

Sentiment

Infrastructure and buildings
construction survey

New Zealand 2021

Foreword

Thanks to everyone who participated in AECOM's 2021 Sentiment — Infrastructure and Buildings Construction survey. Year after year, this survey provides insights to help both public and private-sector organisations meet the challenges and opportunities of New Zealand's rapidly-evolving infrastructure and construction industry.

While we did not conduct the Sentiment survey in 2020 due to the coronavirus pandemic, this year's survey indicates marked improvement in industry confidence compared to 2019's results.

The ongoing coronavirus pandemic has introduced a new set of challenges, and emphasised the infrastructure industry's role in navigating those challenges. The improvement in confidence has likely been influenced by the New Zealand Government's ongoing commitment to increased infrastructure investment spend across the country, along with growing awareness of the frailties of our ageing infrastructure.

Optimism around delivery and investment for both the infrastructure and buildings markets continues to improve. That said,

a number of sectors have been severely impacted by the coronavirus pandemic. In sectors like tourism and leisure, there remains increased uncertainty around when workload and expenditure will accelerate.

Our international borders have been closed since March 2020 (with the exception of the stop-start trans-Tasman 'bubble' with Australia). As a result, the continued increase in infrastructure investment has resulted in many organisations struggling to find the skills and materials to meet demand. The current and future impacts of climate change on our environment and communities, meanwhile, when combined with the heightened awareness and embrace of Environment, Social & Governance (ESG) principles by organisations, present exciting opportunities for our industry to respond.

Across the survey, there is a strong theme amongst respondents about the need for clear leadership and certainty in the pipeline of work coming our way. With the government in its second term, we are seeing various reforms, including the Ministry of Health consolidation, the

Three Waters Reform Programme, and the Resource Management Act reform. While these reforms are a welcome step forward, it is important they do not distract us from the critical task of delivering on New Zealand's infrastructure needs.

This year, we have included articles from AECOM's regional and global leaders. These insights provide unique perspectives on similar challenges faced around the world, and drive conversation around how we can apply learnings to better deliver infrastructure in New Zealand. One article, by AECOM President Lara Poloni, formed part of our global Sustainable Legacies playbook. For those interested, the full playbook is available at publications.aecom.com/sustainable-legacies.

Craig Davidson

Managing Director, AECOM New Zealand

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The review

Industry optimism remains high across most of the country, both for the three-year infrastructure, and 12-month buildings market views. We're also seeing a significant boost in confidence in some regions, particularly in the infrastructure market. At the start of the coronavirus pandemic, few people would have held such a positive outlook. There remains a degree of surprise at some upward trends.

Driven by government investment

Local and central government investment programmes are driving expectations of strong growth, particularly in some horizontal infrastructure sectors. Following provincial growth fund investments, the government has committed billions of dollars to the New Zealand Upgrade Programme and economic stimulus through Crown Infrastructure Partners, and proposed further expenditure through the Three Waters Reform Programme, and housing acceleration fund. The resulting economic outlook is also encouraging commercial investment, particularly in the buildings market.

Optimism rebalances across the country

This year's data reveals an ongoing convergence of delivery expectations across our regions. While Auckland is the most optimistic when it comes to expectations, confidence across the rest of the country is also high, more so in infrastructure than buildings

construction. Confidence is driven by government policy to stimulate economic activity more evenly throughout New Zealand. We're also seeing an increased focus in social sustainability to stimulate regional economies, with central government requiring investment in local employment and materials suppliers where possible.

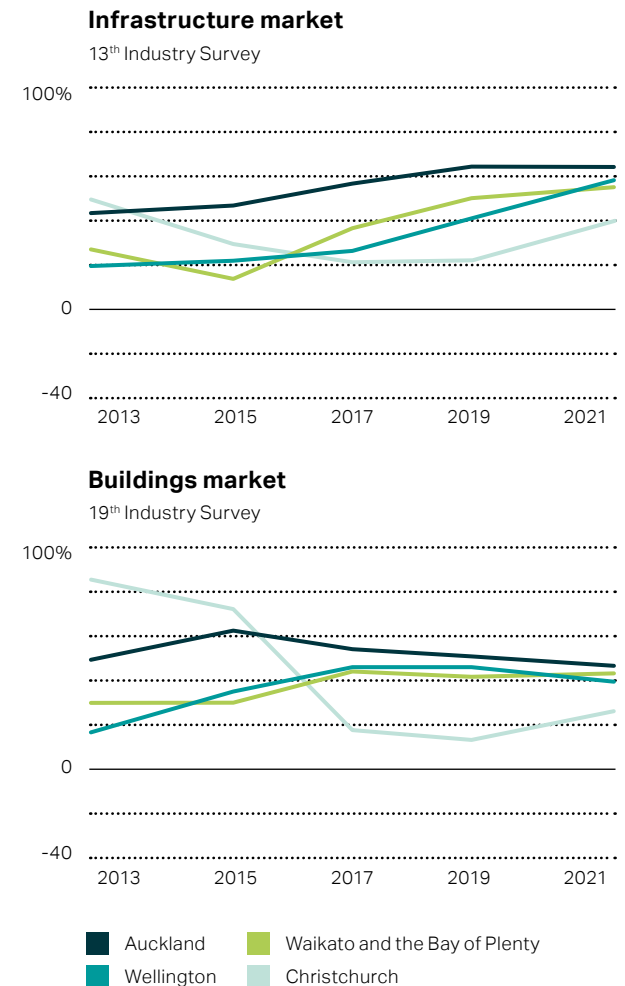
Decreasing expectations in some sectors

Despite what appears to be a levelling out or drop in delivery expectations in some regions, the industry is optimistic overall when looking at the break-down by sector (which can be seen on pages 7 and 11). The pandemic's impact in some sectors (such as tourism and leisure) has been hard-hitting, which has counterbalanced the growth in optimism seen in most other sectors. Given the pandemic's negative impact on aviation infrastructure and tourism, and leisure buildings work, the overall increase in optimism is all the more impressive.

Investment expectations tell a similar story

As we'll see in later sections, 71 percent of respondents expect infrastructure investment to increase over the next three years; a further 25 percent of respondents expect it to remain unchanged. In the buildings market, 72 percent expect investment to increase over the next 12 months, and 20 percent expect it to stay the same.

Delivery expectations trend



Key indicators

Delivery and investment expectations



Expectations for infrastructure investment remain strong

96 percent of respondents expect their organisation's infrastructure expenditure to increase or remain steady.



Increased optimism in the rail sector

55 percent of respondents expect greater investment in the rail sector.



Strong investment expectations in the residential buildings sector

25 percent increase in respondents who expect additional investment in the residential buildings sector.



Strong outlook for the buildings market

72 percent of respondents are expecting increased investment in the buildings market, with optimism reaching its highest since 2013.

Industry spotlight



Prioritise public transport and active travel

60 percent of respondents see improving public transport options and reliability, and active travel infrastructure as most important to improving New Zealand's transport systems.



Safeguarding people's health

70 percent of respondents see safeguarding people's health as the most important focus for water reform.



The need for certainty

52 percent of respondents see inadequate funding certainty or the lack of a clear vision as the biggest contributors to infrastructure delay.



Infrastructure market

Optimism has never been higher, with positive expectations in all sectors except aviation.

Investment and delivery expectation

Compared to 2019:

- an increased percentage of respondents see investment and delivery growing
- the percentage of respondents that see a decreasing pipeline has declined, particularly for delivery.

More organisations expecting increased investment

This year, 71 percent of respondents expect their organisation's infrastructure investment to increase over the next three years, up from 66 percent in 2019. Only 4 percent expect investment to decrease, compared to 5 percent in 2019.

Delivery market views show an even greater gain

Workload expectations have seen a further rise, with 83 percent of respondents expecting an increase, up from 76 percent in 2019. Only 3 percent are expecting a decrease compared to 8 percent in 2019.

A reflection of government intentions

Clearly, there's a very positive outlook for horizontal infrastructure investment

and delivery in New Zealand — likely a reflection of central government's ongoing commitment to infrastructure investment, particularly in response to the coronavirus pandemic.

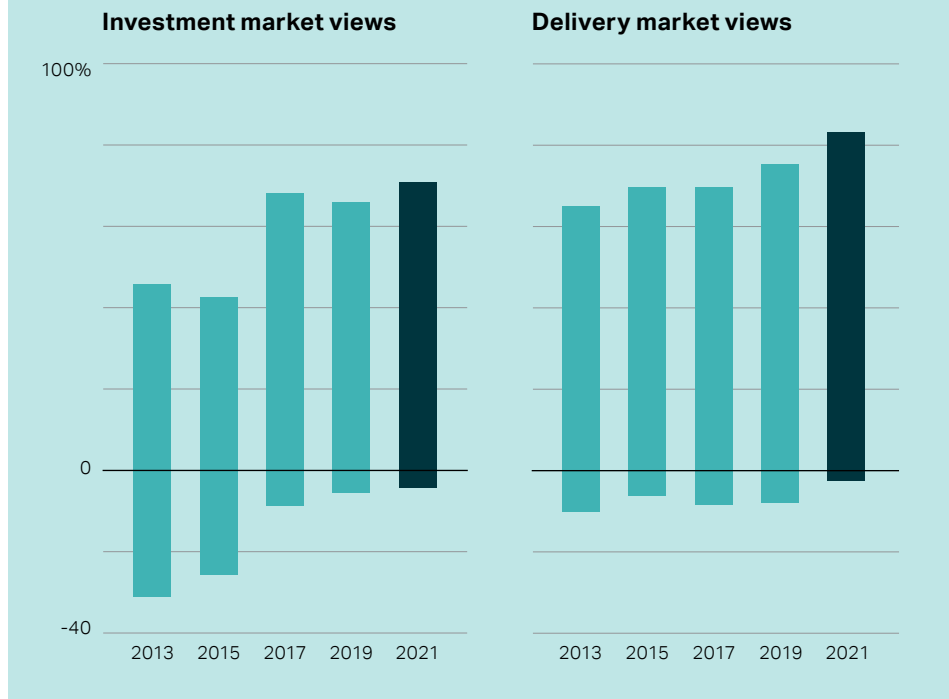
A new government and a fresh set of announcements

The 2017 coalition government raised expectations by announcing the provincial growth fund, KiwiBuild homes and Crown Infrastructure Partners. The current government continues this trend, but with a different set of announcements driving strong expectations of investment. These expectations include water reforms, decarbonising through alternative transport modes and renewable energy initiatives, better integrated transport systems, improving road safety, and increasing climate change adaptation expectations. Addressing New Zealand's housing crisis remains a core focus for this government.

Communication of intentions has improved

There's a general feeling that the government is doing a better job of announcing its intentions and communicating where it will invest; the New Zealand Upgrade Programme is a good example.

Infrastructure outlook



Note: These measures of improving or declining expectations represent the proportion of respondents' views on market direction — not the actual anticipated change in deliveries.

