



— BENCHMARK REPORT

How We Build Now

Technology and Industry Trends Connecting
ANZ Construction in 2023

PROCORE®

YouGov®

Foreword

We all know what's keeping construction leaders up at night.

Cost escalation and cash flow worries, rising interest rates and skills shortages have converged to squeeze profit margins and place some companies in a precarious position. Solvency concerns have left many construction leaders with lost sleep.

It's no surprise, then, that industry sentiment in both Australia and New Zealand has softened over the last 12 months as construction leaders focus on strengthening their financial resilience.

But the latest instalment of Procore Technologies' How We Build Now does offer plenty of surprises – and we are excited to share these with the market.

Now in its fourth year, How We Build Now has once again grown in scope and sample size – a testament to the usefulness of the survey insights. This year, with the views of more than 1,600 construction leaders captured across the Asia Pacific, we've split our report in two: one for Australia and New Zealand; and a separate report for the markets of Malaysia, Philippines and Singapore.

The Australian and New Zealand report canvassed 768 construction industry leaders – 61% at C-Suite or senior manager levels.

Nearly half of all businesses surveyed are looking to increase their spending on construction technologies – but our research suggests some leaders are caught in 'analysis paralysis'. They are focused on issues they can't control and ignoring those they can.

Many construction leaders recognise they must transform their businesses, but they are overwhelmed by the smorgasbord of options and don't know where to start. Artificial intelligence is in the industry's line of sight and 44% of respondents expect to integrate AI into their businesses within five years. But construction companies cannot capitalise on AI without an integrated data foundation. It is this integrated data foundation that provides not just information, but also construction intelligence.

Our survey finds 1 in 8 hours is wasted on rework and 14% of total project spending could be saved with more efficient data management. But less than a third (29%) of businesses who plan to design and implement a data strategy are 'very confident' in their ability to successfully develop and deliver a data strategy.

Meanwhile, justifying the costs (41%) and return on investment (35%) are stubborn obstacles to digital transformation. But here's the clarion call for construction's established players: younger businesses are ramping up their technology spending at speed.

Procore Technologies developed How We Build Now as a research tool to reflect on the issues impacting the industry at a moment in time. We want to inspire new conversations and share how construction leaders are bridging the gap between challenges and solutions. We look forward to your feedback on the findings, and to collaborating with you to turn information into the construction intelligence you need to forecast the future and data into stronger businesses.



Tom Karemacher
Head of Region, Asia Pacific
Procore

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Australia

New Zealand

— CHAPTER ONE

Who We Surveyed...



Who We Surveyed...

Procore commissioned independent research company YouGov to conduct an online questionnaire between 30 January and 22 February 2023.

This year, 768 construction decision-makers and influencers across Australia and New Zealand were canvassed for their views.

We also surveyed 876 people in Singapore, Malaysia and Philippines, which are featured in a separate report.

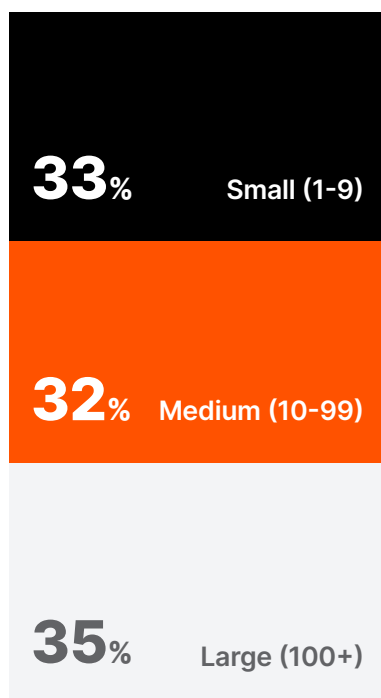


Australia 592

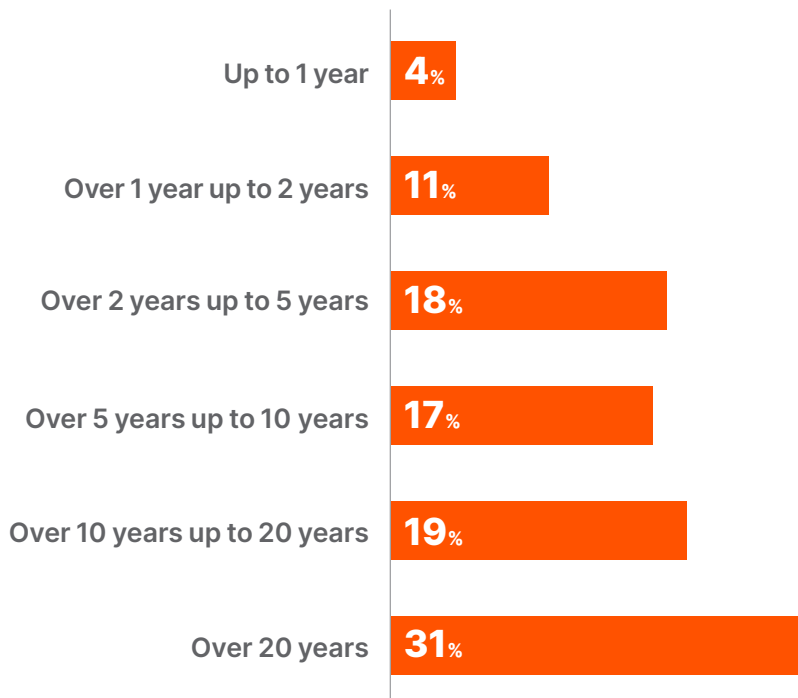


New Zealand 176

Business Size

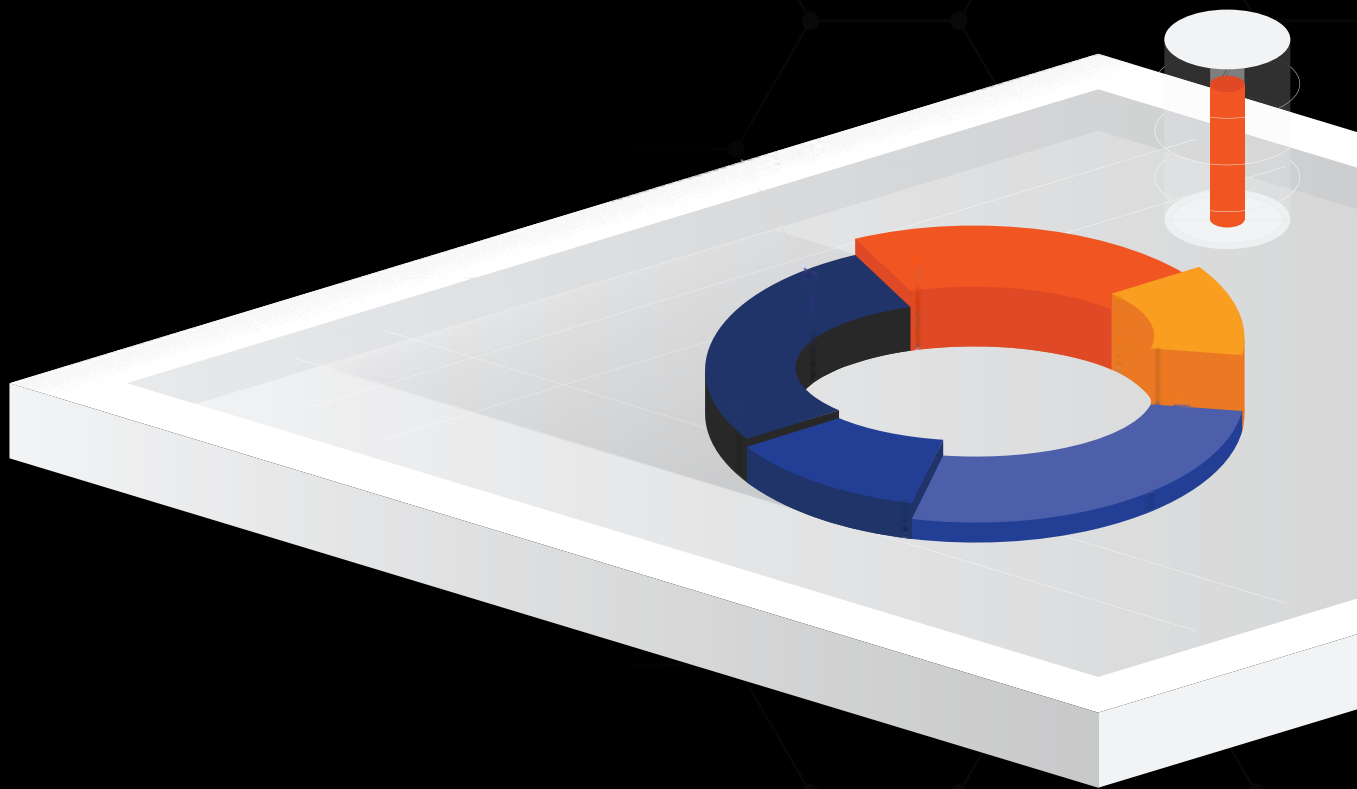


Business Age



— CHAPTER TWO

Key Highlights

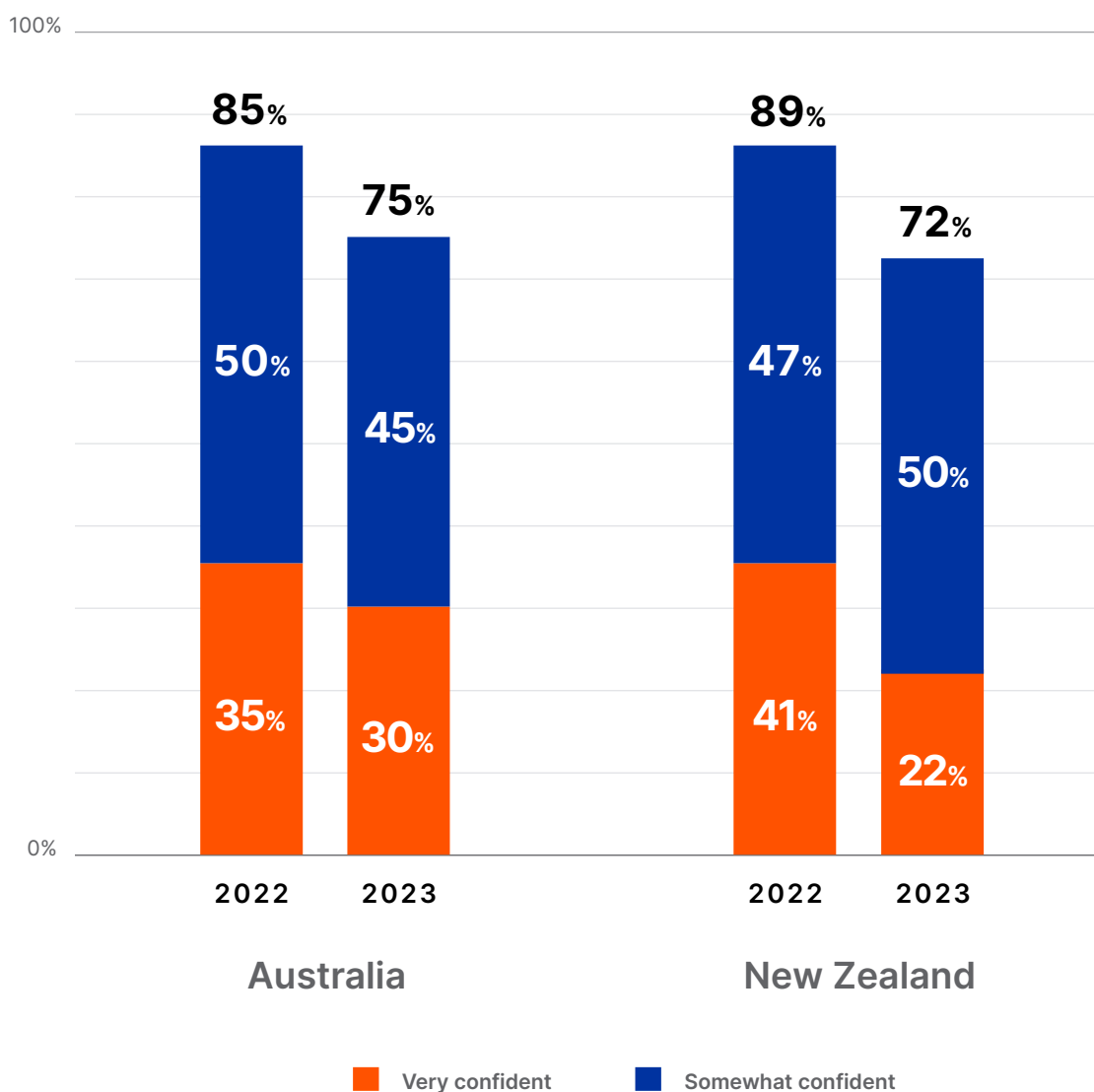


Key Highlights

Sentiment has softened on both sides of the Tasman, falling by 10 percentage points in Australia and by 17 in New Zealand, following sustained cost escalation and skill squeezes, cash flow challenges and sharpening regulation.

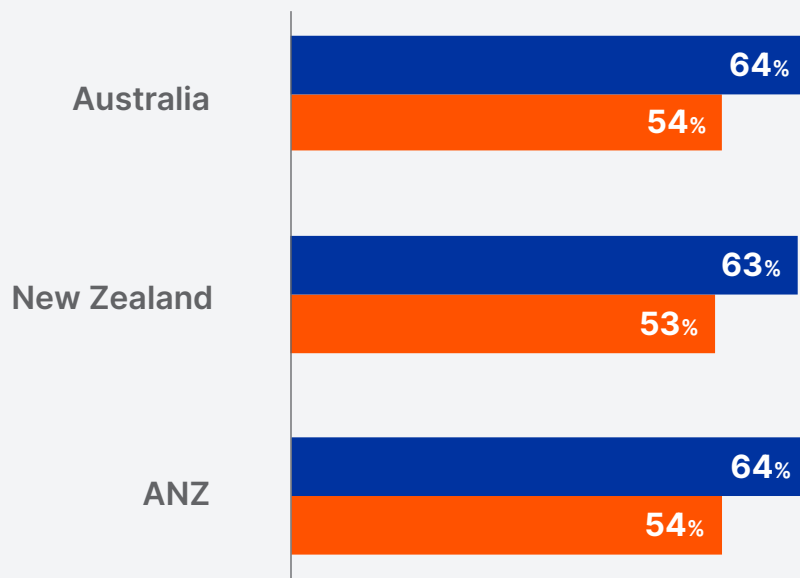
Profit margins are under extra pressure and already-stretched businesses along the length of the value chain stand on shaky ground.

