## Bringing quality homes within reach of more New Zealanders

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## Key contributors (via interviews)

Jacqueline Paul, Ngāpuhi, Ngāti Tūwharetoa and Ngāti Kahungunu ki Heretaunga descent, Lecturer at the School of Architecture and Researcher at Ngā Wai a Te Tūi Māori and Indigenous Research Centre at Unitec Institute of Technology I Te Whare Wānanga o Wairaka

Vic Crockford, CEO, Community Housing Aotearoa
Chris Glaudel, Deputy CEO, Community Housing Aotearoa
Adam Brown, General Manager, System Insights and Strategy Intelligence and System Direction, Te Tūāpapa Kura Kāinga - Ministry of Housing and Urban Development

Wayne Knox, General Manager, Te Matapihi He Tirohanga Mo Te Iwi Trust

## Authors

Marshall Bell, ThinkPlace
Jayn Verkerk PhD, ThinkPlace Associate
Mondy Jera, ThinkPlace

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## Executive summary

This report aims to encourage fresh and original thinking among potential applicants to the Westpac NZ Government Innovation Fund's latest funding intake, Bringing Quality Homes Within Reach of More New Zealanders.

The report digs into the causes behind Aotearoa New Zealand's current housing problems to inform and inspire new ideas. It unpacks the system settings that underlie the crisis: from restrictive building regulations and a volatile construction industry, to pervading attitudes to the value of housing, and what it means to have a home.

And importantly, it invites applicants to bring an action-focused mindset to the challenge, asking themselves:

- What can we do to make a difference for those that need it today?
- What could shift people's mindsets and behaviour?
- How can we promote new ways of living?
- What would enable existing programmes and initiatives to succeed?
- What is the missing piece? Can we supply it?


## Why housing, why now?

The concept of bringing quality homes within reach of more New Zealanders is ambitious. Yet the opposing forces are manifold.

Currently, Aotearoa New Zealand has a housing shortage. House ownership is at its lowest in 70 years; ${ }^{1}$ there is a highly competitive rental market, with the sixth highest rents in the world (relative to average incomes); ${ }^{2}$ and house prices are overinflated. Social housing is also in short supply, due to years of neglect, with 26,000 households waiting for a property.

Most crucial, are the people behind these figures. Over 40 per cent of children now live in rental accommodation, with insecure tenancies and unhealthy housing standards causing stress for whole families. ${ }^{3}$ Māori and Pasifika are disproportionately affected, entrenching existing

[^0]social inequities. And for a whole generation of young people the dream of owning their own home has become just that - a dream. Taken together, the shortage and the people and communities affected by it, amount to what the United Nations describes as a human rights crisis. ${ }^{4}$
> "The future is not some place we are going to, but one we are creating. The paths are not to be found, but made, and the activity of making them, changes both the maker and the destination."

John Schaar, 1981

Although there is no shortage of optimistic visions for housing in Aotearoa New Zealand, the current crisis will not be solved through the strategies already underway. There is a need for bold, divergent thinking. There is an urgent need for out-of-the-box solutions. There is demand and desire for a sea-change in what it means to own a house.

The size of the task ahead may seem overwhelming, but inaction is not an option. We need to make a difference now. The Westpac NZ Government Innovation Fund is committed to contributing to that difference.

In this funding intake, the Fund seeks ideas from stakeholders, organisations and people throughout the community, as to how Aotearoa New Zealand's challenges could be addressed. It wants to hear from anyone with an innovative proposal for delivering quality homes for more New Zealanders.

Through stimulating thinking and supporting novel solutions, the Fund aims to put in motion new ideas for New Zealand's housing, for now and for the future.

The Westpac NZ Government Innovation Fund looks forward to viewing applications for this funding intake. We want to thank our contributors, who are already active in providing more and better housing for New Zealanders, for their valuable insights and input into this document.

More guidance on the Westpac NZ Government Innovation Fund application process can be found on: https://innovationfund.co.nz/

[^1]
## Introduction

Housing is important for all New Zealanders. Everyone needs a home to live in, and for most people a house is their single largest investment. ${ }^{5}$ Yet the current housing market does not work for everyone - the gap is increasing between the poor and the rich, young and old, tenant and homeowners. Described by the United Nations as a human rights crisis, ${ }^{6}$ Aotearoa New Zealand's housing needs fixing.

House prices are high and the outlook for many is daunting. Some landlords charge inflated rents for small spaces without windows, while elsewhere families are living in overcrowded housing. Māori and Pasifika are disproportionately affected by an unequal system. ${ }^{7}$ Young people in particular face much uncertainty, with many resigned to never being able to buy their own homes. Social agencies estimate that homelessness numbers have risen to around 40,000 people in recent years. ${ }^{8}$

Several factors have contributed to the present situation. Deregulation in the 1990s slowed the construction of state housing. In response, property investors bought and rented existing housing stock, and built new as a lucrative wealth generator. ${ }^{9}$ Meanwhile, Aotearoa New Zealand's growing net migration, upwards of 50,000 people per year ${ }^{10}$ in recent years, has contributed to housing shortages, overblown housing and rental markets, rental shortages and homelessness.
"Our housing system is arranged in a way that privileges the financial value of land and housing while the social value of land and housing is a distant second priority. The needs of the market take precedence over the collective need we have for everyone to enjoy safe, secure, affordable homes."

Paul et al., 2020

[^2]The Reserve Bank summarises the situation from an economic perspective:
> "Over the years, the demand side of the New Zealand housing market was boosted by strong population growth, steadily declining neutral interest rates and a favourable tax system. The supply side, however, has been held back by strict land use regulations, and a construction sector prone to boom-bust cycles, while carrying very high building costs. Excess demand led to New Zealand's experience with some of the highest house prices relative to income in the world."

Conway, 2022

## The question now is: How might innovative thinking help bridge these gaps?

An entire generation has grown up with this crisis. For many, the problem has become the accepted norm. To move on from this will require bold, alternative ways of living, building, investing and financing that can make an immediate difference.

This funding intake seeks to shape and stretch the thinking of applicants, mobilising disruptive and creative ways of thinking about a complex challenge that directly impacts all New Zealanders.

## What does 'quality homes within reach' mean?

International law defines a decent home as a human right, much more than shelter, bricks and mortar. ${ }^{11}$ This aligns with Stats NZ's definition of a home as more than simply a house - a home can provide a healthy, safe, secure, sustainable and resilient environment for individuals, families and whānau to live in and participate in their communities. ${ }^{12}$ This view of a home speaks to the interconnectedness of how we live, where we live, who we are in relation to the world around us and how that supports our wellbeing. A home that is more than an asset or commodity also connects deeply with the Māori worldview. ${ }^{13}$

[^3]Thus 'quality homes within reach' is about creating opportunities for housing to positively contribute to individual, whānau, and societal wellbeing, through improved equity, accessibility and affordability, and reduced instability.

This funding intake is about instilling tangible hope in a generation of people who feel insecure in their housing future, while honouring Te Tiriti o Waitangi. It is about supporting creative solutions that address the current crisis; fostering new ways of thinking about and providing places for New Zealanders to live.

The Westpac NZ Government Innovation Fund is committed to enabling alternative pathways to quality housing tenure, including home ownership, and making renting a viable and potentially better option than buying.

It is important to note that this intake is not about solutions directly aimed at reducing homelessness. Homelessness is an incredibly complex challenge that warrants specific attention. Many initiatives are already underway, in both the government and NGO sectors, that address homelessness in new ways.


## Why now?

Now in its second decade, the Aotearoa New Zealand housing crisis has evolved into a generational wealth and wellbeing issue.

