KEEPING CITIES MOVING

Increasing the wellbeing of New Zealand's cities by growing the share of travel by public transport, walking and cycling

WAKA KOTAHI
NZ TRANSPORT AGENCY

New Zealand Government

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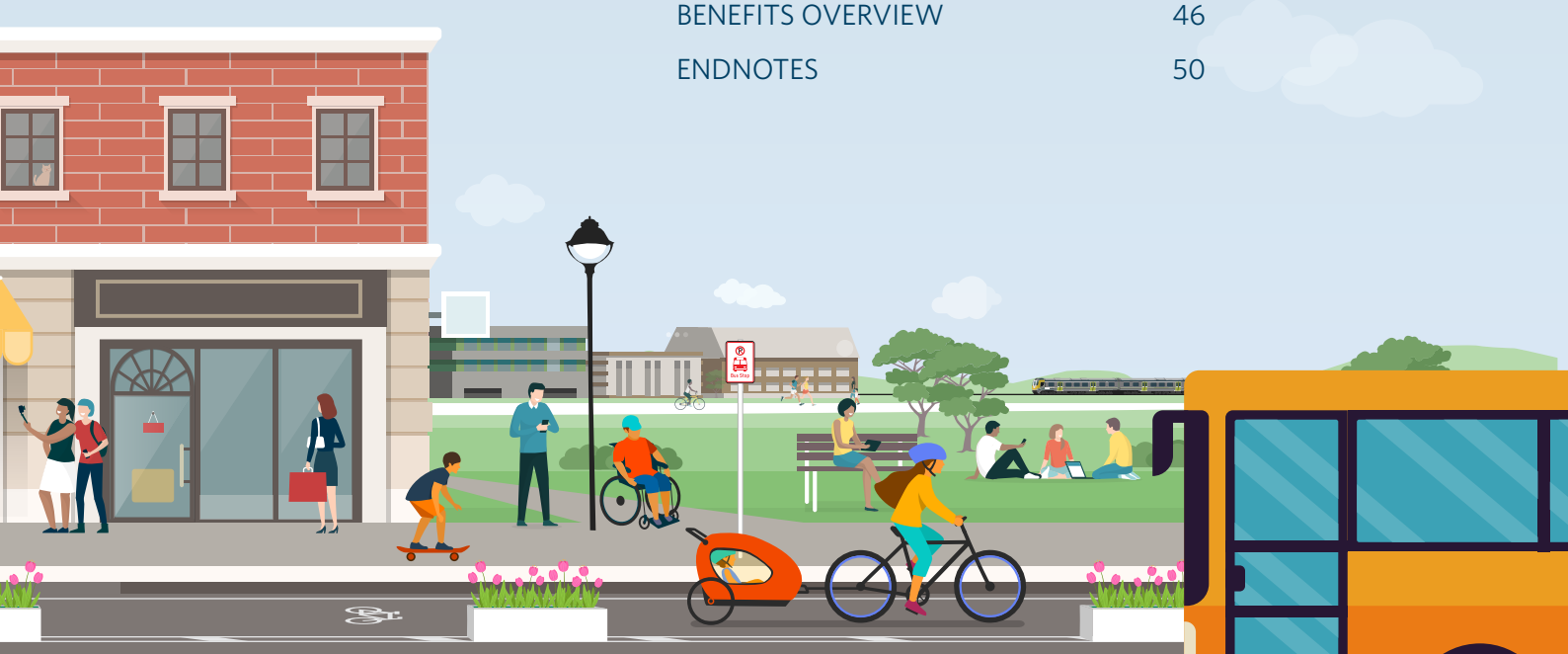


OVERVIEW

A PLAN TO IMPROVE TRAVEL CHOICE AND REDUCE CAR DEPENDENCY

Cities thrive when people can move around them easily and have a range of travel choices for getting to work and education, connecting with family and friends, and accessing services.

Over the past 70 years New Zealanders have become increasingly reliant on private vehicles to meet their travel needs. While private vehicles are well suited to many transport tasks due to their flexibility and speed, such a high level of reliance in cities where space is constrained, and the population is growing, is not sustainable.

Current reliance on private vehicles also means that owning and regularly using a car has become a pre-requisite to fully participating in society. This is contributing to a number of problems like congestion, poor quality urban environments, pollution and carbon emissions, poor public health and high travel costs.

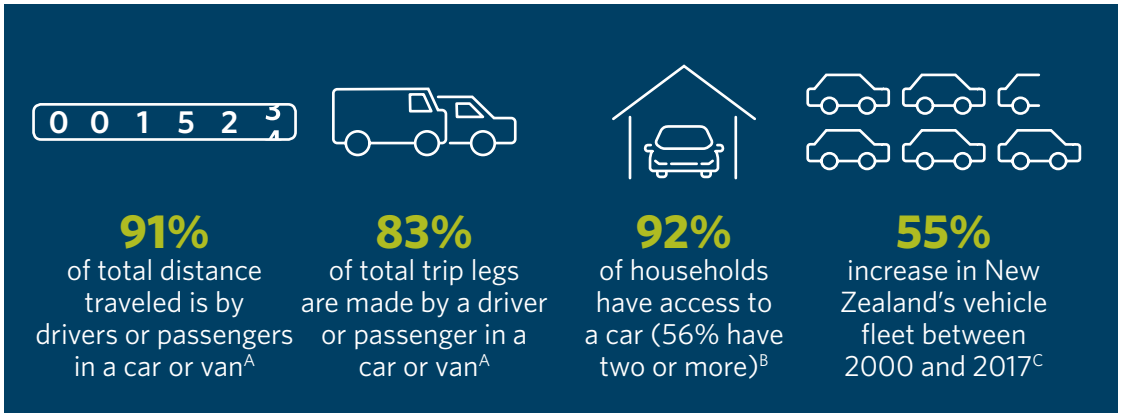
Growth in our population and economy means we need to work now to develop a modern transport system that addresses these issues and supports our cities to be thriving places with great quality of life.

Increasing the share of travel by public transport, walking and cycling in New Zealand's cities (what is known as 'mode shift') has a critical role to play in improving the wellbeing of New Zealanders by shaping a more accessible, safe and sustainable transport system.

It's not possible to accommodate more and more private vehicles within limited street space. They are a relatively inefficient means of moving people. And adding road capacity without providing alternative travel options tends to encourage more vehicle travel, often negating any initial congestion relief over time.

The 'space efficiency' of public transport and active modes means that we can help people move around more easily without reducing their quality of life.

Figure 1 – Car use in New Zealand



Sources: A. NZ Household Travel Survey (2014-18), B. 2013 Census, C. EHINZ (2019) Number of motor vehicles in NZ

Providing alternative transport options that are convenient, reliable and cost-effective will support people to make changes to the way they travel. Private vehicles won't disappear anytime soon but providing a better-balanced transport system with options that reduce the need to drive or own a car is increasingly important to ensure population and economic growth doesn't translate into more congestion, more emissions and ultimately less successful and liveable cities.

While there is a high overall level of car dependency in our cities, public transport, walking and cycling* already play an important role in meeting some of the country's most critical transport tasks – especially at peak times. In recent years there has been significant growth in the use of these shared and active modes in some of New Zealand's big cities, but there remains a need to do much more.

Through the 2018-27 Government Policy Statement on Land Transport (the GPS), the Government has set out its aspiration to provide genuine travel choices as a key way to improving access to social and economic opportunities. Mode shift from private vehicles to shared and active modes is an important indicator of progress towards important wellbeing outcomes – creating more accessible and inclusive cities that are prosperous, safe, healthy and sustainable.

Increasing the proportion of journeys taken by shared and active modes requires tackling the causes of New Zealand's current car dependency:

- Cities that are structured in a way that prioritises travel by car
- A lack of good shared and active travel choices due to historic under-investment
- Incentives that encourage people to continue to travel by car

PURPOSE OF THIS PLAN

This plan outlines how Waka Kotahi NZ Transport Agency, in partnership with others, will help address the causes of car dependency and contribute to key government outcomes through better balancing the transport system. This plan's objective is to ***increase the wellbeing of New Zealand's cities by growing the share of travel by public transport, walking and cycling.***

The Transport Agency can support the Government's objectives for mode shift in three main ways:

- **Shaping urban form** – Encouraging good quality, compact, mixed-use urban development will result in densities that can support rapid/frequent transit (and vice versa); shorter trips between home and work/education/leisure; and safe, healthy and attractive urban environments to encourage more walking and cycling.
- **Making shared and active modes more attractive** – Improving the quality, quantity and performance of public transport facilities and services, and walking and cycling facilities, will enable more people to use them. This can involve both optimising the existing system (for example, through reallocating road space), investment in new infrastructure and services, and providing better connections between modes.

*Throughout this plan 'cycling' is used for brevity, but this refers to an increasingly wide variety of medium-speed, people-sized vehicles like e-scooters.

- **Influencing travel demand and transport choices** – Changing behaviour may also require a mix of incentives and disincentives (or 'push' and 'pull' factors) to either discourage use of private vehicles (by making them less attractive relative to other options) or making people more aware of their options and incentivising them to try something new. This may include parking policies, road pricing, travel planning and education.

A very wide variety of interventions can influence mode shift. As we do not directly have responsibility for all these levers, partnership, integrated planning and decision-making, and co-investment with others will be key to success.

This plan sets out the activities and programmes that we will undertake nationally – sometimes directly, but usually in partnership with others. The approach outlined in this document will also frame action plans for place-based changes in the six high-growth urban areas with the highest potential to achieve mode shift: Auckland, Hamilton, Tauranga, Wellington, Christchurch and Queenstown. The plan will build on activities and programmes that are underway, but also look to address gaps in those current approaches.

Much of this change can be achieved within existing funding levels (through reprioritisation) and with the current tools available to us. However, rapidly achieving mode shift will require us to move beyond this – potentially requiring new funding sources. Given the wide range of wellbeing benefits these changes can bring, there is value in continuing to explore how new funding sources could support faster progress.

STRUCTURE OF THIS PLAN

This document (summarised on the A3 on the next page):

- outlines the context for change: why achieving mode shift is important for New Zealanders
- details the Transport Agency's plan for action: what we will deliver, and when
- summarises our approach for implementing the plan: how we will achieve our objectives.

