



THE FUTURE OF FREIGHT LOGISTICS

WORLD CLASS FREIGHT LOGISTICS

*Our **Business.** Our **Environment.** Our **Future.***

BAY OF PLENTY FREIGHT LOGISTICS STRATEGY

A product of the Bay of Connections Economic Strategy





ACTION PLAN SUMMARY

AN ACTION PLAN FOR WORLD CLASS FREIGHT LOGISTICS.

THE ACTION PLAN IS THE KEY TO THIS STRATEGY. TO ACHIEVE OUR VISION OF A WORLD CLASS FREIGHT LOGISTICS REGION THE BAY OF PLENTY NEEDS TO OWN THIS STRATEGY AND ACT UPON IT.

Collaboration and partnership are two themes that run throughout this strategy and are critical if we are to achieve our vision and our goals.

The supply chain has no respect for administrative boundaries. We will need to work in partnership with industry, key agencies, and neighbouring regions, including Waikato and Auckland. We will also need to work closely with central government, industry organisations and key producers and importers with a national scope of operation. This supports the theme of Bay of Connections of building regional, national, international, and business connections.

The competitive nature of the sector means working together will not always be possible. It is important this does not inhibit the development of an effective and efficient supply chain.

The Action Plan is made up of eight major areas. Each area aims to apply world class logistics solutions, in a way that is appropriate to the specific needs and circumstances of the Bay of Plenty. It is all about working collaboratively to

improve business performance - regionally, nationally and internationally. At the same time, to achieve our goal of lifting New Zealand's ranking in Logistics Performance¹, we will also work to improve safety, reduce the impact on the environment and preserve community values.

A key item in the Action Plan is to create the Bay of Plenty Logistics Action Group. The main purpose of this group will be to provide strong commercial leadership and own and drive logistics initiatives that will contribute to the goals of the strategy. The group will be vital to ensuring this strategy is put into action. Members will come from across regional boundaries and will represent the production sectors, importers and logistics operators. It will be important for the Group to take an inter-regional and multi-sector, multi-modal overview when implementing the Action Plan.

The Action Plan is intended to be a framework to help guide future action. The Action Group will develop a simple terms of reference, will prioritise the items in the Action Plan, and will put time frames on those actions – within the next two to five years. It will also refresh the strategy on a regular basis, to ensure that actions remain relevant and targeted to the areas of maximum benefit for the region and the nation as a whole.

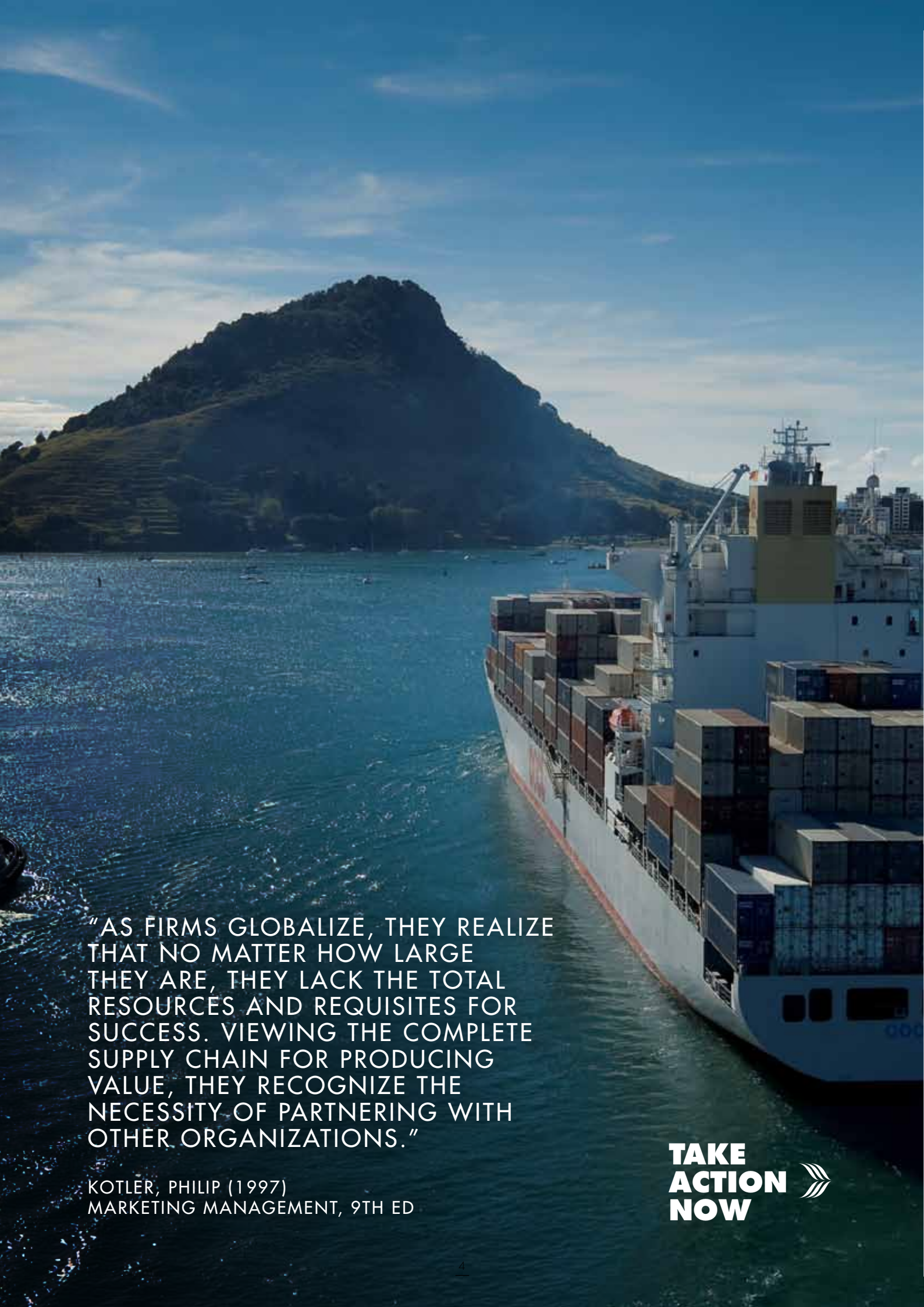
¹As measured by World Bank Logistics Performance Index.



The logistics industry in Australia and New Zealand is small by global standards. The combined volume of all container traffic in Australia, New Zealand and Oceania is under 4% of total world volume. To impose world's best practice over such a small volume is overly ambitious and so requires unique solutions that reflect, but are not identical to world's best practice. Solutions should be based on, but not mirroring, what happens in other countries.

There needs to be pooling of resources and a greater awareness of the benefits available through sharing of information and applications compared with each business looking for a special edge in the hope it will increase their share of the cake.

There are opportunities for collective action with a particular focus on breaking down competitive activities into real and perceived. Sharing of common data and establishment of a shared back office is a starting point.

