

A study highlighting the
benefits and contribution
of design to the economy
of New Zealand

July 2017

The Value of Design to New Zealand

**designers have always
instinctively
known that design
creates value**

**this report validates that
instinct
by quantifying design's
present and
growing impact**

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Design is a powerful tool of the modern, interconnected world. It is a key component of innovation, turning great ideas into services and products that consumers want to buy and use, it can help ensure that public services are user-friendly and more efficient, and it can help make cities more attractive places for citizens and skilled migrants to live and work. In short, these design-led firms are contributing to New Zealand's success as a diversified, resilient and growing economy.

The long list of partners that have supported this report makes a powerful statement. It's great to see a strong network of like-minded organisations that include New Zealand's leading tertiary design schools, the design sector's national association the Designers Institute, and local and central government entities, including the Auckland Co-design Lab, Callaghan Innovation, NZTE, ATEED, Auckland Council and the Greater Wellington Regional Council.

This is a timely report. I am particularly pleased it includes profiles of smart design-led firms such as Gallagher Industries and Allbirds, all great examples of New Zealand exporters that are taking on the world and winning.

Hon Steven Joyce

**contributing to
New Zealand's success
as a diversified,
resilient and growing
economy**

New Zealand's distance from the rest of the world, and the need to create highly scalable product solutions for a diverse foreign end-user, means we must continue to embrace design research, to capture customer insights and to translate those insights into real market opportunities.

Jesse Keith
Group Manager, National Technology Networks, Callaghan Innovation

to make full use of design's potential. New Zealand has a strong foundation of design excellence. We have world-class designers, leading design firms, and globally quality assured design education. The data and case studies in this report highlight the significant value the design sector is already contributing to the economy. But public investment in design is well short of that provided for other components of New Zealand's innovation eco-system. If New Zealand had a national design strategy, if design was privileged even half as much as science in the business growth agenda, design could become one of the most important sectors in the New Zealand economy and this country could be truly remarkable.

The origins of this report date back to 2013 when a national design consortium was established comprising the Designers Institute of New Zealand; design schools of Massey University, AUT, Otago Polytechnic and Victoria University of Wellington; and NZTE's Better By Design programme. The consortium collaboratively developed and submitted a bid for funding for a Centre of Research Excellence (CoRE) in Design — a research entity that would undertake

research into, for and through design in order to enhance design's innovation capabilities for New Zealand. In 2015, the consortium was expanded to include the Auckland Co-design Lab and Callaghan Innovation, and branded itself as DesignCo.

Although the CoRE bid was unsuccessful, DesignCo has continued to connect the constituent parts of the New Zealand design eco-system in a systematic and regular manner, telling the story of New Zealand's design excellence, rectifying the paucity of information about the design sector and gathering statistical data on the value and impact of design in New Zealand.

The DesignCo partners commissioned the data contained in this report because it was not data collected by any government agency. Without data it has been impossible to communicate the extent and value of the design sector to New Zealand. What DesignCo would like to see as a consequence of the significant findings in this report is the government becoming a more engaged partner in ensuring design is fully utilised for economic and social benefit. What this means is not relying on the initiative of individual public servants who 'get' design utilising it for discrete projects.

There is a strong correlation between national prosperity, economic growth and a thriving design sector. International evidence confirms that design leads to more competitive firms making and selling higher value products and services. It is a powerful tool of urban regeneration. In the public sphere it is a way of addressing deep seated, complex and hard-to-solve problems. Recognising design's power for both economic transformation and nation branding, many OECD countries have public policies and a research funding infrastructure that strategically targets their design sectors. New Zealand is well positioned

Nor is it trying to neatly tuck design into the science investment infrastructure. Rather, we are looking to government to show leadership and recognise design as a sector that warrants separate attention and investment

The PwC technical report, from which is sourced the statistical insights in this report on design's economic contribution to New Zealand, draws on two methods. The first method uses an experimental classification for design — a taxonomy — developed by a group of stakeholders expert in design. The second method draws on official census data and a PwC Regional Database which allocates regional GDP and employment totals from Statistics New Zealand. The experimental taxonomy was populated with New Zealand data sourced by an overseas third party provider. This approach was adopted because design is a process that occurs throughout the economy in a wide range of sectors, and is not always well suited to capture through current official industry and occupation codes because they do not adequately represent the current thinking about a definition for design. This is not the first time an experimental approach has been used to overcome the limitations of

official sources, and nor will it be the last. PwC in its technical report notes that whilst there is uncertainty around the accuracy of the dataset that was provided to it by a third party, it is nevertheless comfortable with its technical report, which contains appropriate descriptions of the data and methods and their limitations. The report was reviewed internally at PwC, including a technical peer review.

DesignCo is grateful to PwC for their recognition and support. In addition to funding provided by DesignCo, support for the production of this report was provided by the Auckland Council's Design Office; ATEED; and the Wellington Regional Strategy Office of the Greater Wellington Regional Council. We are grateful to those organisations and individuals who have provided their time and insights, including those we have spoken to in relation to the case studies and interviews in this report.

The DesignCo partners welcome this report and look forward to talking more with Government about how to realise the benefits design can bring for New Zealand.

Professor Claire Robinson
Pro Vice-Chancellor, Massey University College of Creative Arts, and Convenor DesignCo

New Zealand around the importance of urban design to the Auckland economy, collectively decided now was the time to undertake a serious economic study on the value of design. The Auckland meeting brought ATEED and the Auckland Design Office into an expanded consortium of interested parties as well the Wellington Regional Strategy Office (WRSO). DesignCo had been working with WRSO in Wellington prior to the Auckland gathering on the definition of a classification for the design sector.

The commissioners of the report hope the data enables them to open a dialogue with government to improve the strategic application of design nationally. It is expected that these discussions would be the initial steps in the ultimate development of a design strategy for New Zealand.