Delivery will be constrained by capacity

The infrastructure market is in an interesting stage; borders are closed, organisations are struggling to find skilled people, and market confidence in the amount of work ahead is clearly at its highest. However, without the people

to backfill roles or assign to projects, increased output is not assured. The resulting risk to successful delivery is likely to mean workload volumes will remain for longer than planned, though inflation may have an impact on the volume of future work.

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It's no surprise both the horizontal and vertical infrastructure markets are looking optimistic in response to increased government investment to fund New Zealand's infrastructure needs. With borders closed, this increasing demand is challenging the market, although it looks like volumes seen to date are only the tip of the iceberg.”

Chris Hemphill

Group Director – Buildings + Places, New Zealand

“

Security and safety issues are driving water reform in New Zealand — that means a 300% increase in water infrastructure spending each year on average for the next 30 years. Adding in climate change and RMA reform, it's an exciting time for the industry. It also means that the capacity to achieve is going to be stretched if not exceeded; requiring innovative solutions in financing, procurement and technology advancements.”

John Male

Water Sector Lead, New Zealand

Delivery by region and sector — infrastructure market

Compared to 2019, the percentage of respondents expecting an increased workload over the next three years has:

- increased in most regions for the water (three waters – stormwater, wastewater and potable water), energy and rail sectors
- halved for work in the aviation sector due to the tourism downturn caused by the coronavirus pandemic.

Water, energy and rail show overall gains

On average across the country, the water sector has the highest share of respondents expecting an increased workload. This reflects last year's launch of the Three Waters Reform Programme by the government. Compared to the 2019 results, optimism in the energy sector has grown, aligning with the government's increased focus on renewable generation. The rail sector has shown the highest average national gain, up from an average of 43 percent in 2019, reflecting the government's increased focus on rail as a way to improve safety and congestion, and contribute to decarbonisation goals. Land development remained

unchanged overall at 61 percent, while the telecommunications and road sectors declined only slightly to an average of 39 percent and 51 percent respectively.

Auckland and Northland

Within the upper North Island, rail continues to have the highest expectation of increasing workload, increasing slightly from 86 percent in 2019. This is influenced by the continuation of City Rail Link, the discussion of light rail transit in Auckland, and investment in a new link to Northport at Marsden Point. The most improved score compared to 2019 was in potable water, increasing to 85 percent.

Waikato and Bay of Plenty

Within the central North Island, the water sector shows high levels of optimism, growing significantly since 2019. There has also been an increase in optimism in the rail, energy and land development sectors. Optimism in new road investment has declined, down from 61 percent in 2019, with the government's focus shifting to road safety improvements, busways and cycle ways.

Lower North Island

In the lower North Island, there is a significant increase in optimism in the three waters since 2019, reflecting the government's proposed water reform and the highly publicised water infrastructure

failures of the past two years. These are now comparable to the rest of the North Island. Rail has grown to 68 percent, up from 47 percent in 2019, which is likely due to the Wellington metro and Wairarapa line upgrades.

Canterbury

In the Canterbury region, workload expectations in the water sector remain the most optimistic, although growing only by relatively small amounts since 2019. Rail shows a notable increase in optimism, albeit from a very small base of 8 percent in 2019. This may be due to the ongoing work and construction on KiwiRail's new maintenance hub in Waltham, Christchurch. Optimism has also increased in both road and energy.

South Island excluding the Canterbury region

Outside of the Canterbury region, optimism across most sectors has declined, notably in the road, aviation, and land development sectors. There has been a small increase in optimism in the rail sector, up from 18 percent in 2019, possibly reflecting the government's commitment to rail investment across New Zealand.

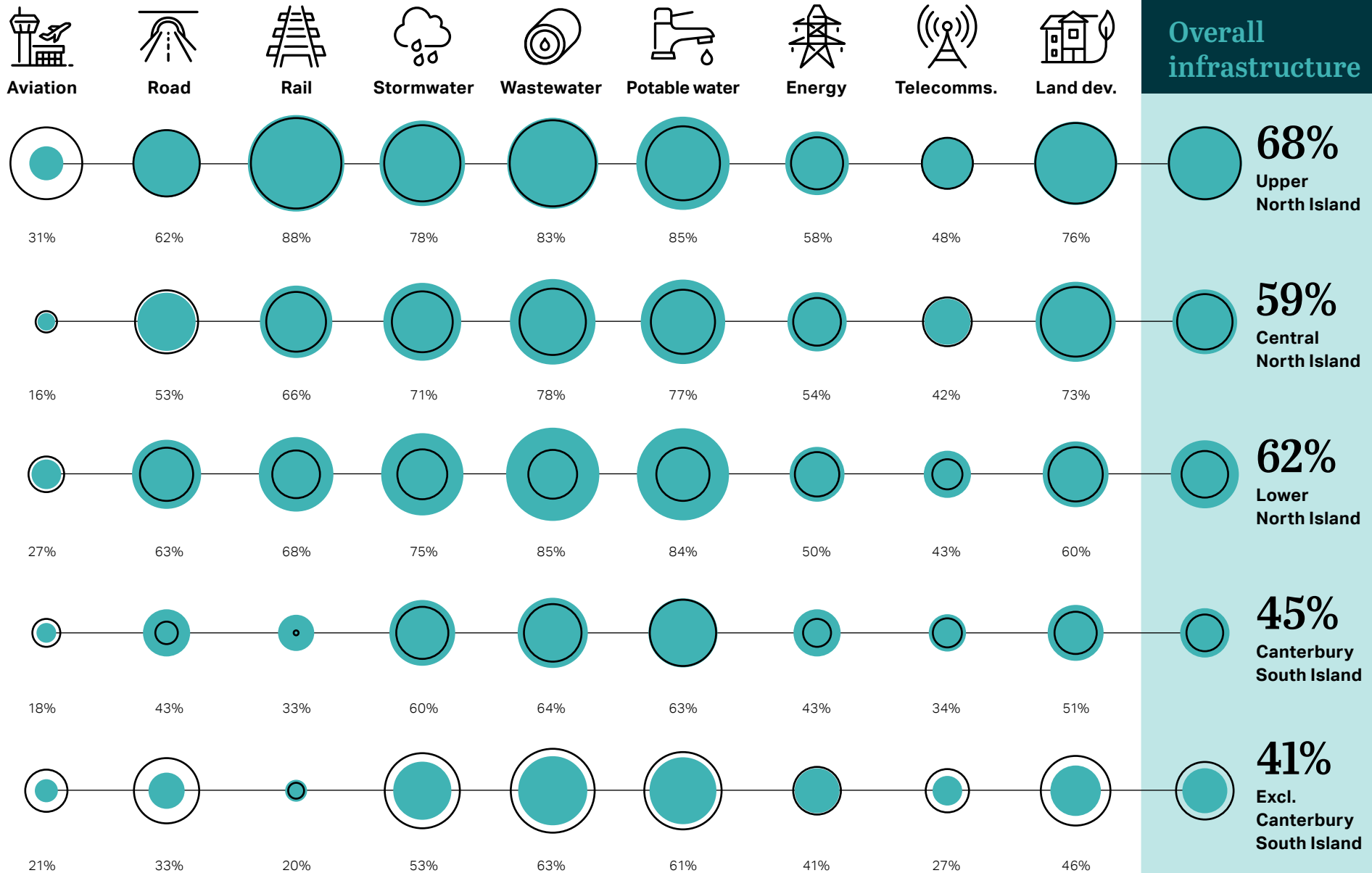
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It's an exciting time for the energy sector in New Zealand, with the government's commitment to 100 percent renewable energy by 2030 and a number of generation projects coming to market. Along with power generation, there will be work on transmission and distribution, as the national grid sees a significant increase in investment linked to growth in New Zealand. The challenge will now be where additional renewable energy transmission is built.”

Anant Prakash

Group Director – Energy, New Zealand

Proportion of respondents expecting increased investment by region



Note: Bubbles indicate the market optimism for growth over the next year. Black lines indicate the 2019 results.



Buildings market

Increased investment in residential, healthcare and education lifts optimism to new heights.

Investment and delivery expectation

Compared to 2019:

- a significantly increased percentage of respondents see investment and delivery growing
- the percentage of respondents that see a decreasing pipeline over the next 12 months has declined.

A record percentage expect increased investment

This year, 72 percent of respondents are expecting their organisation's expenditure in the buildings market to increase over the next 12 months, up from 56 percent in 2019 and a low of 32 percent in 2017. The share expecting less investment has declined to 7 percent, down from 9 percent in 2019 and 29 percent in 2017. This represents the highest level of investment optimism reported since the first Sentiment survey in 2013.

Delivery market views show a similar trend

Workload expectation has followed a similar path, with 72 percent of respondents now expecting an increase, up from 60 percent in 2019. Only 6

percent are expecting a decrease in workload, compared to 13 percent two years ago.

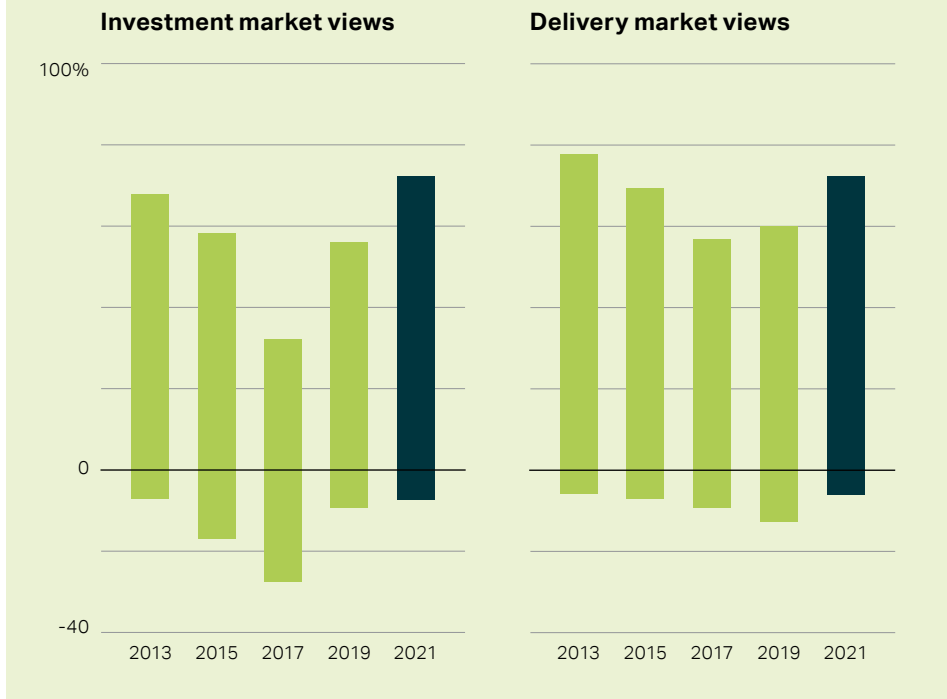
Driven by government and commercial investment

The buildings market has continued to see a strong pipeline of work. Boosted by increased government and continuing (although reduced) private investment, workload expectation is approaching levels seen during the Christchurch earthquakes recovery. The market is exceptionally busy, particularly in sectors like housing, education and healthcare, with most organisations pleasantly surprised at the level of continuity during the coronavirus pandemic. Of course, there are clear exceptions, such as the tourism and leisure sector.

