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Deviating vessels not just an international problem

Sleep: A 'ticking timebomb'

Gearing up for the future of electric vehicles

A newer trend of cross-border e-commerce in China

The Chartered Institute of Logistics and Transport

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5:45 - 6:45pm - Welcome reception
7:00 - 10:30pm - Dinner

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ON THE COVER

Bridge resource management was adopted in the early 1990s by the maritime industry as a safety and error management tool, but deficiencies in this procedure has led to similar incidents occurring in recent years – see pages 4–5. NZ Marine Pilots Association

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In the next edition

The editorial team welcomes expressions of interest for submitting an article for the December 2018 edition of this journal, especially from young professionals (those under the age of 35). Contributors should in the first instance contact the editorial convenor, Murray King (email murray.king@xtra.co.nz) to discuss their article.

Deadline for the December 2018 edition: 29 October 2018

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CILT NZ National Office:
PO Box 1281,
Shortland Street,
Auckland
Tel: 09 368 4970
Fax: 09 368 4971

Advertising Contact:
CILT national office
Tel: 09 368 4970, Email: info@cilt.co.nz

Editorial Contact:
Daniel Paul, The PR Company
Tel: 04 471 6250
Email: daniel@theprcompany.co.nz

Published under contract (print) by:
Excel Digital
21 Jamaica Drive,
Wellington 5028
Tel: 04 499 0912
Email: studio@exceldp.co.nz

Also published under contract (web) by:
Webstruxure
29 Tory St, Wellington
Tel: 04 801 7053
Email: hello@webstruxure.co.nz
Web: webstruxure.co.nz

SOUND BRIDGE RESOURCE MANAGEMENT

Deviating vessels not just an international problem

BY JAMES PAUL

Most moves like that of Jeppesen Maersk are carried out using approved safe practice. But there have been a number of recent cases that suggest not all ship movement does use these practices. NZ Marine Pilots Association.

SIX VESSELS that deviated from planned paths and ran aground in as many years and under similar circumstances is being described as "Groundhog Day", and likely due to a reluctance to embrace technology.

And earlier this month, a French cruise company and a ship's master were fined $70,000 and $30,000 respectively for endangering human life and entering a prohibited zone following an incident in the remote New Zealand Subantarctic islands.

All of these incidents have been due to poor bridge resource management, the more fatal of which involved the Italian cruise ship *Costa Concordia* when it ran aground and overturned in 2012 after striking an underwater rock off Isola del Giglio, Tuscany, killing 32 people.

Incidents closer to home and across the Tasman Sea involved the container ship *Maersk Garonne*, the bulk carrier *Molly Manx*, and the cruise ships *L'Austral* and the *Azamara Quest*.

While none of these latter incidents caused death or environmental harm, all of them were found by the country's respective maritime authority to have ineffective bridge resource management.

This was exhibited on August 19, 2016 when the *Molly Manx* began navigating its way through a narrow Otago Harbour passage between the Halfway Islands.

With a tug vessel connected to the stern and one ahead waiting to assist, it deviated from the intended track and was briefly grounded on a sand bank.

Under the vessel's own power and aided by the stern-connected tug, it reversed off; the hull wasn't breached and luckily no-one was injured.

But New Zealand Maritime Pilots Association President Steve Banks says the details of the ensuing Transport Accident Investigation Commission (TAIC) report read much the same as the three other incidents in New Zealand waters that occurred in less than 12 months.

Cruise ship *L'Austral* ran aground in the subantarctic Snares Islands last January and then again, this time in the Milford Sound, four weeks later. In these two cases, the ship deviated from intended paths on both occasions.

Compagnie du Ponant, the French cruise line company that operates *L'Austral,* was approached for comment.

On October 2, in the Wellington District Court, the company and Captain Regis Daumesnil, a French citizen, were sentenced to charges following the 9 January 2017 grounding of the cruise ship L'Austral on an uncharted rock at the Snares Islands.

In a DOC press release following the sentencing, Southern South Island Operations Director, Aaron Fleming, said it was "pure good luck we did not have a potential environmental disaster" resulting from the incident.

Maritime New Zealand Southern Regional Compliance Manager, Mike Vredenburg, said this case could have ended in tragedy and is a graphic warning of why passage planning is mandatory in New Zealand and internationally.

The third incident occurred in the Tory Channel of the Marlborough Sounds when Azamara Quest was en route to Port Marlborough, carrying 652 passengers and 394 crew.

On January 27, 2016 the Maltese-flagged Royal Caribbean cruise ship's master discussed the passage plan with the harbour pilot, in particular the strong currents and the tight turn required on entry to the channel.

The TAIC report stated that due to a miscommunication, the passage inwards began with the master and pilot having different understandings of how the first turn would be conducted.

As a result, "the turn was initiated late and the ship never achieved a sufficient rate of turn to avoid contacting Wheki Rock close to the northern shoreline. The ship struck the rock, causing minor damage to the hull and damage to one propeller". Nobody was injured.

If this was one isolated incident, it wouldn't have drawn as much attention, Mr Banks says.

"But because we're seeing the exact same things happening again and again, the Association and the industry are hugely concerned.

"[The incidents] all have similar issues or factors involved in them – it's Groundhog Day, they're almost identical when you compare one report with another."

The TAIC highlighted key lessons following each of its four inquiries. Three of these lessons were similar in three incidents, while the fourth incident only had one lesson.

But each inquiry stressed the need for a "shared understanding between the vessel's bridge team and the pilot as to the passage plan and monitoring against that plan".

More groundings are likely to continue, especially in New Zealand, if the piloting industry doesn't undergo a cultural shift and thoroughly embrace technological developments, Mr Banks says.

"What concerns me as well is that the majority of these incidents occurred with older and more experienced pilots at the helm, so it does make us worry about our

President of the New Zealand Maritime Pilots Association, Steve Banks, says pilots must use all available means when safely navigating people and cargo into and around ports. NZ Marine Pilots Association.

maritime culture which is centuries old and probably slow to change with technology.

"And what's happening in New Zealand is also happening in Australia; it's a concern not only to us but to the Australia Maritime Authority."

Mr Bank's criticism of older pilots is not specifically aimed at individuals, but more of the system. Navigation should be 'by all available means', and using current technology is one of those means, he says.

Technology is only one piece of the puzzle, however. In a majority of incidents where miscommunication is an issue, so too is the ability to challenge errors regardless of rank, personality or nationality.

If that culture isn't encouraged, catastrophes can occur. Had the *Molly Manx* not been re-floated, Mr Banks says there was the potential for it to break it in half, albeit an extreme outcome, and block the port.

Nevertheless, he describes all four incidents as accidents because they were unintentional and completely avoidable, but admits they aren't a good look for the industry.

