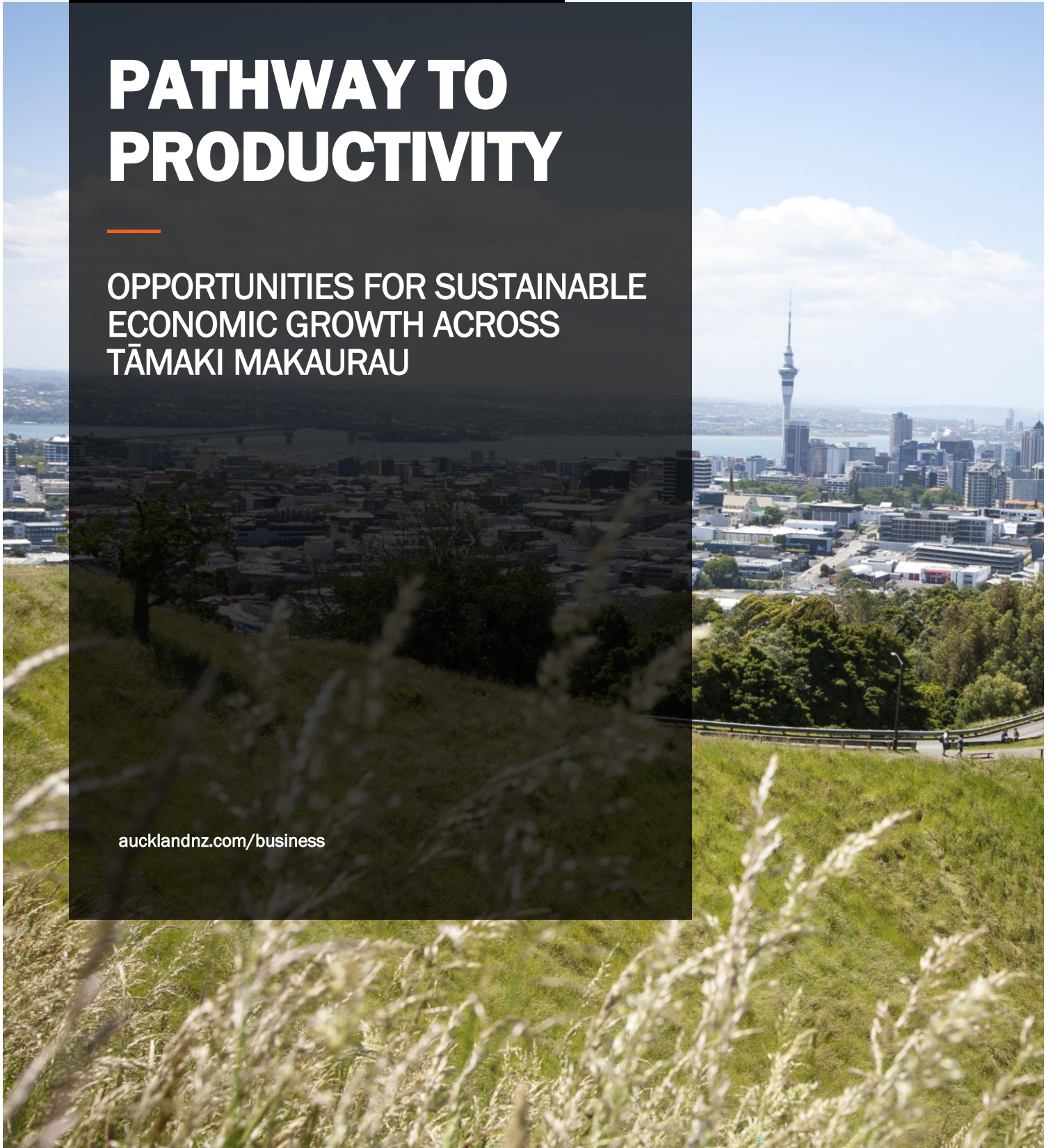


AUCKLAND ECONOMIC INSIGHTS SERIES

PATHWAY TO PRODUCTIVITY

OPPORTUNITIES FOR SUSTAINABLE
ECONOMIC GROWTH ACROSS
TĀMAKI MAKAURAU

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Presented by

Foreword

Auckland is a city in transition. Like many other places grappling with technological advances, newly emerging industries, infrastructure demands and changing skill requirements, to name a few, Auckland's future prosperity depends on successfully navigating a rapidly changing economic landscape. Previous Auckland Economic Insights Series reports make the case for a positive outlook, noting the region's many advantages, for example, including a generally well-educated workforce, a growing technology sector, gateways to international markets, a vibrant startup culture and an attractive cityscape and natural environment.

Rapid change, however, presents both opportunity and challenges. Obvious hurdles include traffic congestion and the cost of housing, along with limited innovation and investment, and skills shortages. These and other factors contribute to a drag on Auckland's international competitiveness, including its ability to attract critical inputs to growth such as investment and talent.

This report contributes to better understanding of these elements in terms of Auckland's productivity, an important driver of economic performance. To promote a future-ready Auckland we need to understand what productivity means for Auckland, why it matters and how it can be improved.

While Auckland is New Zealand's most productive city, there is no room for complacency. Auckland needs to increase productivity to prosper.

Auckland Tourism, Events and Economic Development's (ATEED) strategy¹ contains an explicit focus on productivity. The organisation's structure and work programmes deliver on a productivity agenda by attracting investment, improving skills, increasing the use of technology, working with high-value sectors and supporting entrepreneurship, business growth and innovation.

Responsibility for Auckland's productivity challenge belongs to all economic stakeholders. This includes individual entrepreneurs and firms, industries and industry bodies, local and central government.

