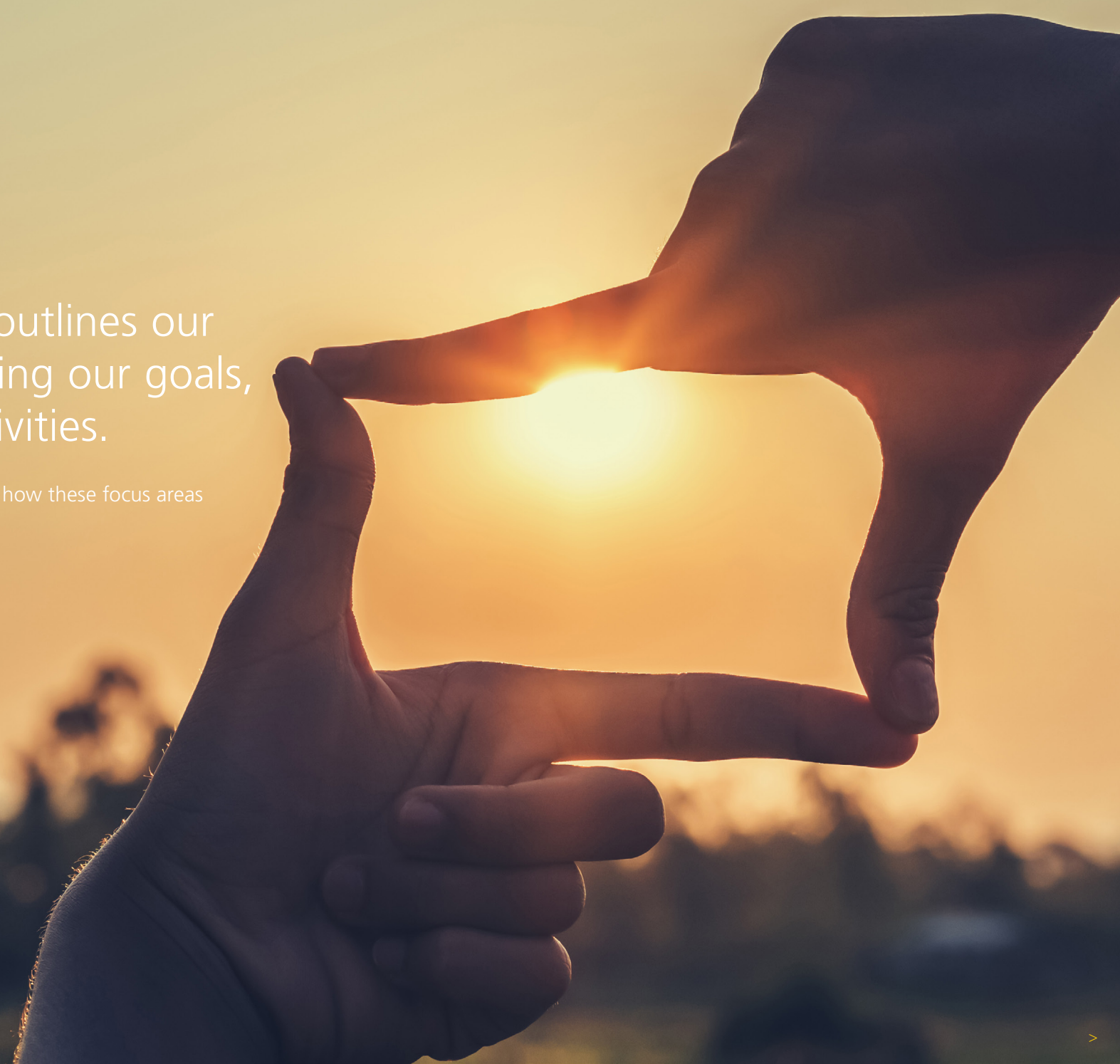


The following section outlines our key focus areas, including our goals, achievements, and activities.

We have also included case studies to illustrate how these focus areas drive outcomes in our project work.





# Upholding technical and professional leadership

Navigating change in a fast-paced world requires an agile skill set to deliver on our second century business goals. As we continue to leverage our technical leadership for business success and supporting client outcomes, we are also investing resources into growing priority areas, such as cultural competency and social procurement.

## Our journey towards Te Ao Māori integration

This year we launched Te Ahi Tūtata in our New Zealand business, and established four Te Kaiwhakatere (cultural navigator) roles, to integrate mana whenua feedback and a Te Ao Māori perspective into our projects.

We also progressed work to support the development of internal cultural capability in Te Ao Māori. Building our cultural competency internally will help us better support our clients to honour Te Tiriti o Waitangi (Treaty of Waitangi).