Treasury reporting on wellbeing shows that we have amongst the lowest housing affordability in the world. ${ }^{14}$ In 2020, the United Nations' special rapporteur on housing declared Aotearoa New Zealand's situation a human rights crisis - one that would have been avoided if housing had been treated as a "human right and a social good, rather than as an asset for wealth accumulation". ${ }^{15}$ This sentiment echoes that of Aotearoa New Zealand's Chief Human Rights Commissioner, Paul Hunt, who in announcing the United Nations inquiry stated, "Successive governments have failed New Zealanders. For generations, they have promised to create the conditions to enable everyone to live in a decent home, but this has not happened."16

Aotearoa New Zealand's population is currently 5.1 million and growing. Half of all adults in Aotearoa New Zealand own their own homes. Home ownership for those in their early thirties, however, has dropped from 73 per cent in the 1980s to just 51 per cent in 2018. There is a growing wealth gap between those over 65 who own properties and many of those under 35 who don't. ${ }^{17}$

The number of people who are severely deprived of adequate housing is over 100,000. People living in rental accommodation often face unhealthy homes, a shortage of rental alternatives and shortterm contracts that create stress and instability. The number of households waiting on social housing is $26,000 .{ }^{18}$

Māori are disproportionately affected - 50 per cent of applicants waiting for public housing are Māori, though they make up 17 per cent of the general population. ${ }^{19}$ Pasifika are also disadvantaged. Although they make up 8.1 per cent of the overall population, around 12 per cent of those on waitlists

[^4]for social housing are Pasifika. A 2016 report found that Pasifika are also over-represented in the homeless population, where they are 10 times more likely to be homeless than European New Zealanders. ${ }^{20}$

The housing crisis affects more than these numbers suggest. Housing policy, for example, impacts whole cities. Affordable housing can function as a biodiverse system - a city can run better when all kinds of people can afford to live where they work without significant travel or living costs, creating vibrant communities and economies. In contrast, unstable housing and rental markets can lead to instability for families, schooling and children.

For many New Zealanders, the long-standing dream of home ownership is the path to a stable future and building community, but there are barriers to that dream for many. The current situation disproportionately affects those hoping to start out in owning their own home.

## Homeownership is unaffordable for many

Housing in modern Aotearoa New Zealand continues to be built on individual aspirations of home ownership. This defining emphasis on home ownership as a central feature of Aotearoa New Zealand's economy has led economist Shamubeel Equab to describe it as "a housing market with an economy attached." ${ }^{21}$

Relative to incomes, Aotearoa New Zealand has the world's sixth-most expensive houses. In 2021, the average home cost $\$ 1,006,632$, with that year also experiencing the highest ever annual market growth at 27.4 per cent. Auckland's average house price is the most expensive at NZ\$1.42 million, equating to 35 times the median national income. ${ }^{22}$

In response to unaffordable house prices, it is common for borrowers to seek to borrow large amounts on their first property. While many prospective homeowners can't afford this, others are able to purchase with financial assistance

[^5]from their parents. As a result, parents now make up the fifth-largest lender of loans for first-home buyers. Because the resulting 'wealth dynasties' allow property-owning parents to finance their children's first homes, the existing divide between the rich and the poor, and homeowners and renters is perpetuated. ${ }^{23}$ While intergenerational security and wellbeing are what all parents aspire to, those on low incomes are disadvantaged in the current market.

## The shift to rentals

Although renting avoids the overpriced housing market, New Zealanders in rental housing face another set of challenges.

Housing reforms dating from 1991 were the trigger for the gradual change in direction for Aotearoa New Zealand's housing. In the early 2000s, property investment increased as state housing volumes dropped. Fast forward 20 years, and the generation that bought into the market have retained that wealth into their seventies, resulting in uneven wealth distribution, and exacerbating inequities through home ownership. Other contributing factors include increasing immigration, favourable tax treatment and low interest rates.

The damage caused by these inequities impacts people and communities in a number of ways. Research shows that those living in rental accommodation are disadvantaged regarding education, health and community ties. Aotearoa New Zealand's weak tenancy laws create further instability for renters, as they allow evictions and short-term contracts. With over 40 per cent of children now living in rental accommodation, these insecure tenancies, high rents and unhealthy housing standards are causing stress for whole families, as well as individuals. ${ }^{24}$

In response, tenancy groups such as Renters United have worked to limit owners' rights to evict tenants. ${ }^{25}$ At the same time, the Ministry of Business, Innovation and Employment's Healthy Homes Initiative implements minimum quality standards for rental properties. ${ }^{26}$

[^6]
## What other initiatives might provide better rental housing for New Zealanders?

## Social housing is in short supply

Similar to many countries, Aotearoa New Zealand's social housing historically provided an alternative for those unable to buy or rent. However, social housing has been neglected in recent decades.

New Zealanders were early developers of the first state houses in 1937 under Michael Joseph Savage. Our exemplary housing record was maintained through to the late 1980s, when around 7,000 new families found security and shelter in a state house every year. This record was shattered by subsequent governments' preferences to "selloff of state housing and underinvestment in social housing ${ }^{\prime 27}$. There were over 26,000 households on the waitlist for social housing, as at March 2022, three times the number waiting in 2018. ${ }^{28}$ There is no easy fix for this shortfall. State supply of social housing is a complex issue, plagued by politics, and one that will take years to rectify.

## Other factors are fuelling the crisis

Numerous other factors have contributed to Aotearoa New Zealand's housing crisis in recent years.

In the immediate past, numerous COVID-19 lockdowns have caused supply chain issues that are impacting the building industry. Because of lockdowns, more people are working from home, which in turn contributes to the desire and need for stability, flexibility, mobility and modularity.

Concurrently, climate change is affecting housing demand and viability. Inflated fuel prices impact on car travel, rising sea levels are leaving coastal areas at risk and structurally unsound housing is becoming increasingly vulnerable to extreme weather conditions.

These factors provide a setting for both the problem and its possible solutions.

[^7]
## Framing the challenge

## A call to action

The current role that housing plays in our economy contrasts not only with Aotearoa New Zealand's social housing past, but also with the te ao Māori view of housing.

Before colonial settlement, the Māori view of homes was as taonga tuku iho, a heritage and treasure handed down through generations. Contrast this against the present situation, where Māori are overrepresented on the waitlist for state houses, and mainstream housing policies do not meet the distinctive needs of Māori. ${ }^{29}$ This situation is reflected in a 2019 Salvation Army report, which found that there was also a high need for multigenerational households amongst Pasifika. ${ }^{30}$

Issues that urgently need addressing include how to enable Māori housing, including papakāinga and especially on whenua Māori, and how to provide flexible lending options for Māori, including where iwi land is in multiple ownership. In addition, housing types, suitable for extended whānau and that accommodate Māori housing configurations, are required.

## Te Tiriti o Waitangi

As the foundational constitutional document of Aotearoa New Zealand, Te Tiriti o Waitangi provides direction on how to make accessing a quality home a reality for more people.

The universal nature of Te Tiriti's articles are interpreted in Human Rights Commission guidelines with respect to the right to a decent home in Aotearoa. ${ }^{31}$ These guidelines can be summarised as:

- the values of whanaungatanga (kinship), kaitiakitanga (stewardship), manaakitanga (respect), dignity, decency, fairness, equality, freedom and wellbeing must lay at the centre of all housing-related initiatives in Aotearoa New Zealand

[^8]- by incorporating te ao Māori views, we can deliver on Te Tiriti and rebalance the perception of housing as a human right, rather than purely a wealth-generating asset or property investment.

In addition, the guidelines state that all housing initiatives must comply with the seven United Nations 'decency' housing principles, including habitability, affordability and security of tenure, and all restrictive housing laws must be fair and culturally appropriate. A decent home must be accessible to everyone without discrimination. All must have the opportunity for active participation in housing issues that affect them. Both central and local governments must have an overarching housing strategy based on human rights and Te Tiriti, with constructive accountability in line with the United Nations Declaration on the Rights of Indigenous Peoples.

These guidelines based on Te Tiriti o Waitangi align well with the universal human rights, and form the basis for this funding drive to bring quality housing within the reach of more New Zealanders. To further orient applications to the Westpac NZ Government Innovation Fund, the following overview highlights government programmes and large-scale initiatives that are tackling the housing crisis in different ways.

