

Qrious

State of AI in NZ 2021

Insight into the potential impact and opportunity
for AI on New Zealand.

In association with



MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT
HIKINA WHAKATUTUKI



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01. Introduction

Foreword

About this Report

Executive Summary



Introduction

Foreword

From Siri to Netflix recommendations, AI is already here. It's now time for businesses to embrace AI at the same pace we have as consumers.

At Qrious, we see AI transforming organisations and customer experiences in every industry – from enriching customer interactions and easing traffic congestion, to enriching high-performance sport and preserving our precious native wildlife.

Right now, and particularly in the wake of Covid-19, Kiwi organisations are facing significant pressures, including the need to build business resilience, optimise business operations, and deliver greater innovation. We believe AI is not only a key enabler, but also a driving force to mitigate these challenges.

That's why we commissioned *The State of AI in New Zealand* report. For the first time ever, we have the insights kiwi organisations need to accelerate our collective AI journey - to create an AI economy right here in Aotearoa.

The AI economy could provide the same growth opportunities for New Zealand as our agriculture economy has in the past. The agriculture industry encompasses not just farmers and growers but also feed suppliers, exporters, and other complementary providers. Similarly, the AI economy encompasses the whole value chain from academia and research to industry specialists, entrepreneurs, and professional services. By building AI in New Zealand, we not only enhance the performance of our organisations, but we generate additional local economic value.

Yet the report shows that our AI maturity is lagging behind our global counterparts with a stark divide between organisations where AI is ingrained and those still to adopt the technology. We also see that those with AI embedded as part of their operating model have often made good use of government support or investment funds to kick start their growth.

With this report we now have a benchmark for New Zealand's AI maturity, one that we can all aspire to improve against. Furthermore, it drills down into those organisations further along in their AI journey – revealing why and how these AI natives have been so successful. It gives us a clear road-map forward for less AI mature organisations.

We want to help all of New Zealand win big in a digital world; where AI makes lives better, businesses stronger, and our country the envy of the world. It's an exciting and challenging time for business leaders. At Qrious we're proud to help deliver on AI opportunities, and also build a richer future for Kiwi businesses and our people. The time to do this is now.



Sam Daish

Head of AI and Data Science, Qrious



Introduction

Foreword

Artificial intelligence, AI, presents the prospect of enormous transformative change for New Zealand business and society. AI is an engine of growth both as a high-value sector, with significant export and employment opportunities in its own right, and as a key for unlocking productivity improvements across the economy.

As Minister for the Digital Economy and Communications I have responsibility for the Digital Technologies Industry Transformation Plan (ITP), which is being developed by the Ministry of Business, Innovation and Employment alongside the sector. It will be a key tool for driving expansion in the digital technology sector, to achieve the vision of a world-leading, innovative digital nation. New Zealand already maintains a global reputation for its trustworthy deployment of new technologies, meaning we're in a good position for future growth.

One of the priorities of the ITP is the creation of an AI Strategy for Aotearoa.

This report, *The State of AI in New Zealand 2021*, is therefore timely. Quality data is the essential precondition of effective AI utilisation, the fundamental input to the technology. And in the same way, movement towards our aspiration of a flourishing digital sector is informed by rich data about where we are now. Qrious is to be commended for this very useful contribution to our knowledge of how firms and organisations in New Zealand are using AI at the moment.

Beyond offering a snapshot of what is happening within individual organisations, The State of AI also establishes benchmarks for the path to AI maturity, which can help us track the subsequent progress of not just firms, but the country and economy.

One finding of note is that smaller and medium-size enterprises are leading the way on AI maturity, a demonstration of the impact of the Crown's investments through venture capital and grants in such 'AI native' firms. The ITP will look at ways to further deepen the investment pool across the economy.

The development of the AI ecosystem supports the government's vision of a more productive, sustainable, inclusive, and resilient economy. Our approach to this sector relies on three key pillars: mahi tika, or trust; mahi tahi, or inclusion, and mahi ake, growth. In a world that will be increasingly influenced by AI, it is important to ensure public confidence in these new technologies so that we can deliver a bigger share, of a growing industry, that reflects our values and culture and which benefits all New Zealanders.



Hon. David Clark
Minister for the Digital Economy
and Communications



Introduction

About this Report

The State of AI in New Zealand 2021 report comprises findings from a nationwide survey of decision makers and analytics leaders across corporate, government and tertiary domains.

This inaugural report delivers unique insights into the opportunities AI offers, and its potential impact on our society and our economy. It identifies the latest AI strategies and trends to establish a benchmark for New Zealand's 'AI maturity'.

Some of the themes we explored include:

- 01 Defining and benchmarking New Zealand's AI maturity
- 02 Characterising the gap between those organisations that are pondering AI and those that are practising it
- 03 A leaders role in laying the foundation for a rewarding AI agenda
- 04 What it will take to truly ignite AI adoption in New Zealand.

The State of AI in New Zealand report has been produced in conjunction with our partners: Spark, The AI Forum and Ministry of Business, Innovation and Employment.



A Note on Our Respondents

Our respondents derive from a range of sectors, working across B2B, B2C and blended organisations.

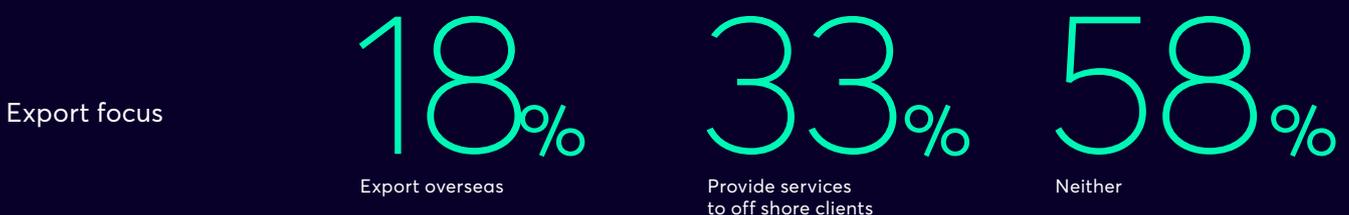
Twenty-six per cent of our respondents work for organisations of fewer than 50 people, and 34 per cent work for organisations generating less than \$100m in annual revenue.

And of those organisations, 18 per cent are exporters, 33 per cent offer services offshore and 58 per cent have a purely local focus.



Our Respondents' Background

We talked to 671 Academics, Business and Data Leaders, representing the top tier of NZ's organisations.





Introduction

Executive Summary

The inaugural State of AI report is a benchmark for New Zealand's 'AI maturity'. It exposes a divide between those organisations in which AI is entrenched and those that are still to adopt the technology.

AI – the future of competitive advantage – has arrived, but its adoption, and those enjoying the benefits of the technology, is not evenly spread. Despite the promise AI holds, many organisations' efforts with the technology are lacking. Of those organisations surveyed, just over a third are embarking on their AI journey but have yet to finish any projects.

The report introduces an AI maturity framework for New Zealand, which shows that just one in five Kiwi organisations can be classified as 'AI mature' – those that are achieving and scaling real impact from AI solutions.

Our research shows that, compared with our counterparts in the USA and Canada, we are lagging far behind them when it comes to engaging with the technology. Moreover, AI isn't even on the radar for 17 per cent of New Zealand organisations.

Intriguingly, it is smaller, more agile organisations that are in the vanguard of AI implementation and vision, while those at the lower end of the maturity scale are typically larger and more established.

