NBR Special Report — Freight, shipping, logistics & storage

Because New Zealand is a long, thin country broken in the middle and located at the bottom of the world far from its markets, logistics has always been a crucial part of our country's story. That's as true today as it ever was as companies seek increasing supply chain efficiencies while responding to a variety of technological and environmental opportunities and challenges. This *NBR* report provides a snapshot of the sector's state-of-play, along with an investigation of the emerging trends.

ONE TRACK NO MORE: KiwiRail is repositioning itself as an integrator

KiwiRail transformation on track

Nick Grant

KiwiRail is well on the way to realising its aspiration of being a key component in "the full integration of the nation's transport system," according to the company's group general manager operations Iain Hill.

In a sector where players are increasingly choosing between rail, road and coastal on a case-by-case basis, "we're positioning ourselves to link to all modes of transport. We're now an integrator, which I think is really cool."

It's not just KiwiRail taking this approach – Mr Hill approvingly name-checks MainFreight as another major company that's now operating in a mode-neutral way, despite its large fleet of trucks.

"We've got players out there like Mainfrieght, which looks at itself as a logistic provider, not a trucking company, and I think that's a key change.

"We're not just here to say, 'We're railroad and goodbye everyone else.' We can't. It's the same as a road operator and the same as coastal. We've got to work together in this country."

It's all about providing customers with the appropriate horses for specific courses, says Mr Hill.

"We're not going to be as fast as road, we get that, but we're going to be faster than coastal, so we sit in between."

> **"It's all about providing customers with the appropriate horses for specific courses**
>
> Iain Hill

Among other things, KiwiRail is investing in flat-deck wagons and intermodal containers that make transferring cargo between different types of transport "a lot more efficient for everyone."

Other players, like fourth party logistics provider Coda, are also literally buying into this approach by investing in their own intermodal containers.

As part of its intermodal focus, KiwiRail is also forging ahead with an infrastructure programme to realise its 'road-bridging' strategy for the Interislander ferries, which involves shifting freight off rail wagons and on to road trailers for the passage across the Cook Strait, then reversing the process on the other side.

The state-owned enterprise isn't in a position to achieve its aspiration overnight, however, in large part because of its need to make up for the "years of underinvestment" in its network during the years it was in private hands.

"Every wooden sleeper has to be changed, we've got wooden bridges still there that are close to 100 years old that need to be replaced – that's big money," says Mr Hill.

"It makes buying a wagon or one of these containers look like spare change.

"As a result we need to spend our money wisely and just steadily work through our strategy. We're changing our model and communicating that to customers, we're introducing intermodal containers and getting that going, we've got the ships now coming in line with that.

"So the puzzle's coming together and coming together quite nicely. "

ngrant@nbr.co.nz

Increased collaboration driving efficiencies

Nick Grant

Asked for a broad brushstroke overview of the current state of New Zealand's freight and logistics sector, Chinthaka Abeywickrama pinpoints two positive trends – and sounds a note of caution about another.

According to the immediate past president of the Chartered Institute of Logistics and Transport, the emerging upsides are the increasing choice and efficiency being enjoyed by New Zealand's importers and exporters, and the way the growing ability of domestic operators to collaborate with each other is providing them with similar benefits.

The less rosy aspect of the industry? The risk of some of the players' competitive investments counteracting those efficiency gains.

An edge for international trade

COLLABORATION DRIVE: Netlogix CEO Chinthaka Abeywickrama

On the import/export front, Mr Abeywickrama says the creation of inland ports and the way in which companies are consequently "starting to see the entry and exit point for products as being these hubs rather than the sea ports is giving the customer quite a significant choice."

"Because most of the freight hubs are not port specific, even though ports have vested interests in them, customers can pick and choose which port they go through."

That's resulting in more efficient links to products' final destinations, making New Zealand exports more competitive and lowering the cost structure of imports.

The key drivers of this welcome change, he says, are "the ports investing up the supply chain into the hinterland," KiwiRail providing connectivity to and from the inland hubs to the ports, the competitive nature of the international shipping industry, and the emergence of fourth party logistics solution providers like Nexus, Coda, Kotahi and Netlogix (Mr Abeywickrama is the chief executive of the last company).

The fourth party players come into their own, he says, because most products are moved via more than one mode of transport – road, train and/or ship – and these need to be integrated into a single solution that "ensures any wastage is eliminated and the supply chain is increasingly efficient."