SUMMARY OF NZ TRANSPORT AGENCY PLAN

VISION: Increasing the wellbeing of New Zealand's cities by growing the share of travel by public transport, walking and cycling

THE CHALLENGE - To deliver positive transport outcomes by reducing dependency on private vehicles in New Zealand's main urban centres

Despite recent growth in public transport and walking and cycling in many cities, total private vehicle kilometres are also increasing, meaning shared and active modes do not yet account for a significant proportion of total journeys, and New Zealand remains a very car dependent country overall

91% of total distance travelled is by drivers or passengers in a car or van[A]

83% of total trip legs are made by a driver or passenger in a car or van[A]

92% of households have access to a car (56% have two or more)[B]

55% increase in New Zealand's vehicle fleet between 2000 and 2017[C]

WHY

Mode shift can be a powerful cross-cutting approach to create more vibrant and liveable cities, by achieving a broad range of outcomes that will improve quality of life

Current problems	Desired outcome	Mode shift objectives
Limited travel choice that requires people to spend a significant part of their income on private vehicle use, and poor connections to social, health and economic opportunities	Enhanced access	• Affordable travel choices that are convenient, comfortable, and provide a genuine alternative to the financial burden of owning and operating a car • Integrated, multi-modal networks are designed to connect people to where they want to go, especially those who cannot or do not want to drive
Growing congestion that leads to longer and less reliable travel times, and urban areas that need to dedicate large amounts of land and resources to moving and storing vehicles	Greater economic prosperity	• Increasing business productivity due to travel time savings and the creation of cities where people want to live, work, visit and invest • More efficient land use, which supports growth by unlocking urban development along key transit corridors and creating spaces for people not cars
Growing vehicle emissions which contribute to the global challenge of climate change, and negative ecological impacts from construction and operation of roading infrastructure	Reduced environment impact	• Reduced greenhouse gas emissions by reducing the number of trips made by the light vehicle fleet, especially for longer journeys • Fewer harmful effects on water, biodiversity and resource consumption from expansion of roads
Increasing numbers of transport-related deaths and serious injuries, with a higher risk for 'vulnerable users' using active modes	A safer transport system	• Fewer traffic accidents from a reduction in the volume of traffic, and migration to public transport which is a very safe mode • Improved safety for cyclists and pedestrians through high quality facilities and the 'safety in numbers' effect
More sedentary lifestyles that contribute to increasing levels of obesity and chronic diseases, and transport related air pollution and noise that can harm public health	Improved public health	• Increasing levels of physical activity as walking and cycling become regular parts of daily travel • Less harm from pollution and noise by lowering traffic volumes in business and residential areas

HOW

PRINCIPLES TO ACCELERATE PROGRESS – In an environment where funding is limited, we need to optimise our planning, regulation and investment decisions to maximise the level of mode shift that can be achieved:

Target the causes of car dependency –
For an effective, long-term shift, we need to take an integrated, multi-pronged approach that directly targets the historic reasons behind car dependency: land-use patterns, under-investment in transport alternatives, and policies that encourage car use

Concentrate on high growth urban areas –
Our initial focus is on six large and/or fast-growing cities, as these are the places where change is most urgent and where the greatest benefits will be achieved - Auckland, Hamilton, Tauranga, Wellington, Christchurch, Queenstown

Understand the journeys people make –
In order to use mode shift as a means to improve access and mobility, understanding the nature of journeys is crucial to designing effective interventions, including their length, purpose and location

Focus on the most effective modes –
Recognising all modes have a role to play, the relative strengths and weaknesses of walking, cycling, public transport and new technologies should be considered to ensure they are targeted to the types of trips and locations to which they are best suited

Ensure a consistent pace of change –
Permanent infrastructure takes time and significant resources so 'quick wins' should actively be pursued, while ensuring medium and long-term priorities are understood and can be brought forward should additional resources be secured

AN EXPANDED ROLE FOR THE TRANSPORT AGENCY – Moving away from a largely 'reactive' role in mode shift, we are well-placed to play a much stronger role in accelerating change given our national scale and breadth of operation:

Refocusing investment and delivery priorities –
Ensuring broader optioneering and assessment of wider benefits and costs during investment decision making

Partnering more closely with others –
Ongoing and genuine collaboration to align national and regional priorities, and support joint investment and land-use decisions

Leading the public conversation –
Communicating the need for change, the benefits of reducing car dependency, and the role different initiatives can play

Building capability and becoming a centre of excellence –
Growing sector capability to plan and deliver complex urban mobility programmes, fostering innovation, and using data, research and analytics to build the evidence base

WHAT

AREAS OF TRANSPORT AGENCY INFLUENCE – Recognising the legislative and planning environment in which we operate, we will take an integrated approach across three key areas to address the causes of dependency, working with others [in areas where have less influence]:

Shaping urban form –
Encouraging good quality, compact, mixed-use urban development will result in densities that can support rapid/frequent transit (and vice versa), shorter trips between home and work/education/leisure, and safe, healthy and attractive urban environments to encourage more walking and cycling

Making shared and active modes more attractive –
Improving the quality and performance of public transport, and facilities for walking and cycling will enable more people to use them. This can involve both optimising the existing system (eg through reallocating road space), investment in new infrastructure and services, and providing better connections between modes.

Influencing travel demand and transport choices –
Changing behaviour may also require a mix of incentives and disincentives (or 'push' and 'pull' factors) to either discourage use of private vehicles (by making them less attractive than other options) or making people better aware of their options and incentivising them to try something new. This may include parking policies, road pricing, travel planning and education.

ACTION FOCUS – Spatial and place-based planning; policy and regulatory settings; network design, management and optimisation; investment in infrastructure and services; economic tools; and education, engagement and awareness are the levers we will use to:

- Work with our partners to shape spatial, transport, land use and district plans that will maximise mode shift and ensure urban growth and transport investment are aligned
- Complete the Good Practice Guide to set out best practice guidance for healthy street design and efficient transit-oriented developments
- Evolve the One Network Road Classification to a One Network Framework to reflect wider transport outcomes, and ensure all modes and placemaking are considered in street design
- Develop a package of regulatory changes that will facilitate mode shift (and cuts across all three areas) including vehicle standards, road management, speed limits and traffic control
- Ensure our investment policies and processes support mode shift and that assessment and prioritisation includes measures of broader environmental and social benefits
- Develop guidance relating to network optimisation and traffic management to make better use of existing resources and improve levels of service for shared and active modes
- Partner to design and deliver nationally significant multi-modal networks, incorporating public transport, rapid transit and major walking and cycling connections
- Provide tools and guidance to support the implementation of speed management programmes and a wider range of safety interventions for urban streets
- Research, co-design and trial new programmes and methods to increase awareness of travel choices and manage travel demand, including how to best align these with new investment
- Investigate how pricing components of the transport system could influence travel behaviour, including congestion charging, parking, and public transport fares and ticketing
- Promote activities that will reduce car dependency to and from schools and major destinations, including travel planning, cycle training and other emerging tools
- Encourage wider community participation to change perceptions about use of streets, and assist local authorities to build support for reallocation of road space to people

Underpinned by the development of a more detailed capability and funding plan and a robust evaluation framework

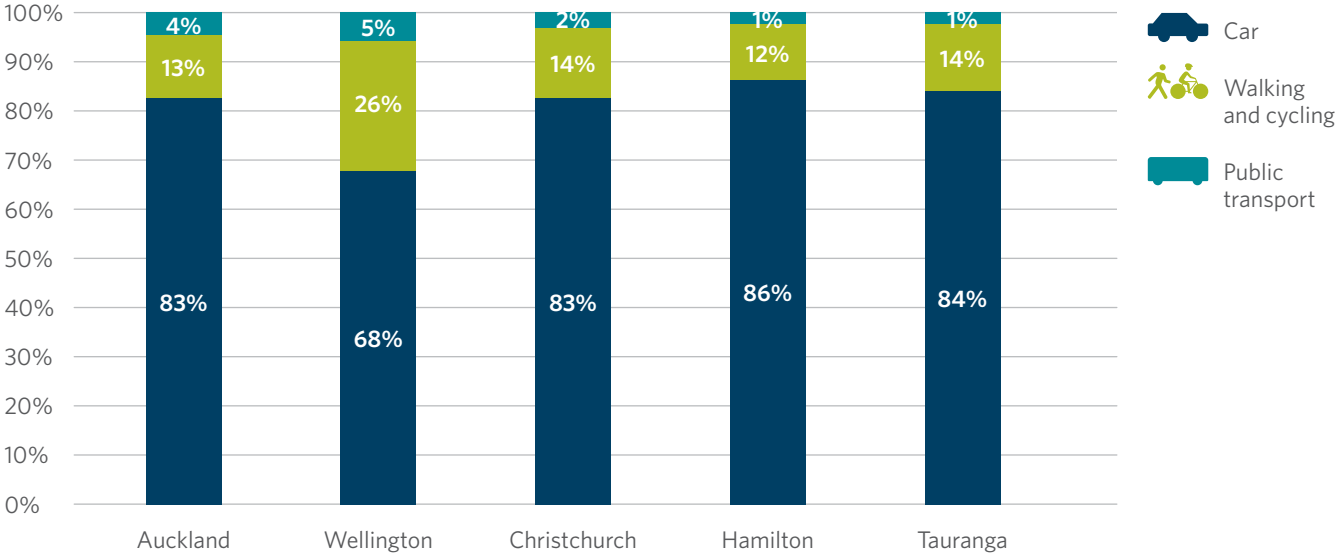
CONTEXT FOR CHANGE

WHY INCREASING THE SHARE OF TRAVEL BY PUBLIC TRANSPORT, WALKING AND CYCLING IS IMPORTANT

NEW ZEALAND IS HIGHLY RELIANT ON PRIVATE VEHICLES

Despite the recent growth in public transport, walking and cycling in many urban areas, private vehicle travel is also increasing. Shared and active modes do not yet account for a significant proportion of total journeys and New Zealand remains a very car dependent country overall, with one of the highest rates of car ownership in the OECD. The share of travel by public transport, walking and cycling varies across cities, due in part to geography, and different urban planning and transport policies over time. Overall patterns are similar, other than in Wellington, which stands out as having a much higher rate of active and public transport use.

Figure 2 – Mode share of total trip legs in New Zealand (2014-18)



SOURCE: New Zealand Household Travel Survey data (2014-2018)

There are three main reasons behind New Zealand's high level of car dependency. Understanding these causes is an essential step towards achieving mode shift and targeting efforts where they are most likely to achieve change.

- **Cities are structured in a way that prioritises travel by car:** New Zealand's cities are characterised by low-density, dispersed and uncoordinated development meaning that:
  - trips are often long (making walking and cycling unattractive)
  - urban planning and street design guides have generally prioritised private vehicles over other modes
  - poor integration between land use and transport decision-making has often led to mis-matches between where growth happens and where travel choices are better.
- **A lack of good shared and active travel alternatives:** Decades of under-investment in quality services and infrastructure for public transport, walking and cycling have often made these travel options slower, less reliable, more dangerous and ultimately less attractive than travelling by private vehicle. This under-investment was compounded in the 1990s and early 2000s by the deregulation of public transport, which made integrated network planning extremely difficult and undermined the delivery of quality services.

- **Incentives encourage people to continue to travel by car:** Many of the true costs of travelling by car are hidden, especially environmental effects and car parking. Even where safe and attractive alternatives exist, awareness of these options can be poor.

Internationally, growing urbanisation and changing cultures are contributing to lower levels of per capita vehicle travel in many countries, especially among younger people. While some of these trends are apparent in New Zealand, population growth means total vehicle travel is still projected to increase, even as other modes become more popular.

