# **CONSTRUCTION SURVEY 2018**







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### BACKGROUND AND METHODOLOGY

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#### **Purpose of the Study:**

This is the second year of this study where we look at...

Building and deepening relationships with the construction industry in New Zealand.

15 minute online survey link sent via CCNZ, trade media and Teletrac Navman customers.

- Sample achieved n=159

Fieldwork dates: 23 May – 6 June 2018
(15th June – 24th August in 2017)

#### **SAMPLE BREAKDOWN**



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# **KEY INDUSTRY SECTOR ISSUES**





### EXTERNAL FACTORS ARE A CONCERN FOR THE INDUSTRY

## Key concerns facing the industry include:

- Projected slowing economic growth
- Financial losses by large construction firms
- Local and central government changes in infrastructure spend allocation
- Resource management Act needs revision
- Accident compensation Act needs revision

# Key opportunities facing the industry include:

- Water supply/waste water management
- Housing demand outside and within Auckland
- International trends in construction industry growth



Key events that might have positive impact on the industry include housing demand outside of Auckland, water supply/waste water management and international trends in industry growth; those expected to have a negative impact include economic growth slowing, financial losses by large firms and changes in infrastructure spending

#### **EXPECTED IMPACT IN THE NEXT 3 YEARS**



Q1. What impact do you think these events/issues will have on your business in the next three years? Base: Total (n=159)



# Industry regulations in most need of revision include the Resource Management Act and the Accident Compensation Act







# MEASUREMENT AND USE OF TECHNOLOGY





### INTEGRATING TECHNOLOGY WITH OTHER SYSTEMS IS A KEY CHALLENGE

Job site and measurement technologies are seen to have value in achieving:

- Efficiencies and savings
- Increased customer satisfaction
- Evidence based decision making

#### However, there needs to be more:

- Staff understanding of the capabilities of the technology
- Integration of the technology with other systems

At the moment, only around a third of the tech used is integrated with project management systems

This is where investment will be in the next 12 months – integrated mobile technology as well as new plant and equipment



Labour productivity is the number one area measured by businesses followed by maintenance costs per vehicle, risky operator/driver behaviour and cost of on-site injuries – these are also perceived to be the most useful measurements for improving productivity



Q6. What is your business currently measuring?

Q7. On a scale of 1-5, how useful are the below measurements for improving productivity in your business? Base: Total (n=159)

() comparison data from 2017 Significantly higher / lower than Total



Labour productivity measurements are perceived to be the most useful by a large margin with the least useful being measuring cost of on-site waste removal; cost to move cubic metre per kilometre is found to be equally useful for 20% and not useful for another 20% of people – this also explains why this might not be a key measure for improving production

#### PERCEPTIONS OF USEFULNESS OF PRODUCTION IMPROVEMENT MEASURES

Labour productivi	y <mark>3%</mark> 3%	14%		36%	36%		44%			80%
Maintenance costs per vehicle / ass	et 4% 8%		23%		36%		29%		6	65%
Cost of on-site injuries and lost tim	e 6% 8	%	26%		30%			31%		61%
Risky operator / driver behavior	ır 8%	11%	21%		30%			30%		60%
Asset utilisation per day per si	e 8%	7%	29%		29%			27%		56%
Inputs and outputs per site per da	y 10%	8%	26	%		31%		25%		56%
Cycle times of on-site task	s 7% 7	7%	31%	)	34%		%	21%		55%
Cost to move cubic metre per kilomet	e 20	)%	7% 26%		6%	26%			20%	46%
uel burn per vehicle / asset per day per site 8% 1		13%	35%		<b>%</b> 24%		24%	20%		44%
Time from design to completic	n 14%		14% 30%		30%	ы́ <mark>21%</mark>		21%		42%
Cost of on-site waste remov	Cost of on-site waste removal 16%		13% 34%				24% 14%			38%
		■Not useful ■2		■3		4	Very usef	ul		

Q7. On a scale of 1-5, how useful are the below measurements for improving productivity in your business? Base: Total (n=159)



The most common job site measurement technology used includes GPS based fleet management, plant machine and asset monitoring and project performance and management – these are all used more by larger businesses