These smaller organisations are ostensibly 'AI natives' – newer organisations that are primarily financed by government grants and/or venture capital, and where developing and using AI is innate. They are disrupters, outclassing well-established organisations with their deeper understanding of modern technology and a different approach to business.

Those organisations that have begun to trial AI have also begun to realise the benefits. They are likely to be outperforming rivals in matters of efficiency, improving existing products and services, enriching customer experience and creating differentiation.

Surprisingly, cost and capability, rather than technology, present the biggest impediment for less AI mature organisations. For those keen to embark on their AI journey, the report shows that the easiest way to achieve some quick wins in the early stages is to explore opportunities for AI to enhance an existing and well-understood process, product or service.

The common denominator along the AI maturity scale is the dearth of capability. So, there are compelling grounds for New Zealand to build its own self-sufficient AI economy complete with its own supply chain, infrastructure and talent.

This AI future requires a critical mass of organisations in the trial stage, and a departure from being rigid and overcautious to being nimble, experimental and adaptable. To succeed, an organisation must develop their own 'AI literacy', and leaders must be sufficiently knowledgeable of AI to grasp its opportunities and challenges.

The rewards are tangible for organisations with an 'AI first' principle. They apply an AI lens to any opportunity or problem to determine what part the technology has to play in a world where humans and machines working in harmony are stronger than those working apart.

"AI is a vast subject with many possibilities and players"

General Manager

"Cue the emergence of a different kind of a company with AI as its operating system."

Head of Strategy

"AI will take away the mundane tasks that our skilled workers don't like doing. More importantly it will provide information and analysis to enable us to take products to the next level, cost effectively."

CEO



02. Our Discovery

AI Maturity

Mind The Gap

AI Impact

Ignition



Our Discovery

AI Maturity

AI is the future of competitive advantage, and it's here – it's just not evenly distributed.

In New Zealand, just one in five organisations has graduated beyond trials to earn the 'AI mature' label. AI maturity is the measure of an organisation's ability to achieve and scale impact from AI platforms.

Meanwhile, 17 per cent of New Zealand businesses aren't even thinking about AI at present.

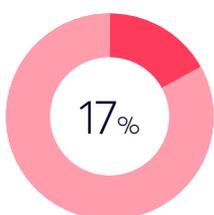
So, what is AI?

This report applies the AI Forum's definition of AI:

Advanced digital technologies that enable machines to reproduce or surpass abilities that would require intelligence if humans were to perform them. This includes technologies that enable machines to learn and adapt; to sense and interact; to reason and plan; to optimise procedures and parameters; to operate autonomously; to be creative; and to extract knowledge from large amounts of data.

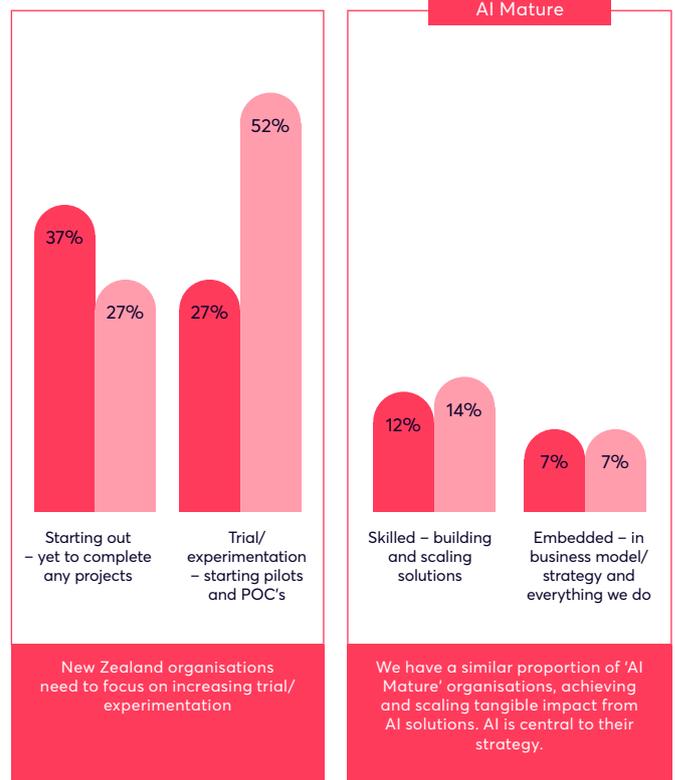
When pitted against the likes of the USA and Canada, where does New Zealand rank in the AI stakes?

Interestingly, we have a similarly low proportion of AI mature organisations – those that report achieving and scaling tangible impact from AI solutions, and where AI is central to their strategy. But we are lagging well behind our North American counterparts when it comes to those that are experimenting with the technology – our 27 per cent compared with their 52 per cent.



17% of New Zealand businesses aren't even thinking about AI at the moment.

■ NZ ■ USA / Canada





Benchmarking AI

To measure AI maturity, Qrious developed a framework for the New Zealand context.¹

The AI maturity framework asserts that five primary dimensions must be aligned to create and scale business impact with AI: Vision, Data, Technology, People and Governance.

Each dimension is fundamental to AI's success – an absence of headway in one will delay an organisation's overall progress in AI - no matter the pace of other dimensions.

Five Dimensions to Upgrade AI Maturity

DIMENSION 1	DIMENSION 2	DIMENSION 3	DIMENSION 4	DIMENSION 5
<p>Vision</p> <p>Aligning business and technical leaders on the plan of action for achieving the desired level of AI maturity in the organisation.</p>	<p>Data</p> <p>The data required to support specific AI techniques defined by the AI strategy and help inform the strategic AI roadmap.</p>	<p>Technology</p> <p>The technical infrastructure and tools needed to train, deliver and manage AI models across their lifecycle.</p>	<p>People</p> <p>Developing the AI literacy of business and technical teams to to successfully build and/or work with AI.</p>	<p>Governance</p> <p>The policies, processes and relevant technology components required to ensure safe, reliable, accountable and responsible AI solutions.</p>

The Five Stages of AI Maturity

These dimensions define an organisation's AI maturity across five stages:

Not Thinking About AI; Starting Out; Trialling; Skilled; Embedded.

STAGE 01	STAGE 02	STAGE 03	STAGE 04	STAGE 05
<p>Not Thinking About AI</p> <p>Not currently active and no plans or budget to invest in AI.</p>	<p>Starting Out</p> <p>Exploring what AI is and what it can bring to your organisation. The organisation does not yet have an AI roadmap or solution in production.</p>	<p>Trialling</p> <p>Experimenting with Proofs of Concept (POCs) and pilots. The organisation is trying to put AI into production and can do so in limited ways.</p>	<p>Skilled</p> <p>Scaling AI solution deployments efficiently as the number of deployed AI models increases. Approaching factory model production.</p>	<p>Embedded</p> <p>Transforming the organisation itself through the use of AI. The organisation uses AI in how it operates across many critical areas of the business.</p>