Construction Industry Sentiment Over the Next 12 Months

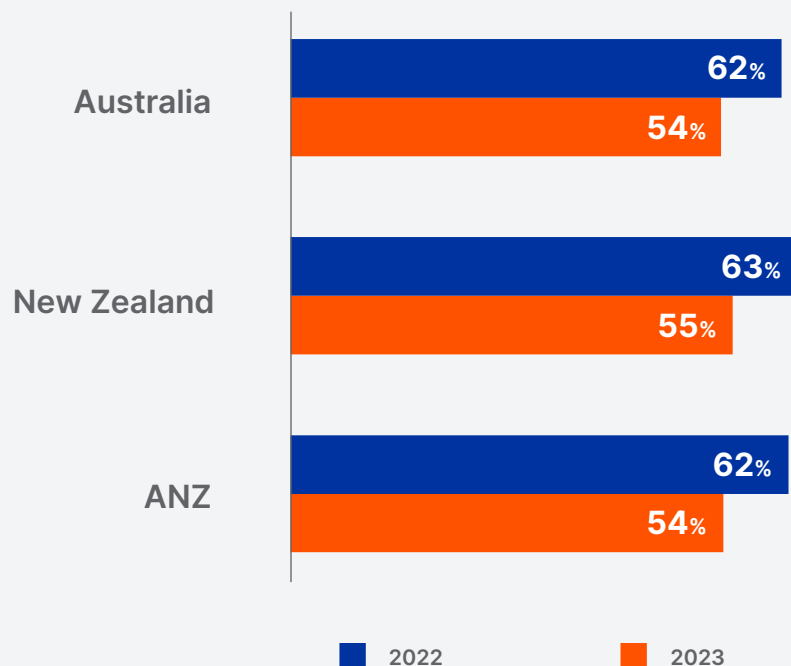


Fewer businesses are expecting an increase in the number of projects over the next 12 months or in their value, although commercial and infrastructure projects are bright spots.

Number of Projects (% Increase)



Value of Projects (% Increase)



Top 5 Headaches on the Horizon



Rising costs of raw materials and equipment



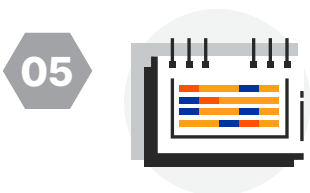
Staff management, especially hiring and retaining skilled staff



Winning competitive tenders at a sustainable margin



Dealing with trade contractors, contracts and payments



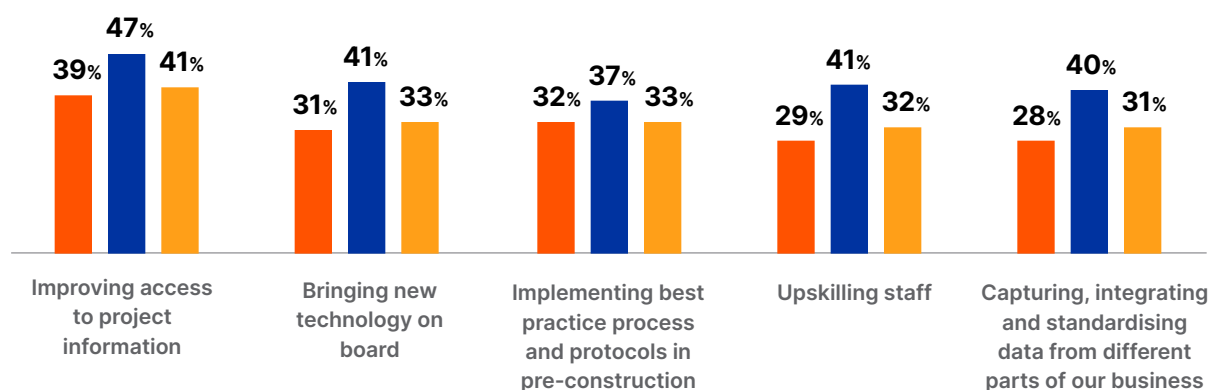
Increasing productivity to help manage project volume



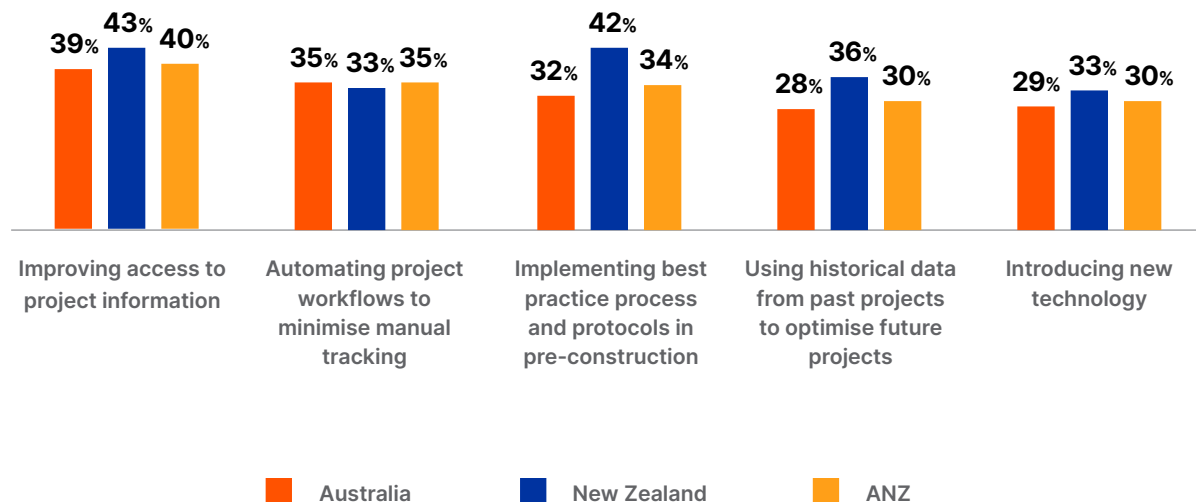
Strategies to Boost Productivity and Profitability

Businesses are embracing a range of smart strategies to improve productivity and profitability – and top of the tree is improving access to project information.

Top 5 Strategies to Improve Productivity



Top 5 Strategies to Improve Profitability



Smart Data Impacts Project Spending



Rework is still an issue with 1 in 8 hours wasted.



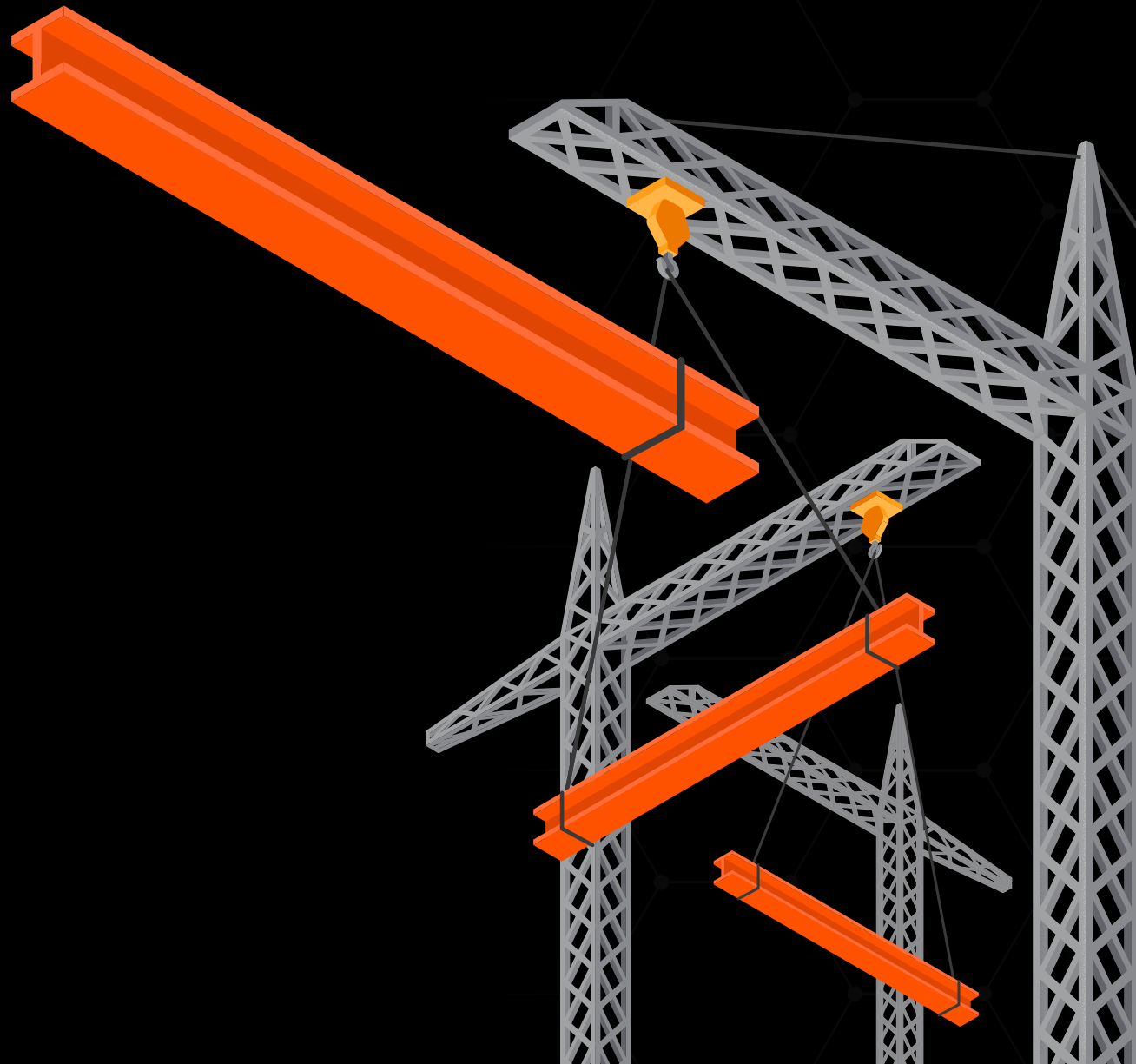
On average, 14% of total spending on projects could be saved with more efficient data management.



Even simple data capture and reporting can help companies to get greater visibility into areas of potential risk and reward.

— CHAPTER THREE

Construction Challenges

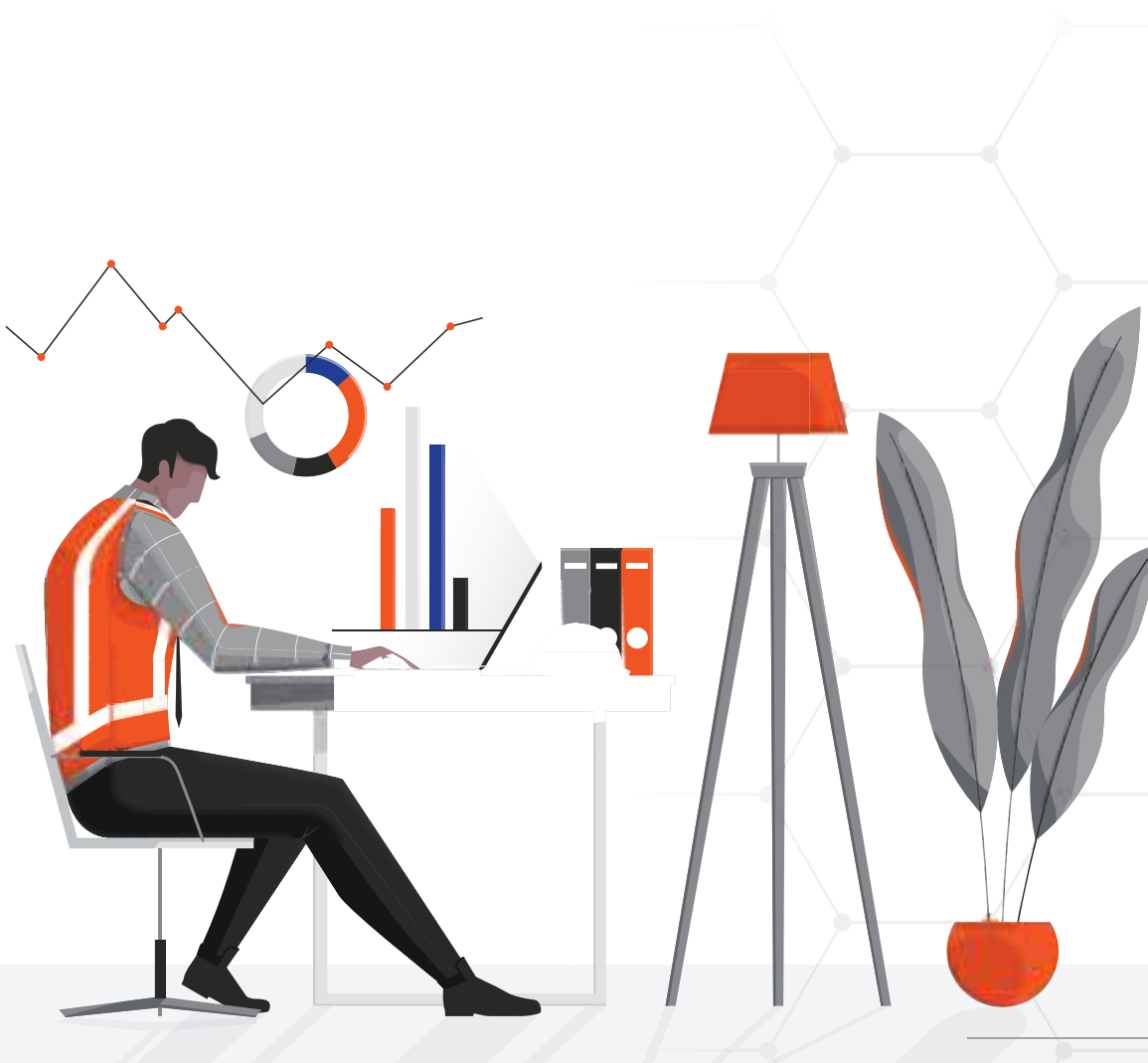


Solvency Risks Cause Sleepless Nights

Cashflow, profits and margins remain the biggest operational risks for companies in Australia and New Zealand.

