2019 LOCAL GOVERNMENT ROADS AND TRANSPORT AGENDA

AUSTRALIAN LOCAL GOVERNMENT ASSOCIATION

CONTENTS

IV

PRESIDENT'S FOREWORD

Australia's ability to move people and freight safely and efficiently is critical to national productivity and wellbeing – and all levels of government play a role.

The Australian Government is responsible for regulating most safety standards and allocating infrastructure resources across the national highway and some local road networks. State and territory governments are responsible for funding, planning, designing and operating the major arterial road network and public transport; vehicle registration and driver licensing systems; and regulating and enforcing road user behavior – all of which they manage through a single consolidated agency in each state or territory.

In contrast, Australia's 537 local governments have responsibilities for funding, planning, designing, operating and maintaining the road networks in their local areas which are critical for getting people and products from door to door. Of the three levels of government, local government has the largest relative infrastructure task in terms of asset management. Local roads account for around 75% of the total road length in Australia, or 662,000 kms.

Yet local government has the smallest revenue base of all the tiers of government, raising only 3.6% of Australia's total taxation revenues. Only 3.6% of the tax to manage 75% of the road task.

And our tax is a general tax. Unlike other governments we have no direct mechanism to raise funds of any significance through fuel sales, road use, registration charges or any road-or transport-related fees or charges.

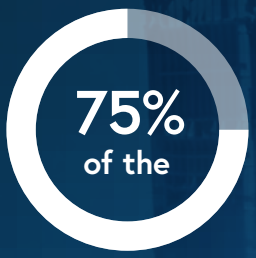
Across Australia, local governments have insufficient revenue capacity to maintain their road networks to the original design standard let alone upgrade them to modern lane widths, safety standards or load-bearing capacities. On top of this, they are faced with funding improvements for higher productivity freight vehicles, higher traffic volumes, congestion etc. Rate payers are often expected to fund transport networks for non-ratepayers.

Be in no doubt, local government is committed to playing its role and meeting its responsibilities to ensure the efficient and safe movement of people and freight. We have a long history in transport infrastructure and a proven record of reform and adoption of technical innovation. However, despite its best efforts and commitment, local government does not have the required resources to deliver its part of the national transport system in the decade ahead.

Local government acknowledges and appreciates the Australian Government funding through Roads to Recovery, the Black Spot Program, and the Bridge Renewal Program. However, without this and further assistance, local government will not be able to deliver on its responsibilities under the COAG reform agenda or provide the transport services that the Australian community expects and deserves. Additional assistance will be essential to ensure that local government transport systems can deliver the goods – now and into the future.

Mayor David O'Loughlin
ALGA President

537
councils look after



total road length
in Australia

of Australia's total
taxation revenue

Local roads add
up to around

662,000 KMS IN LENGTH

Enough to circle
the Earth

16.5 TIMES

ASSETS

Roads	41%
Buildings	17%
Parks	4%
Stormwater	19%
Waste Water	19%
Airports	0.8%

Additional **FUNDING ASSISTANCE** is essential to ensure local government can deliver

SAFE, FIT-FOR-PURPOSE ROAD NETWORKS NOW AND INTO THE FUTURE

01

PURPOSE OF THIS DOCUMENT

01

PURPOSE OF THIS DOCUMENT

Transport is critically important to the social, cultural and economic success of every Australian community. Local government has a highly developed understanding of the transport needs of communities—the need for access to quality road networks and increased access to motor vehicle alternatives both in urban and regional Australia.

Local government is also aware of the enormity of the challenge that it faces in meeting the needs of the community for safe, efficient and reliable transport services.

This is a document for local government and can be used in advocacy with communities and other levels of government. It is a guide and complements existing federal and state/territory government transport planning guides as well as relevant council local transport plans, but does not replace them.

It highlights some of the challenges facing local governments in the transport area and also outlines opportunities provided by these challenges. It will be updated periodically to reflect trends and opportunities.

02

THE ROLE OF LOCAL GOVERNMENT IN TRANSPORT

03

THE ROLE OF LOCAL GOVERNMENT IN TRANSPORT

Local government is a key player in contributing to Australia's economic productivity and social and environmental outcomes through its transport agenda.

Local governments plan, develop and maintain critical transport infrastructure for their communities and the wider population more generally. This is done in association with the broader roles and responsibilities of councils, for example in determining future growth scenarios and land use planning, developing economic and social strategies and delivering community services. Transport is just one of a wider suite of activities that councils undertake with their communities to create liveable and economically-viable communities.

Local governments also work closely with federal and state/territory governments to manage the local links to existing and future national, state/territory and regional transport networks such as national highways, railways, major freight corridors, intermodal terminals, airports and ports.

The range of transport infrastructure planned and managed by councils varies depending on state/territory legislation and location. Below are some examples of transport networks and infrastructure developed and managed by councils:

- **Roads and bridges:** Local roads managed by local government account for 75 per cent of the total road length in Australia, or 662,000 kms. Many local governments support car sharing services and are increasingly providing electric vehicle charging stations. Public carparks and on-street parking are managed by local government.
- **Public transport:** Some councils provide and manage public transport infrastructure and services. Brisbane City Council operates one of the largest bus fleets in Australia, as well as CityCats and the CityFerry network while the City of Gold Coast funded a new 13-kilometre light rail project comprising 16 stops from Broadbeach to Gold Coast University Hospital, in conjunction with state and federal governments.
- **Pedestrians and cycling:** Local government is responsible for the provision of local pedestrian and cycling networks that support connectivity and active living options for local communities.
- **Freight routes and hubs:** One third or 213.9 billion tonne-kilometers of Australia's domestic freight was moved by road in 2015–16. The majority of freight tasks start and finish on a local government-controlled road. In total there were 251.2 billion vehicle kilometers travelled in 2015–16 of which 142.1 occurred in capital cities. Much of this travel would have occurred on local government-controlled roads which are integral to state and national road networks and provide essential linkages for the freight industry, commuters and other users.
- **Airports:** In excess of 200 regional airports and aerodromes are owned by local governments.