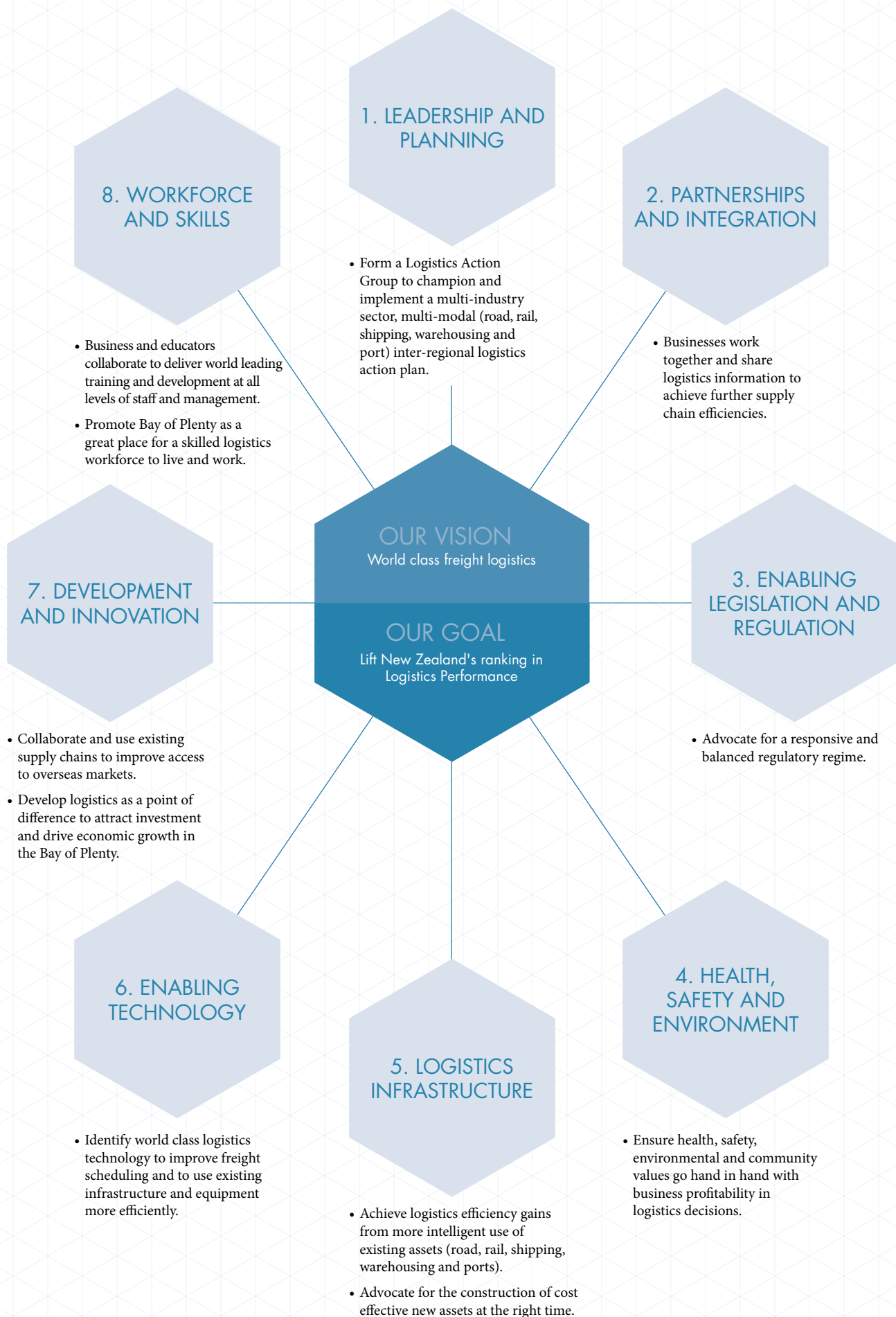


"AS FIRMS GLOBALIZE, THEY REALIZE THAT NO MATTER HOW LARGE THEY ARE, THEY LACK THE TOTAL RESOURCES AND REQUISITES FOR SUCCESS. VIEWING THE COMPLETE SUPPLY CHAIN FOR PRODUCING VALUE, THEY RECOGNIZE THE NECESSITY OF PARTNERING WITH OTHER ORGANIZATIONS."

KOTLER, PHILIP (1997)
MARKETING MANAGEMENT, 9TH ED

**TAKE
ACTION
NOW** 

BAY OF PLENTY FREIGHT LOGISTICS STRATEGY





FREIGHT AND WEALTH

PROMOTING WORLD CLASS FREIGHT LOGISTICS TO DRIVE ECONOMIC GROWTH.

The Bay of Plenty Economy in 2010 generated \$10.17 billion in GDP – 5 per cent of New Zealand's total GDP.

\$10.17 BILLION

In New Zealand, heavy vehicle travel increases at a rate approximately 1.4 times the real rate of increase in GDP.

1.4 TIMES

LO·GIS·TICS [LOH-JIS-TIKS]

noun (used with a singular or plural verb)

THE TERM OF MANAGEMENT OF SERVICES AND GOODS FLOW FROM THE ORIGIN POINT AND THE CONSUMPTION POINT TO FULFIL THE CUSTOMER'S REQUIREMENT.

Freight logistics contributes over
\$400 million to BOP GDP and
employs 3,100 FTE's.

\$400 MILLION

Employment in BOP Freight Logistics
is expected to grow to 4,400
FTE's by 2026.

4,400 FTE'S

A WORLD-CLASS FREIGHT LOGISTICS REGION



World class freight logistics



Lift New Zealand's ranking in Logistics Performance



- *Fully committed to collaborating with existing and new stakeholders to achieve our goals*
- *Working together with honesty, integrity, and caring about health, safety and the environment*

THE BENEFITS OF WORLD CLASS LOGISTICS ARE SIGNIFICANT.

The costs of getting goods to market are typically just under 10% of business turnover. Efficient logistics scheduling can reduce these supply chain costs by around 20% while improving service quality and customer satisfaction.

Transport operators gain from more effective utilisation of assets and strengthened customer relationships. Producers, importers and their customers gain from reduced inventory and logistics costs.

The community benefits from reduced congestion, noise, and pollution and fewer accidents.

The **STRATEGY**



Page 08
THE POINT OF THIS STRATEGY

Page 10
A BIT OF BACKGROUND

Page 11
KEY AREAS OF FOCUS

THE POINT OF THIS STRATEGY

TO PROMOTE WORLD CLASS FREIGHT LOGISTICS THAT
SUPPORTS ECONOMIC GROWTH

EFFICIENT LOGISTICS IS CRITICAL FOR THE SUCCESS AND GROWTH OF THE NEW ZEALAND ECONOMY

The volume of freight in the Bay of Plenty will continue to grow and must be planned for. Freight logistics are a significant cost to businesses. By developing a world class logistics chain in our region, we can help to boost trade and the Bay of Plenty economy.

There is an opportunity to establish the Bay of Plenty as an efficient distribution and logistics region, where we recognise the importance of responsibly run freight logistics to economic success – locally and nationally. The benefits that arise from the uptake of world class logistics technologies and practices will help the region to attract ongoing investment.

Logistics is more than just physical operations and infrastructure. Building relationships between businesses and creating opportunities for real-time information sharing are equally important for achieving supply chain efficiencies.

The Bay of Plenty Freight Logistics Strategy provides a three to five year plan of commercially realistic actions that will:

- Inform and influence regional infrastructure plans
- Result in more cost-effective management of freight and drive business efficiency
- Establish the Bay of Plenty as the leading New Zealand region for excellence in supply chain, distribution and logistics for freight by 2020
- Enable and support business and economic growth in the region.

While the strategy details actions for a three to five year period, the long-term nature of infrastructure investment will require at least a 20-year view for many issues.



FREIGHT COSTS

Freight costs are part and parcel of international trade. If international freight costs can be reduced then trade will be enhanced, the economy can be more productive and New Zealanders more prosperous.

SOURCE: The NZ Productivity Commission Issues Paper; International Freight Transport Services

FACT

THIS STRATEGY IS ASPIRATIONAL AND PRAGMATIC

This Strategy:

Focuses on the Bay of Plenty and recognises its role in national and international logistics

Encourages commercially-led collective action

Seeks to partner with local and central government, the economic development agencies and other key stakeholders

Is aligned with the other Bay of Connections strategies and other regional and national supply chain initiatives



Aims to increase industry profitability and competitiveness

Focuses on continuously improving the quality of service to customers

Is focused on a range of areas for development which include:

Efficient use of logistics infrastructure

Data management to improve logistics scheduling

Improving health, safety and environmental performance

Promoting skills and education

The regulatory environment

Is multi-sector and multi-modal encompassing road, rail, sea and air

A BIT OF BACKGROUND

BAY OF CONNECTIONS AND THE FREIGHT LOGISTICS STRATEGY

BAY OF CONNECTIONS IS THE REGION'S ECONOMIC DEVELOPMENT STRATEGY

At the end of 2008 Bay of Connections was launched by the Bay of Connections Governance Group. The Governance Group is made up of three business leaders, three representatives from each of the sub-regional economic development agencies, a local government representative, and two Māori business representatives.

Bay of Connections identifies 13 key areas of focus for the region's growth and development opportunities. It is a combination of emerging and existing industries. Transport and logistics is one of those key areas, so this strategy forms part of the work under Bay of Connections.

STRATEGY DEVELOPMENT AND IMPLEMENTATION

This strategy has been developed by a variety of leaders in the industry. Work began in early 2011.

After an initial meeting in March 2011, a Bay of Plenty Logistics Advisory Group was set up. This group was led by Tony Hawken, CEO EastPack and member of the Bay of Connections Governance Group. Members of the group included representatives from the key production sectors, importers, logistics operators, education providers and local and central government agencies. The Bay of Plenty Polytechnic has been a key element in the success of the strategy development.

Logistics Advisory Group meetings were held in June, July and August 2011 to ensure stakeholder input and ownership of this strategy. Consultation meetings in August obtained further stakeholder feedback on the proposed areas of focus and the Action Plan.

Two pieces of background for this strategy were completed in June 2011 by Stimpson & Co – Background Literature Search, and Review of Literature on Internal Best Practice for Regional Logistics Strategies and Plans. These documents, as well as this Strategy can be accessed at www.bayofconnections.com under the Transport and Logistics section.

As this Strategy is implemented over time, more and more stakeholders will become involved. An essential success factor of this Strategy and the Action Plan will be for the region to maintain close links with key players and implementation agencies – including those of central government and those based in the region. A collaborative approach is vital to the success of this Strategy.