The industry may struggle to meet demand

The significant rise in optimism around increasing workload is particularly positive for the buildings market. Clearly, organisations are expecting high demand. However, respondents' comments highlight the challenge of delivering the indicated level of work, unless national borders re-open to skilled people and the flow and availability of some construction materials improves.

Buildings outlook



Note: These measures of improving or declining expectations represent the proportion of respondents' views on market direction — not the actual anticipated change in deliveries.

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Despite the coronavirus pandemic and the potential for more lockdowns in the future, the buildings market is looking positive. Over the last year, we have proven that we can work efficiently within these conditions. This, coupled with increased spending planned across several areas over the next few years, means that overall the future looks good.”

Toby Bridge

Technical Director – Buildings + Places



Delivery by region and sector — buildings market

Compared to 2019, the percentage of respondents expecting a higher workload over the next three years has:

- increased in most regions for the residential, healthcare, education, and industrial sectors
- decreased in office, retail, and tourism and leisure sectors due to the coronavirus pandemic.

Overall expectations by sector

On average across New Zealand, the residential sector has the highest number of respondents expecting an increased workload, up from an average of 53 percent in 2019. This is interesting, given there is currently little to no immigration — possibly reflecting years of high demand that will take time to mitigate — or it's anticipated that immigration rates will bounce back once the borders reopen. There is notable growth in optimism across a number of sectors in the buildings market, including industrial, healthcare, education, and existing buildings refurbishment and maintenance. It's no surprise there has been a decrease in optimism in the office, retail, mixed-use, and tourism and

leisure sectors since 2019, reflecting the impacts of the pandemic. For example, many organisations are reassessing their commercial office needs, with the accelerated trend in adopting new and flexible ways of working reducing the need for traditional office space.

Auckland and Northland

Within the upper North Island, residential has had the highest increase in optimism, rising from 64 percent in 2019, due to the government's efforts to provide more affordable housing and address the Auckland's housing challenges. There is an increasingly-positive outlook in education and healthcare, as the government continues to invest in these sectors.

Waikato and Bay of Plenty

Within the central North Island, optimism in residential has increased significantly since 2019, now having the highest level of optimism. This has likely been influenced by a number of residential developments in the Waikato region. Overall, the buildings market is looking positive in the Waikato and Bay of Plenty. The only declines since 2019 were in mixed-use, which decreased from 47 percent, and tourism and leisure, which decreased substantially from 63 percent in 2019.

Lower North Island

In the lower North Island, industrial saw the largest increase in optimism compared to 2019, up from 27 percent. The healthcare and education sectors have also grown significantly, reflecting various school upgrades and ongoing work on the new Wellington Regional Children's Hospital. Residential now has the highest level of optimism in the region, increasing from 67 percent in 2019.

Canterbury

In the Canterbury region, residential has increased significantly since 2019 and has the highest level of optimism across the sectors. Christchurch house price growth is slow compared to the rest of New Zealand's major cities, and annual building consents have reached a record high, with several new residential developments likely fuelling this optimism. Industrial has also increased significantly, up from 22 percent in 2019, representing the sector's strong growth around Christchurch airport and Hornby.

South Island, excluding the Canterbury region

Outside of the Canterbury region, the one increase in optimism compared to 2019 is residential. Healthcare remains consistently high, reflecting the continued work on major hospital projects including the new Dunedin hospital. Optimism has

fallen substantially in public building, industrial, mixed-use, retail, office, and tourism and leisure. With the South Island being a popular tourist destination, the drop in optimism across these sectors compared to 2019 reflects the strong and ongoing impacts of the coronavirus pandemic on investment.

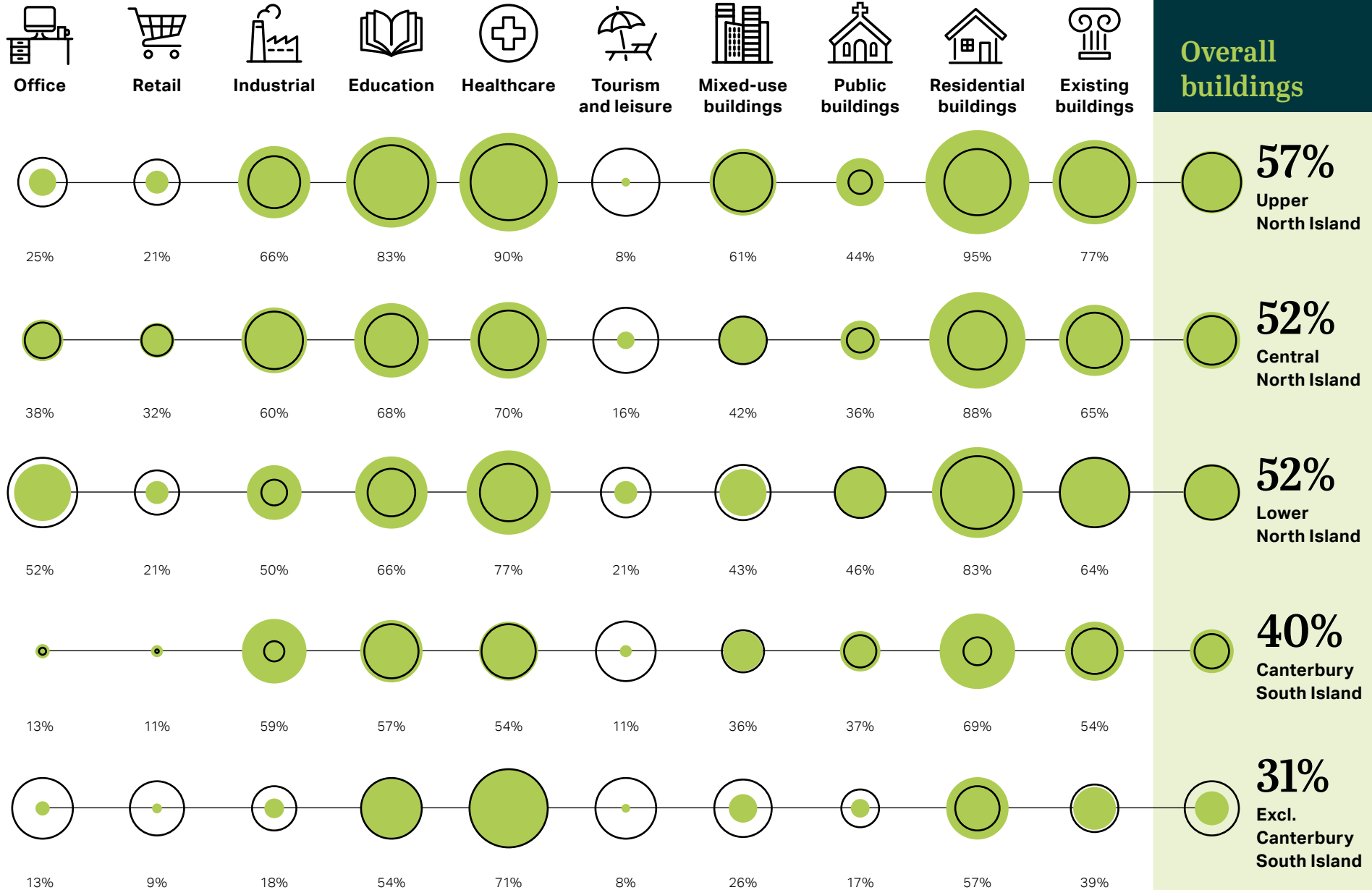


With increased optimism across the board in the residential sector, we look to see how quickly local authorities will be able to respond to consent processing in the first instance, and product substitutions as the coronavirus pandemic continues to affect supply chain and the availability of materials. The availability of a skilled workforce to service building projects may also impact cost and delivery timelines.”

Simone Sharp

Technical Director – Project Management

Proportion of respondents expecting increased investment by region



Note: Bubbles indicate the market optimism for growth over the next year. Black lines indicate the 2019 results.



Industry spotlight

Nationwide industry challenges

Overview

As in 2019, respondents point to skills and materials shortages as the primary industry challenge. With strict border controls in place, and continued uncertainty around how New Zealand will reopen to the world, skills and materials shortages have intensified and are unlikely to diminish in the short-term. Concerns about funding/cost escalation have reduced slightly, down from 28 percent to 25 percent. This is surprising, given increasing cost escalation pressures and the tightening of bank lending, but also suggests respondents see the current coronavirus related impacts as only short-term. The challenge of governance and regulations has only increased a little, suggesting inefficiencies in the systems and upcoming regulatory changes like the Resource Management Act reform are not seen as major challenges by the industry. Concern about global conditions has more than doubled, but is still low at 6 percent. The impact of new technology is once again down at just 2 percent; the growing application of digital innovations across industry suggests it's viewed more as an opportunity than a risk.

The main challenge

It's not surprising that respondents see the coronavirus pandemic continuing to impact the securing of quality talent in a competitive international market, and as a result, timely project delivery. There's more infrastructure to deliver and respondents report growing constraints on resources available to deliver the workload.

In most cases, lower-paid skilled roles are unable to secure a visa. For roles that do fit the income criteria, visa approval can take around six months. Many governments are engaging in stimulus programmes, so even though New Zealand's relative success in containing the pandemic makes us an attractive destination for skilled migrants, the country faces serious competition. In comparison to other nations, like Australia, New Zealand's lower salaries and high costs of living make it difficult to attract skilled talent.

Respondents believe the pandemic has impacted the materials supply chain, including logistics and shipping. Comments say the home-grown supply chain is inadequate for the construction sector, making New Zealand highly-reliant on imported supplies. Vertical

Top industry challenges

Skills and materials shortages

44%

Funding/cost escalation

25%

Governance and regulations

9%

Poor procurement

8%

Other

6%

Global market conditions

6%

Impact of new technology

2%

2021
2019
2017

44%

of respondents believe shortages in skills and materials supply is the biggest challenge faced by the industry, with the potential to stifle economic gains

infrastructure has been impacted by significant increases in the price of steel and concrete, and associated holding costs of programme delays.

Potential solutions

There is a call for consistency across respondents' comments. They want to see governance separated from political agendas in order to support ongoing infrastructure development. They also flag the need to fast-track the Resource Management Act reform and national policy direction. In addition, there's a desire for more collaboration between the Crown, local government and the private sector, particularly with Special Purpose Vehicle (SPV) and Public Private Partnership (PPP) agreements.

Strong leadership stands out as a requirement for progress. Comments indicate that better national direction will support clear and timely decision making and increase productivity. This will also help to avoid project blow-outs through smarter application of funding and financing tools.

