KANTAR PUBLIC

2023 NZ Future of Work Survey

Topline findings from a survey of large employers

Prepared for:	MBIE
Date:	4 August, 2023

Table of Contents

Acknowledgements

We would like to thank all those who participated in this survey, without whom this report could not have been created.

This research uses elements of the methodology developed by the World Economic Forum's Future of Jobs Survey and Report. We would like to thank the report authors at the Forum for their guidance in using questions from their survey and including key results in our report for benchmarking purposes. The 2023 Future of Jobs Report can be found here: https://www3.weforum.org/docs/WEF_Future_of_Jobs_2023.pdf

Background and objectives

Broad global megatrends are shaping the future of work: technology change, demographic change, globalisation, climate change, and the COVID-19 pandemic. Labour markets are undergoing major transformations, new categories of jobs are emerging, others are partly or wholly being displaced.

In March 2022, the Future of Work Tripartite Forum (the Forum) (which is a partnership between the Government, Business New Zealand and the New Zealand Council of Trade Unions) agreed on a shared definition of a Just Transition. It set out the principles of a just transition for the specific purpose of enabling the Forum to scope a national strategy and programme of work that meets these principles and works towards a Just Transition within the Future of Work Tripartite Forum framework.

Information is key to understanding what resources and assistance is needed to enable a just transition as well as knowing where to target and prioritise efforts. For a variety of factors, workers and employers from certain regions, towns, communities, employment type, ethnicities, genders, sectors, or industries could be more of less resilient to economic shocks and therefore less able to weather the impacts of a transition.

The World Economic Forum's Future of Jobs Report, published on a two-yearly cycle, maps the jobs and skills of the future and tracks the pace of change and direction of travel. This report is underpinned by a survey which provides in-depth information on 26 advanced and emerging countries. New Zealand, however, is not among the countries with enough respondents for a country profile.

While New Zealand does not feature in the World Economic Forum's Future of Jobs research, there was an opportunity to tap into similar insights by conducting similar research designed within and for a New Zealand context, including recognition of Te Tiriti o Waitangi.

The World Economic Forum Survey sought to gain insight into what employers "think will happen, when they think it will happen, and what they propose to do about it". For this reason, many of the questions were perception-based, with response options designed to focus on the key issues outcomes and trends as perceived by decision-makers.

The vision of a Future of Work Report for New Zealand was to:

- Provide insights needed to orient labour markets and workers towards opportunity today and in the future.
- Provide insight into redundant and emerging roles and skills gaps
- Identify changing industries where that change has the potential to lead to displaced workers
- Highlight areas where industry or business models may be becoming obsolete, but where opportunity still exists to pivot and adapt, build resilience, increase productivity, and strengthen their industry in the long run
- Shed light on the pandemic-related disruptions thus far, contextualized within a longer history of economic cycles
- Provide insight and the expected outlook for technology adoption jobs and skills in the next five years
- Ensure a representative sample across regions with sufficient geographic diversity and provide balanced industry representation, including Māori owned and or operated firms.

To this end, MBIE has commissioned Kantar Public to carry out a survey of New Zealand's largest employers.

A subsequent survey of workers and unions will be undertaken in the 2023/24 Financial Year. The 'worker survey' will draw on insights gathered from the New Zealand Future of Work survey, with MBIE's final product being a report that combines insights and draws conclusions from the two surveys.

This report presents overall insights into the employer survey only.

Research method

An online survey of 212 senior executives from New Zealand's largest employers was conducted from 13 April to 24 May, 2023.

Population of interest and sampling frame

The primary population of interest is all New Zealand businesses with 100 or more employees. Due to the relatively small size of this group[1], employers with 50-99 employees were also included (and of secondary interest).

Martins' business database was used as the sampling frame.

Research method

The main fieldwork consisted of multiple steps: an introductory email or letter, a follow-up phone call to collect the email address of the best person to complete the survey, an email invite sent to the person identified in the phone pre-call, and follow-up email reminders. 182 interviews were secured using this approach, with a response rate of 13%.

Note, to boost the overall sample size in the latter part of the fieldwork, a sample of employers with 50-99 employers were emailed a survey invite (and email reminders), but without a phone pre-call. 30 additional interviews were secured using this approach, with a response rate of 4%.

Of the 212 respondents who completed the survey:

- 79 received a phone pre-call (73 of these were employers with 100+ employees)
- 61 completed the online survey in direct response to the introductory email (or subsequent email reminder)
- 12 completed the online survey in direct response to the introductory letter.

At all stages, the targeted respondent was a senior executive in human resources, strategy, or innovation.

Final sample composition and data weighting

The final weighted sample is representative of employers with 50 or more employees, weighted using population data on employee counts in smaller (50-99 employees) and larger (100+ employees) businesses. Using this approach, the weighted sample of 212 consists of 176 employers with 100+ employees and 36 employers with 50-99 employees.

Data were also weighted by industry using employee counts.

The table overleaf profiles the unweighted and weighted samples.

[1] Statistics New Zealand business demography data confirms that in February 2022 there were 2,670 NZ businesses with 100 or more employees (large enterprises).

Table 1: Sample profile

	Population data	Unweighted		Weighted	
	Employee count*	n	%	n	%
Employer size					
Employers with 50-99 employees	230,740	53	25%	36	17%
Employers with 100+ employees	1,142,150	159	75%	176	83%
Industry					
Agriculture, forestry, & fishing	32,200	11	5%	5	2%
Manufacturing	163,700	34	16%	25	12%
Construction	61,100	21	10%	10	5%
Wholesale trade	62,200	7	3%	10	4%
Retail trade	141,400	16	8%	22	10%
Accommodation & food services	42,100	9	4%	7	3%
Transport, postal, & warehousing	63,500	11	5%	10	5%
Financial & insurance services	52,700	5	2%	8	4%
Professional, scientific, & technical	88,100	21	10%	14	6%
Public administration & safety	154,350	9	4%	24	11%
Education & training	126,300	15	7%	20	9%
Health care & social assistance	212,800	14	7%	33	16%
Nett other**	172,440	39	18%	27	13%
Total	**1,372,890**	**212**	**100**	**212**	**100%**

**New Zealand business demography statistics, February 2022 (published 27 October 2022), Statistics New Zealand*
***Other includes Mining; Electricity, gas, water, & waste; Information media & telecommunications, Rental, hiring, & real estate, Administrative & support services, Arts & recreation services, Other services.*

Survey limitations (including industry analysis)

Like any survey, issues related to coverage, non-response, and sample variation (margins of error) mean that compared with a census, the findings from a sample may not exactly represent those of the target population. Having said this, the risks to representativeness are minimised by weighting the sample to Statistics NZ population characteristics (described above).

The main limitation of this survey is the small sizes associated with individual industries. To improve the robustness of the analysis, the following sector groups have been used:

- Service (n=88): Accommodation and food services, Information media and telecommunications, Professional, scientific and technical services, Administrative and support services, Education and training, Healthcare and social assistance, Arts and recreation services, Other services.
- Primary (n=11): Agriculture, Forestry and Fishing.
- Manufacturing (n=62): Manufacturing, Electricity, gas, water and waste services, Construction.
- Business and Finance (n=8): Financial and insurance services, Rental, hiring and real estate services.
- Distribution (n=34): Wholesale trade, Retail trade, Transport, postal and warehousing.
- Public administration and safety (n=9): Public administration and safety.

Industry/sector analysis (and other subgroup analysis) commented on in the interpretative commentary is marked with an asterisk (*) if the difference is not statistically significant. These findings should therefore be interpreted with care and treated as indicative only.

All other industry/sector analysis (and other subgroup analysis) commented on in the text is statistically significant at the 95% confidence level.

Comparisons with the WEF Future of Jobs survey

Comparisons with the results from the WEF Future of Jobs survey (run in 2022 and reported in the *Future of Jobs Report 2023*) have been made in this report where possible. Care should be taken in interpreting these comparisons due to:

- Some differences in question wording between the two surveys – the nature of these differences is provided immediately following each graph.
- The use of 'don't know' responses in the NZ survey and not in the WEF survey. Comment on the degree of the likely impact of this on our ability to compare results between the two surveys is also made following each graph.

.

Summary of insights

This section presents topline insights from an online survey of 212 of New Zealand's largest employers to understand the impact of global megatrends (including technology change, demographic change, globalisation, climate change, and Covid-19) on the future of work. Global comparisons with the World Economic Forum's *2022 Future of Jobs survey* are made in the body of the report.

Drivers of business transformation and employment over next 5 years

Global trends

Largest net job creators	*Net job effect*[1]
Consumer expectations on social issues	+19%
The green transition	+18%
Broader application of ESG standards	+17%
Government regulation of data use and technology	+14%

Largest net job displacers	
Slower global economic growth	-46%
Supply shortages/rising cost of inputs	-42%
Consumer inflation	-32%

Technologies

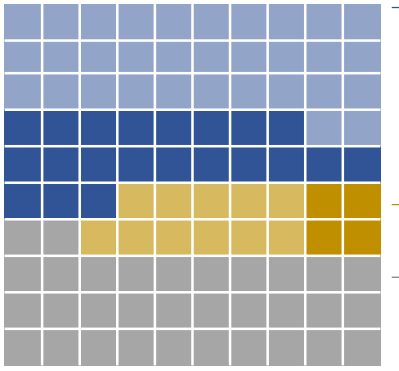
Largest net job creators	*Net job effect*[1]
Climate change mitigation technology	+26%
Education and workforce development technologies	+19%
Big data analytics	+17%

Largest net job displacers	
AI	-18%
Robots, humanoid	-17%
Robots, non-humanoid	-13%
Text, image and voice processing	-11%

[1]*These average net job effects are based on all organisations surveyed including those employers who felt it unlikely the global trend/technology would transform their business (those employers were assigned a value of zero).*

Jobs and skills outlook

Outlook of current workforce



Growing employment outlook **53%**

Declining employment outlook **15%**

Other roles **32%**

Mass employment roles Specialised/strategic roles

Outlook of current workforce

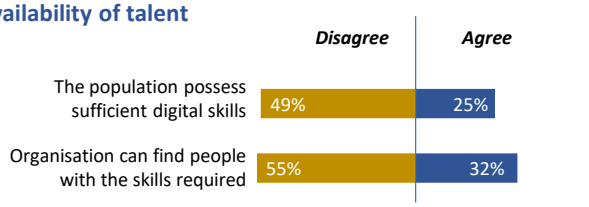
Disruption to skills

On average...

55% ...of a workforce will require training to meet evolving skill demands

43% ...of a workforce with increasingly redundant skillsets will be successfully redeployed

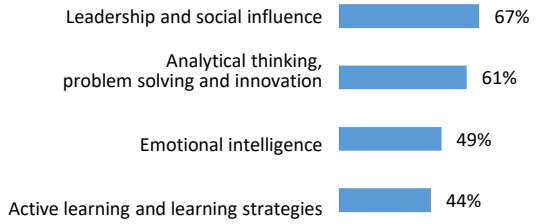
Availability of talent



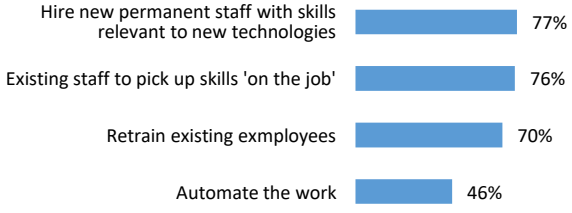
Neither agree nor disagree, and don't know responses are not shown.

Skills outlook

Top priorities for upskilling/re-skilling in next 5 years



Top 4 strategies to address shifting skills demand



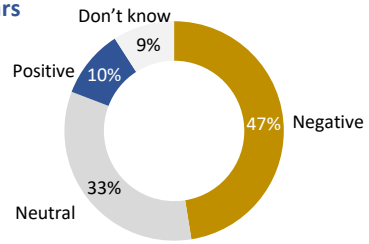
Also, **20%** predict strategic redundancies of staff who lack the skills to use new technologies.

Climate change

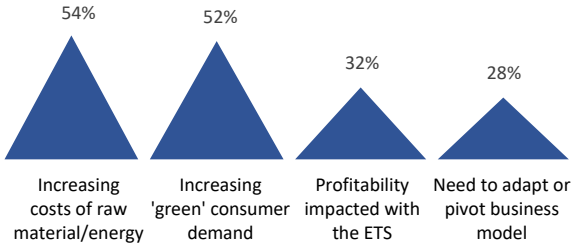
Impacts of climate change in last 12 months

52% say climate change has significantly impacted their organisation

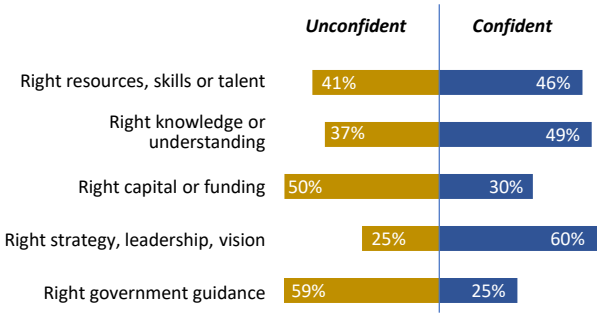
Expected overall impact of climate change on business in next 5 years



Four biggest anticipated climate change challenges



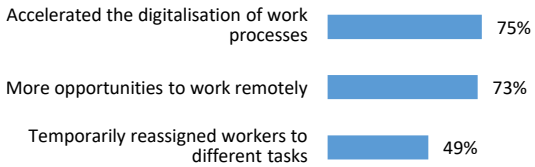
Confidence in ability to address climate change



Not applicable and don't know responses are not shown.

COVID-19

Top 3 measures implemented



Impact on wages and employment

22% ...of companies implemented redundancies due to COVID

41% ...of companies received the COVID wage subsidy, and...

85% ...of businesses that received the subsidy topped up the wages above the government funded 80%

57% of NZ companies believe the ongoing impact of COVID-19 will drive organisational transformation over the next five years

Section 1: Expected impact of macrotrends on business transformation and employment

This section details the perceived impact of macrotrends on organisational change in the next five years. Employers were asked to identify how likely 15 macrotrends will be to drive transformation in their organisation and what impact (if any) these might have on job creation. Results are shown in Figures 1 to 3, and Table 2.

Expected impact of macrotrends on business transformation

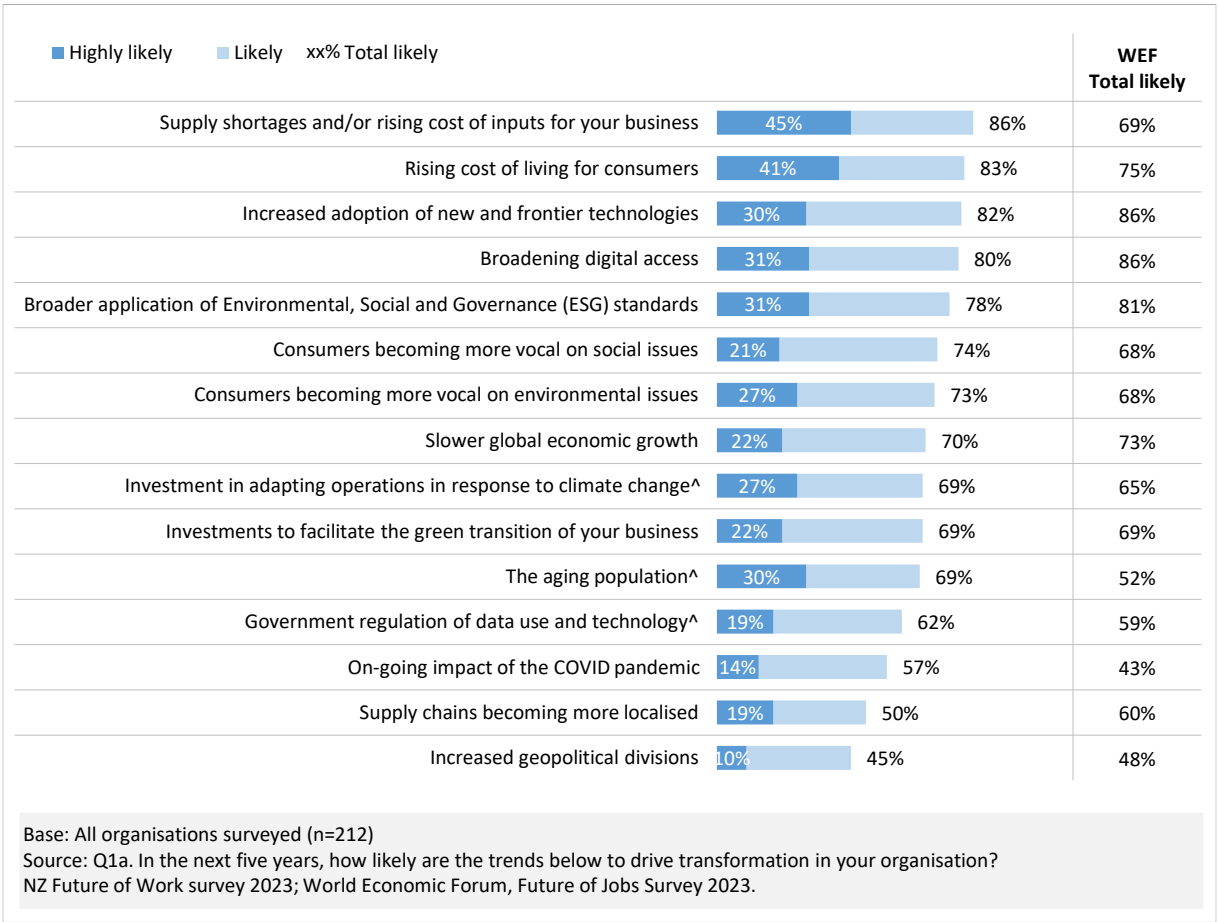
Figure 1 (overleaf) shows that supply shortages and the rising cost of inputs top the list of trends that are mostly likely to drive transformation in NZ businesses, with nearly nine in ten businesses expecting these to be a transformational factor. The predicted impact of supply shortages is much more common in NZ than the rest of the of the world (86% vs 69%).

However, the next four most impactful macrotrends emerge as affecting at least three quarters of businesses in both NZ and businesses globally: consumer inflation, the increased adoption of new and frontier technologies, broadening digital access, and the broader application of Environmental, Social and Governance (ESG) standards.

