

Australia market overview

Australia's construction market outlook has improved considerably since the start of 2021, however supply chain constraints and skilled labour shortages are rapidly pushing up construction costs and creating considerable challenges for the industry.

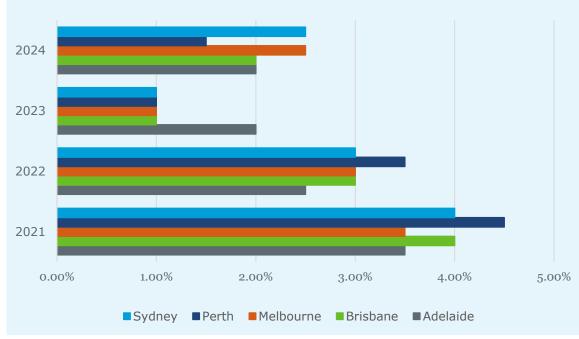
Accommodative government stimulus has helped to grow the pipeline of construction work around Australia while the private sector continues to recover. The HomeBuilder scheme, coupled with record low interest rates and other state-based policies have generated a spike in housing construction around the country. Additionally, Australia had a significant pre-existing pipeline of major infrastructure projects, with many projects now being fast-tracked in response to the economic downturn. Growth in these sectors is expected to be robust over 2021, helping to uphold overall construction activity.

While domestic construction activity grows, the industry continues to face challenges with global supply chain constraints and skilled labour shortages. Prices for a range of key building materials are surging due to global supply chain bottlenecks and supply shortages. This has become a worldwide issue and we anticipate this will continue for the remainder of 2021 and into 2022.

Owing to international border closures, the industry is unable to address short-term unavailability of skilled labour through the usual mechanism of immigration. With the rampup in housing and infrastructure projects, skilled labour shortages are already being experienced and are expected to worsen over the remainder of the year.

Therefore, we are expecting a high level of construction cost escalation over 2021, due to these resource constraints. Many of these challenges are expected to continue into 2022, meaning costs are likely to remain elevated during this period.





New Zealand market overview

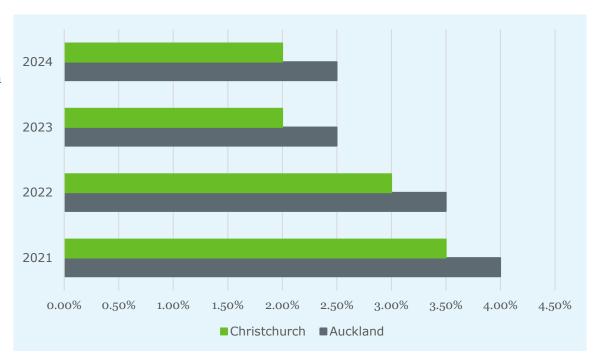
Construction activity in New Zealand is growing, but the industry continues to face ongoing resource challenges that are limiting the market's capacity to undertake projects. Growing supply chain disruptions and severe skills shortages are placing enormous pressure on the industry, which is having a significant impact on project costs.

Construction is an industry that has continued to feel the impacts of the COVID-19 pandemic, despite restrictions easing and low case numbers. Ongoing disruptions and growing constraints in global supply chains are becoming a significant issue for the New Zealand construction market, with costs surging by up to 50 percent for some building materials.

Additionally, the lack of migrant labour available to the market has meant skills shortages are commonplace and predicted to worsen. The market is reaching full employment and the challenge currently lies with the displacement of skills. For example, most job losses that have occurred are in the services and tourism sectors, meaning they are not suitably skilled or qualified to take up positions in another industry, such as construction. This remains one of the biggest challenges for the New Zealand economy while international borders remain closed.

Based on these supply chain issues and worsening skills shortages, construction costs are forecast to experience high escalation to at least the middle of next year, until these constraints have been resolved.

