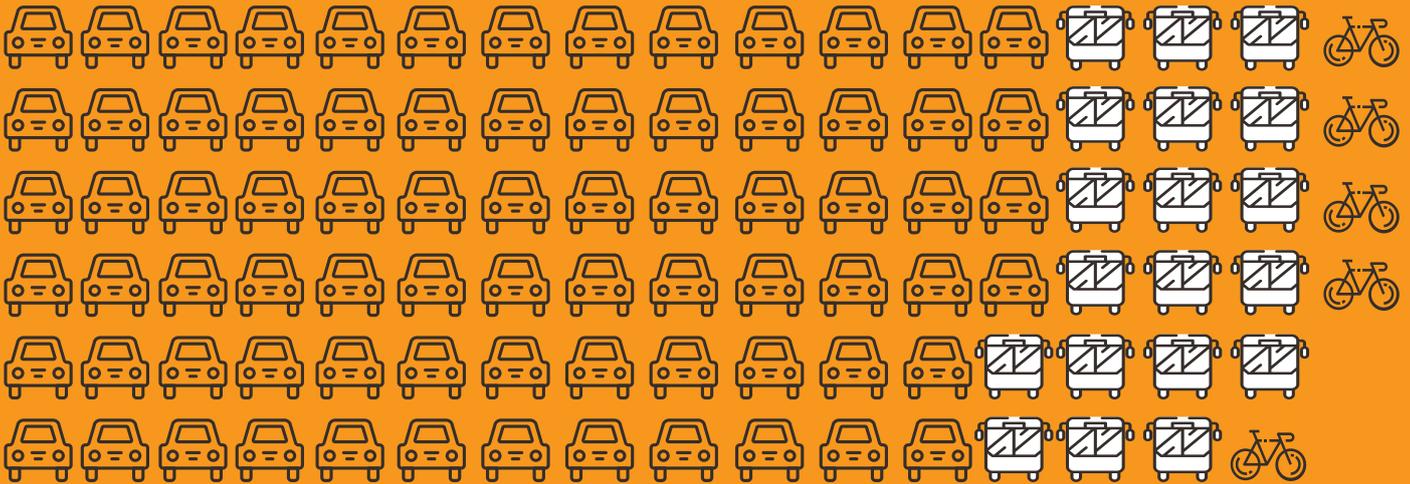
There is an opportunity to use new mobility options, working in tandem with efficient public transport systems in order to increase access for people and to improve the urban environment.

Australia's capital cities are typical of many major cities globally where single-occupant private vehicles account for the majority of urban commuter travel. Only between 10% and 27% of commuters use mass transit and around 5% use active transport or micro-mobility services (e.g. electric scooters, skateboards and bicycles) in urban areas.



How Urban Australia Commutes

5.2%
Active/
Micromobility



Source - 2016 Australian Census, Weighted
Average of Greater Urban Areas

75.7%
Private
Vehicles

19.0%
Mass
Transit

As our cities continue to grow, mass and shared transport will play an increasingly important role in providing access to jobs and services. All levels of government see an increasingly important role for mass transit to play in the productivity and health of our cities.

Many billions of dollars are planned to be spent on new transport infrastructure² over the next ten years. These will create opportunities for land use planning, design and development to facilitate better access to transit systems and services. Experience from Australian and international cities has shown new mobility solutions have a vital role to play.

Mobility Now builds upon the Shared Mobility Principles³ for Liveable Cities created by an international coalition of transport, development and environmental agencies to respond to this context. These principles have been endorsed by governments, industry bodies (including SCCANZ) and mobility providers all over the globe.

2- https://www.infrastructure.gov.au/department/media/mr_201906-perspectives-on-australian-transport-infrastructure.aspx

3- Future Cities: Planning for our growing population, Infrastructure Australia

4- <https://www.sharedmobilityprinciples.org/>

Shared Mobility Principles for Liveable Cities⁴

The SCCANZ endorses these principles and they have been used to inform the recommendations contained in Mobility Now.

