

Te Kāwanatanga o Aotearoa New Zealand Government

Me pēhea te whakapai ake i te whai wāhitanga me te tukanga whakatau a te hapori mā te whakamahinga o te hangarau?

How can community participation and decision-making be better enabled by technology?

Te Tari Taiwhenua | Department of Internal Affairs Long-term Insights Briefing

November 2022





Ngā Whakamihi Acknowledgements

In May 2022, Te Tari Taiwhenua asked the public to help us improve how we set out the challenges and opportunities of our future in our draft Briefing. We were encouraged by the responses you provided and have worked to reflect the very good suggestions received.

We would like to acknowledge all the people and organisations that have helped us develop our briefing. They have provided subject-matter expertise, authentic community voices and constructive feedback. We would like to thank the many community members who gave us the gift of their time and insight. We also want to extend our sincere thanks to Andrew Chen, Vanisa Dhiru, David Downs and Sally Washington, who provided us with reviews at critical points over our Briefing's development.

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He kupu nā te Tumu Whakarae o Te Tari Taiwhenua

Secretary for Internal Affairs' Foreword

Tēnā koutou katoa

Welcome to our draft Long-term Insights Briefing, which considers 'How can community participation and decision-making be better enabled by technology?'

Community participation, technology and decision-making are at the heart of much of Te Tari Taiwhenua's mandate and mahi, playing a key role in how we serve and connect people, communities and government to build a safe, prosperous, respected nation.

Technology is changing how we interact and connect, how we make purchases and spend our spare time, and how we work. In this Briefing, we have challenged ourselves to consider what trends will have an impact on community participation and decision-making over the next 10 years and what might be possible through technology.

It's also an opportunity to look at how we ensure the Treaty of Waitangi | Te Tiriti o Waitangi is honoured and to improve how we partner with and support Māori to achieve their own aspirations.

The Briefing considers proven methods and initiatives at a national and international level that we want to expand on. It also reflects community perspectives on an ideal future state to ensure we're envisaging a way forward that works for all Aotearoa.

We've suggested examples of what could be done. In some cases, there's more work to do.

We think the opportunities are exciting, and the ideas presented here are only the start of the conversation.

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Paul James Te Tumu Whakarae mō te Tari Taiwhenua Secretary for Internal Affairs

Whakarāpopototanga Executive summary

For its first Long-term Insights Briefing, Te Tari Taiwhenua has chosen to explore this topic: 'How can community participation and decision-making be better enabled by technology?'

We thought this Briefing could consider some big questions facing Aotearoa in the coming decade. What will our communities look like? How will people take part in the life of those communities? What will the future hold for our mokopuna, and how will we be good ancestors? What about decision-making, and the role people and communities play in that? What part could technology play?

Technology will offer exciting opportunities to connect with each other and with decision-makers. It will also create new challenges and could worsen some of those we're facing now. Our hope is that this work will provide some insights and ideas to encourage a positive future.

The topic sits at the intersection of many of Te Tari Taiwhenua's functions — in particular, the role technology might play in supporting communities and democratic processes in the future. How can rapidly evolving digital tools be used to better ensure that everyone can have a say in the life of their community, and in the future of Aotearoa? And in doing so, how can we ensure that we protect people from harm?

The topic also aligns with our roles to ensure people can easily access the services and information they need, iwi and communities are thriving, and oranga hapū is improved through enduring Māori–Crown relationships. We currently see technology being introduced into our normal way of mahi now. This is now an alternative way to keep connected with community hui, committee and board hui, marae hui ... we are adapting to a new age and a new way of keeping connected and informed.

Māori community member

Strong communities have active, engaged people at the centre. They participate in important decisions, and they share their opinions and ideas for the future. The more community voices are heard in decision-making, the better any solutions are likely to be. And the more that people believe their concerns have been heard and their histories acknowledged — whether by government or even within their own communities — the greater their trust in the solutions, and the greater their willingness to participate in the future. It's a process that reinforces and renews itself again and again.



He pēhea tō tātou nei ao ināianei?

What's life like now?

To understand where we might go, first it's important to look at where we are now.

As this report was being written, the COVID-19 pandemic had entered its third year. Our borders with the world were reopening, and the world was coming to grips with the turmoil caused by Russia's invasion of Ukraine. A new report from the Intergovernmental Panel on Climate Change provided the strongest warning yet of the necessity for swift, comprehensive action to slow the rate of climate change. We expect that these global shifts will also affect New Zealand.

And we know that technology will offer multiple solutions to the challenges that society faces, whether it's climate change, disease or the future of cities. Strong communities are more resilient in the face of challenges.

Around the world, COVID-19 sped up society's use of all kinds of technology — from virtual meetings to online learning, healthcare, socialising and shopping. We also saw a rise in mis- and disinformation around the world — related to the pandemic, but also to politics and societal issues — that saw some people lose faith in the media and other providers of information.

The pandemic also deepened the divides between people who had access to technology and those who did not. If we can't bridge these gaps, we risk leaving people behind on the basis of their access to the internet or a smartphone.



He aha kei mua i te aroaro o Aotearoa?

What is ahead for Aotearoa?

In the coming 10 years, Aotearoa's population is expected to continue to rise and age gradually. The fastest-growing group is expected to be people aged 65 and over. Without migration, New Zealand's population is projected to start to fall from the early 2040s. The proportion of people identifying as European is expected to drop, and Māori, Asian and Pacific ethnic populations will increase their proportion of the total New Zealand population over the next 20 years.

We will continue to face the possibility of rising waters, floods and severe weather events as a result of a changing climate. We also expect that technology will continue to morph and grow, with the likelihood that some technologies could come together to produce innovations we

cannot envision. Artificial intelligence and the growth of online spaces may open up access and make it easier for people to participate in their communities — and it will be important to ensure these places are safe for people to share their views in constructive ways.

Trust is a significant theme across the trends shaping our future: how can people maintain trust in one another, in their communities, across the media landscape, and with their government? How can we build greater trust between Māori and Crown?

New Zealand traditionally ranks near the top of most international measures of trust in government. However, while turnout in the 2020 general election was the highest since 1999¹, turnout for local body elections has declined.² And those who are participating in formal planning and engagement processes do not appear to be a representative cross-section of the community.^{3,4} We are at an inflection point where the decisions we take now, and in the coming years, can help us shape a future that is hard-wired for trust.



He aha ngā hiahia o ngā hapori?

What do communities want?

We talked with communities about the kinds of futures they imagined for themselves, how they'd like to participate, and the role they saw technology playing. They said they wanted a future where they could know their views had made an impact. They described a future where their participation could be authentic, inclusive and accessible; co-designed and community-led; reflecting te ao Māori practices and the Māori–Crown partnership; meaningful; simple and intuitive, safe; and enabled by technology, not driven by it.



Me pēhea te whakapakari i a tātou mō tēnei āpōpōtanga? How can we build toward this future?

We've considered the range of powers government has, and we looked at the roles that communities, NGOs and people could play in the future. We know that government alone cannot do everything that's required — but it can help set the conditions for success, provide examples of good practice, and decide the rules that we all play by.

We have identified a number of options that government could consider to build a sturdy bridge to the future. These options are not mutually exclusive and are explained below:

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Option 1: Treating access to digital technology as a human right and meeting Aotearoa's digital inclusion goals

This includes developing a principles-based framework that underpins all aspects of digital inclusion — including access, motivation, trust and skills. Viewing access to technology as a human right could be achieved through legislation — one example is the right to privacy now protected by the Privacy Act 2020.

Treating access to digital technology as a human right could help advance Aotearoa's digital inclusion goals. It could include such steps as ensuring that:

- people understand how the internet and digital technologies can help them
- people have access to affordable online connectivity and devices
- people can develop the skills to use the internet and digital technologies confidently and safely
- people have access to the technology to get the information and services they need
- language technology is harnessed to make government information available in a variety of languages.

Option 2: Partner for smart towns

This involves prototyping a public-private partnership to redevelop a town in New Zealand to be an exemplar for connectivity and new technology. It could enable a partnership between local authorities, iwi, tech providers, social service agencies and the private sector — one that could be grounded in technology, community-led decision-making and digital inclusion.

Local and central governments could play a complementary role here, with central government acting as an enabler, providing frameworks for partnership and helping to foster cross-cutting relationships. Local government and regional authorities could build initiatives informed by local knowledge and insights, and then lead and deliver on them in partnership with local iwi, communities and business.

Option 3: Investigate how technology could connect volunteers, charities and funders

Technology could create enhanced opportunities to bring volunteers and community organisations together and, in future, has the potential to streamline the ways organisations seek funding and demonstrate the impact of their work.

For example, a recent Te Tari Taiwhenua report into volunteering suggests building a single portal for the numerous existing sites that broker connections between potential volunteers and community organisations and projects. Further into the future, community groups may be able to make wider use of AI. They could use it to connect with members seamlessly, manage information to support their grant-making and reporting efforts, and to gain access to data and information flows that show the impact of their community interventions.

Option 4: Explore new ways to bring people together to reach consensus through technology

This could include widening light-touch engagement and narrowing deeper engagement by implementing new, deliberative approaches to canvassing people's views and getting to shared decisions. For example, local and central government could use an app to engage large numbers of people on issues quickly, as opposed to the submission-based approaches that are commonly used today.

At the same time, deeper consultative approaches — such as the deliberative democracy practice currently being piloted with Watercare in Auckland — could be used to develop community-led initiatives and provide more considered feedback. Communities might find these tools and approaches useful for their own engagement and decision-making practices too.

Option 5: Trusted spaces, online and offline

This involves ensuring that communities have safe places to gather, share their views, access trusted information, and make decisions. This includes physical spaces such as libraries, community hubs and other 'third spaces' — where much of the infrastructure is already in place — as well as virtual spaces where people might have online town hall discussions, for example.