MODE SHIFT HELPS ADDRESS KEY TRANSPORT CHALLENGES

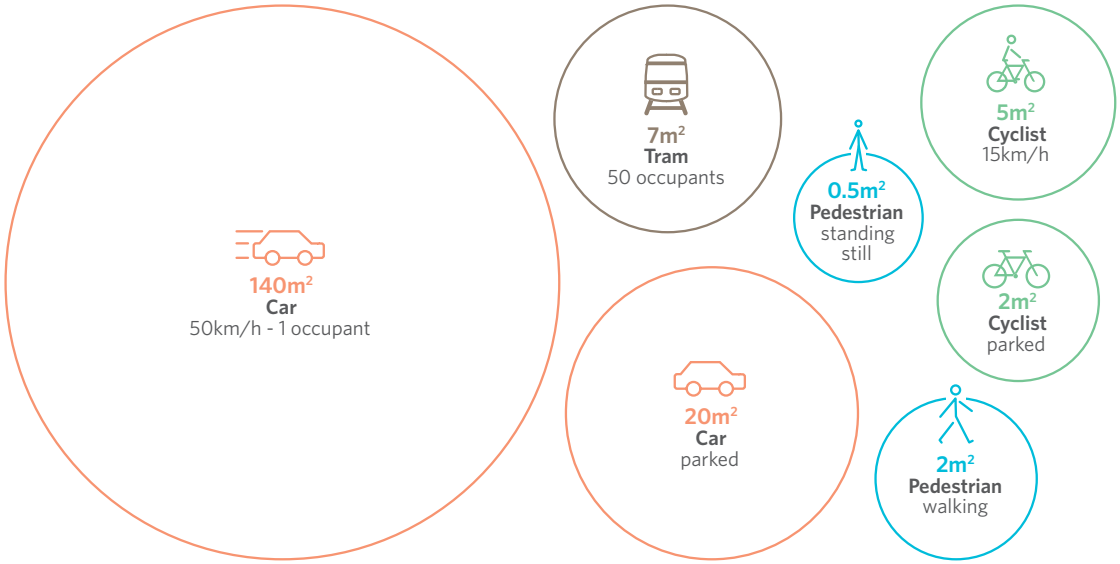
New Zealand's reliance on private vehicle travel, combined with population growth and rapidly increasing transport demand, has created some pressing challenges. Without intervention, these issues are set to escalate:

- Limited travel choice that requires people to spend a significant and increasing part of their income on private vehicle use, and poor connections to social, health and economic opportunities.
- Growing congestion that leads to longer and less reliable travel times, and urban areas that need to dedicate large amounts of land and resources to moving and storing vehicles.
- Growing vehicle emissions which contribute to the global challenge of climate change, and negative ecological impacts from construction and operation of roading infrastructure.
- Increasing numbers of transport-related deaths and serious injuries, with a higher risk for 'vulnerable users' using active modes.
- More sedentary lifestyles that contribute to increasing levels of obesity and chronic diseases, and transport related air pollution and noise that can harm public health.

Experience shows that building more and more infrastructure for private vehicles without providing alternatives is not an effective solution to these challenges. To provide for growth, in a way that contributes to all the positive outcomes that the Government is seeking from the transport system, we need to take an approach that is efficient, equitable, and sustainable to reduce reliance on private vehicles. Through providing better travel choices and supporting a greater share of travel being made by public transport, walking and cycling, mode shift can be a powerful cross-cutting means to achieve these broader goals.

In particular, mode shift has a critical role to play in helping people move around more easily – by shifting more people in fewer vehicles and less space, as shown below:

Figure 3 Space taken up by various modes



Source – Harms & Kansen (2018)

Improved urban mobility means that people are able to more easily travel to the social and economic opportunities that make cities attractive places to live: productive jobs, educational opportunities, friends and relatives, recreational activities and more. Providing people with the opportunity to avoid congestion, or raising the people-moving capacity of existing streets through the reallocation of space, are essential to the effective functioning of growing urban areas.

Importantly, mode shift also means that urban mobility does not have to come at such a high cost to New Zealanders' health, safety, urban quality and environment. Instead of having to make harsh trade-offs between mobility and these other important outcomes, mode shift seeks to address all the main transport challenges in a way that delivers 'win wins'.

Mode shift alone will not address all the challenges facing the transport system and is not a complete 'urban transport plan'. This plan is complemented by other key plans and strategies developed by the Transport Agency and others (eg our Sustainability Action Plan, the Ministry of Transport's Road Safety Strategy).

MODE SHIFT CONTRIBUTES TO IMPORTANT TRANSPORT OUTCOMES

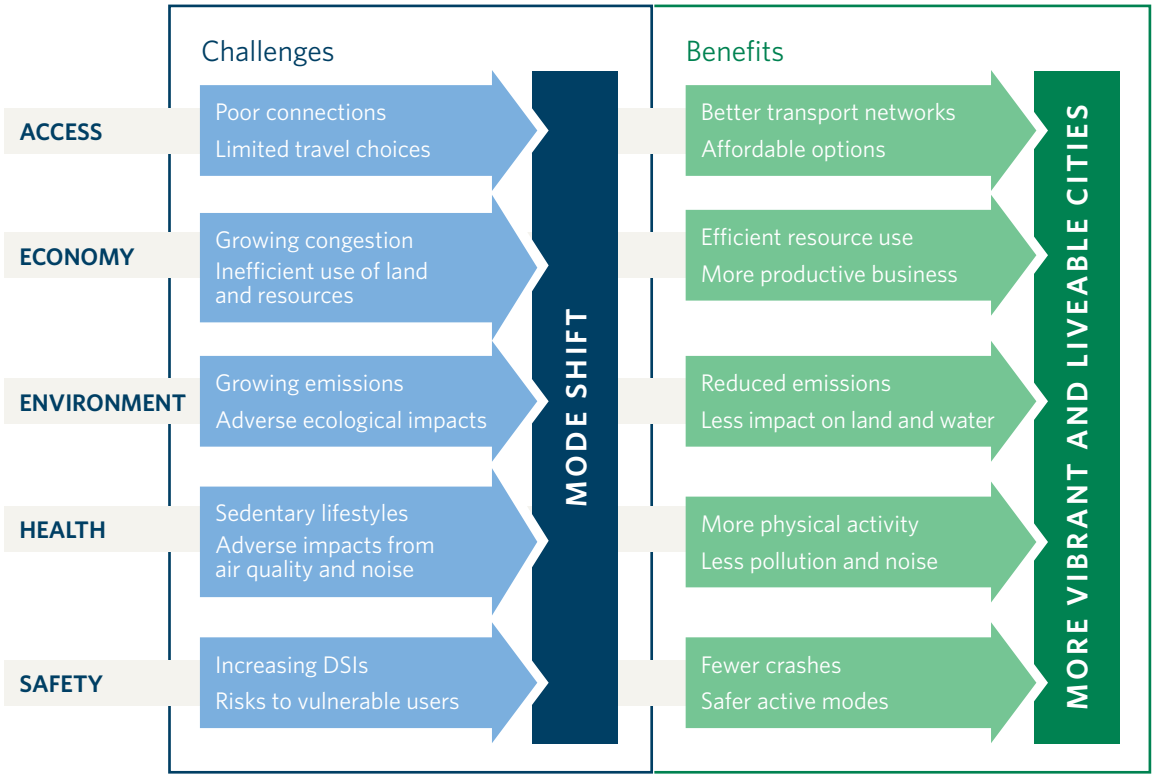
Mode shift is not an outcome in and of itself, but rather a key indicator of progress towards several key transport outcomes. Together, these benefits underpin the potential to create more vibrant and liveable urban environments and improve wellbeing and quality of life. Attachments 2 and 3 provide examples and further examine the benefits of reducing car dependency.

In 2018 the Ministry of Transport developed a Transport Outcomes Framework. The framework sets out the durable, long-term outcomes the government is aiming to achieve through the transport system, to improve intergenerational wellbeing and liveability. Mode shift and reducing car dependency contribute to all five outcomes within the framework.

OUTCOME	MODE SHIFT CONTRIBUTION
Inclusive access	Better travel options and a more efficient transport system mean that more people can access social and economic opportunities, especially to ensure that those with disabilities or low incomes can fully participate in society.
Economic prosperity	More efficient movement of people and products, including to large and highly productive employment centres, can reduce costs and boost income levels, as well as unlocking urban development opportunities.
Environmental sustainability	An increase in public transport and active modes reduces pressure on natural resources and reduces carbon emissions from the vehicle fleet, while more efficient use of land (given reduced demand for roads) lessens the impact on biodiversity and water.
Healthy and safe people	Greater use of active modes promotes physical activity. Public transport is a very safe way to travel, and having fewer vehicles reduces crashes, noise and harmful emissions, all of which increase public health benefits.
Resilience and security	Providing more transport choice means a greater range of alternative travel options is available in the face of short- and long-term disruption to the transport system.

Figure 4 below illustrates the role of mode shift in addressing major transport challenges the country faces, and how it can help to deliver many important transport benefits.

Figure 4 – A benefits framework for mode shift



MODE SHIFT HELPS DELIVER THE GOVERNMENT'S STRATEGIC DIRECTION

This plan will give effect to the government's mode shift aspirations that are outlined in the current GPS (2018-27). This identifies mode shift from private vehicles to walking, cycling and public transport as necessary to reduce the problems arising from New Zealand's high rates of private vehicle dependency. The GPS provides direction for central and local government to encourage mode shift, as a critical indicator of progress towards all four GPS strategic priorities:

GPS PRIORITY	DIRECTION SET
Safety	A stronger ambition to deliver a transport system free of death and serious injury, including increased investment to support greater safety for active modes.
Access	An increased focus on reducing the need to travel by private vehicles in urban areas including a shift to more efficient, low-cost modes, and land use and transport planning that reduces the need for single occupancy vehicles. Providing more transport choices means a greater range of alternative travel options is available in the face of short- and long-term disruption to the transport system.

Environment	Prioritises reducing greenhouse gas emissions from transport, including a mode shift to lower emission forms of transport, which also improves public health and recognises the importance of urban form for creating liveable cities.
Value for money	Maximising the impact of money spent by creating a more efficient transport system that is able to move more people, using fewer resources, and makes the best use of the existing network.

This plan also helps position us to support several major Government policies and strategies, including:

- The Zero Carbon Bill (when enacted) and the Climate Change Commission (when established). Within this context, this plan aims to play a key role in ensuring the land transport system can make a significant contribution to the Government's desired transition to a sustainable low carbon economy and in meeting New Zealand's contribution to the Paris Climate Change Agreement (which aims to limit global temperature rises to 1.5 degrees Celsius by the end of the century).
- The Government's Urban Growth Agenda, which aims to remove barriers to the supply of land and infrastructure and make room for cities to grow up and out.
- Upcoming decisions from the Future of Rail review, which aims to integrate planning and investment for heavy rail with planning and investment processes for other land transport modes.
- Supporting the New Zealand road safety strategy currently being developed by the Ministry of Transport and key partners, which aims to significantly reduce the number of people being killed or seriously injured on our roads.

MODE SHIFT SUPPORTS THE TRANSPORT AGENCY'S INTERNAL STRATEGY

Mode shift supports multiple transport outcomes, meaning it makes an important contribution to many of our existing and emerging strategies, frameworks and work programmes. In particular, it has important links with our draft Sustainability Action Plan, which outlines the strategic direction and implementation plan for achieving a transformative change in climate change mitigation and improving public health. It also plays a role in the realisation of other key shifts we are seeking. The flow between these various components is illustrated in Figure 5.

We translate government direction into place-based implementation

LONG TERM OUTCOMES
inclusive access, resilience and security; healthy and safe people; environmental sustainability; economic prosperity

MEDIUM TERM STRATEGIES
(eg for road safety, lower emissions)

SHORT TERM GOVERNMENT PRIORITIES
(eg Government Policy Statement)

to deliver step changes for the land transport system while maintaining essential levels of service

- Transform urban mobility – shift from a reliance on private vehicles to more sustainable transport solutions for the movement of people and freight
- Tackle climate change – support the transition to a low emissions economy and enhance communities' long term resilience to the impacts of climate change
- Significantly reduce harms – transition to a land transport system that reduces deaths and serious injuries and improves public health
- Improve urban form – optimise transport's role to improve connections between people, product and places
- Support regional development – optimise transport's role in enabling regional communities to thrive socially and economically

all of which are supported by the

NZ TRANSPORT AGENCY MODE SHIFT PLAN
Outlines the strategic approach to address the step changes sought and provides a related 'set of instructions' (via action plans) to guide Transport Agency work

which is focused on

- **Shaping urban form**
- **Making shared and active modes more attractive**
- **Influencing travel demand and transport choices**

through a range of levers and interventions that we apply directly or with others

- Spatial and place based planning
- Policy and regulatory settings
- Network design, management and optimisation
- Investment in infrastructure, platforms and services
- Economic tools (pricing and incentives)
- Education engagement and awareness

ACTION PLAN

THE TRANSPORT AGENCY'S NATIONAL ACTION PLAN

Figure 5 – How the mode shift plan fits into the Transport Agency's internal strategy

INTRODUCTION

The Transport Agency's vision for this plan is to ***increase the wellbeing of New Zealand's cities by growing the share of travel by public transport, walking and cycling.***

We are well placed to play a much stronger role in accelerating mode shift given our national scale and breadth of operation. In broad terms, we will look to help achieve progress in three main ways, specifically targeting the main causes of car dependency.