03

LOCAL GOVERNMENT'S TRANSPORT VISION

05

LOCAL GOVERNMENT'S TRANSPORT VISION

Our vision is to develop an integrated and safe transport system that enhances the social, environmental and economic wellbeing of local communities, regions and the nation.

This will be achieved by:

- a partnership approach with the state/territory and federal governments and transport users
- ensuring that local government has the financial and technical capability to effectively manage its transport infrastructure, which includes over 75 per cent of Australia's roads and the vast majority of regional airports and aerodromes
- better integrating transport and land use planning, include encouraging a mode shift away from private vehicles to public and active transport
- enhancing accessibility for all Australians in urban, rural, regional and remote locations
- improving road safety, and
- balancing the movement and place functions of roads to support safe, efficient and reliable journeys for people and freight while enhancing the liveability and amenity of places.

04

LOCAL GOVERNMENT'S POSITION

07

LOCAL GOVERNMENT'S POSITION

4.1 COLLABORATION

In planning for land use and transport integration, the Federal Government, state/territory governments and local government should adopt a collaborative multi-modal approach which minimises the impact on the environment and energy consumption, supports accessibility and encourages the use of alternative modes of transport.

Local government is committed to collaborating with federal, state and territory government agencies to implement a range of transport initiatives and policy reforms, such as reducing road trauma. This effort needs to be undertaken on a partnership basis between the three levels of government. National leadership is required to reduce the significant human and economic costs of road trauma with all three levels of government playing an active part in providing a safe transport system.

> **Local government is committed to collaborating with federal, state and territory government agencies to implement a range of transport initiatives and policy reforms, such as reducing road trauma.**

The establishment of a Ministerial Council including local government that would address settlement and infrastructure priorities and align infrastructure delivery with population growth and productivity drivers should be established. This integrated land use and transport planning approach would work to better manage congestion of the road networks in the urban areas and expanding regional cities. In addition, it would ensure that land use planning considers freight and logistic networks to reduce potential land use conflicts or decline in productivity.

Local government must continue to be engaged as a legitimate partner in the Heavy Vehicle Road Reform being pursued at the national level, especially with reference to the development and negotiation of the proposed funding agreements including community service obligations, the forward-looking cost base, independent pricing regulator matters, the review of the Heavy Vehicle National Law, the review of improved access for oversize over mass vehicles and related matters.

08

> **The Bridges Renewal program should be made permanent and annually indexed in light of the need to support greater heavy vehicle access to the local government-controlled road networks and increases in road and bridge construction costs.**

4.2 FUNDING

Local government has a right and responsibility to control, develop and maintain roads, and is entitled to an equitable share of federal and state road funds for this purpose.

The funding allocation for the Roads to Recovery program, which has become permanent, should be increased to $800 per annum (2018–19) with annual indexing of funding to reflect increases in road and bridge construction costs.

Funding contributions from state/territory and federal governments should be substantially increased for local road networks where:

- local roads provide for significant arterial and through traffic, or have economic significance beyond the access interests and responsibility of ratepayers, and
- the relationship between a council's potential rate base and its road responsibility is so unbalanced that the council is unable to meet its obligations.

The Bridges Renewal program should be made permanent and annually indexed in light of the need to support greater heavy vehicle access to the local government-controlled road networks and increases in road and bridge construction costs.

A Local Government Higher Productivity Investment Plan starting at $200 million per annum over five years should be established to realise the productive potential of Australia's freight routes.

Local governments are responsible for managing around 75 per cent of the road network in Australia where 52 per cent of all casualty crashes and 40 per cent of all road deaths occur. However, there are considerable capacity and resource issues that hinder local governments ability to pursue the desired transformative approach to road safety. To address this a Safer Local Roads Fund for local governments should be established that targets high risk sections of roads identified by risk mapping of crashes per kilometer of road traveled.

> **Local governments are responsible for managing around 75 per cent of the road network in Australia where 52 per cent of all casualty crashes and 40 per cent of all road deaths occur.**

A Smart Communities Program of $100 million per annum and a Digital Local Government and Rural/Regional Telecommunications Program of $100 over four years should be established to support communities to adopted advance transport technologies such as autonomous vehicles.

There is also a need to ensure an equitable distribution of federal local roads funding between states and territories by adjusting the Identified Roads Component of Financial Assistance Grants to make the additional $20 million per annum (indexed) funding to South Australia permanent. South Australian councils are responsible for the development and maintenance of 11 per cent (75,000 kilometers) of the nation's local road network, have more than 7 per cent of the nation's population, and yet receive only 5.5 per cent of the Identified Local Roads Component of the Federal Government's Financial Assistance Grants.

4.3 CAPACITY AND CAPABILITY BUILDING

Local governments are required to provide consent for heavy vehicles accessing local roads. This involves making decisions on the capacity of roads and other key assets such as bridges to withstand the impact and wear caused by heavy vehicles. These decisions take into consideration engineering condition, asset management plans and financial management plans.

Where local governments have limited, inadequate or no current data on the engineering condition of road and transport assets, formal assessments may be required. However, local governments do not have the resources to undertake these assessments in a timely manner, particularly on identified priority freight routes. Often, they possess insufficient capacity and capability to assess the impact of various mass and dimension scenarios or bridges and road design matters such as turning paths to accommodate longer vehicles.

To address this issue, a nationally-coordinated multi-channel education campaign supplemented by accessible tools is required. Funds for such a program would need to be sourced from the Commonwealth and state and territory governments and potentially industry groups. The initial funding contribution would be of a quantum large enough to rapidly address the magnitude of improvement required. The quantum could then be decreased to a level that would allow for an ongoing education program for new staff to address the issue of loss of corporate knowledge.

> **“These decisions take into consideration engineering condition, asset management plans and financial management plans.**

05

TRANSPORT CHALLENGES

TRANSPORT CHALLENGES

Technological advance, new transport infrastructure, a quest for greater productivity, and continual population growth in major cities have created a dynamic environment for traffic engineers and transport planners. They must cater for the evolving demands of transport users while exploring and understanding emerging technologies.

