



Waka Kotahi Cycling Action Plan

Waka Kotahi NZ Transport Agency

Published March 2023 | 23-EX-008

ISBN 978-1-99-106817-0

Published: March 2023

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NZBN: 9429041910085



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Contents

Foreword	5
Executive summary	6
Strategic context	9
Te Tiriti context	12
The case for change	13
The transformation required	17
Strategic priority 1: Planning connected networks	20
Strategic priority 2: Streamlining our funding system	26
Strategic priority 3: Accelerating change on the ground	29
Strategic priority 4: Putting people at the heart of change	37
Monitoring and updating this plan	42
Appendix	43
Appendix 1: Cycling in Aotearoa	43
Appendix 2: Growing the network in Aotearoa	48
References	52
Glossary	55



Foreword

We all want our neighbourhoods to be healthy, safe and climate resilient. Streets in our neighbourhoods, towns and cities need to work for all of us. Shifting short car trips to active modes of transport is widely recognised as one of the most effective and affordable methods to achieve multiple wellbeing outcomes. Increasing the role of cycling in Aotearoa New Zealand's overall transport mix will deliver a range of significant benefits, from emissions reduction and improved road safety, to supporting thriving town centres, more opportunities for physical activity, enhanced travel choices and options, and a more efficient transport system.

Cycling currently plays a very small role in meeting people's everyday travel needs, despite a large proportion of New Zealanders owning bikes and knowing how to ride a bike. A lack of safe and connected cycle networks across Aotearoa has created a large gap between the small number of people who frequently cycle to meet their everyday travel needs, compared to the many who would love to. Closing this gap will require transformational change to how the transport system caters for people travelling by bike, so that this travel choice is far safer and more attractive for a much wider variety of people and a much greater proportion of everyday trips.

The evidence is clear on what is needed to achieve a transformational increase in cycling in Aotearoa. Many towns and cities around the world, from Seville, London and Paris, to Bogotá, Manila and Sydney, have increased cycling many times over by rolling out dense, safe and connected networks for cycling and prioritising everyday trips. Many of these cities have taken a lighter, quicker and cheaper approach to roll out hundreds of kilometres of cycleways in recent years, primarily by reallocating road space and providing safer speeds on local streets.

As the national transport agency of Aotearoa, Waka Kotahi has a key role to play in enabling a step change in cycling levels across our towns and cities. From playing a more active role in network planning through to streamlining investment and funding processes, supporting faster delivery and helping to build public support, this plan sets out the steps Waka Kotahi will take to better support our partners to deliver transformational change on the ground. The actions in this document also signal our investment priorities on the types of cycling projects we will be supporting to make cycling safer and more attractive for many more people.

Waka Kotahi Board

Executive summary

No matter where we live, everyone should be able to move around easily and safely on a bike. Our vision is that in ten years, in our main towns and cities, people of all ages and abilities will be able to get to where they need to go using connected networks of safe and attractive cycleways and quiet streets. This will create a transport system that is safer and healthier, and that helps us to protect our climate.

Waka Kotahi is working with Te Manatū Waka to scope and develop a National Cycling Plan (NCP) which will fulfil the requirement of the Emissions Reduction Plan (ERP) to 'significantly increase the safety and attractiveness of cycling and micromobility'. Other key initiatives in the ERP include 'providing support for local government to develop network plans for cycling' and 'substantially improving infrastructure for cycling'.

In the interim, to support councils as they develop their Regional Land Transport Plans (RLTPs) and Long-term Plans (LTPs), we have developed this Waka Kotahi Cycling Action Plan (WKCAP). This plan outlines the steps Waka Kotahi will take to better support our partners to significantly increase the number of people choosing to ride bikes for everyday trips in New Zealand's towns and cities. Significantly growing the role of cycling in our transport system will deliver substantial and wide-ranging benefits across many different transport outcomes, for relatively little cost compared to other large-scale transport investments.

A key element of our vision is to support the completion of connected networks in all main urban centres within 10 years. To achieve this vision, we will support our partners by:

- helping to deliver quick build cycle networks and building momentum for change in all of our main urban centres
- supporting reallocation of existing street space to help complete urban cycling networks
- supporting investment in short trips to key destinations such as schools, town centres and public transport hubs in our investment policy.

We know we cannot successfully implement this plan alone. We will need to work with our partners, key stakeholders and the wider community to achieve success. Our local government partners have a particularly critical role to play in delivering most of the networks required to create safe, connected and attractive cycling networks.

The plan was developed with input from partners across the sector and includes extensive international and domestic research. The plan has been grouped into four strategic priorities, each with a position that Waka Kotahi is taking, how we will achieve the required step change and the specific actions we will take. Each strategic priority contains a large number of actions and shows our commitment to increasing the safety and attractiveness of cycling in New Zealand's towns and cities.

- 1. Planning connected networks** – plan connected cycle networks which support safe, everyday, local trips for everyone.
- 2. Streamlining our funding system** – optimise investment in cycling and make funding policies and processes faster and easier to navigate.
- 3. Accelerating change on the ground** – accelerate the roll out of safe, connected cycle networks and support innovative solutions that make cycling safer and more attractive.
- 4. Putting people at the heart of change** – build public support for street space reallocation and encourage more people to ride.



Summary of actions

Strategic priority 1

Planning connected networks

Our position

Waka Kotahi will proactively work with our partners to plan connected cycle networks which support safe everyday, local trips for everyone.

The actions we'll take

1. Update our planning and design guidance for cycle networks
2. More actively plan cycle networks with our partners
3. Build a stronger shared evidence base for cycling investments
4. Support the integration of cycle networks into planning and development

Strategic priority 2

Streamlining our funding system

Our position

Waka Kotahi will optimise outcomes from cycling investment and make our funding policies and processes faster and easier to navigate.

The actions we'll take

1. Develop a 10-year investment plan to support transport emissions reduction and mode shift
2. Make our funding policies and processes quicker and easier to navigate
3. Set timeframes to keep projects on track and on task
4. Maximise opportunities for road renewals to play a role in improving conditions for active travel

Strategic priority 3

Accelerating change on the ground

Our position

Waka Kotahi will take a leadership role to accelerate the roll out of safe, connected cycle networks, and support innovative solutions that make cycling safer and more attractive.

The actions we'll take

1. Deliver the Transport Choices programme to target quick wins for walking, cycling and public transport
2. Make it easier for councils to trial street layout changes
3. Deliver the Streets for People programme to trial adaptive urbanism
4. Coordinate knowledge sharing and help build sector capability
5. Support councils to implement safe speeds
6. Support innovative solutions that make cycling and micromobility safer and more attractive

Strategic priority 4

Putting people at the heart of change

Our position

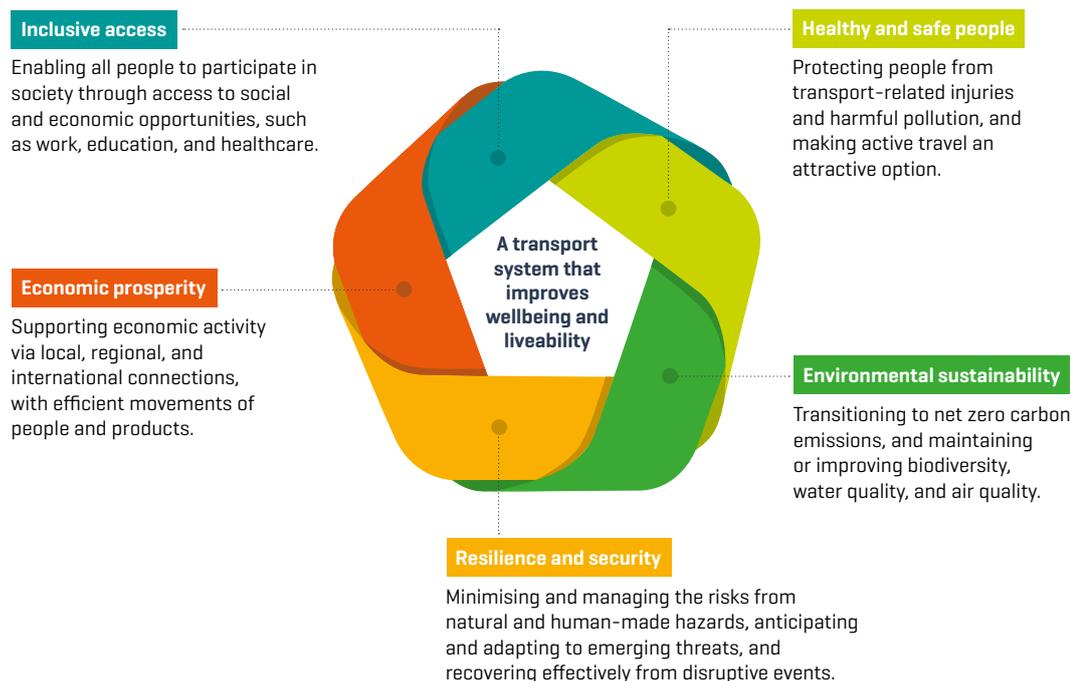
Waka Kotahi will help build public support for street space reallocation and encourage more people to ride, and grow a Māori-centred approach to cycling.

The actions we'll take

1. Lead a national Narrative for Change programme to bring people on the journey
2. Grow a Māori-centred approach to walking and cycling
3. Remove barriers to e-bike access across the community
4. Increase cycling's role in first- and last-mile solutions in towns and cities
5. Support a national bike ownership registration scheme to reduce theft

Strategic context

Our approach in this Waka Kotahi Cycling Action Plan (WKCAP) is guided by the government's strategic direction for the transport system to improve people's wellbeing and the liveability of places, as established by Te Manatū Waka Transport Outcomes Framework (Figure 1). Delivering a step change in the number of people cycling as part of their daily lives contributes to all five key outcomes of inclusive access, healthy and safe people, economic prosperity, environmental sustainability, and resilience and security, which are summarised in the diagram below.



The government's Emissions Reduction Plan (ERP) is a key driver of the actions in the WKCAP. The ERP sets out the actions needed across every sector of the economy to achieve New Zealand's climate targets. Transport has a significant role to play, with a target of reducing 41% of emissions from the transport sector by 2035 (from 2019 levels). As part of achieving this 41% reduction in emissions we have a target of reducing Vehicle Kilometres Travelled (VKT) for light vehicles by 20% by 2035 (compared to projected growth levels).¹ Increasing the attractiveness of active and micromobility modes is one of the most effective ways of achieving this target while achieving multiple co-benefits.

¹ The VKT target reflects a change compared to the Ministry of Transport's baseline projection for 2035. A 20% reduction target is relative to projected growth between 2019-2035. This represents about a 1% reduction in VKT compared to 2019 levels.

In the ERP, the government has committed to delivering a step change in cycling rates in Aotearoa New Zealand. This includes:

- substantially improving infrastructure for cycling
- supporting initiatives to increase the uptake of e-bikes
- delivering a national plan to significantly increase the safety and attractiveness of cycling and micromobility
- providing support for local government to develop network plans for cycling
- implementing the Accessible Streets regulatory package
- incentivising local government to quickly deliver bike/scooter networks by reallocating street space (including during street renewals)
- improving cycling infrastructure to and along school routes and ensuring safer speed limits around schools.

Waka Kotahi is working with Te Manatū Waka to scope and develop a National Cycling Plan (NCP) which will fulfil the requirement of the ERP to 'significantly increase the safety and attractiveness of cycling and micromobility'. This plan will be published by the end of 2023.¹¹ In the interim, to support councils as they develop their Regional Land Transport Plans (RLTPs) and Long-term Plans (LTPs), we have developed this Cycling Action Plan. It contains a large number of actions and shows our commitment to increasing the safety and attractiveness of cycling in New Zealand's towns and cities.

The ERP includes an action for Waka Kotahi to deliver a national VKT reduction plan by the end of June 2023. It also calls for Waka Kotahi to work in partnership with councils, iwi/Māori and communities to develop urban VKT reduction programmes in Tier 1 and Tier 2 cities. Cycling will need to play a key role in VKT reduction in our towns and cities. This plan will support the development of a national VKT reduction plan and urban VKT reduction programmes.

