



Digital transformations for a modern Aotearoa New Zealand

November 2022



CONTEXT

Understanding the current landscape

After several years of chaos, disruptions and crises, 2022 was the first year since 2019 that much of the world returned to some sort of normality. For Aotearoa New Zealand, being a small country with a small population, that normality quickly settled in, and although many changes forced by the pandemic are still in place, and there are still some ongoing residual pandemic issues, including hybrid working and a greater use of technology across most industries, the pandemic is largely seen as a recent and confronting memory, but nonetheless something that is now firmly in the rear view mirror.

In fact, when asked at the start of the Innovate New Zealand symposium in November 2022 about the biggest challenges facing New Zealand at the moment (**Figure 1**), a whopping 52% of respondents said that talent attraction and retention was the biggest challenge, with 18% declaring that economic issues were the biggest challenge. All other options were in single digits, with only 4% of respondents suggesting that the continued pandemic response was the biggest challenge. In other words, the respondents have seemed to have moved on beyond the pandemic to other more pressing matters for their agencies.



In some ways, New Zealand was better prepared than most when it came to overcoming the pandemic and returning to a sense of normality, at least from a technological perspective. In 2019, the government launched a ‘Strategy for a Digital Public Service’, which was designed to be ‘a call to action for the public service to operate in the digital world in a more modern and efficient way’.¹

In launching the strategy, the then Minister of Government Digital Services, The Hon Kris Faafoi, said that it ‘offers an opportunity for our public service to move into the future and give people the same speed and quality of experience with government agencies that they have with private sector organisations.’ So much so that digital ‘has come to mean doing things differently, using new mindsets, skills and data, as well as technologies that have led to the development of new ways of working with which we are now so familiar.’² As part of the strategy therefore, certain gaps were identified, and specific behaviours and priorities were suggested to fill those gaps. Unsurprisingly, and in line with the responses above, one of the major gaps was talent acquisition, with the strategy providing numerous methodologies for better attraction and retention. But at the same time, the strategy also identified that New Zealand has the skills and the expertise. It is just that sometimes they are misdirected. This too is in line with the responses from participants

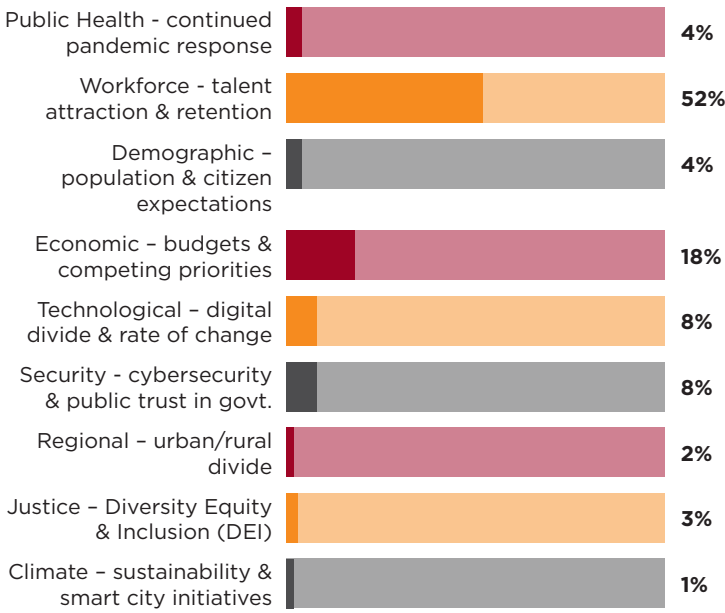


Figure 1: Biggest challenges facing the New Zealand public sector

1 <https://www.digital.govt.nz/assets/Digital-government/Strategy/Strategy-for-a-Digital-Public-Service.pdf>
2 <https://www.digital.govt.nz/digital-government/strategy/strategy-summary/strategy-for-a-digital-public-service/>



at the start of Innovate NZ. **As Figure 2** shows, despite talent and retention being the greatest challenge, 53% of respondents said that people / skills are NZ's greatest strength in meeting the challenges of the future, whilst 36% said that collaboration was the greatest strength.

This shows that New Zealand has the right people, and with collaboration, they can achieve great results. As such, many of the priorities of the public sector, like the strategy itself, continue to be updated and continue to be a work in progress across all agencies, especially given the changes forced on the public sector and the whole country by the pandemic.