There are a number of issues facing local governments to manage and develop the transport agenda in their communities. These issues will vary across communities depending on their location and the local economic and social context and the response will depend resources and expertise. Some of the challenges[1] will be due to:

5.1 DEMOGRAPHIC CHANGES

Some communities, especially in the major cities, are under increasing growth pressures and have to deal with issues such as traffic congestion, restrictions on local parking, constrained accessibility and high volumes of through traffic. In predominantly rural and regional areas, population growth may have slowed or declined so the transport focus might be on freight, high cost of airline travel or addressing limited public transport. However, all communities are likely to be impacted by the ageing of the population, which means a decreasing proportion of working age people able to help fund the necessary transport infrastructure.

Other demographic and social challenges include understanding the link between access and mobility and communities' health outcomes, widening social inequality and providing equitable transport access to employment, services and education opportunities.

5.2 TECHNOLOGICAL TRANSFORMATION AND MARKET DISRUPTION

Technological change is disrupting markets and affecting how transport infrastructure is managed in local communities including how goods and services are provided. For example, smart parking technology, electric cars and online shopping are providing opportunities but also challenges in the nature of transport in our communities. In the future, the move to autonomous vehicles will also have substantial implications for infrastructure.

> **“In the future, the move to autonomous vehicles will also have substantial implications for infrastructure.**

5.3 INCREASING FREIGHT TASK

The expected growth in freight movement will impact on freight corridors and hubs including the first and last mile. Total road freight carried grew 50 per cent in the 10 years to 2016 and in capital cities is forecast to rise 67 per cent by 2030. Growth in freight will impact on major cities and also regional freight hubs and local roads.

1 These challenges have been adapted from Infrastructure Australia 2018 P4.

5.4 IMPACTS OF CLIMATE CHANGE

Changing climatic weather patterns will require built infrastructure to be more resilient and cognisant of potential impacts such as increased heat or flooding as well as minimising greenhouse gas emissions. Existing infrastructure may also require upgrading or modification to bring it up to required standards or risk the higher ongoing costs of repair and maintenance. Transport networks will also be important for ensuring communities can mitigate against extreme weather events such as being able to leave their properties during bushfires or flood events.

5.5 CHANGES TO THE NATURE AND LOCATION OF WORK

Australia has been moving towards a service economy and away from manufacturing for some time. Changing technology (associated with artificial intelligence and machine learning) and consumer demand will create more change to the nature of jobs in the future. Technological change is seeing a rise in 'job polarisation' – with strong growth in both high and low skilled jobs at the expense of mid-skilled jobs. It is also making the location of employment less important. Currently around 1 in 5 employed persons work on a regular basis from home. Increases in the professional and managerial workforce will likely see rates of working from home rise over the coming years. This may result in fewer cars on the road, reduced congestion and reduced demand for public transport.

5.6 GOVERNANCE

Local governments work closely on transport issues with neighbouring councils or are part of a regional grouping of councils. Councils also work closely with state/territory governments and to a varying extent directly with the Federal Government. Councils have to navigate the varying funding, regulatory, legislative and policy challenges across the levels of government to ensure the priorities and needs of their local communities are met.

> **“Local governments work closely on transport issues with neighbouring councils or are part of a regional grouping of councils.**

5.7 FINANCING TRANSPORT

For local government, maintaining and upgrading existing transport networks and financing current and future transport networks will be a challenge, especially with fiscal constraints of rate capping and diminishing funding from state/territory and federal governments.

Local roads provide for significant arterial and through traffic or have economic significance beyond the interests and responsibility of ratepayers. However, local government receives little or no transport-related revenue from sources such as registration and license fees and vehicle related taxes, charges, tolls and fuel excise.

Local government expenditure on roads was $5.4 billion in 2015–16 (excluding the Australian Capital Territory) or approximately 20 per cent of all road-related expenditure nationally.

Local government expenditure on roads was $5.4 billion in 2015–16 (excluding the Australian Capital Territory) or approximately 20 per cent of all road-related expenditure nationally. While some funding is provided by the Australian Government and state/territory governments, roads are primarily funded from the council's rate base. Combined local government rates make up just 3.6 per cent of tax revenue nationally but councils have responsibility for 33.2 per cent of non-financial assets including 75 per cent of the nation's total road length (2016–17 figures).

Local government owners of transport infrastructure face multiple and competing demands on their limited financial resources. Rate payers are often left to fund transport networks for non-ratepayers particularly where local roads provide for significant arterial and through traffic or have economic significance beyond the access interests and responsibilities of the council.

5.8 SUMMARY

Local government is committed to ensuring that transport services are able to be delivered directly to its communities and industry and it is a legitimate partner in a wide range of transport reforms. However, despite its best efforts and commitments to reform, local government does not have the resources to meet the challenges to deliver its part of the national transport system in the decades ahead. The enormity of the task and the financial challenges facing local governments are well known. Local government needs support from the other levels of government – especially the Federal Government – and the transport industry to deliver efficient, effective and equitable transport services and infrastructure.

06

MAJOR TRANSPORT THEMES

MAJOR TRANSPORT THEMES

6.1 LIVEABILITY

Challenge

With changing demographics including an ageing population and issues such as social isolation and widening social inequality, councils need to plan and manage transport networks for the benefit of their communities. Access and availability of transport affects the daily lives of residents and the business sector.

Opportunity

Communities are socially and economically diverse and transport is important for access and mobility of residents. Finding ways to encourage more use of alternative modes of transport (public transport, cycling and walking) should be the goal of any local government seeking to improve the liveability of its communities.

Local government acts in the best interests of its communities and can develop transport outcomes consistent with community goals such as:

- ensuring access to local amenities and facilities
- encouraging walking and cycling especially for children
- facilitating social connectivity including through safe transport and built environments
- providing equitable transport access for all members of the community, and
- making local streets more liveable by traffic calming and other measures.