ATEED's goal is to work closely across the business community to ensure Tāmaki Makaurau reaches its productivity potential.

Pam Ford

General Manager

Economic Development

Auckland Tourism, Events and Economic

Development ATEED

¹ Outlined in ATEED's Statement of Intent 2018-2021.

Productivity is key to sustainable economic growth

Productivity is fundamental to a region’s economic performance and the wellbeing of its citizens as “strong productivity growth allows countries to enjoy higher material living standards, including improved health and education services”².

Measuring productivity helps to understand the policies, programmes, events and business strategy needed for long-term improvements in economic performance and international competitiveness.

What is Productivity?

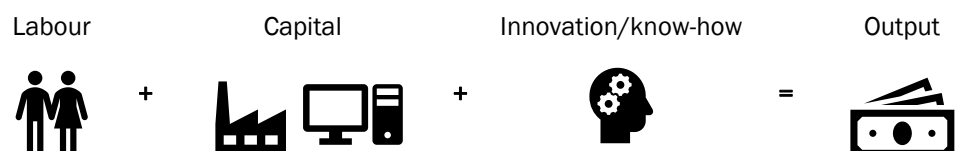
Productivity is a measure of efficiency – the level of output for a given level of input. Productivity increases by doing more with the same or the same with less, or a combination of both. The relationship is true for any activity and scale, whether an individual, a business or city economy.

While businesses often associate increased productivity with cost reduction, margins can also be increased by focusing on the production of higher-value products and services. Such strategies are often associated with higher levels of innovation and competitiveness and, in many instances, wages.

Most successful business people recognise a close association between higher productivity and profitability. Optimising productivity then, whether by reducing costs or selling for higher prices, is intrinsic to most for-profit business strategies. Broadly speaking, a country or region producing more valuable goods and services should be more productive.

Output (Figure 1) is a function of three key elements: labour (workforce); capital (land, machinery, equipment, inventory); and technological advances associated with business innovation (new knowledge, better processes and organisational structure, integrated networks and accumulated skills and so on).