"We can do better than we are. I know some of my colleagues probably don't like the criticisms we're levelling at ourselves. But we can't just assume that we can sit on our hands.

"So, we must begin to embrace technology more and stay abreast of it and good industry practices because we're supposed to be the experts; we're supposed to look after the interest of any ship that visits; the infrastructure of the port; the environment; that's the role of a pilot."

It's not just the pilots' responsibility to maintain professionalism and ensure cargo, whether it be human or otherwise, is delivered safely.

The TAIC identified a number of measures that Environment Southland, the regional authority in charge of regulating the area's maritime activity, could take to better manage navigation risks within the Fiordland region and recommended it review its current risk assessment for the area.

In an emailed response, the council stated it is in the process of finalising the risk assessment report and is in discussion with TAIC and the pilotage providers about the draft recommendations.

"The first draft of the risk assessment was delivered to us later than expected, and because we're still working on it we aren't in a position to tell you more at this stage," a council spokesperson says.

"Although the number of cruise ships visiting Southland has increased over the past years and is expected to further increase in future, the tourism pressure is managed through the Regional Coastal Plan for Southland which allows no more than two cruise ships to enter any waterway, passage, fiord, bay or inlet in any one day (Rule 13.1)."

However, the spokesperson says there is a cap on the number of consents provided to commercial tourism operators whose boats take tourists out into different parts of Fiordland, to preserve Fiordland's natural character, landscape and amenity values, specifically remoteness and tranquillity values.

"Cruise ships aren't subject to consents as such – they operate under a separate Deed of Agreement between the New Zealand Cruise Ship Industry and Environment Southland.

"We're currently in the process of reviewing the Regional Coastal Plan, and in April 2017 councillors approved the start of a project to set the strategic direction for how the coast is managed."

Acting Deputy Director Maritime Systems Assurance, Paul Fantham, of Maritime New Zealand said in an email that the national authority is confident that regional authorities have the right processes in place to mitigate navigational risks in their areas.

"Harbourmasters are empowered by Parliament through the Maritime Transport Act to direct the movement of ships in their ports. They are further supported by their councils' navigational safety bylaws which apply to the particular requirements of the ports and coasts in their areas.

"The purpose of pilotage is to assure the safe movement of a vessel from sea to berth, and vice versa. This is achieved by enriching the vessel's navigation capability by employing a pilot who enjoys local knowledge and manoeuvring experience."

OPEN ROAD, OPEN DATA

The National Road Centreline – supporting planning and decision-making on New Zealand's roads

The NZ Transport Agency has worked with local government and private providers to produce the National Road Centreline – an online data resource for use by all. As Louisa Bloomer writes – it was as much about building relationships as it was about building roads.

Bringing together local knowledge with central resources

At the Transport Agency, our purpose is to create great journeys to keep New Zealand moving. Making the right investment decisions in the transport system and how this system is efficient and sustainable, relies on having a reliable, accurate, up-to-date and actively managed spatial centreline dataset.

A road centreline dataset is as it sounds: a dataset of spatial data, giving an accurate reflection of the real-world centreline of the actual road. A consistent centreline dataset provides the 'spine' or reference that all manner of spatial roading data can be aligned with or attached to. Lacking a consistent centreline means that data cannot be easily compared or collated, routes are poorly planned, and automation of spatial analysis and planning is made more challenging.

Local government, or councils, manage their centreline datasets in a Road Asset Management System (RAMM) that does not allow the sharing of data on local roads, such as vehicle counts and surface type. Additionally, councils, especially small or fast-growing councils, do not always have the capability or capacity to ensure their centreline datasets are up-to-date or accurate.

All of this meant there were 68 different road centreline datasets of varying quality and accuracy across all of New Zealand. The Transport Agency, working with the Road Efficiency Group, recognised the difficulties this presented, and the opportunity to do better – the Road Centreline Project was born.

Joining public data with private IP

The project saw the Transport Agency procure a centreline dataset that would support local councils. It had to be able to incorporate all 68 road controlling authorities' (RCAs) centreline data, and merge this with an accurate managed and maintained centreline dataset. The result would be a new hybrid, publicly/privately owned dataset.

As well as being the driving force for this project, the Transport Agency had a key role in bringing together private providers of data, software and services, with local council teams responsible for the roads in their regions.

The private provider of the centreline itself was CoreLogic, who hold the IP for the centreline, and who update it regularly. Alongside RSL (the creators of the councils RAMM software), the Transport Agency and CoreLogic were able to ensure the centreline could be merged with local council information (such as usage or surface type) about the roads.

It was important to the success of the project that this was very much about working with the councils. To do this the Transport Agency needed to support local councils (road controlling authorities) providing data and tools to easily manage and maintain their centreline datasets.

The team were then able to share this centreline (their data attached to the managed centreline) back with local councils through a tool that would enable them to easily incorporate the managed and maintained centreline into their own RAMM data.

The result: Councils and the Transport Agency have access to a trusted, authoritative view of the real-world road centreline, in one accurate and accessible dataset.

To date 16,682 sections of the road centreline across New Zealand have been accepted into councils' own data. Of the top 10 RCAs using the centreline, eight are district councils and two are city councils. Collectively, these 10 RCAs have accepted over 70% of their centreline changes.

The National Road Centreline Project didn't stop there.

Open data on the open road

The team recognised early on there was value in sharing the new centreline dataset.

Opening up a dataset held in a public-private/central-local partnership was not without its challenges.

Private companies expect their intellectual property to be protected. Councils, however, expect to be able to share data for the benefit of their communities, this meant a compromise had to be sought.

As this project navigated a range of legal concerns, it required a lot of negotiation to achieve a great outcome for all.

Every council was walked through the data sharing process. Through frequent contact, working with legal teams, and the councils, compromises and solutions were found for almost every situation. One council, for example, has opted not to use the centreline within RAMM but wants to include their data in the centreline for other councils and the public to view. We have been open to this option and are working through it with them.

The result has been that 52 (78%) of the 68 RCAs have so far signed the Data Sharing Agreement that gives them access to the CoreLogic Centreline datasets and opens that data to the public. That's over two-thirds of New Zealand having access to, and using, a managed and maintained centreline dataset in their day-to-day management and maintenance of our roads; directly benefiting our road users and keeping New Zealand moving.

Heading into the future

We are excited at the prospect of having all 68 RCAs signed up to the (or an) agreement that will allow us to share the managed centreline data with them, and their data with other councils and the public.

We've learned much about councils and the way they work and will use these lessons and relationships to ensure our future projects have an equally positive outcome.

There are multiple possibilities that the open centreline dataset might bring in the future.