A series of high-profile insolvencies continue to capture headlines and headspace. Many of these failed businesses have fallen on the sword of rising material and labour costs. Procore's findings reflect this, with managing cost increases and maintaining cash flows the top two challenges.

The inability to hedge against rising costs has eased over the last 12 months – but rising costs continue to make construction leaders nervous.



Top 5 Challenges Over the Next 12 Months



Cash Crunch and Payment Predicaments

Maintaining cash flow also keeps business leaders burning the midnight oil.

In response, leaders are rethinking contracting models to protect margins (30%) and are actively exploring new payment methods, such as early payments at a reduced margin, to support contractors (20%).

Owners and builders have also recognised the downstream risks to their businesses and are making sure their subcontractors stay solvent so they can complete the work.

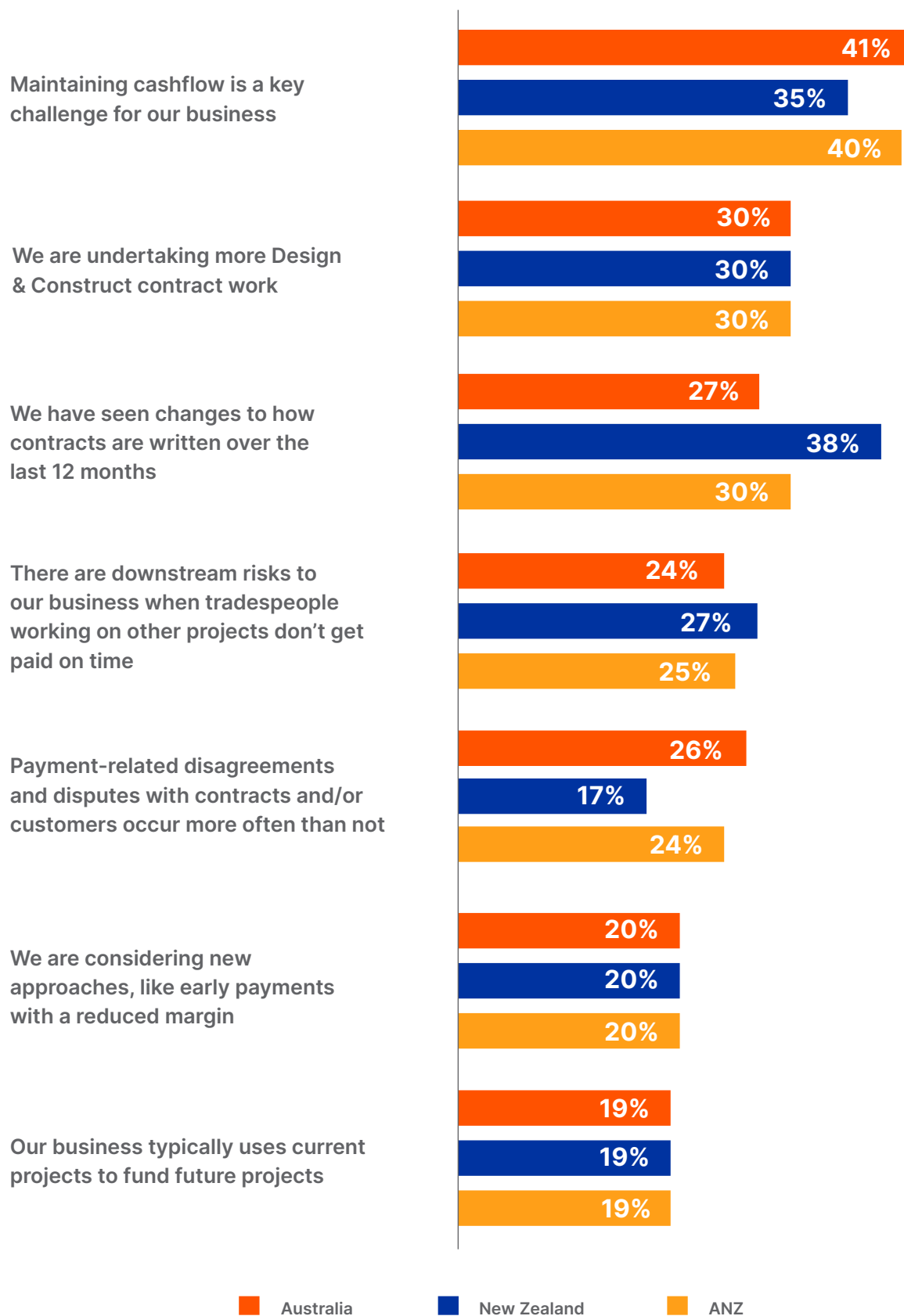


of leaders are rethinking contracting models to protect margins



of leaders are exploring new payment methods to support contractors

Contracts and Payments

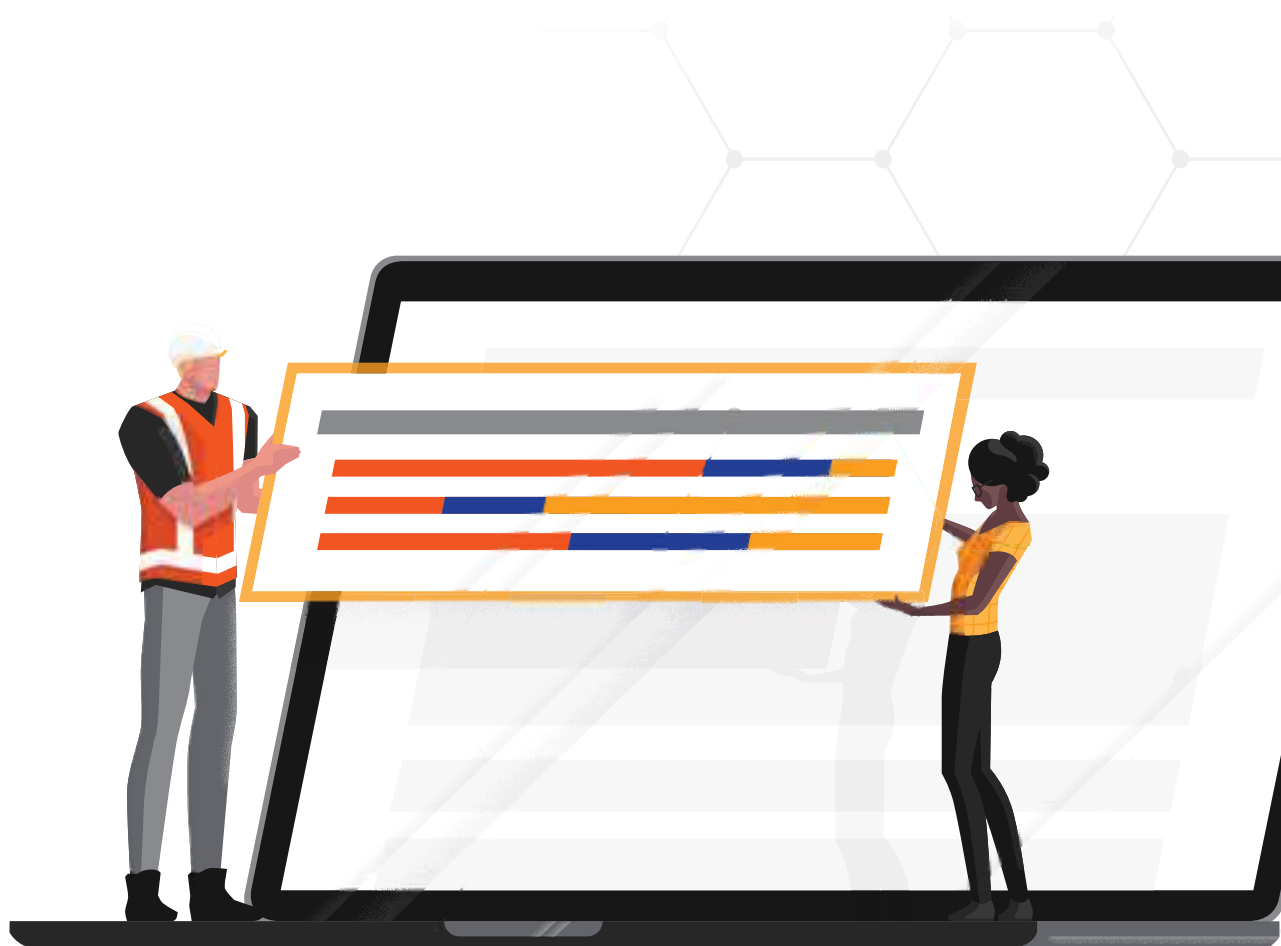


Bottom Lines at the Top of the List

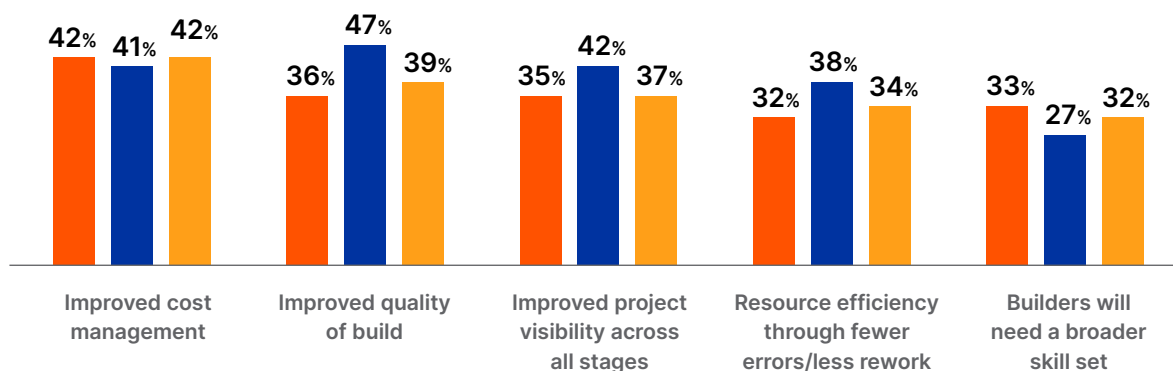
While technology is a tool to tackle the industry's toughest challenges – from quality to sustainability to productivity – construction leaders are currently prioritising cost management above all else.

Technology is effectively a 'hedging tool' that helps construction companies manage fluctuating costs with accurate and up-to-date data.

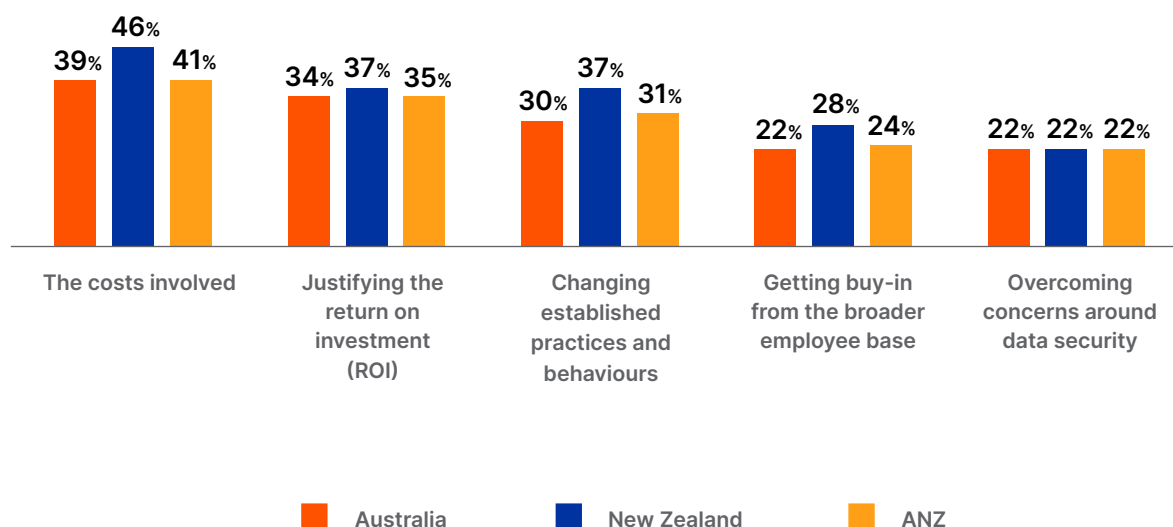
But could some business leaders become distracted by the urgent need to manage costs and miss the big-picture opportunities to enhance productivity and profitability in an increasingly unpredictable world?