FIGURE 1: COMPOSITION OF ECONOMIC OUTPUT



Output can be increased by adding more labour or capital to the production process. Alternatively, labour and capital can be combined more efficiently and effectively, assisted by technology. The gains from this process are expressed as Total Factor

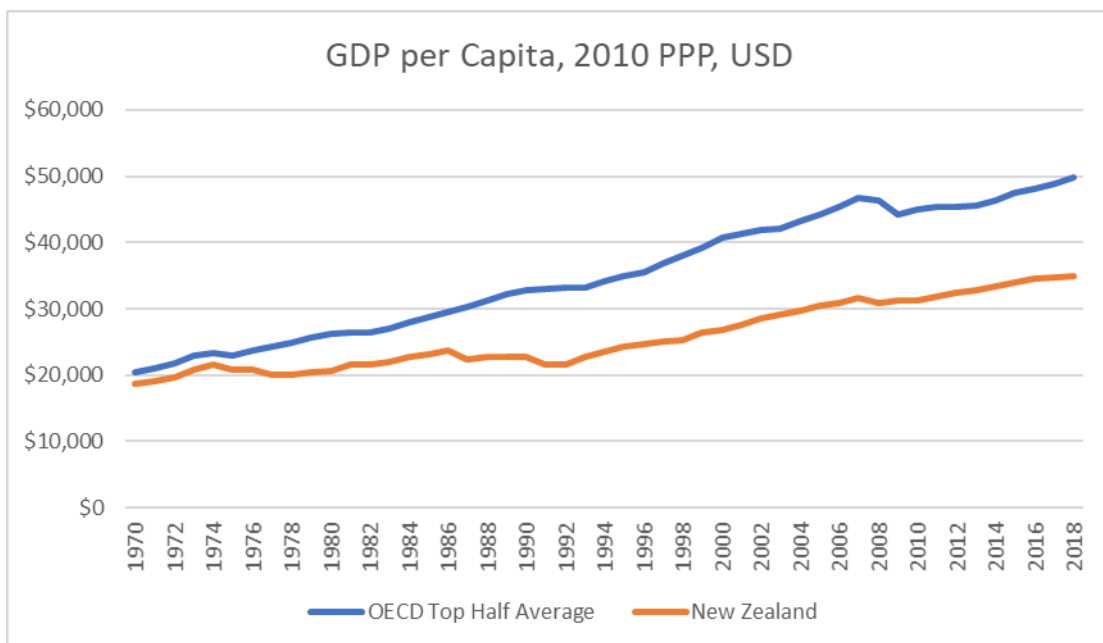
² New Zealand Productivity Commission (2016). *Achieving New Zealand’s productivity potential*.

Productivity (TFP)³ and are an important driver of the more commonly cited measure, labour productivity.⁴ At country and region level, higher labour productivity is closely associated with higher Gross Domestic Product (GDP) per capita, another frequent measure of performance.

Mind the gap

New Zealand has experienced long-term weak productivity growth. While such growth has been comparable with at least the top half of the OECD since the mid-2000s, New Zealand's overall productivity is around 40 per cent⁵ lower than this group of countries. Consequently, New Zealand's GDP per capita is also some 30 per cent⁶ lower. Since the emergence of this trend in the early 1970s, New Zealand has not caught up and the gap remains (Figure 2). Closing this productivity gap through higher labour productivity must be a priority for Auckland and wider New Zealand.

FIGURE 2: NEW ZEALAND'S OUTPUT GAP COMPARED WITH OECD



Source: OECD 2019.

So, where do we start? History shows that New Zealand's positive economic growth following the Global Financial Crisis was achieved predominantly by more people working longer hours. Underlining this performance, the OECD notes that, 'on average, New Zealanders work 10 per cent more hours than the OECD average, for 20 per cent less income'.⁷ In fact New Zealand's labour productivity worsened over this same period, largely due to businesses pulling back on investment.

³ Also expressed as multifactor productivity (MFP)

⁴ Output per unit of labour input (typically hours worked); New Zealand Productivity Commission (2019). *Productivity by the numbers*.

⁵ *ibid.*

⁶ *ibid.* p.1.

⁷ Policy Quarterly, Volume 14, Issue 3, August 2018, *Moving on from New Zealand's productivity paradox*.