While the centreline is not able to be on-sold, it can be used by anyone. It might be used by a trucking company to better plan routes for its nation-wide fleet this week; and next week it might be used by roading contractors to predict where their assets will be needed in the year ahead; residents might draw on it to understand the traffic in their neighbourhoods; or the council might use it to understand how road assets are being managed at the other end of the country. That is the beauty of opening up the centreline dataset – it opens up more possibilities for keeping New Zealand moving.

Louisa Bloomer project managed the delivery of the National Road Centreline Project for the Transport Agency to bring everyone along on the data sharing agreement journey. Louisa currently manages the Statistical Analysis team within the Transport Agency.]

The centreline dataset is available to the public via NZ Transport Agency's Open Data Portal, ensuring anyone can view the centreline and local council data in one place (https://opendata-nzta.opendata.arcgis.com)

Sleep: A 'ticking timebomb'

DAVE BOYCE

A STAGGERING 41% of New Zealand's commercial transport operators experience symptoms of obstructive sleep apnoea (OSA), according to health and safety company Fit for Duty.

They believe that due to the nature of the role, the sector, especially male drivers, experience a much higher incidence of OSA than the rest of the population.

And if untreated, sleepiness or sleep deprivation, dramatically increases fatigue-related accidents.

President of the New Zealand Trucking Association David Boyce says while it isn't known what causes symptoms to occur, he likened not taking a proactive approach to managing drivers' health to a ticking timebomb.

That's why the Association was contracted to help develop and implement the Safety MAN Road Safety Truck nearly a year ago.

In part, the programme was originally designed to help reduce truck-related crashes and rollovers following an increase in incidents along the inland, alternative state highway between Picton and Christchurch after the 7.8 magnitude earthquake closed part of the State Highway 1 route from Kaikoura to Picton in 2016.

The newly travelled route wasn't designed to accommodate such large volumes of traffic, and there was a need to educate drivers about the importance of sharing the road safely.

For the first six months, the mobile classroom targeted all road users of the alternative SH1 route to deliver the Healthy Truck Driver and Share the Road with Big Trucks programmes.

The NZ Trucking Association visited communities, transport companies, schools and events – Mr Boyce says the demand for Safety MAN visits was and continues to be endless.

It serves two purposes; to raise awareness and understanding between all road users with tips about how to share the road safely with large vehicles; and to increase awareness about improving truck driver health and wellbeing, from identifying adverse sleeping patterns and mental health to the benefits of healthy diets and regular exercise.

"All these things can have a huge impact on how our drivers perform on the road. If things are being managed properly, you can do 14 hours per day, 80 hours per week well.

"But if those things aren't managed, well you can be a ticking timebomb going down the road.

"And simple things, too, can have an adverse effect, like a wandering mind. A driver who might have had an argument with his partner and then jumps in their truck has a problem that's an inch big at the beginning of the day and by the end of the shift, it's become massive because they've been stewing on it all day."

Personal actions aren't the only tool in a commercial operators' arsenal to battle fatigue. Technological developments continue to reshape the industry, such as the Guardian system.

Using facial tracking technology, it monitors lapses in attention, distraction and micro-sleep events. An alarm sounds and the seat vibrates instantly to alert the driver.

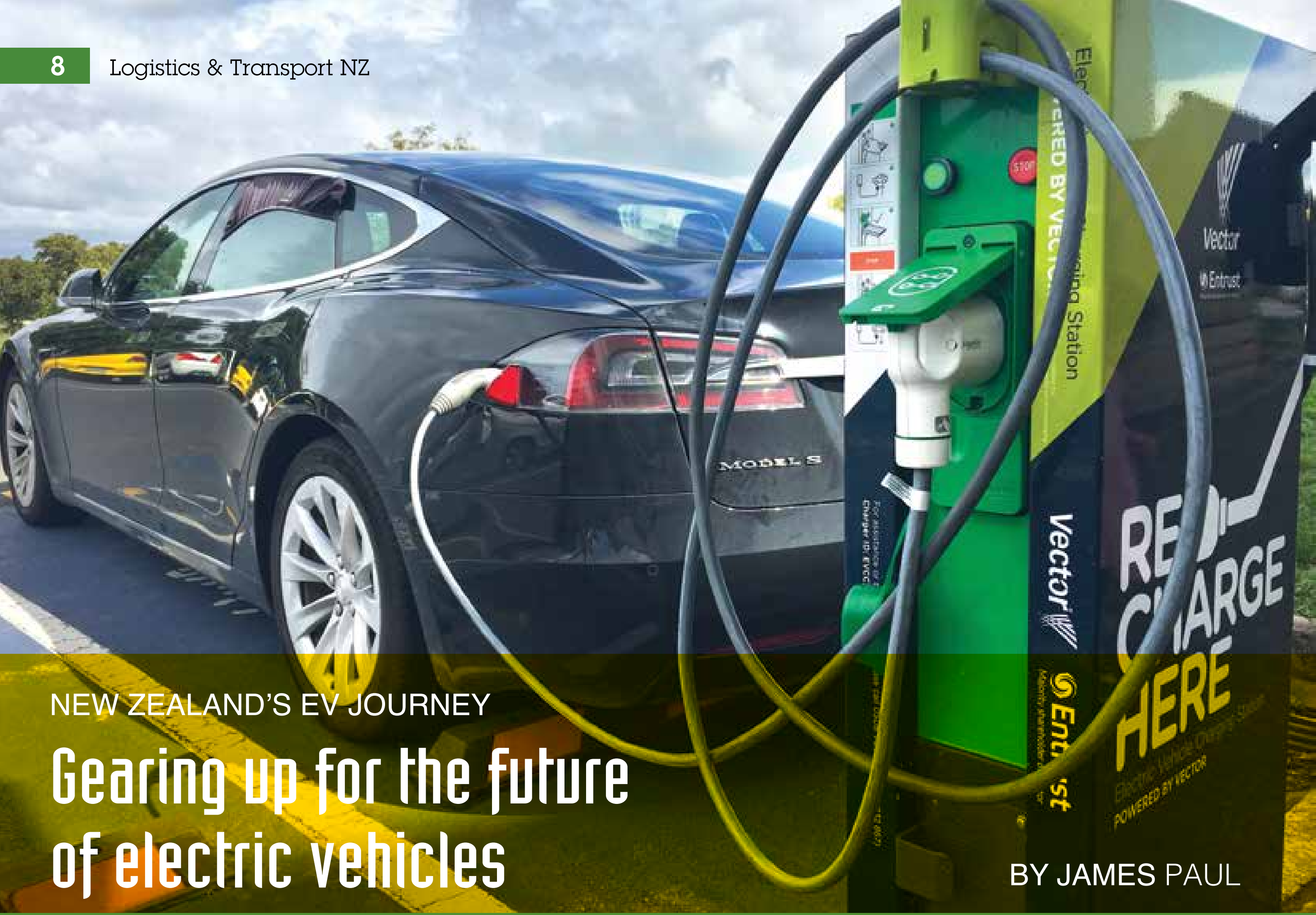
After each incident a seven second video is sent to Seeing Machines' 24/7 monitoring centre. If further action is required they will contact the driver's dispatcher within two minutes, so they can intervene.

