

How does public transport benefit New Zealanders

\$3.4

BILLION

How much public transport reduces the economic effects of people being isolated

Successful cities around the world rely on effective public transport. A good public transport network helps cities to become more successful by providing better connections and accessibility. It is a major contributor to economic, social and environmental goals.

New Zealand has one of the highest proportions of people living in towns and cities, with around 86% living in urban areas. Therefore it's vital we have an efficient and effective public transport network so people can make smarter choices about how they travel.

Growing the economy

Public transport contributes directly to economic growth and productivity by providing easy, fast access between peoples' homes and where they work, play, study and access community services. Research shows public transport increases productivity between 3% and 23% over other modes such as the private car¹. Those productivity increases benefit individuals and businesses through raised income. They also benefit central government and local councils by generating more tax revenue and rates.

The economy grows faster where effective public transport runs in congested urban areas. It gives people more convenient commuting options and allows other traffic, like freight movers, to travel more freely.

Public transport also triggers direct economic activity – Australian research shows every \$1 million spent on public transport creates more than 30 jobs².

Relieving the effects of congestion

Congestion is complex and dynamic – and is often an indicator of economic activity. As a result, there will always be a certain level of congestion in cities that are doing well economically. However, highly congested roads can also limit economic activity. Public transport provides a choice of transport modes in congested areas and is one of the most important tools for dealing with congestion.

There is a level of congestion, above which traffic is so heavy it stops people travelling (and therefore contributing to economic growth). In our larger cities (mainly Auckland), congestion gets to a level that is frustratingly high but can't be called 'total gridlock'. That level is Auckland's 'equilibrium', and people are discouraged from travel in peak periods³.

Well developed public transport along with walking and cycling makes it easier for economic activity to increase, even while congestion stays constant. For example, one bus will move 60 people a lot faster than 60 cars and won't hold up as many other vehicles.

Making things accessible

All people need to be able to take part in society and many are completely reliant on public transport. Public transport helps people who can't drive for one reason or another, to still get involved in social and economic activities. This includes some people with disabilities, the elderly, young people and people on low incomes. Giving these people access is not just a social service, it helps grow the economy too.

Public transport gives further economic benefits⁴ by saving around \$3.5 billion every year from the costs of people being excluded from New Zealand society.

1. The contribution of public transport to economic productivity, p.8, January 2013, by Tim Hazledine, Stuart Donovan and John Bolland, NZ Transport Agency research report 514. (www.nzta.govt.nz/resources/research/reports/514/).

2. Evaluating public transit benefits and costs, Victoria Transport Policy Institute, December 2012. (www.vtpi.org/tranben.pdf).

3. What does transit do about traffic congestion? by Jarrett Walker. (www.humantransit.org/2010/07/what-does-transit-do-about-traffic-congestion-1.html).

4. Economic modelling, by John K Stanley and David A Hensher in New perspectives and methods in transport and social exclusion research, Emerald Group Publishing, 2011.

Cities with good walking and cycling networks linked with other forms of transport such as public transport are able to develop at greater densities and tend to have fewer exhaust emissions.

On top of helping ease severe congestion in towns and cities, walking and cycling also support public health. Overall, a city that offers a range of transport choices is more sustainable than a city dependent on cars alone.

A safer transport network

Public transport contributes to road safety by getting people out of cars and into safer forms of transport such as buses. For example, car drivers are nine times more likely to be injured in a crash than bus passengers, so moving them by bus lowers the overall crash risk per person per kilometre travelled⁶.

Everyone benefits from public transport

Good public transport is a great asset, and its benefits extend to everyone by relieving the effects of congestion, and raising property prices. To adapt a slogan applied in a light rail campaign in a US city, 'Even if you don't ride it, you benefit⁵.'

One example of this is the reduced congestion on the Auckland Harbour Bridge as a result of use of the Northern Busway, which the NZ Transport Agency (NZTA) built and now manages. There is also proof that Auckland property values rise faster in areas close to public transport services such as trains. Property owners therefore also benefit from public transport services – even if they don't use them directly.

North Shore Busway – a success story



Auckland's Northern Busway is New Zealand's first purpose-built road dedicated to buses and the NZTA is the road controlling authority. At peak travel times, buses can make the journey to and from the central business district about twice as fast as the cars on the motorway alongside it. The 2012 Northern Busway Monitoring Report records the busway carrying 4498 passengers in the morning peak (6:30am–9:30am). That's the equivalent of taking around 4100 cars off the roads in the morning peak. Patronage has been growing at around 20% per year since the busway was opened, and double decker buses are now being trialled, to increase capacity.

⁵ Weyrich and Lind (2003). How transit benefits people who do not ride it: a conservative inquiry. Washington, DC: Free Congress Foundation.

⁶ NZ Ministry of Transport. New Zealand household travel survey 2007–2011.