This interim Cycling Action Plan is also guided by the government's Road to Zero strategy, which sets a vision for a New Zealand where no one is killed or seriously injured in road crashes. Safety concerns are one of the biggest deterrents to more cycling in Aotearoa New Zealand. People who walk and cycle in New Zealand are also over-represented in deaths and serious injury statistics compared to people travelling by car.

There are strong linkages between transport emissions reduction and Vision Zero. Meeting the targets in the government's Road to Zero Strategy will deliver significant improvements that enable more people to ride. Ensuring that speeds are sufficiently reduced around key destinations such as schools and shops will encourage people of all ages and abilities to walk, bike, roll or scoot for everyday trips. This creates a virtuous cycle of fewer deaths and serious injuries and more people walking and cycling.

¹¹ A separate National Walking Plan (NWP) is under development to support a step change in walking across Aotearoa and will also be published by the end of 2023.

In addition, this plan takes direction from the Government Policy Statement in Land Transport (GPS), which sets the government's priorities for land transport investment over the next 10-year period and how funding from the National Land Transport Fund (NLTF) will be allocated across different types of activities. Strategic priorities under GPS 2021 include 'better travel options (e.g., to support increased uptake of cycling) and 'climate change' (to support a reduction in carbon emissions). The government will publish a new GPS for 2024-2033 by the end of June 2023.

The strategic priorities in this plan are intended to be durable between years, however this plan may need to be updated following publication of the GPS 2024, to ensure these documents are well-aligned. The updated plan will also reflect any other actions or initiatives that the government agrees to in 2023. The strategic priorities will inform upcoming investment programmes to help us achieve New Zealand's emissions and VKT reduction targets, while moving towards a healthier, safer and more accessible transport system for everyone.



Te Tiriti context

Te Tiriti o Waitangi sets the foundation for a partnership approach between the Crown and Māori. Te Ara Kotahi, our Māori Strategy, provides the strategic direction on how we work with and respond to Māori as the Crown's Treaty partner.

This plan signifies the continuation of a journey to build strong, meaningful and enduring partnerships with Māori. Through this plan, Waka Kotahi commits to:

- making better use of active modes investment to deliver improved environmental, social and economic outcomes for Māori, with Māori
- fostering Māori capability and capacity to contribute to active modes planning, design and decision-making investments to support a pipeline of Māori talent into the transport sector
- resourcing and amplifying Māori and iwi-led solutions to increase the rates of active transport within Māori communities and across Aotearoa
- building te ao Māori values into active travel promotion and infrastructure design and guidance.

Our journey to grow a Māori-centred approach to cycling is a work in progress. Actions that give effect to our Te Tiriti context are embedded across the four strategic priorities of this plan. In particular, we will establish a national network of kaitiaki (made up of regional representatives) and kaupapa Māori subject matter experts, to help us build our understanding of Māori aspirations for active forms of transport, learn how we can remove barriers for Māori to walk and cycle, and explore opportunities to build and share knowledge.

Underpinning our approach is the understanding that improving walking and cycling outcomes for Māori will also improve outcomes for the rest of Aotearoa. Studies on Māori transport experiences and priorities show that improving opportunities for tamariki, in particular, to use active transport is valued within many communities.¹ This research also shows that while Māori cycle at similar rates to Pākehā, Māori may also experience a greater likelihood of having to cycle out of necessity and experience higher exposure to road harm. Additionally, while Māori experience a number of similar barriers to cycling as other groups, such as a lack of suitable cycling infrastructure, Māori may also face other barriers, such as inflexible employment conditions, concerns about neighbourhood security, and the lack of support for social cycling and poor access to places that are important.²

Delivering a step change in cycling through the lens of te ao Māori gives us a framework for action that is fair, holistic and enduring. In implementing this plan, we will support Māori-led solutions, acknowledging that Māori have complex travel patterns and tend to live and work in many locations, from urban to rural. This means there cannot be a one-size-fits-all approach. Māori and iwi-led projects help to broaden the range of solutions that provide a step change in cycling. These solutions should be resourced and amplified - they showcase Te Tiriti in action and create an equitable transport system that increases access, choice and affordability for all.

The case for change

The cost of high levels of car use

New Zealand has very high rates of car use, by international standards. Our towns and cities also have low cycling levels relative to other comparable places, even though one third of all trips are less than 2km. Appendix 1 provides a further breakdown of cycling in Aotearoa. Car use has a number of benefits to communities, enabling many people to access important and valued social and economic opportunities. However, high levels of car use, and comparatively low levels of active transport use in New Zealand also imposes a number of social and environmental costs on communities. Car-related harms such as deaths and serious injuries, premature deaths from transport-related air pollution, physical inactivity, social isolation, congestion, and poor place outcomes are estimated to cost New Zealand \$10 billion per annum.³

High rates of car use are contributing heavily to our carbon footprint. Transport is one of New Zealand's largest sources of greenhouse gas emissions and is responsible for 17% of the country's gross emissions. Since 1990, transport emissions have grown by over 60%, largely as the result of increased levels of car use. Globally, New Zealand has the fifth highest transport emissions per capita in the world.

The current transport system is also inequitable. Māori, Pasifika, disabled people^{III}, low-income households, women, older people, children and rural communities are often underserved by the transport system, while being overburdened by transport externalities such as road harm and air pollution. Car use can be an expensive option for individuals and families. The current lack of low-cost transport options leaves low-income New Zealanders more vulnerable to transport-related financial hardship. Transport poverty occurs when households need to spend more than 10% of their income on transport.⁴ In New Zealand, the lowest income households currently spend 28% of their income on transport.⁵ Overseas research shows that safe cycling networks can help to reduce these car-related externalities: improving road safety and air quality; enhancing social cohesion and neighbourhood quality of life; and helping low-income families to manage and reduce transport poverty.⁶

Even though many people in Aotearoa say that they would like to cycle more often, we know most people don't feel safe riding a bicycle for their daily trips in Aotearoa and that the lack of connected networks to enable people to access multiple destinations safely is a major barrier that prevents more people from riding. For instance, while about 1% of Aucklanders currently bike to work or school, 60% of Aucklanders say that they would like to bike in their neighbourhoods, if it was safer.⁷ The cycling routes we do have in New Zealand are often disjointed and discontinuous, leaving most of the wider system inaccessible by bike to most people. Less than 20% of New Zealand's urban cycle networks are complete, and the majority of urban streets experience faster traffic speeds and volumes than people are comfortable riding with.

III There are many words and terms that are used to identify disability. The current consensus, based on advice from the New Zealand Disability Strategy, is 'disabled people', where 'disabled' refers to the attitudinal and physical barriers outside the person that impact them and put barriers in the way of their participation.

Change is necessary and possible

To achieve a 20% reduction in light vehicle VKT by 2035 as required by the ERP, cycling needs to play a much bigger role in the transport choices of people of all ages and ability. Around two thirds of the trips we make in New Zealand are less than 5km, which represents approximately 20 minutes by bike and 10 minutes by e-bike. Replacing short to medium distance car trips with cycling and micromobility is one of the most effective ways to cut transport emissions quickly, while achieving a range of co-benefits (Figure 2). It is also a relatively inexpensive way of achieving many transport outcomes. A New Zealand study has estimated money spent on high-quality cycling infrastructure yields benefits between ten and 25 times the costs.⁸

There is immense potential to transform the way we move towards transport modes that are healthier for people, places and the planet. Other cities have shown that significant increase in cycling mode share is possible if sufficient investment is made in developing safe and connected networks, supported by a range of complementary initiatives such as traffic calming measures, safer speed environments and programmes which support people to shift to active modes of transport. The past decade has also seen advances in the delivery of cycling networks across Aotearoa. We have a growing local evidence base that shows that more people will choose to cycle if safe and connected cycling networks are provided (Appendix 2).

Travel to schools represents a good opportunity to change travel behaviour during the morning and afternoon peak, for families across Aotearoa. Currently, over half of all trips to school are made by car, a proportion which has increased significantly over time. However, children overwhelmingly say they want the freedom to walk, cycle and scoot to school and around their neighbourhoods.⁹ There are over 2,000 schools in this country, and they are at the heart of many neighbourhoods and communities. Improving safe walking and cycling access to schools can help to make other types of daily trips easier to be done by bike.

Refocusing our planning on everyday travel (instead of primarily for commuting and recreational purposes) is a more equitable approach that considers everyone's needs, improves transport choices, and taps into the potential for sustainable mode shift in our towns and cities. To ensure a just transition, the transport system needs to be more inclusive and affordable. Safer opportunities for everyday cycling (including the use of mobility options such as adaptive bikes and wheelchairs) can help to make the transport system fairer and more accessible.

Making the case for change

Climate and clean air



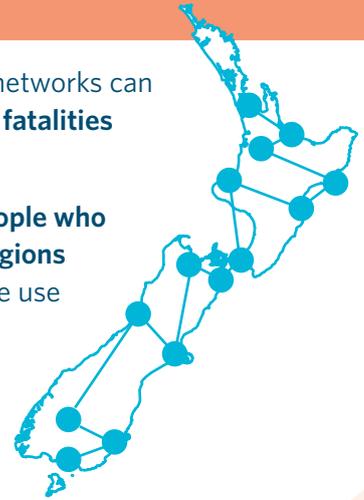
A person cycling one trip more and driving one trip less each day for 200 days, would **decrease their CO2 emissions by about half a tonne** each year. That's about as heavy as a grand piano.¹⁰

Shifting just 5% of vehicle kilometres to cycling would save **six lives per year** from exposure to air pollutants.¹¹

Safety

Having more cycle networks can significantly **reduce fatalities** for all road users.¹⁹

In New Zealand, **people who cycle are safer in regions** that have more cycle use and less car use.²⁰



Health and wellbeing

Shifting just 5% of vehicle kilometres to cycling would save **116 lives per year** from increase physical activity.¹²

Cycling to work has been found to reduce the risk of cancer by around 25%.¹³

Research has found that cyclist are the **happiest commuters**.¹⁴



Tamariki and rangatahi



Four times as many **intermediate students would like to bike to school** than the number who actually do.²¹

Cycling has proven to be important for the **development of a child's self esteem**, independence, freedom and navigation skills.²²

Riding bikes is also a productive way rangatahi can carry out **climate action**.



Economy and local business

The emissions reduction and health benefits achieved by investing in cycling and walking means every dollar invested leads to **over \$10 in benefits**.¹⁵

A New Zealand survey showed 7 in 10 people cycling were stopping before their destination, visiting shops or cafes. A study in Christchurch showed people cycling **spent 15% more** in one retail area than those in cars due to the frequency of trips.¹⁶

Equity

Investing in lowering transport emissions **improves equity** by providing people with more affordable and accessible ways of getting around.²³

Bikes are over **13 times cheaper** to own and operate than a motor vehicle, making them a more accessible transport option.²⁴



Figure 2: The benefits of higher rates of cycling

Why cycling, accessibility and micromobility go together

Throughout this document, we use 'cycling' and 'micromobility' to embrace the wide range of small personal mobility devices seen in our towns and cities, which include bicycles, scooters, skateboards, wheelchairs, mobility scooters, and electric versions of all of these, as well as shared bicycle and scooter schemes.

We also recognise that for many people, a bicycle can represent a mobility aid, as it can reduce strain on the joints, help with balance, and lessen breathing troubles. Disabled people do cycle, and many more would with the right conditions in place, such as safe networks and greater access to e-bikes, mobility trikes and three-wheeled cargo bikes. Providing dedicated space for cycles and micromobility devices, including through road space reallocation, can also reduce riding on footpaths and declutter the footpath for people that may have other access needs.

The growth of e-bikes is already transforming how we move, by enabling a wider range of people to bike further, and more often. For example, e-bikes enable easier transport of children and goods and make it much easier and more enjoyable to ride up hills and in windy conditions. E-bikes can also support greater levels of cycling among older adults, particularly among groups at risk for physical inactivity. The rise in e-bikes and other electric mobility devices increases the number of potential users of cycleways.

Both cycling and micromobility are ideal for first and last-mile journeys, complementing public transport to cover longer distances, and replacing many short and medium car journeys.

Investment in cycling networks also benefits micromobility and accessibility at large, by providing safer street environments for walking and wheeling, and transitioning streets over time to accommodate the growth of active transport and the variety of personal mobility options.



