



Teletrac Navman x  
Civil Contractors NZ

# 2024

# Construction Industry Survey



SAM FROM CURRIE CONSTRUCTION (2012) LTD, AT SH2 MORERE,  
GISBORNE - EMERGENCY CULVERT INSTALLATION

# Foreword



**Alan Pollard**  
CEO  
Civil Contractors New Zealand



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Construction Industry Specialist  
Teletrac Navman

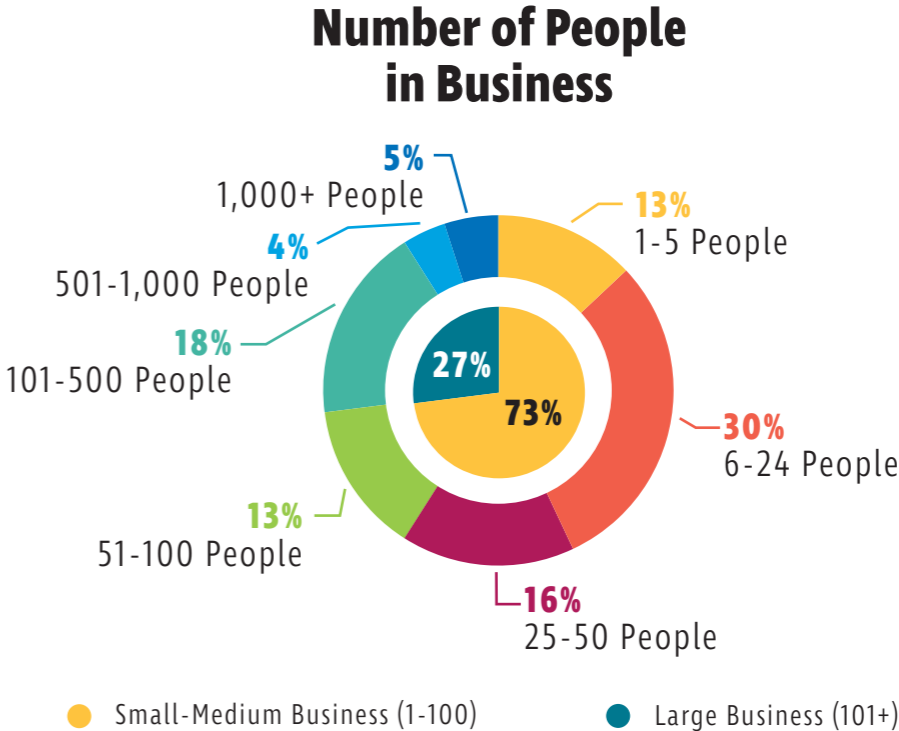
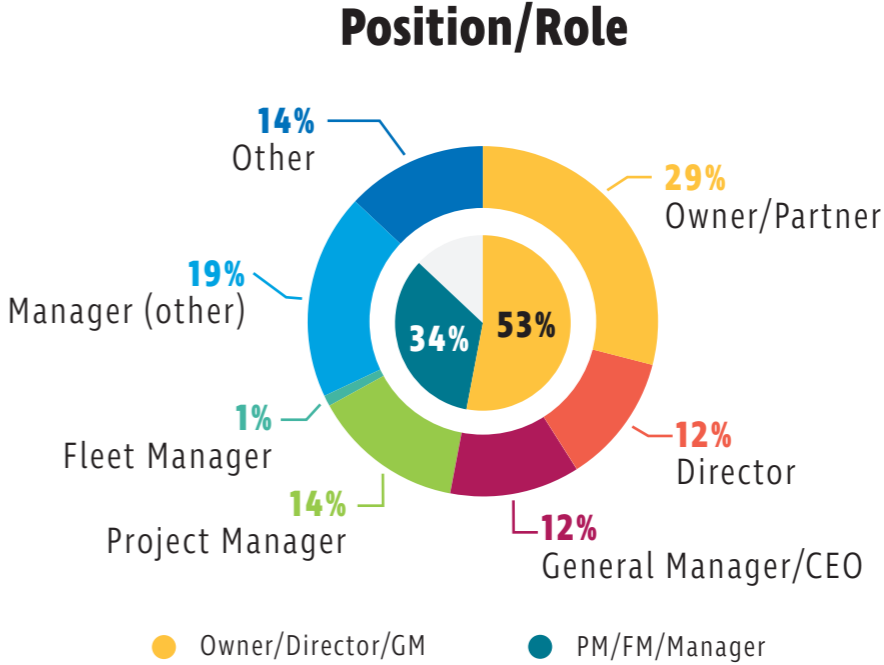
**This is the eighth Construction Industry Survey - a research partnership between Civil Contractors New Zealand (CCNZ) and Teletrac Navman.**

Our research helps to build a picture of New Zealand’s civil construction industry and the experiences of those within the industry. The results shed light on the state of the civil

construction industry and its outlook for the future, as well as stimulating discussion on industry views amongst private and public organisations, local and central government.

## Demographics And Methodology

226 adults from the civil construction industry took the online survey from 28th May – 23rd June 2024



What is your position/role in your business? Base n=226  
Approximately how many people work for your business? Base n=226

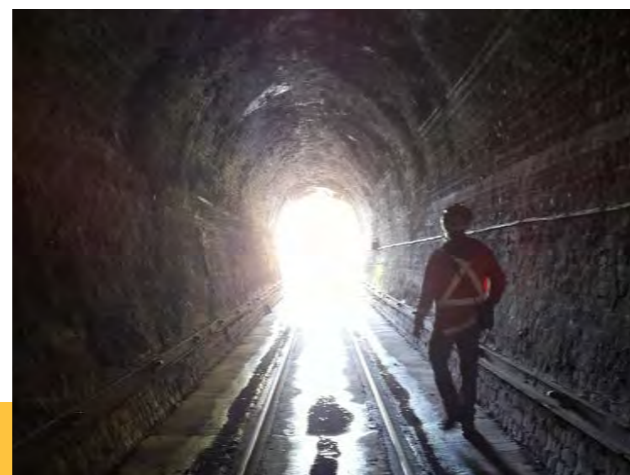
# Contents

Revenue expectations  
Industry confidence  
Challenges  
What can be done to overcome main challenge



## 04 Industry Outlook and Confidence

Industry Issues  
Supply Chain Impacts



## 20 Industry Issues

Diversity  
Inclusivity  
Staffing Change  
Skillsets  
Staff Retention  
Apprenticeship

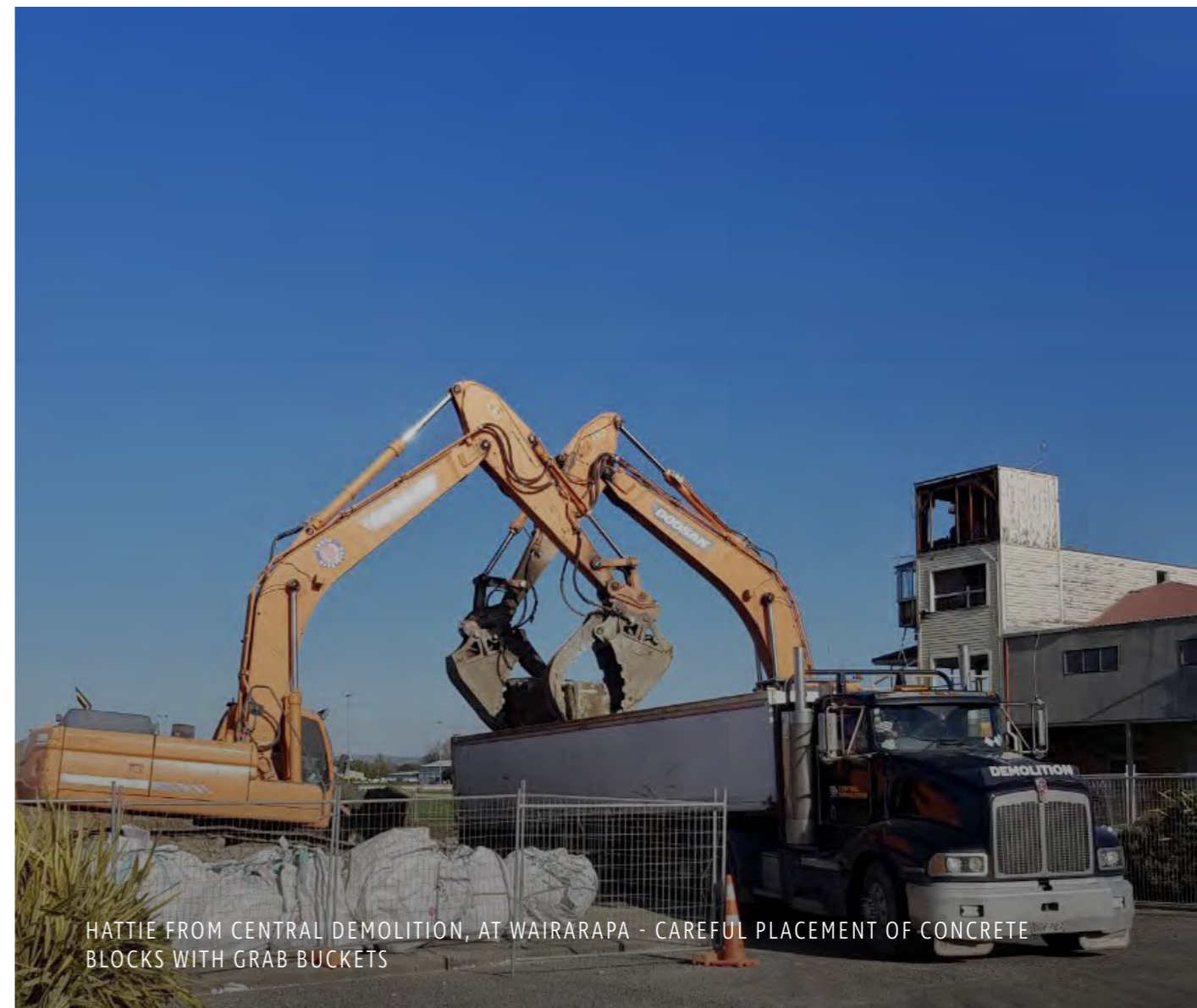


## 26 Workforce

On-site Technology  
Energy Sources  
Specialised Technology  
Business Intelligence  
Mandated Technology



## 42 Technology



HATTIE FROM CENTRAL DEMOLITION, AT WAIRARAPA - CAREFUL PLACEMENT OF CONCRETE BLOCKS WITH GRAB BUCKETS

# Industry Outlook and Confidence



KIAN FROM DOWNER, AT WHANGANUI - FLOATING EXCAVATOR OVER THE WHANGANUI RIVER



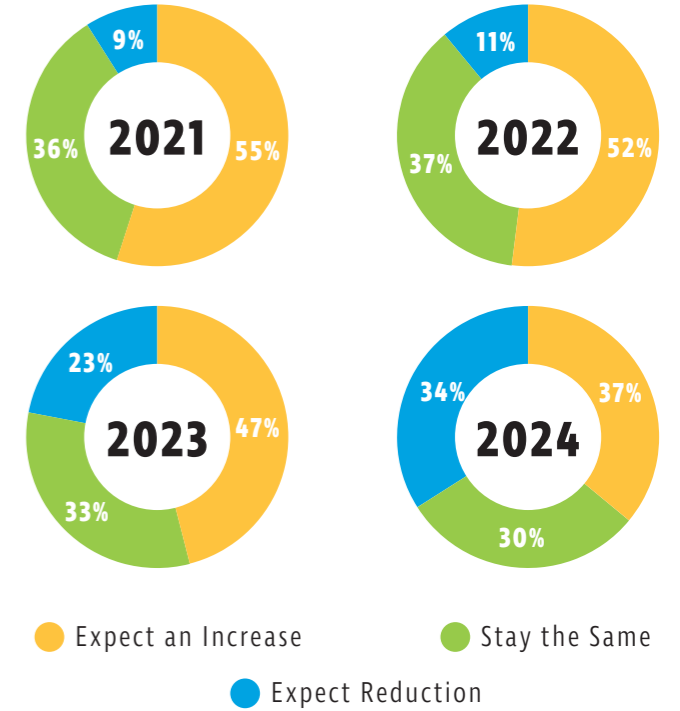
Jacob from Southroads, at Josephville Hill, state highway 6, Southland - Replacement of iron culvert with new 3.2 meter culvert



Nati from Utilities Infrastructure New Zealand, at Canterbury (Burnham) working of the Darfield to Pines pipeline 25kms of 375PVC

## Revenue Expectation

Trended

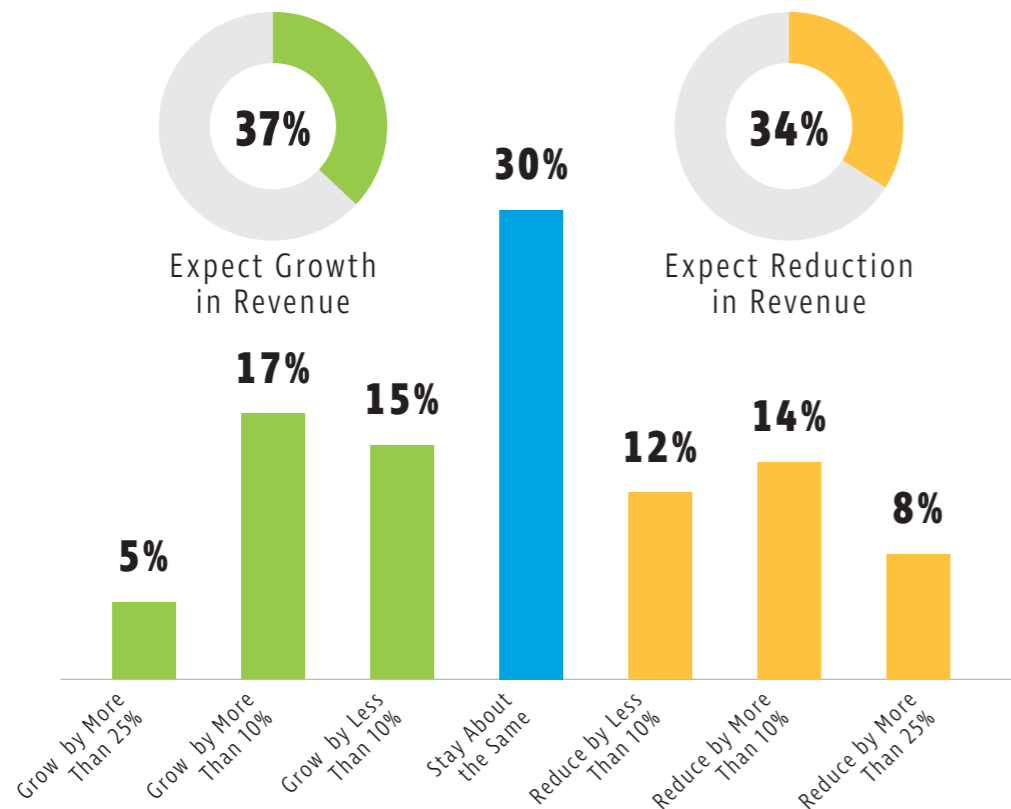


# Revenue Expectations

Mixed expectations regarding revenue expectations, with 37% expecting revenue to grow over the next 12 months