Subgroup analysis shows that:

- Increased adoption of new and frontier technologies is more likely to drive transformation in NZ's largest businesses (92% of businesses with more than 250 employees, vs 74% of businesses with 50-250 employees).
- Slower global economic grown is expected to impact smaller NZ companies (88% of businesses with 50-99 employees, vs 67% of businesses with 100 or more employees).

Figure 1. Macrotrends driving business transformation in next five years



Base: All organisations surveyed (n=212)
Source: Q1a. In the next five years, how likely are the trends below to drive transformation in your organisation?
NZ Future of Work survey 2023; World Economic Forum, Future of Jobs Survey 2023.

Note to reader on WEF comparison:
All attributes were included in the WEF questionnaire.
^WEF wording of attributes differed for three attributes:
Aging populations in advanced and emerging economies (vs NZ wording 'The aging population')
Climate change induced investments into adapting operations (vs NZ wording 'Investment in adapting operations in response to climate change')
Stricter government regulation of data use and technology (vs NZ wording 'Government regulation use of data use and technology').
Don't know responses were only possible in the NZ questionnaire. These were 2% or less for all attributes, except for 'supply chains becoming more localised' (DK=5%) and 'increased geopolitical divisions' (DK=4%).

Respondents were asked to specify any other trends that will drive transformation in their organisation in the next five years. Comments mainly focussed on labour shortages (8%), political trends/government decisions (7%), greater use of technology (6%), supply shortages (5%), employee engagement/expectations (4%), legislative and regulatory changes (3%), government investment and support (3%), health/wellbeing issues (3%), immigration (3%), and social stability/deprivation (3%).

Figure 2 (overleaf) shows the macrotrends that are expected to drive transformation in the six sectors. The reader is reminded that these results should be viewed as indicative only due to small sample sizes, especially for the Primary, Business and Finance, and Public Administration and Safety sectors (see base sizes at bottom of Figure 2).

Businesses in the Services sector are significantly more likely than other sectors to expect transformation from the ongoing impact of the COVID pandemic (70%) and heightened consumer expectations around social issues (84%).

Figure 2. Macrotrends driving business transformation in next five years – sector analysis

% total likely to impact	Service	Primary	Manufacturing	Business and Finance	Distribution	Public Administration and Safety
Supply shortages and/or rising cost of inputs for your business	84%	90%	92%	78%	85%	89%
Rising cost of living for consumers	81%	92%	80%	84%	85%	89%
Increased adoption of new and frontier technologies	86%	64%	74%	92%	86%	78%
Broadening digital access	84%	56%	51%	100%	87%	100%
Broader application of Environmental, Social and Governance (ESG) standards	69%	92%	79%	94%	85%	89%
Consumers becoming more vocal on social issues	84%	66%	49%	92%	64%	89%
Consumers becoming more vocal on environmental issues	67%	74%	73%	94%	79%	78%
Slower global economic growth	65%	82%	74%	92%	81%	56%
Investment in adapting operations in response to climate change	62%	74%	62%	76%	74%	89%
Investments to facilitate the green transition of your business	62%	74%	66%	92%	77%	78%
The aging population	78%	48%	63%	68%	56%	67%
Government regulation of data use and technology	68%	8%	40%	76%	60%	89%
On-going impact of the COVID pandemic	70%	28%	41%	54%	45%	67%
Supply chains becoming more localised	46%	80%	52%	54%	63%	33%
Increased geopolitical divisions	39%	38%	29%	68%	48%	78%
Other	49%	52%	34%	0%	43%	44%

Base: Organisations in the Services (n=88), Primary (n=11), Manufacturing (n=62), Business and Finance (n=8), Distribution (n=34), and Public Administration and Safety (n=9) sectors.
Source: Q1a, NZ Future of Work survey 2023.

Expected impact of macrotrends on employment

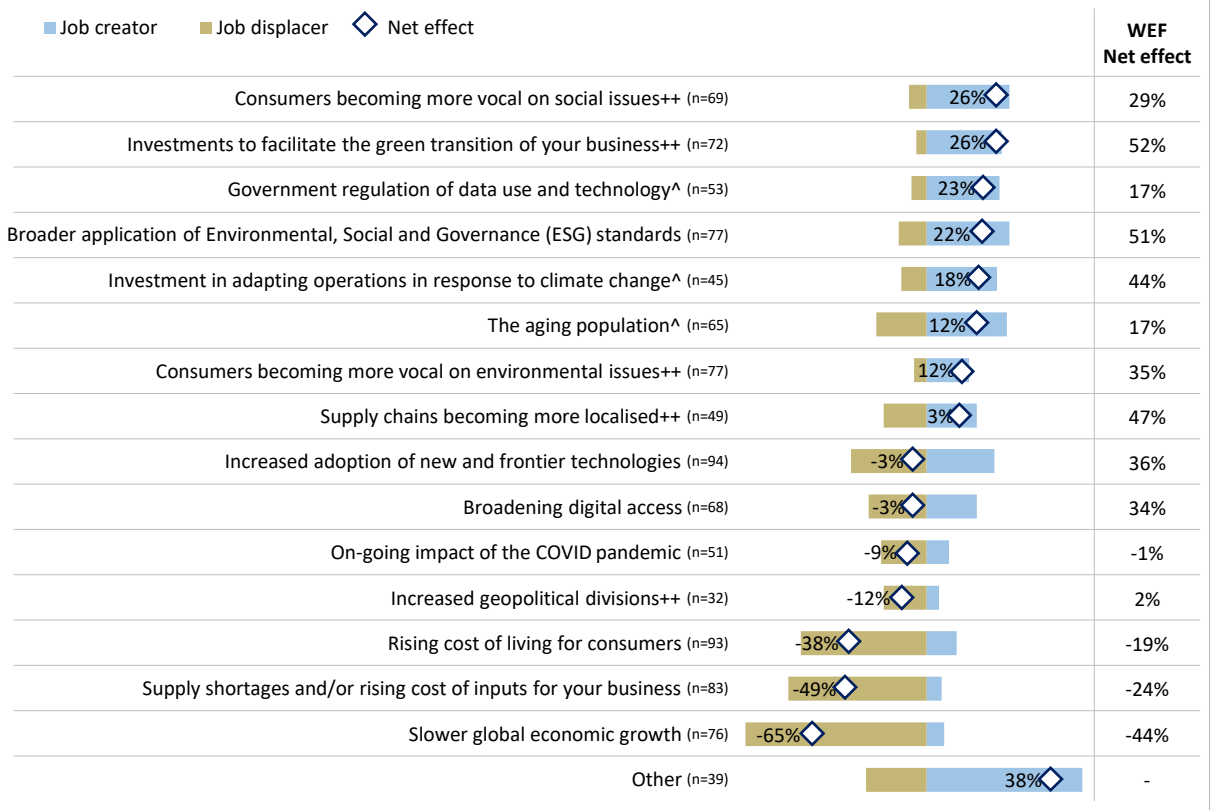
For each macrotrend, Figure 3 shows the proportion of affected organisations that expect the macrotrend to create or displace jobs. Expected 'neutral' impacts on jobs are not plotted on the graph. Comparisons with the WEF survey are shown in the right-hand column using the net effect.

NZ employers expect around half of the macrotrends to have a net job creation effect, with consumer expectations on social issues, the green transition, government regulation of data use and technology, and the broader application of ESG standards topping the list.

Consistent with the global survey findings, the biggest net job displacers in affected NZ businesses over the next five years are predicted to be slower global economic growth, supply shortages and the rising costs of inputs, and consumer inflation. Two of these (supply shortages and consumer inflation) are also the most common macrotrends that organisations identify as impacting their business in the next five years (as shown in Figure 1).

See Table 2 overleaf for a detailed assessment of these results in the context of the overall likelihood of the macrotrends to transform NZ businesses.

Figure 3. Expected impact of macrotrends on jobs in next five years



Base: All organisations which believe a trend is likely or highly likely to drive transformation.
Source: Q2. Regarding the trends you identified as likely or highly likely, what is their expected impact on job creation in your organisation?
NZ Future of Work survey 2023; World Economic Forum, Future of Jobs Survey 2023.

Note to reader on WEF comparison:
All attributes were included in the WEF questionnaire. ^Differences in WEF wording are explained in the note following Figure 1.
Don't know responses were only possible in the NZ questionnaire. These ranged from 4% to 27%. Attributes with a don't know response higher than 10% are marked with a ++. This potentially affects our ability to compare the net effects between the two surveys. However, many uncertain respondents in the WEF survey may have elected to choose 'neutral'. If this is the case, comparisons are not significantly impacted.

The net scores in Figure 3 were each based on the businesses that predicted they would be transformed by the macrotrend. Table 2 provides adjusted net job effect scores based on all businesses. This means that if an employer felt it is unlikely that the business will be transformed by the macrotrend (or they are neutral or unsure in their response), the estimated job impact is zero. A lower and upper estimate has been calculated. The lower estimate assumes only businesses that predict it is 'very likely' the business will be transformed will have job impacts. And the upper estimate assumes businesses that predict it is 'very likely' or 'likely' that the business will be transformed will have job impacts.

Based on the higher estimates, the following macrotrends will be the biggest net job creators across NZ businesses:

- Consumer expectations on social issues (+19%)
- The green transition (+18%)
- Broader application of ESG standards (+17%)
- Government regulation of data use and technology (+14%).

And the following macrotrends will be the biggest net job displacers across NZ businesses:

- Slower global economic growth (-46%)
- Supply shortages/rising cost of inputs (-42%)
- Consumer inflation (-32%).

Table 2: Adjusted net job creation scores – macrotrends

	Adjusted net effect (lower estimate)	Adjusted net effect (higher estimate)
Consumers becoming more vocal on social issues	+8%	+19%
Investments to facilitate the green transition of your business	+8%	+18%
Broader application of Environmental, Social and Governance (ESG) standards	+6%	+17%
Government regulation of data use and technology	+7%	+14%
Investment in adapting operations in response to climate change	+5%	+12%
Consumers becoming more vocal on environmental issues	+4%	+9%
The aging population	+3%	+8%
Supply chains becoming more localised	0	+2%
Increased adoption of new and frontier technologies	0	-2%
Broadening digital access	-1%	-2%
Increased geopolitical divisions	-3%	-5%
On-going impact of the COVID pandemic	-4%	-5%
Rising cost of living for consumers	-7%	-32%
Supply shortages and/or rising cost of inputs for your business	-9%	-42%
Slower global economic growth	-29%	-46%

Base: All respondents (212)
Source: Q1a and Q2.

Section 2. Expected impact of technology adoption on business transformation and employment

This section explores the adoption and impact of developing technologies on organisational change in the next five years. Employers were asked how likely their business will be to adopt 28 technologies in the next five years and what (if any) impact adopted technologies may have on job creation. Results are shown in Figures 4 to 6, and Table 3.

Expected adoption of technology

Figure 4 shows that NZ businesses are aligned with their global counterparts with respect to the top five technologies (relative to other technologies). In the next five years, proportions of more than 90% of NZ businesses expect to adopt digital platforms and apps, cloud computing, and education and workforce development technologies. And more than 80% of NZ businesses expect to adopt encryption and cyber security, the internet of things and connected devices, and environmental management technologies, respectively.

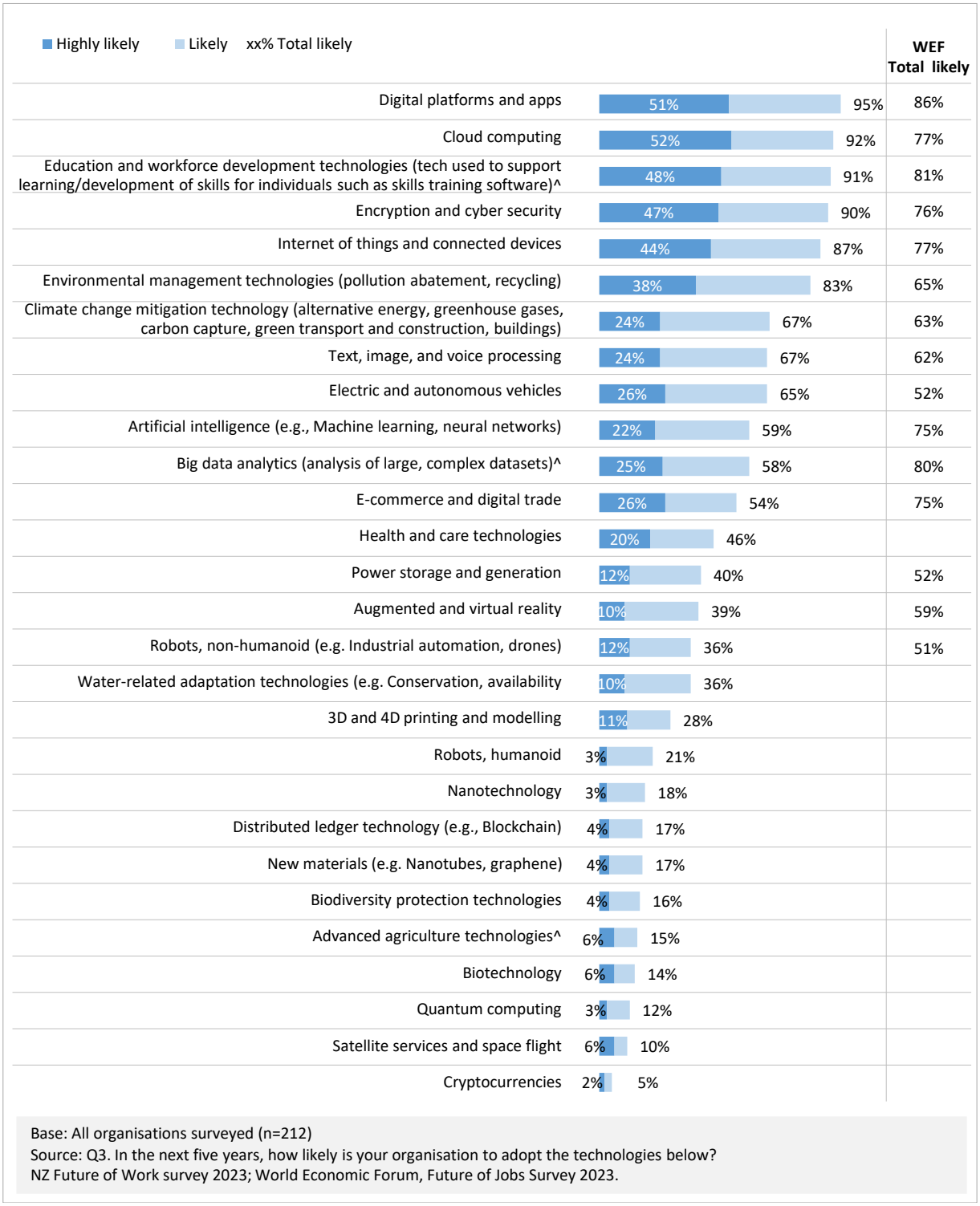
The WEF comparisons suggest New Zealand businesses may be ahead of the game by adopting these top five technologies (with expected adoption higher in NZ for each of these technologies), as well as the adoption of environmental management technologies (83%, vs 65% in the WEF study), and electric and autonomous vehicles (65%, vs 52% in the WEF study). Additional subgroup analysis shows larger NZ businesses (more than 250 employees) are especially likely to adopt electric and autonomous vehicles (78%).

Conversely, NZ businesses appear to be behind their global counterparts in the expected adoption of AI, big data analytics, e-commerce and digital trade, power storage and generation, augmented and virtual reality, and robots/non-humanoid. However, additional subgroup analysis shows that expected adoption of three of these technologies is high for NZ's largest businesses:

- Artificial intelligence (72% of NZ businesses with more than 250 employees, vs 49% of NZ businesses with up to 250 employees)
- Big data analytics (74%, vs 47%)
- Robots, nonhumanoid (52%, vs 24%).

Expected adoption of e-commerce and digital trade is notably higher among NZ businesses in the Distribution sector (87%) and NZ businesses with a young workforce (74% of businesses with more than 10% of their workforce aged under 20 years).

Figure 4. Technology adoption



Base: All organisations surveyed (n=212)
Source: Q3. In the next five years, how likely is your organisation to adopt the technologies below?
NZ Future of Work survey 2023; World Economic Forum, Future of Jobs Survey 2023.

Note to reader on WEF comparison:
All attributes were included in the WEF questionnaire. However, the WEF report only shows the results for the top 15.
^The explanations in brackets for 'big data analytics' and 'education and workforce development technologies' are only in the NZ questionnaire. The word 'advanced' in the NZ attribute 'Advanced agriculture technologies' was not including in the WEF questionnaire.
Don't know responses were only possible in the NZ questionnaire. These ranged from 0% to 23%. However, because WEF respondents had the option to use 'neither likely nor unlikely', comparisons of the 'likely' scores are meaningful.

Figure 5 shows the expected adoption of technology by sector.

Figure 5. Technology driving business transformation in next five years – sector analysis

% total likely to adopt	Service	Primary	Manufacturing	Business and Finance	Distribution	Public Administration and Safety
Digital platforms and apps	97%	100%	89%	100%	92%	100%
Cloud computing	92%	90%	91%	84%	97%	100%
Education and workforce development technologies	95%	82%	82%	100%	88%	100%
Encryption and cyber security	92%	72%	78%	100%	93%	100%
Internet of things and connected devices	90%	82%	85%	84%	93%	78%
Environmental management technologies (pollution abatement, recycling)	78%	82%	90%	70%	89%	89%
Climate change mitigation technology	63%	82%	76%	60%	71%	67%
Text, image, and voice processing	74%	48%	52%	78%	59%	78%
Electric and autonomous vehicles	62%	48%	65%	76%	74%	67%
Artificial intelligence (e.g. machine learning, neural networks)	57%	56%	51%	78%	58%	78%
Big data analytics (analysis of large, complex datasets)	56%	46%	53%	78%	67%	56%
E-commerce and digital trade	35%	66%	55%	78%	87%	56%
Health and care technologies	57%	36%	35%	38%	42%	33%
Power storage and generation	42%	54%	53%	16%	49%	0%
Augmented and virtual reality	46%	10%	36%	22%	27%	56%
Robots, non-humanoid (e.g. industrial automation, drones)	22%	64%	53%	38%	32%	67%
Water-related adaptation technologies (e.g. conservation, availability)	35%	72%	49%	32%	32%	22%
3D and 4D printing and modelling	25%	18%	34%	22%	24%	44%
Robots, humanoid	20%	28%	21%	44%	28%	0%
Nanotechnology	21%	18%	21%	22%	13%	11%
Distributed ledger technology (e.g. blockchain)	16%	30%	13%	32%	21%	11%
New materials (e.g. nanotubes, graphene)	18%	0%	20%	22%	17%	11%
Biodiversity protection technologies	9%	54%	21%	22%	7%	44%
Advanced agriculture technologies	10%	100%	19%	16%	12%	11%
Biotechnology	15%	72%	25%	22%	2%	0%
Quantum computing	13%	18%	14%	6%	12%	11%
Satellite services and space flight	5%	10%	14%	22%	8%	22%
Cryptocurrencies	5%	0%	2%	22%	6%	0%

Base: Organisations in the Services (n=88), Primary (n=11), Manufacturing (n=62), Business and Finance (n=8), Distribution (n=34), and Public Administration and Safety (n=9) sectors.
Source: Q3, NZ Future of Work survey 2023.