To respond to the challenge of car dependency and rising transport emissions, we need to rapidly deliver comprehensive cycle networks in our towns and cities within this decade, creating more equitable, liveable and resilient communities as we go.

The transformation required

Te whakakitenga/vision

In ten years, in our main towns and cities, people of all ages and abilities will be able to get to where they need to go using connected networks of safe and attractive cycleways and quiet streets. This will create a transport system that is safer and healthier, and that helps us to protect our climate.

To achieve this vision, the Waka Kotahi position is to complete connected networks in all main urban centres within 10 years. We will support our partners by:

- helping to deliver quick build cycle networks and building momentum for change in all of our main urban centres
- supporting reallocation of existing street space to help complete urban cycle networks
- supporting investment in short trips to key destinations such as schools, town centres and public transport hubs in our investment policy.

This plan sets out the steps Waka Kotahi will take - working with our partners - over the next decade to support a dramatic increase in the role cycling plays in New Zealand's transport system. Four strategic priorities, each supported by a position statement and more detailed actions, set out how we will achieve this transformation (Figure 3):

- 1. Planning connected networks** - plan connected cycle networks which support safe, everyday, local trips for everyone.
- 2. Streamlining our funding system** - optimise outcomes from investment in cycling and make funding policies and processes faster and easier to navigate.
- 3. Accelerating change on the ground** - accelerate widespread street changes and the rapid roll out of safe, connected cycle networks, and support innovative solutions that make cycling safer and more attractive.
- 4. Putting people at the heart of change** - build public support for street space reallocation, grow a Māori centred approach to walking and cycling, and encourage more people to ride.

Success will only be possible through close collaboration with our partners, key stakeholders and the wider community. Our local government partners have a particularly critical role to play in delivering most of the networks required to create safe, connected and attractive cycling networks. Nearly 90% of the planned investment in urban cycleways is on the local road network. The plan has been informed by discussions with local councils on the barriers and opportunities in delivering safe and connected cycling in Aotearoa's towns and cities.

Shifting gear for cycling in Aotearoa

We need cycling to play a much bigger role in mobility for people of all ages and abilities, to meet our emissions reduction targets, improve health and to create better cities for people.

To do this, we need to focus on four key priorities:

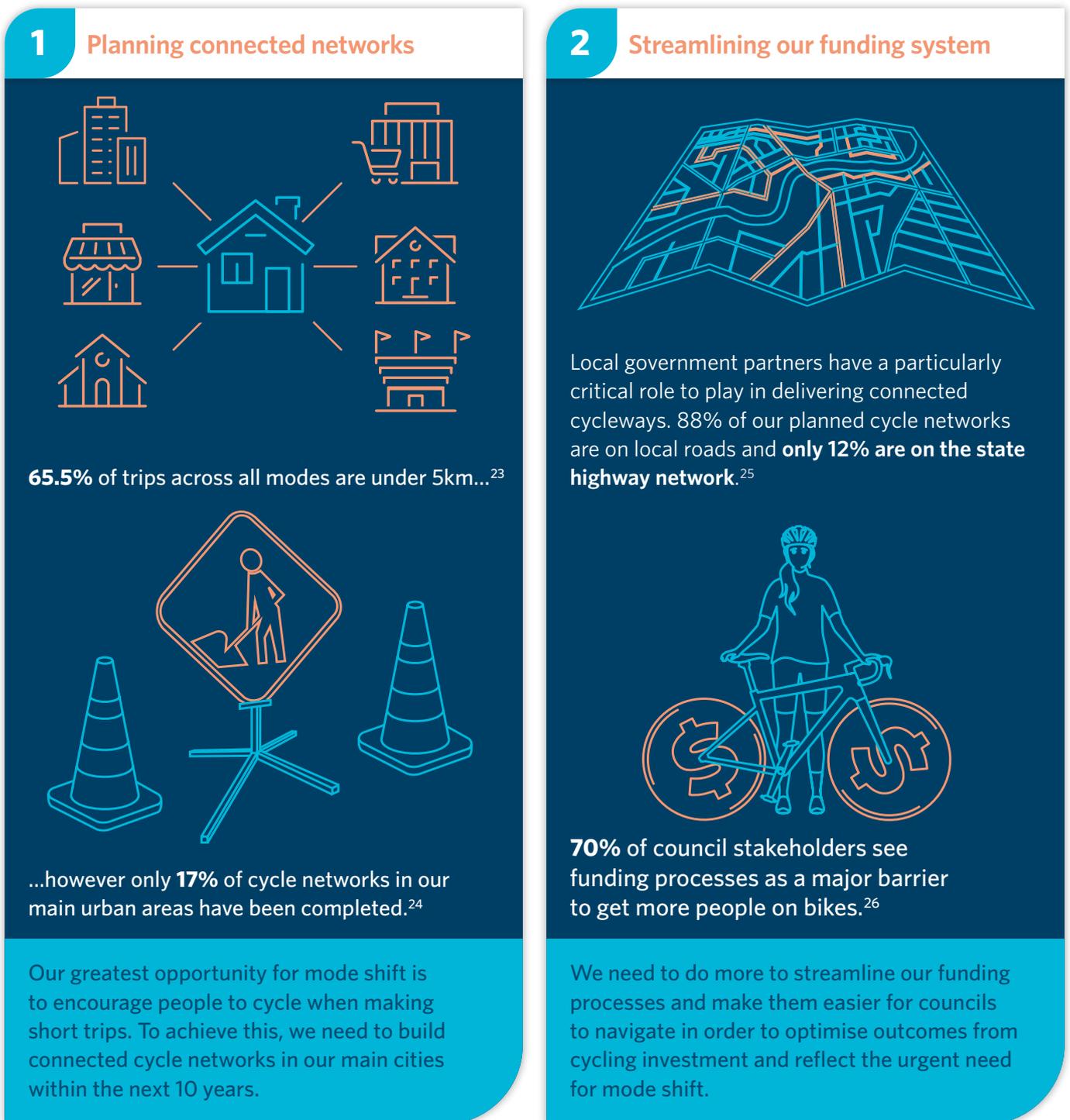


Figure 3: The four strategic priorities of the *Waka Kotahi Cycling Action Plan*

3 Delivering change on the ground

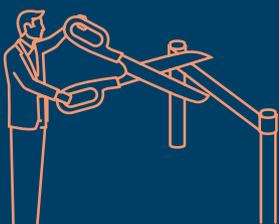


In Hamilton, the space available for vehicles is **twice the size** of the total space available for people walking and cycling.²⁷



Quick-build cycleways can be constructed up to **90%** faster than permanent built networks.²⁸

Bike trips on the Northwestern cycleway in Auckland have **quadrupled** since 2012, as more of the connecting network has been built.²⁹



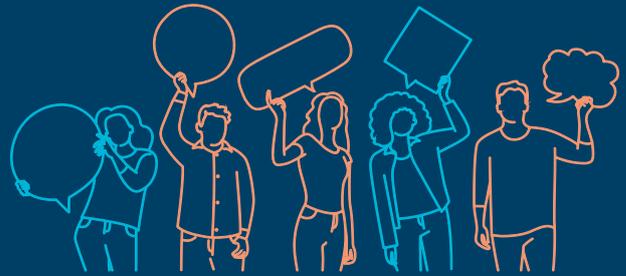
56% of people surveyed say that the opening of new cycleways or paths has encouraged them to cycle more.³⁰

To break the chain of car reliance and improve outcomes for the transport disadvantaged, we need to improve access by bike in an equitable way.³¹



Waka Kotahi is committed to leading a national transformation by spearheading programmes of change and rapidly delivering networks across the country, in partnership with councils.

4 Putting people at the heart of change



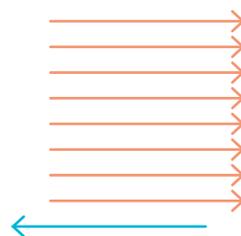
65% of Aucklanders support investment in cycling networks in their community, and 59% of people nationally support investment in cycle infrastructure.³²



65% of council stakeholders see **local opposition to reallocating street space** as a major barrier to achieving change.¹¹

Large scale personalised travel planning programmes to support people to travel by walking, cycling and public transport have been found to deliver a **benefit to cost ratio of around 7:1**.³⁴

We can't solely rely on infrastructure to get people on bikes. Transformations on our streets needs to be supported by schemes that understand the needs of communities and address their skill and cost barriers.



96% of council stakeholders believe a significant change in cycling is possible, but only with a **bold shift in policy and approach**.³⁵

Strategic priority 1

Planning connected networks

Position statement

Waka Kotahi will proactively work with our partners to plan connected cycle networks which support safe everyday, local trips for everyone.

The challenge

Investment into cycling infrastructure has significantly increased over the last decade, supporting the expansion of safe and attractive cycling routes. However, despite the increase in investment and a growing focus on the need to support a greater role for cycling in the transport system, there has been very modest overall progress in increasing the use of cycling for everyday activities. For some groups, cycling rates have declined considerably, such as the number of children who cycle to school. In 1989/90, 19% of teenagers aged 13 to 17 cycled to school, along with 12% of children aged 5 to 12. Today, that number is 3% for 13- to 17-year-olds and 2% for 5- to 12-year-olds.

In the past, cycling routes have been designed to meet the needs of those travelling to work, rather than neighbourhood trips to shops, schools and services. This has led to the delivery of a few high-quality corridors, predominantly targeting longer distance commuting or recreational trips. While this approach has increased cycling use in these locations, the overall scale of growth in cycling has been very small.

Actual and perceived safety remains a key barrier to cycling. Auckland-specific data shows that cyclists are twice as likely to be killed or seriously injured while on the road, compared to those in a car. Data shows that the majority of cycling crashes occur at intersections. Cycling is also perceived as unsafe by many. 44% of urban New Zealanders view cycling as unsafe in their region, compared to 14% for walking. Those who are female and/or older are more likely to consider walking and cycling as unsafe. Perceived safety influences mode choice, for example, parents who perceive routes to be unsafe are less likely to allow their children to walk or cycle.

To date, Waka Kotahi has largely played a supporting role in the planning of cycling networks, focusing on supporting local government to prepare business cases and leading the delivery of a few key initiatives – often (but not always) adjacent to the State highway network. We have also provided guidance on design standards.

Our approach

Waka Kotahi is currently developing the Future Network Planning Process to provide an integrated system view of what we want from our future transport networks, including cycling networks. Different approaches to planning cycling networks will be needed across different places.

- In major urban areas, higher traffic volumes, longer average trip lengths and more developed public transport networks mean the planning of safe, connected cycling networks needs to address challenging and competing demands for street space, as well as integrate well with public transport. Making progress in larger cities is critical because they are where emissions reduction and mode shift deliver the largest benefits.
- In smaller towns and cities, shorter trip lengths and lower traffic volumes create an opportunity to support cycling to play a larger role in meeting people's everyday travel needs through well planned and designed safe cycling networks.
- In rural and provincial areas, while cycling may play a smaller role, it is still important for cycling to be a safe travel option, particularly for travel to school and as part of improving equitable access to transport.

Achieving a step change increase in cycling use, especially for everyday trips in a way that's tailored to local conditions, will require a change in approach to how cycling networks are planned. Waka Kotahi will take a much more active role in planning processes to facilitate this change in partnership with local government, which has an important role to play in delivery the majority of the urban cycle networks.

In order for cycling to rapidly become an integrated part of the transport network in our cities and towns, we will shift our focus away from project-specific cycle planning that delivers only incremental improvements towards a much more network-focused approach. We'll broaden our planning and design guidelines to include integrated routes and area treatments that connect communities, enabling cycling and micromobility to become a natural choice for quick local trips. We'll also ensure that cycle networks are designed for high usage by people of all ages and abilities, and for the growing range of micromobility options.

Creating the 'network effect'

Even with only approximately 17% of planned urban cycle networks completed in New Zealand's main cities, we're seeing evidence of the 'network effect'.

Every new and improved connection boosts overall ridership. For example:

- On Auckland's Northwestern cycleway, cycle trips have quadrupled since 2012, as improvements and wider connections have been added.
- In Christchurch, our most connected city for cycling, overall ridership has grown by 80% since 2016, and the proportion of women is up from 32% to 41%.