Across the Tasman, New Zealand's Australian counterparts recently piloted a "smart steering wheel" that monitors a driver's heartrate and fatigue, while also predicting the onset of tiredness.

Embedded electrocardiography monitors, akin to those in the handlebars of stationary bicycles, are visually communicated to drivers through a Navman, which suggests rest stops in real-time based on the heartrate readings.

Whether or not the technology makes its way to New Zealand's roads is another matter, one which Mr Boyce says is too hard to determine.

"We're like a receiver of the technology, rather than a driver of it."



NEW ZEALAND'S EV JOURNEY

Gearing up for the future of electric vehicles

BY JAMES PAUL

If the government hit a roadblock trying to convert their gas-guzzling fleet to electric vehicles, what is the likelihood of NZ's roads being shared with 64,000 electric vehicle owners in three years? iStockphoto.com.

AS IS with most things in New Zealand, while momentum around the opportunities posed by a renewable economy grows internationally, the emphasis at home has largely been on the costs to transition.

Transitioning to a low-emissions economy requires a re-orientation of public and private investment away from emissions-intensive activities and towards those that support and catalyse low-emissions energy, land use and other activities.

That was the view of the Productivity Commission in its final Low-emissions economy report, stating financial support can stimulate this transition by supporting investment into infrastructure like networks for charging electric vehicles.

With only 0.25% of all the four million vehicles on our roads being battery-powered, the Commission has said New Zealand runs the risk of becoming a dumping ground for polluting vehicles as other countries forge ahead and begin phasing them out.

But that hasn't stopped New Zealanders reaching the milestone of registering the 10,000th electric vehicle late in September.

Acting Associate Transport Minister James Shaw said it was an important breakthrough, particularly as there were only 210 EVs registered with the Ministry of Transport five years ago.

"However, when you look at the huge number of vehicles in New Zealand it's really our first baby step into an electric future. We now need to gear up for a leap forward," he said.

New Zealand needs to shift gears soon because the Government is hoping to hit 64,000 EVs by 2021.

Doing so would also significantly reduce the emissions that an we generate, as transport emissions are strongly linked to population growth.

Part of the issue surrounding the rate of uptake is the public infrastructure needed for electric vehicles is in its infancy. Also a problem is the lack of significant incentivises to encourage consumer investment in this alternatively-charged mode of transport.

ChargeNet currently has 94 rapid DC charging locations and 27 AC chargers open throughout New Zealand (as of 21 June 2018), with the aim of opening 105 DC chargers by 2018/2019.

Research has found that the introduction of reliable rapid charging infrastructure has consistently correlated with increased adoption of EVs in Norway, Netherlands, the USA, and other nations.

Mr Shaw said in a press release that the Government is now investigating a range of options to make electric vehicles easier for Kiwis to buy.

Despite this, the Government isn't leading by example in electrifying their petrol and diesel fleet, which numbers about 25,000 vehicles. Only 226 EVs are registered to Government organisations.

An Energy Efficiency and Conservation Authority briefing prepared for Energy Minister Megan Woods stated there would be "significant difficulty" in transitioning to EVs by 2025/2026, because they're too costly to buy.

However, the Low Emission Vehicles Contestable Fund, which will see $3.87 million committed to new and innovative projects that support EVs, is trying to mitigate that.

The Auckland-based Electric Vehicle Innovation Hub, co-funded through Waste Management's successful application, is helping the organisation convert 20 of their diesel trucks into electric vehicles in the first two years of the hub's operation.

The hub will also be open to other companies looking to transform their vehicles into EVs.

Converting vehicles, rather than selling or replacing them, is the project's modus

One of the barriers to EV adoption is a lack of public charging stations, which is why Contact Energy, ChargeNet and Wellington City Council have decided to quadruple the city's fast-charging infrastructure. James Paul.

operandi to see fewer diesel-powered trucks on the road.

The fund also contributed $819,000 towards:

- converting a WEL Services Ltd, 10 tonne truck from an internal combustion engine to an electric vehicle with an elevated work platform for line maintenance work,
- purchasing a heavy electric truck so Gisborne-based Eastland Port Ltd can suppress dust in the port and log yard sites across the town using a water trailer,
- delivering online Countdown orders in busy urban areas of Auckland, Wellington and Christchurch using five fully electric temperature-controlled distribution trucks.

Other projects in the fund's fourth round gave financial support to:

- development of infrastructure throughout New Zealand, including two bus depots and Quest Hotels and Apartments across the country,
- converting transport options for multiple rural and community-based organisations, including tourist company Jucy,
- providing over 3,000 business and personal members access to a Low Emissions Vehicle in Auckland,
- and helping NZ Post to produce a practical checklist for companies to assess the likely impact of installing EV chargers on building electrical infrastructure and energy costs.

For the general public, however, one of the most talked about options to encourage EV uptake is a feebate scheme – which critics say would adversely affect lower-income households.

Electric vehicle owners get up to $11,000 in the US, and a similar amount for UK owners, while Spaniards can receive up to $13,000. Hungarian electric vehicle owners are eligible for 21% of the vehicle's purchase price.

National Party Transport spokesperson, Jami-Lee Ross, says charging someone a fee for owning a high-emissions vehicle is a very concerning option, as many of the country's vehicles are imported, second-hand cars, which are likely to be petrol driven.

"Lowering the cost of electric vehicles by charging fees on imported petrol driven cars, I see as disproportionately impacting relatively low-income people, and my concern would be the equity around that.

"An unintended consequence, for a country like New Zealand, is that you will see more and more cars being held on to for longer and the age of the New Zealand fleet would get older overtime. So, you could almost defeat the purpose of your policy to lower vehicle emissions if you were to unintentionally, or through not considering the policy ramifications properly, end up with a fleet that gets older."

Mr Ross says lowering the age of New Zealand's vehicle fleet is also an admirable goal but agrees electric vehicles are the better option to reducing emissions.

Instead of the feebate scheme, Mr Ross says the Government should take the lead and use its buying power to import more electric vehicles into their own fleet.

These, he says, would be recycled into the overall market once they are due for another update, making them cheaper for the general public.

"Most New Zealanders buy second-hand vehicles – the Government purchases new vehicles then recycles them out or sells them once they're finished using them, so that would see more and more electric vehicles entering the fleet.

"Unfortunately, we haven't seen much of that happen. I understand it's a cost issue – departments are concerned about the additional costs associated with EVs versus your stock standard petrol or diesel."