POSITIVE GROWTH

Strong growth is projected in the Auckland, Waikato and Bay of Plenty area over the next 20 years, when it will comprise over half of New Zealand's total economic activity and 53 per cent of its population.

FACT



MANY OF THE BAY OF CONNECTIONS
FOCUS AREAS ARE INTRINSICALLY
LINKED TO THE SUCCESS OF THE
FREIGHT LOGISTICS STRATEGY.

CASE STUDY

PARTNERSHIPS & INTEGRATION:

COLLABORATION – TAKING RESPONSIBILITY FOR SOLUTIONS.

During 2010, the volume of log exports through the Port of Tauranga increased by 15 percent over 2009, putting log handling operations at the port under pressure and increasing truck delays at scaling and unloading points. The situation was exacerbated over the Christmas period, when local sawmills closed and log supplies were diverted to export. The burgeoning demand from China promised ever-increasing growth in throughput.

Initially the port faced criticism over the delays and requests for extended operating hours.

However, some forest industry players realised that there were potential solutions within their hands, including improvements to the supply chain outside the port gate, and opportunities for joint action with the port. Two pan-industry groups, the Log Transport Safety Council (LTSC) and the New Zealand Forest Owners Association, provided the collaborative leadership needed to bring the key parties together.

A forum of forest owner/managers, port company, export agents and the LTSC was formed to discuss the immediate and longer term issues, and how to collectively manage these issues to improve overall system performance.

The short term solutions included:

- Improving the frequency and quality of communications, particularly of forecast delivery schedules
- Extending and utilising a 24 x 7 delivery window
- Increased log marshalling capacity.

Longer term solutions include:

- Scoping forecast demand and capacity requirements
- Technology improvements to measure and manage products
- Introduction of high productivity vehicles
- On-going consultation and communication.

Immediate and significant productivity gains were achieved and the forum continues to work on the longer term issues and solutions.

Information provided by Mike Spiers, P.F. Olsen Ltd.

The **LOGISTICS ENVIRONMENT**



Page 14
**BAY OF PLENTY LOGISTICS
ENVIRONMENT**

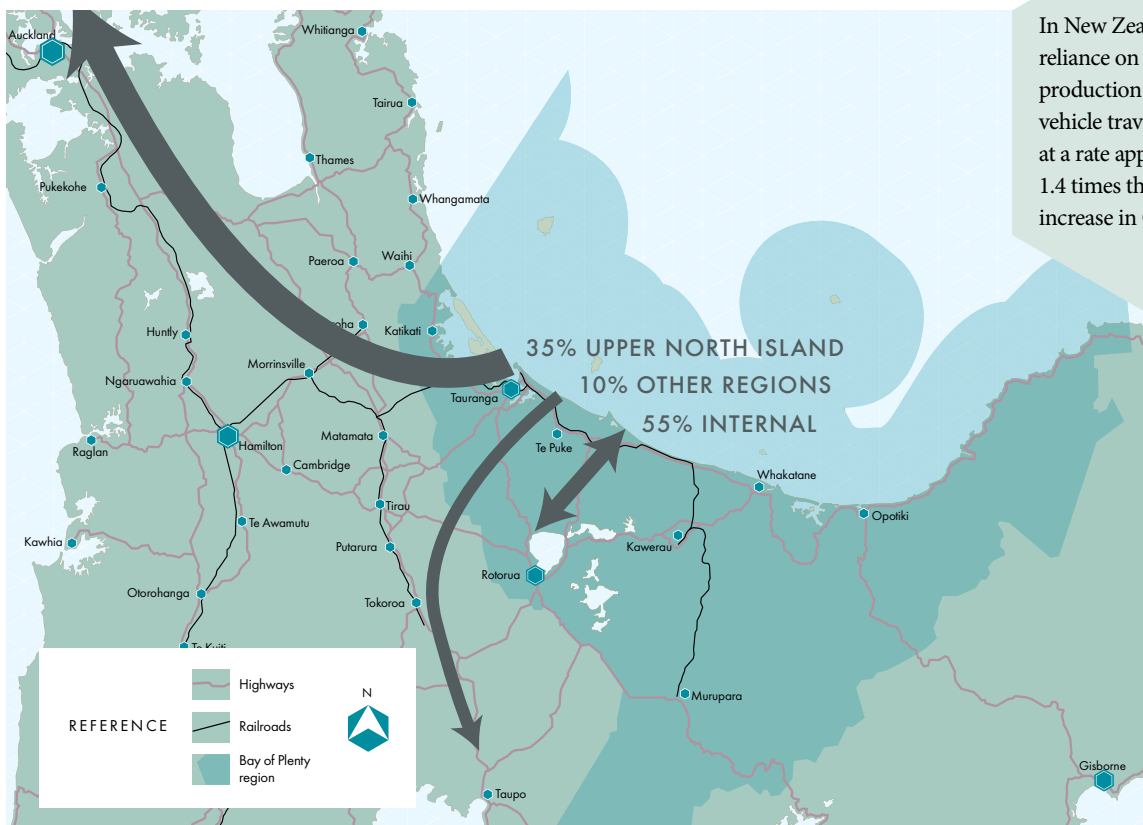
Page 17
**NEW ZEALAND LOGISTICS
ENVIRONMENT**

Page 18
INTERNATIONAL BEST PRACTICE

Page 20
PRODUCTIVITY

BAY OF PLENTY LOGISTICS ENVIRONMENT

A RELATIVELY HIGH SHARE OF BAY OF PLENTY TOTAL FREIGHT FLOW IS EXTERNAL TO THE REGION, REFLECTING THE INTEGRATION OF THE AUCKLAND, WAIKATO, AND BAY OF PLENTY ECONOMIES.



In New Zealand, with a reliance on the primary production sectors, heavy vehicle travel increases at a rate approximately 1.4 times the real rate of increase in GDP.³

FREIGHT FLOWS NOW AND FUTURE

Growth in GDP typically goes hand in hand with transport growth. The table below provides a broad estimate of current and future state of logistics flows in the Bay of Plenty. It shows that the Bay of Plenty is expected to have an ongoing economic reliance on primary production. Periodic swings in global commodity prices will result in variations in import and export volumes as the market adjusts, but the overall trend is for increased growth.

Improvements in agriculture-based productivity will see exports grow and will increase the demand for agriculture inputs such as fertiliser and feed imports. Growth is also forecast in logs and forest products, and kiwifruit. There are risks to these growth prospects however. Dairy, timber and

kiwifruit are all subject to risks that can significantly impact demand and supply in a short space of time.

Road transport is the predominant freight mode in the region, particularly logs and kiwifruit, with 83 percent modal share². With over a third of New Zealand's rail traffic, the region's rail network is the most densely utilised sector of the national rail network. Approximately 40 percent of the imports and exports through Port of Tauranga travel on rail.

Tauranga's population is forecast to double within 30 years, growing more strongly than Auckland and Hamilton. This growing and aging population will see a need for additional retail and residential infrastructure and place additional demands on our road network.

²Bay of Plenty Regional Freight Study. Paling, 2010.

³Prediction of New Zealand's freight growth by 2020, TERNZ, 2006.

EXPORTS

DAIRY

90%

of exports railed from outside region through Port of Tauranga
588, 000 tonnes per year.

Strong external growth potential if 7,000 TEU vessels come to Port of Tauranga.

KIWIFRUIT

757,000 tonnes per year.

75/25% of volume from East & West BOP respectively - all by road.

75% exported break bulk; 25% containerised.

Strong growth to 1.25 million tonnes (+250%), although there is a PSA disease risk to volumes in short term.

LOGS

4.4 million tonnes per year.

Two thirds of volume by rail.

Strong growth to approximately 5.5 million tonnes by 2020.

SAWN

981,000 tonnes.

Mainly by road and 75% into containers.

Strong growth forecast.

PULP AND PAPER

1,337,000 tonnes

Paper 100% by rail and containerised (Kawerau newsprint containerised at site; Kinleith containerised at Sulphur Point).

EMERGING SECTOR:
AQUACULTURE

Mussel:

100

tonnes / day from Coromandel – Tauranga.
50 tonnes / 1.5 FEU per day exported
8-10 months per year. Moved by truck.

Strong growth prospects

IMPORTS

RETAIL AND OTHER
IMPORTS**3.4** million tonnes. Moved mainly by road.

50% growth in line with population growth.

OIL PRODUCTS

1.2 million tonnes. Moved mainly by road.

Strong growth of imports is expected at least in line with overall economic growth.

GRAIN AND
STOCK FEED**1.1** million tonnes

Currently growing at 26% pa.

FERTILISER BASES

530,000 tonnes.