The
NZTA
is the biggest investor in
public transport in New
Zealand

The NZ Transport Agency (NZTA) partners with approved organisations including regional and local authorities in investing in land transport network solutions on behalf of the government. We fully fund state highways, and contribute about half of funding for public transport, local roads, walking and cycling, and joint transport planning. We also co-invest in driver and vehicle licensing and in improving road safety. These investments are all made through the National Land Transport Programme.

Public transport - bus, rail, and ferry - are key travel choices for many New Zealanders. The NZTA is the biggest investor in public transport in New Zealand, and works with regional councils to ensure our combined investments keep improving services for the people who use them.

Public transport benefits many people (even those who don't use it) by relieving the effects of congestion, and raising property prices. It also helps get better value from the National Land Transport Programme¹, by allowing more people and freight to move through the transport network. Reflecting our whole network approach, we have further helped freight movements by making it possible for heavier and longer loads to travel on some routes.

But for more people to think of public transport as a viable and attractive travel option, we need to ensure it is as efficient and effective as possible. Through our investment in public transport, we aim to make it more affordable, reliable, accessible and easier to use.

Making public transport effective

To be successful, public transport must cater for people with very different needs, ranging from travel to the city centre for work (peak-period), to all-day access (off-peak), and to trips to local shops and community centres.

Public transport services must come often, at the right time, and give access to a wide range of destinations. And they must do all this while keeping up high numbers of fare-paying passengers so public transport pays a fair share of its operating costs. Success in achieving these goals relies on public transport being a part of one integrated transport network, so all travel modes work together.

Creating one network

We invest a lot of time and resources in integrated planning. To do this we recognise the importance of joined-up decision making with stakeholders on land use, transport planning, and investment. Public transport is a core part of the transport network and influences land use and urban design, and wider transport planning. Public transport also helps get the most value from investment in the transport network.

We use our planning and investment influence, as well as our network development, operations and rules, to help link public transport into one network. As the biggest single investor in New Zealand's land transport system, we are well placed to lead this joined up way of working. By applying this approach, and by working with our investment partners, we aim to make the most of every dollar invested.



¹ The National Land Transport Programme gives effect to the Government Policy Statement on Land Transport Funding, by setting out the land transport activities that the NZTA anticipates funding over the next three years.

Case study: Western Corridor Transportation Study and Plan

In 2004/05, the Wellington Western Corridor Transportation Study, which considered transport improvements between Peka Peka and Ngauranga found that providing only roading improvements, or only public transport improvements, would not meet future transport needs. In response, the 2006 Western Corridor Plan proposed a balanced package of public transport, travel demand management and road network improvements. In a nutshell:

Along the Western Corridor from Ngauranga to Otaki, State Highway 1 and the North Island Main Trunk railway line will give a high level of access and reliability for passengers and freight travelling both in and through the region.

This will be supported by local and regional connector routes. A high quality rail service will move commuters along this corridor in peak periods. Bus services and park and ride facilities will give more access for the community.

Traffic congestion on State Highway 1 will be managed at levels that balance the need for access against the ability to provide for peak demands, as well as balancing community impacts (eg noise and visual effects), and cost constraints. Best use of the network will be achieved by removing key bottlenecks. Effective safety measures will ensure no one is killed or injured as a result of network flaws.

The Western Corridor Transportation Study and Plan show our joined up way of working (see below) – linking land use, transport planning and investment, to get one integrated network:



Land use planning

Planning for current and future land use needs and aspirations at all scales from national level to neighbourhood level.

Includes:

- spatial planning at national, regional and local levels
- place-based planning and urban design
- landscape architecture
- resource and environmental planning.

Transport planning

Planning related to developing and operating multi-modal land transport activities, especially infrastructure and services. Includes:

- regional land transport programmes
- transport studies
- transport strategies and plans
- public transport plans
- project planning and delivery.

Transport investment

Investment in land transport activities by the NZTA and other central government agencies, local government and the private sector. Includes:

- National Land Transport Programme
- regional land transport programmes
- long-term council community plans
- financial contributions
- third party cost sharing agreements.

What the NZTA invests in for public transport

\$945

MILLION

NLTF investment in public transport during 2012-15

More than \$1.7 billion will be directly invested in public transport in the three years from 2012 to 2015. This includes \$780 million from local authorities and \$945 million from the National Land Transport Fund (NLTF), the fund managed by the NZ Transport Agency (NZTA) on behalf of the government.

As well as this direct investment, we contribute to wider network investment that benefits public transport, for example joint traffic operating centres, transport planning, state highways, and local roads.