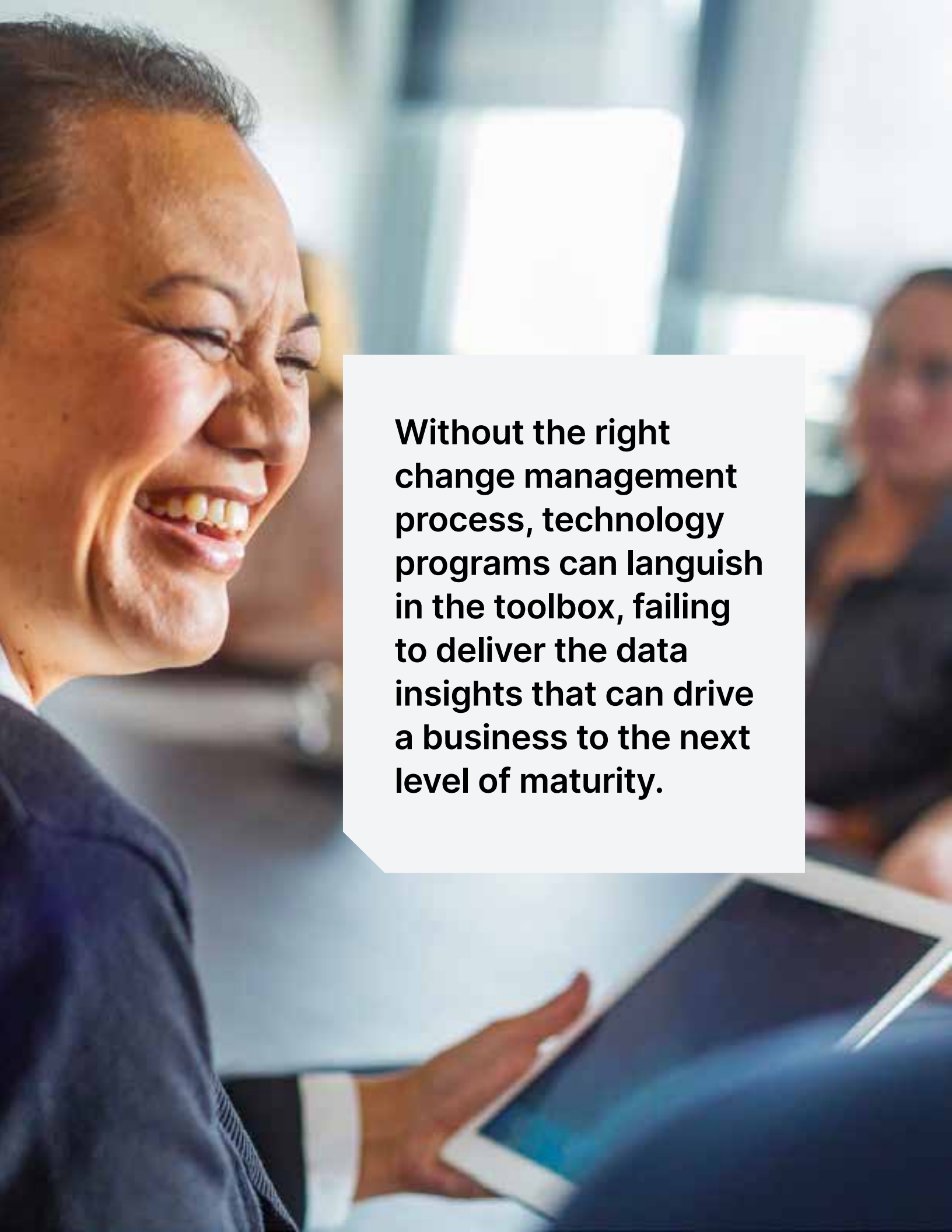
Top 5 Impacts of Technologies



Top 5 Challenges on the Digital Transformation Journey



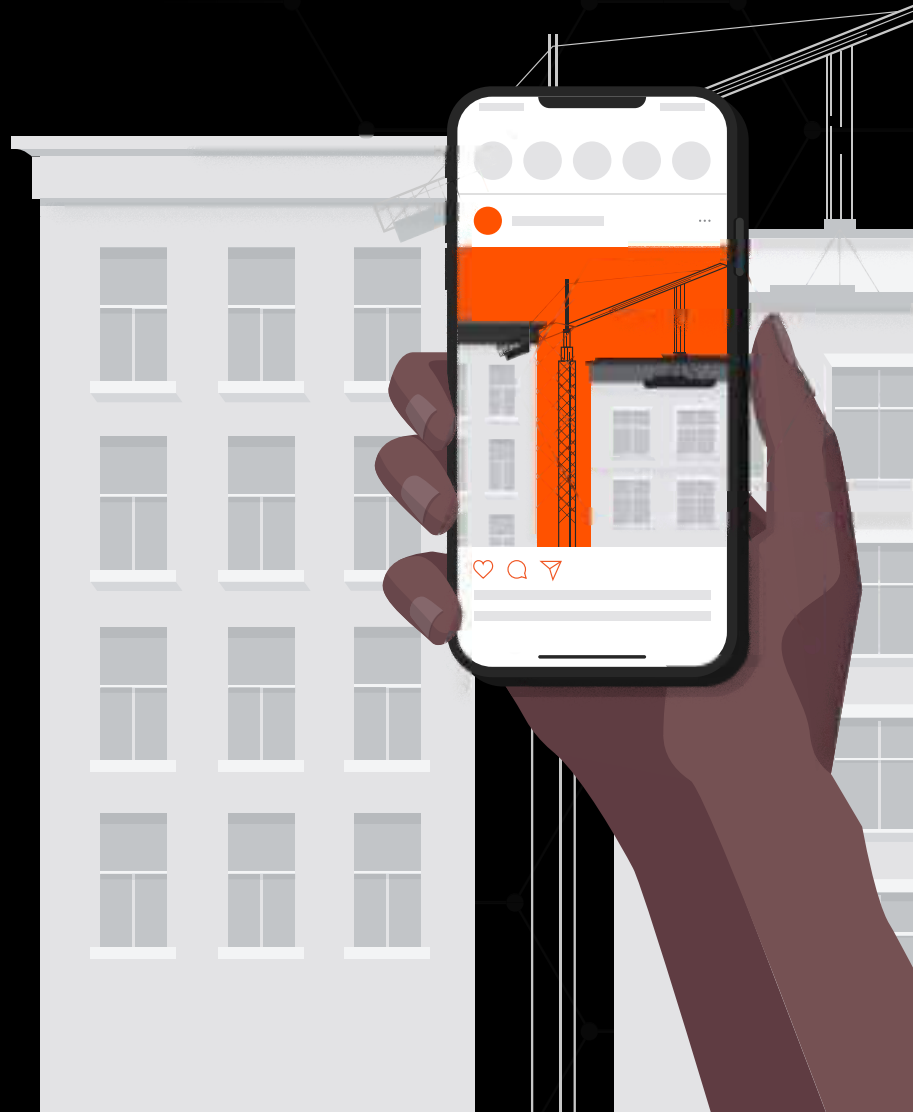
Changing established practices and behaviours continues to be a challenge for larger companies more often than small companies. Just under half (46%) of businesses with more than 20 years under their belts cited this as a concern, compared with 19% of businesses aged up to 10 years old.

A close-up, profile view of a middle-aged woman with dark hair, smiling broadly. She is wearing a dark blue business jacket. In the background, another person is partially visible, and a tablet computer is being held in the foreground, partially obscuring the bottom of the frame. The background is blurred, suggesting an office or meeting environment.

**Without the right
change management
process, technology
programs can languish
in the toolbox, failing
to deliver the data
insights that can drive
a business to the next
level of maturity.**

— CHAPTER FOUR

Technology and Transformation

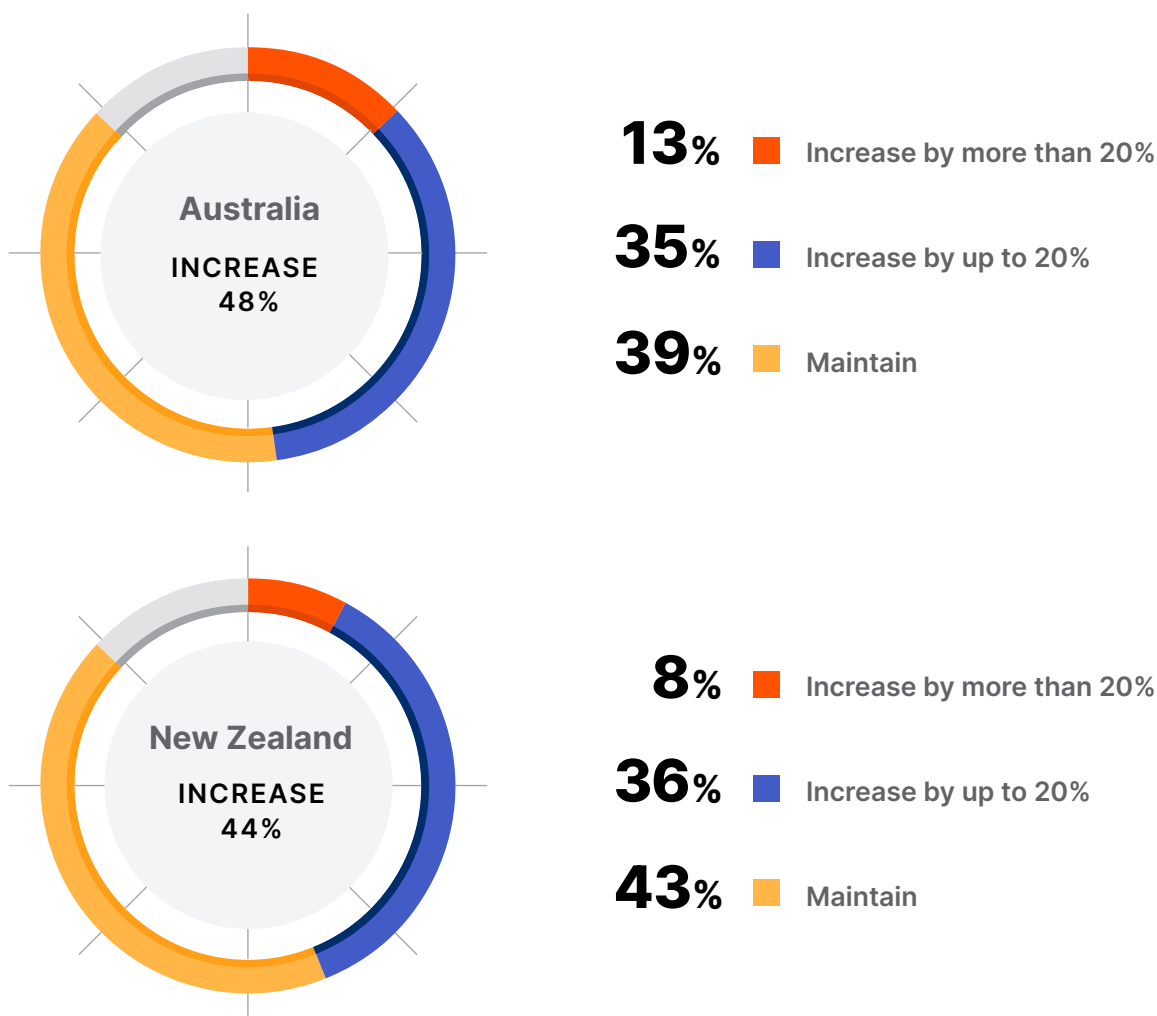


Construction Leaders Catch the Tech Wave

Nearly half of businesses are looking to increase the spend on construction technologies, as a proportion of their annual budget, over the next 12 months.

Younger businesses are more likely to splash their cash – with 52% of businesses up to 10 years upping their budgets, compared to 33% of those established more than 20 years ago.

Expected Spend on Construction Technologies as a Proportion of Annual Budget



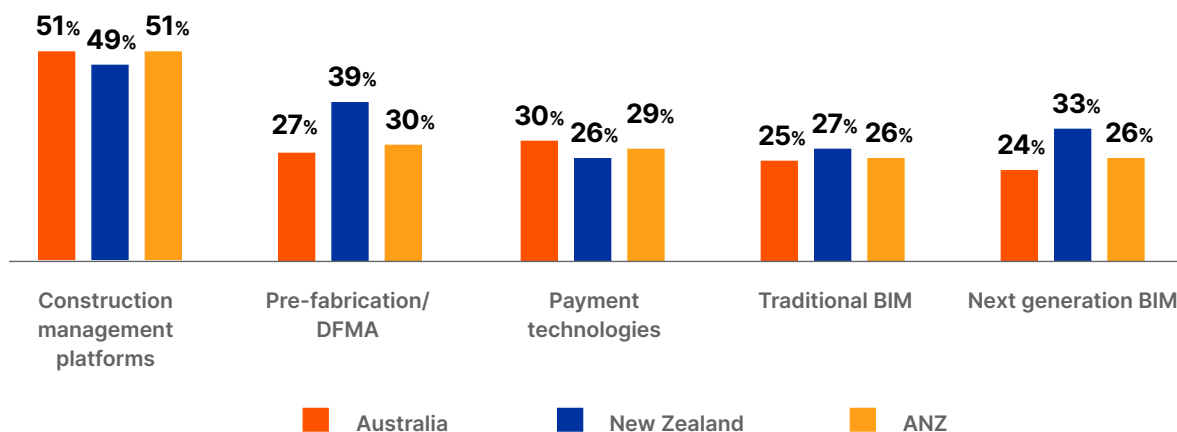
Construction Management Tools Step Into the Spotlight

Construction management platforms have been implemented across 49% of Australian and New Zealand businesses – and these platforms are by far the most popular choice to drive change over the next three years.

Payment systems are now used by 44% of companies and are predicted to be in the top five transformational technologies over the next three years.

Construction companies are less likely to be playing in the sandpit with robotics, XR or 3D printing. Instead, more are investing in technologies that support cash flow and smart day-to-day decision making. The objective is clear: maintaining solvency today to secure long-term sustainability tomorrow.