Also showing strong recent growth

The Port of Tauranga will remain of central importance to the Bay of Plenty and it provides logistics services across New Zealand. There are both opportunities and risks arising from the prospects of 7,000 TEU vessels to New Zealand visiting / not visiting the Port of Tauranga. With the Port of Tauranga forecast to be the first North Island port catering for larger vessels, there's a strong potential for increased imports via Tauranga compared to Auckland, stimulating the development of distribution and light industries, and other services, in the region.

Economic growth and increased demand on shipping, combined with increasing port land values, is likely to drive the Port of Tauranga to being a cross-dock facility with on-port current storage capacity being relocated to the urban periphery.

Increased import activity through the Port of Tauranga may result in the establishment of distribution hubs in Tauranga and Waikato, networked into other hubs in Auckland and the lower North Island.

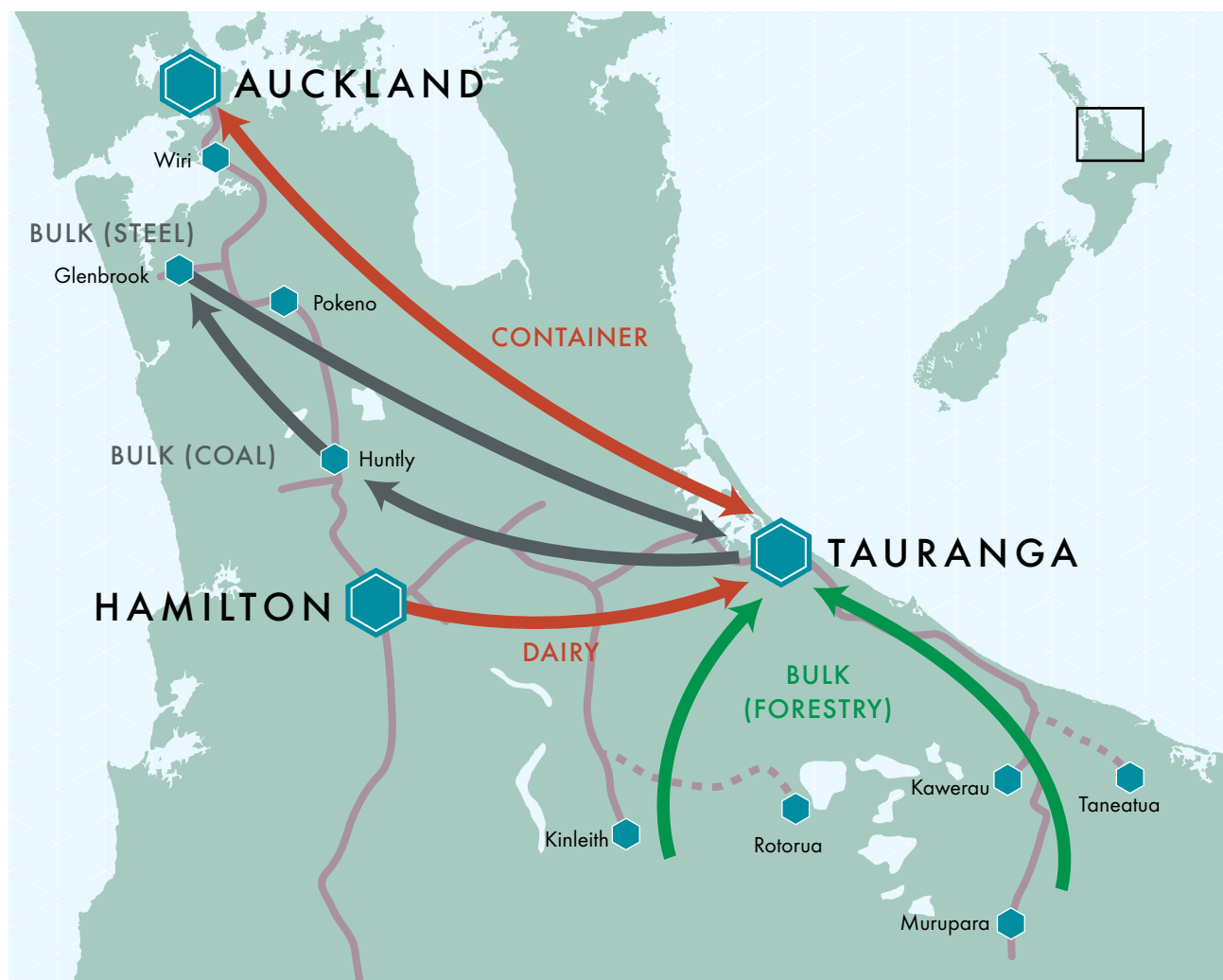
Maintaining efficient transport corridors to the Port of Tauranga and supporting local road networks will become increasingly important. For each tonne of export-ready product that travels on a major route, several tonnes of raw milk, logs or kiwifruit have first had to travel on local roads.

The use of High Productivity Motor Vehicles (HPMV) combined with increased bridge capacities and the possibility of freight-only corridors has the potential to significantly lower supply chain costs and improve road safety.

The Bay of Plenty will need efficient warehousing and distribution infrastructure, supported by world class logistics technology to become a world class logistics region. As land costs rise at the Port of Tauranga, there may be a need to develop integrated logistics parks on the periphery of the urban area. New warehousing can be built at such centre-located logistics facilities as existing capacity reaches the end of its economic life.

Businesses can make more efficient use of their existing logistics assets and the transport system by working together and using world class logistics technologies for warehousing and scheduling the movement of freight. More effective use of existing assets will benefit the economy as the need for further investment in infrastructure can be deferred.

RAIL FREIGHT FLOWS BETWEEN BAY OF PLENTY/WAIKATO/AUCKLAND



NEW ZEALAND LOGISTICS ENVIRONMENT

THE BAY OF PLENTY LOGISTICS ENVIRONMENT IS A KEY COMPONENT OF THE WIDER NEW ZEALAND SUPPLY CHAIN.

The New Zealand Freight Future study (NZ Business Council for Sustainable Development report Future Freight Solutions: An Agenda for Action) found a number of challenges within the current supply chains. They were highlighted in discussions with stakeholders and reviews of international trends. They include:

- The need for a shared long-term vision by government and the freight sector
- Inefficient landside access to ports
- Rail not achieving its potential
- Inadequate capital investment
- Inability of supply chain participants to consistently co-ordinate to optimise efficiency.

A number of exciting opportunities now exist to lift the freight sector and supply chain productivity, including:

- Real-time management of traffic flows

- Real-time reporting on freight movement
- Time-specific charging for congestion, accident, noise and other externalities
- New funding sources and mechanisms, including tolling, public private partnerships (PPPs), a national motor fuel tax surcharge available to be allocated for regional roading
- Hub and spoke networks, super-sized container ships, and deeper ports
- Substantial investments in rail to boost transit speeds and reliability
- Increased truck payloads as a result of new provisions for HPMVs on roads.

If introduced appropriately, these innovations could see New Zealand benefit as it did from earlier freight innovations, like refrigeration on ships, to enable the export of frozen meat, the advent of containerisation, the introduction of long haul jet aircraft for tourism, and the corporatisation of our ports and subsequent workforce reforms.



FREIGHT COST CONSEQUENCES

Freight costs inhibit trade. They have the effect of increasing the price New Zealanders pay for imported goods and reducing the net price New Zealand exporters receive for the goods they export. A consequence of being relatively distant from other centres of economic activity is that increases in freight transport costs have a more severe impact on New Zealand than on more centrally-located countries.

SOURCE: The NZ Productivity Commission Issues Paper; International Freight Transport Services

FACT

INTERNATIONAL BEST PRACTICE

LOGISTICS PERFORMANCE INDEX

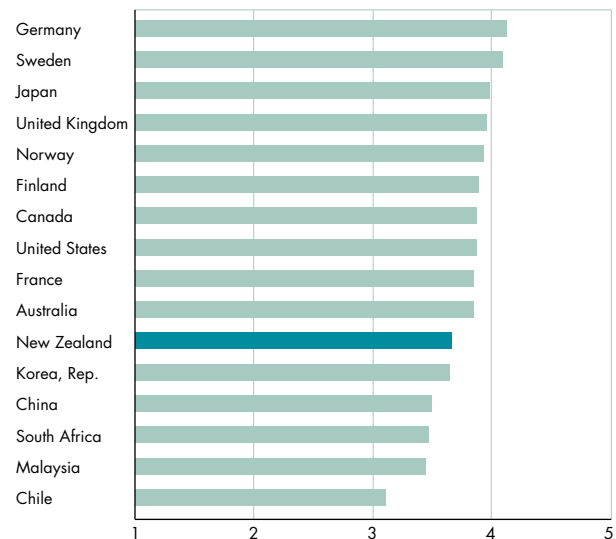
The World Bank produces a biennial report on comparative logistics performance across approximately 150 countries⁴.