Movement and Place

Balancing the competing interests for limited road space, particularly in urban environments, is becoming increasingly important. The 'movement and place' approach and integrated land use planning is based on the concept that there are two primary categories of streets – one for movement (e.g. travel more broadly and freight) and one primarily for place.

- Local streets – the heart of suburban neighbourhoods with streets for local community access.
- Places for people – important for local access, people orientated streets where there is a need to better prioritise pedestrians and cycle traffic, public transport and freight access while limiting through traffic with no destination in the centre.
- Vibrant streets – have competing demands for movement and a need to balance high pedestrian activity and densities with the need to move high numbers of people and goods can be a challenge for both state and local governments.
- Movement corridors and motorways – are main roads and motorways providing safe reliable and efficient movement between regional centres and long distances and within urban areas with limited or no access requirements to the surrounding place.

Investment in infrastructure for example is required, in certain circumstances, to reduce the movement through important shopping and work centres to create great places that deliver community outcomes, such as amenity and safety. In adopting this approach, caution is required to ensure that the amenity of streets identified for movement purposes, and that the vibrancy and accessibility of streets classed as places, is maintained.

Active transport

Local governments can and do play a lead role in encouraging people to walk or cycle, especially school children. Studies show that more people cycle and walk where improvements to the active transport network are made. Improvements include attractive interconnected routes between neighbourhoods and destinations, safer footpaths, pedestrian crossings, lighting at night, protected bike lanes and end of trip facilities including bike rooms, lockers and other amenities. In addition to network improvements, councils have also supported the development of viable bicycle sharing systems. Other options to increase active transport usage can include reducing the speed that motor vehicles can travel and reducing the availability of car parking or increasing its cost. Walkable distance is considered to be within 1,600 meters or 20 minutes from a residence.

Studies have also shown that increasing the capacity of roads for motor vehicles can lead to more traffic and congestion not less congestion. This 'induced demand' can have unintended consequences not only for traffic on major roads but also in neighborhoods and city and town centers where streets may be treated only as conveyances for motor vehicles rather than critical public spaces for vibrant communities.

Public transport

At the 2016 Census, 73.8 per cent of the working population nationally commuted to work by car – either as a driver or passenger – a slight reduction on the 74.3 per cent recorded in the 2011 census. Sydney tops the nation with 20.9 per cent using public transport to travel to work, followed by Melbourne (13.4 per cent), Brisbane (10.5 per cent), Adelaide (8.3 per cent) and Perth (8.1 per cent). This level of usage would be typical for inner urban areas. It is estimated that by 2030, the public transport task will grow by 30 per cent primarily through population growth rather than a significant shift in the proportion of people using public transport.

> **“At the 2016 Census, 73.8 per cent of the working population nationally commuted to work by car – either as a driver or passenger – a slight reduction on the 74.3 per cent recorded in the 2011 census.**

In outer-urban areas, transport disadvantage (ongoing difficulties associated with access to transport) is the result of a range of intersecting factors including poor public transport infrastructure, a higher proportion of low-income households and the need to travel further distances in order to get to places of employment, services and activities. Rural and remote areas of Australia have low levels of public transport access. Some remote areas also have relatively low levels of vehicle ownership.

Transport disadvantage, including a lack of reliable, efficient and affordable public transport options and limited services, can exacerbate social isolation and limit access to health care, education and services in rural, regional and remote and urban fringe communities.

State governments have primary responsibility for public transport planning and service provision. Local government's role is primarily one of facilitation through:

- supportive land use and development decisions including public transport stops that are located conveniently for the walkable catchment with access routes that have natural surveillance from surrounding development
- provision of infrastructure such as shelters, seating, signage, information and lighting are supplemented with safe crossing points to improve accessibility
- good active transport connections so public transport nodes link easily and directly with the pedestrian and cycling network, and
- parking management.

In addition, local government consults with transport providers and advocates for network improvements and supports other levels of government to promote public transport use.

6.2 TRANSFORMATION

Challenge

The pace of technological change is increasing and almost daily we hear of new technologies that will disrupt existing markets and change the way our communities live, work, play and travel. It is difficult to predict which of these new technologies will come to fruition, let alone the full impact that they will have.

Opportunity

Autonomous vehicles (AV) and electric vehicles (EV) are poised to have a significant impact on markets, public policy (e.g. road safety regulations) and the community. Local governments, because of their roles and responsibilities as road authorities, infrastructure providers, fleet managers and representatives of their local communities, must be engaged in discussions about the benefits and impacts of these new transport technologies.

Preparing now for the adoption of new technology is critical. Local governments need to seize the opportunities presented by these emerging technologies, but also need to mitigate against potential risks by planning and investing wisely. Local governments must avoid any short-sighted investments which will inhibit the abilities of councils and communities to achieve a smart future. Local governments must also avoid unnecessary expenditure providing conventional infrastructure that will last far longer than may now be necessary.

Collaboration is vital to allow for the efficient and effective adoption of this rapidly evolving advanced technology. To allow for the transport of the future to be adopted in the short to long term, all tiers of government, transport operators, transport and infrastructure providers, industry and communities must work towards a common vision. Local governments have a significant role in relation to fostering community acceptance and mitigating public concern towards the introduction of EV and AV across Australia, in a similar way that they facilitated the adoption of car sharing.

Electric vehicles

Experience overseas shows that regulatory and economic incentives are essential to realise the benefits that widespread uptake of EV brings. All levels of government and industry will need to invest in the infrastructure that supports the transition to electric vehicles and fund the construction of charging stations critical to future mobility including at places of employment and in public spaces including car parks, retail outlets, fuel station forecourts. The burden of funding this infrastructure should not fall upon local government rate payers particularly in rural and regional Australia. A government program should be considered for retrofitting of existing buildings and infrastructure.

Local government procurement of electric vehicles will also play a key role in helping Australia meet its greenhouse gas emissions reduction targets.