Figure 2:
New
Zealand
construction
cost
escalation



Key price indicators
Movement (%)
Q2 2020
to Q2
2021

New South Wales

0%

Site foreman

/hr







8% 7%
Concrete 32 Plasterb
MPa / m³ 13mm to stu



7% 25%
Plasterboard 3mm thick to stud wall/m² tonne



25% Main contractors margin movement

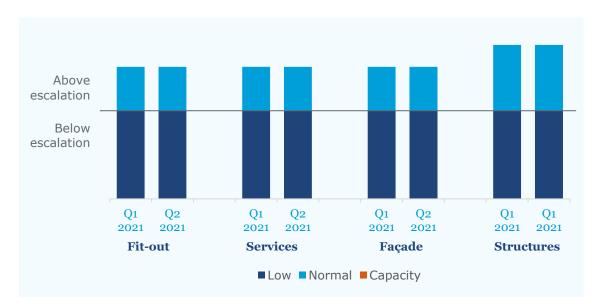
Confidence continues to return to the construction sector. The supply chain capacity has come under increased pressure over the last quarter with increased demand coupled with reduced supply. Several suppliers have identified a supply shortage of both materials and labour. The materials specifically experiencing shortages and price increases include structural steel, reinforcement, timber (joinery), glazing, and stud framing.

Over the past year, contractors reduced their preliminaries and margins to secure a short-term pipeline of work. This did offset the increasing trade costs, however, we are now seeing both preliminaries and margins returning to pre-COVID-19 levels, leading to an increase in overall construction costs. We expect to see further escalation over the second half of this year and into early next year while the industry continues to face the challenges of our border restrictions.

To mitigate against program delays, design teams and contractors are reviewing their materials selection due to the reduced availability of supply of materials, longer lead times, and worsening shipping delays. It is recommended that all project teams review their procurement lead times and plan accordingly to mitigate any potential delays.

The New South Wales government implemented a two-week construction shutdown during the month of July. This will impact next quarter's productivity as many in the industry are currently working through the impact this will have on programs and costs.

Figure 3: Supply chain capacity in New South Wales Q1 2021 to Q2 2021



Queensland

Key price indicators
Movement (%)
Q2 2020
to Q2
2021



10% Site foreman / hr



12.4% Group 1 tradesman



O%
Concrete 32
MPa / m³



18% Plasterboard 13mm thick to stud wall/m²



23.1% Structural steel / tonne



17% Main contractors margin movement

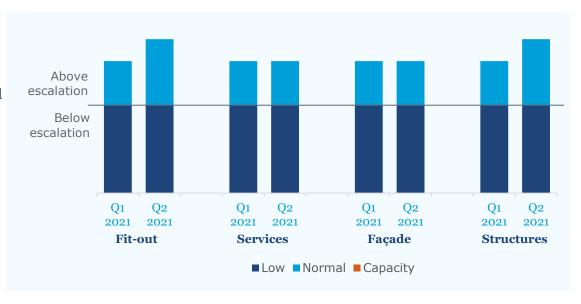
Market sentiment and confidence have considerably improved over the last three months, which has seen a return of capital seeking to invest in the southeast Queensland region. The state's ability to manage the pandemic quite effectively has meant that Queensland is seen globally as a safe place to invest. There has been a noticeable increase in new enquiries, particularly in relation to investigating the feasibility of new projects.

Tender activity is generally increasing, with movement in sectors such as healthcare, tertiary education, commercial, residential, and industrial. The next phase of the Queens Wharf integrated resort development is currently underway, and the Dexus Waterfront Place redevelopment is out for tender and due to commence mid-2022. This growing activity is expected to put further pressure on the availability of trades in the southeast Queensland region over the coming periods.

The housing stimulus package is starting to create shortages in material for residential construction such as steel, reinforcement, plasterboard, timber, and roofing. This is putting pressure on pricing, and we are seeing up to 20 percent cost increases in certain trades. It is likely this will start to affect the pricing for commercial projects in the next quarter and beyond.

Although the Queensland economy has bounced back relatively well after the lockdowns of 2020, it will be increasingly important that the vaccine roll-out is expedited to ensure the state, and more broadly the Australian economy, can capitalise on the current availability of capital. Delays to the roll-out could see Australia miss out to other countries who have already started to open their borders and markets following a successful vaccination program.

Figure 4: Supply chain capacity in Queensland Q1 2021 to Q2 2021



South Australia

5.9%

Site foreman

/hr

Key price indicators
Movement (%)
Q2 2020
to Q2
2021



0%Group 1
tradesman



6.7% 1'
Concrete 32 Plaste
MPa / m³ 13mr
to



17%
Plasterboard
13mm thick
to stud
wall/m²

13.5%
Structural
steel /
tonne



0% Main contractors margin movement

The South Australian market is currently very active which is placing a strain on the supply of materials. We have observed price increases in the supply cost of structural steel, reinforcement, steel stud framing and timber, all of which are expected to remain elevated for the rest of 2021.