It will be important to ensure people can feel safe to participate in digital spaces, including through reducing the possibility for these spaces to be undermined by communication intended to stoke division and undermine social cohesion or by criminal behaviour.



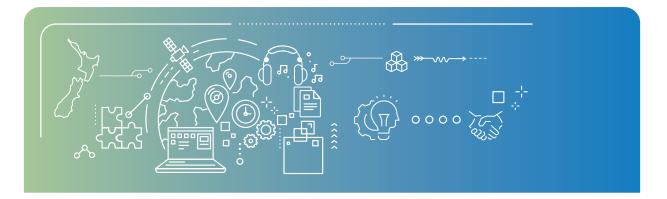
Ka aha ā muri ake?

What happens next?

Future governments will need to weigh up policy options like these, along with the prerequisites for success, and build a roadmap for delivery in a phased way.

As we have set out, we think society will have a range of new opportunities to engage communities in participation and decision-making with the help of technology. Future governments will need to set their course, act as exemplars, and consciously create an environment where technologies can be assessed, adopted and harnessed. They will need to be good providers and users of digital technologies, and partner with others where this makes sense.

We hope this Briefing builds on the good work that's under way across Aotearoa on these issues and that this is just the start of the conversation.



Wāhanga 1: Ko te Horopaki Section 1: Context

He Tīmatanga Kōrero

Introduction

For its first Long-term Insights Briefing, Te Tari Taiwhenua has chosen to explore this topic: 'How can community participation and decision-making be better enabled by technology?'⁵

We thought this Briefing could consider some big questions facing Aotearoa in the coming decade. What will our communities look like? How will people take part in the life of those communities? What will the future hold for our mokopuna, and how will we be good ancestors? What about decision-making, and the role people and communities play in that? What part could technology play?

Technology will offer exciting opportunities to connect with each other and with decisionmakers. It will also create new challenges and could worsen some of those we're facing now.

Looking forward, by 2032 Aotearoa's diverse communities, iwi, hapū and whānau could be thriving, with high numbers of people having a say in decisions that affect their lives. Or the country could be challenged by low levels of trust, with people feeling alienated from each other and from the decisions made by local and central government.

Our hope is that this work will yield insights that will guide next steps for current and future governments, and for community groups and people. It's not solely about voting, or making a formal submission — it's about creating spaces and places where people can share their visions for the kind of world they'd like to live in. It can be as simple as how you, your whānau and neighbours might prepare for an emergency, or as complex as where a new network of bike paths should go.

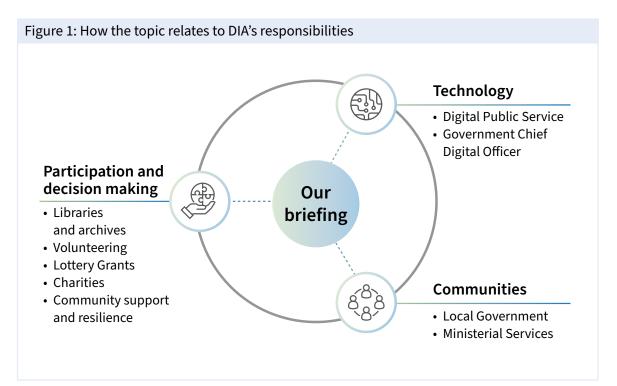
So, what can governments do to encourage a positive future? Who can they work with, and how?

He aha mātau i kōwhiri ai i tēnei kaupapa Why we chose this topic

The topic we have chosen sits at the intersection of Te Tari Taiwhenua's mandate for communities, digital technology and local government.⁶

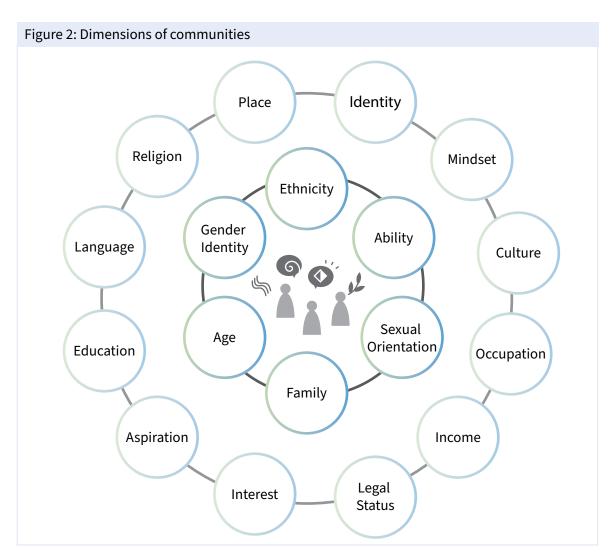
Our focus at Te Tari Taiwhenua is on people and communities, and we believe there is important work to do in the coming decade about the real-world impact that technology has on people's lives. Our role includes providing leadership and assurance across government's use of digital technology and privacy practices. By advocating for a privacy approach that is respectful, trusted and transparent, for example, our role contributes to building and maintaining trust in the public service and reducing system-level privacy risks.

We expect that it will be important to continue to engage with people about technological innovations, to try to get ahead of some of the ethical questions we face and to make informed decisions about Aotearoa's technology future.



Community and hapori can be defined through a range of factors including geography, shared interests, identity and culture. When we talk about communities, we use this term broadly, recognising the role iwi and hapū play in communities, the obligations of the Māori–Crown relationship in the Treaty of Waitangi | Te Tiriti o Waitangi, and the status of tangata whenua.

This diagram shows the many aspects of communities, both for people and groups. Members can choose what a community is, what it means and how it operates. Within some groups and organisations, community often represents an aspect of identity that individuals choose to amplify in connection with others.



How do we define **community participation**? It can mean working in your community to help vulnerable people or taking part in a wharekai rebuild, a sporting event or a cultural fair. It might mean making a submission on your local council's plans for roading, or development — or helping to crowdsource ideas to solve a community challenge. It might look like a marae kāinga and hapū having hui with whānau, who come home for events to canvass their ideas to help inform a marae and hapū submission on a government proposal, with many of the ideas playing out on the marae and in te reo Māori.

And what do we mean by **decision-making**? This can cover anything from working out what your club's events for the year might be, to voting at an AGM or casting a ballot in an election. It's about having your say in the issues that affect your community, whether at a hui, a town hall meeting or via a formal submission.

Finally, **technology** refers to a wide range of things that we use today — from smartphones to computers, from the internet to digital content. It covers developments that may be part of our future, including the widespread use of augmented or virtual reality and wearable devices and digital twins. A table in Section 2 describes some of the potential advances that could have a bearing on our topic in the coming decade.

Why does it matter?

We face big questions as a society, and many of them are already being worked on across government. Greater participation in democratic processes will help decision-makers source more ideas from more people and build innovative thinking about our road ahead — and this helps build resilient communities that are better equipped to face future challenges.

Participation is part of the glue that keeps a country together — this is sometimes called social cohesion.⁷ It supports communities to be strong and resilient, and it can foster individual and collective wellbeing. The more that community voices are heard and acknowledged in decision-making, the better those solutions are likely to be. This can ripple, with better solutions growing people's trust and confidence in any actions being proposed and, in turn, people's willingness to share their views grows. 'Better decisions are made if people who are affected by them are invited to participate in processes of policy-making and implementation,' the Public Service Commission noted in its June 2022 Long-term Insights Briefing.⁸

Trust, which can be shown by people's willingness to engage with government, is also critical in a crisis, as has been shown during the COVID-19 pandemic. The recent International Science Council (ISC) report into possible future paths of the pandemic notes that community engagement needs to be 'a central activity in preparedness plans for pandemics and other major risks. The public should be engaged as a central part of all control efforts and not only as passive receivers of messages. Societies cannot be treated as homogeneous, and their diversity of views need[s] to be heard if there is to be an effective and cohesive societal response to crises.'⁹

Our topic in the context of the Treaty

Our topic has relevance for Māori on several levels. Government obligations in both the Treaty and in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) set clear expectations for approaches to governance and participation in decision-making. Meeting these is a critical objective, now and in the future.

Awareness is growing of the importance of our Treaty partnership with Māori, equity, and iwi aspirations for Oranga.¹⁰ It is crucial to continue to build trust between Māori and the Crown through greater transparency, access, participation, and developing enduring relationships and partnership. Encouraging and facilitating greater Māori participation in decision-making is not

just about obligations: it is about partnership and sharing decision-making with iwi. This brings life to mana motuhake to get better solutions for all while supporting Māori to achieve their own aspirations, as stated in their Treaty settlements.

For example, agencies are increasingly giving effect to their obligations to Māori and honouring the Treaty through mana ōrite relationships. These relationships go deeper than participation in decision-making and reflect a commitment to a true partnership. At Te Tari Taiwhenua, our Mana Ōrite Agreement with the Data Iwi Leaders Group, signed in 2021, establishes a relationship through which DIA and the Group can find new ways to engage and work together on digital public services, so they are more responsive and accessible, and enable better outcomes for Māori.

He pēhea tō tātou nei ao ināianei?

What's life like now?

Before we look too far ahead, it's important to understand where we are now. We'll start with the big picture — what's happening in the world and in Aotearoa.

As this report was being written, significant events were reshaping the way we engage with each other and the world. Technology's role in our lives was continuing to evolve. The COVID-19 pandemic had entered its third year. Our borders with the world were reopening, and we were slowly building a shared sense of a new normal. The world was tallying up the cost of the pandemic so far, what lessons had been learnt, and how to think about the future.

The world was also coming to grips with Russia's invasion of Ukraine — not only the geopolitical implications but also the impact on supply chains and the world economy. Closer to home, the cost of living was rising, driven in part by unprecedented fuel prices.

A new report¹¹ provided the strongest warning yet of the necessity for swift, comprehensive action to slow the rate of climate change. The imagined future many people may have had at the start of 2022 was quickly upended.