Respondents suggest the solution to the skills shortage is multi-faceted — actively importing key workers, changing border settings to support the arrival of more skilled technician-level people, increasing training incentives, and addressing supply chain constraints. A clearly articulated plan is required to support the industry to move forward.

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The need to deliver large, complex project designs that enable efficient construction starts has accelerated the adoption of global working in a digital environment. On the design side, this enables us to overcome resource shortages and facilitates the transfer of knowledge and skills to local teams. However, having skilled people on the ground to deliver projects during the construction phase is a growing and complex challenge that New Zealand needs to address.”

Jon Varndell

Acting Group Director – Civil Infrastructure, New Zealand

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The continued uncertainty in relation to the coronavirus pandemic, the associated restrictions when recruiting from outside New Zealand, and the strong project pipeline across the Tasman have resulted in a lot of shuffling in the market, including losing talent to Australia. To ensure we retain our talent to meet the country's delivery needs, there is a continuing need to demonstrate a strong local pipeline of projects that are exciting and challenging.”

Sam Stringfield

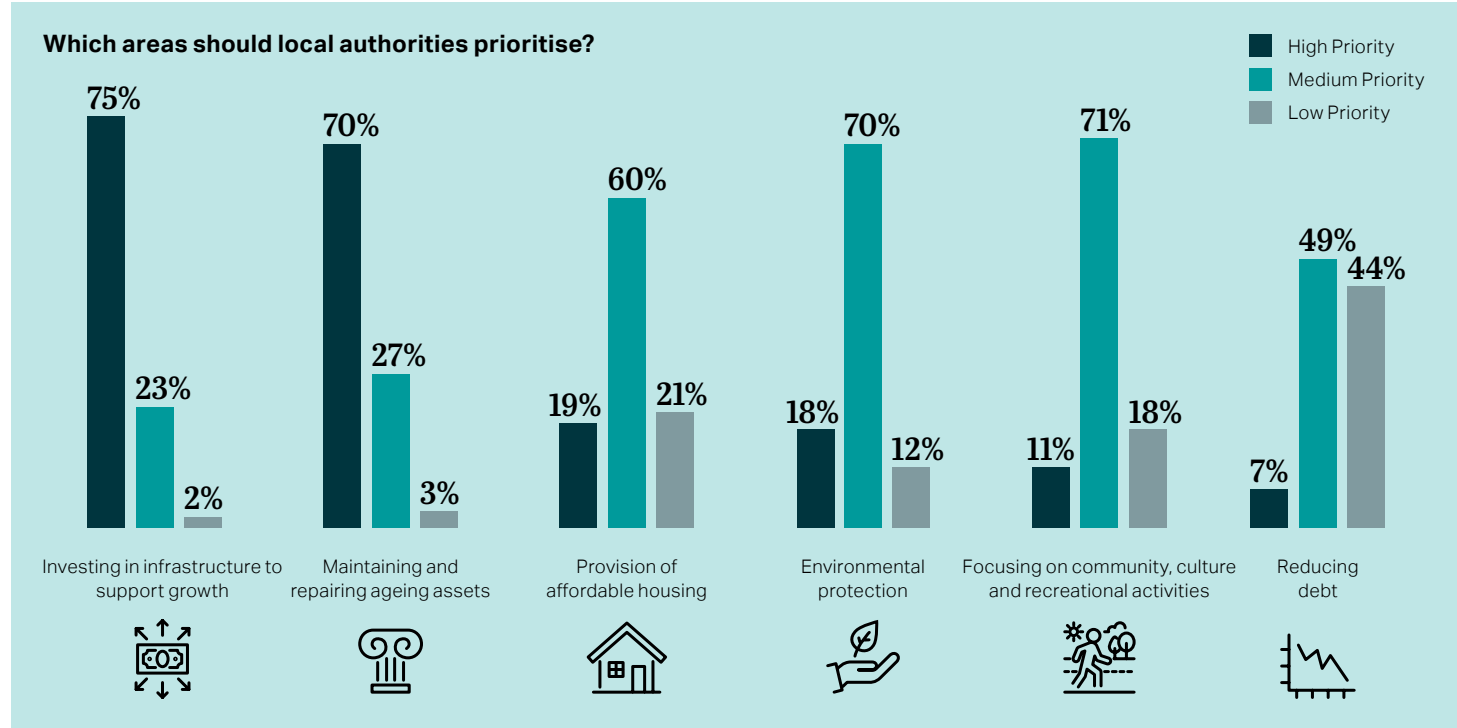
Technical Director – Transport

Local authorities

As New Zealand progresses through a period of growth, local government authorities across the country are seeing change — much of it driven by central government — including the establishment of the Resource Management Act reform, the Three Waters Reform Programme, and the National Policy Statement on Urban Development.

We asked our respondents to identify what areas local authorities should be prioritising. An overwhelming 98 percent of respondents identified investing in infrastructure to support growth as a high or medium priority for local government authorities. Similarly, the majority of respondents (97 percent) saw maintaining and repairing ageing assets as a high or medium priority, suggesting that local government authorities should focus more on the existing and new assets needed to accommodate expected growth in urban intensification.

In contrast, respondents see focusing on community, culture and recreational facilities as a medium or low priority.



Respondents believe local authorities should focus on building or maintaining infrastructure that is essential. For example, there should be an increased focus on fixing burst water pipes versus the 'nice-to-have' projects.

Provision of affordable housing is seen as a medium priority by respondents. Whilst this is also a programme driven by

central government, local authorities are essential for enabling affordable housing. Councils set zoning rules, development contributions and infrastructure investment. They also set standards for urban form and process consents.

With the shift in responsibility of programmes such as the Three Waters Reform, Resource Management

Act reform and the National Policy Statement on Urban Development to central government, there is a need for local authorities to prioritise their core infrastructure delivery requirements and ensure they have access to the required skills, funding and resources. Despite the drive from central government, local government must and will continue

to play a vital role in the successful implementation of these programmes, ensuring our communities are equipped with essential infrastructure to support the national growth.

Strong leadership is required, and with the future of local government under review alongside the initiation of various programmes, we can expect to see priorities change over the next few years.

98%

of respondents identified investing in infrastructure to support growth as a high or medium priority for local government authorities

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Water reform, Resource Management Act reform, National Policy Statement on Urban Development and delivering on climate change will be significant drivers of change for the local authority sector over the next three years. The sector will need to grapple with these changes while also delivering increasing investment in core infrastructure and services to the community. Those that partner and collaborate early will be best positioned to secure finite skills and resources in these COVID-constrained times.”

James Bevan

Area Manager – Waikato and Bay of Plenty



Unlocking the benefits of infrastructure investment

Ken Bagget
Industry Director – Rail, Australia New Zealand

Infrastructure has a role to play in helping the economy recover from coronavirus. Given the scale of disruption, we have an obligation to see taxpayer funds used as effectively as possible. We need to seize the opportunity to fix issues that have long been ignored.

In times of crisis, government often turns to infrastructure to stimulate economic recovery. Throughout 2020 – a year of constant crisis – infrastructure investment was again recognised as a way of maintaining economic activity and protecting jobs. This led to governments across Australia increasing spend on existing projects and finding additional funds to bring new projects to market sooner.

Importantly, throughout the pandemic, project staff were classified as essential

workers, enabling the design and construction of major transit projects to continue at pace. This shored up sector confidence, protected jobs and softened the financial impact of lockdowns.

Success throughout 2020 served to highlight and, in many cases, exacerbate pre-pandemic challenges relating to shortages of talent and materials, risk imbalances and pipeline uncertainty. All these factors contribute to cost overruns, project delays and capacity concerns.

While small cost overruns on small projects can be challenging, today we are in the era of the 'mega' transport projects (those costing NZ\$1 billion or more), where overruns account for hundreds of millions, if not billions, of dollars.

According to the Grattan Institute report, 'The rise of megaprojects: counting the costs', Australian governments are committing to a record number of 'mega' transport projects, exposing taxpayers to 'mega' risks of cost blowouts. Ten years ago, there was just one transport

infrastructure project in Australia worth more than \$5 billion. Today there are nine, and costs have already blown out by AU\$24 billion on just six of them.

Over the past two decades, Australian governments spent AU\$34 billion more on transport infrastructure than they originally planned to. That equates to three times the AU\$11.5 billion annual Federal Government infrastructure spend committed to in the 2020-21 budget.

As vaccination rates increase and economic disruption dissipates, the onus is on our industry to ensure that the investment unlocks as much potential as possible. To do this, we need to fix long-term structural issues impacting confidence, productivity and efficiency, or face the prospect of infrastructure investment and delivery continuing to underperform and constrain long-term economic growth.

Two long-running issues, exacerbated by the crisis, have been identified, which threaten to curb the benefits infrastructure can bring.



Key reasons behind the recruitment difficulties for civil engineers
(percentage of applicable business who agreed)

- Lack of applicants with the experience needed
- Lack of applicants with the technical skills needed
- Coronavirus impacts
- Lack of applicants with the soft skills needed
- Location concerns
- Remuneration concerns
- Lack of applicants
- Workload demand concerns

Original source: Consult Australia

Talent constraints

The road and rail industry faces significant talent shortages, which are expected to drive up wages in the next 12 to 18 months. Some of the most challenging roles to fill are essential to project delivery, and the inability to source overseas talent may cause delays. Typically, global engineering professionals are very mobile, but caps on international arrivals and restricted quarantine capacity make it extremely difficult to access this talent pool.

According to a December 2020 survey by Consult Australia, the industry body that represents design, advisory and engineering businesses in Australia, the main challenge is the lack of experienced and qualified individuals available in the local talent market.

It is standard practice on large transit projects to recruit international technical experts to support, train and develop the specialist local capability. Given the number of complex metro projects in the works across Australia, there are shortages of skilled people with experience in rail systems, underground station design, tunnelling, construction and project integration.

The ongoing restrictions on international travel contribute to a lack of talent that threatens the delivery timetable for the current pipeline of major projects.

The domestic engineering and construction workforce — and particularly those skills across road and rail — will also

see their value soar as the market fights for talent; significant wage inflation will be the result.


Unsustainable delivery risk

Many of the largest contractors based in Australia are at, or nearing, capacity. They are facing the same talent shortages and are increasingly likely to decline to bid major new projects as a result of the increasing risk burden under certain procurement models.

These issues contribute to a lack of competitive tension in the marketplace; project costs are driven up, commercial models require adjusting, and project delays are the result.