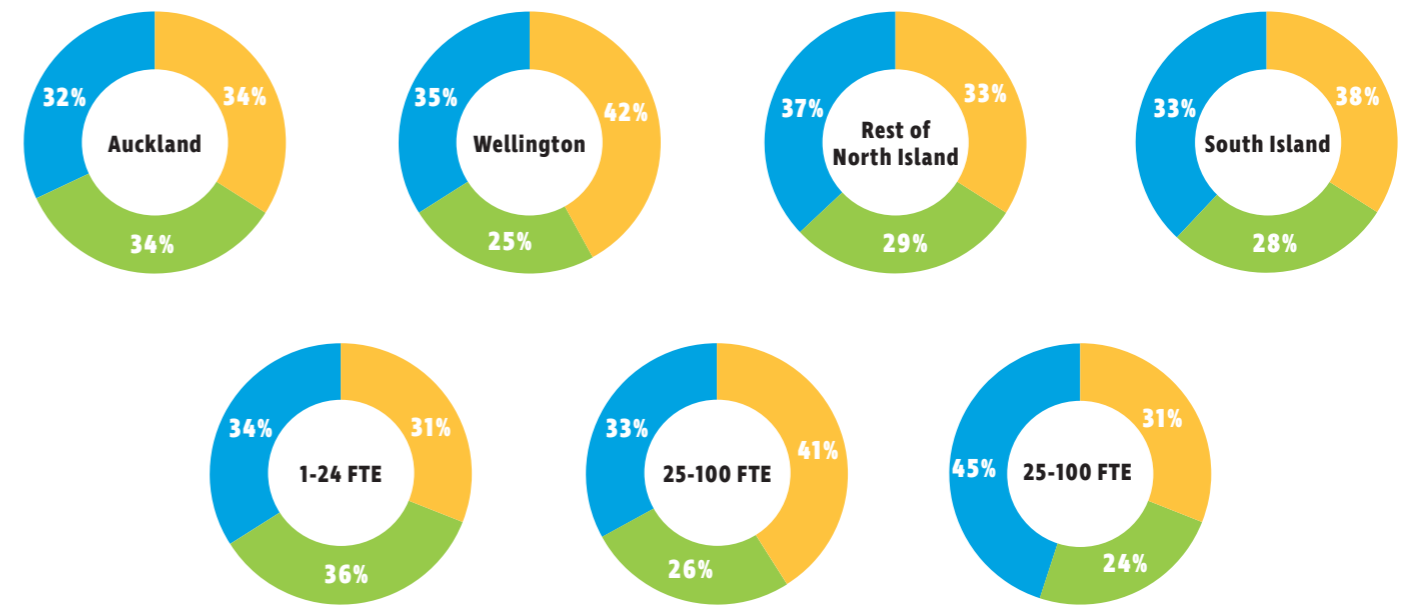
## Revenue Expectations

(next 12 months)



## Revenue Expectation

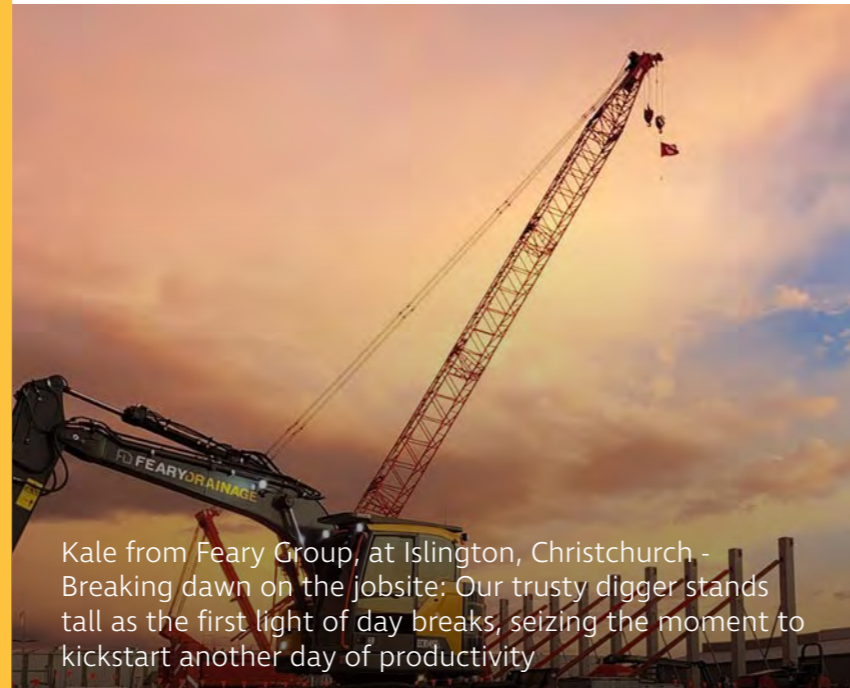
by Region and Business Size (FTE count)



Do you expect that your business turnover (revenue) will grow, stay about the same, or reduce in the next 12 months? Base Total Sample n=226  
 Base 2024 n=226, 2023 n=198, 2022 n=226, 2021 n=161; Auckland n=59, Wellington n=17, Rest of North Island n=51, South Island n=99, 1-24 FTE n=98, 25-100 FTE n=66, 100+ FTE n=62

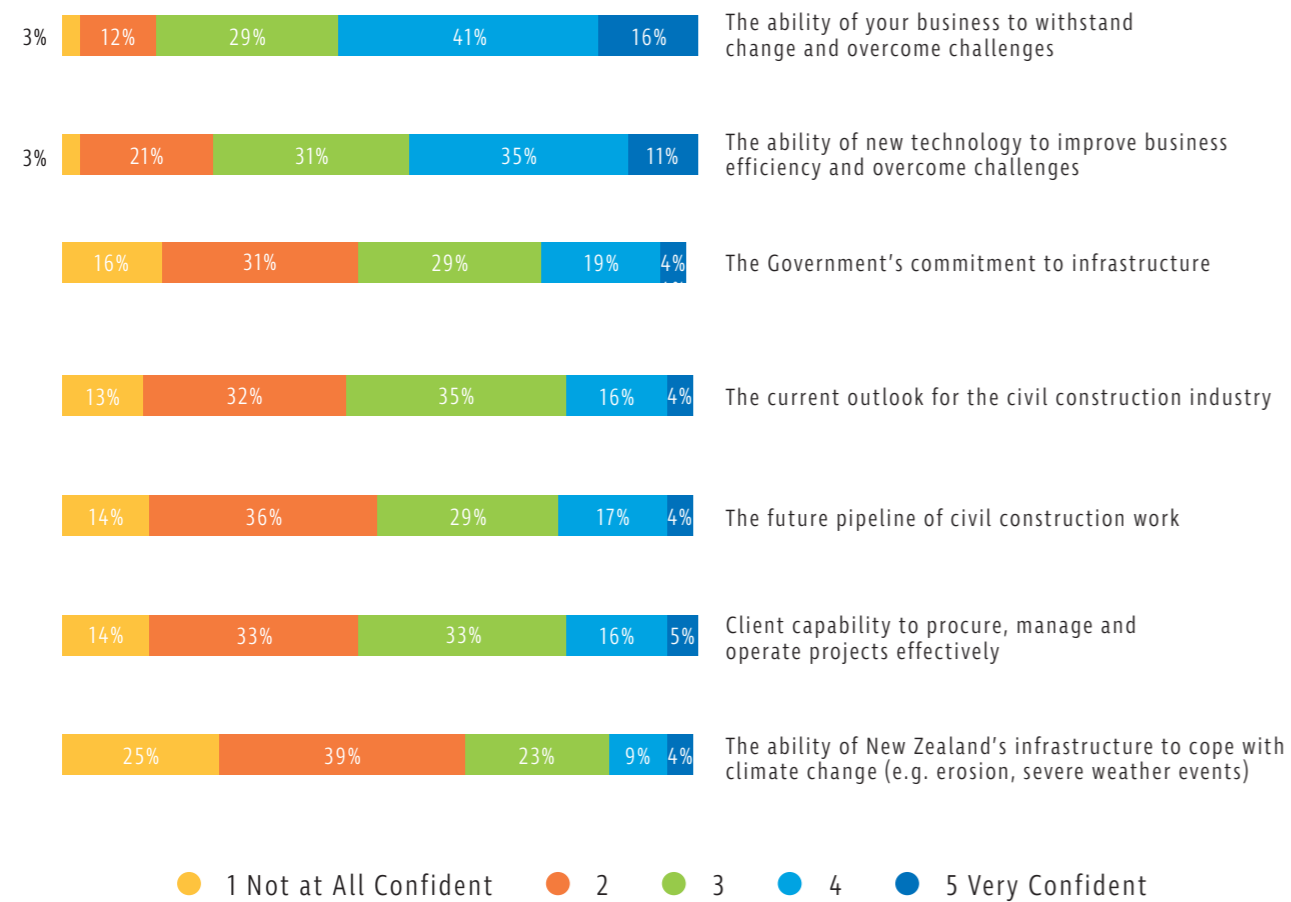
# Industry Confidence

Surveyed businesses were most confident about their ability to withstand change and overcome challenges. However confidence in NZ's infrastructure to cope with climate change is low.

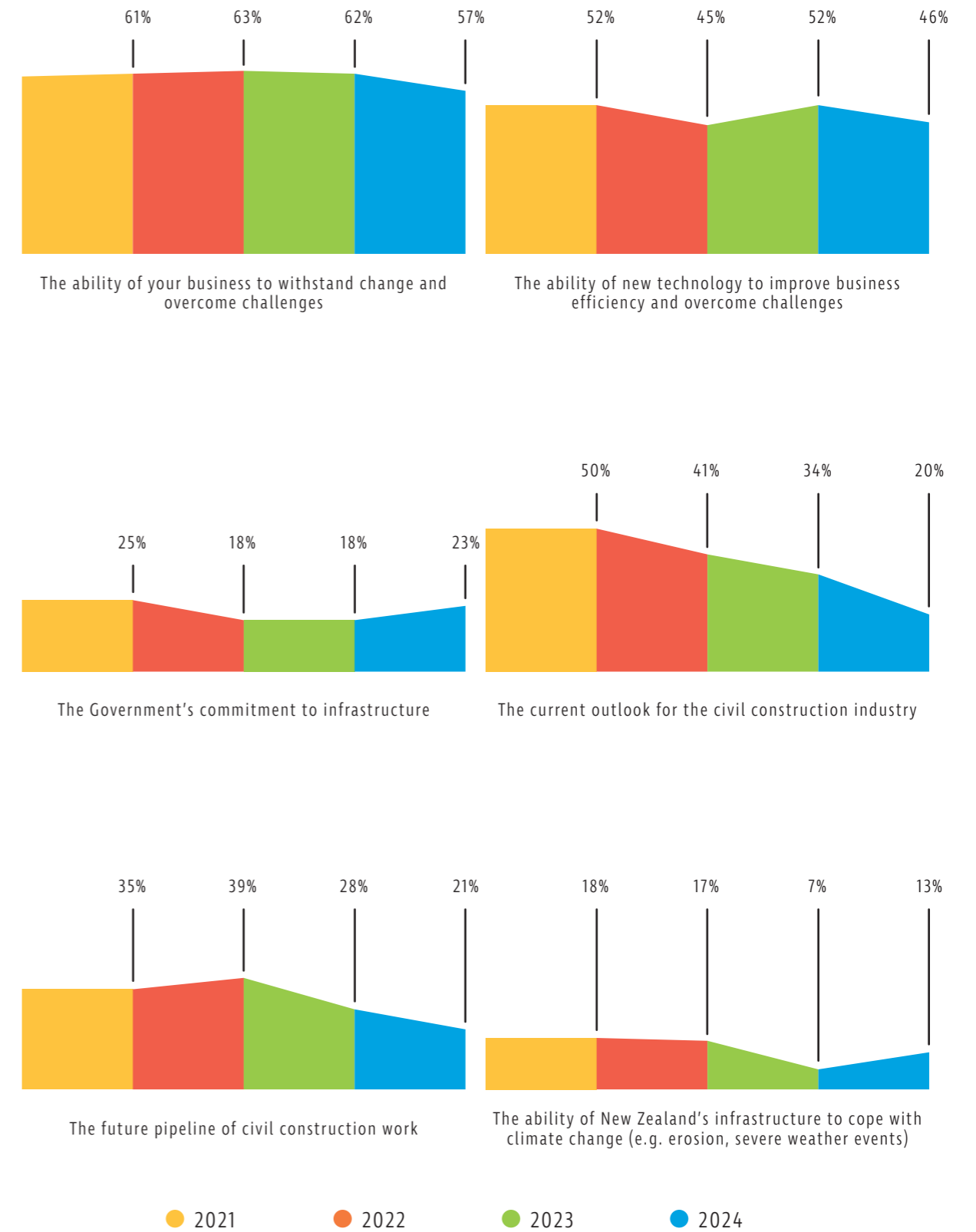


Kale from Feary Group, at Islington, Christchurch - Breaking dawn on the jobsite: Our trusty digger stands tall as the first light of day breaks, seizing the moment to kickstart another day of productivity