Completing the planned networks and improving neighbourhood environments for cycling will amplify this effect and enable many more people to ride.

Figure 4 below shows the the high-level principles that will ensure our towns and cities deliver networks that are coherent, connected, safe, direct, comfortable and attractive. Additional detail on these principles will be included in the planned update of the Cycle Network Guidance.

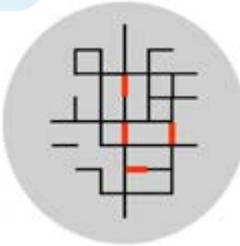
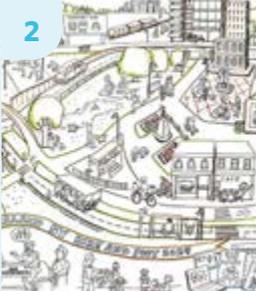
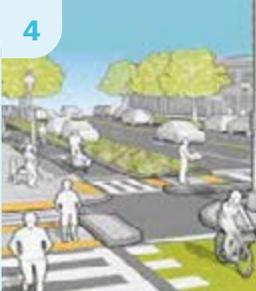
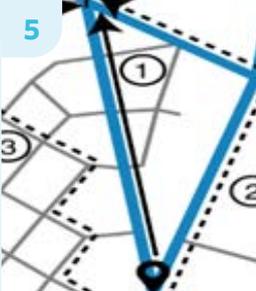
<p>1</p> 	<p>Prioritise building links between existing routes, and fill gaps in the network.</p>	<p>6</p> 	<p>Wherever cycle routes intersect with traffic, prioritise ease and safety for cycling over driving.</p>
<p>2</p> 	<p>Make improvements across local areas to enhance connectivity.</p>	<p>7</p> 	<p>Design fuss-free cycle routes with quality wayfinding and no physical barriers that result in cyclists having to dismount.</p>
<p>3</p> 	<p>Separate people who are cycling from fast and heavy traffic, both at intersections and in between.</p>	<p>8</p> 	<p>Supply ample and convenient cycle parking along routes and at destinations.</p>
<p>4</p> 	<p>Separate people who are cycling from pedestrians, both at intersections and in between when there are higher expected volumes of either pedestrians or cyclists.</p>	<p>9</p> 	<p>Design paths for high use by all kinds of cycles, and wide enough for whānau to ride side-by-side.</p>
<p>5</p> 	<p>In urban contexts, cycling should be just as direct as driving - ideally, even more so. The whole road network in urban settings should be seen as the potential full cycle network.</p>	<p>10</p> 	<p>Plan for paths to be well maintained, to ensure that the quality and safety of the path is retained.</p>

Figure 4: High-level principles for cycling networks that are coherent, connected, safe, direct, comfortable and attractive

Detailed actions

Key actions Waka Kotahi will take to help plan connected cycle networks are to:

1. Update our planning and design guidance for cycle networks
2. More actively plan cycle networks with our partners
3. Build a stronger shared evidence base for cycling investments
4. Better integrate cycle networks into urban development

1.1 Update planning and design guidance for cycle networks

We currently provide guidance for planning cycle networks at several levels of detail, from the strategic One Network Framework (ONF) that classifies the entire transport network right through to detailed design guidance and materials standards. Much of this guidance is already in the process of being updated, and we will continue to make changes over time to best support a step change increase in cycling. We will also ensure guidance for cycle networks is included in the Future Network Planning Process.

Specific actions in this area are:

- 1.1.1 Continue to review and update our cycle planning and design guidance to incorporate international and local best practice. This will focus on ensuring we are providing up-to-date advice about how to:
 - build networks that attract a much larger proportion of short everyday trips that people take
 - ensure cycle networks work well for all kinds of people and reach transport-disadvantaged communities
 - value and promote te reo Māori and te ao Māori in planning and designing cycle networks through measures such as bilingual signage, highlighting taonga tuku iho (places of value), and providing whānau friendly infrastructure that promotes whanaungatanga (social connection)
 - make room for micromobility alongside cycling
 - support climate adaptation and more resilient design, such as the use of permeable surfaces and rain gardens
- 1.1.2 Support councils with implementing our updated guidance on using low-cost interim materials, so they can make budgets go further while quickly creating safe and attractive spaces for cycling.

1.2 More actively plan cycle networks with our partners

Looking ahead, we will play a much more active role in working with local government, iwi Māori, key stakeholders and the community to identify future cycle networks and work out how they should be delivered. This will seek to reduce the time and cost of planning and business case processes, so that network implementation can occur much more efficiently while still delivering clear value for money.

Specific actions in this area are:

- 1.2.1 Work with Māori to better understand how we can deliver better outcomes for Māori through our planning and investment (see Action 4.2).
- 1.2.2 Use the One Network Framework (ONF) to efficiently and systematically identify current and future cycle networks across all of Aotearoa, and to inform where investment is required to expand and upgrade networks.
- 1.2.3 Work with our partners to integrate cycling and micromobility programmes into other transport and land use plans. This will highlight opportunities to speed up delivery of cycle networks, for example by leveraging local Activity Management Plans, street maintenance and road renewals.
- 1.2.4 Work with local government to 'package up' individual projects into programmes of work that can be implemented more efficiently and enable a 'network effect'.

1.3 Build a strong shared evidence base

We will work with local government and the wider sector to develop tools and undertake research that can help support evidence-based decision-making in the planning and delivery of cycle networks. Coordinating these tools at the national level will save time and resources around the country.

Specific actions in this area are:

- 1.3.1 Gather better quality and more consistent data, including new counters that can differentiate between walking, cycling and scooter use, and accessing data from bikeshare and e-scooter programmes.
- 1.3.2 Develop improved tools for demand modelling and equity assessment, including a pilot for measuring people's propensity to cycle.
- 1.3.3 Work with Māori to help improve our understanding of Māori travel patterns, in a way that respects Māori data sovereignty.

1.4 Better integrate cycle networks into planning and development

Good access to social and economic opportunities by active modes like cycling is an essential element of well-functioning and liveable urban environments. As cities grow and develop, greater density of housing, businesses and services will bring us closer together, enabling shorter trips more suitable to active modes like cycling and smaller carbon footprints for people. We are already taking a more proactive role in how we can enable, support and shape urban development in ways that reduce dependency on private vehicles, and this will continue into the future.

Specific actions in this area are:

- 1.4.1 Develop a guide on integrating urban form with major public transport infrastructure (and walking and cycling) to assist with the implementation of the National Policy Statement on Urban Development.
- 1.4.2 Partner with local government, Kāinga Ora, Māori, other government agencies, and the private sector to integrate cycling with new housing, papakāinga and business development.
- 1.4.3 Work with our partners to provide secure cycle storage, charging docks for e-bikes, pilot bike-share schemes, and safe connections for cycling and micromobility to and through new developments.

Strategic priority 2

Streamlining our funding system

Position statement

Waka Kotahi will optimise outcomes from cycling investment and make our funding policies and processes more streamlined and easier to navigate for councils and delivery agencies.

The challenge

Waka Kotahi has a role in ensuring that investment in land transport is aligned with government priorities. However, the funding process can be complex and hard to navigate. This can lead to substandard outcomes and delivery delays even for relatively straightforward projects. This issue is further exacerbated by ongoing funding constraints for walking and cycling projects.

While the government's targeted NLTF spend for cycling has increased substantially from just \$10m in 2012 to \$618m over the 2021-24 period, the walking and cycling activity class (which allocates NLTF funding for these activities) is frequently oversubscribed. More funding for active modes is required to keep pace with growth and supercharge the transformation of the cycling network from its current state, particularly in the short to medium-term.

The Covid-19 pandemic has added to existing funding constraints and placed enormous pressure on the budgets of local and central government to deliver cycling programmes at pace. This issue is unlikely to be resolved in the near-term.

The approach

Local government is delivering nearly 90% of all planned urban cycle networks across Aotearoa. These networks are particularly important for providing safe access for everyday local trips. The role of Waka Kotahi is to ensure that our investment decision-making processes support our partners to effectively deliver this work at pace. This requires that we provide clear guidance on the government's investment priorities, improve our current funding processes, and make smarter use of existing funding by ensuring it delivers on multiple outcomes.

As noted above, funding for cycling improvements has increased substantially over the last decade. Central government has provided funding through a variety of sources, including through the NLTF, direct Crown funding, and through the Climate Emergency Response Fund (CERF). The government has committed to substantially improve cycling infrastructure, which will support completion of urban cycle networks.

This interim Cycling Action Plan will be updated in late 2023 to reflect additional funding commitments, including priorities for investment set through GPS 2024. While the GPS sets high-level priorities for government investments, this plan will guide investment decisions to deliver on these priorities.

The final version of this plan will also be aligned with the National VKT Reduction Plan, which will be published in mid-2023. We intend to support Tier 1 councils to implement their planned networks, focussing on rapidly improving connectivity of the network, thereby ensuring that cycling plays a significant role in meeting the sub-national VKT reduction targets. We will support Tier 2 and 3 councils to complete their network plans so that we have a shared view of where investment is needed and continue to support them to deliver connected networks at pace.

Detailed actions

Key actions Waka Kotahi will take to streamline our funding system are to:

1. Develop a 10-year investment plan to enable transport emissions reduction and mode shift
2. Make our funding policies and processes quicker and easier to navigate
3. Set timeframes to keep projects on track and on task
4. Ensure road renewals play a role in improving conditions for active travel

2.1 Develop a 10-year investment plan to enable transport emissions reduction and mode shift

We will work with our partners to develop a 10-year investment plan that enables mode shift in Aotearoa's towns and cities and achieves the government's transport emissions and VKT reduction targets. This plan will establish clear investment priorities for cycling, set out potential funding sources in addition to council rates and the NLTF, and present the case for the additional investment for cycling that is required.

Specific actions in this area are:

- 2.1.1 Work with local government on the National VKT Reduction Plan and Urban VKT Reduction Programmes for Tier 1 and Tier 2 cities.
- 2.1.2 Partner with Māori to embed a te ao Māori worldview in long-term cycling investment.

2.2 Make our funding policies and processes quicker and easier to navigate

We will streamline our funding policies and processes so they're easier to navigate for councils and delivery agencies to deliver government's priorities for cycling investment. In doing this work, we'll aim to strike the balance between allocating funds effectively and moving at a pace that reflects the urgency required to meet our emissions reduction targets.

Specific actions in this area are:

- 2.2.1 Improve business case processes to support cycling delivery at pace, such as:
 - introducing a range of ‘standard cycling interventions’ – simple and proven cycling interventions with clearly understood costs and benefits – where funding can be fast-tracked
 - establishing clear guidance on what councils will need to include in their cycling investment programmes to enable more rapid approvals
 - supporting councils to progress approved Low Cost / Low Risk programmes to ensure full utilisation of these funds.
- 2.2.2 Ensure the review of the Investment Prioritisation Method for the 2024 – 27 National Land Transport Programme (NLTP) reflects the government’s investment direction for cycling.
- 2.2.3 Leverage the national procurement of resources, materials and technical expertise to address supply chain constraints.
- 2.2.4 Provide guidance around funding for Māori cultural design elements, improved streetscape, urban realm and nature-based solutions through all activity classes.

2.3. Set timeframes to keep projects on track and on task

We will set appropriate timeframes to encourage timely delivery and make sure any unused funding can be redistributed to other projects that are ready to go. As we streamline business case approvals to enable faster delivery of standard cycling interventions, we will also put in place mechanisms for more complex projects to ensure they stay aligned with intended outcomes.

Specific actions in this area are:

- 2.3.1 Set required timeframes with the Low Cost / Low Risk and Transport Choices programmes by which funding should be used.
- 2.3.2 Investigate how business case process can better manage complex projects.

2.4. Enable road renewals to play a greater role in improving conditions for active travel

We will incentivise local government to quickly deliver bike/scooter networks, dedicated bus lanes and walking improvements during street renewals, to accelerate the step change required.

Specific actions in this area are:

- 2.4.1 Work with councils to understand barriers that prevent street renewals from delivering improvements for walking, cycling and public transport.
- 2.4.2 Update policy and funding settings to ensure delivery agencies maximise opportunities during street renewals to make streets safer and better places for people travelling by foot, bike and other wheeled mobility and public transport, and improve the urban environment.

