


2023

# The State of the City

Benchmarking Tāmaki Makaurau  
Auckland's international performance







*He aha te hau e wawara mai  
He tiu, he raaki  
Nāna i ā mai te pūpūtarakihi ki uta  
E tikina atu e au ki te kōtiu  
Kukume mai ai?  
Koia te pou whakairo ka tū ki Waitematā  
I aku wairangi e.*

*What is that murmuring sound  
Upon the north wind  
That cast my paper nautilus ashore  
Which I plucked from the north wind  
And thus claimed?  
It is the carved pillar that stands in the  
Waitematā Harbour  
That I see in my distressed state.*

Initially recited by Ngāti Whātua leader Titai, this prophecy foretold of the 1840 arrival of the European on the shores of the Waitematā Harbour, Auckland. Subsequently adopted by Ngāti Whātua paramount chief Apihai Te Kawau, in offering the British land to establish a new capital, this prophecy signalled the origins of the city we now call Tāmaki Makaurau, Auckland and the beginning of the partnership between the Crown and indigenous Māori in that place.



# Foreword

Tāmaki Makaurau Auckland has always played a vital role in New Zealand's development. As the competition for talent, investment and visitors heats up in the post-Covid environment, our region's place and purpose in the world needs renewed focus.

In 2023, cities increasingly need to be resilient, decarbonise at pace, adapt to new working patterns, resolve infrastructure deficits, address inequalities, and secure the resources they need.

To better understand how the Auckland region compares globally and to answer the question "What state is Auckland in?", we have commissioned – *The State of the City: Benchmarking Tāmaki Makaurau Auckland's international performance* report.

The report will be an annual assessment of how well the region is faring against a series of pillars that successful cities should be focused on. Benchmarking allows us to understand how the world sees Auckland. It is an opportunity to acknowledge Auckland's leading qualities among its international peers and look for ways for the region to deal more effectively with its legacy and contemporary challenges.

The *State of the City* responds to last year's Kōi Tū report *Reimagining Tāmaki Makaurau Auckland: harnessing the region's potential*, which calls for an evidence base that can galvanise and convene central and local government, citizens and other stakeholders including business, universities, community providers and others to agree on the challenges to be addressed and understand what sorts of system-wide changes might be required for Auckland to improve.

This first benchmarking report is full of interesting and at times surprising insights and information, and it is a compelling call for action to all who are interested in Auckland's future.



**Mark Spencer**  
Chair  
The Committee for Auckland



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**Pam Ford**  
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Tātaki Auckland Unlimited



# Acknowledgements

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This report benefited from the guiding inputs of the State of the City Steering Group, as well as research input from Tātaki Auckland Unlimited.

The New Zealand Government's Auckland Policy Office and Koi Tū: The Centre for Informed Futures at Auckland University are insight partners in the State of the City report.

**Auckland  
Policy Office**



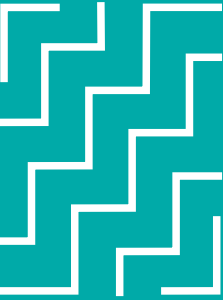
**KOI TŪ:  
THE CENTRE FOR  
INFORMED FUTURES**





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## Glossary of terms

**APAC**  
Asia-Pacific

**API**  
Application Programming Interface

**ESG**  
Environmental, Social and Governance

**FDI**  
Foreign Direct Investment

**GDP**  
Gross Domestic Product

**IoT**  
Internet of Things

**R&D**  
Research and Development

**STEM**  
Science, Technology, Engineering and Mathematics

**VC**  
Venture Capital

# Executive Summary







**For more than six centuries Tāmaki Makaurau Auckland has been cherished by those who call the place home. A strategically important isthmus first for the Māori, the city’s harbour and natural resources have always been revered and coveted – including by the multiple iwi (tribal), hapū (sub-tribal), Pacific, European and other ethnic interests and influences that have made Auckland a South Pacific melting pot.**

Over the last decade, the city’s reverence has gained global currency, as Auckland became popularly known as one of the world’s most liveable small cities.

This period has co-incided with the amalgamation of the previous local government arrangements that created a new ‘super city’, a diverse city-region that is now home to over 1.6 million people. The establishment of Auckland Council as a unitary authority has enabled a regional approach to land use planning, housing, transport and environmental infrastructure, while at the same time raising Auckland’s global visibility.

In this time Auckland has relied on competing successfully in the international marketplace for visitors, businesses, events, investment, talent and students. The city has been able to develop a planning and policy framework for managing population growth and housing demand. It has built long-term appeal as a destination, a gateway and a diversifying economy.

Auckland, like all cities globally, has been seriously disrupted by the circumstances of the last 3 years. Reduced connectivity to international opportunities has had knock on effects on cities and city centres around the world. Auckland was more acutely affected than most.

Yet cities remain essential to nations and their competitiveness, wellbeing, creativity, inclusion and resilience. A competitive city makes citizens more productive, companies more innovative, and capital more efficient. It offers the benefits of urban life without incurring social costs for its people or existential costs to the planet.

Now as the world opens up and competition for talent, investment and visitors heats up, Auckland’s place and purpose in the world needs renewed focus. Talent, in particular, increasingly demands better amenities, a secure work-life balance and exceptional experiences. The mission of cities to decarbonise and to heal deep social divides has also come much more into the spotlight.



# In this context what is Tāmaki Makaurau Auckland's place in the world?

Benchmarking Auckland in an international perspective offers an additional view on this question. This paper gauges how Auckland is doing via a close look at its performance among a group of 10 international cities of broadly comparable size, location and liveable reputation – including Brisbane, Copenhagen and Vancouver.

The pillars and principles upon which cities are now appraised bring the state of Auckland in 2023 into a fresh focus.

**For those who access them, Auckland retains many of its easy-going lifestyle advantages.** New and existing residents tend to be more satisfied with the quality, pace and balance of life and work than in other cities. The perceptions and performance of Auckland are still high in relation to its natural environment, low pollution, and friendliness. These factors breed an abiding international appetite to visit Auckland.

**Auckland is also making more steps than others to translate its accumulated diversity into a fairer city.** The city is one of the most ethnically diverse in the world. Although there is a long way to go, it has made more moves than many towards more equal gender outcomes and to begin closing the economic, social and skills gaps for Māori and Pacific peoples. Auckland's indigenous people and culture emerges as a distinctive asset that offers opportunities for a resilient future.

Yet big challenges remain. Auckland's constraints are holding the city back, especially on the pillars of Opportunity, Innovation and Knowledge.

**The threats to liveability have become more obvious.** Concerns about housing affordability and safety have become chronic. The city is falling behind in terms of vibrancy and international recognition. Through the other side of the pandemic Auckland has witnessed a faster shift back to the car than other cities, and with it worse congestion. With slow delivery of infrastructure and the benefits from completed projects yet to register, connectivity is a clear deficit.

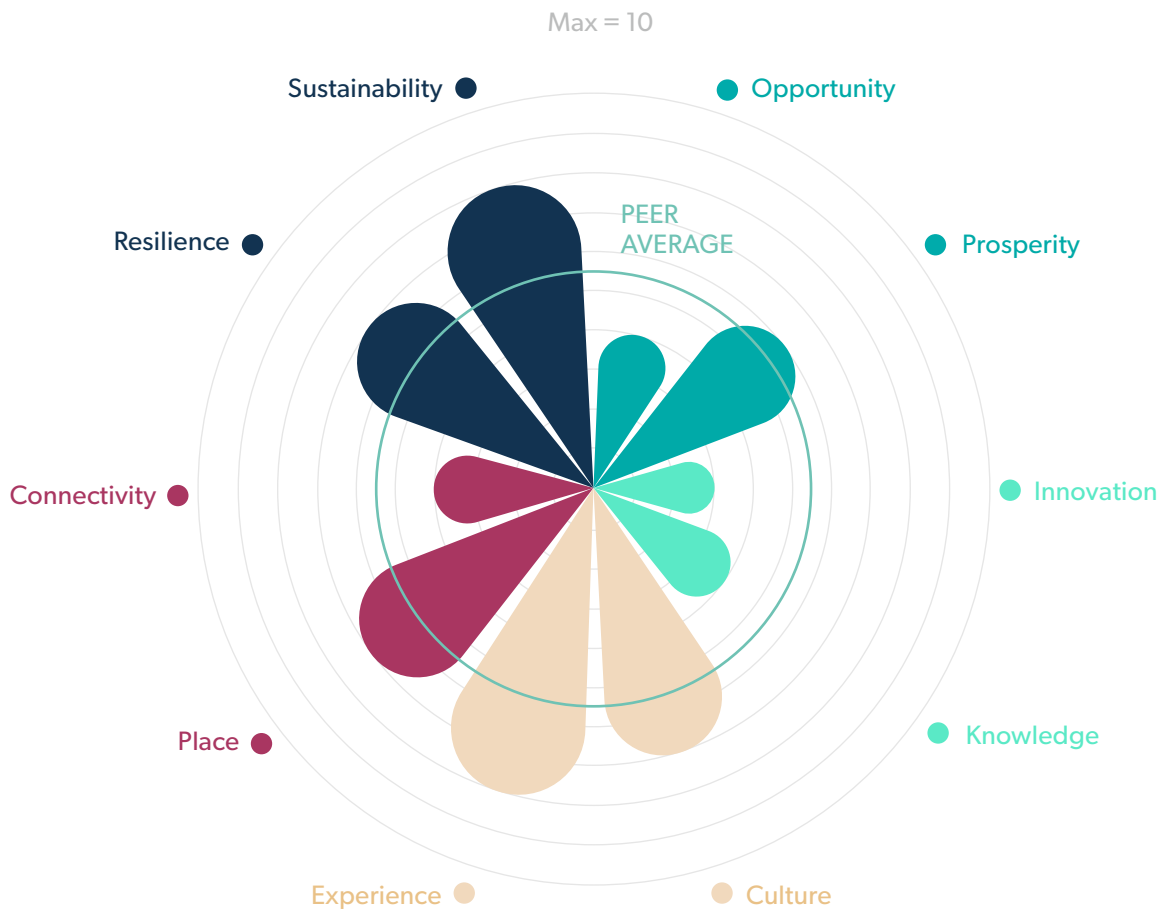
**Auckland also risks getting stuck in an economy that fails to deliver the promise of broad-based prosperity.** The city has strong clusters of highly paid technology jobs but productivity and wages overall are lower than most comparable cities. Access to good jobs is uneven. Skills supply is further behind demand in advanced sectors. And in the global technology innovation race, there is a bigger challenge attracting business investment and commercialising ideas.





# Tāmaki Makaurau Auckland in 2023

Where Auckland sits compared to its 'peer cities'\*



\*This chart shows Auckland's position among a group of 10 peer cities assessed in this report: Auckland, Austin, Brisbane, Copenhagen, Dublin, Fukuoka, Helsinki, Portland, Tel Aviv, Vancouver. For example, with Sustainability Auckland is overall 3rd out of 10 cities, giving it a score of 8/10. Auckland's position is calculated using an Elo algorithm that takes into account multiple metrics.

Taking the benchmarks in aggregate, Auckland is ahead of the majority of its peer cities in 6 out of the 10 categories assessed here. This should be viewed as positive given that the peers are also cities renowned in their regions for their quality of living.

Experience and Sustainability remain areas of comparative advantage that reflect Auckland's setting, landscapes, atmosphere and lifestyle – and some of the planning and policy it has put in place.

Relative to the other cities, its biggest gap is in Innovation. This also has knock on effects to Opportunity and Knowledge.

The lower performance tends to be in areas that rely on consistent investment, effectively competing to attract international opportunity, and high levels of policy coordination to manage and steward growth.





## Auckland's direction

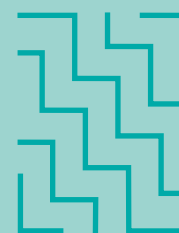
Despite these challenges, benchmarking highlights plenty of reasons that Auckland should feel confident. Its inherited assets and appeal stack up. And while fresh from devastating floods, Auckland still surpasses others on the fundamentals of clean air, low pollution, uptake of renewables and recycling, and less carbon intensive ways of living and doing business.

Yet the data also points to modest or declining outcomes in areas that require high levels of co-ordination and market-facing leadership. Infrastructure deficits, workforce shortages, innovation gaps and systems resilience all emerge not just as local concerns but as competitive challenges relative to other international cities that Auckland looks towards or is judged against.

If these persist and Auckland underperforms, it has a direct effect on productivity, and in turn on prosperity and equity, at a time when talent is mobile and when other cities offer very appealing wages and opportunities. This is a national issue. Auckland is by far the largest urban economy in New Zealand – so how it performs has a disproportionate effect on the fortunes and outlook of the whole nation.



## The drivers of city performance internationally make it clear that if Auckland is to improve its position there is a need for greater focus on:



**01.**

**Consistent infrastructure investment and credible plans to deliver** in order to service Auckland's growth. Reducing the city's transport deficit is a multi-cycle effort that relies on reliable and responsive project funding, long-term planning and land acquisition, and stronger Auckland-specific co-ordination and commitments with national government.

**02.**

**Collaborative working to bring forward a network of quality and distinctive places.**

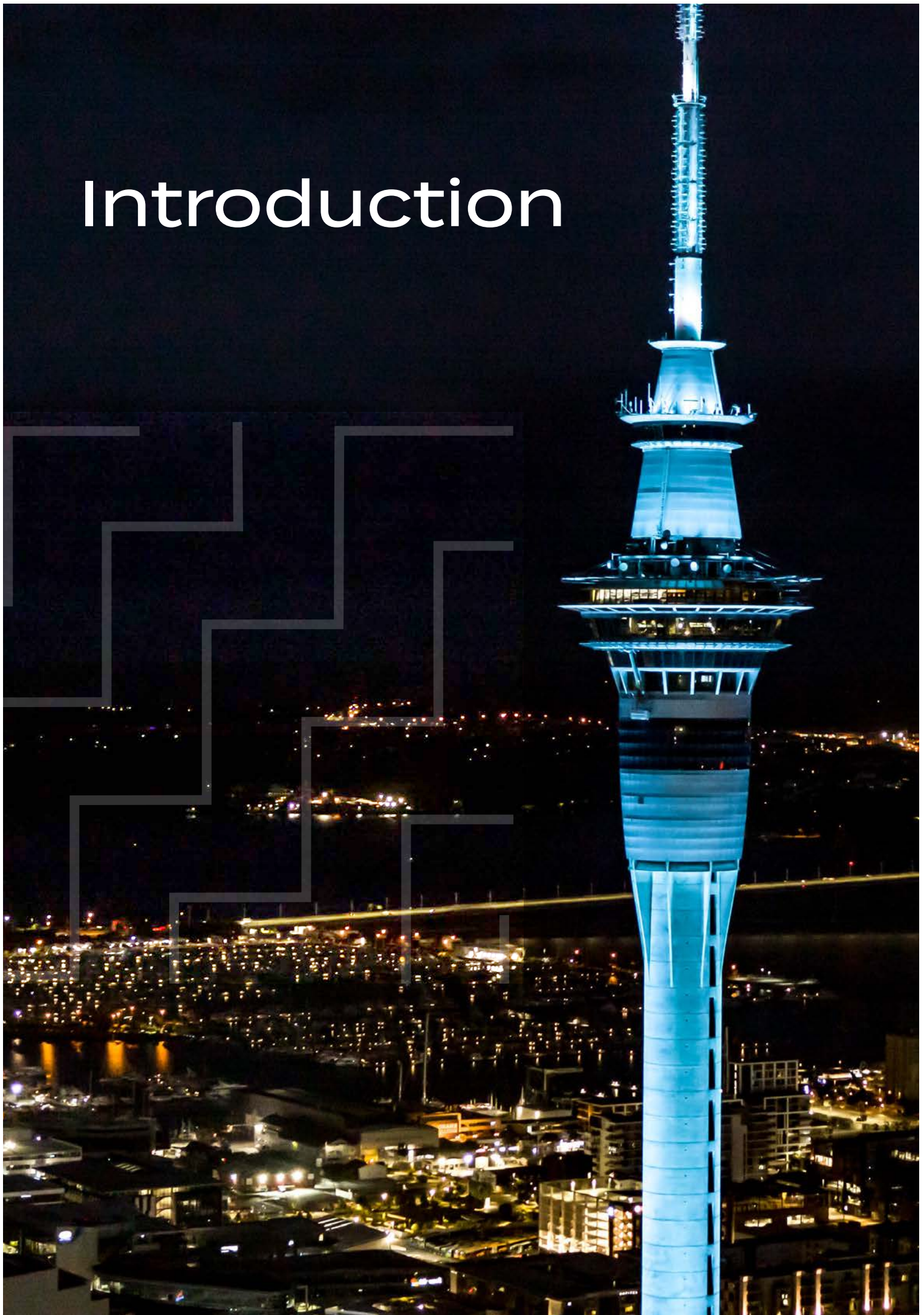
The combined capability of Auckland's private and public leadership can reinvent the city centre and support other locations in different parts of the city to be magnetic, innovative and inclusive. With the right infrastructure and management, these places have the potential to create many more pathways to jobs, opportunities and connections especially for Māori and Pacific peoples.

**03.**

**The conditions for attracting more businesses, investment and talent** into Auckland's innovation economy. To support the momentum in the city's high value industries, Auckland needs strong outreach and visibility in international markets, as well as efficient local infrastructure, planning, and setup costs. Cities that drive more capital and clustering into their competitive industries tend to benefit from economic development arrangements where government and business partner on strategy, resourcing and narrative.



# Introduction





# The Value of Benchmarking

Examining Auckland through the lens of global benchmarks and comparative datasets offers a fresh look at how the city is doing on the world's stage, areas of strength and where more focus may be required. In 2023, cities increasingly need to be resilient, decarbonise at pace, adapt to new working patterns, address inequalities, and compete for talent, visitors and investment. After the pandemic hiatus, it has arguably never been more important to understand a city's relative position, prospects and opportunities.

## What benchmarks can and cannot tell us

Benchmarking means comparing Auckland's performance across a broad range of metrics relative to a group of similar cities world-wide.

By reviewing Auckland's performance in this way, benchmarking captures useful instances where Auckland outshines or lags its peers. It also reveals broader trends in how Auckland is performing and how it is perceived internationally.

The reasons that cities succeed or fail are not set in stone. They can evolve. Benchmarks reflect the changing priorities of citizens, companies, visitors and investors.

This method has been developed and applied in more than 30 cities around the world over the past 10 years, including Melbourne, Oslo, Helsinki, Turin, Philadelphia, Glasgow, Antwerp and San Diego.

Benchmarking allows us to understand how the world currently sees Auckland and highlights the city's drivers and challenges in a different light which may help to guide Auckland's response.

## Of course, city benchmarks are not a silver bullet.

Methodologies vary, in terms of what they measure and how. Benchmarks reflect the art of the possible rather than the ideal.

Nevertheless, benchmarks have become more responsive to essential issues of well-being, inclusivity and sustainability for a whole city. They can provide insights and external perspectives that are valuable to policy makers.

Benchmarks also offer some attention to differences and disparities within cities rather than just whole-city aggregates.

This report draws on a review of all of the benchmarks which feature Auckland. At the latest count, this includes more than 700 distinct indicators measuring Auckland.

## These benchmarks encompass a mix of datasets including:

- Large studies produced by teams of academics, researchers, government analysts, and consultancies.
- Longer term performance data that is less susceptible to short-term shocks.
- Performance and perception studies.



## Benchmarking: A Quick Guide

**What is benchmarking?** In this report "benchmarking" means comparing Auckland to other cities through data. This includes publicly available studies that rank and compare cities, longitudinal databases, but also real-time user data.

**It's all relative.** Cities can improve yet fall behind others who are improving faster. The opposite is also true.

**What matters can change.** How sustainable a city is, say, is now much more about carbon and resilience, not just air pollution and green spaces. Cities are also affected by changing values or perceptions among surveyed audiences.

**Time lags.** Real on-the-ground infrastructure and improvement can take six months to two years to register. Where scores reflect data based on the situation when Auckland was still under lockdown restrictions, this is highlighted in the report.

**City (and National) Governments cannot control everything.** Auckland's performance in many areas is strongly shaped by factors outside its immediate public control, including market demand. Benchmarks do not assign blame or responsibility.





## Benchmarking is not a one-off exercise.

Benchmark studies are typically annual or biannual as this allows cities to track regular progress relative to similar cities. This allows Auckland to track the impact of new policy and infrastructure coming online as well as Auckland's response to new economic shocks, drivers and trends.

Benchmarks are best used to understand Auckland's relative performance over a medium-term time frame to most reflect the impacts of decisions, policies and characteristics built up over time.

This report is based on the latest available data in each city, which may be gathered up to two years prior. So, the data underlying this 2023 edition includes data obtained during the peak of the COVID-19 pandemic. Where possible, we observe which factors are especially likely to be volatile because of the pandemic or other factors.

## Data gaps and blind spots

Outside-in benchmarking is not a substitute for inside-out analysis. Each benchmark has its own logic, strengths and limitations. Data is improving but not all the issues that matter to Auckland are yet covered by international data.

Noticeable data gaps for international comparison include Māori and Pacific peoples outcomes and inclusion as well as neighbourhood-level data on cultural influence and visibility.

Pacific peoples data is not available throughout this report. References to indigenous peoples relate to the indigenous Māori of New Zealand.