## Existing programmes and initiatives to address housing challenges

Many initiatives are in progress to improve our housing and building sector. The following is a brief snapshot, not a comprehensive list, of some of the ongoing and upcoming initiatives aimed at increasing access to quality homes in Aotearoa New Zealand.

1. Kāinga Ora - Homes and Communities. Kāinga Ora is a "crown agency with responsibility for delivering on the Government's vision of healthy, secure and affordable homes within diverse and thriving communities". ${ }^{32}$ The agency manages and maintains around 65,000 public or state houses. It also now leads the KiwiBuild initiative, and is tasked more broadly with delivering more public, transitional and affordable housing to help meet supply and coordinating urban development projects. Initiatives include the Kāinga Ora First Home Partner scheme to encourage home buyers.
2. The Construction Sector Accord. A Ministry of Business, Innovation and Employment-led programme that "is a joint commitment from government and industry to work together to create a high performing construction sector for a better New Zealand. ${ }^{33}$ Complete with a transformation plan, funding, and public and private commitment, the Accord seeks to create strong building performance, sustainability and equity across residential, commercial and infrastructure projects.
3. Building consent system evaluation. The Ministry of Business, Innovation and Employment's Building Performance division is "taking an in-depth look at the building consent system to better understand how it is working and to help identify opportunities for improvement. ${ }^{34}$ The aim is to make the consent system more efficient, thereby reducing the time required to build homes, and enabling innovative products and practices to be more easily applied in housing construction.
4. Healthy Homes Standards The Healthy Homes Standards aim to significantly change the quality of Aotearoa New Zealand rental homes. The standards cover heating, insulation and ventilation, and address issues with moisture ingress, drainage and draught stopping. ${ }^{35}$
5. Residential Tenancies Amendment Act 2020. The amendment act updates legislation from over 30 years ago, and "ensures the law governing New Zealand's rental market strikes an appropriate balance between protecting a landlord's interest in their property, and ensuring tenants receive fair rights for the rent they pay."36
6. Proposed changes to the Resource Management Act 1991. ${ }^{37}$ The changes aim to:

- protect and restore the environment and its capacity to provide for the well being of present and future generations
- better enable development within natural environmental limits
- give proper recognition to the principles of Te Tiriti o Waitangi and provide greater recognition of te ao Māori including mātauranga Māori
- better prepare for adapting to climate change and risks from natural hazards, and better mitigate emissions that contribute to climate change
- improve system efficiency and effectiveness, and reduce complexity while retaining appropriate local democratic input.

7. Government papakāinga planning support. Te Puni Kōkiri "supports the development of small-scale papakāinga (generally 3-10 houses) on whenua Māori, where homes will be owned and occupied by the owners of the whenua, and whānau who whakapapa to the land have the opportunity to live according to Te Ao Māori. ${ }^{38}$
8. Progressive Home Ownership Fund. A Te Tūāpapa Kura Kāinga - Ministry of Housing and Urban Development fund, providing "\$400 million investment to help individuals, families and whānau step into home ownership" through multiple funding pathways and provider support. ${ }^{39}$
9. The Building Better Homes, Towns and Cities National Science Challenge. The challenge seeks to "Identify new ways of living that reflect Aotearoa's unique identity, and respond to our changing lifestyle needs and aspirations." ${ }^{40}$
10. New Zealand Housing Foundation. This shared equity NGO's vision is "To relieve poverty by providing or assisting with the provision of affordable housing for low income persons and households in New Zealand." ${ }^{41}$
11. Welcome Home Loans. A scheme for people with moderate incomes and a dream to buy their own homes. Underwritten by Housing New Zealand, Welcome Home Loans help people with moderate incomes and are not subject to the Reserve Bank's loan to value rules. ${ }^{42}$

## 32Kainga Ora

33Construction Sector Award
34Building Performance, 2021
35 Ministry of Housing and Urban Development, 2021a
36Ministry of Housing and Urban Development 2021d
37Ministry of Housing and Urban Development 2022
38Te Puni Kōkiri, 2022
39 Ministry of Housing and Urban Development, 2021c
40 Building Better Homes, Towns and Cities, n.d.
41 New Zealand Housing Foundation, 2022
42 The First Home Buyers Club, n.d.

## A vision for the future of housing in Aotearoa New Zealand

## 'Quality homes within reach' is about more than the qualities of a house

The snapshot below envisages an ideal future for housing in Aotearoa New Zealand. It is informed by the Human Rights Commission framework ${ }^{43}$ and global trends, an honouring of Te Tiriti o Waitangi, and a desire for housing that drives wellbeing in all domains. The qualities of this future housing overlap. Together, these qualities provide a vision for housing that can bring intergenerational wellbeing for all New Zealanders.

## Adaptable and flexible

Building modular homes that can be changed in response to life stages and changing incomes. Designing houses that are: "flexible enough to respond to changes in the specific physical, cultural, and social needs of individuals, families, and whānau, thereby supporting functionality across time." (Stats NZ, 2022)

## Shared and social

 Building on the sharing economy and traditional ways of living to make quality housing more attainable. Supporting vibrant communities that empower residents to contribute to thriving kāinga and homes.
## Integrated and connected

Creating housing with the functionality to adapt to new ways of working, new local food solutions and new forms of transport - all while improving our health, and preventing harm.
Facilitating the design, construction, and location of housing that will "support the specific physical, mental, emotional, cultural, and social needs of individuals, families, and whānau in their kāinga and communities." (Human Rights Commission, 2021)

## Resilient and sustainable

Providing housing that is sustainable and secure through environmental and economic changes, and using new technologies and appropriate policy. Providing housing design, construction, and materials that support longevity, and have a regenerative impact on the natural environment.

## Accessible and available

Housing considered as a fundamental human right with equitable access to affordable quality homes a priority. Growing a building sector that is well-equipped to meet the growing demand for housing and provides a safe, secure, and healthy environment based on universal design. Developing a financial system and tenancy models that support more choice for individuals, depending on their needs.

## Enabling intergenerational wellbeing

Building housing stock that prioritises intergenerational health, wealth and wellbeing. Our definition of housing is expanded beyond the dominant modern narrative of asset ownership, instead placing more emphasis on the intrinsic value of a home.

## Honouring Te Tiriti

Recognising rangatiratanga in housing policies in support of quality homes and kāinga for Māori.
"[l]t is for whānau, hapū, marae and iwi to determine the types of housing that meets their needs; and it is the responsibility of the Crown, as Treaty partner, to facilitate the development of these housing options to support optimal Māori health and wellbeing." (Paul et al, 2020)


## Building the future of housing

There are many different ways to approach the challenge of bringing quality homes within reach. Possibilities include repurposing existing buildings, redefining our relationship with ownership, removing barriers and creating conditions that enable innovation to thrive. Indigenous and historical models, as well as new technologies, can also inspire solutions for Aotearoa New Zealand's housing crisis.

Many players can contribute to bringing quality housing within reach. Policymakers, regulators, banks, investors, businesses and citizens can all have a role in shifting the system.

There is room to reimagine Aotearoa New Zealand's housing through action in both public and private sectors, in innovations that consider much more than just supply and policy. By first reimagining how we can live, we can then take steps to make a change. "The housing crisis is neither inevitable nor inescapable." ${ }^{44}$

While innovation in how we build is critical, the focus needs to be on how we live and the system structures that support or inhibit that. To get quality housing in reach that also meets the planet's needs and encourages social thriving, we need to re-evaluate our societal expectations and beliefs around housing and home ownership.

The diagram below shows six interconnected focus areas for innovation. These interconnections are important when thinking systemically. Innovation starts from the top with the paradigms that shape what people do. Each focus area can inform and shape the neighbouring ones and the overall vision. Over the following pages each is discussed.


