



2019



TELETRAC NAVMAN

Construction Industry Report 2019

Commissioned by Teletrac Navman and
Civil Contractors New Zealand (CCNZ).



CIVIL CONTRACTORS
NEW ZEALAND

Foreword

This is the third issue of the Construction Industry Survey, a joint research project undertaken by Teletrac Navman and Civil Contractors New Zealand (CCNZ). Our research helps to build a picture of New Zealand's civil construction industry and the experiences of those within the industry. The results are intended to shed light on industry topics, stimulate discussions, inform decision makers and voice industry views to private and public organisations, as well as local and central government.

Specifically the 2019 survey aimed to explore:

- Industry response to current issues and its outlook for the future.
- Trends across the three-year period.
- The workforce requirements including views on training, gender diversity and mental health.
- What technologies the industry uses and how it trains the workforce on construction software.

This report collates feedback from a range of people, most of whom who manage businesses or are employed in leadership roles within the industry. It includes respondents from both small subcontractors and large main contractors.



Peter Silcock, CEO, Civil Contractors New Zealand



James French, Construction Industry Specialist, Teletrac Navman

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- An aerial photograph of a construction site, showing various materials, equipment, and workers. The image is overlaid with a blue grid pattern. The text 'Future' is written vertically in a large, yellow, stylized font on the right side of the image.
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Future

Industry Snapshot

Civil contractors play a vital role in the development of New Zealand. The people and businesses within this sector build and maintain our nation's infrastructure which includes roading and transport, energy, water, communications and public infrastructure. They also provide services to residential and commercial construction sectors. These are services a modern and developed economy must have to compete efficiently in world markets and to deliver high living standards for its people.

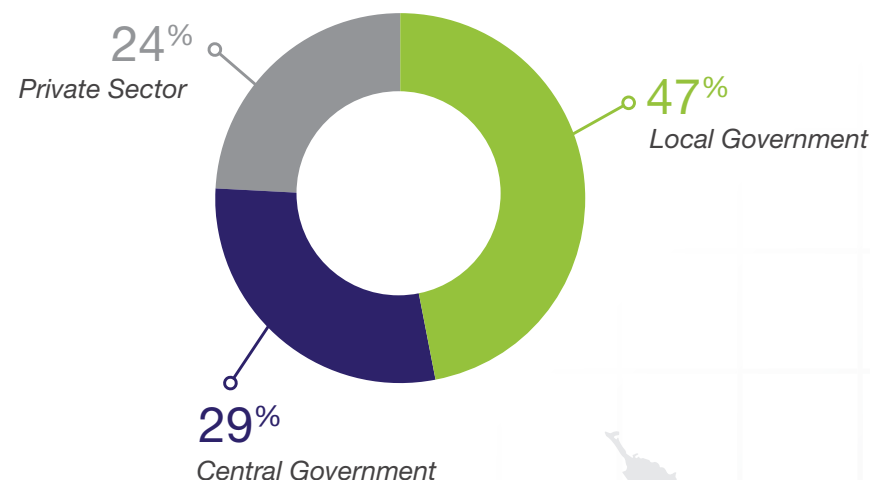
At a glance:

\$6.9 billion value of national infrastructure activity in 2017

Projected to be **\$7.3 billion annually** by 2023

Estimated **60,000** people employed in civil construction industry

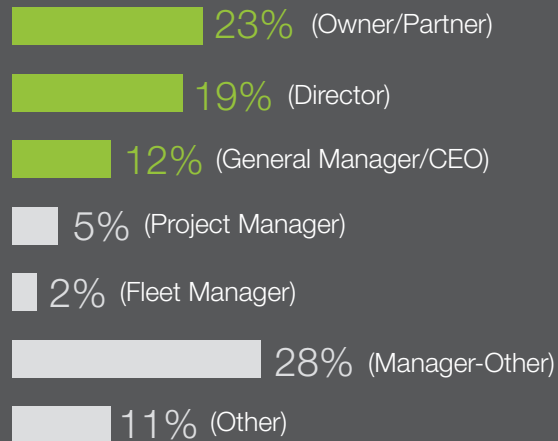
Project initiators from 2018 - 2023



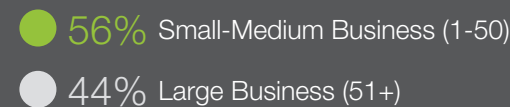
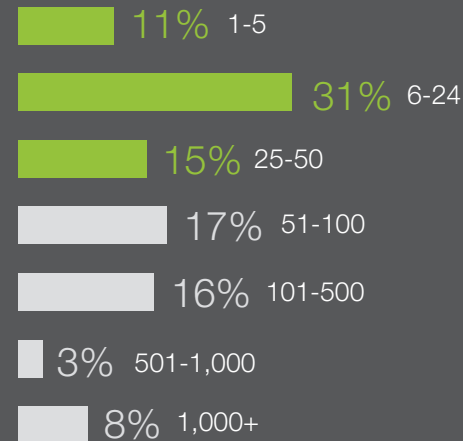
Demographics

The data in this report was collected from 186 adults within the New Zealand civil construction industry. Around half of the respondents hold owner or leadership roles within the business and a further third hold manager level positions. The regional split is around two thirds from the North Island and one third from the South Island, with the strongest representation from Auckland at 34%. A range of business sizes, from those with 1-5 employees up to 1,000+ employees, are represented. The majority (81%) of respondents are aged between 35 - 65 years old.

Position / Role



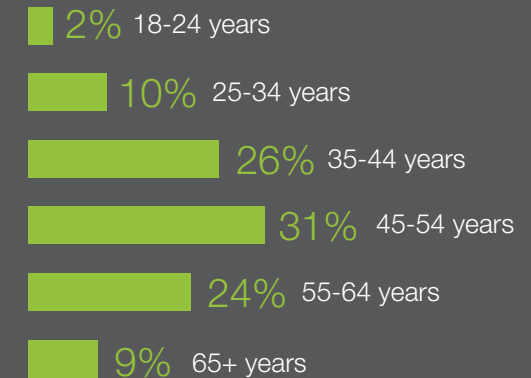
Number of People in Business



Methodology

The survey was commissioned by Teletrac Navman and Civil Contractors New Zealand and produced by research firm Colmar Brunton. Data was collected from 2 - 27 May 2019 by Colmar Brunton via an online survey. Margin of error for the total sample is + or - 7.2 percent at a 95 percent confidence level.

Age



Key Findings

51%

expect turnover growth in the next 12 months

27%

plan to increase capabilities in the area of Three Waters

58%

of businesses deliver more than 50% of staff training on-the-job

50%

require more staff in 2019 - of those - 63% need between 1-5 employees.

97%

have concerns about staff mental health - 40% feel unprepared to deal with mental health issues

Top 3 tech investments

specialised construction software, GPS-based tracking, small asset tracking

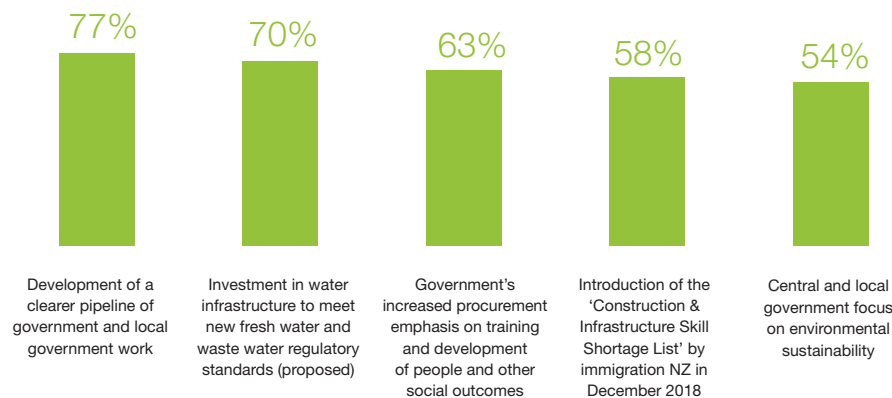
Issues / Work Programme

The overwhelming factor for making positive change in the next three years was seen as the development of a clearer pipeline of central and local government work. The perceived need for a clearer pipeline reflects the need for contractors to be able to invest in heavy equipment and skills ahead of time - a factor of prime importance in reducing project cost and working at a high level of quality. Projects are often years in the planning, and take time to move through design and procurement into the construction stage; so shifts in government priorities and project requirements can intensify uncertainty, escalate costs and cause major delays in a long-lasting ripple effect.