2012-15 National Land Transport Programme (NLTP)

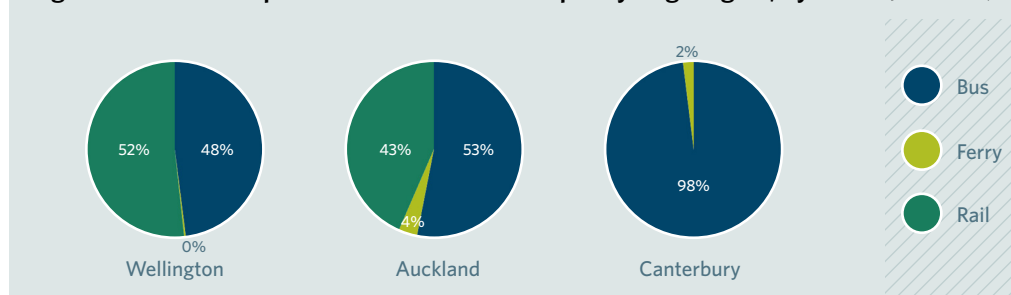
Through the 2012-15 NLTP, we are investing \$945 million from the NLTF in public transport – the highest investment ever in any three-year period. This includes \$830 million for public transport services. Around 60% of that investment goes to Auckland, 22% to Wellington and 8% to Canterbury.

Public transport infrastructure receives \$115 million, the majority of which goes towards rail carriage upgrades in Auckland and Wellington, and improvements in integrated ticketing and real time information nationwide.

INVESTING WHERE MOST PEOPLE ARE (AUCKLAND, WELLINGTON, CANTERBURY)

Around 90% of public transport services are in the three large regions of Auckland, Wellington and Canterbury (see Figure 2 below). Each market has slightly different features. In all three regions most passengers travel on buses, and Auckland and Wellington have passenger rail services being upgraded. While all three centres have ferry services, only Auckland's is significant (see figure 1).

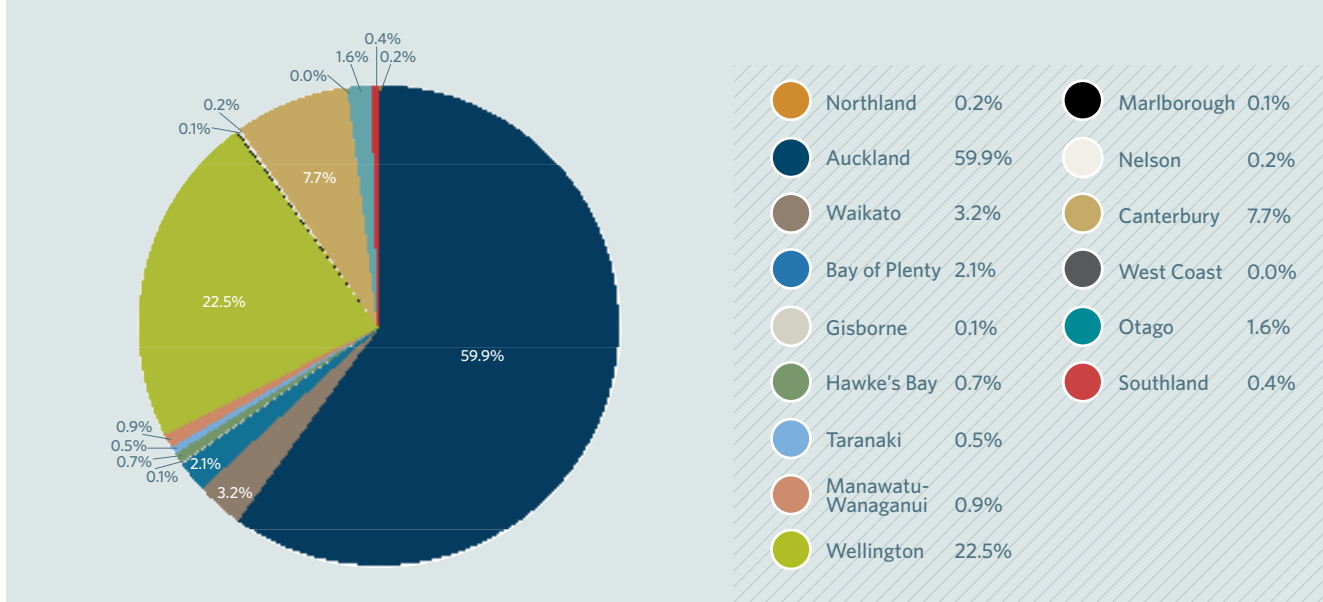
Figure 1: Public transport services investment split by large region, by mode (2012-15)



Investment in small and medium sized regions is approximately 10% of total public transport investment.



Figure 2: National public transport services investment split by region (2012-15)



Increasing accessibility

The SuperGold Card scheme (discounted travel for seniors and veterans) started in 2008 with government funding of \$18 million. It has grown by around \$1 million per year and we now manage payments of around \$22 million a year.

We also organise the Total Mobility scheme which subsidises taxi services for people with disabilities that stop them using public transport. The scheme halves normal taxi fares. It also funds wheelchair hoists in taxi vans, and pays for every hoist trip made. Through the Total Mobility scheme, the NLTF supports access for disabled people to the tune of \$14 million a year.

In urban areas (towns and cities) public investment, as opposed to money from fares, in bus and ferry services is split 50/50 between the NZTA and regional councils. Public investment in passenger rail services ranges from 50/50 for new services to 60/40 for some older ones.