Autonomous vehicles

Significant national work is already underway to prepare for automated vehicles. Australia's transport ministers have agreed to a national policy and action plan, which includes work on automated vehicle safety, trials, cyber security, road rules, insurance, data protection and infrastructure readiness.

Driverless transportation could lead to profound changes in our cities, towns and suburbs. It will require investment in new infrastructure as all autonomous vehicles need to engage with the surrounding environment. For example, roadside signage may need to be standardised and designed to be 'readable' by the technology and lane markings upgraded. Collaboration between the three tiers of government, and potentially vehicle manufacturers and technology providers, will be required to ensure the required technology is in place.

Autonomous vehicles could create a new technology divide between Australia's city and regional areas. Australia's notoriously patchy rural telecommunications network will have to be vastly improved before the technology can become a reality for rural Australia. The current satellite-based global positioning system (GPS) used for navigation is one of the biggest challenges facing the use of autonomous vehicles in rural and regional areas. The technology currently available for driverless vehicles also cannot cope with unsealed roads as it relies on line markings and other types of infrastructure to navigate.

Universal 5G coverage in all parts of Australia, not just cities, will be key to ensure fast and continuous connection to the internet so that autonomous vehicles can be adopted across the nation.

Truck platooning

Platooning development is occurring in parallel with the race to develop autonomous consumer vehicles. Platooning involves a number of trucks closely following one another, connected using vehicle-to-vehicle communication. Typically, the lead truck does most of the driving 'work'. Models vary in terms of what the drivers in the following trucks do, from being semi-autonomous with attentive drivers to fully autonomous and having no driver at all.

> **“Platooning development is occurring in parallel with the race to develop autonomous consumer vehicles.**

Truck platooning and high levels of automation could revolutionise the Australian road freight sector. Major roads such as the Hume Highway linking Australia's two biggest cities, Sydney and Melbourne, may be the first to see driverless trucks in a commercial highway setting within the decade. Longer term, as GPS technology, truck-to-truck links, cameras and other sensors become more accurate, driverless trucks could make their way into even the most remote parts of regional Australia.

As with autonomous vehicles, Australia's poor rural telecommunications network may well constrain the adoption of truck platooning. In addition, platooning trucks, similar to road trains, will also need to stop to decouple unless there is action to address first and last mile issues.

Drones

Location of drone drop off zones particularly in congested areas could become an issue for local governments in the future.

At present, most delivery drones are only capable of carrying small loads. But drone designs currently on the drawing boards will carry significantly larger payloads over long distances. Several companies are already competing to create the flying car/drone, also known as the AAV (Autonomous Aerial Vehicle).

Drones have the potential to transform logistics industries in the future once safety aspects, regulatory issues and risk of conflict with general aviation users (pilots of private, military and commercial aircraft) are resolved.

Car sharing services

Research has revealed that in 2016 Australian car share services such as GoGet supported 66,000 users accessing 2,200 vehicles with 90 per cent of members and vehicles being based in Sydney and Melbourne. Users typically live in higher density, inner metropolitan areas where they can reach many destinations by walking, cycling and public transport, and because these modes were more convenient, they tended not to use their cars very much.

Councils can adopt policies that will directly influence the uptake of car sharing services more easily than they can harness opportunities to directly influence traffic and parking congestion in their local area. The support of carsharing services is an attractive option to bust congestion due to the low costs of implementation and the high economic and social returns. Councils that support car share services fulfil a role as mode managers and incubators of expansion by reducing regulatory and systematic barriers to the establishment of carsharing. This could be via a 'permission' processes where car share is added to the categories of defined use (alongside bus stops and disabled parking) and car share vehicles are allocated exclusive access to a number of parking spaces.

Councils do not need to operate the service themselves but seek to attract investment from one or more private service providers. This arrangement is a win-win as councils gain a community service without having to put up the capital or run the service while investors take financial risks to establish the network and to test whether services can deliver a return on their investment.

Personal mobility devices

Electric-motored personal mobility devices (PMDs) such as one-wheelers (an electric unicycle, the Solowheel); twowheelers (an electric scooter, the Egret); and three-wheelers (the Qugo) are appearing on Australian roads and footpaths. While legal to import and own, their use is typically illegal for riders on roads but depending upon the jurisdiction can be used in road related areas such as footpaths, shared paths and nature strips.

Such technologies, like electric bikes, allow an individual to travel short distances quickly without the physical effort required of cycling or walking, and with some devices their small size makes transfers between transport modes possible. They could therefore have considerable potential as sustainable transportation alternatives and could provide an answer to traffic congestion by getting people out of cars for short trips (first-and-last mile travel).

There are concerns about the use of such devices upon pedestrian infrastructure such as footpaths, shared paths and separated cycleway designed from a safety and maintenance perspective.

6.3 PRODUCTIVITY

Challenge

As Australia's population continues to grow from 25 million in 2018 to a projected population of 36 million by 2050 the Australian freight and passenger transport task will also grow.

Local roads play a critical role in the national transport infrastructure and the issue of first and last mile access is an important factor in the productivity equation. There is a need to unlock local and regional productivity improvements through investment that improves access for freight vehicles and connectivity between local roads and preferred state and national freight routes. Similarly, there is a need to further unlock productivity in urban areas through reduced congestion and improved public transport.

Local government is only one player in addressing these challenges. Of the three levels of government, local government has the largest relative infrastructure task in terms of asset management and the smallest relative revenue base. Without assistance, local government will not be able to properly assist in the national effort to drive productivity improvement or provide the transport services that the Australian community and industry expect and deserve.

Complementing the focus on local roads is the need to revitalise rail in regional Australia (including the establishment of the inland rail route between Melbourne and Brisbane) which is essential in meeting the expected growth in the freight task.

Opportunity

Partner with the Commonwealth, state and territory governments and industry to drive productivity growth.

Growth in productivity is essential for maintaining and improving Australia's standards of living. Our standard of living, international competitiveness, safety, security and capacity to invest in infrastructure that will meet future demands will be impacted by our ability to move people and freight efficiently, from where they are, to where they are needed, at the time they are needed. Improvements in the productivity of people and freight movement will deliver benefits directly to the wellbeing of all Australians.