Auckland's economy under the productivity microscope

Auckland is New Zealand's most productive city with estimated labour productivity, on average, some 17 per cent⁸ higher than the rest of New Zealand. The mix of industries and skill levels present in Auckland account for a sizeable portion of this premium, on the basis that some industries are inherently more productive than others and the city attracts a higher share of skilled workers. These advantages are consistent with global trends and the power of cities to bring together people, ideas and businesses for superior productivity performance.

Comparatively speaking

Much of Auckland's future prosperity depends on the performance of its businesses and the region's ability to compete internationally for investment and skills. Both are attracted to more productive economies with better business opportunities, appealing city amenities, and in the case of skilled workers, higher wages. By international standards, Auckland's comparatively low productivity may be impairing its competitiveness.

Many factors impact a city's productivity, such as distance to markets and industry makeup. Also, the fortunes of cities rise and fall according to ever-changing social, political and economic circumstances. Comparing Auckland's competitiveness with other places, particularly in terms of productivity, is therefore problematic. Comparison is further complicated by differences in data availability and measurement methodology. However, city comparison, while not an exact science, may be helpful for broad insights to the economic conditions associated with greater productivity and competitiveness in a global environment. Table 1 compares Auckland's labour productivity growth rate with selected Australian cities over a 10-year period from 2008-2018.

TABLE 1: COMPARISON OF LABOUR PRODUCTIVITY GROWTH RATES BETWEEN AUCKLAND, WELLINGTON AND SELECTED AUSTRALIAN CITIES 2008 – 2018⁹

| Labour productivity average annual growth rate (2008-2018) | |
|--|---------------------|
| Auckland | 0.20% |
| Wellington | 0.68% ¹⁰ |
| Brisbane | 0.60% |
| Melbourne | 0.65% |
| Sydney | 1.61% |
| Adelaide | 1.32% |

The above results put Auckland's productivity challenge into perspective. Relatively weak labour productivity growth risks eroding Auckland's future international competitiveness.

⁸ Mare (2016). Motu Working Paper 16-21. *Urban productivity estimation with heterogenous prices and labour*

⁹ NIEIR (Australia data); Statistics New Zealand and Infometrics (New Zealand data);

¹⁰ Auckland has a higher overall level of labour productivity than Wellington. However, the gap may be closing due to Wellington's higher rate of productivity growth.

This raises important questions about whether the current rate of productivity growth is sufficient to drive future economic prosperity and, if not, what needs to change. Whatever the solution, a better performing economy would look different to the current version.

What makes Auckland productive?

Auckland's dense, diverse and connected people networks spawn and enable the ideas and innovations primarily responsible for driving productivity. Typically, bigger, more complex populations facilitate greater economies of scale and niche innovation opportunities. Productive cities enable fluid interaction among people, knowledge, ideas and activities.

Auckland's overall productivity depends on the collective performance of individual businesses and organisations. A business's productivity is subject to many factors, including its own actions and conditions within the wider economic environment. These environmental factors affecting productivity include, for example:

- **Availability of skilled workers:** if business capability is embodied in its people, so too is a city's economy. A skilled, educated workforce features in all advanced economies weighted toward knowledge-intensive businesses and industries; delivering more valuable products and services and higher wages.
- **Industry structure:** a city's productivity is closely correlated with its industry mix and complexity. All things being equal, more people employed in higher-value industries paying higher wages results in more GDP per capita. Auckland's buoyant startup sector also plays an important role in transforming the city's industry structure with high-growth technology firms disrupting existing markets and spearheading the imperative for export-led growth.
- **Foreign direct investment (FDI):** foreign investment typically introduces new technology, management capability and networks that 'spill over' to local businesses. Through this process, foreign direct investment catalyses higher productivity among local businesses and the wider economy.
- **Sophistication of the innovation ecosystem:** a diverse and connected network of research facilities, commercialisation entities, startup accelerators, capital providers and infrastructure is essential for the development and commercialisation of new ideas and technologies.