**There is an ever-growing landscape of data that compares cities and city-regions.** Depending on where they are in the world each city enjoys a different level of data availability and quality.

As the world's 390th largest city, Auckland punches above its weight. It sits just outside the top 50 most cited cities in these studies, appearing in just under 30% in 2022-23. However, Auckland is still only the 5th most visible among its 10 peers.<sup>1</sup>

**For this report we therefore supplement these benchmarks with:**

- Longitudinal socioeconomic databases and census data (for example via OECD, World Bank, UN Habitat)
- Real-time platforms, aggregated from trusted application programming interfaces (APIs) (for example via LinkedIn, Dealroom)

Each of these sources of data have their own advantages and limitations. Some have a time lag between when data is gathered and when it is published. Others are nearly in real time but may be sensitive to short-term trends or capture only a certain portion of the real marketplace for cities.

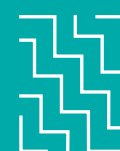
**This report** responds to the Koi Tū report *Reimagining Tāmaki Makaurau Auckland: harnessing the region's potential* which calls for an evidence base that can galvanise and convene central and local government, citizens and other stakeholders (large corporates, universities, etc.) to agree on the challenges to be addressed and understand what sorts of system-wide changes might be required for Auckland to improve.<sup>2</sup>

**Its aim and remit is to:**

- ✓ Provide a bespoke **outside-in** analysis of Auckland's performance relative to international 'peers'.
- ✓ **Benchmark** Auckland with other international locations with similar size, assets and relationships.
- ✓ Identify **comparative** strengths, gaps and opportunities for Auckland to compete and succeed.

**This report is not intended as:**

- ✗ An inside-out analysis of all of Auckland's economic and sectoral data.
- ✗ An assessment of Auckland's strategies, governance, fiscal or policy models.
- ✗ A definitive recommendation of new policies Auckland should adopt.





# The Framework

Global attention is becoming more focused on cities' well-being, innovation, experience, connectivity, resilience and climate response. This framework focuses on how prepared Auckland is for the future of jobs, urban lifestyle and climate change.

As cities welcome back visitors, talent, investment and opportunity, many studies are assessing the welcome and lifestyle on offer.

Some of the benchmarks in this report rely on 'hard' measures such as gross domestic product (GDP) or the median cost of housing; others measure how Auckland is perceived by global audiences. We think both objective and perception measures are important.

This work also benefits from additional metrics on issues germane to Auckland. These include how well the city is delivering prosperity for Māori, and how the city is recovering from the pandemic. This is drawn from established data providers and compilation of public city sources.

In this report each pillar introduces Auckland's performance at a glance including strengths, challenges and risks. Each sub-theme is then defined with a snapshot of Auckland in 2023 and areas that may raise performance going forward. This is followed by a sample of relevant comparative data on Auckland's strengths and challenges for each sub-theme.

## Introducing The Framework



We review Auckland's performance across five core pillars:

01.

### Opportunity & Prosperity

Auckland's ability to provide all residents with pathways to quality jobs, education, home ownership, entrepreneurship, quality housing and overall wellbeing.

02.

### Innovation & Knowledge

Auckland's emerging industries, jobs in established industries, its skills pool, and partnership between research and business.

03.

### Culture & Experience

Auckland's depth and variety of creative, social, and interactive activities that shape the unique identity and character of the city.

04.

### Place & Connectivity

Auckland's neighbourhood vibrancy and appeal, and the ability to reliably connect people to jobs, families and services.

05.

### Resilience & Sustainability

Auckland's capacity to rebound from shocks, progress on decarbonising its city systems, and responsibly harness its natural resources.

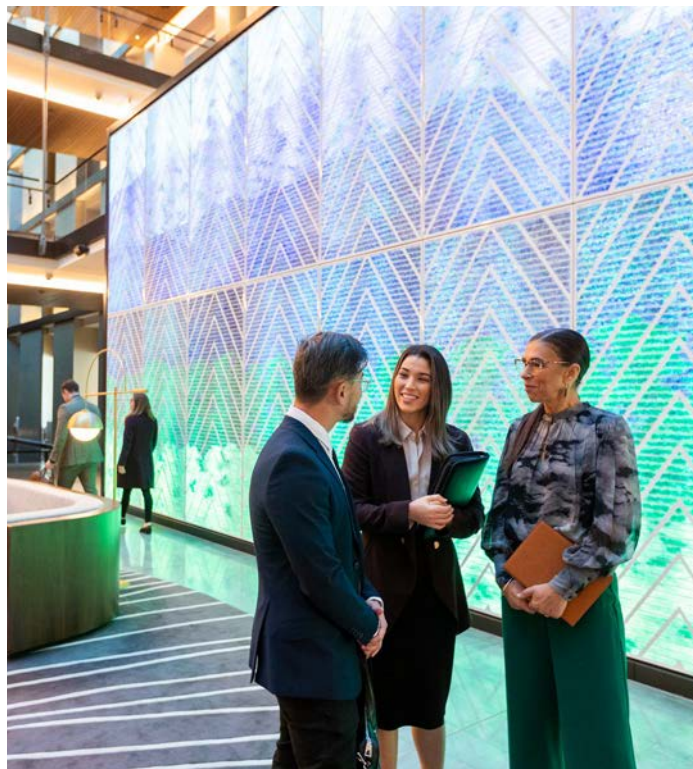


# Auckland's peers

Auckland is a distinctive city among more than 10,000 cities around the world. It has a rare combination of features – including its location, indigenous history, cultural endowment, stunning natural environment and strong rule of law.

This rarefied reputation has been enhanced over the last 20 years as Auckland started to be rated as one of world's cities with the highest quality of life. As recently as 2021, the city was rated in one index as the world's most liveable, bolstered by initial success in containing the pandemic.<sup>3</sup> However the latter stages and after-effects of the pandemic have placed scrutiny on the city's spatial and social challenges.

Auckland also shares some attributes with other cities reputed for their liveability. These cities are a 'peer group' against which Auckland can better understand and interpret its own progress. This paper benchmarks Auckland among a group of 10 carefully chosen 'peer' cities.



## Some of their shared attributes include:

- **Well-being and work-life balance.** Cities that prioritise the well-being of their residents by providing good access to quality education, jobs, healthcare and amenities.
- **Proximity to nature.** Cities with very high environmental quality, plenty of green and public spaces, and a strong focus on reducing their ecological impact, reducing waste and becoming less carbon-dependent.
- **Smaller size and distance from larger cities.** Cities that may be the largest in their immediate area but are small by global standards. They do not compete on market size, and rely on external investment, talent and visitors. Their smaller scale means they may be able to create tighter-knit relationships within communities and ecosystems.
- **Climate, weather and resilience.** Cities with a comfortable living environment for the majority of residents, but as extreme weather events become more frequent, they take their climate resilience and responsibilities seriously.

These cities also share challenges to stay affordable, retain talent, lead on inclusion, build scale, diversify their economies and encourage entrepreneurship.

In this paper we mostly explain Auckland's performance against this core group.

Situating Auckland among a group of peers makes it possible to spot at a high level where Auckland is performing in different areas, and to make annual comparisons and monitor progress. It often helps to identify areas of relative improvement and decline and set meaningful targets or yardsticks for the upcoming years.

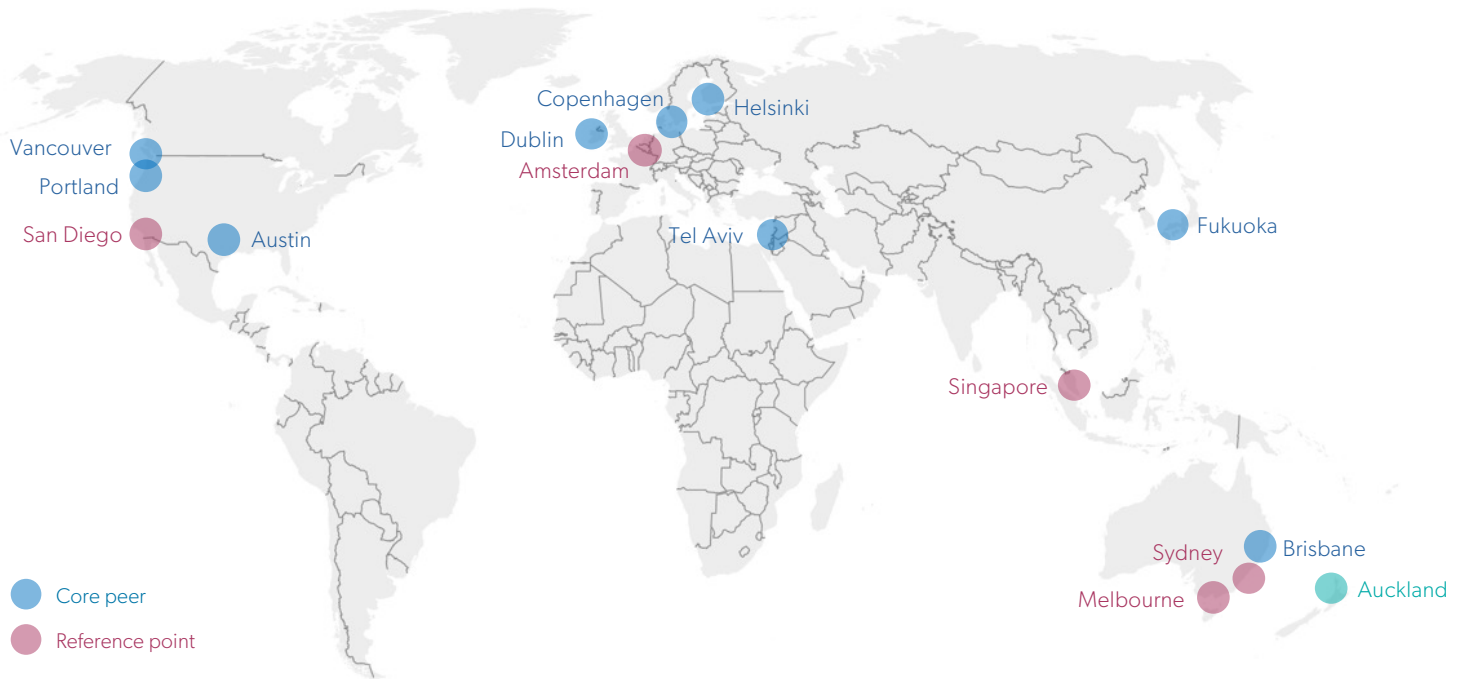


We also refer to larger cities that Auckland can learn from and look towards in the next cycle.

**These reference point cities include:**

- Larger cities in the southern Asia-Pacific
- Metropolitan cities that have successfully grown their innovation ecosystems despite proximity to other large neighbours.
- Cities with consistent quality of life outcomes alongside high rates of growth and demand

On topics where fewer of Auckland’s peers are measured, or where Auckland stands out globally (for better or for worse), we also refer to other, well known global cities. These may be places that it is worth noting Auckland is on a par with, catching up to, or doing better than. In certain charts, the minimum and maximum globally are shown. This helps to give a sense of the range of city outcomes at the moment and distance to the best performing city globally.



## What scale do we look at?

Benchmarks mostly focus on the whole area of Tāmaki Makaurau Auckland, the region governed by Auckland Council.

References in this report to “Auckland” or “the city” are referring to Auckland Region, unless it is otherwise specified that they are referring to the city centre, urban area, North Island or some other scale. For the purposes of comparability, other cities are also compared at their metropolitan scale unless otherwise mentioned.

In cases where the data on Auckland risks skewing the scores because of the city’s surrounding rural basin compared to other more urbanised regions, this is noted in the text.



# The insights of indexes?

Auckland appears in many high-profile annual city indexes. These drive much of the media and policy dialogue around Auckland's performance and status.

Most of these studies are 'composites': that is, they combine 2 to 100 different indicators across a wide variety of topics. Their audience is often larger corporates or 'expats' who have very mobile and transactional needs in the global economy.

These indexes are influential. They drive the conversation and self-image of many cities, and the attitudes of many investors and selectors of cities.

One example of the influence of benchmarks is the Economist Intelligence Unit's Global Liveability Index. Its annual scores (in 2023 Auckland placed equal 10th with Osaka) are widely cited and debated among media, policymakers and citizens. This dialogue has helped to popularise the notion of Auckland as one of the world's most liveable cities.<sup>4</sup>

But the perspective that has been prioritised by viewing Auckland's success through the lens of a small number of famous liveability rankings is incomplete.

## This is because:

1. These are often based on how cities serve salaried expats who get to enjoy the inner city for a defined amount of time, with fewer of the constraints associated with seeking a home, starting a family, or investing in the long term.
2. They also tend to measure factors such as healthcare and education systems, security risks and geopolitical exposure. These are more driven by national than by local factors, and their causation is hard to unpack or square off against the trends most people see in their own city.
3. Alternative indexes that instead focus on long-run trends of affordability, efficiency, vibrancy or access to opportunity, often place Auckland outside the top 50 or in the middle of the pack of cities globally (see Table on next page).

This report therefore looks across a broader set of measures with the aim to reflect the full balance of issues on which cities are appraised.

Most of the detail in this report aims to draw wherever possible on specific data points that, when looked at across the board, offer a lens into how well Auckland is managing change, working for everyone, and preparing properly for the future.



## Auckland at the extremes in high-profile indexes

Selection of influential composite indexes where Auckland performs in the top and bottom group of cities globally in 2022-2023

Benchmark	Source	Global rank
Wellbeing and work-life balance	Forbes 2022	5th / 128
Expat quality of life	Economist Intelligence Unit 2023	10th / 173
City digital services	United Nations 2022	19th / 193
All-round student demand and appeal	QS 2023	37th / 140
Ingredients to attract and support female entrepreneurs	Dell 2022	18th / 55
The enabling factors for commercialising enterprise and research	HSE Institute 2023	70th / 200
Efficiency of the overall transport system	IESE 2022	68th / 183
All-round brand reputation	Saffron 2022	64th / 104
Long-term outlook for future economic growth	Chinese Academy of Social Science & UN-Habitat 2021	110th / 600
Affording a home	Demographia 2023	88th / 94

Sources<sup>5</sup>

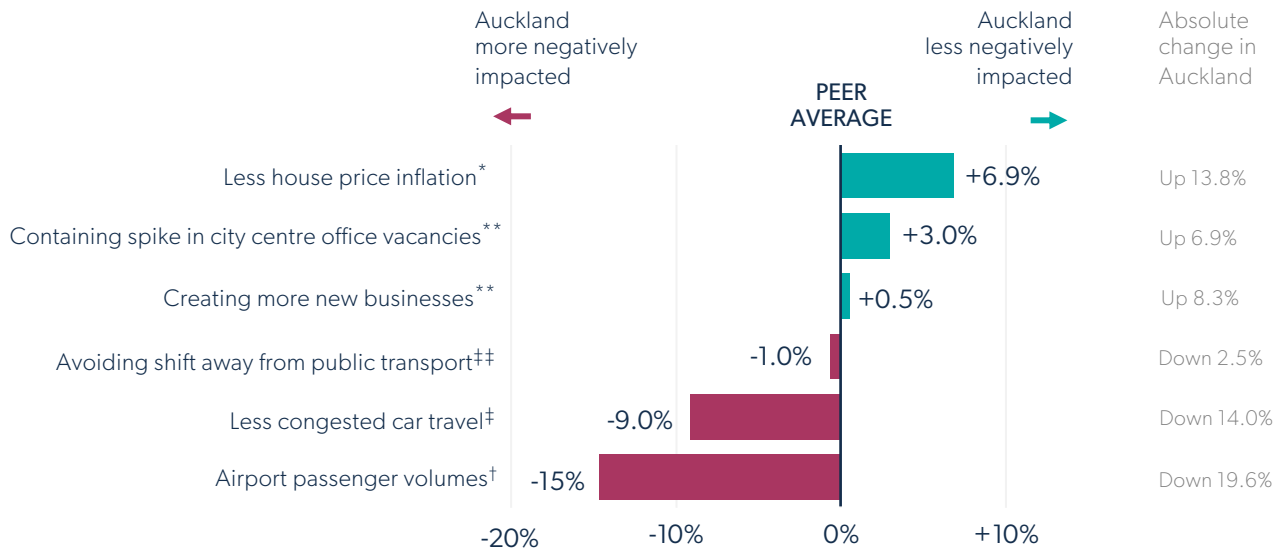




# Auckland's recovery in context

## Auckland revised

Auckland's return to pre-pandemic levels compared to its peers across 6 metrics



\*Q3 2022 vs Q3 2019, \*\*Q1 2023 vs Q4 2019, † 2019 vs 2022, †† 2021 vs 2019, ‡ April 2023 vs April 2019 or latest data available. Sources (from top to bottom): Knight Frank, Colliers, Dealroom, INRIX, Google Insights, Airport Statistics. Note: all cities are included in all measures. See Appendix for cities included in each measure.<sup>6</sup>



Auckland has been one of the most disrupted cities in the pandemic – with longer lockdowns and bans on international travel. In addition to dampened economic activity, it has also created longer-term shocks to consumption and people's work and lifestyle habits.

Despite this, there are signs that Auckland is starting to rebound as a visitor destination with renewed global appetite to discover what the city has to offer. While it has experienced a more resilient office market during the pandemic, the shift to remote working is still causing a decline in Auckland's city centre vibrancy and wider resilience of the services that support it.

The pandemic has also accelerated a shift back to car use, and public transport ridership numbers are still well below pre-pandemic numbers.

Like many cities around the world, Auckland is now faced with the challenges the pandemic has posed to long-term growth and sustainability.

### As Auckland builds back demand it also has to re-think and re-plan a more innovative and sustainable growth model.

#### This includes:

- Assessing whether its metropolitan locations are sufficiently vibrant and magnetic to meet new expectations.
- Continuing to invest in its transport infrastructure to encourage people back to public transport and anticipate future population growth.
- Building on the positive reputation the city has accrued as a place to live and invest in.
- Demonstrating how Auckland is open again, for business and tourism.

# New Zealand's role in Auckland's performance

Auckland is like other globally-facing 'gateway' cities who continually rely on its higher level of government to provide an enabling framework for everything from trade agreements, business climate, immigration rules, energy policy, research & development (R&D) investment, well managed health care system, and effective diplomacy.

Around the world national governments have for a long time recognised that their main gateway cities are so important to national prosperity that they need to support them actively and with customised arrangements.

Many recognise that without doing so, the nation will miss out on jobs, investments, trade partners, talent, visitors and events, and the tax revenues that come with them.

The net financial advantages of this approach, as well as skills, productivity and brand benefits that the whole nation benefits from, have prompted nation states to try and invest in the big city. The aim is to provide a favourable context for the city to win growth, manage growth, and connect more people to the opportunities they generate nationwide.

There are many areas in this paper where New Zealand's macro factors reflect positively on Auckland's performance. For example, the city's openness and diversity, stable political

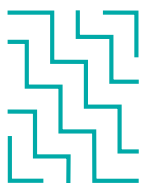
climate, and reputation for nature, are driven by the nation's high scores. These all improve Auckland's appeal to residents, visitors and investors alike.

Yet for Auckland to succeed, it also needs tailored policy that reflects Auckland's distinctive character on infrastructure, investment, tax, immigration rules, climate action, R&D, spatial development and higher education. These factors inform Auckland's city performance in many areas of this report that follow.



## Auckland's role in the New Zealand economy is hard to overestimate.

Compared to peers, Auckland is a very significant share of its national population (33%) and economy (38%). Productivity in Auckland is 20% higher than the New Zealand average (whereas in other peers it is on average 15% higher than the rest of the nation). Auckland also has the world's largest Pacific peoples population (64% of New Zealand total).<sup>7</sup>





# Opportunity & Prosperity



# Summary

## Opportunity

Auckland's decile position compared to its core peers



## Prosperity

Auckland's decile position compared to its core peers



## Auckland's Opportunity and Prosperity at a glance



### Auckland's advantages

Life satisfaction for all ages is high and broadly stable.

Demand from corporates, talented students, and office investors remains more resilient than most.

Some progress on pathways to prosperity for all residents including Māori, women, new residents and new business creators.



### Auckland's room to improve

Productivity continues to be a clear gap, which negatively impacts on wages and perceived fulfilment at work.

Housing and utilities costs eat up locals' incomes and erode the potential to enjoy the quality of life.

Less successful recent track record in attracting overseas investors and larger job-creating businesses.



### Competitive Risks

Losing out on talent and investment to nearby international cities with more scale and better wages-to-costs.

More residents move further away from jobs, with effects on productivity, sprawl and congestion.

Other cities take a stronger place based approach to their job locations and infrastructure, and so attract those businesses keen to co-locate and cluster.





# Opportunity

Auckland's decile position compared to its core peers



## What does Opportunity include?

Opportunity refers to the conditions that allow the city's residents and new arrivals to access jobs, training and enterprise. By providing avenues for education, jobs, and entrepreneurship, cities create a more inclusive and equitable environment where more residents have the chance to thrive and stay in the city for longer.

This section includes measures of inclusivity in the workforce, social mobility, job creation and the ingredients to attract international talent and investment.

## Why does Opportunity matter to a city like Auckland?

Auckland's liveability advantage relies on the ability of its residents to enjoy all the opportunities the city has to offer. A widened access to education and fulfilling, higher-paying jobs for all Aucklanders, especially Māori and Pacific peoples, is essential to facilitate social mobility, reduce inequalities, and accommodate the needs of a diverse workforce.