Increased investment in water infrastructure was seen as the second most positive factor. New Zealand's aging water infrastructure has been in the spotlight both regionally and nationally, with many councils faced with increasing populations relying on old water infrastructure. An estimated \$1.4 - \$2 billion of spending is needed to upgrade the nation's wastewater infrastructure, plus \$500 million to upgrade drinking water infrastructure.

The Government's increased procurement emphasis on training and other social outcomes was seen as largely positive by most contractors. Our survey found around half of all businesses had up to 10% of staff working on a nationally recognised qualification or apprenticeship.

Expected events/ issues with most positive impact in the next 3 years



Growth

The Ministry of Business, Innovation and Employment forecasts all regions (except Canterbury) are expected to grow consistently towards 2023. Steady growth is expected in Auckland (10%), Waikato/Bay of Plenty (9%) and Wellington (4%), driven by transport and subdivisions. The rest of New Zealand is forecast to grow at 3% and Canterbury to reduce by 9%, as work tails off on the Christchurch and Kaikoura rebuilds.

Our findings showed that around half of respondents expect their turnover to grow, rising to 67 percent expecting turnover growth in Auckland.

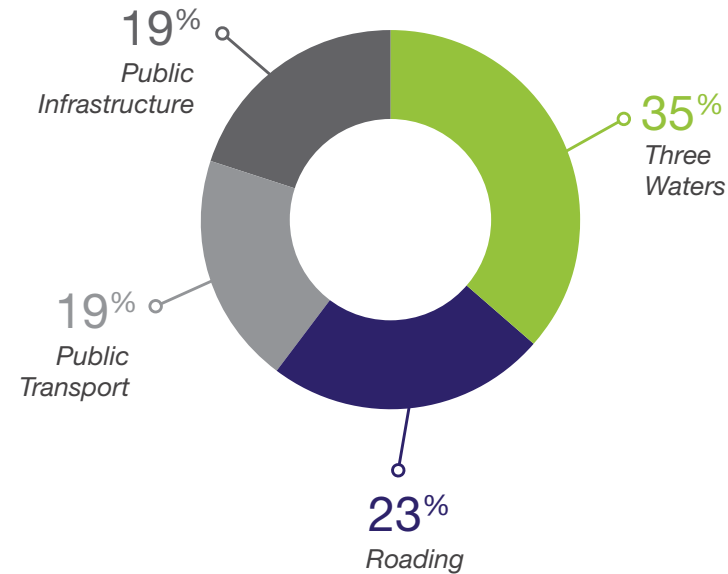
Spotlight on Auckland

As the large state highway jobs come to an end over the next few years, many Auckland businesses will need to transition staff to other work. The level of congestion in Auckland remains an issue. There are a number of other big jobs on such as City Rail Link, the central interceptor and airport developments.

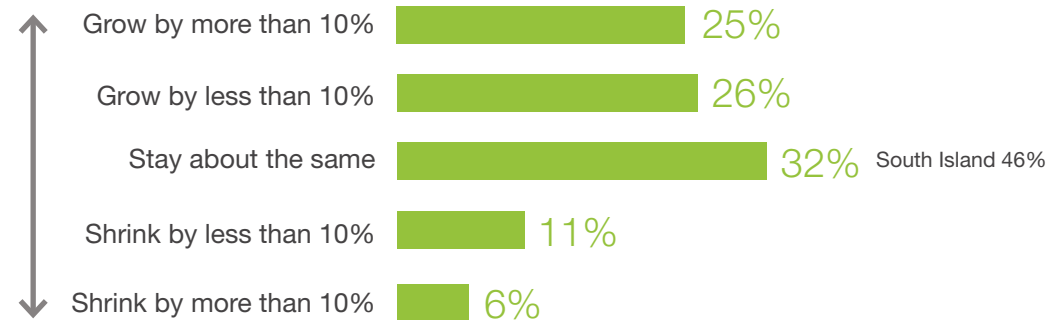
Spotlight on Canterbury

We expect to see a significant realignment occurring in Canterbury over the next year or so as the Kaikoura work comes to an end and the two Christchurch Roads of National Significance projects are completed.