Defining design

For the purposes of this report, we borrow the definition of design from the UK Design Council. Design is defined as the creation of a proposition in a medium, using tools as part of a process. It is noted that a slightly amended definition was required to gather the quantitative data for this study, to build the evidence base.

This report provides information on the substantial contribution of the design sector to the New Zealand economy. The first ever attempt to put an economic value on design in New Zealand, the report details a highly skilled, creative, knowledge intensive sector adding an estimated \$10.1b to New Zealand's gross domestic product (GDP), 4.2% of total GDP, and 4.4% of New Zealand's total employment.

DesignCo's desire has always been to articulate how important design is to New Zealand, but to date had lacked the evidence to do so. In 2016 DesignCo representatives along with another design network, initiated in Auckland by the Designers Institute of

open a dialogue
with government

The definition of design is broad in nature — it is a process or series of processes to create a proposition in any industry. Design is dynamic and can stretch across a number of applications, industries and occupations. It is because of this broad nature that the project group determined that the current classification system for industries and occupations in New Zealand did not adequately capture design in all its forms. As such, the project reference group developed a classification system for design. This allows a common understanding and transparency of what is, and is not, included in this report's classification of design.

The classification has five levels:

2
2
market verticals

1
design sector

264
design processes

4
double diamond components

9
design disciplines

Level 1: 1 Design sector

The first level of the classification is design itself.

Level 2: 29 Market verticals

The second level of the classification captures the market verticals, or industries, which are included in this study.

The project reference group identified 29 industries which are likely to have material design activity in New Zealand, eg manufacturing, human health, food and beverages.

The industries are wide ranging to capture all industries which are expected to have material design activity. It is important to note that in the estimates of design's contribution to GDP for each vertical, only the design component is included (eg not all the GDP for agriculture is included).

Level 3: 9 Design disciplines

The third level of the classification captures the different design disciplines: design education, graphic design, innovation/invention, interactive design, motion design, product design, service design, spatial design and strategy.

Level 4: 4 Double Diamond components

The fourth level is the four 'Double Diamond' processes: Discover, Define, Develop, Deliver. While this is not the only way to describe the design process, the double diamond is used widely by stakeholders to describe the iterative design value chain.

Level 5: 264 Design processes

The most fine-grained level of the classification is made up of design processes. The project group identified 264 distinct design processes (eg market research, program design).

The classification defines the parameters for this report. Note a process can be included in the classification for design and also included in another sector (eg market research is included in design but could also be included in advertising); it is not intended to cast a process exclusively as a design process.



discover



define



develop



deliver

The total contribution of design to the New Zealand economy was approximately \$10.1b in the year to March 2016, which equated to approximately 4.2%* of New Zealand's GDP. For comparison, a UK Design Council study found that the economic contribution of design in the UK was £71.7b in 2013, which was equivalent to 4.1% of UK's GDP.¹

If design were treated as an individual industry, its contribution to the New Zealand economy would be larger than agriculture (\$8.1b) and on-par with retail trade (\$10.6b) and food, beverage and tobacco product manufacturing (\$10.6b).²

4.2%
of GDP

* This figure includes outputs from both methods (the experimental taxonomy and official sources) and is drawn from the PwC technical report.

1. Note that the UK Design Council reports the contribution to gross value added (which is different to GDP) of 7.2% in 2013. We have estimated the contribution of design to the UK's GDP for consistency with our analysis.

2. Statistics New Zealand, National Accounts (Industry Production and Investment): Year ended March 2015 (preliminary figures). We note that agricultural output fluctuates annually due to a number of factors eg weather conditions and the preliminary figure for the 2015 year was the lowest value for agriculture for a number of years. It follows a high of \$13.1b in 2014. The simple average contribution of agriculture to national GDP for the last 10 years was \$9.5b (real).

**larger
than
agriculture**




Figure 1
Design's contribution to New Zealand GDP

Regional analysis shows that Wellington (contribution of \$1.5b or 15% of design GDP) and Auckland (contribution of \$3.7b or 36% of design GDP) make up just over half of design's contribution to national GDP, as shown in Figure 1.

Figure 2 shows design's contribution of GDP by region compared to the respective percentage of the population. It illustrates that Wellington and Auckland have expertise in design, and these areas support design activity in the rest of New Zealand. While there is design activity in the rest of New Zealand (likely to be in the major urban centres and in areas with industrial expertise eg Waikato for agriculture), knowledge or expertise that can't be supplied by local firms is assumed to be filled by regional exports from Auckland and Wellington-based providers.

The data presented on pages 14–21 is drawn from the PwC technical report.