1. We plan our cities and their mobility together
2. We prioritize people over vehicles
3. We support the shared and efficient use of vehicles, lanes, curbs, and land
4. We engage with stakeholders
5. We promote equity
6. We lead the transition towards a zero-emission future and renewable energy
7. We support fair user fees across all modes
8. We aim for public benefits via open data
9. We work towards integration and seamless connectivity
10. We support that autonomous vehicles in dense urban areas should be operated only in shared fleets

Building on these principles, Mobility Now embraces a new era of urban mobility. It sets out the initial steps of a new Urban Mobility Framework which:

- > prioritises people, place, community and the environment
 - communities are the basic unit of city life - they are made up of people based on their connection to a place, activity or interest. Without a “bottom-up” approach, driven by communities, which promotes trust and safety, and promises well-designed, livable places, the pace of change will be hindered.
- > promotes efficient, equitable and healthy transport systems
 - new technology is not as an end in itself and new technology implementation must ensure new opportunities are created for all. Without an active focus on equity and health, we risk communities being constrained of access to the jobs and services upon which they rely.
- > embraces new transport technologies and service models
 - in order to achieve the largest gains most quickly, the focus for implementation should be on supporting and encouraging mobility options enabling people to replace unnecessary car travel for short trips to local destinations and to access mass transit services. Without this focus, efforts will be spread more thinly over a wider range of initiatives, undermining the ability to realise benefits quickly.

Section 2

What has to be done?

To address the challenges and capitalise on the opportunities that new technologies bring, action is required now. A new Urban Mobility Framework is outlined here with specific actions presented in Section 3.

Boosting first/last mile transport options is an essential action. Half of commuters in our capital cities live within 10 kilometres of their workplace, with 25-30% within 5 kilometres, yet most still drive. Whilst many consider 5 kilometres to be too far to walk, cycle or scooter, electric bikes, cargo bikes and e-scooters could remove this barrier for many.

A shift of 5% of driver-only vehicles to cycling and other forms of healthy travel could remove over 300,000 cars from Australia's daily commuter traffic and improve Australia's overall health profile.

Massive potential exists to change the mode mix by encouraging a shift from travel by motor vehicles to more sustainable and shared modes of transport. As an example, one shared electric vehicle provider has recently completed their one-millionth ride in Brisbane and research indicates 38% of rides replaced driver-only car trips.

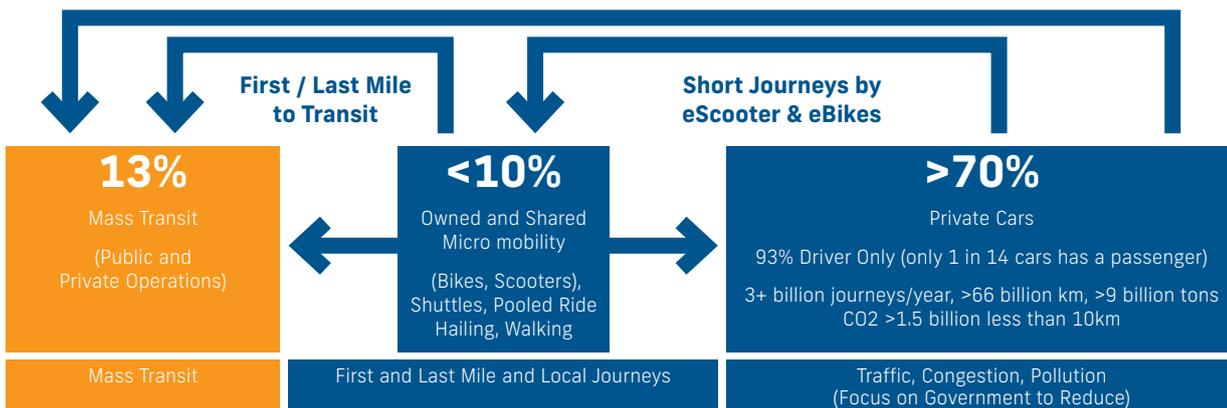
Globally, this company has found 40% of rides start or end at transit hubs. Similar results are beginning to be seen in New Zealand and around the world.