Factors affecting productivity at business-level include:

- **Innovation** – Innovating businesses are typically more productive than non-innovating businesses. Innovation and its productivity-enhancing benefits can involve businesses developing new-to-the-world ideas and technologies or adopting technology from elsewhere. Whatever the approach, New Zealand businesses undertake limited innovation compared to other countries.¹¹ ¹² For example, a recent survey found that only 15 per cent of Auckland businesses significantly upgraded their technology in the last financial year.¹³ Consequently, most New Zealand businesses are substantially less productive than those few operating at national and international technology 'frontiers'. More concerning is that capital

¹¹ New Zealand Productivity Commission (2018). Can the Kiwi fly?

¹² NZ business R&D expenditure in 2018 was 0.63 per cent of GDP; OECD average was approx. 1.8 per cent. Firms innovating more broadly was 49 per cent compared to Australia on 66 per cent. Source: Ministry of Business, Innovation and Employment (2018). Research, Science & Innovation System Performance Report.

¹³ Auckland Council Business Survey 2019.

and labour is often *stuck* in poorly performing firms, starving better performing parts of the economy of much needed resources.¹⁴

- **Capital investment** – Investment in machines, equipment, buildings and technology is a predictor of positive business performance. Weak business investment has been identified as a key contributor to New Zealand’s low labour productivity growth. Industry structure, weak competition, small, insular markets, limited access to capital and low growth ambitions are thought to be contributing factors.
- **Management capability** – Realising a business’s productivity potential relies on effective leadership and management. Differences in management capability account for around half the gap in TFP between New Zealand and the United States.¹⁵ The problem may be attributable to the small size of most New Zealand firms, with owners tending to work *in*, rather than *on* their businesses. Limited spare time to learn, train and plan lowers incentives for building management capability.
- **Market ambition** – Competition for market share drives productivity by compelling firms to innovate and invest for advantage. Relatively low productivity among many New Zealand businesses and some industries presents opportunities for more ambitious and capable businesses to grow their local market share. Expansion into international markets is often associated with superior productivity as businesses are pushed to be more innovative and responsive to market opportunities.¹⁶ More Auckland firms competing successfully in international markets would contribute to higher wages and the attraction of talent and investment.

Housing and transport challenges

No discussion on Auckland’s productivity is complete without considering the role of housing and transport. An extensive commentary on their impact and complexities is beyond the scope of this report, other than to note that resolving these issues would lead to higher productivity. By one estimation, removing constraints on housing supply across New Zealand more broadly would result in economic gains of up to 7.7 per cent of GDP.¹⁷ An even greater impact might be expected in Auckland. Similarly, congestion-related costs to Auckland are estimated to range between \$0.9 billion and \$1.3 billion annually, or up to 1.4 per cent of the region’s GDP.¹⁸ Shorter travel times would reduce these losses with a consequential uplift in productivity.

What’s next for Auckland?

“A key economic challenge facing New Zealand is to successfully transition from a development model based on working more hours per capita to one that is focused on generating more value from time spent at work.”¹⁹

Auckland’s opportunity is to focus its energy and capability on a forward-looking economic agenda underpinned by higher productivity. Achieving this goal requires transitioning to a different economy – comprised of more innovation-led businesses with higher-value

¹⁴ New Zealand Productivity Commission (2016). *Achieving New Zealand’s productivity potential*.

¹⁵ Ministry of Business, Innovation and Employment (2018). *Getting under the hood*.

¹⁶ New Zealand Productivity Commission (2018). *Can the Kiwi fly?*

¹⁷ Mare, D. (2019). *The causes and economic consequences of rising regional house prices in New Zealand*.

¹⁸ NZIER (2017). *Benefits from Auckland road decongestion*.

¹⁹ New Zealand Productivity Commission (2016). *Achieving New Zealand’s productivity potential*.

products and services, a more complex and dynamic industry structure, improved mobility and better internationally connected. This will require leveraging existing and emerging technological and market strengths and greater investment in our people and technology at all levels in the economy. Responsibility for improving productivity belongs to businesses as much as government and other economic influencers, such as business associations and education institutions. Continuing to grow productivity at current levels is to continue falling behind in terms of decreasing international competitiveness and the region's ability to attract essential talent and investment needed for business growth.