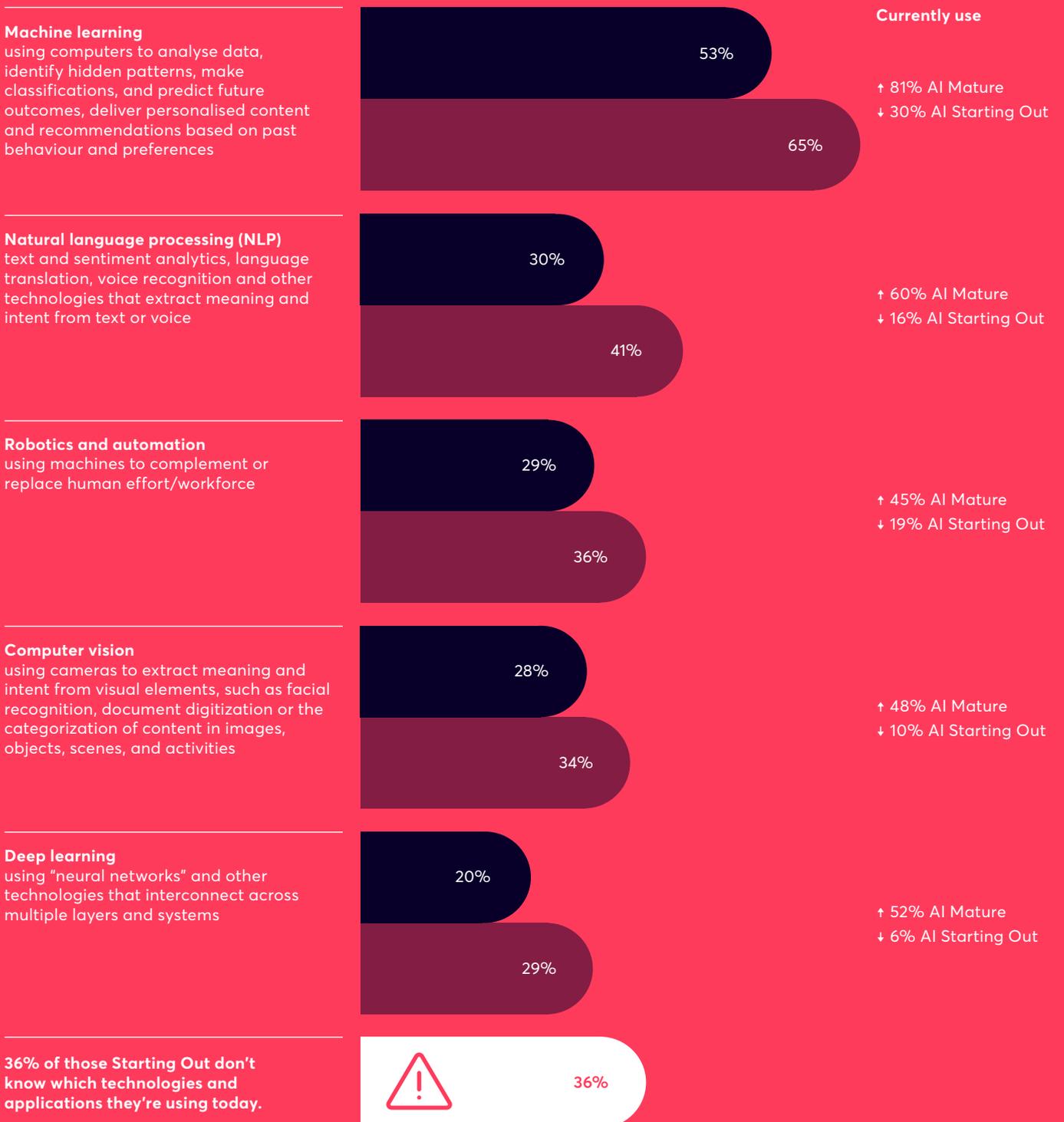
¹AI maturity framework for the New Zealand context is based on work by Montreal-based artificial intelligence company elementAI.



Which of these AI technologies and application areas are you using today?

There's momentum in AI, with future use outstripping current across all technologies.

- Total – AI Technologies/Applications use today
- Total – AI Technologies/Applications planning to use next 12M





"My business is fighting breast cancer with AI. Our algorithms consume vast quantities of data to find patterns and assist with early detection"

Principal Architect

"We are now turning our attention to our overall Digital Strategy as it applies to our external stakeholders."

CEO

"I am watching AI carefully. Countless good uses come to mind like 3D printing of homes, it's happening in the US and China – but not yet here despite acute shortage of affordable housing."

Managing Director



Our Discovery

Mind The Gap

Smaller, more nimble organisations are leading the way in both AI execution and vision.

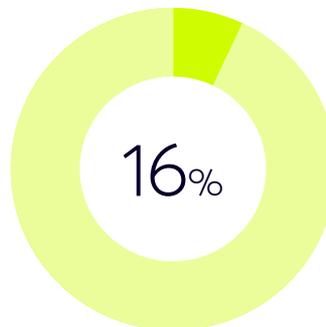
AI is reshaping business, although not at the blistering pace many may assume.

AI is influencing decisions on everything from crop harvests to bank loans, and once pie-in-the-sky prospects such as fully automated customer service are on the horizon. More, the technologies that enable AI, like development platforms, and vast processing power and data storage, are advancing rapidly and becoming increasingly affordable. The time seems ripe for companies to capitalise on AI. Indeed, AI has the potential to increase New Zealand GDP by as much as an estimated \$54 billion by 2035 across 18 different industries.²

Despite the promise of AI, many organisations' efforts with it are falling short. Qrious surveyed hundreds of executives about how their companies use and plan for AI and advanced analytics, and the data shows that only seven per cent of organisations engage in core practices that support widespread adoption. Most have only run ad hoc pilots or are applying AI in just a single business process.

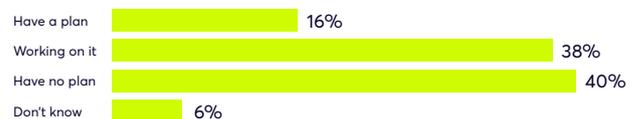
Meanwhile, just over a third of those surveyed are taking the first steps on their AI journey, but have yet to complete any projects. For many, an AI plan is simply a 'work in progress'.

Fewer than one in six organisations have a plan for how AI will be used across their business, and two thirds of those with a plan have just a two-year horizon.



Less than 1 in 6 organisations already have a plan for how AI will be used across their business

Do you have a plan for how AI will be used across your business?



What is the time horizon your AI plan is based on?



²Source: Artificial Intelligence: Shaping a Future New Zealand. The AI Forum, March 2018.

Why such slow progress?

At the highest level, it reflects a failure to 'rewire' the organisation. In Qrious surveys and work with hundreds of clients, we've seen that, oftentimes, AI initiatives face daunting cultural and organisational barriers. But it is also clear that leaders who take steps to break down those barriers from the outset can effectively harness AI's power to realise opportunities.

Rise of the AI native

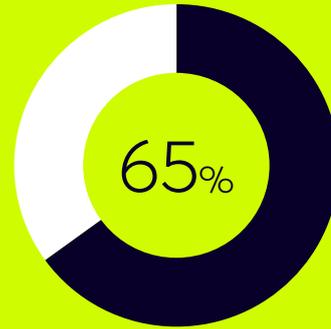
Interestingly, the higher-end of the AI maturity scale is more likely to be occupied by smaller organisations, while those at the lower-end tend to be larger and more established.

These smaller organisations appear to be 'AI natives' – newer organisations that are predominantly funded by government grants and/or venture capital, and where developing and using AI isn't a question, it's instinctive.