Top 5 Technologies to Drive Change in the Next Three Years



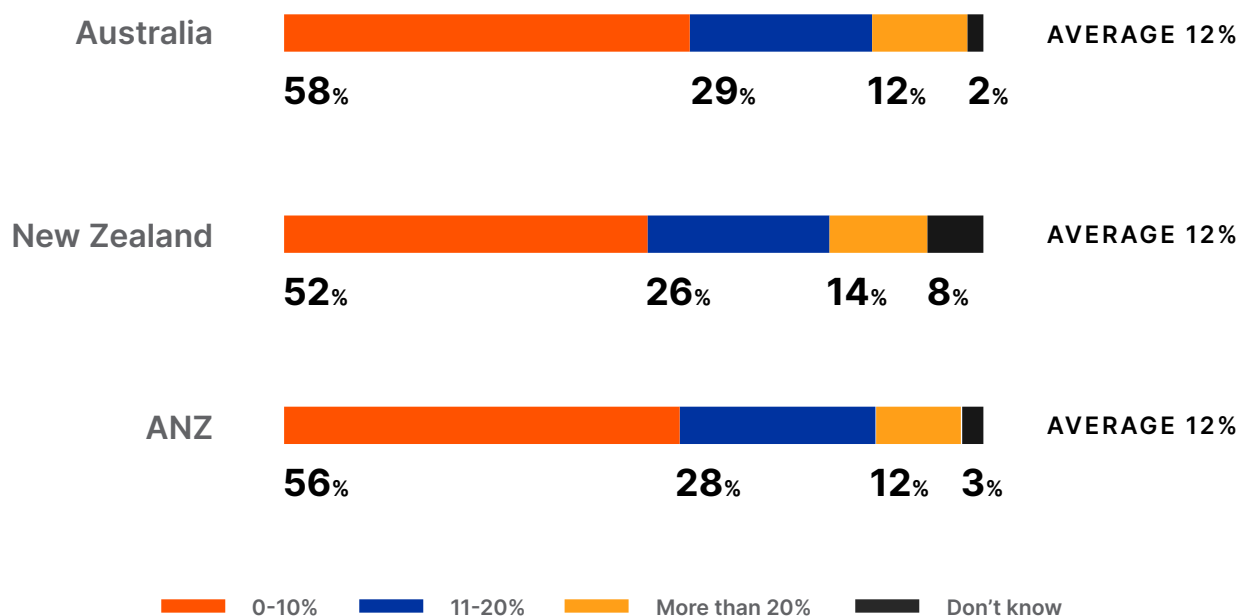
Construction companies recognise that change is required to protect themselves against volatile markets and wafer-thin margins (which in the case of fixed-price contracts signed in the pre-pandemic era are now negative margins). They know, without clear supply chain visibility, that it can be hard to spot margin squeeze and cost blowout until it is too late.

Construction management platforms can unlock data and analytical insights to drive better outcomes on current sites, and to act as a future defence against the next wave of supply chain, regulatory, weather, staffing and cash flow challenges that will undoubtedly head our way.

Shrinking Rework is the Secret to Growing Margins

Across Australia and New Zealand, a startling 1 in 8 project hours is wasted on rework. This is particularly shocking in an environment facing extreme cost pressures.

Proportion of Work Hours Typically Spent on Rework



Some organisations are implementing innovative construction technologies to track, resolve and improve rework outcomes – and to anticipate potential clashes or possible errors before they become costly issues.

These companies understand that construction management platforms are far more than digital repositories. Construction management platforms also unlock insights using a wealth of project data to optimise processes, resources and planning, driving down risk and improving project delivery.



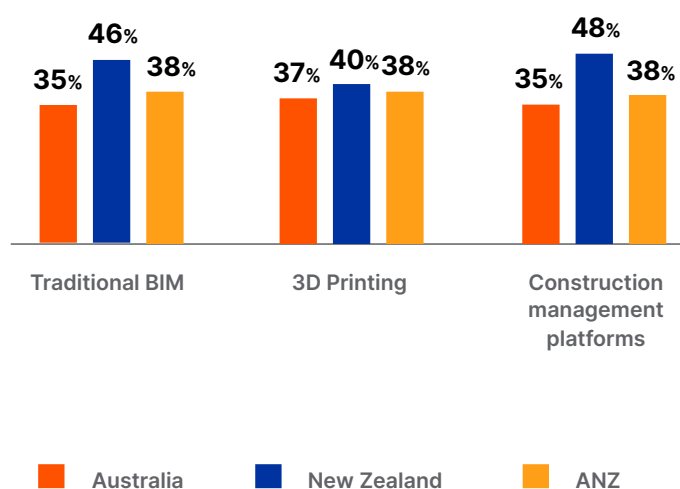
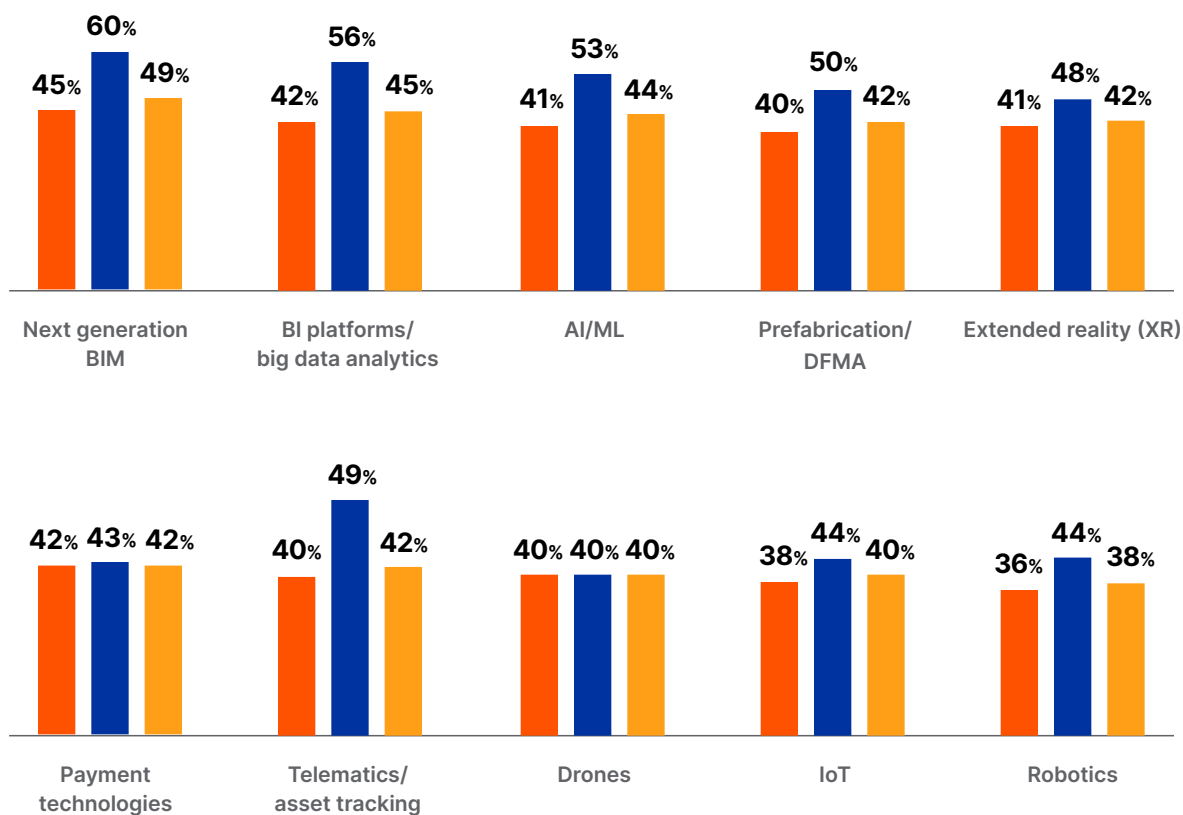
Bridging the Data Strategy Gap

For some construction companies, technology ambitions are disconnected from data reality.

This is potentially where the industry is underpinning its future digital transformation on confidence, rather than competence.

Artificial intelligence and machine learning are attracting plenty of attention, with 44% of companies looking to introduce AI or ML within the next five years.

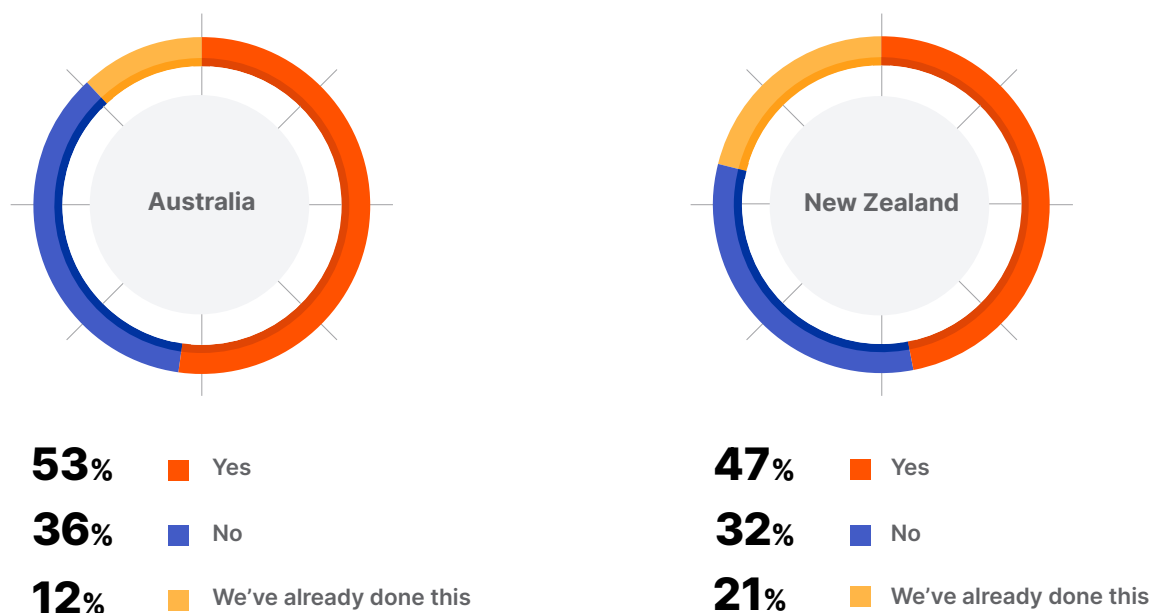
Technologies to be Introduced in the Next Five Years



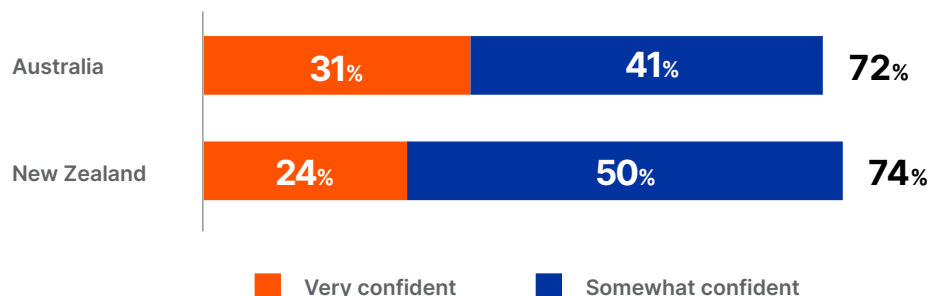
Despite this ambition, just 14% of companies have already implemented a data strategy – and the quality of those varies depending on the company's data maturity.

The value of incorporating advanced technologies is limited if it is not linked to a clear strategy and measurable benchmarks to assess the success of that strategy.

Plans to Design and Implement a Data Strategy in the Next 12 Months



Confidence in Data Strategy Development and Delivery



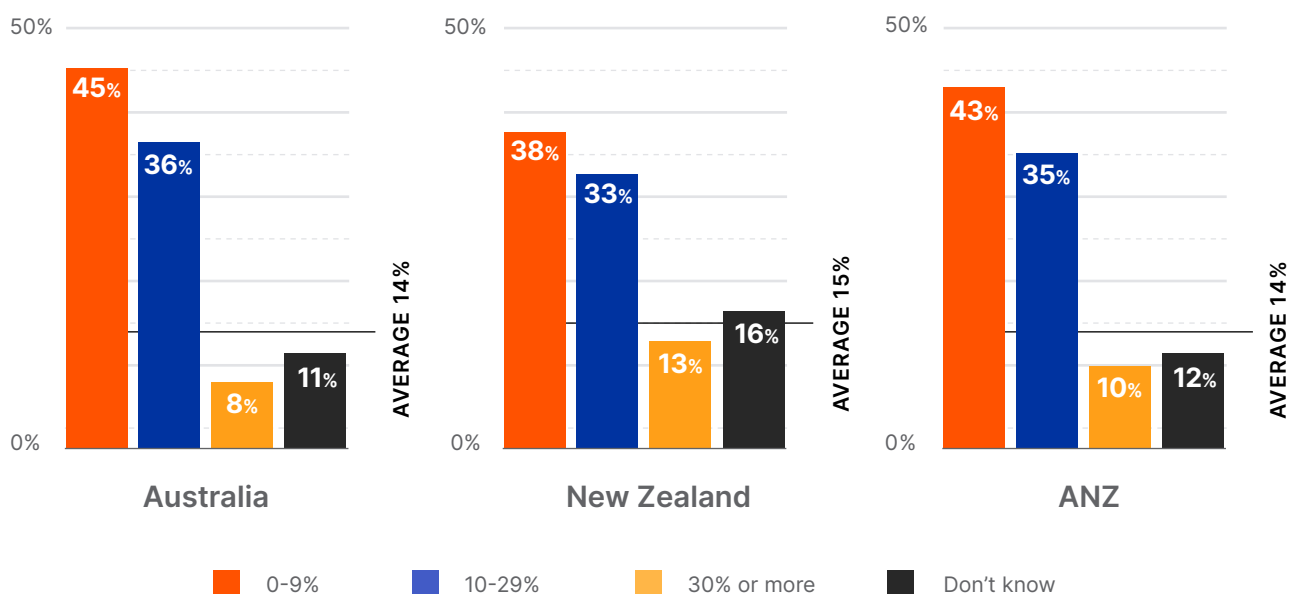
While 51% of respondents across Australia and New Zealand plan to design and implement a data strategy over the next 12 months, 35% are not even considering one. What's more, just 29% of companies who intend to design and implement a data strategy on both sides of the Tasman are very confident they can implement their strategy with success.

Without clear data visibility, industry participants are struggling to forecast margin squeeze and address cost blowout before it is too late.

They are also missing out on opportunities to address defects before they become a problem, forecast future labour needs or undertake analysis to refine quality and safety protocols.

Without a solid data strategy, technology programs will flounder. But the savings up for grabs are enormous. The bigger the business the bigger the expected payback, with companies with 100-plus employees expecting to save an average of 17% through more efficient data management, compared with 12% for smaller companies.