44Paul et al, 2020

## Reimagining how we live

"We need a paradigm shift which seeks to reimagine what the housing system might look like, where we move from housing being a form of commodified intergenerational wealth creation to being a form of wellbeing creation"

Paul et al. 2020

Expectations of home ownership among young people are low, with 82 per cent of 'Generation Rent' (18 to 39-year-olds in Aotearoa New Zealand) considering that owning a home is unattainable. ${ }^{45}$ As a result, people are looking to possibilities outside of the mainstream system that financing and legislation currently supports. Part of the response is a growing trend in minimisation, environmentalism, globalisation, and the sharing economy. Those affected are looking for ways to live differently: to be more mobile, more flexible, have fewer home responsibilities, own less and waste less. Meanwhile, there is a desire to reconnect with nature, move away from big cities, start a garden, and for some, to return to their land and kāinga.

> A vision for papakāinga
> "Whānau report a host of health and wellbeing and economic benefits from living in papakāinga including: the revitalisation of marae, te reo, mātauranga and its transmission, whanaungatanga and support for each other; maara kai; coordinated health and social service provision; and the development of Māori business and employment enterprises using whānau lands, resources, and skills - including trade training for housing. Papakāinga have a huge potential to rebuild our own economies and social structures, offering a measure of independence/protection from free market capitalism."

Building Better Homes, Towns and Cities, 2018

[^9]
## Accelerating and expanding papakāinga

Because the Kiwi dream to own and live on a quarter-acre block has become increasingly difficult to realise, some are looking to the alternative indigenous models of shared living that Aotearoa New Zealand was built on. Papakāinga supports Māori living communally on ancestral whenua and provides an "opportunity to live according to that group's social and cultural values, which may not be provided for through Western models of housing and tenure."46

This traditional form of living has been long proposed and discussed in modern Aotearoa New Zealand as a means of providing affordable homes and preserving a way of living for Māori. It has generally been restricted to rural areas and is not without barriers. Auckland Council has established "marae and papakāinga development are priority outcomes for Māori in the Auckland Plan and in the council's Long Term Plan", recently allocating funding for Māori housing with marae, as hubs to support whānau and community wellbeing. ${ }^{47}$

> Case study Urban papakāinga built on a foundation of manaakitanga (Te Puni Kōkiri, 2020)

> What is it A 14 -home papakāinga at Te
> Māhurehure Cultural Marae in central Auckland, with investment from Te Puni Kōkiri and the marae.

> Why it's important This papakāinga represents a modern take on the traditional concept, building one, two and three-bedroom apartments in an urban centre. This marks a step forward for Māori housing and has overcome several barriers that will lead the way for other developments. The marae is also taking leadership as a registered community housing provider.

With a significant portion of Māori living in urban areas, both in privately owned homes and renting, there is an opportunity to rethink what wellestablished papakāinga could look like in cities. Jacqueline Paul, of Ngāpuhi, Ngāti Tūwharetoa,

[^10]and Ngāti Kahungunu ki Heretaunga descent, is well-versed in urban planning and development. Paul notes there are "different papakāinga happening but they are actually not medium to high-density" housing. As a solution, Paul suggests a tikanga Māori approach to density, based on the land's carrying capacity. ${ }^{48}$ Papakāinga plays a crucial role, providing opportunities for affordable, secure housing and for whānau and hapū and fosters resilience. More than access to a house, papakāinga can offer an accessible means of quality living, integrated with community and the environment, that supports Māori to thrive.

## Building co-housing momentum

Co-housing is a growing trend, rapidly gaining momentum, which reimagines Western ways of living as a proposed solution to the housing crisis.

> "Cooperative housing offers a third way of achieving affordable housing security, one that lies between home ownership and renting."

Southcombe, 2020

Acknowledging the legacy of papakāinga and other traditional forms of living, co-housing describes a way of living that can be intergenerational, including individual units with shared amenities. This design reduces living costs, while addressing social isolation and "enables resident interaction (through the creation of designated shared zones) and public spaces for broader community interaction." ${ }^{49}$

While regulations and financing need to adapt, there is an opportunity to shape the narrative about collective ways of living to respond to consumer demand.

Projects to build collective or cooperative forms of housing in Aotearoa New Zealand have been announced in recent years. There are few solid examples, and we have a long way to go to catch up with Europe, the United States and Australia. Projects such as the Urban Habitat Collective are looking to change this situation, by providing cohousing in the form of medium-density apartments

[^11]to demonstrate "that principles inspired by cohousing work in an urban, New Zealand context". 50

Case study How We Live: Creating Housing that puts People and the Planet First (How we live, n.d.)
What is it A co-created, living and evolving vision document that promotes inclusive housing discussions and brings forward alternative ways for how we might live.
Why it's interesting The report intends to spark action by providing a starting point for accelerating the collective housing sector in Aotearoa New Zealand and eventually creating a platform for ongoing dialogue through the project's website. (ref) It does this by illuminating the complexities and opportunities, creating the conditions for transparent dialogue, and encouraging the co-creation of a strategic way forward.

There is a need for a new narrative that shifts perspectives of co-housing away from a retirement option or a New Age commune, to being a contemporary form of housing that aligns with an increased desire for shared resources and a reduced environmental footprint.

As housing density increases, more collective ways of living are becoming a necessity, as well as a desire. By including co-housing as an alternative in the public discourse about housing, quality homes can be made available to a wider range of people at all life stages. ${ }^{51}$

> "A city runs better when all kinds of people can afford to live in the area they work without significant travel or living costs. That creates a vibrant mix of people and workers - which makes a vibrant community and economy."

Collins, 2021

## Socialising 'good' density

Increased density is a requirement to support increased access and affordability of housing. A challenge that high-density housing faces is the

[^12]concept known as nimbyism. ${ }^{52}$ This mindset is an understandable response to a quickly changing urban environment where there is a growing need for quality homes. This can lead to fears of large developments of high-density housing clogging neighbourhoods. However, there is such a thing as 'good' density, which balances aesthetics and practicalities, particularly in the case of mediumdensity options closer to city centres.

In addition to increasing the quantity of houses, the quality of homes can increase when there are more options for people to live close to where they work. Such options also reduce the climate impact of housing and urban areas by providing better walkability and transit access.

Economist Rosie Collins suggests that a solution "to anyone tempted to protect their own backyard at the expense of the greater good is to look at the bigger picture." ${ }^{53}$ Questions about density require us to reimagine how we live, both as individuals and as a collective.

## Reframing the rental narrative

Rising house prices have made renting a necessity for many, but renting is currently perceived as undesirable. Community Housing Aotearoa CEO, Vic Crockford, says that "renting has become normalised, but it is still stigmatised."

Because ownership is seen as the ideal, the opportunity for a robust system of renting by choice is missed. Especially among younger generations, a better pathway to quality housing can occur when "we shift our current expectations and think about how other tenure choices may be a better option than homeownership."54

An example of a healthy rental housing market is Germany's, where the average tenancy is 11 years. Legislation has created a situation that promotes long-term security and the customisation of home ownership, with tenants being "allowed to decorate, including paint, but they must restore the property to its original state before moving out." ${ }^{55}$

This contrasts with the more changeable rental situation that currently exists in Aotearoa New Zealand. Changing the thinking about the value of rental homes, along with supportive legislation, can help overcome the negative impacts on wellbeing that renting currently presents for many. As Paul and colleagues state, "secure tenure of rental housing can be viewed as one method for operating tino rangatiratanga over kāinga as well as for delivering secure housing for all in Aotearoa."56

## What can we do now?

The examples in this section are not raised to encourage everyone to change the way they live, but rather to open our minds to alternatives to existing pathways. Starting a conversation as a society can then translate into accelerated action for housing in Aotearoa New Zealand.

How might we create more meaningful public dialogues about how we could and potentially should live? What makes sense for the way we live in Aotearoa?
How might we learn from alternative and indigenous ways of living to expand our horizons for how we live?

52Collins, 2021
53Collins, 2021

## Changing the system settings

Switching mindsets about entrenched paradigms is both powerful and difficult. Yet changing the rules around housing is essential if we are to change access to housing in Aotearoa New Zealand.

