# IT TAKES A CITY TO RAISE A GRADUATE

A report prepared for the Office of the Assistant Vice-Chancellor (Digital Futures)

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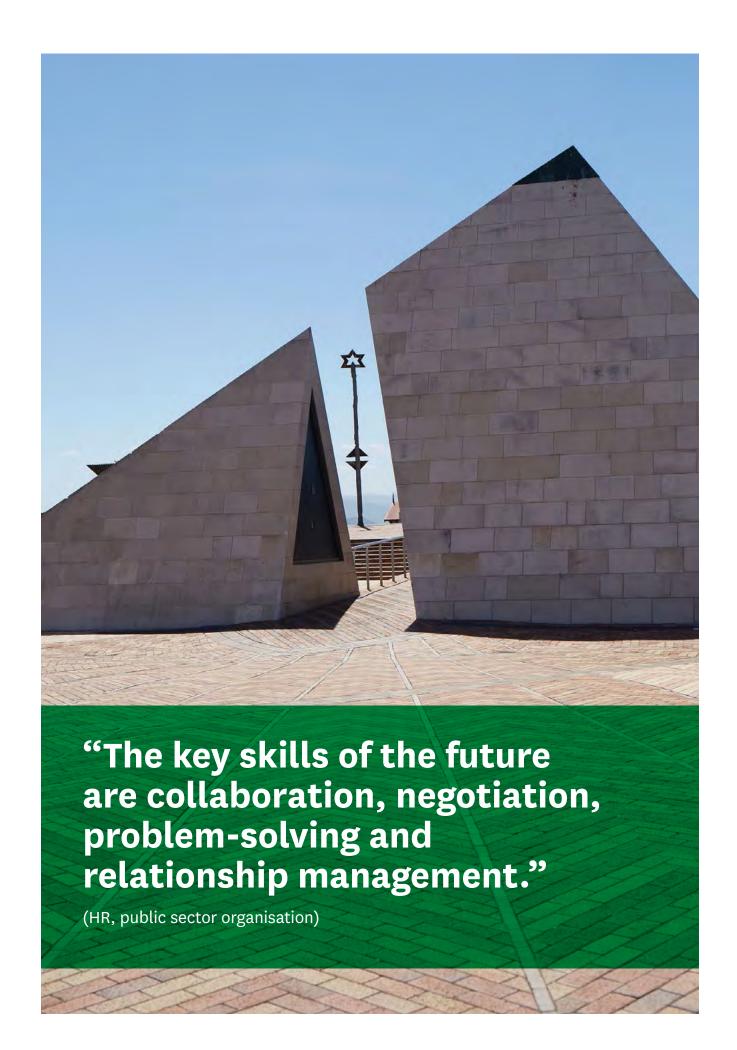
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in association with THE DOMINION POST
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"The key skills of the future are collaboration, negotiation, problem-solving and relationship management."

(HR, public sector organisation)

# INTRODUCTION

**Cities and the knowledge-based occupations they attract are now the driving forces for economic development and the development of new jobs.[1] This is in marked contrast to the land-based industries which created the wealth that enabled the founding of Victoria University of Wellington in 1897 as a tribute to Queen Victoria's 60th Jubilee. Victoria University, like many universities internationally, is now a major contributor to the work and economic life of its locality with 21,000 students and 2,100 staff.**

As with other well-established public and private sector institutions, universities are challenged by digitally driven change which is happening 10 times faster and at 300 times the scale of the first industrial revolution. This change is estimated to have 3,000 times the impact of the period of the eighteenth and nineteenth centuries.[2] Potentially 50 percent of work roles in the United States face a high risk of being automated over the next decade or two.[3] Anxiety about the impact of automation on job security is rising, and, although the scale of change is debated, the uncertain impact creates significant challenges for educators and current students.[4] Even 10 years ago, students could expect to have careers with reasonable 'job stability' to use specific skill-sets learned through a period of study. Linear careers in a single area of work were the norm. Now work is projected to more likely involve 'employability security'—the ability to apply broad generic and personal skills across a lifetime of multiple careers.[5]