\$

Wellington

1.5b

Auckland

3.7b

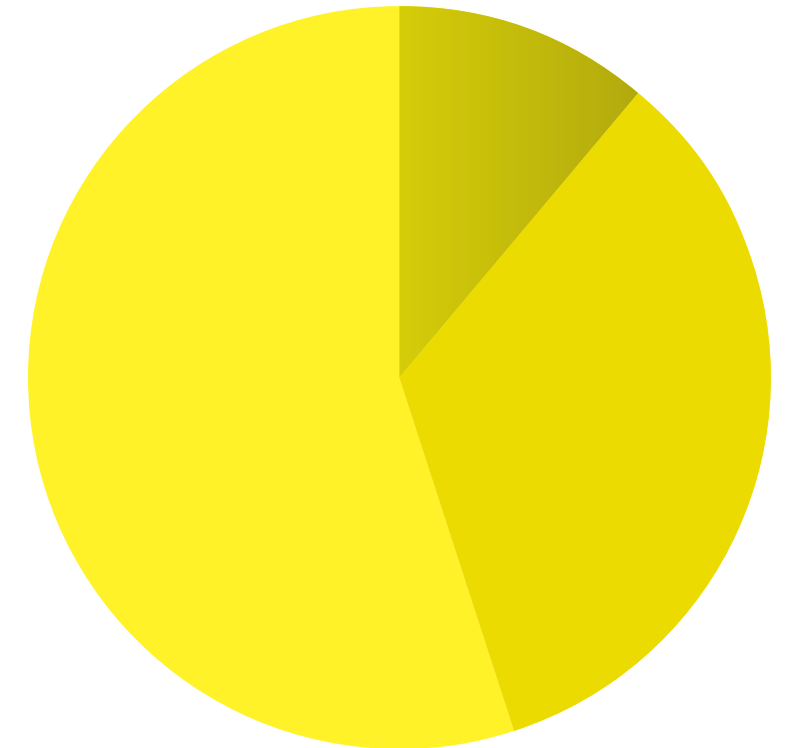
Rest of New Zealand

4.9b

Figure 2
Contribution to design GDP by region compared to the region's % of New Zealand population

Population

- 11% Wellington
- 34% Auckland
- 55% Rest of New Zealand



Contribution to design GDP

- 15% Wellington
- 36% Auckland
- 49% Rest of New Zealand

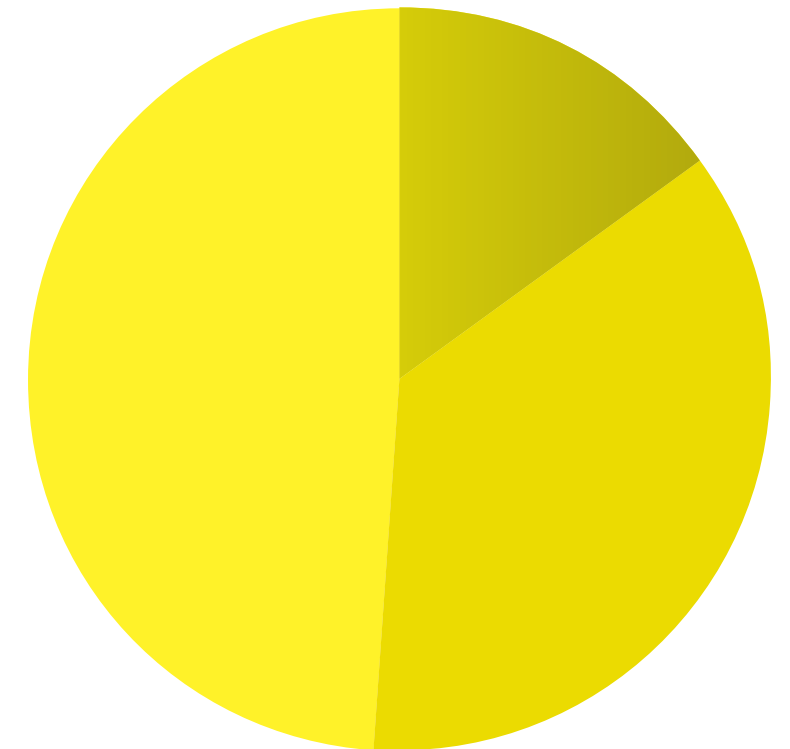


Figure 3
Contribution to national GDP by market vertical

The manufacturing industry contributed the greatest amount to design-related economic activity in 2016. Manufacturing had just under \$2.7b of design activity, contributing 27% of design's contribution to national GDP. The human health (\$895m to design's contribution to national GDP), financial (\$757m), environmental (\$651m) and construction (\$607m) industries were also notable market verticals.