Mr Abeywickrama says this move away from a traditional location-based supply chain network represents New Zealand "finally catching up with decades-long developments in the international supply chain."

Continued on facing page

From P20

Domestic bliss?

In conjunction with shippers investing in technology to enable collaboration with their competitors, fourth party providers are also assisting in the increasing efficiency of the domestic freight market.

According to Mr Abeywickrama, this is resulting in the rise of "multilateral arrangements where many parties can come together to make it much more efficient and share the benefits commercially without significant time wasted at the negotiating table, because the efficiencies can be priced in the market."

Even players with their own dedicated fleets are "looking at ways for their latent capacity available to be sold in the market" as they seek to eliminate any wastage in their supply chains.

Danger of duplication

Although he notes there's still a need for "a competitive element to drive innovation" in the increasingly collaborative sector, one thing that concerns Mr Abeywickrama is the way "competing investment to capture the market share can erode some of these efficiencies that are being created."

A prime example is the way "the majority of port companies are trying to deepen their channels – and investing in the related infrastructure on the ports – to accommodate large ships," he says.

While that might make sense on a regional basis, "the intention of the big ships is actually to consolidate big ships into a few ports rather than try to go to every port. So that's one area of potential wastage."

Mr Abeywickrama believes consideration of "the national good" is required in this instance, and that a consolidation of port companies is also desirable: "A small country like New Zealand doesn't have enough scale to have five ports."

That said, "trying to channel the whole supply chain through a single port is also potentially detrimental for the whole country because of potential for natural and other disasters," he says, suggesting two or three main ports would be "the ideal scenario."

ngrant@nbr.co.nz

Investors push stocks

Nevil Gibson

The downturn in global trade, be it by ship or air, has not dampened investor appetite for the freight and logistics sector.

Four of the five NZX50 index stocks are in positive territory both for the year and on a 12-month basis.

The only one to show a loss is Mainfreight, though its share price is up 2.1% for the past three months.

Its disappointing first-half result, issued on November 10, showed strong revenue growth, including a 22% surge in revenues for international air and ocean cargo division. The overall growth, including domestic operations, was up 12.9% across the group.

Profitability was affected by higher labour costs and increased spending on facilities.

Sharebroker Forsyth Barr remains optimistic, saying it's easier to bring costs under control than building revenues.

"We expect revenue growth to increasingly be driven by market share wins in its international operations, which now account for three-quarter of group revenue," it says.

Freightways' latest trading update, issued in late October, showed solid gains in revenue and profitability in all its divisions.

This included market gains in express package and business mail plus solid growth in physical and electronic document handling, now called TIMG – The Information Management Group.

Plenty of potential

While the growth momentum in the former group is expected to slow, the latter has plenty of potential.

"The information management market is expected to continue to grow due to the service and cost advantages for businesses of outsourcing their document and data storage requirements," Freightways says.

Its shares are up 9.3% on a 12-month basis.

The aviation sector is booming with recent and pending increases across the board in passenger capacity, aircraft movements and freight loadings.

Auckland Airport this week reported its October figures, showing a 7.6% rise compared with the previous year.

Additional capacity through bigger aircraft and more flights boosted Asian passenger growth by 17.8%, due to new capacity from China Eastern's Shanghai service and additional Air New Zealand capacity on its Singapore and Tokyo routes.

Korean Air has also boosted capacity with a switch to a larger Boeing 777 model.

This will increase further with the introduction of Boeing 747s and a daily service between December and late March.

At the peak during this period, Korean will fly the first B747-8 Intercontinentals to New Zealand, Boeing's latest response to the Airbus A380.

From next week, Air China and Philippines Airlines will also launch new services, linking Auckland with a further two direct freight destinations, Beijing and Manila.

Air New Zealand is also due to launch two new international routes in the coming week, to Houston and Buenos Aires.

The sharemarket has welcomed this expansion with a 25% rise in Air New Zealand's share price over 12 months, while Auckland Airport is up 27.3%.

The remaining listed company in the freight and logistics sector, Port of Tauranga, is also having a stellar year, with an 11.4% rise over 12 months, giving it a total market capitalisation of more than $2.5 billion,

ngibson@nbr.co.nz

Global shipping not yet out of the doldrums

Nathan Smith

The global industry is over-supplied and building ever-larger vessels probably isn't going to fix that, an international shipping expert says.