Closer to home in Aotearoa, we were continuing a national conversation about extremism and hate speech that began in response to the Christchurch mosque attacks in 2019. Protests against COVID-19 measures took place around the country, including one that occupied the grounds of Parliament for weeks. There was growing concern about the role of social media in these events and others like them around the world.

The extent of people's concern about the kind of content they encounter online was demonstrated in a report from the Te Mana Whakaatu | Classification Office in June 2022. The nationwide survey of adults and young people found that 83 percent of people were concerned about harmful content in online spaces, including social media. And 36 percent said they had seen content that, for example, promoted division or mistrust among groups.¹²

Now let's look at some specifics about life in Aotearoa today.

Communities are busy, and participation is high

The past 10 years alone have seen remarkable local efforts to rebuild after earthquakes in Christchurch and Kaikōura and numerous weather-related events, and to support communities after the Christchurch mosque attacks. New Zealand's experience of COVID19 saw people rally together to look after the most vulnerable and follow health advice to isolate to keep everyone safe. Volunteers have been at the heart of this work.

Strong social networks are important for people — and in New Zealand, 95 percent of people believe they know someone they could rely on in a time of need. That's more than the OECD average of 91 percent.¹³

Volunteering is strong, but the way people volunteer is changing. Te Tari Taiwhenua's 2022 report on volunteering in New Zealand showed that Aotearoa has a high volunteering participation rate. Nearly half of the population volunteers with an organisation or in their communities, but overall the volunteer workforce is shrinking and ageing. There is an emerging trend for young people's volunteering effort to be more episodic and project-based, rather than through an enduring relationship with a volunteer organisation.

Volunteering has an economic value of \$4 billion a year and makes a measurable contribution to wellbeing and social cohesion.¹⁴ The number of people who volunteer for registered charities has fallen significantly in the past decade, from 462,179 in 2010 to 223,619 in 2019, but the total number of hours in voluntary work has remained steady.¹⁵

In te ao Māori the practice of mahi aroha, or work done for the love of people, is a fundamental part of life. During the pandemic, for example, this could be seen in an array of activities undertaken across the motu, from ensuring kaumatua could remain connected through regular check-ins and support to using social media to share waiata and karakia, te reo lessons and information while families were in lockdown.¹⁶

Recent research from the Ministry for Pacific Peoples in July 2021 showed the importance of unpaid and volunteer work in Pacific communities, with a focus on the effort made across those

communities during and after COVID-19 lockdowns. Using a framework focused on Pacific values, it found that the volume of unpaid and volunteer work in Aotearoa's diverse Pacific communities has been underestimated given how central it is to daily life and wellbeing in Pacific families and communities.¹⁷ Of the 2,000 people surveyed, for example, 97.1 percent said they engaged in at least an hour of unpaid work each week.

The charities landscape is busy, too. We have more than 28,000 registered charities in New Zealand, and the charitable sector is supported by the equivalent of 145,000 people working full time — approximately five percent of New Zealand's workforce.¹⁸

We want to be identified with our past, but it is also important to move forward.

Ethnic community member

How community organisations are funded is changing

The Department is looking at ways the funding system can be improved to work more effectively with communities and lead to more equitable outcomes, including more flexible funding through community-led development funds and working with the Lottery Grants Board to evolve how lottery grants are distributed.

Community-led development, for example, seeks to give communities greater autonomy over how funding is distributed and reduce the administrative burden on communities through the grant-making process. This enables community groups to spend more of their resources doing the work, and less time seeking funding.

The experience of COVID-19 across the community sector has shown that the system could adapt quickly to meet urgent needs, but that more work lies ahead for it to evolve to better respond to current and future needs.¹⁹

Māori are active participants in community life, with marae at the centre

For Māori, whānau, hapū and iwi are key aspects of community. Participation often takes place on a marae, which is the physical and spiritual embodiment of their connection to people, ancestors and whenua.

Te Kupenga 2018, Statistics New Zealand's survey of the social, cultural and economic wellbeing of Māori in New Zealand, found that two-thirds of Māori adults (66 percent) knew their marae tipuna (ancestral marae). Of these, 44 percent had visited in the previous 12 months. Māori people living in rural areas (32 percent) were more likely to have taken care of Māori sites of importance, such as urupā and marae, compared with those living in urban areas (22 percent).²⁰

Alongside this, many groups are working together to keep marae thriving and rangatahi connected to marae, language and culture. A 2020 evaluation report of Oranga Marae, a programme of support for marae development jointly implemented by Te Puni Kōkiri and the Department of Internal Affairs, found that the programme contributes to whānau engagement and connectedness.²¹ The report said, 'Our whānau see that the marae is for the generations to come. Interest in the marae has increased. The younger generations especially. The question was always if we build it will they come, and now we know they will.'

The picture of trust, voting and participation in decision-making is mixed

Trust and confidence are indicators of how well communities and institutions are functioning,²² and high levels of trust and confidence encourage participation.

New Zealand traditionally ranks near the top of most international measures of trust in government. In 2021 it was tied for first in Transparency International's Corruption Perceptions Index,²³ and was second in the Economist Intelligence Unit's Democracy Index assessment.²⁴ Trust in charities is on the rise, with 57 percent of respondents in a June 2021 survey saying they had a relatively high level of trust and confidence in the charities sector.²⁵

However, our trust in the media is falling — in 2022, 45 percent of New Zealanders trusted news, down from 48 percent in 2021 and 53 percent in 2020.²⁶ Globally, the Edelman Trust Barometer for 2022 reported a dramatic loss in trust in institutions and the media.²⁷

Turnout in the 2020 general election was the highest since 1999 at 82.24 percent of enrolled electors.²⁸ However, turnout for local body elections has declined from 56 percent in 1989 to 42 percent in 2019.²⁹ And those who are participating in formal planning and engagement processes do not appear to be a representative cross-section of the community.^{30,31}

Trust and participation in government is lower for Māori

While Māori have lower levels of trust in government and lower levels of participation in formal government processes, participation in general elections has remained high. Across age cohorts, on average 74.27 percent of elected voters of Māori ethnicity and/or descent voted in the 2020 general election.³²

A 2018 report³³ found that almost half of Māori adults (47 percent) were registered with their iwi and, of those registered, 78 percent were eligible to vote in the past iwi elections. Just over half (52 percent) of those eligible voted in an iwi election in the past three years. Sixty-four percent said they had voted in a local election in the previous three years.

Engagement processes at local government and community ward level are still seen as 'government' by Māori, and distrust can be the default position. A December 2021 'big conversation' about the potential intersection of te ao Māori and the Future for Local Government Review reiterated that iwi and Māori communities see local government (and all authorities) as an arm of the Crown, and engagement processes need to be seen in that context.³⁴

There are many ways to have your say, both online and offline

Over the past two decades, new kinds of community (and new ways of organising) have emerged in online spaces — including via social media groups, platforms like ActionStation that support civic action, and crowdfunding platforms. You no longer need to be a member of a formal organisation, tied to a physical address, to participate in a community or contribute to a decision.

People have asked government to shift away from short-term engagements toward an ongoing conversation. For example, research by the Department of the Prime Minister and Cabinet's Policy Project affirmed that communities would prefer early, meaningful and inclusive engagement in the development of policies that affect them.³⁵ A good example of work in this area is The Hive, a platform built for the Ministry of Youth Development to support ongoing engagement with young New Zealanders on policy proposals.³⁶

We are trying to use technology to connect with our people because that's what our younger people expect. But the digital divide is real. Marae are now wifi enabled, which is a huge advantage.

Māori community member

And people have told us they'd like to participate. For example, in 2017 Te Tari Taiwhenua surveyed 195 citizens, nine NGOs, and 20 government agencies to understand experiences and look for opportunities to use digital channels to support people's participation in democratic processes.³⁷ Of the respondents, 41 percent told us they would like to see existing government channels improved or new channels opened to have their say on issues that mattered to them.

In our own engagement for this Briefing, and in reviewing feedback people have provided in recent years about participation in decision-making, we heard some common aspirations. Themes included that people would like to participate in a way that feels authentic to them and reflects their culture, that their participation is meaningful, and that their participation it is co-designed and community-led. Appendix B contains a list of the multiple sources of feedback people have provided in recent years.

IN DEPTH: Libraries and community hubs function as important 'third spaces' for people to participate

The Department is home to the National Library of New Zealand, which looks after the nation's knowledge base, including digital resources and ongoing efforts to digitise paper-based works. It also supports the nation's public libraries with, for example, access to the internet and electronic books and periodicals.

The core mission of libraries is supporting a society of 'literate, knowledgeable and connected citizens'.³⁸ Libraries' reach includes connecting with users from historically underrepresented communities.³⁹ In addition, libraries are trusted to be accurate sources of knowledge,⁴⁰ and have increasingly played a role in a range of areas beyond their traditional role, including providing free access to technology.⁴¹

Public libraries are free to the communities they serve — including groups that have little or no other access to the internet, digital resources or services; those who need help with basic digital skills; families and whānau who do not have the internet at home; jobseekers; and others.

Libraries are often perceived as key community assets: safe and trusted spaces that belong to the community and where people can find the resources to build their own solutions.⁴² As stated by Paulina Mickiewicz, 'Libraries are no longer "just libraries", but a hybrid of different specializations and services that have come together to create a new public space.'⁴³

Auckland's library strategy, for example, sees a future in which the library is available on demand, anywhere using digital technology. And where future libraries are 'at the heart of multipurpose community spaces.'⁴⁴ In Rolleston, Te Ara Ātea shows the potential of a growing movement of libraries working with galleries and museums for the benefit of their communities. The library partnered with local galleries on displays within the library, which is also home to community and performing spaces and a sensory garden.⁴⁵

In addition to libraries' traditional roles of providing access to books, supporting literacy, generating knowledge and helping citizens feel connected, the value of all types of library services increasingly contributes to broader wellbeing including social, cultural, employment, leisure and recreation. Libraries and community hubs also play an important role in supporting digital inclusion and helping to address economic divides.