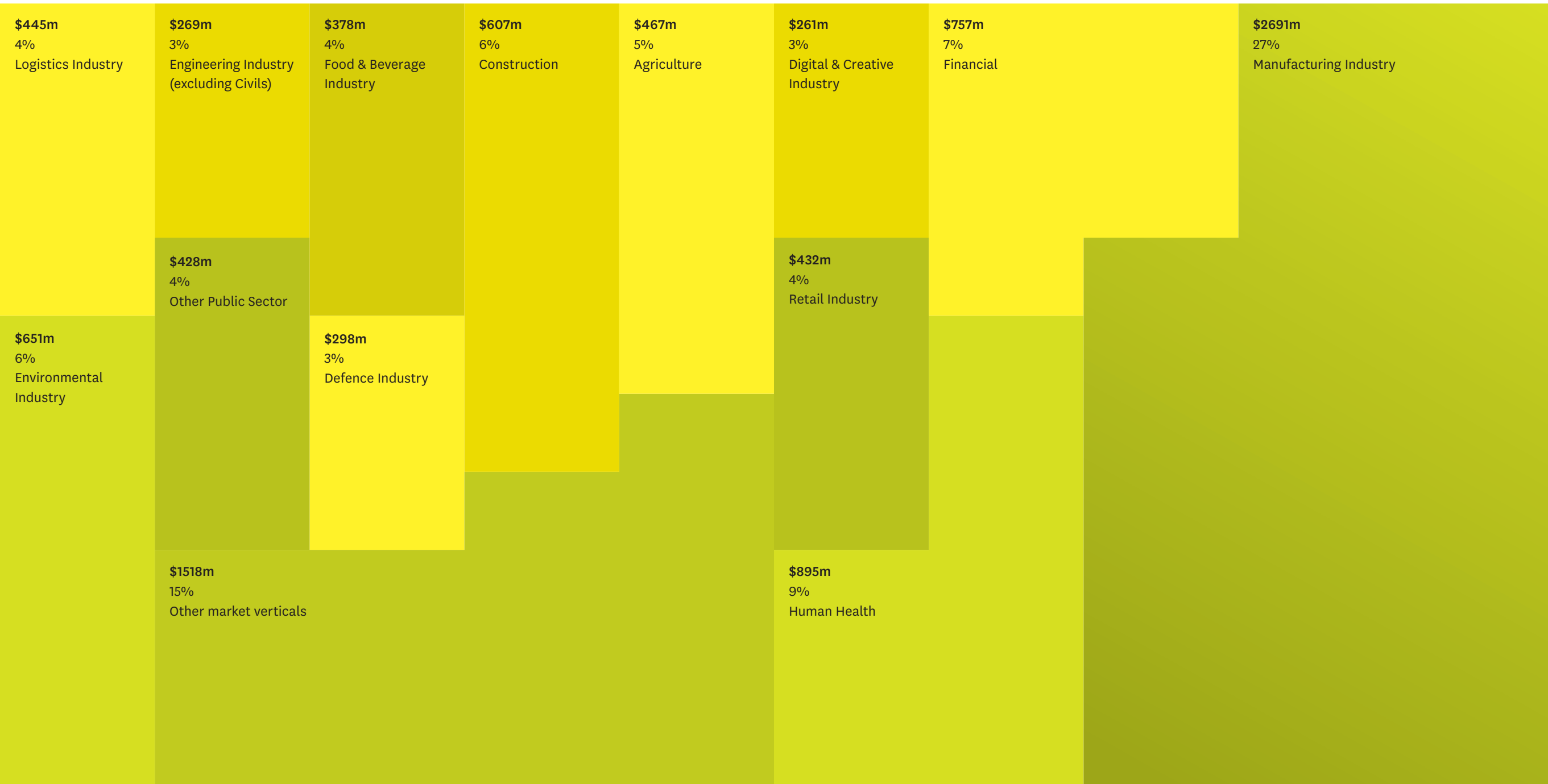
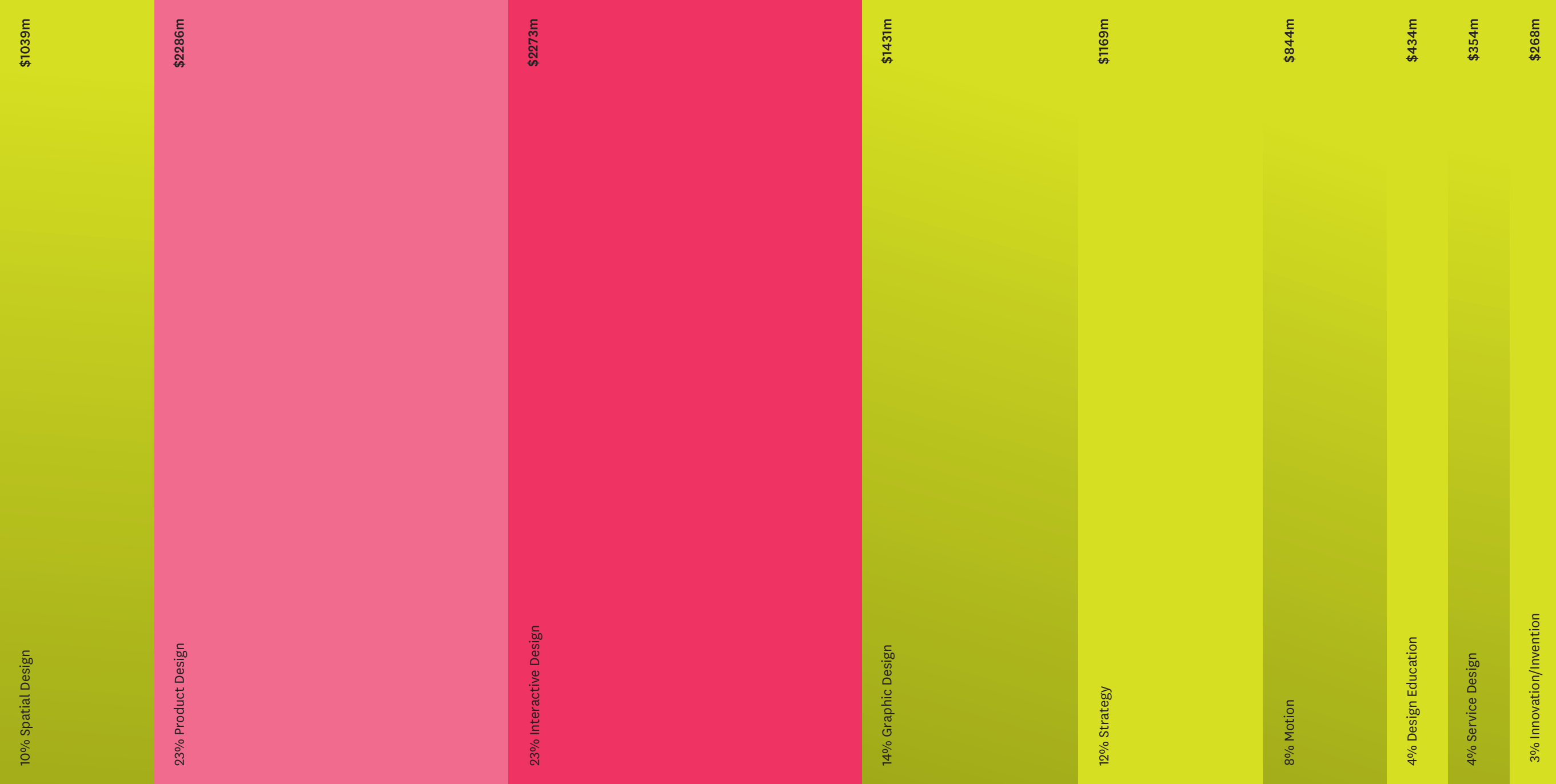


Figure 4
Contribution to national GDP by design discipline

The product design and interactive design disciplines are the two biggest individual contributors towards design's GDP. Over \$4.5b of economic activity, contributed towards national GDP, comes from these two design disciplines, making up approximately 46% of the design total. Percentages have been rounded to the nearest whole numbers.