Medium and high-density homes, and urban development that increases the housing mix are integral parts of the solution. Accessible quality homes based on alternative forms of living, such as papakāinga and co-housing, will require new legislation and regulatory frameworks to create the conditions for a systems shift. Developing the right legislation can lead to good density, by empowering designers, developers and builders to create homes and cities that work for all people and communities.

## An evolving policy landscape

Although the housing crisis is decades in the making, positive changes are starting to reshape the housing system in Aotearoa New Zealand.

The government is currently reviewing and reimplementing a critical piece of legislation (the Resource Management Act 1991) that affects our natural and built environment. The Ministry of Business, Innovation and Employment's Building Performance division is undertaking a building law programme reform. The Ministry of Housing and Urban Development last year introduced a National Policy Statement on Urban Development, with the aim to "ensure that New Zealand's towns and cities are well-functioning urban environments that meet the changing needs of our diverse communities" and to ensure that policy "directs councils to remove overly restrictive planning rules that make it more difficult to build homes" ${ }^{57}$ It has also introduced the Progressive Home Ownership Fund to create "more opportunities for independent homeownership for people who can't afford to purchase their own home at current house prices." ${ }^{58}$

Furthermore, the government has reached a bipartisan agreement on a new law allowing three-storey homes to be built without a resource

[^13]consent, as a means of increasing urban density. ${ }^{59}$ Additional Resource Management Act reforms are underway to remove barriers to housing solutions.

Yet, despite these developments, there are still opportunities for more innovative improvements to be made our housing system settings.

## Carrots and sticks

The government initiatives outlined above are excellent examples of incentives that accelerate quality homes by removing risky, costly and timeconsuming processes that present hurdles for developers and builders.

However, there is also a need to promote the affordability of homes in these densification efforts, and maintain a focus on community and wellbeing. Policy has more of a role to play in supporting housing accessibility and what Vic Crockford refers to as "direct, sustained, and secured investment into affordable homes". Policy can also provide the private market with the right carrots and sticks to deliver quality homes that are also affordable and support inclusionary housing requirements. Deputy CEO of Community Housing Aotearoa, Chris Glaudel, says that "all the elements and technical specifications are out there [to support building affordable and inclusive homes], we need to get on with doing it". Glaudel also notes that at present there is no incentive to build beyond the Building Code.

## Empowering alternative ways of living

Historically, Aotearoa New Zealand has focused on social housing as a response to the need for affordable housing for people with lower incomes. However, it can be useful to think about housing options as a spectrum. According to Adam Brown, General Manager, System Insights and Strategy at the Ministry of Housing and Urban Development, "the way the housing system is set up is binary; either renting or owning and social housing." Brown says, "we need more of a continuum, like other countries", and sees the opportunity for innovation in the space between public- and private-funded housing options.

[^14]So, what is involved in supporting the 'in between'?

At present, there is no legislation around collective housing, so developments can only be done on a unit title model and the Unit Titles Act 2010 is not necessarily fit for purpose. The challenge arises from the need to fit indigenous and alternative lifestyles within established Western systems.

Architectural designer Jade Kake says "specific legislation covering all collective housing, whether it is co-housing, papakāinga, or community land trusts" under one approach "would offer more support to all such developments, and would also enable better planning." These alternative forms of living, which are potentially more affordable and offer wellbeing benefits, remain out of reach for many due to barriers to entry. This "makes it very challenging to navigate the regulatory process, even when those involved are skilled and have resources."60

One particular issue is that most district plans do not accommodate papakāinga. The Māori Housing Think Tank reported "difficulties in working with councils including their discriminatory planning and consent rules for building on multiply-owned Māori land." ${ }^{61}$ Such issues make clear that innovation is needed to promote flexibility in land planning.

## Balancing power dynamics

The power relationship between tenants and landlords has long been a challenge to providing quality homes that support wellbeing.

Recently, significant legislative changes have been made to protect renters' rights through the

## 60Bell, 2021

61 Building Better Homes, Towns and Cities, 2018

Residential Tenancies Amendment Act 2020. However, more can be done, as evidenced in the current rental market, where many renters have been further disadvantaged by COVID-19.

Jacqueline Paul suggests "making two-year tenancy the default, in the absence of good reason" as this could "provide greater security for renters and could encourage a shift in culture, away from shorter-term renting in which renters are unable to build a home." ${ }^{22}$ Such changes to legislation could also reinforce the soft constraints on rent increases.

## Case study 2021 Revised Affordable Requirements Ordinance (Chicago, n.d.)

What is it An inclusionary housing policy in Chicago that encourages the construction of more affordable and family-sized units. The policy requires developments of 10 or more housing units to include a certain amount of units at affordable prices.
Why it's interesting Policy like the ordinance "adds mandates and incentives for developers to create deeply affordable and family-sized affordable units."

In Aotearoa New Zealand, increasing housing supply does not guarantee affordability and accessibility, as there is largely an absence of inclusionary zoning. While there are complications with these policies, including zoning, there may be opportunities to adapt a similar approach to overcome Aotearoa New Zealand's predominant market focus on large, expensive dwellings that generate the most profit.

62 Paul et al, 2020

## What can we do now?

Let's continue to explore options along the housing continuum, from owning to renting. By focusing on facilitating alternative ways of living that meet the diverse needs of people, we can shift housing strategies into home strategies. While policy changes will impact housing over time, steps can also be taken now to empower people to navigate the current system.
How might we better equip and support individuals and groups seeking different housing pathways? How might we encourage better collaboration within local government around more flexible and consistent land planning?

## Rethinking lending and ownership

Traditionally in Aotearoa New Zealand, the housing system has been set up with three streams: ownership by individuals or couples, renting and social housing.

The current situation calls for a holistic look at housing options and a re-evaluation of the role of finance in supporting the continuum of housing possibilities.

> Case study Papakāinga shared-equity model for whānau with Westpac New Zealand (Westpac, 2019)
> What is it "A contemporary response to papakāinga, established through a shared-equity model that has been accomplished through Westpac's relationship with iwi Ngāti Koroki Kahukura."
> Why it's interesting A shared-equity model has been reimagined through strong collaboration. The model enables whānau to take full financial ownership of their mortgages, with iwi gaining a lifetime of interest. This project shows it is possible to overcome financial barriers and support papakāinga in a way that is economically and environmentally sustainable.

## Rethinking access to capital

The financial system has a tremendous influence on Aotearoa New Zealand's housing market. Currently, the market relies heavily on mortgages from retail banks. As commercial entities, banks work within set risk and return parameters. This suggests that different sources of capital and providers may be needed. Because equitable access to capital is critical in reshaping the system for the better, there is an opportunity for banks and other lending institutions to lead the way. Specific barriers to lending for Māori, whether for papakāinga or other housing, also present opportunities for improving the system.

In addition to regulatory hurdles for papakāinga, whānau have reported numerous challenges with the inaccessibility and inflexibility of the Kāinga Whenua loan scheme; and difficulties in accessing government funding (via Te Puni Kōkiri) and other finance. ${ }^{63}$ Ngāti Whātua Ōrākei trust chairperson

Marama Royal comments that, "[banks are] trying to fit a circle into a square and it's not going to work. They have to be more flexible, more agile, around how they work with iwi."

Community Housing Aotearoa CEO, Vic Crockford, adds that barriers to lending on Māori land and multiply-held titles is a topic that has been talked about for decades, and that financial institutions need to overcome. Crockford's view is that "our institutions have created active barriers which are essentially a different form of 'redlining' - it is not right, and we can do better."

The term 'redlining', coined in the United States, "has become shorthand for many types of historic race-based exclusionary tactics in real estate". ${ }^{64}$ To combat these inequities, legislators in the United States enacted the Community Reinvestment Act 1977 to require the Federal Reserve to "encourage financial institutions to help meet the credit needs of the communities in which they do business," 65 including low- and moderate-income neighbourhoods.

Top-down intervention is important, alongside innovative thinking about access and finance within financial institutions and financial technology companies.