JOB SITE AND MEASUREMENT TECHNOLOGY USED IN BUSINESS

Ту	pes of site/measurement technology used	Integrated with Project Management software	High/very high CURRENT value	High/very high <b>FUTURE</b> value	
GPS based fleet management / telematics	62%	Large business – 79%	30%	62%	63%
Plant, machine and asset monitoring	56%	Large business – 75%	31%	64%	72%
Project performance and management	51%			68%	79%
GPS based survey equipment	43%	Large business – 65%	33%	77% (86% large business)	70%
Machine control and guidance	38%	Large business – 56%	36%	69%	82%
Remote monitoring of people, sites and equipment	30%	Large business – 41%	21%	60%	71%
Fuel burn monitoring	27%	Large business – 37%	37%	72%	67%
Efficiency software based on jobsite utilisation	16%		35%	62%	77%
Cycle time monitoring	15%		17%	67%	71%
Other	1%				
None	11%				

Q222. What types of job site and measurement technology do you use in your business?

Q9. Are the jobsite systems that you use integrated with project management software?

Q10. Of the systems that you use, how do you rate their current value to your business on a scale of 1-5?

Q11. Of the systems that you use, how do you rate their potential future value to your business, on a scale of 1-5?

Base: Total (n=159)



Significantly higher / lower than Total

Better understanding of the capabilities of technology and better integration with other systems are how business could get better value from the job site and measurement technology – this is particularly true for large businesses, smaller businesses need help in knowing how to improve value

#### GETTING BETTER VALUE FROM JOB SITE AND MEASUREMENT TECHNOLOGY CURRENTLY USED



Q12. How might your business get better value from the job site and measurement technology it uses? Base: Total (n=159)

Significantly higher / lower than Total



Job site and monitoring technology is deemed most useful in understanding where savings can be gained, increasing customer satisfaction, evidence based decision making, accurate employee timesheets

USEFULNESS OF JOBSITE AND MEASUREMENT TECHNOLOGY IN ACHIEVING THE FOLLOWING GOALS:

,						NETT USEFUL
Understand where savings and efficiencies can be gained	4% 9%	26%	2	43%	18%	61%
Increase customer satisfaction	4% 9%	30%	3	5%	23%	58%
Evidence-based decision making	9 6% 8% 29%			43%	14%	57%
More accurate employee timesheets	<b>6% 6%</b> 31%			38%	19%	57%
Operator safety and safety of staff on site	4% 9%	31%		34%	22%	56%
Improve risk management and mitigation	4% 10%	31%		39%	16%	55%
Improve security by tracking assets	6% 13%	33%		31%	18%	49%
Ability to accurately predict project times and budgets for bids	9% 11%	31%		33%	14%	47%
Optimise asset use based on real-time machine data	8% 11%	34%		33%	14%	47%
Reduce administration	6% 13%	34%		32%	15%	47%
Remote management and oversight of multiple sites, equipment and people	8% 9%	39%		31%	12%	43%
Competitive advantage by strengthening bid process with data	8% 16%	36	%	24%	17%	41%
Reduce insurance premiums	9% 18%		38%	23%	13%	36%
	■ Very low use	■Low use	Moderate use	High use	■ Very high use	

Q13. On a scale of 1-5, how useful is jobsite and monitoring technology in achieving these goals? Base: Total (n=159)



# Top new technologies being investigated include new plant and equipment and integration with mobile

#### **NEW TECHNOLOGIES TO COMMIT RESOURCES TO INVESTIGATING IN NEXT 12 MONTHS**



Q14. What new technologies will you commit resources to investigating over the next 12 months? Base: Total (n=159)



Indexing 10% higher / lower than Total

# STAFF AND SKILLS AVAILABILITY





### THERE IS A LACK OF A SKILLED, MOTIVATED WORK FORCE



#### The need for staff remains:

- 63% say their need for staff will increase
- The number they need is around 1-5 workers (this is significantly less than 2017)

#### Key challenge in finding staff is:

- A lack of skilled workers
- A lack of motivated workers



Most businesses still feel their requirement for staff will increase but with slightly more saying it will decrease compared to 2017





Q19. Over the next year, do you think your requirement for staff will... Base: Owner, Director, General Manager, Project Manager, Fleet Manager (n=95)