Potential Saving From More Efficient Data Management (as a Proportion of Total Spending on Projects)



Average potential saving for more efficient data management

— CHAPTER FIVE

Summary



Summary

How We Build Now is full of compelling insights and paints a picture of an industry that must transform to survive. But what does it all mean as construction leaders plan their next move?

The granular data we've uncovered tells dozens of stories, but they share one common narrative.

Business leaders are grappling with the grind of delivering in an unpredictable market. But today's instability doesn't mean they can afford to dip their eyes from the horizon.

Advanced technologies – from drones to digital twins, augmented reality to artificial intelligence – are gaining traction and are already transforming the way we build now.

The adoption of advanced technologies will accelerate at a blistering pace. [Global investment in construction technology](#) is expected to surpass US\$30 billion by 2027 – that's a compound growth rate of 16.20% over the next five years.

Preparing for the future – and being able to pivot quickly – requires access to real-time insights. Businesses must begin to lay the foundations today.

The paybacks will be immediate. Grounding decisions in data adds predictability to every project.

Investing in the right technology is less about future proofing and more about making the ideal future state of your business a reality today.

Rather than looking through the rearview mirror of retrospective reporting, you can peer into a single pane of glass to plan for the future with confidence.



— CHAPTER SIX

Country Snapshots



Australia

Construction is Australia's fourth largest industry, employing 1 in 10 of the working population and contributing 7.3% of GDP.

But the industry is stuck in a productivity holding pattern, with one report commissioned by the Australian Constructors Association in 2022 finding the productivity growth lag represented \$47 billion in lost opportunity every year.

592

construction
leaders surveyed

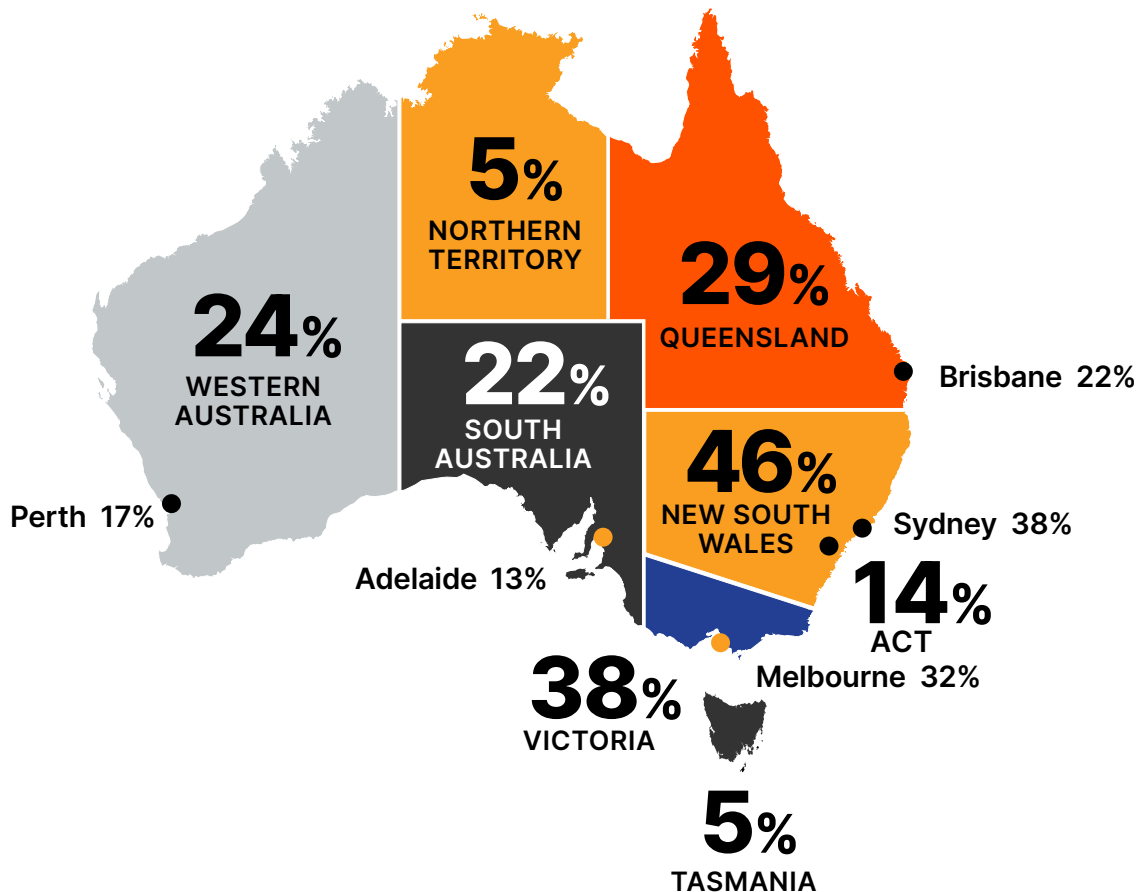
63%

of respondents
are senior decision
makers

54%

expect a net increase
in the number or
value of projects

Locations of Projects



Heading into Headwinds

Australian respondents to Procore's survey did so against a backdrop of extreme challenges including:



Climbing costs

- + CoreLogic's [Cordell Construction Cost Index](#) ended 2022 at a new high, climbing 11.9% over the year to post the second largest annual increase on record.



Skills shortfalls

- + In December 2022, [Infrastructure Australia](#) estimated a 91,000 shortfall of skills required to deliver the nation's public infrastructure pipeline. [Master Builders Australia](#) has since labelled labour shortages the "single biggest pressure" affecting the construction industry through 2023.



Pay rises

- + Remuneration across the property industry posted its [strongest growth since the global financial crisis](#), crushing building and construction margins after rising an average of 5% in 2022.



Dwelling completions drop

- + The Urban Development Institute of Australia's [2023 State of the Land](#) report forecasts dwelling completions to "retract" sharply, falling 50,000 below the 200,000 annual average, following weaker consumer demand from rising interest rates and cost of living pressures, as well as project deferral due to ongoing construction cost escalation.

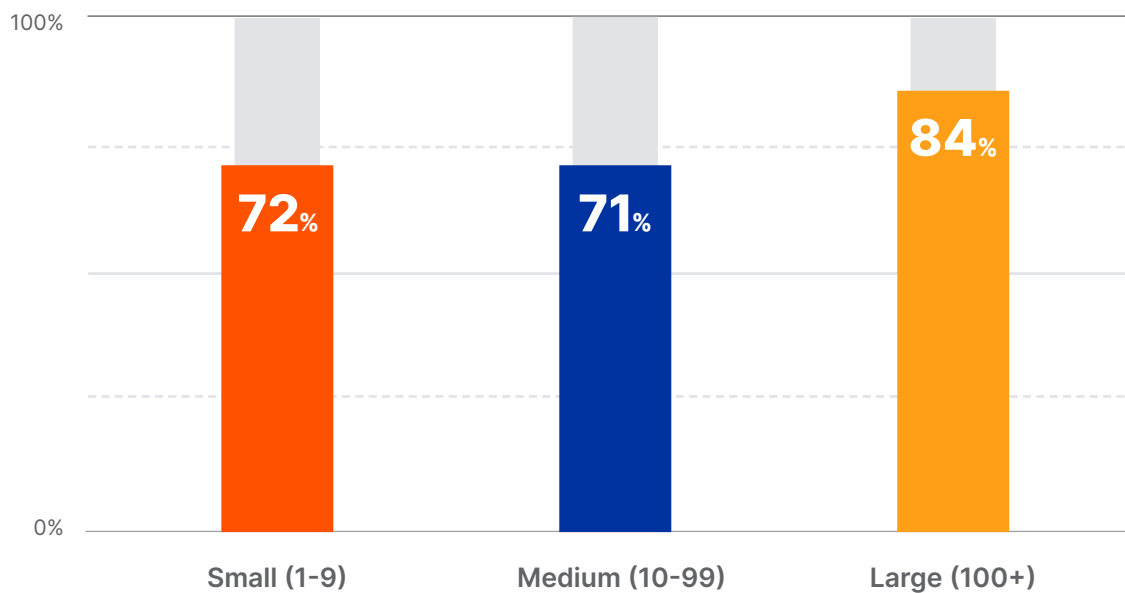


Companies collapse

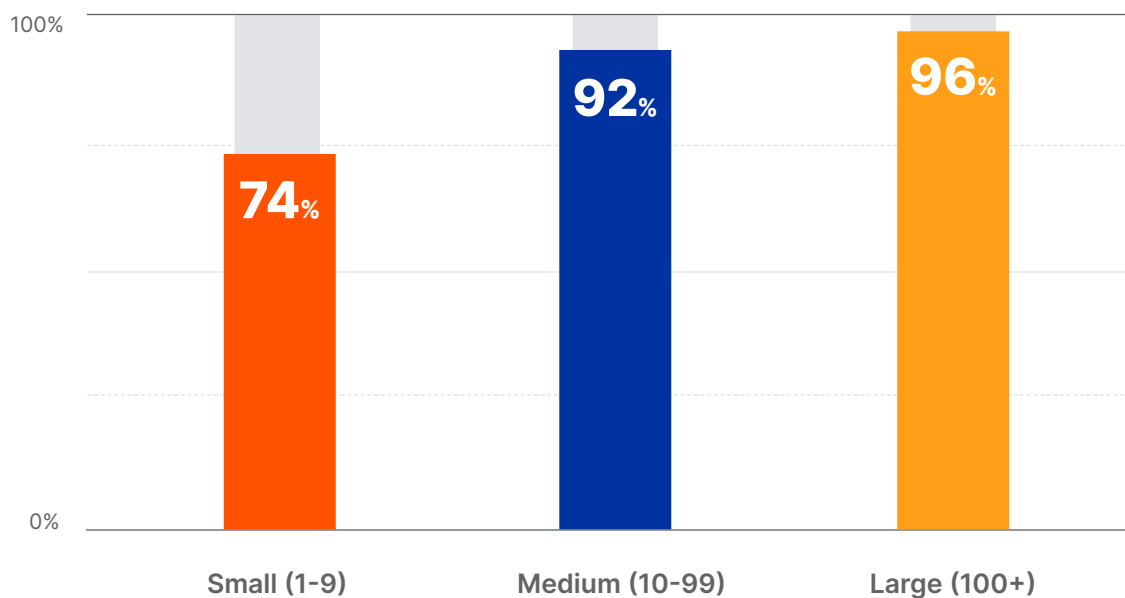
- + Analysis by the [Australian Property Institute](#) found 1,236 companies in the construction sector went into liquidation, receivership or administration between 1 July 2022 and 1 March 2023, compared with 1,284 for the entire 2021-22 financial year.

Construction Industry Sentiment Over the Next 12 Months (% Confident)

2023



2022



Top 5 Talent Troubles

01



40%

Lack of skilled or qualified candidates

02



28%

Wage demands are too high

03



25%

Too much competition from other construction firms

04



24%

Lack of unskilled labour

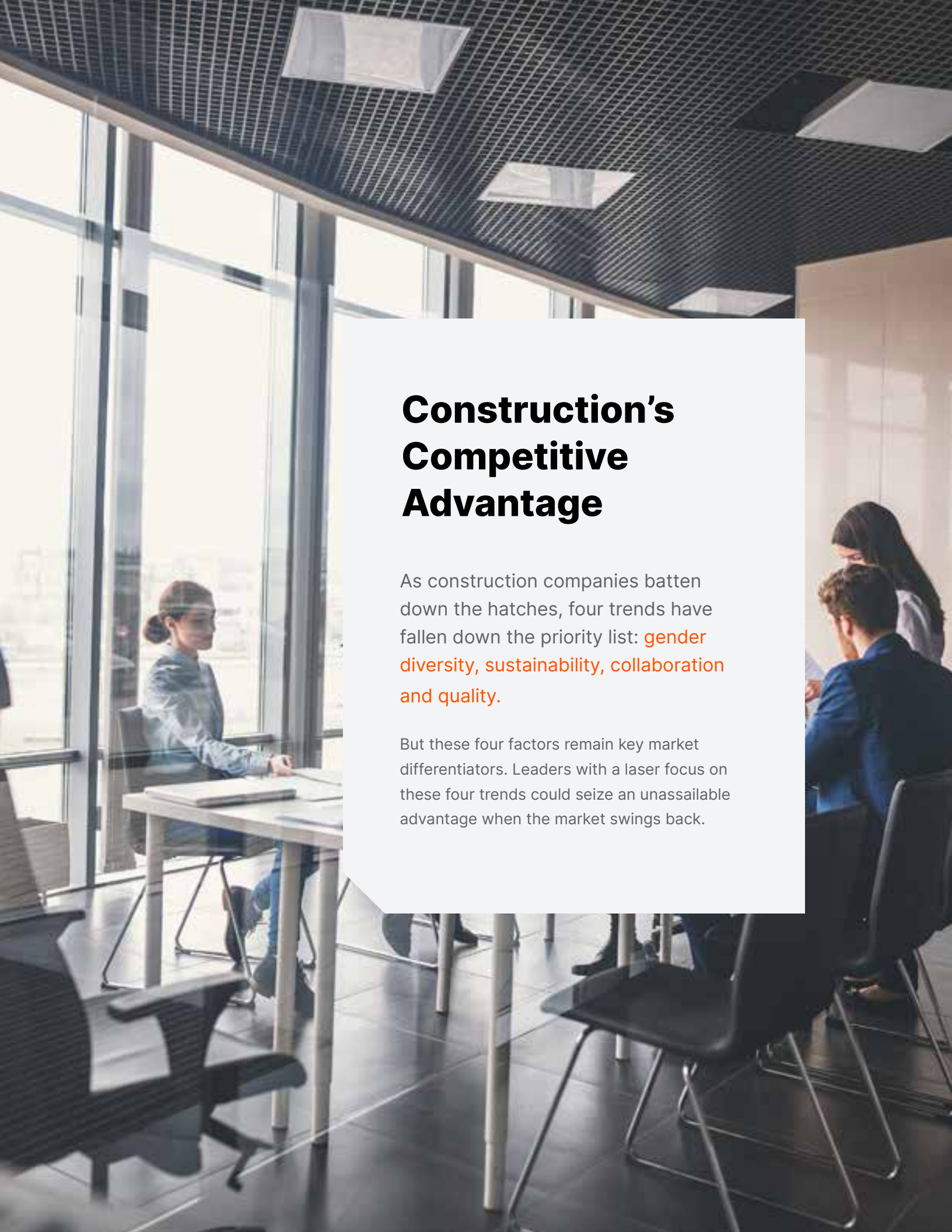
05



18%

Not enough candidates applying

*The question was only asked to those who aren't confident they will have the necessary skills in the business over the next 12 months.