> Case study Opoly's blockified property investing for everyone (Opoly, n.d.)
> What is it Opoly is an Aotearoa New Zealand company that seeks to shake up the traditional way of property investing through selling 'blocks' of properties that each cost \$100. Investors get a share of rental income generated through the properties and profits from the eventual sale, much like the share market.
> Why it's interesting Opoly is a new way of thinking about property investing that lowers the barrier to entry. This means the wealthgenerating potential of housing is accessible by more people, and the divide between home owners and those unable to buy is lessened.

[^15]An iwi-led bank is a transformative idea that Marama Royal has put forward to shake up the status quo.

In his role as the General Manager for Te Matapihi, the independent national peak body for Māori housing, Wayne Knox supports the initiative, stating that "there is a lot of financial smarts within iwi". Knox maintains that a project "needs to be done to interrogate what it could look like". He says, "iwi are starting to work together to utilise their collective purchasing power, delving into end-to-end supply chains and procurement, passing on the savings and investing in our own people."

Similarly, Jacqueline Paul proposes a statebacked housing finance corporation, with a Māori equivalent institution administered by Māori to provide "an alternative to mortgage finance from retail banks, rebalancing the housing finance". ${ }^{66}$

To support action now, Māori housing advocates are pushing for reforming the Kāinga Whenua loan scheme, which the Ministry of Housing and Urban Development is currently reviewing. Many of the barriers faced in accessing the loans today are similar to those identified in the 2011 Auditor-General report on government planning and support for housing on Māori land. ${ }^{67}$ This report found that the loans had a low uptake due to unaffordability, eligibility criteria, problems in getting owner consent, and difficulties accessing information and support."68

Wayne Knox says that there is still too much risk for banks under the scheme. Knox suggests that work needs to be done to improve how the government underwrites loans for housing to open up private investment. Another option Knox proposes is to support Māori to confidently access existing finance options by improving their "capability to build robust proposals in a way that works for them". At the same time barriers can be removed because currently, "every time, [you apply] it is an arduous process".

Access to finance has also been identified as the biggest issue for co-housing projects. The typical formula based around pre-sales does not work for

## 66 Paul et al, 2020

67 Controller and Auditor General, 2011
68Chittick, 2022
a collective enterprise. Banks have limited incentive to change beyond their traditional approaches to development. Because banks are commercial entities, they are risk averse, hampering progress in accessing finance for this alternative collective form of living.

## Ownership through tokenisation

Our current housing system as a means of wealth generation is inaccessible and unsustainable for many. The growing wealth divide, between those who own a house and those who don't, requires new ideas to make housing and investment achievable.

In response to the housing crisis, young people are looking for alternative ways of "building their financial capability with micro-investing platforms and adopting new financial technologies that weren't around during their parents' generation." The decentralised finance markets that already operate in the crypto economy have led to the idea of "fractionalising and tokenising domestic property assets" to help people get their foot in the market. While these approaches provide optimism that young people can reach the financial threshold required for home ownership, this generation "needs a lot more help to reach the dream of owning a home in New Zealand." ${ }^{69}$

A local example of a company working with the new financial technologies is Opoly. The company developed in response to corporatisation of home ownership observed overseas, which supports "individuals to benefit from house price appreciation without ever being an owner."70 Opoly allows investment in real estate for as little as $\$ 100$, through the concept of 'blockified' properties, with the investment being similar to holding shares in a company.

Innovation like this can support accessible property investment and distribute the earnings from market growth. The question is, how might investment be directed towards the most needed forms of housing to take this to the next level?

70 Opoly, 2022

## Other innovations in ownership and finance

- Shared equity schemes allow a third party, such as a bank, government agency, rūnanga or trust to co-own a property by taking on a share of the mortgage, thereby reducing the other owner's deposit and mortgage payments.
- Co-owning involves buying a property collectively with friends or whānau to reach the threshold for lending on a home.
- Rent-to-buy schemes enable people who cannot save a deposit to buy their own home over time. The homeowner pays rent for the house for a set time. At the end of the contract's term, they pay the remaining amount of the purchase price.
- Intergenerational loans are extended timeperiod mortgages. These are more common in Sweden and Japan, where high property prices have made 25- to 30-year mortgages obsolete. A significant issue with intergenerational loans is that the next generation is born into debt.
- Impact investments are made by organisations and funds to generate positive social and environmental impacts, as well as a financial return. The investor expects a profit, though it may or may not be at the same level as a traditional investment.
- Community land trusts are typically non-profit trusts that own land and then lease exclusive areas to individuals or groups.
- Loan guarantee schemes by the Crown may be a solution that banks would support, which could, in turn, help the price of the investment. Community trusts work in this area, but some models do not have banking support. In order to be successful, criteria for loan guarantee schemes would need to accommodate lowincome individuals and Māori landowners.
- Public-private partnerships are like government loan guarantees, as the state often acts as the guarantor of the loan, while the private actor provides the loan. However, problems have been noted with this finance option, due to the complexity of Ioan criteria between government and private actors.
- Direct lending involves either the government, or another entity with the capital, bypassing finance institutions and lending straight to the mortgagee.
- Land rent schemes allow a person to pay annual land rent in the same way that a landowner might pay rates to their local authority. The cost of the building (and its construction) is managed separately, meaning the upfront costs are reduced. Depending on the scheme, the homeowner may or may not be able to purchase the land at a later date.
- Sweat equity schemes, such as Habitat for Humanity's Assisted Home Ownership Programme, require families to contribute at least 500 hours towards the building of their home.


## What can we do now?

Opportunities in the financial space are numerous. Initiatives that work with existing and new institutions can drive social change and result in a flourishing economy. Making non-conventional pathways a possibility is key, and we have the capability and technology to do it today.

How might lending from non-conventional sources accelerate access to quality homes? How might the private sector create better access to capital for papakāinga and collective living?

## Empowering communities

Community-led design and placemaking approaches are critical if we are to realise the vision of quality, sustainable homes that work for residents.

Around Aotearoa, communities and supporting organisations are already taking action to drive their housing future. However, this piece of the puzzle is often not capitalised on as a means of achieving holistic wellbeing through housing.

Empowered communities can drive change, leverage their knowledge and assets, and play a role in building services, and public spaces that can transform housing into homes. Planning policy can help communities to positively shape the future of housing, and steer homebuilders to incorporate social, cultural, economic and environmental sustainability in their designs. ${ }^{71}$ Through policy and engagement, communities can be empowered to shape and maintain their homes and communities.

Paul and colleagues argue that the path to improved housing outcomes that support wellbeing can be facilitated "by shifting power and resources to mobilise communities working to deliver safe, secure and affordable homes for whānau."72

## Understanding local needs

Others believe that understanding local issues is the key to better housing.

Adam Brown, from the Ministry of Housing and Urban Development, says that "each place in New Zealand is different" with different constraints and needs. It is about ensuring the right houses in the right places to create quality homes in thriving communities, and Brown sees a key role for local stakeholders. "How do we get more local information available to decision-makers and anyone on the ground? How can local communities come together around their needs and aspirations?"

An overview of local initiatives, such as the upcoming Māori Housing Data Framework, ${ }^{73}$ can provide a useful starting point for planning. Wayne Knox sees quality data systems as critical, and a "pillar that will support the Māori agenda beyond the changes in government." Jacqueline Paul adds that there is a critical need to empower people to participate in the public discourse. "We need to capture lived experiences, taking a strengths-based approach."

## Incentivising engagement

Encouraging active participation, to ensure meaningful engagement, is no small task. This asks a lot of our communities, especially those disadvantaged in the current housing market.

Vic Crockford, CEO of Community Housing Aotearoa, says that "a bottom-up approach is overwhelming. How do you resource it? How do you actually enable it? People that are most impacted are working double time, for less money" and often can't attend meetings.

To address this, Kāinga Ora is supporting a platform that incentivises community engagement in the thriving community at their new Greys Avenue development in Auckland. ${ }^{74}$ With 12,000 high-density units under development and planned, Kāinga Ora realised there is a need to build and nurture communities within its developments, as well as provide houses.

