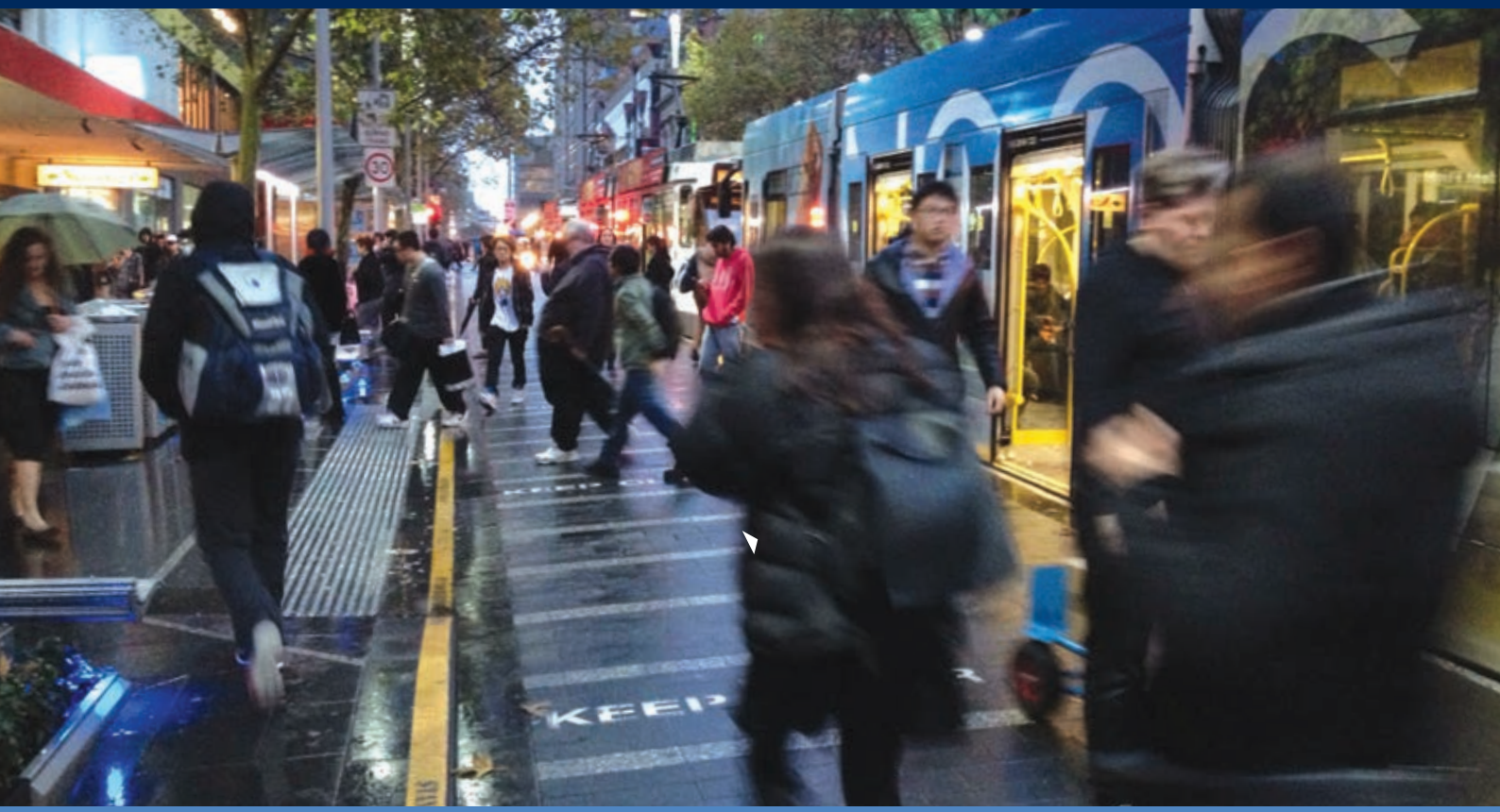
Australian Government

Department of Infrastructure and Transport



Walking, Riding and Access to Public Transport

SUPPORTING ACTIVE TRAVEL IN AUSTRALIAN COMMUNITIES

MINISTERIAL STATEMENT

Australian Government

Department of Infrastructure and Transport

Walking, Riding and Access to Public Transport

SUPPORTING ACTIVE TRAVEL IN AUSTRALIAN COMMUNITIES
MINISTERIAL STATEMENT

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PART ONE

INTRODUCTION


109 PORT MELBOURNE
007
Stop 5

Executive Summary

Walking, riding and public transport are important everyday modes of travel, and key parts of our urban transport systems.

This statement sets out how the Australian Government will work to increase the proportion of people walking and riding for short trips, and accessing public transport, in our communities.

Many people walk to local destinations such as shops, cafes, parks or the post office. Others walk on a daily basis to their school or workplace. Most public transport journeys start and end with a walk from the bus stop or train station to the final destination. Riding a bicycle is becoming increasingly popular as a form of transport.

These modes of travel are sometimes referred to as 'active travel', or 'active transport'. While for some people these terms imply an aspect of healthy living, active forms of transport offer a broad range of benefits. Getting more people walking, riding and using public transport results in:

- increased capacity, and reduced congestion, in the overall transport network
- reduced environmental impacts
- improved public health and reduced healthcare costs
- improved community wellbeing and social cohesion.

Even a relatively small increase in the mode share of active travel can lead to positive outcomes for the transport system, the environment, health and liveability.

All state and territory governments, and many local governments, have policies and programs in place to increase the share of walking, riding and public transport. This statement outlines a national approach, for the Australian Government to work with other levels of government, the community and business, to further support and encourage this work.

In October 2012 the Australian Government released *Walking, Riding and Access to Public Transport: draft report for discussion* (the draft report) which explored how a national approach might help to increase the role of active travel in Australia's urban transport systems.

Almost 200 submissions were received from a wide range of individuals, community groups, businesses, professional associations, and all levels of government. Further details on the submissions are at Appendix A and online www.infrastructure.gov.au/infrastructure/mcu/urbanpolicy/active_travel/index.aspx.

The submissions showed strong support for ongoing Australian Government work, in partnership with state and local governments, to encourage walking, riding and use of public transport.

The feedback received through the consultation process has formed the basis for refining the draft report and finalising this statement on active travel.

Figure 1.1 summarises the barriers and opportunities, identified by stakeholders, to increasing the mode share of walking, riding and public transport in urban areas.

Figure 1.1 Barriers and opportunities for walking, riding and access to public transport

Barriers	Opportunities	
Lack of continuous, convenient connections • Short local trips suitable for walking or riding may be impeded by poor connectivity • Public transport stops may be difficult to reach	**Plan comprehensive networks** • Integrate walking and riding networks with public transport hubs • Concentrate within activity centre catchments • Ensure walking and cycling path-of-travel is continuous (i.e. door-to-door)	PLAN
Lack of physical safety • Inappropriate infrastructure for the speed and volume of traffic • Paths may not be navigable by wheelchairs, prams, and the elderly • Poorly designed or unmaintained paths and roads include trip hazards, lack of kerb ramps, inadequate width of paths, excessive poles and street furniture, glass, dirt and other hazards	**Build appropriate infrastructure** • Separate pedestrians/bicycles from fast traffic • In high-pedestrian areas reduce traffic volume and speed, and prioritise pedestrians/bicycles • Ensure pedestrian paths, cycleways, cycle lanes and shared roads/paths are appropriate for the task, safe for all users and properly maintained • Comply with standards, including disability access, for infrastructure design and maintenance	BUILD
Lack of personal safety and comfort • Physical barriers can prevent convenient access across roads or along footpaths • People feel unsafe where there is no 'passive surveillance' from nearby buildings or activities • Lack of lighting, directional signage, seating, drink fountains, shade, or bicycle parking • Priority is often given to vehicles, even on major pedestrian or bicycle routes	**Provide mid-trip facilities** • Lighting, signs, seating, shade, drink fountains **Provide end-of-trip facilities** • Bicycle parking, change facilities **Prioritise pedestrians and bicycles where appropriate** • Type and location of crossings, timing of traffic signals, width and quality of pathways	
Lack of awareness • People may not be aware of the range of transport options; or how to easily walk, ride and use public transport • Road users may be unaware of specific road rules, or the rules may be ambiguous	**Provide Information** • Websites, trip planners, maps • Real-time information (e.g. bus arrival times) • Social media • Behaviour change programs • Review road rules and/or awareness of rules	ENCOURAGE
Lack of skills • Drivers may not be aware of vulnerable road users • People may lack bicycle riding or maintenance skills	**Provide skills training** • Driver awareness of vulnerable road users • Bicycle training (e.g. school children, adults)	
Lack of motivation • Lack of good quality routes discourage active travel • Public transport may be hard to reach, irregular or unreliable • Easy alternatives may exist for short trips (e.g. abundant cheap car parking)	**Encourage greater participation** • Improve convenience of walking/riding for short trips (i.e. under 20 minutes) • Improve accessibility, frequency and reliability of public transport • Increase awareness of transport options	
Poor governance • Little integration and coordination across agencies and governments • Lack of strategic land use and transport planning across regions and council areas • Failure to implement planning objectives • Failure to monitor performance and adjust plans	**Improve governance** • Improve integration across agencies (planning, transport, health, environment) and levels of government • Coordinate land use and transport planning, and delivery of projects • Monitor and improve to achieve best practice	GOVERN

1.1 The role of walking, riding and public transport in the broader transport system

> "The journey starts at the front door: providing infrastructure throughout urban areas to transport hubs is how you get people there."

MICHAEL, NEWCASTLE

There are many ways we travel in cities and towns. Different modes of travel suit different purposes but all are part of our urban transport systems.

Cars are ideal for a wide range of purposes, including travelling long distances, carrying multiple passengers or heavy loads, and when other modes of transport are not available. When everybody drives however, whether by choice or through lack of options, the roads in our cities become congested, with wider negative effects on productivity and liveability.

Public transport is ideal for transporting large numbers of people to key activity centres without using as much space for road lanes and parking. Most public transport journeys involve a walk to and from the bus stop or train station. Well-placed walking and bicycle riding networks can extend the catchment of public transport systems.

Walking works best for short distances up 20 minutes (two kilometres) and is more likely to occur in locations with convivial streetscapes; good access to public transport; and a wide range of destinations nearby such as shops, schools, workplaces, recreational activities and services like the post office or library. Most Australians walk at some stage in their day: at least four out of ten people regularly walk for transport purposes other than to work or study.[1]

Bicycle riding is ideal for regular trips up to 20 minutes (five kilometres). Longer rides are possible, but unlikely to appeal to the majority of the population. Many of the qualities that make a place attractive for walking also make it more attractive for riding. Riding is more common in areas with well-connected bicycle pathways that allow people to ride from door to door safely and easily, and where secure facilities for bicycle parking are available.

Commuters in Adelaide. Photo Sam Noonan.

1 ABS 2009, *Environmental Issues: Waste Management and Transport Use*, cat. no. 4602.0.55.002, table 6.

Driving is the dominant mode of travel to work or study for most Australian adults, even for short distances: 14 per cent of the adult population drive less than five kilometres each way to work or study; and another 16.5 per cent drive between five and 10 kilometres.[2] Shifting just a small proportion of these short-distance commutes to walking and riding could reduce congestion across our urban transport networks. Many cities experience this effect during school holidays, when road space is freed up due to less cars travelling at peak times.

Around 14 per cent of the adult population regularly use public transport as their main mode of travel to work or study, and a further 37.4 per cent sometimes uses public transport as an alternative.[3] Most public transport trips include walking as part of the overall journey.

In the capital cities almost 220,000 people 'walk only' to work every day, representing around 3.8 per cent of journeys to work.[4] Rates of walking are highest in Hobart (6.6 per cent), followed by Canberra and Sydney (4.9 per cent and 4.8 per cent respectively). In some inner city locations, and in major activity centres, the mode share of walking for all purposes (such as shopping) is much higher than any other mode of transport.

Every day around 73,000 people cycle to work in the capital cities (1.3 per cent of mode share). One in 20 people ride a bicycle for transport purposes at least once a week, whether for short local trips or further afield – this represents around 900,000 people.[5] Inner city residents, particularly younger men, are more likely to ride for transport purposes than suburban residents. For example, in the City of Melbourne 57.5 per cent of weekly riders cycle for transport, followed closely by residents of the City of Adelaide (53.3 per cent), and the City of Sydney (49.1 per cent).

A number of national strategic plans already address aspects of walking, riding and public transport. They incorporate urban planning, transport, road safety, preventive health, disability access, energy and environment, as summarised in Figure 2.1 in Chapter 2.

2 ABS 2009, *Environmental Issues: Waste Management and Transport Use*, cat. no. 4602.0.55.002.

3 ABS 2009, *Environmental Issues: Waste Management and Transport Use*, cat. no. 4602.0.55.002, table 2 (main form of transport) and table 18 (alternate form of transport).

4 Mees M & Groenhart L 2012, *Transport Policy at the Crossroads: travel to work in Australian capital cities 1976–2011*, RMIT, table 1.8. Based on ABS 2012, *Census of Population and Housing 2011*, method of travel to work.

5 Australian Bicycle Council 2013, *National Cycling Participation and Perception Survey 2013*, Austroads (to be published).

1.2 Benefits and costs

Economic analyses of transport projects take into account a range of variables including construction and maintenance costs, level of user demand (depending on location and connections with the overall network), and the shift of users from other modes of transport.