Encouragingly, there has been a return to more collaborative, alliance-style contracting models in many jurisdictions, which is perhaps a recognition of these models' effectiveness in procuring most of the mega metro and transit projects. That said, the transit industry thrives on certainty, and presently there is a lack of it across three main areas:

- **Certainty of delivery model:** considering the length of time mega projects take to be scoped and procured, providing certainty to the industry about the commercial model is likely to create more competitive interest from the market, and a better outcome for the taxpayer
- **Certainty of timing:** enhanced pipeline visibility allows better resource planning



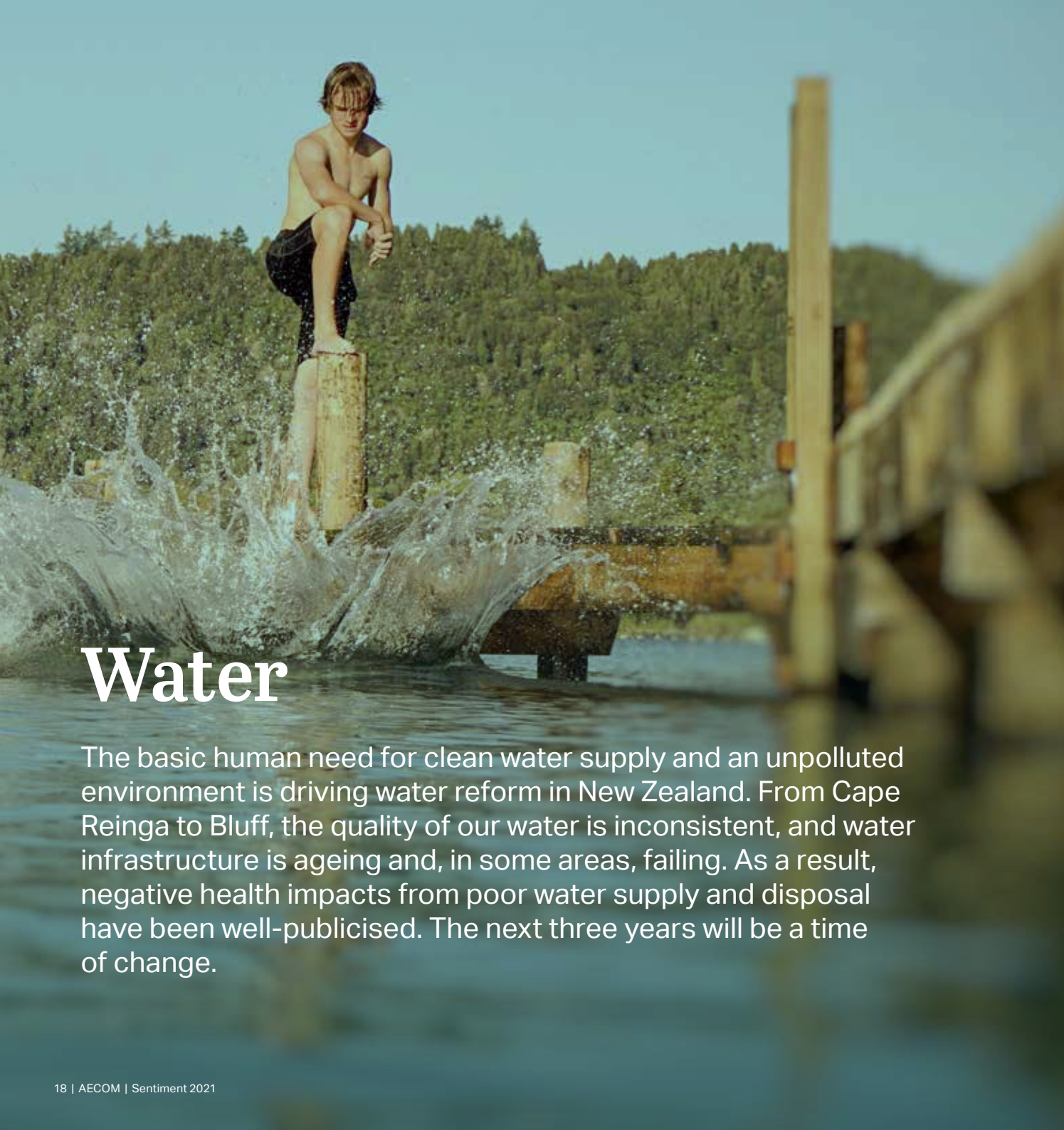
Without the skilled workforce to deliver these infrastructure projects, and without the certainty of robust delivery models or pipeline visibility, the positive impacts of additional infrastructure investment may not be realised.

- **Certainty of design:** a detailed and rigorous reference design can help respondents better understand and manage risks they are expected to own. With more certainty — projects can be delivered with more confidence.

But without the skilled workforce to deliver these infrastructure projects, and without the certainty of robust delivery models or pipeline visibility, the positive impacts of additional infrastructure investment may not be realised.

Collaboration is the key

Governments across Australia are committed to delivering an infrastructure pipeline to meet the post-pandemic challenges, and in turn support jobs that sustain economic recovery.



Water

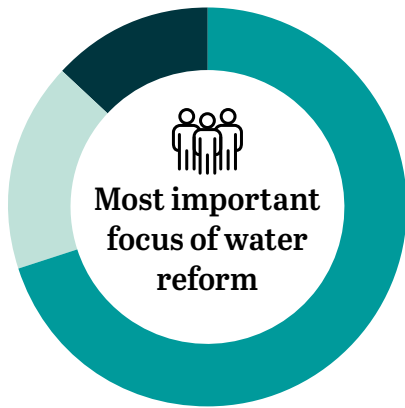
The basic human need for clean water supply and an unpolluted environment is driving water reform in New Zealand. From Cape Reinga to Bluff, the quality of our water is inconsistent, and water infrastructure is ageing and, in some areas, failing. As a result, negative health impacts from poor water supply and disposal have been well-publicised. The next three years will be a time of change.

Since 2019, there has been a lot of movement in the water sector, especially with the announcement of the New Zealand Government's proposed Three Waters Reform Programme. This programme involves the establishment of four publicly-owned entities, which will be responsible for ensuring three waters (stormwater, wastewater and potable water) infrastructure and services are planned, maintained, delivered, affordable, and fit-for-purpose.

The proposed water reform will offer different advantages and disadvantages across the country, from repairing and maintaining the required infrastructure, to lowering average costs per household. The focus of water reform can be divided into three objectives — safeguarding people's health, safeguarding the environment, and minimising costs. We asked respondents which outcomes should be prioritised as a result of water reform.

Protecting the population's health and the environment

The majority (70 percent) of respondents named 'safeguarding people's health' as the most important focus of water reform. This is a 5 percent increase on 2019. While this concern for the nation's health is understandable, it's alarming that so many respondents feel health is insufficiently safeguarded. Health is firmly linked to the quality of water supply and water treatment, but it's also connected to wastewater and stormwater systems — ensuring they don't overflow into



- **70%** Safeguarding people's health
- **17%** Safeguarding the environment
- **13%** Minimising costs

70%
of respondents named 'safeguarding people's health' as the most important focus of water reform

rivers and harbours and result in contact health risks.

While safeguarding the environment only received 17 percent support, it is clear that measures taken to protect health, like preventing wastewater outflows to harbours, would also benefit the environment.

Keeping costs under control

Water reform comes at a cost. The low number of respondents, 13 percent, naming cost control as the most important focus, indicates that health and environment take priority over saving money.

Local knowledge versus best practice

There are diverging views on the Three Waters Reform Programme, and how to ensure the right balance between local control of local systems and having a more centralised and structured water system. Within the context of the proposed water reform, we asked respondents to comment on the importance of local representation and knowledge versus access to the best skills and best practice approaches. The majority supported best skills and best practice, but there was also a strong belief that both approaches are required for success. Shortage of technical skills is quickly becoming a significant problem for the water sector. The rapid growth in investment is far outweighing the availability of skilled people. Typical comments included:



"I would weight actually having expertise and best practice over their origins every time. Three waters is our most critical infrastructure by definition (we die without water), so the romance of local representation is less important than getting the best technical solutions in play as efficiently as possible."

"Local authorities have been found wanting across three waters services repeatedly. I support a centralised system accessing best practice and best skills."

"Local representation and iwi representation in governance are important. But the boards of water entities also need to be highly skilled and not dominated by short-term political drivers."

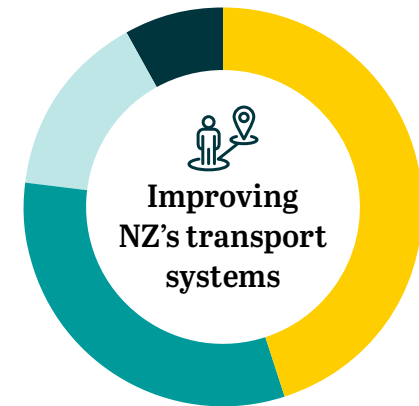
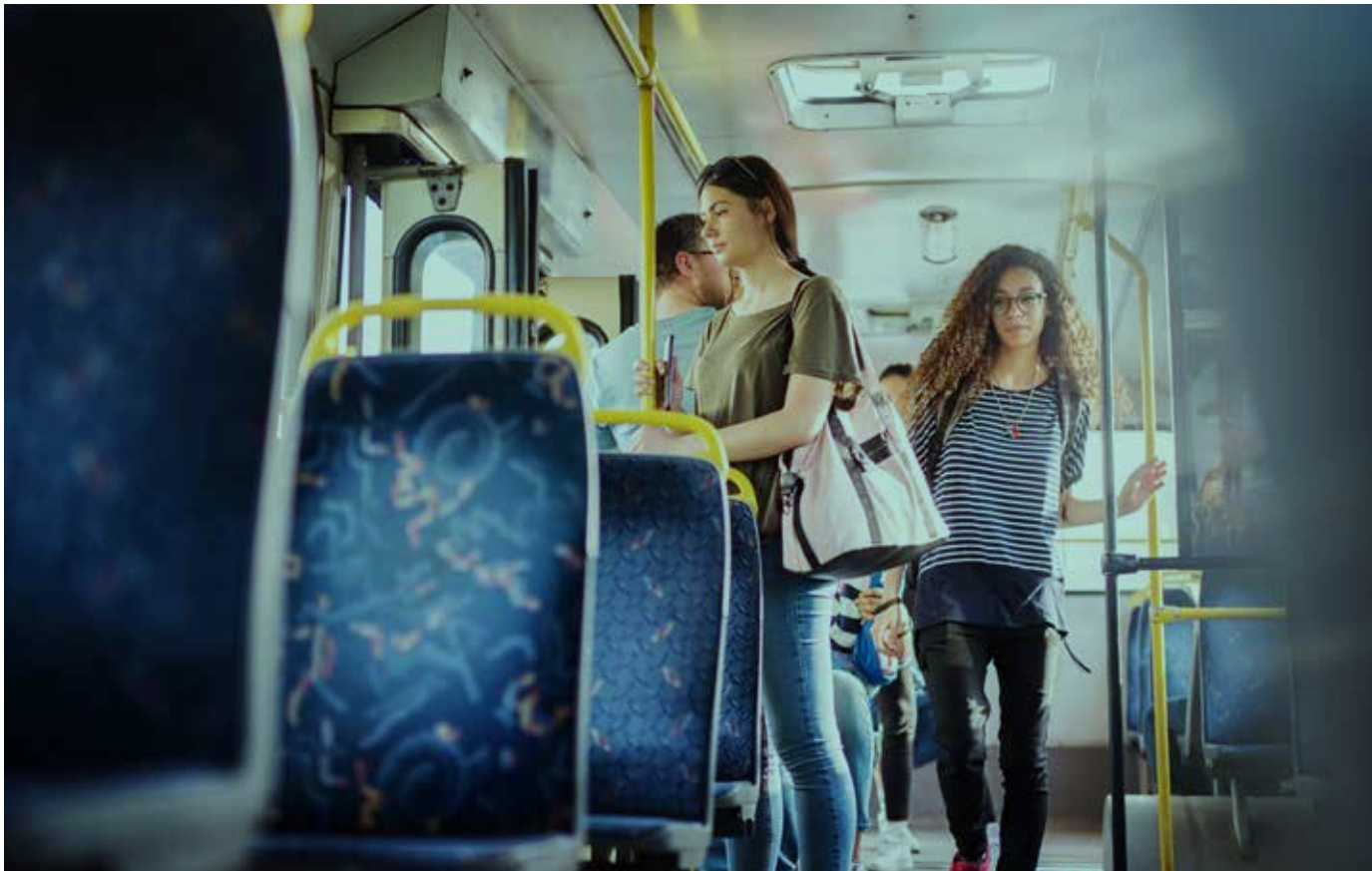
"There is a need for both. A model with central experts (construction, engineering, consents) and regional expertise (maintenance and operations) is possible."