First & Last Mile Explained

Short trips that are either end to end or facilitate access to other public transport hubs are known as "first mile" or "last mile" trips. These can often be made using the following mobility options:

- Walking
- Micromobility - bicycles, e-bikes, scooters and e-scooters, skateboards and other personal mobility devices
- On-demand and fixed route shuttles
- Pooled ride-hailing services, e.g. Uber Pool

First/Last Mile Modes to Move Short Journeys from Cars
Australian Commuter Journey Mode % from 2016 Census



The Urban Mobility Framework: focussing on communities

1) Adapt and re-design the urban built environment

Redesign our cities by re-prioritising walkers, cyclists and micromobility users to provide amenable, safe public spaces and transport systems. This should be achieved by focussing on first/last mile transport options as the infrastructure required (cycleways or micromobility lanes, shared paths and drop-off/pick up bays) is significantly cheaper and quicker to implement than other transport solutions. Prioritising alternatives to private cars will allow more room for amenities such as street furniture, wide paths and shade trees. This will connect communities.

2) Develop a new urban mobility operating system

The shift to new mobility will require customer-centric seamless end-to-end journey management across all modes of transportation rather than delivering mobility from a siloed focus on individual modes of travel in isolation. Adopting this model will increase the convenience of non-car travel modes and drive significant change for the benefit of communities, cities and citizens.

3) Introduce more accessible and equitable mobility

Not everyone has the same level of access to urban mobility systems. People's ability to travel to meet their daily needs can be constrained physically, socially or spatially; that is, people may have difficulty getting to where they need to go because of their age, circumstances or physical disability. They may be constrained because they have low income, experience cultural or language barriers, or may live in a location with limited mobility service options. Whatever the reason, introducing new mobility services will require more effective consideration of the needs of people of all ages, abilities and circumstances to ensure that the services as well as the environments in which they operate are accessible and inclusive.

4) Embrace a global 21st Century urban mobility data system

Mobility is a data business and the new global mobility system will optimise and integrate around global data standards and platforms. Australia must adopt global standards and not seek to create local standards which isolate Australia from global innovation. More sophisticated data collection, aggregation, analysis and application will be at the heart of a well functioning urban mobility environment.