A study commissioned by the Queensland Government in 2011[6] found that, for a typical off-road path in an inner urban area, economic benefits per kilometre walked or cycled are: decongestion (20.7 cents per kilometre walked or cycled), health (up to 168.0 cents per kilometre), vehicle operating costs (35.0 cents per kilometre), infrastructure savings (6.8 cents per kilometre) and environment (5.9 cents per kilometre). The aggregate result is that:

- 1000 pedestrians per day will generate discounted benefits of around $7 million per kilometre over a 30-year appraisal period ($2.12 per kilometre walked, per person)
- 1000 bicycle riders per day will generate discounted benefits of around $15 million per kilometre over a 30-year appraisal period ($1.43 per kilometre cycled, per person).

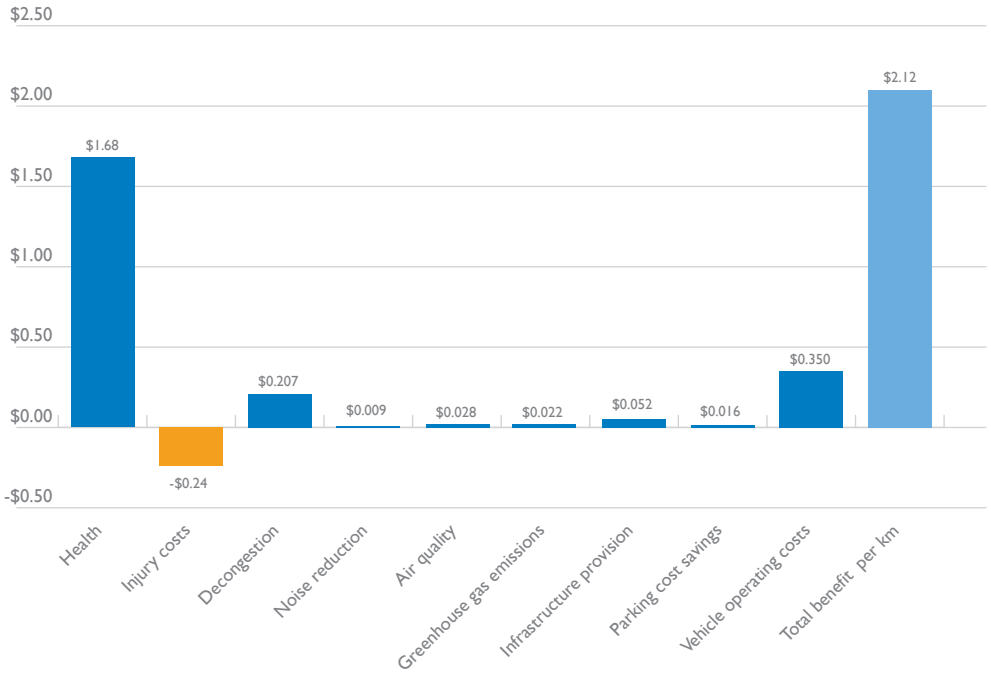
This means that, for each person who cycles 20 minutes to work and back, our economy benefits by $14.30; and for each person who walks 20 minutes to work and back benefits our economy by $8.48.

The same study found that the average cost of a typical off-road path is around $1.5 million per kilometre, depending on the location and extent of planning and construction work required.

Figure 1.2 and Figure 1.3 chart the per kilometre benefits for walking and cycling respectively. They show that health benefits make up around 80 per cent of the net benefits of both modes of travel. They also show that, although there are injury costs associated with both walking and riding, these are significantly outweighed by the health benefits gained.

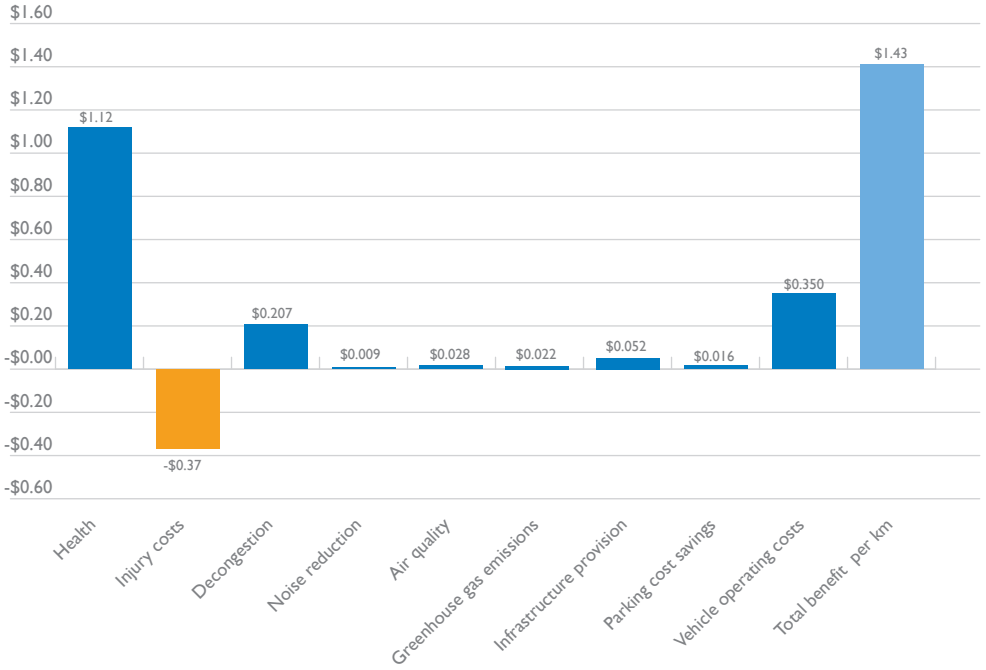
6 Queensland Department of Transport and Main Roads 2011, *Benefits of inclusion of active transport in infrastructure projects*, prepared by SKM and PWC, table EX.1: benefits summary. NOTE: Based on per kilometre benefits for a typical inner urban project (where no location has been specified), in 2010 figures.

Figure 1.2 Benefits per kilometre walked, for an average project



Source: Queensland Department of Transport and Main Roads 2011, *Benefits of inclusion of active transport in infrastructure projects*, prepared by SKM and PWC, table EX.1: benefits summary.

Figure 1.3 Benefits per kilometre cycled, for an average project



Source: Queensland Department of Transport and Main Roads 2011, *Benefits of inclusion of active transport in infrastructure projects*, prepared by SKM and PWC, table EX.1: benefits summary.

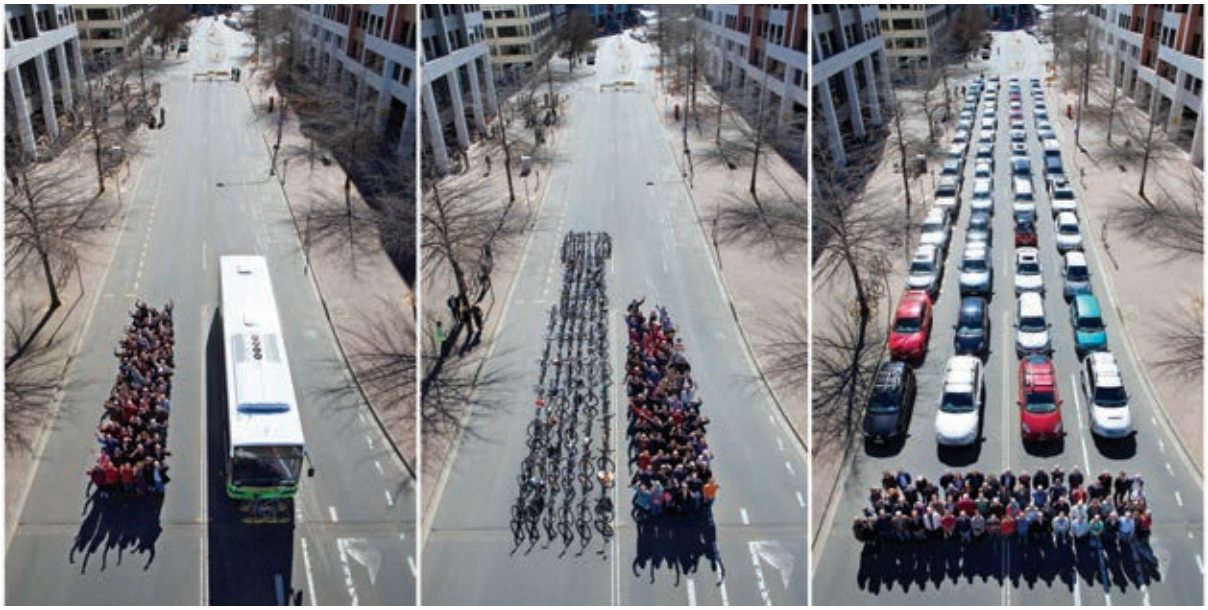
Avoided costs of traffic congestion and infrastructure provision

Traffic congestion in urban areas, and the consequent economic cost, is a central consideration for assessing various modes of transport. Traffic congestion is estimated to cost $20.4 billion by 2020.[7]

In Victoria, for example, 55 per cent of trips are five kilometres or less, of which 85 per cent are by car. According to the Victorian Auditor-General, these short car trips 'contribute significantly to localised congestion that can have cumulative and flow on effects across the network.'[8]

A shift to more walking or riding, particularly for short journeys during peak periods, could improve the capacity of our transport systems. Depending on the location and time of day, a mode shift towards active travel can reduce traffic congestion, equating to an 'avoided cost' of around 20.7 cents per kilometre walked or cycled. In addition, the avoided cost of infrastructure provision equates to about 5.2 cents per kilometre; and avoided parking cost equates to 1.6 cents per kilometre.[9]

Good walking and riding infrastructure can also extend the catchment of public transport services, further improving the capacity of transport systems.



Road space comparison of 69 bus passengers on a single bus, 69 pedestrians, 69 bicycle riders and 40 cars, Canberra ACT. Courtesy Cycling Promotion Fund.

Public health

A typical cost benefit analysis for an active transport project shows that public health accounts for most of the economic benefits, even after adjusting for injury costs. The net health benefit (adjusted for injury) for each kilometre walked is 144 cents – about 70 per cent of the total economic benefits of a walking project. The net health benefit (adjusted for injury) for each kilometre cycled is 75 cents – about half of the total economic benefits of a typical bikeway project.[10]

7 BITRE 2007, *Estimating urban traffic and congestion costs trends for Australian cities*, Working Paper 71.
8 Auditor-General of Victoria 2013, *Managing Traffic Congestion*, p39. Available from www.audit.vic.gov.au/publications/20130417-Managing-Traffic-Congestion/20130417_Managing_Traffic_Congestion.pdf
9 Queensland Department of Transport and Main Roads 2011, *Benefits of inclusion of active transport in infrastructure projects*.
10 Queensland Department of Transport and Main Roads 2011, *Benefits of inclusion of active transport in infrastructure projects*.

The prevalence of overweight and obesity has been steadily increasing over the last 30 years in Australia and is correlated with increasingly sedentary lifestyles. Over a third of Australia's adults are physically inactive.[11] Australia is now one of the most overweight nations in the OECD, with more than 60 per cent of adults and one in four children being overweight or obese. In 2008 obesity was estimated to cost $58.2 billion to the Australian economy[12] due to diabetes, cardiovascular disease, various cancers and osteoarthritis. The direct financial cost of obesity was estimated at $8.3 billion, with the Australian Government bearing $2.8 billion of these costs.[13]

Incorporating exercise into travel has been identified as a highly effective means to increase daily physical activity, which can help individuals to maintain better health.

Environment

Transport is the second-largest emitter of greenhouse gas emissions after electricity generation and other fixed sources.[14] Transport accounts for 87.6 million tonnes of annual carbon dioxide equivalent or about 16 per cent of total emissions, with cars contributing around half of this.[15]

The estimated cost of air pollution in Australian capital cities in 2005 was more than $2 billion.[16]

Motor vehicles are a major source of common air pollutants, including hydrocarbons, volatile organic compounds and nitrogen oxides. Walking and riding emit significantly less greenhouse gas and air pollutants than current motorised forms of transport.

The combined environmental benefits of reducing noise and greenhouse gas emissions, and improving air quality, equates to around 5.9 cents per kilometre walked or cycled.[17]

Construction costs

Construction of walking and riding infrastructure is relatively inexpensive compared with other modes of transport – for example, it costs an average $1.5 million per kilometre to plan and construct a separated bicycle path, depending on a wide range of factors such as land availability, complexity of planning and engineering, excavation and levelling, landscaping, and ancillary works associated with the project.[18]

Providing for walking and cycling infrastructure as part of a broader transport project can be significantly cheaper than retrofitting at a later stage. An analysis in South East Queensland showed that incorporating a separated bicycle path as part of a larger transport project added between 0.2 per cent and 9.6 per cent to the overall cost of construction.[19]

Depending on the level of demand, these construction costs can be significantly outweighed by the economic benefits.