Territorial authorities, KiwiRail (the New Zealand Railways Corporation) and the NZTA invest in public transport infrastructure with some additional funding from Crown appropriation.

Key areas of investment include supporting Auckland and Wellington as they upgrade rail networks and review bus networks. Investment will also focus on integrated ticketing systems, and real time information. Examples include the rollout of Auckland's integrated fares system (total around \$100million), Auckland's new trains and depot (\$630 million), rolling stock in Wellington (\$80 million), and the completion of Wellington's real-time information system, (\$13 million).

Integrated ticketing will also be rolled out in Wellington, as well as small improvements in ticketing and real time systems in other towns and cities. Some projects are debt funded, with the NLTF picking up repayments.

Where the money for public transport comes from

\$1.7

BILLION

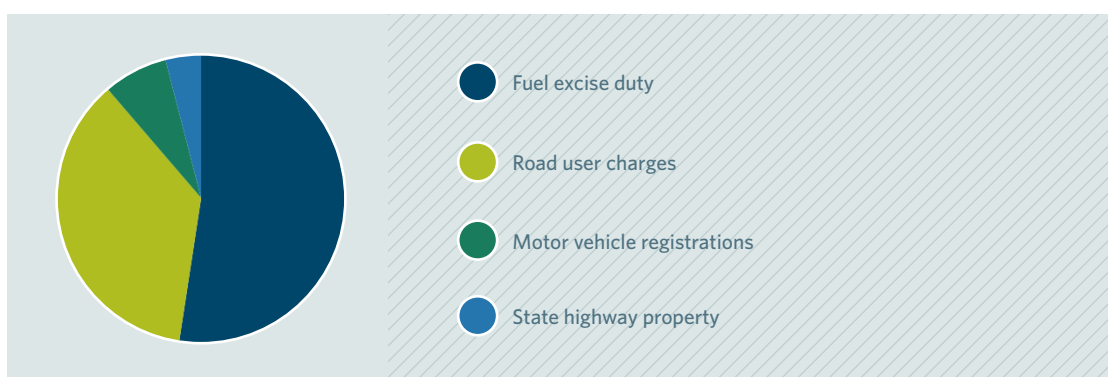
Total investment in public transport during 2012-15

The NZ Transport Agency's investment in land transport comes mainly from the National Land Transport Fund (NLTF) - a three-year funding pool, currently at \$9.3 billion. Other sources include local authorities, developers, landowners, and the Crown (government). These funding sources are combined and paid out on a three yearly basis through the National Land Transport Programme (NLTP).

Who contributes to the NLTF?

Anyone who owns or runs a motor vehicle invests in land transport, and therefore in public transport. New Zealand's road users contribute to the \$9.3 billion NLTF through fuel excise duty (around 52%), road user charges (39%), and motor vehicle registrations (6%). The rest comes from people who lease or buy state highway property. By law, NLTF money has to be invested in land transport.

Figure 1: National Land Transport Fund inputs



Revenue going into the NLTF can vary from year to year depending on the economy, petrol prices, and government decisions on transport related levies and charges. These changes can affect what is invested, particularly in new and improved state highway infrastructure.



How we invest through the NLTP

Investments of more than \$1.7 billion will be paid out through the 2012-15 NLTP for public transport services, infrastructure and planning. This amount is over 15% of the total NLTP, and includes the money from our regional and territorial authority partners.

We pay out 50% of the subsidy for urban buses, and between 40% and 60% of the subsidy for the Total Mobility scheme (help for people with impairments who cannot use public transport).

Other investment sources

Other sources of funding include:

- developer contributions - from developers, to offset the effects of their developments on land transport infrastructure
- betterment contributions - from landowners that benefit from road improvements
- other contributions from councils, community groups or other entities, eg funding from ACC
- money from road tolls eg, the Northern Gateway Toll Road
- public transport fares and advertising.

How local authorities (councils) contribute

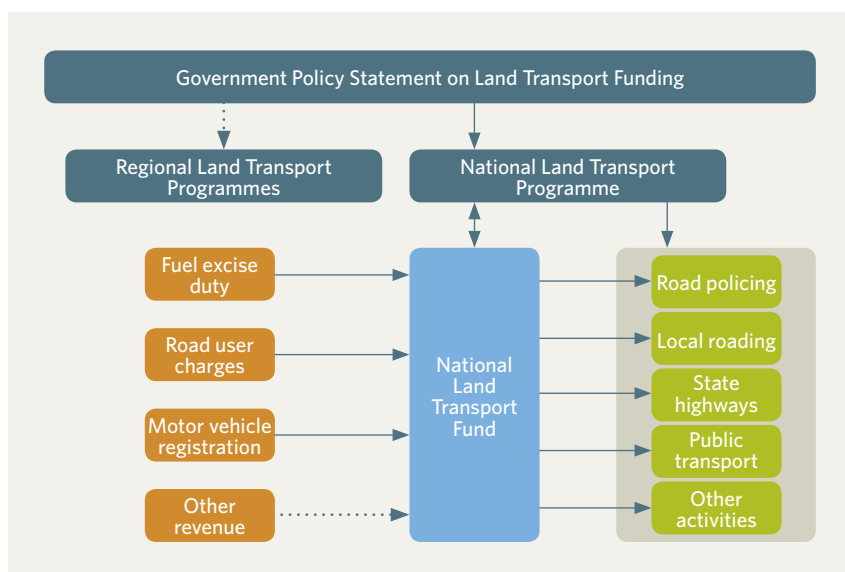
Local authorities contribute a share by gathering money through local rates and other sources such as developer contributions (eg payments levied on subdivisions or land developments).