Strategic priority 3

Accelerating change on the ground

Position statement

Waka Kotahi will take a leadership role to accelerate the rollout of safe and connected cycle networks and support innovative solutions that make cycling safer and more attractive.

The challenge

Much of our investment in the past decade has been on single corridor projects or off-road paths that are increasingly costly and time-consuming to deliver. In the 2021 - 24 NLTP period for example, the bulk of investment was committed to just over a dozen medium and large projects. At the current rate of delivery, it will be over 150 years before networks are sufficiently connected for people to get where they need to go.

The slow pace of delivery means we are a long way from having comprehensive and connected cycle networks in our urban centres. In our major urban areas, only a fraction of the planned cycle networks currently exists at the standards we need them to be. With some delivery taking place years after the initial consultation period, sometimes long after the residents that were originally consulted with have left, there is also increasing community frustration with the engagement process.

While government investment in cycling has increased by 700% in the past decade, the costs of planning and delivering infrastructure in Aotearoa have also escalated rapidly. With continued labour shortages and rising global inflation, these costs are unlikely to fall for some time, and a new approach to make better use of existing street space is required. However, existing policies and regulations can make it difficult for councils to take a street space reallocation approach to delivering sustainable transport networks. There are also inconsistent standards when it comes to micromobility modes such as e-bikes, e-scooters and other small, lightweight devices personally driven by users.

Our approach

We will follow best practice from around the world, where other countries have successfully delivered many kilometres of cycling infrastructure at far cheaper rates than we now achieve. They are doing this by making better use of their existing infrastructure and reallocating space on their streets to enable safe cycling.

The bulk of the urban cycleways network in New Zealand will largely happen on local roads. 65% of council stakeholders mention local opposition to reallocating street space as a major barrier to achieving a step change in cycling and are looking for help from Waka Kotahi to strengthen public support. This plan is an opportunity for Waka Kotahi to demonstrate national leadership.

We're spearheading our nationwide acceleration by jumpstarting delivery with quick build programmes and removing barriers to empower councils to reshape streets to prioritise walking and cycling where appropriate. As established in the Waka Kotahi Intervention Hierarchy, which seeks to promote low cost investment ahead of more costly physical infrastructure, we will prioritise projects that use street space reallocation to quickly build out cycle networks across our towns and cities. We will pilot walkable neighbourhoods: low traffic residential areas where walking, cycling and scooting can become the most convenient and direct choice for local trips. We'll investigate how roading, safety and renewal projects can have a stronger focus on supporting safer opportunities for cycling. We'll also prioritise projects that help to build a connected network, in order to show immediate benefits and build momentum for further action.

Innovative solutions in urban transport can help to make cycling and micromobility safer and more attractive. We'll support the private and non-government sectors to accelerate the delivery of innovative solutions which enable people to move around in our towns and cities in ways that are safer, more sustainable and require less space on the transport network.

What is 'road reallocation' and why is it so important for rapid rollout?

Our quick build programmes rely on reapportioning street space, a fast and affordable way to give more people the freedom to cycle for everyday trips. This approach is used by cities around the world, including Seville, London, Paris and Manila, with local versions underway in Auckland and Wellington.

Street space reallocation might look like:

- converting road space that's currently used for traffic or carparking, to build comfortable, continuous and connected cycleways along main routes.
- reverting residential streets to primarily local use and access, to create low traffic areas that are safe enough for children to independently walk, cycle and scoot.

This approach rapidly delivers all the benefits we expect from cycling infrastructure, with several key advantages:

- It's more affordable, allowing a given budget to provide more transport choices in more places for more people.
- It's up to 90% faster to install than more traditional builds, so the benefits can be enjoyed sooner.
- Starting out with semi-permanent materials makes it easier to adapt and upgrade a design over time, increasing the likelihood of 'no regrets' results.

The government is considering introducing the Reshaping Streets package of regulatory changes to make it easier for councils and road controlling authorities to make street changes that support public transport, active travel and placemaking, such as pilots/trials and the use of school streets and community streets. The package aims to provide new ways for communities to be involved in changes that affect them.

The government is also considering implementing the Accessible Streets proposals to support people walking, cycling, scooting and using other active modes and micromobility devices. The rule changes are designed to increase the safety and accessibility of our footpaths, shared paths, cycle paths and cycle lanes, and to accommodate the increasing use of micromobility devices in our towns and cities.

Detailed actions

Key actions Waka Kotahi will take to accelerate change on the ground are to:

1. Deliver the Transport Choices programme to target quick wins for walking, cycling and public transport
2. Make it easier for councils to trial street layout changes, and to make temporary changes
3. Deliver the Streets for People programme to trial adaptive urbanism
4. Coordinate knowledge sharing and help build sector capability
5. Support councils to implement safe speeds
6. Support innovative solutions make cycling and micromobility safer and more attractive

3.1 Deliver the Transport Choices package to target quick wins for walking, cycling and public transport

The \$350m Transport Choices package via the CERF is earmarked for programmes that support the uptake of walking, cycling and public transport. Working with the Ministry of Transport, Waka Kotahi will allocate this investment towards programmes for rapid rollout of cycling connections, more walkable neighbourhoods, safe and accessible journeys to school, and better access to public transport. These programmes will need to be delivered by mid-2024 and will largely take place on the local road network.

Specific actions in this area are:

- 3.1.1 Support timely delivery by working with councils to select projects that are ready to go and have the strongest likelihood of success.
- 3.1.2 Assist with specialist technical support to ensure councils have capacity and capability to deliver the funded programmes.
- 3.1.3 Identify opportunities to build in outcomes that support Māori and equity into the programmes.
- 3.1.4 Develop a monitoring and evaluation programme to build the case for change.



Safe and accessible travel to schools

The Transport Choices package includes working with councils to rapidly deliver walking and cycling improvements around 75 to 100 schools and kura by 2025. We'll use a range of interventions depending on the needs of each school and kura, and will take an area-wide approach, especially where we can wrap around several schools in a neighbourhood. Where possible, we'll coordinate this work with local safer speeds programmes, and align with the Bikes in Schools and cycle skills education programme to maximise the benefits for children.

There is growing evidence that complementary initiatives alongside infrastructure improvements are both crucial to improve active travel rates to schools. We will support councils to deliver tailored training initiatives in integrated ways where they are also delivering cycling infrastructure.

We will look to expand this work through future initiatives that incorporate te reo Māori cycle training in kura and communities. We will explore opportunities to expand cycle skills training for whānau and other communities to help remove the skill and cost barrier to cycling.

3.2 Make it easier for councils to trial street changes, and to make temporary changes

The government is considering introducing a range of regulatory changes and guidance to make it easier for councils to pilot/trial street changes and make temporary changes to existing streets, including temporary street closures to cars. These are relatively low-cost actions that enable communities across Aotearoa to experience the benefits of street change improvements quickly, while working towards the co-creation of more permanent solutions. These activities also provide social connection and fun for the entire community. Some examples of temporary street changes include:

- 'Open Streets' events which temporarily transform streets into traffic-free places where people can walk, cycle, socialise, eat, gather and celebrate
- 'Community Streets' which enable quiet, low-traffic streets to be used for play without the need for costly traffic management plans
- 'School Streets' which enable councils and schools to create traffic-free streets outside schools at drop-off and pick-up time, to enable children to move safely and independently.

We will partner with councils, iwi, schools, organisations such as Sports NZ, and community groups to trial these changes. We will also lead by example in the summer of 2022 - 2023 by hosting a series of events inviting people to walk, cycle, scoot, run and roll on the Auckland Harbour Bridge.

Beyond Reshaping Streets and Accessible Streets, we will also continue to identify and remove other barriers to progress, including investigating ways to protect vulnerable road users from careless driving.

Specific actions in this area are:

- 3.2.1 Create new guidelines for Open Streets, Community Streets and School Streets and empower councils, communities and schools to run them.
- 3.2.2 Launch a new fund to support councils to deliver regular events in town centres and neighbourhoods.
- 3.2.3 Support the potential introduction of the Reshaping Streets and Accessible Streets regulatory changes.
- 3.2.4 Continue to identify and recommend rule changes to remove barriers to progress.

3.3 Deliver the Streets for People programme to trial adaptive urbanism

In 2020, we launched Innovating Streets for People, which supported 32 councils to implement 62 street change projects around Aotearoa. Collectively, this programme delivered approximately 89km of interim treatments in town centres, outside schools and in neighbourhoods by June 2021. Interventions ranged from temporary cycleways, parklets, and one-way streets, to safe crossing points, traffic calming, and kerb buildouts. Many councils reported safer streets with fewer vehicles; people driving at slower speeds; more people cycling, walking and scooting; safer and more accessible areas; and more people enjoying public spaces.

Our new programme, Streets for People 2021-24, builds on the solid learnings and experiences from Innovating Streets, and will support councils to do things differently by using quick, low-cost, scalable improvements that help create more vibrant, people-friendly spaces in our neighbourhoods.

Specific actions in this area are:

- 3.3.1 Deliver the Streets for People projects.
- 3.3.2 Work with councils and the sector to build capability to deliver adaptive practices.
- 3.3.3 Understand system barriers and opportunities to enable rapid street space reallocation.
- 3.3.4 Develop a monitoring and evaluation programme to build the case for change.

Case studies for rapid delivery from Innovating Streets

Brooklyn Road cycleway, Wellington City Council

This project installed 1.3km of protected cycleway on a busy 50km/h road, resulting in more daily bike journeys, less overall speeding on the route, and a head-start on a permanent and safer design for this corridor. The success of this quick and low-cost installation is a model for Wellington's Paneke Pōneke plan to rapidly deliver 166km of cycle network.

Ferry Road cycle connection, Christchurch City Council

This project fixed a vital missing link in the cycleway network between the central city and the southeast, past shops and schools. It was delivered in just over eight weeks following co-design with the community, and uses colourful paint, wave-shaped delineators and planter boxes to create a safe, inviting corridor for travel and connection. Ridership grew by around 20% in the first six months.

Nelson South low-traffic neighbourhood, Nelson City Council

This project established a safer and more inviting environment in a residential neighbourhood. Kerb buildouts, speed bumps and parklets helped reduce through-traffic by 30% and calmed speeds to around 25km/h past the kindergarten, while children from the intermediate school helped design traffic-calming treatments and a pollinator pathway connecting the neighbourhood to the wider cycle network.

Project WAVE, Auckland Transport

This protected cycleway bridges a critical safety gap in the busy central city cycle network. After a successful trial period, it has been made permanent and improved with clearer loading zones and intersection layouts, shifting a section of cycleway to the other side of the street, and installing pocket parks at former parking spaces.

3.4 Coordinate knowledge sharing and help build sector capability

In this acceleration phase, we'll all be learning rapidly alongside each other. Waka Kotahi will take the national lead on coordinating this learning and knowledge-sharing. Continuing our 'community of practice' approach, we will establish forums for exchanging research, case studies, expertise and experience, and partner with tertiary institutes and professional bodies to increase knowledge, promote best practice and lift expertise across the sector. Embedded within the structure of the community of practice, we will stand up a national network made up of kaitiaki that have a regional focus (see Action 4.2.1). This group will have a focus on embedding Māori outcomes in cycle planning and delivery, help to boost capability and capacity for Māori who want to be involved in cycle planning, and help facilitate knowledge-sharing with our partners.

In addition, we'll meet regularly with those planning and delivering changes on the ground to work through delivery issues and share learnings. This will support us as we update our Cycle Network Guidance to incorporate the latest learning and best practice from around the country and internationally (see Action 1.1.1) and identify and recommend rule changes to remove regulatory barriers to progress (see Action 3.2.4).

Specific actions in this area are:

- 3.4.1 Coordinate a national 'community of practice' with knowledge sharing forums.
- 3.4.2 Regularly connect with and learn from those delivering changes on the ground to understand issues, remove barriers and share lessons.

3.5 Support councils to introduce area-wide speed limit changes, with a focus on school catchments

Supporting councils to reduce speeds on an area-wide scale on local streets is a primary lever to quickly providing safer cycling environments that connect to strategic cycle networks. We have updated our speed management framework to enable this. Beyond working with councils to implement the street limit changes, we will also fund the associated infrastructure changes needed to support safer speeds (eg traffic calming) and provide an appropriate level of service for cyclists in this reduced speed environment.