Tertiary education institutions are increasingly urged by government, graduates and employers to reconsider graduate outcomes in terms of employability, career readiness and generic skills. For example, in its report to the new government in November 2017, New Zealand's Tertiary Education Commission urged more measurement of learner outputs (including employment); innovation and management of technological change on education and work; and active employer participation in shaping educational delivery.[6]

A Commission on the Future of Work led by Grant Robertson, now Minister of Finance with the Labour-led government, in November 2016 called for "a renewed social partnership between an active and capable government, a business sector focused on innovation and inclusion, and workers given a stake in their future and the opportunity to build wealth …" The Commission sought to ensure New Zealand did not "fall victim to 'techno-determinism' that sees us as merely passive recipients of this change, but rather that we adopt and adapt to ensure people have lives of fulfilment and dignity".[7]

In November 2017, nearly 400 people from the business, government and education sectors attended a Wellington conference entitled 'Work in Progress', highlighting the extent of public interest in the changing nature of work.

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[1] Florida, "The creative class (revisited)"; see also Mellander et al., *The creative class goes global*.

[2] A report by the McKinsey Consulting group, 2015: www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/the-four-global-forces-breaking-all-the-trends

[3] www.oxfordmartin.ox.ac.uk/downloads/academic/The_Future_of_Employment.pdf

[4] PwC Workforce of the future: The competing forces shaping 2030, published 2017, survey of 10,029 members of the general population based in China, Germany, India, the UK and the US. www.pwc.com/gx/en/ services/people-organisation/publications/workforce-of-the-future.html

[5] Bridgstock, "The graduate attributes we've overlooked"; Dries et al., "Self-perceived employability, organization-rated potential, and the psychological contract".

[6] Tertiary Education Commission, Briefing for the Incoming Minister of Education, 2017. Retrieved from http://www.tec.govt.nz/assets/Reports/TEC-Briefing-for-the-Incoming-Minister-2017-Hon-Chris-Hipkins.pdf

[7] Future of Work Commission, New Zealand Labour Party, November 2016, pages 6–7: www.futureofwork.nz

# EXECUTIVE SUMMARY

This report aims to contribute to a debate about 'work in progress' through insights from Wellington employers into terms that are regularly identified as important for 'employability'. These are skills and attributes such as communication, teamwork, engagement, openness to change, work ethic, critical thinking, emotional intelligence and creativity. This report draws on 86 student interviews with managers, Human Resource specialists and recent graduates at a cross-section of businesses, public sector and not-for-profit organisations. The interviews were conducted by Victoria University students participating in their final-year capstone course, Strategic Human Resource Management (HRIR 320), led by Dr Richard Norman from Victoria Business School.[8]

A major aim of the interviews was to provide students with experience interviewing at senior levels and help with their individual goals for seeking work. The interviews focused on the impact of technological change on organisational structure, workplace practice and graduate opportunities. This report focuses on the expectations of city employers for graduates making a transition into the workplace, often expressed with a frankness absent in official reports.

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[8] Interviews were conducted by students during August and September 2016.

# KEY THEMES

Interview findings provided field-based insights into the perceptions, experiences and expectations of Wellington business and public sector organisations. The following four key themes emerged, with example responses included in the chart:

1. **employability**—skills, work experience, networking

2. **engagement**—employer–tertiary connections, employer–student connections, employer–employee connections

3. **inclusion**—competition in recruitment and retention, growing an inclusive workplace

4. **Wellington advantage**—place-based advantages that foster graduate outcomes.

**EMPLOYABILITY**

"… good grades, part-time job of some sort, and something extracurricular which looks good … as well as a bit of luck …"

**INCLUSION**

"… there is a lot more focus in HR on diversity and inclusion …"

**ENGAGEMENT**

"… we are not the experts in education … we are the experts in saying what type of people we might want so just partnering up is the key thing."

**WELLINGTON ADVANTAGE**

"… we find Wellington is becoming more and more attractive so people want to live and work here and companies want to start here … there is a real ecosystem in Wellington around that talent …"

# EMPLOYABILITY

## " ... if I get a CV from somebody who hasn't got a record of part-time work I don't care how good your grades and qualifications are, I won't look at you."