Shaping urban form	Encouraging good quality, compact, mixed-use urban development will result in densities that can support rapid/frequent transit (and vice versa); shorter trips between home and work/education/leisure; and safe, healthy and attractive urban environments to encourage more walking and cycling.
Making shared and active modes more attractive	Improving the quality, quantity and performance of public transport facilities and services, and walking and cycling facilities, will enable more people to use them. This can involve both optimising the existing system (eg through reallocating road space), investment in new infrastructure and services, and providing better connections between modes.
Influencing travel demand and transport choices	Changing behaviour may also require a mix of incentives and disincentives (or 'push' and 'pull' factors) to either discourage use of private vehicles (by making them less attractive relative to other options) or making people more aware of their options and incentivising them to try something new. This may include parking policies, road pricing, travel planning and education.

To achieve change in these areas, the interventions available to us can be grouped under six main levers:

- Spatial and place-based planning
- Policy and regulatory settings
- Network design, management and optimisation
- Investment in infrastructure, platforms and services
- Economic tools
- Education, engagement and awareness.

As we do not directly control all these levers – partnership, integrated planning and decision-making, and co-investment with others will be key to success. These levers can be applied at both a national and a place-based level. In partnership with councils we are developing 'place-based plans' for six high-growth urban areas that offer the greatest potential to deliver the scale of shift sought: Auckland, Hamilton, Tauranga, Wellington, Christchurch and Queenstown.

This national action plan identifies key interventions that we will carry out at a 'system-wide' level, directly or in partnership with others. This plan is summarised in Attachment 1 and detailed below.

DEVELOPING THE NATIONAL ACTION PLAN

The National Action Plan is described below, outlining where efforts need to be focused within each lever. Specific interventions are then identified in more detail throughout this section and are summarised in Attachment 1.

LEVER	FOCUS AREAS
Spatial & place-based planning	• Aligning growth patterns and transport investment • Identifying and protecting future corridors for shared and active modes • Creating great urban spaces
Policy & regulatory settings	• Creating safer streets for walking and cycling • Focusing network optimisation on supporting mode shift • More actively managing traffic levels • Providing dedicated corridors for key public transport routes
Investment in infrastructure, platforms and services	• Ensuring investment decision-making processes support achieving mode shift • Developing strategic rapid transit, walking and cycling networks • Encouraging innovative approaches to quickly close network gaps
Economic tools	• Enabling best practice parking management • Continuing to investigate road pricing • Investigating targeted changes to public transport fares and improving ticketing systems
Education, engagement and awareness	• Raising awareness of travel choices • Encouraging wider participation • Becoming a leading laboratory for travel demand management techniques • Tackling the school run • Targeting major trip generators

The speed at which this plan can be fully implemented, and the overall rate of achieving mode shift, will be highly dependent on funding. The current National Land Transport Programme (NLTP) includes significant investment to improve public transport networks in cities, to make local roads safer, and to deliver a step change in walking and cycling. This National Action Plan builds off existing plans and programmes such as the current NLTP, the Auckland Transport Alignment Project (ATAP), Access Hamilton, and Let's Get Wellington Moving.

This plan aims to streamline delivery of key opportunities for reducing car dependency and to ensure that quick wins are prioritised. It will take many years to reap the benefits of some of these investments, and sustained investment will be required to improve travel choice in our cities. This implementation plan includes a broad range of interventions that seek to increase the pace of change in cities and ensure that investment is maximised to deliver mode shift and meet expected emissions reduction targets.

There is limited opportunity to alter the NLTP before 2021, meaning that funding in the next two years is extremely constrained. Therefore, we have focused on bringing together existing programmes of work, identifying low-cost small-scale 'quick wins' for the short term, as well as the necessary planning and development work required for more substantial investments and other interventions in the longer term.

SPATIAL AND PLACE-BASED PLANNING

The density and layout of our communities and neighbourhoods, as well as the form and function of the roads and streets that connect them, has a fundamental effect on the relative attractiveness of different travel options. Streets make up our largest public space asset, and provide an opportunity for people to connect, children to play and businesses to thrive. A more joined up approach to providing transport and housing will enable healthy communities, reduce the need to travel and enable more efficient and low carbon travel patterns.

Because the layout of our cities has such a significant impact on achieving mode shift, we will need to play an increasingly significant role in the development and implementation of spatial plans, and in the preparation of other land-use planning documents.

Through this work we will focus on:

- Better aligning growth patterns and transport investment, so that growth is focused in areas with better travel options and transport investment decisions provide compact urban areas with high quality travel options.
- Identifying and protecting future corridors for shared and active modes, so that these networks can be delivered in an affordable way that integrates with and shapes urban development.
- Creating great urban spaces out of our streets so they are safe and attractive for people walking and cycling, support local businesses and contribute to quality urban form.

Key spatial and place-based planning interventions are outlined below:

INTERVENTION	DESCRIPTION
1. Complete the 'Good Practice Guide' and embed through the sector	This document will set out best practice guidance for transport and land use planning, providing a pathway from policy through to delivery. It will provide a toolkit for healthy street design and efficient transit-oriented developments. We will complement this work with support for local authorities to raise capability across the wider industry.
2. Work with our partners in spatial and district planning processes	Through joint spatial planning in key growth centres, supporting local councils with their district plans, and partnering with other development agencies, we will play a more active role in focusing population and employment growth into areas with better travel choices. We will also work to align the sequencing of growth in new areas with major transport initiatives and identifying and protecting corridors for future investments.
3. Evolve the One Network Road Classification to a One Network Framework	The One Network Road Classification is our primary tool for classifying the function of roads and streets. It is currently predominantly used for asset management purposes. Evolving the framework to have greater consideration of placemaking and the movement of people will help provide a consistent model for achieving investment in better street design across urban areas.

POLICY AND REGULATORY SETTINGS

Policies and regulations need to keep pace with changes in the transport sector, to ensure public safety and support mode shift. We will continue to work with partners to identify opportunities within New Zealand's legislative framework to prioritise active and shared modes to help create the conditions for people to feel that it is easy and safe to travel around their communities in these ways.

Through this work we will focus on:

- Making it easier to change street markings and layouts in low risk environments.
- Making walking and cycling safer and more attractive.
- Improving public transport efficiency.
- Supporting the safe introduction of new vehicle technologies.

Key policy and regulatory interventions are outlined below:

INTERVENTION	DESCRIPTION
4. Enable the trialling of innovative traffic control measures	We will make it easier to change street markings and layouts in low-risk environments to support mode shift by amending the *Land Transport Rule: Traffic Control Devices* (2004). This approach to engaging communities through testing and refining changes is proven in other countries and often builds the social licence for making more bold and permanent changes to streetscapes and transport environments.
5. Support and implement the 'Accessible Streets' regulatory package	This is a package of rule changes led by the Ministry of Transport that supports the new focus in the GPS of improving New Zealanders' safety and access to economic and social opportunities. It supports mode shift for trips in urban centres from private vehicles to more energy efficient, low-cost and healthier modes like walking, cycling, public transport and using devices such as e-scooters and e-bikes.
6. Review New Zealand's vehicle classification and standards system	Internationally there is a growing variety of different vehicle and 'micro-mobility' technologies that can be used for short journeys or to provide shared mobility options. Changes to vehicle classification and standards systems may be required to support these emerging travel options while still ensuring public safety. An early example has been the NZ Post four-wheel battery powered Paxster.
7. Investigate improved road management legislation	This joint piece of work with the Ministry of Transport is investigating the need for a new Rule covering road management issues (eg control of traffic, road construction standards, classification of roads). This could include recommendations that improve safety and promote mode shift.

NETWORK DESIGN, MANAGEMENT AND OPTIMISATION

Designing, operating and managing New Zealand's existing transport networks differently can play a significant role in improving travel choice and reducing car dependency. For example, providing dedicated street space to public transport and cycling or scootering, and creating more space and safer crossing opportunities for pedestrians, can make these travel options safer and more attractive. Through this work we will focus on:

- Creating safer streets for walking and cycling, so that people of all ages and abilities feel confident and safe to use these active modes.
- Concentrating network optimisation on mode shift, so that important small changes can be made quickly and efficiently.
- More actively managing traffic levels to improve the safety and comfort of people walking, cycling and travelling by public transport.
- Providing dedicated corridors for important public transport routes to make services faster, more reliable and more efficient to deliver.
- Ensuring the speed of people travelling in cars is not prioritised over more efficient and healthier travel in cities.

Key network design, management and optimisation interventions are outlined below:

INTERVENTION	DESCRIPTION
8. Deliver dedicated safety programmes in partnership with councils	Making the transport system safe for people of all ages and abilities to walk, cycle and travel by public transport is fundamental to reducing car dependency. This means placing greater priority on safety in investment decision making and focusing on tackling high-risk locations with urgency. We will partner with councils to provide tools, guidance and streamlined processes to enable rapid delivery of lower speed limits, delivery of proven interventions (eg raised crossings) quickly and at scale, and necessary street changes to better protect people walking, cycling and scooting from fast moving traffic.
9. Deliver speed management programmes in partnership with councils	Lower speed limits in urban areas help reduce impact speeds to survivable levels. We will support councils by making it easier to set appropriate speed limits, taking a programme approach to delivery of interventions, and leading public conversations about survivable speeds in urban streets.
10. Expand the 'standard interventions toolkit' to include a wider range of safety and optimisation interventions	We will provide councils with standard intervention tools to streamline investment and accelerate transformation of urban streets through mass action programmes that improve safety and raise the level of service for people travelling by shared and active modes.

11. Deliver low-cost, low-risk optimisation programmes	Small changes to streets that make journeys more attractive for people walking, cycling and travelling by public transport will be important in advance of permanent upgrades.
12. Complete network optimisation programme business cases	We will work with Auckland Transport to complete and then implement the current programme business case for optimisation, ensuring that it has a strong focus on achieving mode shift. We will develop further similar business cases where appropriate.
13. Ensure key network operating plans help reduce car dependency	We will work with councils to develop network operating plans that discourage short car trips and reduce local air and noise pollution.
14. Develop guidance for traffic management strategies and support key flagship projects	We will prioritise the development of guidance and capability training for designing low traffic neighbourhoods, alongside a focus on reducing traffic around key activity centres. Auckland Council's Access for Everyone programme, which seeks to ensure efficient operation of the city centre's rapid transit network and create more space for people to enjoy, will be a flagship programme in traffic management.
15. Launch the 'Innovating Streets' programme	Projects that trial street closures and reallocate space for people will be actively supported through our 'Innovating Streets' programme. This programme will provide guidance and a package of support to make it faster and easier to make streets safer and more liveable. It will focus on streamlining the process for making temporary changes in streets, as well as activation initiatives that help people reimagine their streets.