Key Results

Figure 5
Employment by
Double Diamond
quarter (2016)

- Auckland
- Wellington
- Rest of New Zealand

Analysis of the design double diamond value chain process shows that most economic activity is concentrated on the second half of the double diamond: the develop and deliver phases. This echoes what industry participants told us: they wish they were involved earlier in the process — designers are typically not now.

When examined at the double diamond level, it can be seen that employment is concentrated in the Develop and Deliver parts of the design value chain, which is also observed in the contribution to GDP. These two components are cumulatively responsible for 94% of total design employment, and outweighs employment in Discovery and Define by a ratio of 16:1. A similar pattern is observed at the Auckland, Wellington and rest of New Zealand regional levels.

Discover
2,230
Employees



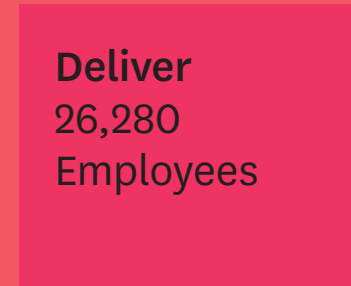
Define
3,176
Employees



Develop
62,549
Employees



Deliver
26,280
Employees



Ngā Aho

Ngā Aho is a national network of Māori design professionals, who come together to support each other to better service the design aspirations of our Māori communities. Our members work in the fields of architecture, design, engineering, landscape architecture, planning, public arts, project and resource management and co-design. We have 160 registered members, but with associated regular wānanga and hui attendees, our connected whānau are much wider. Ngā Aho was founded on the Te Aranga Māori Cultural Strategy, which later evolved into the Te Aranga Māori Design Principles. These are increasingly relied upon by Auckland Council as the framework for Māori design within the built environment. We are aiming for these evolve in the future, but for now they have created a highly visible foundational platform for Māori design. Ngā Aho has kawenata with NZILA and NZIA and has worked as a strategic partner with Designers Institute of New Zealand in developing the Ngā Aho Best award. In 2013 we co-wrote the bid to the Government for the establishment of a Centre of Research Excellence in Design. Recent significant research has included working alongside the Productivity Commission on a Better Urban Planning review (available on the Commission's website). As we are multi-disciplinary we don't readily 'tick boxes', so it is difficult to secure consistent funding for our entity, but we have managed to exert tangible influence in elevating Māori values when the built environment is discussed.

Can you tell us how you see the value of design to Aotearoa from your perspective?

Māori articulate a strong sense of place and this is one of our key points of difference, when considering what makes Aotearoa unique. The indigenous concept of kaitiakitanga views people, place and practice concepts through a holistic intergenerational lens, creating a baseline of responsibility towards the environment and each other, which works on much longer timelines than most industry. Kaitiakitanga has great thought leadership potential in an era where the effects of industrialisation and the commodification of the environment are recognised on an international scale. Our current era, the 'Anthropocene', is an era of human activity that has accelerated environmental change through colonisation, agriculture and urbanisation, in turn creating large detrimental effects such as habitat loss, global warming, ocean acidification, landscape fragmentation, and a dramatic alteration of the chemical profiles of soils and fresh water.

Is there an issue about capacity, and Māori designers on the ground?

I don't think we should be focusing on numbers. Rather, it is about industry and the education sector building effective relationships and seeking to understand values that are important in Te Ao Māori — how might we create better opportunities to connect across cultures? Ngā Aho has collective strength by being connected, not siloed, and looking at the bigger kaitiakitanga picture. So whilst we don't have the numbers, we operate as a 'hotspot of thought leadership', influencing via various collaborative projects, connective tika design events, and strategic partnerships. With increasing frequency, Ngā Aho is asked into spaces where there are industry or education sector conversations taking place on design. Often, Māori attending these 'forums' have

felt marginalised as the conversations are not relevant to their communities' needs, or their education needs. There is value in reconsidering what is understood as design from an indigenous perspective. Furthermore, the design industry is currently undergoing a rapid change driven by digital technologies — so the manner in which designers are employed is likely to look drastically different in the next decade. I think Te Ao Māori has a key role to play in this for Aotearoa — great ideas can create significant influence against numbers.

Our approach posits that design is across many sectors and processes.

As soon as you call any project 'design', people start thinking about a physical outcome, and start thinking about, for instance, putting a kowhaiwhai on the outside of a building. However, design-thinking can be a process which draws people into a deeper conversation about defining needs, creating a better understanding of issues, identifying what barriers exist to achieving goals, and considering the breadth of opportunities for designed solutions that might exist through some creative thinking. People want to be involved and design processes can enable that contribution. Design tools have the ability to draw on the collective wisdom that everyone already has, so that people aren't facing the same challenges all the time, but sharing the learning.

Do young Māori think they have a future in design?