(manager, public sector)

While 'soft' interpersonal skills rated strongly for interviewees, a significant number of employers placed special value on graduate work experience, in comparison with previous research with digital companies where technical expertise was highlighted.[9] Employers looked for evidence of work or extracurricular experience, and felt strongly about the tertiary sector incorporating work-ready pathways into traditional disciplines while providing valuable opportunities for students to participate in work-integrated learning, work experience or internships.

### WORK EXPERIENCE

In 2016, 24 percent of New Zealand's adult population held a Bachelor's degree compared to 15 percent in 2006, and 8.2 percent in 1996.[10] With increasing competition, students must differentiate themselves not by grades alone, but by extracurricular activities, more majors, postgraduate studies, internships and/or volunteer work. Currently, just under two-thirds of students at Victoria University (62 percent) are engaged in paid work with fewer students (39 percent) in voluntary work.[11]

The concept of 'individualization among equals'[12] becomes apparent in conversations with employers, many of whom were looking for graduate employees possessing the 'triple threat', as one managing director described it.

## " ... good grades, part-time job of some sort, and something extracurricular that looks good ... as well as a bit of luck ..."

(large consulting firm)

Employers spoke of two forms of work experience that they valued strongly. They were seeking experience through which soft skills had been tested and honed, and which had developed traits such as reliability and conflict resolution. Technically focused, skill-based work (often through internships and placements) was particularly important for employers in technology focused organisations.

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9 Norman, "Wellington's digital sector—growing under the radar".

10 Ministry of Education, "Profile and trends: Tertiary education outcomes and qualifications completions 2016".

11 Victoria University of Wellington, Student Voice Results, 2017.

12 Beck, *Risk society: Towards a new modernity*.

# General work experience was seen as essential to employability.

" … when we are hiring young people … we need somebody with some form of experience. You'll be surprised at how many people just don't (have it) … be that volunteering or having a job, just making sure they have some experience and having the right attitude."

(manager, large fintech company)

" … having to work with other people, having to come to work on time, having to adhere to a roster, take instruction, show innovation … if I get a CV from somebody who hasn't got a record of part-time work I don't care how good your grades and qualifications are, I won't look at you."

(manager, public sector organisation)

"I don't care what you've done from a work perspective but I want you to have worked in part-time roles … that you understand the dynamic of working."

(HR, large corporation)

**Skill-specific work experience**, particularly for graduate employees who took part in the interviews, offered not only opportunities to test the culture of different companies or organisations, but also to develop an initial understanding of the requirements of their future profession.

"Summer of Tech-type programmes are great—they help you build the culture and personality for the industry that you choose … the best companies to work for like Xero and TradeMe, they hire on culture."

(graduate employee and participant in Summer of Tech)

"For a graduate these days to thrive, they need to be really adaptive and be able to deal with change because, with technology, things are changing so quickly that it's not how it used to be … a slow or gradual change. So when we are looking to recruit, particularly in certain roles like technology, we need people who are really versatile, adaptive, flexible, have really broad skills."

(large telecommunications company)

**With comparatively high levels of employment**, recruiters were particularly interested in how graduate skills could be accelerated through programmes such as work-integrated learning, internships and work pathways.

" … if there's an increasing reliance on technology, perhaps on a regional level we can think about how we create pathways for people to go into training so that they can support industries that are reliant on the technology."

(HR, corporation)

"I don't think we make enough of the opportunities to create internships for our students to work within our organisations and connect them to the right places."

(HR, tertiary institution)

" … real-world experience should start from your very first year at university."

(CEO, incubator/accelerator)

## SOFT SKILLS

Among those interviewed were relatively recent graduates, who were surprised about the value of generic soft skills over grades for successful employment. As several graduate interviewees commented, it was their cultural and organisational fit that secured their position rather than skill level, which was perceived by employers to be teachable.