A newer trend of cross-border e-commerce in China

BY DR YANGYAN SHI

IN RECENT years, China's traditional foreign trade has slowed down, while cross-border e-commerce has maintained a rapid growth rate. Cross-border e-commerce is an advanced form of electronic commerce. The growth in cross-border e-commerce has supported a new category of trader, referring to both sides of business from different countries or regions. The traders work in the negotiation and transaction of traditional trade to achieve import and export of the product through the Internet mail or Courier forms to enable customs clearance.

There are three primary forms of cross-border e-commerce transaction modes: B2B (Business-to-Business); B2C (Business-to-Customer); and, C2C (Customer-to-Customer). Furthermore, cross-border e-commerce can be categorised as either export or import activities. E-commerce services (such as trading platform services, logistics distribution, and electronic payment) have been intensively developed to support and facilitate the development of cross-border e-commerce.

The development status of cross-border e-commerce industry

China's cross-border e-commerce industry currently has three key characteristics. First, the scale of cross-border e-commerce transactions continues to expand, accounting for an increasing proportion of China import and export trade. Second, the focus is mainly on exports, which is expected to continue the rapid development trend. Third, the trade is dominated by the B2B category, which enjoys rapid expansion. At the same time, the national policy support for cross-border e-commerce has continued to increase, embodying the important role of this form of trade as a development catalyst. The increasing national policy changes providing further support and rapid growth of the sector will continue to provide a powerful impetus for the increased development of cross-border e-commerce.

As the 'One Belt and One Road' (OBOR) initiative continues, cross-border e-commerce is entering a new period of development. According to preliminary estimates, the total population of the 65 countries along the OBOR is about 4.4 billion and the total economy is about $21 trillion, accounting for 63% and 29% of the world's population and economy, respectively[1]. China's total imports and exports are 6.25 trillion yuan with the countries along the OBOR; this accounts for 25.69% of the total Chinese imports and exports to the value of 24.33 trillion yuan[2]. From that, we can conclude that cross-border electronic business transactions still have significant development potential in those countries involved with the OBOR initiative.

The current advantage of cross-border e-commerce in China

Since 2016, when the national strategy of OBOR and "The Silk Road on the net" was advanced, the reform of the supply-side has been carefully managed. Therefore, a cross-border electronic dealer market has rapidly developed in China, and this further infiltrates production, circulation, services, and other areas of trade links. The cross-border electronic business platform has become an economic booster that leads small- and medium-sized enterprises (SMEs) to trade internationally. The strong promotion of Chinese brands overseas and to increasingly large digital trade with other countries along the OBOR has been an advantage to Chinese firms.

With the implementation of the OBOR national strategy, the bilateral trade volume between China and countries along the OBOR has increased synchronously. The development of industry and tourism industry has also been promoted. At the same time, air and sea channels are gradually opening up, which will bring broad development opportunities for the cross-border e-commerce industry and will also promote the development of domestic e-commerce.

Cross-border e-commerce has great potential for development and will become an important growth point for foreign trade in China, which has a broad market, and the competitive situation is more relaxed at this stage. Cross-border e-commerce lowers the threshold to enter global markets and raises brand awareness while enabling access to international consumers. As support for businesses, it enables low operating costs and large profit margins. Also, the Chinese government continues to issue supportive policies, and the domestic economic environment is in good shape.

Major issues and challenges

At present, China's development of cross-border e-commerce still faces some challenges. For instance, the customs clearance service urgently requires improvement; the market supervision system needs to be improved; the exchange settlement method requires adjustment and optimisation; and, domestic logistics delivery enterprises are weak and inefficient. To promote the healthy development of cross-border e-commerce in China, the government should focus attention on the following work: optimising the service support system of customs clearance, payment, logistics and settlement; establishing and improving the cross-border e-commerce market supervision system; strengthening international cooperation in cross-border e-commerce; and, guiding and supporting the development of cross-border e-commerce platforms.

Foreign investment accelerates into the China market

In 2016, the transaction volume of cross-border e-commerce was much higher than in previous years. Over the past two years, several important e-commerce shopping festivals have emerged. The 'double eleven' has become the national shopping carnival, and the 'Black Friday' event is gaining attention from the family of overseas online shoppers. On the traditional Chinese national holidays, a range of promotions is constantly appearing that will support e-commerce popularity. The sales volume of cross-border e-commerce platforms such as shopping carnival, Tmall International and foreign terminals has grown rapidly. Cross-Border e-commerce has been developing rapidly in China, and more and more consumers buy overseas goods through cross-border e-commerce platforms. According to the survey, the products that people are keen to buy mainly include cosmetics, baby products, food and beverages, clothing, and shoes. To meet the needs of online shopping consumers, the e-commerce platforms of all the major cross-border importers are also expanding the category of importers in their platforms.

In recent years, the cross-border imported electronic business has seen swift developments in China. Consumers have increasingly turned to cross-border imported electronic goods business platform to purchase goods from abroad. According to the survey, consumers are keen to buy product categories including cosmetics, maternal and child supplies, food and beverage, clothing, shoes, and hats[3]. Consumers' demand is the extension of the importer category platform. Like Tmall International, besides original costumes and makeup categories, new categories are emerging including red wine and fresh food. Netease Koala's sea goods category also has adjusted to cover beauty makeup, daily, maternal and children's clothing, food, and digital variety orders. Integral to the e-commerce are facilities relied on by the closeness of Zhengzhou Airport, for example, constantly optimising and increasing product categories to achieve a global strategic partnership.

Analysts are very bullish about the Chinese e-commerce market and believe it has positive prospects. As a result, it has attracted the attention of foreign investors. Not only have foreign e-commerce companies changed their business models in recognition of the rise of the market, but the foreign traditional retail companies have also expanded their operations to take advantage of these changes in China. Moreover, the reduction of restrictions on foreign access will attract more foreign investors to participate the domestic market in many ways, including investing or becoming a shareholder. The new involvement will ensure that very successful foreign e-commerce companies will expand into China using joint venture cooperation or other partnerships. The market expansion will attract investment and produce stronger economic growth. The involvement of foreign companies will bring domestic Chinese consumers greater choice in the goods they buy and stimulate the consumption of foreign goods. At the same time, the Chinese e-commerce market will face a new round of developments.

However, despite the agreement on the wealth of opportunities in the Chinese market and the strong Chinese demand, some foreign investors have shown caution on the entry into the Chinese market. This phenomenon is particularly common to European and American enterprises. There are four leading causes for caution. First, the firms are unfamiliar with the state of the Chinese market. Foreign cross-border merchants need to look for reliable partners in China to consider the full spread and distribution of their products in the Chinese market. Otherwise, their entry may result in limited market penetration and stunted growth. Second, they should establish local logistics operations. To increase profits and facilitate more transactions, firms must establish Chinese-based management positions after the market has matured. In this way, it is advantageous to allow local consumers to experience shopping as the firm optimises and promotes the market. Third, the establishment and promotion of the independent website are important; as it is online shopping, people cannot avoid browsing the store's page. The perceptual intuition and speediness of independent websites is a big concern for foreign e-commerce companies. Fourth, cross-border payment is increasingly important. The security, localisation, and speed of payment methods can stabilise the recognition of overseas e-commerce companies in China.