Expected impact of technology on employment

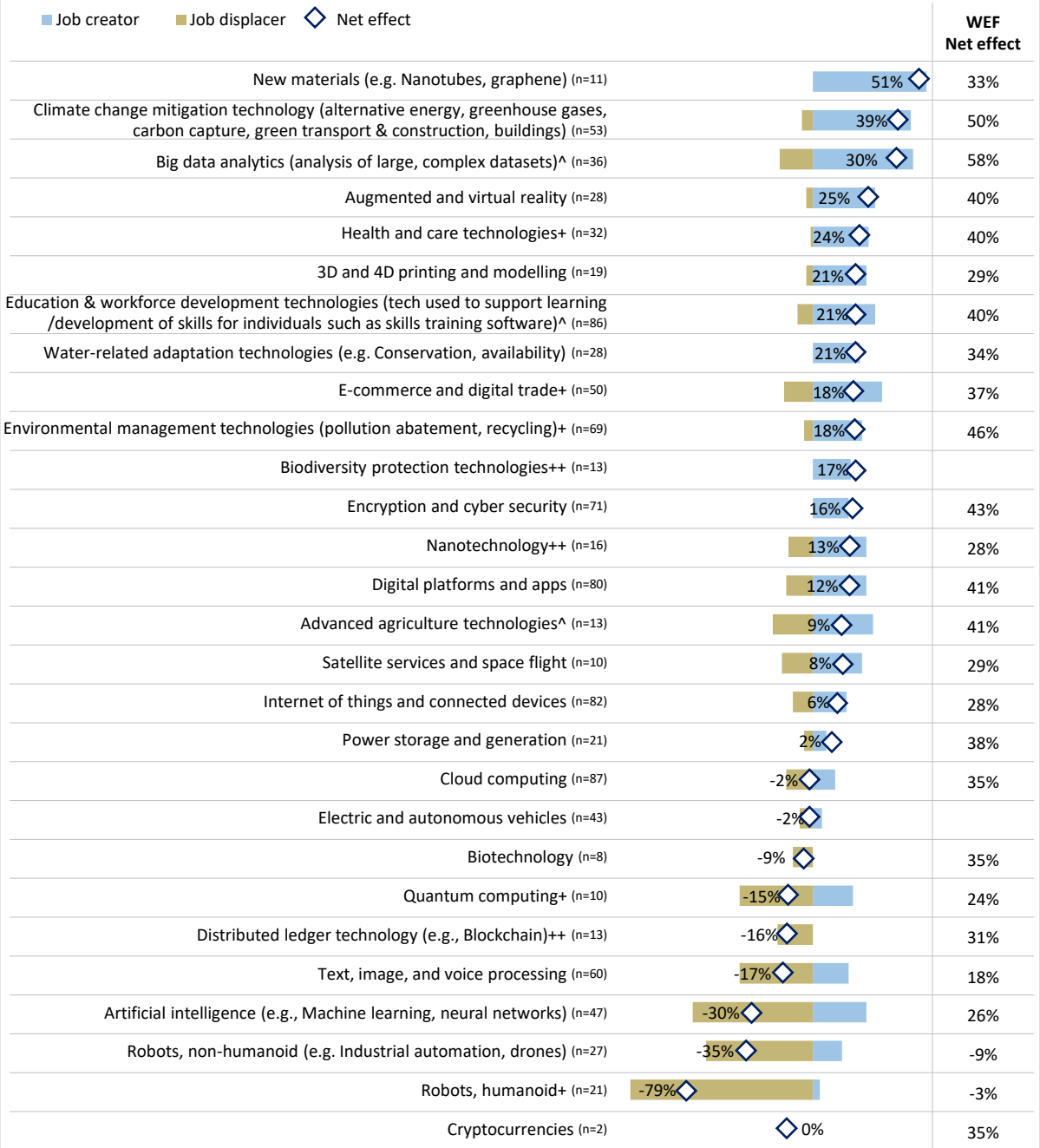
For each technology, Figure 6 (overleaf) shows the proportion of likely technology adopters that expect the technology to create or displace jobs. Expected 'neutral' impacts on jobs are not plotted on the graph. Comparisons with the WEF survey are shown in the right-hand column using the net effect.

New Zealand businesses expect most of the technologies to have a net job creation effect. Positive impacts on labour are especially strong for businesses that adopt new materials, climate change mitigation technology, and big data analytics (each with a net job creation effect of 30% or more).

The greatest net job displacements are expected for businesses that plan to adopt robots (both humanoid and non-humanoid, and AI.

The reader should interpret these results in the context of the overall likelihood of businesses to adopt a technology (displayed in in Figure 4). For example, while new materials (e.g. Nanotubes, graphene) top the list in the NZ study for net job creation (with a net job creation effect of 51% for those businesses that adopt the technology), only 17% of businesses are likely to adopt the technology. See the discussion and table on page 17 for a fuller assessment on which technologies will have the greatest net job creation and displacement effects across all businesses.

Figure 6. Expected impact of technologies on jobs



Base: Organisations who believe a technology is likely or highly likely to drive transformation.
Source: Q4. Regarding the technologies you identified as likely or highly likely to be adopted, what is their expected impact on job creation in your organisation?
NZ Future of Work survey 2023; World Economic Forum, Future of Jobs Survey 2023.

Note to reader on WEF comparison:
All attributes were included in the WEF questionnaire. ^Differences in WEF wording are explained in the note following Figure 4.
Don't know responses were only possible in the NZ questionnaire. Don't know responses for Q4 are less than 5% for most attributes. Attributes with a don't know response between 6% and 8% are marked with a +. Attributes with a don't know response higher than 10% are marked with a ++. This potentially affects our ability to compare the net effects between the two surveys. However, many uncertain respondents in the WEF survey may have elected to choose 'neutral'. If this is the case, comparisons are not significantly impacted.

The net scores in Figure 6 were each based on the businesses that predicted they would adopt the technology. Table 3 provides adjusted net job effect scores based on all businesses. This means that if a business felt it is unlikely that the business will adopt the technology (or they are neutral or unsure in their response), the estimated job impact for that business is zero. Lower and upper estimates have been calculated. The lower estimate assumes only businesses that predict it is 'very likely' the business will adopt the technology will have job impacts. And the upper estimate assumes businesses that predict it is either 'very likely' or 'likely' that the business will adopt the technology will have job impacts. Based on the higher estimates, we observe that the following technologies will be the biggest net job creators across NZ businesses:

- Climate change mitigation technology (+26%)
- Education and workforce development technologies (+19%)
- Big data analytics (+17%)

And the following technologies will be the biggest net job displacers across NZ businesses:

- AI (-18%)
- Robots, humanoid (-17%)
- Robots, non-humanoid (-13%)
- Text, image and voice processing (-11%).

Table 3: Adjusted net job creation scores – technology adoption

Technology	Adjusted net job creation score (lower estimate)	Adjusted net job creation score (higher estimate)
Climate change mitigation technology (alternative energy, greenhouse gases, carbon capture, green transport and construction, buildings)	+9%	+26%
Education and workforce development technologies (technologies used to support learning and development of skills for individuals such as skills training software)	+10%	+19%
Big data analytics (analysis of large, complex datasets)	+8%	+17%
Environmental management technologies (pollution abatement, recycling)	+7%	+15%
Encryption and cyber security	+8%	+14%
Digital platforms and apps	+6%	+11%
Health and care technologies	+5%	+11%
Augmented and virtual reality	+3%	+10%
E-commerce and digital trade	+5%	+10%
New materials (e.g., Nanotubes, graphene)	+2%	+9%
Water-related adaptation technologies (e.g., Conservation, availability	+2%	+8%
3D and 4D printing and modelling	+2%	+6%
Internet of things and connected devices	+3%	+5%
Biodiversity protection technologies	+1%	+3%
Nanotechnology	+0.4%	+2%
Advanced agriculture technologies	+1%	+1%
Satellite services and space flight	+0.5%	+1%
Cryptocurrencies	0%	0%
Power storage and generation	0.2%	+1%
Biotechnology	-0.5%	-1%
Electric and autonomous vehicles	-0.5%	-1%
Quantum computing	-0.5%	-2%
Cloud computing	-1%	-2%
Distributed ledger technology (e.g., Blockchain)	-1%	-3%
Text, image, and voice processing	-4%	-11%
Robots, non-humanoid (e.g., Industrial automation, drones)	-8%	-13%
Robots, humanoid	-2%	-17%
Artificial intelligence (e.g., Machine learning, neural networks)	-7%	-18%

Base: All respondents (212)
Source: Q3 and Q4.

Section 3. Jobs outlook

This section identifies key areas of employment in which employers expect significant changes to occur in the next five years, as well as which areas are expected to remain relatively stable. Employers also provide their views on the current qualities of their workforce and what skills they believe to be most important to perform well in key roles.

Growing, stable and declining job outlooks

The following table summarises the top five occupations with growing, stable and declining outlooks by sector. Note, the sample sizes for Primary (n=11), Business and finance (8) and Public administration sectors are very small.

Direct comparisons are not possible with the WEF study as a different approach was used to collect occupation data[2].

Table 4: Growing, stable and declining outlooks (top 5 per sector)

GROWING	STABLE	DECLINING
SERVICE (Accommodation and food services, Information media and telecommunications, Professional, scientific and technical services, Administrative and support services, Education and training, Healthcare and social assistance, Arts and recreation services, Other services)		
Midwifery and nursing professionals (24%)	Miscellaneous clerical and administrative workers (20%)	Miscellaneous clerical and administrative workers (26%)
Medical practitioners (17%)	Health and welfare support workers (10%)	Keyboard operators (7%)
Business and systems analysts, and programmers (16%)	Office and practice managers (10%)	Education, health, and welfare services managers (5%)
School teachers (15%)	Business administration managers (9%)	Financial and insurance clerks (5%)
Personal carers and assistants (11%)	Cleaners and laundry workers (8%)	Logistics clerks (3%)
PRIMARY (Agriculture, Forestry and Fishing)		
Business and systems analysts, and programmers (20%)	Miscellaneous clerical and administrative workers (26%)	Miscellaneous labourers (26%)
Information and organisation professionals (20%)	Insurance agents and sales representatives (20%)	Engineering professionals (18%)
Health diagnostic and promotion professionals (18%)	Business administration managers (20%)	Accounting clerks (10%)
Farm workers (18%)	Farmers and farm managers (20%)	Fabrication engineering trades workers (8%)
Engineering professionals (10%)	Business and systems analysis, and programmers (16%)	Farm workers (8%)
MANUFACTURING (Manufacturing, Electricity, gas, water and waste services, Construction)		
Engineering professionals (33%)	Construction, distribution, and production managers (28%)	Miscellaneous clerical and administrative workers 13%)
Business and systems analysts, and programmers (26%)	Miscellaneous clerical and administrative workers (22%)	Miscellaneous factory process workers (10%)

[2] The WEF study prompted respondents with a list of occupations to select. As this list was not available when the NZ questionnaire was designed, occupation was collected using an open field. Occupations were then coded post fieldwork using the 2022 ANZSCO (Australian and New Zealand Standard Classification of Occupations) categorisation.

Construction, distribution, and production managers (18%)	Miscellaneous factory process workers (17%)	Financial and insurance clerks (6%)
Information and organisation professionals (13%)	Business administration managers (12%)	Accounting clerks and bookkeepers (5%)
Miscellaneous factory process worders (11%)	Sales assistants and salespersons (9%)	Store persons (4%)
BUSINESS AND FINANCE (Financial and insurance services, Rental, hiring and real estate services)		
Miscellaneous clerical and administrative workers (35%)	Miscellaneous clerical and administrative workers (30%)	Call or contact centre information clerks (32%)
Insurance agents and sales representatives (24%)	Sales, marketing, and public relations professionals (22%)	Miscellaneous clerical and administrative workers (22%)
Information and organisation professionals (22%)	Human resource and training professionals (16%)	Clerical and office support workers (16%)
Health diagnostic and promotion professionals (16%)	Business and systems analysts, and programmers (16%)	Chief executives, general managers, and legislators (16%)
Business and systems analysts, and programmers (16%)	Accounting clerks and bookkeepers (16%)	Sales assistants and salespersons (16%)
DISTRIBUTION (Wholesale trade, Retail trade, Transport, postal and warehousing)		
Information and organisation professionals (28%)	Sales assistants (26%)	Miscellaneous clerical and administrative workers (24%)
ICT network and support professionals (19%)	Miscellaneous clerical and administrative workers (20%)	Sales assistants and salespersons (20%)
Business and systems analysts, and programmers (16%)	Retail managers (17%)	Accounting clerks and bookkeepers (15%)
Sales, marketing, and public relations professionals (14%)	Construction, distribution, and production managers (16%)	Insurance agents and sales representatives (14%)
Sales assistants and salespersons (14%)	Chief executives, general managers, and legislators (13%)	Logistical clerks (9%)
PUBLIC ADMINISTRATION AND SAFETY (Public administration and safety)		
ICT managers (33%)	Business administration managers (22%)	Miscellaneous clerical and administrative workers (44%)
Information and organisation professionals (33%)	Information and organisation professionals (22%)	Information and organisation professionals (22%)
Natural and physical science professionals (33%)	Business and systems analysts, and programmers (22%)	Financial and insurance clerks (11%)
Business and systems analysts, and programmers (33%)	Architects, designers, planners, and surveyors (11%)	Clerical and office support workers (11%)
Miscellaneous specialist managers (22%)	Accountants, auditors, and company secretaries (11%)	Miscellaneous hospitality, retail, and service managers (11%)

Base: All respondents in Services sector (88), Primary Sector (11), Manufacturing (62), Business and Finance (8), Distribution (34), Public administration and safety (9)
Source Q5, Q6, Q7

Outlook of current workforce

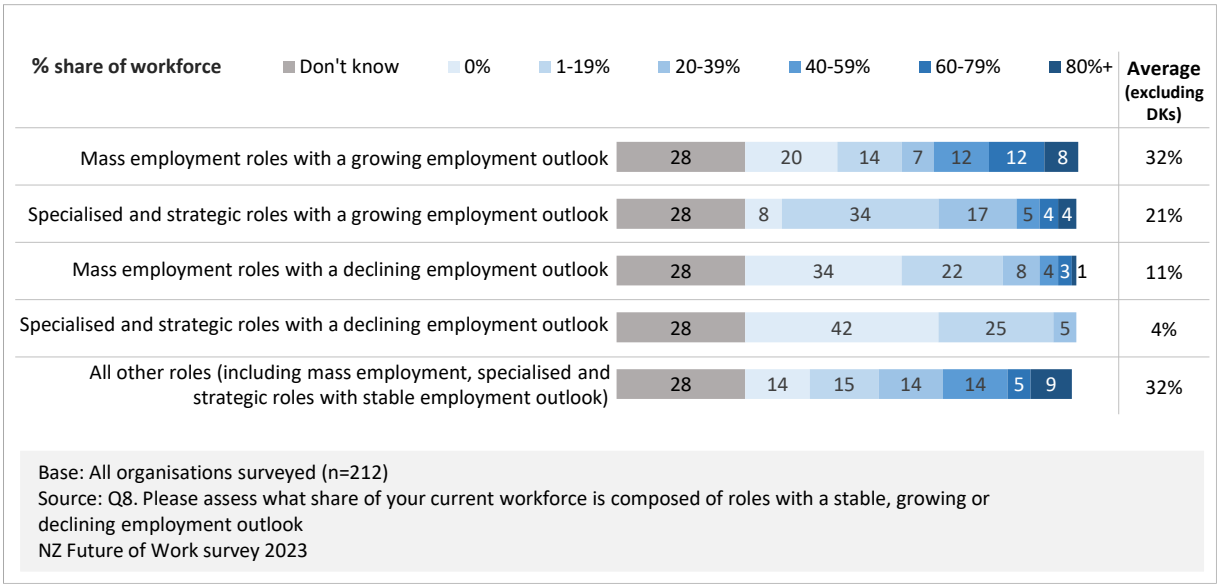
Figure 7 shows NZ businesses' views on the employment outlook of their workforces by role type.

Overall, NZ businesses predict more of their mass employment and specialised/strategic roles will grow than decline.

A sizeable proportion of businesses were unable to answer the question (28%). When these businesses are excluded from the analysis:

- On average 32% of the workforce are in mass employment roles with a growing outlook and 21% are in specialised/strategic roles with a growing employment outlook.
- On average, 15% are in roles with a declining employment outlook (11% in mass employment roles and 4% in specialised/strategic roles).