## Confidence

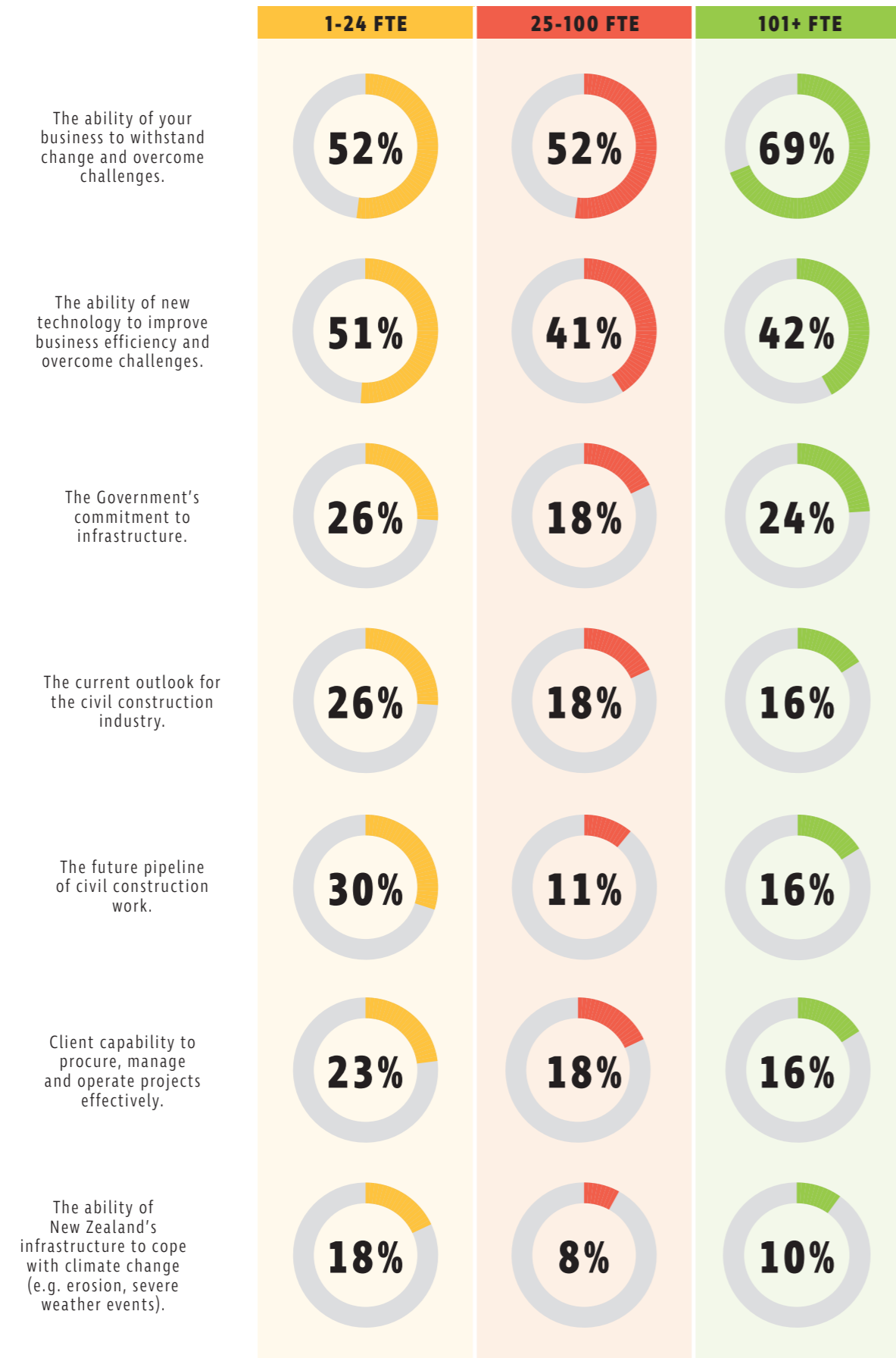


## Confidence - Trended



# Confidence

by Business Size (FTE count)



Thinking about the future, how confident are you in... Base Auckland n=59, Wellington n=17, Rest of North Island n=51, South Island n=99, 1-24 FTE n=98, 25-100 FTE n=66, 100+ FTE n=62



Michelle from E.N Ramsbottom Ltd, at Porirua, Wellington - Installation of a new 1500dia stormwater pipe

# Industry Confidence

Larger businesses are more confident in their ability to withstand change, but they're least confident about the current outlook for the industry compared to small and medium businesses. Small businesses are more optimistic about the future pipeline of civil construction work than medium and large businesses. Half of small businesses are confident in the ability of new technology to improve business efficiency and overcome challenges, which implies that they are open to investing in innovations that could drive growth and resilience.



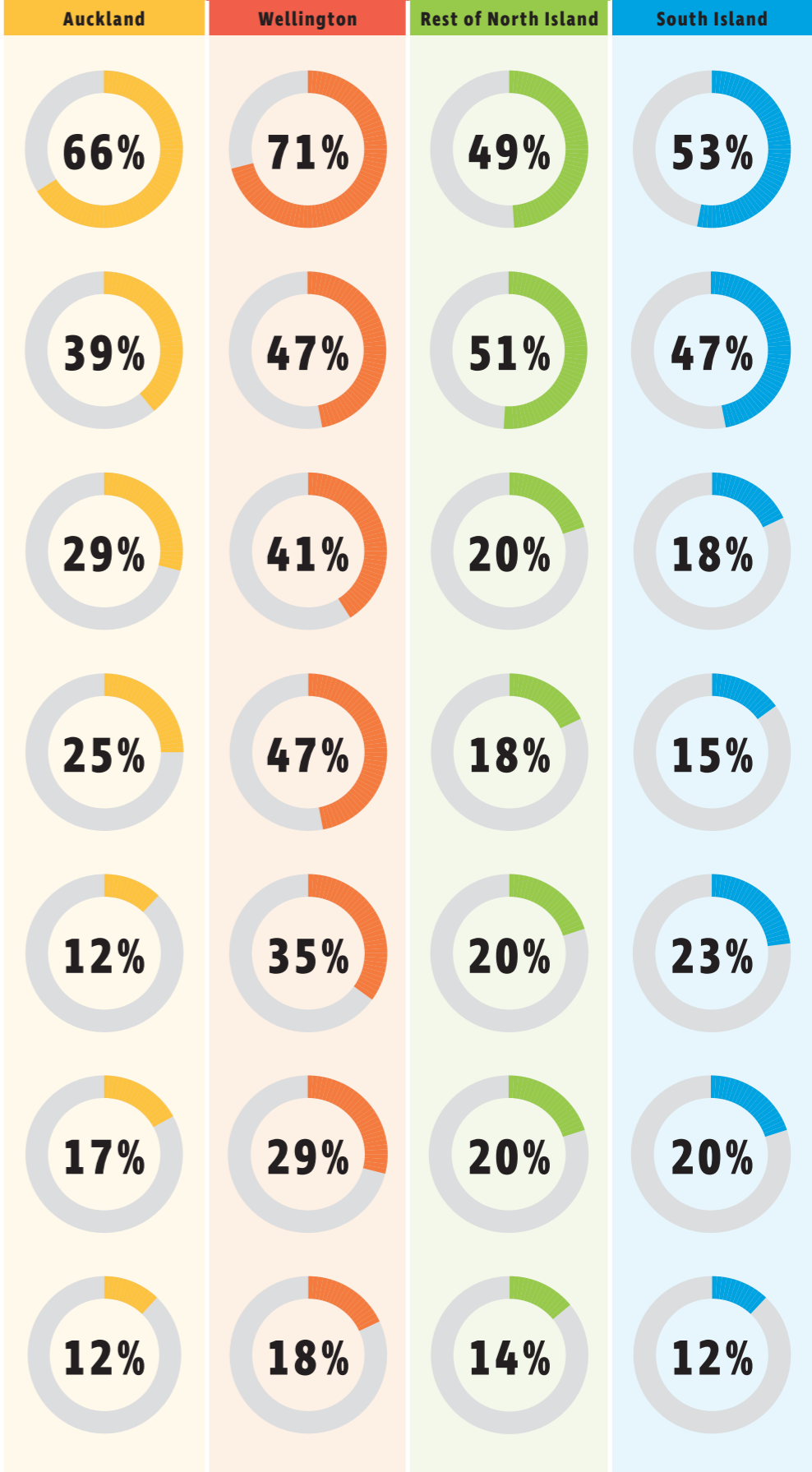
Leon from Heads Up Access, at Bennett's Bluff, Queenstown - Glenorchy Road, Queenstown - A rope access technician, secured by a harness, scaling loose rock from Bennett's Bluff to reduce the risk to road users



Damien from Southroads Ltd, at Oamaru - We had a job come through from our local council about the water fountain in the baby section of our lawn cemetery not working. The plan was to trench and install a new water main, but after track and tracing the current line a rusted close valve was discovered and replaced. No trenches, no mess needed, and water was back on the same day for people to come and remember their loved ones.

# Confidence

by Region



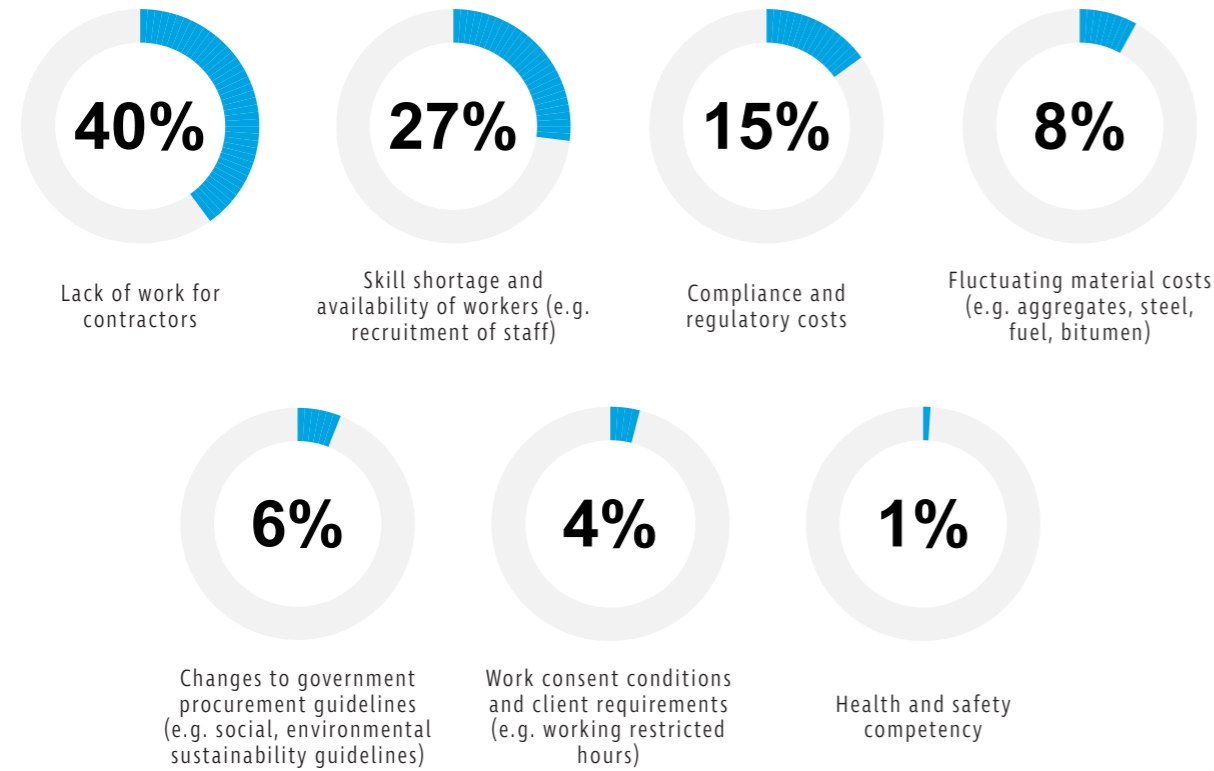
Thinking about the future, how confident are you in... Base Auckland n=59, Wellington n=17, Rest of North Island n=51, South Island n=99, 1-24 FTE n=98, 25-100 FTE n=66, 100+ FTE n=62



# Challenges

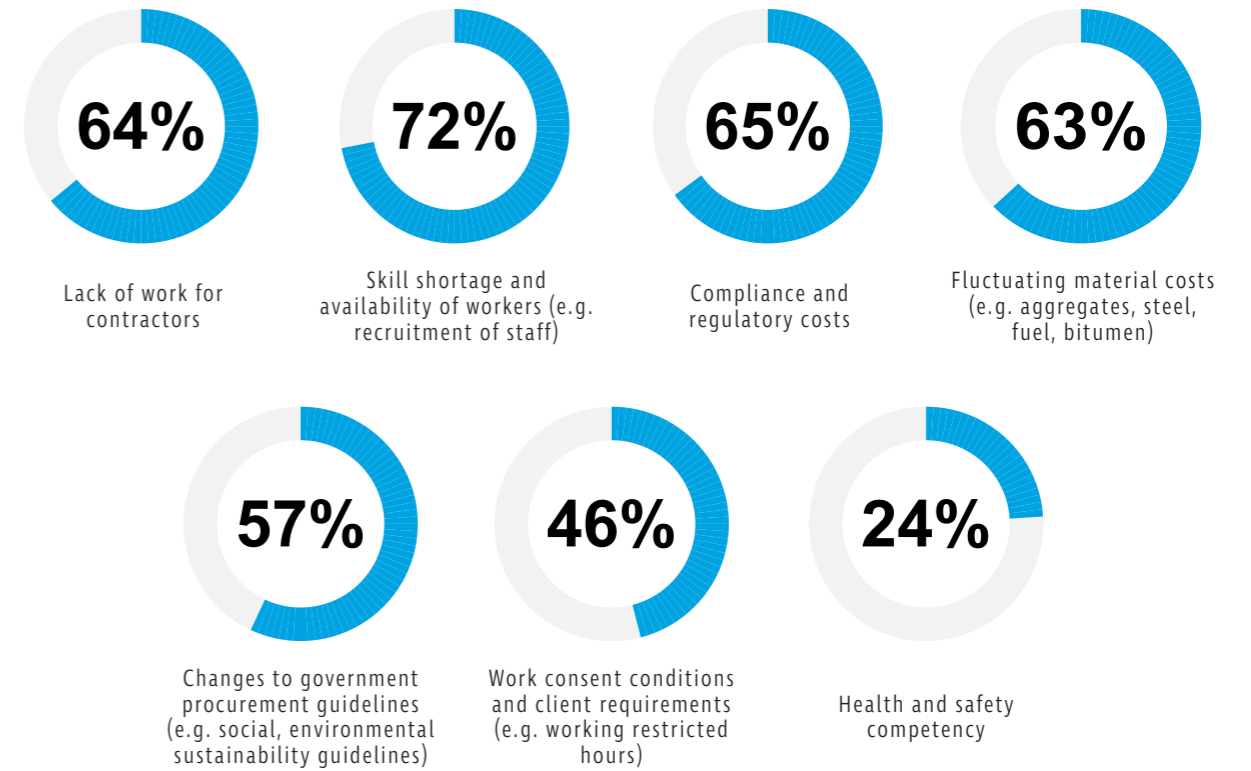
Main industry challenges seen to be lack of work for contractors and skills shortages.