Many of the essential building blocks for transformative change are present, including positive economic momentum. ATEED sees the changing economic environment is an opportunity for Auckland to seize to its advantage: to capitalize on the diversity, tenacity and inventiveness of its people; adopt and develop emerging technologies; exploit new business models; nurture emerging industries; and compete aggressively in international markets.

ATEED aspires to a future-ready Auckland economy delivering higher wages and prosperity for every citizen.

ATEED supports this approach with activity and a delivery model aimed at developing and attracting the required resources into Auckland and working with business and the innovation community to build capability and connections for a more productive economy. The approach brings clarity of purpose and action and aligns with ATEED's goal of inclusive and sustainable growth.

Raising Auckland's productivity – opportunities

Auckland operating environment

1. Skills

Better matching of workforce skills to jobs may create opportunities for lifting business performance and the region's productivity. This could be achieved through changes to educational curricula and better signalling to future students for greater alignment with industry demands²⁰, more effective and efficient job-search mechanisms and industry diversification for increased labour specialisation.

2. Foreign direct investment

Foreign direct investment often brings new technology and business practices into the local economy and increases competition that catalyses innovation and capability-building among existing businesses. In a world awash with capital, Auckland has the opportunity to pursue targeted investment into emerging high-value, high-potential sectors for accelerated expansion. Demonstrating that Auckland is 'open for business' to international investors is an important part of any such strategy. Also, the uptake of new funding models, including in the public sector, may accelerate the development of much-needed infrastructure, especially in transport.

3. Connectivity and collaboration

²⁰ For example, see <https://www.careers.govt.nz/plan-your-career/get-ideas-for-your-career/skills-employers-are-looking-for/>

Improving collaboration across the ecosystem, including between businesses, tertiary and research institutions may foster more and higher-value innovation, as would better wayfinding and support for starting and scaling high-growth-potential ventures. More frequent and strategic partnering between corporates and startups would further support innovation, market development and enrichment of the innovation ecosystem.

4. Mobility

The ability of businesses and workers to move about Auckland efficiently is a fundamental determinant of the region's productivity. New traffic management mechanisms, innovative transport technologies and multi-modal infrastructure investment will underpin a new mobility model for Auckland that potentially unlocks growth, creates new business opportunities and delivers environmental benefits.²¹

Business performance

1. Innovation

Staying ahead of the competition requires continuous improvement in many aspects of business performance. A purposeful focus on innovation can reveal new opportunities across a range of dimensions, such as business models, product design, internal processes, industry collaboration and marketing. Innovation also opens new market opportunities internationally, supporting revenue growth and employment.

2. Technology adoption

Adoption and better use of technology can give businesses a competitive edge by driving down costs, improving business capability and innovating for new or improved products that enhance growth and profitability. Clear business strategy, good advice and investment in related capabilities, especially new skills, help to maximise the benefits of technology, while lowering risks and costs. (see case study below: EZ Rentals)

3. Management practice

Effective business strategy, planning and coordination are critical to any firm's success. Firms have access to a vast selection of decision-support and business management software to improve these functions. Education and training are also critical to management capability. Decision makers at board and management level should be up to date with contemporary management practice and ensure strategy includes ways to lift productivity and competitiveness.

4. Workforce development

Skilled workers contribute to the business bottom line through efficiency gains, waste reduction, innovation and customer retention. Competitive businesses invest in their staff with training and development opportunities that establish career pathways and foster loyalty. It is also increasingly important in a period of labour shortages and rapidly changing technology to retrain existing workers with the skills needed to implement new technologies and innovations.

5. Pay and benefits

²¹ See Auckland Transport Alignment Project (ATAP) for a 10-year investment plan.

Business success is closely tied to the quality of its people. For businesses seeking to attract and retain their best people (including international talent), pay and benefits can provide important incentives and should be a central feature of business strategy – especially for companies with an eye to future growth.