INVESTMENT IN INFRASTRUCTURE, PLATFORMS AND SERVICES

Giving people safe, efficient, reliable, affordable and convenient travel choices is an essential pre-requisite to achieving mode shift and reducing car dependency. This means making walking and cycling more attractive for short journeys and public transport more attractive for longer journeys, especially to higher intensity areas like city centres. Addressing the legacy of under-investment in public transport, walking and cycling infrastructure and services will require significant investment over a sustained period of time. Providing strong guidance about where this investment should be targeted, measuring the wide range of benefits from these investments to support robust prioritisation, and ensuring interventions focus on the tasks they are well suited to will be key to making the most progress within available funding levels.

Through this work we will focus on:

- Ensuring investment decision-making processes support achieving mode shift, so that the broad benefits from public transport, walking and cycling investments (which have often been difficult to quantify in traditional assessment processes) are properly measured and taken into account during prioritisation processes.
- Developing strategic rapid transit, walking and cycling networks, so that key missing links are eliminated, wider networks have strong 'backbones' and sufficient capacity/levels of service are delivered to support growing use of these modes.
- Encouraging innovative approaches to quickly close network gaps, to maximise the benefits of past investment, support ongoing growth in the use of shared and active modes, and build momentum for future improvements.

Key investment in infrastructure and services interventions are outlined below:

INTERVENTION	DESCRIPTION
16. Complete the investment decision-making review	This work is already underway and aims to ensure end-to-end investment decision-making is easy to use and that it delivers the best mix of interventions in the land transport system to optimise benefits for people, the economy, and the environment. This includes consideration of how safety, resilience, access, public health, urban development, environmental effects, and network benefits appropriately reflect the Government's direction.
17. Partner in the development of rapid transit and strategic walking/cycling network plans	The scale of strategic rapid transport, walking and cycling investments is very significant, which means that robust network planning and strong integration with land-use planning is essential to achieving value for money and making the best future decisions around the mode, sequencing and route choice of these key corridors. Network plans need to be integrated with wider regional transport and land-use plans.
18. Deliver key strategic rapid transit, walking and cycling projects	Our traditional delivery function for state highways is expanding to cover rapid transit and major walking/cycling connections. Efficiently delivering these projects (eg Auckland Harbour Bridge shared path, Northern Busway extension, light rail, Wellington to Hutt Valley walking and cycling link etc.) will have a transformational impact on mode shift in these areas.
19. Support councils to close gaps in strategic networks through low-cost interventions	We will work with councils to develop innovative ways to close these gaps with low-cost or interim investments. We will also make it easier to deliver interim improvements by exploring opportunities to remove any regulatory barriers that may exist.

ECONOMIC TOOLS

How much people pay to use the transport system has a strong influence on travel behaviour. Understanding the full costs of the transport system is a complex exercise, as many of these costs are hidden in regulations (such as parking requirements) or are socialised to other sectors (eg air pollution, health impacts of inactivity).

Removing unintentional subsidies for travelling by private vehicle is a key first step towards using economic tools to help support mode shift. More complex and challenging initiatives, like road pricing, have the potential to support mode shift, but need to be carefully designed to avoid undue impacts on low-income households.

Many of the financial levers sit with other parts of central or local government and the private sector, such as parking fees, tax laws or carbon pricing. We will partner with others to investigate how these tools could assist in achieving mode shift. Through this work we will focus on:

- Improving parking management, to reduce or remove hidden subsidies for travel by private vehicle and enable space that is currently used for parking to be reallocated to other more beneficial uses.
- Better understand the potential of road pricing to help achieve mode shift, including how to avoid or mitigate any adverse impacts of different pricing options.
- Identifying opportunities where well targeted changes to public transport fares and improvements to ticketing systems could support mode shift in a cost-effective way.

Key interventions that relate to economic tools are outlined below:

INTERVENTION	DESCRIPTION
20. Provide ongoing parking management guidance and leadership	We will provide leadership in public conversations about parking management, supported by robust research, data and guidance for parking management strategies. We will also make necessary regulatory changes to enable parking fines to be set to discourage inappropriate behaviour in residential areas.
21. Partner with local government and Department of Internal Affairs to review legislative barriers to using parking pricing as a demand management tool	We will review any regulatory barriers that prevent efficient parking management (eg pricing, enforcement etc.) with a view to making it easier to trial changes to parking on city streets.
22. Contribute to cross-agency road pricing investigations	We will continue to contribute to existing or new investigations into road pricing to identify potential benefits, challenges and understand the merits of different options. A current study is underway in Auckland (the Congestion Question project).

23. Participate in Ministry of Transport's 'Future of the land transport revenue system' review	We will contribute to the Ministry of Transport's first principles review of how the land transport system is funded, which may have implications for future demand for different modes of transport.
24. Contribute to the investigation of the 'Greencard' initiative	We will contribute to this policy investigation, which is being led by the Ministry of Transport and aims to reduce the cost of public transport for people on low incomes.
25. Review and update fare policy guidance	We will ensure our fare policy guidance is fit for purpose, including an update to the national farebox recovery policy and our 'fare policy decision-making guide'. We will also partner in the development of Regional Public Transport Plans to ensure regional fare policies contribute to achieving mode shift.
26. Partner with local government to deliver the national ticketing programme	We are partnering with councils to make a step-change improvement to public transport fare collection. This will help create a much better fare paying customer experience as well as rich data to help monitor, plan and optimise service delivery.

EDUCATION, ENGAGEMENT AND AWARENESS

Safe and attractive infrastructure and services are required to enable more people to walk, cycle and travel by public transport. However, this investment must be complemented by efforts to promote the benefits of active and shared travel and to make it easy and intuitive for people to change the way they travel. Through this work we will focus on:

- Raising awareness of travel choices, to maximise the benefits from investment in service and infrastructure improvements and remove barriers for people who are looking to change the way they travel.
- Encouraging wider participation in decisions about street changes, supporting communities and neighbourhoods to use their streets as a public open space.
- Becoming a leading laboratory for travel demand management techniques, to help councils (and others) have the best information and guidance possible in helping to shape more efficient travel patterns.
- Tackling the school run, to address a major contributor to vehicle travel and establish healthy and sustainable life-long travel habits.
- Targeting major trip generators, to encourage mode shift in a highly tailored way that reflects local circumstances.

Key education, engagement and awareness interventions are outlined in the table below:

INTERVENTION	DESCRIPTION
27. Provide guidance about aligning behaviour change activities to transport investment	To maximise the benefits of investment in mode shift projects it will be important to provide people with better information about the increasing travel choices available to them. We will partner with councils to share research, information and best practice techniques so that these initiatives are well targeted.
28. Investigate opportunities for the development of applications to make travel seamless	We will support the development of digital applications that make travel seamless for people, enabling them to transition between different modes of travel with ease, and make the right travel choice for the occasion. Through our Innovation Lab, and with our ability to leverage national platforms, we will support councils to co-design, test, and trial new ideas.
29. Update the Code of Practice for Temporary Traffic Management (COPTTM) guidance for street activations on low-risk streets	Open Streets, Play Streets and community placemaking are highly effective tools in enabling a wider range of community members to actively participate in the changes in their streets. We will make it easier and more affordable for communities to close their streets to traffic through an update to guidance. These initiatives will help people to view their streets differently and imagine the possibilities of streets that are not dominated by traffic.
30. Explore partnership opportunities for large scale open streets events	We will investigate partnership opportunities that make it possible to hold large open streets events in cities and more events that reallocate streets for people.
31. Complete the travel demand management business case	This business case will outline how we can become a leading laboratory for travel demand management techniques, providing councils with the tools to target measures to where they will be most effective.
32. Partner with others to develop e-bike purchasing guides for employers	To make e-bikes more affordable, we will partner with other public-sector agencies on a purchasing scheme, and work with the Sustainable Business Network to launch a purchasing guide for employers.

33. Foster innovative programmes that reduce car dependency for travel to school	We will continue to invest in programmes that increase the use of shared and active mode for school related travel. This includes Bikes in Schools programmes, pedestrian improvements around schools and supporting walking school buses. We will also support councils to trial and implement changes that make it safer for people to walk, scoot and cycle to school, such as closing streets to traffic during school pick up and drop off.
34. Update travel planning guidance	We will work in partnership with councils to target large organisations and employers. We will use best practice evidence to update our travel planning guidance and tools to support the reduction of travel by single occupancy vehicles.

HOW THE TRANSPORT AGENCY WILL IMPLEMENT THIS PLAN

To implement this plan, we will need to:

- focus our efforts to make sure we are targeting the right places and using the right tools on the things that we have identified as most important to accelerating progress on mode shift
- update our role in supporting mode shift, which will require the right organisational capability and capacity
- manage ongoing constraints on our ability to deliver
- measure progress towards our delivery on the objectives and outcomes of this plan.

FOCUSING OUR EFFORTS

In an environment where resources are limited and quick (but enduring) results are desired, we need to optimise our activities to maximise the level of mode shift that can be achieved. Effort needs to be targeted to deliver the greatest benefit. To achieve this, we will be guided by five key principles:

- Target the causes of car dependency
- Concentrate on high-growth urban areas
- Understand the journeys people make
- Focus on the most effective modes
- Ensure a consistent pace of change

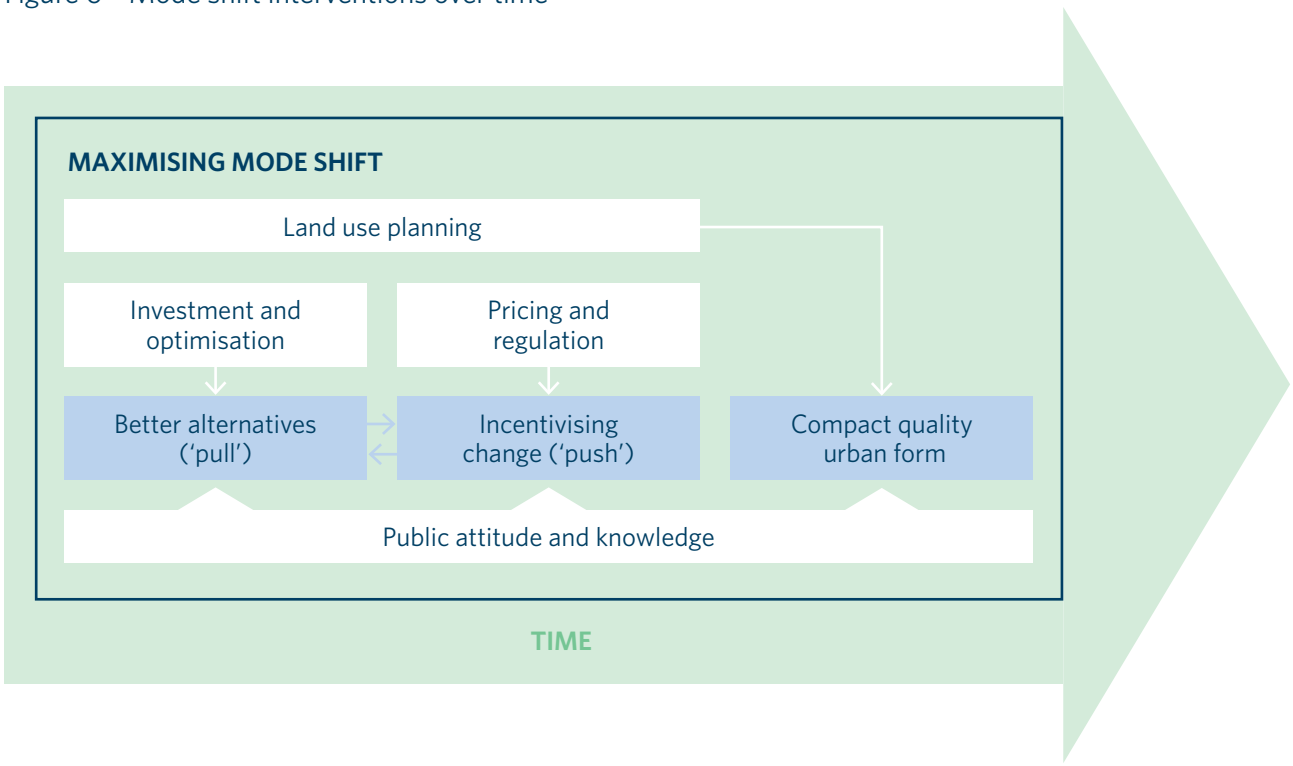
Target the causes of car dependency

Three key areas of influence have been chosen as they directly respond to the underlying causes of car dependency in New Zealand.