“

The three waters review of the performance of the water sector has put a spotlight on what many working in the sector have known for a while. It's encouraging that this message has been heard by the government. But more importantly, positive change appears to be on its way in this once-in-a-generation reform.”

Deborah Lind

Technical Director – Water Advisory Sector Lead, New Zealand



- 45%** Improving public transport options and reliability
- 32%** Reducing traffic congestion/ journey times
- 15%** Improving infrastructure for active travel (walking and cycling)
- 8%** Improving resilience of infrastructure from unplanned events

Public transport as hero

When asked which area is most important to improving transport systems, nearly half of respondents (45 percent) see improvement in public transport options and reliability as the top priority. This is consistent with the government's policy statement on land transport that promises the delivery of 'public transport and active modes that are more available and/or accessible by 2031'. Around a third (32 percent) of respondents believe the main transport focus should be on reducing traffic congestion and cutting journey times. This could be viewed as the logical result of improving public transport and optimising our existing transport infrastructure.

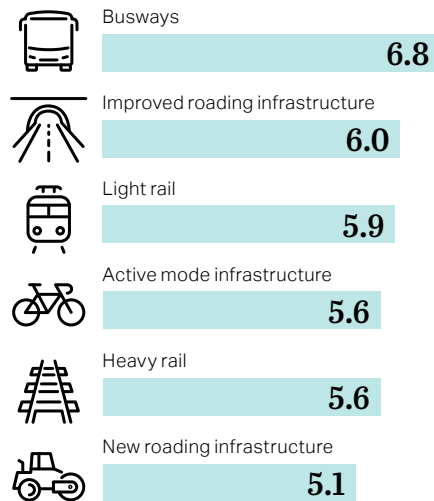
Transport

Improving New Zealand's transport systems continues to be a major focus as the population grows. Since 2019, the sector has progressed through a period of significant change, and as priorities shift and objectives broaden, the transport sector faces a new set of challenges.

Traffic management solutions

Each presented traffic management solution was ranked by respondents, based on its suitability for solving New Zealand’s mobility issues. Area/cordon charging and corridor/route charging were seen as the most suited. Compared to 2019, a higher number of respondents see an increase in emissions charging as a viable solution, consistent with growing awareness of climate change impacts. Support for fuel taxes and distance-based pricing have increased slightly compared to 2019. The lowest level of support was given to ‘none’, which indicates respondents are in favour of introducing another kind of mechanism to solve mobility issues in several of New Zealand’s major cities. This finding also reflects ongoing conversations about whether congestion pricing or a cordon

Solutions for mobility



charge should be introduced in Auckland or Wellington in coming years.

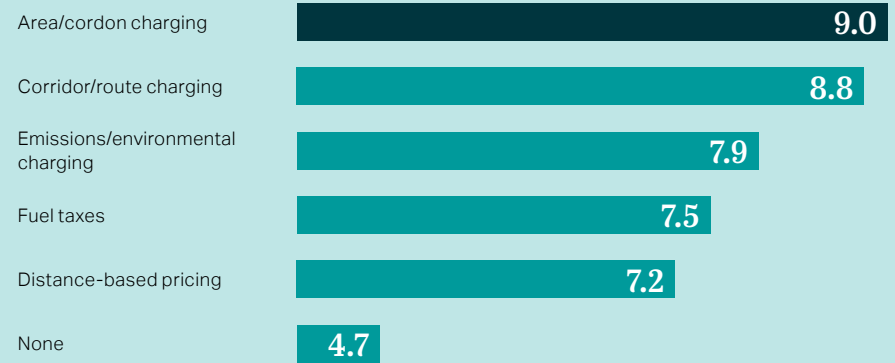
Integrated transport systems are needed

We asked respondents to rank transit methods in terms of their ability to deliver the best outcomes. Interestingly, there is no significant difference between each mode of transport, indicating that the integration of multiple modes of transport will help address many of New Zealand’s mobility issues. New roading infrastructure has ranked the lowest, as the transport sector shifts its priorities away from private vehicle usage towards public transport and carbon-friendly alternatives such as active mode infrastructure.

Moving away from private vehicles

Interestingly, 15 percent of respondents see improving active modes (walking and cycling infrastructure) as important. We know this is a growing priority for Waka Kotahi NZ Transport Agency and other organisations. Apart from the convenience and health aspects of active travel, this level of support reflects growing awareness about the environmental impacts of greenhouse gas emissions. If you add public transport and active modes together (60 percent of respondents), there’s a clear trend supporting the transition away from traditional private vehicle transport. Improving resilience of infrastructure from unplanned events is seen as a low priority, with just 8 percent support.

Traffic management solutions



There is an unprecedented opportunity ahead for the transport infrastructure industry, where both public sentiment and government policy and investment appear to align. With strong support for investment in public transport and active modes, and optimisation of existing state highway infrastructure, the prospect of yielding social, economic and environmental outcomes has the ability to shape New Zealand’s future for generations.”

James Koudounis

Client Account Manager – Waka Kotahi NZ Transport Agency



Integrated, multi-modal transport systems to address the complex urban challenges of New Zealand cities

Roger Jeffries

Technical Director – Transport Advisory, Australia New Zealand

Modern, integrated, functional transport systems are crucial for New Zealand's cities to thrive. Too often, transport system investment has sought to solve a transport-specific problem and been less focused on enabling delivery of the city's long-term strategic vision. Transport is an enabler of good city form and function — if not well planned and integrated, it can harm the city's ecosystem.

Today, New Zealand's cities, particularly Auckland and Wellington, are facing complex urban challenges that are putting immense pressure on communities, the environment, housing, and urban infrastructure. As a result, there is an increasing demand for space and infrastructure, as well as for the services required to meet this demand.

Globally, cities are adopting multi-modal, integrated transport systems to create safe, resilient, and well-connected transport options for people to travel across different modes and at different times. These systems not only move people from one place to another (or to many places) efficiently, but also enable housing opportunities, improve liveability, and create a platform for thriving, productive cities. Major cities like London, Toronto, and Hong Kong have some of

the best transport systems in the world, integrating different modes to move people efficiently while minimising the use and need for private vehicles, especially in city centres.

Multi-modal transport systems around the world

Bordeaux, a city of comparable size to Wellington, adopted a multi-modal transport system approach focused on an initial mass transit spine, and

growing a mass transit network through the introduction of light rail. Similar to New Zealand, the aim in Bordeaux was to support the future development of the city, reduce traffic congestion and reliance on private vehicles, improve sustainable travel options, and allow for improved urban amenity and placemaking.

The light rail network functions as a people mover for trips between the city centre and other destinations and networks. Bus networks feed into light

rail stations and transport passengers to and from the outlying areas of Bordeaux. Around the stations, significant investment in active transport amenities — including pedestrian space, urban realm, cycle paths and secured bicycle parking — further connect people to the public transport network.

The successful integration of these modes into the transport system has seen a significant increase in public transport mode share. Public transport is now the preferred travel option, and the light rail network moves over 200,000 passengers into the city centre every day, more than any other mode of transport.

The Sydney Metro North West line further demonstrates the benefits of a well-integrated multimodal transport system. While the line transports 15,000 passengers an hour in each direction, the new station precincts in rapidly-developing suburbs have become destinations themselves, enhancing the urban character of local neighbourhoods and creating places where people want to live, work and socialise.

In Bordeaux, the light rail network has further enriched the city centre by increasing pedestrian activity, supporting land release and urban growth, and enhancing its built form and public spaces.

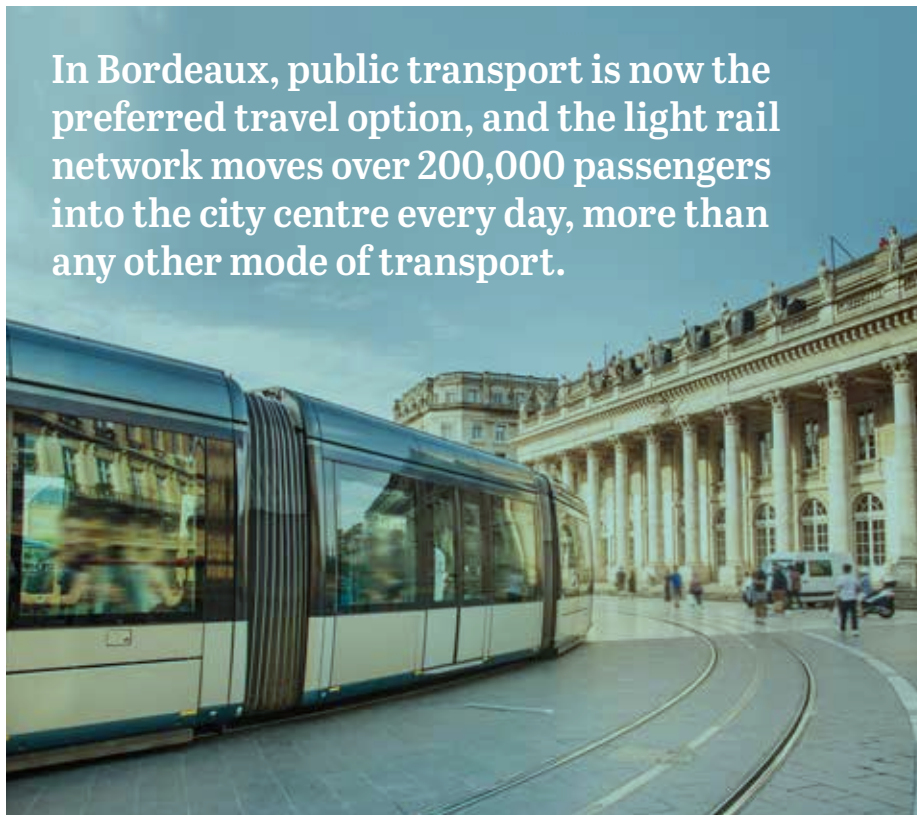
What will multi-modal transport mean for New Zealand's cities?