11 Australian Bureau of Statistics 2009, *National Health Survey 2007–08* (Reissue) cat. no. 4364.0.
12 Access Economics 2008, *The growing cost of obesity in 2008: three years on*, p20.
13 Australian Government 2009, *Australia: the healthiest country by 2020-technical report 1*, p6.
14 Department of Climate Change and Energy Efficiency 2011, *National greenhouse gas inventory*. Available from www.climatechange.gov.au/en/publications/greenhouse-acctg/national-greenhouse-gas-inventory-2011-12.aspx
15 BITRE 2011, *Infrastructure Yearbook*.
16 Department of Sustainability, Environment, Water, Population and Communities (SEWPaC) 2011, *State of the Air in Australia 1999–2008*.
17 Queensland Department of Transport and Main Roads 2011, *Benefits of inclusion of active transport in infrastructure projects*, prepared by SKM and PWC, table EX.1: benefits summary.
18 Queensland Department of Transport and Main Roads 2011, unpublished data (with permission)
19 Queensland Department of Transport and Main Roads 2011, *Benefits of inclusion of active transport in infrastructure projects*

1.3 Summary of principles and actions

The primary objective of this statement is to articulate the Australian Government's interests in broadening the range of transport options in our communities: by increasing the share of people walking and riding for short trips; and improving their ability to access public transport.

All state and territory governments, and many local governments, have a range of policies and programs in place to increase mode share of walking, riding and public transport.

The Australian Government also has an interest in getting more people engaged in active travel. The Australian Government recognises the value and importance of the contribution of states and local governments. It also recognises that better outcomes can be achieved if all levels of government, as well as businesses and communities, work together in a concerted effort.

In this context, the recommendations in the 2012 draft report, *Walking, Riding and Access to Public Transport: draft report for discussion*, have been refined to take into account the feedback received through the public consultation process (see Appendix A), and form the basis for the principles below. The Australian Government is committed to these principles and will work to reflect them as appropriate across its areas of responsibility. The Australian Government is also committed to work with other governments on considering these principles at a national level.

The Australian Government will also seek to deliver on these principles through a range of specific actions outlined below. These actions reinforce the Australian Government's commitment to implementing other national strategic plans described in Figure 2.1.

1.4 Principles

Figure 1.4 Principles to support walking, riding and access to public transport

PLAN: Include walking and riding when planning for land use and transport

Work within a clear hierarchy of planning

- integrate land use and transport planning
- identify principal walking and riding routes in regional and local plans that are consistent with overall state planning and transport strategies.

Design networks of continuous, convenient connections

- enable short walking and riding trips for transport purposes
- improve access to and within major activity, employment and education centres, focusing on 20-minute catchments (two kilometres walking, five kilometres cycling)
- improve access to public transport stops particularly 5–10 minute walking catchments.

PLAN

BUILD: Build appropriate infrastructure for walking and cycling needs

Create safe environments for pedestrians and bicycle riders

- separate pedestrians and bicycles from vehicles, particularly high-speed and high-volume traffic
- allocate or share road space, with appropriate speeds, in lower-traffic environments
- recognise the vulnerability of bicycles as road vehicles.

Incorporate pedestrian and bicycle facilities when building other infrastructure

- recognise 'positive provision' and 'mainstreaming' policies of states and territories
- avoid costly retrofitting
- incorporate mid- and end-of-trip facilities.

BUILD

ENCOURAGE: Enable greater participation in walking, riding and public transport

Leverage infrastructure investment

- consider programs and incentives to inform people's choices about active travel and public transport and encourage greater participation in walking, riding and public transport
- improve awareness and skills in the broader population
- encourage building owners and operators to provide end-of-trip facilities such as bicycle parking and change rooms.

ENCOURAGE

GOVERN: Coordinate across agencies and levels of government

Ensure best practice governance arrangements

- improve coordination and engagement across agencies and levels of government.

Provide consistent standards and guidelines, monitoring and evaluation

- support nationally consistent guidance and sharing of best practice
- improve monitoring and evaluation
- develop nationally consistent decision-making processes.

GOVERN

1.5 Actions

In seeking to deliver on the principles outlined in Figure 1.4, the Australian Government commits to the following specific actions:

Figure 1.5 Actions by the Australian Government to support and encourage walking, riding and access to public transport

PLAN: Include walking and riding when planning for land use and transport	PLAN
1. The Australian Government's evaluation of proposed transport infrastructure will take appropriate account of the needs and benefits of walking, riding and access to public transport.	
2. The Australian Government will work with states and territories to review the *National Guidelines for Transport System Management*, and supporting documents, to incorporate improved methodology for assessing the costs and benefits of walking, riding and public transport.	
BUILD: Build appropriate infrastructure for walking and cycling needs	BUILD
3. The Australian Government will work with states and territories to ensure that infrastructure projects funded through *Nation Building* and other relevant investment programs: • protect routes for walking, riding and accessing public transport so that existing connections are not severed • reflect consideration of all transport modes – for example , where a project corridor follows, or intersects with, an identified walking or riding route, the project scope should include walking and riding infrastructure as part of the works • ensure that the relevant infrastructure is appropriate for the speed and volume of traffic.	
4. The Australian Government will work with states and territories to ensure all pedestrian and bicycle infrastructure funded through *Nation Building* and other relevant investment programs meets appropriate technical standards and best practice approaches.	
ENCOURAGE: Enable greater participation in walking, riding and public transport	ENCOURAGE
5. The Australian Government will partner with states and territories, including through the Australian National Preventive Health Agency, to encourage behaviour change in support of increased walking, riding and use of public transport, as part of healthy lifestyle choices.	
6. The Australian Government will work with stakeholders to provide resources that support communities, businesses and local governments to plan for active travel in their local areas including: • *Creating Places for People: an urban design protocol for Australian cities* (www.urbandesign.gov.au) which includes principles for creating more connected, walkable and vibrant communities; • *Healthy Spaces and Places* (www.healthyplaces.org.au) which provides guidance and training to local governments in partnership with the Australian Local Governments Association, National Heart Foundation, Planning Institute of Australia and Department of Health and Ageing.	

GOVERN: Coordinate across agencies and levels of government	GOVERN
7. The Australian Government will work with states and territories to consider establishing a new Walking, Riding and Access to Public Transport council, reporting to the COAG Standing Council on Transport and Infrastructure. Priority actions could include broader adoption of the principles of this statement; and agreement on a national approach to walking, riding and access to public transport.	
8. The Australian Government will work with states, territories and other stakeholders to collect relevant data, and undertake research and analysis, to support walking, riding and access to public transport.	
9. The Australian Government will continue to work with states and territories to support the implementation of the National Cycling Strategy.	

The following chapters outline the principles and actions in greater detail, based on each of the four key themes: plan, build, encourage and govern. The chapters contain elements that are broadly agreed and incorporated into standard practice; items that the Australian Government will lead through its own actions; and additional case studies of best practice that may warrant further exploration.

Chapter 2 addresses planning: how to include walking and riding when planning for land use and transport, work within a hierarchy of plans, and design networks of continuous, convenient connections. Chapter 3 addresses the building theme: what infrastructure is appropriate to create safe environments for pedestrians and bicycles, and how to incorporate these when building other infrastructure. Chapter 4 is on how to enable greater participation through leveraging infrastructure investment. Chapter 5 addresses governance arrangements, as well as advocating consistent standards, monitoring and evaluation.

PART TWO

PLAN

Include walking and riding when planning for land use and transport

In planning for walking and riding networks, consideration needs to be given to broader issues of integrated land use and transport planning; density; access to jobs, schools and universities, services and facilities; and access to public transport.

The location of people's housing and jobs influences their likelihood of walking, riding or catching public transport. For example, two-thirds of commuters to the Sydney CBD take public transport, 1.0 per cent ride a bicycle and 6.7 per cent walk to work. At the other end of the spectrum, around 94 per cent of commuters to Sydney's Norwest Business Park travel by car.[20] This reflects a wide range of factors including distance travelled, the density and nature of development, the availability of travel options, and quality of the built environment.

Walking, riding and public transport in existing national strategic plans

> "Where residents and visitors walk, cities are alive and thriving. [There is] a vital need for policies to promote walking in all levels of planning including national, urban and local."

OECD 2012, *PEDESTRIAN SAFETY, URBAN SPACE AND HEALTH*, P14

A number of national strategic plans already address aspects of walking, riding and public transport. These strategies cover urban planning, transport, road safety, preventive health, disability access, energy and environment, as summarised in Figure 2.1 below.

20 BITRE 2012, *Population growth, jobs growth and commuting flows in Sydney*, Report 132.

Figure 2.1 National strategies related to active transport

National Urban Policy

Reduce dependence on cars and improve transport options; and improve public health outcomes

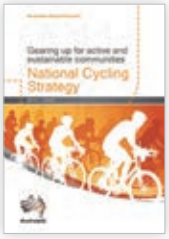
Our Cities, Our Future articulates national goals and objectives to achieve greater productivity, sustainability and liveability for the 18 major cities of Australia. It includes objectives to reduce dependence on cars and improve transport options; and to improve public health outcomes through the built environment.

National Road Safety Strategy

Reduce road deaths and serious injuries by 30% by 2020

The National Road Safety Strategy 2011–2020 is signed by state, territory and Australian government road and transport ministers. It adopts the Safe System approach: safe roads, safe speeds, safe vehicles and safe people.

National Cycling Strategy



Double rate of participation in cycling between 2011 and 2016

The National Cycling Strategy 2011–2016 is signed by state, territory and Australian government road and transport ministers. A survey of 10 000 households provided the 2011 benchmark for this target.

Clean Energy Future

Reduce carbon emissions to 80% of 2000 levels by 2050

Australia has agreed to reduce its carbon emissions to 5 per cent below year 2000 levels by 2020 and to 80 per cent below year 2000 levels by 2050. A price on carbon pollution was introduced from 1 July 2012. In relation to the transport sector, the carbon price applies to fuels used in domestic aviation, maritime and rail transport.

National Partnership Agreement on Preventive Health

Reverse overweight and obesity trends by 2018

The *National Partnership Agreement on Preventive Health* aims for a 15 per cent increase in the proportion of children and adults meeting national guidelines for physical activity by 2018; and the proportion of children and adults with a healthy weight to return to baseline levels by 2018.

Weighing it up: Obesity in Australia

Urban planning guidelines to encourage healthy and active lifestyles

The Australian Government response to *Weighing it Up: Obesity in Australia*, commits the Federal Government to work with all levels of government and the private sector to develop nationally consistent urban planning guidelines which focus on creating environments that encourage Australians to be healthy and active.

National Disability Strategy 2010–2020

Inclusive and accessible communities

Signed by all three levels of government, the *National Disability* Strategy incorporates inclusive and accessible communities to ensure that people with disability live in accessible and well-designed communities with opportunity for full inclusion. It advocates for a public, private and community transport system that is accessible for the whole community.

2.1 Work within a clear hierarchy of planning

> "Build a culture, through leadership, of planning for people rather than cars."

RACHAEL, ADELAIDE

Work within a clear hierarchy of planning

- integrate land use and transport planning
- identify principal walking and riding routes in regional and local plans that are consistent with overall state planning and transport strategies.

PLAN

All levels of government acknowledge that land use and transport planning are integral to one another.

The Council of Australian Governments (COAG) recognises that 'the efficient and effective planning of our cities and towns is vital to productivity and investment'.[21] The COAG Reform Council's review of capital city planning systems found that 'many of the problems of congestion, poor design and lack of infrastructure related to poor planning in the past'.[22]

COAG's agreed criteria for capital city planning systems include:

- integration across functions, including land-use and transport planning, and
- a consistent hierarchy of future oriented and publicly available plans including long-term integrated strategic plans, and medium-term prioritised infrastructure and land use plans.

The House of Representatives Standing Committee on Health and Ageing inquiry, *Weighing it up: Obesity in Australia* provided 20 recommendations on a range of issues affecting obesity in Australia. The Australian Government agreed 'that the Federal Government work with all levels of government and the private sector to develop nationally consistent urban planning guidelines which focus on creating environments that encourage Australians to be healthy and active'.[23]

The Australian Transport Council (now the COAG Standing Committee on Transport and Infrastructure, SCOTI) recommended the Australian Government continue 'working with the States and Territories to improve urban transport and passenger transit systems to support the sustainable growth of Australia's cities.'[24]

A national urban transport strategy is currently being prepared by Infrastructure Australia.