"When I first got interviewed … nobody wanted to know my grades across various subjects … they were looking for evidence that you know what's going on and how to work with people."
(graduate, public sector organisation)

" … they were willing to hire me because I was a better fit, and let me grow in the company."
(graduate, large corporation)

"So moving into technology … I had none of those skills but a big part of it was the recruitment manager thought I'd work well in a team and said, don't worry about the technology stuff, we'll teach you that."
(graduate, banking sector)

From an employer's perspective, the theme of acquiring the right work–culture fit was evident across organisational size and type.

"Sometimes acquiring the right people is more important than acquiring the right expertise for me. Especially when you're in a little company, that pivots all the time. The right attitude of just saying 'we just need to get this done' rather than someone who has the right credentials but they are too fixed in their thinking."
(CE, start-up company)

"You want people who are keen, eager to learn, a good level of ability. Good relational and people skills, willing to ask. The worst thing is to have a high-maintenance person."
(HR, public sector)

" … from a policy perspective it is totally soft skills. There is very little technical skill that you could bring that would differentiate you from someone else."
(HR, public sector organisation)

" … (we need) people who can still perform well under pressure, or in a team regardless of what the team's like, who will respond to constructive feedback—we mean to improve their performance—who will take pride and ownership of their work."
(large fintech company)

"I'm finding that we don't want and need IT geeks internally sitting there coding or whatever, we don't have a need for that. That will be outsourced if needed … People skills and relationship skills are more important."
(global technology company)

However, many Wellington companies that operate both nationally and internationally were acutely aware of the technical skill shortage, particularly in IT, and conducted international searches for skilled employers. These companies wanted graduates with strengths in both soft and hard skills.

" … we do not hire people who are just technically brilliant—we hire people who are technically brilliant and fit our culture, because our culture is our brand."
(global IT consultant)

" … it's not about this person got straight As but they can't work with others. It's a balance that they're smart and quick and that they can hold a good conversation and relate to people and collaborate well and effectively communicate."

(large fintech company)

"[We] tend to hire people for their skills rather than need—if a skilled professional comes to the company we tend to hire them anyway and get them doing random internal jobs … for example, backend developers are in high demand—not a lot of Kiwis are skilled in this area so we do have to look overseas …"

(large IT consultants)

" … the stuff we're looking for is that they're intelligent and that they're going to be good technically when they get into their roles. The other big part of it is that they're going to be able to work well with other people."

(manager, large fintech)

# ENGAGEMENT

**Interviewees frequently expressed interest in connecting with tertiary education and how practices of inclusion and diversity could help shape graduate opportunities.**

## PARTNERSHIPS AND RESPONSIBILITIES

### Workplace responsibility

It was important to many employers that tertiary institutions maintained twenty-first century relevance in various skill-specific disciplines such as IT and business, potentially through partnerships, and increased employer–university engagement.[13]

**" … we are not the experts in education … we are the experts in saying what type of people we might want, so just partnering up is the key thing."**
(global post-production company)

However, there was an expectation expressed in these interviews that responsibility for graduate development also lies with the employer, particularly in light of technological impacts on the workplace.

**" … because we're taking away those lower level roles we really need to make a conscious effort to provide ways for younger employees to grow in the organisation."**
(general manager, large corporation)

**" … those of us in the legal industry don't think that a legal degree prepares you that well … what it tells you really is that someone is smart enough and diligent enough to do the work. We have a very structured training programme and it's trying to equip them with basic-level skills [in] different areas of the firm."**
(medium-sized law firm)

**" … we hire from any discipline … and we cross-train them into software testing and we get them into the tech industry … there are transferable skills that you learn like critical thinking or researching and logical argument … you cross-train people and upskill them with technology to remove this skill shortage."**
(IT consulting firm)

**" … ultimately it's about looking at our aspiring leaders and giving them a meaty project to work on that gives them the development they need."**
(medium-sized corporation)

**" … this is a life of skills and, in any minute, my job can get cut. For smart companies, they need to start building skills for their people so that jobs and skills are transferable."**
(HR, large corporation)

Although technology is changing business practice in terms of organisational design, workplace practice and graduate opportunities, throughout these interviews there was little in the way of discussion of nano-degrees, micro-degrees, Massive Open Online Courses (MOOCs), educational technology initiatives and other short-term educational tertiary initiatives to enhance staff or graduate performance. These ideas may have gained traction during 2017, but the emphasis of interviewees was on training which encompassed mentoring and cross-team learning, with online platforms assisting rather than dominating.