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() comparison data from 2017 Significantly higher / lower than Total There has been an increase in those requiring 1-5 more staff in 2018, while there is a decline in the need for more than 10 staff; top recruitment challenges include a lack of skilled workers, motivation and uncertainty on future projects





# PROCUREMENT





### THERE IS A NEED FOR A SHIFT IN FOCUS FROM 'LOWEST PRICE', TO 'VALUE' IN PROCUREMENT

#### Key issues in procurement:

- 85% agree that a poor procurement process negatively affects the entire project
- Client focus on lowest price is not perceived to be helpful, neither is cut price bidding by contractors nor is a lack of a visible pipeline for planning

#### What can clients do to help?:

- Collaborative understanding on allocation of risk
- Focus more on what is best for the project, what has the most value – focus less on pricing alone



Client's focus on lowest prices, cut price bidding by contractors and a lack of visibility of future work are all key areas of impact on procurement; the large majority believe a poor procurement process affects the entire project negatively

#### LEVEL OF IMPACT OF PROCUREMENT PROCESS ISSUES



									N	
	Client focus on lowest price 1%2		1%2% 17%		40%			41%	81%	
	Cut price bidding by contractors	4%	19%		41%			35%		76%
	Lack of visibility of future work	4%	21%		52%	6		23	3%	75%
De	lays in bringing work to the market	2%	26%		44%			28%		72%
	Unfair allocation of risk	1%5%	30%			40%		23	3%	64%
	Multiple prequalification systems	1% 11%	25%			40%		23	3%	63%
Multipl	e alterations to client requirements	1% 6%	31%			39%		23	3%	62%
	Tender deadlines too short	2% 9%	28%	)		37%		23	3%	60%
	Repetitive requests for information	1% 6%	40	)%			37%		16%	53%
Poors	selection of contract type by clients	3% 11%		35%			36%		16%	52%
	Amendments to industry standard documents	8%		42%			34%		16%	50%
	Errors in RFT documents	4% 11%		38%			33%		14%	47%
		Very lov	v impact	_ow impact	Moderate	impact	High impact	■ Very h	igh impact	

Q20. Do you think a poor procurement process usually affects the entire project adversely?

Q21. Assess the level of impact of your business of the following problems that may arise during the procurement process. Base: Total (n=159)

Significantly higher / lower than Total



69% don't believe clients have enough of an understanding of procurement; key areas of attention include better understanding of risk, better transparency between local and central government regarding pipeline work, 'best for project' focus, less focus on price and more on value





Staff up-skilling is by far the most popular step taken to better manage risk and demand changes followed by technology and staff recruitment flexibility

#### STEPS TAKEN TO BETTER MANAGE RISKS AND WITHSTAND DEMAND FLUCTUATIONS



Base: Total (n=159)



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# FOCUS ON CCNZ





### CCNZ'S VALUE IS ACKNOWLEDGED

## Most businesses are members of the CCNZ:

- 61% are members
- A third of members are actively involved
- 67% of members see the CCNZ as being valuable to the industry

#### How can the CCNZ improve?

- Offer more training and education opportunities
- Support with government lobbying
- Provide best practice guidelines for the industry



Just under 2/3 of respondents are CCNZ members with about a third of those participating actively; the value of CCNZ is noted with 67% of CCNZ members claiming the CCNZ is extremely/very valuable; key areas for improvement for the CCNZ include more training and education and more regulatory support



Base: CCNZ members (n=97)



# FINAL THOUGHTS







- External factors to the industry such as economic growth are key concerns, while key opportunities to the industry include demand for housing within and outside of Auckland as well as water supply and waste water management
- There is a need for better integrated technology
- There is a lack of a skilled, motivated workforce
- The procurement process needs an overhaul there is a need for more focus on 'best for project' and value based decision making and less focus on merely the lowest price
- CCNZ is seen a valuable entity; key areas where it could support the industry better include training and education, regulatory support and lobbying, providing best practice guidelines

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# FOR MORE INFORMATION CONTACT KERRITAIT / CAMILA DIXON

Colmar Brunton, a Kantar Millward Brown Company Level 1, 46 Sale Street, Auckland PO Box 33690, Auckland 0740 Phone (09) 919 9200 www.colmarbrunton.co.nz

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