The *National Cycling Strategy 2011–2016* includes a priority for integrated planning to 'consider and address cycling needs in all relevant transport and land use planning activities'. It recommends that state and territory cycling action plans include targets that are consistent with the national target; that local governments take into account relevant state and territory plans; and that all governments take into account active transport needs in their land use planning and infrastructure strategies. Acknowledging this,

21 COAG Reform Council 2009, Capital city strategic planning systems. Available from www.coagreformcouncil.gov.au/agenda/cities.cfm
22 COAG Reform Council 2012, *Chairman's statement – capital cities: mode to do to meet future challenges*.
23 Australian Government 2013, *Response to Weighing it up: Obesity in Australia*, recommendation 13.
24 Australian Transport Council 2008, *National Transport Policy Framework*. Available from http://www.ntc.gov.au/viewpage.aspx?documentid=1750

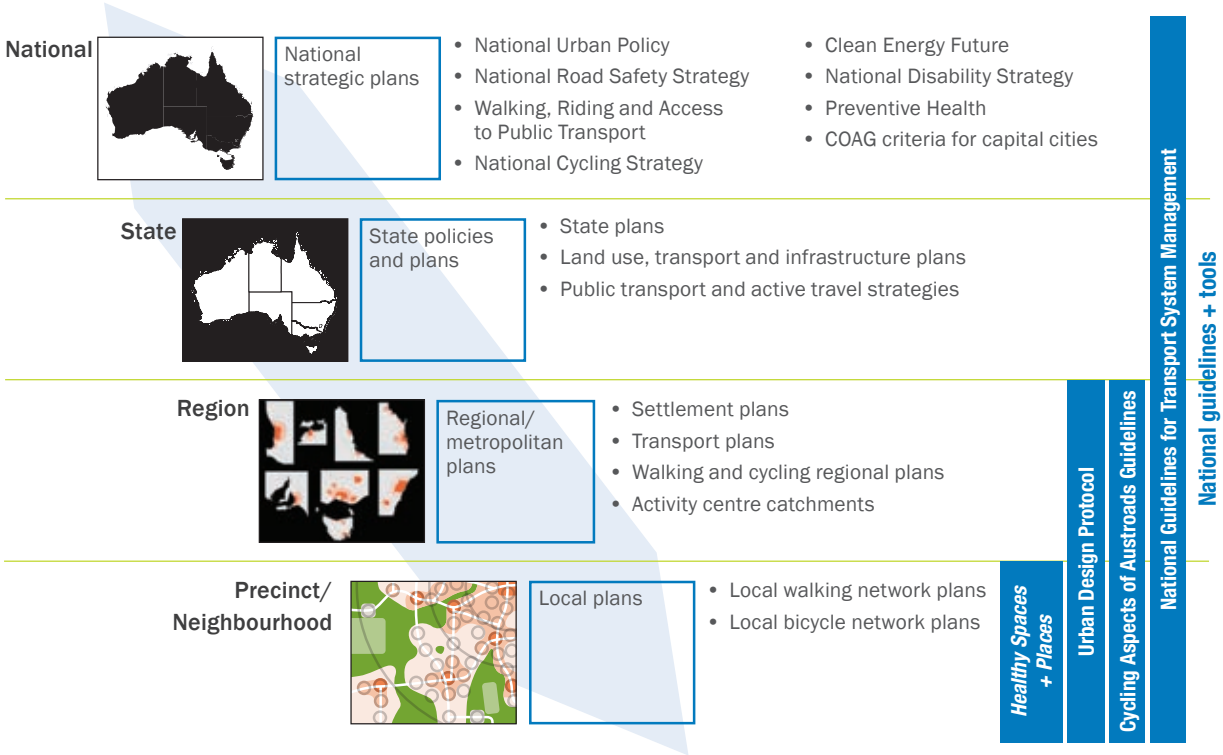
the Australian National Audit Office highlighted that the prioritisation and provision of bicycle infrastructure should be led by strategic network plans, particularly the completion of missing sections so as to provide whole-of-network connectivity.[25] [26]

Austroads (2011) stated that 'the development of strategies is important because they provide a framework and direction for the development and coordination of programs throughout government and should constitute a commitment to various initiatives and actions. They also provide for the integration of cyclist [and pedestrian] needs into all planning and design activities.' [27]

A similar approach could be applied to pedestrians and networks of safe, convenient walking paths.

This plethora of policies and recommendations suggest a similar purpose and direction. To articulate these more clearly Figure 2.2 illustrates a 'line of sight' from national level strategies; to state and regional planning and transport strategies; and local walking and cycling network plans.

Figure 2.2 Line of sight from national to local level



25 Australian Bicycle Council and the Department of Infrastructure, Transport, Regional Development and Local Government 2006, *Prioritisation of Bicycle Infrastructure Proposals*.

26 Australian National Audit Office 2012, *Establishment, Implementation and Administration of the Infrastructure Employment Projects Stream of the Jobs Fund*, p61.

27 Austroads 2011, *Cycling Aspects of Austroads Guidelines*, p5.

2.2 Design networks of continuous, convenient connections

> "Regional bike and walking networks need to be created so there are easy logical connections... Popular destinations should be the driver of regional plans so people can choose to walk or ride instead of drive. Network planning needs to aim for safe and pleasant walking/cycling environments including – traffic safety, being physically comfortable for most people, ramps, lighting and landscaping, clear connections and signage."

KELLY, SYDNEY

Design networks of continuous, convenient connections

- enable short walking and riding trips for transport purposes
- improve access to and within major activity, employment and education centres, focusing on 20-minute catchments (two kilometres walking, five kilometres cycling)
- improve access to public transport stops particularly 5–10 minute walking catchments.

PLAN

Access to well-connected, continuous and convenient routes is an important factor in any transportation system, whether for freight vehicles, cars, public transport, walking or riding.

Around 20 per cent of the Australian population commutes less than five kilometres to work or study. Distance is one of the most important factors in determining whether people consider walking or riding for their daily commute.

In an urban environment, riding a bicycle is often faster than driving for trips up to five kilometres, while walking is faster for trips up to 400 metres.[28] [29]

A shift from vehicle use to walking and riding for short distances could be achieved, at least in part, by concentrating on 20-minute catchments (two kilometres walking and five kilometres riding) around major activity centres. Most people are able to walk or cycle this distance with relative ease.

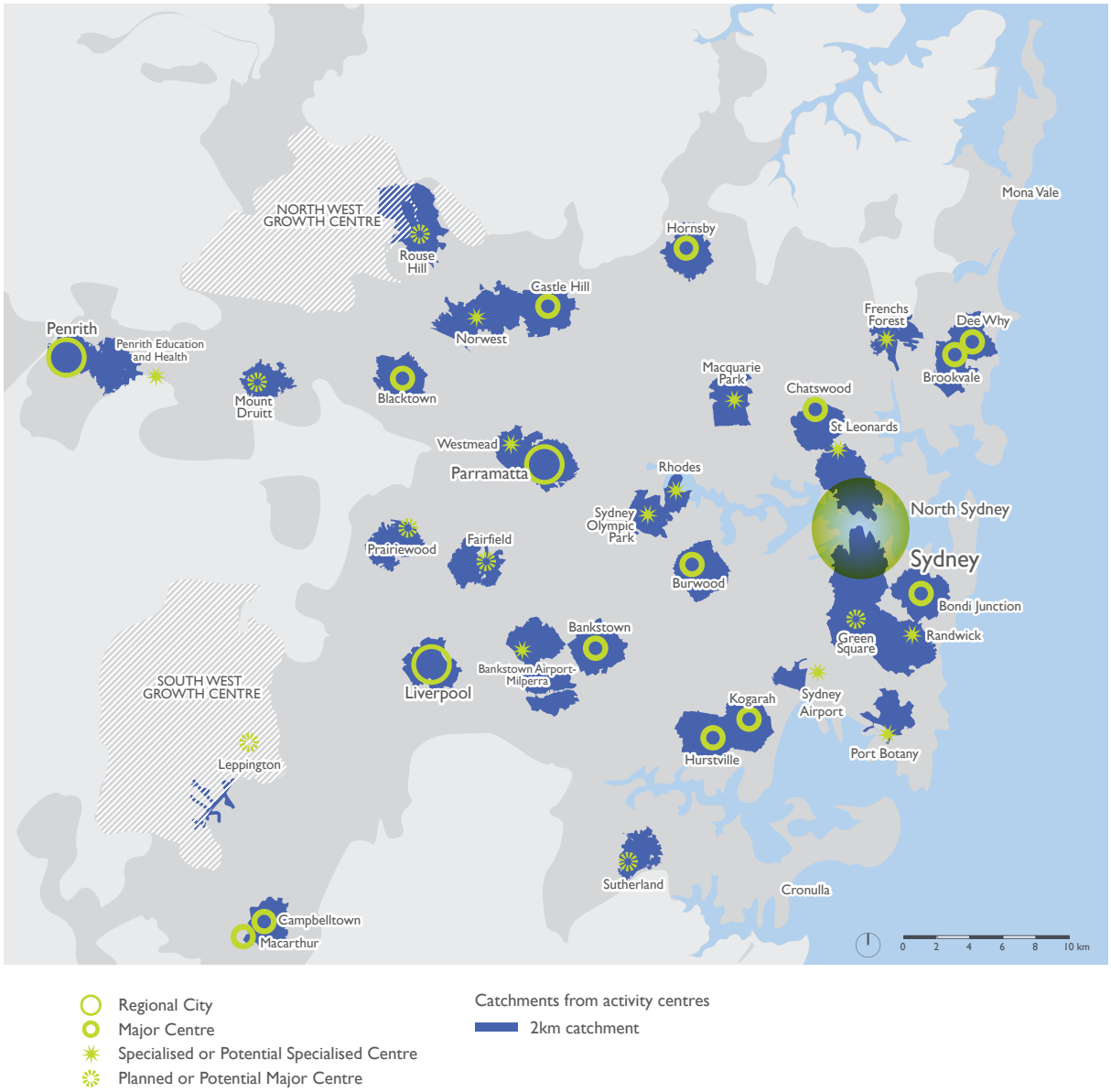
Figure 2.3 maps two-kilometre walking catchments for major activity centres and employment lands in the Sydney metropolitan area. Figure 2.4 maps the five-kilometre cycling catchments. These catchments are based on existing networks, excluding arterial roads and motorways where a separated pathway is not provided.

The maps show there are significant parts of Sydney within a 20-minute walk or ride of a major activity centre. The five-kilometre catchments create a fairly continuous connection between the major activity centres. This suggests that a large proportion of the metropolitan population could benefit from investments within these catchment areas, for example by providing quality off-road paths and improving the safety of local roads and footpaths.

28 Tranter P 2012, 'Effective Speed' in Pucher J and Buehler R (eds), *City Cycling*, MIT Press

29 Ellison R & Greaves S 2011, 'Travel time competitiveness of cycling in Sydney,' Institute of Transport and Logistics Studies, Working Paper ITLS-WP-11-06, p2.

Figure 2.3 Potential 20-minute walking (2km) catchments to major activity centres in Sydney



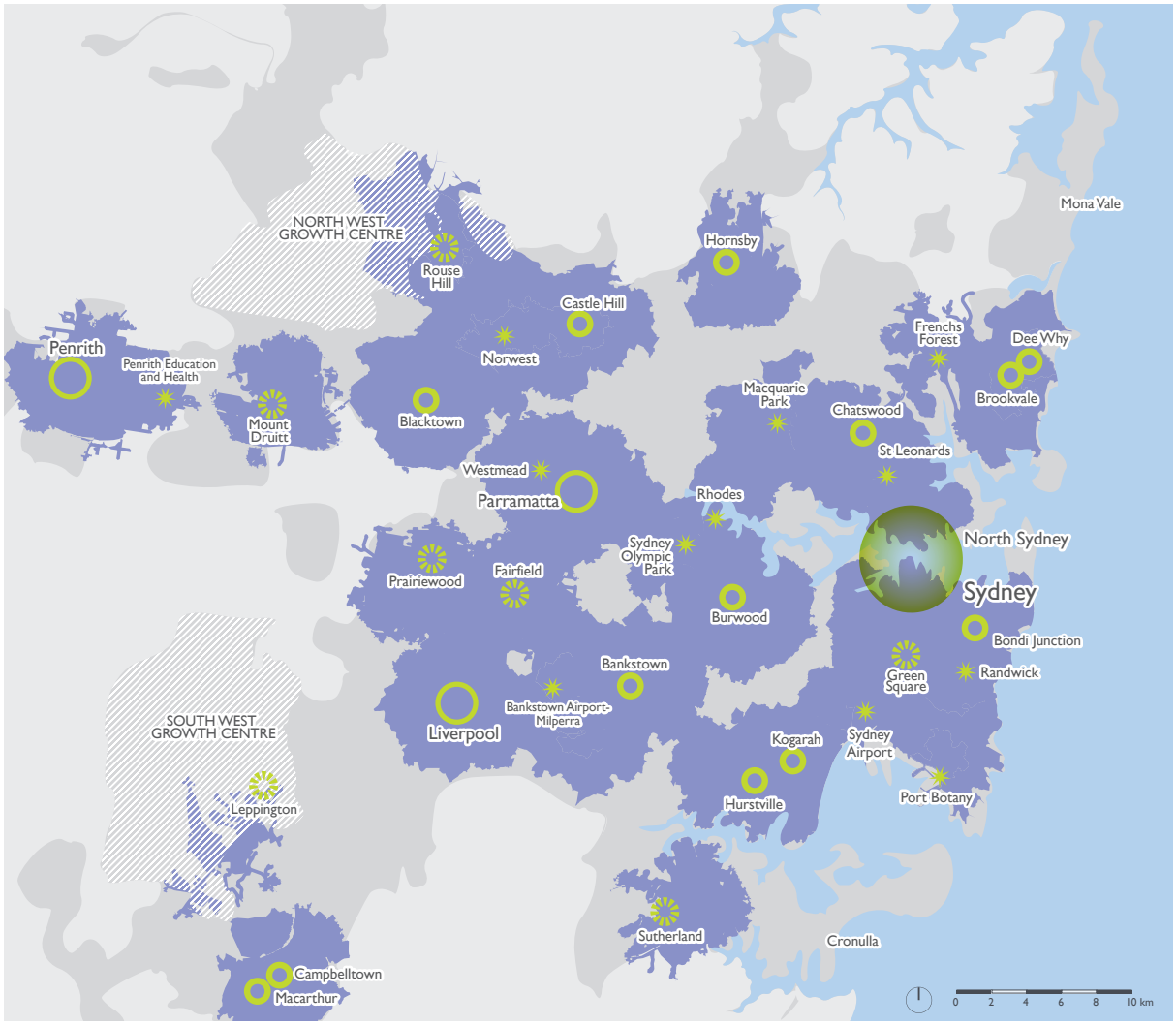
Source: NSW government bicycle geodatabase

Increasing the mode share of active travel could also help to reduce traffic congestion in and around these key centres.