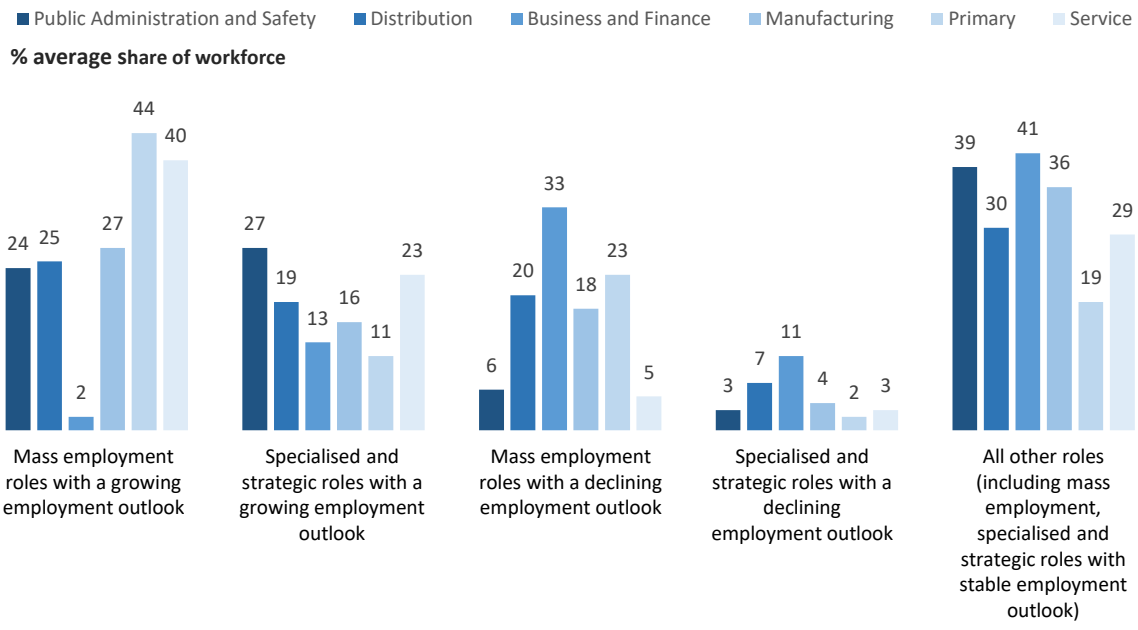
Figure 7. Current workforce



Base: All organisations surveyed (n=212)
Source: Q8. Please assess what share of your current workforce is composed of roles with a stable, growing or declining employment outlook
NZ Future of Work survey 2023

Figure 8 shows NZ businesses' views on the employment outlook of their workforces by sector. Due to small sample sizes, results are indicatively only. Businesses in the services sector are more likely than the total sample to have a higher proportion of their workforce in mass employment roles with a growing employment outlook (40% vs 32%). Manufacturing sector businesses are more likely than the total sample to have a higher proportion of their workforce in mass employment roles with a declining employment outlook (18% vs 11%)).

Figure 8. Current workforce – sector analysis



Base: All respondents (excluding don't know responses) in Services sector (88), Primary Sector (11), Manufacturing (62), Business and Finance (8), Distribution (34), Public administration and safety (9)
Source: Q8. Please assess what share of your current workforce is composed of roles with a stable, growing or declining employment outlook
NZ Future of Work survey 2023

Core skills in 2023

Figure 9 shows NZ businesses' views on the core skills required today by workers to perform well in roles with a stable outlook. A comparison with the WEF survey is shown in the right-hand column.

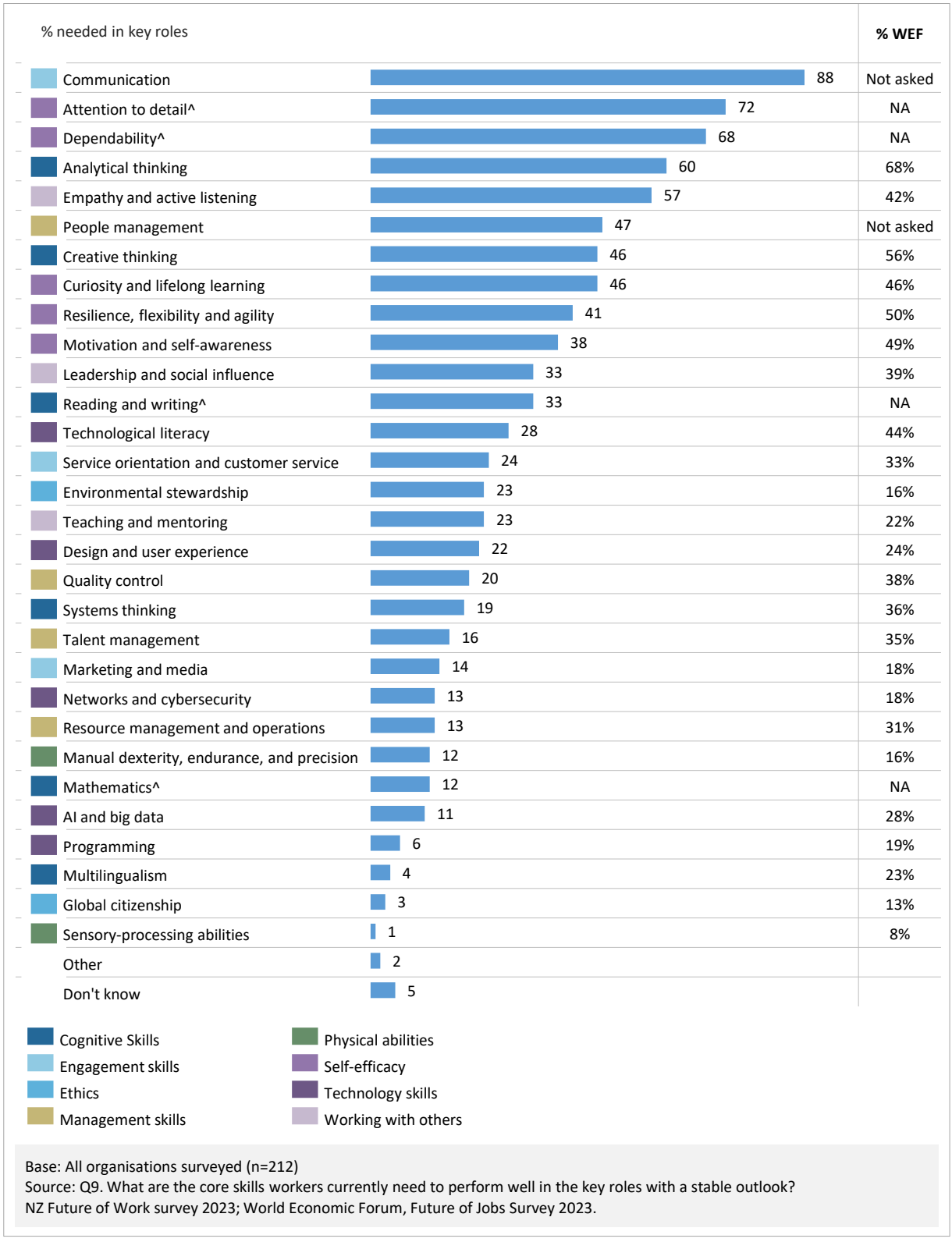
Communication (88%) tops the list for the core skills needed by workers today in NZ, followed by attention to detail (72%), dependability (68%) and analytical thinking (60%).

Only two skills are more commonly needed in New Zealand than the rest of the world: empathy and active listening (57% in NZ vs 42% globally) and environmental stewardship (23% vs 16%).

Many of the other skills are more commonly needed globally than in NZ, especially technology literacy (28% in NZ, vs 44% globally), quality control (20% vs 38%), systems thinking (19% vs 36%), talent management (16% vs 35%), resource management and operations (13% vs 31%), AI and big data (11% vs 28%), multilingualism (4% vs 23%), and programming (6% vs 19%).

Sector analysis (see Figure 10) highlights that many of the skills are important across sectors. However, core skills are often more needed in some sectors than others, for example: empathy and active listening in the Services sector (73%), environmental stewardship in the Primary sector (54%*), technological literacy in Business and Finance (70%*), analytical thinking in the Public and administration sector (100%*), manual dexterity, endurance and precision in the Manufacturing (25%) and Primary (26%*) sectors, and AI and big data in the Distribution sector (23%).

Figure 9. Core skills in 2023



Base: All organisations surveyed (n=212)
Source: Q9. What are the core skills workers currently need to perform well in the key roles with a stable outlook?
NZ Future of Work survey 2023; World Economic Forum, Future of Jobs Survey 2023.

Note to reader on WEF comparison:
Two attributes were not asked in the WEF questionnaire (as noted on the above graph).
^The WEF questionnaire included the attributes 'Reading, writing, and mathematics' (25% approx) and 'Dependability and attention to detail' (43% approx). As the NZ questionnaire split each of these attributes into multiple categories, the WEF comparisons are not shown on the chart.
The NZ questionnaire allowed a Don't know response (5%).

Figure 10. Core skills in 2023 by sector

% needed in key roles	Service	Primary	Manufacturing	Business and Finance	Distribution	Public Administration and Safety		
Environmental stewardship	23%	54%	23%	6%	12%	44%	Ethics	Attitudes
Global citizenship	4%	28%	2%	0%	0%	0%		
Curiosity and lifelong learning	55%	36%	32%	68%	30%	56%	Self-efficacy	
Dependability	67%	82%	71%	35%	63%	89%		
Motivation and self-awareness	32%	36%	33%	54%	38%	67%		
Resilience, flexibility and agility	34%	56%	31%	70%	37%	78%		
Empathy and active listening	73%	56%	34%	68%	41%	56%	Working with others	
Leadership and social influence	29%	64%	32%	38%	29%	44%		
Teaching and mentoring	20%	36%	16%	48%	21%	33%		
Analytical thinking	56%	46%	63%	46%	47%	100%	Cognitive skills	Skills, knowledge, and abilities
Creative thinking	47%	48%	36%	68%	34%	67%		
Multilingualism	6%	0%	2%	6%	0%	11%		
Reading and writing	25%	26%	28%	22%	37%	67%		
Mathematics	9%	18%	14%	38%	3%	22%		
Systems thinking	10%	30%	18%	22%	9%	67%		
Attention to detail	67%	64%	77%	84%	73%	78%		
Marketing and media	12%	28%	4%	38%	15%	22%	Management and engagement skills	
Service orientation and customer service	21%	40%	16%	38%	23%	44%		
Quality control	17%	46%	25%	38%	26%	0%		
Resource management and operations	10%	18%	18%	0%	14%	22%		
Talent management	14%	10%	3%	16%	15%	44%		
People management	36%	66%	41%	54%	54%	78%		
Communication	86%	100%	88%	84%	86%	100%		
Manual dexterity, endurance, and precision	8%	26%	25%	6%	14%	0%	Physical abilities	
Sensory-processing abilities	2%	0%	0%	0%	0%	0%		
AI and big data	11%	10%	6%	6%	23%	0%	Technology skills	
Design and user experience	20%	10%	18%	38%	13%	44%		
Networks and cybersecurity	8%	20%	4%	32%	20%	22%		
Programming	4%	10%	5%	16%	3%	11%		
Technological literacy	19%	18%	24%	70%	32%	44%		
Other	2%	8%	1%	0%	3%	0%		

Base: Services sector (88), Primary Sector (11), Manufacturing (62), Business and Finance (8), Distribution (34), Public administration and safety (9)
Source Q9

Section 4. Skills outlook

Building on the expected growth and decline of certain roles and the need for core skills in current roles, this section examines employers' views on future skill requirements and qualifications, the availability of talent, and strategies to address shifting skills demand.

Future skills

Figure 11 displays the skill clusters which NZ businesses are focussing on to reskill and upskill the workforce in the next five years. Note, the skills list used for this question is from the 2020 WEF survey (as confirmation of the 2022 list was not available at the time of survey design) and therefore has quite a few differences to the WEF survey run in 2022 (and the list used in Figure 9). Comparisons are therefore limited.

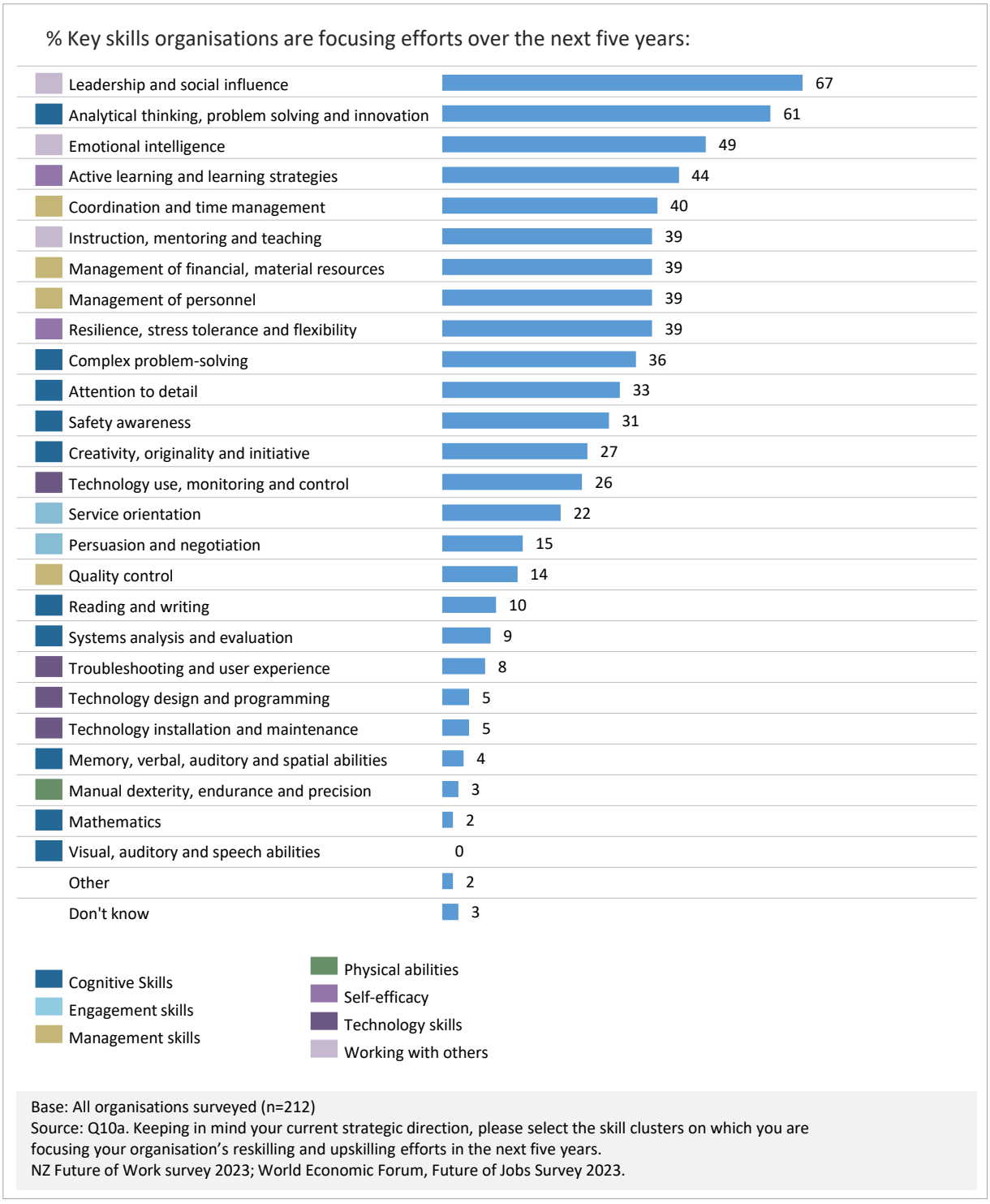
Leadership and social influence (67%), and analytical thinking, problem solving, and innovation (61%), are the top two training priorities for NZ companies over the next five years.

Two evolving skill clusters are evident. These are ones where the probability of the skills cluster appearing in the organisation's reskilling and upskilling initiatives (Figure 11) is much higher than the probability of it being a core skill for its current workers with a stable employment outlook (Figure 9):

- Leadership and influence (66% in the reskilling/upskilling list versus 33% in the current core skill list)
- Instruction, mentoring and teaching (39% in the reskilling/upskilling list versus 23% in the current core skill list).

Sector analysis (see Figure 12) highlights that many of the future skills are important across sectors. However, certain types of reskilling/upskilling are more predominant in some sectors, for example: emotional intelligence in the Service sector (63%), leadership and social influence in the Service (78%), Primary (82%*), and Public administration and Safety sector (78%*), quality control in the Manufacturing (29%) and Primary (44%*) sectors, and technology installation and maintenance in the Manufacturing (11%) and Primary (18%*) sectors.

Figure 11. Future skills



Base: All organisations surveyed (n=212)
Source: Q10a. Keeping in mind your current strategic direction, please select the skill clusters on which you are focusing your organisation's reskilling and upskilling efforts in the next five years.
NZ Future of Work survey 2023; World Economic Forum, Future of Jobs Survey 2023.

Figure 12. Future skills

	Service	Primary	Manufacturing	Business and Finance	Distribution	Public Administration and Safety		
Active learning and learning strategies	46%	52%	37%	52%	50%	33%	Self-efficacy	Attitudes
Resilience, stress tolerance and flexibility	35%	28%	26%	70%	38%	67%		
Emotional intelligence	63%	44%	30%	38%	28%	67%	Working with others	
Instruction, mentoring and teaching	39%	56%	52%	30%	39%	22%		
Leadership and social influence	78%	82%	53%	62%	51%	78%		
Analytical thinking, problem solving and innovation	61%	74%	57%	52%	54%	78%	Cognitive skills	Skills, knowledge, and abilities
Attention to detail	34%	52%	35%	35%	37%	11%		
Complex problem-solving	41%	28%	28%	54%	18%	56%		
Creativity, originality and initiative	30%	28%	28%	38%	26%	11%		
Mathematics	3%	8%	4%	6%	0%	0%		
Memory, verbal, auditory & spatial abilities	3%	0%	4%	16%	2%	11%		
Reading and writing	11%	0%	2%	6%	2%	33%		
Safety awareness	18%	38%	41%	32%	42%	44%		
Systems analysis and evaluation	6%	0%	10%	16%	6%	22%		
Visual, auditory and speech abilities	0%	0%	0%	0%	0%	0%		
Coordination and time management	39%	62%	37%	35%	48%	33%	Management and engagement skills	
Management of financial, material resources	40%	52%	36%	6%	46%	44%		
Management of personnel	31%	46%	37%	32%	47%	67%		
Persuasion and negotiation	16%	20%	6%	38%	10%	22%		
Quality control	9%	44%	29%	22%	15%	0%		
Service orientation	12%	18%	17%	32%	35%	44%		
Manual dexterity, endurance and precision	1%	8%	3%	6%	6%	0%	Physical abilities	
Technology design and programming	5%	10%	2%	16%	7%	0%	Technology skills	
Technology installation and maintenance	2%	18%	11%	0%	7%	0%		
Technology use, monitoring and control	14%	36%	23%	16%	30%	78%		
Troubleshooting and user experience	3%	0%	13%	0%	8%	22%		
Other	2%	0%	0%	0%	5%	0%		

Base: Services sector (88), Primary Sector (11), Manufacturing (62), Business and Finance (8), Distribution (34), Public administration and safety (9)
Source Q10a

Strategies to address shifting skills demand

NZ businesses expect to employ a range of strategies to address shifting skills demand; on average businesses will use 3.5 of the strategies listed in Figure 13.