## Opportunity: The state of play in Auckland in 2023

- ✓ Stable business environment and more resilient office market keeps Auckland in mind as a place to invest and grow companies.
- ✗ Fewer relationships internationally with trade and business partners to attract presence of more overseas companies.
- ✗ Efforts to open up opportunities for Māori have been promising, but much more is needed.

## How Auckland can improve its position for Opportunity

- Greater public safety, vibrancy and confidence in the city centre.
- Adapt the mix of uses in locations that are struggling to retain tenants to accommodate new types of companies and activities.
- Determined effort to build Auckland's business brand in target markets and sectors.

### Strengths

**Business procedures.** Auckland is rated as one of the best cities for doing business due to New Zealand's faster processes. At the latest count Auckland was 1st out of 155 cities globally for ease of doing business (INSEAD Global City Talent Competitiveness Index, ease of doing business, based on World Bank data).<sup>8</sup>

**More resilient office market.** Auckland has the 2nd lowest city centre office vacancy rate among 6 peers (12.9% in Auckland vs 16.8% peer average). This translates into the 2nd smallest increase in office vacancy compared to pre-pandemic levels (The Business of Cities Research, based on Colliers data).<sup>9</sup>

**Aucklanders not yet as worried about how difficult it is for people to improve their social & economic standing.** In one survey Auckland has the smallest share of locals who are highly concerned about social mobility – the ability of people living in the city to improve on their parents' social and economic situation. This share is the 15th lowest of 141 cities internationally (IMD, based on share of people identifying social mobility as a top 5 challenge facing the city, from a wider list of 15 challenges).<sup>10</sup>

**Progress on better quality jobs for Māori.** Among 5 Australasian cities, Auckland's indigenous population has the highest share of managers. Auckland is also 2nd for the share of professionals in its indigenous community, behind Melbourne (local census statistics).<sup>11</sup>

### Challenges

**Māori inclusion in the workforce is improving, but still has a long way to go.** The share of Māori people who are able to work and are in employment is still around 3% lower in Auckland than across the indigenous populations of the respective peers, despite a higher share of the city's indigenous population being of working-age (local census statistics).<sup>12</sup>

**Behind for overseas investment.** Among peers only Vancouver and Tel Aviv rate below Auckland for number of foreign direct investment (FDI) projects. Auckland is also still only 6th among peers for FDI jobs created, although its record of turning FDI into jobs has bounced back year-on-year from 94th globally to 55th (INSEAD, FDI Projects).<sup>13</sup>

**Others viewed as more attractive to invest in real estate.** Among 22 cities in Asia Pacific, Auckland has fallen from 11th to 15th in the last year for perceived prospects as a place to invest in real estate. Higher interest rates is one dampener of appeal of industrial real estate (ULI/PwC).<sup>14</sup>

**Less confidence in job market.** Compared to the global average, 4% fewer of Auckland's residents currently view businesses as creating plenty of new jobs (61% vs 65%) (IMD).<sup>15</sup>

**Smaller pool of corporates and high-wealth residents.** Auckland is 5th out of 6 peers – ahead only of Dublin – for the number of high net worth residents it is home to. This cohort has grown around 25% slower in Auckland since 2012, compared to the peers on average (Henley & Partners).<sup>16</sup> This is linked to fewer corporate headquarters, where Auckland places lowest among 9 peers (INSEAD, G-2000 firms).<sup>17</sup>



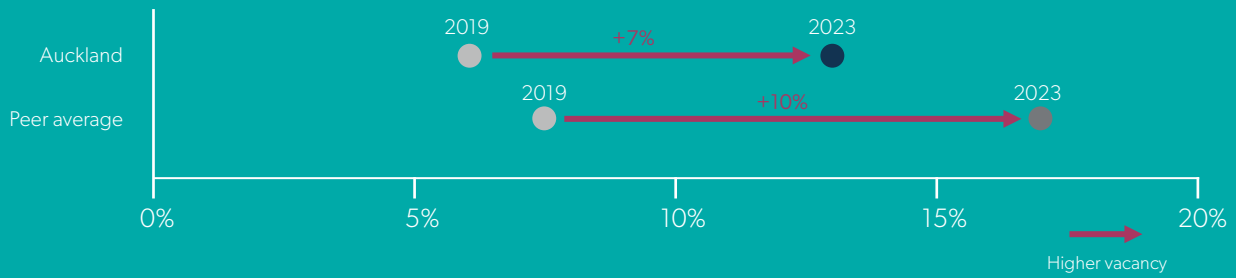
55th in the world for how many jobs are created per capita by foreign investment

(INSEAD)<sup>18</sup>



## Auckland's city centre office market has so far been less severely affected

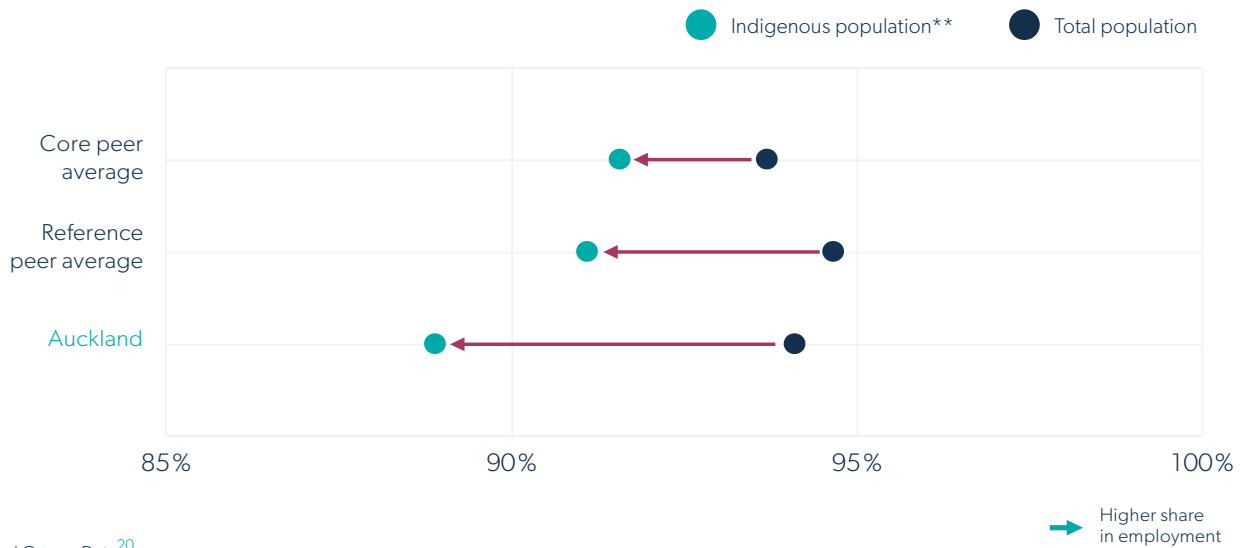
City centre office vacancy rates, 2019 to 2023



Source: The Business of Cities Research, based on Colliers data<sup>19</sup>

## Māori workforce inclusion still has a way to go

Share of those able to work\* that are in employment



Source: Local Census Data<sup>20</sup>

\*excluding students, retirees, those caring for family and others who neither can work nor are seeking work

\*\* Indigenous populations defined as Māori (Auckland), Aboriginal and Torres Strait Islanders (Brisbane, Sydney, Melbourne), American Indian and Alaska Native, Native Hawaiian and other Pacific Islander (Portland, San Diego), Indigenous Peoples (Vancouver)



# Prosperity

## Auckland's decile position compared to its core peers

Bottom 2 3 4 5 **6** 7 8 9 Top

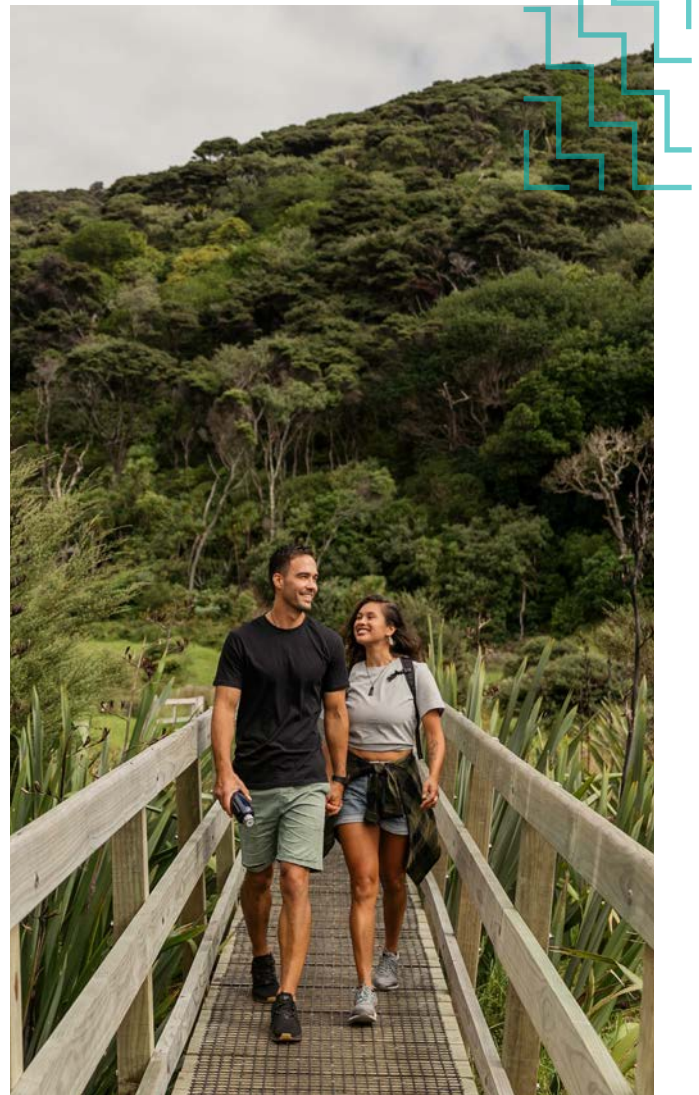
Auckland

### What does Prosperity include?

Prosperity refers to the ability of a city to deliver sustainable, inclusive economic growth and well-being for all residents across all generations. It is shaped in part by spending power but also encompasses factors such as fair access to good jobs, networks and opportunities. So, this section includes measures of income, productivity, life satisfaction, work-life balance and openness.

### Why does Prosperity matter to a city like Auckland?

Broad-based opportunity, widespread wellbeing and a strong social contract are defining features of a liveable city. Ensuring that prosperity is widely enjoyed, including by long-time residents and new arrivals, differentiates the cities that are able to adapt to crisis, build consensus, and avoid polarisation, from those that do not. Staying prosperous as a city grows usually relies on public co-ordination at a larger scale, and effective delivery of new infrastructure.



## Prosperity: the state of play in Auckland in 2023

- ✓ Work life balance and overall life satisfaction remain higher than most other cities.
- ✓ Pathways to better-paid jobs and business ownership for Māori and women are on a stronger footing than in other cities, albeit still well behind European and Asian New Zealanders.
- ✗ Unaffordable homes to own or rent, and rising costs of services and utilities, are damaging Auckland's reputation as a place to live.
- ✗ Labour productivity remains lower than most.

## How Auckland can improve its position for Prosperity

- An education, skills, R&D and training system fully geared towards raising productivity and innovation rates.
- Ensure more of city's South and West, Māori and Pacific peoples benefit from city's growth.
- More targeted investment and support to improve affordable access and supply of housing.



## Strengths

**Healthier work-life balance.** Auckland is in the top 10 cities globally for share of population who work less than 48 hours a week (out of 100 cities). More people in Auckland also report having over 7 hours sleep per night than in any other city (out of 40 cities globally) (Kisi; Expatriate Group, % population who get over 7 hours sleep).<sup>21</sup>

**Gender inclusivity.** Auckland ranks 2nd globally, behind only Reykjavik, for overall gender equality (WorkMotion based on OECD, the Economist and Work Economic Forum data).<sup>22</sup>

**More women found new businesses.** Auckland is top among peers for the share of female founders, at 24% (Dealroom).<sup>23</sup>

**Less severe income gap for Māori compared to other cities and their indigenous populations\*.** Māori living in Auckland have the 2nd highest median weekly income among a group of Australian and Canadian indigenous peers including Melbourne, Brisbane, Sydney and Vancouver. Auckland also has the 2nd smallest gap in median income for Māori (-16.9% vs -18.5% on average) behind only Vancouver. However, while Auckland compares quite well with indigenous Australian and Canadian counterparts, wages remain low relative to non-indigenous Aucklanders (local census data).<sup>24</sup>

**Accumulated diversity.** Auckland ranks 1st among peers and is in the top 10 globally for share of people born overseas. On this front Auckland is still ahead of Melbourne and Sydney (INSEAD).<sup>25</sup>

**More gender-equal access to technology.** Auckland has the 4th smallest difference in confidence using the internet between men and women among 55 cities globally (Dell Technologies based on GWI data).<sup>26</sup>

**High life satisfaction.** Auckland ranks in the top 15% globally for resident reported happiness (INSEAD, based on World Happiness Report).<sup>27</sup>

**Higher life expectancy.** Auckland has the 2nd highest life expectancy among 5 measured peers. However, this may mean that Auckland could face a more significant challenge to deliver services for an ageing population (OECD).<sup>28</sup>

**Home space is larger than most.** Auckland has twice as many rooms as people. Alongside Dublin, Auckland has the highest number of rooms per person among 5 measured peers. However, overcrowding remains an issue in some parts of South and West Auckland (OECD based on number of rooms per person).<sup>29</sup>

**Lower-cost broadband access.**

For affordability of fast broadband, Auckland is rated ahead of Singapore, Brisbane, Sydney and Melbourne. Yet among its peers, Auckland is middle of the pack. Some areas in South Auckland still have low access to the internet such as Māngere-Ōtāhuhu and Manurewa (Broadband Savvy).<sup>30</sup>

24% of  
business  
founders  
are female

(Dealroom, relative to peer  
average)<sup>31</sup>

Top 15% in  
the world  
for life  
satisfaction

(UN World Happiness  
Report)<sup>32</sup>



## Challenges

**Low labour productivity.** Auckland's GDP per worker is still the lowest among peers, despite having seen the 3rd fastest rate of improvement rate since 2012 (OECD GDP per worker in USD 2019, rate of change 2012-2019 - constant prices, constant PPP, base year 2015).<sup>33</sup>

**These lower wages hold back quality of life.** Auckland is behind all of its measured peers except for Brisbane in a major combined measure of overall life prospects, primarily due to lower scores for years of education and average income (6th out of 7 peers) (IMD, Global Data Lab Human Development Index).<sup>34</sup>

**More severe housing affordability challenge.** Auckland ranks last of 5 peers for housing affordability based on local incomes. The figures are currently worse than Amsterdam and Sydney. This points to the importance of reforms to accelerate housing supply and support alternative home ownership and tenure models (Forbes Work-life Balance Index, Property Price to Income Ratio).<sup>35</sup>

**Deep concerns of unaffordability.** The share of residents citing affordable housing as one of the most important challenges facing the city is 10% higher than peers (IMD Smart Cities, based on share of people citing it as a top 5 challenge, from a wider list of 15 challenges).<sup>36</sup>

**Lower home ownership among Māori.** Auckland places joint last - alongside Vancouver - for the share of indigenous population who own their home (18% in Auckland vs 32% peer average) (local census data, share of Māori who own or part own home).<sup>37</sup>

**Middling for overall cost of living.** The high cost of living in Auckland means it ranks middle of the pack among peers, but Auckland overall tends to rate more affordable than larger APAC cities such as Sydney and Singapore (Mercer cost of living).<sup>38</sup>

**Less affordable for students.** Auckland ranks in the bottom 20% globally for student affordability behind many other highly unaffordable cities such as Melbourne and Sydney (QS).<sup>39</sup>

**Perceived access to affordable rentals is lower.** Auckland is in the bottom quintile of all cities globally for how easy local people think it is to find housing with affordable rent. Only 20% of people think this - which is lower even than Amsterdam, Sydney and Melbourne (IMD Smart Cities, based on ease of finding housing with rent equal to <30% of monthly salary).<sup>40</sup>

**Growing safety concerns among residents.** Auckland rates 6th out of 8 peers for resident perceptions of how fast crime is rising. 65% of residents think that crime has increased over the past 3 years (Holidu).<sup>41</sup>

**Work fulfilment is a challenge.** Two-thirds of local people say that finding fulfilling employment is a key challenge for Auckland - a higher share than in all other measured peers except for Tel Aviv and Dublin (IMD Smart Cities, based on share of people citing it as a top 5 challenge, from a wider list of 15 challenges).<sup>42</sup>

**Higher cost of services and utilities.** Among peers Auckland has the 6th highest share of income spent on services and utilities (among 10 peers) (Numbeo based on total cost of monthly travel pass, basic utilities and internet, 2022, as % of salary).<sup>43</sup>

Among top 10% least affordable cities to own a home in the English-speaking world

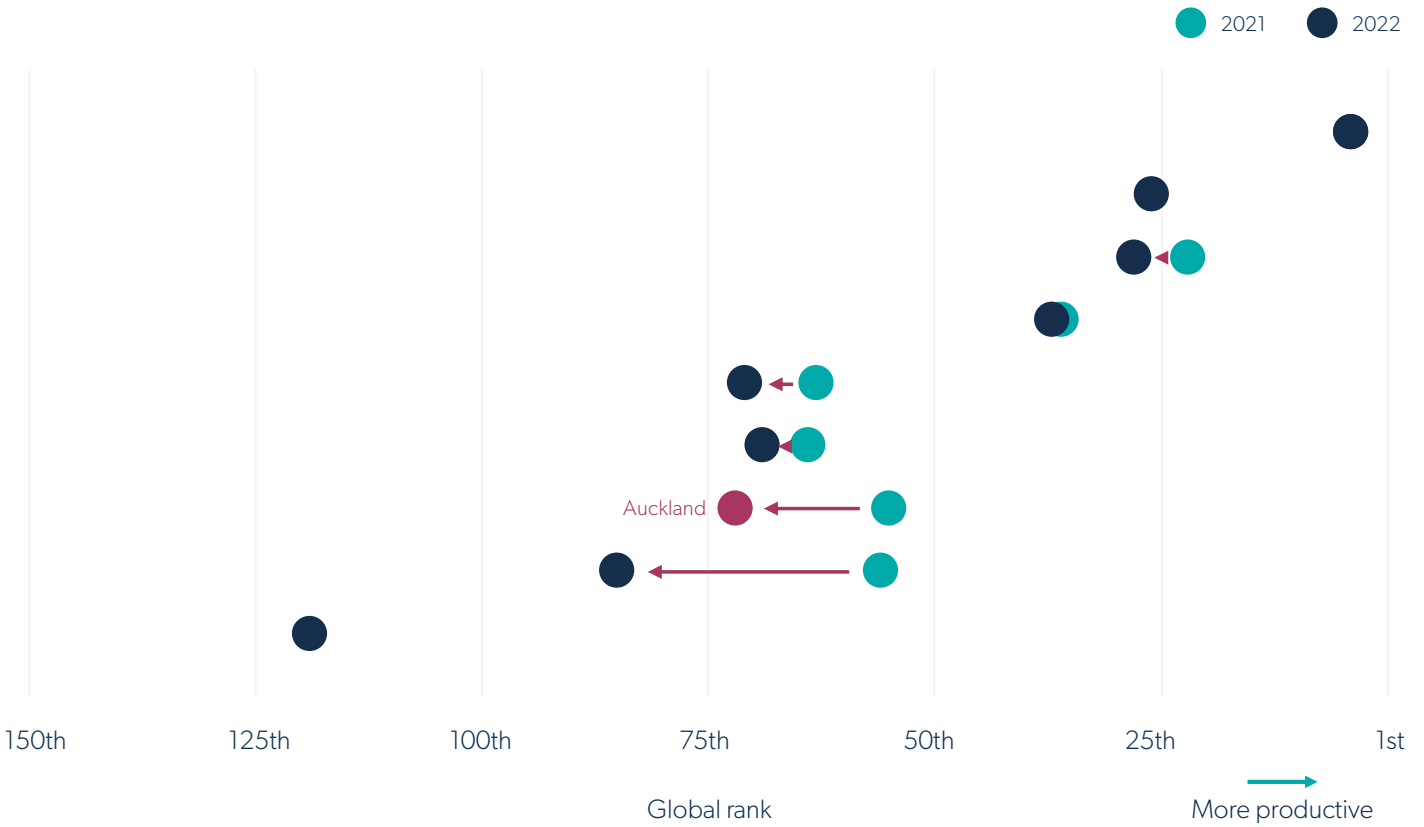
(Demographia, based on median multiple)<sup>44</sup>



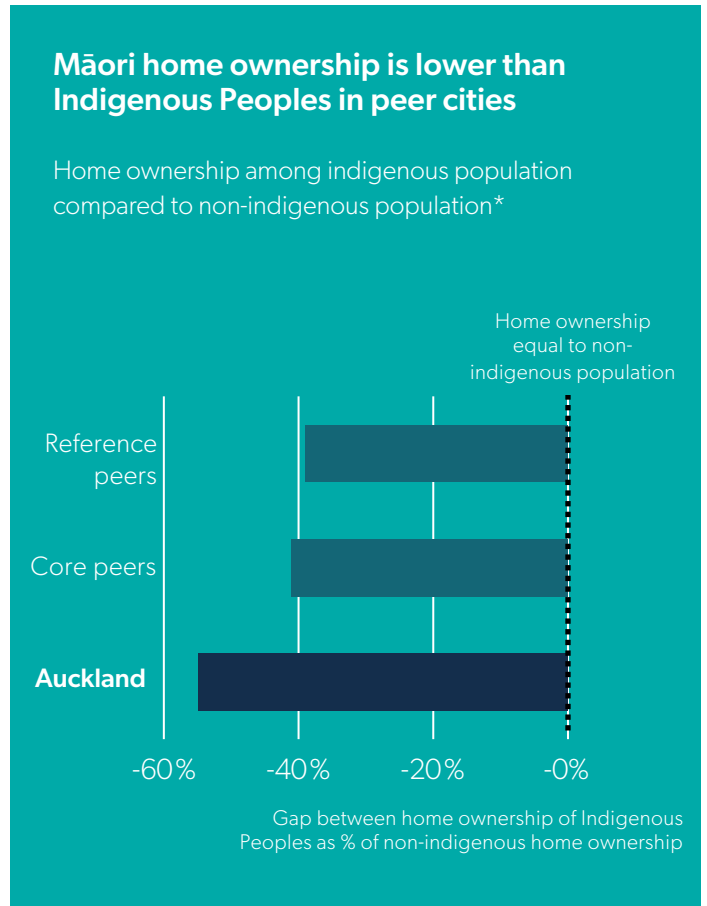


### Auckland's productivity is falling behind

Change in global rank for GDP per capita, 2021 vs 2022



Source: INSEAD<sup>45</sup>



Source: local census data.<sup>46</sup>

\*Indigenous populations defined as Māori (Auckland), Aboriginal and Torres Strait Islanders (Brisbane, Sydney, Melbourne), American Indian and Alaska Native, Native Hawaiian and other Pacific Islander (Portland, San Diego), Indigenous Peoples (Vancouver)

# Innovation & Knowledge





# Summary

## Innovation Ecosystem

Auckland's decile position compared to its core peers



## Knowledge and Skills

Auckland's decile position compared to its core peers



## Auckland's Innovation and Knowledge at a glance



### Auckland's advantages

Momentum in producing start-ups with an ambition to grow internationally and become sizeable job-producing companies and exits.