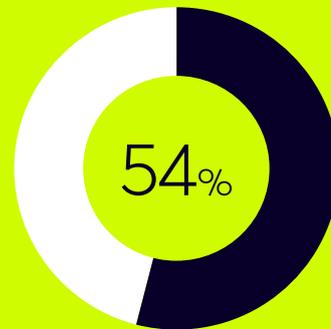
The survey shows that those in the trialling phase are more likely to be driving AI out of a dedicated innovation team than those where AI is more ingrained. This may be a reflection of how, in larger, well-established organisations, innovation may not happen evenly or naturally across the business so they create an innovation department. In more AI mature organisations, on the other hand, AI is typically led by the data and analytics team or the leadership function.

Across the spectrum of maturity, people believe their organisations could make significant gains. But it is only once an organisation starts experimenting with AI that it realises the huge potential of the technology and the need to do more.

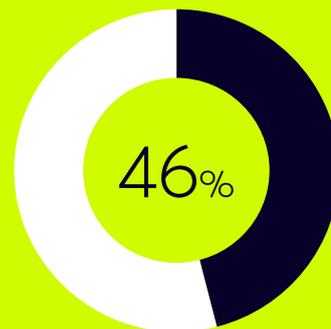
This apparent rise of the 'AI native' is a study in disruption, where established, larger players are being outmanoeuvred by those with a firmer grasp of modern technology and degree of comfort with different ways of doing business.



Agree their business would benefit significantly from increased use of AI



Agree the biggest risk we face is that NZ businesses will not leverage AI enough



Agree AI is the most significant and important technology of our time

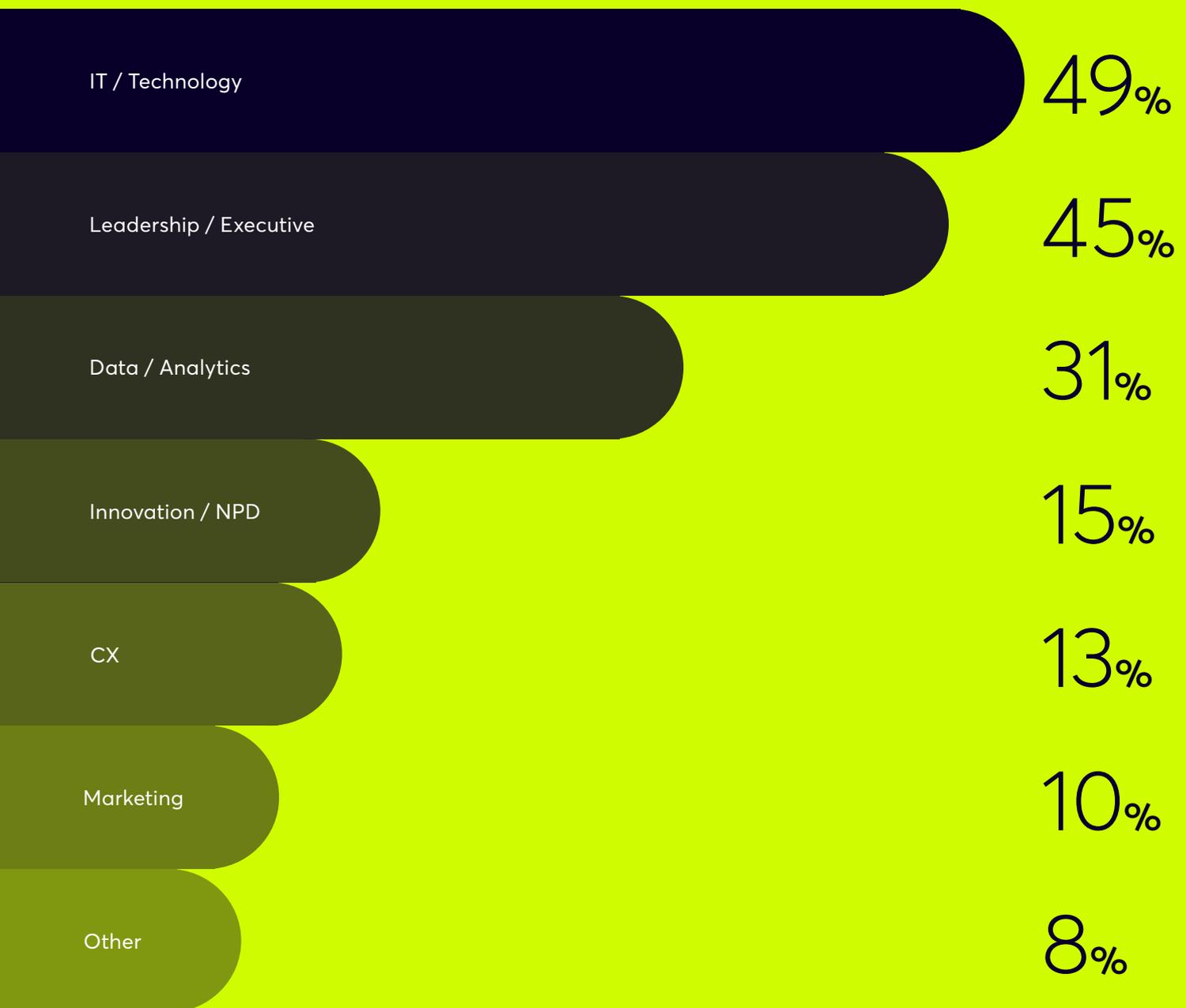
But we're divided on its significance and importance:

- ↑ 73% Agree – Embedded
- ↓ 24% Agree – Not thinking about AI



Who/which team in your organisation is primarily responsible for ensuring you're aware of/using AI technologies that could add value to your business?

Responsibility for AI tends to sit at a Leadership/Exec level, within Technology and Data.



Other = finance, product, business improvement, economic/iwi development, investment, social innovation, security, training, academic community, science, engagement, user/branch level, everyone, existing partners



"We need to identify how we should position ourselves and what technology is available to us as we consider the needs of our external stakeholders."

Business Manager

"We have a dream to "Build a Digital Nation"; a nation that can and will be at the forefront of digital technology for the advancement of economic and social opportunities within its region."

Creative Innovator

"AI could help in many ways with decision making guidance through to data analysis HOWEVER our organisation isn't in the right headspace to understand what it needs yet and need to develop a strong data value culture."

General Manager



Our Discovery

AI Impact

AI won't replace leadership, but leaders that use AI will replace those that don't.

AI seems to be on the brink of a boom. It promises to bolster financial gains across myriad sectors and there are big hopes that it will solve countless business and societal problems.

The risk is that C-suites and their boards perceive AI as a silver bullet, and as being inherently sexy. Analytics leaders, on the other hand, see it simply as an extension of business intelligence.

The reality is that AI is neither a magic wand nor a new, smarter dashboard. Rather, it is a new set of capabilities that produce enormous value, but it comes with its own unique challenges.

Notably, those organisations that have begun to experiment and apply AI have also begun to enjoy significant benefits as a result. They are likely to be outpacing competitors in areas of efficiency, improving existing products and services, enriching customer experience and creating differentiation. What's more, they believe there is even more scope for AI to add value.

For those organisations with an appetite to get started with AI, it can be a daunting prospect.

Which of these benefits have you actually achieved through the use of AI?