For example, in July 2020 the Treasury reported there was evidence that distance learning during COVID-19 lockdowns may have amplified existing inequities, particularly for those without access to the internet or digital devices.⁴⁶ As the government's pandemic management and mitigation settings evolve, libraries have a key role alongside broader measures to support student learning and community wellbeing.

Libraries are trusted environments and provide access to trusted information. We know from previous Kiwis Count surveys that public library services are consistently one of the highest-rated for satisfaction among a selection of most-used services, with high levels of trust among New Zealanders.⁴⁷ And a drive to end library fees is aimed at growing membership and encouraging people who'd stopped coming to return to the library.⁴⁸

How is technology being used to support participation in communities and decision-making?

Digital can support participation, but access is not just about devices

In an increasingly digital world, digital inclusion has become essential for people to fully participate in our modern society and economy. However, it is estimated that up to one in five New Zealanders are digitally excluded in some way. And we know that having access to the internet or a digital device is not the only measure of inclusion. Four elements are critical for people to be able to confidently engage in and benefit from the digital world:

- motivation
- access (including affordability, connectivity and accessibility)
- skills
- trust.49,50

Beyond access to the internet or devices, for example, we see digital divides emerging in the different levels of people's fluency with technology, their willingness to use it, the level of safety they feel in digital environments (such as feeling unsafe due to the risk of scams, or repeated exposure to discriminatory material), and their understanding of the implications and ethics

around its use. There's a risk people who feel unsafe or uncomfortable may opt out of the digital world altogether, potentially closing off opportunities such as access to services and learning, and connection with family and friends.

Those most at risk of digital exclusion include Māori, disabled people, Pacific people, people in social housing, seniors, the unemployed and underemployed, and remote communities.⁵¹

This means that, in the future, governments, NGOs and communities will need to consider how to lift people's digital and information literacy alongside access. These are the skills people need to use digital media confidently and to make sense of the information that they can access online, including ways to find and filter information and to use social media. As noted in a report into the many dimensions of the digital divide: 'Citizens that are "data illiterate" are unable to fully engage with digital technology, government, and participate in our modern society.'⁵²

COVID-19 accelerated the adoption of new technology...

Science and digital technology have been at the heart of many of the most significant moments of the past two years. When a novel coronavirus was discovered in late 2019, scientists developed and delivered safe and effective vaccines within a year.

As countries locked down, many people were able to work from home, using video-conferencing tools, laptops and mobile telephones. It's estimated that global progress on the development of digital products and services accelerated by **years** in the first **months** of the pandemic.⁵³

Education went online. Digital technology enabled people to stay connected to family and friends and colleagues around the world. Although many events were cancelled, some musicians,

actors, dancers and other performing artists were able to use the internet to reach their audiences through streaming performances. Online shopping boomed, as did online church services, yoga sessions, and classes in everything from baking to economics to dance.

...and some digital disparities were deepened

Te Tari Taiwhenua's research into the digital government response to COVID-19 found that overall challenges remain, including digital inclusion and the uptake of new technologies.⁵⁴ The research found that the challenges of digital exclusion became more urgent and pronounced for Māori during the COVID-19 pandemic, when so many people needed to rely on digital tools and communication for daily life.⁵⁵

People who lacked access to digital technology for learning, for information, and for daily life were at risk of rising isolation or increased hardship as the pandemic progressed. There is concern globally that these inequities might remain entrenched, or expand, especially as countries work to emerge from the COVID-19 pandemic.⁵⁶

COVID hastened the abandoning of draughty hall meetings.

Local government member

We face challenges from mis- and disinformation

While technology helped us to keep in touch, to keep working, and to keep learning during the pandemic, social isolation and uncertainty about the future also fuelled a rise in anxiety, misand disinformation, and toxic discourse online.

A December 2021 report from Koi Tū: The Centre for Informed Futures at the University of Auckland warned that mis- and disinformation and polarisation emerging in online spaces were eroding trust and threatening social cohesion. It suggested that 'governments need to place the opportunities and challenges of the digital future more centrally and to consider them through the lens of sustaining or undermining social cohesion. Not doing so may threaten democracy itself, seeing it replaced by a more autocratic form of governance. Societies could fracture in ways that undermine their very essence and identity.²⁵⁷

Democracy Index (2021)		
Ranking	Country	
1	Norway	
2	New Zealand	
3	Finland	
4	Sweden	
5	Iceland	
6	Denmark	
7	Ireland	
8	Taiwan	
9	Switzerland	
9	Australia	
Source: Economist Intelligence Unit		

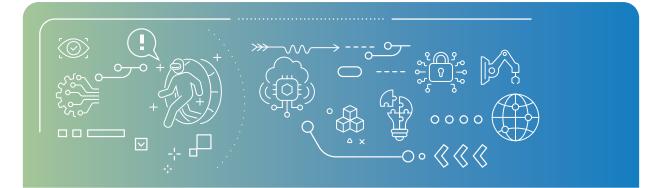
Corruption Perceptions Index (2021)			
Ranking	Country		
1 =	Denmark		
1=	Finland		
1 =	New Zealand		
4 =	Norway		
4 =	Singapore		
4 =	Sweden		
7	Switzerland		
8	Netherlands		
9	Luxembourg		
10	Germany		
Source: Trai	nsparency International		

Democracies seek new ways for people to connect and to share their views

All around the world, democracies are looking for new ways to engage their citizens in decisionmaking. Philanthropists, local authorities and communities have been experimenting with new approaches to community participation and decision-making, designed to give strength to voices that are not always heard, such as disabled people or youth.

A 2019 paper from Local Government New Zealand, 'Reinvigorating Local Democracy',⁵⁸ suggested implementing 'place-based' approaches to local governance and decision-making to bring together councils, relevant government agencies, iwi/Māori and local organisations.

Themes from submissions on the paper included the importance of meaningful engagement with communities, the need for investment in local solutions, and the potential in coproduction and co-design to produce culturally relevant solutions to local priorities. It also highlighted the importance of civic education: 'For people to be active citizens they need to be familiar with how public agencies work as well as their individual rights to contribute to the decision-making processes that impact on them.'⁵⁹



Wāhanga 2: Ko ngā ia nui me ngā kōkiritanga

Section 2: Megatrends, drivers and what's ahead

As we looked ahead to what Aotearoa's future might hold, we also considered a few key global megatrends and drivers⁶⁰ that people, communities and governments may need to plan for in the coming 10 to 20 years.⁶¹

Those most relevant to our topic include:

- a changing population
- growing inequality
- climate change
- geopolitical change
- trust in information
- the long shadow of COVID-19
- the advance of technology.

He taupori e panoni ana

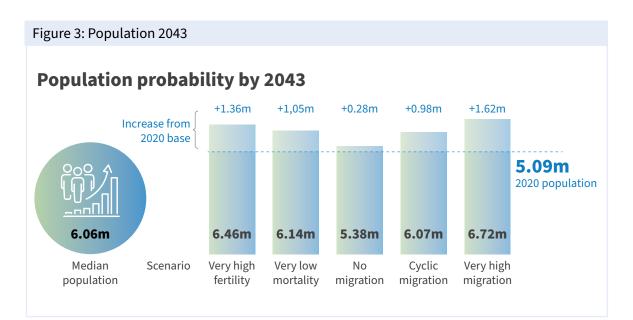
A changing population

The world's population will continue to rise and, in developed countries, get older.

Urbanisation is expected to continue, leading to the growth of megacities. Family structures are continuing to evolve, and single-person households are projected to be the fastest-growing through to 2030.⁶² As society becomes more urban and individualised, there is increasing potential for social isolation and marginalisation, but also more opportunity to create urban environments where communities thrive, using technology.

In New Zealand, our population is expected to continue to rise and age gradually in the near term. The fastest-growing demographic is expected to be people aged 65 and over. Without migration, New Zealand's total population is projected to start falling from the early 2040s.⁶³

The proportion of people identifying as European is expected to drop, and Māori, Asian, and Pacific ethnic populations will increase their proportion of the total New Zealand population over the next 20 years, according to Statistics NZ population projections.⁶⁴ These also indicate that the Māori ethnic group is likely to increase its share of the total population across all age groups. Depending on future trends in birth rates, the Māori population could account for nearly 21 percent of New Zealand's population by 2043.⁶⁵



Kei te nui haere te ōritenga-kore

Growing inequality

Projections show that while the global population continues to grow, the proportion of that population that is middle-class will increase. By 2030, more than half of the world's population (projected at 8.3 billion) will be middle-class, and 66 percent of this middle-class will be living in Asia.⁶⁶ However, there are predicted to be large segments of the world where people will still have limited access to education and technology, and where basic needs will not be met.

A 2022 OECD report on New Zealand's economy found that our rate of inequality is higher than most advanced economies, with the poorest 20 percent of households earning 7.3 percent of total income.⁶⁷ The latest household net worth statistics (as at June 2021) showed that the median net worth of the wealthiest 20 percent of New Zealand households had grown by \$313,000 in the past three years to \$2.02 million, while the median net worth of the bottom 20 percent of households grew by \$3,000 during the same period to \$11,000. ⁶⁸

While technology may offer new ways to reduce inequality, we will also need to ensure people have equitable access to essential technology and the support to make the best use of it. The central risk we face here is that digital divides, if left unchecked, could grow wider. This could

further entrench inequality, closing off people's opportunities for trusted information, for access to services, for education, and for connection. We know, with increasing clarity, that digital inequities reinforce societal inequities, and can worsen them.⁶⁹

Kei te rerekē haere tō tātau taiao

Climate change

Rising temperatures are expected to cause more frequent extreme and severe weather. Climate effects will affect the viability of crops and ecosystems, and test community resilience and cohesion.