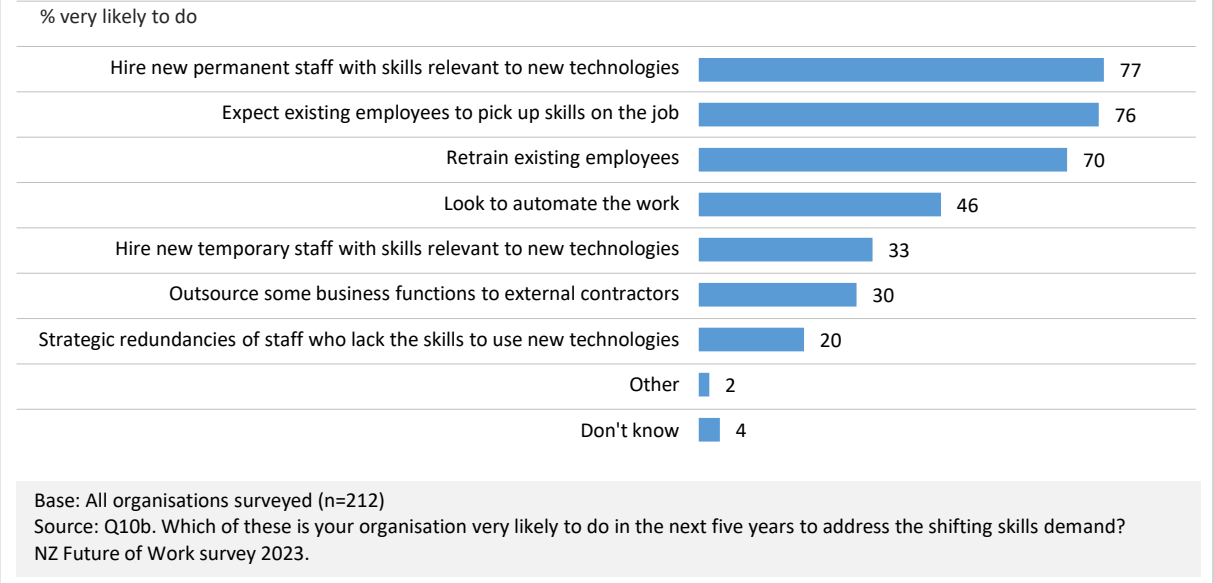
Many businesses will need to look outside their organisation to fill the skill gap: 77% will hire new permanent staff, 33% will hire new temporary staff, and 30% expect to outsource to external contractors.

Conversely, businesses also expect to turn to internal strategies: 76% expect existing employees will learn new skills on the job, 70% will retrain existing employees, and 46% will automate work processes.

One in five businesses (20%) anticipate strategic role redundancies where staff lack the skills to use new technologies.

Automation of work processes is more commonly anticipated in the Manufacturing (58%), Distribution (55%), Primary (82%*), and Public Administration and Safety (67%*) sectors, and less commonly expected in the Service sector (31%).

Figure 13. Strategies to address shifting skills demand



Base: All organisations surveyed (n=212)
Source: Q10b. Which of these is your organisation very likely to do in the next five years to address the shifting skills demand?
NZ Future of Work survey 2023.

Availability of talent

Figure 14 shows the distributions of response to statements depicting challenges with the availability of talent.

Over half (55%) of businesses struggle to find people with the right skills to fill its vacancies.

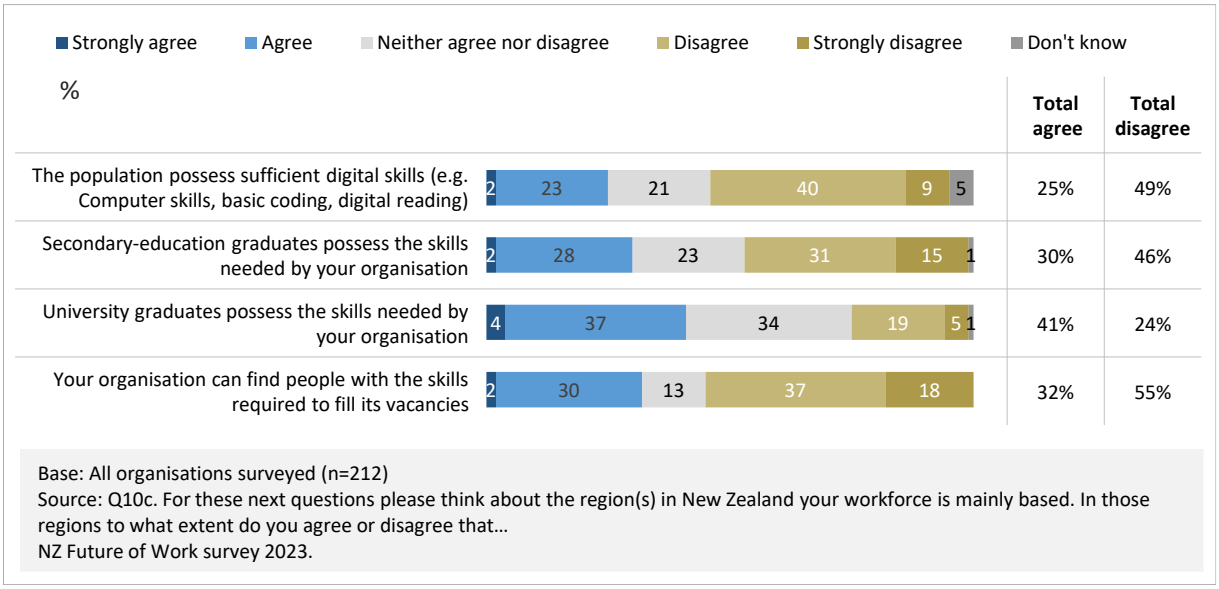
Digitally skilled talent is lacking – nearly half (49%) of businesses disagree that the population possesses sufficient digital skills.

Nearly half (46%[3]) of businesses believe neither secondary-education graduates or university graduates possess the skills needed by their organisation. University graduates are more likely than secondary-education graduates to possess the required skills (41% vs 30%).

Subgroup analysis shows:

- Businesses with a presence in Canterbury are more likely than other businesses to agree that secondary-education graduates possess the skills needed by the organisation (40% vs 21%).
- Businesses in the Distribution sector are more likely than other businesses to agree that secondary-education graduates possess the skills needed by the organisation (48% vs 26%).
- The largest businesses (100+ employees) are more likely than businesses with 50-99 employees to agree that University graduates possess the skills needed (44% vs 28%)
- Businesses with male dominated workforces (60%+ male) are more likely to agree that the population possess sufficient digital skills (36% vs 19% of other businesses).

Figure 14. Availability of talent



Base: All organisations surveyed (n=212)
Source: Q10c. For these next questions please think about the region(s) in New Zealand your workforce is mainly based. In those regions to what extent do you agree or disagree that…
NZ Future of Work survey 2023.

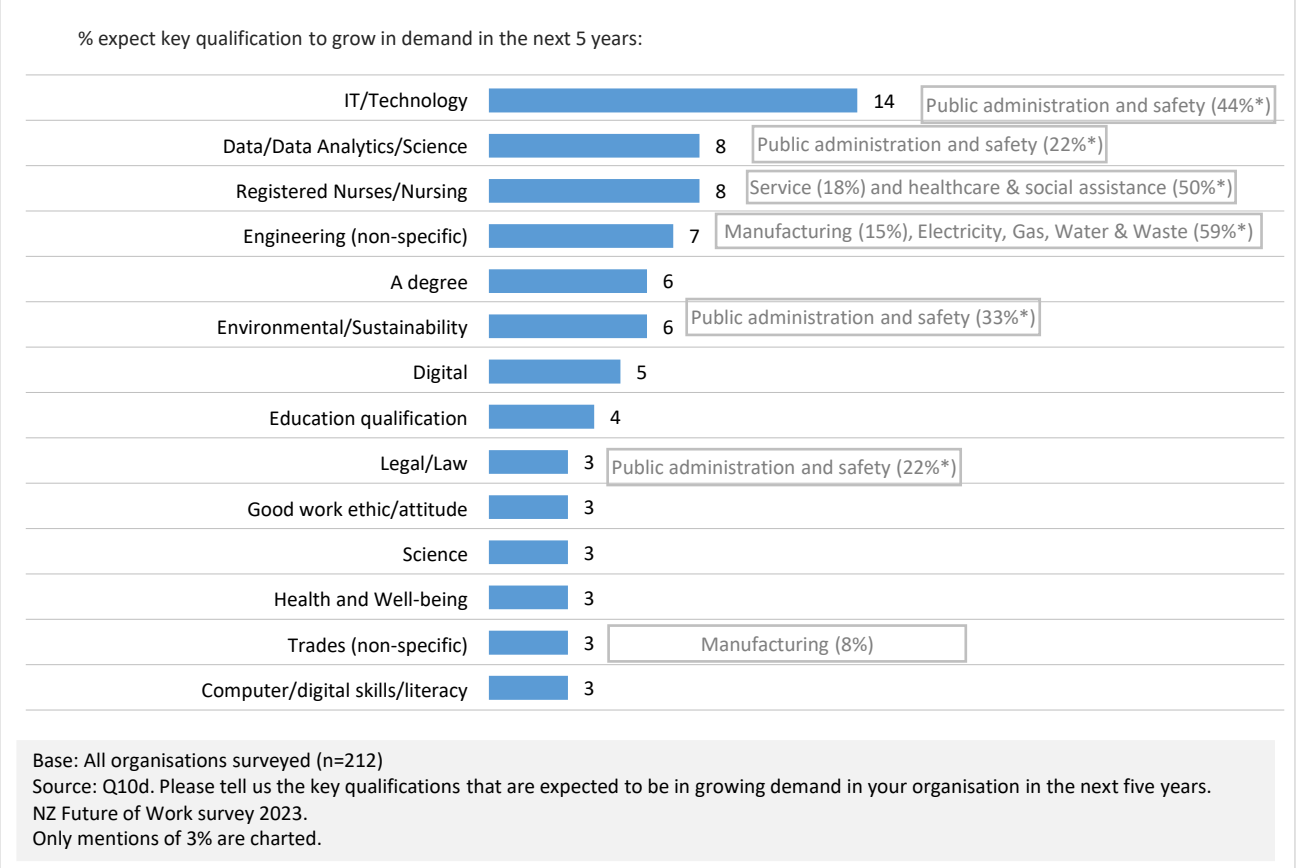
[3] 41% believe university graduates possess the required skills, 30% believe secondary-education graduates possess the required skills, 17% believe both university and secondary-education graduates possess the required skills, 54% believe either university or secondary-education graduates possess the required skills, and 46% believe neither university or secondary-education graduates possess the required skills. The latter three figures are not shown in the graph.

Growing demand for qualifications

Figure 15 displays the top key qualifications that are expected to be in growing demand in the next five years. This question was asked in an open-ended manner (i.e. pre-determined response categories were not provided). Respondents' answers were subsequently coded into like categories. Only categories with mentions of 3% or more have been included on the chart.

Qualifications in IT/technology (14%), data analytics (8%), nursing (8%) and engineering (7%) are expected to be in greatest demand. Sector/industry analysis is shown on the chart.

Figure 15. Growing demand for qualifications



Base: All organisations surveyed (n=212)
Source: Q10d. Please tell us the key qualifications that are expected to be in growing demand in your organisation in the next five years.
NZ Future of Work survey 2023.
Only mentions of 3% are charted.

Disruptions to skills

Figure 16 displays the expected disruption to the workforce given evolving skill demands and the need for training.

A sizeable proportion of businesses were unable to answer this series of questions (28%). These businesses are excluded from the mean scores.

On average, three quarters of the core skills required in current NZ workforces are expected to remain the same over the next five years. This is markedly higher than the WEF average (56%).

On average, just over half (55%) of the current workforce will require training to meet evolving skills demands, and just over a third of the workforce has completed training. Both these indicators lag a little behind the WEF results.

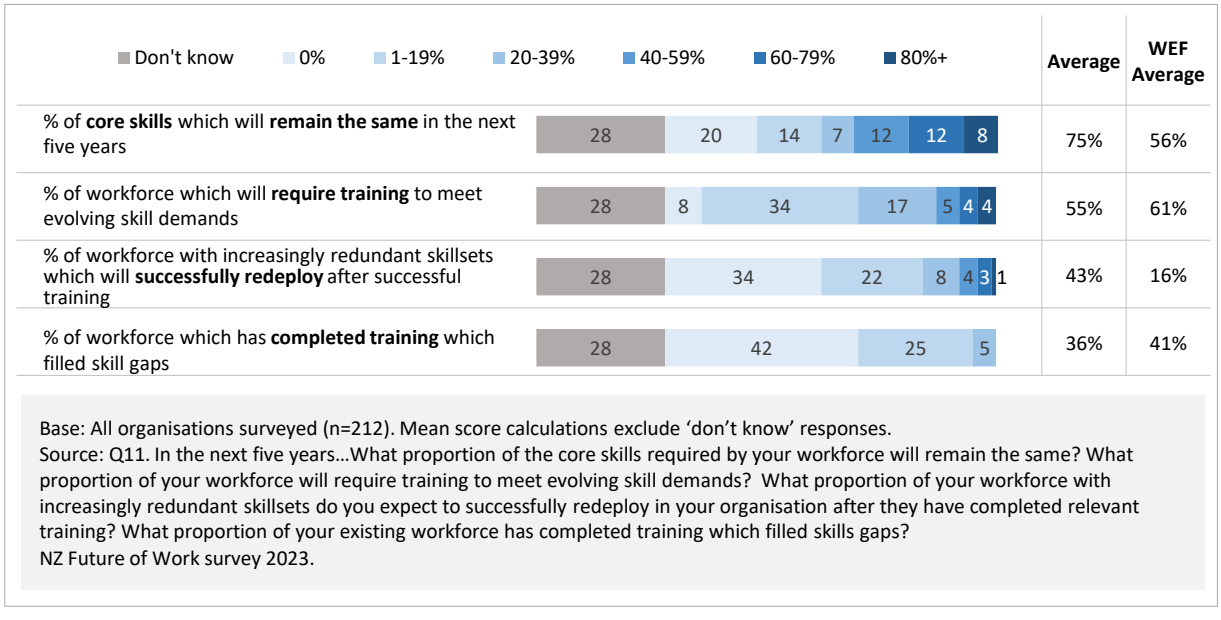
NZ businesses are considerably more confident than their global counterparts in their ability to successfully redeploy staff; on average 43% of NZ staff with increasingly redundant skills are expected to be redeployed vs only 16% globally.

Sector and subgroup analysis shows that:

- NZ businesses in the Services sector expect a higher proportion of their workforce's core skills to remain the same (78% vs 71% in other sectors) and a lower proportion of their workforce with increasingly redundant skills to be redeployed (34% vs 49% in other sectors).
- The core skills in female dominated workforces (60%+ female) are more likely to remain the same (79% vs 72% in male or less female dominated workforces). And NZ businesses with female dominated workforces (60% + female) expect a lower proportion of their workforce with increasingly redundant skills to be redeployed (31% vs 48% in male or less female dominated workforces).

Note, there is a high correlation between the Services sector and female dominated workforces; 63% of businesses in the Services sector have a workforce with at 60%+ females, vs only 12% of businesses in other sectors.

Figure 16. Disruptions to skills



Base: All organisations surveyed (n=212). Mean score calculations exclude 'don't know' responses.
Source: Q11. In the next five years…What proportion of the core skills required by your workforce will remain the same? What proportion of your workforce will require training to meet evolving skill demands? What proportion of your workforce with increasingly redundant skillsets do you expect to successfully redeploy in your organisation after they have completed relevant training? What proportion of your existing workforce has completed training which filled skills gaps?
NZ Future of Work survey 2023.

Training criteria

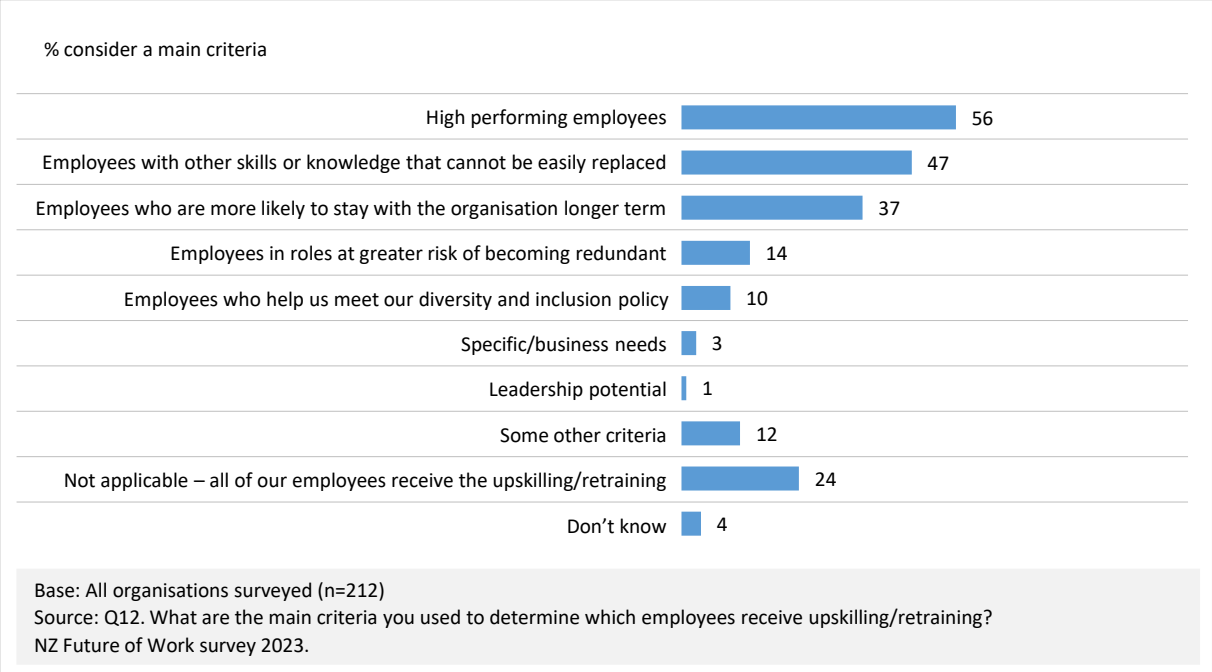
Figure 17 displays the main criteria that NZ businesses use to determine which employees receive upskilling or retraining.