**"We have responded by going overseas for training. We are trialling online evaluation training from Melbourne University … totally online …"**
(medium-sized public sector organisation)

" ... one of the main changes has been the change in training from classroom or boardroom environments to an online format."
(medium-sized financial services organisation)

"It takes three years to get an IT degree, which is too long. There are places like Dev Academy that give you the skills in eight weeks' time to get a job in IT ... we're constantly providing learning programmes to help employees upskill themselves."
(business developer)

### Graduate responsibility

Interviewees noted that the responsibility for development and skill acquisition needed to be reciprocal. Graduates were encouraged to be active in their desire to learn and broaden their employability.

"Everyone is always encouraging people to reach for something higher ... if you're willing to ask a lot of questions and show you are really keen to learn, ask people for help, then I think those are really important skills ..."
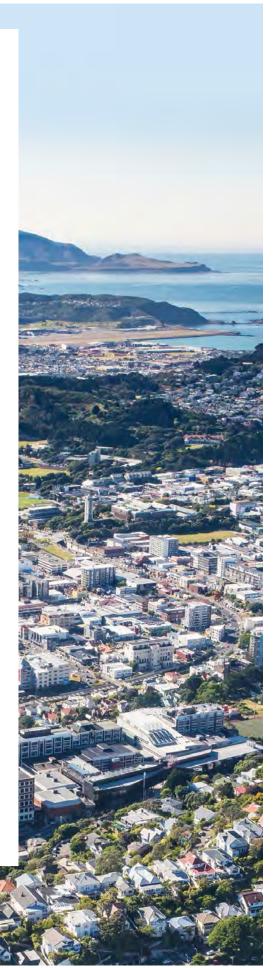(graduate employee, large financial institution)

"It's not so much teaching people how to use technology, its more about having people who are open, receptive, fast and can think more broadly."
(HR, large corporation)

"Graduates have an advantage right now that they are growing up with technology."
(large financial services company)

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[13] Please note that, at the time of the interviews, the IT Graduate School was just opening so did not feature, and partnerships such as the Wellington Miramar Creative Centre were in the pipeline.

# INCLUSION

## DIVERSITY AND INCLUSION

An inclusive tertiary institution that successfully supports cultural, gender, disability, sexual and religious diversity contributes not only to a more diverse future workforce but also to a more inclusive civic society. The provision of a safe and healthy campus is integral to inclusion and belonging, contributing as it does to a heightened sense of wellbeing, higher rates of staff retention and improved student experience.[14] Parallel to this is a growing awareness from the tertiary sector of its role in challenging broader structural impediments to wellbeing and inclusion practices, both within its own sphere and the broader community.[15]

There was acknowledgement from both public and private sector interviewees that workforce diversity is important in terms of workplace engagement, satisfaction and talent acquisition, but that more can be done.

For businesses, diversity was typically discussed more narrowly in terms of flexible working environments, and encouraging parents back into the workforce.

**" … working flexibly has a payoff in terms of being more attractive from a diversity point of view, but also from a talent point of view. … I don't just look at this as a diversity issue, I think it's an issue of talent. To be able to operate flexibly allows us to retain talent. It also places us in a better position to attract and retain a more diverse workforce."**
(head of HR, large energy distribution company)

Similarly, interviewees noted the impact of flexible work practices on hiring and staff retention.

**"The way we work with our people is quite different to what it used to be—employers used to be able to drive things and be quite directive, but now you have to think more about your people as almost like your customers because it's hard to find great talent, and you want to keep great talent."**
(medium-sized financial institution)

**"There is a big push around the diversity inclusiveness council. We are heavily investing in this, we have hired people all over around the world who have different personalities, languages and communication skills and it is naturally accepted and works well around the global nature of the firm."**
(global consulting firm)

However, other facets of workplace diversity were a consideration during these interviews, including ethnic, cultural and sexual diversity.