Integrated, multi-modal transport systems are rapidly evolving across New Zealand's cities through programmes like Let's Get Welly Moving and Auckland Light Rail.

To reap the benefits of the Auckland Light Rail project, good planning is needed to ensure the core public transit spine is integrated with existing and future public transport networks. The project will also need to serve and enable centres for urban regeneration, including areas that form Kāinga Ora's Auckland Housing Programme, and provide opportunities for placemaking and mixed-use development along the corridor.

The success of Let's Get Welly Moving depends on ensuring investment in the right infrastructure and services, with the right modes, at the right time. Mass transit is at the core of the programme and, if the right balance is struck, people will choose to use public transit and active modes of transport, leading to reduced congestion in the city centre and enhanced liveability and productivity.

New Zealand cities need strong, integrated multi-modal transit systems to address key urban challenges. By building the right infrastructure supporting the right services, new options and benefits will be unlocked, people will embrace public and active transport, and the cities will become even more desirable places to live, work, play in, and visit.



In Bordeaux, public transport is now the preferred travel option, and the light rail network moves over 200,000 passengers into the city centre every day, more than any other mode of transport.



Housing

New Zealand's growing population and demand for housing is increasing pressure on housing supply. While Auckland and Tauranga are known for becoming increasingly unaffordable, many other major cities across New Zealand are catching up as house prices and rents rise faster than income levels across the country.

There is no denying New Zealand is in the midst of a housing crisis. It has been building for over a decade, but it has worsened significantly since the coronavirus pandemic. A number of existing challenges — such as the high cost and limited availability of materials, skill shortage in the construction industry, and regulations constraining urban supply — have been exacerbated through record low interest rates and a faster than expected economic recovery.

All these challenges impact more than just house prices. Rental prices are increasingly significantly year-on-year, tenants have limited protection, and the quality of many rental properties remains substandard.

Our survey asked respondents to rate the importance of nine factors that could help New Zealand tackle its housing challenge. The overall sentiment from respondents is to invest in quality, ensure good governance around permitting and approvals processes, and cater for different community needs. There is a relatively even spread across the options, suggesting a combination of approaches is required to remedy these issues and pull New Zealand out of this crisis.

High-quality urban living

Survey respondents identified the importance of high-quality urban intensification, including the need for greater emphasis on increased density around transport nodes. Clear concerns were expressed about the quality of

buildings, such as ‘poor quality options that leak health, energy and carbon’.

Our ability to deliver high-quality urban environments that are liveable, and meet the needs of inner-city inhabitants, will be of central importance as our main urban centres implement the new National Policy Statement on Urban Development.

Streamlining the process

Fast-tracking consents, easing planning restrictions and increasing the availability of land received similar amounts of support from respondents. This indicates that streamlined and efficient regulatory processes are needed to meet demand; however, these processes should not hinder the quality of the housing options delivered.

The Resource Management Act overhaul is seen as a facilitator for accelerating progress. However, there is concern amongst respondents that some housing solutions could present environmental risk. (i.e. the use of available land).

Responding to market needs

Respondents who ranked greater diversity in housing sizes and increased first-home-buyer assistance highly are pointing to the needs of the market — New Zealand’s population is ageing, resulting in different long-term housing needs. There is increased acceptance of smaller, high-quality dwellings, which are a valuable addition to our traditional larger format housing stock. The concept of regulating a proportion of affordable homes ranked as a low priority factor.

There was also a call to continue formally investigating quality prefabricated housing, which is one option to ease the housing shortage, speed up building, and bring down prices.

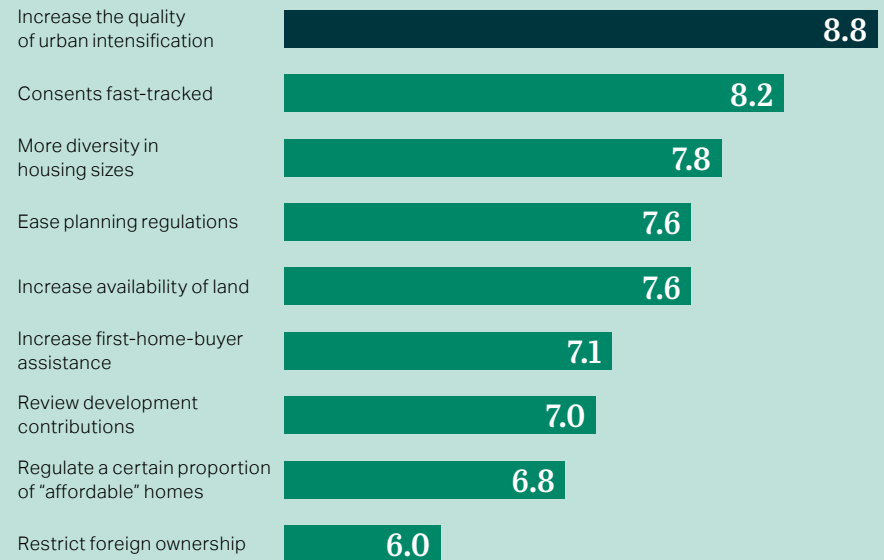
A significant number of respondents praised Kāinga Ora for the progress of its urban regeneration programmes that aim to provide more affordable high-quality housing across New Zealand (such as the Auckland Housing Programme).

Development contributions and restricting foreign ownership are low priorities

Respondents saw the potential for reviewing developer contributions as a low priority factor to combat New Zealand’s housing challenges. However, some suggested ‘developers should be paying for upgrading the areas surrounding their subdivisions’.

Restricting foreign ownership was ranked as the lowest priority, perhaps due to the lack of improvement in the housing market since the government tightened its rules in 2018. Respondents also commented that the lack of long-term investment in the sector, as opposed to foreign ownership, is generally seen as a much greater cause of New Zealand’s housing challenges.

Key factors to help address New Zealand’s housing challenges



Overcoming the housing crisis will require innovative approaches on multiple fronts. Streamlining of regulatory processes needs to be balanced with assurance that dwellings are healthy, safe and sustainable. Housing choices need to be considered against available land, urban sprawl, travel time and efficiency of servicing infrastructure. Desire for bespoke construction needs to be assessed against the potential speed and efficiency of modular options, particularly if outdated perceptions of quality can be overcome to enable mass production.”

Ian Martin

Area Manager – Wellington



Sustainability and resilience

While experienced in providing sustainability and resilience solutions in areas such as technical failure and natural disasters, our industry now faces new challenges. Climate change and a desire to deliver broader sustainability outcomes are creating pressure to address what few people fully understand. As with most forms of change, it will take open minds, collaboration and an eye for the opportunities — but the rewards will come.

Investment planning for sustainability and resilience

Respondents said planning for sustainability and resilience is given the greatest consideration when it comes to the effects of natural disasters. This might be expected, given the country's experience with earthquakes, droughts and flooding.

Technical failure has long been a core part of planning in the industry, although this year we saw a slight decline since 2019.

Despite a heightened awareness of climate change and its impacts across the industry since we last surveyed, climate change impacts and risks are only receiving slightly more consideration than in 2019.

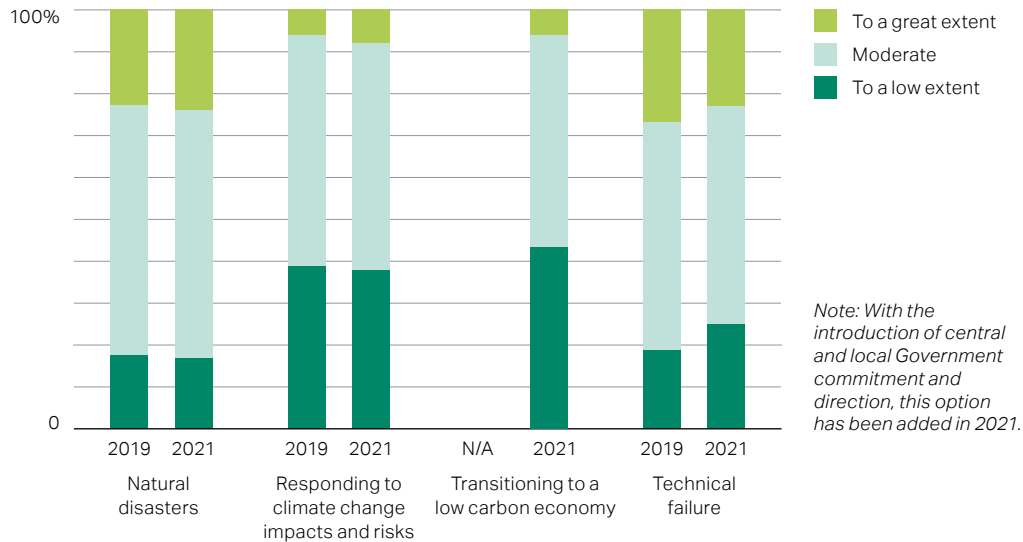
Our industry is at the start of its journey of addressing climate change, and we can expect its importance to continue to grow over the coming years. Some respondents called for greater unity between local and central government on how to approach the main issues.

For the first time, this year we asked respondents to indicate the extent to which transitioning to a lower-carbon economy was considered. Despite government policy and heightened awareness of climate change, there is clearly some way to go, with only 56 percent of respondents saying it's receiving more than a low level of consideration.

The challenges of responding to climate change

When asked about the biggest challenges the industry faces when responding to climate change, several themes emerged.

Extent sustainability and resilience is considered in planning of buildings and infrastructure



Cost was perhaps the least surprising, as it affects all stages — from upgrades and new-builds to decommissioning. Coronavirus pandemic-related stimulus programmes were identified as a rare opportunity to make a step change in terms of ensuring climate change is a key consideration in infrastructure investment and planning.

Consistent and straightforward government direction, including fast-tracked planning and legislation, was seen as essential to addressing uncertainty around risk versus affordability, and putting policy into action.

Clarity and understanding needed to achieve broader sustainability outcomes

With the New Zealand government requiring the infrastructure industry to deliver

broader cultural, economic, environmental and social outcomes through its procurement activities, we asked respondents to comment on likely impacts.

Increased costs and time, especially in the planning stage, were again raised. The potential for disagreement with the requirements also emerged. Others saw education and upskilling as key to generating informed support and change — including better integration of cultural and social value into communications and engagement. However, there was recognition of the opportunity to deliver broader outcomes for New Zealand communities, particularly within our regions. Leadership from investors before transferring requirements onto the delivery sectors will be critical.