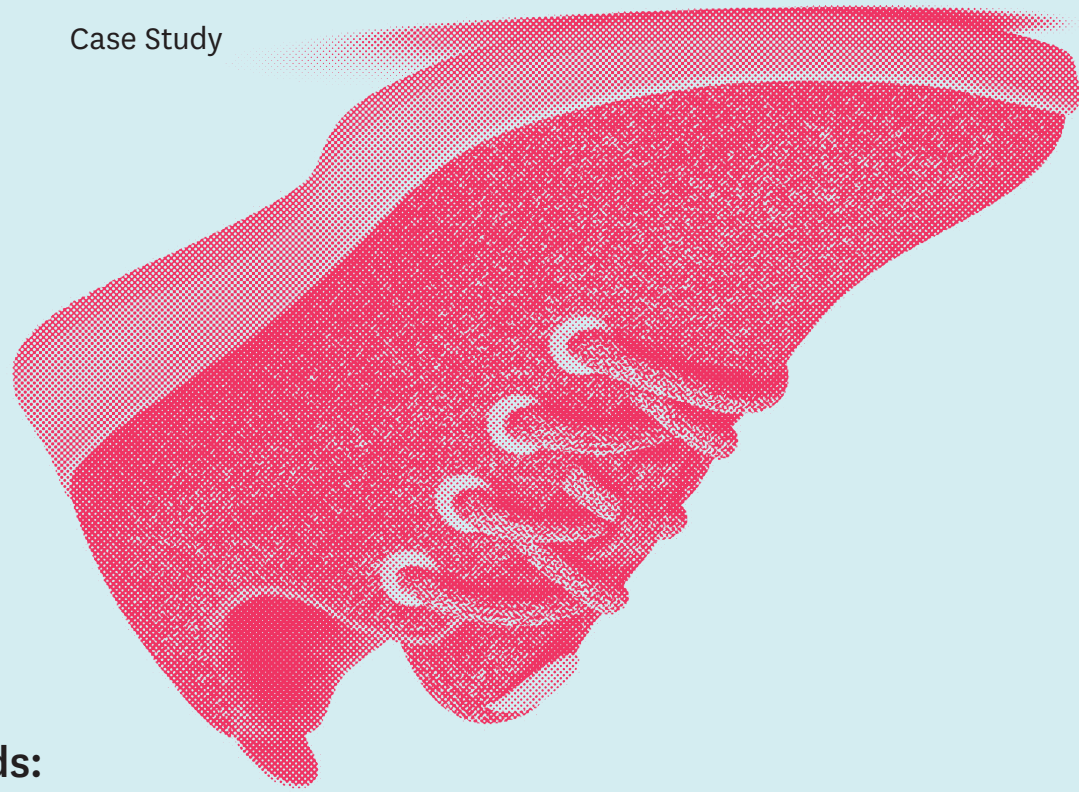
I don't think there is enough awareness of design practice in high schools. The varied design pathways in tertiary education and industry are not elevated well early on, so rangatahi in high school are mainly unaware of career opportunities across areas of practice. Design education can

be focused on building creative thinking and problem solving, assisting creative innovative approaches to jobs and economic opportunities rather than just teaching someone to be, for instance, a 'graphic designer'. One of the important things that happened with the Hauraki Gulf Marine Spatial Plan, Tai Timu Tai Pari (www.seachange.org.nz) is that the framework we designed employed Mātauranga Māori concepts as the connector between disparate areas. Design-thinking can be about nurturing the potential for future healthy Aotearoa communities. There is a large opportunity for innovative Te Ao Māori education frameworks that prioritise new ideas in design, cultural expression, engagement strategies and delivery.

For Ngā Aho what would be the ideal 20 years into the future?

There are some obvious things such as understanding that Te Ao Māori has a different and unique way of perceiving societal constructs, and this difference is valuable. If a practitioner is not Māori, they don't have to be an expert on Māori culture, they just have to understand that the culture is something that should be elevated. Māori expertise should be invited to participate early in projects, and in partnerships to ensure equal standing. We have the cultural potential for thought leadership in Aotearoa — there are a lot of concepts that come up in contemporary co-design workshops for which there is already a language that has been around for generations in Aotearoa, concepts which are philosophically encapsulated in Te Reo. Ngā Aho actively seeks opportunities for recognition of Te Ao Māori design and partnership in action.

Desna Whaanga-Schollum
Chairperson, Ngā Aho



Allbirds:

getting comfy in the USA

Allbirds is a shoemaking company established in 2014. Its spiritual home is New Zealand and place of incorporation the US. Allbirds' shoes are made from an innovative wool fabric made from New Zealand merino wool. The fabric is made specifically for footwear by an Italian textile mill. The shoes are only sold online.

The company's founders, New Zealander Tim Brown and Joey Zwillinger, a San Francisco-based engineer and renewables expert, have created a company that had hundreds of thousands of customers in its first year. At the end of 2015 there were 2 staff, one year later 30, and the plan is to go to 70 staff in 2017. The company plans to grow 400% this year. It has become the world's largest direct-to-consumer shoe brand that makes its own products and sells them.

The US shoe market is huge: 2.5 billion shoes are sold every year, divided roughly into 1/3 fashion, 1/3 athletic and 1/3 casual. It is a US\$70 billion market. Like all very old industries, the US shoe industry has consolidated, with one or two companies dominating. US shoe companies continue to design, but design is used to largely create flashiness and cost reduction. General lethargy in design and natural material innovation in this consolidated industry has been exacerbated by the use of wholesale channels. The reliance on retailers means that when retailers are not doing so well, they discount product to increase volume, which hurts brands, which forces more cost-cutting, leading to a race to the bottom and inevitable shortcuts on materials, manufacturing and design.

Allbirds understands this market. Design was used to strip away the unnecessary — Allbirds' philosophy in everything it does, including not only product but brand, marketing and communication. This design philosophy meant taking away from an athletic shoe everything that could possibly be taken away whilst creating a shoe which is extremely comfortable, has a simplified design aesthetic, and uses natural materials. It also means Allbirds produces just one shoe and a few different colours. This makes great financial sense in terms of inventory turnover, and therefore cashflow.

Joey Zwillinger thinks the company is a model for New Zealand businesses. Design is an effective way to overcome the small size of the New Zealand market. It allows firms to set up a smart design hub in New Zealand and sell in huge overseas markets. www.allbirds.co.nz



frequency. The department offered seed funding for a trap that would reduce the largest cost in conservation: labour.

A partnership with Goodnature resulted in the A24 self-resetting trap and Automatic LurePump; the first system in the world to completely suppress rats across large tracts of forest. DOC now has a reliable method to trap that eliminates all trace of rats and slashes the cost of trapping by an astonishing 90% — without the use of toxins.

Goodnature achieved this result by applying design principles to DOC's core criteria for a new trap: humane, toxin-free, targeted, ergonomically easy-to-use and labour-saving.