Large businesses are looking to increase capability in



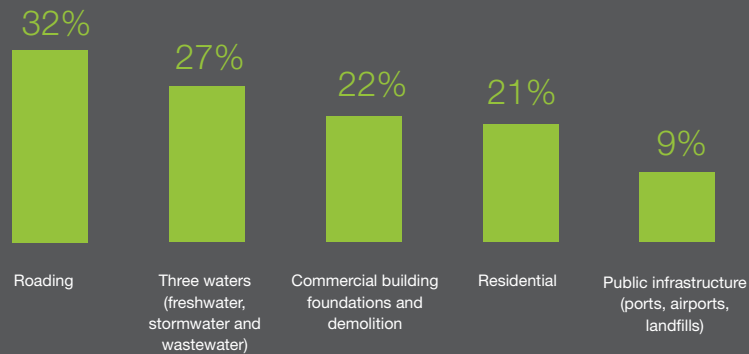
Expected turnover growth in the next 12 months



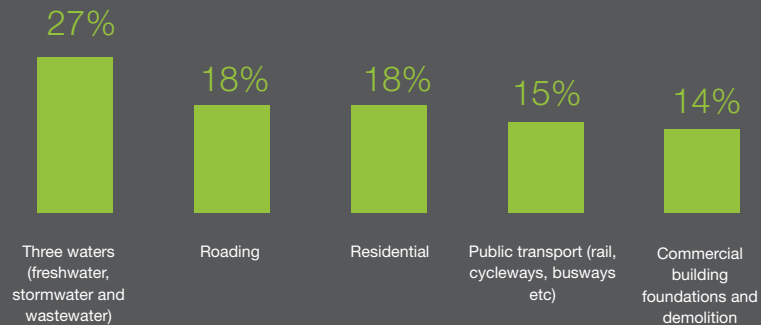
Project Types

Contractors are currently getting the most work from Roothing and Three Waters (freshwater, stormwater and wastewater) projects. These are also the areas in which contractors plan to increase capabilities over the next 12 months. While an increase in spending on public transport has been signaled, very little of it has come to the construction market to date. Very few (6%) are getting most of their work from Public Transport (cycleways, rail, busways), however this is a project area where 15% are planning to increase their capabilities.

Projects currently getting the most work from



Projects planned to increase capability in the next 12 months



Workforce / Recruitment and Challenges

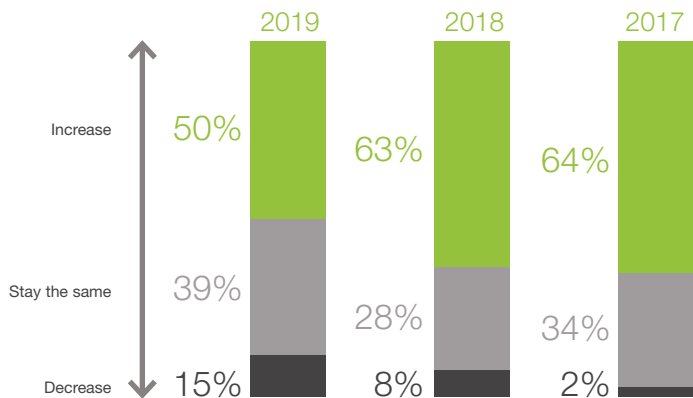
Only half of contractors believe their requirement for staff will increase, over the next year. Data over three years shows a slight declining trend in growing staff numbers, with more businesses looking to stay the same or even decrease staff numbers in the next 12 months. This trend is also seen in how many staff businesses would recruit if the right skills were available. Around one in five would not recruit, and 63 percent would only recruit between 1-5 employees.