> **“Growth in productivity is essential for maintaining and improving Australia’s standards of living.**

On an average day in Australia, the transport and logistics sector moves[2]:

- passengers more than 1.15 billion kilometres – equivalent to an average daily distance of 49 kilometres per person, and
- nearly five million tonnes of freight – equivalent to approximately 200 kilograms moved for every person.

Overall, it has been estimated that the land transport sector contributes approximately 9 per cent of Australia's gross domestic product.

2 National Transport Commission (2017) Supporting good decisions to improve transport productivity. Project Outcome Report.

Key areas where transport productivity can be improved include:

- continued investment in the road network including local government roads of significance for commuting and freight transport
- addressing capacity constraints including infrastructure bottlenecks and first and last mile issues which results in an increasing amount of 'downtime' detracting from productivity
- improving the capacity and the performance of the existing transport network and developing new capacity, particularly in congested and growing urban areas and their catchments; together with key interurban corridors and key freight gateways that are showing signs of increasing congestion and unreliability. These key transport links are heavily used today and show congestion and reliability problems, which will get worse. These are the places where transport constraints hold back economic growth
- cost reflective heavy vehicles charges to ensure that the trucks that use the road are charged sufficiently to cover the damage they do to the road, with the funds raised going to those responsible for maintaining or upgrading the road – including local governments
- selective investment in rail infrastructure to make it competitive and to improve community amenity
- sustained and widespread investment in public transport, not just limited to major metropolitan areas
- better cycling infrastructure and path networks, and
- implementing city-wide variable tolling systems for major urban roads that allow consistent time of day and volume related tolling.

It has been estimated[3] that the:

- national domestic passenger task will grow approximately 20 per cent by 2026
- national domestic freight task will grow approximately 26 per cent by 2026; this growth will be led by road and rail
- total national road-and rail-freight tasks will be approximately double their 2010 levels by 2030, and ·
- total vehicle-kilometres travelled will increase around 2 per cent per annum out to 2030.

6.4 HEAVY VEHICLE ROAD REFORM (HVRR)

The objective of HVRR is to promote efficient investments and increase freight productivity by providing a more market like system, as operates in other utility sectors. HVRR will also pave the way for potential reform for lights vehicles, noting that all vehicles use a common road network and there are limits to how much benefit can be realized from focusing only on heavy vehicle investments. HVRR is a significant, multi-year national reform comprising a range of elements. Federal, state/territory and local government are working together towards delivering the HVRR reforms under a four-phase road map endorsed by the Transport Infrastructure Council (TIC) and the Council of Australian Governments (COAG) in 2015. We are in Phase 2 of the road map.

“The objective of HVRR is to promote efficient investments and increase freight productivity by providing a more market like system, as operates in other utility sectors.

3 The National Land Transport Productivity Framework (2017).

The Case for Reform

Road infrastructure in Australia is at a historic tipping point. Demand for significant new and upgraded infrastructure is growing. However, it is getting harder for governments to fund the expectations and demands of road users almost entirely from general taxation revenue. In particular, road network and heavy vehicle industry productivity has plateaued, or in some cases already fallen due to a disconnect between road charging and funding. Increasingly, road providers have neither the funds nor incentives to expand road access, including for heavy vehicles.

Challenge

Funding reform should allocate the costs and benefits of road use fairly and efficiently across users, based on their impact and level of use. Under the current road user charging system, road related fees and charges are collected by the Commonwealth and state and territory governments. However, investment on the maintenance, renewal and expansion of roads is spread across all three tiers of government. Consequently, this creates a disconnect between revenue raised and expenditure in the transport network. The current approaches to funding transport infrastructure are inequitable to road users, fail to manage traffic demand and are unstainable for taxpayers.

The current approach does not recognise that local governments bear substantial responsibility for road delivery and maintenance, but have no direct mechanism to generate revenue to support road investment. Rate payers are often left to fund transport networks for non-ratepayers. Improving the alignment of revenue raising with investment will deliver outcomes that better meet the needs of all network users.

Opportunity

Local government roads are critical for providing the distribution network for freight. However, local governments are currently excluded from directly receiving revenues from heavy vehicle charges. Funding provided from heavy vehicle road charges can assist local governments invest in roads to support efficient freight movement without compromising other council services.

The primary goal of heavy vehicle road reform is to turn the provision of heavy vehicle road infrastructure into an economic service, where feasible. This would result in a market being established that links heavy vehicle user needs with the level of service that they wish to receive, the charges they pay and then investment of those charges back into heavy vehicle road services.

> **“The primary goal of heavy vehicle road reform is to turn the provision of heavy vehicle road infrastructure into an economic service, where feasible.**

Shifting to a system where heavy vehicle infrastructure is provided as an economic service will be complex. The Commonwealth and state and territory governments are currently focusing on supply side improvements associated with the current heavy vehicle charging framework (PAYGO), where there are poor links between the needs of users, the charges they pay and the services they receive.

Elements needed to realize HVRR

To realize the benefits of reform, there needs to be a more accountable, transparent, fair and efficient system for funding Australia's roads and charging heavy vehicle operators for their use of the roads.

Phase 1 reforms are aimed at improving transparency around road expenditure, investment and service delivery. Asset registers and expenditure plans are now being produced for each state and territory to provide transparency on expenditure and investment to ensure the key freight routes meet the needs of users. Local government will now become increasingly involved in delivering these same reform initiatives.

The current phase (phase 2) is looking at the implementation of independent price regulation of heavy vehicle charges and a forward-looking cost base. This will provide the basis for building a charging system that is more efficient, financially sustainable and fair. Along with the state and territory governments, the local government sector is being considered for participating in these important reforms.

The forward-looking cost base would enable governments to charge heavy vehicle road users on the basis of a fair return on an expenditure base that includes the forecast cost of building, maintaining and upgrading road infrastructure to at least a minimum standard. Independent price regulation of heavy vehicle charges would enable a regulator to determine charges at arm's length from government.