A modern office interior with large windows on the left side, providing a view of a city. The ceiling is dark with a grid pattern and several square light fixtures. In the foreground, a woman is sitting at a long wooden table, looking out the window. In the background, a man and a woman are sitting at another table, looking at a document. The floor is dark and reflective.

Construction's Competitive Advantage

As construction companies batten down the hatches, four trends have fallen down the priority list: **gender diversity, sustainability, collaboration and quality.**

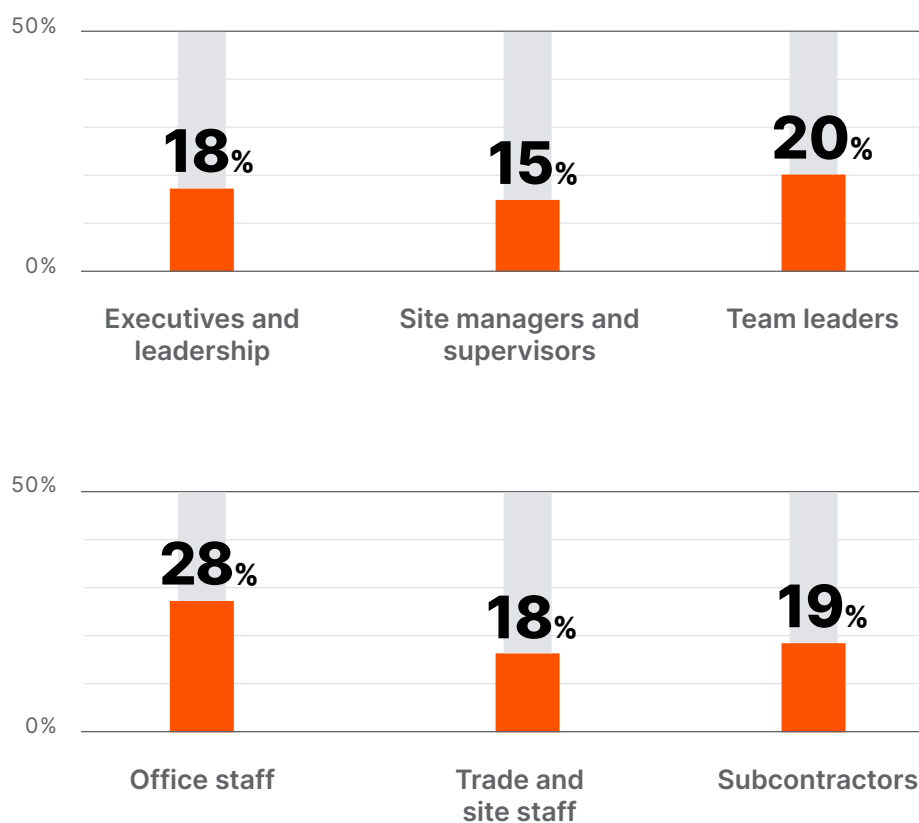
But these four factors remain key market differentiators. Leaders with a laser focus on these four trends could seize an unassailable advantage when the market swings back.

Gender Diversity

Despite the sustained effort of Australia's construction leaders to boost the number of women in the industry, female participation remains stubbornly low.

The [Cost of Doing Nothing](#) report, written by BIS Oxford Economics in 2021, found that an outdated construction culture costs the Australian economy nearly \$8 billion a year. Translating targets into real-world teams could be an area of competitive advantage.

Proportion of Female Staff (Averages ^)



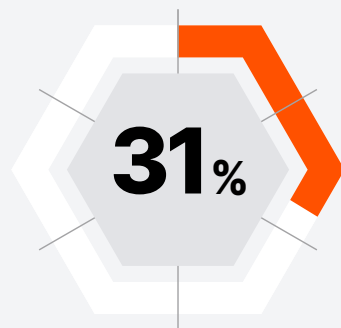
A growing cohort of construction leaders is strengthening their suite of employee benefits and driving cultural change to attract more female talent.

Sustainability

Australia has long led the real estate world's ESG performance.

The 2022 Global Real Estate Sustainability Benchmark (GRESB) assessment, which covered \$13.62 trillion in real estate and infrastructure value worldwide, ranked [Oceania, or Australia and New Zealand, first in the world for the twelfth consecutive year.](#)

Sustainability has taken a backseat as economic and operational challenges converge, but some survey respondents are levelling up to smarter, more sustainable practices:



Believe legislative changes and evolving client requirements are pushing the industry towards green buildings



Have started to focus on strategies like prefabrication and material selection to reduce project carbon footprints



Are using or planning to use carbon offset services in the next 12 months



Collaboration

“Collaboration” can be a short-hand term for the series of benefits that arise when information is shared from a single source of truth: efficiency, conflict and clash resolution, real-time reporting and more.

Therefore collaboration, or sharing the same source of information across teams and projects, can lead to a higher quality data set that, in turn, can inform better future decisions. Many of our survey respondents agree.



Are looking to embrace greater collaboration among project stakeholders



Would make better decisions with access to information on project performance



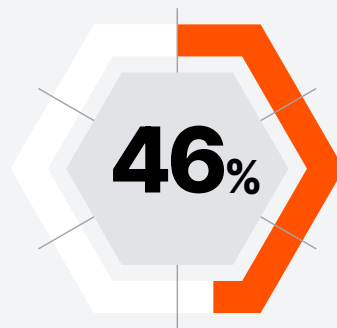
Think digital working practices increase employee productivity and reduce lost time



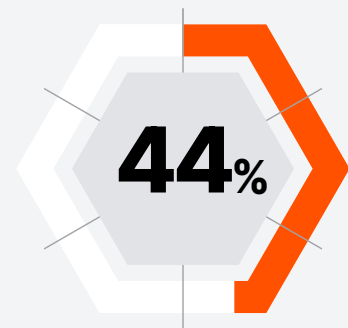
Quality

Questions of quality continue to plague Australia's construction industry and harm its reputation with consumers.

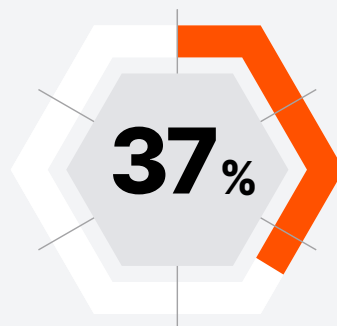
But the most rigorous regulation in the country, the NSW Government's Design and Building Practitioners Act, is expanding from July 2023, with hostels, guest houses and some aged care facilities among the building types captured. The trendline is pointing in one direction, and a solid cohort of respondents see a commitment to quality as a smart business strategy.



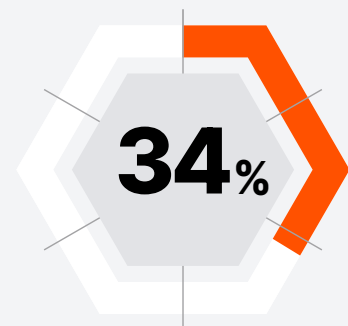
**A competitive advantage
that boosts reputations**



**A tool to strengthen
consumer confidence
and trust**



**A pathway to increase
project margins**



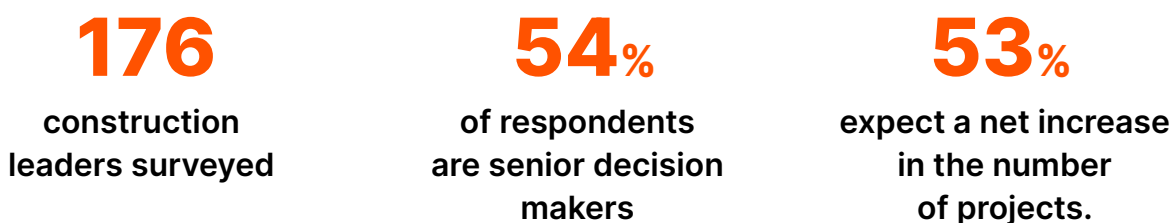
**A strategy to reduce
waste and enhance
sustainability**

Recognising the importance of these four priority areas is not enough. Businesses must actively invest resources to reap the rewards. By ramping up their technology investment, Australian construction companies can transparently track progress, deliver quality and forecast the future — strengthening the long-term sustainability of their companies and securing a competitive advantage.

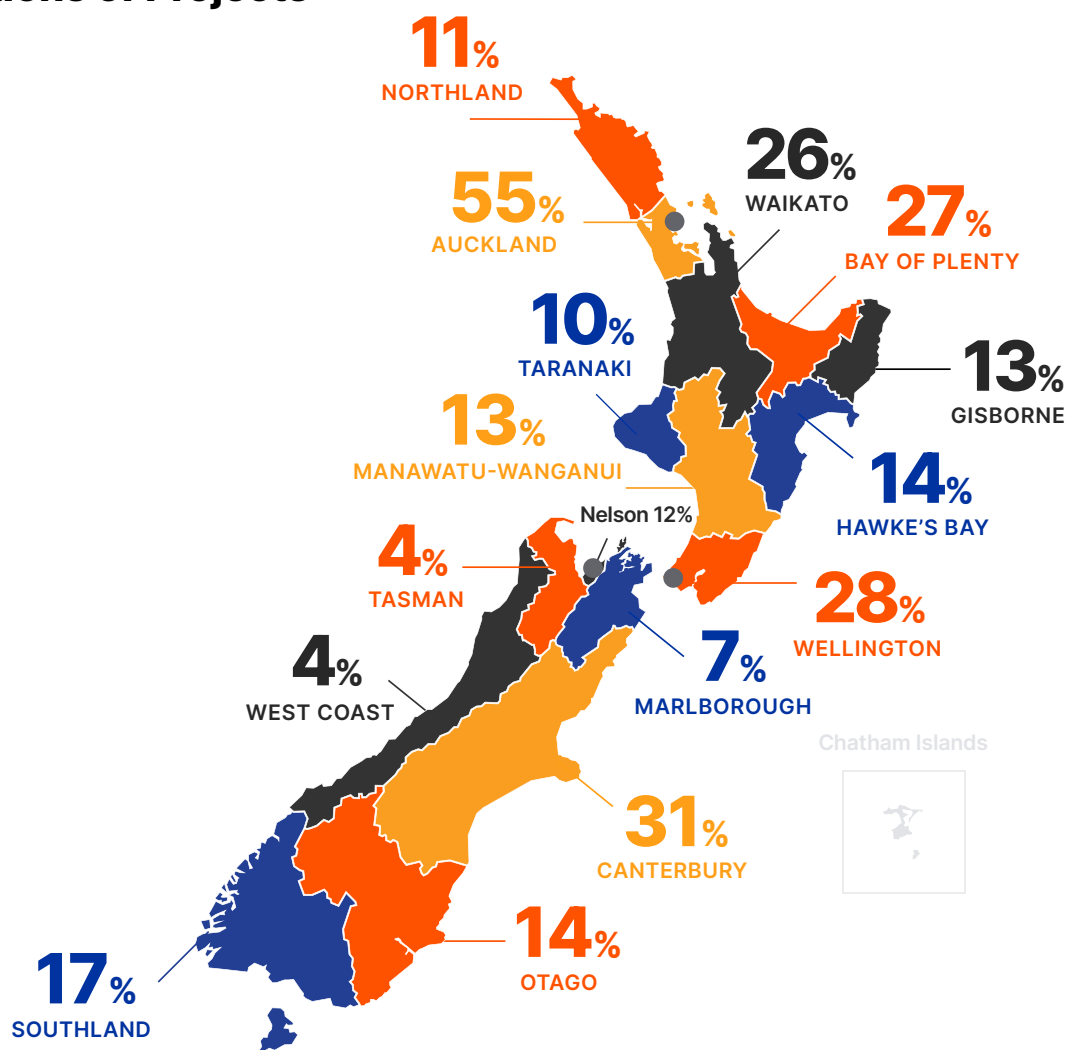
New Zealand

Aotearoa New Zealand's fourth largest industry is construction, with the sector contributing approximately 7% of the national GDP.

But the country's construction industry faces a period of significant uncertainty as material price inflation, labour shortages, supply chain disruptions, changes to the building code and credit constraints all converge.



Locations of Projects



Heading into Headwinds

New Zealand construction leaders face a perfect storm of challenges including:



Climbing costs

- + According to [New Zealand Government statistics](#), residential construction costs increased by 13% over the year in 2022, and non-residential costs increased by 10%. CoreLogic NZ's [Cordell Construction Cost Index](#) found the cost to build a 'standard' three-bedroom house hit a new record with an annual increase of 10.4%, the highest since the CCCI commenced in late 2012.



Labour shortages

- + A recent survey undertaken by [Civil Contractors New Zealand](#) found 87% of respondents can't find the right skills.



Construction cooldown

- + National construction activity is [forecast to decrease steadily](#) from \$50.9 billion in 2021 to around \$41.7 billion in 2027, driven largely by a weaker residential sector, which contributed to 60% of national construction activity in 2021.



Companies collapse

- + The financial crunch is being felt across the country, with a [disproportionate number of liquidations](#) and a rising number of credit defaults across the construction sector.