Crown appropriations

In addition to the NLTF, the Crown funds some of our activities directly through the Ministry of Transport. We manage these funds for the Ministry, and share them between activities including fare concessions for retired New Zealanders and veterans through the SuperGold Card scheme.

Although these funds are not part of the NLTF, we manage them in much the same way - applying criteria, prioritising, programming and reviewing them to make sure we are transparent about value for money investments.

Figure 2: The NZTA's land transport planning and funding regime



What guides the NZTA's public transport investment

260%
increase of public transport subsidies over the last 10 years

A number of key documents and processes guide investment in New Zealand's public transport system. Overarching these are the government's priority objectives for land transport in New Zealand:

Economic growth and productivity

Value for money

Improved road user safety

Regional land transport programmes

Regional councils and approved organisations¹ prepare regional land transport programmes setting out what they want to achieve for the land transport network over the next three years. The NZ Transport Agency (NZTA) takes these programmes into account when we prepare our national investment programme (see National Land Transport Programme below).

The Government Policy Statement on Land Transport Funding

The Government Policy Statement on Land Transport Funding (GPS) is a legal document issued every three years by the Minister of Transport, and applied to funding for activities in the National Land Transport Programme (NLTP). The GPS sets out what the government wants to achieve in land transport, and gives direction for the allocation of land transport funding.

The 2012-15 GPS sets out government requirements for public transport to provide alternatives to cars, improve access to economic activities, ease congestion, and help unlock the potential of our cities, particularly in Auckland. This GPS directs investment in public transport over the next three years to the tune of up to \$1.1 billion. It also directs decision makers to get more value from public transport investment, and to help reduce the need for increased taxpayer and ratepayer subsidies.

Connecting New Zealand

Connecting New Zealand sets out government policy direction for the transport sector over the next 10 years. It helps stakeholders (including the NZTA) consider the government's intentions when they make their own investment decisions.

The document summarises a number of government policies, plans and strategies - the GPS, the National Infrastructure Plan, the NZ Energy Efficiency and Conservation Strategy, the KiwiRail Turnaround Plan, and the Safer Journeys Strategy.

Connecting New Zealand notes the NZTA and regional councils are expected to deliver more efficient and effective public transport services over the next 10 years. The document notes that over the last decade, public transport subsidies increased by 260% while passenger numbers only increased by 63%. In order to make public transport more sustainable, the government aims to reduce taxpayer and ratepayer subsidies by encouraging councils and operators to boost passenger numbers.

The National Land Transport Programme (NLTP)

The 2012-15 NLTP gives effect to the GPS by focusing on a transport network that grows the economy, gives value for money and supports increased road safety. NLTP investments also reflect a focus on travel choices to suit different customer needs and a drive for more efficiency.

The NLTP is directed where investment is most needed, and focuses on a transport system developed for the long term. As a result, our investment gives higher priority to activities with nationally significant impacts.

The NLTP evaluation process endorses a 'one network' approach - the integration of land use and transport. It also acknowledges investment in the land transport system is a partnership between the NZTA and approved organisations¹. To make the most of our investments, the NZTA and local authorities are increasingly working closer together - co-investing to improve local roads, state highways and public transport; and run all these components safely as 'one network'.

¹ Regional councils, territorial authorities, approved public organisations (the Department of Conservation, the Waitangi National Trust Board, and Auckland Transport).

The Public Transport Effectiveness Action Plan

Improving the effectiveness of public transport is an important area of focus for the NZTA. In 2009 the Public Transport Leadership Forum (key transport sector stakeholders) agreed a sector action plan to improve public transport effectiveness. The plan contains a number of actions around three key themes: improving customer experience, integrating networks and strengthening leadership. The NZTA is managing the plan and the delivery of its actions by our partners.

The NZTA Statement of intent

The NZTA *Statement of intent* outlines what we will deliver and how we will meet government goals for developing New Zealand's land transport system. For public transport, our 2012-15 *Statement of intent* focuses our work on increasing the number of people using public transport, and increasing the contribution fares make to overall costs of public transport services. We'll do this by improving customer service, improving network design and infrastructure, and making sure there is good governance.

NZTA strategies

Our work is also guided by internal strategies that relate to our four long-term functions: planning land transport networks, investing in land transport, managing the state highway network and providing access to and use of the land transport system.