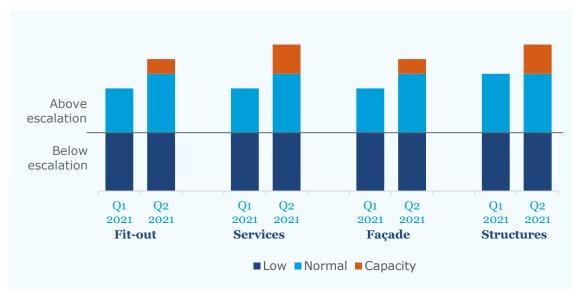
The reduced availability of timber has led to house builders pivoting to steel stud framing in lieu of the traditional timber stud framing. This increased demand for steel stud framing is subsequently putting upward cost pressure on commercial projects that typically use steel stud framing systems, increasing partitioning trade costs.

This pivot to alternative materials for house builders is allowing works to progress instead of being delayed by long lead times and ensuring cash flow is being maintained in this sector.

Non-residential construction has remained largely resilient throughout the pandemic, upheld by several major projects including the South Australia Medical Research Institute (Building 2) and the Future Submarine Construction Yard. Office construction activity is forecast to see the most growth over the next 12 months, driven by 83 Pirie Street , the Entrepreneur and Innovation Centre, and 60 King William Street . The health sector is also expected to see a large increase in activity with the New Women's and Children's Hospital in the pipeline.

Tender prices are increasing in South Australia, and we expect this trend to continue for the remainder of this year.

Figure 5:
Supply
chain
capacity in
South
Australia Q1
2021 to
Q2 2021



Victoria

Key price indicators
Movement (%)
Q2 2020
to Q2
2021



0% Site foreman



-4%Group 1
tradesman



12% Concrete 32 Mpa / m³



12% Plasterboard 13mm thick to stud wall/m²



20% Structural steel / tonne



0% Main contractors margin movement

The HomeBuilder stimulus continues to uphold residential construction activity in Victoria, despite previous forecasts indicating activity would decline. Housing construction is expected to peak in 2021 in response to this stimulus, before easing during 2022. Apartment construction is strengthening, with more projects entering the pipeline as confidence returns to the private sector.

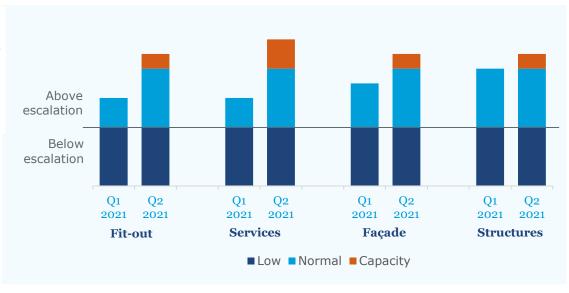
Private non-residential activity is forecast to decline in the short term. However, significant state government stimulus, particularly in education and infrastructure, is having a mitigating impact on this.

Expectations are for increased activity over the next six months. We are already seeing increased activity from some clients, particularly institutional clients, with other already very active clients, for example, government stimulus-related, maintaining activity.

We are experiencing an increase in tenders for professional services and particularly for work investigating the feasibility of new projects. There has been a significant push into true mixed use and placemaking/town centre projects incorporating major retail hubs.

The impacts of COVID-19 appear to be less pronounced in the past quarter. Some clients appear to be more confident, and projects under construction are maintaining progress. There are, however, issues in supply chain capacity due to external factors such as supply costs of steel and timber, combined with the HomeBuilder scheme absorbing resources generally concentrating on non-residential projects.