## Main Challenge



What is the main challenge in the construction industry? Base Total Sample n=226

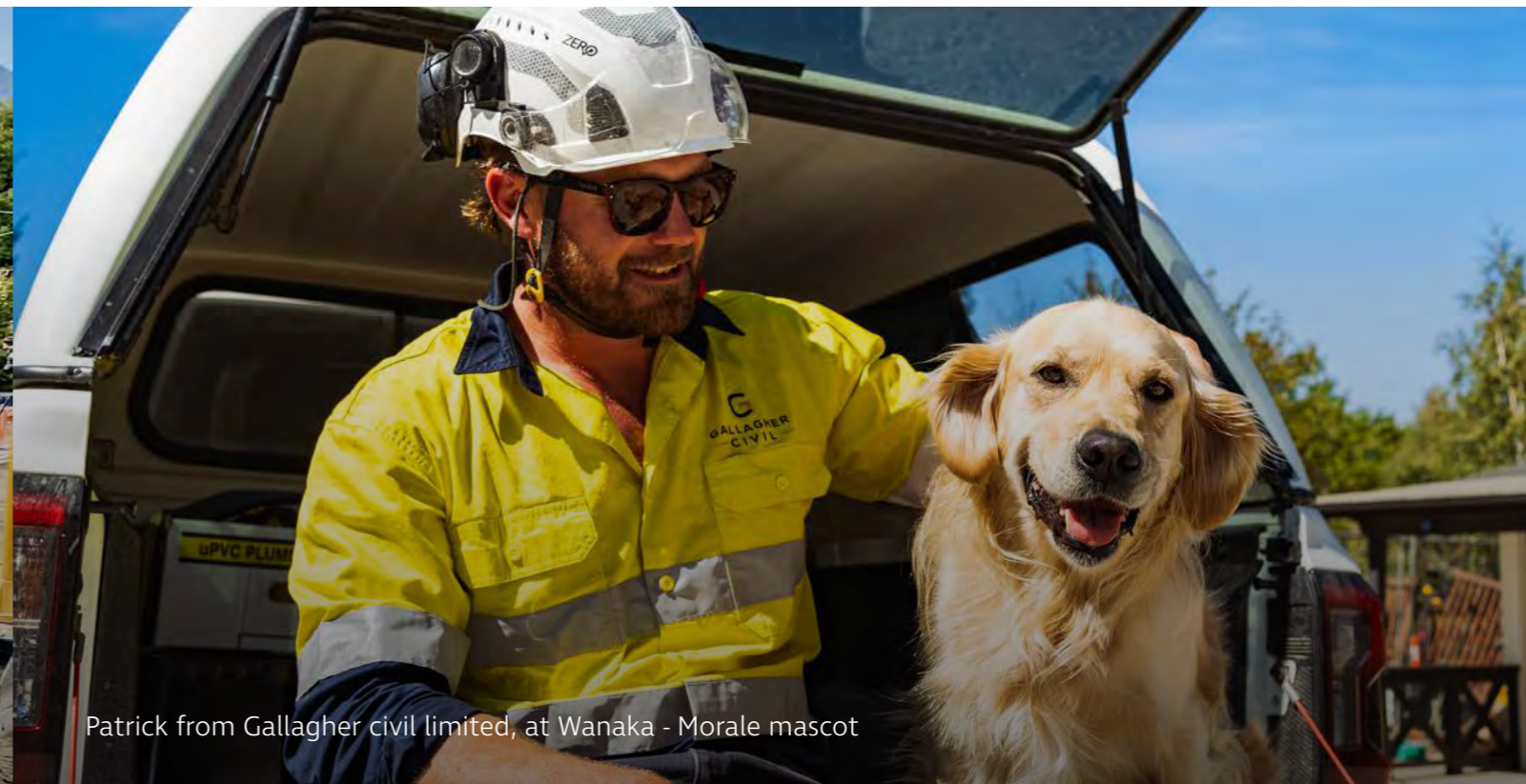
## Perceived Challenges to Industry Growth



What challenges do you think the construction industry is facing for future growth? Base Total Sample n=226



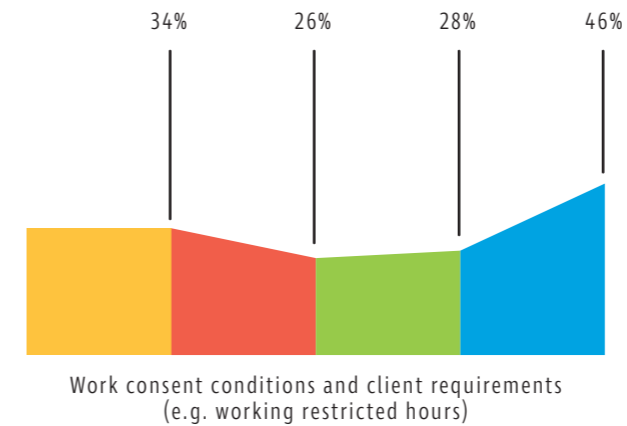
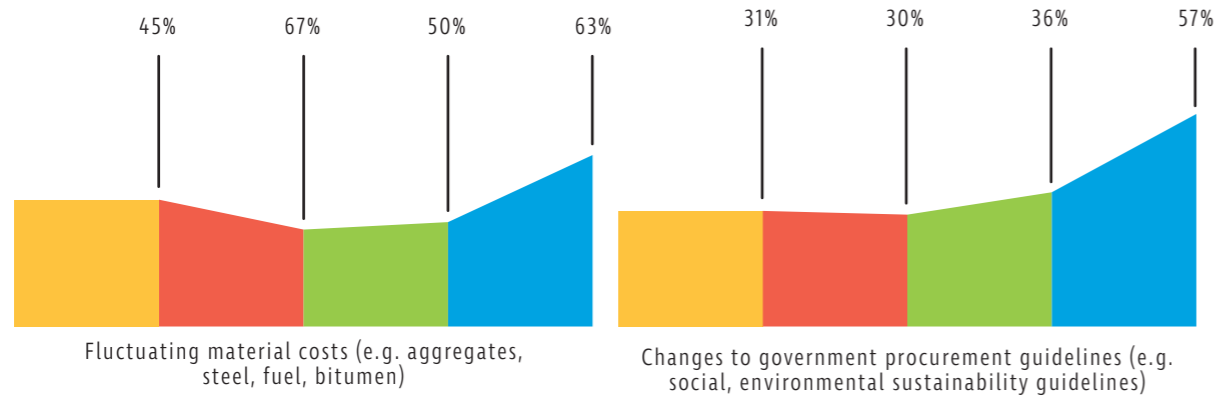
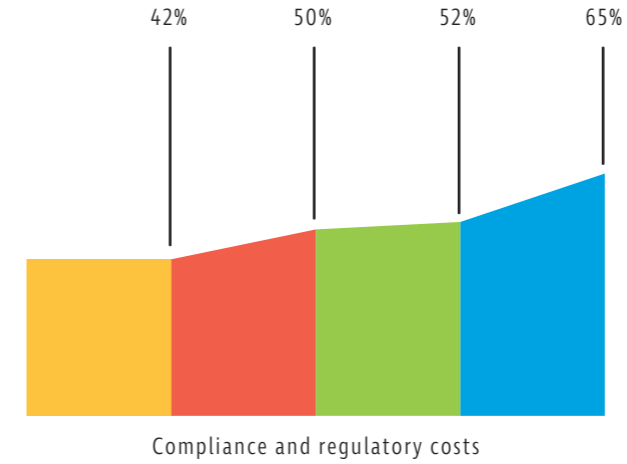
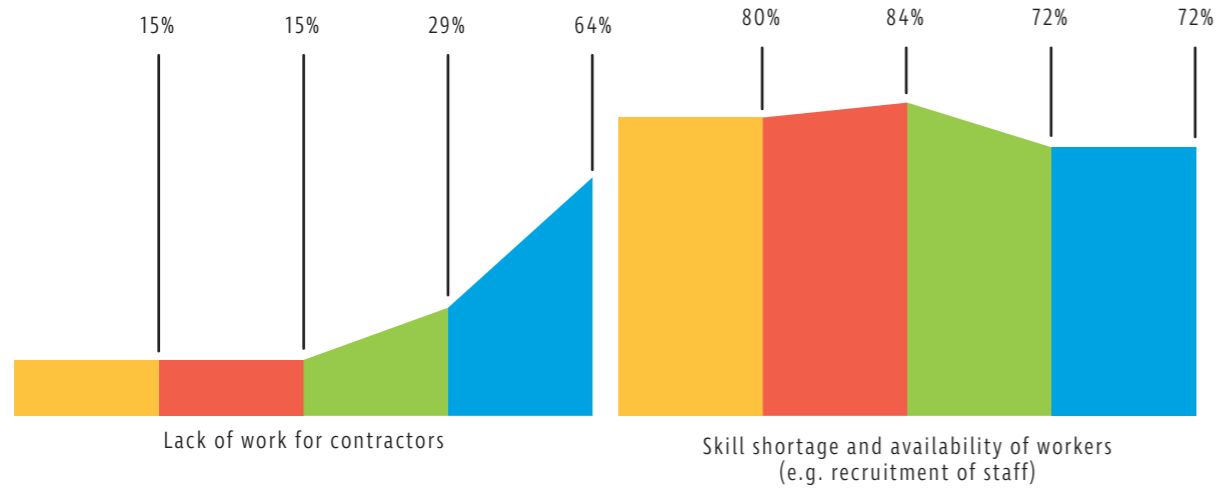
Zach from TPM Civil Ltd., at Queenstown - Big Blade, and Little Blade! A Grader reconstructing a residential street assisted by the Posi-Track with its box blade to get into the tighter areas to provide a new street for residents and visitors to Queenstown



Patrick from Gallagher civil limited, at Wanaka - Morale mascot

# Challenge

Trended



● 2021 ● 2022 ● 2023 ● 2024

# Challenges

The most pressing challenges include a sharp rise in construction businesses facing an intense lack of work, with 64% reporting this issue in 2024, up from 29% in 2023.

Increasing difficulties with local and central government procurement guidelines and work consent conditions are adding to the burden. Compliance and regulatory costs have continued to be an ongoing challenge.

Fluctuating material costs, which appeared to decrease slightly last year, are once again on the rise as a significant challenge.

Health and safety competency is not increasing as an issue, which may indicate that businesses are too occupied with other pressing challenges to focus on it.



Teone from Feary Group, at Prebbleton, Canterbury - Mastering two trades: Our skilled truck driver effortlessly doubles as an excavator operator, showcasing precision and versatility in action

What challenges do you think the construction industry is facing for future growth? Base 2024 n=226, 2023 n=198, 2022 n=226, 2021 n=161

# What Can Be Done to Overcome MAIN Challenge

Selected verbatim responses from respondents regarding main challenges

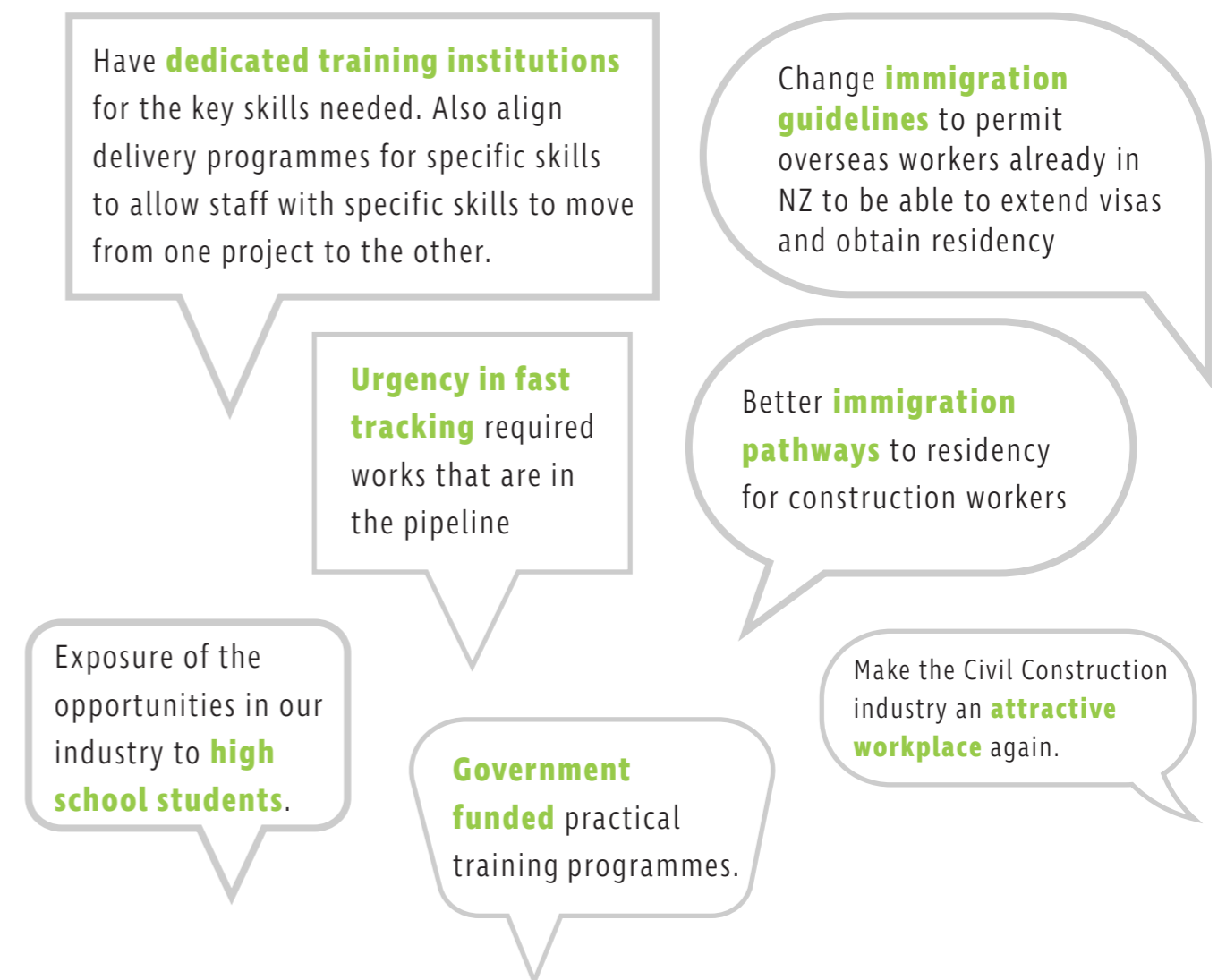
## Lack of Work for Contractors




What do you think could be done to overcome the issue of ["Main-Challenge"]?