Employee performance (56%), the expected difficulty of replacing an employee (47%), and employee loyalty (37%) largely determine who receives training in NZ organisations. One in four (24%) businesses ensure all employees receive the training.

Subgroup analysis shows that:

- Employees with skills or knowledge that cannot be easily replaced are especially favoured for training in the Distribution sector (69%).
- Expected employee loyalty is a more common driver in the Manufacturing (50%), Primary (52%*) and Distribution (50%*) sectors, and in smaller businesses (52% of businesses with 50-99 employees).
- Organisations with younger workforces (under 35) are more likely to consider employee performance and expected employee loyalty in determining training recipients[4]. Organisations with more than 10% of their workforce aged under 20 years are also especially likely to consider whether the employee has skills or knowledge that cannot be easily replaced.

Figure 17. Training criteria



Base: All organisations surveyed (n=212)
Source: Q12. What are the main criteria you used to determine which employees receive upskilling/retraining?
NZ Future of Work survey 2023.

[4] For businesses with at least 10% of their workforce aged under 20, 80% consider employee performance, 67% consider whether they have other skills or knowledge that can't be easily replaced, and 59% consider expected employee loyalty. For businesses with at least 40% of their workforce aged 20-34 years, 69%* consider employee performance, and 55% consider expected employee loyalty.

Section 5. Climate change

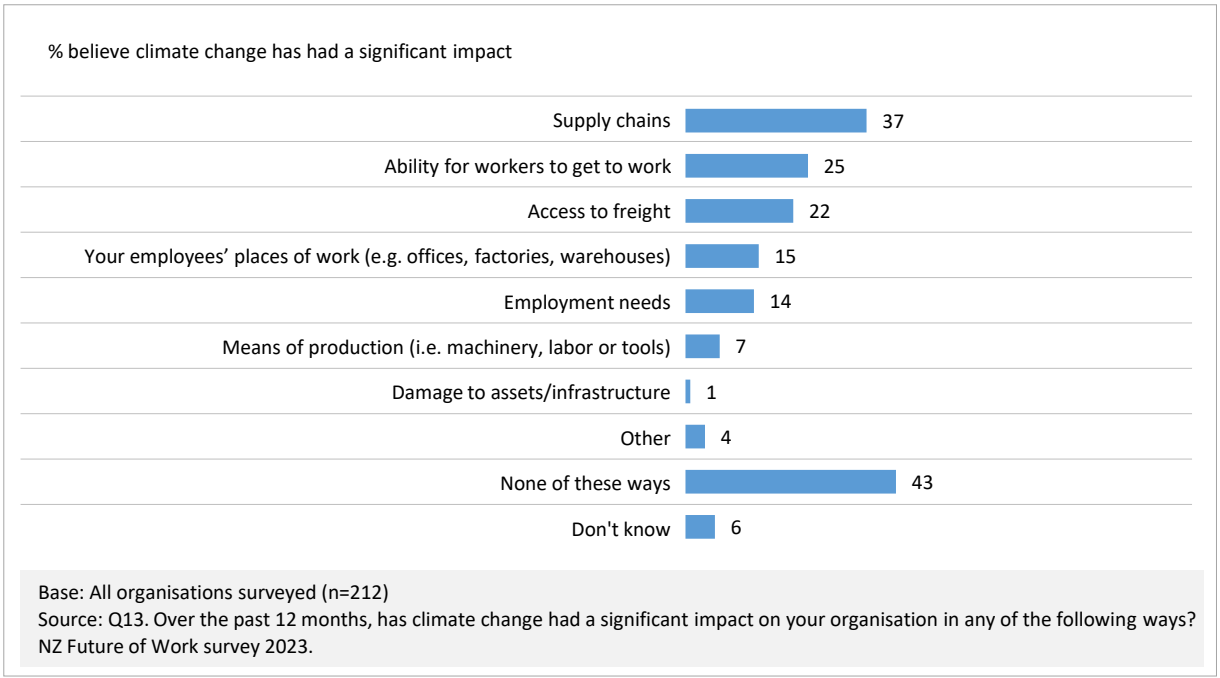
This section addresses the impact climate change is having on New Zealand organisations and how well-equipped employers are to tackle progress towards a low-emissions economy.

Impacts of climate change over past 12 months

Around half (52%) of organisations believe climate change has significantly impacted their organisation. Impacts most commonly relate to supply chains (37%) and access to freight (22%), as well as the ability of workers to get to work (25%).

Organisations in the Manufacturing, Primary, and Distribution sectors were more likely to believe climate change had significantly impacted their supply chains (47%, 54%*, and 54% respectively) and access to freight (33%, 46%*, and 30%* respectively).

Figure 18. Impacts of climate change

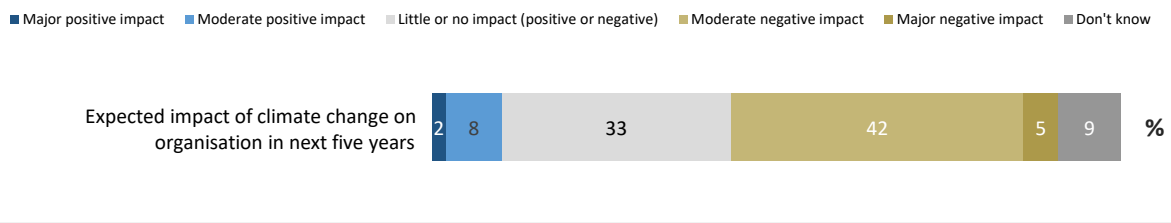


Base: All organisations surveyed (n=212)
Source: Q13. Over the past 12 months, has climate change had a significant impact on your organisation in any of the following ways? NZ Future of Work survey 2023.

Expected overall impact of climate change over the next five years

The five-year outlook for the effect of climate change on organisations is more negative than positive, with 47% of organisations predicting a major or moderate negative impact, and 10% of organisations predicting a major or moderate positive impact. There are no clear sector or industry patterns.

Figure 19. Expected overall impact of climate change in the next 5 years



Base: All organisations surveyed (n=212)
Source: Q14. How would you describe the overall impact that climate change is likely to have on your organisation over the next five years?
NZ Future of Work survey 2023.

Anticipated climate change challenges over next five years

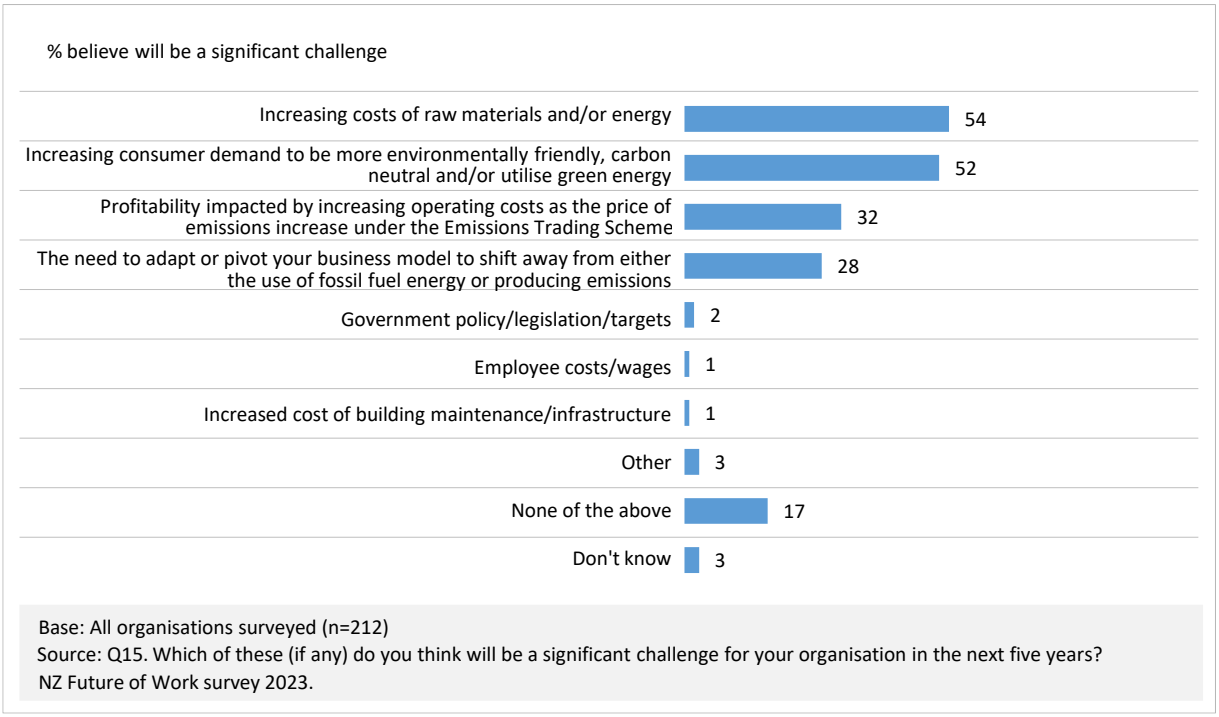
Most organisations (80%) anticipate significant climate change challenges for their organisation over the next five years, especially rising costs of raw materials and energy (54%) and increasing 'green' consumer demand (52%).

The Manufacturing sector (81%) and Primary sector (100%*) are especially likely to anticipate rising costs of raw materials and energy.

Nearly one third (32%) of organisations expect their profitability to be impacted by increasing costs resulting from the Emissions Trading Scheme. This expectation is high in the Manufacturing (48%) and Distribution (45%) sectors.

More than a quarter (28%) of organisations see the need to adapt or pivot their business model to shift away from either the use of fossil fuel energy or producing emissions. This expectation is highest in the Transport, Postal and Warehousing sector (76%*).

Figure 20. Anticipated climate change challenges



Base: All organisations surveyed (n=212)
Source: Q15. Which of these (if any) do you think will be a significant challenge for your organisation in the next five years?
NZ Future of Work survey 2023.

Business confidence in ability to address climate change

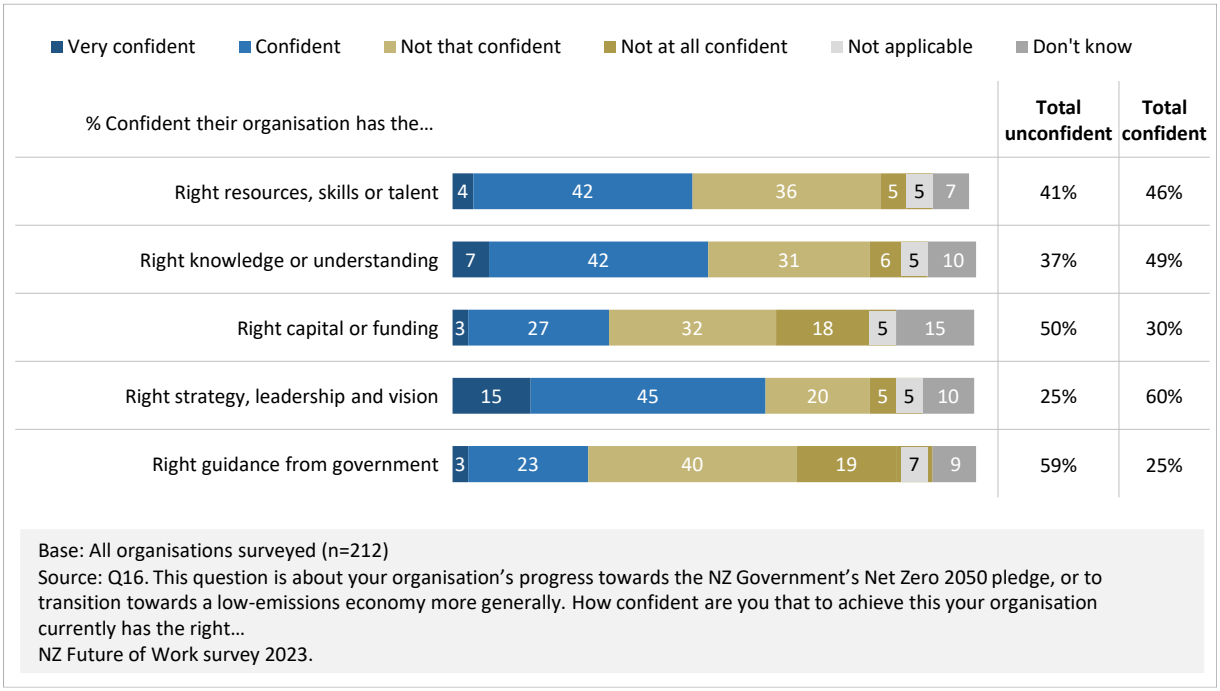
Employer confidence in how well equipped their organisation is to progress towards the Net Zero 2050 pledge, or a low emissions economy, is polarised.

Confidence is most lacking in government guidance (59% are unconfident). Organisations in the Manufacturing (74%), Primary (82%*), and Distribution (71%*) sectors are most likely to be unconfident.

Half of organisations are not confident that they have the right capital or funding (50% are unconfident). Around three quarters of Primary sector businesses (72%*) are unconfident.

Large pockets of organisations also lack confidence in their own resources, skills and talent (41%are unconfident), knowledge and understanding (37%), and strategy, leadership and vision (25%). Lack of knowledge is a bigger concern in Manufacturing (51% are unconfident) than other sectors.

Figure 21. Confidence in ability to address climate change



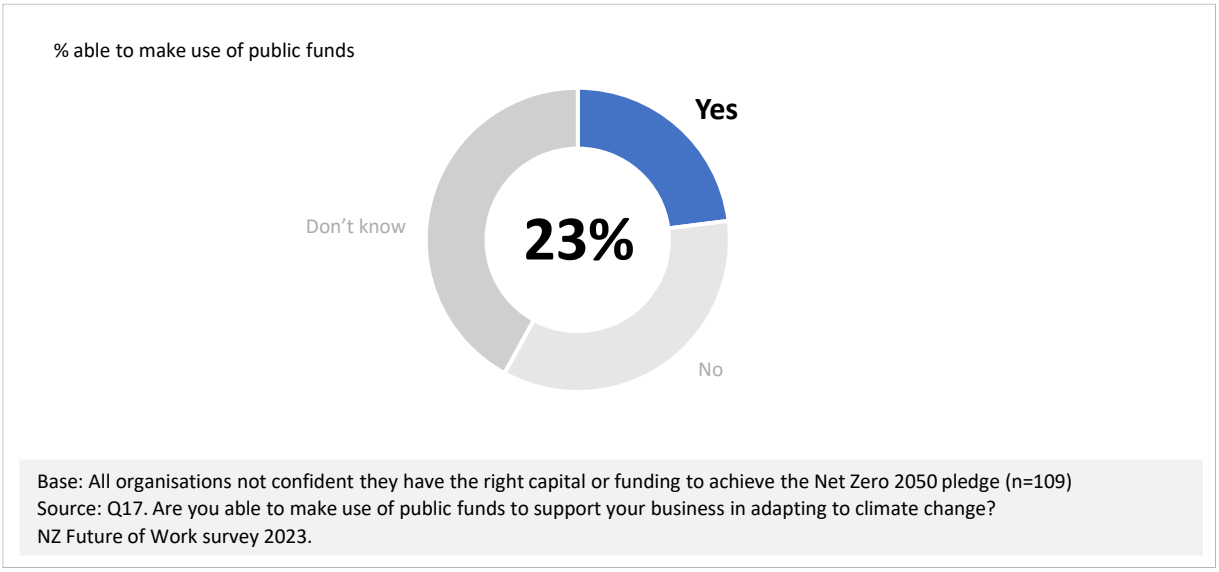
% Confident their organisation has the…	Very confident	Confident	Not that confident	Not at all confident	Not applicable	Don't know	Total unconfident	Total confident
Right resources, skills or talent	4	42	36	5	5	7	41%	46%
Right knowledge or understanding	7	42	31	6	5	10	37%	49%
Right capital or funding	3	27	32	18	5	15	50%	30%
Right strategy, leadership and vision	15	45	20	5	5	10	25%	60%
Right guidance from government	3	23	40	19	7	9	59%	25%

Base: All organisations surveyed (n=212)
Source: Q16. This question is about your organisation's progress towards the NZ Government's Net Zero 2050 pledge, or to transition towards a low-emissions economy more generally. How confident are you that to achieve this your organisation currently has the right…
NZ Future of Work survey 2023.

Public funds

Of the 50% of businesses that are not confident they have the right capital or funding to achieve the Net Zero 2050 pledge, less than a quarter believe they are able to make use of public funds to support their business in adapting to climate change. Manufacturing businesses (10%) were least likely to believe they could access public funds for this purpose.

Figure 22. Ability to use public funds for climate change adaption



Base: All organisations not confident they have the right capital or funding to achieve the Net Zero 2050 pledge (n=109)
Source: Q17. Are you able to make use of public funds to support your business in adapting to climate change?
NZ Future of Work survey 2023.

Section 6. COVID-19

We saw earlier in the report (Figure 1) that over half of companies (57%) believe the ongoing impact of the COVID pandemic is likely to drive transformation in their organisation. This section of the report looks back at how COVID-19 has impacted New Zealand organisations and their responses to the pandemic.

COVID-19 response

The vast majority (93%) of New Zealand companies implemented at least one of the measures listed in Figure 23 in response to COVID-19.