New Zealand's ranking amongst selected countries is illustrated in the graph. The comparison is for the overall LPI.

New Zealand ranks relatively higher for customs and timeliness and lower for infrastructure and logistics competence.

As a key part of an upper North Island region handling around 65% of the country's freight movements, lifting logistics performance in the Bay of Plenty will have significant impact on New Zealand's performance too.

International LPI (Logistics Performance Index): Cross-Country Comparison



PHYSICAL DEVELOPMENT MODELS

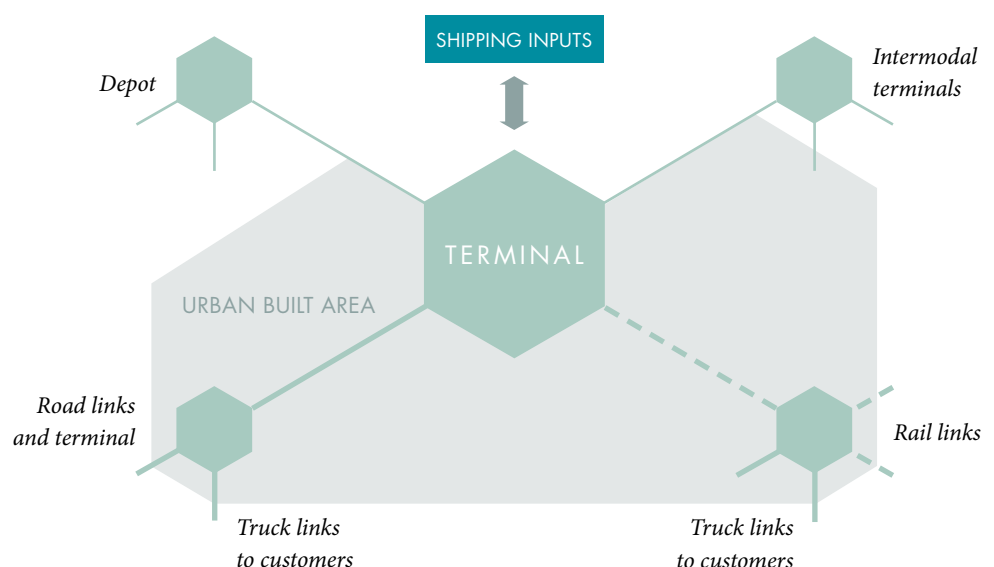
Physical development models and the importance of information sharing are two relevant themes for the Bay of Plenty from regional logistics strategies around the globe.

Three examples of physical development models with potential relevance for a more efficient supply chain network within the Bay of Plenty region include:

1. CENTRE/PERIPHERY MODELS

To take advantage of lower cost land at the periphery and avoid congestion at the centre.

SOURCE: Port-Oriented Landside Logistics in Australian Ports: A Strategic Framework, Ross Robinson, The Australian Centre for Integrated Freight Systems Management, School of Enterprise, The University of Melbourne, Melbourne, Australia. Paper published in Maritime Economics and Logistics, Volume 8, Number 1, March 2006, pp40-59).



⁴www.worldbank.org Logistics Performance Index.

2. HUB AND SPOKE

Distribution model that involves moving long haul freight by road or rail to the outskirts of a metropolitan area, where it is then:

- either redistributed into the urban core using light short haul road services
- or in the case of export/import cargo, it is moved between the hub and the metropolitan port.



3. LOGISTICS CITIES

Logistics park with a full range of logistics-related added value services.

CENTRE LOGISTICS FUNCTIONALITY



These concepts are used in other industries. For example, the hub and spoke model is used for the USA airline network, and the centre-periphery model has been proposed as a development strategy for Melbourne and Sydney to cater for the congestion of traffic associated with the metropolitan ports. Logistics parks have been developed overseas as a development strategy for enhancing supply chain efficiencies.

Using logistics plans and strategies as an economic development tool involves more than just physical operations and infrastructure. Building relationships between businesses and businesses sharing information are equally important ways of achieving supply chain efficiencies.

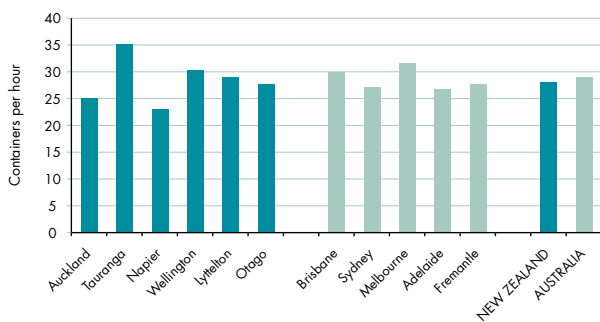
So, what is the best model to apply in the Bay of Plenty? It might be one of the above, or another. The Logistics Action Group could investigate this further to identify what's best for our region.

PRODUCTIVITY

PORT OF TAURANGA

“Recent research by the Ministry of Transport has confirmed Port of Tauranga to be the most productive container port in Australasia and ranked as achieving upper decile crane productivity globally”⁵.

Crane Rate: 2010
(Best in Class Productivity: Cranes Averaging 35.0 moves/hour)



SOURCE: Ministry of Transport



HIGH PRODUCTIVITY TRUCKS

In 2010, after a decade of analysis, reports and submissions, the regulations governing heavy vehicle weights and dimension were amended to allow for changes to some of the lengths for heavy vehicles, and to create a new permit class for high productivity motor vehicles (HPMV) at increased weights.

For typical 7 and 8-axle rigs, the permits allow increases in gross weights from the current 44 tonnes, to between 50 and 55 tonnes on approved routes. This translates to productivity increases of 20% or more in payload and is a very significant productivity opportunity for road freight transport. The increased length also allows the opportunity to carry three 20ft (TEU) containers, or one TEU plus one 40-ft (FEU).

Most of the state highway network in the Bay of Plenty and Central North Island is approved for limited HPMV. As at October 2011, the key remaining constraints are:

SH1 Taupo – Tokoroa. Atiamuri Bridge
(currently being replaced)

SH33 Rotorua-Paengaroa. Okere Falls Bridge
(currently unfunded)

SH2 Edgecumbe-Whakatane. Reids Canal Bridge
(currently being replaced)

SH2 Tauranga-Paeroa. Multiple bridges.

RAIL CAPACITY

In the past two years, KiwiRail has been increasing the length of passing loops on the Tauranga-Hamilton and Tauranga-Kawerau lines to lift train capacity in both length and frequency.

⁵Port of Tauranga Annual Report 2011.

The **OPPORTUNITY**



OPPORTUNITIES IN EACH OF THE EIGHT FOCUS AREAS ARE DISCUSSED IN THIS SECTION ALONG WITH OBJECTIVES TO BE PURSUED IN THE ACTION PLAN, WHICH IS DETAILED IN THE NEXT SECTION.

Page 22

1. LEADERSHIP AND PLANNING

Page 23

2. PARTNERSHIPS AND INTEGRATION

Page 24

3. ENABLING LEGISLATION AND REGULATION

Page 25

4. HEALTH, SAFETY AND ENVIRONMENT

Page 26

5. LOGISTICS INFRASTRUCTURE

Page 28

6. ENABLING TECHNOLOGY

Page 29

7. DEVELOPMENT AND INNOVATION

Page 30

8. WORKFORCE AND SKILLS

FOCUS AREA:

1

LEADERSHIP AND PLANNING

OBJECTIVE:

FORM A LOGISTICS ACTION GROUP TO CHAMPION AND IMPLEMENT A MULTI-INDUSTRY, MULTI-MODAL (ROAD, RAIL, SHIPPING, WAREHOUSING AND PORT) INTER-REGIONAL LOGISTICS ACTION PLAN.

OPPORTUNITIES

A commercially focused Bay of Plenty Logistics Action Group will be critical to the successful implementation of this Strategy. Central and local government agencies that impact on the supply chain also have an important role to play.

Logistics and its importance to the economy are not well understood by many regulators and residents.

An influential action group needs to address this and advocate advances in supply chain design for the benefit of both the region and the country. The Logistics Action Group will champion and support the implementation of the Strategy. It will be important for the Group to take a regional, multi-sector and multi-modal overview when it decides on actions to pursue. These actions must have clear financial and

community benefits to encourage commercial and public sector participation and funding. Identifying sustainable funding and in-kind resources from commercial and government sources will be critical for success. The Action Group will also review and refresh the strategy on a regular basis to ensure that the actions remain relevant and benefit the region and nation as a whole.