School catchments are also a key area of focus for the introduction of safer speeds, with schools being at the heart of many of our cycling networks. We will work with councils and schools to implement safe and appropriate speeds outside all schools by 2027. We will also work with councils and schools to provide appropriate cycling facilities for school children to be able to cycle to school as safely and conveniently as possible. This is likely to be a mix of additional separation and additional treatments at conflict points (whether with vehicles or pedestrians) if the reduced speed environment is not sufficient. As with broader cycle network provision, the focus will be on road space reallocation when separation is required.

Specific actions in this area are:

- 3.5.1 Work with partners to implement speed limit changes, including safe and appropriate speeds outside all schools by 2027.
- 3.5.2 Work with partners to support the infrastructure changes needed to support a low speed environment.

3.6 Support innovative solutions that increase the safety and attractiveness of cycling and micromobility

New and emerging transport technologies and business models are providing solutions that can help to accelerate the step change in cycling and micromobility for the benefit of people, places and planet. These range from new low-cost tools and schemes to finance individuals to purchase or lease e-bikes, to technologies that detect and give priority to cyclists at intersections, or warn drivers about cyclists and other vulnerable road users in their blind spots.

Waka Kotahi has funded a number of cycling and micromobility initiatives through Hoe ki angitū – Innovation Fund, a fund set up to support the private and non-government sectors to develop and accelerate innovative solutions that will help to solve some of our big transport challenges. These include projects to design and develop ‘mobility hubs’ that bring together cycling and other mobility options to encourage first mile/last mile transport other than the private motor vehicle.

We will also continue to scan and monitor for new and emerging transport innovations around the world that could be applied locally to increase the safety of cycling and micromobility.

Specific actions in this area are:

- 3.6.1 Scan and monitor for new and emerging transport innovations that increase the safety and attractiveness of cycling and micromobility.
- 3.6.2 Support the implementation of new and emerging innovations that increase the safety and attractiveness of cycling and micromobility.
- 3.6.3 Support the private sector to develop and accelerate innovative transport solutions that will help to solve of our biggest transport challenges such as reducing emissions and improving road safety outcomes.

Strategic priority 4

Putting people at the heart of change

Position statement

Waka Kotahi will help build public support for street space reallocation, encourage more people to ride and grow a Māori-centred approach to cycling.

The challenge

While there is often strong public support for safe cycling infrastructure and transport emissions reduction in the abstract, this sometimes does not translate to support for change at the local level. Around seven in 10 people support cycling in their community, however, our 2021 survey of council partners indicated a need for better understanding of the practical initiatives that will help achieve this goal.

Public opposition to street space reallocation or cycling projects can stem from a reluctance to change entrenched travel behaviours. It can also be due to a lack of experience with the benefits that these changes could bring. Often, communities that stand to gain the most from more sustainable and accessible transport options find it difficult to participate in lengthy and technical consultation processes, given they have more pressing priorities. Consequently, their voices are not heard or are given less weight in formal consultation.

Our approach

Changing our streets and connecting networks is just the start. The real transformation happens when all kinds of people feel confident and comfortable to get rolling. Around the world, a body of evidence is building that points to an integrated view of 'hard' and 'soft' interventions as the key to opening the door to more people cycling, especially in countries where there are presently lower rates of cycling.

In other words, to enable more people to benefit from the physical infrastructure we're building, we need to turn our attention to 'human infrastructure'. Just as important as what we build on the ground are the elements that support behaviour change, and seek to remove barriers of skill, cost, access and awareness. These include social networks and community-centred change, skills training, policies and rules, and other forces that shape how people like to move around.

We will address these cost, access and knowledge barriers to support a more inclusive and holistic way of increasing cycling levels. This is especially vital to achieving a 'just transition' that includes people who would benefit the most from cycling, such as those who are transport-disadvantaged.

We also must create a cycling system that centres on mātauranga Māori to understand the link between what makes people cycle and the environment they cycle in, and that uses tikanga Māori to better understand community-specific needs for cycling and to build community ownership of cycling initiatives.

Detailed actions

Key actions Waka Kotahi will take to put people at the heart of change are to:

1. Lead a national Narrative for Change programme to bring people on the journey
2. Grow a Māori-centred approach to walking and cycling
3. Increase access to e-bikes across the community
4. Enable first and last-mile solutions in towns and cities
5. Investigate a national bike ownership registration scheme to reduce theft

4.1 Lead a national Narratives for Change programme to bring people on the journey

As street changes roll out in towns and cities across the motu, it's vital that communities, stakeholders and decision-makers understand how and why we're reshaping our transport system to create a transformational shift in active transport.

Through the Narratives for Change programme, we aim to build understanding of why and how transforming our system will help achieve our emission reduction targets, provide more transport choice, connect more people to places, and future-proof our communities. Through this work Waka Kotahi will also aim to give effect to Hononga ki te iwi, our Māori engagement framework.

Specific actions in this area are:

- 4.1.1 Work with partners to lead a national narrative programme for more informed conversation around mode shift.

4.2 Grow a Māori-centred approach to walking and cycling

Only through partnership with Māori can we address the collective challenges we face and support a more holistic transport system for Aotearoa that enables all New Zealanders to flourish. Delivering a step change in cycling through the lens of te ao Māori gives us a framework for action that is fair, holistic and enduring.

Guided by our Māori strategy (Te Ara Kotahi) and our Māori engagement framework (Hononga ki te Iwi), we will establish a Māori advisory forum to help build our understanding of Māori aspirations for active modes of transport, learn how we can remove barriers for Māori to walk, cycle and use micromobility modes, and explore opportunities to build and share knowledge. This forum will host a national network of kaitiaki (made up of regional representatives) and kaupapa Māori subject matter experts.

In addition, we will also foster Māori capacity and capability to contribute to active modes planning, design and decision-making on investments, including supporting knowledge-sharing forums and working with universities, Māori practitioners and other partners to support a pipeline of Māori talent into the transport sector. We will continue to build te ao Māori values and concepts such as kaitiakitanga (guardianship), whanaungatanga (relationships and connections) and he whenua ora (a living environment) into our walking and cycling promotion and infrastructure design and guidance.

We will also resource and amplify Māori and iwi-led solutions to increase the rates of cycling within Māori communities and across Aotearoa. Māori live and work in many localities, from urban to rural, and have complex travel patterns that do not work with a one-size-fits-all approach. Supporting more Māori-led solutions helps to create a more equitable transport system that increases access, choice and affordability for all.

Specific actions in this area are:

- 4.2.1 Establish a Māori advisory forum that will host a national network of regional kaitiaki and kaupapa Māori subject matter experts to embed matāuranga Māori into cycling strategy, planning, investment and delivery.
- 4.2.2 Build te reo Māori and te ao Māori values such as kaitiakitanga, whanaungatanga and whenua ora into cycling promotion, infrastructure design, and cycling guidance.
- 4.2.3 Foster Māori capacity and capability to contribute to cycle planning, design and decision-making on investments.
- 4.2.4 Seek opportunities for Māori to have a stronger voice in the delivery of cycling programmes and projects.
- 4.2.5 Support more Māori and iwi-led solutions to increase the rates of cycling within Māori communities and across Aotearoa.

4.3 Increase access to e-bikes across the community

The government has committed in the ERP to support initiatives to increase the uptake of e-bikes. Waka Kotahi is also supporting e-bike trials in Wainuiomata and Māngere to help inform future e-bike programmes.

Over the next two years, we'll undertake more pilot studies around the motu to gather evidence for the best approach. In particular, we want to explore how we can best make e-bikes more affordable and accessible for target groups and communities, including those on low incomes, living with disabilities, or facing transport disadvantage. Pilot schemes may be based in towns or small cities, towns with challenging terrain for cycling, within regional tertiary institutions such as wānanga or smaller polytechnics, or in suburbs with reasonable cycling infrastructure but where people are experiencing transport disadvantage.

We will pilot community-based schemes that equip people to cycle, especially in lower socio-economic areas, and will work with local authorities, the Ministry of Transport, iwi/ Māori, and our partners to understand local needs and tailor solutions to communities. Iwi/Māori-led schemes could be run as a partnership between marae, council and health organisations. Building on experience from Christchurch and Auckland, we'll look at trialling shared mobility for social housing, such as shared bikes, e-scooters, and electric vehicles.

To expand Māori access to e-bikes and other forms of micromobility, we'll explore funding and different models so we can pilot community bikeshare programmes that are whānau-friendly, embrace whanaungatanga, and allow communities to be the kaitiaki of their own cycling schemes.

Specific actions in this area are:

- 4.3.1 Support initiatives to increase the uptake of e-bikes.
- 4.3.2 Pilot community-based schemes across the motu that enable more people to cycle, particularly target groups and communities.
- 4.3.3 Partner with iwi/Māori to expand Māori access to e-bikes and other forms of micromobility.

Case study: Māngere e-bike trial

In autumn 2021, Auckland-based researchers partnered with the Time to Thrive community group on a 'give it a go' e-bike trial in Māngere. Over three weekend workshops, participants gained skills in riding e-bikes in on- and off-street environments. A follow up hui gathered feedback on people's experiences and the range of potential for further e-bike use.

The next phase of the trial commenced in spring 2022 and looked at tackling key equity issues around e-bike use in daily life. Participants could test e-bikes in everyday contexts: as families, and via workplaces, housing developments and other community settings. These findings will help explore barriers to use (e.g., safety, maintenance, cost) as well as incentives to encourage uptake.

With additional funding from the Waka Kotahi Innovation Fund, Hoe ki angitū, the third phase of the trial will commence in 2023 and will test appropriate incentives to support further e-bike uptake within the community.

4.4 Enable first and last-mile solutions in towns and cities

Bike parking is a vital element of a well-designed cycle network. Secure and sheltered bike parking at key destinations such as shops, schools and public transport stations, makes cycling an easy choice. Quality bike parking at shops and in town centres encourages stopping and spending at local businesses.

Better integration of cycling with the public transport network also helps to grow the public transport catchment, maximising investment in both public and active transport. Multi-modal hubs of the future might include a combination of public transport, e-bike charging, sheltered bike parking, shared mobility schemes including e-bikes, e-scooters and carshare, and other options for completing or extending a journey.

First and last-mile solutions also apply to urban logistics and freight. As towns and cities intensify, local delivery and micromobility hubs can help companies better coordinate freight movements and logistics as they transition to moving more freight and services by cargo bikes and other small electric vehicles.

Specific actions in this area are:

- 4.4.1 Support councils to use the Low Cost / Low Risk programmes to increase secure parking for bikes and micromobility modes at key destinations.
- 4.4.2 Explore further dedicated funding for programmes that integrate cycling with public transport.
- 4.4.3 Encourage councils to look for opportunities to implement multi-modal hubs that let people easily access and combine different transport options at one location.
- 4.4.4 Investigate and encourage the use of e-cargo bikes for freight and deliveries in urban centres.

4.5 Investigate a national bike ownership registration scheme to reduce theft

Following a successful trial in Christchurch and Auckland, we will investigate funding a national bike registration programme. This would enable all bikes to be centrally registered, making it easier for police to trace and return stolen bikes and investigate and prosecute bike theft.

Specific actions in this area are:

- 4.5.1 Fund the expansion of a community-run bike registration and recovery service.

Monitoring and updating this plan

To monitor progress on the implementation of the actions, we will do a 6-monthly assessment with input from a Steering Group (including council representatives). We'll assess each action to identify steps to overcome issues or maximise progress.

To get a better gauge on the impact this plan is making, we will develop high-level indicators of success for each theme. These indicators focus on where we want to be by June 2024. Achieving our goals, such as increased mode shift in main urban areas, VKT reduction, a reduction in Deaths and Serious Injuries (DSIs), and an equitable transition to lower carbon transport modes, will require coordinated action across the system. Our focus is on making sure the actions in this Cycling Action Plan are making the best contribution they can to these bigger goals.

A full monitoring and evaluation plan will be developed as part of the National VKT Reduction Plan. We will report back on, and update, this plan within two years.