Figure 6: Supply chain capacity in Victoria Q1 2021 to Q2 2021



Western Australia

Key price indicators
Movement (%)
Q2 2020
to Q2
2021



/ hr

10.6% 5.9% Group 1

tradesman



10.3% Concrete 32 MPa / m³



11.6%
Plasterboard
13mm thick
to stud
wall/m²



22.2% Structural steel / confitonne mon



22% Main contractors margin movement

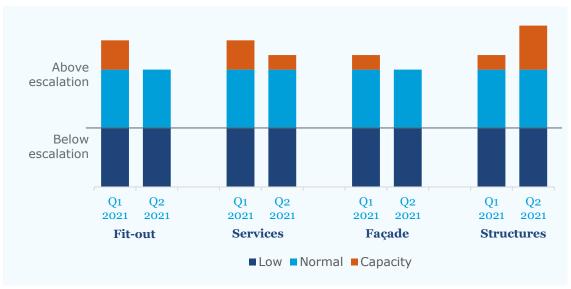
The Western Australian construction market is suffering from a severe skills shortage because of the government's multi-sector stimulus drive over the last 18 months. This is increasing cost, time and quality pressures with significant volatility being experienced in civil, concrete and steel prices.

Infrastructure investment continues to dominate the supply chain with several accelerated stimulus projects from the METRONET program commencing Alliance Development stage or site construction which will run for the next three to four years. The government's real estate investment has centred around reinvigorating the central business district, with university integration via CBD teaching hubs. This in turn has resulted in private sector developments in the student accommodation, retail, and high-tech sectors.

The impact of the government's accelerated multi-sector stimulus drive will see tender prices increase due to the limited availability of skilled labour and materials in the state. We have already started to see significant cost increases in civil construction, steelwork, concrete, and reinforcement due to the unavailability of skilled labour related to these trades. This supply and demand impact is exacerbated by a restriction in overseas skilled labour entering the state, which will result in a lack of competition in labour rates and in turn will drive a price spike over the next quarter.

Other contributing factors relate to the migration of skilled trades and materials being consumed by the residential sector boom due to the government's incentivisation schemes in response to the pandemic.

Figure 7: Supply chain capacity in Western Australia Q1 2021 to Q2 2021



Auckland

Key price indicators
Movement (%)
Q2 2020
to Q2
2021



5.5%Site foreman
/ hr



13% Group 1 tradesman



3.9% Concrete 32 MPa / m³



8.7%
Plasterboard
13mm thick
to stud
wall/m²



21.6% Structural steel / tonne



16% Main contractors margin movement

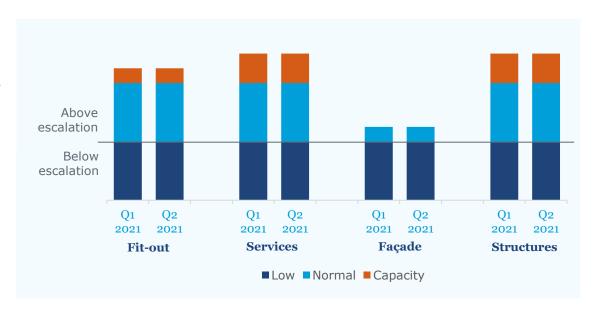
The Auckland market has been stable over the last quarter with public sector spending in education and infrastructure projects dominating the pipeline.

It is expected that over the next six months the market will continue to remain relatively stable, with a slight uptick in activity anticipated. This is in line with the growing number of tenders being released to the market, as well as the expected further easing of COVID-19 restrictions and growing vaccination rate.

The government continues to investigate options for Auckland Light Rail, which would drive up demand for construction works should it proceed.

Current COVID-19 restrictions are continuing to impact the local industry with delays being experienced in the supply of materials including steel, concrete, and timber. These delays will continue to have an impact on programs and project costs until supply bottlenecks and constraints ease.

Figure 8: Supply chain capacity in Auckland Q1 2021 to Q2 2021



Christchurch

Key price indicators Movement (%)Q2 2020 to Q2 2021



/ hr

20% 14.3% Site foreman Group 1

tradesman



14.1% Concrete 32 MPa / m^3



12.2% Plasterboard 13mm thick to stud wall/m²



23% Structural steel / tonne



0% Main contractors margin movement

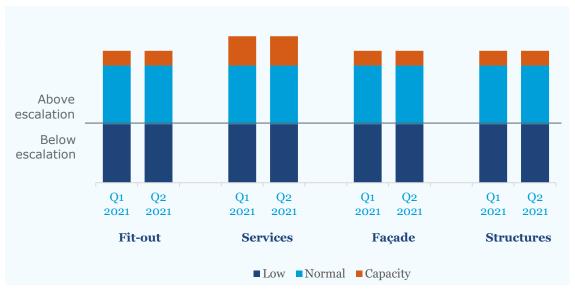
The construction sector in Christchurch is relatively buoyant across both the private and public sector, with the market expected to remain stable over the next six months. As COVID-19 restrictions ease, we expect tender numbers to increase, which should help grow the pipeline of activity over the next 12 months.