Membership of the Logistics Action Group will come from across regional boundaries and leverage the growth prospects in the upper North Island. A strong commercial presence and the involvement of senior executives are needed for the successful implementation of this Strategy. This will also help to encourage broad geographic participation.

The Logistics Action Group also needs to consider how it works with existing logistics and transport industry organisations.



GATEWAY TO WEALTH

The most prosperous cities of the world (with the exception of Johannesburg) have built their wealth around a port. These cities include London, Hong Kong, Dar es Salaam, Durban, New York, Sydney, Singapore, Frankfurt.

FACT

FOCUS AREA:

2

PARTNERSHIPS AND INTEGRATION

OBJECTIVE:

BUSINESSES WORK TOGETHER AND SHARE LOGISTICS INFORMATION TO ACHIEVE FURTHER SUPPLY CHAIN EFFICIENCIES.

OPPORTUNITIES

Businesses that aim to further reduce costs and improve the efficiency of their supply chains look beyond conventional logistics practices. There are opportunities for exporters, importers, customers and transport operators to work together. Collaborating in this manner is critical to the success of this Strategy.

There is expected to be real and understandable reluctance among local competitors to collaborate. Competition is particularly intense among transport providers, who may be reluctant to reveal logistics flows and timing, as supply chain improvements are an area of real competitive advantage.

Producers, manufacturers and importers will have a greater incentive to collaborate. In many cases there may be no barrier to collaboration when, for example, the dairy industry collaborates on supply chain efficiencies with the meat industry. Direct competitors may collaborate, if there are clear financial benefits, but they are unlikely to share commercially sensitive information.

Collaboration between public and private sectors presents a key partnership opportunity. This is also discussed in other focus areas such as infrastructure and enabling technology. The public and private sectors can work together to extract best value from existing transport investment. Public sector facilitation of a communications network for private sector information sharing will assist. Public/private partnerships will be possible where growth requires investment in new infrastructure.

In implementing this strategy the Logistics Action Group should consider how to best use all modes of transport including rail, road, coastal and international shipping in an integrated manner. Air freight is recognised in the scope of this Strategy, but is not expected in the short to medium term to be an area of focus.

The scope of discussions should span all the regions that Bay of Plenty supply chains traverse, including Auckland and Waikato, which form an economic triangle of current and growing economic importance.



FOCUS AREA:

3

ENABLING LEGISLATION AND REGULATION

OBJECTIVE:

ADVOCATE FOR A RESPONSIVE AND
BALANCED REGULATORY REGIME.

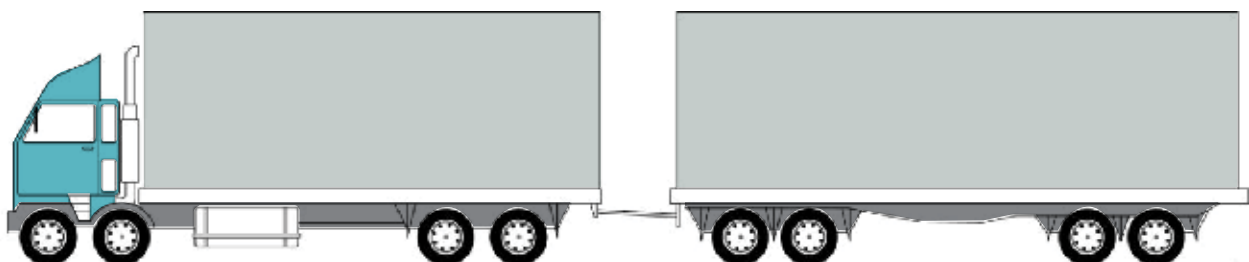
OPPORTUNITIES

A responsive and balanced regulatory regime is critical to efficient supply chains.

The productive sectors, importers, retailers and logistics operators have particular concerns with the development restraints in plans created under the Resource Management Act. These restraints sometimes arise because regulatory bodies and the wider community are unaware of the impact logistics has on the economy and are not familiar with logistics technologies.

At the moment, different industry organisations representing transport and logistics operators, major producers and importers advocate change independently of one another. There is an opportunity to form a single logistics lobby group to advocate with one voice on a multi-sector, multi-mode basis. Advocacy from this logistics group should cover both regulatory issues and infrastructure development needs.

R22T22 - 58,800kg max if TOL over 20.5m (Overlength Permit req. if TOL > 20.0m)



10,800

15,000 (16,000) if $\geq 1.3\text{m}$

15,000 (16,000) if $\geq 1.3\text{m}$

15,000 (16,000) if $\geq 1.3\text{m}$

SOURCE: Ministry of Transport

FOCUS AREA:

4

HEALTH, SAFETY AND ENVIRONMENT

OBJECTIVE:

ENSURE HEALTH, SAFETY, ENVIRONMENTAL AND COMMUNITY VALUES GO HAND IN HAND WITH BUSINESS PROFITABILITY IN LOGISTICS DECISIONS.

OPPORTUNITIES

A key value underpinning this strategy is that health, safety and environmental sustainability are crucial and need to go hand in hand with profitability when logistics decisions are made.

By applying this value we have an opportunity to position the Bay of Plenty as having a safe and environmentally friendly logistics network and to use that to attract businesses and people to the region.

The Bay of Plenty region is characterised by a predominant and growing use of road transport for freight, especially for logs and kiwifruit. Coupled with a growing and aging

population, this increases the risk of conflict between freight and private road users. Traffic congestion could deter people and businesses from the region. A 'do nothing' approach will compromise road safety and have an adverse effect on the region's economy and reputation.

Measures of health, safety and environmental performance are already wide spread across the logistics sector. These performance results need to be communicated to the wider community and to key decision makers considering regulatory issues and infrastructure investment to make sure transport related decisions deliver optimal outcomes for both the community and the business sector.





FOCUS AREA:

5

LOGISTICS
INFRASTRUCTURE

OBJECTIVE:

- ACHIEVE LOGISTICS EFFICIENCY GAINS FROM MORE INTELLIGENT USE OF EXISTING ASSETS (ROAD, RAIL, SHIPPING, WAREHOUSING AND PORTS).
- ADVOCATE FOR THE CONSTRUCTION OF COST EFFECTIVE NEW ASSETS AT THE RIGHT TIME.

OPPORTUNITIES

Physical infrastructure (road, rail, logistics centres/warehousing and ports) is critical to supply chain efficiency. Care needs to be taken to avoid an unbalanced strategy with undue emphasis upon bricks and mortar and the physical equipment. Significant efficiency gains are available from more intelligent use of existing assets using information technology and human resources. The partnership and technology focus areas of this strategy aim to achieve these types of low capital cost improvements to supply chain efficiency

The public and private sectors would benefit from working together to develop a logistics infrastructure plan. A combination of private and public sector investment is likely to create the most efficient supply chain. Examples of international best practice - such as a centre/periphery model of physical development point towards this collaborative planning. The public sector is likely to lead development of efficient corridors that link, say, a central port to warehousing and transport services at the periphery. The logistics services development at both the centre and periphery of a region are likely to be led by the private sector.

Businesses working together with public agencies can ensure infrastructure is built at the right time to meet real commercial needs. There are many examples internationally of a 'build it and they will come' approach to infrastructure provision, particularly by public agencies attempting to promote economic development. This can result in infrastructure white elephants if demand is slower than forecast. The most effective way of managing this risk is to ensure businesses play a leading role in infrastructure investment decisions.

The Port of Tauranga is a key node for all significant freight flows in the Bay of Plenty and is important for other regions. There are good road connections to the Port of Tauranga and this is being further enhanced with the Eastern arterial link. This gives the Bay of Plenty an advantage.

Logistics hubs to optimise the Bay of Plenty's supply chains may sometimes lie outside the region. Stakeholder discussions have revealed the importance of the logistics strategy considering the Waikato because businesses have supply chains across both regions. The proposed logistics hub at Ruakura in the Waikato is an example of an opportunity for consideration.

CILT AWARD FOR SUPPLY CHAIN INNOVATION 2011

CHH Lodestar is a shipping and logistics company, providing services in New Zealand to and from various markets, particularly Asia and Australia, for project cargoes, forest products, bulk and breakbulk cargoes.

CHH Lodestar have demonstrated an innovative approach to a common problem – optimisation of a space constrained warehouse facility in the face of an inventory build, in this case for a one-off extended mill shut where volumes were expected to double over normal operating levels.

In working through a solution, CHH Lodestar has decreased the undercover warehouse footprint requirement by 30%, achieved by increasing the warehouse utilisation through innovative stacking methodology. Further to this, Lodestar have designed external, weatherproof storage mitigating high cost on-port warehousing should this be required due to market dynamics.

This is the culmination of two years of strategic planning and the result of a five month transition to minimise the double-handling of inventory.