Rated as globally competitive in a handful of high-growth sectors – including fintech, agritech, foodtech & gaming.

Huge potential as a base for companies to innovate for a more climate-resilient built environment, energy, food and transport systems.



### Auckland's room to improve

Acute technical and management skills shortages, especially in digital industries that cluster in urban settings.

Commercialisation of scientific inventions is becoming a clearer gap as other cities improve quickly.

Wider enablers to innovate - access to incubators, university pipelines, mentorship, seed and early stage funding, and post-secondary attainment. These are rated more inadequate, inconsistent or imbalanced – especially for Māori founders.

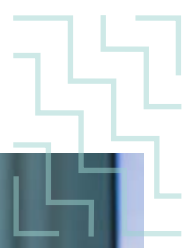


### Competitive Risks

Auckland loses some of its most promising talent and companies to larger city ecosystems as well as smaller affordable centres.

Less established culture of 'founders helping founders' holds back growth of innovation community.

Other cities' universities prove faster to partner up and open up to collaborative and commercialised research.



# Innovation Ecosystem

Auckland's decile position compared to its core peers

Bottom 2 **3** 4 5 6 7 8 9 Top

Auckland

## What does Innovation Ecosystem include?

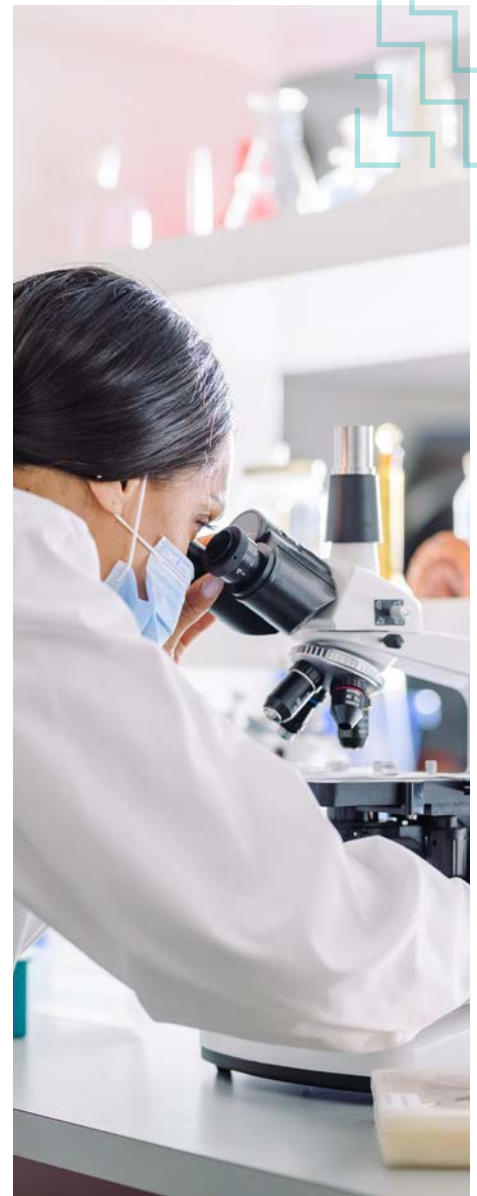
Innovation means the scalable ideas, services and companies that arise from the city's networks of institutions, entrepreneurs, IP creators and investors. Innovation ecosystems rely on wider enablers and ingredients. These include the infrastructure to support interaction and learning, the relationships that exist between research and commerce, the funding to support firms to grow, and the diversity of a city's innovation communities.

Measures include the rate and volume of start-ups and risk capital, as well as the growth of companies into value-creators and job-creators, and the size and maturity of industry specialisms.

## Why does Innovation matter to a city like Auckland?

Forging a decisive position in new and fast-growing industries is essential to liveable cities like Auckland, as it underpins a more diverse, resilient and talent-rich economy.

Cities with a strong innovation economy better utilise their networks, know-how and research to create good local jobs, attract many kinds of investment, and build productivity over the long-term. They tend to adapt the physical character of more parts of the city for the purposes of co-location and critical mass. Innovation is also a driver of the products and services that will underpin improvements to the city's future transport, land-use and citizen experience.



## Innovation: the state of play in Auckland in 2023

- ✓ Enterprise and job creation is alive and well, and becoming more inclusive.
- ✓ Promising advantages in foodtech, fintech and gaming.
- ✗ More pronounced capital and commercialisation challenge. Despite signs early-stage funding is growing, it is growing from a low base.
- ✗ Other cities are accelerating faster in strategic sectors (internet of things, healthtech, cleantech).
- ✗ Wider innovation enablers (e.g. infrastructure, funding) need more attention.
- ✗ Bigger challenge to improve links to top-tier ecosystems, despite larger international customer base.

## How Auckland can improve its position for Innovation

- More support to connect Auckland into international markets, cities and clusters post lockdown.
- Tighter co-ordination between tech employers and education providers.
- More deliberate co-location, iterating on the high collaboration model pioneered in Wynyard Quarter/GridAKL.



## Strengths

**Healthy rates of new business creation.** Since the start of the pandemic the number of start-ups and scale-ups has grown slightly faster than average in Auckland (+8.3% compared to 7.9% across peers) (Dealroom).<sup>47</sup>

**Spirit of enterprise matches larger neighbours.** Auckland's concentration of start-ups and scale-ups (on a per capita basis) is still 25% lower than its peers – though it is higher than in Melbourne and Sydney (Dealroom; StartupGenome).<sup>48</sup>

**More microenterprises achieve initial scale.** More tech firms surpass 10 employees in Auckland than in other cities (4th/10 peers; Dealroom).<sup>49</sup>

**Promising advantage in AI.** Auckland is 26th in the world – or 2nd among 6 peers – for how many AI FDI projects it attracted in the last five years (fDi Magazine), despite it still only being 6th out of 9 peers for concentration of start-ups and scale-ups in AI & machine learning (Dealroom).<sup>50</sup>

**Hub for foodtech, fintech and gaming.** The city has more start-ups and scale-ups in AgriTech and innovative food on a per capita basis than any other peer city except for Tel Aviv, the 2nd highest share in fintech, and is 35th globally – or 3rd among peers – for the maturity of the video game industry (Dealroom, HSE Institute).<sup>51</sup>

**More inclusive ecosystem.** A higher share of founders are either Māori or born outside of New Zealand, compared to other ecosystems at similar stages of development (StartupGenome).<sup>52</sup>

**Strongly oriented to the international customer base.**

The average share of startups' overseas customers is more than double the average of Sydney, Melbourne and Singapore (47% in Auckland compared to 22%). This is in large part due to New Zealand's relatively small domestic market. Auckland's young companies typically must be internationally competitive at an earlier stage than in many peer cities (Startup Genome).<sup>53</sup>

## Challenges

**Businesses spend less on R&D.** The city is in the bottom 20% of its peers (123rd out of 200 cities globally) for how much large innovation companies collectively spend on R&D (HSE Institute).<sup>55</sup>

**Gaps in early-stage funding and awareness.** Seed & Series A funding is still around half that of Melbourne, Singapore & Sydney, despite the city ranking 1st among its peers for how quickly early-stage funding has grown between 2015-18 and 2019-22. (Startup Genome, Dealroom). The share of founders who are aware of third-party funding sources in Auckland (<60%) is still quite far below ecosystems at a similar stage (e.g. 65% in Melbourne and >85% in Sydney) (Startup Genome).<sup>56</sup>

**Smaller pool of risk capital.** Auckland has attracted less VC investment than any of its peers, even controlling for size. It is 122nd globally – nearly 70 places behind the average among its peers (FINOM; HSE Institute).<sup>57</sup>

26th in  
the world  
for foreign  
investment  
projects  
in AI in the  
past 5 years

(fDi Magazine)<sup>54</sup>



## Innovation Ecosystem

**Enabling infrastructure needs attention.** Auckland has fewer funding organisations providing financial support for innovation activities (89th of 200 cities and 7th among 8 peers). The city is also in the bottom 20% of peers for the workplace and technology infrastructure to support innovation (based on number of organisations providing financial support for firms' innovation activity, plus presence and maturity of clusters, innovation districts, co-working spaces and super computers) (HSE Institute).<sup>58</sup>

**Not yet a top-tier ecosystem in any niches.** Auckland does not rank in the global top 25 across any of the 11 strategically important, future-facing sectors, one of only 3 peers not to do so (StartupBlink).<sup>59</sup>

**Overtaken in innovation hardware.** Auckland has slipped 52 places to 144th in the world for its technology hardware and IoT ecosystem, overtaken by the likes of Nanjing, Edmonton and Rotterdam (StartupBlink).<sup>60</sup>

**Behind in healthtech and greentech.** Auckland is behind its peers for the scale of the ecosystem in healthtech (-41%) and greentech (-50%) (Dealroom, based on no. of start-ups and scale-ups per capita).<sup>61</sup>

**Universities' research access and collaboration with industry is not yet the norm.** Auckland is only 7th of 9 peers for the share of science, technology, engineering and mathematics (STEM) research produced with industry partners. And the share of this research that is publicly accessible is 12% lower than on average among peers (Leiden University).<sup>62</sup>

**Fewer links with top ecosystems.** Auckland start-up founders have around 75% fewer interactions with founders in top ecosystems compared to leading APAC cities (based on no. of start-up leaders from Berlin, Tel Aviv, London and Shanghai that visit the ecosystem, vs. Melbourne, Sydney and Singapore) (Startup Genome).<sup>63</sup>

**Help from other founders is harder to come by.** The level of help that Auckland's startup founders receive is around one third lower in Auckland (compared to Melbourne, Sydney and Singapore) (Startup Genome, based on average hours of help local founders receive from other founders, experts & investors).<sup>64</sup>

One of only  
3 peers to  
not rate as a  
global top 25  
ecosystem in  
a sample of  
11 strategic,  
future-facing  
industries

(StartupBlink)<sup>66</sup>

Auckland founders  
are 75% less likely  
than those of  
leading APAC cities  
to visit global top  
ecosystems

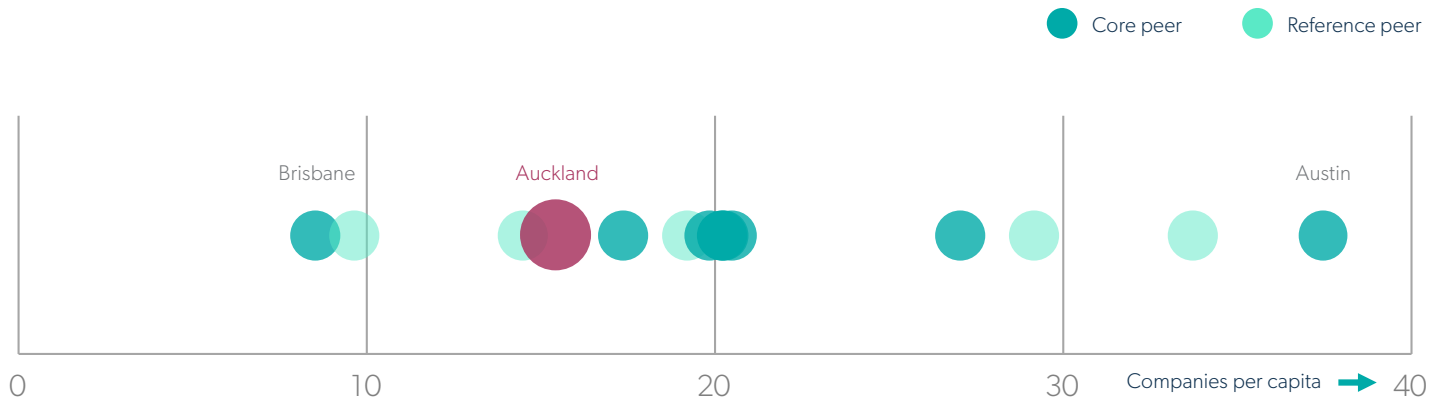
(Startup Genome. Top ecosystems = Berlin, Tel Aviv, London or Shanghai)<sup>65</sup>





## Auckland has a smaller concentration of growth companies

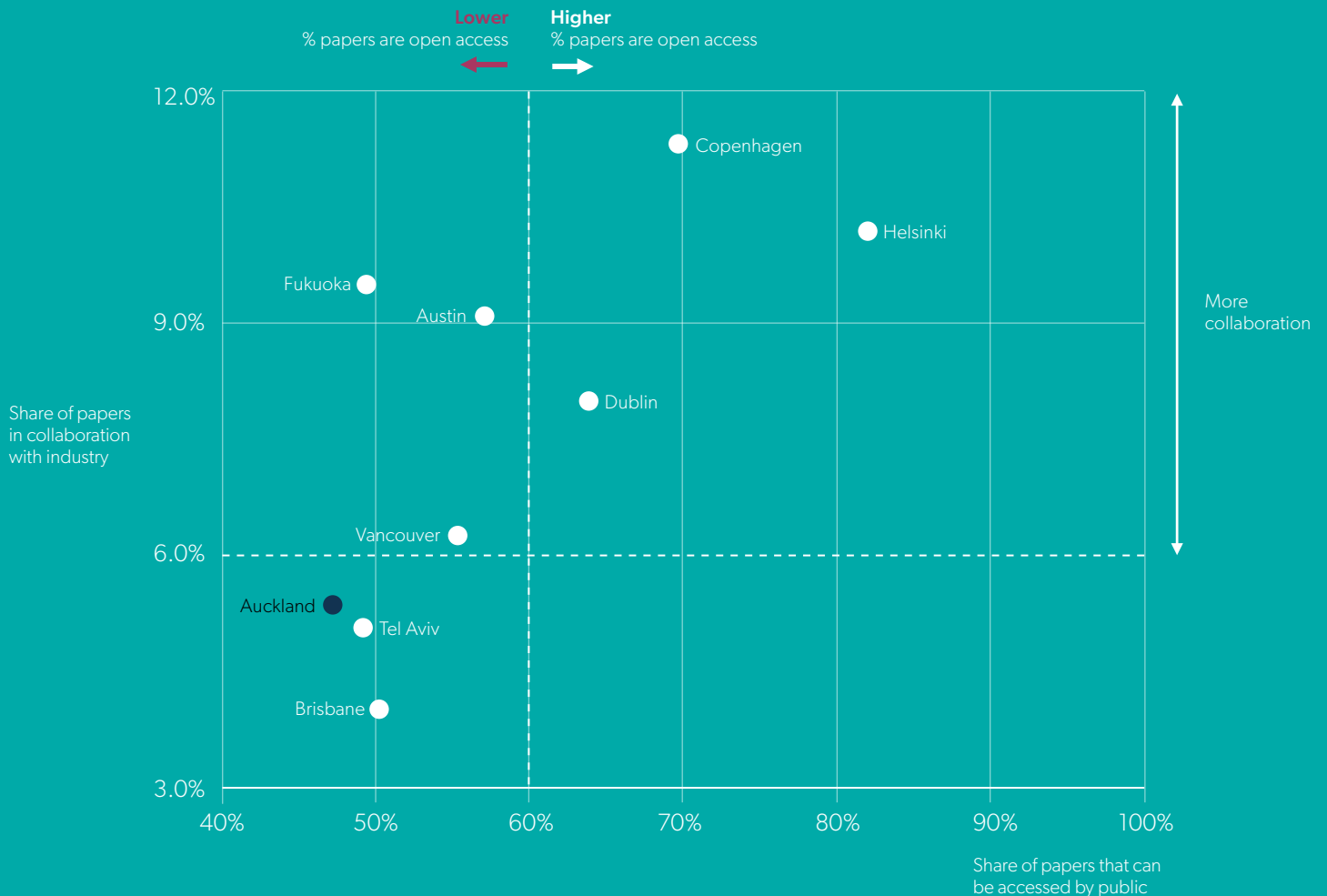
Number of tech-enabled companies per 10,000 people



Source: Dealroom<sup>67</sup>

## Less of Auckland's research is collaboratively produced

Share of academic papers created in collaboration with industry vs share with open access



Source: Leiden University Ranking.<sup>68</sup>

# Knowledge & Skills

Auckland's decile position compared to its core peers



## What does Knowledge & Skills include?

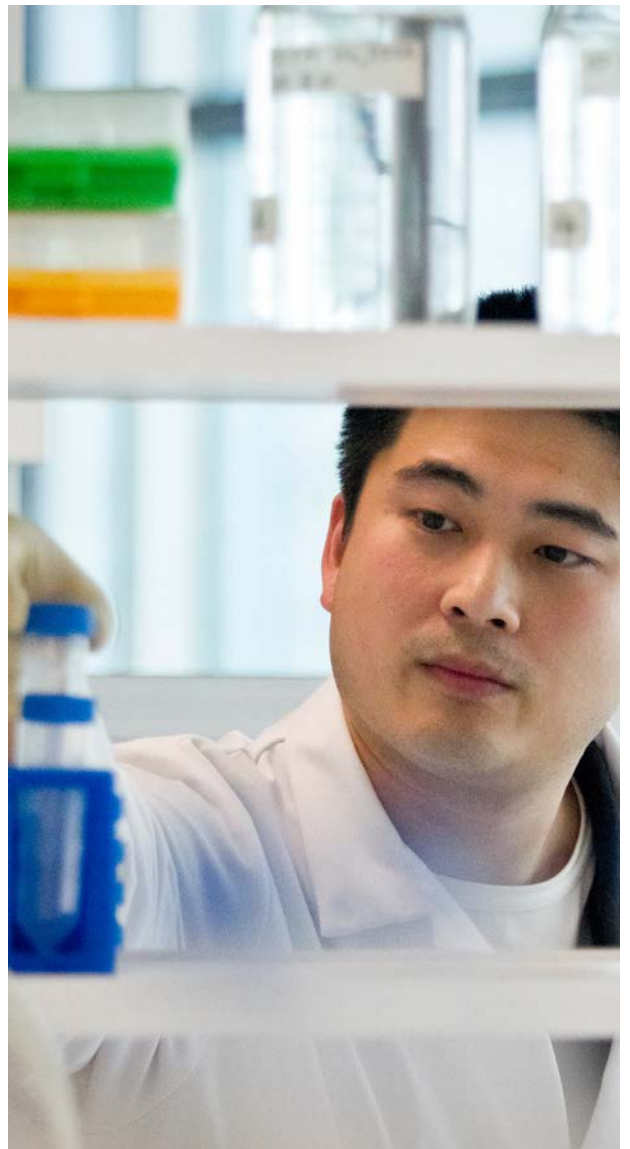
Knowledge refers to cities' educational outcomes, labour market participation, and attraction of international talent. Amid a disrupted labour market, more attention is being paid on the readiness of new workers and graduates, how well the city retains its skilled talent base, and whether skills supply is keeping pace with demand.

This section includes not only international students and higher attainment, but also skills that serve scientific and digital industries, and the partnership between education providers, businesses & innovators.

## Why does Knowledge & Skills matter to a city like Auckland?

Skills are the lifeblood of an urban economy dependent on advanced knowledge and on the full spectrum of services.

The war for scarce talent remains acute in fast-growing industries where technology and science converge. Many cities also face profound risks of a chronic absence of key workers that can affect infrastructure, education, quality of life and much more.