This reduction in the requirement for new staff is likely to reflect uncertainty about the future pipeline of work as a number of Roads of National

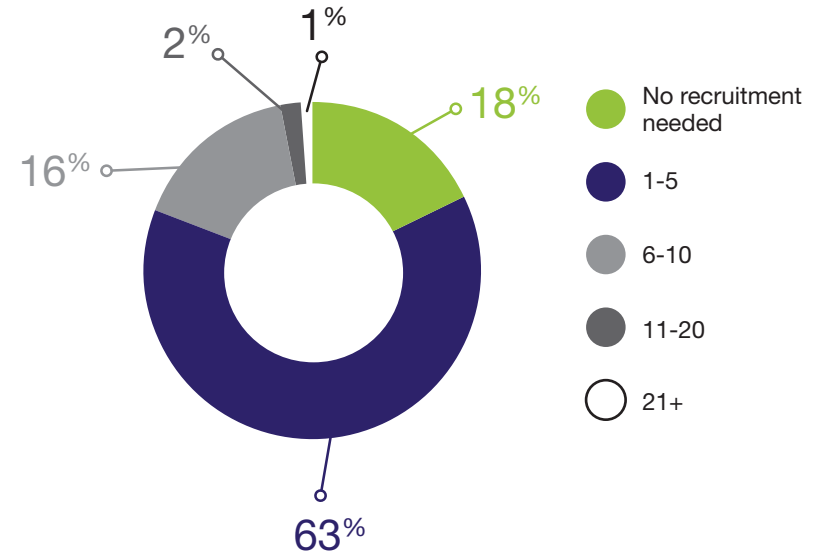
Significance projects come to an end and others are taken off the table with projects planned to replace them still years from construction.

By far the largest obstacle to staff recruitment was seen to be a lack of skilled workers; this challenge is followed by a lack of motivated people and the inability to pass drug tests. Unsurprisingly, the proposed legalisation of cannabis was the issue expected to have the most negative impact on the civil construction industry, with two thirds (67%) saying that it would negatively impact their business.

Requirement for staff in the new year



Number of staff would recruit 2019



Workforce / Training

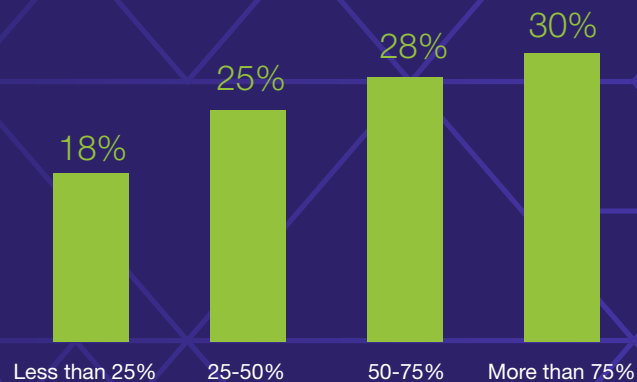
A large proportion of training is delivered on the job in the civil construction industry. However, only three in five (61%) felt they had the right resources to train new employees. Employers appear to be looking for training which will be directly applicable to their own business and provide a good return on investment. The chance of this occurring is much higher if training is delivered in house.

The off-site training which is most needed and not readily available is training on specific equipment and machinery. Respondents mentioned that operating machinery is a practical skill, but because of safety issues,

and time and money restrictions, they found it difficult to train new staff. Some specialist skills, such as directional drilling, required training to be completed overseas.

Many also mentioned a need for off-site health and safety training such as working at height, critical risks identification and control, first aid and meeting Site Safe standards. General life and workplace skills such as communication, time management, budgeting, numeracy and literacy were another area that respondents highlighted.