CASE STUDY

FOCUS AREA:

6

ENABLING TECHNOLOGY

OBJECTIVE:

IDENTIFY WORLD CLASS LOGISTICS TECHNOLOGY TO IMPROVE FREIGHT SCHEDULING AND USE EXISTING INFRASTRUCTURE AND EQUIPMENT MORE EFFICIENTLY.

OPPORTUNITIES

Businesses who share real-time logistics information and use world class logistics technology can significantly improve freight scheduling. This will make more efficient use of existing equipment and infrastructure.

Collection of basic data on freight flows is an important first step prior to investing in appropriate scheduling technology. These initiatives are likely to be industry specific and driven by the unique factors that influence each production sector.

Sharing of information on freight flows and establishing a shared back office is a starting point for exploring the benefits of collaboration. These commercial benefits will need to be compelling to encourage businesses to share information, as supply chain improvements are an area of real competitive advantage. Guidelines for sharing intellectual property could be developed to facilitate this collaboration.

There is also an opportunity to investigate the use of cloud technology to give small businesses cost-effective access to logistics opportunities.



RESEARCH

The Intercoast marine research centre in Tauranga is run in partnership with Bremen University. Bremen University is also internationally recognised as a leader in production and logistics systems research.

FACT

FOCUS AREA:

7

DEVELOPMENT AND INNOVATION

OBJECTIVE:

- COLLABORATE AND USE EXISTING SUPPLY CHAINS TO IMPROVE ACCESS TO OVERSEAS MARKETS.
- DEVELOP LOGISTICS AS A POINT OF DIFFERENCE TO ATTRACT INVESTMENT AND DRIVE ECONOMIC GROWTH IN THE BAY OF PLENTY.

OPPORTUNITIES

We want our region to be recognised as a world leader in developing and implementing logistics solutions. This will help attract investment and drive economic growth.

A world class supply chain, requires a commitment to measure performance and to work to continually improve that performance against this baseline data.

All the other focus areas of this strategy need to be supported by the study of best practice logistics operations in other countries. This will help to increase the speed with which we can adopt or adapt world leading practices. It will also reduce the risk of unnecessary expenditure.

The purpose and benefits of investigating world leading logistics practices must be clear to attract commercial participation. And any investigation of international best practice needs to also recognise work already done in New Zealand to adopt world leading supply chain practices by sectors, such as dairy and logs.

Implementation of the Strategy will identify a range of investment opportunities. Most will involve only commercial players. Other initiatives, particularly in the transport sector, are likely to be of greater interest to the public sector. Public/private partnerships should be a prime consideration.



FOCUS AREA:

8

WORKFORCE AND SKILLS

OBJECTIVE:

- BUSINESS AND EDUCATORS COLLABORATE TO DELIVER WORLD LEADING TRAINING AND DEVELOPMENT AT ALL LEVELS OF STAFF AND MANAGEMENT.
- PROMOTE BAY OF PLenty AS A GREAT PLACE FOR A SKILLED LOGISTICS WORKFORCE TO LIVE AND WORK.

OPPORTUNITIES

Improving the efficiency of their freight logistics can help businesses to gain a competitive advantage, particularly in the primary export sectors, which are the foundation of the local and national economy.

To do so requires a skilled supply chain management and logistics workforce of appropriate size and flexibility.

Opportunities exist to promote logistics and supply chain management as a career choice and to offer world leading supply chain management and logistics training and development here in the Bay of Plenty.

By raising awareness of the value of logistics to the economy, the Logistics Action Group will help to attract people to the sector. Positioning Bay of Plenty as a world leader in developing and implementing logistics solutions could help attract logistics expertise to the region.

Business and educators will benefit by collaborating to develop and deliver relevant training and development opportunities for staff and management. Supply chain thinking could also be embedded into management decisions. This should be led by industry, working in partnership with the polytechnics and universities in the region as well as key global logistics educators.



OUR FUTURE

The Bay of Plenty Polytechnic has a range of specialist programmes available in transport and logistics studies.

DEVELOPING A SKILLED LOGISTICS WORKFORCE

CILT (Chartered Institute of Logistics & Transport in New Zealand) Bay of Plenty/Waikato Section

The purpose of CILT in New Zealand is "to promote, encourage and co-ordinate the study and advancement of the science of transport in all its branches within New Zealand."

CILT offers professional development and knowledge exchange with a goal to have the industry recognised and respected as a profession. The BOP/Waikato Section is active and growing – with over 27% growth in membership during 2011.

CILT partners with and promotes the following training and educational institutions who offer programmes from Fork lift driving certification, short courses, diplomas, degrees & masters

degrees with transport, logistics and supply chain management as key focuses': CTP (Chivalry Training Providers, Manukau Institute of Technology, Bay of Plenty Polytechnic, Massey University, Lincoln University).

CILT offers the following to facilitate study amongst members and prospective students:

- Transport Research and Educational Trust Board Scholarship Grants
- CILT Mentoring programme / service
- Annual Industry Awards
- More detail at: <http://www.cilt.co.nz/MainMenu>



The Chartered Institute of Logistics & Transport
in New Zealand
"Your link to professional excellence"



The **ACTION PLAN**



Page 34
THE ACTION PLAN

- Page 34*
1. LEADERSHIP AND PLANNING
 2. PARTNERSHIPS AND INTEGRATION

- Page 35*
3. ENABLING LEGISLATION AND REGULATION
 4. HEALTH, SAFETY AND ENVIRONMENT
 5. LOGISTICS INFRASTRUCTURE
 6. ENABLING TECHNOLOGY

- Page 36*
7. DEVELOPMENT AND INNOVATION
 8. WORKFORCE AND SKILLS

Page 37
ACKNOWLEDGEMENTS

THE ACTION PLAN

AREA	ACTIONS	WHO	TIMEFRAME
<p>1. Leadership and planning</p> <p>Form a Logistics Action Group to champion and implement a multi-industry, multi-modal (road, rail, shipping, warehousing and port) inter-regional logistics action plan.</p>	<p>1.1 Form a Logistics Action Group that represents the views of different sectors, regions and transport modes in an integrated manner. Establish a terms of reference for the group.</p>	Current Advisory Group members in association with Bay of Plenty Regional Council and economic development agencies in the region	
	<p>1.2 Develop a detailed plan for implementation of the Strategy including linkages with:</p> <ul style="list-style-type: none"> • Other Bay of Connections economic development strategies. • Other regional strategies such as the Smart Growth review, Resource Management and Land Transport Plans and Strategy. • Other regions and national initiatives. 	Logistics Action Group	
	<p>1.3 Secure funding commitments to support Logistics Action Group administration and other activities.</p>	Logistics Action Group	
	<p>1.4 Develop regular dialogue with industry stakeholders - eg. annual logistics summit.</p>	Logistics Action Group	
<p>2. Partnerships and integration</p> <p>Businesses work together and share logistics information, to achieve further supply chain efficiencies.</p>	<p>2.1 Identify ways to encourage businesses to collaborate and make their supply chains visible. Develop measures of commercial Return on Collaboration.</p>	Logistics Action Group	
	<p>2.2 Build relationships along and across supply chains, with other regions (particularly upper North Island) and government (local and regional) and professional groups (CILT / Shippers Council/ NZRTA and Shipping Federation).</p>	Logistics Action Group	
	<p>2.3 Investigate middleware and cloud technologies that enable businesses to collaborate effectively.</p>	Logistics Action Group	

AREA	ACTIONS	WHO	TIMEFRAME
3. Enabling legislation and regulation Advocate for a responsive and balanced regulatory regime.	3.1 Form a single logistics lobby group to advocate with one voice on a multi-sector, multi-mode basis.	Logistics Action Group	
	3.2 Develop a logistics advocacy plan that addresses regulatory issues and infrastructure needs and raises stakeholder awareness of the importance of logistics.	Logistics Action Group	
4. Health, safety and environment Ensure health, safety, environmental and community values go hand in hand with business profitability in logistics decisions.	4.1 Promote results of existing health, safety and environmental performance measures against international best practice to key decision makers. Develop further measures if gaps are apparent.	Logistics Action Group	
	4.2 Advocate the inclusion of health, safety and environmental considerations in logistics decisions made by businesses.	Logistics Action Group	
	4.3 Ensure transport mode options deliver optimal health, safety and environmental performance.	Logistics Action Group	
5. Logistics infrastructure <ul style="list-style-type: none"> Achieve logistics efficiency gains from more intelligent use of existing assets (road, rail, shipping, warehousing and ports). Advocate for the construction of cost effective new assets at the right time. 	5.1. Gather up to date data on current state and expected future freight flows including linkages to nodes throughout the North Island.	Logistics Action Group. Educational institutions may also provide cost-effective assistance.	
	5.2 Produce a cross-regional logistics infrastructure plan that assesses future needs for all key sectors and modes and nodes including road, rail, shipping, port and warehousing. Ensure business cases are comprehensive and identify total cost of ownership. Consider issues raised by other Bay Connections strategies including Forestry and Wood Processing initiatives for High Productivity Vehicle (HPMV) routes and improvement of supply chains to port.	Logistics Action Group Logistics Action Group in conjunction with Bay of Plenty Forestry and Wood Processing Action Group	
6. Enabling technology Identify world class logistics technology to improve freight scheduling and use existing infrastructure and equipment more efficiently.	6.1 Identify existing world class freight scheduling and brokering technologies that could be used in New Zealand.	Logistics Action Group or possibly a sub-group	
	6.2 Investigate use of cloud technology and other incentives to optimise the use of logistics equipment and infrastructure.		
	6.3 Investigate technology-enabled assets such as warehouse/forklift automation; GPS/routing technology.		
	6.4 Incorporate whole of supply chain thinking, including customs and shipping lines, in technology investigations.		