## Skills Shortage and Availability of Workers



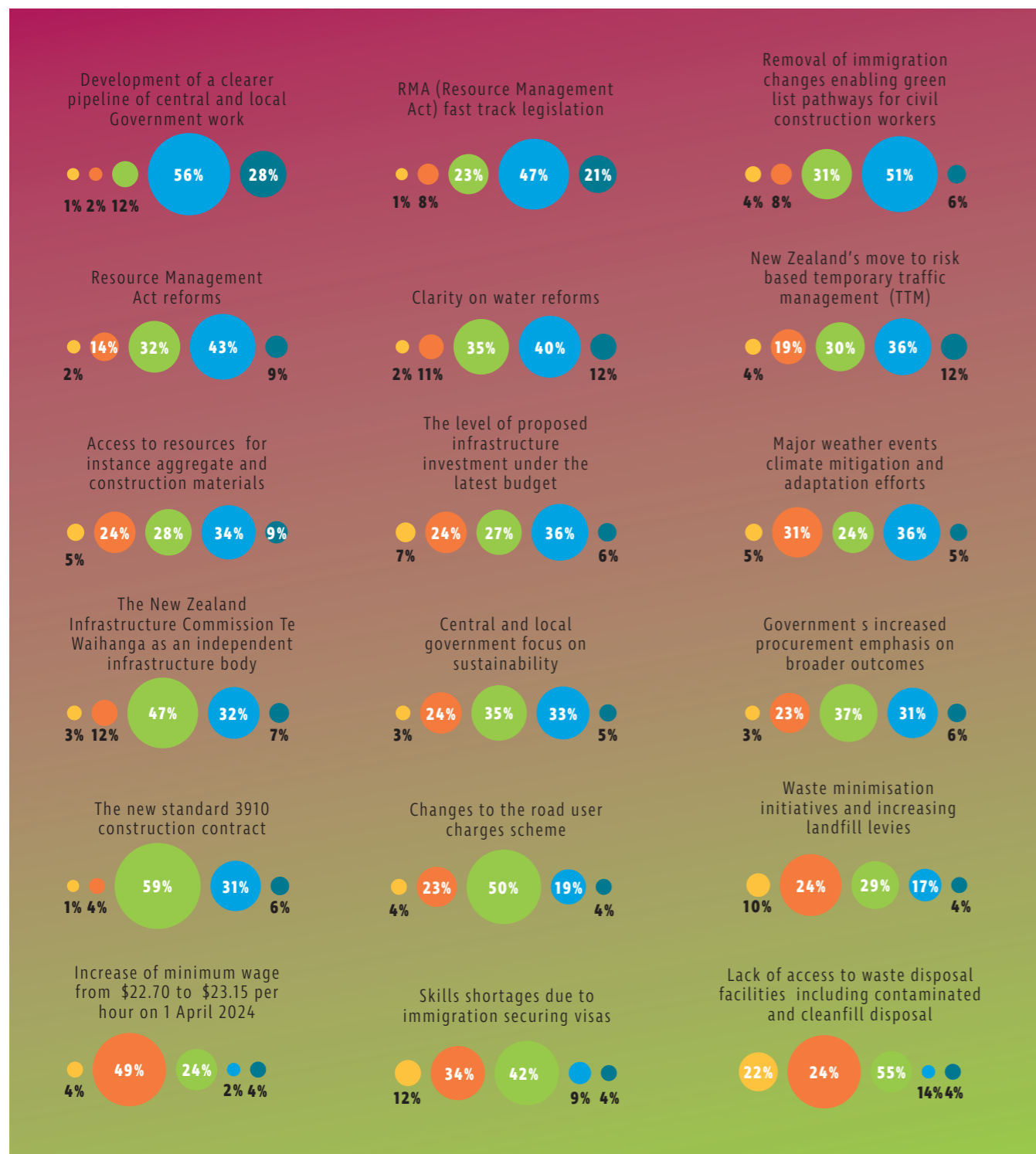
# Industry Issues



Paul from Groundfix Ltd, at Tunnel 2, Kaukapakapa, Auckland - Groundfix crew leaving the darkness of tunnel 2 for the final time, after completing the finishing details for the tunnel stabilisation works

# Industry Issues

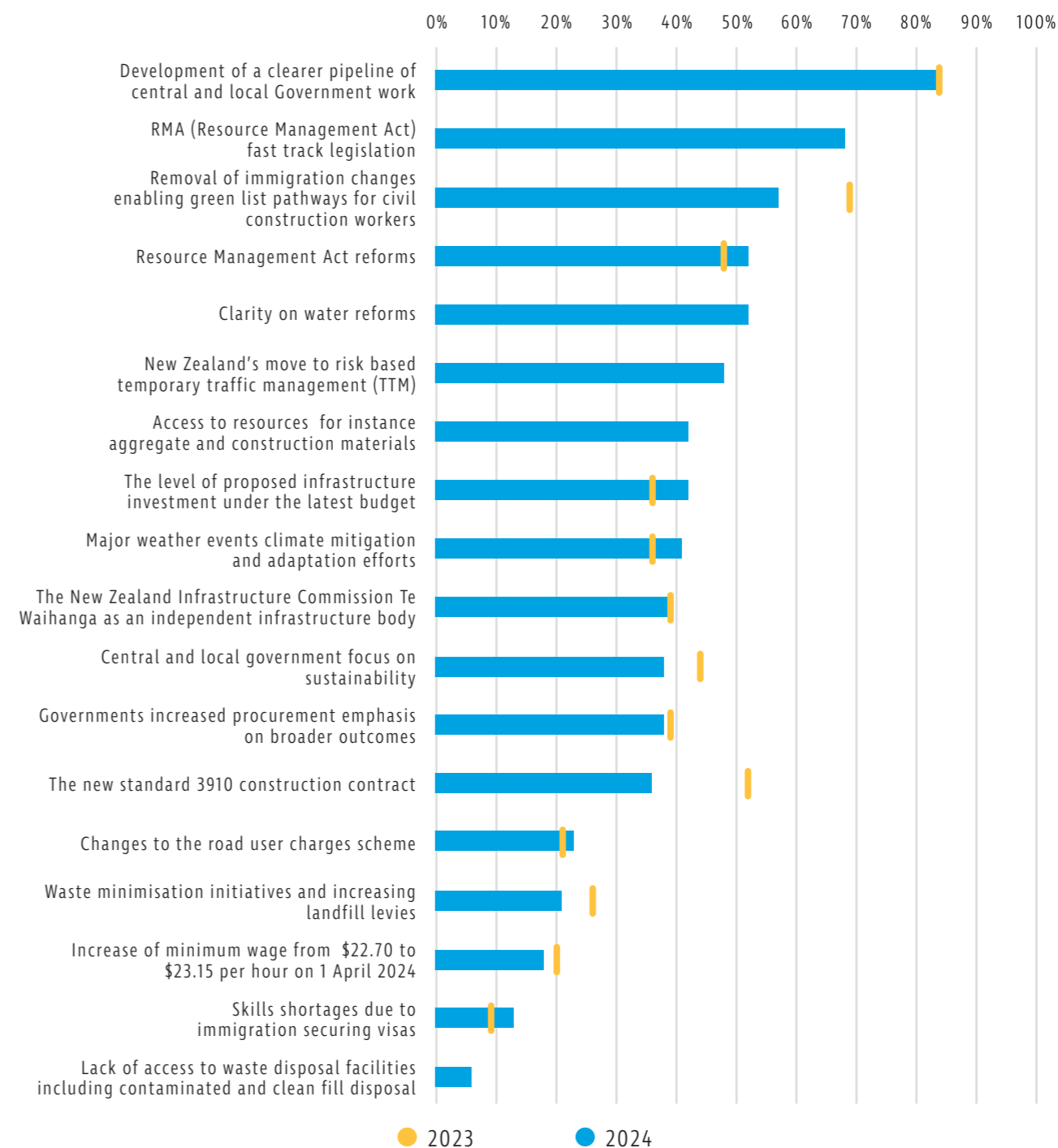
A clearer pipeline is seen as having the largest potential impact on business over the next 3 years



● A high negative impact 
 ● A negative impact 
 ● No significant impact  
● A positive impact 
 ● A high positive impact

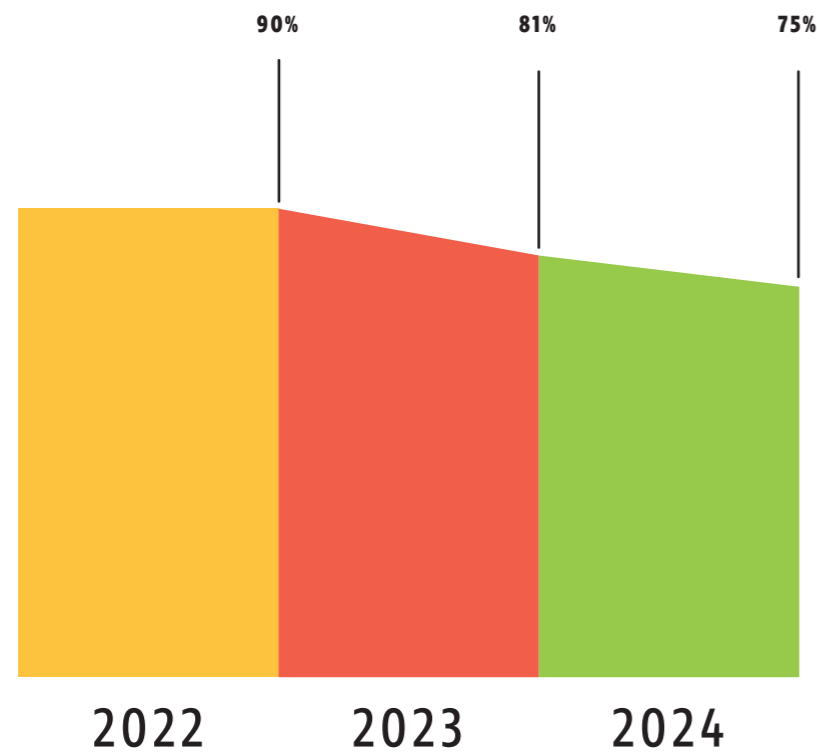
What impact do you think these actual or potential issues/events could have on your business in the next three years? Base Total Sample n=226

The perceived positive impact of a clearer pipeline, the level of proposed infrastructure investment, and major weather events, climate mitigation has increased over the past years.



What impact do you think these actual or potential issues/events could have on your business in the next three years? Base Total Sample n=226

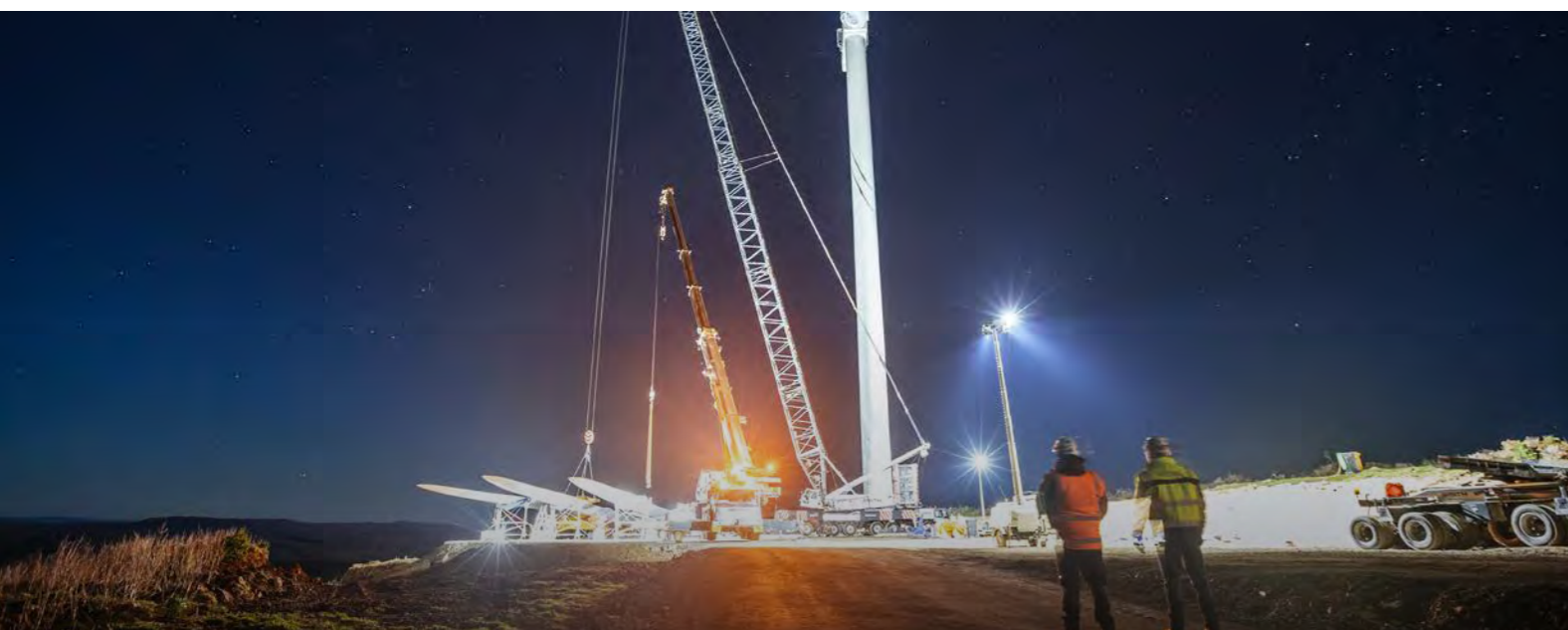
# Has Been Significantly Impacted by Cost Escalation and Supply Chains Issues



# Supply Chain Impacts

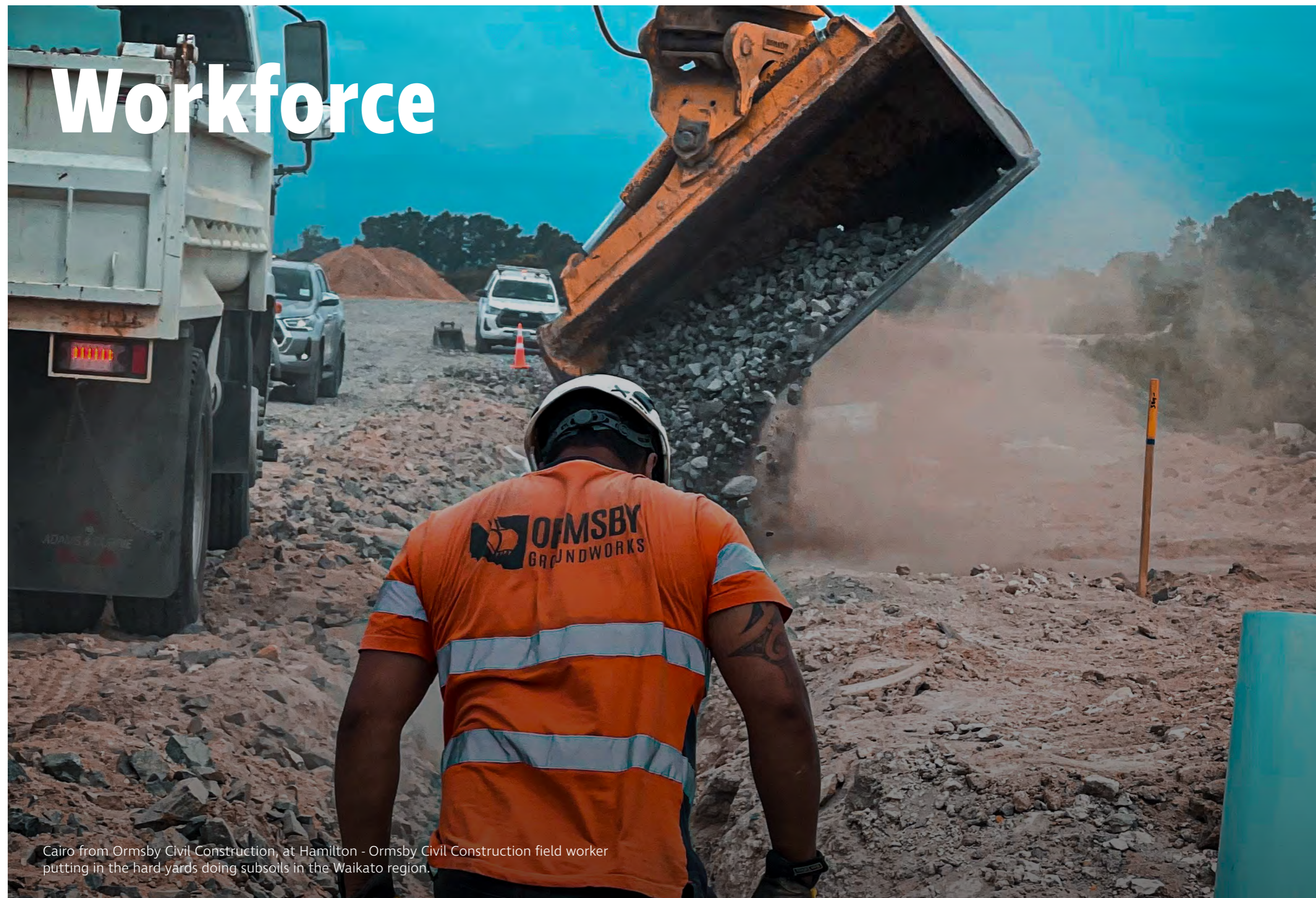
Many businesses have been significantly impacted by increased costs and project overruns particularly compliance costs