**" … we have a really strong push for diversity—one of those things in New Zealand is the lesbian, gay, bisexual and transgender community …"**
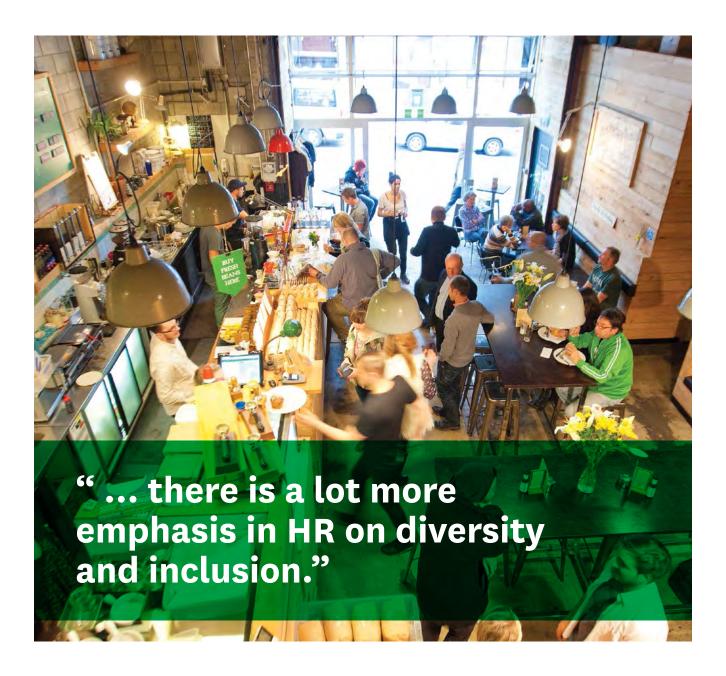(medium-sized financial institution)

**"We need grads who are much more globally minded because they will be working with people in Australia and Asia."**
(large consulting firm)

**" … one of our big things over here is about diversity and increasing diversity within the public sector … we're still struggling a bit with this."**
(HR, public sector organisation)

> " ... there is a lot more emphasis in HR on diversity and inclusion."

**"We now actively seek Mandarin speakers, [and] the Indian immigrant community in Auckland is growing so we need to have people and our staff need to match ... so it's about creating a community."**
(large financial organisation)

Similarly, training staff to become more 'aware of your own diversity biases' was a more prominent feature during these interviews than previously.

**"[We are] thinking more about training because everyone needs different ways of learning. Every culture is different and how every culture wants to interact with [us]."**
(large financial institution)

14 El Ansari and Stock, "Is the health and wellbeing of university students associated with their academic performance?".

15 The Okanagan Charter, "An international charter for health promoting universities and colleges", 2015, at p.2. Retrieved from https://wellbeing. ubc.ca/okanagan-charter

# WELLINGTON'S ADVANTAGE

**" … most if not all workplaces in Wellington have been affected by technology changes in many ways, shape and form …"**
(HR, bank)

**"Due to the rising number of companies coming, Wellington can be soon on the way to be the high-tech capital city."**
(medium-sized IT company)

A 2015 report into work-integrated learning found many employers in Wellington were looking for opportunities to engage with Victoria University, feeling that the assessment practice that they participated in not only gave them a connection with students, and university learning, but also an opportunity to contribute their skills and expertise to student learning.[16]

An engaged university is one that encourages both holistic graduate outcomes, as well as local and international civic culture through study, analysis, public learning, local research, community development and 'action-oriented student learning'.[17] Graduates from such a university can move beyond notions of Wellington as a 'smart city' to embrace its position as a 'wise city'—one that values democracy, sustainability, justice and inclusivity, and uses technology as a 'servant of public purpose', not as the driver.[18]