AREA	ACTIONS	WHO	TIMEFRAME
7. Development and innovation <ul style="list-style-type: none"> • Collaborate and use existing supply chains to improve access to overseas markets. • Develop logistics as a point of difference to attract investment and drive economic growth in the Bay of Plenty. 	7.1 Investigate opportunities for other sectors to use existing supply chains to access and develop international markets.	Logistics Action Group	
	7.2 Investigate the potential for public/private partnerships between potential commercial and public sector players.	Logistics Action Group	
	7.3 Investigate continuous improvement performance benchmarking measures such as World Bank Logistics Performance Index – www.http://web.worldbank.org	Logistics Action Group	
8. Workforce and skills <ul style="list-style-type: none"> • Business and educators collaborate to deliver world leading training and development at all levels of staff and management. • Promote Bay of Plenty as a great place for a skilled logistics workforce to live and work. 	8.1 Assess current and future supply chain management and logistics training needs logistics for all levels of staff and management.	Logistics Action Group in partnership with Bay of Plenty tertiary institutions	
	8.2 Develop and deliver appropriate supply chain and logistics training and development offers. Consider partnerships with key global logistics educators, (eg. Cranfield University (UK), or Bremen Institute of Production and Logistics), to develop world leading supply chain training.	Logistics Action Group	
	8.3 Promote logistics and supply chain management as a career choice.	Logistics Action Group	
	8.4 Promote the Bay of Plenty as a great place for a skilled logistics workforce to live and work.	Logistics Action Group	

WE ACKNOWLEDGE

THE VALUABLE CONTRIBUTION OF TIME AND ENERGY FROM THE FOLLOWING INDIVIDUALS AND GROUPS TO THE DEVELOPMENT OF THE STRATEGY IS GRATEFULLY ACKNOWLEDGED.

We would particularly like to thank Tony Hawken, CEO of EastPack Ltd and member of the Bay of Connections Governance Group for chairing the Logistics Advisory Group and the meetings that contributed to the development of this Strategy. Sincere thanks also goes to Cheryl MacGregor, Senior Economic Development Adviser and Miles McConway, Group Manager Technology and Economic Development, Bay of Plenty Regional Council for their excellent guidance and support throughout the project. Cheryl and Miles were supported by the other members of the Bay of Connections Regional Management Group.

Consultancy support was provided by the Stimpson & Co team led by David Stimpson. David was also the lead author of the

Strategy. He was assisted by logistics consultants Alistair Lane, Grant Macvey and Tony Boyle who collated and prepared the background reports and logistics information. Alistair and Grant also conducted the individual interviews with stakeholders to obtain expert input and feedback that was essential for the success of the project.

John Galbraith has been instrumental in the overall peer review and completion of this strategy, including assistance with the design and input into the final product.

Thanks also go to the Bay of Plenty Polytechnic for the project management and facilitation provided by Beppie Holm, Business Development Adviser. She was a pivotal person in the development of this Strategy.

THE FOLLOWING PEOPLE PARTICIPATED IN ADVISORY GROUP MEETINGS AND PROVIDED VALUABLE INPUT AND GUIDANCE AT VARIOUS STAGES OF THE PROJECT FOR WHICH WE ARE MOST GRATEFUL:

<i>Nevin Amos</i>	Comvita New Zealand	Supply Chain Manager
<i>Murray Atkin</i>	NZ Linfox Logistics Ltd	NZ Retail Manager
<i>Chris Bailey</i>	Hancock Forest Management	Distribution Manager
<i>Greg Bold</i>	Bay of Plenty Polytechnic Mitre 10	Academic Staff Member - Logistics Board Member
<i>Mike Calvert</i>	Bay of Plenty Regional Council	Senior Transport Planner
<i>Matthew Carlson</i>	New Zealand Trade & Enterprise	Key Account Manager, Bay of Plenty
<i>Steve Chapman</i>	Pacific Transport Group	Chief Executive
<i>Andrew Coker</i>	Priority One	Chief Executive
<i>Lionel Crawley</i>	New Zealand Trade & Enterprise	Regional Manager, Bay of Plenty
<i>Dennis Crequer</i>	NZ Transport Agency	Special Projects Manager
<i>Mark Day</i>	Taupo District Council	Manager, Special Projects (Business Development)
<i>Derek Dunbar</i>	TD Haulage Road Transport Association of NZ	General Manager Regional Chair
<i>John Galbraith</i>	Forestry Sector	Consultant
<i>Chris Greenough</i>	Kotahi	Chief Executive
<i>Ken Harris</i>	NZL Group	Chair

<i>Kevin Harrison</i>	Kiwi Rail	Regional Sales Executive
<i>Laresia Heke</i>	Timberlands	Supply Chain Manager
<i>Jack Herder</i>	Ballance Agri-Nutrients	General Manager Supply
<i>Mary Hermanson</i>	Toi EDA	Manager Marketing & Economic Development
<i>Cameron Hill</i>	Mainfreight International	Branch Manager
<i>Nigel Jones</i>	Fonterra Co-operative Group	General Manager Strategy
<i>Charlene Kerr</i>	Road Transport Association of NZ	Bay of Plenty Area Manager
<i>Mike Knowles</i>	Zespri International	Shipping Manager
<i>David Kriel</i>	CHH-Lodestar CiLT	Manager Business Logistics Regional Chair
<i>Phil Lindsay</i>	Red Stag Timber	Marketing Manager
<i>David Lyon</i>	Bay of Plenty Polytechnic	Head of School of Business
<i>Graeme Marshall</i>	Port of Tauranga	Commercial Manager
<i>Max Mason</i>	Tauranga Chamber of Commerce	Chief Executive
<i>Jon Mayson</i>	New Zealand Trade & Enterprise	Chair
<i>Barry McColl</i>	Fonterra Co-operative Group	Transport & Logistics Manager Milk Operations
<i>Don McLeod</i>	Venture Hawke's Bay	Innovation and Productivity Manager
<i>Bill McMaster</i>	Environment Waikato	Programme Manager Land Transport Policy
<i>Ian Mearns</i>	Tauranga Kiwifruit Logistics	General Manager
<i>Terry Monaghan</i>	Auckland Tourism & Events Economic Development Ltd	Investment Specialist
<i>Moirá Moroney</i>	Base3usa	Managing Director
<i>Peter Morris</i>	Fonterra Co-operative Group	Manager Supply Chain Development
<i>Greg Morton</i>	Environment Waikato	Senior Transport Planner
<i>Anthony Olsen</i>	Bay of Connections	Regional Governance Group Member
<i>Mike Pohio</i>	Tainui Group Holdings	Chief Executive
<i>Mark Rawson</i>	Destinations Rotorua EDA	General Manager Economic Development
<i>Jon Reid</i>	NZL Group	Key Account Manager
<i>Alan Richards</i>	Rotorua Chamber of Commerce	Regional Business Adviser
<i>Mike Seabourne</i>	NZ Transport Agency	Principal Transport Planner
<i>Tony Smith</i>	Dairy Transport Logistics NZ	Business Development
<i>Mike Spiers</i>	PF Olsen	Distribution & Harvesting Manager
<i>David Wakelin</i>	Smart Logistics	New Zealand Manager
<i>Angela Wallace</i>	Export NZ Bay of Plenty	Executive Officer
<i>Steve Wells</i>	North Island Mussel Processing	General Manager

IMAGES THANKS TO:

Port of Tauranga, NZL Group, KiwiRail, CHH Lodestar and Bay of Plenty Polytechnic.

**TAKE
ACTION
NOW**



DECEMBER 2011
WWW.BAYOFCONNECTIONS.COM



BAY OF CONNECTIONS
ONE REGION . ONE GOAL . ONE FUTURE