UNDERLYING CAUSE	RESPONSE
Cities that have been designed to prioritise travel by cars	Shaping urban form
A lack of good alternatives for shared and active travel due to historic under-investment	Making shared and active modes more attractive
Limited incentives and disincentives for people to change how they travel	Influencing travel demand and transport choices

There is no single 'silver-bullet' solution to reducing New Zealand's car dependency, and sustained effort will be required over time. We need to take an integrated approach that combines our three key areas of influence, especially if the impact is to be enduring. Initially, a stronger focus on 'pull' factors is likely to be necessary for mode shift to be achieved in a way that improves access and reduces travel costs. However, the experience of achieving mode shift overseas shows that a 'push' is also required to deliver transformational change and incentivise people to try something new. Conceptually this is illustrated in figure 6 below.

Figure 6 – Mode shift interventions over time



Concentrate on high growth urban areas

The benefits of reducing reliance on private vehicles are much greater in some parts of the country than others, while efforts to achieve mode shift will be more effective in some areas than others. Key factors considered in identifying where to target efforts were:

- **Current population size** - larger and more intensively developed cities are where dependence on private vehicles creates the most significant problems, as well as being locations where the scale of travel demand can support high-quality public transport services.
- **Pace and scale of growth** - faster growing areas will see the most pressure on their transport networks, as well as having an acute need to support and enable a vibrant and liveable urban form.

This has led to Auckland, Wellington, Christchurch, Hamilton, Tauranga and Queenstown being identified as the six most critical locations for achieving mode shift, as by the 2040s there will be nearly a million more people living in these six cities, generating millions more trips every day.

Figure 7 – Population and growth rate of targeted cities

Understand the journeys people make

In order to use mode shift as a means to improve access and mobility, understanding the nature of the journeys people make is crucial to designing effective interventions. Key characteristics of different trip types that are relevant to mode choice include:

- **Trip length** – long trips by car, especially within major urban areas, generate the most congestion and emissions. Achieving mode shift for these trips will therefore generally deliver the greatest benefits.
- **Trip purpose** – trips to work and education are made very regularly, often individually, to higher density locations and at times of day when the transport network is under the most pressure. These trips may be easier ones to 'shift' to alternatives and achieving a greater share of journeys to school by active modes can deliver important life-long benefits. Trips for multiple purposes are often linked together, affecting the relative attractiveness of different modes (eg public transport may not efficiently serve one destination, which could put someone off using it for any of their travel).
- **Trip location** – journeys starting and/or ending in higher density locations are more likely to have the scale of demand that supports providing high-quality travel options. High traffic volumes in these locations also generate significant adverse effects on congestion, public health and emissions.

Overall, there needs to be a strong focus on targeting journeys to work and education, especially where those trips are longer and/or are located in higher density parts of our main urban areas. Further work is also required to understand the potential to reduce the amount of vehicle travel undertaken in the movement of goods and services around New Zealand.

Focus on the most effective modes

All transport modes have their strengths and weaknesses, and a role to play in an integrated multi-modal system:

- **Public transport** can be an efficient way of moving large numbers of people but providing a high-quality service can be expensive. This means it can be difficult to provide an attractive service in lower-density areas or for journeys that are less common.
- **Cycling** is a healthy way to travel medium-length distances. However, bikes mix poorly with pedestrians and vehicles, which means that specific infrastructure is needed to make cycling a high-quality option. Slower average speeds than motorised modes, exposure to the weather and required fitness levels limit cycling's attractiveness for longer journeys, although e-bikes help overcome some of these challenges.
- **Walking** is also a healthy and congestion-free way of travelling shorter distances. It is free and does not require any specialist equipment or services. However, walking is much slower than other transport modes – making it less attractive for longer journeys. Poorly designed streets and urban areas can also make walking unattractive and unsafe.
- **'New' technologies** such as on-demand services, e-scooters and car sharing are redefining interaction between traditional transport modes and operating models and have great potential to play a role in reducing car dependency. However, this topic will require careful navigation to ensure wider benefits are not undermined (eg by cannibalising active modes or taking up more road space).

Overall, an integrated approach is required that focuses each mode on playing a greater role in serving the types of trips they are well suited to. Each of these can also support the other, for example through making it easier and safer to walk or cycle to public transport. Because of their significant wider benefits, active modes should be the focus for achieving mode shift for shorter journeys.

Ensure a consistent pace of change

Permanent infrastructure upgrades take time and require significant planning, investment and community support. For mode shift to be realised within shorter timeframes, there need to be opportunities for making temporary, low-cost street innovations that can achieve outcomes faster, and help build public support for more permanent changes. This includes 'tactical urbanism' techniques to reduce the risk of delivering challenging urban projects. This approach has been adopted internationally and helped cities like Vancouver and New York achieve mode shift in shorter time frames. At the same time, we need to ensure the pipeline for medium to longer-term activities is well-formed and robust, and that priorities are understood and can be brought forward should additional resources be secured.

UPDATING THE TRANSPORT AGENCY'S ROLE IN SUPPORTING MODE SHIFT

Traditionally we have played a largely 'reactive' role in achieving mode shift, with initiatives predominantly developed by councils and then submitted for co-funding. However, we are well placed to play a more proactive role in accelerating mode shift given our national scale and breadth of operation. In broad terms, we will work differently in the following four main ways.

Refocusing investment and delivery priorities

We are the largest investor in the transport system in New Zealand, allocating around $4 billion a year from the National Land Transport Fund (NLTF) in a way that gives effect to the Government's land transport priorities. Ensuring that the allocation of this funding, including the processes that sit behind how investments are developed, supports mode shift is the single most important way we can help improve travel choice and reduce car dependency.

We are already reviewing our investment decision-making framework to ensure the way we assess and prioritise potential investments aligns with international best practice and includes consideration of the wider benefits and costs that transport projects have. The outcomes from this review are expected to help achieve mode shift, as public transport, walking and cycling improvements generally have significant wider benefits that may not have been fully measured and considered in the past.

Our traditional state highways function is expanding to also cover rapid transit (eg extending Auckland's Northern Busway and progressing light-rail) and major walking and cycling connections. Developing these nationally significant networks is essential to providing high-quality travel choices for people and will be a greater focus in the future as we develop the country's nationally significant transport networks. We will also increasingly use our considerable experience in delivering large-scale infrastructure projects to assist, partner with and support other delivery agencies.

Partnering more closely with others

Stronger partnering with councils, other government agencies and the private sector is a cornerstone of our approach to achieving mode shift. Through ongoing and genuine collaboration, we will seek to align national and regional priorities and help support joint investment and land-use decisions that deliver both short-term and long-term mode shift outcomes. We will look to shift the emphasis of our work away from being reactive at a project-by-project basis, towards joint planning that looks out over the short, medium and long-term. In some cases, we will become more involved in processes that we have traditionally largely left to councils, such as land-use decision-making and the planning of public transport networks.

We will actively seek partnerships with other organisations to enable faster delivery of mode shift measures, including those that employ data and technology to target investment. We will seek out opportunities to partner with the private sector, especially in relation to emerging forms of mobility that have the potential to reduce car dependency.

Leading the public conversation

The challenge of achieving mode shift starts with communicating the need for change. Our statutory role and independence from local politics means we are well placed to lead conversations about the benefits of reducing car dependency and the role different

initiatives play in helping to shape more vibrant, sustainable and healthy communities.

Initially we will need to focus on supporting our own staff to champion mode shift and play the role of thought leaders in low carbon urban mobility. One of the key aims will be communicating how the programmes set out within the National Land Transport Programme (NLTP) are coordinated and sequenced to deliver mode shift. Developing mode shift communications toolkits and working with our partners to understand the potential benefits from reducing car dependency in a way that is locally relevant, are key ways we can support councils in public conversations about mode shift.

Building capability and becoming a centre of excellence

While recent investment in public transport and active modes has built some capability across the transport sector, the skillsets, experience and overall capability to deliver intricate urban mobility programmes is not developed to the same extent that it is for road building. We have an important role to play in growing capability across the sector, from planning through to implementation, operation and maintenance. Our initial focus will be on providing guidance, tools and training to ensure practitioners have sufficient capability in the lead up to the next NLTP.

Part of building capability across the transport sector is fostering innovation and understanding the potential of new and emerging technologies to help achieve key transport outcomes, or conversely, the risks that need to be avoided. We can play a significant role in fostering innovation through using our Innovation Lab and leveraging national platforms to support cities in the co-design, testing and trialling of new ways to achieve mode shift.

We must continue to build tools and systems to be able to track the impact of key initiatives in supporting mode shift, and to make sure our efforts are being targeted correctly. Ultimately, we must continue to build a strong evidence base to support the evaluation of different policy and investment decisions. Initial areas of focus will include understanding and quantifying the impact of different levels of mode shift on key outcomes; and quantifying the relative impacts of different interventions on achieving mode shift (eg improving public transport services versus lowering fares).

MANAGING ONGOING CONSTRAINTS

This plan sets out proposed activities to accelerate mode shift nationally, but further, more detailed work will be needed to assess capability and funding requirements to support development of a staged implementation plan.

Funding. Availability of funding will affect the pace and scale of change that can be achieved. The focus in the short term (ie for the remainder of the current GPS/NLTP period) will be on delivering currently planned initiatives and undertaking necessary planning work for the medium-term priorities. From mid-2021 (the beginning of the next GPS/NLTP period), the opportunity to accelerate mode shift is greater as there is more time to deliver substantial initiatives and somewhat greater funding flexibility (although there will be significant, ongoing funding pressures on the NLTF for the foreseeable future).

Staff resourcing. A review is underway to establish the capability within the Transport Agency for delivering programmes that focus on mode shift. This work is required both within the Transport Agency and across the wider sector to ensure that as funding is targeted to urban areas, there are sufficient and capable staff resources to deliver the programmes.

Regulations. The Transport Agency will work closely with the Ministry of Transport to develop changes to rules and regulations that result in improved travel choice, making it easier for councils to deliver programmes that target mode shift. The current timeline for changing regulations can be lengthy and will therefore be a key constraint in the pace of change.

MEASURING PROGRESS

Measuring progress towards mode shift targets can be challenging using existing sets of transport system indicators, and work is underway to ensure data requirements are met as soon as possible. The GPS contains some objectives and measures related to mode shift, and the table below shows the revised measures being developed by Ministry of Transport*.