Building on this example, there is scope to provide more support to communities to bring quality homes within reach, on the communities' terms. In particular, there are opportunities to empower rangatahi into housing on terms that they set.

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Case study Greys Avenue: Creating inclusive,
connected and thriving communities (Creative
HQ, 2022)
What is it Käinga Ora has invested in a
framework and digital platform to create
meaningful and purposeful connection with
communities. The framework incentivises
community engagement, using time banking and
a virtual token currency to activate communal
spaces and support quality living in Auckland's
Greys Avenue development.
Why it's interesting A lack of connection and
community engagement was leading to poor
social outcomes at the Greys Avenue site. By
enabling community contribution, a sense of
purpose and value is created in the community,
and new skills and learning are shared.
This model hopes to pave the way for other
developments in Aotearoa New Zealand.
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## What can we do now?

There are many community-based initiatives that seek to elevate voices and generate action. A lot can be learned from these efforts to make diverse voices loud, relevant and accessible. Through connecting perspectives in communities, we can flip the script on who shapes housing design in Aotearoa New Zealand. Support is also needed to effectively gather and use data, with consideration for honouring Te Tiriti o Waitangi.

How might we proactively create spaces for communities to shape and deliver better quality and more sustainable housing for the future?
How might we improve and leverage quality local data to create better housing outcomes?

## Building smarter

It is common for discussions about housing to revolve around the quantity of housing and the need to build more, and more quickly. Supply is undoubtedly a part of the solution, but there are opportunities to change how, what and where we build, as well as who is building.

Building smarter is about:

- helping correct the imbalance of supply and demand through creative solutions
- having a better understanding of local needs, as well as designers and builders with the right skills and information
- constructing suitable, well-built homes in good locations to increase housing choice and meet diverse preferences and needs
- enabling new technologies and low-tech solutions that can increase supply and decrease cost, while maintaining quality for now and the future.
"We need to highlight the need and inform on the ground strategies. A lot of times, these communities don't feature on the government radar."

Wayne Knox, Te Matapihi

## Designing and building for diverse needs

To bring quality housing within reach, we must consider housing design.

While they can be efficient to build in the short term, mass-produced homes often fail to meet people's diverse and changing needs - what is produced does not align with their definition of a quality home. Examples of quality housing that does cater to diverse needs range from the tiny homes kitset movement to large, intergenerational homes. But there are barriers to achieving some divergent types of builds.

Jacqueline Paul says the "biggest gap firstly is around cultural adequacy - we know that homes are not culturally appropriate and responsive for growing families, specifically for Māori and

Pasifika and don't think intergenerationally." Design and planning can help bridge this gap through understanding Māori values and principles. Paul advocates for innovation that helps "everyone else to come along to the journey and provide the accountability for both the private and public sector so that it's normalised and standardised rather than trying to meet the market with more one to two bedroom homes."
"We need to accept culturally that colonisation is a key factor. We need by Māori, for
Mäori and we are nowhere near having this conversation for Pasifika."

Vic Crockford, Community Housing Aotearoa

Designing and building by Māori and for Māori ensures housing serves the needs of tangata whenua. Recent examples of co-funded papakāinga developments, through Whai Kāinga Whai Oranga, have focused on "growing the capability of Māori-led housing providers, we are enabling Māori-led housing solutions to thrive."75 Because only 0.03 per cent of architects are Māori, more innovation that supports the capability and capacity to deliver Māori-led housing solutions, from design to build, is key to creating fit-forpurpose quality homes for Māori. This need is echoed in our Pasifika communities as well.

When it comes to new housing typologies, Adam Brown from the Ministry of Housing and Urban Development also sees capability as a critical area for support. The ministry is seeking to expand the housing mix, including increased density. Brown says, "it's a different way of building, and we need to make sure that the construction industry has the capability and capacity to build the typologies we are looking for."

## Enabling new tech and low tech

New technologies, such as 3D printing, offsite manufacturing (prefabrication) and modular units offer a vision of high-quality, low-environmentalimpact construction, produced safely by a diverse labour force, and providing new options to those

[^16]delivered by traditional building methods. Although there may be negative consequences that need to be considered when using these technologies, they also have the potential to make accessible and affordable quality homes more quickly. Technologies can also help design and build for diverse needs and new housing typologies, such as modular homes that can grow as people's living circumstances and budgets change.

One such initiative is Module, a company based in Pittsburgh in the United States, which designs homes with removable roofs and sections that fit together like Lego blocks. This results in fit-for-purpose and accessible houses that can start small and grow upwards. ${ }^{76}$ There is reason to be excited by the opportunities that similar approaches may bring for Aotearoa New Zealand.

Prefabrication is not new, and works well alongside other newer technologies designed to meet our needs today. New prefabrication and additive technologies require innovative thinking, and the mindset and regulations to support this, if they are to penetrate into the Aotearoa New Zealand market. Adam Brown sees a strong synergy between new technologies and building in ways that support environmental goals. He states that, "it's not about the specific technology, but more about how we can ensure there is the demand created for new ways of doing things."

While people tend to rely on modern technology for the answers, it is not always the best approach. Centralised solutions like offsite manufacturing and expensive technologies like 3D printers can lead to a reliance on external providers. An alternative view is offered by the Māori housing Think Tank's proposal that more innovation is needed in low-tech solutions, such as those made by whānau from rammed earth. These low-tech solutions can be built at low cost, to make energy efficient houses that are inexpensive to maintain and of a high quality, through the use of design standards for optimal health and wellbeing. ${ }^{77}$

Case study Te Ahikaaroa Trust rammed-earth housing (Harris, 2015)

What is it A Northland housing provider that constructs affordable homes with homeowners contributing their labour. A whare uku (earth house) can provide a healthy living environment as it absorbs humidity and releases absorbed heat slowly through the night.

Why it's interesting Due to the simplicity of its design, the ability for whānau and community to contribute to the construction, and minimal operating costs, this low-tech building method creates affordable quality homes. The "families pay for the house through a mix of kāinga whenua loans, social housing unit assistance, mortgage, family contributions, sweat equity and their capital." (Whare uku, 2020). The approach also promotes skill development that can support employability. This is a great example of how empowered communities that build smarter, can reimagine how people live and what an affordable home can be.

## What can we do now?

The examples in this section respond to diverse individual needs, so will not suit everyone. What they demonstrate, however, is the need to be open to other possibilities for providing housing, rather than just what many people consider the typical pathway. These possibilities invite us to be open to conversations about housing that can then be translated into accelerated action in our housing system.

How might we use innovation to create more meaningful public dialogues about how we could and potentially should live?

## Reconfiguring existing buildings

Another way to create quality housing is through modifying and redesigning existing residential and commercial buildings. With high building costs and supply issues, repurposing can be more affordable and achievable than new housing. There are opportunities to empower and encourage existing homeowners to do this at scale. Commercial property owners could also actively build thriving city centres based on quality living and working. However, as promising as it sounds, there are critical challenges to overcome for this to take off as a solution to Aotearoa New Zealand's housing crisis.

## Repurposing commercial space

'Adaptive reuse' of commercial property is a growing global trend. Because more people are working remotely due to COVID-19, there are possibilities to convert more office spaces.

> "The upshot is that there are a lot of office blocks and commercial properties which are under-utilised, or even vacant, around the country, particularly in the CBDs of the big cities. In turn, that's led to growing calls for those spaces to be converted, or repurposed, into residential dwellings. And those calls are becoming more urgent as runaway house prices highlight the country's chronic housing shortage.
> Converting empty commercial properties into residential dwellings seems an obvious solution to the housing crisis, but doing so is not as easy as it sounds."