	Starting Out	Trialling	Skilled	Embedded	Nett AI Mature	Gap: Mature v Trialling	Gap: Mature v Starting Out
Making our processes more efficient/automation	28%	67%	78%	81%	79%	12%	51%
Improving our products and services	20%	53%	73%	87%	77%	24%	57%
Improving customer experience	23%	45%	65%	87%	71%	26%	48%
Differentiating our business/competitive edge/advantage	17%	42%	70%	94%	77%	35%	60%
Improving customer relationships/loyalty	17%	38%	57%	53%	56%	18%	39%
Reducing our costs	13%	36%	65%	67%	65%	29%	52%
Accelerating innovation and speed to market	10%	37%	65%	73%	67%	30%	57%
Redeploy/retrain people into more challenging/rewarding roles	9%	41%	62%	60%	62%	21%	53%
Identifying fraud/security risks	14%	27%	49%	40%	46%	19%	32%
Optimising marketing and advertising	16%	27%	27%	40%	31%	4%	15%
Reducing headcount	9%	20%	32%	20%	29%	9%	20%
Reducing churn	4%	16%	47%	20%	40%	24%	36%

■ Significantly lower @ 95% confidence ■ Significantly higher @ 95% confidence



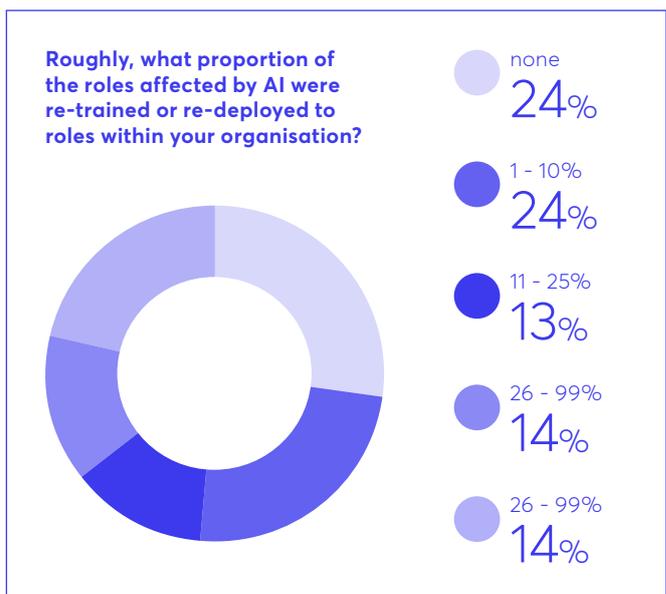
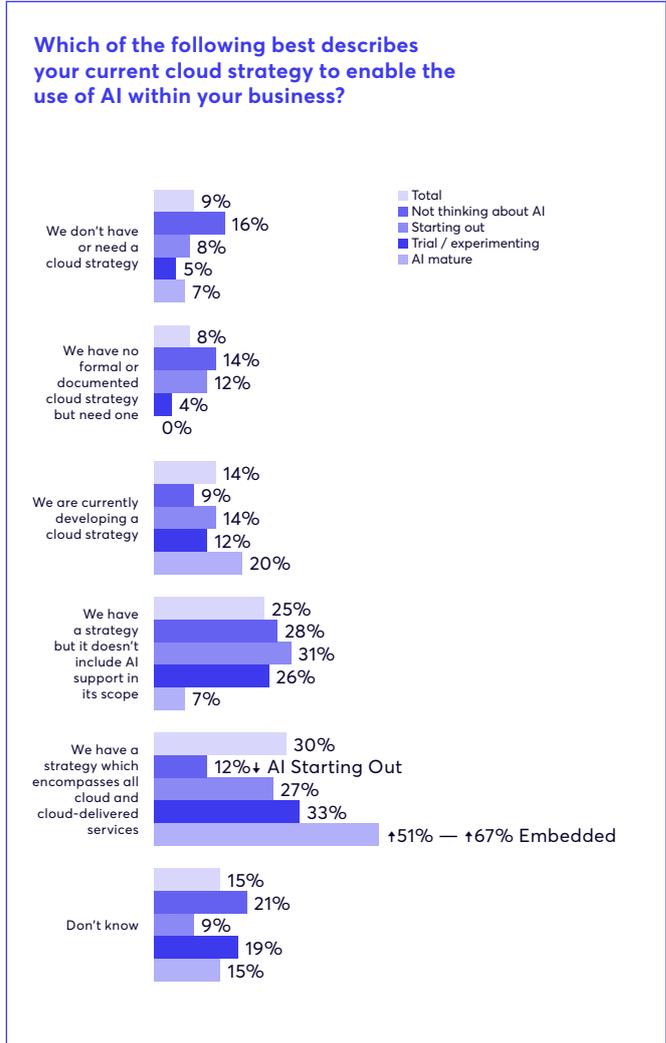
Where do you start?

One of the biggest mistakes leaders make is to view AI as a plug-and-play technology that will provide an immediate return on investment (ROI). Having decided to kick-start a few projects, they begin investing significantly in data infrastructure, and AI software tools, data expertise and model development. While some trials produce small gains to begin with, months or years pass without bringing the big wins C-suites expect and require to continue that investment. Organisations struggle to move from trials to company-wide programmes, and from a focus on discrete business problems such as improved customer segmentation, to big challenges like optimising the entire customer journey.

The survey shows that the easiest way to achieve some quick wins in the early stages, and to start to close the gap with mature organisations, is to begin with what you know. Explore opportunities for AI to enhance an existing and well-understood process, product or service.

The survey also shows that, in the vast majority of AI mature organisations, the technology is integrated with leaders' strategic planning of how to use cloud computing. It signals how much AI is becoming business as usual for these leaders.

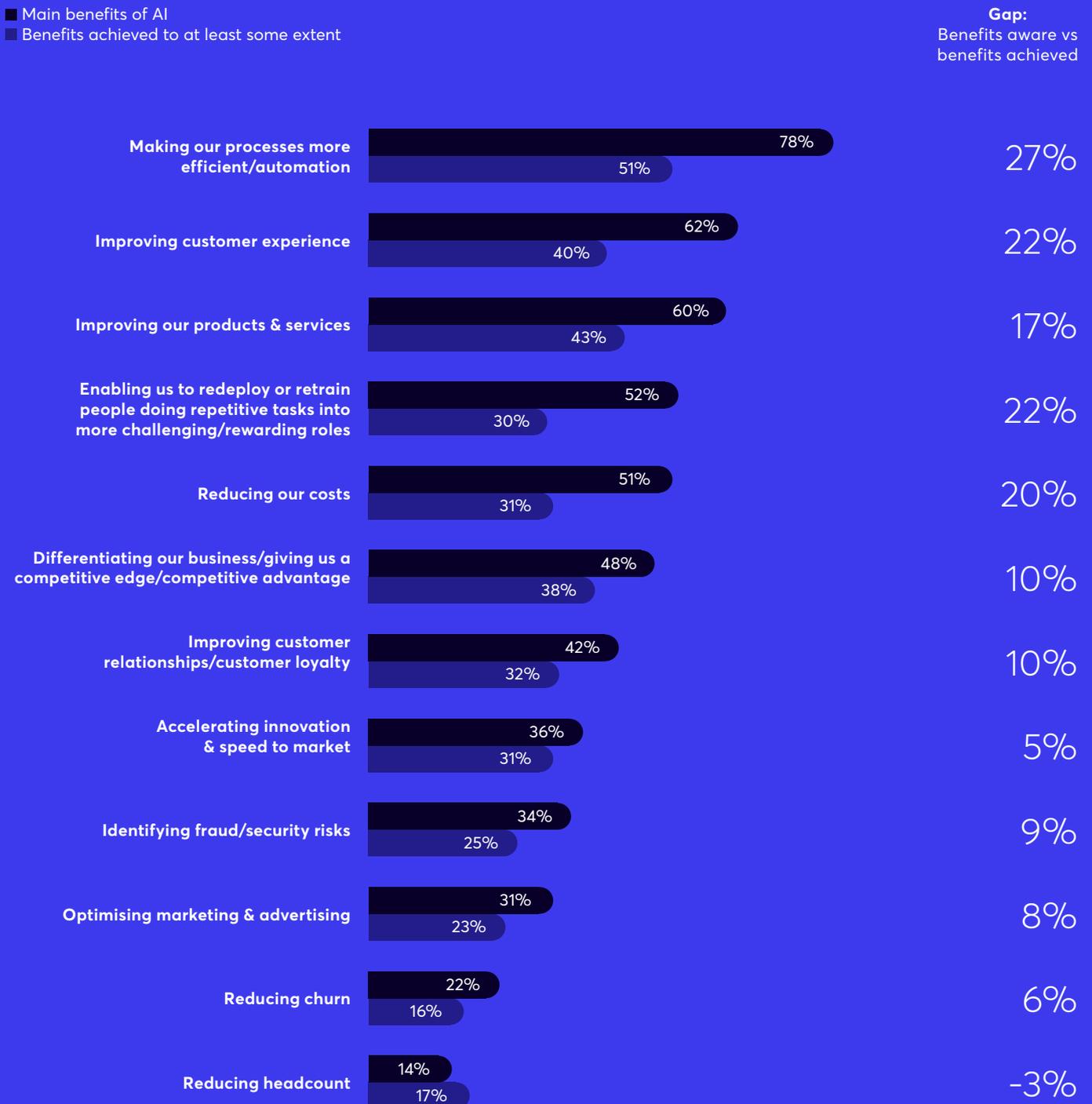
Such fundamental shifts don't come easily. They require leaders to prepare, motivate and equip their workforce to make a change. But leaders must first be prepared themselves. Qrious has often seen failure caused by the lack of a foundational understanding of AI among senior executives.