The change of cross-border online shopping

At first, cross-border online shoppers focused on personal online shopping, and the goods they purchased were mostly products for personal consumption. With the development of cross-border e-commerce, the category of goods purchased has become wider. Many consumers are over the age of 26 years, are married, and their consumption reflects this with many purchases now being in the family category. Cross-border online shopping consumers have shifted from personal consumption to household consumption. The age of cross-border online shoppers is increasing, and firms are now focused on consumers with families, and the concept of family consumption is crucial to the success of traders. Moreover, the growth of cross-border online shoppers demonstrates that cross-border shopping has gradually become more popular and common. With the improvement of the quality of life of Chinese people, consumers pay more attention to the quality of imported goods rather than their prices. Cross-border online shoppers have shifted from being price-sensitive to quality-sensitive consumers.

The domestic Chinese market contains many opportunities if foreign cross-border e-commerce companies want to become internationalised. Further improvements should focus on analysing and optimising the links such as logistics, products, and payments and firms should focus on the integration of their resources to ensure a seamless and smooth customer experience.

Dr Yangyan (Peter) Shi has received his PhD from the University of Auckland, and is a senior lecturer in Operations and Supply Chain Management at Macquarie Graduate School of Management (MGSM), Faculty of Business and Economics, Macquarie University, NSW, Australia. Also, he is a member of the Centre for Supply Chain Management at the University of Auckland Business School.

1 Song, Y., & Hao, Y. (2014). Retrieved from http://world.people.com.cn/n/2014/1227/c1002-26285988.html
2 Yan, S. (2017). Retrieved from http://news.xinhuanet.com/money/2017-04/11/c_1120785294.htm
3 Xu, J. (2017). Retrieved from http://www.cifnews.com/article/27996

ENSURING A HEALTHIER WORKFORCE

Changes to logbooks on the cards, says Ministry of Transport

BY JAMES PAUL

In an increasingly digitised world, hand-written logbooks continue to be a more efficient method of monitoring drivers' behaviours behind the wheel, despite the NZTA approving five electronic logbook versions for commercial use. NZ Trucking Association.

NEW ZEALAND'S approach to fatigue management, particularly for commercial and heavy vehicle drivers, may soon go under the microscope, according to the Ministry of Transport (MoT).

The role of logbooks, and whether they remain appropriate, may also be considered alongside telematics – technology used to manage a vehicle or group of vehicles and other assets, most often in trucking.

This follows the eight charges in total John Baptiste Barber faced in Taupō District Court last month over a Desert Road crash that left two children dead.

He pleaded not guilty to all charges, which included two of operating a vehicle carelessly causing death and two of operating a vehicle carelessly causing injury. The remaining charges relate to falsified logbooks, exceeding work hours and failure to have 10 hours of continuous rest.

He was remanded until a case review in September.

MoT's Mobility and Safety Manager, Brent Johnston, says road safety is a priority, and it is clear that the level of trauma occurring on our roads has worsened over the last five years.

"This level of harm is neither inevitable nor acceptable and we are committed to reversing this trend.

"We are currently leading the development of a comprehensive new road safety strategy to address the unacceptably high number of people who are being killed and injured on our roads. The new strategy, and action plan to be made under it, will outline the steps New Zealand will take to reduce deaths and serious injuries on our roads over the coming decade.

"As part of the development of the new strategy, we are considering whether New Zealand should adopt Vision Zero. This ambitious approach has been used successfully in countries such as Sweden and Norway, which have achieved significantly lower fatality rates than New Zealand.

"We are working collaboratively with a range of stakeholders, including representatives from industry, unions, and regulators to support the development of the new strategy."

Despite the Desert Road fatality, president of the New Zealand Trucking Association, David Boyce, believes the industry doesn't have a problem, just a few bad apples.

He says while such cases are rare and incredibly traumatic for all involved, the heavy vehicle industry isn't in need of an overhaul to the way it monitors its drivers.

However, he says operators who break the law, who only make up a small minority of the industry, certainly need to be held to account; as do the employers willing to pressure employees into such acts.

"I don't have a problem with electronic logbooks, I think they're a good idea. But at some point, legislators will probably have to get the regulators to make us use them, and that's certainly what's happened in the United States from 1 September.

"If we're talking about logbooks' abilities to prevent the death toll on our roads, they certainly aren't doing any harm but there are more significant things that we can do to help achieve that."

To date, the New Zealand Transport Agency (NZTA) has approved five electronic logbooks for use on our roads, with a further application under assessment presently.

While it is a relatively new approach to monitoring drivers' hours, the NZTA has yet to decline any eLogbook system under formal application on the basis of specifications.

A spokesperson says where an issue arises from an application, whether this is an IT system and/or business support setup issue, the NZTA aims to work with applicants to meet relevant compliance levels.

"It is at the discretion of drivers or operators to decide which logbook system is best for them.

"Paper logbooks still have benefits in that they are readily transportable for drivers who may be driving a number of vehicles subject to work time or need to record work outside of driving.

"They are also relatively inexpensive, and many operators still prefer to use paper-based systems."

NZTA doesn't record what and how many commercial operators use the digitised versions, and the spokesperson says that while use of those systems is increasing, "it is still significantly less than that of paper logbook use".

Data from a 2013 Official Information Act request to the New Zealand Police details the number of traffic infringements throughout the country for the year, including logbook violations.

Of the 1,615,741 total traffic offences, only 2,158 are logbook transgressions – but the data set doesn't distinguish between heavy vehicle operators and taxis, for example.

These logbook issues comprise numerous categories including a driver failing to retain a logbook for the required period and making a false statement, to using a vehicle when a logbook wasn't maintained, allowing an omission to occur and producing a logbook containing 11 or more omissions.

The road toll for that year was the lowest in 60 years, according to MoT data, with 254 recorded for the 12 months. That compares to 308 the previous year and 284 in 2011.

In 2013, one death was recorded under offence code A612, titled Aggravated Careless (under Influence) Causing Death/injury – Transport Service.

MoT information from 2017 revealed that 75 people died and 850 were injured in road crashes involving trucks; 23% of all deaths and 7% of all reported injuries on our roads.

The report stated that due to a truck's mass, they tend to be over-represented in serious crashes, with fatal crashes involving the heavy vehicle making up around 20% of the total road toll (five-year average).