5) Create a new mobility incentives regime

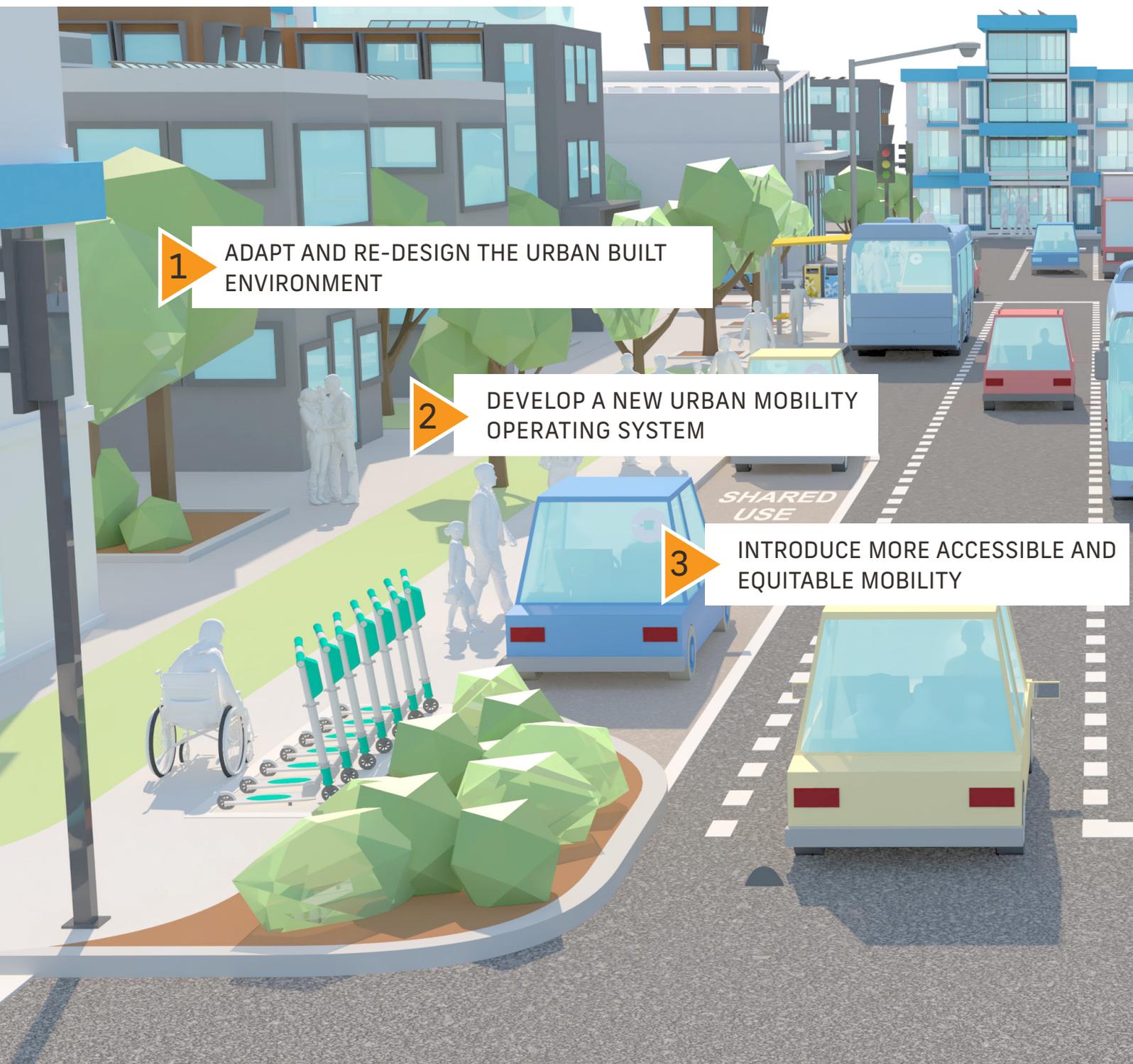
Money spent on roads and car parking should be repurposed to provide for a greater diversity of modes and services and to encourage and facilitate active mobility choices. In NSW for example, \$51 billion is budgeted for transport infrastructure over the next 4 years with around 0.1% allocated to walking and cycling. Further, car parking at train stations is being built by federal, state and local governments throughout major cities in Australia at a cost between \$60,000 and \$120,000 per bay. These car parks tend to attract driver-only cars to free commuter parking and have little impact on mass transit patronage.

These types of funding should be re-purposed to create incentives for the use of more sustainable and efficient travel options. A concerted effort is required at Federal, State and Local Government level to shift the balance by introducing innovative and effective initiatives.

6) Implement new decision making and strategy development practices

Given the pace of change, it is critical that Australian cities are both agile and collaborative in their approach to development and application of mobility policy. Currently, legislation governing the use of new modes of transport varies greatly across states and many jurisdictions are facing the same challenges. Greater coordination will lead to less duplicated effort, more consistency in legislative frameworks, more knowledge sharing and ultimately quicker delivery of benefits for Australians.