What are the main benefits that AI technologies and systems can provide? Which of these benefits have you actually achieved through the use of AI?

Business is well aware of the potential for AI to deliver greater efficiency and CX benefits.





"Automation of undifferentiated tasks enabling cash to be redirected into our business proposition."

Principal Architect

"AI will free up our skilled staff to have more complex conversations with Customers and also enable capability uplift and variety for our staff that are on the frontline."

CMO

"AI must help retain jobs, upskill personnel and help create career pathways... I know the future in the automotive industry is going through major changes and innovation. EV and autonomous vehicles will be part of the new generation sooner than we think."

Finance



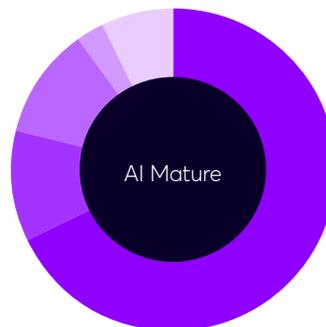
Our Discovery

Ignition

AI ignition is a numbers game – successful projects increase rapidly as an organisation’s use of AI matures.

An unexpected finding of the survey is that technology isn’t reported as a massive barrier to those less mature organisations that want to keep up with those gaining benefits from AI. In fact, it appears to be one of the first hurdles to be overcome. It is cost and capability that are holding organisations back.

Arguably, this is because those starting out, or in the trialling phase, are more likely to be larger, more established organisations. They typically bankroll AI development themselves and technology is the easiest thing to solve because they can simply buy it. It may also explain why many begin by focusing on making processes more efficient – two thirds of those in the trialling phase and more than a quarter of those starting out. Their conversations centre on the ROI with a view to continued funding through cost savings.

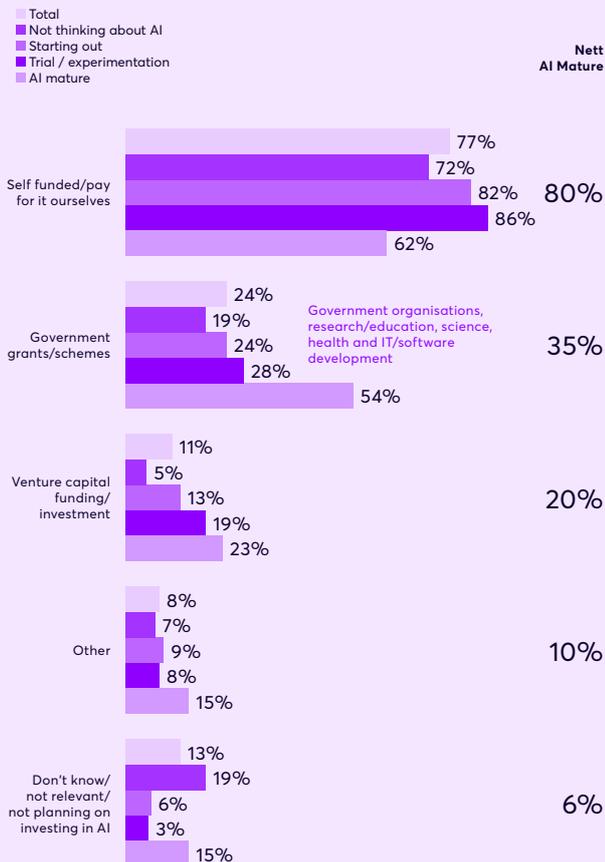




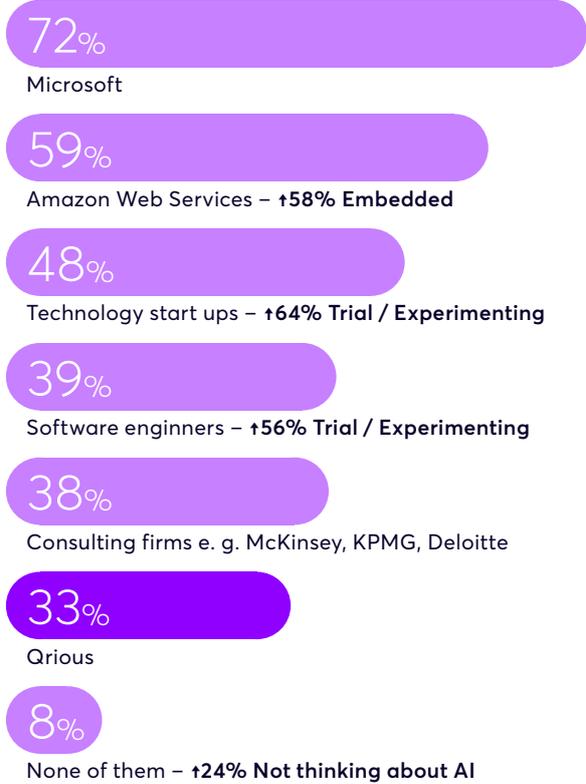
Conversely, AI mature organisations – typically newer, AI-native outfits – are more likely to seek government funding or venture capital. And, when it comes to capability, they have a distinct advantage over those lower down the AI maturity scale.

For those starting out and exploring the technology, partnerships and off-the-shelf solutions are important. But they may struggle to identify AI's potential applications, and select appropriate technology and partners. Their first port of call is often trusted, existing partners who may not in fact have the relevant skills. It may be detrimental, as it can lead to delayed results, poor ROI, and having to backtrack from a position where it is difficult to recover.