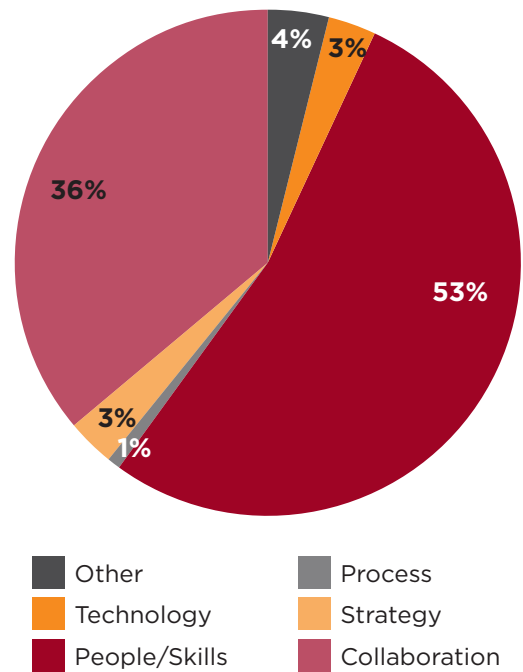


Figure 2: NZ's greatest strengths for future challenges

CASE STUDIES

Successful government innovation transformations

The strategy is a whole-of-government document, designed to elevate all agencies to the same standard. But many agencies began their transformation and innovation journeys well before the release of the strategy, and for very different reasons. What follows are case studies of three different agencies and how they innovated and transformed their processes during the last few years. Though they are all different and from different industries, each of the agencies used many of the fundamentals contained in the strategy to guide their journeys, as well as the elements shown in figure 2, namely collaboration, strategy, process, people/skills and technology, though not necessarily with the same focus as the results shown above.



Inland Revenue

Te Tari Taake Inland Revenue began their journey in 2013. Chris Webb, the Managing Partner of Public Sector Consulting New Zealand and a former senior executive at the Department of Internal Affairs with deep knowledge in the field, says that the transformation at Inland Revenue is a great success story because they “took a whole-of-organisation approach to their digital transformation, not just a technology focus. It was a business transformation focused on citizen outcomes, and they re-imagined what the agency should look like rather than simply renewing or refreshing it.” What they discovered in 2011 when they first started looking at a potential transformation, is that the “systems were no longer able to meet the needs required, and were no longer able to allow for policy change.” As such, “transformation was therefore a necessity.” However, they didn’t go into the process blind. They knew it could cost in the vicinity of \$1.5 billion, and that “the change cost grows exponentially.” On top of that, they still had a “memory of previous spectacular failures” and knew that it would take multiple years. However, it was better to reconstruct than to renovate, and although it would be like “flying a plane while rebuilding it, since the current model was not up to scratch, that seemed like the only option.”

The problem was that they didn’t want the process to be any more complicated than it needed to be, so they adopted a “clear and simple strategy,” one that allowed them to “review how the revenue system was administered. The intent was then to deliver a modern, digital revenue system.” Although the participants at Innovate NZ said that strategy was the greatest strength in meeting the challenges of the future in 3% of cases, at Inland Revenue strategy is what drove their transformation. They needed a strategy, in part because they wanted their process to “have cross party support” and it needed to be “fully transparent.” Knowing that it would take a long time, the process also needed “multi-year appropriation funding.” This is essential, for without it, “you will spend significant time in administration trying to move money around, lose significant productivity while

teams spend a lot of their time building the case for the next phase, and find it difficult to commercially negotiate the best deals.” Ultimately, with all the systems and processes in place, the transformation was envisioned with “customer needs at the centre of all the thinking.” This is and has always been a core principle of all change.

The transformation process took four stages across more than four and a half years (Feb 2017 to Oct 2021). Each stage required “customers to be contacted (a total of over 5 million), accounts, returns and transactions to be migrated, and tests to be completed.” Ultimately the “whole transformation took a huge effort,” but from the beginning, there was a mindset that the team(s) running the transformation “expected to be successful.” This was their motivation, and thus throughout the process, they were “transparent, including when they failed, and they learnt from their mistakes, they planned to deliver benefits, and most importantly, they put the customers at the centre of all their thinking.” They collaborated, they used the strength of their people and they created an appropriate strategy and process.