Our public transport investment signals

Key features of our investment in public transport:

- The NLTP investment priority is to improve choice across the different types of public transport available in congested major urban centres.
- Most of the increase in investment (announced for the 2012-15 NLTP period) has been to cover increased costs in metro rail in Auckland and Wellington.
- NLTP investment is focused on the government priority outcomes (economic growth and productivity, value for money and safety).
- Additional NLTP investment sought for public transport services required reprioritisation or reallocation of funding across regions.
- New off-peak services are a very low priority for NLTP investment due to the need to target available funding to where most needed.
- The NLTP focus is on the best services within budgets, and on finding efficiencies that can be reinvested in the land transport system.
- It is important there is sound strategic planning with linkages between regional strategies, and other planning documents (eg regional policy statements, long-term plans), and other NZTA-supported strategies such as corridor plans.



50 YEARS

The sector's vision to improve the effectiveness of public transport

New Zealand's public transport is provided and maintained by a number of national, regional and local bodies working together. Each has a crucial role in helping the NZ Transport Agency (NZTA) and regional councils fund and deliver a more efficient and effective public transport system.

The Ministry of Transport

The Ministry of Transport is the principal government transport policy advisor. The Ministry administers transport related legislation such as the Land Transport Management Act and Road User Charges Act. It also administers various rules issued under those acts. If any legal changes are needed, it is the Ministry that will prepare them.

The NZTA

The NZTA is the government's operational transport agency. We work in seven main areas, through which we help provide effective public transport services:

- **Planning and investment signals** – providing early signals about the desired government outcomes.
- **Integrated planning** – influencing the linking of investment partners' land use and transport planning to improve how the transport system works.
- **Investment proposals** – continuously negotiating our investment to deliver desired government outcomes.
- **Investment optimisation** – getting the most out of our investment and releasing funds as they become available. The area in which we have most impact is in administering the National Land Transport Fund, providing \$945 million of government funds for public transport services and infrastructure over the period 2012–15.
- **Monitoring** of public transport networks and investment performance, and raising issues with those who can solve them.
- **Regulating and licensing** buses and rail operations.
- **Providing public transport infrastructure** on the state highway network.

With the exception of the Total Mobility scheme¹, funds invested by us in public transport are managed by regional authorities and Auckland Transport. These approved organisations are responsible for service planning, network design and operations, and putting in place contracts for service delivery.

The role of local government

Local authorities own, maintain and develop New Zealand's local road network, and carry out important regulatory transport functions. Local government funds land transport infrastructure and public transport services in partnership with us, and is responsible for land use planning and transport planning.

Some local authorities own seaports and airports, or share ownership of those with the Crown.

Regional councils plan public transport networks through a mandatory Regional Public Transport Plan. This plan includes working details and policies (including procurement methods) relating to the public transport network, information and monitoring requirements, accessibility standards, ticketing, and signage. Regional councils also partially fund and provide public transport services. They own ticketing equipment, while operators (described below) manage and run it.

Territorial authorities (district and city councils) provide and manage public transport infrastructure such as bus stops, interchanges, and stations, signage and park and ride stations.

¹ Funded in partnership by local and central government, the Total Mobility scheme subsidises taxi services to people with serious mobility constraints that prevent them from using public transport. It provides vouchers that discount the normal taxi fare by 50%, funding to help purchase and install wheelchair hoists in taxi vans, and payment to the owner of the vehicle for every hoist trip made.

The Public Transport Leadership Forum (PTLF)

The PTLF is made up of public transport sector leaders and is co-chaired by the chief executives of the NZTA and the Ministry of Transport. Membership includes Auckland Transport, Greater Wellington Regional Council, Environment Canterbury, KiwiRail, Veolia (the Auckland rail operator), Fullers Ferries, the NZ Bus and Coach Association New Zealand, and NZ Bus.

The PTLF was set up in August 2009 and has agreed a 50-year vision for improving the effectiveness of public transport. Sector members are working together to carry out priority projects.

The PTLF's vision is 'Growing public transport as a mode of choice in our cities - by developing a cost effective, smart and reliable public transport network'. They want to improve peoples' experience of public transport through better leadership and joined-up networks.

The public and public transport users

Public transport users provide patronage on which the public transport network depends - the revenue helps pay for the costs of operating public transport services. Measuring patronage helps track performance and helps plan the most efficient and effective network.

It is only through councils and operators understanding their customers that public transport can keep improving and be as effective as possible - as a result, customer satisfaction surveys are important.

Public transport operators

As the name suggests, public transport operators run public transport services (bus, train and ferry services) generally under contract to regional councils. Operators own, maintain and run the vehicles, and they employ drivers, conductors and other staff. Operators also manage and run ticketing equipment (owned by regional councils). When using public transport, the public will have the closest interaction with the operators or their staff.