“

We now have a greater understanding of the vulnerability of our communities and the need to be resilient, innovative and able to quickly adapt to the unexpected. As aspirations for a more sustainable future continues to grow, we are challenged to reimagine how we traditionally deliver infrastructure projects.”

Kim Hardy

Group Director – Environment, New Zealand

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The industry needs to look at sustainability as a cost-saving measure rather than an added expense. The more we do today to mitigate the effects of climate change, the less the industry will have to pay in the future. This decade, the drive to reduce emissions through infrastructure is key.”

Anthony Hume

Practice Leader – Sustainability and Resilience, New Zealand

Building a better case for infrastructure investment

Lara Poloni
President, AECOM

As we look towards recovery, infrastructure has an important role to play in getting the economy moving again, but it can also open up new opportunities and improve quality of life for those hurt by coronavirus.

In the American city of Atlanta, an abandoned railroad track turned pedestrian path is connecting communities and erasing a redline that once separated them.

In the United Kingdom, a new crosstown rail line is not only expected to improve the commute into London; it may also help some residents live longer by connecting poorer parts of the city with the economic opportunities in the centre.

In China, restoring a river running through the centre of Nantong is enhancing the sustainability of this

industrial port city and improving the wellbeing of the local population.

What connects these projects? Each one delivers 'social impact' dividends and addresses pressing challenges that extend value beyond the more traditional economic benchmarks guiding most of today's infrastructure investment.

In making the case for infrastructure, social benefits tend to fit the 'nice to have' category. In part, this is because they are harder to measure — making success harder to claim. But when it comes to extending value for communities looking to rebuild and adapt to our new normal, social returns are essential.

If the crisis prompts a re-appraisal of societal concerns — as we think it will — it is likely that social needs will receive more attention in future. According to psychologist Abraham Maslow's influential theory on the hierarchy of needs, many people will shift toward a greater appreciation of benefits such as protecting public health, correcting social

inequities, improving access, boosting quality of life, and enhancing wellbeing.

The move to consider social value has been building for some time due to a variety of factors. Moved to action by climate change worries, the public has been applying greater pressure on corporations and governments to do right by society in their investment decision-making. Companies are finding that a strong environment, social and governance (ESG) proposition can drive value and safeguard long-term success. And governments — mindful of the inextricable link between physical infrastructure and public benefits — are also setting terms during the procurement process that require greater social value considerations, like developing new skills in local populations.

In the wake of tragic and massive fires and hurricanes around the world, cities have been increasing investment in the resilience of physical systems, a proper assessment of which covers social as

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Infrastructure's value as a driver of economic growth is a tried and tested measure of success. Potential economic returns are almost always cited in building the case for investment. Indeed, governments looking to reboot economies when the coronavirus pandemic eases are likely to turn to infrastructure precisely for its strengths as an economic multiplier.”

well as environmental pressures. Dealing with coronavirus is testing some of those systems to the maximum.

In the future, what's needed is a greater focus on developing standardised, accepted measurement tools to better quantify direct and indirect social impacts. Environmental rating systems provide an organised framework and standardised metrics for measuring performance. If a similar system were developed for social impact, it would offer insight into, extend advocacy for, and showcase projects that are not just best in the world, but best for the world.

Investment and funding

Increased infrastructure investment is a positive step for the industry and presents opportunity to address many of New Zealand’s challenges. However, by the time many projects are delivered, some may say they are solving yesterday’s problems.

What’s causing infrastructure development delay?

When considering the main cause of New Zealand’s infrastructure development delays, nearly a third of respondents (30 percent) cited inadequate funding certainty. It is likely this feeling stems from the government’s shifting priorities. For example, the Mill Road redevelopment has been put on hold and a new cycling and walking bridge over Auckland’s Waitematā Harbour has now been proposed. Those who contribute to the delivery of these projects are feeling uncertain and frustrated.

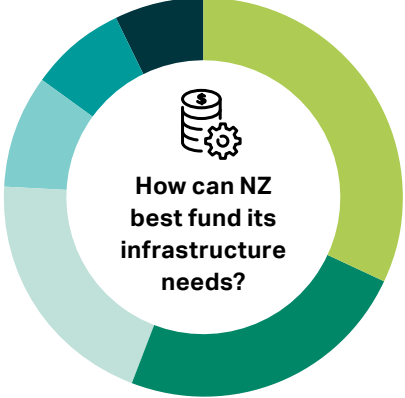
The lack of a clear vision was the next main cause of delay, and closely linked to funding uncertainty. When the government announces where it is going to spend money, those delivering new infrastructure will have greater clarity

with regard to where they should focus their efforts. Cumbersome planning requirements hinder the ability to deliver within efficient timeframes. Inefficient procurement is of least concern, but still a risk.

Where should the money come from?

More than half (56 percent) of survey respondents favour public debt and private investment as the best methods to fund infrastructure development. User pays is the next favoured option at 20 percent, particularly as debt levels rise. Increasing existing taxes and rates, and new tax revenues together account for just 16 percent of the vote.

To explain ‘other’, we looked at comments. Suggestions included the need to refocus infrastructure expenditure and divert current funding from ‘feel-good’ projects to more essential infrastructure. However, most ‘other’ comments suggested various combinations of public debt, private investment, tax funding and reallocation of existing funds as a possible approach to funding the infrastructure New Zealand needs.



A vision for New Zealand

New Zealand has always been a desirable destination for migrants, and our nation's success managing the coronavirus pandemic has only added to that attraction. So, imagine New Zealand in 2050 with a population of 10 million people. How could infrastructure keep up with that estimated population growth?

Moving into the hypothetical, we asked respondents to look ahead to 2050 and consider how our country would cope with post-coronavirus popularity that pushed our population to 10 million.



Constraints for sustaining 10 million

Around a third of respondents believe planning by central government is the greatest constraint to sustaining a population of 10 million. If you combine this with a lack of political vision, 56 percent of respondents believe the most critical need is for central government to step up with a vision and plan for the sustained success of the nation. Without a long-term vision or plan in place as New Zealand's population continues to grow, we will be faced with bigger and more complex challenges. Interestingly, only 17 percent and 14 percent respectively considered funding and the environment as the greatest constraint to sustaining a population of 10 million, reinforcing the importance of vision and planning.

Funding infrastructure for 10 million

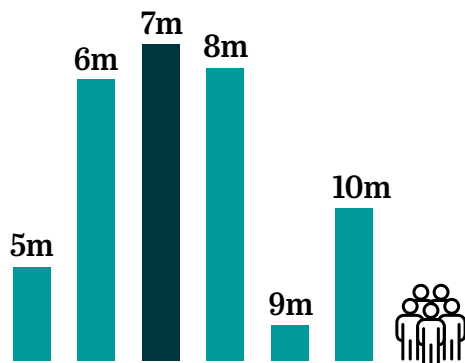
With expected growth comes expectations of increased infrastructure investment. To fund the infrastructure requirements for a population of 10 million, public debt and private investment came out on top, commanding 56 percent support. User pays and tax solutions for funding were prioritised by 31 percent of respondents.

In the comments that explain 'other', various combinations of all solutions are suggested, including 'all of the above'.

Setting a target for population

Planning for infrastructure development takes into consideration both population number and a timeline to understand what needs to be prioritised and when. While date planning is still common, there is a growing trend towards population planning, so that countries ensure infrastructure development can cater for and serve the projected growth.

When we asked respondents to choose an optimum population for New Zealand to achieve by 2050, a resounding 76 percent selected six, seven or eight million. A total of 16 percent chose over nine million. Only 8 percent nominated keeping the population at five million.

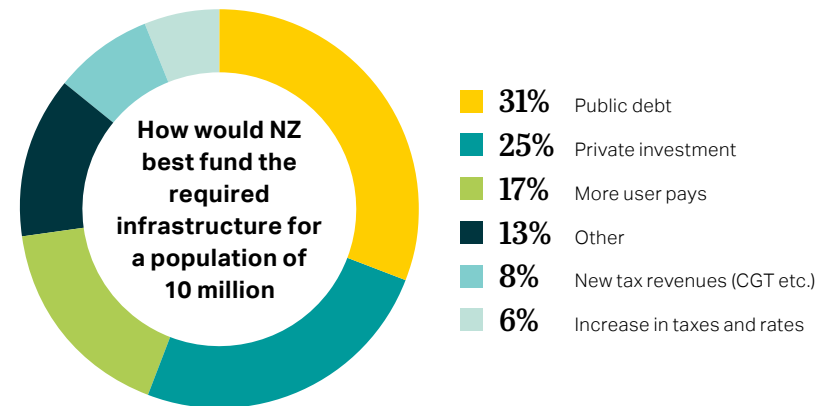
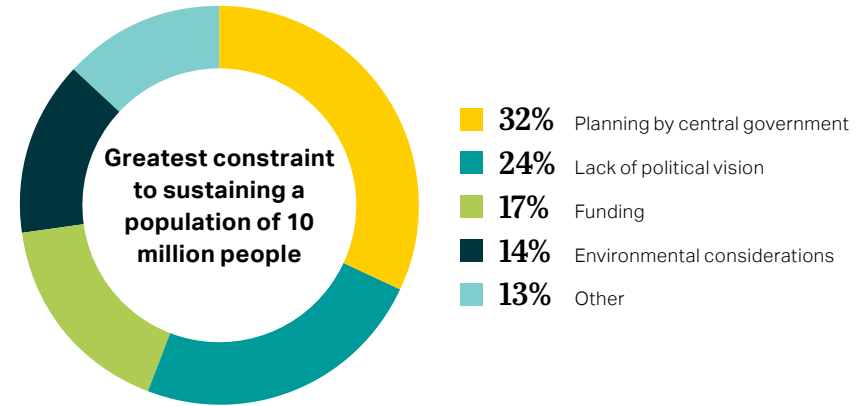


Desirable population size by 2050

Feeding 10 million

The New Zealand economy depends heavily on the export of goods, particularly dairy, food and agriculture. While New Zealand currently produces 17 times more food calories than what is needed to feed its current population, there is increasing pressure to protect the environment, land, agriculture and economy. As our population continues to grow, environmental considerations, as well as careful infrastructure planning and consideration of alternative sources of export income, are critical to ensure the sustainability and liveability of our country.

We asked what environmental factors and infrastructure will need to be addressed to produce food for a population of 10 million, while allowing New Zealand to continue to export internationally. Respondents mentioned protecting urban/rural boundaries and riparian margins, supporting the existing economic balance between feeding locally and getting greater prices internationally, and maintaining the current balance of farmland and forestry. There were also calls to factor in resilience to climate change impacts and ensure water quality is maintained or improved. The concept of embedding an emissions rating scheme into food production was another strong theme.



New Zealand’s population has grown rapidly over the past decade, and while the coronavirus pandemic has put a brief halt to this, strong growth is projected to continue once our borders reopen. A long-term vision, underpinned by clarity and commitment to infrastructure planning and delivery, is crucial for New Zealand to sustain this growth, address its complex challenges, and protect the environment and economy.”

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