## Knowledge: the state of play in Auckland in 2023

- ✓ Auckland's universities remain magnets for students and research.
- ✗ The supply of skills is not keeping pace with the needs of fast-moving technology sectors.
- ✗ There are big disparities in attainment of qualifications among students.
- ✗ The amount businesses invest in R&D has a lot of room to grow.

## How Auckland can improve its position for Knowledge

- Skills and workforce should be treated as essential to Auckland's successfully building the infrastructure and running the services fit for one of the world's most liveable cities.
- Better leverage one of key advantages of Auckland's smaller size: the proximity to foster tight-knit relationships among teams and specialists that are able to organise quickly when new funding and collaboration opportunities arise.
- Skills supply needs to keep pace with demand in STEM sectors and niches such as applications of AI, including through investing in the capacity to engage continually with innovative businesses and training providers.



### Strengths

**International student appeal appears undimmed.** Auckland is an impressive 36th globally for the size of its international student pool – ahead of cities like San Diego and Amsterdam (HSE Institute).<sup>69</sup>

**Established role as a producer of knowledge.** Auckland is among the top 10 smaller cities globally for its concentration of students and overall reputation as a place to study, reflecting its success at attracting both national and international learners (QS).<sup>70</sup>

**High-performing universities in STEM and engineering.** Auckland is in the top half of its peers – and 18th out of 50 cities globally – for the calibre of its STEM research institutions (University Rankings Directories). University of Auckland is one of the top 50 globally for civil engineering research. Among peers, only universities in Austin, Copenhagen and Vancouver rank higher (Shanghai Ranking).<sup>71</sup>

**Employers broadly have confidence in graduates.** Despite a slight fall of 2 places, Auckland is still just outside the top 50 cities globally for what employers think of the city's graduates (QS).<sup>72</sup>

### Challenges

**Tech talent pool is not as deep.** Auckland is 48th out of 75 cities for the all-round depth of the tech talent base (based on no. of computer science graduates, skilled data scientists and no. of AI-related HQs) (public sources).<sup>73</sup>

**Smaller pool of software experience.** The share of startups with access to experienced software engineers is around a third lower compared to the average of Melbourne, Sydney and Singapore (based on % of engineers with at least 2 years of start-up experience prior to joining the current startup) (Startup Genome).<sup>74</sup> As another indicator of its digital activity, Auckland is 6th among its peers for its contribution to the largest online crowd-sourced code base (INSEAD; GitHub).<sup>75</sup>

**Not yet high on the radar for footloose talent.** The city is not yet in the top 30 in the world for appeal to overseas digital talent (BCG).<sup>76</sup> On another measure, Auckland is last among its peers for how many professionals currently live and work in the city that went to a global top 100 university in another city. (LinkedIn, QS).<sup>77</sup>

**Retaining talent.** Auckland is among the bottom half of its peers for the share of students who studied at a top local university who are still recorded as living and work in the city. On this front Auckland appears to be some way behind Melbourne, Sydney and Singapore (LinkedIn, QS, Top 1000 universities).<sup>78</sup>

**Educational attainment gaps.** For the share of people with a secondary education or higher, Auckland is bottom among 5 measured peer regions (OECD). The city is also bottom among its peers – or 83rd out of 150 cities – for the share of local people who have degree or higher level education (INSEAD).<sup>79</sup>

**Room to improve Māori progression to higher education.** Auckland is middle of the pack for the share of indigenous population with higher education, behind American peers San Diego, Austin and Portland. However, among peers Auckland has the narrowest gap between education outcomes for the indigenous population compared to the total population (1st out of 6 peers) (local census data; share of indigenous population degree-level qualifications vs share of total population with degree-level qualifications).<sup>80</sup>

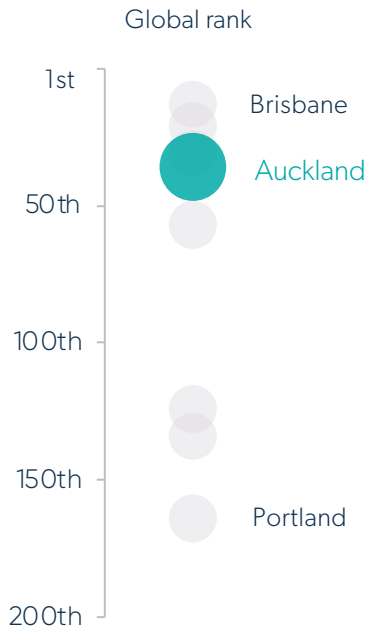


**One third less access to experienced software engineers than APAC peers**

(Startup Genome, based on engineers with >2y of start-up experience)<sup>81</sup>

**Auckland punches above its weight for international students**

Auckland and peers' global ranking for number of international students

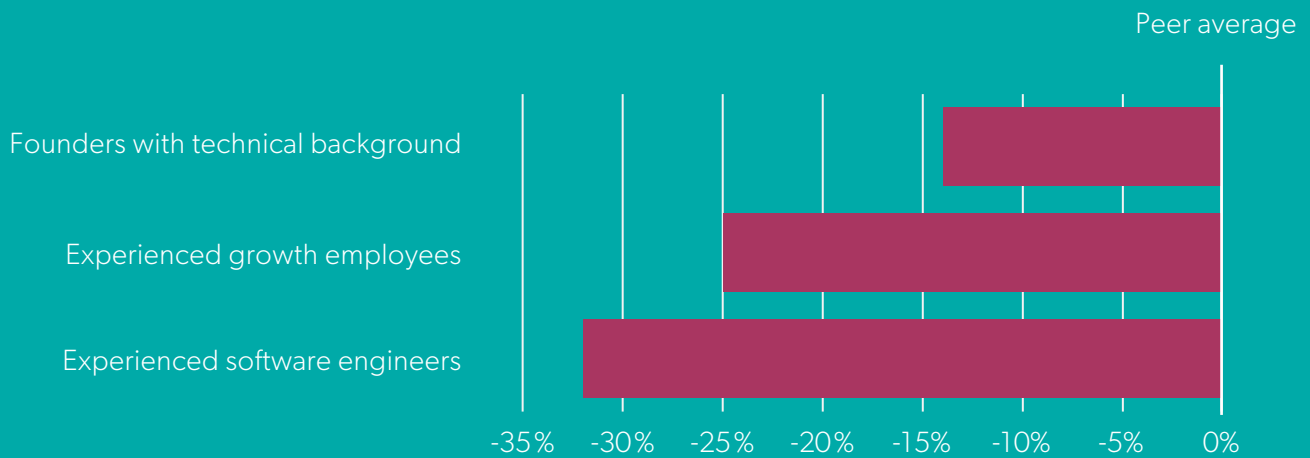


Source: HSE Institute.<sup>82</sup>



**Start-ups' access to experienced staff is more of a challenge in Auckland**

Share of experienced start-ups founders, employees and software engineers in Auckland compared to leading APAC ecosystems\*



Source: StartupGenome Survey. \*Melbourne, Sydney and Singapore. (Data not available for core peers due to Auckland being compared only to a small pool of highly relevant ecosystems at a similar overall stage of maturity (globalisation or attraction phases).<sup>83</sup>



# Culture & Experience



# Summary

## Culture

Auckland's decile position compared to its core peers



## Experience

Auckland's decile position compared to its core peers



## Auckland's Culture & Experience at a glance



### Auckland's advantages

Tourists are still drawn to Auckland's natural environment, food scene, and its friendly and relaxed locals.

Auckland is well placed for the 'flight to quality' underway in the visitor economy.

The economic potential and influence of Auckland's indigenous cultural footprint is poised to grow.



### Auckland's room to improve

Auckland does not stand out in appraisals of cities for pleasure and culture. This translates into less visibility across many age groups and incomes.

The cultural and creative industries are smaller in Auckland – this may reduce the bandwidth for innovation and the city's image as a first-choice city among prospective global talent and visitors.

Safety concerns at night and for minority groups currently impacts Auckland's urban experience.



### Competitive Risks

Auckland does not develop or express the cultural magnetism to convert short-term visitors into longer-term residents, business creators, fans and advocates.

The city centre may lose its essential role as a crucible of city culture and experience, at a time where city centres around the world are needing to shift into new uses and functions.





# Culture

## Auckland's decile position compared to its core peers



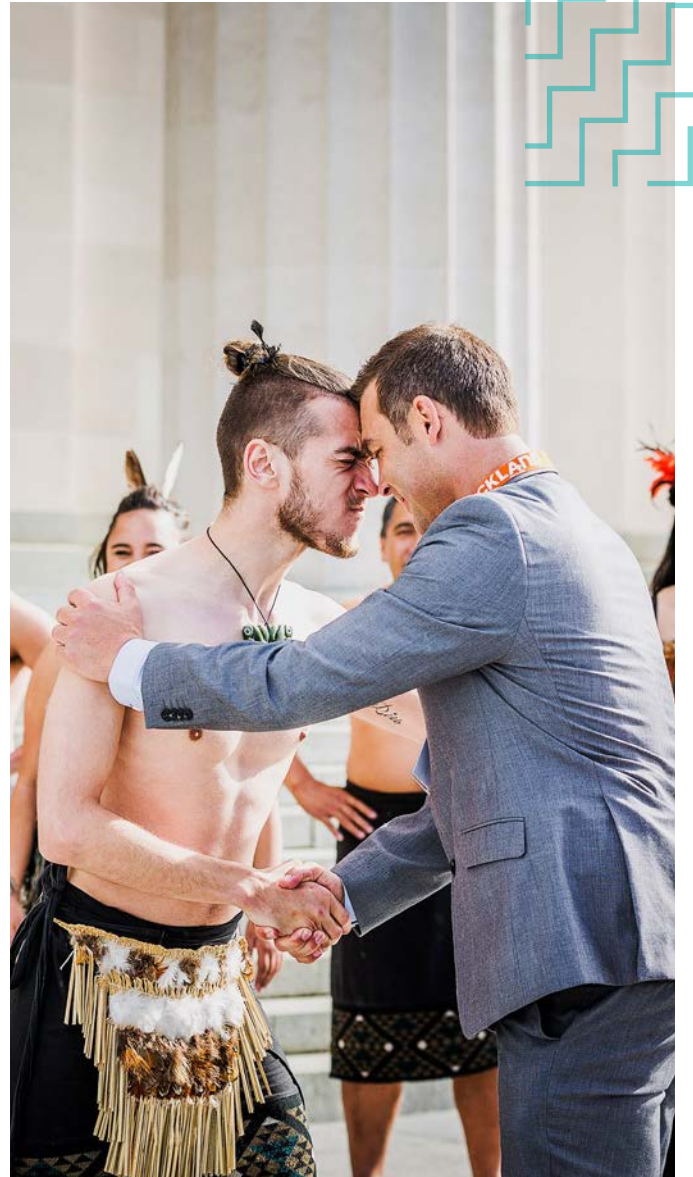
### What does Culture include?

Culture refers to the history, geography, identity, values, traditions and artistic expression that shape the city's identity. It shapes social interactions in a city and every resident's sense of belonging.

This section includes measures of the city's arts and culture scene, its reputation, and the mix and quality of amenities that shape appeal to residents, visitors and other users.

### Why does Culture matter to a city like Auckland?

With such a unique and distinctive layered cultural heritage, Auckland can build on its indigenous history, multiple traditions and arts to promote creativity and innovation, and develop a more definitive proposition to residents and tourists. As a platform for dialogue and understanding among diverse communities, culture is a critical driver of pride, character, cohesion and resilience that informs other areas such as sustainability, trade and innovation.



## Culture: the state of play in Auckland in 2023

- ✓ Strong bounce back in the last year for international visitor demand, driven by draw of natural environment.
- ✓ The restaurant scene – especially fine dining - is thriving, but eating out is perceived as more expensive.
- ✗ Auckland is less globally recognised across a broad range of culture and arts measures.
- ✗ For urban amenity and buzz, Auckland is behind.

## How Auckland can improve its position for Culture

- Investing in infrastructure, arts and urban spaces – through large events, programmes and resident ambassadors.
- Redefining the city centre and wider centre's offer and role as an attractor, communicating Auckland's values of sustainability and diversity.
- Cultural vibrancy, including anchoring the city in its Māori identity more proactively and creatively.

## Strengths

**Strong bounce back in destination appeal.** Auckland is 4th out of all cities globally for resurgent search interest in travelling to the city since the middle of the pandemic. Only Sydney, Melbourne and Malaga saw faster growth (Airbnb based on difference between searches in 2022 for 2023 visits vs searches in 2021 for 2022 visits).<sup>84</sup>

**Stronger role as a visitor gateway - especially given smaller population size.** Despite having been more disrupted for longer through the pandemic, Auckland is 3rd out of its 10 peers for how many visitors its airports welcomed so far in 2023 (Airport statistics agencies, indexed on city size).<sup>85</sup>

**Local satisfaction with the existing cultural amenities.** Auckland has the 2nd highest share of residents who say they are happy with the shows, bars and museums on offer among 7 peers. Here Auckland surpasses Sydney and among peers only Copenhagen's residents are more content. (IMD Smart Cities, based on share of people who believe cultural activities are satisfactory).<sup>86</sup>

**High regard for fine dining.** Auckland is rated as having two of the 25 Best of the Best restaurants in the world by visitors (one of two cities globally, alongside Hong Kong) (Tripadvisor).<sup>87</sup>

**Strong pool of respected architecture firms.** Only Dublin and Copenhagen rank above Auckland for the presence of internationally recognised architects and architecture firms (HSE).<sup>88</sup>

**Year-round destination appeal.** Auckland ranks top among peers for the lowest seasonal difference in flight prices (Kayak, based on difference between highest and lowest searched month).<sup>89</sup>

## Challenges

**Others are ahead for depth and range of cultural scene.** On paper, Auckland ranks in the bottom 25% globally for the overall variety and quality of the city's cultural offer (out of 80 cities), or 7th out of 7 measured peers (Work Motion based on DLA piper, KPMG and World Bank). The city also plays home to fewer high-quality cultural experiences (arts, nightlife and retail) - 7th out of 10 peers – ahead only of Fukuoka, Helsinki and Brisbane (Resonance).<sup>91</sup>

**Less international recognition for its arts & culture.** Despite strong expertise in the sector, Auckland is middle of the pack in terms of global recognition across a wide range of creative industries including film production, music and art (HSE).<sup>92</sup>

**Smaller fashion, music and museum scene.** Auckland ranks in the bottom 1/3 of peers for the depth and maturity of the fashion industry. (HSE) Only Tel Aviv ranks behind Auckland for availability of music concerts (Urbanity Impact). And Auckland has the 2nd lowest number of museums among 8 measured peers (Holidu).<sup>93</sup>

**Dining out costs.** Auckland ranks in the bottom 20% globally for affordability of eating out, although it does rank 2nd among its 8 peers which are all expensive dining locations by global standards (Holidu).<sup>94</sup>

4th strongest rebound as a visitor destination in 2022

(Airbnb, based on search demand)<sup>90</sup>

83rd globally for range of highly rated culinary, cultural and entertainment experiences

(Resonance)<sup>95</sup>





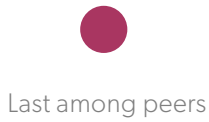
### International standards for city arts and culture are rising

Auckland's performance and perception across all measures of culture and arts

Actual performance

Global perception

Local perception



Last among peers

Top among peers

Source: The Business of Cities research <sup>96</sup>

### Gastronomy is seen as a strength but Auckland needs cultural depth

Auckland's rank among 10 peers



Sources (top to bottom): Veolar, HSE, Holidu, Nestpick, Urbanity Impact <sup>97</sup>



# Experience

Auckland's decile position compared to its core peers

Bottom 2 3 4 5 6 7 **8** 9 Top

Auckland

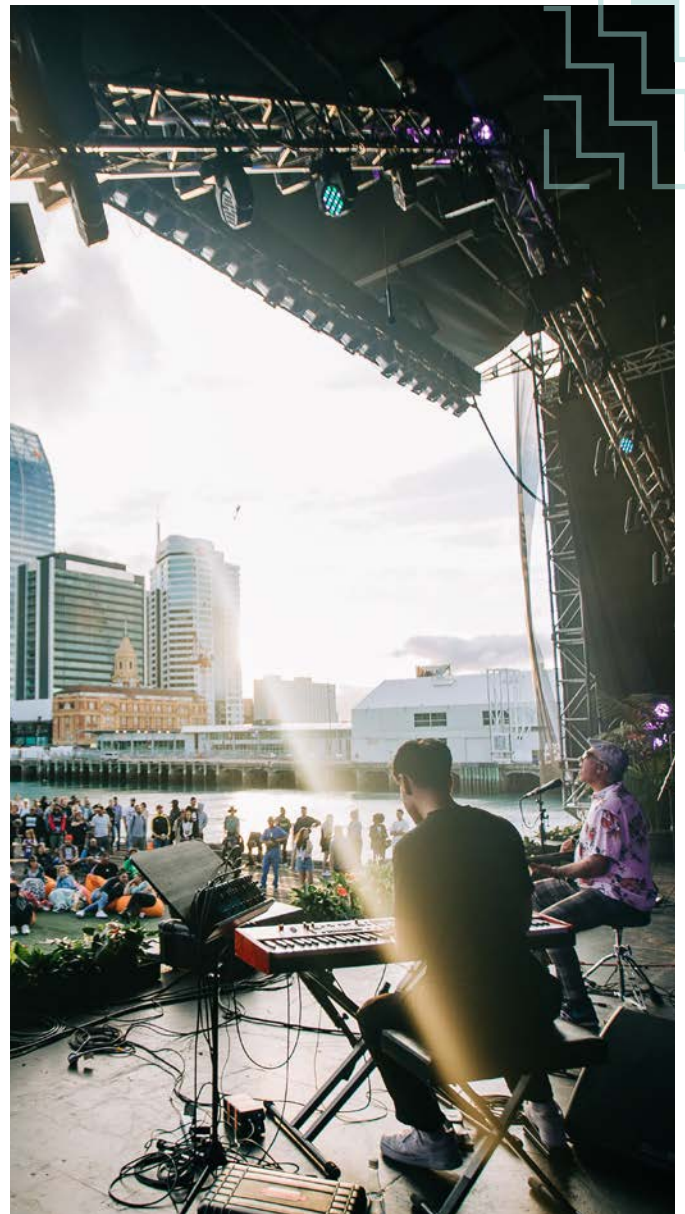
## What does Experience include?

Experience refers to the magnetism, memorability and seamlessness of the interactions, engagements, and encounters that residents and non-residents have in cities. It encompasses the sensory and emotional dimensions of urban life, including aesthetics, access, safety, diversity, amenities, public spaces, entertainment, and the overall sense of place, all of which contribute to creating positive, memorable and increasingly immersive experiences for residents and visitors.

So, this section includes measures of visitor perceptions, appeal to different demographics, safety and wellbeing.

## Why does Experience matter to a city like Auckland?

As costs of living rise steeply in many global cities, consumers are becoming even more careful, concerned and discerning. Demand is shifting towards fewer, higher quality experiences. Cities have to deliver more in terms of the events they host, where in the city they stage them, and the audiences they target. Leading cities are looking to succeed through gaining new reach and diversifying their offer to meet the demands of people of all ages, all backgrounds and all incomes.



## Experience: the state of play in Auckland in 2023

- ✓ Global awareness of Auckland's destination appeal, welcome and friendliness is resilient.
- ✓ Auckland tends to exceed expectations, which suggests promotion could be stronger.
- ✗ Less appeal for those seeking business, conferences, nightlife
- ✗ Auckland is not as widely talked about online as its assets would predict.

## How Auckland can improve its position for Experience

- Urban experience to match the reputation for natural wonders.
- Renewed efforts around conferences and international events in leading innovation clusters to encourage recovery in business travel.
- Address safety concerns in the city centre.



### Strengths

**Conducive to students.** Auckland is top among peers for what students think of the experience. Yet Auckland faces stiff competition in this area from Sydney, Singapore and Melbourne which all perform higher (QS).<sup>98</sup>

**A warm welcome.** Auckland was recently voted the 12th most friendly city in the world. Among peers, only Copenhagen and Dublin are ahead. It also has the highest share of reviews of main attractions mentioning “friendly” out of 27 cities (Preply; William Russell).<sup>99</sup>

**A place to unwind.** 86% of locals say the city is easy to relax in – the 2nd highest among all cities globally. Auckland was also recently rated as one of the Top 10 most tranquil cities in the world. (Timeout; Iceland Air & Travel + Leisure).<sup>100</sup>

**Nature drives the experience brand.** Auckland was ranked 2022’s best travel destination due to its environmental assets and natural beauty (Lonely Planet).<sup>101</sup>

**A hidden gem.** Auckland is in the Top 10 globally for cities that exceed tourists’ expectations. (Radical Storage, based on no. of TripAdvisor reviews that suggest people think the city is under-rated compared to number that suggest people think it is over-rated).<sup>102</sup>

**Better placed for the ‘flight to quality’.** Only Dublin ranks ahead of Auckland for the number of 5-star attractions among 8 measured peers. However, Auckland is still a long way behind more renowned cultural hubs such as Amsterdam and Melbourne (Holidu).<sup>103</sup>

**Less stressful airport experience.** Auckland ranks in the top 50% globally for ease of travel through airports (out of 135 cities globally). Among peers, Auckland is middle of the pack (4th out of 8 peers), but remains ahead of many larger tourist and business travel hotspots such as Amsterdam and Sydney (Holidu).<sup>104</sup>

### Challenges

**Behind for global brand appeal.** Auckland is 4th out of 6 peers for how familiar people globally are with Auckland, what they think of its reputation, and how highly they rate it as a place to spend time in. This puts the city 46th globally, some way behind other nearby liveable cities like Melbourne and Sydney. Partly this may also be a result of Auckland’s lower online visibility - Auckland is in the bottom 40% globally out of 162 cities (4th out of 8 peers) for how often it is mentioned on online apps (Holidu).<sup>106</sup>

**Less walkable visitor experience.** Auckland ranks 7th among its peers for the share of tours in the city that can be carried out on foot (TripAdvisor and local attractions platforms).<sup>107</sup>

**Shorter visitor stays.** The average length of a visitor’s stay in Auckland is almost 10% shorter than the average among its peers (Kayak, based on proprietary hotel data).<sup>108</sup>

**Behind for nightlife reputation and reality.** Auckland has the 3rd smallest concentration of night-time economy among 9 measured peers, with fewer nightclubs, restaurants, theatres and music venues for a city of its size. This may be

Best  
perceived  
student  
experience.