## Types of Significant Impact Experienced

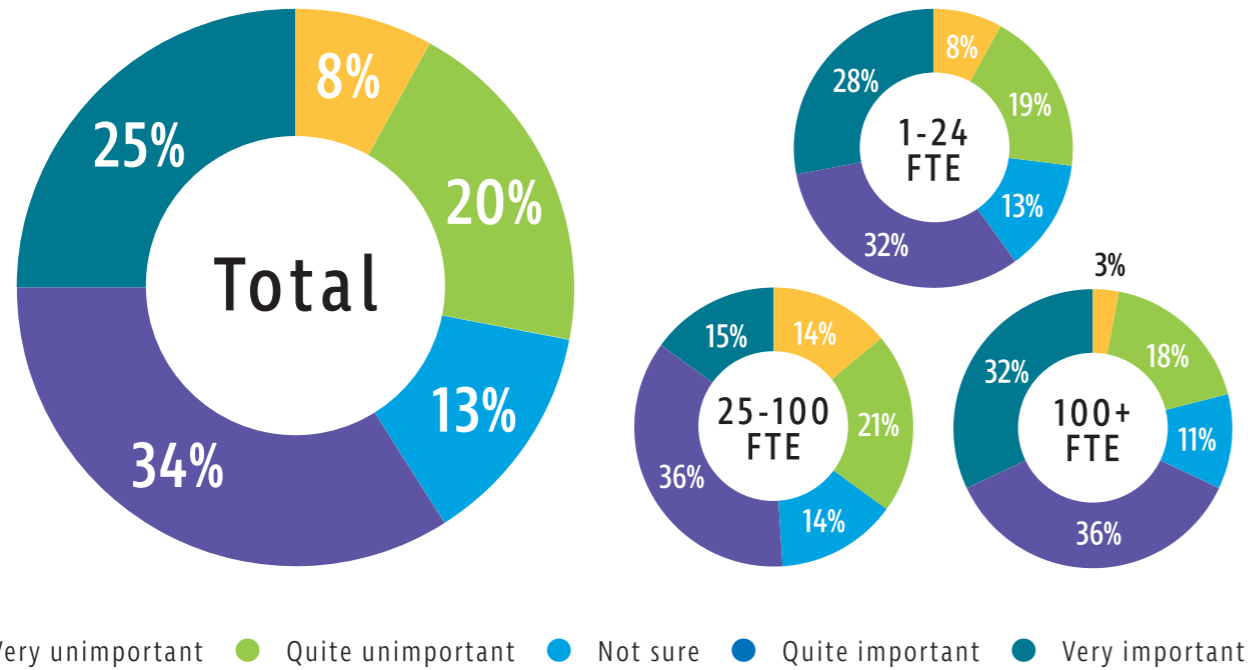


Alana from Smith Crane and Construction, at Kaiwera Downs WindFarm, Gore - Our Windfarm team installing a turbine early in the very early hours of the morning.

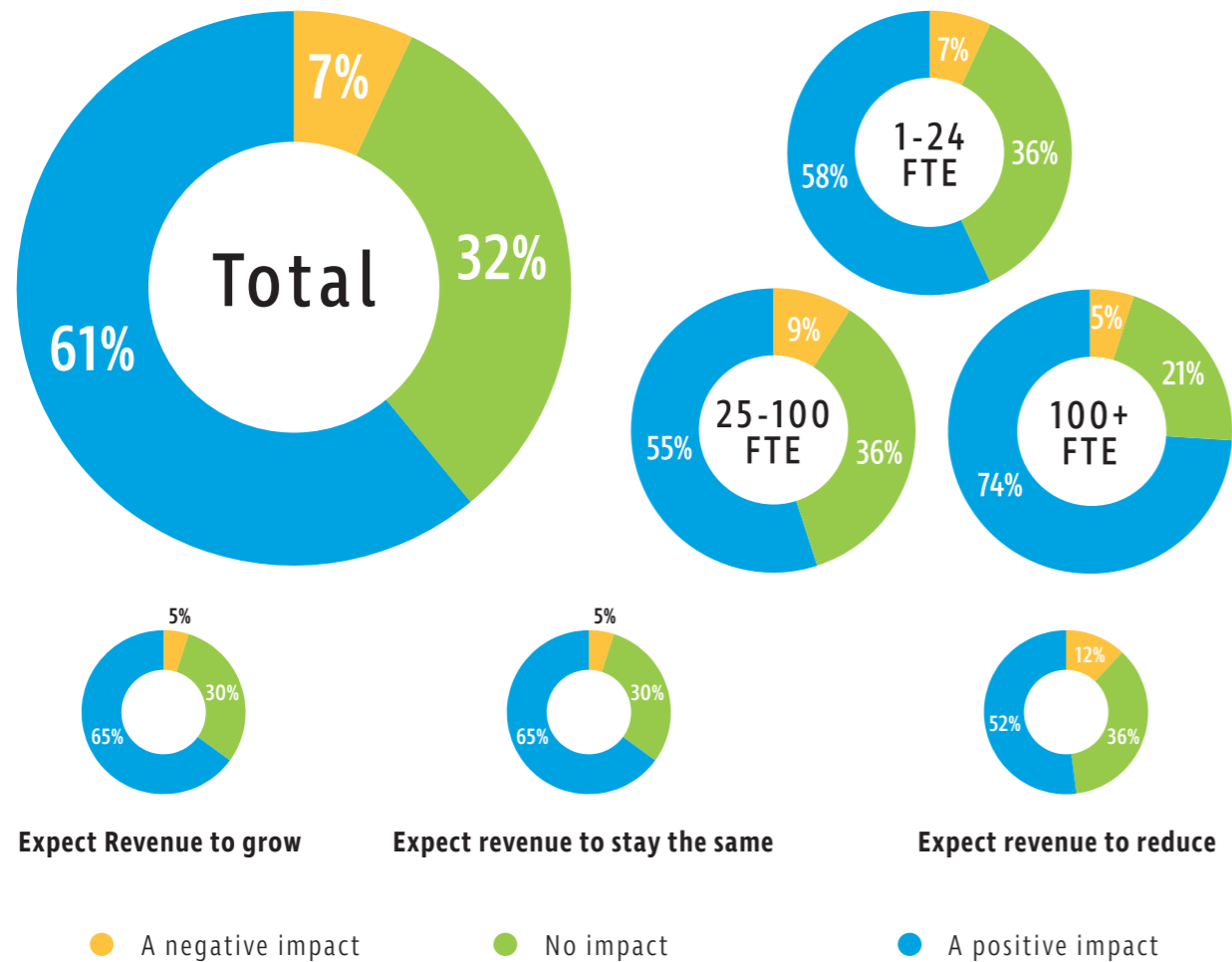
Has your business been significantly impacted by cost escalation and supply chain issues over the past 12 months? Base 2024 n=226, 2023 n=198, 2022 n=226, 2021 n=161 If so, what significant impacts has your business experienced? Base All who have been impacted 2024 n=166, 2023 n=161, 2022 n=203



## Importance of Workplace Diversity



## Impact of Diversity on Productivity



How important do you think diversity and inclusion (e.g. age, gender, ethnicity, culture, lifestyle) is for the Civil Construction industry? Base Total Sample n=226  
 What impact do you think having a diverse workforce (e.g. age, gender, ethnicity, culture, lifestyle) has on your business productivity? Base Total Sample n=226



Ryan from Strata Civil Ltd, at Queenstown - Jarrod, compacting fresh concrete for a retaining wall holding up a new footpath above a major road renovation in Queenstown with the Remarkables mountains in the background

# Diversity

Diversity is viewed as important and a positive impact by most of the industry. There is a correlation with revenue expectations; those businesses who expect revenue to grow over the next year place more importance on diversity. Larger businesses are more likely to think a diverse workforce positively impacts productivity.



Alana from Smith Crane and Construction Ltd, at Waikouaiti Bridge, South Island - Civil Team working on the Kiwi Rail Bridge 202 Block Of Line



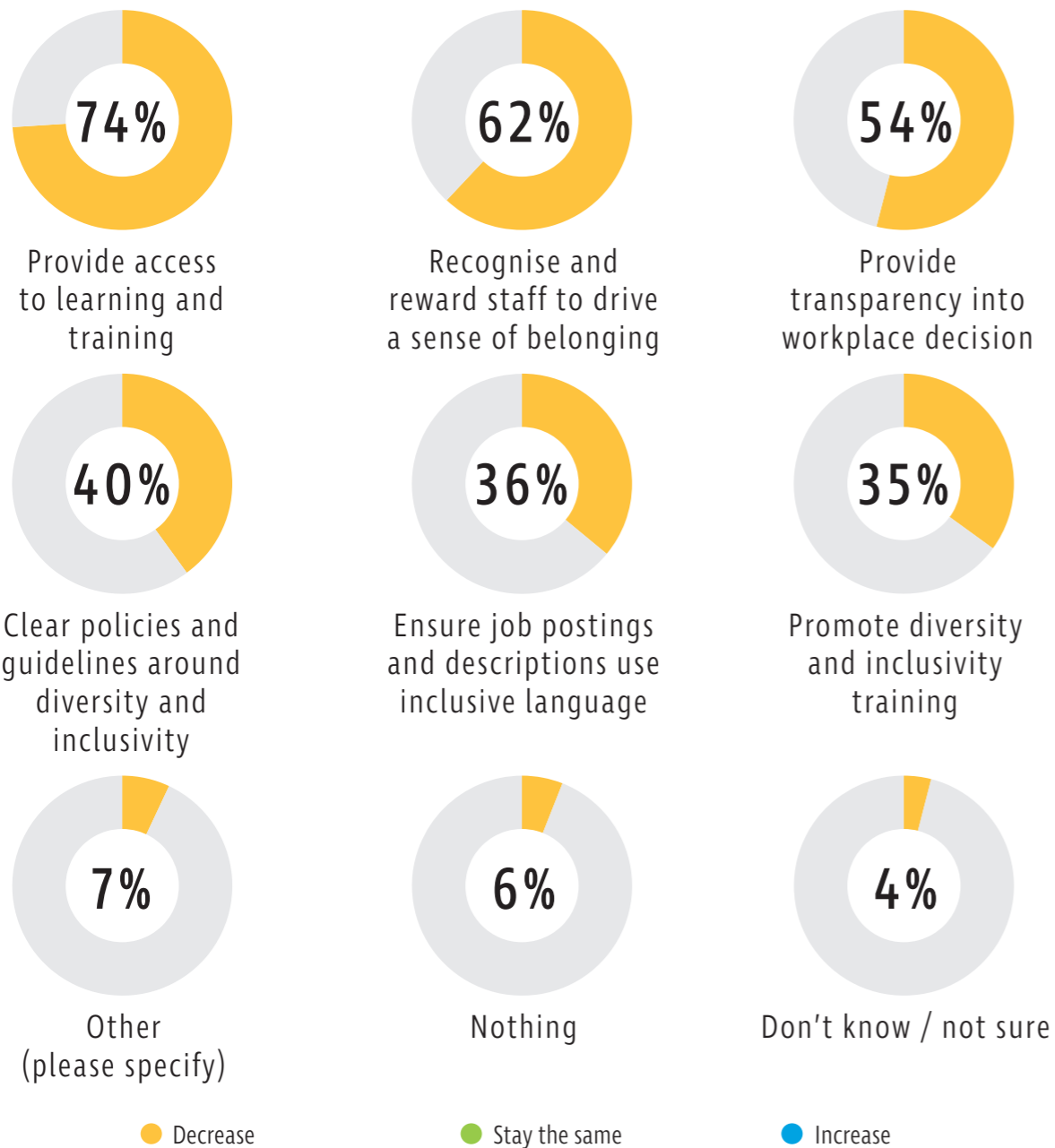
# Inclusivity

Access to learning and employee recognition can foster a more inclusive work environment

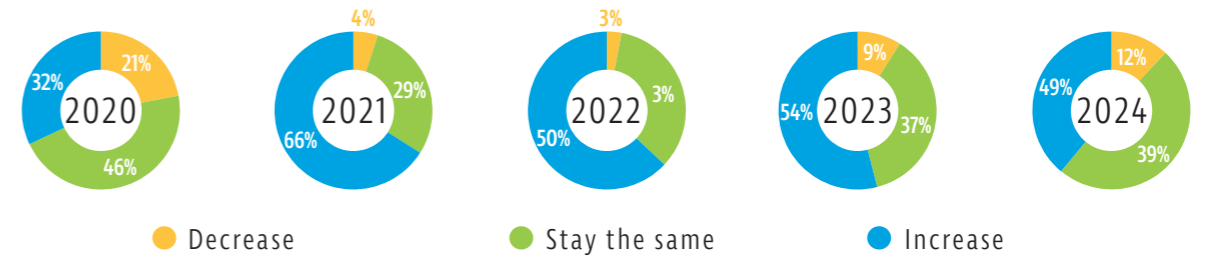
## Staffing change - Trended

There appears to be continuing softening in labour demand over the last 4 years. Half of business expect requirement for staff to stay the same. A third of businesses state that no recruitment is needed.