In its 2013 priority list, Infrastructure Australia has listed the Inner Sydney Regional Bicycle Network as an 'early stage' project worth $185 million. It states 'measures to alleviate congestion on the existing transport networks are expected to improve productivity in Australia largest city. The objective of this project is to provide a sustainable alternative transport option... in Sydney's inner city.'[30]

30 Infrastructure Australia 2013, *National Infrastructure Plan and Priority List*, p108.

Figure 2.4 Potential 20-minute cycling (5km) catchments to major activity centres in Sydney



Source: NSW government bicycle geodatabase

Better connections to public transport hubs

Demand for public transport is increasing across Australian cities. Between 2001 and 2010 urban public transport grew at a rate of 2.57 per cent per annum to 19.12 billion passenger kilometres, outstripping population growth of 1.58 per cent per annum. Vehicular mode share for urban public transport has grown to 10.9 per cent in the capital cities. Meanwhile, private car use has decreased from a peak mode share of 90.9 per cent in 2004 to 89.1 per cent in 2010.[31]

31 BITRE 2013, *Public Transport Use in Australia's Capital Cities: Modelling and Forecasting*, Report 129. Mode share in this instance refers to vehicular mode share only.

In 2010, Sydney had the highest usage of public transport of any capital city (14.8 per cent); followed by Melbourne (11.5 per cent); Brisbane (9.4 per cent); Perth (7.0 per cent); and Hobart (3.6 per cent). Over 9 per cent of households in capital cities have no car. [32]

Providing better access to public transport can further leverage the growth experienced over the last decade.

'Access to public transport' encompasses a range of issues, including the provision of:

- Reliable, regular services (which is outside the scope of this statement)
- Well-connected, convenient walking and cycling routes from surrounding catchment areas to train stations; bus, tram and light rail stops; and ferry terminals
- Quality footpaths, kerb ramps, lighting, and other considerations which make access safer and more convenient
- Accessibility features for disabled and elderly persons, such as ramps, waiting and boarding areas, street furniture, lighting, tactile ground surface indicators, signs, stairs, handrails and grabrails.

Most people are prepared to spend about 10 minutes walking or riding to a high-frequency, direct public transport service such as a train or express bus. This equates to 800 metres walking or two to three kilometres riding. For less frequent or indirect local services, people are generally prepared to walk for up to five minutes, about 400 metres. [33] [34]

An important consideration is the accessibility of train stations and bus or tram stops from local neighbourhoods. The case study for Bull Creek in Perth exemplifies this.

BITRE, in its 2013 report on passenger transport in capital cities, refers to 'three factors that make reducing the level of car use difficult: lack of motivation, lifestyle, and difficulties in walking, cycling, and using public transport.'[35]

Without good pedestrian access, people may find it easier to drive to the station or forgo using public transport. Providing car parking at stations (park+ride) is expensive, and kiss+ride facilities may contribute to local traffic congestion around transport hubs. It is often more cost-effective to improve local walking access, bicycle access and bicycle parking to these stations instead.

Depending on the circumstances, retrofitting existing neighbourhoods and streets for better connectivity may be extremely difficult, or it may simply be a matter of removing minor barriers for pedestrians, wheelchairs or bicycles.

Having access to public transport enables people with disabilities, older Australians and parents with prams to participate more fully in community life. People with disability are nearly five times as likely to be unable to travel, or have difficulty travelling, to the places they need to get to compared to people without disability.[36] People with disability are more likely to experience poor health; social exclusion; lack of access to goods, services and facilities; and low levels of participation in education.

32 BITRE 2013, *Public Transport Use in Australia's Capital Cities: Modelling and Forecasting*, Report 129, pp41–42.
33 Burke M & Brown A 2007, 'Distances people walk for transit', *Road and Transport Research*, 16(3) pp17–29.
34 Pucher J & Buehler R 2009, 'Integrating Bicycling and Public Transport in North America', *Journal of Public Transportation*, 12(3) pp101–126. Available from www.nctr.usf.edu/jpt/pdf/JPT12-3Pucher.pdf
35 BITRE 2013, *Public Transport Use in Australia's Capital Cities: Modelling and Forecasting*, Report 129, p29. Refers to Mackett (2009)
36 Currie G & Allen J 2007, 'Transport Disadvantage and Australians with Disabilities', in Currie G & Stanley J 2007, *No Way To Go – Transport and Social Disadvantage in Australian Communities*, Ch 7, Monash University ePress.

Case study: Secure bicycle parking at train stations in Perth

Licence plate surveys have revealed some commuters drive less than 400 metres to park at crowded Perth train stations each morning. At Bull Creek station – which has a capacity of 598 vehicles – seven cars came from within 400 metres and another 19 came from 400–800 metres of the station. At Murdoch station, seven cars from within 400 metres and another 11 came from 400–800 metres away.

Park-and-ride facilities at Murdoch, Cockburn and Bull Creek stations are often full by 7.15am, resulting in motorists parking illegally or driving to their destination rather than catch public transport.

Bull Creek train station, Perth: Lock'n'Ride bike shelter. Courtesy Stephen Hodge

The State Government is rolling out a $50 million expansion of train station car parks, adding an extra 3000 bays along the Mandurah and Joondalup lines. In addition, 37 train stations are being upgraded to install secure bicycle parking cages, providing storage for up to 978 bicycles in total.

A cage of 21 bicycles takes up the same area as three car parking bays. People can pre-register to use a bicycle cage at their local train station, then access it for free using their public transport smart card. Although they still need to lock their bicycle within the cage, it is sheltered and can only be accessed by registered users. The aim is to have bicycle parking located closer to station entries than any other car parking bays (except disabled access).

One problem, however, is that local street networks don't always support good walking or riding connection to train stations. At Bull Creek station, some houses are only 260 metres from the station in a direct line, but require a walk of up to 1570 metres along the footpath.

Source: Google Earth (accessed May 2012)

The *National Disability Strategy 2010–2020* identifies, as areas for future action, 'inclusive and accessible communities' with a 'public, private and community transport system that is accessible for the whole community' and the implementation of a 'continuous accessible path of travel for people with disability'.

Measures have been taken to reduce barriers for people with disability. The *Disability Standards for Accessible Public Transport 2002* (Transport Standards) [37] specify minimum public transport accessibility levels, and set a timetable for compliance over a 20–30 year period, for public transport operators and providers. An independent review of the Transport Standards found that many stakeholders were critical of implementation to date, characterised by:

- a lack of 'whole of journey' accessibility
- uneven improvements between urban and rural regions, and between mode types
- a lack of confidence in the reliability of accessible services.[38]

The next review is currently underway.[39]

Improving the evaluation of project proposals

The Australian Government is currently working with states and territories to review the *National Guidelines for Transport System Management*, and supporting documents, to incorporate improved methodology for assessing the costs and benefits of walking, riding and public transport.[40]

2.3 Actions to improve planning

In seeking to deliver on the planning principles, the Australian Government commits to the following specific actions:

PLAN: Include walking and riding when planning for land use and transport	PLAN
1. The Australian Government's evaluation of proposed transport infrastructure will take appropriate account of the needs and benefits of walking, riding and access to public transport.	
2. The Australian Government will work with states and territories to review the *National Guidelines for Transport System Management*, and supporting documents, to incorporate improved methodology for assessing the costs and benefits of walking, riding and public transport.	

37 Available from www.comlaw.gov.au/Series/F2005B01059
38 Australian Government, 2011, response to review of *Disability Standards for Accessible Public Transport 2002*
39 Scoping report available from www.infrastructure.gov.au/transport/disabilities/review/2012.aspx
40 Austroads 2012, *Updating the ATC National Guidelines for Transport System Management in Australia: stage 1 – scoping issues paper*, prepared by GHD. Available from www.austroads.com.au/images/stories/NGTSM_update_scoping_issues_paper_December_2012_pdf.pdf

PART THREE

BUILD

Build appropriate infrastructure for walking and cycling needs

> "Make it safe. Make it easy."

LILY, ADELAIDE

> "Providing high quality paths and networks of a sufficient width and standard to support future growth and demand will send the message that these transport modes are valued and prioritised."

PHIL, MELBOURNE

Two key objectives of transport infrastructure are to improve the efficiency of the transport network, and to improve safety. Appropriate infrastructure for walking and riding can support both of these objectives.

Pedestrians and bicycle riders are highly vulnerable in the road environment. Broadly, there are three types of road infrastructure treatment that can help to improve their safety, depending on the context:

a. separating bicycles and pedestrians from motorised traffic, particularly on roads with large volumes of traffic travelling at high speeds
b. allocating road space, with appropriate speed levels and road treatments, in lower-traffic environments
c. sharing road space with very low speeds and volumes of traffic.

Walking (which includes most wheeled mobility and recreation devices such as skateboards, roller skates and roller blades) has different legislation, jurisdictional responsibilities, and infrastructure requirements to bicycles.

Bicycles are defined as vehicles under the Australian Road Rules.[41] However, bicycle riders often travel at different speeds to motorised vehicles. In some states and territories (Queensland, Tasmania, the Northern Territory and the Australian Capital Territory) bicycles are permitted to ride on footpaths unless otherwise signposted.

More than 3.5 million Australians ride a bicycle at least once a week, around 16.6 per cent of the population. More than 8 million Australians ride at least once a year.[42] However, a nationwide survey found that only 12.4 per cent of the female population rode a bicycle in the last week compared with 20.9 per cent of the male population.[43] Nationally, there has been a drop in cycling participation between 2011 and 2013, possibly reflecting the relatively low levels of investment in safe cycling infrastructure across the nation – many roads and other cycling infrastructure can only be used by people who are already confident bicycle riders. Designing and building appropriate infrastructure to suit bicycle riders of all abilities is vital to encourage broader participation in the community.

41 National Transport Commission 2011, Australian Road Rules – model law (cl 2.17, 2.18). Available from www.ntc.gov.au/ViewPage.aspx?documentid=00794
42 Australian Bicycle Council 2013, *National Cycling Participation and Perception Survey 2013*, Austroads (to be published).
43 Australian Bicycle Council 2013, *Australian Cycling Participation and Perception Survey 2013*, Austroads (to be published).

Pedestrians also constantly interact with the road environment. It is important to ensure pedestrians – including the disabled, elderly and very young – are safe and able to complete their journeys in a convenient and comfortable way. As noted by the OECD:

'At any given time, around 30 per cent of pedestrians have impaired mobility (because they are overloaded, or have temporary or permanent health impairments). Because of the ageing of the population … public authorities must prepare for a future where a growing number of highly vulnerable people will be even more dependent on walking.' [44]

Safe and convenient paths and crossings are important to pedestrians and riders of all ages and abilities. Photos Sara Stace.

In addition, streetscapes that feel comfortable (not too exposed to noise, traffic, wind); are well-connected with a variety of route options; and have a range of useful destinations nearby such as shops, schools, recreational activities and services – are more likely to attract people to walk and ride.

44 OECD 2011, International Transport Forum 2011, *Pedestrian Safety, Urban Space and Health: summary document*, p10.

3.1 Create safe environments for pedestrians and bicycle riders

> "Reduce the speed in certain streets and create 'shared zones' of 10km per hour where all road users have equal rights."

CLARE, MELBOURNE

Create safe environments for pedestrians and bicycle riders

- separate pedestrians and bicycles from vehicles, particularly high-speed and high-volume traffic
- allocate or share road space, with appropriate speeds, in lower-traffic environments
- recognise the vulnerability of bicycles as road vehicles.

BUILD

The Safe System approach is based on the principle that, in the event of a crash, impact energies must remain below the threshold likely to result in death or serious injury. [45]

Most pedestrians will not survive being hit by a motor vehicle travelling over 50 kilometres per hour. At 30 kilometres per hour the likelihood of fatality is 5 per cent; at 40 kilometres per hour it is 20 per cent; at 60 kilometres per hour it is 80 per cent; and at 70 kilometres per hour it is more than 90 per cent likely to result in a fatality.[46]

Specific treatments for safe road infrastructure need to be considered on a case-by-case basis. Options include separating motor vehicles from pedestrians and bicycles; allocating bicycle lanes on roads or sealed shoulders; or sharing road space in low-traffic environments.

VicRoads' *SmartRoads* strategy[47] shows a way to prioritise and encourage alternative modes of travel at different locations and times of day to maximise the efficiency of the road and transport network overall. Similarly, the South Australian Government's *Streets for People Compendium*[48] introduces a 'Link and Place' approach which aims to provide the most appropriate pedestrian and bicycle environments depending on the urban context (see case study). Queensland has Complete Streets guidelines which apply a user hierarchy (from pedestrians to bicycles, public transport users and motorists) for streets that function as 'destinations 'in addition to transport functions.[49]

45 OECD and International Transport Forum 2008, *Towards Zero: Ambitious Road Safety Targets and The Safe System Approach* www.internationaltransportforum.org/jtrc/safety/targets/08TargetsSummary.pdf

46 Austroads 2012, *On road Cycling on Higher Speed Roads*.

47 Vicroads 2011, *SmartRoads: Connecting communities*. Available from www.vicroads.vic.gov.au/Home/TrafficAndRoadConditions/HowWeManageTraffic/Smartroads

48 SA Government, *Complete Streets for People – a compendium for South Australian Practice*. Available from http://saactivelivingcoalition.com.au/wp-content/uploads/16649%20StreetforPeopleCompendium_full.pdf

49 Institute of Public Works Engineering Australia Queensland Division (IPWEAQ) 2010, *Complete Streets: guidelines for urban street design*

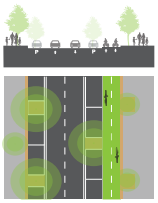
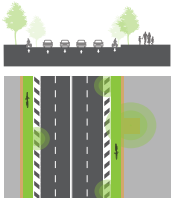
Road type hierarchy

The *National Road Safety Strategy 2011–2020* recommends that, in metropolitan areas in particular, more speed limits of 40 kilometres per hour or lower should be established. It recommends the development of new risk-based national speed limit guidelines for different road categories or functions.[50]

Building on the above examples, consideration could be given to an urban road type hierarchy, clarifying that different road types are designed and operated to prioritise different road users, depending on the purpose of the road, and the volume and speed of traffic. Figure 3.1 illustrates such an approach.