(QS, among peer group)<sup>105</sup>



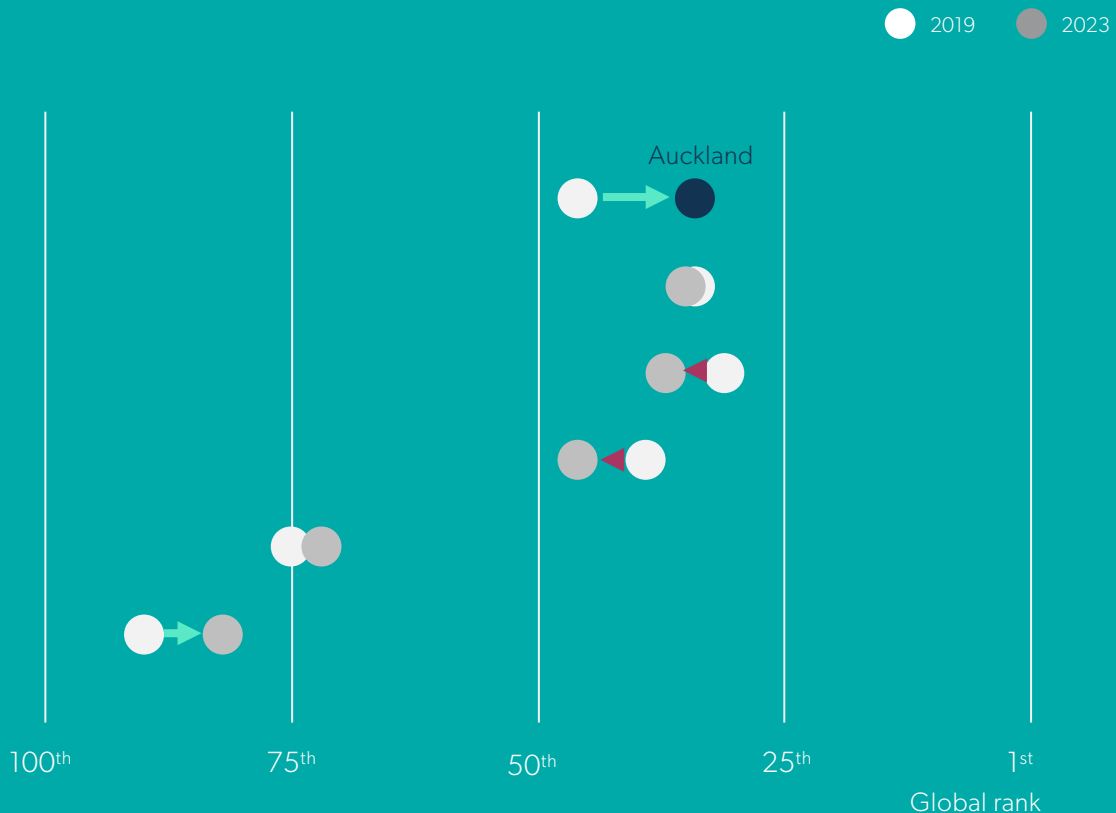
## Experience

exacerbated by a smaller presence of international students, foreign workers and tourists in the city centre, and by night-time safety concerns (Auckland is 9th of 10 peers for concerns about safety walking alone at night) (Urbanity Impact, based on total number and on a per capita basis from Google local listings and OpenStreetMap contributions; Numbeo).<sup>109</sup>

**Experience using digital services could be smoother.** For overall adoption of digital payment systems, mobility solutions and health and education platforms, the city is 6th out of 9 measured peers (Visa, Mastercard, Apple and Android App Stores, Startup directories, OpenStreetMap contributors, Navigation Providers).<sup>110</sup>

### Auckland's core appeal to international students remains robust

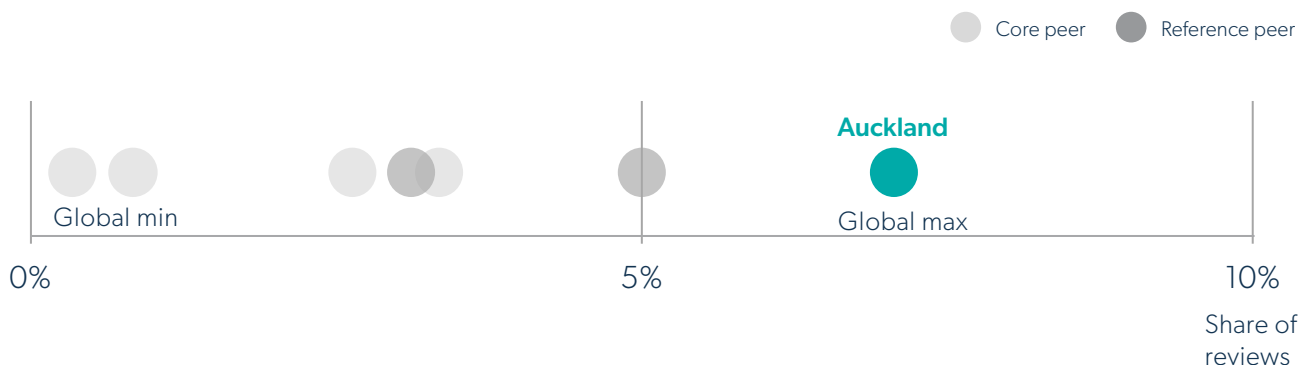
Global rank for perceived student experience in 2019 and 2023, Auckland and selected peers



Source: QS. Based on students' aggregate ratings of their city's friendliness, diversity, sustainability etc., plus share of students expressing desire to stay in the city post-graduation.<sup>111</sup>

### Friendliness is more often mentioned for Auckland than anywhere else

Share of reviews for main attractions that mention the word 'friendly' or 'welcoming'



Source: William Russell, based on Trip Advisor. Based on % of reviews of each city's most reviewed attraction on TripAdvisor.<sup>112</sup>



# Place & Connectivity





# Summary

## Place

Auckland's decile position compared to its core peers



## Connectivity

Auckland's decile position compared to its core peers



## Auckland's Place & Connectivity at a glance



### Auckland's advantages

Auckland stands out for its environmental quality with less air, noise and light pollution.

It retains good digital connections which largely meet the needs of residents and businesses.

Residents tend to be more satisfied with the living environment of their neighbourhoods.



### Auckland's room to improve

Lack of efficient transport across the whole city which also holds back Auckland's low carbon transition.

Adequate green and public space prioritised as part of new developments and districts.

Ensuring Auckland fully recovers its share of international travel and reach.



### Competitive Risks

Auckland becomes more car dependent while other cities embrace alternatives. This may worsen congestion without an uptick in infrastructure investment and coordination.

Auckland's role as an efficient and well-connected trading city is eroded, while the city's port experiences ongoing berthing delays and future uncertainty.

Auckland's infrastructure deficit makes it harder to achieve resilience as climate change-induced effects become more severe.





# Place

## Auckland's decile position compared to its core peers

Bottom 2 3 4 5 6 **7** 8 9 Top

Auckland

### What does Place include?

Quality of place refers to the overall desirability and coherence of a city as a mosaic of discrete and distinctive living environments. It refers to urban design, district character, public spaces, availability of amenities and environmental quality. Together these contribute to the well-being of residents and visitors, and also act as important signals to international talent and investors. Place is also a driver of collaboration and proximity, and therefore innovation.

So this section includes measures of sense of place, localised pollution, access to core amenities, and ease of reaching green and open spaces.

### Why does Place matter to a city like Auckland?

The people and economies of highly liveable cities are increasingly place-sensitive and place-conscious. Residents increasingly want to live and work in urban environments able to host a wider, more vibrant mix of uses with a stronger emphasis on sustainability and wellbeing. Small and medium-sized cities have to demonstrate they have locations that can offer the variety, quality and easy-access of amenities and experiences – for all age groups, backgrounds and incomes.



## Place: the state of play in Auckland in 2023

- ✓ After the end to lockdowns, residents tend to be more satisfied with the quality of their local environment. There is strong place identity in many established and regenerated locations, including for example in South Auckland.
- ✓ Auckland has a strong clean air advantage over other international cities.
- ✗ Auckland's neighbourhoods and signature urban locations are less recognised in international benchmarks.
- ✗ Despite inheriting more of it, access to healthy, high quality green space is becoming more of a challenge, more quickly, than in many cities

## How Auckland can improve its position for Place

- Proactively strive to deliver an exceptional quality of place and sustainability in reimagined city centre neighbourhoods, regeneration areas and innovation districts
- Look to emulate success of the city's more widely recognised pockets of vibrancy, such as K-Road, Ponsonby, Dominion Road, Otaara Market and Wynyard Quarter.

### Strengths

**Clean air.** Auckland has the 2nd cleanest air among peers. Empirical data is supported by resident perceptions - only 40% of residents in Auckland view air pollution to be a problem, compared to 53% in peers or 61% internationally (OECD, based on PM 2.5  $\mu\text{g}/\text{m}^3$  across the metropolitan area; IMD).<sup>113</sup>

**More essential services are near enough to where people live.** The share of people who can easily access education and healthcare on foot is 5% higher in Auckland than among peers (ITDP).<sup>114</sup>

**Inherited stock of green space.** Auckland still has the most green space per person among 13 global cities – including more than Melbourne and Sydney – but the share of the city that is green space has been steadily declining, due in part to new suburban developments providing smaller gardens to accommodate higher densities (HUGSI).<sup>115</sup>

**Affinity for the built environment is starting to improve.** For overall satisfaction with the quality of the city's natural and built environment, Auckland now ranks 5th among 10 peers ahead of Helsinki, Copenhagen and Vancouver. In the last year Auckland has overtaken Austin and is now in the global top 80, although still some way long way off Sydney and Singapore (Resonance).<sup>116</sup>

**Low noise and light pollution.** Auckland has the lowest noise, air and light pollution among 7 peers and 5th lowest among 75 cities globally (Nestpick).<sup>117</sup>

**Some signature streets and neighbourhoods are gaining international recognition.** In one survey K Road is viewed as the 6th coolest street globally due to its arts, bars and heritage. Elsewhere, Kingsland is rated among the Top 50 coolest neighbourhoods (Timeout, based on survey of 20,000 people globally).<sup>118</sup>

### Challenges

**Fewer people live in the city centre.** Auckland has the 2nd lowest city centre population among its peers, ahead of only Austin. Even allowing for size, Auckland is further behind most low density cities in this regard (WorldPop, Google).<sup>120</sup>

**Less efficient use of land.** Auckland's neighbourhoods are lower density than most – among bottom 15% of all cities globally – and 6th among 10 peers (ITDP).<sup>121</sup>

**Street layout less suited to people.** Auckland's street layout means that 'blocks' are bigger than in nearly all other medium sized cities globally – with the result that Auckland is among the 10% least walkable cities globally (and bottom among peers) (ITDP).<sup>122</sup>

**Modest public and pedestrian space.** Auckland rates 5th out of 8 Asia-Pacific cities for how much open public space there is (and 14% behind APAC average). The city also ranks in the bottom half of cities globally for how much pedestrian-only road space there is (Open Street Map, length of pedestrian only roads per square mile).<sup>123</sup>

Top 10%  
of cities in  
OECD for  
air quality

(OECD, based on average annual exposure to PM2.5)<sup>119</sup>

Bottom 10%  
of all cities  
globally for  
how conducive  
streets are  
to a walkable  
lifestyle

(ITDP, neighbourhood grid layouts)<sup>127</sup>



## Place

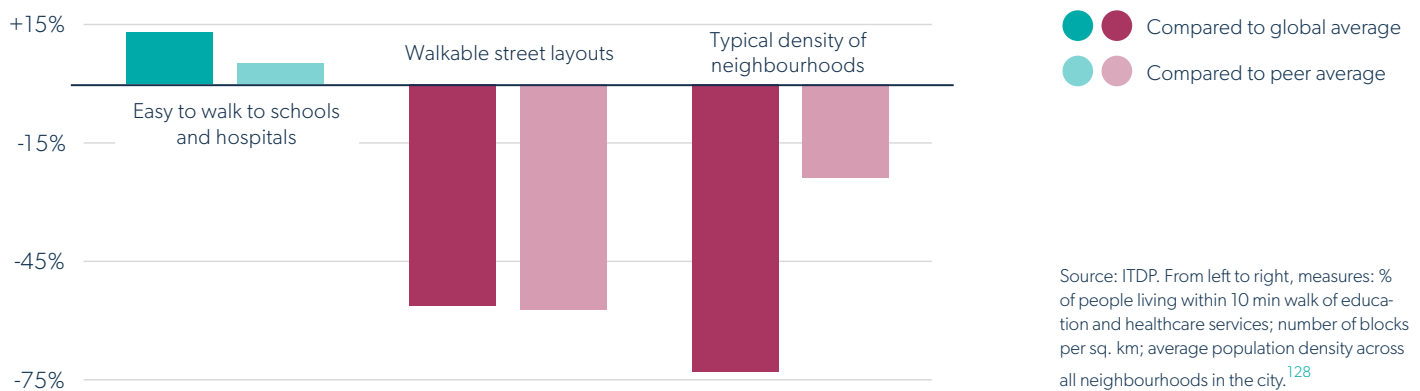
**Auckland's greenery is not distributed in a way that favours easy access.** Auckland ranks 7th among 13 global cities for how spread out its green space is across the city (Hugsi, based on % of 100m sq. grids within the city that contain green space).<sup>124</sup>

**Trees are less healthy in Auckland.** Auckland shows the sharpest decline in how healthy its trees are on average among 13 cities globally in recent years, dropping from 1st in 2017 to 7th in 2021 (Hugsi, based on average health of urban vegetation in 2017/2018 and 2021, as measured by satellite imagery).<sup>125</sup>

**Overall international awareness of Auckland's 'X factor' as urban experience is modest.** Auckland's overall visibility across all global lists and studies of the 'top' cities for urban fabric and place quality is average among peers (5th / 10) (The Business of Cities research).<sup>126</sup>

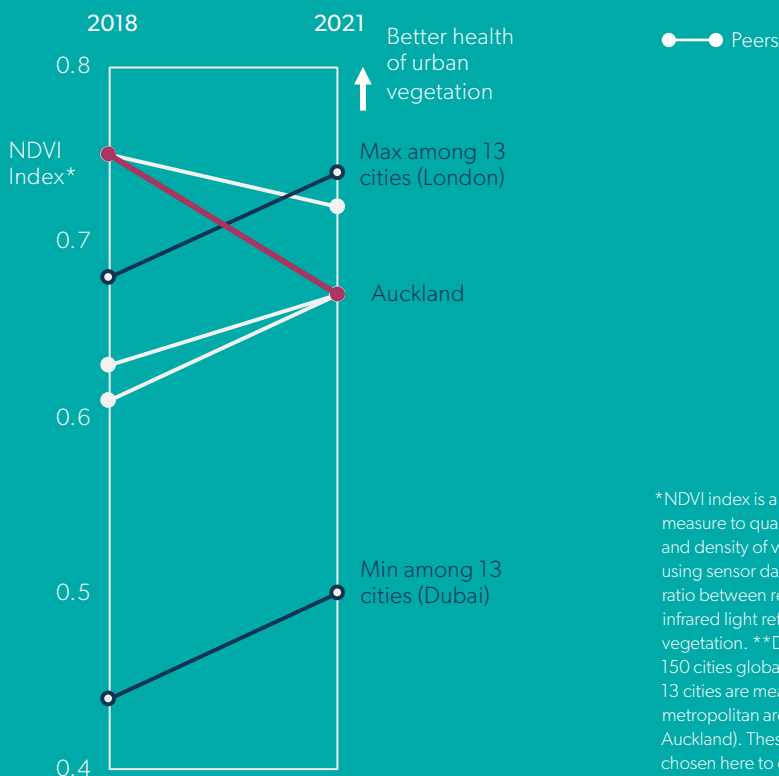
### Auckland's built form is less efficient and effortless

Neighbourhood built environment compared to core peers and global average



### The condition of Auckland's greenery has been falling

Average health of urban vegetation



# Connectivity

Auckland's decile position compared to its core peers



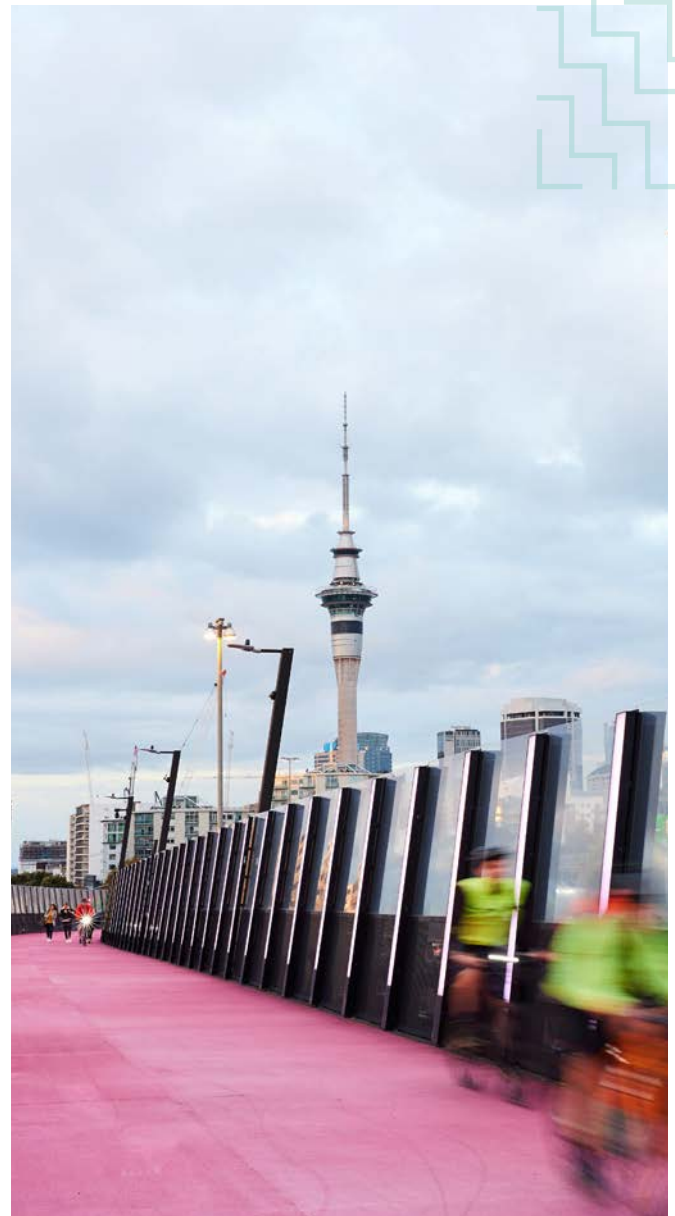
## What does Connectivity include?

Connectivity refers to how easily and effectively people get around, get online, and reach other places. Continual work is needed to enhance the speed, reliability and flexibility with which people, goods and information can move around. Connectivity is about the whole city, not just the inner city – as this shapes larger productivity, health and social outcomes. Connectivity also acts as the platform for businesses to operate by allowing them to draw on a larger labour pool and customer base.

So, this section includes measures of congestion, modal split, visitation and digital connections.

## Why does Connectivity matter to a city like Auckland?

Connectivity is essential for smaller and mid-sized cities to harness economies of scale and show they can be more efficient platforms for connecting people, goods, clients, customers and services. Effective speed and coverage – including digital – is important to attracting and retaining innovative businesses. There is a strong correlation in most city benchmarks between transport infrastructure quality and access to good public services, air quality, responsible carbon emissions, and social inclusion.



## Connectivity: the state of play in Auckland in 2023

- ✓ Fixed broadband is competitive globally and meets most people's stated needs.
- ✗ More people use cars, exacerbated by the pandemic, and confidence in alternatives is lower.
- ✗ Auckland is less internationally connected at a time where international talent, investment and visitors are increasingly footloose.
- ✗ Liveability is challenged by stress on Auckland's roads, especially in suburbs.

## How Auckland can improve its position for Connectivity

- Short-term management of transport disruptions and promoting Auckland's sense of invitation and destination to those living further away.
- Support new travel patterns and modes including active transport infrastructure.
- Faster delivery pace and quality of essential investments such as the delayed city rail link and light rail airport line, as well as more people-friendly streets and stations.