The government has invested in the infrastructure, education, and housing sectors to stimulate the local economy and prepare New Zealand for rapid population growth over the coming decades. We expect the government to continue to offer its support in major programs to stimulate the economy. There is some debate around the affordability of the investments promised, with very few of the large initiatives gaining traction in the open market.

Housing remains buoyant, with developers purchasing land for future development well above market expectations. Government incentives, along with low interest rates are a primary driver for this. House prices (average) in New Zealand rose by over 22.1 percent in the 12 months to March 2021.

Current COVID-19 restrictions are continuing to impact the local industry with delays being experienced on the supply of materials, notably for steel, concrete, and timber. These delays will continue to have an impact on programs and costs until the restrictions ease and global supply and demand balances.

Figure 9: **Supply** chain capacity in Christchurch Q1 2021 to Q2 2021



Australia's economic overview

Better-than-expected growth over the March quarter is helping boost confidence in the Australian economy, paving the way for a stronger and swifter recovery.

Gross Domestic Product grew by 1.8 percent over Q1 of 2021 and 1.1 percent from March 2020. Improving private sector demand and increased services consumption were the main contributors of this growth. Over Q1, restrictions around Australia continued to ease, allowing services to become more readily available. During this period, there was a notable change in household spending from goods to services, with services consumption forecast to strengthen over the year.

The labour market remains resilient, despite supportive policy being wound back. In May unemployment fell to 5.1 percent, reaching its pre-pandemic level, before dropping to 4.9 percent in June. With the withdrawal of the JobKeeper scheme in April, employment dipped by -0.2 percent, but has since grown by 0.9 percent during May. However, risks to the labour market are prevalent with the ongoing snap lockdowns that have occurred during Q2, which will test the resilience of the labour market.

The Federal Budget, released in May, included further accommodative stimulus, which will support ongoing economic recovery, however, risks remain prevalent. Delays with the COVID-19 vaccine program across Australia is proving problematic, as the country faces an outbreak of the Delta strain, pushing many states into lockdown. Australia is currently ranked $103^{\rm rd}$ in the world for the percentage of the population that has been fully vaccinated. Until there is progress with the vaccine program, we expect snap lockdowns to continue, which will drag on economic growth during the coming quarters.

Figure 10: **AUD USD performance (Q2 2020 – Q2 2021)**



Figure 11: **AUD FOREX forecasts**

	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022
USD	0.75	0.75	0.76	0.76	0.76
GBP S	0.54	0.54	0.54	0.54	0.54
EUR	0.62	0.63	0.64	0.63	0.62
YUAN ***	4.85	4.80	4.82	4.94	4.83

¹ https://ourworldindata.org/covid-vaccinations

	Current	Previous	
GDP quarterly growth rate	1.8% Dec 20 – Mar 21	3.2% Sep 20 – Dec 20	
GDP annual growth rate	1.1% Mar 20 – Mar 21	-1.0% Dec 19 - Dec 20	
Inflation (annual)	1.1% Mar 20 – Mar 21	0.9% Dec 19 – Dec 20	
Unemployment rate	4.9% Jun 21	5.1% May 21	
Business confidence index	20 Jun 21	23 May 21	
Retail sales	7.7% May 20 – May 21	25% Apr 20 – Apr 21	
Interest rate	0.10% Jun 21	0.10% Mar 21	

New Zealand's economic overview

After contracting over the December quarter, New Zealand's economy returned to growth in Q1 of 2021, driven by a booming housing market, strong employment and retail spending.

Gross Domestic Product increased by 1.6 percent between December and March, with strong growth forecast for the remainder of the year.

A key driver of this robust growth is the booming housing market, thanks to record low interest rates and low-priced mortgages. Demand for housing remains well above supply levels and is resulting in property prices surging. Figures released by the Real Estate Institute of New Zealand in May indicate that Auckland's median house price has increased by nearly 27 percent when compared with May 2020.