Because supply far exceeds demand, shipping rates plummeted in 2015, as have the prices of ships, Global Shippers Forum (GSF) secretary-general Chris Welsh says.

MEGA SHIP: The challenge could be in filling these 18,000 TEU vessels

Some companies have tried to capitalise on this trend by buying newer and larger ships at lower prices so they can remain price competitive. Their gamble is straightforward: although the global economy still struggles to recover from the 2008 financial crisis, future growth is probable and larger ships should enter the market just as the shipping industry normalises.

Yet should it not normalise, 19 of the 20 major shipping companies will use strategic alliances to ensure low costs across the supply chain.

However, Mr Welsh says this business model could be risky. The current state of the global shipping industry was caused in part by incorrect forecasts before the 2008 crash about steady future growth.

Despite the warnings of history, some shippers are building the world's largest cargo ships just to stay competitive.

"The jury is out on whether this business model is the correct one for the whole industry," Mr Welsh says. "Ever since containerisation, a steady evolution in the growth of vessel size was predicated on the wider economy constantly scaling higher. But with these new mega ships – 18,000-21,000 TEU (twenty-foot equivalent unit) Triple-E class, for instance – that is a big call. It is unclear whether those ships can be filled."

Shipping company Maersk Group is the first to sail the Triple-E line ships, the largest line of container ships in the world. These ships are nearly half a kilometre long, and can hold roughly 11% more cargo than their nearest competitors. The international shipping industry accounts for approximately 90% of global trade by volume. Since 1734, the industry has weathered more than 20 boom-bust cycles, occurring roughly once per decade. According to the International Transport Forum (ITF), the most recent cycle started in 2004 before declining rapidly in 2008.

"There is also a glut of shipbuilding capacity around the world. The world's main shipyards are operating at about 50% utilisation. So there's a big incentive on those yards to build ships at very competitive prices," says Mr Welsh.

To deal with the industry having more ships than it needs, many companies want to inject greater efficiency into the supply chain while the prices are low. Between 2007 and 2012, the average container ship's capacity increased 27%. But since global trade remains low and 3D-printing innovations threaten to reverse globalisation trends, a lot of empty space is being shipped around, Mr Welsh says.

The entire supply chain is feeling the effects. For instance, some modern container ports can accommodate these mega ships but few such ports exist due to harbour restrictions. The Suez and Panama Canals will not be large enough to accommodate the ships even though they are currently undergoing widening upgrades.

"Many smaller ports will need more investment. This imposes additional costs, opening up the possibility of greater delays. The OECD points out that national ground-based infrastructure is also struggling to cope. The whole just-in-time model relied upon by the international trade system has become a bit precarious.

"The OECD published a report in June warning that the new mega vessels will increase transportation costs especially. Road and rail connections will also need heavy investment. And major retailers in the UK are having problems moving an increased amount of freight," he says.

One way to deal with the changes is for the various lines to work together in some way. Global management consulting firm the Boston Consultative Group (BCG) suggests new alliances between shippers must be consolidated if the industry is to recover.

The world's three biggest container lines – Maersk, CMA CGM and Mediterranean – have since formed an alliance of sorts to reduce their operating costs.

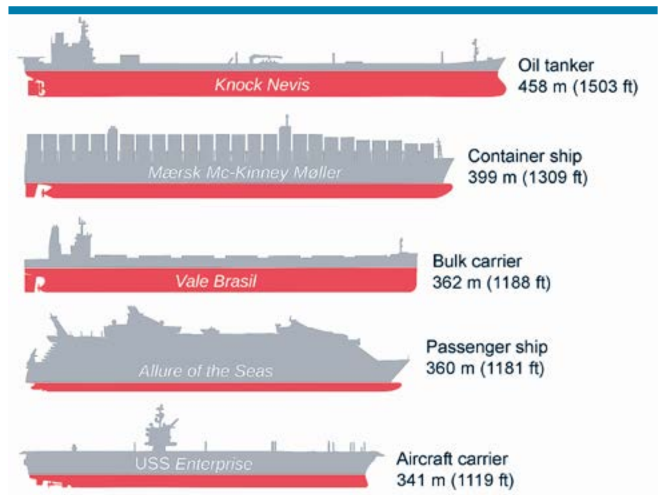
The informal alliance could herald further consolidation in the industry, however past consolidation efforts to control shipping prices were unsuccessful. But the reality is that the weak global economy – with sluggish demand in Europe and China's downturn – will keep global demand low and pressure shipping companies to restructure in similar ways suggested by BCG.