### Strengths

**High take-up of superfast broadband.** Auckland's median fixed broadband speeds are more than 25% higher than the average among peers. Auckland ranks 2nd among 5 measured peers, only behind Copenhagen (Ookla median fixed broadband speeds).<sup>130</sup>

**Strong overall internet connectivity.** Auckland ranks in the top 25% globally (out of 200 global cities) for overall internet bandwidth. Among peers, only Copenhagen and Austin are ahead (HSE, Bandwidth).<sup>131</sup>

**Digital connections mostly meet resident demand.** 7 out of 10 residents say that current internet speed and reliability meets their connectivity needs, putting Auckland 1st among its peers (IMD, among 7 measured peers).<sup>132</sup>

### Challenges

**Lower access to public transport.** Auckland is last among its peers for share of people living within walking distance of public transport (94.6% in Auckland compared to 97% on average) (OECD % living within 10 mins of public transport stop).<sup>134</sup>

**Slower connectivity 'on the move'.** Auckland's peer cities are moving faster to improve mobile broadband. In 2023, Auckland's average mobile broadband download speed is now 22% below the peer average, down from last year as cities like Dublin and Copenhagen improve fast (Ookla median mobile broadband speeds).<sup>135</sup>

**Car dependence may become more entrenched after Covid.** Auckland's share of private car use is 20% higher than the average among peers (83% vs 63% peer average). Only Dublin and Vancouver have experienced a faster increase in the share of car journeys since 2019, and in both cases from a lower base. Auckland's swing reflects issues of hesitancy to use public transport, reduced services, driver shortages and distances people travel from the city centre (Google – experimental data based on anonymised, geolocated mobile phone data).<sup>136</sup>

**Congestion rising back up faster.** Since 2019, the number of hours lost to congestion has declined by 14% in Auckland, but by 23% on average among peers. Even highly car dependent cities, such as Portland and Austin, have seen fewer congestion spikes (INRIX).<sup>137</sup>

**Challenges of international flight connections.** Although mainly a function of Auckland's location and size of domestic market, it currently has 50% fewer direct international flight connections than the peer average. This adds to the importance of international attraction (flightsfrom.com).<sup>138</sup>

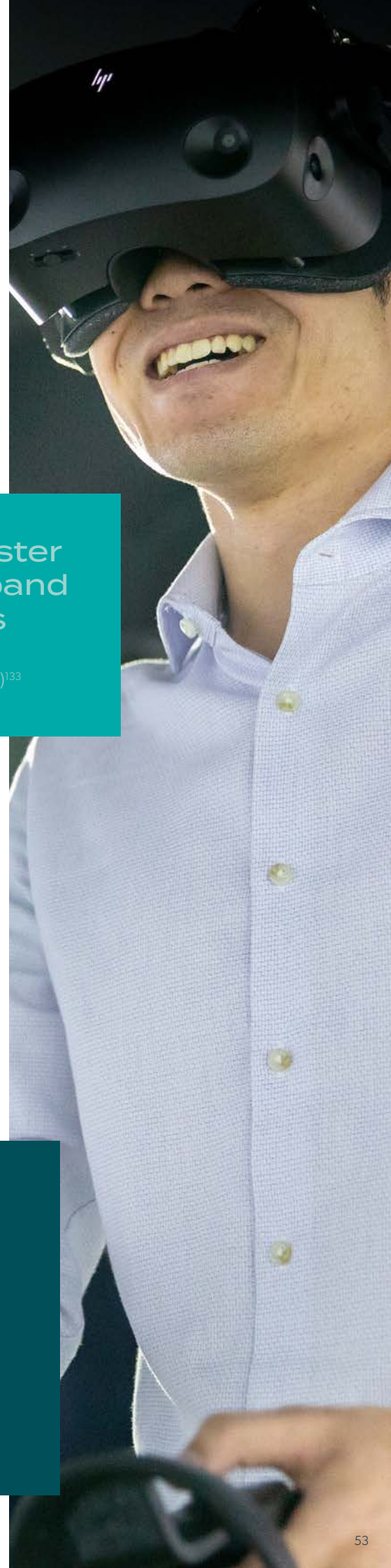
**Slower progress in rolling out EV charge infrastructure.** Auckland has over 30% fewer EV charging stations than the average among peers (OpenStreet Map, based on EV stations per square mile).<sup>139</sup>

25% faster  
broadband  
speeds

(Ookla, vs peers)<sup>133</sup>

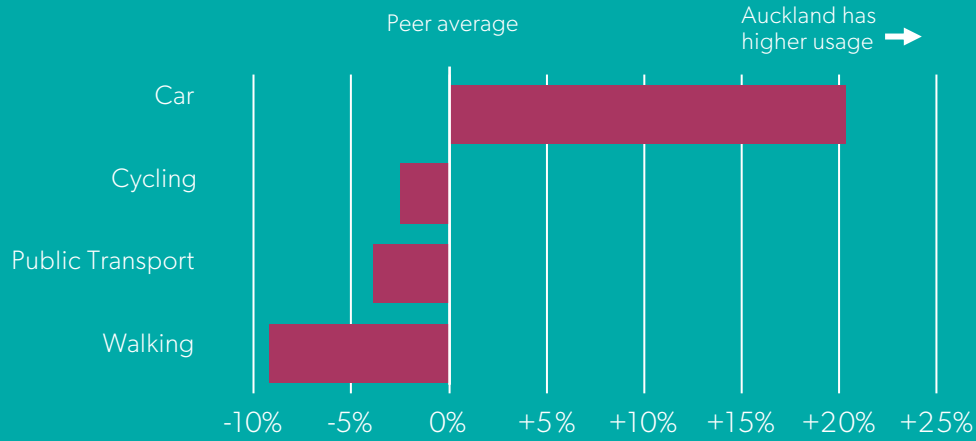
Last among  
peers for  
access  
to public  
transport

(OECD % living within 10  
mins of public transport  
stop)<sup>140</sup>



### Aucklanders use the car much more than their peers

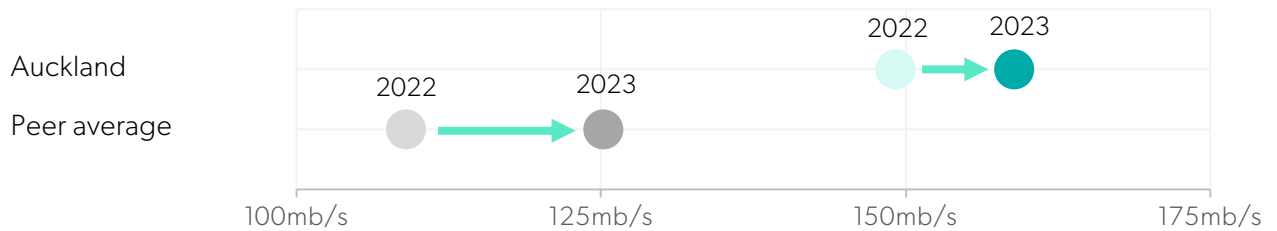
Auckland's transport mode use compared to selected peer cities



Source: Google, 2021. Based on experimental, anonymised geo-located mobile phone data.<sup>141</sup>

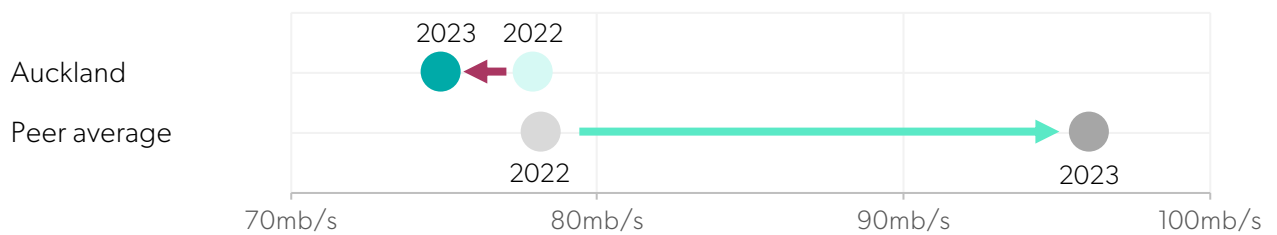
### Auckland is better connected from home and work than most cities

Fixed broadband average download speeds



### Other cities are investing strongly in staying connected 'on the move'

Mobile broadband average download speeds



Source: Ookla.<sup>142</sup>



# Resilience & Sustainability



# Summary

## Resilience

Auckland's decile position compared to its core peers



## Sustainability

Auckland's decile position compared to its core peers



## Auckland's Resilience & Sustainability at a glance



### Auckland's advantages

A clearer path to shift towards a sustainable future, given the city's energy make-up, green and blue space, retrofit potential, and institutional frameworks.

Businesses and residents tend to be more open to adopting practices that support a sustainable and resource-conscious city.

Accidental advantages of morphology, layout and national energy mix can be built upon with more intentional policy.



### Auckland's room to improve

Auckland's built form and transport system – high sprawl and high car - builds in more carbon and resource intensiveness.

Residents have smaller and shallower social networks than other cities.

Other liveable cities have more ambitious climate and sustainability policies.



### Competitive Risks

Becoming more exposed to natural disasters as global temperatures rise.

Public trust in decision-making falls, reducing the potential to mobilise support for large-scale changes and initiatives.

Other cities move faster to decarbonise buildings and transport, and Auckland misses the chance to accrue influence as a forward-thinking and well-prepared city.





# Resilience

## Auckland's decile position compared to its core peers

Bottom 2 3 4 5 6 **7** 8 9 Top

Auckland

### What does Resilience include?

Resilience refers to a city's ability to anticipate, withstand, recover from, and adapt to shocks, stresses, and disruptions while maintaining essential functions and services for the people that live in and use the city. It means treating threats and crises as a chance to reorganise and reinvest so that the city is better equipped for the challenges ahead.

So this section includes measures of vulnerability to shocks, social bonds and behaviour, and strength of institutions. Data in this area is still emerging due to the complexities and local nuances in the criteria.

### Why does Resilience matter to a city like Auckland?

Auckland has to be ready for likely changes in economic, environmental, technological and geopolitical circumstances. As other cities that have also experienced the devastating effects of natural disasters have found, it is necessary to respond by putting in place effective contingency and infrastructure upgrades underpinned by agency coordination, citizen buy-in, and reduced social inequalities.



## Resilience: the state of play in Auckland in 2023

- ✓ Auckland has been recognised for some of its mitigation effects, but the city is overall seen as more vulnerable to the effects of a changing climate.
- ✓ Infrastructure and regulatory advantages give the city potential to be more strategic in the application of technology to city services and experience.
- ✗ Social resilience from trust in processes - residents seek more seamless services and are less aware or engaged in local decision-making than many cities.
- ✗ The size and strength of local social networks - these are not rated as strong as in other liveable and inclusive cities.

## How Auckland can improve its position for Resilience

- Develop more integrated approaches to transport, energy, water, sustainable housing and new buildings development.
- Utilise technology in a more integrated and joined-up way to make better use of infrastructure and spaces, and incentivise sustainable behaviour.
- More transparency, communication and public engagement in the quest for sustainability.
- New forms of collaborative leadership and public participation that meet the demand to shape decisions for Auckland's future.

### Strengths

**Business has higher aspirations on ESG (Environment, Society and Governance).** Auckland is in the top 30% of cities in APAC in a measure of how open businesses are to adopt ESG metrics. That said, Sydney, Melbourne and Singapore are all ahead (Knight Frank, based on recent success and overall ambition of initiatives to reduce climate changes as well as expected urbanisation pressure).<sup>143</sup>

**Heat stress less severe so far.** Over the past 5 years, Auckland has experienced 97% fewer days of 'high heat stress' compared to its peers (1.6 in Auckland compared to 48 peer average). Even compared to cities who have adopted large climate mitigation initiatives, such as Amsterdam, Auckland has so far been the victim of fewer additional days of damaging heat compared to the recent past (OECD, 1981-2010).<sup>144</sup>

**Better equipped on paper to cope with flooding – but still room to improve.** Auckland has recently been rated the top city among 10 global cities for its ability to cope with the effects of heavy rainfall events (mainly due to higher share of green and blue space and soil that makes it easier for rainwater to soak into the ground). But recent unprecedented floods signal that more is needed to ensure it can adapt in future (Arup).<sup>145</sup>

**Lower risk than many to the full set of natural disasters and safety risks.** Auckland is in the top 20% globally for lower long-run exposure to disasters. However it is clearly far from immune and is in fact rated as more exposed than most of its peers. (HSE)<sup>146</sup>

**Good governance on paper.** Auckland rates 2nd among peers, and in the top 10% globally, for the institutional framework for, uptake of, and number of services available digitally on, online government portals (UN E-government Knowledgebase Local Online Service Index). Within the city itself, Auckland's local governance is also rated less fragmented than most cities and city level spending is joint 3rd among peers, behind only Helsinki and Fukuoka. (OECD; The Business of Cities research, based on budgets and capital expenditure).<sup>147</sup>

### Challenges

**Smaller or less reliable social networks.** Despite placing above the global average, Auckland ranks 4th among 5 highly liveable and inclusive peer cities for how many people think they would be able to access support from their social network when they need it – ahead only of Dublin. (OECD) Auckland also ranks 4th out of 6 peers for depth of social connections (BCG Institute Cities of Choice: Middleweights, social capital).<sup>149</sup>

**Others moving ahead for combining sustainable and smart tech.** Auckland is not yet rated one of the global top 20 'sustainable smart' cities which include peers such as Brisbane, Copenhagen and Vancouver (Disruptive Technologies, Top 20 Sustainable Smart Cities in the World).<sup>150</sup>

**Lower public awareness of decision making, and of channels for public feedback on project delivery.** Auckland is 5th among 7 measured peers for the

9 fewer days of high heat stress each year

(OECD, vs peer average)<sup>148</sup>

Bottom 20% for share of people who feel able to get support from social networks

(OECD, vs peer average)<sup>153</sup>



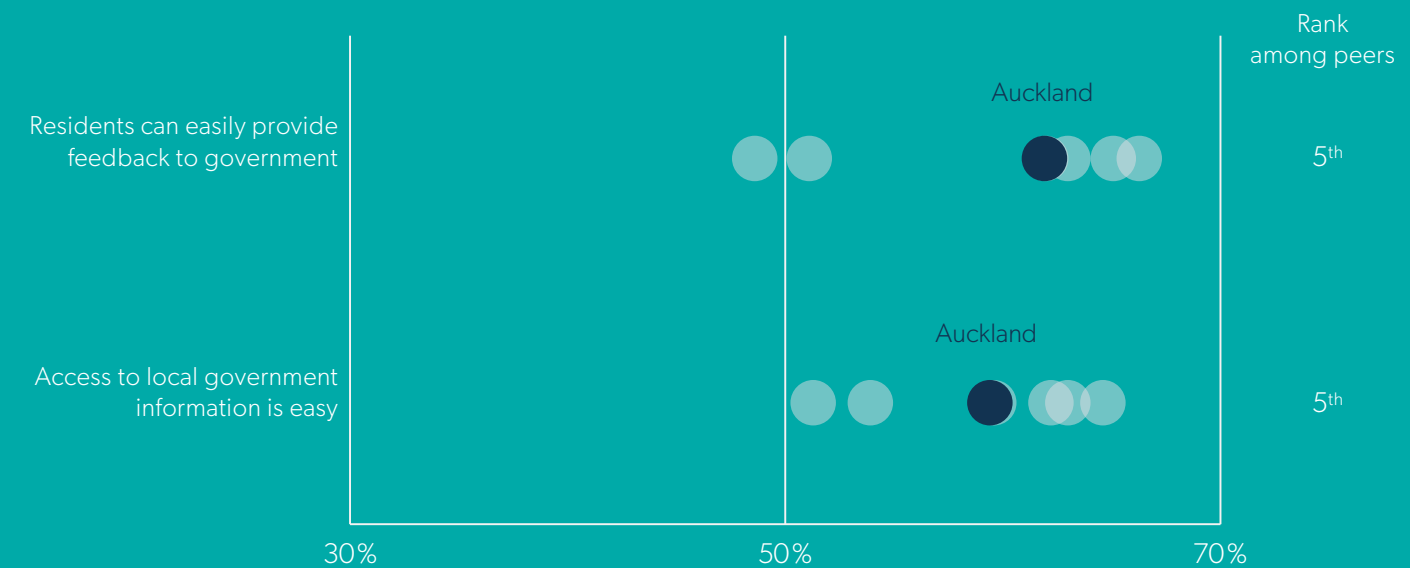
# Resilience

share of local people who find it easy to access information on local government decisions and for the share of residents who feel regularly able to provide feedback on local government projects (IMD).<sup>151</sup>

**Governance is not widely viewed as efficient.** On average across resident perceptions of the seamlessness of service provision and government responsiveness, Auckland is 4th out of 7 peers and some way below Sydney, Melbourne and Singapore (IMD).<sup>152</sup>

## Auckland residents do not feel as informed or empowered as in other cities

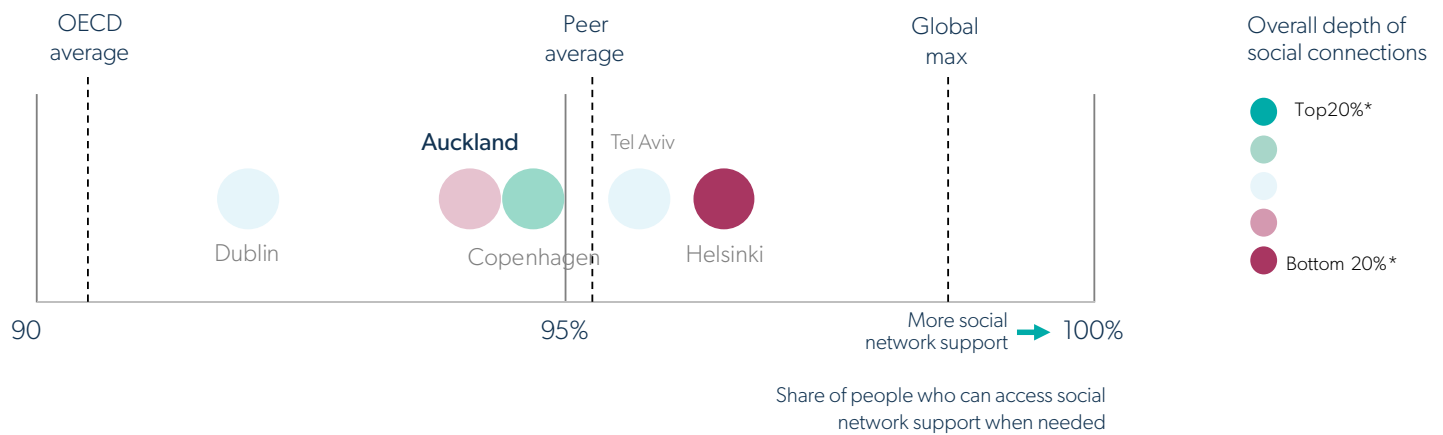
% of residents who agree they can access information on, and feedback to, local government decisions



Source: IMD.<sup>154</sup>

## Auckland's social networks appear to be smaller and less reliable than in other cities

% of people who can access social network support when needed, and overall depth of social connections, vs. peers



\*Of all cities globally. Sources: OECD, BCG. Regional data. OECD average and global max based on 54 regions that correspond closely to the functional urban area. Regions within the OECD that do not (e.g. US states, Canadian provinces, Australian states etc.) are excluded. Peer average = average of peers that fit this criteria (Dublin, Copenhagen, Tel Aviv, Helsinki).<sup>155</sup>

# Sustainability

## Auckland's decile position compared to its core peers

Bottom 2 3 4 5 6 7 8 9 Top

Auckland

### What does Sustainability include?

Sustainability refers to how green a city is and responsible about its resources now and in future. It relies in part on the behaviour and cooperation of residents, businesses and investors. Cities that compete on quality of life also have to demonstrate they are welcome to newcomers and committed to a cleaner, greener, less carbon-intensive environment.

This section includes measures which look at the sustainable credentials and potential of cities' infrastructure, energy and land use.

### Why does Sustainability matter to a city like Auckland?

Auckland's inherits a few advantages that make it more possible than many cities to decarbonise and keep people connected to nature. If it can adopt sustainable systems and infrastructure, it will become more resilient to climate change, attract green investments, and provide residents with cleaner air, lower energy costs, and a higher quality of life for current and future generations.



## Sustainability: the state of play in Auckland in 2023

- ✓ Potential to become a leader for low consumption living, with generally higher awareness of the need to be sustainable.
- ✓ Research institutions, universities and hospitality providers appear more committed to driving action than in other cities.
- ✗ Behind for the energy efficiency of buildings and wider carbon emissions reduction.
- ✗ Others moving quicker to improve uptake of active and public transport.

## How Auckland can improve its position for Sustainability

- Faster retrofit of buildings and infrastructure to ensure Auckland keeps up with the transition to sustainability and circularity.
- Act on momentum from Te Tāruke-ā-Tāwhiri Climate Plan and the recently established climate innovation hub (Climate Connect Aotearoa) to scale up climate action.