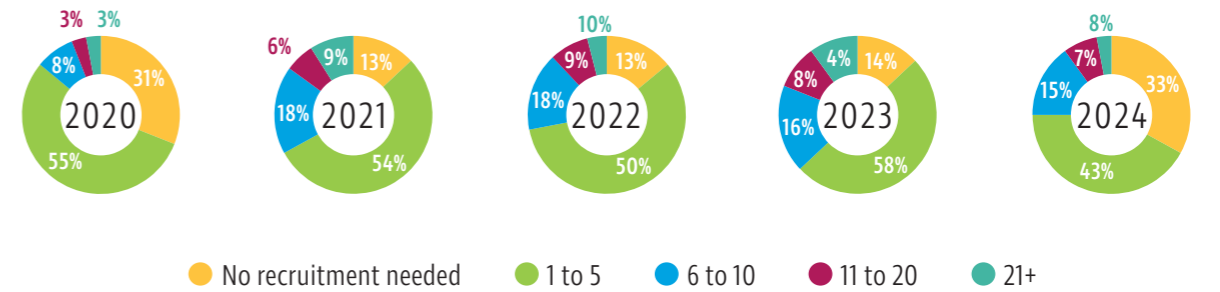
### Practices to Foster Inclusive Work Environment



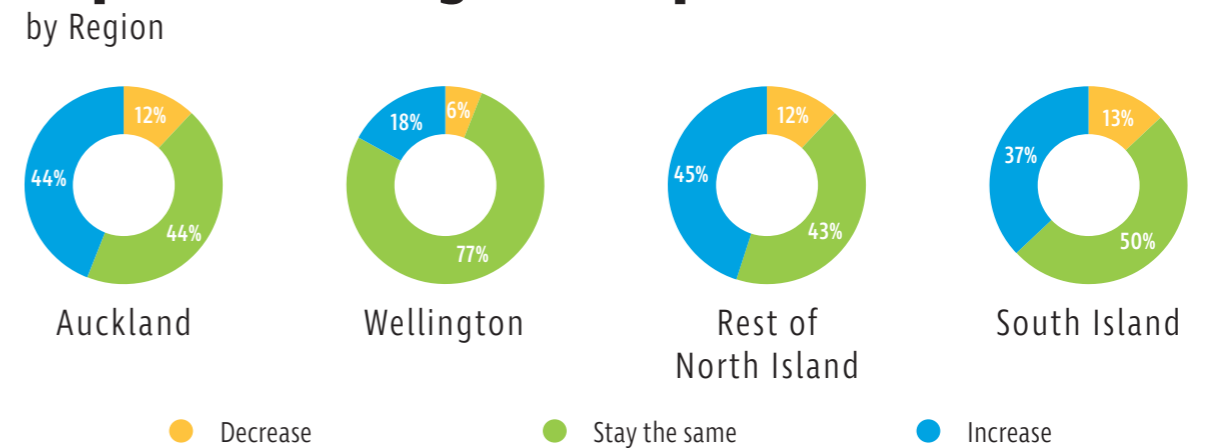
### Expected Change in Requirement for Staff



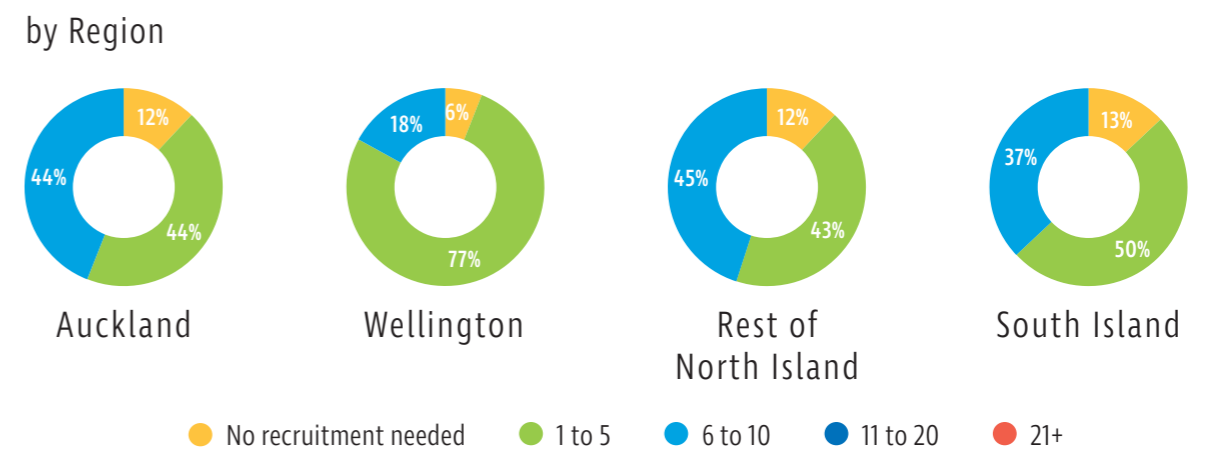
### Ideal Recruitment Number



### Expected Change in Requirement for Staff by Region



### Ideal Recruitment Number by Region

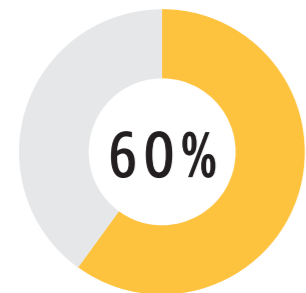


Over the next year, do you think your requirement for staff will... ? Base Total Sample n=226  
How many staff would you recruit today if people with the right skills were available? Base Total Sample n=226

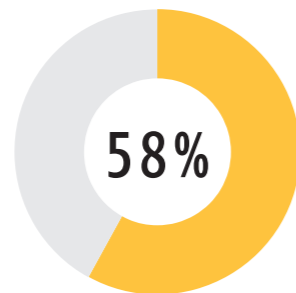
# Skillsets

Machine operators, supervisors / team leaders, and experienced field worker will be the most in-demand skillsets

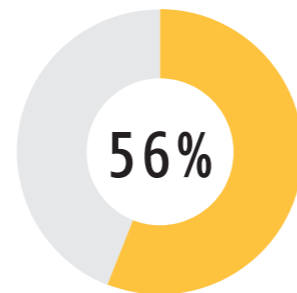
## Ranked in the Top 3 Skillsets



Machine operator  
(plate compactor, excavator, roller etc)



Supervisor / team leader



Experienced field worker  
(i.e. traffic control, site safety, some industry experience)

What skillsets do you most need in your business? Base Total Sample n=226



Mike from Mills Albert Limited, at Mills Albert Rock Farm, Opunake - Rock being Graded in preparation for loading out (loadrite weigh system in loader)

## Skillsets Most Needed by Business

(ranking)



Entry level field worker

2%



Experienced field workers (i.e. traffic control, site safety, some industry experience)



Machine operator (plate compactor, excavator, roller etc)

1% 3%



Supervisor / team leader



Entry level surveyor / civil engineer



Expert / Specialist surveyor / civil engineer



Project manager / health and safety manager / contracts manager



Senior manager



Mentoring and leadership

● Ninth ● Eighth ● Seventh ● Sixth ● Fifth ● Fourth ● Third ● Second ● Top

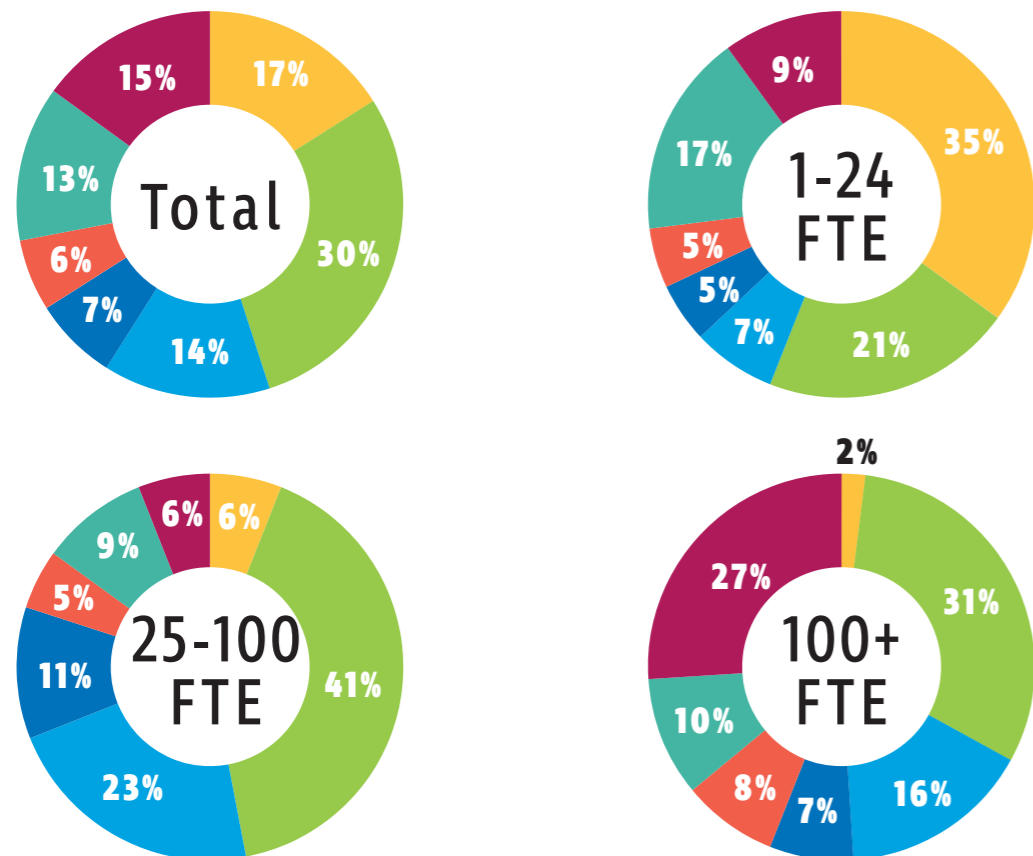
Please rank in order by clicking on the following you need the most (1) then the second (2) right through to the one you need the least

## Staff Retention Support



What would support your business in taking on and retaining staff? Base Total Sample n=226

## Percentage of Workforce on Apprenticeship or Working on Nationally Recognised Qualification



None 1-5% 6-10% 11-15% 16-20% More than 20% Don't know

What proportion of your staff are currently working on a nationally recognised qualification, or an apprenticeship? Base Total Sample n=226



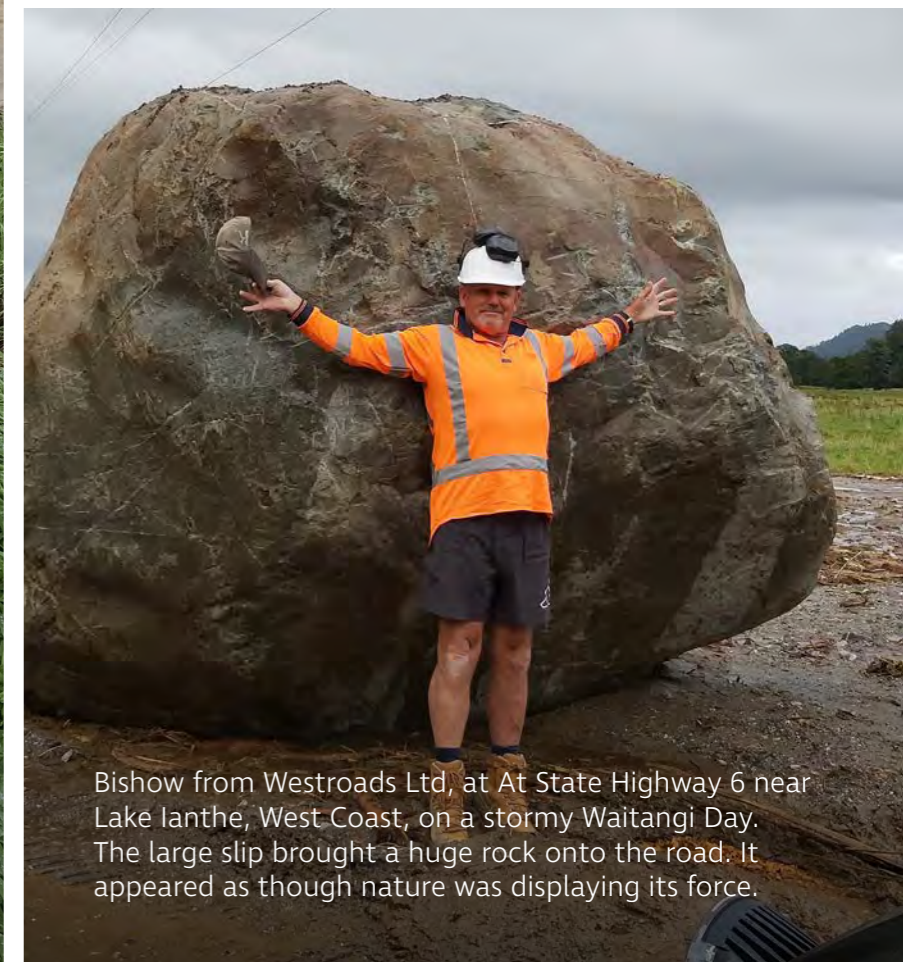
Clarissa from Diggs Ltd, at Pohara, Golden Bay - Unblocking a culvert in a flood prone water course at the top of a residential subdivision during an orange weather warning

# Staff Retention

Funded training including apprenticeships is the key way businesses want support for staff acquisition and retention.

## Apprenticeship

Almost half (44%) of businesses have up to 10% of their workforce in apprenticeships, and 13% have more than 20% of staff in workshops or training. This is significantly lower among smaller businesses, perhaps because they already have skilled employees and may not require additional training.



Bishow from Westroads Ltd, at At State Highway 6 near Lake lanthe, West Coast, on a stormy Waitangi Day. The large slip brought a huge rock onto the road. It appeared as though nature was displaying its force.

# Technology



Ashton from Instant Green, at Napier, Hawkes Bay - The Green team hard at work, providing long term stabilisation for this massive earthworks site in Hawkes Bay. With a 175hp John Deere Engine driving the pump, we are able to fire the hydroseed slurry up to 70m!

# Specialised Technology

Areas that are currently used by majority of businesses include Health and Safety, Administration, Compliance. Areas that may be under-utilised include Business Intelligence, Productivity, Cost Management. Use of cost management technology has increased over the last year

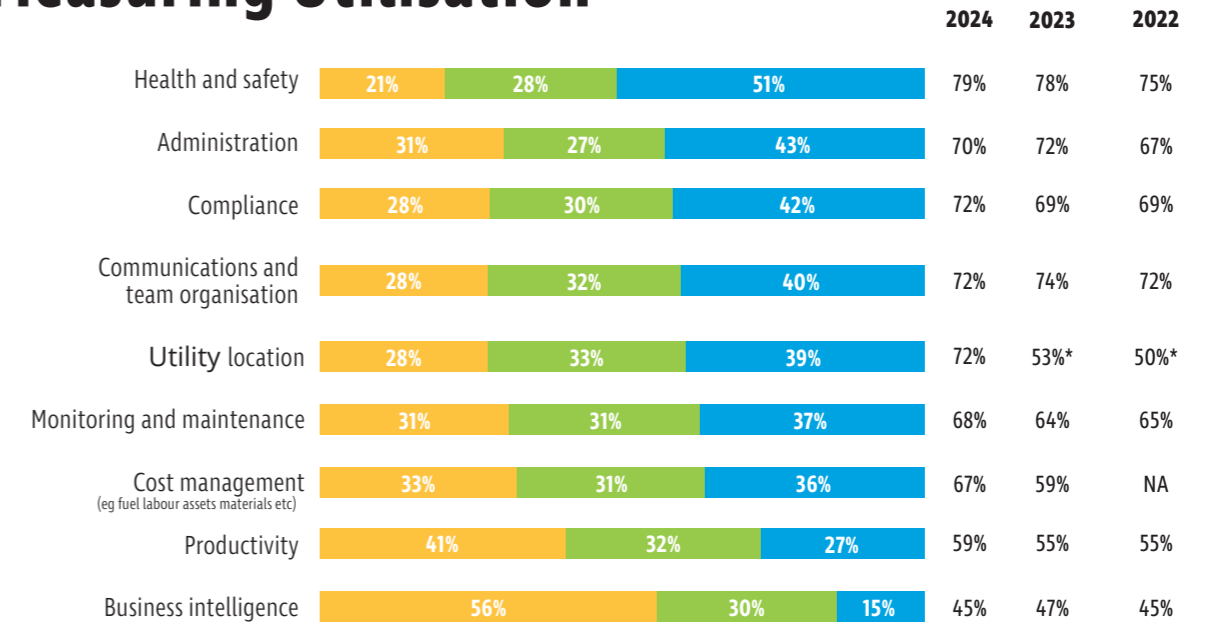
# Business Intelligence

Of those businesses who are currently using Business Intelligence technology, 45% state it is impacting engagement, and 77% envision increasing demands for overall integration



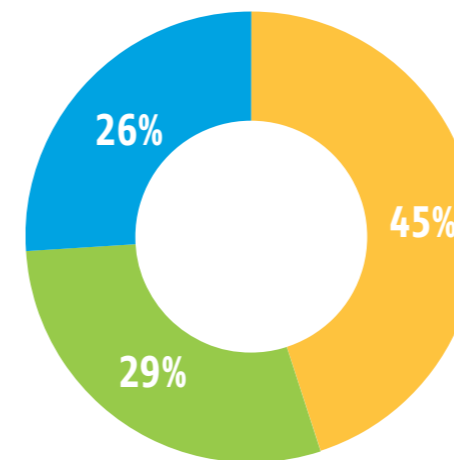
Damien from Southroads Ltd, at Oamaru - Our new hydrovac at work during a water lateral renewal contract, using the new hydrovac ensures we can get the job done faster, while ensuring we do not strike any other assets and cause disruption.