Proportion of training delivered on the job



Specialist training required

Advanced plant operation

Operating specialist drilling equipment

Excavator operator training

Heavy truck and trailer driving - backing/jack-knifing

Piling and deep foundations qualifications

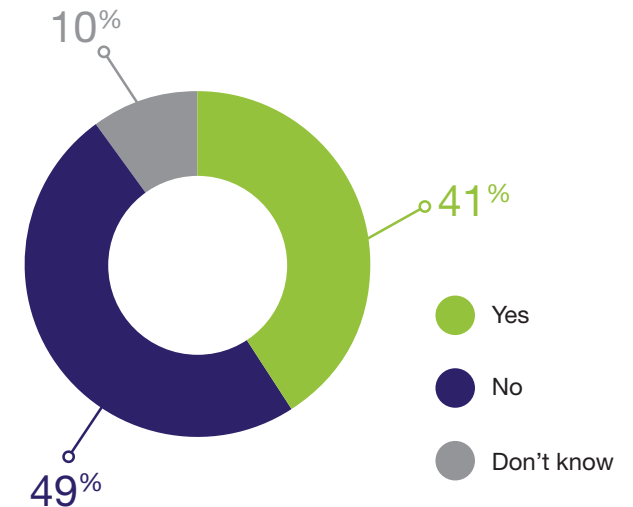
Handling materials - bitumen, hazardous chemicals, specialised coatings

Women in Construction

According to research by the Ministry for Women, in 2016 women made up approximately 13 percent of the construction workforce, equating to an estimated 30,000 women. Across the sector, substantial efforts are underway to recruit more women into the industry and support them in taking leadership positions. Programmes and organisations mentioned by survey respondents included National Association of Women In Construction, Mana in Mahi programme and high school gateway/apprenticeship programmes.

Around half of respondents did not have specific initiatives in place to support female staff. The number rose to 60 percent in small to medium businesses. However a majority of respondents expressed that they provide equal opportunities and rights to both genders. Some of the less formal initiatives and activities mentioned included mentoring relationships and fostering a strong workplace culture.

Initiatives to support female staff



60% of small-medium companies do not have initiatives in place to support female staff

Contractors Comments on Supporting Female Staff

"We have several female employees in the field and encourage an equal and fair workplace" - Manager, Large Business, South Island

"Hiring and training female staff through high school gateway program" - Owner, Large Business, Upper North Island

"Groups for women to join, to collaborate and get together to build the confidence of females on site." - Employee, Large Business, Auckland

"We have trained women to drive trucks, heavy front end loaders and diggers" - Owner, Small Business, Upper North Island

"I strongly believe some males don't understand the benefit of [having women on site]" - Manager, Small-medium business, Upper North Island

Mental Health

Mental health has been in the spotlight because of the alarming rates suicide and mental health issues in the wider construction industry. International studies show the construction industry suffers from higher rates of mental health issues than other industries. The New Zealand construction industry is one of the nation's largest industries and its workforce is mostly male. Taking into consideration that men account for around three out of four suicides, it's important for the industry to be aware and prepared to deal with mental health issues in the workplace.

Awareness and Preparedness

The civil construction industry shows strong awareness about mental health and wellbeing, with around two thirds of respondents often or always concerned. However only 15% felt very well prepared to deal with issues.

The top two things that would help businesses better deal with mental health were:

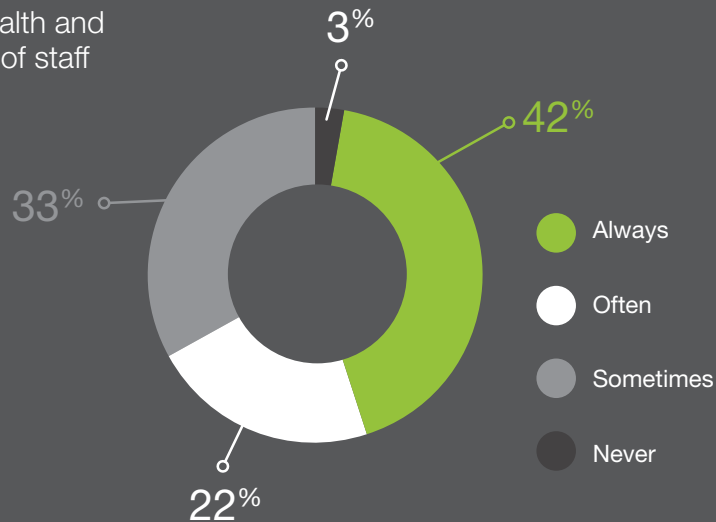
- Seminars/workshops for all staff about recognising and managing mental health and wellness - 31%
- Having examples of what other construction companies are doing about mental health and wellbeing - 27%