For some roads which are lightly trafficked and have limited scope to recover the costs of provision directly from road uses, such as many remote and regional roads, it will not be feasible to provide road infrastructure to a level of service standard desired by the heavy vehicle industry as an economic service. For those roads funding through the adoption of a Community Service Obligation methodology will be required.

> **"The Commonwealth in late August 2018 established a National Heavy Vehicle Charging Pilot program to trial alternatives to the current national heavy vehicle charging system.**

The Commonwealth in late August 2018 established a National Heavy Vehicle Charging Pilot program to trial alternatives to the current national heavy vehicle charging system. This will involve a staged approach to trailing the replacement of registration fees and the fuel-based Road User Charge with direct charges based on mass, distance and potentially location. The pilots will involve modeling different charge options, defining data requirements and collecting baseline data to support the pilot's evaluation. The first two stages of the National Pilot will run through to 2020 and provide an opportunity for industry to test and shape how a new system could work in practice. The Commonwealth is strongly encouraging local governments to be involved in this important initiative.

Finally, the Commonwealth and state/territory Treasuries are leading the development of a paper on heavy vehicle road funds which would inform the advice on delivering the revenue and funding aspects of the HVRR.

The 'end-state' reforms would be expected to result in the following outcomes[4]:

- Improved investment coordination and planning
- Road services delivered to defined standards according to agreed investment plans
- Heavy vehicle road users pay charges that more directly reflect the costs they impose on the road network
- A more direct link is established between heavy vehicle charging revenue and funds available for road investments.

6.5 ZERO HARM – ROAD SAFETY

Challenge

The majority of crash sites are widely dispersed across the Australian road network including on local government owned roads. Sixty six per cent of all road deaths occur in regional and remote areas, despite two thirds of Australians living in cities. Remote Australians are also two and a half times more likely to be hospitalised following a motor accident than city residents.

Opportunity

All levels of government play a role in road safety. The Australian Government is responsible for regulating safety standards for new vehicles, and for allocating infrastructure resources, including for safety, across the national highway and local road networks (under the Roads to Recovery program, but particularly under the Black Spots program). State and territory governments are responsible for funding, planning, designing and operating the road network; managing vehicle registration and driver licensing systems; and regulating and enforcing road user behaviour.

Local governments also have similar but wider responsibilities for funding, planning, designing and operating and maintaining the road networks in their local areas, given the significantly greater extent of urban, regional, rural and remote road networks to be managed (e.g. local roads account for 75 per cent of the total road length in Australia, or 662,000 kms) and the diverse terrain and climates within which these roads have to be maintained.

As a partner with the Federal and state/territories, local government is part of the solution to reduce serious harm and casualties. We seek opportunities to work with the Australian Government including through the Black Spot program, which should be made easier/less onerous for councils to apply. Many local governments, particularly from rural and regional Australia, do not apply for these funds because they do not have the 'crash clusters' in the requisite period to meet the minimum benefit to cost ratio for a proactive application or they do not have the resources available (such as a qualified road safety auditor) to undertake the road safety audits required for proactive applications. Often the costs of obtaining this external expertise is not seen as viable as the cost for the advice can be more than the treatment. Compounding this is the high likelihood of not getting funding given that the Black Spot Program is continuously oversubscribed.

> **“As a partner with the Federal and state/territories, local government is part of the solution to reduce serious harm and casualties.**

4 Department of Infrastructure, Regional Development and Cities Independent price regulation of heavy vehicle charges (Marsden Jacob Associates, 2018es ii).

> **The focus needs to be broader than transport infrastructure and must encompass road user behaviour and education and impacts on the health system and national productivity.**

While all governments play a vital role in road safety there is a need for strong national leadership on this issue. The focus needs to be broader than transport infrastructure and must encompass road user behaviour and education and impacts on the health system and national productivity.

Road trauma costs the national economy more than $27 billion annually. Significant changes to road safety have cut road deaths by two-thirds since 1970 or from 3,798 deaths in 1970 to 1,225 in 2017 despite considerable population growth and a three to fourfold increase in registered motor vehicles. Safer road and vehicle design, lower speed limits, mandatory seat belts, child restraints and helmets, tougher drink and drug driving penalties and improved post-crash response, among other measures, have all contributed to the sharp decline in road deaths. Hospitalised crash injuries have however continued to rise. In the decade to 2011, injuries rose by 6 per cent to 152.6 per 100,000 population. This puts them at roughly 27 times the per-capita rate for deaths, up from 16 times in 2002.

Seven in 10 road fatalities are men. Men are more likely than women to drive aggressively and take risks, research shows. The most common age to die on the roads is 18. However fatal and serious road accidents involving drivers aged 65 and older are on the rise across Australia. Pedestrians, passengers and cyclists together make up 43 per cent of deaths. That's nearly the same proportion as drivers, which account for 45 per cent of deaths.

Local governments are committed to reducing serious accidents on local government-controlled roads. Local roads account for more than 50 per cent of serious casualties in some states. In NSW research has revealed that two-thirds of all fatalities occur on country roads and that more than 70 per cent of fatal crashes on country roads involve country residents. The research also revealed that country drivers often resist the notion that the way they drive puts themselves or others at risk. There is also a tendency for complacency, over confidence and lower perception of risk when driving on familiar roads.

Zero deaths can only be achieved if resources are directed to safety improvements in and rural, regional and remote Australia, where a disproportionate number of road accidents occur. These are areas where many local governments are particularly financially constrained as their own-source revenue raising capacity is limited.

Zero deaths and reduced injuries on roads requires locally targeted action for:

- Safer roads, through continued upgrade of dangerous roads and highways;
- safer pedestrians and cyclists, through speed management and provision of appropriate safety measures such as grade separated paths, pedestrian crossings, clear sight lines;
- safer drivers, through the provision of facilities associated with fatigue management; and
- safer vehicles, through uptake of new safety technology in motor vehicle fleets.