New Zealand's labour market has remained largely resilient throughout the pandemic, helping to uphold consumer spending. Unemployment fell from 4.9 percent in April to 4.7 percent in May. While remaining well above the pre-pandemic low of 4.0 percent, skills shortages are one of the biggest challenges currently impacting the economy. Inflationary pressures are also a concern. Labour shortages and supply chain issues have pushed up the price of domestic goods, causing inflation to rise. This could result in an earlier-than-expected increase in interest rates in 2022, which would put the brakes on growth.

The vaccine roll-out around the country has been slow, with New Zealand currently ranked 113th in the world for the percentage of the population that has been fully vaccinated.² Ongoing delays with vaccinating the population will continue to be a downside risk to the economic outlook.

Figure 12: **NZD USD performance** (Q2 2020 – Q2 2021)



Figure 13:
NZD FOREX
forecasts

	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022
USD	0.70	0.69	0.69	0.69	0.70
GBP S	0.50	0.51	0.51	0.50	0.50
EUR C	0.58	0.59	0.59	0.59	0.58
YUAN ***	4.52	4.50	4.51	4.53	4.53

² https://ourworldindata.org/covid-vaccinations

	Current	Previous
GDP quarterly growth rate	1.6% Dec 20 – Mar 21	1.0% Sep 20 – Dec 20
GDP annual growth rate	2.4% Mar 20 – Mar 21	-0.8% Dec 19 - Dec 20
Inflation	1.5% Mar 20 – Mar 21	1.4% Dec 19 – Dec 20
Unemployment rate	4.7% May 21	4.9% Apr 21
Business confidence index	-0.6 Jun 21	1.8 May 21
Retail sales	25% Apr 20 – Apr 21	2.2% Mar 20 – Mar 21
III Interest rate	0.25% Jun 21	0.25% Mar 21

The way we work: digital transformation of cost management

As the construction industry adapts to COVID-19's perfect storm of change, with its challenges and threats, two things are already apparent: clients are demanding continuous improvement and the supply chain must respond by ramping up its adoption of digital and collaborative working.

Around the world we are seeing businesses that are drowning in data from the new digital ways of working, but starving for insights. They know that they have the data in their business, and the majority say they want to be data driven. However the data is hard to mine and they have no systematic way to consistently turn data into action.

About 50 percent of enterprise data is 'dark' and therefore never used in analytical initiatives. Of the other 50 percent that is accessible, around 50 percent of the analyst's time is spent finding and preparing the data before it can be analysed. Once the data has been mined and analysed, less than 30 percent of data driven businesses are successful in connecting analytics into action.

For context, we must be clear on what we mean by data, information, insights, and actions.

Data is the raw and unprocessed facts that are usually in the form of numbers and text.

Information is prepared data that has been processed, aggregated, and organised into a more human-friendly format that provides more context. Information is often delivered in the form of data visualisations, reports and dashboards.

Insights are generated by analysing information and drawing conclusions. Insights on their own are interesting at best.

The real value to businesses comes from the **actions** that are taken to drive change because of insights.

The benefit to data driven businesses arises from actions taken as a direct result of the insights that drive positive change and materially impact business outcomes.

Six ways to turn insights into actions

Maximising the actionable insights received from analytics investments is important to data-driven success. There are several ways to make an insight truly actionable to lead change and impact business success. The following six attributes are key to increasing actionable data:

- Alignment is the insight closely aligned to key business goals and strategic initiatives, or is it just an unnecessary vanity metric? Insights based on KPIs, and other key metrics, inherently engender a sense of urgency that other data will not.
- Context insight on its own can be hard to interpret or understand and therefore need to be benchmarked against a standard or KPIs to give proper context. Without accompanying context, an insight can end up raising more



questions than action. Having ample supporting details ensures the insight results in action and not unwarranted scepticism and objections.