Section 3 - Steps to deliver Mobility Now



1

ADAPT AND RE-DESIGN THE URBAN BUILT ENVIRONMENT

2

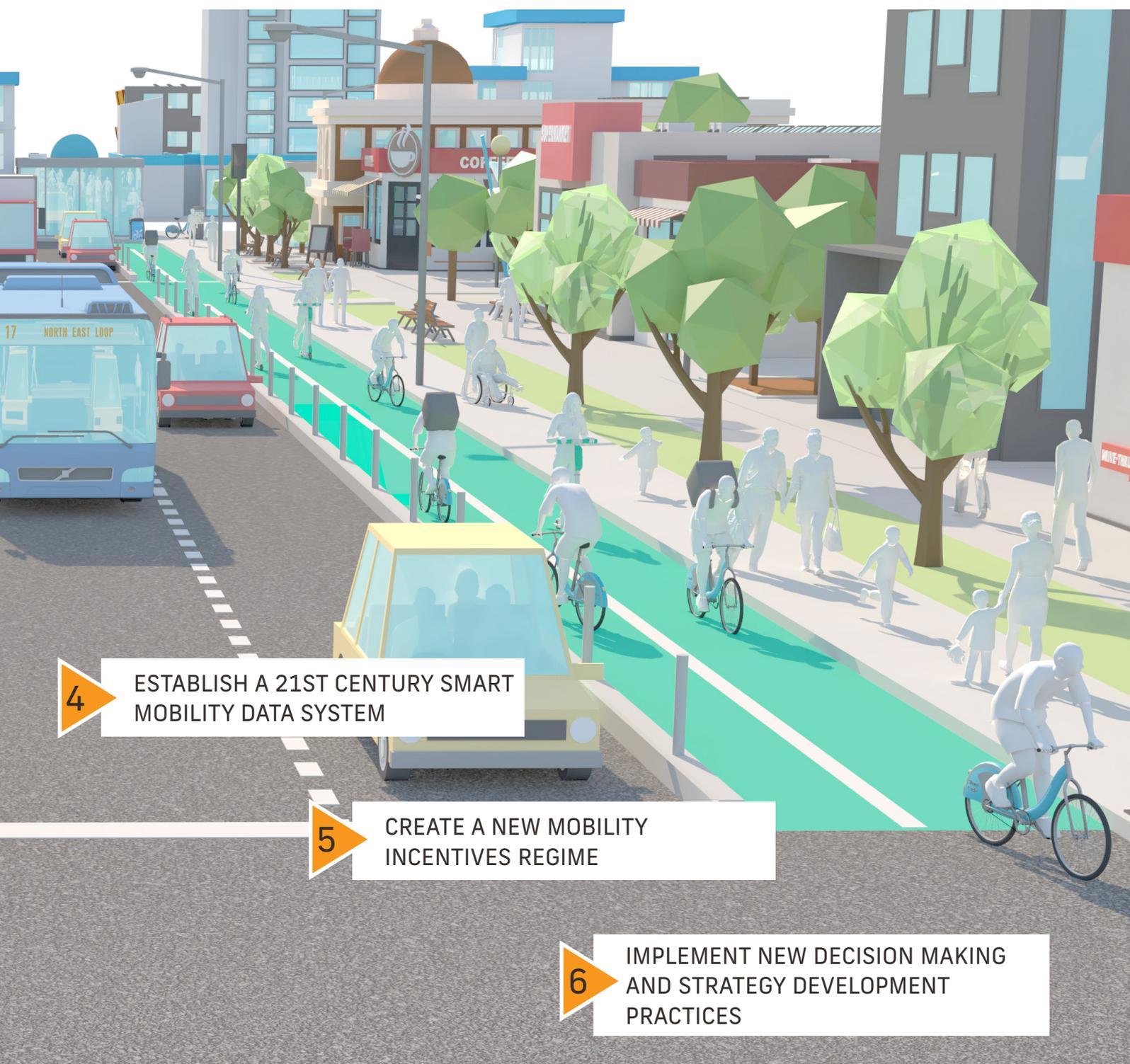
DEVELOP A NEW URBAN MOBILITY OPERATING SYSTEM

3

INTRODUCE MORE ACCESSIBLE AND EQUITABLE MOBILITY

The following steps recommend actions under the new Urban Mobility Framework set out in section 2. These actions must be taken now, in particular to address the challenges associated with the “first and last mile” problem and enable uptake of more sustainable transport modes.

The key Mobility Now steps for Australia are:



4 ESTABLISH A 21ST CENTURY SMART MOBILITY DATA SYSTEM

5 CREATE A NEW MOBILITY INCENTIVES REGIME

6 IMPLEMENT NEW DECISION MAKING AND STRATEGY DEVELOPMENT PRACTICES

The key Mobility Now steps to implement the Urban Mobility Framework for Australia

1 Adapt and re-design the urban built environment

- » Prioritise walking, cycling and micromobility connectivity to public transport hubs, in town centres and highly pedestrianised locations and destinations, including through crossing phasing intersections, and lower speed limits.
- » Revise design standards to encourage walking, cycling and micromobility in safe and amenable urban environments.
- » Allocate road space from private cars to better options such as shared vehicles, micromobility and walking and cycling. Use physical, visual and spatial separation to allow slower, lighter transport users such as walkers and device riders, to avoid interaction with faster, heavier vehicles.
- » Adapt short-term drop zones to provide safe pickup and drop-off areas for shared mobility.
- » Reallocate car parking spaces to higher value walking, cycling and micromobility uses.