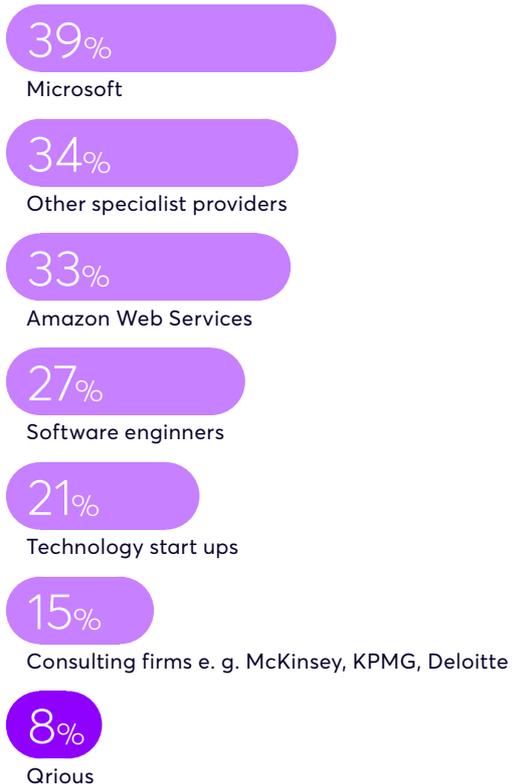
How are you most likely to fund the research, build and implementation of AI technology within your organisation?



If you were looking for AI expertise, systems and technology organisations, who or where would you go to?



Which of these have you ever used?





How would you rate the current expertise / capability in your organisation for:



While AI mature organisations are more confident in their skills and capability overall, they show a similar trend to those lower on the scale in that they also are more likely to have gaps in know-how relating to managing and building AI solutions.

Adopting someone else’s technology may be easy, but it does not get an organisation far; it still needs to be managed and tailored to solve the problem. What New Zealand needs is to develop its own ‘AI ecosystem’ of likeminded Kiwi companies to plug the capability gap.

Indeed, there is a strong argument for growing an AI economy right here: At the centre of this new sector are those building the technology; orbiting it is its own local supply chain and its own infrastructure.

To realise this future, we need a critical mass of organisations in the trialling stage. It requires a change of mindset from rigid and risk-averse to agile, experimental and adaptable.



Organisations must shed the mindset that an idea needs to be fully baked before it is deployed. At the first iteration, AI applications rarely have all of their desired functionality. A test-and-learn mentality will reframe mistakes as a source of discoveries, reducing the fear of failure. And getting early user feedback and incorporating it into the next version will allow organisations to correct minor issues before they become costly problems. Ultimately, development will speed up, enabling small AI teams to create minimum viable products in a matter of weeks rather than months.

But first, an element of executive education may be required. To progress, an organisation must have a shared degree of AI literacy and be mature enough

to define its problems. Even with early adopters, AI discussions are largely confined to specialist technology staff.

This knowledge needs to be translated up the chain to executive and board level so that they better grasp AI: Both its opportunities and its challenges. Equally, technology leaders with a genuine understanding of AI should own a decisive seat at the highest table to inform decisions about the future strategy of the business.

Organisations that do strike ignition and move through the maturity curve see their efforts pay off with an exponential increase in successful projects.

The no. of AI projects started and completed increases exponentially as organisations move up the AI Maturity Scale.

In the last 12 months, how many AI / Machine Learning projects:

	Starting Out	Trialling	Mature: Skilled / Embedded	Total
Started any AI projects last 12 months	36%	96%	100%	71%
Average No. Started	0.8	3	4.8	3.3
Produced/Implemented any AI projects	9%	67%	100%	55%
Average No. Produced/Implemented	0.2	1.4	4.0	2.4
Currently looking at any AI projects	54%	93%	100%	77%
Average No. looking at	1.0	2.8	6.3	4.1

Base: Total Sample n=638, excludes don't know



Ethics

More than half of those surveyed believe that the biggest risk of AI to New Zealand businesses will be if the technology is not leveraged sufficiently. The survey provides some illustration as to the concerns that are holding us back.

Some respondents indicate that they doubt organisations will wield AI transparently and ethically. This uncertainty resides largely with those with less exposure to AI and, in this case, lack of familiarity drives a lack of trust in the technology.

As New Zealand begins to deploy more AI, we must be mindful of avoiding any unintended consequences, while maximising the positive outcomes. This requires us to broaden our appreciation of the potential benefits and challenges when using AI to enhance human decision-making, such as bias, transparency, accountability and ethics.

These concerns are less about the technology involved and more about how it is used. As an example, facial recognition might be unacceptable for policing, but valuable for unlocking your phone. Our regulatory framework, too, will need to work in tandem with this technology-driven change, or risk hindering innovation.

Notably, those further along on their AI journey feel confident that they are across the ethical issues and, as a result, their trust in business doing the right thing is much higher. Conversely, less AI mature organisations are in favour of government involvement to drive its uptake particularly in the form of resources and advice to businesses on how to use AI safely.

Businesses are being transparent enough about how they're using AI



Our business has a good understanding of the legal and ethical implications of AI



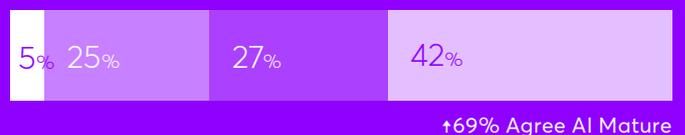
In general, people can trust that businesses are using AI in ways that will benefit them



Organisations that are AI Mature feel confident they're across the ethical issues, and as a result trust in business doing the right thing is much higher.

■ Don't know ■ Disagree (1-4) ■ Neutral (5-6) ■ Agree (7-10)

I'm concerned that some businesses will go too far with their use of AI



Overall, AI technology will create more jobs than it takes away



73% of organisations that reduced head count / re-deployed staff as a result of AI retained at least some of them for other roles – however, just 1 in 5 were able to retain them all.



What are the main barriers to doing more with AI and machine learning systems and technologies?

There's a funding and skills gap, especially for those organisations in early stages of Maturity.





"In education it will make learning innovative, interesting and fun. It'll provide an alternative to the chalk and talk model that is boring kids today."

Anonymous

"AI can support our customers with their everyday transactional questions and services both via Voice and Chat channels."

CTO

"AI could judge humans on their actions, abilities, workload, good nature etc when in a public service role and representing the community."