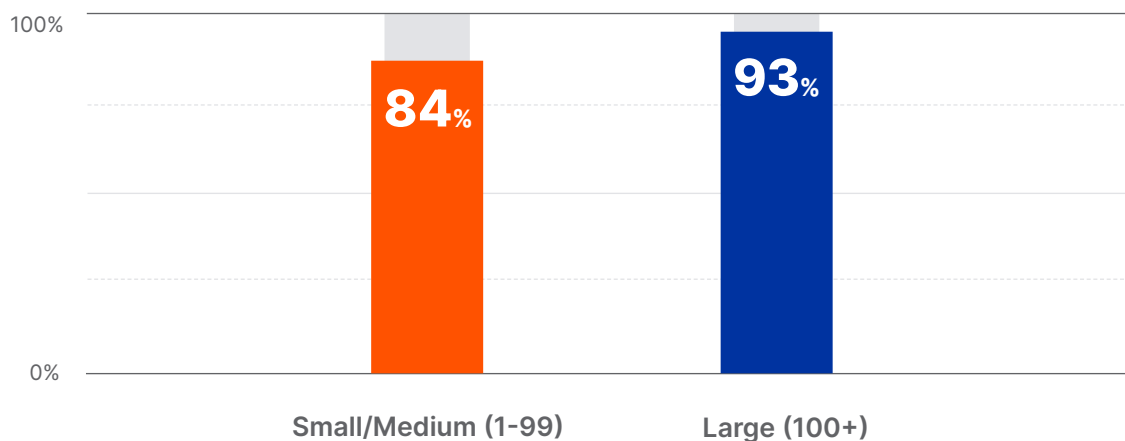


A changing climate

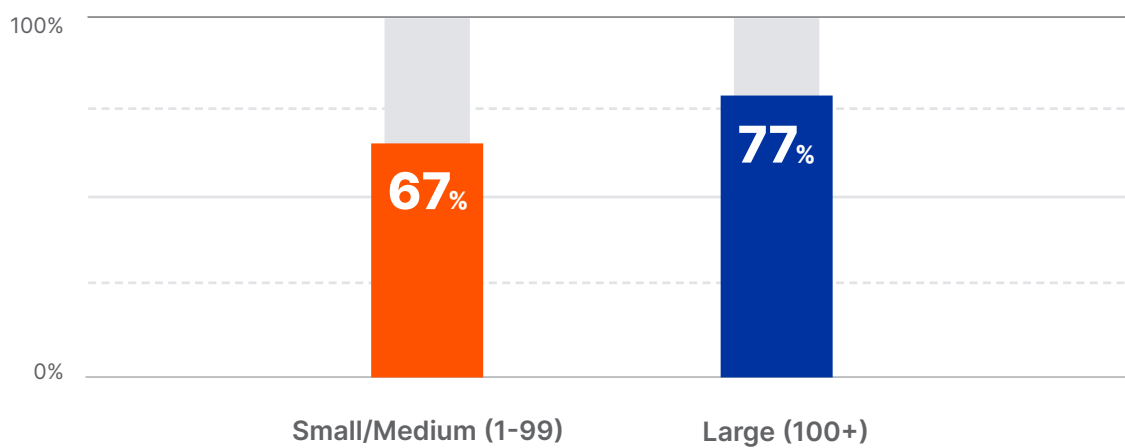
- + The likelihood of extreme weather events is increasing. The Auckland Anniversary Weekend flooding is expected to [cost more than \\$1 billion](#), surpassing the \$350 million in insured losses recorded in 2022, previously the [biggest year to date](#).

Construction Industry Sentiment Over the Next 12 Months (% Confident)

2022



2023



Top 5 Talent Troubles

01



51%

Lack of skilled or qualified candidates

02



45%

Difficulties bringing in skilled labour

03



44%

Not enough candidates applying

04



43%

Too much competition from other construction firms

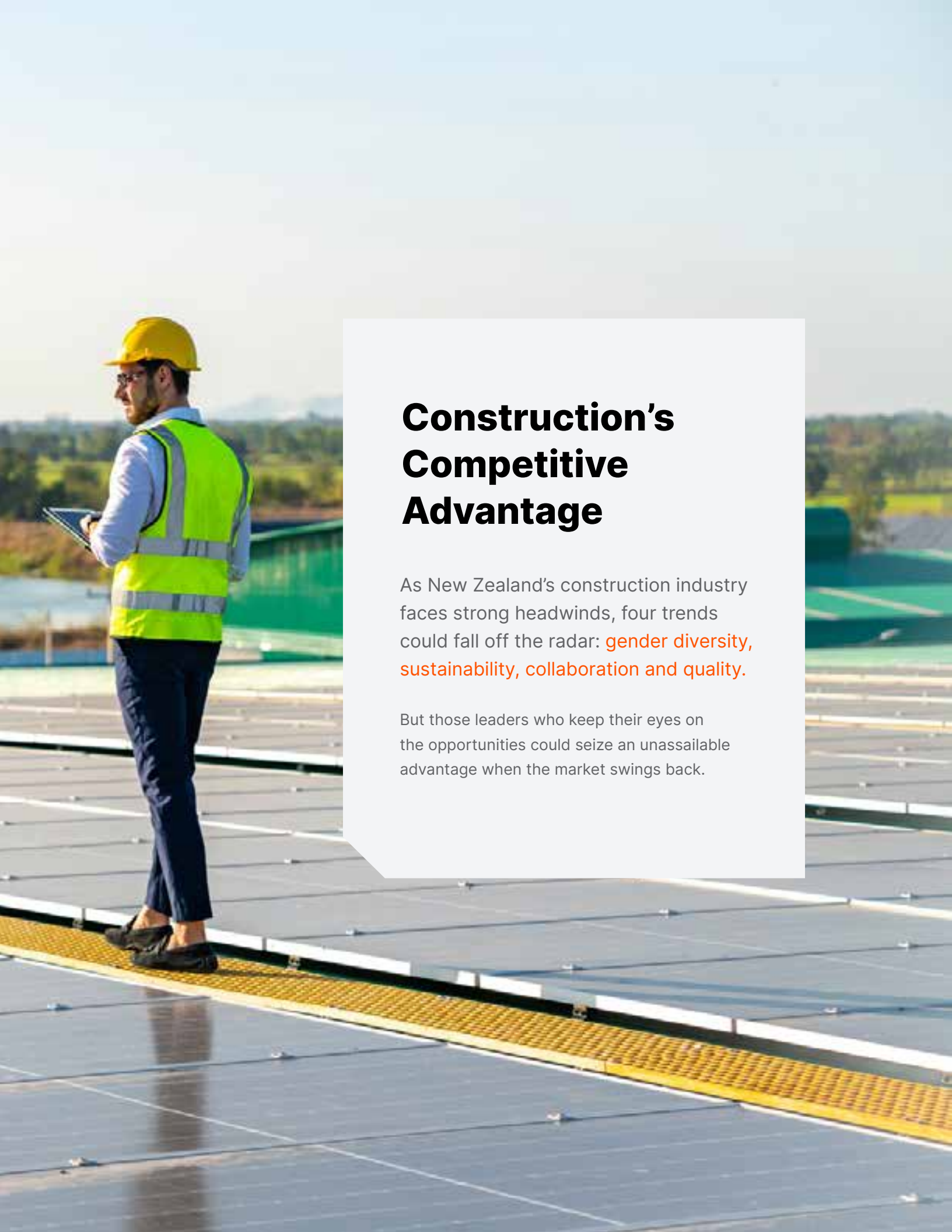
05



30%

Wage demands are too high

*The question was only asked to those who aren't confident they will have the necessary skills in the business over the next 12 months.

A construction worker wearing a yellow hard hat, safety glasses, and a high-visibility yellow vest over a light blue shirt and dark trousers stands on a solar panel array. He is holding a tablet and looking towards the left. The background shows a vast solar farm under a clear sky.

Construction's Competitive Advantage

As New Zealand's construction industry faces strong headwinds, four trends could fall off the radar: **gender diversity, sustainability, collaboration and quality.**

But those leaders who keep their eyes on the opportunities could seize an unassailable advantage when the market swings back.

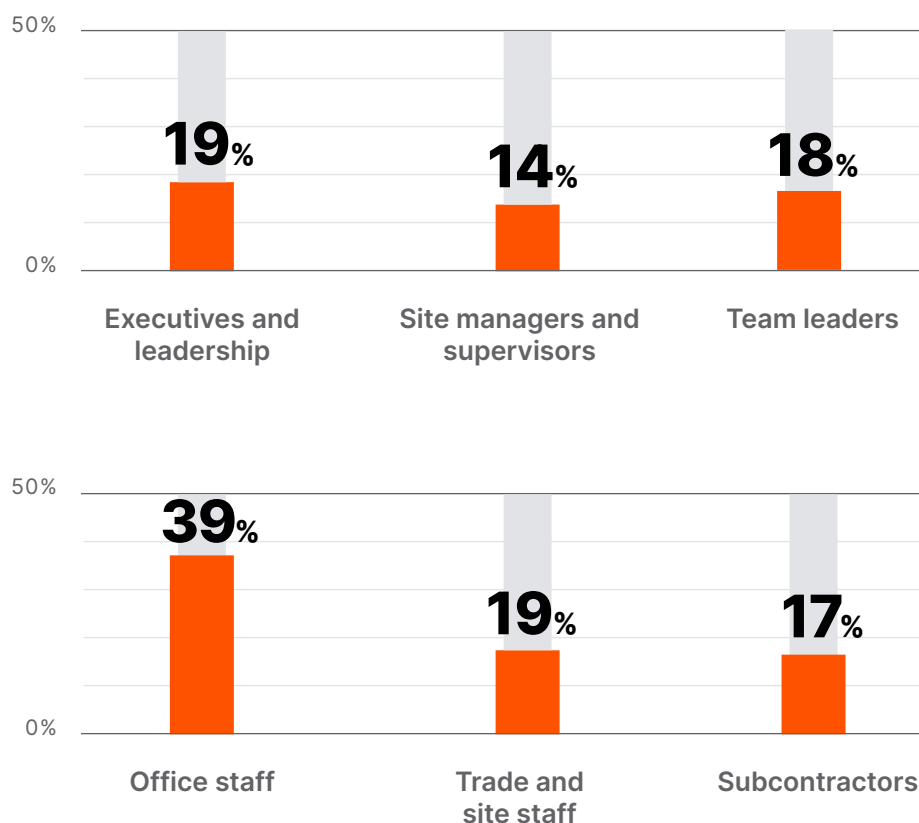
Gender Diversity

Despite the sustained effort of New Zealand's construction leaders to boost the number of women in the industry, female participation remains stubbornly low.

But the industry is coming together to drive change. [The Construction Sector Accord](#) is a collaborative forum between government and industry that is addressing systemic, long-term skills shortages by encouraging participation and inclusion of all people, in new ways.

Translating targets into real world teams could be an area of competitive advantage...

Proportion of Female Staff (Averages ^)



Sustainability

The 2022 Global Real Estate Sustainability Benchmark (GRESB) assessment, which covered \$13.62 trillion in real estate and infrastructure value worldwide, ranked Oceania, or New Zealand and Australia, first in the world for the twelfth consecutive year.

Sustainability has taken a backseat as existential challenges converge, but some survey respondents are levelling up to smarter, more sustainable practices...



Believe legislative changes and evolving client requirements are pushing the industry towards green buildings



Have started to focus on strategies like prefabrication and material selection to reduce project carbon footprints



Are using or planning to use carbon offset services in the next 12 months

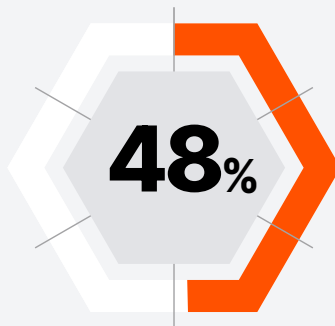


Collaboration

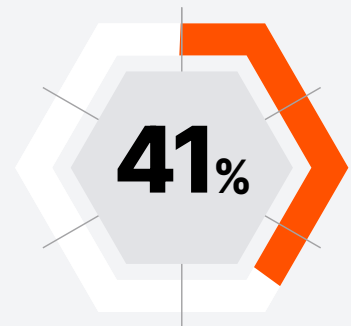
Collaboration means sharing information through a single source of truth. This helps construction teams to work more efficiently, access real-time reporting and forecast the future. When everyone uses the same information, the quality of data improves, leading to better decisions and a significant cohort of respondents agree...



Are looking to embrace greater collaboration among project stakeholders



Would make better decisions with access to information on project performance



Think digital working practices increase employee productivity and reduce lost time

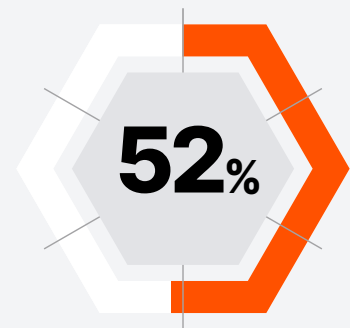


Quality

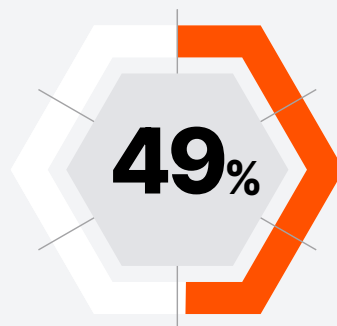
Recent changes to the building code, including [new minimum information requirements](#) for building products, aim to support more informed decision-making and drive uplifts in quality. A solid cohort of respondents to Procore's survey can see a commitment to quality can be...



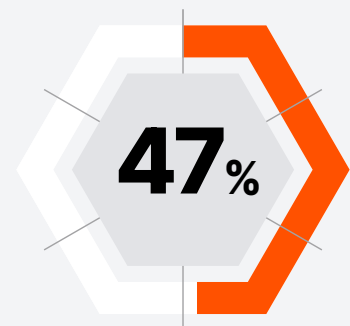
**A tool to strengthen
consumer confidence
and trust**



**A competitive advantage
that boosts reputations**



**A strategy to reduce
waste and enhance
sustainability**



**A pathway to increase
project margins**

Recognising the importance of these four priority areas is not enough. Businesses must actively invest resources to transparently track and report to reap the rewards.

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