The digitalisation of work processes and remote working top the list of responses to Covid-19, with around three quarters of businesses implementing each of these (75% and 73% respectively). These two responses to the pandemic often went hand in hand; 84% of companies that offered remote working also accelerated the digitalisation of work processes.

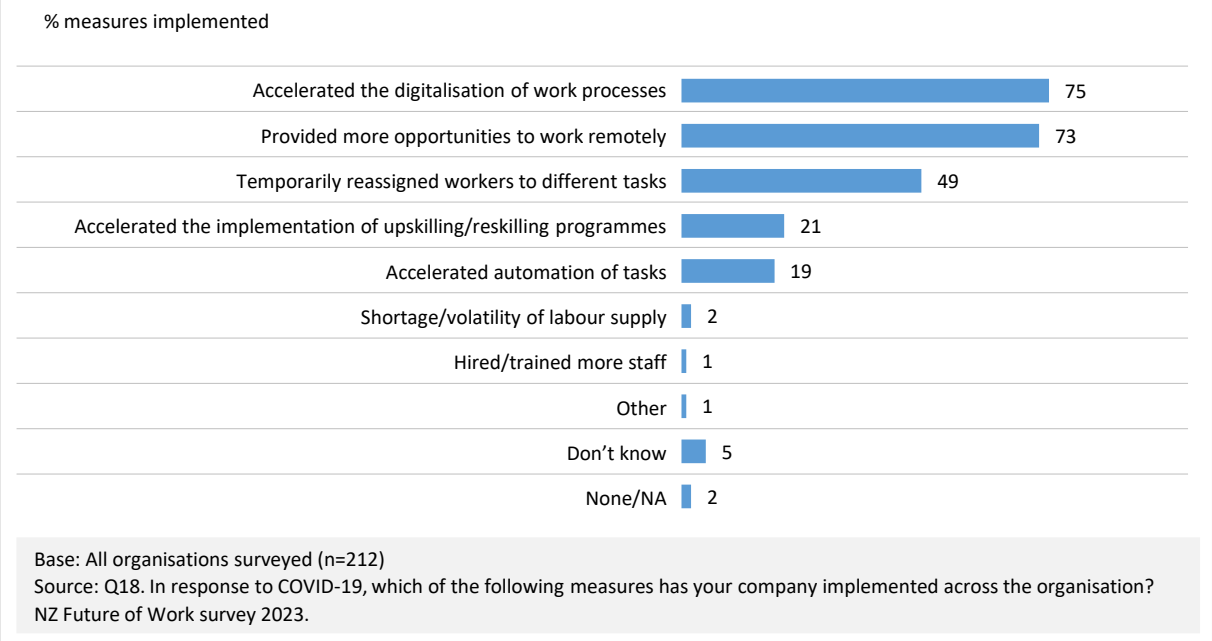
The acceleration of digitalisation increased with business size (from 59% of businesses with 50-99 employees to 90% of businesses with 500+ employees).

The Manufacturing sector was least likely to accelerate digitalisation or offer remote working (56% and 59% respectively). Remote working was also less common in the retail trade (57%*).

Around half (49%) of businesses temporarily reassigned workers to different and tasks. This was more common in businesses with a younger workforce (65%* of businesses with at least 10% of their workforce aged under 20, and 70% of businesses with at least 40% of their workforce aged 25 to 34 years).

One in five (21%) accelerated skills development programmes. This was especially common in the Services sector (31%).

Figure 23. COVID-19 response



Base: All organisations surveyed (n=212)
Source: Q18. In response to COVID-19, which of the following measures has your company implemented across the organisation?
NZ Future of Work survey 2023.

COVID wage subsidy and employer top up

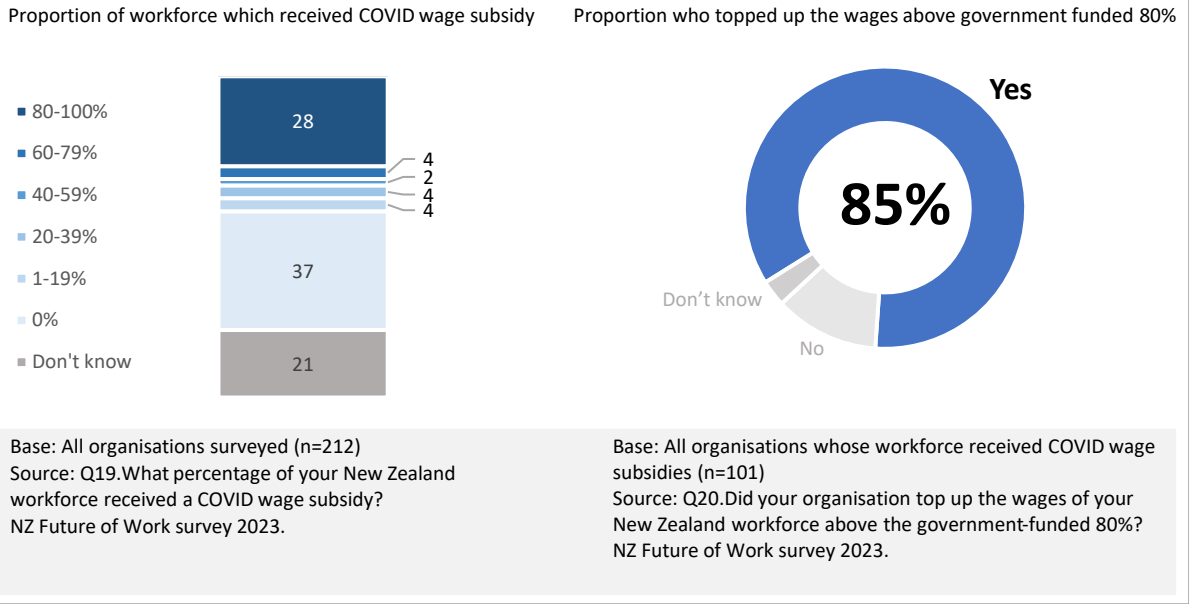
Around four in ten (41%) businesses received the COVID wage subsidy. In 28% of businesses, the very large majority (at least 80%) of their New Zealand workforce received the subsidy.

The following organisations were most likely to receive the COVID wage subsidy:

- Manufacturing sector (63%)
- Distribution sector (69%)
- Organisations with a younger workforce (68% of businesses with at least 10% of their workforce aged under 20, and 61% of businesses with at least 40% of their workforce aged 25 to 34 years).
- Organisations with a relatively high Pasifika workforce (56% of organisations with a workforce consisting of at least 10% Pasifika workers)
- Organisations with a relatively high male workforce (56% of organisations with a workforce consisting of at least 60% male workers, versus only 28% of organisations with a workforce consisting of at least 60% female workers).

A large majority (85%) of businesses that received the subsidy topped up the wages above the government funded 80%.

Figure 24. COVID wage subsidy and employer top-up



Base: All organisations surveyed (n=212)
Source: Q19.What percentage of your New Zealand workforce received a COVID wage subsidy?
NZ Future of Work survey 2023.

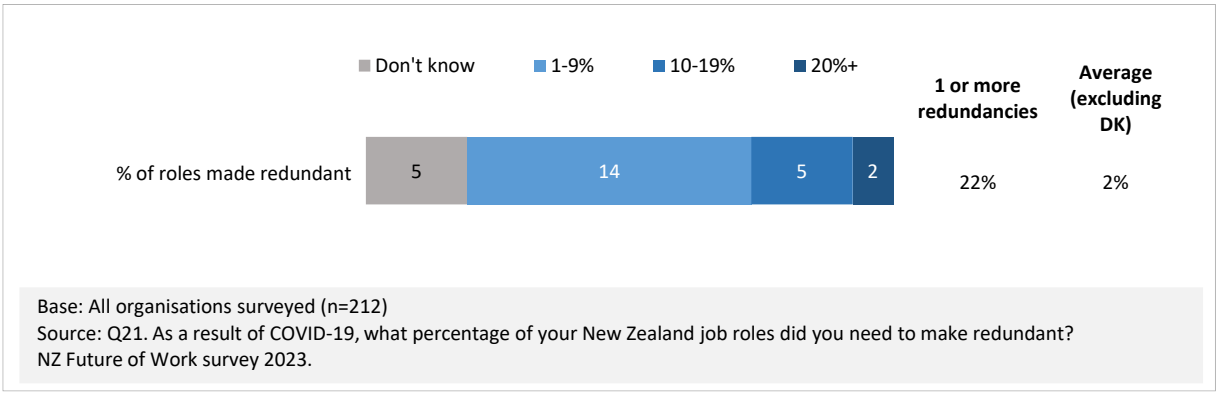
Base: All organisations whose workforce received COVID wage subsidies (n=101)
Source: Q20.Did your organisation top up the wages of your New Zealand workforce above the government-funded 80%?
NZ Future of Work survey 2023.

COVID-19 related redundant roles

More than one in five (22%) organisations implemented job redundancies because of COVID-19. This was higher in the Service sector (34%) and organisations with a predominantly (i.e. at least 60%) female workforce (37%).

Seven percent of organisations implemented job redundancies affecting at least 10% of their workforce. Excluding businesses who were unsure, on average 2% of roles were made redundant.

Figure 25. COVID-19 related redundant roles



Base: All organisations surveyed (n=212)
Source: Q21. As a result of COVID-19, what percentage of your New Zealand job roles did you need to make redundant?
NZ Future of Work survey 2023.

The 45 respondents who indicated their business had made roles redundant listed a wide range of roles. These included retail workers, receptionists, office administration, support roles, corporate services, HR, finance, management, team leaders, sales roles, procurement, production workers, marketing, technicians, customer reps, teachers, hospitality staff, call centre staff, engineers, trade staff, client service, librarians, operations roles, unskilled/low skilled labour, architectural designer, hospitality staff). Of the 45 respondents, six mentioned making roles with unvaccinated staff redundant, and six said all or many roles were affected.

Appendix A: Sample profile

Table 5: Sample profile

	Unweighted		Weighted	
	n	%	n	%
Number of NZ Employees				
50-99	51	24%	35	16%
100-250	77	36%	82	39%
251-499	45	21%	49	23%
500-999	15	7%	11	5%
1,000-4,999	18	8%	26	12%
5,000-9,999	1	*	1	1%
10,000-49,999	2	1%	5	2%
50,000 or more	1	*	2	1%
Not answered	2	1%	1	*
Location of headquarters				
New Zealand	189	89%	193	91%
Australia	7	3%	6	3%
Europe	8	4%	8	4%
East Asia	5	2%	4	2%
United States	1	*	1	*
Not answered	2	1%	1	*
Any Staff in NZ Region				
Northland	35	17%	38	18%
Auckland	115	54%	107	50%
Waikato	61	29%	59	28%
Bay of Plenty	47	22%	48	23%
Gisborne	20	9%	25	12%
Hawkes Bay	32	15%	36	17%
Taranaki	29	14%	36	17%
Manawatu-Whanganui	34	16%	41	19%
Wellington	78	37%	77	36%
Tasman	16	8%	23	11%
Nelson	30	14%	37	17%
Marlborough	23	11%	26	12%
West Cost (South Island)	17	8%	17	8%
Canterbury	100	47%	98	46%
Otago	43	20%	49	23%
Southland	26	12%	31	14%
Not Answered	4	2%	3	1%
Locations of significant operations				
New Zealand	184	87%	189	89%
Australia	26	12%	20	9%
Europe	14	7%	12	6%
South Asia	12	6%	10	5%
North America	11	5%	9	4%
East Asia	9	4%	7	3%
Africa	6	3%	6	3%
South Asia	6	3%	4	2%
Middle East	3	1%	3	1%
South America	3	1%	2	1%
Eastern Europe	2	1%	2	1%
Not answered	7	3%	6	3%

Table 5: Sample profile (cont.)

	Unweighted		Unweighted	
	n	%		n
Māori classification				
Māori business or organisation	2	1%	5	2%
Strong Māori ownership or values base	12	6%	15	7%
Identify as Māori	16	8%	13	6%
None of the above	177	83%	176	83%
Not answered	8	4%	6	3%
Industry (WEF Classification)				
Accommodation, Food, and Leisure *Accommodation, food, and leisure services Rental, reservation, and leasing services*	14	7%	12	6%
Agriculture and Natural Resources *Agriculture, forestry, and fishing*	18	8%	11	5%
Automotive and Aerospace	8	4%	9	4%
Care, Personal Services and Wellbeing *Care and social work services* *Personal care, wellbeing, and repair services*	6	3%	14	6%
Education and Training	16	8%	21	10%
Energy and Materials *Chemical and Advanced materials* *Energy technology and utilities* *Mining and Metals* *Oil and gas*	6	3%	4	2%
Financial Services *Financial services and capital markets* *Insurance and pensions management*	5	2%	7	3%
Government and Public Sector	24	11%	37	17%
Health and Healthcare *Medical and healthcare services*	15	7%	31	14%
Information Technology and Digital Communications *Information and technology services* *Telecommunications*	11	5%	6	3%
Infrastructure *Engineering and construction* *Water and waste management*	28	13%	18	8%
Manufacturing *Advanced manufacturing* *Electronics* *Production of consumer goods*	31	15%	22	10%
Media, Entertainment and Sports *Arts, entertainment, and recreation* *Media and publishing*	1	*	1	*
Non-governmental and Membership Organisations *Extraterritorial organisations and bodies* *Non-profit organisations, professional bodies and unions*	1	*	1	*
Business support and premises maintenance services *Employment services* *Research, design and business management services*	11	5%	10	5%
Real Estate	4	2%	4	2%
Retail and Wholesale of Consumer Goods	23	11%	29	14%
Supply Chain and Transportation	18	8%	16	8%
Other (please tell us)	33	16%	24	11%
Not answered	8	4%	6	3%
Total	**212**	**100**	**212**	**100%**

Base: All respondents (212)

* denotes a % between 0.0% and 0.5%

Table 6: Gender, age, and ethnic compositions of organisations' workforces

	0%	1-19%	20-39%	40-59%	60-79%	80% +	Average
Gender							
Male	*	9%	21%	37%	19%	13%	55%
Female	1%	9%	19%	36%	24%	11%	44%
Another gender	82%	18%	-	-	-	*	1%
Age							
Under 20 years	36%	59%	4%	*	-	-	4%
20 - 34 years	1%	20%	63%	15%	1%	1%	29%
35 - 49 years	1%	3%	46%	43%	7%	-	38%
50+ years	1%	22%	53%	19%	4%	1%	28%
Ethnicity							
NZ European / Pakeha	-	5%	11%	23%	34%	27%	56%
Māori	6%	73%	18%	2%	1%	*	12%
Pasifika	14%	73%	10%	1%	1%	*	9%
Asian	10%	70%	17%	3%	1%	-	11%
Other	30%	59%	9%	2%	*	*	38%

Base: All respondents (212)
* denotes a % between 0.0% and 0.5%

Appendix B: Questionnaire

2023 Future of Work Survey

Thank you for agreeing to do this important survey.

The future of work is being shaped by four broad global megatrends: technology change, demographic change, globalisation and climate change. Labour markets are undergoing major transformations, new categories of jobs are emerging, others are partly or wholly being displaced.

The Future of Work Tripartite Forum (a partnership between the Government, Business New Zealand and the New Zealand Council of Trade Unions) is interested in better understanding where business and industry are heading. This includes gathering data on redundant and emerging jobs, current and future skills gaps, and the extent to which workforces in different industries may be impacted by the global megatrends identified above. The information collected from this survey will inform labour-market and industry policy decisions, help build stronger labour-market and economic resilience, and prepare New Zealand's businesses and workforce for the future of work.

As a senior member of your organisation, you have been selected to take part in this research. This is because the questions in this survey will require deep insight into your organisation's current strategy, the talent-related aspects of operationalising this strategy, and the changes to jobs and skills we are likely to see over the next five years.

Everything you say is confidential. Only the Kantar Public research team will know who has completed the survey. The survey will take around 15 minutes to complete.

Please complete the survey by **23 May 2023**.

Thank you.

PART 1: TRANSFORMATIONS

The first set of questions are about the trends you believe will drive change in your organisation – today and in the period leading up to 2028.

Q1a (2.1). In the next five years, how likely are the trends below to drive transformation in your organisation?

		Highly likely	Likely	Neither likely nor unlikely	Unlikely	Highly unlikely	Don't know
1	The aging population	1	2	3	4	5	6
2	Broadening digital access	1	2	3	4	5	6
3	Broader application of Environmental, Social and Governance (ESG) standards	1	2	3	4	5	6
4	Investment in adapting operations in response to climate change	1	2	3	4	5	6
5	Consumers becoming more vocal on environmental issues	1	2	3	4	5	6
6	Consumers becoming more vocal on social issues	1	2	3	4	5	6
7	Increased adoption of new and frontier technologies	1	2	3	4	5	6
8	Increased geopolitical divisions	1	2	3	4	5	6
9	Investments to facilitate the green transition of your business	1	2	3	4	5	6
10	On-going impact of the COVID pandemic	1	2	3	4	5	6
11	Rising cost of living for consumers	1	2	3	4	5	6
12	Slower global economic growth	1	2	3	4	5	6
13	Government regulation of data use and technology	1	2	3	4	5	6
14	Supply chains becoming more localised	1	2	3	4	5	6
15	Supply shortages and/or rising cost of inputs for your business	1	2	3	4	5	6

Q1b Are there any other trends that will drive transformation in your organisation in the next five years?

No	1
Yes (please tell us)	2
Don't know	3

IF 1 OR 2 SELECTED AT ANY ITEMS AT Q1a ASK:

Q2 (2.2). Regarding the trends identified as *likely* or *highly likely*, what is their expected impact on job creation in your organisation?

DS RADOMISE AND LIST UP TO FIVE ITEMS ANSWERED AS 'LIKELY' OR 'HIGHLY LIKELY' FROM Q1.

	Net job creator	Neutral	Net job displacer	Don't know
ITEM 1 etc.	1	2	3	4

Q3 (2.3). In the next five years, how likely is your organisation to adopt the technologies below?