- 3. **Relevance** there's a level of subjectivity when it comes to the relevance of insights. A single insight can be both a strong signal for one person and just more noise for another. To be relevant, an insight needs to be delivered to the right person, at the right time, in the right setting. If insights are trapped in an analytics tool that managers never access, the insights may never reach the intended audience.
- 4. Specificity sometimes insights based on KPIs and other high-level metrics can highlight interesting anomalies, but lack sufficient detail to drive immediate action. If an insight does not adequately help to explain why something occurred, it is not yet actionable. The more specific and complete the insight is, the more likely it can be actioned.
- 5. Novelty with so much competing data and information to digest, novel insights will have an advantage over more familiar insights. The first time a business spots a particular pattern will be more interesting and compelling than the tenth time. We become numb to certain insights if we feel they reinforce rather than challenge or evolve our current knowledge and beliefs.
- 6. Clarity if people do not clearly understand an insight, why it is important and how it can help them, then the insight will be overlooked and forgotten. Communicating insights effectively with the right data visualisations and messaging that help explain the insight, creates a strong signal that is hard to miss or ignore and prepares a pathway for action to occur.

Harvesting more insights from your data can yield tremendous returns for your business. However, any powerful idea is fascinating and useless until we choose to act on it. While the increased actionability of an insight does not guarantee adoption or application, it should motivate more individuals to think deeply about the data and

encourage them to act on a more consistent basis.

A digitised delivery model

As a global professional services consultancy, we have access to data across a diverse range of projects, clients, and sectors. From this data, we deliver actionable insights that drives better performance and accelerates the transformation of our clients' businesses. We have spent the last few years organising the way we capture data and have developed platforms that support our commercial management delivery model.

COVID-19 has accelerated our digital and data transformation to respond to the needs of our clients to make better decisions, earlier in the rapidly changing markets they work in.

Our cost management service has been fully digitised. We have developed an end-to-end, integrated platform that evolves the way we work to create a data rich project lifecycle to drive better outcomes for our clients' programs, projects and assets.

Our data driven digital delivery model has provided us with a platform to provide actionable insights that are tailored to be aligned and relevant to our clients' goals, benchmarked to industry peers, specifically targeted to draw out new previously unseen trends that can be communicated clearly and help better navigate the current volatile market.

Our digital cost management service is fully connected across the whole project lifecycle and provides access to data that has previously been unconnected and 'dark' data. It has evolved to be data driven using the following framework from initially establishing an assured baseline that is robust and achievable. Our cost management processes start before any design has commenced and continue right through to project handover and beyond.

- Creating an assured baseline we work closely with our clients to understand their brief and key outcomes. We provide live benchmarking data from industry best practice to inform and optimise their business case to establish a robust baseline for their investment. We set this baseline against the risk envelope that best fits their requirements and profile including whole life cost and sustainability costs from the outset.
- 2. Managing the baseline we collaborate with design teams to review design, propose efficiencies and value engineer the project as the design progresses which results in a validated cost plan to measure against the baseline. Our cost management estimating software allows an integrated approach to measurement and pricing of projects in a 5D BIM environment.
- Bettering the baseline our online digital tendering platform provides a collaborative, transparent approach to procurement which allows us to 'best buy' any aspect of a project from consultancy services to contractors and suppliers, securely in an online environment.
- 4. Controlling the baseline our cost control platform is modelled on the ethos of a banking app easily accessible by phone, tablet, and laptop, using an 'account' structure and audit trail of changes, just like a bank statement for both pre- and post-contract project commercial reporting regardless of scale or complexity.

Investing in data to drive change

Over the last year we have seen many companies make significant investments in analytics, business intelligence and other data technologies.

Many legacy issues that traditionally posed barriers have now been eliminated or reduced including the high cost of data storage, expensive proprietary software, and the need to devote capital to expensive data capture.

Despite the desire and the reduced barriers to collect data and develop actionable insights, less than 30 percent of businesses that collect data are successful at connecting analytics to action, not because of technology, but due to people, business process and cultural aspects, as their data insights fail to have the right attributes to make them truly actionable.

So, is it worth the effort to strengthen your organisation's data culture and engage a supply chain that has a strong data culture? In our view the answer is clearly yes. In a recent Deloitte survey, companies with strong data-driven cultures report they were twice as likely to have exceeded business goals in the past 12 months, compared to those with weaker data cultures.

Publications like our quarterly market insight report provide reliable data, information, and insights to better understand the current market conditions and trends over time. What will you do to capitalise on these insights to turn them into actions that will lead to impactful changes in your business?

About Turner & Townsend

We are an independent professional services company specialising in program management, project management, cost and commercial management and advisory across the real estate, infrastructure and natural resources sectors.

With 112 offices in 46 countries, we draw on our extensive global and industry experience to manage risk while maximising value and performance during the construction and operation of our clients' assets.

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