In February 2022, the Intergovernmental Panel on Climate Change released its latest report⁷⁰ on the impact of climate change. Reports suggest that by 2030 key tipping points for temperature rises (1.5° Celsius) will occur, with significant implications for sea-level rise, rising salt water in coastal land, habitat loss and natural diversity. We can expect changes to transport, energy and food, along with the potential for millions of climate refugees from countries with coastlines flooded by rising waters.⁷¹

Need to democratise data so that you can tell stories to funders.

Philanthropist

Climate change has the potential to slow the pace of technological change too, with the possibility of power cuts that would also cut access to technology that relies on electricity — or a pivot in the focus of the technology and scientific community from developing driverless cars to stopping floodwaters. There is growing awareness that the carbon footprints of advanced technology, like artificial intelligence, need to be better understood and managed.⁷²

Ngā whakarerekētanga mana whenua o te ao Geopolitical change

The war in Ukraine and the swift reaction with Western sanctions against Russia could affect geopolitical stability, trade and the global economy into the next decade.^{73,74} Alongside a humanitarian crisis that has killed thousands and displaced millions more, the war may well lead to increased inflation as countries seek new sources for oil, gas, fertiliser and wheat, for example. For New Zealand, this may mean continued instability and volatility in shipping, impacts on our food and agriculture sector, and rising prices for fuel.⁷⁵

Commentators predict wider impacts of ongoing geopolitical tensions, with heightened cyber risks, increased defence spending, and potential impacts on trade agreements and alliances. These developments could create further divisions across societies.

Te whakawhirinaki ki te pārongo Trust in information

People's experience with false and misleading information, especially in the online environment, is a critical issue for governments, communities and institutions around the world, because it goes to the heart of people's trust in those institutions. As we saw earlier, trust has an impact on participation.

The spread of mis- and disinformation,⁷⁶ including around the COVID-19 pandemic and vaccines, has risen around the world, and New Zealand has not been immune.⁷⁷ Some online communities have formed around extremist views based on mis-and disinformation, and there has been a rise in the use of hate speech and extremist language online.^{78,79} Much of this played out in a nearly month-long occupation of the Parliament grounds by a group of protesters who were seeking an end to vaccine mandates and other COVID-19 restrictions.⁸⁰

Globally, the response to the pandemic has shown the importance of finding ways to support people to become skilled consumers of information, according to the International Science Council (ISC) report: 'Governments and the information technology sector will need to collaborate to find new ways to monitor and mitigate disinformation flows, while also involving citizens in learning to recognize cues and think critically about information sources,' it noted.⁸¹

Te ātārangi roa o te KOWHEORI-19

The long shadow of COVID-19

The COVID-19 pandemic is expected to continue to have an impact around the world for the coming years as society copes with the possibility of new variants of the virus, and people seek out a new normal after more than two years of disruption, uncertainty and loss.

A May 2022 report from the ISC proposed three scenarios that could play out over the next five years, depending on how governments respond now:

- continuity: collaboration leads to effective, routinely updated vaccines; there's uneven investment in recovery and public health and social measures; and trust between citizens and State has been damaged, in part by disinformation
- missed recovery: poor collaboration around COVID-19 prevention and limited investment in recovery; declining social and health conditions and rising inequalities, with a loss of trust as the virus remains largely uncontrolled
- collaboration plus: COVID-19's significance globally has been reduced due to high levels of collaboration among nations; high levels of investment in recovery.

Many of the potential drivers of long-term impacts on societies from the pandemic, the report says, go beyond the health response and will need close attention from government — including 'the state of education systems, and access to mental health services. Other critical factors include the spread of misinformation — particularly on social media — geopolitical opportunism, poor access to capital markets for low- and middle-income nations, the weakening of the multilateral system, and loss of progress on the UN Sustainable Development Goals.'⁸²

Te whakaahu whakamua a te hangarau The advance of technology

Technology, and the way people have embraced and adapted to it, has transformed our world during the past 50 years, and another wave of advances is expected to change every aspect of our lives in the coming 10 to 20 years. More people have access to the online world than ever before, for example — around 726 million people joined the web in the three years from 2017 to 2020.⁸³

So what's ahead? The most noticeably different aspect of digital life for the average user in 2032 is likely to be a more seamless integration of online experiences with 'reality', potentially through the use of wearable or miniature devices. This could help people overcome barriers of access, time, language and distance — and by doing so, better support communities to participate in decision-making.

But technological advances will not be adopted or be effective unless people trust that they will be safe to use, and that their data and information will be treated with care. And adopting technology alone won't create the opportunities: people will need access, capability, funding, time and support for technology to facilitate these opportunities.

Recent research from the Pew Research Center⁸⁴ asked 862 global technology thought-leaders for their visions of public digital spaces in 2035. Two schools of thought emerged: a dystopian future of greater division; or a future where some of the most problematic aspects of technology have been addressed and people come together. The report suggests that the tech industry, government and activist groups need to work together to address the problems we see in digital spaces, including looking at the role of media platforms and redesigning digital spaces to facilitate debate, enhance civility and provide personal security.

Communities still meet for kaupapa and purpose. Communities now have an option to zoom in or to meet at the dedicated venue.

Māori community member

It's important to recognise that for every innovation, we will need safeguards put in place — this may require government regulation,

standard-setting or the provision of guidance on how certain technologies can be used. A guiding principle could be that safe and responsible innovation will support communities to feel comfortable using new technologies, and for government and others to retain the social licence to continue to use these technologies.

It will be important for governments and others to be able to understand the ethical challenges posed by technologies, as well as the opportunities they present, and to build regulatory approaches that are platform-neutral. This can ensure that government is positioned to make initial responses to the impact of emergent technology, rather than needing to regulate the technology itself before it can act.

It will also be important for governments to ensure that a balance is maintained between our shared humanity and technology — and that human decision-making and human autonomy remain critical for a healthy society.

Of the many digital megatrends on the horizon (including those described in this 2019 diagram⁸⁵), the ones we see as most relevant to our briefing are shown below. Experts also assume that many innovations can be expected to come together, or build on one another, to produce innovations that we may not anticipate — this is called technology convergence.

Ngā ia rahi matihiko Digital megatrends

Artificial intelligence and machine learning

Technology that uses massive computational power to simulate human intelligence processes — like seeing, hearing, speaking and translating languages. It can be used to help automate some decisions by processing and analysing significant amounts of data or information quickly.

Al is used in natural language processing, in which a computer, or a digital assistant, can listen and respond to human questions — including translating into different languages. In the future, it could be used to help automate some funding and compliance tasks for community groups.

The Internet of Things (IoT) and smart cities

'Smart' devices such as phones, refrigerators or heating systems can be connected via the internet, receiving instructions to power up, or down, through voice command or hand gestures. IoT sensors installed on a road network, for example, could help build a picture of how that system is working.

One possible application: Data from IoT sensors and devices could be used to provide insight on how services are being used and to capture real-time feedback on performance.

Natural language processing

Technology that allows computers to understand human language and could respond to voice commands — and therefore translate information.

This could support greater use of voice interfaces and chatbots; it may help bridge language barriers through translation, allowing people to provide feedback in their own language in real time. It could also provide better support to those with accessibility challenges.

Digitally extended realities / immersive digital experiences

This is technology that enables users to experience augmented reality (AR), virtual reality (VR) or mixed reality (MR). In the future this is likely to be through wearable technology that promotes a sense of immersion in a virtual world. Digital experiences will move from devices to virtual places. AR could be used to help communities visualise changes —for example to roading or parks — when public works are being proposed. Events could take place within an AR setting — for example, one that mixes in-person and remote attendees who join in with an avatar. This could lower the barrier for attendance for people who are physically distant from an event or whose disabilities might prevent them from attending in person.

Exponential growth in data

Tech enabled and connected devices generate a constant flow of data, and the exponential growth in the size of that data is expected to continue. For example, in 2020, the International Data Corporation forecast that the amount of data created in the next three years would be greater than the data created over the past 30 years.⁸⁶ Making sense of increasingly large datasets, storing, securing and interpreting data, and ensuring sovereignty over it, will present us with challenges in the coming years.

Communities may be able to use their own information to lower the administrative burden of grant-making. This could show the effectiveness of a project, for example, or to build their evidence base.

The arrival of 5G and the potential for 6G

5th generation (5G) wireless connectivity allows for faster bandwidth speeds and network capacity. 5G is 100 times faster than 4G, and the network could be capable of handling up to 1 million devices per square kilometre.

6G is under development and is expected to be 100 times faster than 5G, with enhanced reliability and wider network coverage.

One possible application: This technological infrastructure could support bandwidth-hungry demands on networks and could support digital inclusion.⁸⁷

Geographic extension of internet access, including through satellite networks

This would extend internet access to a wider group of the population globally. One possible application: Could help bridge digital divides by opening up access to the internet, especially in remote or underserved areas.

Computer vision

Technology that allows computers to understand visual information. One possible application: Facial recognition is one example of how this could be used.

Cybersecurity, cyberthreats and cyberwarfare

The amount of information stored in, and reliance of critical processes on, digital systems around the world, means that there's an increasingly urgent need to prepare for the threat of cyberattack. In the first six months of 2021, global ransomware attack volume grew by 151 percent.⁸⁸

Blockchain

A peer-to-peer decentralised distributed ledger technology that makes the records of any digital asset transparent and unchangeable. It works without requiring any thirdparty intermediary, such as a bank. Blockchain shows potential for the development of community platforms that might enable people to move away from today's for-profit social media platforms.

Digital twinning

A digital twin uses data to build up a very precise model of a physical object, process or service — such as a jet engine or wind farm, buildings, a person, or whole cities. This technology can be used to test processes, gather data, interact in virtual spaces and simulate how systems might perform.

Because these twins can be updated in real time, they could support quicker action by providing a real-time picture of air or water quality, for example.

Mass personalisation

This involves customising content and experiences using software or AI that aggregates data about people and their interests to tailor communications on a mass scale.

This technology could create opportunities for more diverse and accessible approaches to participation and decision-making that meet people's unique needs — including using multiple languages, for example.