Bell, 2021

While this trend has been slower to catch on in Aotearoa New Zealand, there have been some recent examples of high-profile conversions. These include the conversion of a former council building in the heart of Auckland into luxury apartments ${ }^{78}$, and a joint project with Wellington City Council to convert the Freemasons building into relatively affordable three-bedroom units, available at \$750 a week. These positive examples of repurposing desirable spaces in city centres capitalise on the vacancy rate, which is now approximately 11 per cent in Auckland. ${ }^{79}$

[^17]In the United States, commercial conversions are supported by legislation. In 2022, New York's city council "passed a law requiring the city to study options and make recommendations for commercial buildings that could be converted to apartments." A 2021 study had determined that "converting just 10\% of the area's buildings could create 14,000 new apartments. However, given the uniqueness of each building, office conversions are not as cost-effective or low-risk as developers and commercial property owners would like, with the potential for costs to add up quickly. Sources in California found that adaptative reuse projects "tended to be more expensive than new construction, and tended to encounter unexpected expenses in the building process." ${ }^{80}$

Conversion projects grapple with the significant differences that exist between working and living spaces in terms of their design and regulations. Currently, the stars need to align. Conversions are often more viable in more dense cities where land is at a premium. A study in Calgary, Alberta, Canada, concluded that typically, "older and often more run-down buildings are ripe for conversion." ${ }^{81}$ How this relates to Aotearoa New Zealand's context, particularly the need for effective earthquake protection, is unexplored territory.

> "If a developer was to build some new
> townouses or terraced housing on the city
> fringes, or further out suburbs, that would
> cost about \$2000 per squm. It means most developers wanting to build affordable housing are likely to go for this option rather than an office conversion."
> Pete Evans, Colliers National Director of Residential Projects, cited in Bell, 2021

The current situation points to specific challenges around creating affordable housing from commercial space. This may mean that affordable housing is more suited to city fringes, although these areas are potentially further away from where people work and may want to live. Conversely, there are plenty of upsides to help justify the cost and effort of converting existing buildings, as this sustainable form of development

[^18]81 Farivar, 2022
circumvents the wasteful processes of demolition and reconstruction.

## Partitioning existing housing

Another solution to the housing crisis that is beginning to be explored, but has drawn relatively little attention, is the creation of new homes from existing housing stock. These are referred to as accessory dwelling units (ADUs), which are loosely defined as small, self-contained living units "created by converting the interior of a dwelling such as a basement or attic, internal subdivision or partitioning, extending the existing home to accommodate a separate unit". ${ }^{82}$

Increasingly, because of housing shortages, unauthorised conversions of buildings not considered fit for living in have become common in Aotearoa New Zealand (such as living in garages). The resulting poor living conditions carry health and wellbeing risks.

Building Better Homes, Towns and Cities has conducted a study that indicates the sizeable impact that reconfiguring under-used dwellings could have. It estimated "that around 12 percent of New Zealand's housing stock could be partitioned and deliver over 360,000 dwellings. That is, 180,000 additional dwellings without impinging on greenfield sites or unutilised vacant residential land." ${ }^{83}$

While subdividing land is a common practice in Aotearoa New Zealand, minimal focus has been directed towards partitioning, or "the addition of further, independent dwelling units on an existing

> "A profound lack of attention to ADUs has meant that not only does New Zealand continue to under-utilise its current housing infrastructure, the benefits that could accrue to income poor, asset rich households from using their assets more effectively by building ADUs or partitioning are being missed."

Saville-Smith et al., 2017

[^19]83 Building Better Homes, Towns and Cities, 2018
residential lot." ${ }^{34}$ There are myriad upsides to ADUs, given their small physical footprint. They require less land and resources, while reducing congestion and vehicle mileage, increasing affordability and energy efficiency, and supporting more density, which can lead to better public transit and commercial development.

ADUs are yet another option on the housing continuum that could flexibly meet the diverse needs of our population. Young adults typically make up the majority of tenants, and ADUs offer a "desirable option for couples or singles who might otherwise have to choose between living in an apartment, paying for surplus rooms in a single-family dwelling or sharing a house with others in order to cover the costs of rent." ${ }^{35}$ Often they include access to gardens, outdoor space and neighbourhoods that would otherwise be unaffordable.

Nelson City Council has relaxed regulations around partitioning or building second dwellings on an existing property, as a way to prevent urban sprawl. This enables first home buyers to enter the market and makes intergenerational living more possible. ${ }^{86}$

On the surface, ADUs offer a rapid solution that can be deployed at scale. Prioritisation by councils and coordination among them is seen as a key to

## Case study Mighty Small Homes prefabricated kit-model ADUs (Mighty Small Homes, 2022)

What is it Prefabricated DIY kits that are easy for homeowners to assemble on an existing property in one to two days. These units can then act as rental accommodation or intergenerational housing.

Why it's interesting "Putting more dwellings in the form of small, prefabricated ADUs on the large plots of existing houses could potentially accommodate more people in urban areas." United States based Mighty Small Homes and others make quality units that are more affordable and give increased flexibility for different ways of living.

[^20]realising ADUs' potential. The situation calls for standardisation between regions, and flexibility around regulations, financial assistance and incentives, and public education. These measures would enable the "building industry to design, develop and deliver low-cost, high-performance products that would provide for many individuals and families who struggle to find fit-for-purpose homes." ${ }^{87}$

## What can we do now?

Reconfiguring existing buildings offers a lot of potential for meeting our housing and environmental goals. But there is a need to socialise the concept of conversions and develop policies that support their implementation. Design and technology has a role to play in promoting lower-cost adaptive reuse and new builds that consider future adaptation from their inception.

How might we make reconfiguring existing buildings more desirable and feasible for owners? How might we overcome regional differences in rules and guidelines, so that innovative design and manufacturing of ADUs is supported?


## Conclusion

There are big changes happening in Aotearoa New Zealand's housing system, with massive monetary investment and significant energy from passionate changemakers. Getting ourselves out of the decades-long housing crisis, and transitioning the incredibly complex housing system, will require nothing short of a national mission; a mission that requires something from all of us and an abundance of approaches that work collectively. Throughout this work, the ongoing efforts to manage COVID-19 and address climate change will continue to dominate, and rightly so.

This paper presents focus areas for innovation that can contribute to different levels of systems change. For sustained change over time, we need to reimagine how we live, and rethink the role of homes and communities. To enable new ways of living, we need our institutions and legislation to balance power and promote equity. We need to empower communities and people to feel that they are heard, can take action and really make a difference. We need to support new skills and technologies, while leveraging our existing building assets, to provide quality affordable homes that meet the diverse needs of our people.

Aotearoa New Zealand has overcome great challenges before, and while the housing crisis is one of many we face today, it is not insurmountable. Transforming housing provides a unique opportunity to improve social cohesion, and
physical and mental health, strengthen our culture and economy, and reduce our climate impact. It can be a win-win-win, but only if we take bold steps forward together.

## Guidance for fund applicants

The size of the task ahead may seem overwhelming, but inaction is not an option. The Westpac NZ Government Innovation Fund's aim is to spark fresh thinking - we invite you to bring an action-focused mindset to the challenge.

## What might you do that makes a difference for those that need it today? What do you think could shift mindsets and behaviours, and promote new ways of living? What would enable existing programmes and initiatives to succeed? What do you see as the missing piece?

As a reader and potential applicant contemplating the path forward, consider what a house is beyond the bricks and mortar structure. In short, it is about people inhabiting homes and communities, and fostering a connection with society, culture and the natural world. Quality homes represent a shift from a short-term view of housing as shelter, to housing as an enabler of holistic, intergenerational wellbeing.

We've included some additional reflections from our contributors below, to support and inspire you as you begin your journey forward.

## What needs to be done is

to experiment. What are
the lots of different pieces
we can test and pilot?
Adam Brown

People don't have the support to return to their kāinga. What are the pathways to return home and what are the opportunities for iwi to bring people back to their land?

Jacqueline Paul

If you really want to make an impact in Māori housing, it needs to be in the space of Māori-led solutions and partnering on their terms.

Wayne Knox

## We need to continue to

 strengthen the tenancy laws and change the starting point from harm reduction to generating wellbeing.Chris Glaudel

## What does better social

 responsibility look like in practice? We need organisations to step up to the plate as system actors and own their role in the housing system.Vic Crockford

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