6. Market development

New technology and upskilling can give ambitious businesses the competitive edge to build market share through improved service and better products. Business prospects are further strengthened by an innovation-led competitive strategy attuned to market and product trends, including internationally, when underpinned by good analysis and investment.

CASE STUDY. TECHNOLOGY ADOPTION: EZ RENTALS

EZ Rentals is a successful appliance and electronics rental business. Stephanie Duvander, the business owner, had been keeping services running smoothly for a few years but was keen to explore opportunities for growing the business.

EZ Rental's information management system was heavily paper-based with a centralised database located on one PC. The existing processes were not necessarily broken but the methods of managing them were.

Stephanie was concerned to ensure any solution retained her proven processes but didn't know where to start. She also believed business growth was hamstrung by the lack of a modern, efficient management system capable of evolving services to address market opportunities.

Most business owners don't have much time to communicate their needs and Stephanie was no exception. During a two-day workshop with an external coach Stephanie created space to model her business intent, customer journey and workflow. The workshop format also allowed for experts with cloud solution knowledge to help Stephanie clarify areas of the business model in which she lacked experience.

Stephanie gained confidence in her decision about where to start implementation and how to manage system evaluations objectively. She settled on a generic cloud-based customer relationship management (CRM) application with customisable modules to suit her specific business needs.

Six months down the track, Stephanie reports that development and implementation of the new system is going well, noting 'we are meeting all our targets. It was absolutely worth doing.' She states the specific benefits include:

- Increased efficiency across the business
- Online administration enables staff to work remotely
- Ability to scale for future increases in demand.

ATEED's productivity focus

ATEED works to improve Auckland's productivity via the following activities:

| Productivity focus | ATEED activities |
|---|--|
| 1 Business performance | ATEED works with individual businesses, providing guidance and connecting them to support and service-providers to build business management and innovation capability. This includes providing access to government-subsidised capability-building opportunities and research and development grants. ATEED also works with partners to support company growth through specific initiatives. Examples include international talent attraction, pop-up business schools and technology awareness seminars for small businesses. |
| 2 Future-ready skills | ATEED is leading discussion on the future of work and ways to prepare Aucklanders for a technology-focused, value-driven economy, including through international talent attraction, research, skills development and its Future Ready Summits. Addressing careers for young people who traditionally face poor education and employment outcomes is also a priority. The organisation is focused on enabling young people into quality jobs, including its contribution to the Auckland Jobs & Skills Hubs, its Youth Employer Pledge and its involvement with The Southern Initiative (TSI). |
| 3 High-performing entrepreneurship | ATEED supports the development of skilled entrepreneurs through various programmes, including tertiary education initiatives and competitions. GridAKL also supports the development of Auckland's entrepreneurial capability and culture as a place and community of learning, sharing and growth. |
| 4 Export-led growth | ATEED supports the growth of high-potential, internationally-focused and competitive businesses through a variety of initiatives including GridAKL – Auckland's innovation precinct and community – and its support for third-party programmes. ATEED's leadership role in international forums and events, such as the Tripartite Economic Alliance and APEC 2021, further contributes to promoting Auckland's economic profile and establishing export pathways for Auckland businesses. |
| 5 Economic transformation | ATEED works with selected industries, such as screen (TV, film and gaming), advanced manufacturing and tourism, as well as organisations capable of making a significant contribution to Auckland's productivity-fuelled growth. In addition, ATEED supports the development of technology businesses through its work with business accelerator programmes, investment attraction, GridAKL and trade development activities. |
| 6 Economic environment | As part of the Auckland Council group and through its close ties to central government and non-government bodies, ATEED advocates on matters of economic importance to Auckland. This includes, for example, working with fellow council-controlled organisation Panuku Development Auckland on regeneration opportunities and the Ministry of Business, Innovation and Employment (MBIE) on industry initiatives. ATEED further supports Local Boards with advice, research and connections to deliver local economic development initiatives. |

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GET IN TOUCH

Auckland Tourism, Events and Economic Development
welcomes comments and feedback on this insight paper.

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