Measure name	Frequency of reporting	Baseline or previous result	Target or desired trend	Target date
Deaths and serious injuries	Monthly	11 deaths and 146 serious injuries involving cyclists in 2020	Decreasing	December 2023
Greenhouse gas emissions from the land transport system	Annually	11,832 kilo tonnes in 2019	Decreasing	December 2023
Light vehicle kilometres travelled in main urban areas	Annually	17.3 billion km travelled in main urban areas in 2019	Decreasing	December 2023
User experience of active transport network	Monthly	62% gave an 8-10 score	Improving	December 2023
Mode share of active modes in urban areas	Annually	19% of trips in high-growth urban areas were on public transport and active modes	Increasing	December 2023
Access to social and economic opportunities by cycling	Annually	23%	Increasing	December 2023
Proportion of cycleways, pathways and shared paths delivered against plan	Annually	New measure	≥ 80%	December 2023
Cycling count in main urban areas	Quarterly	New measure	Baseline to be set	December 2023
Walking count in main urban areas	Quarterly	New measure	Baseline to be set	December 2023

Appendix

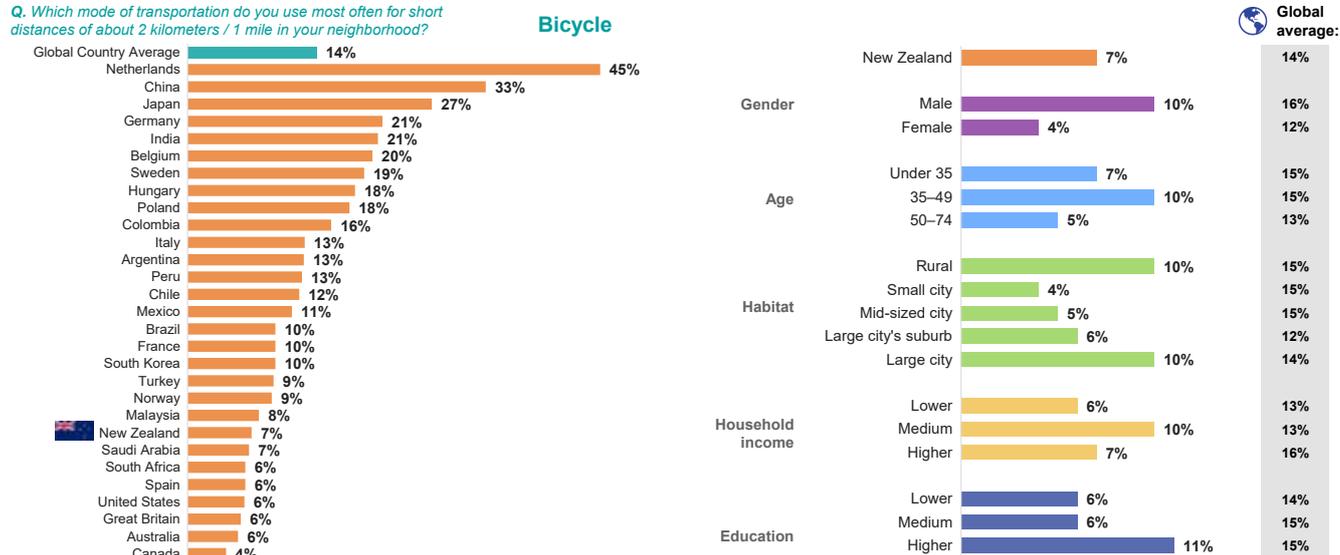
Appendix 1: Cycling in Aotearoa

The potential for transforming the way we move is immense. Half of all adult New Zealanders already own or have access to a bike, and just over half (56%) of city-dwellers view cycling as a great way to get around town easily and efficiently, especially for younger age groups. The main barrier stopping them is safety. So, to unleash this latent demand, we need stress-free networks that go where people want to go.

BICYCLE AS PRIMARY MODE FOR 2KM DISTANCE

New Zealanders are significantly less likely to use a bicycle as a primary mode of transport for short distances

Q. Which mode of transportation do you use most often for short distances of about 2 kilometers / 1 mile in your neighborhood?



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Q_C3. Which mode of transportation do you use most often for short distances of about 2 kilometres in your neighbourhood?
Base: New Zealand (n=1,003), Global (n=20,507 online adults across 28 countries).



While half of urban New Zealanders aged 15+ have access to bikes, only a quarter have cycled in the past year and only 14% cycle at least once a week. The proportion of people cycling has remained stable since 2020. Regionally, Dunedin and Wellington have the lowest level of weekly cyclists, while the strongest regions are Hamilton and Christchurch. Most cycling trips are commutes to work, and shopping is the second most popular reason people ride bikes.

Age and gender skews are present in the trips being made by bicycle: those with access to a bike are more likely to be younger (18 – 34 years), male or families. Those who see cycling as an easy and efficient way to travel are more likely to be under 35 years. Those who are more likely to cycle are middle-aged (35 – 54 years) and male.

The market is evolving: e-bike usage has risen from one to four percent weekly users since 2018. Users are more likely to be male, from higher earning households. Imports of e-bikes have tripled from 2018 to 2022.

E-bike and E-scooter usage both skew towards higher income households and males

E-BIKE AND E-SCOOTER PROFILING JAN-DEC 2021

	E-BIKE			E-SCOOTER	
	Total	Weekly	Last 12M	Weekly	Last 12M
18-34	33%	42%	42%	51% ▲	59% ▲
35-54	34%	32%	35%	38%	33%
55+	33%	25%	23% ▼	11% ▼	8% ▼
Male	48%	73% ▲	66% ▲	67% ▲	56%
Female	51%	27% ▼	34% ▼	33% ▼	44%
Pakeha/NZ Euro	69%	68%	66%	60%	70%
Māori	10%	13%	12%	16%	16%
Pacific	2%	3%	3%	5%	3%
Asian	15%	13%	16% ▼	20% ▲	15%
Less than \$50k	27%	19%	17%	13%	21%
\$50k-\$99k	31%	30%	32%	38%	30%
\$100k or more	30%	42% ▲	42% ▲	45% ▲	42% ▲

E-bike users are significantly more likely to be:

- Male
- From higher earning households

E-scooter users are significantly more likely to be:

- Under 35
- From higher earning households

Among weekly users, the skew toward male users is particularly pronounced.

▲ Significantly higher than total ▼ Significantly lower than total

Q23a. Which of the following have you used in the past 12 months?
 E-scooters 2021 n=540, 2020 n=269 E-bikes 2021 n=315 2020 n=112
 Q24. On average, how often do you use each of the following modes of transport, for any reason
 Base: E-bikes 2021 n=107, 2020 n=199 E-scooters 2021 n=119, 2020 n=190

Safety needs to be addressed to increase the level of cycling in our communities. Just over half of urban New Zealanders perceive cycling as safe, with lowest perceptions in Auckland and Wellington, and highest in Hamilton and Christchurch. Only four in ten believe that it is safe for kids to bike to school. Safety barriers that stop people cycling more in urban areas revolve around: not feeling safe with how others drive, cycling in the dark, and speed of other road users. Perceived barriers to safety are particularly high amongst females. There is a strong correlation between the amount of cycling done and how safe cyclists feel.

People who ride bikes are most likely to make journeys in multiple ways, each with an average of three modes of transport that they use at least weekly. They are high users of public transport and walking to get around and three quarters also use motorised vehicles at least once a week.

When comparing wellbeing from modes used for commutes, it is clear that cycling and walking contribute to higher and more consistent levels of wellbeing compared to any other mode.

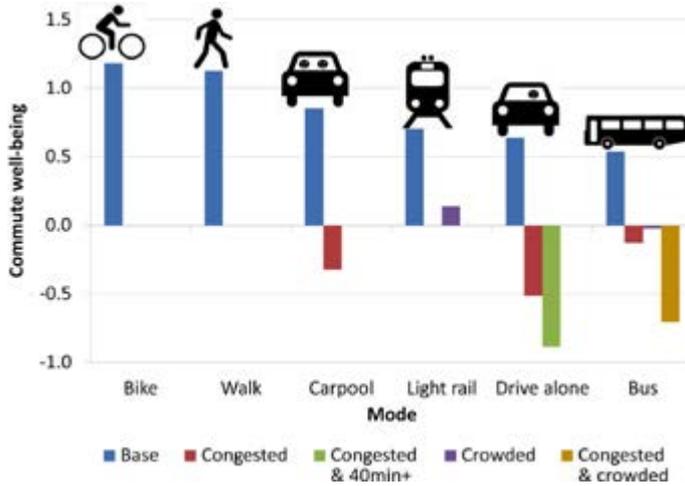


Figure 1. Commute Well-being by Mode (Source: Smith, 2017, Commute well-being differences by mode: Evidence from Portland, Oregon, USA, Journal of Transport and Health)

The opportunity for change

Cycling mode share is between 1% and 3% of all trips depending on the region, so there is a lot of potential for growth, especially in short trips. Two-thirds of all trips made are less than 5km, and vehicles are used for most short trips.

In Aotearoa, seven in ten people surveyed strongly support more cycling in their communities, with the strongest support in Hamilton, and lowest in Auckland. Complementing this, six in ten people surveyed support investment in cycling infrastructure to give people more travel options, with equal levels support for cycling 'because it gets people out exercising'.

Our current Sustainable Urban Mobility behaviours Inclusive access

TRAVEL BEHAVIOUR - TRANSPORT MODE SHARE (ALL TRIPS)

	AUCKLAND	HAMILTON	TAURANGA	WELLINGTON	CHRISTCHURCH
Walking	12%	10%	11%	24%	12%
Cycling	1%	2%	2%	1%	3%
Public transport	4%	1%	1%	5%	2%
Other modes	83%	87%	86%	70%	83%

⊕ Please see Table 13 in technical report for more details

Mode share data from the Ministry of Transport New Zealand Household Travel Survey, 3 year moving average from 2015-2018. *Main Urban Area' boundaries are provided by the survey and are defined as Stats NZ meshblocks in areas with a population >30,000.

Are these SUM behaviours at the level we want them?
 What is holding back further SUM behaviour? Let's explore...

YEAR ONE SUM BENCHMARK 21

LOGISTICAL BARRIERS



33%

I don't have access
to a bike

31%

It's not enjoyable
because of the weather

33%

I always have
too much to carry

28%

Cycling is not a
quick way for me to
get where I need to go

Infrastructure makes a huge difference to perceptions of cycle safety. Only around a third of New Zealanders feel safe cycling on public roads with no cycle lanes, compared with two thirds who feel safe on various forms of separated infrastructure that provides a barrier between vehicles and cyclists and increases their sense of safety. Nationwide over half of people who ride regularly agree that the opening of cycleways or paths has encouraged them to cycle more - this is highest in Hamilton and for those aged 18-24 years.

The short window in 2020 where New Zealand was in the depths of full Level 4 Covid-19 lockdown gave great insights into different, more enjoyable ways, of using our streets. Cycling boomed while roads were largely car free. People reported that the reason they found the streets enjoyable during lockdown was there was less traffic noise and the streets were safer for cycling. People also enjoyed seeing other people on bikes when out and about.

Back in the 1990's, when there were half as many cars on our roads, cycling mode share was three times higher. Stress-free networks separating cyclists from cars will be necessary to enable people to start to utilise their bikes to travel where they want to go.