Figure 3.1 Potential urban road type hierarchy




Street or road type	Shared Zone with mixed traffic considered on a case by case basis	High pedestrian activity areas	Most urban roads	Urban arterial roads	Motorways and national highway network
Vehicle speed	< 20km/h	15–40km/h	40–60km/h	60–90km/h	90–110km/h
				Pedestrians + bicycles fully separated from vehicles	Pedestrians + bicycles fully separated from road environment
Consider first	Pedestrians	Pedestrians	Pedestrians on footpaths		
	Bicycles	Bicycle lane on road	Wide bicycle lane on road or shared path**		
	Public transport	Public transport	Public transport	Public transport	Freight vehicles
	Service vehicles	Service vehicles	Service vehicles	Freight and goods	Public transport
	Goods delivery	Goods delivery	Goods delivery	Service vehicles	Service vehicles
Consider last	Private vehicles	Private vehicles	Private vehicles	Private vehicles	Private vehicles

** Level of separation depends on traffic volume.

Source: Compiled from multiple sources including Austroads 2010, *Infrastructure/Speed Limit Relationship in Relation to Road Safety Outcomes* and Austroads 2009, *Guide to Traffic Management: Part 4: Network Management*.

50 Australian Transport Council 2011, *National Road Safety Strategy 2011–2020*.

Motorways and national highway network

On motorways and the national highway network, high-speed environments are necessary for the efficient movement of freight and people over long distances. The National Land Freight Strategy discussion paper identifies that one of the major challenges for freight is 'the inability to use the most productive freight vehicles on transport infrastructure'.[51] Priority could be given to freight and public transport on national highway and motorway networks.

It is often not appropriate for pedestrians and bicycle riders to be in contact with these high-speed, high-traffic environments. Where possible, local communities surrounding these major roads could instead be connected on a separate network (including grade separated infrastructure) that incorporates footbridges, underpasses and pathways for walking and riding.

Arterial roads

Arterial roads are designed to efficiently move goods and people across cities and towns. Due to the volume and speed of motor traffic, it is appropriate to accommodate pedestrians and bicycles on a separate network that may run parallel to such road corridors or on adjacent footpaths. Cross walks and traffic light signal phasing can help bicycles and pedestrians to cross these roads. Often these roads have 'high street' shopping and community destinations, where it is difficult to balance the safety, convenience and comfort of pedestrians with the efficient movement of traffic.

Local urban roads

The majority of urban roads are designed for local trips within suburbs or neighbourhoods. All states have adopted a default urban speed limit of 50 kilometres per hour. This change was linked to a 20 per cent reduction in casualty crashes and an even greater reduction in serious injuries. [52] [53] In high-traffic environments it may be necessary to provide physical separation for bicycles by creating a kerb between the road and cycle lane, or creating a wide gap between bicycle and car lanes. In low-speed, low-traffic environments, on-road bicycle lanes are usually sufficient.

Pedestrian activity areas

There are many urban locations with a high level of pedestrian activity – around shopping and cafe districts, schools, universities, hospitals and public transport interchanges. In these situations reducing traffic speeds may be the most appropriate course of action.

Austroads recommends that, in areas of pedestrian activity and/or low traffic, Local Area Traffic Management solutions be implemented and lower road speeds considered. [54] [55]

51 Infrastructure Australia 2011, *National land freight strategy discussion paper.* Available from www.infrastructureaustralia.gov.au/publications/files/NLFS_220211.pdf

52 Australian Transport Council 2011, *National Road Safety Strategy 2011–2020.*

53 Centre for Automotive Safety Research 2006, *A follow-up evaluation of the 50km/h Default Urban Speed Limit in South Australia.* Available from http://casr.adelaide.edu.au/casrpubfile/77/CASRevaluation50kmh583.pdf

54 Austroads 2010, *Infrastructure / Speed Limit Relationship in Relation to Road Safety Outcomes*, p57.

55 Austroads 2009, *Guide to Traffic Management: Part 4: Network management.*

Case study: Bicycle lanes, Melbourne

Twenty three per cent of reported bicycle accidents in the City of Melbourne are the result of 'car dooring'. In Albert Street, East Melbourne, road space was reallocated to make way for new kerbside bicycle lanes, with a marked buffer zone to prevent car doors from hitting riders. The buffer zone also provides protection from moving vehicles in peak hours, when the parking lane operates as a clearway to allow two lanes of moving traffic.

The Albert Street bicycle lanes have demonstrated that a safe, segregated space for bicycle riders can be provided on busy arterial roads without adversely affecting traffic flows. Following construction of the bicycle lanes in 2010, motor vehicle traffic did not decrease. Rather, the number of bicycles in peak periods doubled to about 14 per cent of all vehicles, resulting in an overall increase in total numbers (motor vehicles plus bicycles) following construction.

Most states have adopted 40 kilometre per hour speed limits around schools. The *National Road Safety Strategy 2011–2020* reported that 'safety outcomes in higher-risk pedestrian and school areas were improved... [resulting] in a 23 per cent reduction in casualty crashes and a 24 per cent reduction in all pedestrian and bicyclist crashes outside schools'.[56]

Many local governments in Australia have adopted lower speeds in select locations. For example Perth and Brisbane CBDs are zoned 40 kilometres per hour. Oxford Street in Leederville, Perth has a 30 kilometre per hour speed limit through the entertainment district.

Ideally the volume of traffic travelling through these locations will be minimised, with priority given to pedestrians, bicycles, public transport and local traffic to enable the 'destination' and activity functions of the location. The case study on South Australia's *Streets for People* exemplifies this approach.

Shared zones with mixed traffic considered on a case-by-case basis

In some local circumstances it is worth considering very low speeds (10 or 20 kilometres per hour) in streetscapes that can be shared by all road users. This is referred to as a home zone (USA), living street (UK), residential yard or 'woonerf' (Netherlands), walking speed area (Sweden) or naked street. Conventional road devices such as kerbs, footpaths, signs and signals are removed, so that all road users share the same space equally.

Examples in Australia include Bayview St, Claremont (WA); Coleman St, Fitzroy and Bowen St, RMIT (Victoria); Queen St Mall, Brisbane (Queensland) and Port Macquarie town centre (NSW). 'Bicycle boulevards', where traffic is slowed along major bicycle corridors, follow similar principles. [57]

56 Australian Transport Council 2011, *National Road Safety Strategy 2011–2020*, p13.
57 Examples on Bicycle Network website, available from www.bicyclenetwork.com.au/general/bike-futures/94183/

Case study: Streets for People 'Link and Place' approach

In 2012, the South Australian Government adopted 'Link and Place' as an approach for establishing what role each street would have within the overall street network. This approach considers the extent to which each street functions as:

- a 'Link' for transport movement, and
- a 'Place', where the street is a destination and activities occur.

The Link and Place approach uses a two-way matrix to assign a strategic street classification. The 'Link' status is influenced by the volume of people using that street by all modes of transport, and the strategic importance of the transport routes. The 'Place' status is influenced by factors such as the number of people accessing the street for activities and the strategic importance as a destination.

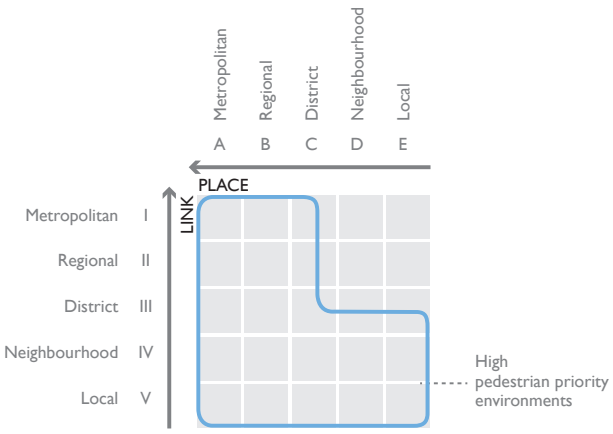
Every cell in the matrix describes a street type with a different combination of requirements. This method gives both 'place' and 'link/transport' dimensions equal consideration, and encourages an interdisciplinary approach involving both transport and urban planning professionals.

This approach has been used to identify appropriate provisions for pedestrians (Figure A) and bicycles (Figure B) on streets with different traffic speeds and/or volume.

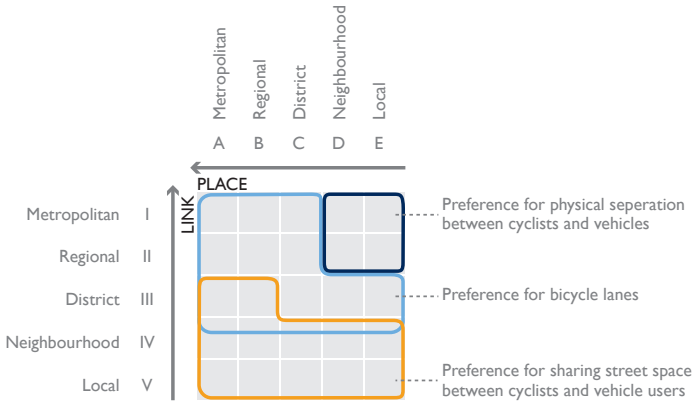
It also helps to allocate road speeds, which is particularly useful for gauging appropriate speeds and treatments for streets below 50 kilometres per hour (Figure C).

Source: Graphics courtesy of State Government of South Australia and the Heart Foundation (SA)

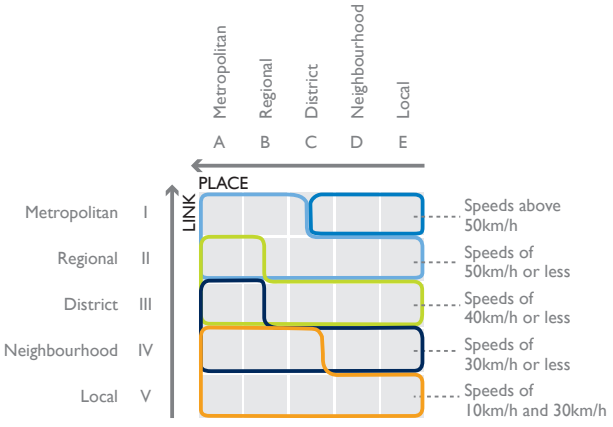
A. Street types warranting high pedestrian priority environments



B. Street types for allocated or shared road space for bicycles



C. Recommended target speed environments up to 50km/h



3.2 Incorporate pedestrian and bicycle facilities when building other infrastructure

> "Federal funding for transport infrastructure should emphasise that projects will be considered as more beneficial if they address the needs of the whole transport network, not just the central mode they are focused on."

ADAM, MELBOURNE

Incorporate pedestrian and bicycle facilities when building other infrastructure

- recognise 'positive provision' and 'mainstreaming' policies of states and territories
- avoid costly retrofitting wherever possible
- incorporate mid- and end-of-trip facilities.

BUILD

People are more likely to walk and ride in neighbourhoods and streetscapes with certain characteristics. *Creating Places for People – an urban design protocol for Australian cities*[58] recognises that creating a comfortable and welcoming environment is important for encouraging more people to walk, ride, participate in social and recreational activities, and engage in the public space. Barriers to greater uptake include personal safety, comfort and convenience (refer Figure 1.1 of this paper).

There are extensive resources available on making local streetscapes walkable and bicycle-friendly including Healthy Spaces and Places,[59] South Australia's *Streets for People Compendium*[60] (see case Study), New South Wales' *Beyond the Pavement*[61] and Queensland's *Next Generation Planning*.[62] Two of these – the NSW and Queensland guidelines – have been awarded the Prime Minister's Australia Award for Urban Design, a national award selected annually by an independent jury.[63]

Recognise 'positive provision' and 'mainstreaming' policies of states and territories

Most states and territories, including New South Wales, Victoria, Queensland, Western Australia, South Australia and the Australian Capital Territory, have policies in place that require walking and riding infrastructure to be considered with any road infrastructure project.

58 Australian Government 2011, *Creating Places for People: an urban design protocol for Australian cities*, available from www.urbandesign.gov.au
59 Australian Local Government Association, Heart Foundation of Australia and Planning Institute of Australia 2009, *Healthy Spaces and Places* website, available from www.healthyplaces.org.au
60 SA Government and Active Living Coalition 2012, *Streets for People – a compendium for South Australian Practice*. Available from www.heartfoundation.org.au/active-living/Documents/Streets-for-People-Compendium-(SA).pdf
61 NSW Roads & Maritime Services 2009, *Beyond the Pavement: RTA urban design policy, procedures and design principles*.
62 Council of Mayors (SEQ), Queensland Government, 2011, Next Generation Planning: affordable living smart growth form-based codes SEQ Place Model. Available from www.urbandesign.gov.au/casestudies/ngphandbook.aspx
63 Australia Award for Urban Design. Available from www.urbandesign.gov.au/casestudies/awards.aspx

Avoid costly retrofitting

Depending on the circumstances, retrofitting routes for better connectivity may be extremely difficult or simply a matter of removing minor barriers to improve pedestrian or bicycling access. In the map below, the installation of a 30-metre pathway can expand the five-minute walking catchment of a train station to include an additional 200 houses.