NZ Bus and Coach Association and other stakeholder groups

The NZ Bus and Coach Association (BCA) represents the major bus companies in New Zealand. It advocates on behalf of its members about legal and policy changes, as well as operational and practice issues. Its advocacy work includes preparing media releases, submissions, and fact sheets on relevant subjects. The BCA also publishes a monthly magazine *Circular* and hosts an annual conference. (www.busandcoach.co.nz)



Measuring the effectiveness of the NZTA's public transport investment

5

MINUTES

The saving in delays per km in Auckland morning peak

The NZ Transport Agency (NZTA) constantly measures the effectiveness of our investment in public transport in order to ensure the best value for money is being achieved. This approach fits well with a State Services Commission goal to make sure agencies collect and publish performance information so New Zealanders can see what is working and what isn't.

Wider travel choices support government objectives

We invest in public transport in order to contribute to the following government priority objectives for land transport in New Zealand:

Economic growth and productivity

Value for money

Improved road user safety

We are also committed to improving the effectiveness of public transport. In doing so, we are extending the range of travel choices available to all New Zealanders, to suit different needs.

Measuring performance of public transport networks

Our *Statement of intent* includes two measures about public transport – congestion (especially in Auckland), and travel choice. The Auckland morning peak delay for car drivers has eased from 47 minutes to around 42 minutes over the last 3 years. In terms of travel choice, the percentage of people who think public transport is a good option for work or study trips has almost doubled, from 7% in 2000 to 13% in 2012.

As well as the measures in the *Statement of intent*, we measure the performance of public transport networks. This measurement takes into account the wider transport context within which public transport works. The key performance measures we use are:

- public transport boardings per National Land Transport Fund dollar spent
- fare revenue as a percentage of total expenditure/investment.

Sector wide monitoring is vital

To fully measure public transport effectiveness, we need to monitor and analyse a range of issues across the wider land transport system. The need for sector wide monitoring was recognised some years back and resulted in the Ministry of Transport, in collaboration with transport agencies, developing the Transport Monitoring Indicator Framework (TMIF).

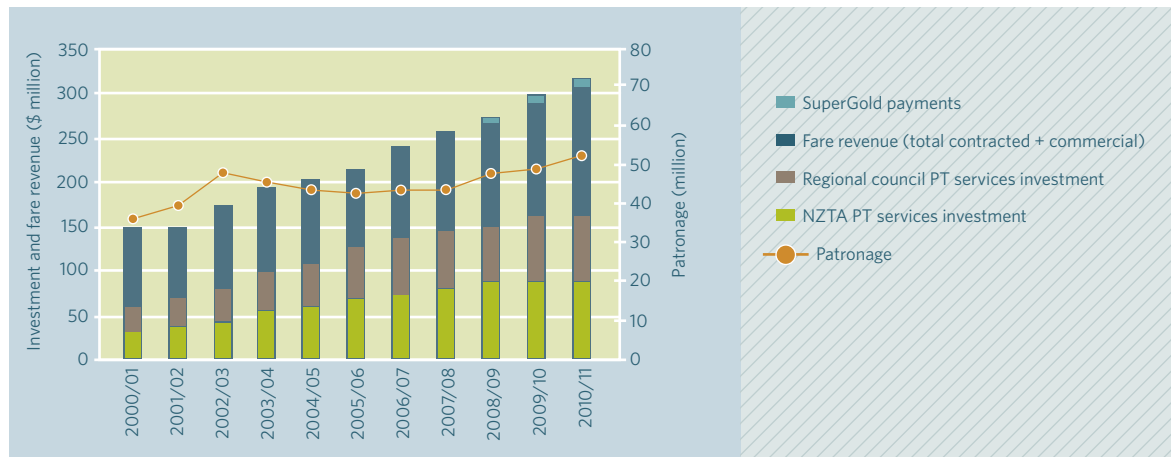
A number of TMIF measures are relevant to public transport monitoring and allow public transport monitoring to happen within a wider information context. This makes it easier for us to measure overall public transport effectiveness and what it means for an integrated transport network – what the trade-offs are, and how we can get the most out of the network.

What we monitor

To achieve government priority objectives, and to inform our other work in public transport (including providing advice and guidance), we monitor the following:

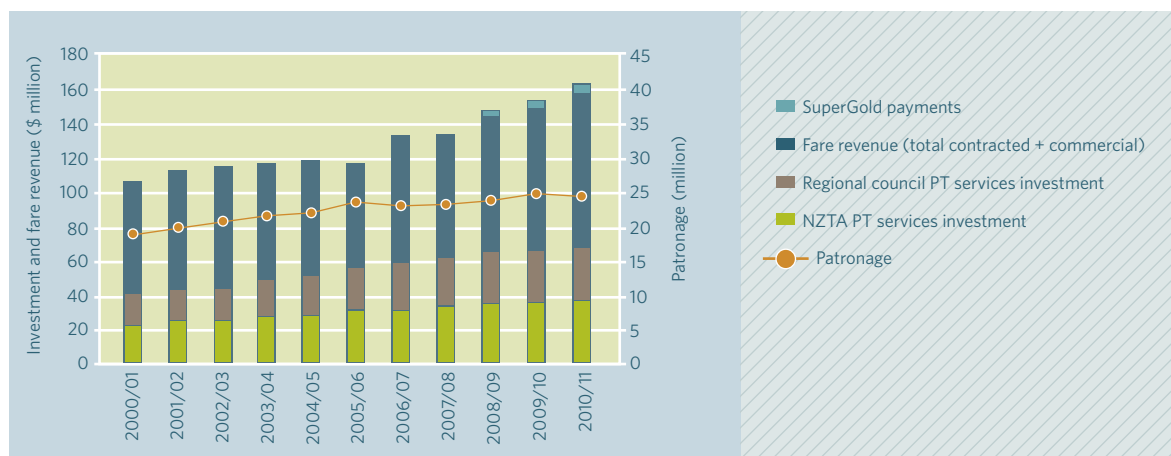
Patronage	Fleet statistics	NITIS data acquisition
Average trip length	Contracting performance	NITIS reporting
Reliability	Customer satisfaction	NITIS operational costs (NITIS is the national integrated ticketing interoperability standard)
Investment (NZTA)	Farebox	
Investment (AO)	Service level inputs	

Figure 3: Auckland trends in public transport services investment, fare revenue and patronage 2000/01-2010/11



Note: Investment and fare revenue in constant (2010) dollars.

Figure 4: Wellington trends in public transport services investment, fare revenue and patronage 2000/01-2010/11



Note: Investment and fare revenue in constant (2010) dollars.

Wider travel choices

through integrated ticketing and real-time information technologies

Increasingly people are demanding a better public transport experience. They want accurate information at the right time, in a range of formats, to a range of devices. They also want easy payment methods, reliable and timely services, and value for money. Delivering a better public transport experience in a changing world is a challenge, but also a great opportunity for innovation.

As a result, information technology is playing a growing role in public transport. This includes websites with information on routes, fares and timetables, smartphone applications and smartcard integrated ticketing. These technologies can help us make public transport more attractive, and they can help regional councils and public transport operators (eg bus companies) improve the planning and operation of services.

These technology solutions are expensive and often out of reach for all but the largest cities. Increasingly, a national approach is being used in New Zealand to minimise high entry costs and improve efficiency. The NZ Transport Agency (NZTA) wants to cut costs by developing and using common standards, and using national shared services available nationwide.

Innovations in public transport

Examples of information technology playing a bigger role in public transport include:

- Websites - providing information on public transport services, fares and timetables.
- Journey-planning software - helping people plan complex journeys.
- Smartcard based integrated ticketing for bus, rail and ferry.
- Integrated fares across different modes of travel.
- Access to timetables through text messaging.
- Real-time information systems - accurately tracking and predicting arrival times at stops, terminals and stations.
- Timetable and route planning software.



How the NZTA plans for technology investment

Investment in information technology can be costly. We coordinate efforts, share best practice, ensure best value for money and help councils make decisions on public transport technology.

We also invest strategically in good value for money technology to improve peoples' public transport experiences. We encourage research, and we are developing a national approach to integrated ticketing and fares.

Over the past five years we've been working with the public transport sector to create a national integrated ticketing interoperability standard (NITIS), a standards-based approach and a national processing system, to help improve the effectiveness of public transport. Auckland was the first step in that journey, with the AT HOP card (a re-usable smart card that stores money) in late 2012.

Making it easier for customers

Integrated ticketing uses prepaid smartcards loaded with money and other information. Smartcards make public transport travel easier for people by reducing boarding time and increasing convenience – so people don't need to carry cash when commuting. Integrated ticketing allows people to change between modes (bus, rail, and ferry) on a single ticket. If people register their smartcard, the balance is protected and can be blocked if the card is lost or stolen.

Smartcards allow operators to collect valuable passenger trip information. This information is used by councils, and us, and is helpful in network planning, service improvements and performance measurement.

Integrated ticketing also allows for integrated fares. This makes public transport a more attractive option, as the best available fare can be paid no matter how many modes of public transport (bus, rail, or ferry) are used in a single journey.

Overseas experiences show integrated ticketing and fares systems increase the use of public transport. This is directly relevant to the government priority of increasing the number of people using public transport, with less taxpayer and ratepayer subsidy.

Delivering customer information in our major cities

Tens of thousands of commuters use buses and trains in our major cities every day. Using real-time information systems means they can save time and frustration by finding out exactly when the next bus is due from bus stop digital displays, smart phones, or the web – before they leave home or work.

Train commuters will also benefit, with plans to extend real time information systems to cover all rail services. These moves are expected to boost public transport use further.

An emerging area of work is joining up public transport information with other modal information (including from traffic operations), to give people active choices. For example, if there is a crash or roadworks, people can actively choose to travel by another transport mode.

Getting the best out of the network

We are also thinking about how to better manage customer and system performance information. Improved information can help get the best out of public transport networks, by allowing councils and operators to better tailor their service schedules and routes.

Personal safety is another important element, with the potential for CCTV and other public transport infrastructure, such as on-line platform monitoring, enabling better safety.