As a result of the transformation, every element is now “easier for customers, plus there is resilience and agility built in to all the processes.” But from a financial perspective, the benefits have been even greater. There has been a “\$1.33 billion reduction in compliance costs, \$495 million in savings for the agency, and \$2.88 billion in additional revenue.” Some of the savings came from a consolidation of administration costs, as well as an amalgamation of systems to create “a common process model.” The transformation worked because there was a necessity that drove it, but importantly, it was supported from the top.



Leadership at all levels was committed to the approach, transparency was encouraged and not seen as suspicious, and a success mindset inspired confidence across the whole agency.”

Chris Webb, *Managing Partner, New Zealand, Public Sector Consulting*

Education Payroll

Gerhard Kessell-Haak, the Chief Enterprise Architect and Acting General Manager of Service Development at Rarangi Uta a-Mataurangi Education Payroll (EdPay), says that the pandemic was a big factor in their transformation journey. The agency was only established in 2014 and consolidated in 2015 with the aim of “delivering the schools’ payroll accurately and on time to New Zealand schools each fortnight.” Payroll is not always the most exciting subject, but to staff across the education sector, it is very important that they receive their expected salary every second week. EdPay therefore now services “over 2,500 schools, and over 96,000 teachers and support staff.” Since each school and each educator is different, this means they work with “14 collective and 18 individual employee agreements,” and across an average year, pay “around \$6.3 billion, or \$242 million a fortnight.” They also administer student loans, advice and guidance about pay to authorised users, assess teacher’s qualifications with relation to their salaries, and manage overpayments. This makes their role and processes very complicated, but very necessary.

By the time the pandemic came along, many of their services had been consolidated and much of their program of work was in full development or adoption. All was running smoothly, but then schools closed, processes changed and everything was in turmoil. EdPay was previously dealing mostly with the schools. Now they had to deal with the individual teachers and staff, and had to engage in a customised new system for a new way of working. From the outset, they were guided by their vision, which was to have “accuracy, visibility, traceability and usability, and to be a resource that is fit for schools and provides training and support.” Ultimately, they wanted to become “a world-class payroll service that puts people at the heart of everything we do,” and during the pandemic, this became even more important.

Since the pandemic brought with it previously unimaginable technological breakthroughs, they used these to their advantage and began by “constantly speaking to our customers and asking them what they wanted.” This was part of their “customer research and

validation” process, which was preceded by “planning and designing a delivery brief.” This collaborative element was one of their greatest strengths, and allowed them to create a prototype, test it and then hand it over. The result was that although “quality is a constant and customers are at the centre, scope, cost and time are variable and value is incremental.” In other words, “quality, accuracy and security are built in from the start,” with other factors flexible as required and delivered continuously. EdPay now works with an increased number of suppliers and platforms, and the result of all the change is a better stakeholder base.



We now have happier teachers and administrators, happier staff overall, and a more modern, usable and more efficient payroll system, with an identified path to the future.”

Gerhard Kessell-Haak, *Chief Enterprise Architect, Education Payroll*

However, there are still some challenges, including “funding and resourcing, security and planning for the future,” but ultimately the customers are happier and the customer experience has been greatly enhanced, which was the main goal.



NZ Transport Agency

At Waka Kotahi, the NZ Transport Agency, Liz Maguire, the Chief Digital Officer, says that theirs was less of a transformation journey and more of a “transformation opportunity.” In simple terms, their agency is “a road controlling authority, a regulator and an investor.” This means they look after “11,052kms of sealed and unsealed state highways along with more than 4,500 bridges and major culverts on the state network.” This has an estimated value of “\$52 billion, which is NZ’s largest value social asset.” In NZ, “93% of freight is moved by road,” so looking after the roads and the vehicles is of paramount importance. As such, “6.8 million vehicles are inspected every year, there are 5.2 million registered vehicles, 3.5 million licensed drivers, and more than 1.3 million customer contacts.” On top of all that, the NZ Transport Agency is responsible for “\$5.4 billion which is invested in the land transport system every year from the National Land Transport Fund.”