LONG-TERM RESULTS (10+ YEARS)	SHORT-TERM RESULTS (3-6+ YEARS)	REPORTING MEASURES
Metropolitan and high-growth urban areas are better connected and accessible	Mode share – people	Reported by: • Trips taken • Distance travelled • Time spent travelling • Regional break-downs reported where possible
	Mode share – freight	Reported by: • Tonne • Tonne-km
	Access to jobs	Reported by mode for each of the metropolitan and high-growth urban areas
	Access to essential services	Reported by mode for each of the metropolitan and high-growth urban areas
	Number of passengers using urban public transport services	To be reported by: • Total (by region) • Per capita (by region)

Increased mode shift from private vehicle trips to walking, cycling and public transport	A reduction in overall single occupant private vehicle travel in urban areas	To be reported as a three-year average. To be reported by region per capita
	Improved good-quality, fit-for-purpose walking and cycling infrastructure	Counts in urban areas
	Improved real and perceived safety for both pedestrians and cyclists	To be reported by region. To be reported separately for: • Walking • Cycling
	Increased proportion of journeys made using public transport and active modes of travel (including children travelling to and from school)	Mode share by region
	Expanded and better connected walking and cycling networks both in urban and rural areas	Network kilometres of walking and cycling facilities delivered
Reduce greenhouse gas emissions from transport	Reduced greenhouse gas emissions from land transport using whole-of-system approach	To be reported by mode and by region: • Absolute value • Per capita • % change since previous year • As a % of total New Zealand emissions
Reduce transport's negative effects on the local environment and public health	Reduced significant harmful effects of land transport-related air pollution	To be reported by mode and by region by: • Absolute value • Per capita • % change since previous year • As a % of total New Zealand emissions

*Not yet confirmed at time of drafting

Using the GPS framework as a base, there is an opportunity to develop more insightful performance measures to track how we are doing and enable us to respond quickly to what works and what doesn't. This will involve researching and designing an ongoing evaluation programme to set meaningful measures (including quantifying mode shift's contribution to broader benefits and outcomes), create shorter-term (1-3 year) targets and determine how we can more easily monitor these on an ongoing basis. Given the place-based nature of mode shift, many of the indicators of success will be at a city-level, so ensuring consistency between regions and then scaling these to a national level will also be required.

Developing a robust mode shift evaluation framework is a key component of our national system-level action plan. The Ministry of Transport is currently working on developing a set of indicators for the Transport Outcomes Framework, while other related work is being undertaken within the Transport Agency. We will ensure we leverage work already underway to achieve consistency and efficiency, applying a more specific mode shift lens where appropriate.

In line with our draft Sustainability Action Plan we will also undertake the following actions that are included in the 'sustainable urban access' implementation package:

- Work with the Ministry of Transport, the Ministry for the Environment and the Climate Change Commission to determine the approximate percentage contribution that travel demand management/mode shift will make to achieving net zero carbon emissions by 2050, relative to the contribution that transitioning the vehicle fleet will make.
- Identify the scale of mode shift required over time to meet the travel demand management/mode shift contribution to achieving net zero emissions by 2050.
- Identify and agree the scale and pace of mode shift (particularly from single occupancy fossil-fuel powered vehicles) required for major urban areas to make their best contribution to achieving net zero emissions 2050.

Key cross-agency management interventions are outlined in the table below:

INTERVENTION	DESCRIPTION
35. Ensure the mode shift programme is resourced to deliver on its recommendations through a programme team, appropriate governance, and workstreams for: a) Development of plan for mode shift in Hamilton b) Development of plan for mode shift in Tauranga c) Development of plan for mode shift in Wellington d) Development of plan for mode shift in Christchurch e) Development of plan for mode shift in Queenstown f) Development of a robust mode shift evaluation framework g) Workplan delivery h) Capability development	To support the delivery of mode shift there will be a programme that is regularly monitored and responsible for its delivery across the Transport Agency and New Zealand.

ATTACHMENT 1: TIMELINE FOR THE NATIONAL TACTICAL PLAN

Cost estimate key: H = $1m+ M = $100,000 - $1m L = primarily in-house resources

	MECHANISM	KEY INTERVENTIONS	COST	FUNDING COMMITTED	IMPLEMENTATION		
					2019	2020	2021
SHAPE URBAN FORM	Spatial and place-based planning	1. Complete the Good Practice Guide and embed through the sector	M	Part			
		2. Work with our partners to ensure urban growth and transport investment are aligned	L	Part			
		3. Evolve One Network Road Classification to a One Network Framework to reflect place aspirations and wider transport outcomes	M	Yes			
	Policy and Regulatory Settings	4. Enable the trialling of innovative traffic control measures 5. Support and implement the 'Accessible Streets' regulatory package 6. Review New Zealand's vehicle classification and standards system 7. Investigate improved road management legislation	M	Part			
MAKE SHARED AND ACTIVE MODES MORE ATTRACTIVE	Network design, management and optimisation	8. Deliver dedicated safety programmes in partnership with councils	H	Part			
		9. Deliver speed management programmes in partnership with councils	L	Part			
		10. Expand the standard interventions toolkit to include a wider range of safety and optimisation interventions	M	Yes			
		11. Deliver low-cost, low-risk optimisation programmes	M	Yes			
		12. Complete network optimisation programme business cases	M	Yes			
		13. Ensure key network operating plans help reduce car dependency	M	No			
		14. Develop guidance on traffic reduction strategies and support flagship projects	L	No			
		15. Launch the Innovating Streets programme	M	Yes			
	Investment in infrastructure, platforms and services	16. Complete investment decision-making review	M	Yes			
		17. Partner in the development of rapid transit and strategic walking/cycling network plans	H	Yes			
		18. Deliver key strategic rapid transit, walking and cycling projects	H	Yes			
		19. Support councils to close gaps in strategic networks through low-cost interventions	M	Part			

	MECHANISM	KEY INTERVENTIONS	COST	FUNDING COMMITTED	IMPLEMENTATION		
					2019	2020	2021
INFLUENCE TRAVEL DEMAND AND TRANSPORT CHOICES	Economic tools (pricing and incentives)	20. Provide ongoing parking management guidance and leadership	M	No			
		21. Partner with local government and Department of Internal Affairs to review legislative barriers to using parking pricing as a demand management tool	M	No			
		22. Contribute to cross-agency road pricing investigations	M	No			
		23. Participate in Ministry of Transport's 'Future of the land transport revenue system' review	M	No			
		24. Contribute to the development of Ministry of Transport's 'Greencard' initiative	L	Yes			
		25. Review and update fare policy guidance	L	Yes			
		26. Partner with local government to deliver the national ticketing programme	L	No			
	Education, engagement and awareness	27. Provide guidance on aligning behaviour change activities to transport investment.	L	No			
		28. Investigate opportunities for the development of applications to make travel seamless	M	No			
		29. Update Code of Practice for Temporary Traffic Management (COPTTM) guidance for street activations on low-risk streets	L	Yes			
		30. Explore partnership opportunities for large scale street events	M	No			
		31. Complete travel demand management business case	M	Yes			
		32. Partner with others to develop e-bike purchasing guide for employers	L	Yes			
		33. Foster innovative programmes that reduce car dependency for travel to school	M	Part			
		34. Update travel planning guidance	M	No			

MECHANISM		KEY INTERVENTIONS	COST	FUNDING COMMITTED	IMPLEMENTATION		
					2019	2020	2021
POSITIONING THE TRANSPORT AGENCY TO DELIVER MODE SHIFT	Cross-agency management	35. Ensure the mode shift programme is resourced to deliver on its recommendations through a programme team, appropriate governance and workstreams for: a. Development of plan for mode shift in Hamilton b. Development of plan for mode shift in Tauranga c. Development of plan for mode shift in Wellington d. Development of plan for mode shift in Christchurch e. Development of plan for mode shift in Queenstown f. Development of a robust mode shift evaluation framework g. Workplan delivery h. Capability development	H	Part			

ATTACHMENT 2: EXAMPLES AT HOME & OVERSEAS

Looking to other countries shows that sustained effort to reduce car dependency can be very successful at a city scale and can provide learnings for the work underway in New Zealand.

SEATTLE, USA

Seattle is a successful example of a city that has managed growth while also reducing driving. Through a package of mode shift strategies, average daily traffic has declined five percent between 2006 and 2017. Most significantly there has been major investment in both bus and rail transit. In 2016, Seattle added 62 miles of light rail track across the metro area, and in the same year, completed a major light rail/subway project, connecting downtown to University of Washington in eight minutes (versus a 50-minute car ride). Light rail ridership increased 51 percent in a year. There was also tandem investment in bus transit, with 270,000 service hours added in 2014, substantially increasing the number of households that are served by frequent transit (i.e. running every 10 minutes). Seattle has also done a lot to make its streets more walkable and bike friendly and was named the 'Top Biking City in America' by Bicycling Magazine in 2018. Combined with travel planning and promotion initiatives, now only about 25 percent of Seattle's downtown workers drive alone, and the downtown area was able to add about 45,000 new jobs without increasing car traffic.

SEVILLE, SPAIN

Seville, a city of 700,000 had a cycling mode share of 0.5% and faced sharply increasing car use in 2003, when a public poll revealed that 90% of residents supported investment in cycling. The city implemented 120 kilometres of protected cycleways within 18 months, through the reallocation of 5000 parking spaces, to deliver a continuous and connected cycle network. Since its introduction the cycling mode share has increased to 9% with car use dropping by 6% over this period. Studies have also shown that investment in cycling has directly benefited the local economy. Seville has also built its entire public transport system from scratch in just over a decade. The combination of initiatives means traffic from motor vehicles peaked in 2007 and has decreased every year since (to 2016).

GHENT, BELGIUM

With a population of around 250,000 (serving a wider area of about 500,000), Ghent has made considerable efforts to curb the use of private cars. Surrounded by major motorways, Ghent was facing increasing congestion and poor air quality. To address this, an ambitious mobility plan was introduced with a key part being a traffic circulation plan which made it possible to access the city centre in a car, but not drive through it. This resulted in an increase of 37% in people cycling, traffic has reduced by 13% during rush hour, and traffic collisions have dropped by 40%. Other initiatives have included developing cycling infrastructure, the addition of 20 hybrid buses, the redesign of over 50 bus stops to improve safety, and new real time travel information systems. Ghent has also run awareness campaigns, and in late 2018 undertook co-design sessions with residents, entrepreneurs and traffic managers to generate ideas for a MaaS system, the first phase of which will soon be implemented.

VANCOUVER, CANADA

Vancouver faces similar growth challenges to many New Zealand cities, especially Auckland. In 2008 the City of Vancouver (which covers the central part of the wider metropolitan area) set a target of half of all trips to be made by sustainable modes by 2020. This goal was met two years ahead of schedule in 2018 and the city is now aiming for two thirds of all trips by foot, bicycle and public transport by 2040.

To achieve this change, Vancouver focused on providing people with travel choice, through investing heavily in walking, cycling and public transport improvements. Supportive land use policies have been a major part of Vancouver's success, with high-density developments and major trip generators focused around key rapid transit corridors. There has also been a strong focus on building complete communities where people and their daily destinations are close together.

A TACTICAL PROJECT IN MEDELLIN, COLOMBIA

Cities around the world are trying innovative new approaches to reduce the risk of delivering challenging urban projects, and to meet community expectations for faster implementation. One approach, known as 'tactical urbanism', employs low-cost and temporary materials to activate streets and to test potential future changes. It has been proven to improve community engagement and deliver modal shift at pace.

The Transport Agency has developed a programme, Innovating Streets for People, which seeks to make it quicker and easier to make streets safer and more liveable. It includes guidance and support packages to enable people to experiment with reallocating road space. Through a number of live case studies, the guidance will be refined to ensure that best practice from abroad works in a New Zealand context. It will focus on making it cheaper and easier to hold events in streets and removing the barriers to trialling changes in a low-risk environment.