Just over 6% of the total distance travelled on New Zealand roads is travelled by trucks.

It went on to disclose that 87% of people who died in crashes involving trucks were not truck occupants, but the other road users involved.

"This reflects the fact that, in a collision between a heavy vehicle and a light vehicle or vulnerable road user, there is a much higher probability of death or serious injury than in a collision involving only light vehicles," the report states.

"This is not to say that the fault lies primarily with the heavy vehicles or their drivers. As shown in a later section, truck drivers have the primary responsibility for only about a third (32%) of the fatal crashes in which they are involved."

The Trucking Association's David Boyce agrees; education of other non-heavy vehicle users would have a significant impact on the road toll.

"One of our members' greatest concerns, no matter what community or region they come from, is that of other drivers and their understanding of the road rules.

"As an example, the Police were doing a study in Canterbury recently, asking about the most dangerous piece of road, and the general feedback from members was the passing lanes south of Ashburton.

"As you're driving down the passing lanes, it seems to be this absolute race to get to the end of it, and people are doing crazy things – there are so many accidents.

"If we're able to better educate all other road users and continue the work our industry is doing through the Safety MAN Road Safety Truck in combating truck-related crashes and rollovers, while encouraging companies and drivers to manage driver's health, that will have a major influence over our road tolls."

An aging truckie workforce

DAVE BOYCE

THE AVERAGE New Zealand heavy truck driver's age is 55-years-old, and about 25% of the country's class five drivers are over 65, according to the Trucking Association.

President David Boyce says it's one of the industry's greatest concerns, and it has a large bearing on drivers' abilities to manage healthy lifestyles.

Statistics New Zealand data, from 2013, showed only 5.7% of the people working in the road freight transport industry in New Zealand were aged between 20-24-years-old.

Those aged between 25-29 made up 6.7%, while the 30-34 and 35-39 age brackets comprised 7.5 and 10% of the workforce, respectively. More than 67% of the workforce, as per the 2013 census, were aged 40 or older.

The industry is also struggling to recruit younger drivers which is compounded by Ministry of Transport's 2014 National Freight Demand Study, forecasting that the freight task in terms of tonnage will increase by around 58% over the next 30 years.

Adding to this is the national driver shortage.

If the industry is to recruit new drivers to the sector, then Mr Boyce says they need to act now. So too if they wish to retain the current and more mature workforce.

"What are we going to do when the all baby boomers leave our industry? The industry certainly needs to work on ways to attract the new generation.

"The traditional idea of working 14 hours a day isn't that enticing for a generation that doesn't want to work 70 hours a week because they want to spend time with their family.

"So, it's a whole cultural change that is slow to take place but needs to happen much faster to attract the new workforce coming through, and retain our current employees."

Logistics and Transport New Zealand wishes to formally acknowledge the following organisations for their national sponsorship of CILT NZ. It is because of this support that this forum for transport and logistics professionals is possible.

CERTIFIED FROM GRAPE TO GLASS

NZ companies achieve world first BRC certification for wine

The Marlborough wine region is New Zealand's largest wine growing region, but is adding another world-first to its ever-growing list of accomplishments. iStockphoto.com

WHILE NEW ZEALANDERS know all about Marlborough's award-winning Sauvignon Blanc, they may be less familiar with the achievements of a group of companies responsible for the production and distribution arc of grapes to bottle which are enjoyed the world over.

Three companies – Port Nelson, Central Express and WineWorks, along with an existing joint venture Wine Express – joined forces in 2015.

Looking to redefine the way our wines journey from grape to glass, QuayConnect's model provides the ability for authentic NZ-bottled wine to reach international markets; the ultimate guarantee of the highest quality drinking experience for international consumers.

Just three years later QuayConnect is an award-winning vertically-integrated consortium at the heart of New Zealand's wine industry.

Food safety and climate change

Calls for the safe and sustainable procurement of food and beverages have intensified over the decades. Greater consumer awareness about the safety and sustainability of food and beverages they consume are causing international retailers and food service providers worldwide to implement sophisticated assurance measures.

Many UK, North American and European retailers now insist that their suppliers achieve certification – primarily finished food manufacturers, raw material and ingredient suppliers and the packers of primary products.

What is BRC?

The British Retail Consortium (BRC) is a gold standard, internationally recognised mark for food safety and quality certification. Established in 1992 as a UK based retailer association, BRC's Food Technical Standard and Protocol (1998) for food suppliers has been widely adopted in the UK and subsequently around the world.

BRC is also a Global Food Safety Initiative (GFSI) recognised programme – an internationally recognised platform for the collaboration of some of the world's leading food experts in support of higher standards of worldwide food safety through production and distribution.

Vertically certified supply chain

In a wine industry first, all three QuayConnect consortium members have achieved BRC certification status, meeting customer demands that New Zealand wine, bottled exclusively in the country of origin, delivers the highest quality and most responsible drinking experience available in market.

While numerous individual companies around the world seek BRC status, vertical certification through entire supply chains is less common.

WineWorks is the country's largest wine bottling company, responsible for preparing millions of bottles of wine in New Zealand for export every year. Port Nelson, as New Zealand's wine port, imports large volumes of dry goods while storing and facilitating the export of finished wine around the world.

Central Express (CEL) is a multi-tiered transport company that delivers grapes or finished wine from the vineyard to bottling and other production and distribution hubs. Wine Express is a joint venture tanker company between CEL and WineWorks transporting bulk wine to production facilities.

In addition, QuayConnect has won national awards by redefining the sustainable footprint of export goods – reducing road and driver hours travelled and fuel used, while significantly lowering carbon emissions and increasing volume of loads.

Certified from Grape to Glass

The integrity of provenance, defined through food safety and quality, has become a major factor in the buyer experience around the world. QuayConnect's commitment to safety, quality and sustainability is now certified at the highest BRC level.

The Courier Case and what it means for you

INDEPENDENT CONTRACTORS who provide courier driving services to companies such as New Zealand Post are mounting a claim in the Employment Court, with the support of First Union, arguing that, despite the terms of their contracts with the companies they provide services to, they are employees.

In this article, Jackie Behrnes and Gwen Drewitt take a look at the difference between employees and independent contractors and the potential significance of this case.

What's the big deal?

Employees' rights and protections are enshrined in law; breach of which can lead to costly and time-consuming litigation. Amongst other rights, employees have the right to be paid at least the minimum wage, paid holidays and sick leave and, perhaps most importantly, the right to not be unjustifiably dismissed.

The rights of independent contractors are governed by the terms of the contract between the parties. The contracts can be terminated for any reason, on notice. There can be a number of advantages to being an independent contractor as opposed to an employee. Contractors are, typically, paid more than employees given the absence of rights. They are their own boss and, generally, have more flexibility as to when they work and who they work for.