The mission of the agency has always been to “reduce death and serious injury, reduce carbon emissions, and provide reliable and multimodal travel for people and freight.” The problem is that “you can’t wallpaper the living room if the hallway is on fire,” so the goal was to continue to do all these things, but better. The infrastructure and their processes meant that the agency was “highly complex in its structure,” with a “waterfall system and other processes that were hard to work with and lacked some customer focus.” But at the same time, there were “awesome opportunities and a heroic team.” From the beginning of their process, they identified their strengths and their barriers. Whilst they lacked a workable process, they had the people and the skills to fix it as well as a well-defined vision. What they needed was “security, tech remediation, agile ways of working, and minimum viable bureaucracy.” These were some of the goals of the change program, and to get there, they asked for everyone to have blue sky thinking so that they could “visualise and prioritise their work in the most appropriate ways.” Thus with some innovative thinking and a change mindset, transformations could be achieved.

Since the goal was simply to make things easier, especially for customers, they essentially let their team run wild with ideas

and then consolidated them into a number of projects that may become viable and relatively easy to manage. Using all of their strengths, they collaborated as an agency, used their processes in unique ways, and allowed their tech ideas to flow. The first of the ideas that they came up with is a “digital driver’s licence and a Transport Agency app.” Whilst it might take some time to implement as it will require a change to legislation, amongst other things, it could have significant benefits as it will ensure that “people have easy access to their licence on their phones.” In a society that is largely becoming cashless, with people not carrying around wallets like they used to, this could have great societal implications. As the Agency’s website says, ‘we are continually using technology in the transport sector... This has led to increased expectations that transport options will be tailored to individual needs and information about transport options and routes will be provided in real-time.’³

In line with that, the Agency is also looking at technology models “like digital twins to improve transport efficiency,” as well as “trailing national ticketing and other forms of data and automation.” On top of that, the Agency has “a Hoe Ki Angitu, our innovation fund, and is looking at ecosystems and other digital connections.” One thing that the Agency has already started development of is the Asset Management Data Standard, which ‘informs activity management decisions for transport so we can plan and implement activities which deliver services as expected for the cost expected.’⁴



Ultimately the goal of the Transport Agency is to connect all New Zealanders in innovative ways.”

Liz Maguire, *Chief Digital Officer*, NZ Transport Agency

³ <https://www.nzta.govt.nz/planning-and-investment/planning/30-year-plan/baseline-network-version/key-drivers/key-drivers-network-overview/technology-and-data/>

⁴ <https://www.nzta.govt.nz/roads-and-rail/asset-management-data-standard>



CONCLUSION

These case studies show how innovative transformations can positively affect the various agencies of the NZ public service. But they also show that the agencies already had the knowhow and expertise within them to make these changes possible. Each agency identified their own strengths and barriers, and used their internal capacity to make things better. It is important that these are not isolated examples but are replicated across the entire public sector. After all, the Strategy for a Digital Public Service is all about ‘working together to shift to a modern digital public service. While functional leadership plays an important role in signalling and embedding the necessary system changes, our ongoing digital success will be a collective effort.’⁵ Each agency needs to look at how they can embed or enhance their digital initiatives in order create greater efficiencies. Together, Aotearoa New Zealand can become the digital public service that it needs to be to better look after all their customers.

⁵ https://www.digital.govt.nz/digital-government/strategy/strategy-summary/strategy-for-a-digital-public-service/#it---s-a-collective-journey_title

Featured Speakers



Liz Maguire

Chief Digital Officer

NZ Transport Agency



Gerhard Kessell-Haak

Chief Enterprise Architect

Education Payroll



Chris Webb

Managing Partner, New Zealand

Public Sector Consulting



About Public Sector Network

Public Sector Network is a research company that represents public sector professionals across Australia, Canada, New Zealand, and the USA. It develops roundtables, seminars, and conferences to suit current areas of interest to government agencies and their suppliers.

PSN's growing community spans across federal, state, and local government departments, healthcare, and education, allowing members to share information, access the latest in government innovation, and engage with other like-minded individuals on a secure and closed-door network.

AUSTRALIA / NEW ZEALAND

P +61 2 9057 9070

E INFO@PUBLICSECTORNETWORK.COM.AU

CANADA

P +1 (647) 459 8904

E CONTACT@PUBLICSECTORNETWORK.CO

USA

P +1 (647) 969 4509

E HELLO@PUBLICSECTORNETWORK.COM

Public Sector Network (Australia) Pty Ltd

ABN - 46 617 870 872

20-40 Meagher Street, Chippendale,
Sydney NSW 2008, Australia