Opportunities for the Industry

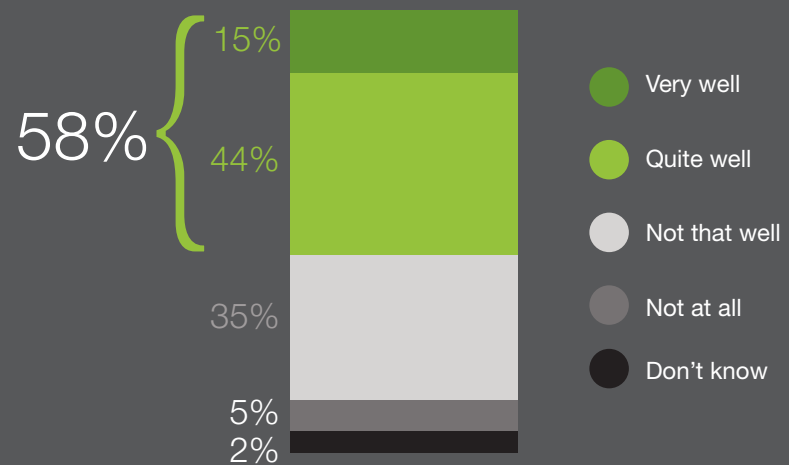
A small number of Kiwi companies have undertaken programmes such as the Australian-led Mates in Construction (MIC) programme, which aims to train staff to recognise warning signs in workmates and learn where to get help.

"It has opened up discussion on a subject that was taboo" - [Dave Armstrong, Netcon, first NZ company to implement Mates in Construction. Stuff.co.nz interview.](#)

Concerned about the mental health and wellbeing of staff



How well prepared is the business to deal with mental health and wellness issues of staff?



Technology

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From construction software and apps to hardware products such as drones and machine guidance, technology is a core part of today's civil construction industry. The majority of people surveyed were looking at adopting a new technology in their business in the next twelve months (84%), a similar number to the previous two years. Specialised software, telematics systems and small asset tracking were the most popular new technology choices.

Training for Tech Investments

Large businesses tended to have in-house expertise in technology and trained small groups through a tech-savvy leader. However, small-medium businesses (less than 50 employees) were much less likely to have a person who manages new technologies, leading them to be more reliant on training given by the technology provider.

Technology training is an area that businesses can improve to make sure they get full value from their investment. Our 2018 survey revealed that the top way to get better value from job site technology was for staff to better understand its capabilities. Yet in 2019, around a third of respondents without a specific tech-focused staff member relied on individual trial and error by staff who encounter the technology.

Job Costing Technology

Half of all large businesses (51+ staff members) tended to always use technology to undertake or assist with job costing. Various categories of software are used for this, including accounting, estimating and surveying systems. In some businesses on site data from GPS systems, laser measurement and drones feeds into calculations. However, stock standard spreadsheets are still a popular method for job costing, and some businesses have even built custom systems to assist them.

60%

of construction industry businesses do not have a specific staff member who manages new technology

- of these -

37%

 rely on the software provider for training

27%

 rely on individual trial and error

Civil Contractors New Zealand

Civil Contractors New Zealand represents the interests and aspirations of more than 600 member organisations – including large, medium-sized and small businesses in civil engineering, construction and general contracting. It also has associate members who provide valuable products, support and services to contractor members.

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Teletrac Navman

Teletrac Navman is a leading software-as-a-service (SaaS) provider leveraging location-based technology and services for managing mobile assets. With specialised solutions that deliver greater visibility into real-time insights and analytics, Teletrac Navman helps companies make better business decisions that enhance productivity and profitability. It tracks and manages more than 550,000 vehicles and assets for more than 40,000 companies around the world. The company is headquartered in Glenview, IL, with additional offices in New Zealand, United States, United Kingdom, Australia and Mexico.

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