### Strengths

**The national energy context means that Auckland's energy consumption is often rated more sustainable.** With New Zealand's large hydropower and geothermal role in the energy mix, Auckland has by far the largest share of electricity generated using renewable energy sources among 10 peers (95% in Auckland compared to 26% peer average) (OECD). The city is also 4th out of 25 cities globally for the maturity of low carbon energy systems, ahead of many cities renowned for sustainability such as Copenhagen and Amsterdam (Bloomberg).<sup>156</sup>

**Lower waste and water use.** Among 8 APAC cities, Auckland has the lowest waste generated and 2nd lowest rate of water consumption behind only Hong Kong (Corporate Knights).<sup>157</sup>

**More solar potential to unlock with the right investments and regulation.** Auckland's buildings have potential to produce more solar power than in green cities like Amsterdam, Copenhagen and Vancouver, due to building orientation and the share of buildings able to hold solar panels. Among peers Auckland is 3rd out of 5 (Google rooftop solar potential in MWh AC/ yr).<sup>158</sup>

**More sustainable hospitality sector.** Auckland ranks in the top third among its peers for the share of sustainable hotels (Booking.com, based on share of hotels in the city that are part of the 'Travel Sustainable' programme).<sup>159</sup>

**Research institutions more committed to the sustainability cause.** University of Auckland ranks 10th globally for its progress in reducing environmental impacts, including through measures of sustainable education quality, alumni impact for sustainability and climate change commitment and strategy (QS).<sup>160</sup>

**Effective sustainable tourism policy.** Auckland is recognised as having the world's most mature and integrated sustainable tourism strategy (JLL and WTTC Global Cities Readiness for Sustainable Tourism).<sup>161</sup>

**Easier financially to switch to EVs.** Auckland ranks 2nd among peers for the price premium associated with hiring an electric car compared to a traditional combustion one (Kayak, based on difference between hybrid/electric and non-eco-friendly car hire).<sup>162</sup>

### Challenges

**Others ahead for climate response.** Auckland ranks in the bottom half of peers for level of commitment to reducing emissions, and middle of the pack among peers for number of policies enacted. This partly reflects national level pledges falling below what will be required to keep below the 1.5°C global threshold, despite promising progress foreshadowed through the Te Tāruke-ā-Tāwhiri Climate Plan (Corporate Knights).<sup>164</sup>

**Fewer green and circular buildings.** Auckland places 21st out of 25 cities globally for the share of buildings which adopt circular principles. Similarly, Auckland ranks 17th out of 25 cities globally for share of buildings which are certified green (Bloomberg).<sup>165</sup>

**High energy use in buildings.** Auckland ranks in the bottom 50% among 25 cities globally for building stock energy efficiency (Bloomberg).<sup>166</sup>



2nd lowest rate of water consumption among major Asia-Pacific cities

(Corporate Knights)<sup>163</sup>



# Sustainability

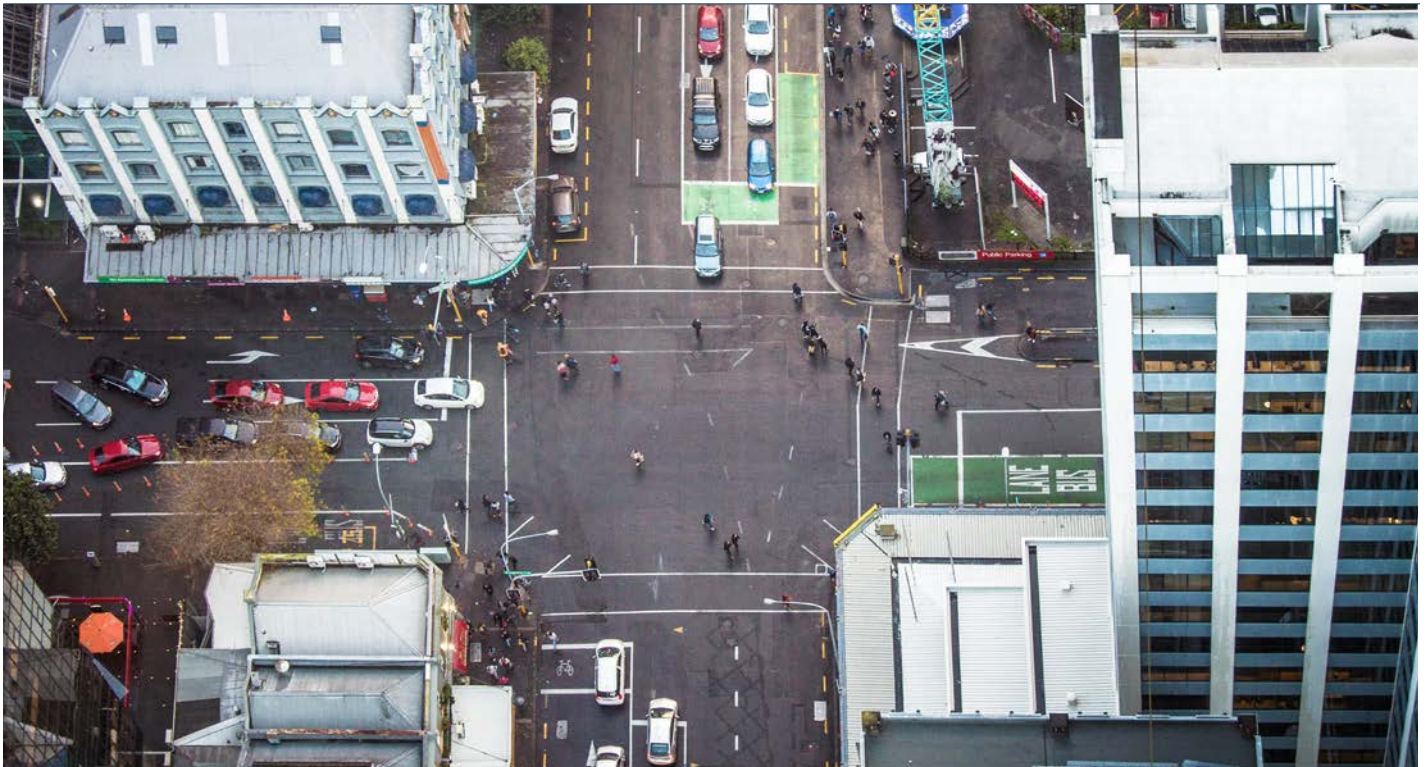
## Strong emissions reduction momentum, but from a high baseline.

Auckland reduced its greenhouse gas emissions by 20% between 2010 and 2018, the 4th fastest among 10 measured peers. But while emissions are reducing, they are not reducing fast enough - in 2021, New Zealand had the 4th highest carbon footprint in the OECD, and Auckland's footprint was 15% higher still (OECD GHG emissions).<sup>167</sup>

**Lower active and public transport uptake.** Auckland is lowest among 8 APAC cities for share of journeys by walking, cycling or public transport. (Corporate Knights). Bike lane coverage is almost 60% smaller than the peer average (Kayak, based on length of bike routes per square mile).<sup>168</sup>

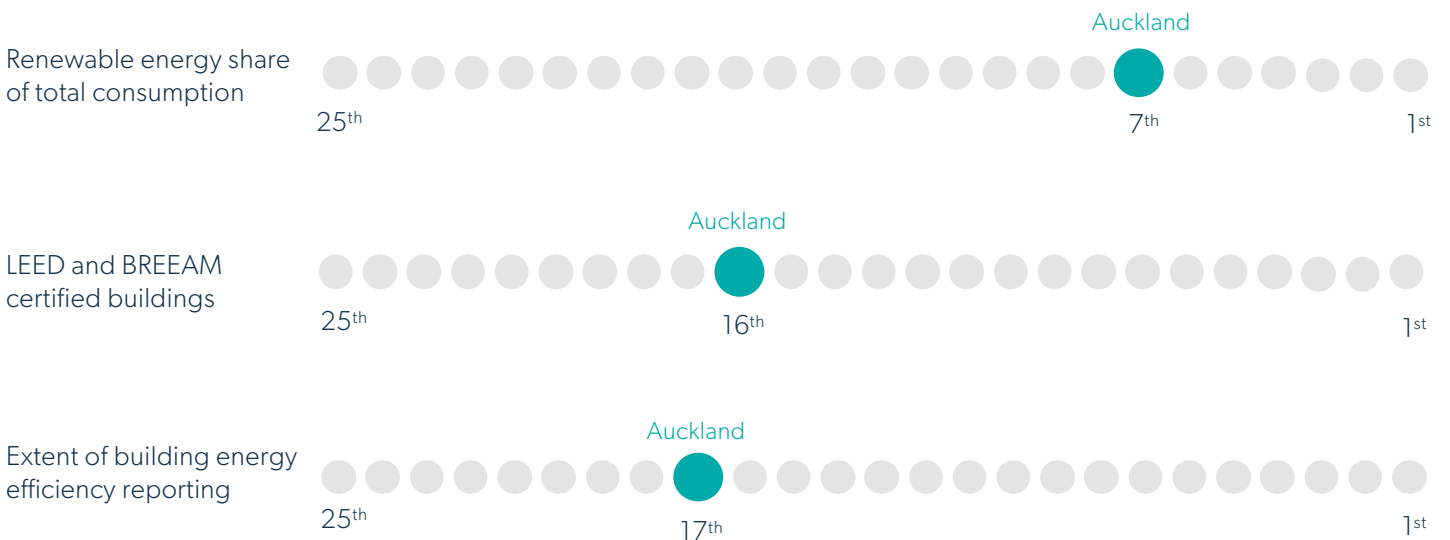
**Bottom 5 for green & circular buildings**

(Bloomberg, of 25 global cities)<sup>169</sup>



## Energy is cleaner but the buildings are not

Auckland's global rank in three measures of energy consumption (among 25 cities)



Source: Bloomberg Cities Barometer.<sup>170</sup>



# Next Steps

This benchmarking review reminds us that cities matter as essential organising units of the global economy, and as a prism through which individual life choices, future opportunities, and global prosperity are all viewed. Auckland's comparative and competitive position matters directly to the residents of the city, the interests of New Zealand as a nation, and to future generations.

Many of the issues holding back Auckland are well known and have been a driver for thinking boldly about Auckland's future. This paper is one piece of the jigsaw in response to the call in the Koi Tū report *Reimagining Tāmaki Makaurau Auckland* for an evidence base that can convene 'Team Auckland' and forge consensus on the city's priorities and the system-wide changes that Auckland should pursue if it wishes to improve.<sup>171</sup>







## Benchmarking for a better Auckland

International benchmarking provides something close to a one-stop resource for external data that can situate the city in a relevant international perspective. We invite collective utilisation of the information assembled here.

Benchmarking can be helpful in highlighting areas to focus on and galvanising people to work together. In many cities that have initiated a benchmarking series, it has been an important stimulus to a wider strategic process.

The city of Oslo in partnership with its regional neighbours has used its own State of the City report to underline the quest to grow the innovation economy and the base of new jobs. It uses the findings to bring together the startup and investor community to help crowdsource and co-own the 'Oslopolitan' brand story that can help the city attract the specialist tech talent and the key workers it urgently needs. The data, in Oslo as also in Glasgow and Victoria (British Columbia), has helped to agree on the leading economic edges to promote, tell a shared story, and create the conviction to support the city centre and one or two other dedicated innovation districts as places that bring sectors, disciplines and government agencies into new more fluent relationships.<sup>172</sup>

In Sydney, benchmarking insights crystallised the focus on the competitive risks to the city of becoming stuck in a permanent infrastructure deficit. The work helped to inform the direction of the revised metropolitan plan, and align more departments and agencies around the need to better sequence land-use and infrastructure, and make more use of transport locations for housing and mixed-use functions. Likewise the Amsterdam region has also used benchmarking to create an alliance with its neighbours and with the nation's institutional investors and built environment companies. The focus has been on highlighting the benefits of working in a joined up way, and on engaging national government more squarely to innovate in the way housing is funded and delivered.

The impact of whole-city benchmarking depends on the collaborative dialogue it generates.

### **The State of the City can help Auckland build up more of a Team Auckland approach to such goals as:**

- Establishing a compelling business and innovation identity in global markets.
- Agreeing Auckland-specific tools and arrangements with Government.
- Becoming a confidently leading city in the Southern Hemisphere for sustainability and culture.



# Appendix



# Appendix and Data Glossary

## Data Notes

### Auckland revised, page 18

Data is not always available for all cities. Cities included in each measure:

Less house price inflation	All peers except Austin, Fukuoka and Portland
Containing spike in city centre office vacancies	Austin, Brisbane, Dublin, Portland, Vancouver
Creating more new businesses	All peers
Avoiding shift away from public transport	All peers except Austin, Helsinki, Portland, Tel Aviv
Less congested car travel	All peers except Fukuoka and Tel Aviv
Airport passenger volumes	All peers except Fukuoka

<sup>1</sup>The Business of Cities Research, based on synthesis of regionally and globally accepted standards for measuring the true extent of functional urban areas (e.g. [Eurostat](#), [OECD](#), [UN Habitat](#) and in some cases census agencies)

<sup>2</sup>Reimagining Tāmaki Makaurau Auckland: <https://cdn.aucklandunlimited.com/corporate/assets/media/koi-tu-reimagining-tamaki-makaurau-auckland-report.pdf>

<sup>3</sup>Economist Intelligence Unit Global Liveability Index 2023: [www.eiu.com/n/auckland-tops-the-global-liveability-ranking/](http://www.eiu.com/n/auckland-tops-the-global-liveability-ranking/)

<sup>4</sup>Economist Intelligence Unit Global Liveability Index 2023: [https://pages.eiu.com/rs/753-RIQ-438/images/Jun-Global-Liveability-Index-2023.pdf?mkt\\_tok=NzUzLVJlUS00MzgAAAGM8rFnAl\\_Cz2w1DUyCBdBOwRZPmNaErclY-Wza7INsSEKNuDYbFU\\_kB8dJMZyp4IRq0C5fbHkN7Mny\\_y51trEBDnfQzQGEoJ04D6zYTQhPEKUsyA](https://pages.eiu.com/rs/753-RIQ-438/images/Jun-Global-Liveability-Index-2023.pdf?mkt_tok=NzUzLVJlUS00MzgAAAGM8rFnAl_Cz2w1DUyCBdBOwRZPmNaErclY-Wza7INsSEKNuDYbFU_kB8dJMZyp4IRq0C5fbHkN7Mny_y51trEBDnfQzQGEoJ04D6zYTQhPEKUsyA)

<sup>5</sup>Forbes Work Life Balance Index 2023 : [www.forbes.com/uk/advisor/business/work-life-balance-index/](http://www.forbes.com/uk/advisor/business/work-life-balance-index/); EIU Global Liveability Index 2023: [https://pages.eiu.com/rs/753-RIQ-438/images/Jun-Global-Liveability-Index-2023.pdf?mkt\\_tok=NzUzLVJlUS00MzgAAAGM8rFnAl\\_Cz2w1DUyCBdBOwRZPmNaErclY-Wza7INsSEKNuDYbFU\\_kB8dJMZyp4IRq0C5fbHkN7Mny\\_y51trEBDnfQzQGEoJ04D6zYTQhPEKUsyA](https://pages.eiu.com/rs/753-RIQ-438/images/Jun-Global-Liveability-Index-2023.pdf?mkt_tok=NzUzLVJlUS00MzgAAAGM8rFnAl_Cz2w1DUyCBdBOwRZPmNaErclY-Wza7INsSEKNuDYbFU_kB8dJMZyp4IRq0C5fbHkN7Mny_y51trEBDnfQzQGEoJ04D6zYTQhPEKUsyA); United Nations E-Government Survey 2022: <https://publicadministration.un.org/egovkb/en-us/Data/City>; QS Best Student Cities 2024: <https://www.topuniversities.com/city-rankings/2024>; Dell Women Entrepreneur Cities Index 2023: <https://dwen.com/wp-content/uploads/2023/01/WE-Cities-Report.pdf>; HSE Institute Global Cities Innovation Index 2023: <https://gcii.hse.ru/en/>; IESE Cities in Motion Index – Mobility & Transportation: <https://media.iese.edu/research/pdfs/ST-0633-E.pdf>; Saffron Tourism City Brand Barometer: [https://saffron-consultants.com/wp-content/uploads/2022/11/SAFFRON\\_221110\\_CBB\\_2022\\_Report.pdf](https://saffron-consultants.com/wp-content/uploads/2022/11/SAFFRON_221110_CBB_2022_Report.pdf); Chinese Academy of Social Science: Global Urban Competitiveness Report 2021: [https://unhabitat.org/sites/default/files/2020/10/global\\_urban\\_competitiveness\\_report\\_2019-2020\\_the\\_world\\_300\\_years\\_of\\_transformation\\_into\\_city.pdf](https://unhabitat.org/sites/default/files/2020/10/global_urban_competitiveness_report_2019-2020_the_world_300_years_of_transformation_into_city.pdf); Demographia International Housing Affordability: [www.demographia.com/dhi.pdf](http://www.demographia.com/dhi.pdf)

<sup>6</sup>KnightFrank Global Residential Cities Index Q3 2022: [www.knightfrank.com/research/report-library/global-residential-cities-index-q3-2022-9617.aspx](http://www.knightfrank.com/research/report-library/global-residential-cities-index-q3-2022-9617.aspx); KnightFrank Global Residential Cities Index Q3 2019: <https://content.knightfrank.com/research/1026/documents/en/global-residential-cities-index-q3-2019-6893.pdf>; Colliers Office Report (single data source not available – CBD data); Google Insights – Mode Share: <https://insights.sustainability.google/>; INRIX 2022 Global Traffic Scorecard: <https://inrix.com/scorecard/>; Airport Statistics Agencies (single data source not available – based on manual aggregation of passenger numbers from airport statistics agencies within each city’s metropolitan region. Excludes airports with <2m annual passengers. For Auckland: <https://corporate.aucklandairport.co.nz/news/publications/monthly-traffic-updates>);

<sup>7</sup>Stats New Zealand: [www.stats.govt.nz/tools/2018-census-place-summaries/auckland-region](http://www.stats.govt.nz/tools/2018-census-place-summaries/auckland-region)

<sup>8</sup>INSEAD Global City Talent Competitiveness Index – Ease of Doing Business: [www.insead.edu/sites/default/files/assets/dept/fr/gtci/GT-CI-2022-report.pdf](http://www.insead.edu/sites/default/files/assets/dept/fr/gtci/GT-CI-2022-report.pdf)

<sup>9</sup>The Business of Cities Research, based on Colliers data. For Auckland, see: <https://www.colliers.co.nz/download-article?itemId=95b8214a-66c3-4397-9410-0bc0d16bd270>

<sup>10</sup>IMD Smart City Index Report 2023: [www.imd.org/wp-content/uploads/2023/04/smartcityindex-2023-v7.pdf](http://www.imd.org/wp-content/uploads/2023/04/smartcityindex-2023-v7.pdf)

<sup>11</sup>Local census statistics. For Auckland: <https://www.stats.govt.nz/tools/2018-census-place-summaries/auckland-region#work-income-and-unpaid-activities>. Indigenous populations defined as Māori (Auckland), Aboriginal and Torres Strait Islanders (Brisbane, Sydney, Melbourne), American Indian and Alaska Native, Native Hawaiian and other Pacific Islander (Portland, San Diego), Indigenous Peoples (Vancouver).



- <sup>12</sup> Local census statistics. For Auckland: <https://www.stats.govt.nz/tools/2018-census-place-summaries/auckland-region#work-income-and-unpaid-activities>. Excludes students, retirees, those caring for family and others who are neither working nor seeking work. Indigenous populations defined as Māori (Auckland), Aboriginal and Torres Strait Islanders (Brisbane, Sydney, Melbourne), American Indian and Alaska Native, Native Hawaiian and other Pacific Islander (Portland, San Diego), Indigenous Peoples (Vancouver)
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- <sup>14</sup> ULI/PwC Emerging Trends in Real Estate 2023: [www.pwc.com/gx/en/asset-management/emerging-trends-real-estate/assets/pwc-and-uli-emerging-trends-in-real-estate-2023-asia-pacific.pdf](http://www.pwc.com/gx/en/asset-management/emerging-trends-real-estate/assets/pwc-and-uli-emerging-trends-in-real-estate-2023-asia-pacific.pdf)
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- <sup>17</sup> INSEAD Global City Talent Competitiveness Index – Forbes Global 2000 firms: [www.insead.edu/sites/default/files/assets/dept/fr/gtci/GTCI-2022-report.pdf](http://www.insead.edu/sites/default/files/assets/dept/fr/gtci/GTCI-2022-report.pdf)
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- <sup>21</sup> Kisi 2022 Work-Life Balance Index: [www.getkisi.com/work-life-balance-2022#table](http://www.getkisi.com/work-life-balance-2022#table)
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- <sup>23</sup> Dealroom, April 2023 data (accessed on <https://app.dealroom.co/companies>. Data not publicly available). Calculates share of firms with female founders, as a proportion of total number of firms who have publicly available data on the gender of their founder.
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- <sup>25</sup> INSEAD Global City Talent Competitiveness Index – Foreign-born population: [www.insead.edu/sites/default/files/assets/dept/fr/gtci/GTCI-2022-report.pdf](http://www.insead.edu/sites/default/files/assets/dept/fr/gtci/GTCI-2022-report.pdf)
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- <sup>47</sup> Dealroom, April 2023 data (accessed on <https://app.dealroom.co/companies>. Data not publicly available).
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**Deloitte.**