Figure 3.2 Expanding a public transport catchment by completing a missing link

Existing street network and catchment

New link with expanded catchment

Source: Courtesy of GTA Consultants.

Incorporate mid- and end-of-trip facilities

In addition to good planning and network connectivity, the provision of mid- and end-of-trip facilities can help to create environments that encourage people to walk, cycle and catch public transport. Such facilities can comprise:

- lighting and wayfinding – maps and directional signage
- personal amenities – toilets, shade, seating and drinking fountains
- bicycle storage – bicycle racks, lockers and storage enclosures
- bicycle end-of-trip amenities – showers and change rooms
- real-time information such as bus, tram, train and ferry arrival times.

Case Study: Liveable Cities Program

Announced as part of the 2011–12 Budget, the $20 million Liveable Cities program was designed to support a range of demonstration and planning projects to align with the objectives of the National Urban Policy and COAG capital cities reform agenda.

The program sought to promote high-quality urban design, improve the quality of open space and public places, address high levels of car dependency and traffic congestion, and support cities in tackling climate change. Several demonstration projects are helping to deliver better pedestrian or cycling networks around key employment and activity centres. The $6.25 million of Commonwealth funding for four of these projects, described below, will leverage co-contributions from state and local governments, totalling $30 million investment in pedestrian and cycling infrastructure.

Parramatta River City Renewal – Western Sydney, NSW

This $16 million project will complete three critical missing links along the northern Parramatta River foreshore. It will provide a continuous east–west separated cycling and walking link between the University of Western Sydney, medium-density housing developments, and key employment destinations in the Parramatta city centre and Westmead Hospital precinct. The Australian Government has committed $3.75 million to this project. The Parramatta River Urban Design Strategy was awarded the Prime Minister's Australia Award for Urban Design in 2012.

City West – Hindley Street Redevelopment project – Adelaide, SA

The City West – Hindley Street Redevelopment project will redevelop a section of Hindley St around the intersection of Clarendon St in the centre of the University of South Australia's west end precinct. This project will create a shared zone across Hindley St with a design that slows vehicular traffic and provides safer pedestrian movement, as well as improving the general amenity and vibrancy of the street. The project will integrate with other developments and improve linkages and amenities within the precinct. The Australian Government committed $1 million through the Liveable Cities program.

Improving Albury Wodonga's Cycling Infrastructure – Albury, NSW and Wodonga, VIC

This project will improve the bicycle infrastructure network in the Albury and Wodonga CBDs, including linkages between the two city centres and railway precincts. It is anticipated that the twin cities will experience an increase in the number of residents opting to cycle to work and study, decreasing the demand on road and transport infrastructure into the future.

The project will complement existing infrastructure and community facilities such as way-finding maps for pedestrians and bicycles in Wodonga's CBD and the off-road bike paths through parks in both cities. The Australian Government committed $300 000 through the Liveable Cities program.

Principal Pedestrian Network Demonstration Project – Melbourne and Geelong, VIC

This project is being rolled out in four locations in Melbourne and Geelong, combining infrastructure and travel behaviour change initiatives. It aims to prioritise pedestrians in transport planning and investment, by providing a better quality walking environment on key routes to local activity centres such as shops and schools and to transport hubs. It includes adjustments to signalised intersections (smart infrastructure), installation of priority crossings such as zebra crossings, increased pavement width and quality, installation of trees and improved street furniture.

The Australian Government has contributed $1.2 million. The project is being delivered under a partnership arrangement involving the Department of Transport Victoria, Frankston City Council, City of Boroondara, Shire of Yarra Ranges, City of Greater Geelong, and Melbourne University.

Case study: Improving cycle and pedestrian links with upgrades to rail freight network in Adelaide

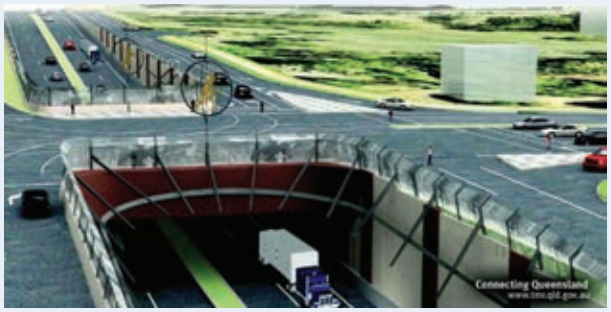
The Goodwood and Torrens Junctions project in Adelaide will allow greater capacity on the national rail freight network. It will enable more freight to be moved by rail on the Melbourne to Perth rail corridors, removing capacity bottlenecks and enabling 1,800 metre trains to operate without a severe negative impact on the arterial road network.

Separated passenger and freight lines near Torrens and Goodwood junctions, Adelaide

It shows how separating major freight routes from local street networks can improve walking and riding connections, and increase the efficiency of the freight network, by reducing wait times and increasing capacity for all road users. The project will also improve the amenity of Adelaide's inner suburbs. Four level crossings will be removed and waiting times at other crossings will be significantly reduced, improving pedestrian links around Bowden and Wayville train stations and adding a new connection to the Mike Turtur cycleway. The Australian Government has committed $232.1 million (2014–15) towards this project, in partnership with the South Australian Government.

Case study: Mains Road and Kessels Road, Queensland

The Mains Road and Kessels Road intersection is the busiest in Queensland with an average of over 90 000 vehicle movements per day. Grade-separated traffic will improve safety and travel times and provide a more efficient and reliable intersection with capacity for future traffic growth.



Mains Road and Kessels Road upgrade, Queensland

The project is located in Macgregor in Brisbane near a sports stadium, two shopping centres, a university, a hospital and residential neighbourhoods, and intersects with key walking, bicycle and major bus routes. Key features of the upgrade include new provisions for buses, new on-road cycle provisions, a 2.5 metre wide shared path for pedestrians and bicycles, and a significant reduction in intersection delays. The Australian Government is contributing to this $300 million project through the Nation Building program.

3.3 Actions for building better infrastructure

BUILD: Build appropriate infrastructure for walking and cycling needs	BUILD
3. The Australian Government will work with states and territories to ensure that infrastructure projects funded through Nation Building and other relevant investment programs: • protect routes for walking, riding and accessing public transport so that existing connections are not severed • reflect consideration of all transport modes – for example , where a project corridor follows, or intersects with, an identified walking or riding route, the project scope should include walking and riding infrastructure as part of the works • ensure that the relevant infrastructure is appropriate for the speed and volume of traffic.	
4. The Australian Government will work with states and territories to ensure pedestrian and bicycle infrastructure funded through Nation Building and other relevant investment programs meets appropriate technical standards and best practice approaches.	

Bourke Street, Sydney

PART FOUR

ENCOURAGE

Enable greater participation in walking, riding and public transport

Education, information and promotional activities have been shown to change travel behaviour where the appropriate facilities and infrastructure are in place to support walking, riding and public transport use. The best results are achieved when planning and infrastructure investments are supported by education and promotional activities together.[64] [65]

'Substantial increases in bicycling require an integrated package of many different, complementary interventions, including infrastructure provision, and pro-bicycle programs, as well as supportive land use planning.'[66]

Priorities in the *National Cycling Strategy 2011–2016* include Promotion (to promote cycling as a viable and safe mode of transport), Guidance and Best Practice (to support the development of nationally consistent guidance for stakeholders to use and share best practice), Monitoring and Evaluation, and Safety (see Appendix B). These priorities are also relevant to walking and public transport.

4.1 Leverage infrastructure investment

> "Make it attractive, easy, accessible, safe."

JAYNE, PERTH

> "Run lots of awareness programs – in schools, libraries, businesses, community events."

KAREN, BRISBANE

> "People will walk and/or cycle if there are safe and pleasant facilities. Large new developments should have approved and funded sustainable transport plans that include infrastructure such as through site links, cycleways and green travel plans."

KELLY, SYDNEY

Leverage infrastructure investment

- consider programs and incentives to inform people's choices about active travel and public transport and encourage higher levels of participation
- improve awareness and skills in the broader population
- encourage building owners and operators to provide end-of-trip facilities such as bicycle parking and change rooms.

ENCOURAGE

64 Australian National Audit Office 2012, *Establishment, Implementation and Administration of the Infrastructure Employment Projects Stream of the Jobs Fund*, pp22–23. Available from www.anao.gov.au/Publications/Audit-Reports/2011-2012/Bike-Paths-Component-of-the-Local-Jobs-Stream-of-the-Jobs-Fund

65 Auditor-General of Victoria 2011, *Developing Cycling as a Safe and Appealing Mode of Transport – an audit of the 2009 Victorian Cycling Strategy*.

66 Pucher J, Garrard J & Greaves S 2011, 'Cycling down under: a comparative analysis of bicycling trends and policies in Sydney and Melbourne', *Journal of Transport Geography*, 19 p344.

There is significant value in leveraging travel demand management and travel behaviour programs when delivering new transport infrastructure. Participation rates in walking, riding and public transport can be increased when a range of complementary policies and programs are implemented.

'As traffic congestion is a product of both supply- and demand-side factors, addressing the demand-side causes is essential for effectively managing it. Demand-side management initiatives normally aim to reduce the demand for road use during peak periods, either by encouraging motorists to use their cars at non-congested times or to use other, more sustainable modes of travel.'[67]

Travel demand management strategies can include planning for higher densities and mixed land use to reduce the need to travel long distances; teleworking; car pooling and sharing; pricing mechanisms; car parking policies; intelligent transport systems; and travel behaviour programs.[68]

Travel behaviour programs can include skills training, social marketing and promotion. For example, in Western Australia the TravelSmart Household program was introduced in selected railway station catchments for the new Perth to Mandurah railway line. Public transport patronage increased by an extra 50 per cent and car use declined by 4 per cent, at a cost of less than 0.5 per cent of the capital works.[69]

The Australian Government has supported a number of these types of initiatives, for example:

- *Creating Places for People: an urban design protocol for Australian cities* which is championed by all levels of government, businesses and professional associations and includes principles for creating more connected, walkable and vibrant communities. (www.urbandesign.gov.au)
- *Healthy Spaces and Places:* which provides guidance and training to local governments in partnership with the Australian Local Government Association, the National Heart Foundation, and the Planning Institute of Australia, and is funded by the Department of Health and Ageing. (www.healthyplaces.org.au)
- The Principal Pedestrian Network Demonstration Project in Melbourne and Geelong, co-funded through the Liveable Cities program, combines infrastructure as well as travel behaviour change activities.
- AustCycle and Heart Foundation Walking, which encourage participation in cycling and walking respectively, as part of the National Partnership Agreement on Preventive Health, Healthy Communities Initiative.
- Co-funded TravelSmart programs administered by the states and territories, which encourage travel behaviour change in targeted workplaces, schools and neighbourhoods.[70]

Non-government organisations throughout Australia are also working to coordinate education and promotion activities to encourage safe walking and cycling. For example, Walk to Work Day and Walk Safely to School Day are national community events (targeting adults and children respectively) to raise awareness of the health benefits of active transport and to encourage participation in local communities, schools and workplaces.

67 Auditor-General of Victoria 2013, Managing Traffic Congestion, p32. Available from www.audit.vic.gov.au/publications/20130417-Managing-Traffic-Congestion/20130417_Managing_Traffic_Congestion.pdf

68 Moving People 2030 Taskforce 2013, *Moving Australia 2030: a transport plan for a productive and active Australia*, p53.

69 WA Department of Transport 2011, *Integrating TravelSmart (Demand Management) with Public Transport System Investments* (unpublished, quoted with permission)

70 Australian Government 2012, *Walking, Riding and Access to Public Transport: draft report for discussion*, Appendix D

Others are targeting the provision of appropriate facilities in buildings. The Green Star rating tools, for example, award additional credits to commercial, educational and multi-residential buildings that incorporate quality bicycle facilities including bicycle parking, change and shower facilities, and secure lockers.[71]

The Australian Government response to *Weighing it up: Obesity in Australia* (2013) agreed to the recommendation to 'encourage private and public employers to adopt programs and incentives that will promote active and healthy lifestyle choices by all Australians within the workplace.'[72]

4.2 Actions to encourage more walking and riding

ENCOURAGE: Enable greater participation in walking, riding and public transport	ENCOURAGE
5. The Australian Government will partner with states and territories, including through the Australian National Preventive Health Agency, to encourage behavioural change in support of increased walking, riding and use of public transport, as part of healthy lifestyle choices	
6. The Australian Government will work with stakeholders to provide resources that support communities, businesses and local governments to plan for active travel in their local areas through, for example: • *Creating Places for People: an urban design protocol for Australian cities* (www.urbandesign.gov.au) which includes principles for creating more connected, walkable and vibrant communities; • *Healthy Spaces and Places* (www.healthyplaces.org.au) which provides guidance and training to local governments in partnership with the Australian Local Government Association, National Heart Foundation, Planning Institute of Australia and Department of Health and Ageing.	

71 Green Building Council of Australia.
Available from www.gbca.org.au/news/gbca-news/spotlight-green-star-cyclist-facilities-credit/33736.htm accessed July 2012.

72 Australian Government 2013, *Response to Weighing it up: Obesity in Australia*, recommendation 18.

Yarraville ped-bike. Photo Sara Stace.