In the courier case, the drivers don't appear to be enjoying any of the benefits of being independent contractors. Amongst other things, they allege that they are being paid below minimum wage and are prohibited from working for other courier companies in order to earn more.

What will the Court consider?

The Employment Relations Act 2000 sets out the test for determining whether someone is an employee. The Court must look at the real nature of the relationship, regardless of the labels given by the parties.

Determining whether someone is an employee or contractor is, therefore, a highly fact specific enquiry. Whilst the starting point will always be the terms of any contract between the parties, the Court will quickly move on to look at the reality of the relationship, taking into account three main tests; the control, integration and fundamental tests.

Factors the Court will likely consider are:

- Whether there was any flexibility as to when/where work was performed
- Whether the worker could work for anyone else
- Whether the worker provided their own equipment
- Whether the worker was required to wear a uniform
- Whether the worker was required to follow the company's policies/procedures and if they were ever disciplined
- Whether there was any scope for the worker to increase their earnings by working more/reducing costs
- Whether the worker supplied invoices and paid their own tax
- Any specialised skill or expertise the worker had

Without knowing all the facts, it is impossible to predict how the courier case will play out. Certainly, if couriers are genuinely prevented from working for others, supplied with all their equipment, required to wear a uniform and follow company policies and procedures, they have a good argument that they are employees.

A finding that the courier drivers are employees could have huge ramifications for other New Zealand businesses reliant on independent contractors and could open the door to claims from workers in other industries. In both the UK and California, Uber drivers have been found to be employees regardless of the independent contractor label given to them. There is nothing to stop such a claim from being pursued here in in New Zealand.

We will follow the case closely but, in the meantime, suggest that any businesses who engage independent contractors assess the true nature of the relationship with the above factors in mind.

JACKIE BEHRNES

GWEN DREWITT

Jackie Behrnes is a Partner in Anthony Harper's national employment practice. She specialises in all employment-related issues including employee entitlement queries, personal grievances, employment agreements and disciplinary issues. Gwen Drewitt is a Senior Associate in the team and is experienced in both employment and health and safety law.

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Ports of New Zealand opinion

ROBERT KEAM

IN THIS opinion piece, Tauranga lawyer, Robert Keam summarises why Ports of Auckland need not and should not move from its present site.

Robert Keam is a Tauranga lawyer who has been pursuing an interest in New Zealand ports for the past 40 years.

It is gratifying but not surprising that shifting the Port of Auckland to Marsden Point ultimately did not become a non-negotiable condition of New Zealand First's coalition with Labour and the Greens. Although Winston Peter's concern for regional development is commendable, the proposal to shift the Port to the northern neighbour should be seen as simply made in the heat of the election.

Unfortunately, a huge amount of money has been spent needlessly on researching options for shifting the POA from its present location. These included the Manukau Harbour, the Firth of Thames, and a possible alternative West Coast site. It should have been obvious right from the start that none of these were worth any real consideration. The most publicised option apart from Marsden Point has been the Firth of Thames, but this proposal should never have seen the light of day. The cost of initial and ongoing dredging would be horrendously expensive, as would be the infrastructure for access to and from the port. The environmental and cultural cost would be incalculable.

Arguments supporting a move to Northport are equally unsustainable. The cost of upgrading the roads and extending the rail to that port would run into billions of dollars. The most obvious problem with Northport, however, is its location: it is far too distant from the main centres of population.

Over the past five years the greatest population and economic growth in New Zealand has occurred in "the golden triangle" of Auckland, Hamilton and Tauranga. Based upon long-term historical trends it is conceivable that the populations of the latter two cities will eclipse those of Christchurch and Wellington in due course. The bulk of New Zealand's export cargoes originate in the central North Island and imports to this region are growing steadily.

Ideally a port will be situated in an area where both imports and exports will be maximised. It is uneconomic to have vessels departing with large export cargoes while arriving with next to no imports and vice versa. This underlines a fundamental weakness in the option of shifting the POA to Northport. It may have deep water, but it is simply too remote from the main centres of population and exports through that port would continue to be negligible (apart from forestry cargoes) in any event.

In reality, the answer to Ports of Auckland's continued encroachment on its harbour is surprisingly obvious, but it has been given inadequate recognition by the so-called experts. The Port of Tauranga is New Zealand's largest, fastest growing, and most productive port. The statistics speak for themselves: in the past financial year it handled 22,194,014 tonnes of cargo and almost 1.2 million containers. It is the hub port for New Zealand, handling a rapidly growing number of transhipped containers (transhipment to/from other New Zealand ports nearly quadrupling in the last 12 months). No other port has the capacity to handle ships carrying in excess of 9500 TEUs (twenty-foot equivalent units). It is considered to be one of the most efficient container terminals in the world.

Strategic planning by the Board and Management of the POT has been impeccable. Port of Tauranga Limited owns 50% of Northport, Timaru's PrimePort and its container terminal, and Coda logistics. It has established one of New Zealand's largest intermodal freight hubs in South Auckland and another in Rolleston. These give it ready access to and from the largest centres of population in both the North and South Islands.

Does POT have the ability to expand to cater for Auckland's growth? This question has been well researched by the Board and Management of the port. Unlike POA which has strategic land holdings of only 75 ha., POT has 190.3 ha. adjoining its wharves. With comparatively little cost and environmental impact it can expand its terminal to handle 3 million containers a year, only a small proportion of which would be disposed of by road transport. KiwiRail has confirmed its ability to handle an increase of this magnitude.

For the past five years the impressive growth of the POT has been at the expense of POA. Import and export volumes have risen 50.9% as against Auckland's 1.6% and it is expected that the gap will continue to widen year on year. Notwithstanding this, it is critical that POA continue to operate on its present site to help cater for long-term growth of trade in the region. The proximity of the Port to its customers needs to be recognised for the asset that it is. Moreover, while POT has huge capacity for growth, it simply cannot replace POA altogether.

The solution to the problem would appear to be to allow POA to limit its footprint to the present site without further encroachment on the harbour. This would allow for completion of the Fergusson Container Terminal and the provision of the accompanying cranes. No extension of the Bledisloe Container Terminal should be permitted. With increased efficiency and improved management POA can remain profitable while limiting its expansion.

Such a strategy requires a degree of co-operation between POT, POA, and Northport, involving dialogue between the port companies, the Auckland City Council, and possibly central government. In the medium term, extension of the rail to Marsden Point will probably be necessary. Between the three ports, catering for the growing volume of car imports should ease pressure on POA.

POA need not and should not move from its present site. At the same time, it must recognise that its previous ambition to be the dominant seaport in the region failed to appreciate its limitations, and rather than compete with the POT, it needs to co-operate with its neighbours.