07

REFERENCES

REFERENCES

ABC News (2018) *Every road death in Australia since 1989* 26 January. Accessed at http://www.abc.net.au/news/2018-01-25/every-road-death-in-australia-since-1989/9353794 August 2018

Anon (2018) *Heavy Vehicle Road Reform – Changes to Heavy Vehicle Road Delivery: Background paper.* Accessed at http://www.marsdenjacob.com.au/hvrr-phase-2/ August 2018

Bureau of Transport, Infrastructure and Regional Economics (2017) *Australian infrastructure statistics Yearbook* Accessed at. https://bitre.gov.au/publications/2017/files/yearbook_2017.pdf August 2018

Cowan, P. (2016) *Driverless cars face challenges in regional Australia.* Accessed at https://www.itnews.com.au/news/driverless-cars-face-challenges-in-regional-australia-420961

Department of Infrastructure and Regional Development (2014) *Trends: Infrastructure and Transport to 2030.* Accessed at https://infrastructure.gov.au/infrastructure/publications/files/Trends_Infrastructure_and_Transport_to_2030.pdf August 2018

Electric Vehicle Council and NRMA (2018) *New Policy Proposal: Recharging the economy Accelerating electric vehicle adoption.* Accessed at http://electricvehiclecouncil.com.au/wp-content/uploads/2018/03/New-Policy-Proposal-ELECTRONIC.pdf August 2018

Dowling, R. , Irwin, J.D., Faulks, I.J., Howitt, R. (2015) *Use of personal mobility devices for first-and-last mile travel: The Macquarie Ryde trial* Proceedings of the Australasian Road Safety Conference 14 – 16 October, Gold Coast, Australia. Accessed at http://acrs.org.au/files/papers/arsc/2015/DowlingR per cent20071 per cent20Use per cent20of per cent20personal per cent20mobility per cent20devices per cent20for per cent20first per cent20and per cent20last per cent20mile per cent20travel.pdf August 2018

Dudley-Nicholson, J. (2018) *Drones break new delivery ground.* Accessed at https://www.pressreader.com/australia/the-west-australian/20180106/281865823859960 August 2018

Infrastructure Partnerships Australia with Deloitte, Australian Automobile Association (2013) *Road Pricing and Transport Infrastructure Funding: A discussion paper.* Accessed at https://www2.deloitte.com/au/en/pages/public-sector/articles/road-pricing-transport-infrastructure-funding.html August 2018

Gray, D (2018) *Australia unplugged: why we're still lagging behind on electric cars.* Article in the Sydney Morning Herald 25 May. Accessed at https://www.smh.com.au/business/companies/australia-unplugged-why-we-re-still-lagging-behind-on-electric-cars-20180525-p4zhgg.html August 2018

Hiscock, G. (2017) *Giant truck 'platoons' head for Australia's main roads* Nikkei Asian Review. Accessed at https://asia.nikkei.com/Business/Trends/Giant-truck-platoons-head-for-Australia-s-main-roads August 2018

Infrastructure Australia (2018) *Future Cities: Planning for our growing population* Australia Government

Infrastructure Partnerships Australia (2017) *Automated vehicles: do we know which road to take?* Accessed at http://infrastructure.org.au/wp-content/uploads/2017/09/AV-paper-FINAL.pdf August 2018

International Car Share Association (2016) *The Impact of Car Share Services in Australia.* Accessed at http://phillipboyle.com.au/wp-content/uploads/2016/10/Carsharing-Association-FINAL-Report-4.0.pdf August 2018

Marsden Jacobs Associates (2018) *Consultation Paper: Consultation Regulation Impact Statement: HVRR Phase 2: Independent price regulation of heavy vehicles charges.* Accessed at http://www.marsdenjacob.com.au/wp-content/uploads/2018/07/C-RIS-IPRFLCB-Final-webversion.pdf August 2018

McLellan, C. (2018) *Tech and the future of transportation: From here to there.* Accessed at https://www.zdnet.com/article/tech-and-the-future-of-transportation-from-here-to-there/ August 2018

Milford, M. (2017) *Coming soon to a highway near you: truck platooning.* Accessed at https://theconversation.com/coming-soon-to-a-highway-near-you-truck-platooning-87748 August 2018

National Drones (2018) *Drone Delivery: the ultimate guide* 2018. Accessed at https://nationaldrones.com.au/blog/drone-delivery/ August 2018

National Transport Commission (2017) *Who moves what where: Better informing transport planning for Australians, discussion paper.* Accessed at https://www.ntc.gov.au/Media/Reports/(D121CACB-6406-F0FB-D940-8B1290BF2893).pdf August 2018

National Transport Commission (2017) *Supporting good decisions to improve transport productivity. Project Outcome Report.* Accessed at https://www.ntc.gov.au/Media/Reports/(507CD955-8E47-1563-3C9B-748C8B8A46D7).pdf August 2018

National Transport Commission (2017) *National land transport productivity framework* Prepared by Houstonkemp Economists

Transport and infrastructure Council (2016) *Heavy Vehicle Road Reform – What we are doing and why we are doing it.* Accessed at http://transportinfrastructurecouncil.gov.au/publications/files/HVRR_What_we_are_doing_and_why_we_are_doing_it_16082016.pdf August 2018

Transport for New South Wales (2018) *Future Transport 2056* Accessed at https://future.transport.nsw.gov.au/plans/future-transport-strategy/future-network August 2018

Wilson, M. (2018) *Driverless cars are already here but the roads aren't ready for them.* Accessed at https://theconversation.com/driverless-cars-are-already-here-but-the-roads-arent-ready-for-them-93456 August 2018

The Australian Local Government Association (ALGA) is the national voice of local government representing 537 councils across the country. In structure, ALGA is a federation of state and territory local government associations.

ALGA
8 Geils Court, Deakin ACT 2600
Phone: (02) 6122 9400
Fax: (02) 6122 9401
Email: alga@alga.asn.au