		Highly likely	Likely	Neither likely nor unlikely	Unlikely	Highly unlikely	Don't know
1	3D and 4D printing and modelling	1	2	3	4	5	6
2	Advanced agriculture technologies	1	2	3	4	5	6
3	Artificial intelligence (e.g. machine learning, neural networks)	1	2	3	4	5	6
4	Augmented and virtual reality	1	2	3	4	5	6
5	Big data analytics (analysis of large, complex datasets)	1	2	3	4	5	6
6	Biodiversity protection technologies	1	2	3	4	5	6
7	Biotechnology	1	2	3	4	5	6
8	Climate change mitigation technology (alternative energy, greenhouse gases, carbon capture, green transport and construction, buildings)	1	2	3	4	5	6
9	Cloud computing	1	2	3	4	5	6
10	Cryptocurrencies	1	2	3	4	5	6
11	Digital platforms and apps	1	2	3	4	5	6
12	Distributed ledger technology (e.g. blockchain)	1	2	3	4	5	6
13	E-commerce and digital trade	1	2	3	4	5	6
14	Education and workforce development technologies (technologies used to support learning and development of skills for individuals such as skills training software)	1	2	3	4	5	6
15	Electric and autonomous vehicles	1	2	3	4	5	6
16	Encryption and cyber security	1	2	3	4	5	6
17	Environmental management technologies (pollution abatement, recycling)	1	2	3	4	5	6
18	Health and care technologies	1	2	3	4	5	6
19	Internet of things and connected devices	1	2	3	4	5	6
20	Nanotechnology	1	2	3	4	5	6
21	New materials (e.g. nanotubes, graphene)	1	2	3	4	5	6
22	Power storage and generation	1	2	3	4	5	6
23	Quantum computing	1	2	3	4	5	6
24	Robots, humanoid	1	2	3	4	5	6
25	Robots, non-humanoid (e.g. industrial automation, drones)	1	2	3	4	5	6
26	Satellite services and space flight	1	2	3	4	5	6
27	Text, image, and voice processing	1	2	3	4	5	6
28	Water-related adaptation technologies (e.g. conservation, availability)	1	2	3	4	5	6

IF 1 OR 2 SELECTED AT ANY ITEMS AT Q3 ASK:

Q4 (2.4). Regarding the technologies you identified as likely or highly likely to be adopted, what is their expected impact on job creation in your organisation?

DS LIST UP TO FIVE ITEMS ANSWERED AS 'LIKEY' OR 'HIGHLY LIKELY' FROM Q3. RANDOMISE.

	Net job creator	Neutral	Net job displacer	Don't know
ITEM 1 etc	1	2	3	4

PART 2: OCUPATION TRENDS

The next questions are about the changes in key jobs in your organisation by 2028. First, you'll be asked to identify roles that you expect to have a stable, growing or declining employment outlook in the next five years.

Q5 (3.1.1). Please provide examples of roles in your organisation that are expected to have a **growing** employment outlook in the next five years.

Open text box 1	1
Open text box 2	2
Open text box 3	3
Open text box 4	4
Open text box 5	5
We have no roles like this	6
Don't know	7

Q6 (3.2.1). Please provide examples of roles in your organisation that are expected to have a **stable** employment outlook in the next five years.

Open text box 1	1
Open text box 2	2
Open text box 3	3
Open text box 4	4
Open text box 5	5
We have no roles like this	6
Don't know	7

Q7 (3.3.1) Please provide examples of roles in your organisation that are expected to have a **declining** employment outlook in the next five years:

Open text box 1	1
Open text box 2	2
Open text box 3	3
Open text box 4	4
Open text box 5	5
We have no roles like this	6
Don't know	7

Q8 (3.4) Please assess what share of your current workforce is composed of roles with a stable, growing or declining employment outlook – distinguishing between mass employment roles and specialised, strategically important roles.

Enter % next to each category. Percentages must sum to 100%.

Mass employment roles with a growing employment outlook:	%
Specialised and strategic roles with a growing employment outlook:	%
Mass employment roles with a declining employment outlook:	%
Specialised and strategic roles with a declining employment outlook:	%
All other roles (including mass employment, specialised and strategic roles with stable employment outlook):	%
Total (DS: SHOW TOTAL)	%
Don't know	EXCLUSIVE

Q9 (4.1) What are the core skills workers currently need to perform well in the key roles with a stable outlook?

Please select all that apply.

AI and big data	1
Analytical thinking	2
Attention to detail	3
Creative thinking	4
Communication	5
Curiosity and lifelong learning	6
Dependability	7
Design and user experience	8
Empathy and active listening	9
Environmental stewardship	10
Global citizenship	11
Leadership and social influence	12
Manual dexterity, endurance, and precision	13
Marketing and media	14
Mathematics	15
Motivation and self-awareness	16
Multi-lingualism	17
Networks and cybersecurity	18
People management	19
Programming	20
Quality control	21
Reading and writing	22
Resilience, flexibility and agility	23
Resource management and operations	24
Sensory-processing abilities	25
Service orientation and customer service	26
Systems thinking	27
Talent management	28
Teaching and mentoring	29
Technological literacy	30
Other (please specify)	31
Don't know	32

PART 3: TRAINING AND RESKILLING

These next questions are about how you will ensure staff in your organisation are equipped with the skills needed for the future of work. We'll ask about your current and future upskilling/reskilling plans. Upskilling and reskilling are defined as follows :

- ***Upskilling:*** *Learning new competencies to stay in current role, due to the change in skills required, or adding certain competencies for career progression.*
- ***Reskilling:*** *Learning new sets of competencies to transition to a completely new role.*

Q10a (4.7/LIST FROM 2020). Keeping in mind your current strategic direction, please select the skill clusters on which you are focusing your organisation's reskilling and upskilling efforts in the **next five years**. *Please select up to 10.*

Active learning and learning strategies	1
Analytical thinking, problem solving and innovation	2
Attention to detail	3
Complex problem-solving	4
Coordination and time management	5
Creativity, originality and initiative	6
Emotional intelligence	8
Instruction, mentoring and teaching	9
Leadership and social influence	10
Management of financial, material resources	11
Management of personnel	12
Manual dexterity, endurance and precision	13
Mathematics	
Memory, verbal, auditory and spatial abilities (	14
Persuasion and negotiation	15
Quality control	16
Reading, writing, and active listening	17
Resilience, stress tolerance and flexibility	19
Safety awareness	
Service orientation	20
Systems analysis and evaluation	21
Technology design and programming	22
Technology installation and maintenance	23
Technology use, monitoring and control	24
Troubleshooting and user experience	25
Visual, auditory and speech abilities	26
Other, please specify	27
Don't know	28

Q10b Which of these is your organisation **very likely** to do in the next five years to address the shifting skills demand? *Select all that apply.*

Retrain existing employees	1	
Hire new permanent staff with skills relevant to new technologies	2	
Hire new temporary staff with skills relevant to new technologies	3	
Expect existing employees to pick up skills on the job	4	
Strategic redundancies of staff who lack the skills to use new technologies	5	
Look to automate the work	6	
Outsource some business functions to external contractors	7	
Other (please tell us)	8	ANCHOR
Don't know	9	ANCHOR

Q10c For these next questions please think about the region(s) in New Zealand your workforce is mainly based. In those regions to what extent do you agree or disagree that…

	Strongly disagree	Agree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
The population possess sufficient digital skills (e.g. computer skills, basic coding, digital reading)	1	2	3	4	5	6
Secondary-education graduates possess the skills needed by your organisation	1	2	3	4	5	6
University graduates possess the skills needed by your organisation	1	2	3	4	5	6
Your organisation can find people with the skills required to fill its vacancies	1	2	3	4	5	6

Q10d Please tell us the key qualifications that are expected to be in **growing demand** in your organisation in the next five years. *Type your answer in the box below.*

Open text box
Don't know

Q11 (4.3-4.5) In the next five years…

	SLIDER										Don't know
What proportion of the core skills required by your workforce will remain the same?	0 %									100 %	2
What proportion of your workforce will require training to meet evolving skill demands?	0 %									100 %	2
What proportion of your workforce with increasingly redundant skillsets do you expect to successfully redeploy within your organisation after they have completed relevant training?	0 %									100 %	2
What proportion of your existing workforce has completed training which filled skills gaps	0 %									100 %	2

Q12 What are the main criteria you used to determine which employees receive upskilling/retraining? *Select main ones that apply*

Employees in roles at greater risk of becoming redundant	1
Employees with other skills or knowledge that cannot be easily replaced	2
Employees who are more likely to stay with the organisation longer term	3
Employees who help us meet our diversity and inclusion policy	4
High performing employees	5
Some other criteria (please tell us)	6
Not applicable – all of our employees receive the upskilling/retraining	7
Don't know	8

PART 5: CLIMATE AND ENVIRONMENT

Next, we're interested in understanding how your organisation is impacted by climate change, and how it is adapting (or planning to adapt) to meet the challenges which stem from this.

Q13 Over the past 12 months, has climate change had a **significant impact** on your organisation in any of the following ways? *Select all that apply*

Supply chains	1	
Access to freight	2	
Employment needs	3	
Ability for workers to get to work	4	
Your employees' places of work (e.g. offices, factories, warehouses)	5	
Means of production (i.e. machinery, labour or tools)	6	
Other (please tell us)	7	ANCHOR
None of these ways	8	ANCHOR
Don't know	9	ANCHOR

Q14 How would you describe the **overall** impact that climate change is likely to have on your organisation over the next five years?

Major negative impact	1
Moderate negative impact	2
Little or no impact (positive or negative)	3
Moderate positive impact	4
Major positive impact	5
Don't know	6

Q15. Which of these (if any) do you think will be a significant challenge for your organisation in the next five years? *Select all that apply*

Increasing consumer demand to be more environmentally friendly, carbon neutral and / or utilise green energy	1
The need to adapt or pivot your business model to shift away from either the use of fossil fuel energy or producing emissions	2
Profitability impacted by increasing operating costs as the price of emissions increase under the Emissions Trading Scheme	3
Increasing costs of raw materials and / or energy	4
Other (please tell us)	5
None of the above	6
Don't know	7

Q16 This question is about your organisation's progress towards the NZ Government's Net Zero 2050 pledge, or to transition towards a low-emissions economy more generally. How confident are you that to do this your organisation currently has the right…

		Not at all confident	Not that confident	Confident	Very confident	Not applicable	Don't know
1	Resources, skills or talent	1	2	3	4	5	6
2	Knowledge or understanding	1	2	3	4	5	6
3	Capital or funding	1	2	3	4	5	6
4	Strategy, leadership and vision	1	2	3	4	5	6
5	Guidance from government	1	2	3	4	5	6

IF 1 OR 2 AT Q16 ITEM 3: 'Capital or funding'; ASK:

Q17 Are you able to make use of public funds to support your business in adapting to climate change?

Yes	1
No	2
Don't know	3

PART 5: COVID-19

Next we're interested to learn how your organisation responded to and was affected by COVID-19 in New Zealand.

Q18 In response to COVID-19, which of the following measures has your company implemented across the organisation?

Provided more opportunities to work remotely	1
Accelerated the digitalisation of work processes (e.g. use of digital tools, video conferencing)	2
Accelerated automation of tasks	3
Temporarily reassigned workers to different tasks	4
Accelerated the implementation of upskilling / reskilling programmes	5
Other, please specify	6
Don't know	7

Q19 What percentage of your New Zealand workforce received a COVID wage subsidy?

%	1
Don't know	2

DS: If a percentage >0% is selected in Q19 ASK:

Q20 Did you organisation top up the wages of your New Zealand workforce above the government-funded 80%?

Yes	1
No	2
Don't know	3

Q21 As a result of COVID-19, what percentage of your New Zealand job roles did you need to make redundant?

%	1
Don't know	2

DS: If a percentage >0% is selected in Q21 ASK:

Q22 Which roles did you make redundant?

(Open text box)	1
Don't know	2

PART 6: FIRMOGRAPHICS

Finally, we have a few classification questions to ensure we have heard from a broad cross section of organisations.

F1a. Which industry best describes your organisation's business?

Agriculture, Forestry and Fishing	1
Mining	2
Manufacturing	3
Electricity, Gas, Water and Waste Services	4
Construction	5
Wholesale Trade	6
Retail Trade	7
Accommodation and Food Services	8
Transport, Postal and Warehousing	9
Information Media and Telecommunications	10
Financial and Insurance Services	11
Rental, Hiring and Real Estate Services	12
Professional, Scientific and Technical Services	13
Administrative and Support Services	14
Public Administration and Safety	15
Education and Training	16
Health Care and Social Assistance	17
Arts and Recreation Services	18
Other Services	19

F1b (1.5). Which of these industries best describes your organisation's business?
Please select up to three. If your organisation is active in more than three industries, please select the three industries where you have the largest headcount.
(Note: We appreciate you've already just been asked a question on industry, but we'd like to also know how you fit into these international classifications below)

Accommodation, Food, and Leisure *Accommodation, food, and leisure services* *Rental, reservation, and leasing services*	1
Agriculture and Natural Resources *Agriculture, forestry, and fishing*	2
Automotive and Aerospace	3
Care, Personal Services and Wellbeing *Care and social work services* *Personal care, wellbeing, and repair services*	4
Education and Training	5
Energy and Materials *Chemical and Advanced materials* *Energy technology and utilities* *Mining and Metals* *Oil and gas*	6
Financial Services *Financial services and capital markets* *Insurance and pensions management*	7
Government and Public Sector	8

Health and Healthcare *Medical and healthcare services*	9
Information Technology and Digital Communications *Information and technology services* *Telecommunications*	10
Infrastructure *Engineering and construction* *Water and waste management*	11
Manufacturing *Advanced manufacturing* *Electronics* *Production of consumer goods*	12
Media, Entertainment and Sports *Arts, entertainment, and recreation* *Media and publishing*	13
Non-governmental and Membership Organisations *Extraterritorial organisations and bodies* *Non-profit organisations, professional bodies and unions*	14
Business support and premises maintenance services *Employment services* *Research, design and business management services*	15
Real Estate	16
Retail and Wholesale of Consumer Goods	17
Supply Chain and Transportation	18
Other (please tell us)	19

F2. How many New Zealand based employees does your business/organisation have?

Please count all full-time and part-time employees that pay New Zealand tax, but do **not** include contractors.

50 – 99	1
100 – 250	2
251 – 499	3
500 – 999	4
1,000 – 4,999	5
5,000 – 9,999	6
10,000 – 49,999	7
50,000 or more	8

F3 (1.4). In which country is your organisation's headquarters located?

(Country drop down list) (See appendix 1 for list of countries)

F4 (1.7). What percentage of your New Zealand-based staff are located in the following regions?
Enter % next to each category. Percentages must sum to 100%.

Northland	%
Auckland	%
Waikato	%
Bay of Plenty	%
Gisborne	%
Hawkes Bay	%
Taranaki	%
Manawatu-Whanganui	%
Wellington	%
Tasman	%
Nelson	%
Marlborough	%
West Cost (South Island)	%
Canterbury	%
Otago	%
Southland	%
Total (DS: SHOW TOTAL)	%

F5 What percentage of your New Zealand-based workforce are in each of the following age categories?
Enter % next to each category. Percentages must sum to 100%.

Under 20	%
20 – 34	%
35 – 49	%
50+	%
Total (DS: SHOW TOTAL)	%

F6 What percentage of your New Zealand-based workforce are in each of the following ethnic groups?
Enter % next to each category. Percentages must sum to 100%.

New Zealand European	%
Māori	%
Pasifika	%
Asian	%
Other	%
Total (DS: SHOW TOTAL)	%

F7 What percentage of your New Zealand-based workforce are of each of the following genders?
Enter % next to each category. Percentages must sum to 100%.

Male	%
Female	%
Another Gender	%
Total (DS: SHOW TOTAL)	%

F8 (1.9). In which of the following countries does your organisation have significant operations (minimum 50 FTEs)?

Please selection up to 10 countries.
If your organisation has operations in more than 10 countries, please select the 10 countries where you have the largest headcount.

(Country drop down list) (See appendix 1 for list of countries)

F9. Finally, which, if any, of the following apply to you?
Please select all that apply.

I work for a Māori business or organisation	1
The business or organisation that I work for has a strong Māori ownership or Māori values base	2
I identify as Māori	3
None of the above	4

Thank you for taking the time to complete the survey.

APPENDIX 1: LIST OF COUNTRIES

Afghanistan
Albania
Algeria
Angola
Argentina
Armenia
Australia
Austria
Azerbaijan
Bahrain
Bangladesh
Belarus
Belgium
Benin
Bhutan
Bolivia
Bosnia and Herzegovina
Botswana
Brazil
Brunei Darussalam
Bulgaria
Burkina Faso
Burundi
Cambodia
Cameroon
Canada
Cape Verde
Central African Republic
Chad
Chile
China
Colombia
Congo Dem Rep
Costa Rica
Côte d'Ivoire
Croatia
Cuba
Cyprus
Czech Republic
Denmark
Djibouti
Dominican Republic
Ecuador
Egypt
El Salvador
Equatorial Guinea
Eritrea
Estonia
Ethiopia
Finland
France
Gabon
Gambia
Georgia
Germany
Ghana
Greece
Guatemala
Guinea
Guinea Bissau
Haiti
Honduras
Hungary
Iceland
India
Indonesia
Iran
Iraq
Ireland
Israel
Italy
Jamaica
Japan
Jordan
Kazakhstan
Kenya
Korea
Kuwait
Kyrgyz Republic
Lao PDR
Lesotho
Liberia
Libya
Lithuania
Luxembourg
North Macedonia
Madagascar
Malawi
Malaysia
Mali
Malta
Mauritania
Mauritius
Mexico
Moldova
Mongolia
Montenegro
Morocco
Mozambique
Myanmar
Namibia
Nepal
Netherlands
New Zealand
Nicaragua
Niger
Nigeria
Norway
Oman
Pakistan
Panama
Papua New Guinea
Paraguay
Peru
Philippines
Poland
Portugal
Latvia
Lebanon
Qatar
Romania
Russian Federation
Rwanda
Saudi Arabia
Senegal
Serbia
Sierra Leone
Singapore
Slovak Republic
Slovenia
Somalia
South Africa
Spain
Sri Lanka
Sudan
Eswatini
Sweden
Switzerland
Syria
Tajikistan
Tanzania
Thailand
Togo
Tunisia
Turkey
Turkmenistan
Uganda
Ukraine
UAE
United Kingdom
United States
Uruguay
Uzbekistan
Venezuela
Vietnam
Yemen
Zambia
Zimbabwe