Wellington holds the highest proportion of degree-qualified employees in New Zealand. Current indications suggest that tertiary-qualified graduates command higher lifetime salaries and are more likely to be employed than non-tertiary graduates. Premiums for university education emerge between 25–29 years of age, peak between 40–49 years of age and are effectively sustained until retirement.[19] Beyond individual advantages, there is some evidence that tertiary-qualified staff also raise the income of non-tertiary qualified staff.[20]

Similarly, Wellington has a strong technology sector. Wellington (with Auckland) continues to account for the higher share of jobs in computer system design—accounting for 5.7 percent of regional employment—the highest proportion of any New Zealand region. During 2017, an international recruitment initiative by the Wellington Regional Economic Development Agency (WREDA), named LookSee Wellington, expected a response from 2,500 applicants, but was overwhelmed with 48,000 applications.[21] The catalyst for a successful technology base is a sustainable supply of skilled resources and talent that can come via a transformation of the local talent base, educational opportunities (starting prior to tertiary education) and developing work-ready graduates.[22]

As one manager during the interviews said:

**" … technology in those more niche markets is a huge enabler because we're at the bottom end of the world—it's enabling us to connect to industry and markets around the world and that's critical from a growth point of view for Wellington."**
(government organisation)

Wellington's advantages were expressed in many ways by participants. Networking and communication played a pivotal role.

**"I mean the good thing about Wellington is that it's small, so you know I think we should be communicating."**
(global post-production company)

So, too, interviewees recognised that the international nature of technological recruitment creates a flourishing ecosystem with a snowball effect on talent and opportunities for Wellington.

**" … there is a real ecosystem in Wellington around that talent and I think there is a real advantage in having a cluster of businesses which are similar in the talent that they require."**
(post-production company)

**"Wellington has a really strong international workforce, particularly in the IT sector … that attracts international talent and overall improves Wellington as the country's IT capital."**
(corporation)

**"We have quite a lot of small start-ups in Wellington and I think that that really is a great thing … we are small and compact and have a cool vibe so we attract start-ups."**
(large financial organisation)

In addition, digital transformation in the public sector was having a significant impact on work opportunities and changing perceptions of Wellington.

**"I think the public sector presents a really awesome opportunity for transformation. So digital transformation, I think that will be a massive opportunity."**
(large financial company)

**"What has kept Wellington going is that we've got a very large digital and technology capability. It's the heart of where it started and also where a lot of the public sector is."**
(medium-sized financial company)

**"Wellington workplaces should try to embrace technology and not be afraid to try out things. We are a perfect environment to do that and most people in this city are quite receptive to technology as well, in a good way."**
(large fintech)

Both graduates and long-term employees used both formal and informal networks to establish connections within the Wellington job market.

**"I wasn't an intern but my flatmate was, so that's how I got into the grad programme."**
(graduate employee, finance)

Similarly, many businesses hired internally, or used extensive networks to recruit, in addition to online methods.

**"In the sense that most people who work here were a known entity or were approached through our existing networks … it's a sausage effect. You bring in one, who brings in the others. I'd prefer to hire someone who has been vetted by someone already in the company."**
(managing director, international tech company)

The networked nature of Wellington's job market mirrors previous reports that both size and connectedness shape work opportunities in Wellington in ways that are not so prevalent in other cities.

[16] Hansen, "Evaluating the effectiveness of the authentic 'interview' assessment on student understanding of workplace issues in human resources".

[17] Hambleton, "English devolution: Learning lessons from international models of sub-national governance".

[18] Hambleton, "From the smart city to the wise city: The role of universities in place-based leadership".

[19] NZIER, 2017.

[20] NZIER, 2016.

[21] MBIE, "Success Breeds Success".

[22] MBIE, "Success Breeds Success".

# CONCLUSION

**The insights in this report based on 86 interviews of public, private and educational sectors highlight opportunities and challenges for tertiary education, based on four key themes. These exploratory interviews emphasise the extent to which educators and employers who are committed to encouraging emerging talent are key contributors towards city-based, knowledge-driven economic development. The phrase 'it takes a city to raise a graduate' encapsulates the opportunities and challenges.**

1. Wellington has significant advantages for connections between education and work because of the compactness of the city and transport networks for the region.