"Maersk was the first carrier to operate the mega ships. Now it is slowly getting its head around filling those ships. This prompted it to create alliances with its competitors.

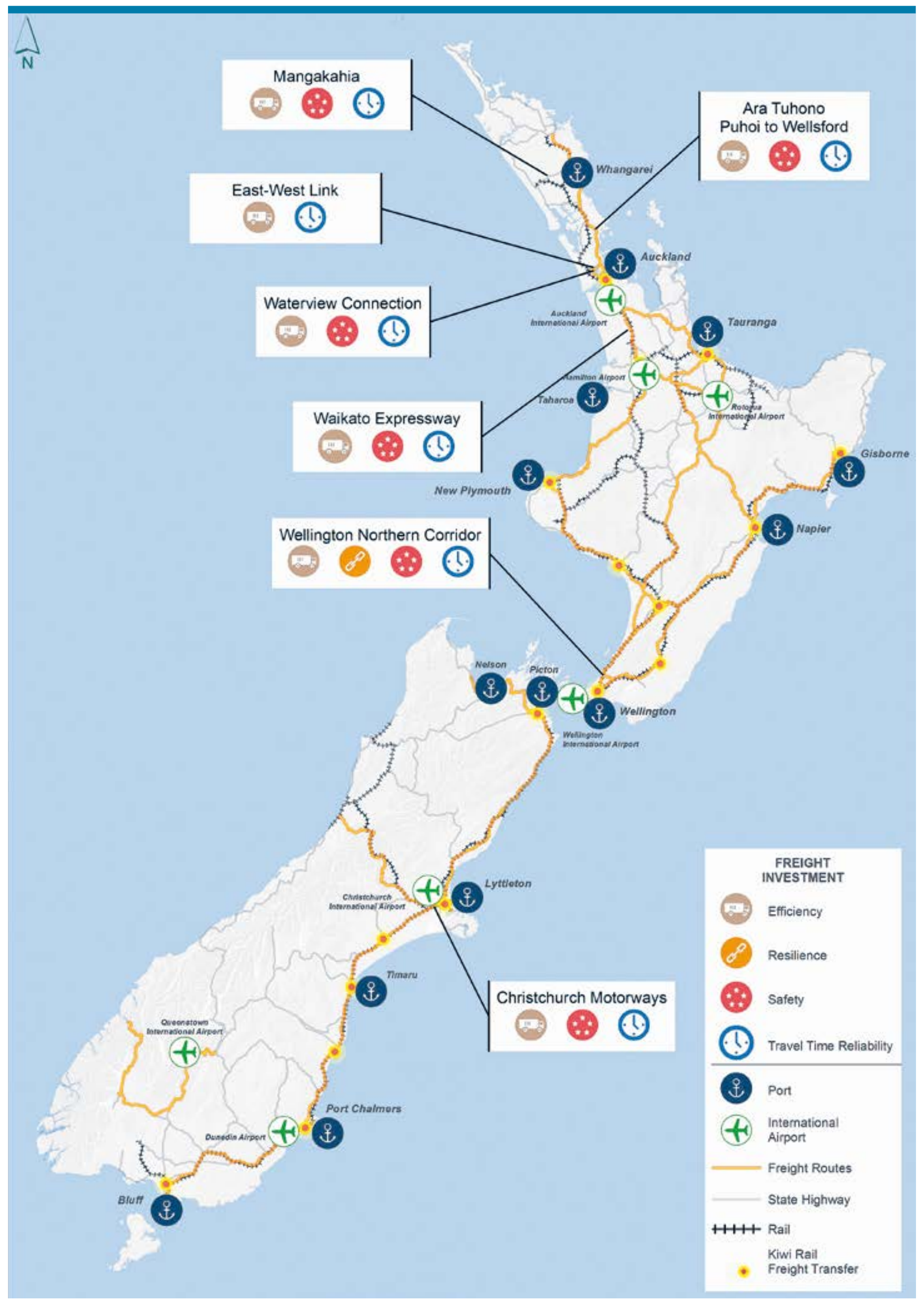
"Maersk took a lot of its smaller sized vessels out of the trade in order to operate the larger ships. So working with a competitor probably gives it some degree of comfort that they can actually fill these ships and make money," says Mr Welsh.

nsmith@nbr.co.nz

Maersk's Triple-E class ship
(second from top) size comparison



New motorways give freight network a shot in the arm



Emerson Howitt

With more than half of the country's population and the two largest ports in the upper North Island, it's no surprise the area is the focus of the government's Roads of National Significance programme (RONS).