PUBLIC SECTOR E-BIKE PURCHASE SUPPORT SCHEME

The Transport Agency is working with government partners to support staff working in the public sector to purchase e-bikes. The aim is to enable over 1,000 staff to purchase e-bikes over the next two years. The Transport Agency and Tauranga City Council pioneered a scheme to enable their staff to purchase e-bikes at a lower cost, removing one of the barriers to e-bike uptake. The schemes involved the organisations bulk buying e-bikes to achieve economies of scale for their staff, delivering tangible benefits for employees in facilitating a purchase that in turn enables better employee health and wellbeing outcomes. Research suggests biking to work is associated with fewer sick days.

As well as the health and productivity of their employees, such schemes also deliver benefits more directly to organisations. When e-bikes (either personal or fleet) are used for work-based travel, they enable time and cost savings for the organisation, as well as reducing carbon emissions, contributing to corporate sustainability goals. There is already some evidence that schemes are having a significant positive impact. For example, the 39 respondents to Tauranga City Council's post-purchase survey, 72% (28 people) had replaced their car commute (of average length 12km) with an e-bike commute. Assuming 225 working days in a year, those 28 people will together emit about 200kg of carbon from their commute over the year, compared to about 35,000kg by car. Together their running costs total about $450 (electricity for charging), rather than around $30,000 for the petrol to run their cars.

KEY LESSONS:

- Political and public support for challenging changes, such as removing parking, reallocating roadspace or restricting traffic is vital. These changes are as important as delivering new infrastructure or services.
- Projects delivered as trials or experiments can be faster and easier to implement.
- Programmes that focus on reducing car dependency are having tangible safety benefits.
- Integrating land use and transport decision-making is critical, especially in fast-growing locations.

ATTACHMENT 3: MODE SHIFT BENEFITS OVERVIEW

QUALITY OF LIFE

The potential to improve quality of life through reducing car dependency is being increasingly recognised by cities' residents. For example:

- Transport congestion and lack of access to public transport were identified by many respondents as key problems with their neighbourhoods in New Zealand's 2018 Quality of Life survey[10].
- In a recent survey of homeowners in Vancouver, transit friendliness was cited as a top-three location priority for 30% of homeowners with young families, while car-friendliness (eg access to major arterial roads and plentiful parking) was cited by just 13%[11].
- A more efficient transport system creates travel time savings across all modes, with increasing value given to the concept of 'found time' during public transport commutes that can be used for relaxing, socialising or being productive[12].

High levels of car use also affect community cohesion. Research has demonstrated that people are more sociable on streets with less traffic, with more friends and acquaintances nearby. While people living where traffic is heavy are more likely to adapt their lifestyles to mitigate the impacts – closing windows, building fences to block the street, and restricting the freedom of their children to move and play independently in the neighbourhood due to road safety concerns[13].

ACCESS

The time, cost and associated stress of long and unpredictable commutes can influence where people choose to live and work[12]. A well-connected, multi-modal transport system can offer greater choice in home and work locations. It also provides social, employment and health connections for people who cannot or do not want to drive, becoming increasingly important given the access needs of the ageing population and younger people becoming less 'car-centric[9].

Limited travel choices means people need to spend a lot of money on owning and operating cars. Transport costs make up, on average, the third largest part of household budgets (behind only housing and food), costing an average of $190 per week[14]. The largest proportion of this cost is vehicle ownership (over $70 a week) and petrol (around $42 a week).

A lack of easily accessible public transport in outer areas (where houses generally cost less), means car ownership is often a necessity. This can represent a large financial burden, particularly for low-income families. This has implications for housing affordability, as living in inaccessible locations can harm the financial sustainability of home ownership. A study in Auckland found higher rates of mortgagee sales in areas where households had long commuting distances and lacked viable public transport[15]. Providing competitive alternatives that cost less and mean people do not need to buy a car (or second car) will ease the financial burden and may improve housing affordability when viewed in a broader sense.

ECONOMIC

Because public transport, walking and cycling are so space-efficient, they can operate effectively at very high levels of demand without requiring large amounts of land, moving more people with less resource[6]. This is particularly important for where travel demand is high and space is constrained and expensive (eg city centres, major employment areas). Freeing up land currently allocated to cars allows valuable land to be used for other purposes and unlocks higher density urban development and regeneration in well-connected areas and along key transit corridors[16].

Growing congestion in New Zealand's cities is leading to longer and less reliable travel times. Congestion levels on Auckland's arterial roads have increased by 33% since 2014, and modelling indicates this could increase by a further 30% in the peak by 2046, while severe congestion on the freight network will increase by 50 percent[17]. Increasing transport choices and tools to manage demand will improve access and at the same time reduce congestion. Travel time savings can have significant economic benefits for businesses, including fewer delays and reduced labour and operating costs[18], while taking up walking and cycling for transport leads to lower levels of sick leave[5].

Providing an attractive, efficient transport system also creates cities where people want to live, work, visit and invest, potentially generating more jobs and higher incomes[19]. At a more local level, improving pedestrian facilities in shopping streets and increasing the number of people walking and cycling in local business areas can increase overall spend, while effective parking management can actually increase the attractiveness of a city centre and its economic vitality[17, 19].

ENVIRONMENT

New Zealand is a small greenhouse gas emitter by global standards, but our per person emissions are amongst the highest in the industrialised world. Transport accounts for 18% of New Zealand's emissions, 90% of which arise from road transport; and 75% of this is from the light vehicle fleet. Light vehicle emissions are the fastest growing source of emissions, overwhelmingly concentrated in urban areas[4,9,20].

There are two ways of reducing land transport emissions and both are required to achieve New Zealand's emissions reductions goals:

- Vehicle fleet transformation from high carbon fossil fuels to low or non-emissions energy sources.
- Mode shift to reduce reliance on private vehicles and increase the share of travel by public transport, walking and cycling.

Cross-government policy work on reducing transport emissions is focused almost exclusively on vehicle fleet transformation. Achieving net zero carbon emissions 2050 by this mechanism requires an uptake of more than 130,000 electric vehicles each year from 2018-2050[21]. There are currently nearly 15,000 low/no emission vehicles in the fleet, and in 2017 this increased by only 3,691. The pace will increase, but there is a long way to go. Vehicle fleet transformation is expected to realise the largest emissions reductions over time but:

- it won't begin to take effect until around late 2020s when electric vehicle prices drop and battery technology improves[9]
- it will be insufficient to achieve net zero land transport carbon emissions by 2050
- the scale of uptake required is very large and the cost to families of vehicle upgrades raise considerable equity issues

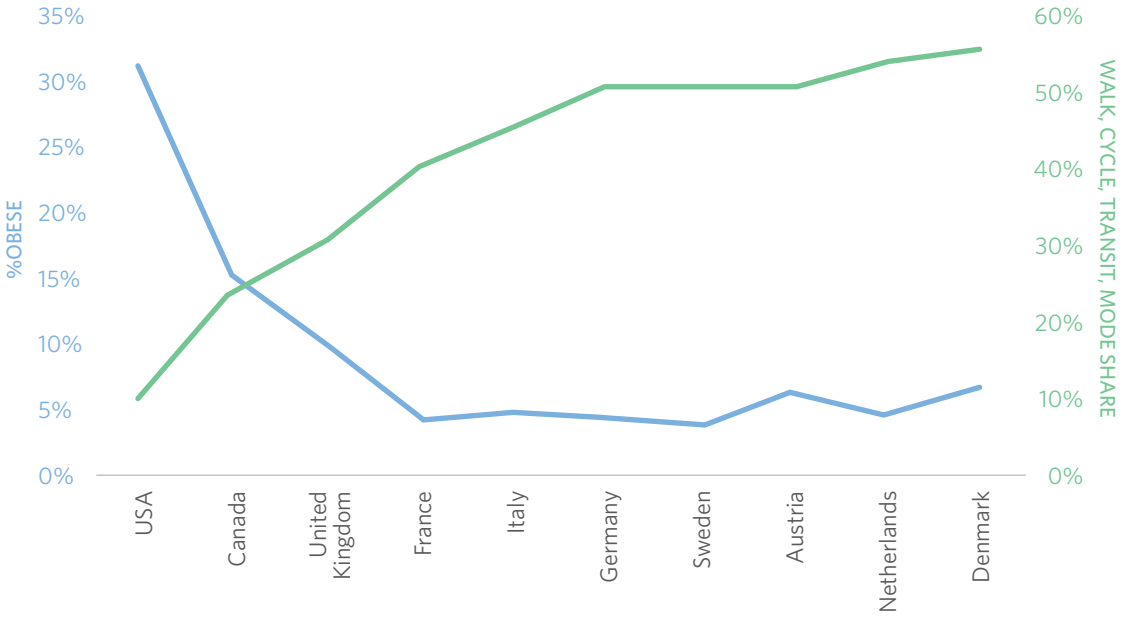
Mode shift has the potential to make an important contribution to reducing emissions and help bridge the gap to help achieve these targets. A recent study quantified this impact by comparing emissions from several New Zealand cities with Wellington. This showed that carbon emissions from light passenger vehicles would fall by between 7 and 32% - mainly from shifting longer car trips to public transport[5].

PUBLIC HEALTH

Transport has a major influence on health outcomes, mainly due to physical activity, air pollution and road injury[5]. Research undertaken in 2012 has shown that in New Zealand road transport was found to be responsible for 650 deaths in 2012 (2.1% of annual mortality). While many of these were due to crashes, 283 were a result of air pollution, and 59 from noise[22]. Reducing traffic can reduce emissions that cause respiratory problems and other diseases, and also chronic noise which can contribute to high blood pressure, cardiovascular disease, affect sleep and impair cognitive performance[23].

A lack of exercise causes nearly 13% of all deaths in New Zealand, with nearly half of adults not meeting recommended daily physical activity levels[24]. Active transport is regarded internationally as one of the best interventions for increasing physical activity as a routine part of daily life (including public transport users who on average walk twice as much as those who rely on private vehicles), but New Zealanders on average, walk for transport less than 10 minutes per day[20].

The potential health improvements were demonstrated in the research undertaken to replicate Wellington's mode share in New Zealand's other main cities. This estimated there could be around 176 fewer premature deaths per year from reductions in diseases due to increased levels of physical activity in the five cities analysed. Looking at mode share and obesity patterns overseas reinforces the health benefits:



Source – Transport Canada (2011)

SAFETY

Traffic volumes (measured by vehicle kilometres travelled) are a strong predictor of crash rates – the more people drive per person, the higher the likely number of injuries and fatalities[26]. Reducing car travel through mode shift can improve road safety, which is supported by international data that indicates per capita crash rates decline as public transport travel increases[27]. There are also examples where public transport priority measures and protected cycleways have improved safety on the streets where they are implemented, due to narrowing road space and acting as traffic calming measures[27]. Public transport is also a very safe mode – in New Zealand, passengers in cars and vans are seven times more likely than bus passengers to be killed or injured in a crash (for the same time spent travelling)[28].

However, this difference narrows when taking into account injuries to people accessing public transport, which is usually by active modes. Safety improvements for people walking and cycling is essential to encouraging more people to choose these travel options. New Zealanders have identified safety concerns as the greatest barrier to cycling, even though research has shown the risk of injury while riding a bike is actually relatively small[29]. Cities that have invested in infrastructure for cyclists and pedestrians have reported safety improvements. While walking and cycling remain higher risk modes, there is increasing evidence that when mode shift occurs on a larger scale, safety improves considerably – the 'safety in numbers' effect[27]. Importantly, the substantial, long-term health benefits from walking and cycling generally outweigh any additional safety risk from these modes[30].

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