The industrial designers who founded Goodnature developed not just a trap, but a system. They holistically considered the experience of the target pests, native species, trappers and the New Zealand public. They combined ergonomics, manufacturing processes and applied field science to deliver a system that is scalable: the traps work equally well in a person's backyard as in a 10,000 ha conservation site. Never before has a technology been made that can deliver large-scale fenceless sanctuaries. In 2016, Goodnature won a Purple Pin, the top award, at the Designers Institute Best Design Awards in the Best Effect category.

Goodnature's Stu Barr says: "We are passionate about what we do and we were committed to finding pragmatic solutions to one of our most serious environmental problems. On the way through we have learnt the power of design thinking as a business tool."

Through good design all New Zealanders can engage in New Zealand's conservation effort, and DOC is improving the health of whole forests. This transformation transcends conservation to enhance New Zealand's tourism brand and extend DOC's international reputation for conservation excellence. www.goodnature.co.nz

Goodnature: a paradigm shift in conservation

Very few companies can claim, through great design, that they have created a paradigm shift in conservation. Goodnature can. Their vision is a natural environment in which native species survive and thrive, free from the threat and destruction of introduced pests. To this end they constantly work on developing products that make it easy for everyone to create sanctuaries in their backyard, whatever the size.

Their aspiration made them an excellent partner for the Department of Conservation (DOC), which, using consistent trapping in an area, had proved that bird populations could flourish and biodiversity decline could be halted. However, it was incredibly costly for DOC to send people into the forest to keep resetting traps, and trap effectiveness was limited by visit

Gallagher Industries: masters of continuous innovation

Having pioneered New Zealand's first electric fencing system in 1938, Gallagher Industries has gone from a small business started on a Waikato farm to an internationally-renowned leader in the innovation, manufacture and marketing of products and services in animal management, security and fuel systems. Gallagher is now a \$230 million-plus company exporting to 130 countries, with three manufacturing sites in New Zealand and over 1,100 employees worldwide.

Rob Heebink, Gallagher's Research and Development Executive, has been at the company since 2008, arriving shortly after a major review of the business undertaken with the assistance NZTE's Better By Design programme. From that review process, three areas of focus emerged. The first was that a consolidation of the company's brands was essential. There were numerous brands and sub brands. From the customers' perspective it was confusing and from a business point of view it added unnecessary complexity and cost.

Second, the company's diverse products, business units and geographic spread had resulted in a fragmented company culture. A common customer cause and a clear set of values and behaviours were required to shape a single

company culture that would help to support reputation and the company's brand.

Finally, whilst Gallagher Industries had always been innovative, there was a sense that this was partly hit and miss and sometimes based on heroics. The strong desire was to learn from the mistakes and build on the successes to make Gallagher masters of continuous innovation and embed this in the firm.

Rob believes that one of the benefits of the application of design thinking and design methodologies to the business has been to move from a traditional engineering focus, natural given the company's history, to a more customer-centric view of the world. As a result, Gallagher has been delivering products that solve customer problems in new ways, and has identified problems that customers didn't even know they had.

The application of design thinking has also enabled Gallagher to very consistently deliver products that solve real world problems. In some instances, design-led, patented innovations have allowed the company to hold a very strong market position, or, through additional functionality, hold its price position while growing market share in price-sensitive product categories. Design thinking has also been applied to the development of new products in new markets, through value proposition and business model design. And the strategic application of design principles to the formally muddled branding has resulted in a strong, highly reputable and immediately identifiable brand.

The company has won numerous national and international design awards, including the New Zealand International Business Award for Best Large Business and the Excellence in Design category, in 2016. The performance of Gallagher has shown the value which the application of design can have on New Zealand exporting firms. It is seen as a core element of innovation, an essential way of increasing sales, and engendering intense customer loyalty through product usability. www.gallagher.com

Auckland's transformation: the critical role of urban design

Auckland is the engine of New Zealand's economy. Much of New Zealand's prosperity is dependent on Auckland's economic success. The key to ensuring continued prosperity for the city and New Zealand is to a significant degree dependent on the ability of Auckland to remain an attractive place to live, work, move to and visit.

PwC's research series, 'Cities of Opportunity', now in its seventh year, aims to gather insights into how complex, large, modern cities can effectively deal with human needs. A few findings from the most recent series stand out:

1. To be successful for those who live in it, a city requires balanced social and economic strengths with a stress on human needs, to 'excel in many reinforcing aspects of urban community, to make complexity manageable, and to generate a high standard of life for as many people as possible.'
2. The most successful cities internationally have joined up strategies that ensure they

understand themselves and orchestrate growth, and the strategy includes the private and public sectors.

3. Cities need to attract and keep smart entrepreneurial people to continue to grow economically. Smart people demand more than a job. They look at the city as well as the workplace. They want a city that is satisfying to live in, with a range of important elements — quality education, green spaces, restaurants, cultural life, ease of transportation and so on all working in tandem. All parts of the ecosystem need to be up to scratch.

Urban design has a critical role in ensuring a city is a place where people want to shift to, live in and visit. In the last five years a handful of architects and urban designers have radically transformed the central city of Auckland. Nat Cheshire of Cheshire Architects believes this change has transformed Aucklanders' sense of their city's potential, and has generated an enormous and sustained leap in energy, optimism and investment. Developments such as Britomart, the Wynyard Quarter, Fort Lane, and those in suburbs such as Ponsonby, Mission Bay and Hobsonville, have made Auckland a better place in which to live. These engines of regeneration have been made possible through the support and activism of the Auckland Council's design department, the Auckland Design Office, headed by Ludo Campbell-Reid.

There is, however, a sense that this recent positive change has taken place in spite of central government, rather than with its support. Several Auckland design leaders argue for greater central government leadership and involvement. Central government has an important role to play, but not simply in building more roads. In particular, it needs to understand and support the role of great design in the economic success of a city — Auckland certainly, but also others throughout New Zealand.