2 Develop a new urban mobility operating system

- » Facilitate trials of open Mobility as a Service (MaaS) platforms to test cross-modal integration of booking, interchange and payments.
- » Update first/last mile transport system operating plans to adjust for micromobility and other new technology developments
- » Promote integration and interoperability between public, shared and (short term rental) private modes of transport (such as short term rental) including through payment systems, journey planning apps, passenger count data collection and sharing technologies
- » Update journey planners to show optimal end-to-end journeys accounting for user preferences, incorporating information on parking and curb space as sensor technology becomes more widespread (e.g. smart parking and kerbs).
- » Allow competition with public transport services in developing new and relevant service offerings to address gaps in current transport provision.

3 Introduce more accessible and equitable mobility

- » Ensure physical access for children, elderly and people with disability where new modes are introduced by applying universal design principles
- » Plan and build appropriate infrastructure for users and communities to encourage walking, cycling and micromobility to transit hubs, town centres, recreational facilities and schools.
- » Introduce new education programs to enable users and communities to use bicycles and new micromobility options whilst addressing community concerns around safety.
- » Ensure a fair spatial distribution of access to mobility services to reduce social exclusion.
- » Promote the health benefits of using more active modes of transport including walking, cycling and the use of micromobility.
- » Review licensing requirements for all user groups including children to facilitate access to new transport modes (e.g. license requirements for e-scooters and electric bicycles).

4 Establish a 21st Century smart mobility data system

- » Establish or adopt existing global open data specifications and rules for data exchange and output across all mobility modes to capture travel demand, use and customer satisfaction including managing streets in real-time.
- » Develop an internet-of-things urban mobility strategy to allow connectivity between infrastructure and users for real-time optimisation of services.
- » Establish open payment standards to facilitate interoperability by ensuring many different payment methods and “virtual wallets” can be supported.
- » Integrate community mobility dashboards with real-time local mobility options e.g. <https://transitscreen.com/products/transitscreen>.

5 Create a new mobility incentives regime

- » Remove tax incentives for car ownership (e.g. FBT exemption) and introduce them for the ownership and use of personal mobility devices including bicycles.
- » Reduce and remove parking spaces and related financial incentives where more sustainable alternatives exist (e.g. Parking subsidies for driver-only cars, monthly parking permits and provision of parking spaces in dense urban areas).
- » Introduce road user pricing that disincentives low occupancy car use and cruising by taxis, point to point vehicles and private hire cars in urban areas.
- » Allocate revenues such as car parking levies towards more sustainable transport modes (e.g. subsidised public transport, protected mobility lanes and footpaths).
- » Introduce incentives such as travel credits for public transport use and especially first or last mile access by sustainable modes of transport.

6 Implement new decision making and strategy development practices

- » Put all customers first, and consider their needs and perspectives to plan, deliver and manage the transport system.
- » Collaborate across industry, academia and government through organised forums to share ideas and take the best ones forward.
- » Engage an ‘agile’ approach with citizens through trials, and cultivate information sharing and transparency.
- » Value and prioritise community, social and environmental outcomes when considering mobility solutions - not just travel time or reliability.
- » Establish a national repository of best practice and evidence on the application of new technology to improve transport planning, building on the Australian Transport Assessment Practice (ATAP) and Austroads Guidance.

We envision a world where digital technology and intelligent design have been harnessed to create smart, sustainable cities with high-quality living and high-quality jobs.

To tap into the transformative power of smart technologies, cities need a trusted, neutral advisor. The Smart Cities Council provides that help. We are a network of leading companies advised by top universities, laboratories and standards bodies.

We promote cities that embody our three core values:

Liveability: Cities that provide clean, healthy living conditions without pollution and congestion. With a digital infrastructure that makes city services instantly and conveniently available anytime, anywhere.

Workability: Cities that provide the enabling infrastructure — energy, connectivity, computing, essential services — to compete globally for high-quality jobs.

Sustainability: Cities that provide services without stealing from future generations.

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