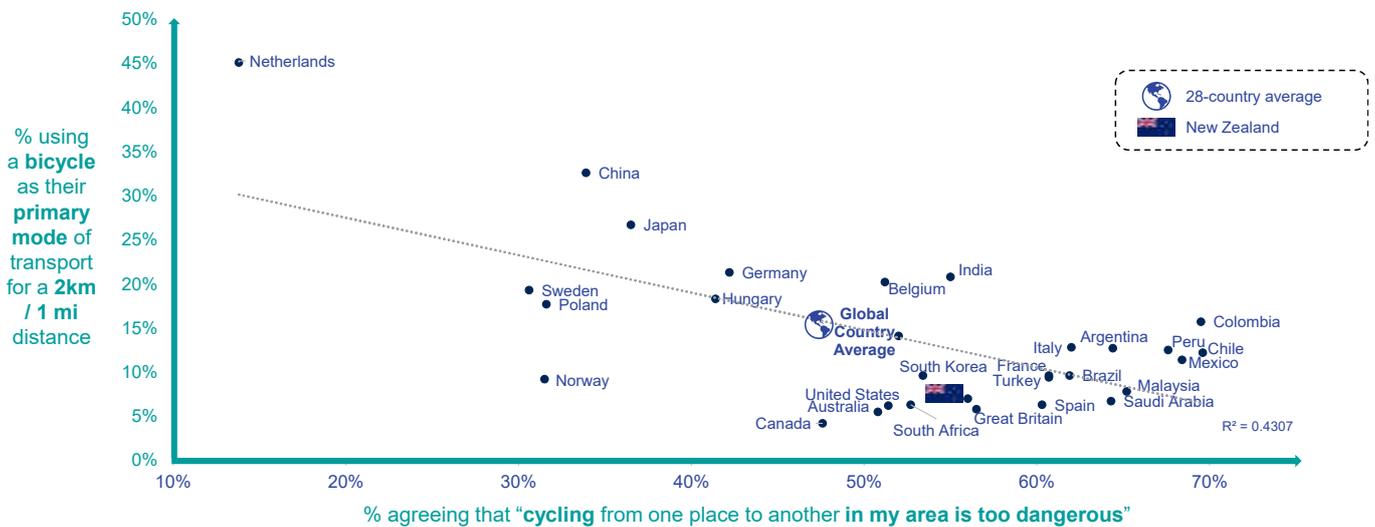
Global comparisons

The IPSOS Cycling Across the World and New Zealand study³⁶ highlights some of our safety shortcomings while providing a view of where we could be after a transformation in how we approach cycling in New Zealand. IPSOS shows that despite eight in ten of us knowing how to ride a bike (compared to 63% globally), we do not ride our bikes as regularly. Only 7% of us (compared to 14% globally) ride a bike more than any other transport for short trips (2km). This result puts us in the bottom quarter of countries globally. Meanwhile, half of New Zealanders (compared to 64% globally) share the view that cycling infrastructure projects should be prioritised over other road or traffic infrastructures in their area.

Similar levels here and globally view cycling from one place to another in their area as too dangerous (56% in New Zealand vs 52% globally). The correlation between perceived safety and amount of cycling done is very evident in the IPSOS study and puts us alongside countries such as Turkey, South Africa, Great Britain, United States and Australia, well behind cycling superstar, the Netherlands.

THE SAFER PEOPLE FEEL, THE MORE THEY CYCLE

Frequency of cycling and feelings that it is safe are lower in New Zealand than the global average



Appendix 2: Growing the network in Aotearoa

The evidence is clear that the key thing that will enable more people to cycle is a safe, connected cycle network. The past decade has seen significant advances in the delivery of the network across Aotearoa, with award winning new infrastructure and some of the world's most spectacular rides provided on our doorstep. We have come a long way from 2012 when the targeted spend for cycling was just \$10m. For the 2021-24 period we are targeting \$618m of investment. Now that 17% of urban networks are complete, there have been some stand out successes and some important lessons learnt.

The Urban Cycleways Programme

Intended as a four-year programme, the Urban Cycleways Programme formally concluded 30 June 2021, with 50 projects completed. Between 2015/16 to 2019/20, 225.8 kms of cycleways were delivered, with the programme accounting for 60% of the total kms built in New Zealand since 2014. The investment comprised the government's \$100 million Urban Cycleways Fund (UCF), \$107 million from the National Land Transport Fund (NLTF), and approximately \$99 million of local share contributions from local government. The programme included award winning projects such as Te Ara I Whiti in Auckland, He Ara Kotahi in Palmerston North and the Major Cycle Routes in Christchurch.

Te Ara I Whiti, Auckland

Te Ara I Whiti (the Lightpath) is an innovative project that transformed a disused motorway offramp into an award-winning pathway for walking and cycling in central Auckland

The pathway is part of a 6.7km city centre loop that connects to key destinations such as jobs, education, retail, and transport hubs.

Developed in partnership between Waka Kotahi, Auckland Council, Auckland Transport and iwi, it features interactive lights, a bright magenta surface, and Māori design that reflects a distinctly New Zealand identity.



Urban highways

A major contribution to urban networks across Aotearoa has been infrastructure delivered alongside state highways. 68km of network have been progressed in the past 5 years, including key links in Auckland, Wellington and Christchurch. In Wellington, there's work underway on Te Ara Tupua to connect Wellington and Hutt City with safe, connected walking and cycling paths around the harbour. In Dunedin, SH88 improvements are underway, connecting the city to Port Chalmers.

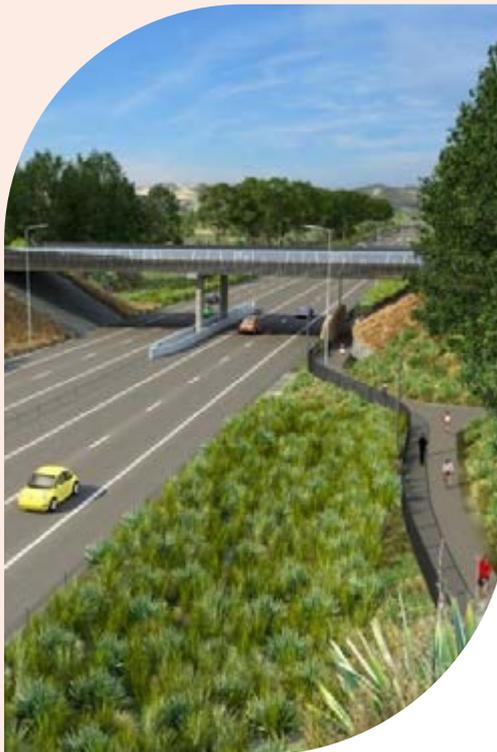
All of this is in addition to the protected walking and cycling paths we include on all projects we deliver, including Te Ahu A Turanga - Manawatū Tararua Highway, Penlink, Takitimu North Link, Papakura to Drury, and Peka Peka to Ōtaki. Alongside these links, some really important bridges and underpasses are connecting communities

Northern Corridor shared path, Christchurch

The North Corridor shared path consists of 15km of new or upgraded paths that was built as part of the delivery of the Northern Corridor motorway in 2020.

The shared path runs along the entire length of the new motorway and connects to new and existing paths north to Waimakariri and south to central Christchurch. It includes underpasses, public toilets, picnic spots, native bush, and the first walking and cycling bridge over the Waimakariri River.

The shared path provides improved transport choice for the people of Christchurch and Waimakariri and adds resilience to the motorway.



Innovating Streets

In 2019 Waka Kotahi looked at ways to support councils to expand the range of tools being used to deliver connected cycle networks and safer streets. Utilising low-cost interventions to test changes to streets ahead of longer-term investment is an increasingly popular way of ensuring that the details on a project are right. The Innovating Streets for People Programme supported trials of street changes totalling 89km across 78 projects. Over 60 of the projects progressed to permanent changes, and perhaps more importantly, the interim changes delivered significant benefits far faster than traditional design approaches. These included reduced vehicle volumes, increased numbers of people riding and a safer, more accessible cycling environment. The programme has taken a strong focus on building in lessons learnt and has informed numerous process changes.

Nelson South Innovating Streets, Nelson

The Nelson South project was developed as the result of the local community seeking safer and calmer streets in their neighbourhood.

Using simple traffic calming measures such as planter boxes and tables, the project has led to a meaningful reduction in traffic speeds and traffic volumes in the area, which includes a kindergarten and an intermediate school.

Phase 2 of the project expanded the walking and cycling connections in the area and added supplementary projects such as a school bike library and community pollinator park.

Photo credit: Nelson City Council



National cycle trails

The New Zealand Cycle Trail is now 23 Great Rides strong and totals more than 2,800km – mostly off-road and showcasing the very best of New Zealand’s landscape, environment, heritage and culture. Many also venture through less visited regions and can be ridden year-round, encouraging visitation in out of the way places outside of peak season. In 2018, more than 1.3 million trips were taken on the Great Rides by an estimated 400,000 trail users. The first ride, the Otago Rail Trail, opened in 2000 and the trails now play an important role in tourism and in providing places for local people to explore. Heartland Rides allow people to explore New Zealand on scenic backroads while enjoying stunning scenery and local hospitality. They follow the safest on-road routes and provide a link between the Great Rides, urban rides, and towns and cities.

Lake Dunstan Cycle Trail

The Lake Dunstan Cycle trail opened in 2021 and was named one of the country’s Great Rides in 2022 after a successful first year.

The trail recorded more than 83,000 walking and cycling movements in the first year, nearly 12 times more than the 7,000 movements predicted initially.

This engineering feat has led to the expansion of businesses along the trail and demonstrates the potential of cycle tourism as a climate positive economic opportunity for the country.

Photo credit: Central Otago District Council



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Glossary

Active modes

Forms of transport that involve physical exercise – for example walking and cycling. For planning purposes, this is the most common term used to group pedestrians and cyclists.

Cargo bike

A bicycle that is specifically designed to carry larger and heavier loads than a regular bicycle, generally with an in-built container. Sometimes these may involve electric motors or more than two wheels.

Cycle

A vehicle with two or more wheels and pedals that is propelled mainly by the effort of the rider. It includes bicycles, tricycles and power-assisted cycles (e-bikes).

Cycle facility

Infrastructure that is cycling-specific, such as cycle lanes, cycle only paths, shared paths, grade separation and bike parking.

Cycling network guidance

An online framework developed by Waka Kotahi which compiles guidance relating to all stages of planning and design for cycling for use by transport practitioners.

Cycle networks

- C1 The primary strategic cycle network: Provides the backbone of the overall cycle network catering for higher volumes of cycle movement, longer, and more efficient journeys.
- C2 The secondary strategic cycle network: Joins local roads to the primary strategic cycle routes. They also support key local cycle movements.
- C3 The supporting network: The remaining part of the recognised completed cycling network that typically links to C2.
- CS Cycling Special: These routes typically occur in the rural context and provide for longer cycle journeys that can be utility cycling, or cycling activity that is undertaken for the purpose of recreation or tourism.

E-bike

Electric bicycle or 'pedelec' – a bicycle to which is attached one or more auxiliary electric propulsion motors that have a combined maximum power output not exceeding 300W.

First and last-mile

The first and last-mile connection typically describes the beginning or end of an individual journey to or from a transportation hub or service, eg a train station or bus stop. It can also be used to describe the start or end of a freight delivery trip.

Level of service (LOS)

The quality measure of how well conditions provide for road users. For motor traffic it mainly assesses interruptions to free traffic flow. For cycling, other factors seem to be more important such as perceived safety, comfort and directness of route (see [General route requirements](#) [\[7\]](#)).

Micromobility

Micromobility devices refer to a range of small, lightweight vehicles operating at speeds typically below 25km/h and driven by users personally. They include e-bikes, electric scooters and electric skateboards.

One Network Framework (ONF)

The new One Network Framework acknowledges the transport network has a 'Place' function. This means roads and streets are destinations for people, as well as transport corridors. The new framework also introduces classifications for different modes of transport, recognising that our roads and streets have different functions for different modes.

Tier 1 / Tier 2 / Tier 3 councils

- Tier 1 councils are local authorities located in Auckland, Tauranga, Hamilton, Wellington and Christchurch
- Tier 2 councils are local authorities located in Whangārei, Rotorua, New Plymouth, Napier Hastings, Palmerston North, Nelson Tasman, Queenstown and Dunedin
- Tier 3 councils are local authorities that has all or part of an urban environment within its region or district but is not a tier 1 or 2 council.

Traffic calming

A combination of measures (mostly changes to the road environment) aimed at altering driver behaviour (such as by reducing speed or discouraging 'rat-running') and improving conditions for pedestrians, cyclists and residents.

Abbreviations and acronyms

ERP: Emissions Reduction Plan

ETS: Emissions Trading Scheme

CERF: Climate Emergency Response Fund

GPS: Government Policy Statement on Land Transport

LOS: Level of Service (see glossary)

LTP: Long-term Plan

NCP: National Cycling Plan

NLTF: National Land Transport Fund

NLTP: National Land Transport Programme

NWP: National Walking Plan

ONF: One Network Framework

RCA: Road Controlling Authority

RLTP: Regional Land Transport Plan

UCP: Urban Cycleways Programme