Five of seven major roading projects are located in the region, with only the Wellington Northern Corridor and Christchurch Motorways projects outside it.

The programme is about improving inter-regional travel and marks a multi-billion dollar investment in the nation's infrastructure.

It will improve roading connections to ports; Auckland is the largest import port and Tauranga is the largest export port.

The roads in and out of Auckland are a particular focus, with the Waikato Expressway in various stages of construction and planning well underway for the Puhoi-Wellsford Motorway to the north.

The expressway is a 103 km dual-carriageway starting at the Southern Motorway at Bombay and finishing south of Cambridge.

The road will connect Auckland to the Waikato region and provide far easier access into the city and clears notorious road bottle-necks along the old route, saving an estimated 35 minutes between Auckland and Tirau.

Once completed, the route will bypass Huntly, Rangiriri, Cambridge and Hamilton with bypasses of Ngaruawahia, Mercer and Pokeno already completed.

The Puhoi–Wellsford route is also set to clear bad black-spots and accident zones and make the movement of goods between Auckland and Northland more efficient and reliable.

On top of that, the Victoria Park tunnel was completed in 2012 and the Western Ring motorway is due to have the final puzzle fitted once the Waterview tunnel between Mt Roskill and Rosebank is finished.

The Western Ring Route will act as an alternative route through Auckland, veering off the Southern Motorway at Manukau and reconnecting to the Northern Motorway at Constellation Drive, providing a new 48km route through West Auckland for vehicles that don't need to stop in the central city.

It will also finally create a fast motorway connection to the airport as opposed to having to travel through the suburban streets of Mt Eden and Epsom. This should relieve pressure on the city's harbour bridge, creating more resilience for the motorway network by acting as an emergency route between north and south if the bridge were ever taken out of action.

ASB senior Eeconomist Chris Tennant-Brown thinks it's important to consider these projects as part of a wider network.

"I think we should look at projects like the Western Ring Route in conjunction with the Puhoi road in the North and the Waikato Expressway in the south. If all you did was the Puhoi–Wellsford connection, it would be ridiculous. You'd just move the bottleneck from one area to another but, if you look at it as part of the other projects, it makes sense."

Tauranga also got a shot in the arm via the recently completed Eastern Link Motorway. The toll road improves the connection between the city and the goods being produced in the Bay of Plenty region.

Further south the Wellington Northern Corridor project will help connect the capital and port with the rest of the North Island.

The project includes Transmission Gulley and a new expressway through the Kapiti Coast, both under construction.

It makes access into the city more efficient, lowers the cost of moving goods to the city's port and also helps in bringing goods down from the larger ports.

The Christchurch Motorway project will achieve similar goals. The city is the gateway to the South Island, with most produce from the Canterbury plains being funnelled through Lyttelton Port.

The project involves a series of motorways and highways built around the city to make freight access to the port easier and avoid traffic getting stuck on the city's local roads.

Freight strategy

Over half the nation's freight movement occurs in the upper North Island, so communication between the various organisations which operate and rely on the fright routes is important.

Because of this the Upper North Island Freight Accord was developed to create a shared vision.

The region also includes the so-called "Golden Triangle," the route between Auckland, Tauranga and Hamilton where a majority of freight is shipped.

The accord encompasses 21 different organisations including six councils, Kiwi Rail, the Ports of Auckland and Tauranga, Fonterra and the NZTA. It defines the shared principles and goals to improve the farm-gate-to-market supply chain and lessen the cost of transporting goods overseas.

Not only must the state highway network be efficient but also the local road and rail network must be so bottlenecks can be avoided.

NZTA freight portfolio director Harry Wilson says improving the supply chain for goods and services is crucial to keeping New Zealand competitive.

He says there aren't a huge number of ships entering New Zealand waters as it is often the last destination and not a hub.

"We can't change how far we are from the market but what the industry can change is the supply chain and make sure it is delivering goods as cheaply and efficiently as possible. To achieve this, the state highway network needs to be more efficient but, equally, the last 1km of local roads need to be as efficient as possible to deliver the freight."

ehowitt@nbr.co.nz