## Measuring Utilisation



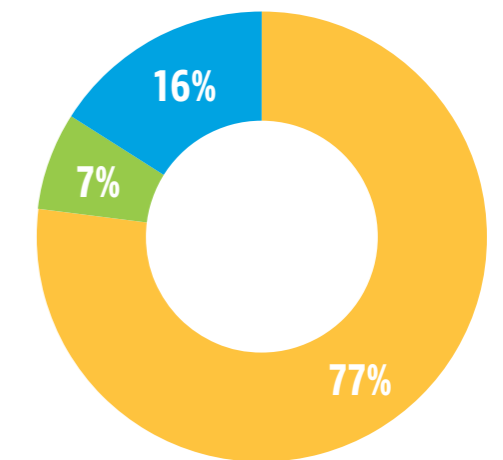
● Do not use construction technology for this on-site
 ● Sometimes use construction technology for this on-site
 ● Frequently use construction technology for this on-site

## Is Use of Business Intelligence Impacting Engagement with Suppliers, Contractors, Clients?



● Yes
 ● No
 ● Don't Know

## Envision Increasing Demands for Overall Integration of Tech to Improved Data Insights



Thinking about each of the following purposes, do you use any specialised construction technology or software on the job site? Base Total Sample n=226  
 Please note, this excludes standard office technology such as computers or Microsoft office  
 \*Note: Worded as "Measuring utilisation" in 2023 and 2022

# On-site Technology

Fleet management and machine control are the most common onsite tech solutions

## On-site Technology Solutions Currently Used



What types of on-site technology solutions do you currently use in your business? Base Total Sample n=226

# Energy Sources

Almost 60% expect no change to the type of energy sources they currently use. A quarter of businesses are looking to use hydrogen in the future

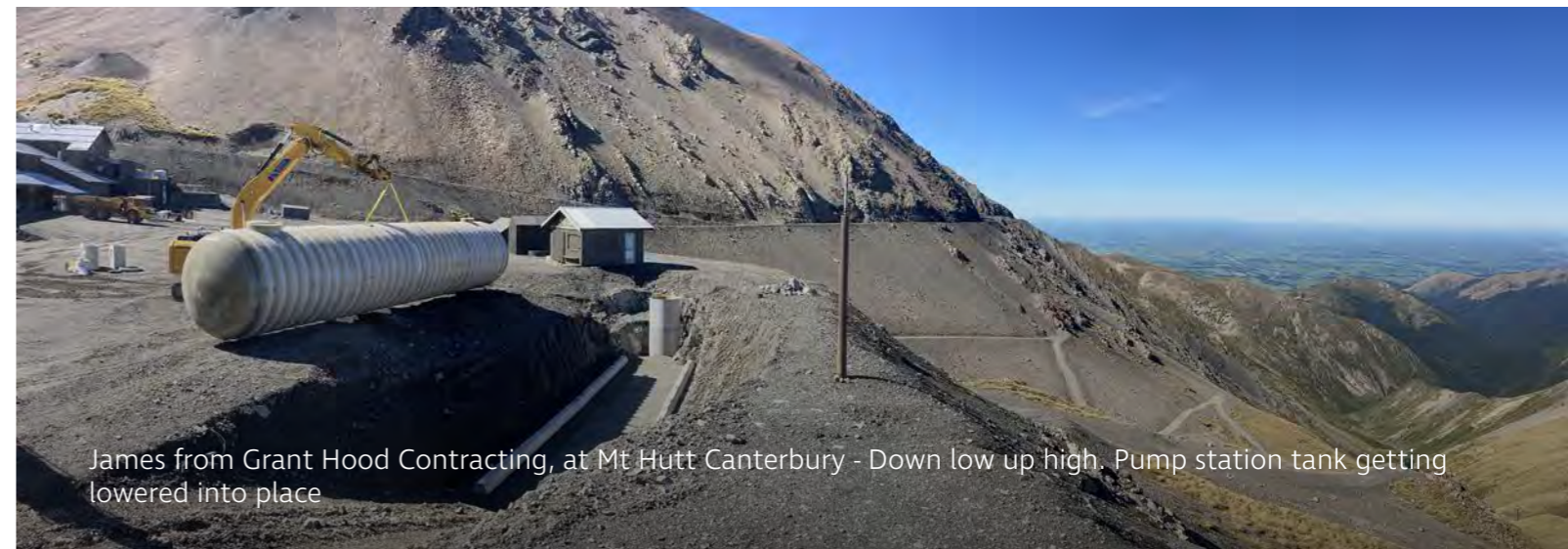
## Current Energy Usage



## Future Energy Usage



What challenges do you think the construction industry is facing for future growth? Base Total Sample n=226



James from Grant Hood Contracting, at Mt Hutt Canterbury - Down low up high. Pump station tank getting lowered into place

# On-site Technology

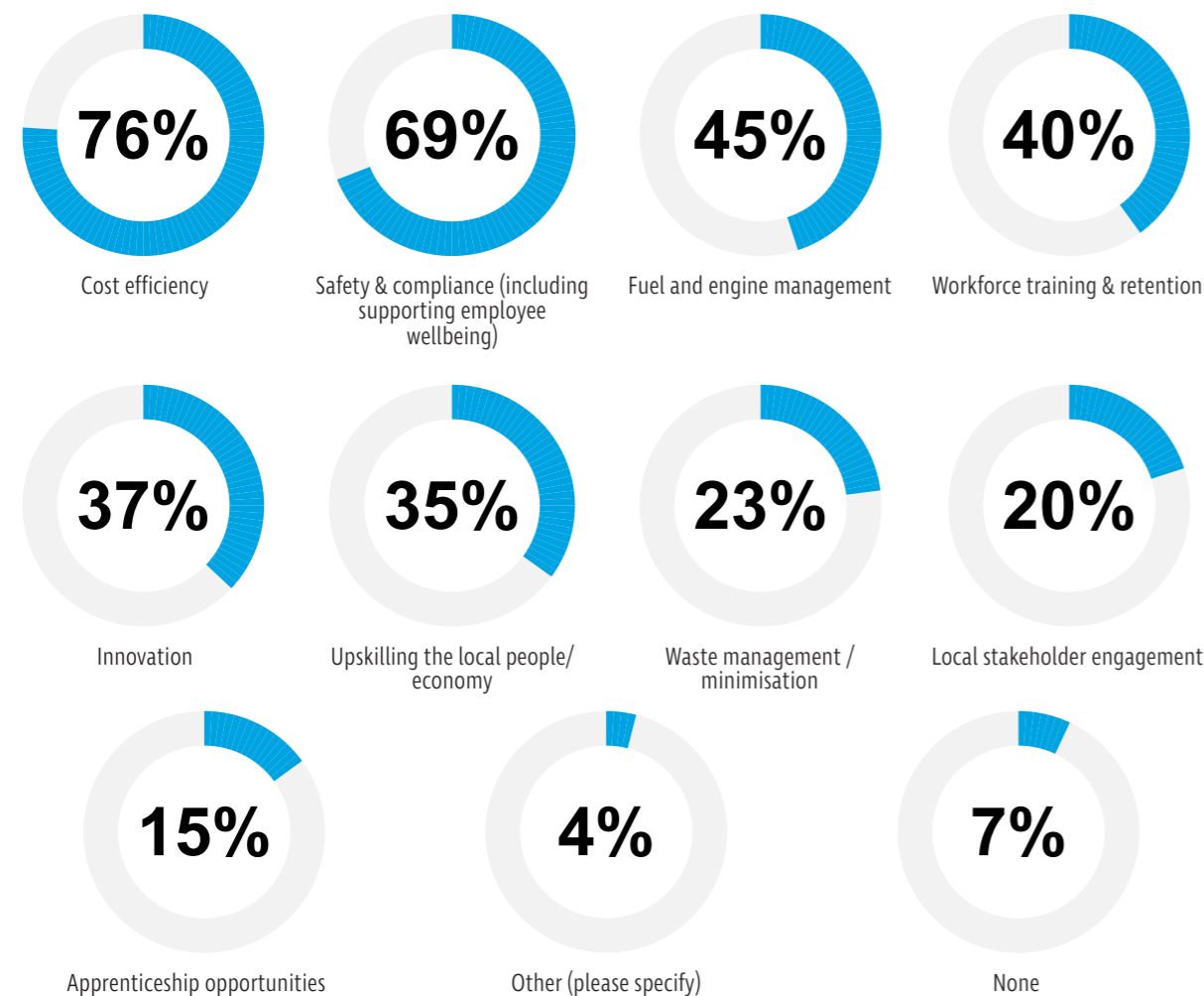
Cost efficiency, followed by safety and productivity, are the key drivers of technology implementation

# Mandated Technology

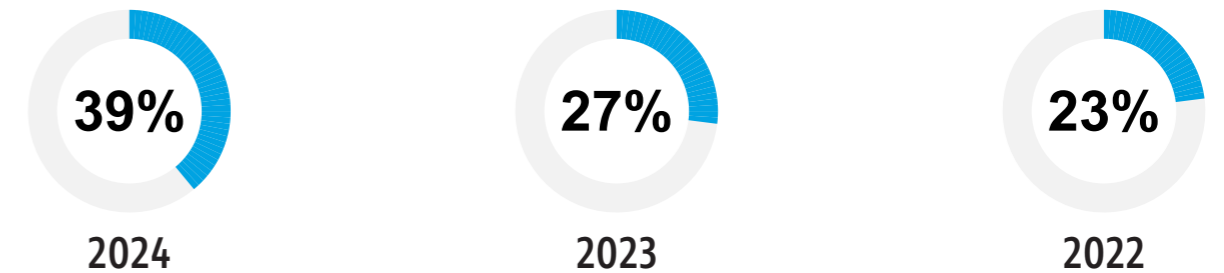
Over a third of businesses have been mandated certain tech to bid for work. This has continued to increase over the past 2 years highlighting that the tender process is becoming more competitive.

Two thirds have highlighted on-site tech to win work, this has increased significantly since last year

## Benefits of Implementing Technology



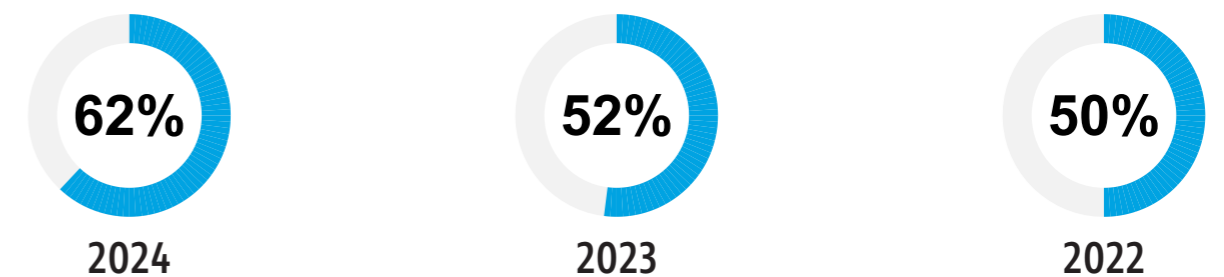
## Have You Customers Mandated a Certain Tech in Order to Bid for Work?



Aconex  
GPS machine control  
Laser scanning and BIM  
Weigh Scales, laser measurement  
Generally, their systems for project management/reports etc.  
Client specified asset management software.  
Laser guided technology

Machine control and Digital shields  
Contract management software  
Various builder platforms for tendering and project management  
It is normally a case of using IT solutions that fit them for review of pricing purposes.  
Their own programs when tendering for their work  
GPS and monitoring capabilities on most earthmoving equipment.

## Have You Highlighted Onsite Tech to Win Work?



Utilising BIM to ensure early identification of issues and clash-detection  
Client ability to monitor fuel usage, machine downtime and GPS capability to minimise excess materials.  
Cloud based project management, H&S and QA portals providing clients with real time visibility on various aspects of the project performance.  
Contract management - pricing, invoicing, project management  
Ability to have records immediately available at head office.  
Availability of verification data. As-built information  
Cost control, planning  
Electronic forms relating to H&S, QA, Records of work, quarry dockets, etc. Full fleet wide fleet tracking

Fleet management & tracking  
GPS monitoring and tracking, Fleet maintenance  
GPS systems are easy to implement and work with  
Information gathering technology. Technology that helps with better decision making.  
Innovative ways of tracking and collecting data for future analysis of costs.  
Project management software, fleet management software, health and safety software  
Real time information on available resources for procurement  
We promote everything we use from iDig, to Procore, Engcon etc. We like to promote to our clients that they support us to strive to be our best - i.e. their money is not wasted in using us.

What benefits have you seen from implementing technology? Base Total Sample n=226  
Have any of your customers mandated that you must use a certain technology in order to bid for work? Base Total Sample n=226 IF YES - What technology did they require you to use?  
Have you highlighted your use of on-site technology (e.g. fleet tracking, asset tracking, health and safety apps) to win projects or work? Base Total Sample n=226 IF YES - What aspect of using technology did you promote?



ALANA FROM SMITH CRANE AND CONSTRUCTION, AT LYTTLETON PORT, CHRISTCHURCH - SMITH CRANE AND CONSTRUCTION'S CIVIL TEAM HITS THE WATER TO DISASSEMBLE JETTY





SAM FROM CURRIE CONSTRUCTION (2012) LTD, AT SH2 MORERE,  
GISBORNE - EMERGENCY CULVERT INSTALLATION