Robotics

Using robotic technology to automate tasks / perform services.

One possible application: Could support increasingly sophisticated interactions with people and automate manual tasks, saving people time that they could use to participate in their communities.

3D / 4D/ 5D printing

3D and 4D printing takes a digital blueprint and turns it into a physical object using computer-aided design. It is quick, portable, and is growing increasingly affordable. 3D printing is built up on flat slices of an object and is static, while 4D printing is designed to move or change when triggered. 5D will create curved layers.

One possible application: On-site mass printing can allow communities to solve problems themselves — for example, in disaster relief and recovery.

Biohacking / wearable technology

The potential for 'biohacking' goes beyond high-tech nutrition and exercise and into the possibility of microchips implanted in the body. It has come to mean everything from taking high-tech supplements to optimising your health through wearable technology like sleep or brain monitors, to implanting chips into the body that could do everything from unlocking your door to monitoring blood sugar levels.⁸⁹

What will governments need to do to get ready for this world?

Governments will need to set up for success — and this goes beyond the technological infrastructure.

It will mean finding ways to bridge digital divides, ensuring accessibility and safety by design, fostering the development of information literacy, contending with mis- and disinformation, and supporting an innovation ecosystem.

It will mean investing in engagement skills, and digital tools and technology, to support better engagement with communities — which could support national conversations about such important topics as artificial intelligence, robotics, smart cities, and more.

It will mean government acting as a digital role model — in its ways of working and the capability of its people, for example. Increasing the government's use of cloud-based services will help build the resilience and efficiency of government systems, provide support for the growth of our digital economy and anywhere, anytime access to services.

And it will mean building ethical frameworks to support good, safe decision-making about technological innovations — whatever they might be.

It will be important for government and iwi to continue to work in partnership to understand, and incorporate, te ao Māori perspectives on how government data — including Māori data is governed, including how and where it is stored. For example, how might Māori build a 'digital wharenui' that could house Māori data and apply the appropriate protocols to how it is used? This work is ongoing, in part through the Mana Ōrite Agreement between Stats NZ and the Data Iwi Leaders Group.

New online purpose-built tools are being used that lead to better information and more engagement.

Local government member

It also will be important to ensure a te ao Māori lens is applied to new technologies in line with agreements such as DIA's Mana Ōrite Agreement with the Data Iwi Leaders Group.

Building people's trust in digital technologies — by ensuring people's information is kept safe, for example — will help New Zealanders to engage confidently with new technology and the opportunities it presents. This trust and confidence will act as a support for the Digital Strategy for Aotearoa.

Trust can also be built through regulation and through leadership. This can include government and the tech sector working together to find ways to curb online toxicity and ensure people's safety in online spaces, as in the Christchurch Call. This comprises a commitment to eliminate terrorist and violent extremist content online; raise media and information literacy levels; and set and uphold community standards for content. Regulation of online content is being considered, and put in place, by governments around the world. In New Zealand, Te Tari Taiwhenua is working with Manatū Taonga Ministry for Culture & Heritage to develop a regulatory approach that minimises the risk of harm, regardless of the platform, while protecting freedom of expression and journalistic freedoms, and upholding Treaty principles.

As technology evolves, it will be important for governments to continue to actively monitor, and respond to, emerging threats to keep people safe, to fight fraud, and to maintain people's trust in the digital environment.

It will also be important to support the development of a media and information-literate society that is resistant to mis- and disinformation — through education that could start in primary school and carry on through cross-sector efforts across the population. Finland is an international exemplar in these efforts.

What steps could be taken now?

One way to foster greater understanding of the issues facing us could be to hold a national conversation about what matters most to people in digital spaces, including:

- how information is used (by both government and the private sector)
- how they see a balance being struck between the possibilities of the future (including AI, metaverses, blockchain, natural language, smart city technologies) and protections of individual privacy and freedom of expression
- the risks and benefits of certain technologies and how the risks can be mitigated.

And governments can reimagine ethical and regulatory frameworks to better cope with rapid advances in technology. This could include:

- placing limits on algorithms that amplify harmful content and incentivising the use of algorithms that promote civil conversations and reliable sources of information
- investing in public social media to support online place-based communities and decision-making

 supporting the development of ways to amplify the voice of the 'exhausted majority' in decision-making, and to ensure these voices are captured for history alongside those at the extremes. This could include requiring simple changes to platform architecture (such as slowing down the rate at which information is shared)

• ensuring that digital technologies that have the potential to be invasive of privacy (such as biometrics) are tightly and transparently governed to protect citizen safety, personal information, and to avoid discouraging people from participating in digital environments

Leverage the opportunities of the metaverse but keep us safe and our data (biometric) secure. We want to control how it's used.

Gaming community member

- ensuring that government information online (websites, for example) follow current New Zealand government standards and best practice for accessibility, and that a baseline standard is achieved and followed as technology evolves
- ensuring that modes of communication don't rely solely on access to digital technology or the internet (such as providing options for digital assistants or backstops if people need greater support), and that people are able to opt out of digital connection if they choose
- reviewing how regulation and guidance is developed around technology, so that government systems can rapidly update regulatory requirements and adapt to changes presented by emerging technology
- ensuring that artificial intelligence development is grounded in the values of the communities and cultures of the people who will use it.

He aha te whai pānga o ngā ia nui nei mō te anamata? What do these trends mean for the future?

Trust is a significant theme across these trends — how can people maintain trust in one

another, in their communities, across the media landscape, and with their government? How can we build greater trust between Maori and Crown? We are at an inflection point where the decisions we take now, and in the coming years, can help us shape a future that is hard-wired for trust.

Trust is supported by openness and transparency, a genuine willingness to understand and listen, and when many voices can be heard in decision-making. Technology can support this in a variety of ways, and government, businesses and the NGO sector can work together to build the solutions — whether they're based in regulation, social norms or education — that can help us **Relationship-based** interventions work best -'know them' / 'know me'. You can't replace human connection.

Philanthropist

make the most of the opportunities we will have, and to minimise the potential for harm.

The policy options in Section 3 provide examples of how governments and others could respond to these trends.

Ko te whai whakaaro ki te pēheatanga o ēnei āhuatanga: e toru ngā momo huarahi hei te 2032 Thinking about how this could play out:

Thinking about how this could play out: Three scenarios for 2032

The megatrends and drivers identified above will have an impact on the environment for community participation and decision-making, and government policy interventions. Below are three scenarios for how this could play out. Running through these scenarios is a continuum from low to high trust.

Level of trust

1.Optimistic outlook

2. Current trajectory

3. Negative outlook

1. Optimistic outlook

Technology providers and governments in partnership have created strong regulatory and rules-based codes of behaviour that keep people relatively safe in virtual spaces. Digital government acts as an enabler and role model for how technology could be used to enhance engagement and improve access.

Inclusive and accessible approaches allow communities to participate in an authentic way. Flexible funding provides autonomy. Strong relationships and partnerships with Māori allow participation and decision-making to be consistent with the Treaty of Waitangi | Te Tiriti o Waitangi.

Unexpected crises occur, but this galvanises communities to come together and be more resilient. COVID becomes endemic and boosters promote population immunity. Climate change further encourages communities to look within to find solutions. Growing urbanisation creates local parochialism and greater cohesion. Cities are smartly designed for cohesion. Communities come together to look after the isolated and aged. Rural communities are well-supported by government initiatives to be strong, resilient and thriving.

Social media platforms support people to find a 'community' and participate in decisionmaking in a safe space. Levels of civic, media and information literacy are lifted, and people are more resilient against mis- and disinformation.

While some inequalities persist, successive partnerships between government, the private sector and communities start to reduce inequalities in key domains (education, health, housing, income) and this is having an impact. Technology is accessible for all.

2. Current trajectory

Technology creates new opportunities, but there is increasing concern about how personal information is used and whether it is secure. Government's use of technology helps to accelerate progress and the uptake of cloud-based solutions. Regulation provides some protection, but it is continuing to evolve.

Government and local government are increasingly bi-cultural and multi-cultural in their outlook and engagement. Te ao Māori approaches are still to be embedded. Youth are increasingly politically and social media literate.

Unexpected crises continue to create divisions in societies, as does growing inequity. Seasonal surges and new COVID variants require occasional lockdowns. There is waning adherence to public health measures. Climate change creates further divisions but activates youth participation. An ageing population creates challenges for health, tax and superannuation affordability. There is an increasing urban-rural divide.

3. Negative outlook

Cyber-attacks are more frequent. Algorithms and echo chambers reinforce the views of the minority and allow the marginalised to legitimise their views with the like-minded.

Technology continues to evolve rapidly with little regulation or curation. Government has left this to providers, who have focused on monetising experiences rather than safety.

A sequence of pandemics leads to the breakdown of trust and greater inequality. Vaccination rates are low. The social contract is frayed. Climate change leads to some communities becoming unviable and further exacerbates divisions.

In some online communities bullying and hate speech flourish. Society becomes further divided and some sectors of the community are driven away from digital spaces.

There is no trust in decision-making and less participation and engagement in the democratic process and decision-making. This is not inclusive and diverse.

Inequality continues to grow, especially among Māori and Pasifika. This creates growing division and disengagement. A significant proportion of society cannot access technology and, in the absence of face-to-face options, are left out of engagement.

Pressure on city infrastructure and housing create further divisions in New Zealand society.



Wāhanga 3: Ngā kōwhiringa kaupapahere me ngā wāhi mahi hei whaiwhai

Section 3: Policy options and areas for further work

The purpose of a Long-term Insights Briefing is to focus attention and effort on future issues facing Aotearoa New Zealand, and the strategic choices government and society could make now, and in the coming years, to steer through them.⁹⁰

We expect that the pace of change will only accelerate in the next decade — and it will be important for Aotearoa New Zealand to deliberately look to the future, as these briefings encourage us to do. It will not be enough to react to the changes once they've arrived. For example, national conversations could be one tool to help governments and people understand what a desired future might be in the face of faster innovation cycles.