PART FIVE

GOVERN

Coordinate across agencies and levels of government

There are national strategic plans covering urban planning, transport, preventive health, road safety, disability access, energy and environment (see figure 2.1). All of these strategies include some component that affects walking, riding and access to public transport.

All three levels of government are responsible for our transport systems. For example, local governments fund, plan, design and operate local roads and footpath networks in their areas. State and territory governments are responsible for the funding, planning, design and operation of state-operated roads and public transport networks, and enforcing road user responsibilities. The Australian Government works with other levels of government to strategically fund agreed infrastructure resources and for regulating safety standards.

A large number of submissions to the draft report emphasised the importance of coordinated planning and governance as a key enabler in increasing the mode share of walking and riding. In particular, submissions stressed the importance of:

- Coordination within state governments and between state and local governments to ensure a consistent approach to active travel and associated decision making
- A Commonwealth-state-local funding balance that recognises financial constraints
- Cross-sector engagement to integrate active travel measures and achieve better outcomes, for example complementing active travel infrastructure provision with behaviour change programs.

The following sections on governance are aimed at addressing these issues.

5.1 Ensure best practice governance arrangements

> "Encourage partnerships between governments, councils, local community groups and bicycle advocacy schemes."

FIONA, QUEENSLAND

Ensure best practice governance arrangements

- improve coordination and engagement across agencies and levels of government.

GOVERN

Feedback from stakeholders suggested the idea of a national body to progress intergovernmental and cross-agency agreement, and sharing of best practice, on walking, riding and access to public transport.

Currently, the closest fit to such a national body is the Australian Bicycle Council. It reports annually to the COAG Standing Council on Transport and Infrastructure (SCOTI) on the implementation of the National Cycling Strategy. It also maintains a website, the Cycling Resource Centre, to share best practice on cycling; and commissions technical research projects and guidelines for cycling infrastructure.[73]

Using the Australian Bicycle Council as a model, an active travel council could include a broader remit of walking and access to public transport (titled, for example, the Walking, Riding and Access to Public Transport (WRAPT) council, or Active Travel council). It could include relevant government agencies, non-government organisations and peak industry groups from planning, environment and public health. Specific technical knowledge could be taken up by specialist technical committees.

The Australian Government is interested in exploring this idea with states and territories.

Kurilpa Bridge, Brisbane provides high quality pedestrian and cycling infrastructure across the Brisbane River. Photos Sara Stace.

73 *Cycling Resource Centre: an initiative of the Australian National Cycling Strategy*, http://cyclingresourcecentre.org.au

5.2 Provide consistent standards and guidelines, monitoring and evaluation

> "Safety is a critical issue for active transport; the challenge here is achieving and enforcing high standards so as to reduce road trauma incidence... This should be the national goal."

LEIGH, MELBOURNE

Provide consistent standards and guidelines, monitoring and evaluation

- support nationally consistent guidance and sharing of best practice
- improve monitoring and evaluation
- develop nationally consistent decision-making processes.

GOVERN

Standards and guidance

While states and territories are largely responsible for setting rules and standards, they work with each other, at a national level, to support consistency and integration; improve efficiency and productivity; and sharing of best practice.

For example, the model Australian Road Rules and Vehicles Standards Rules are agreed by states and territories and administered through the National Transport Commission.[74] Likewise Austroads provides standards and guidelines on road-related infrastructure including networks. It recommends that state and territory governments provide a strategic framework to plan and integrate with local strategic bicycle plans.[75] [76] It also provides detailed technical guidance on types of infrastructure treatments.[77]

The National Cycling Strategy commits governments to regularly monitor, evaluate, and share best practice on cycling.

The Australian Government is interested in opportunities to work with states and territories to share guidance and best practice on pedestrian as well as cycling infrastructure, public transport access, and related issues such as travel demand management and behaviour change programs.

Monitoring and evaluation

There is little nation-wide data collection about participation in walking and cycling for transport purposes. Current methodology may lead to under-reporting or disparities in figures.

The national five-yearly Census collects information about travel to work for people aged over 15 years. The 2011 Census found that, in the capital cities, around 73,000 people cycle to work every day which is 1.3 per cent of total travel-to-work mode share.[78]

74 National Transport Commission 2011, *Review of the Australian Road Rules and Vehicle Standards Rules discussion paper.* Available from www.ntc.gov.au/viewpage.aspx?documentid=2029

75 Austroads 2010, *Guide to Road Design – Part 3: Geometric Design and Part 6A: Pedestrian and Cyclist Paths*.

76 Austroads 2009, *Guide to Traffic Management – Part 7: Traffic Impacts in Activity Centres*.

77 Various, including Austroads 2009, *Guide to Road Design – Part 6A: Pedestrian and Cyclist Paths*.

78 Mees M & Groenhart L 2012, *Transport Policy at the Crossroads: travel to work in Australian capital cities 1976–2011*, RMIT, table 1.8. Based on ABS 2012, *Census of Population and Housing 2011*, method of travel to work.

Recently, the Australian Bicycle Council has started to collect nationwide data on cycling participation. It has found that 3.5 million Australians ride a bicycle at least once a week, of whom a quarter (25.3 per cent) ride for transport purposes which represents around 900,000 people. Reasons for cycling for transport include commuting (8.4% of all those who ride a bicycle in a typical week), education (8.3%), shopping (6.1%), to visit friends and relatives (5.3%), or as part of a public transport journey (1.4%).[79]

Whilst the Australian Bureau of Statistics undertakes additional transport surveys, there is no equivalent national walking participation survey on the scale or breadth of the national cycling survey. According to the 2011 Census, almost 220,000 people 'walk only' to work in the capital cities every day, around 3.8 per cent of total mode share.[80] This does not include walking as part of a public transport journey, or walking for other purposes. In some locations, a very large proportion of trips are walked – for example 93 per cent of all trips within the inner city of Sydney are walking trips, around 1.2 million trips a day.

Additionally, Australia also does not collect accurate nation-wide estimates of overall distances walked or cycled. It is therefore difficult to compare Australia's performance against other OECD countries – for example the number of fatalities per million kilometres travelled.

The Australian Government is interested in working with states and territories to improve monitoring and evaluation of investment and participation in walking, riding and public transport.

5.3 Actions to improve governance

GOVERN: Coordinate across agencies and levels of government	GOVERN
7. The Australian Government will work with states and territories to consider establishing a new Walking, Riding and Access to Public Transport council, reporting to the COAG Standing Council on Transport and Infrastructure. Priority actions could include broader adoption of the principles of this statement; and agreement on a national approach to walking, riding and access to public transport.	
8. The Australian Government will work with states, territories and other stakeholders to collect relevant data, and undertake research and analysis, to support walking, riding and access to public transport.	
9. The Australian Government will continue to work with states and territories to support the implementation of the National Cycling Strategy.	

79 Australian Bicycle Council 2013, *National Cycling Participation Survey 2013*, Austroads (yet to be published).

80 Mees M & Groenhart L 2012, *Transport Policy at the Crossroads: travel to work in Australian capital cities 1976–2011*, RMIT, table 1.8. Based on ABS 2012, *Census of Population and Housing 2011*, method of travel to work.

PART SIX

APPENDICES

APPENDIX A
Engagement

Considerable engagement has been undertaken between all levels of government, peak business and professional organisations, and the community, in preparing this statement.

As a part of this engagement procession the Australian Government released *Walking, Riding and Access to Public Transport: draft report for discussion* (draft report). It explored how a national approach, with Australian governments working with businesses and the community, could increase the mode share of walking, riding and public transport. The draft report was open for public comment from November 2012 to February 2013. Nearly 200 submissions were received from across the country. These can be read at www.infrastructure.gov.au/infrastructure/mcu/urbanpolicy/active_travel/index.aspx

Around half of the submissions were from organisations, including local governments, state government agencies, peak industry bodies, and community groups. The other half of submissions were from individual respondents. There was also a petition with 2000 signatures supporting the Commonwealth's interest in active travel.

Six questions were asked, with respondents able to provide answers to specific questions, or submit a more general response.

1. How can we better plan for comprehensive **20-minute walking and riding networks** around central business districts, major activity centres and major education and health campuses?
2. How can we improve **access to public transport** (train stations, bus, tram and ferry stops) through better walking and riding connections? What are the roles of local, state, territory and Commonwealth governments?
3. How can the Australian Government, through its various programs, **encourage better planning and building** of networks for walking and riding?
4. How can we ensure that appropriate infrastructure for walking and riding is included when other transport infrastructure is being constructed so that we can **avoid costly retrofitting** at a future date?
5. How can governments, businesses and the community work together to leverage infrastructure investment with **other programs and incentives** to encourage greater uptake of walking, riding and public transport?
6. How can we further achieve **consistent standards** for facilities, road rules and vehicle design to ensure the safety and convenience of all road users?

The feedback received through this engagement process has informed the development of this statement.

The submissions generally supported appropriate Commonwealth involvement in the active travel agenda, working in partnership with other stakeholders including state, territory and local governments.

A number of stakeholders called for active travel to be better incorporated into transport and land use planning, across all levels of government, to help ensure consistent decision-making by governments.

Many highlighted the need to provide safe walking and riding infrastructure, for example by addressing missing links in existing networks; ensuring safe routes to schools; and providing easy connections to bus stops and train stations.

Submissions also called for active travel to be considered as a mainstream transport solution and to therefore be considered within everyday infrastructure funding programs.

Respondents suggested that walking and riding provide broader benefits for the community in addition to transport, including health, climate change, environmental and social benefits.

Stakeholders also suggested using travel behaviour change programs to encourage walking, riding and use of public transport; while recognising that behaviour change initiatives on their own can not be a substitute for providing quality infrastructure.

A large number of submissions canvassed the Commonwealth working with state, territory and local governments on the potential of: developing national goals and principles for active travel to align with other national policies; considering the potential of a broad 'active travel council' to co-ordinate a multi-sector, multi-government approach to active travel; incorporating a network approach to infrastructure provision rather than funding single modes of transport; and working with health and environment agencies to develop behaviour change strategies that address the wider impacts of active travel.

Feedback from individuals

Of the nearly 200 submissions received, around half were from individuals. All Australian states and territories were represented except the Northern Territory. Forty-five per cent were from New South Wales, 13 per cent were from Victoria and 12 per cent were from Queensland.

Feedback from organisations

Nearly half the submissions by organisations represented local governments. Sixteen per cent were from national representative bodies, such as peak professional and industry associations. Submissions were also received from community groups (19 per cent) and state government agencies (16 per cent).

Responses to the draft report supported a national approach. Feedback received from organisations broadly reflected themes expressed by the individual respondents. These included the role of the Commonwealth; integrated planning; influencing behaviour; and considering the wider impacts of active travel on other modes of transport.

The Moving People 2030 Taskforce, representing the Australian Local Government Association, Bus Industry Confederation, Tourism and Transport Forum, International Association of Public Transport (UITP), Australasian Railways Association, Planning Institute, Heart Foundation and Cycling Promotion Fund, also issued a report – *Moving Australia 2030: a transport plan for a productive and active Australia*. This report voiced strong support for the recommendations of the *Walking, Riding and Access to Public Transport: draft report for discussion* to be adopted.

APPENDIX B
National Cycling Strategy 2011–2016

The *National Cycling Strategy 2011–2016* sets a target of doubling the number of people regularly riding bicycles. It is signed by the Commonwealth, State and Territory Ministers responsible for roads and transport. The Strategy is underpinned by six priorities, each with a number of action areas.

Priority	Objective	Action areas
Cycling promotion	Promote cycling as a viable and safe mode of transport, and an enjoyable recreational activity	1. Encourage short personal trips 2. Encourage cycling as a recreational activity 3. Work with employers to develop bicycle-friendly workplace facilities
Infrastructure + facilities	Create a comprehensive and continuous network of safe and attractive routes to cycle and end-of-trip facilities	1. Invest in developing local on-road and off-road cycling networks to key destinations, that are consistent with national standards 2. Develop end-of-trip facilities 3. Austroads guidelines to recognise and promote best practice design for infrastructure and facilities
Integrated planning	Consider and address cycling needs in all relevant transport and land use planning activities	1. Develop and publish State and Territory cycling action plans, including targets consistent with the national target 2. Local governments will take into account the State and Territory plans, as well as community aspirations and priorities 3. All governments will take into account active transport needs in their land use planning and infrastructure strategies
Safety	Enable people to cycle safely	1. Monitor and report on crashes involving bicycles 2. Identify counter measures for bicycle crashes 3. Assess the cause of crashes and injuries and make recommendations about how to increase safety 4. Develop and implement programs to target road safety and perception of safety 5. Roll-out nationally consistent skills training 6. Support the delivery of cycling proficiency and road safety training for 10–14 year olds

(continued)

Priority	Objective	Action areas
Monitoring + evaluation	Improve monitoring and evaluation of cycling programs and develop a national decision-making process for investment in cycling	1. Agree a baseline and target for measuring progress against the national goal of doubling cycling participation 2. Develop and implement a nationwide approach to data collection and report annually to the Secretariat 3. Develop an agreed decision-making process for assessing the costs and benefits of investment in cycling
Guidance + best practice	Support the development of nationally consistent guidance for stakeholders to use and share best practice across jurisdictions	1. Publish nationally consistent guidance on a range of issues 2. Support local governments with guidance and best practice 3. Monitor cycling policy issues and identify areas which require further guidance 4. Provide web-based best practice case studies

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