Auckland Co-design Lab: radical, system-level solutions to social and economic problems

Designing solutions in the public sector has unique challenges, including the complexity of problems, the need for multi-agency and Ministerial buy-in and involvement, and the intensity and complexity of users' needs, particularly those in poor health, vulnerable or at risk.

Over the last decade, service design teams have been established by numerous government agencies, including behemoths such as IRD, MBIE and MSD. This expansion of service design into the public sector is due to increasing demands on public services; a decreasing capacity to fund services to the public; some less than satisfactory services; and the promise of substantial savings accruing from services that are more fit for purpose.

Service or interaction design borrows the tools of designers and applies them to the intangible world of service and digital interactions. It has the potential to address complex problems by drawing on a wide range of expertise, engaging users directly in reframing problems, and co-designing better solutions at lower overall cost with and for the most affected users.

However, applying service design within individual government agencies has its issues, including perpetuating siloed thinking. In response,

government has started experimenting by applying design at the all-of-government system level. The Auckland Co-design Lab based in south Auckland, now in its second two year incarnation, is a design-led innovation initiative supported by central government and the Auckland Council. It provides a neutral space to co-design cross-sector collaborative approaches. The aim is to create radical, system-level solutions to seemingly intractable social and economic problems.

Initial challenges addressed by the Lab included the seemingly innocuous issue of driver licensing (innocuous until one tries to secure and hold on to a job in Auckland without one), and the issue of secure rental tenure. Other challenges include addressing the declining rolls for Kohunga Reo, enhancing understanding of the complexity of family violence, and using a design approach to explore the 'attitude gap' between young people and employers.

Other government initiatives seek to design more seamless services for differing lifestyles of citizens (from birth through to old age) even when organisations and systems involved in the delivery of the services remain separate. A good example is the Department of Internal Affairs initiative which helps parents interact with one digital portal into government services relating to the birth of a child.

Design can also have a powerful impact on the efficacy of data-led approaches, such as the New Zealand Government's social investment initiative aimed at making better use of data and software tools to help solve hard-to-shift social problems. Data-led information can help to uncover patterns and opportunities to intervene, but user-centred design holds the key to understanding why people have particular clusters of factors, and how best to create ways to intervene. Design is increasingly creating value in the public sector across systems, communications, environments and organisations. www.aucklandco-lab.nz

**we make the following
recommendations
to enhance
the evidence base and
tell the story of
design in
New Zealand**

This report on the economic value of design in New Zealand in 2016 is one component of a broad initiative called the Value of Design, which has its origins in 2013 when a national design consortium was established comprising the Designers Institute of New Zealand; the design schools of Massey University, AUT, Otago Polytechnic and Victoria University of Wellington; and NZTE's Better By Design programme. In 2015, the consortium was expanded to include the Auckland Co-design Lab and Callaghan Innovation, and branded itself as DesignCo. Throughout this period, the consortium has connected with and consulted a wide range of individuals, companies and organisations, and undertaken research, to determine the current state of the New Zealand design ecosystem, tell the story of New Zealand's design excellence, and address the paucity of information about the design sector (and hence DesignCo's commissioning of this report).

As a result, DesignCo is well placed to set out those actions it believes are required to ensure better understanding and use of design in New Zealand. The broad theme which underpins DesignCo's recommendations is that government should become a more engaged partner in ensuring design is fully utilised for economic and social benefit, and that government needs to show leadership and recognise design as an individual sector that warrants separate attention and investment.

Having considered the evidence gathered in this report, and with deep legacy industry knowledge, DesignCo, as the primary commissioners of this study, make the following recommendations for design in New Zealand:

Innovation

Increase the focus, capacity and capability for matching design and design thinking expertise with science and technology innovation needs at the early stages of development. This could be undertaken by Callaghan Innovation.

Tertiary Education

Widen the current conceptualisation of STEM to include creative arts subjects such as design and creative media production, and increase the EFTS funding for these subject areas.

Research

Establish a dedicated research fund for design researchers to access, and infrastructure to support the allocation of funds (separate from science, health or arts funding).

Recognition

Establish a suite of Prime Minister's Design Prizes, to the same value as the Prime Minister's Science Prizes. The prizes could be administered by the Designers Institute of New Zealand, and would aim to become the premier awards for design in New Zealand.

Promote New Zealand design, through the NZ Inc. network, as a vital element of our national brand.

Strategic Leadership & Infrastructure

Treasury to develop a national design strategy in collaboration with the New Zealand design sector.

Establish the role and office of the Prime Minister's Chief Design Advisor to promote awareness of, and support strategic investment in, design.

Establish and fund a body similar to the UK Design Council responsible for the strategic coordination of design in New Zealand, bringing together the design industry, research and education.

Supporting Business

Establish a programme of business support for the use of design by SMEs, similar to the NZTE Better by Design programme.

Better Public Services

Increase targeted funding support for design-led service transformation in the public sector.

**We need champions.
Design language needs to filter down and be a part of our daily culture. We need to have an economic, cultural and social vision for New Zealand beyond commodities. We need leaders to show us they are future thinkers. Designers are good at this — they have the kind of insight that leads to solutions.**

Cathy Veninga
CEO, Designers Institute of New Zealand

The issue now faced by New Zealand businesses and the New Zealand economy is we are just not fast enough. A few years ago, it might have taken from 3–5 years to take an idea to market. Now the timeframe is 12 months. If you don't use design to come up with future-based solutions you just cannot ever, ever compete.

Dean Poole
 Founder of Alt Group

DesignCo.

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Design Co Partners



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NOTE: The data presented in this report is drawn from the PwC technical report 'The value of design to New Zealand' June 2017.

**New Zealand
design stacks up**