Ngā whakaaro ariā me ngā whiringa

Assumptions and choices

Our starting assumptions are that thriving, resilient communities are important for New Zealand, and that openness, accessibility and transparency are critical for decision-making and for fostering trust, not only in government but among people and communities. We are expecting that advances in technology will be assessed with a te ao Māori lens and solutions developed in partnership with the private sector and NGOs where it makes sense.

We assume that work will continue on building greater accessibility to information for disabled people, in line with the New Zealand Disability Strategy.⁹¹ We assume that the growth of human-centred, iwi-and community-led approaches will continue, and that potential policies are evaluated with a focus on solutions that promote equity — in this case, access to technology.

Ngā kōwhiringa rautaki me ngā tikanga kaupapa here Strategic choices and policy tools

Governments will face a series of complex choices related to technology and how it could help support community participation and decision-making. These choices are not binary — 'either this or that'. They will need to balance competing forces and evolve as public sentiment and the external environment change. For example, what is the government's role in shaping this future? Where it decides it should have a role, who might its partners be?

As they steer through the coming years, governments will likely need to weigh up their options for topics such as:

- participation: from managing from the centre to devolving processes to communities
- democratic processes: from representative democracy to participatory or deliberative democracy⁹²
- digital spaces for deliberation: from unconstrained access to curated spaces
- how government and technology interact: from guidance to standards to regulation.

There is a natural tension between embracing the opportunities presented by new technologies and ensuring that governments anticipate and manage risks. For example, how might government and other players provide for freedom of expression, while also protecting people from online threats?

Governments could, for example, decide to take a position of moral authority in relation to certain technologies. They could poll New Zealanders or hold a national conversation to seek people's views on certain key technologies and how they are used.

Governments have a range of tools to achieve their objectives — and in some cases may choose not to intervene at all. These tools include:

- **partnerships and relationships:** working with others strategically, including iwi, communities, non-government organisations, philanthropists, and industry
- **investment:** in technology, and in people's capability to use it, in innovation, in the infrastructure that underpins the technology, and in research
- **guidance and guardrails:** for how technology is used, ensuring safety by design is a minimum standard of online services, for how people's information is managed, and for how information is made accessible
- **regulation:** for example, related to business practices, online content, how people behave within increasingly immersive online spaces
- education and awareness-raising: for example, in media and information literacy, data science, ethics, engagement skills, and democratic processes; encouraging the development of new social norms.

Many of the choices and policy options don't sit solely with Te Tari Taiwhenua, or within one regulatory or system leadership role, but will require collaboration across government and other sectors.

Ngā kōwhiringa kaupapahere Policy options

Government has a range of policy options that could be pursued in a variety of ways. Some are already being considered or developed. After reflecting on the current state and possible trajectory into the future, we have opted to highlight the options with the greatest potential to have a significant impact on our topic into the future. Where possible we have tried to think about the role technology would play within these options. These options are not mutually exclusive - they represent a range of choices governments in the future could consider.

The policy options below respond to the essential challenge of our topic: 'How can community participation and decision-making be better enabled by technology?'

Policy option 1: Treating access to digital technology as a human right and meeting Aotearoa's digital inclusion goals

This includes developing a principles-based framework that underpins all aspects of digital inclusion — including access, motivation, trust, and skills. Viewing access to technology as a human right could be achieved through legislation — one example is the right to privacy now protected by the Privacy Act.

Treating access to digital technology as a human right could help advance Aotearoa's digital inclusion goals. It could include such steps as ensuring that:

- people understand how the internet and digital technologies can help them
- people have access to affordable online connectivity and devices
- people can develop the skills to use the internet and digital technologies confidently and safely in ways that work for them
- people have access to the technology required to get the information and services they need, and are entitled to receive
- language technology is harnessed to make government information available in a variety of languages.

Policy option 2: Partner for smart towns

This involves prototyping a public-private partnership to redevelop a town in New Zealand to be an exemplar for connectivity and new technology. It could enable a partnership between local authorities, iwi, tech providers, social service agencies and the private sector — one that could be grounded in technology, community-led decision-making and digital inclusion.

Local and central governments could play a complementary role here with central government acting as an enabler, providing frameworks for partnership and helping to foster cross-cutting relationships. Local government could build initiatives informed by local knowledge and insights, and then lead and deliver on them in partnership with local iwi, communities and business. For example, a tech company could support residents to develop skills in coding or cybersecurity, building a new skilled workforce that could use the internet to work from anywhere. This could open opportunities for education, upskilling and job creation — while supporting innovation and the potential for new kinds of industry within a community. Community hubs and libraries could be designed, or refreshed, to take advantage of the latest advances that could support participation.

Central government's role could be to coordinate, facilitate, connect and underwrite, viewing opportunities through a system lens. Agencies have the connections nationally and internationally with big business and with infrastructure providers. For example, involving an offshore corporate in a local initiative to connect communities and social housing could be turned into a job creation and international investment opportunity, with greater gains for all parties.

Case studies: Technology and city life

Technology is already being used to design spaces to foster community participation. Some examples include Japan Society 5.0 and Toyota's Woven City. Amsterdam Smart City designing spaces to foster community participation and social cohesion, as seen with Japan Society 5.0⁹³ and Toyota's Woven City.⁹⁴ Amsterdam Smart City⁹⁵ is an open and safe space for innovation and cooperation that brings together companies, knowledge institutions, authorities and citizens to shape the city of the future through a public-private partnership. In the Dutch city of Tilburg, the library has grown beyond its collections to become a busy local hub — called the LocHal, with offerings that include collaboration spaces, digital exploration stations, a food lab, and a collection of local history.⁹⁶ And in Christchurch, the city library (Tūranga) was designed from the start with iwi and the community, carrying a cultural narrative that reflects the values, knowledge and aspirations of mana whenua.⁹⁷

Policy option 3: Investigate how technology could connect volunteers, charities and funders

Technology could create enhanced opportunities to bring volunteers and community organisations together and, in future, has the potential to streamline the ways organisations seek funding and demonstrate the impact of their work.

For example, a recent Te Tari Taiwhenua report into volunteering suggests building a single portal for the numerous existing sites that broker connections between potential volunteers, community organisations and projects. Such clearinghouses are already in place in countries such as Australia and Ireland, and help to bring volunteering opportunities to a much wider audience. They can make it easier for people to contribute in the ways that suit them, and help smaller organisations reach a wide pool of potential volunteers.⁹⁸ For example, clearinghouses like these could make it easier to reach people who might be interested in more project-based or episodic volunteering, in line with the volunteering trends emerging in New Zealand.

Another example of technology working to support the charitable sector can be found with Match | Te Puna Taurite, which was launched in 2022. This service provided by Philanthropy NZ attempts to use an online platform to better connect funders and registered charities doing work they might want to support.⁹⁹

Further into the future, community groups may be able to make wider use of AI to manage information to support both their grant applications and reporting efforts and to gain access to data and information flows that show the impact of their community interventions. Data and regulation to underpin the use of these technologies could be central government's contribution here.

Case study: Using blockchain to support community development

The Wellbeing Protocol delivered a trial to show how blockchain and other distributed data technologies could support locally owned and led community development. The trial took place in Cannons Creek, Porirua in 2021. Participants used 'Cannon Coin' tokens loaded into a digital wallet on their smartphones to pay for fruit and vegetables, to trade between other members of the trial, and for community initiatives. The Wellbeing Protocol is now planning to progress this to set up what they describe as the world's first community development DAO (decentralised autonomous organisation).¹⁰⁰

Policy option 4: Explore new ways to bring people together to reach consensus through technology

This could include using apps and new, deliberative approaches to canvassing people's views and getting to shared decisions. For example, local and central government could use an app to engage large numbers of people on issues quickly, as opposed to the submission-based approaches that are commonly used today. Governments, community groups, iwi or hapū could capture many views using these 'micro moments', powered by apps that could be delivered in a variety of languages.

At the same time, deeper approaches — such as the deliberative democracy practice currently being piloted with Watercare — could be used to develop community-led initiatives and provide more considered feedback. Communities might find these tools and approaches useful for their own engagement and decision-making practices too.

Case study: Watercare pilot tests a new way of reaching consensus

We can glimpse new ways people might take part in big decisions by looking at a trial currently under way in Auckland. A research project being undertaken by Koi Tū: The Centre for Informed Futures at the University of Auckland and Watercare is trialling a 'deliberative democracy' approach to involving everyday Aucklanders in thinking about the future of Auckland's water supply.¹⁰¹

The work started with a series of workshops in 2021, leading up to a full citizens' assembly planned for later in 2022.

How does deliberative democracy work? It looks a bit like jury selection at the start — people are randomly chosen to form a representative group for their community. They're given a clear remit (or a question to answer) from the organisation that's commissioning their work, along with a commitment that their recommendations will be considered as decisions are made. The group is provided with the time and information and other support to participate meaningfully, including access to experts. Their assignment is to come to a shared understanding of the issue and a collective recommendation. This may not be each person's ideal recommendation but is one that everyone in the group can live with.

Koi Tū will report back on the results of this pilot project when it's complete, but representatives from the study said it is already showing promise as a way of bringing many different voices into authentic conversations about challenging topics, broadening people's understanding about the choices and dynamics that come into play as organisations tackle big, complex issues.

How do we make people really hear our voices?

Youth community member

And while much of the value from deliberative democracy practices clearly lies in the discussions people have, there may be opportunities for technology to support aspects of this work that could extend and accelerate its use. For example, digital tools like Pol.is could be used to gather insights that help with framing the question the group will be asked to tackle. Virtual reality tools could be used to simulate proposals to allow people to get a true sense of changes to roading or streetscapes, for example.