Anonymous



03. AI Roadmap



AI Roadmap

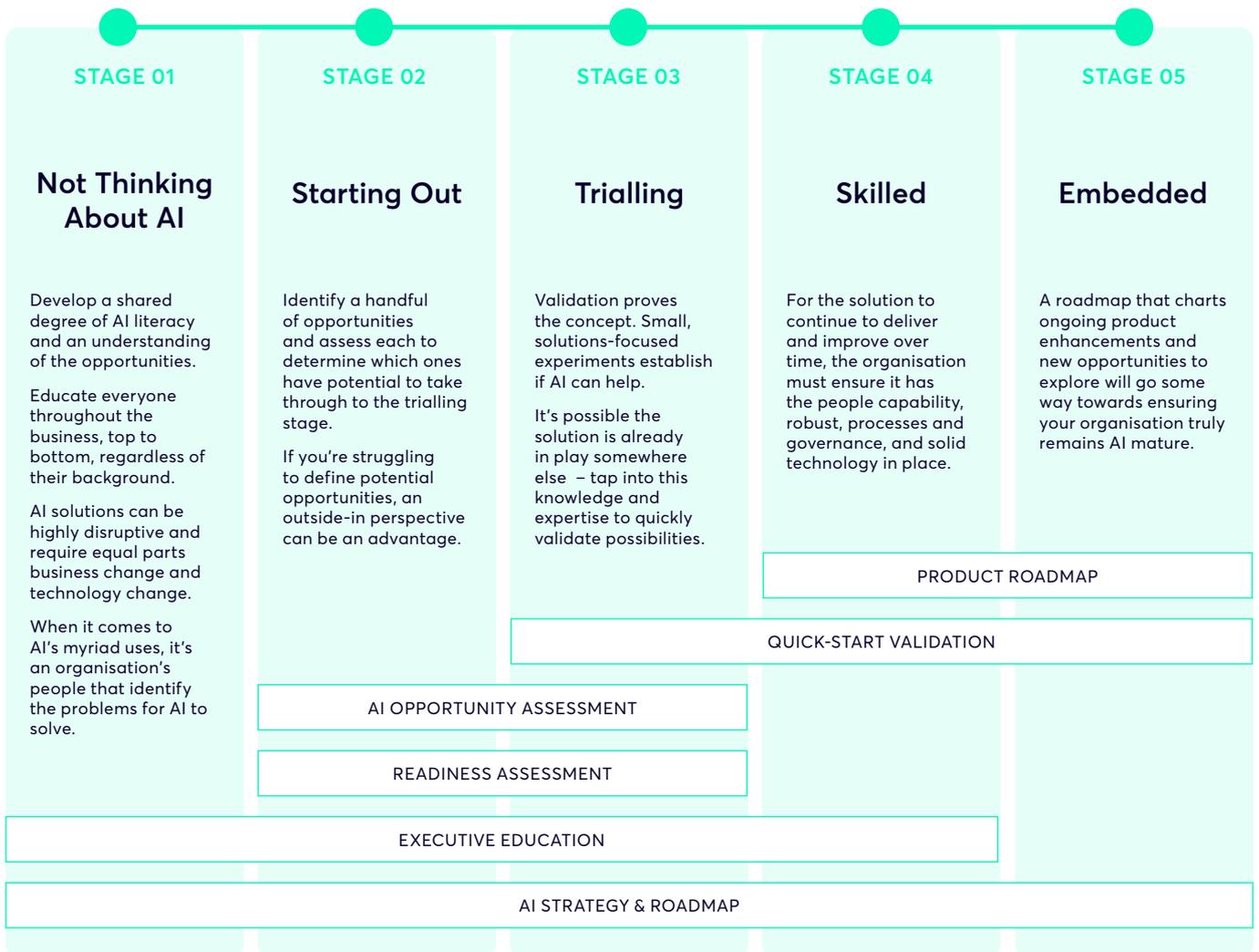
AI maturity is an outcome of skills, mindset and behaviours, and resources; AI becomes an operating principle that sits across an organisation’s ecosystem.

AI mature organisations also have an ‘AI first’ principle. This helps them align near-term projects and deliverables with strategic priorities and outcomes.

In practice, AI first means applying an AI lens to any opportunity or problem to determine what role the technology has to play.

Organisations that employ this approach ultimately pinpoint areas where AI will make a dramatic difference for both near-term results and strategic objectives.

For those organisations serious about attaining then maintaining AI maturity status, here’s a guide to what you should be considering each step of the way.





04. Summary



Summary

Reflecting on the State of AI

The State of AI report is a snapshot of New Zealand's AI maturity and exposes the differences that divide organisations enjoying the benefits of AI – from those lagging behind.

The report uncovers a divide between those organisations where AI is ingrained and those that have yet to embrace the technology.

Equally, it grants insights into what Kiwi organisations could be doing to take the next step towards an AI future, one that promises a new, unique competitive advantage.

Benchmarking New Zealand's AI maturity

Today, just one in five New Zealand organisations is AI mature; it's a similar proportion to our North American equivalents. However, we are trailing far behind them in terms of those that are playing with the technology – our 27 per cent compared with their 52 per cent. Worryingly, 17 per cent aren't yet considering AI at all.

AI maturity is uneven

Dominating the higher-end of the AI maturity scale are smaller organisations – AI natives where developing and using AI is intuitive. Those at the lower-end are typically larger, more established organisations where innovation may not happen evenly or naturally.

AI's leadership challenge

In the majority of AI mature organisations, the technology is integrated with leaders' strategic planning, illustrating just how much AI is becoming business as usual for these leaders. To achieve this, leaders must first take steps to prepare themselves, then inspire and prepare their teams to make a change.

Igniting AI uptake

Cost and capability, rather than technology, present the biggest hurdles for less AI mature organisations. The simplest way for them to attain some quick wins is to focus on using AI to improve an existing process, product or service.

Common ground across the AI maturity spectrum is the capability gap. There is therefore a strong argument for growing an AI economy in New Zealand with its own local supply chain and infrastructure – and local know-how.

This AI future requires a critical mass of organisations in the trialling stage, and a change of mindset from rigid and risk-averse to agile, experimental and adaptable. To get here, an organisation must thoroughly educate executives, increase AI literacy, empower technology leaders, and choose the right technology and partnerships. Organisations that excel at implementing AI throughout will find themselves at a distinct advantage in a world where humans and machines working together will outperform those working in isolation.



Summary

Glossary

AI Economy

An ecosystem of organisations centred around those building AI technology; orbiting it is its own local supply chain and its own infrastructure. The same way New Zealand’s agriculture economy has done; at its core are those that grow food or raise livestock; wrapped around it are multiple complementary providers including feed suppliers, fertiliser companies, exporters, logistics operators, packaging solutions and professional services. Similarly with AI, this sector has the power to grow and sustain its own end-to-end supply chain.

AI First

A mindset that designs every new system, engages in every new partnership, and creates every new operating model in a way that maximises the positive impact of AI. This can range from designing data storage systems that are optimised for the access patterns of AI systems rather than reporting, to organisational restructures that account for the role that AI can play in firm productivity and automation.

AI Literate

AI literacy is a set of competencies that enables individuals to critically evaluate AI technologies; communicate and collaborate effectively with AI; and use AI as a tool in the workplace.

AI Maturity

We use the term “maturity” to refer to the degree of formal, operationalised processes (in the context of AI) in place at the organisation. In the context of software development, capability maturity models typically describe an organisation’s ability to deliver software projects in an optimised, repeatable way, especially through the use of controlling metrics. We argue that in the case of AI, organisational maturity shifts from merely delivering AI to delivering “with” AI at the Embedded stage of maturity.

AI Native

A term to describe someone for whom interacting with, making use of, and training AI is second nature. Analogous to the term “digital native” for people for whom digital technologies are seamlessly integrated into their everyday lives.

Artificial Intelligence (AI)

Advanced digital technologies that enable machines to reproduce or surpass abilities that would require intelligence if humans were to perform them. This includes technologies that enable machines to learn and adapt; to sense and interact; to reason and plan; to optimise procedures and parameters; to operate autonomously; to be creative; and to extract knowledge from large amounts of data.

We're in it together

We see an amazing future for AI in New Zealand. Where technology can make lives better, businesses stronger, and our country the envy of the world. And the best way to get there is together.

That's what we do at Qrious – we back our clients every day like we are part of their business, and it is also how we work together to support them. We are part of a group of specialist, world-class, Kiwi businesses working together to supercharge each others' offerings.

And together, we are our country's largest technology and transformation business – helping New Zealand run smoother, grow faster, and lead the way in an ever-changing world.

Spark Business Group – in it together with New Zealand.

To find out more, visit qrious.co.nz

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