2. For a significant number of employers, student work experience or relevant extracurricular experience is a major positive.

3. Public and private sector leaders are seeking opportunities to engage with the tertiary sector in terms of partnerships and interaction with students, while still recognising their role in providing on-the-job growth opportunities for graduates and employees. Mentoring and in-house training were emphasised by employers with little discussion of the value of tertiary upskilling.

4. Inclusive workplaces that are more representative of changing New Zealand demographics are concerns for employers and educators.

The importance of connections across sectors was highlighted at the November 2017 conference 'Work in Progress'. The venue for the event, the 1912-built St James Theatre in Courtenay Place, provided a symbolic connection to the second industrial revolution, powered by the motor car and electricity.

Wellington now has major opportunities in the 'fourth industrial revolution', based on digital technologies, because it is New Zealand's strongest knowledge economy, with the youngest average population and highest level of qualifications. It has nearly 50 percent of workers in knowledge-based roles, compared with a New Zealand average of 35 percent.

The ecology metaphor is increasingly used internationally as a way of understanding how city economies build new businesses. Wellington has an outstanding example of ecological work with Zealandia, now 20 years into a 500-year restoration of pre-human New Zealand life. The human challenges that emerge from technology change need similar systems thinking. These new challenges need cross-generation and cross-sector perspectives.

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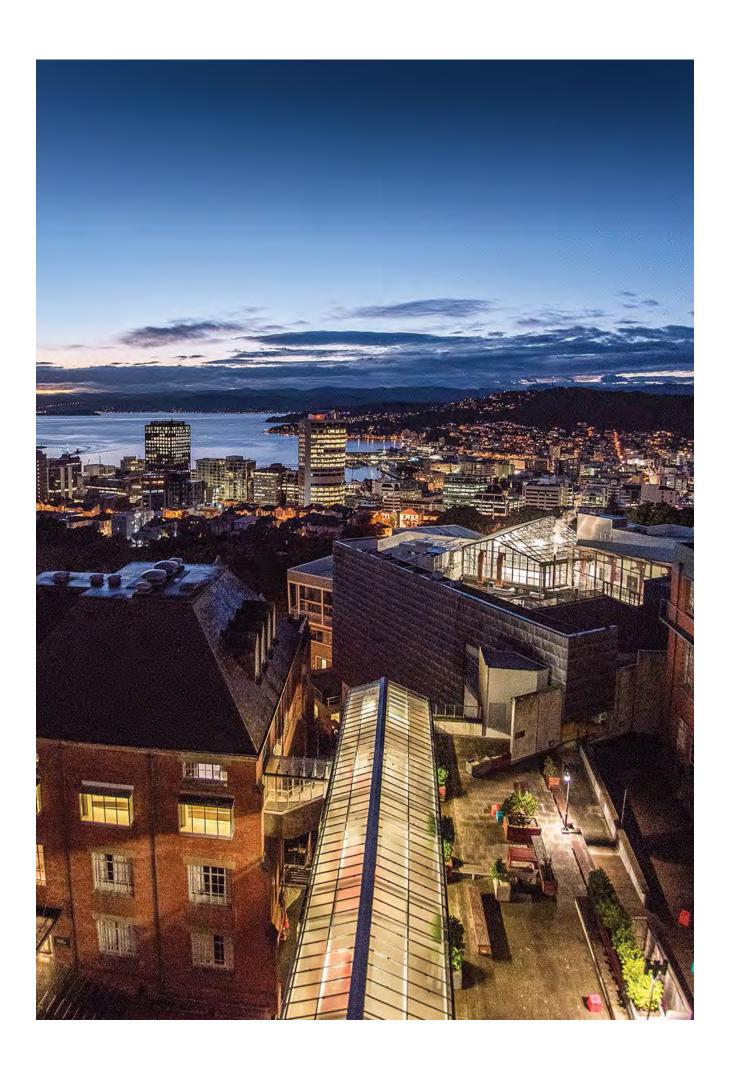
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