Policy option 5: Trusted spaces, online and offline

This involves ensuring that communities have safe places to gather, share their views, access trusted information, and make decisions. This includes physical spaces such as libraries, community hubs and other 'third spaces' — where much of the infrastructure is already in place — as well as virtual spaces where people might have town-hall discussions, for example.

It will be important to ensure people can feel safe to participate in digital spaces, including through reducing the possibility for these spaces to be undermined by communication intended to stoke division and undermine social cohesion. It may be useful to build shared social norms around virtual worlds and online spaces, and to ensure trusted spaces are free from commercial interests wanting to harvest data for marketing purposes.

Options here include:

- exploring the kinds of funding, structures, protections and regulation that might be needed to support this ecosystem, including how to get greater benefit from existing resources
- ensuring a balance is struck across technology, regulation and governance, so that people trust that their privacy is respected when giving feedback in digital spaces
- finding ways to harness technologies such as blockchain to build community platforms these would be distinct from the for-profit platforms in use in today's social media landscape
- consider investing in public social media to support online, place-based communities and decision-making.¹⁰²

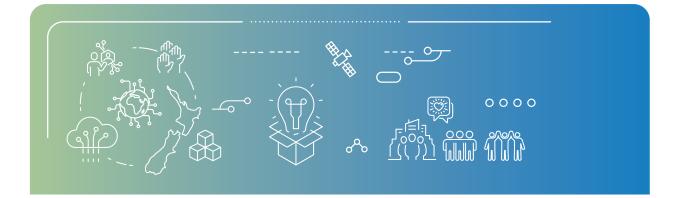
He aha ka whai mai? He mahere rori ka hiahiatia What's next? A roadmap will be needed

Future governments will need to weigh up policy options like these, along with the prerequisites for success, and build a roadmap for delivery in a phased way.

As we have set out, we think society will have a range of new opportunities to engage communities in participation and decision-making with the help of technology. Future governments will need to set their course, act as exemplars, and consciously create an environment where technologies can be assessed, adopted and harnessed by being good providers and users of digital technologies, and partnering where it makes sense.

Raising the national consciousness and educating the next generation of citizens for active participation and information literacy will take time. Working with others could create new and innovative ways to encourage participation.

We hope this Briefing builds on the good work that's under way across Aotearoa on these issues — within government, in communities and across the private sector. We hope that this is just the start of the conversation.



Wāhanga 4: Te korahi me te whakahoki kōrero Section 4: Scope and feedback

Te korahi me te huarahi Scope and approach

Scope

Our briefing topic can be interpreted widely. We have focused on people participating in communities, and the ways communities and individuals participate in decision-making, primarily in local and central government decisions that affect their lives.

Although we have covered aspects of the relationship between this topic and the Treaty, we saw the decision-making that takes place within iwi or hapū as outside our scope — although some of the ideas in this briefing could be useful in an iwi context.

How we approached this work

In developing this Long-term Insights Briefing, we wanted to talk with New Zealanders about the potential of technology to create new opportunities for community participation in decision-making. However, while we were doing this work many communities have been rightly focused on responding to the COVID-19 pandemic, and ongoing restrictions limited how much we could engage in valuable kanohi ki te kanohi (face-to-face) discussions. Where possible, we turned to technology to help us meet people where it wasn't feasible for us to gather in person.

It was also a busy time across government, with many long-term, future-focused initiatives competing for the public's attention. People told us that they'd like to be heard on the issues that matter to them — and not need to repeat the same message to different agencies.

With all that in mind, we undertook desktop research and reviewed existing engagement material and feedback. We developed scenarios about the future, based on our analysis of global and local trends. We talked with people from different communities about how they saw their future and their own aspirations for participation and decision-making. We made educated assumptions about the directions in which technology appears to be developing over the next ten years and the likely points of technology convergence. We matched these new technology opportunities with the aspirations people shared with us.

Then we thought, how might we support these aspirations and deal with the impact of these trends over the next decade? This briefing sets out our draft ideas and the strategic choices that lie before us. Because we are looking so far into the future, many of the issues we highlight will need further work in the years to come.

Taking a system view: Links between this Briefing and others

Our Briefing also has links to other Briefings currently being developed across government — particularly the Public Service Commission's exploration of 'How can we better support public participation in government in the future?' and the Briefing being led by the Department of the Prime Minister and Cabinet and the Ministry of Foreign Affairs and Trade on behalf of the Security and Intelligence Board agencies, 'Engaging an increasingly diverse Aotearoa New Zealand on national security risks, challenges and opportunities'. Our briefings share a focus on the ways in which government, in partnership with others and on its own, can support public participation and involvement in decision-making at the central, local and community level.

Ngā anamata tino pai: Ko ngā mea i rongo ai mātou i ngā hapori me ētahi atu whakahoki kōrero

Ideal futures: What we heard from communities and other feedback

What is the ideal future for community participation and decision-making? It would be easy for us at Te Tari Taiwhenua to project our own ideas of 'ideal' into the future, rather than the perspectives of community members. What might an ideal future look like for them?

We reached out to a number of diverse communities and brought their ideas together with the results of previous engagements and desktop research to create a rich view of community aspirations.

Ngā wawata o Ngāi Māori | Māori aspirations

There is nothing ambiguous about Māori aspirations in this area. The ideal future for Māori decision-making and participation is encompassed in the principles of the Treaty and the settlement agreements with the Crown. Their aspirations are reflected in the ideal future we describe below.

We wanted to reflect a strong sense of Māori aspirations in our Briefing but acknowledged the significant demands on Māori during the pandemic and overall engagement fatigue. We also acknowledged that Māori expect kanohi ki te kanohi communication as an indication of

respect and the value of the relationship. We respected this and sought the advice of our Tangata Whenua network and one of Te Tari Taiwhenua's Māori advisory groups about the kaupapa and potential points of interest in our Briefing for iwi and hapū.

What we heard from communities

We heard that community is extremely important to people in Aotearoa and is at the heart of identity, purpose and connection, and a sense of belonging. Most people identify with multiple communities. Physical and geographical communities still featured strongly in people's consciousness. People told us that community meant a place where they could be their full selves (without fear of judgement). Keeping traditions alive is important.

COVID-19 lockdowns have accelerated the willingness of people to experiment with and embrace new technology. On many marae, the use of digital technology has become the new normal for community hui, committee and board Intergenerational transformation of mātauranga is a kaupapa that I am on at present. Learning more about significant places — the whakapapa, tupuna, history and stories of the past to the present and retelling them in the future, so our tamariki and mokopuna are more aware of the whenua they are living in — the people of the past who had great influence or not so and how this has shaped our present, and what will the next seven generations look like; what we need to do now in educating our tamariki and mokopuna to protect the community culture and history; and what do we want our future to look like.

Māori community member

hui, and marae hui. Some communities are experimenting with different channels to tell their stories and connect.

Some community members in our engagement have been involved in community-led development initiatives and are positive about their experiences. They tell of history being kept alive, spaces being recognised and cared for, and voices being heard 'at the table'.

What are the common elements of an ideal future?

Across our engagement, we heard some common aspirations for the future of community participation and decision-making:



Authentic, diverse, inclusive and accessible

Communities want to participate in a way that feels authentic to them and reflects their culture. Participation should not be hindered by language, accessibility of content or access to technology.¹⁰³



Co-designed and community-led

Reflecting te ao Māori through practices such as co-design and partnership under the Treaty. Community-led, with access to funding and a high-trust environment.



Māori - Crown partnership

Capturing iwi and hapū aspirations for partnership with its roots in the Treaty.



Meaningful and impactful participation

Participation and decision-making should enhance community feelings of worth and value, not make people feel less important or ill-informed. Community members want to know that their contribution is respected and has contributed to important decisions about their community.



Simple and intuitive

Communities envisaged an ideal future where administrative, practical matters could be simplified and streamlined.



Safe

People want to use technology if it is safe and reliable, and if it does not expose them to intimidation.



Technology-enabled, not technology-driven

Technology can overcome challenges of scale and distance and increase accessibility. Equity of access to tools and skills needs to be assured so people can engage confidently.

Many people we heard from see technology as a core part of their community's future, but not at the expense of the connecting experience that being together in person can provide.

Bringing together all the feedback

A consistent body of existing feedback reinforced the insights gathered from our engagement. These included:

- feedback on National Action Plans for the Open Government Partnership¹⁰⁴
- engagement on setting up the Ministry for Ethnic Communities¹⁰⁵
- insights from community groups on supporting the COVID-19 response ¹⁰⁶
- feedback on the draft Digital Strategy for Aotearoa¹⁰⁷
- feedback on the Government's response to the Royal Commission on the Christchurch mosque attacks¹⁰⁸
- the Future for Local Government Review's interim report, Ārewa ake te Kaupapa (September 2021).¹⁰⁹

Themes from this feedback are the importance of trust through transparency of government decision-making, access to information, future aspirations for more diversity in decisionmaking, more equity of access and opportunities, the importance of community-led solutions to meet a community's aspirations, authentic representation that values every voice, as well as concerns about privacy and data collation and how it is used. People told us that they'd like to feel they belong, can be themselves, and that their diversity is seen as a strength.

Feedback on the draft Digital Strategy for Aotearoa highlighted the importance of the Treaty being acknowledged as a core foundation for the Strategy, for example. Respondents cited the importance of government realising its role as a Treaty partner and building equity, confidence and opportunities for iwi, hapū and whānau to use and benefit from digital technologies. Specific examples included encouraging rangatahi Māori to pursue education in digital skills and move into careers in the growing digital technology sector, addressing inequity in the digital tech sector, and working in partnership with Māori digital technology innovators.¹¹⁰



Tuhinga āpiti Endnotes

Executive Summary

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Section 1: Context

- 5 Our final topic wording and focus were shaped by feedback from an online survey, focus groups, and engagement with internal and external stakeholders in 2021. We are very grateful to everyone who took the time to share their views.
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Section 2: Megatrends, drivers and what's ahead

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ISBN 978-0-473-65824-3

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