Te Ahi Tūtata is working with Beca regional leads and the wider business who are helping to guide us in our journey towards Te Ao Māori inclusivity, both internally and in partnership with our clients. The Te Ahi Tūtata, references a whakataukī (proverb) which speaks of fighting for a cause close to one's interests.

Te Ahi Tūtata is guided by three 'whys':

- **Manaakitanga** — where people feel comfortable in their Māoritanga (Māori identity).
- **Mōhiotanga** — growing knowledge, understanding, and awareness of Te Ao Māori.
- **Whanaungatanga** — an environment where relationships within and across Te Ao Māori are developed and nurtured.



In FY22, we have continued to support pro bono and academic work and build strong relationships within our communities.



### Social procurement — enhancing broader outcomes

Social procurement practice aligns closely to our sustainability goal of maximising positive outcomes for our people, the environment, and the communities we are a part of. A procurement focus has become more of a priority as an additional lever for us to continue to deliver social outcomes through our work and business operations. We've made the following progress this year:

- Launch of the Social Procurement Knowledge Hub, a central repository of useful information, tools and resources including regular procurement forums to hear from our clients about their requirements.
- Appointed social procurement champions responsible for driving change within each of our business groups.
- Partnership with Amotai in Aotearoa New Zealand and iDiC (Indigenous Defence & Infrastructure Consortium) in Australia, with a focus on supplier diversity and supporting us to create more opportunities for indigenous groups and local businesses.
- Completion of our supplier survey, to gauge social procurement policies and procedures for all the suppliers we work with. Sustainability and leadership

To support and drive the integration of sustainability, almost every business line has a Sustainability Working Group (SWG). Our technical and delivery specialists provide leadership and direction through one-on-one mentoring and via Technical Delivery Group (TDG) led trainings, where they share their extensive depth and breadth of specialist knowledge. The Beca Knowledge Centre is our centralised hub containing in-depth project delivery best practice tools and resources.

The Beca Group strategy has a leading focus on 'empowering exceptional people', driving our commitment to nurture and grow our talent. Beginning from graduate roles, there are clear learning and development pathways to build skill and knowledge for aspiring future technical leaders. In April 2022, we launched the Beca Learning Academy, which provides a learning pathway for our leaders and people to work together and identify learning offerings for personal and professional growth, from delivery capability to digital. As part of 'Learn at Beca,' sustainability is being developed as a separate focus, to be woven into our various learning programmes. This includes a training programme over this and subsequent years, including:

- The 2022 Senior Leader Forum, "Leading for Sustainable Growth" had Beca Senior leaders focus on sustainability across the different dimensions of our business.
- Our Intermediate programme launched in 2022 brings together employees in the mid-range career levels to upskill and advance in their current role and beyond – the specific sustainability module for this programme will be initiated in FY23.
- Sustainability topics are featured as part of our regular Delivery and Leadership Drop in learning series, designed to support those in project delivery roles.
- Our weekly leadership Monday morning meeting includes a dedicated 'sustainability moment' slot, with delivery leads invited to present stories from projects across the business.
- Our annual Technical Delivery conference has a key focus on sustainable outcomes and is also the forum used to announce newly appointed Technical Fellows, our 'go-to' technical specialists.



# Our amazing people are recognised globally for their impact and contribution.

There is never enough room to list everyone, but here are a few standout performances from FY22.

**Akshat Malhotra** Outstanding Emerging Professional Award, 2021 Engineering New Zealand Auckland Branch Awards

**Andrea Rickard** Appointed to the Association of Consulting and Engineering New Zealand Board

**Audrina Stanley** Recognised as Fellow with the New Zealand Institute of Quantity Surveyors

**Chris Scrafton** Recognised as Fellow of Te Kokiringa Taumata (The New Zealand Planning Institute)

**Craig Price** Recognised as Distinguished Fellow of Engineering New Zealand

**Danielle Lind-Corkil** Appointed Chair to the Board of IChemE in New Zealand 2021–2023

**Darren Burrows** Association of Consulting Engineers Singapore Young Consulting Engineer of the Year 2021 (mechanical category).

**Evie Wallace** Won Rising Star at the 2021 National Association of Women in Construction New Zealand Excellence Awards.

**Farzam Farzadi** Winner of the Innovation and the Supreme Awards at New Zealand Institute of Building 2021 awards.

**Jack Wang** Association of Consulting Engineers Singapore Young Consulting Engineer of the Year 2021 (electrical category).

**John Oscilowski** Recognised as Fellow with the New Zealand Institute of Quantity Surveyors.

**Marcus Sim** Association of Consulting Engineers Singapore Young Consulting Engineer of the Year 2022 award (mechanical category).

**Marvin Clough** Recognised as Fellow with the Property Institute of New Zealand.

**Michael Carter** Australian Water Association Young Water Professional of the Year 2022.

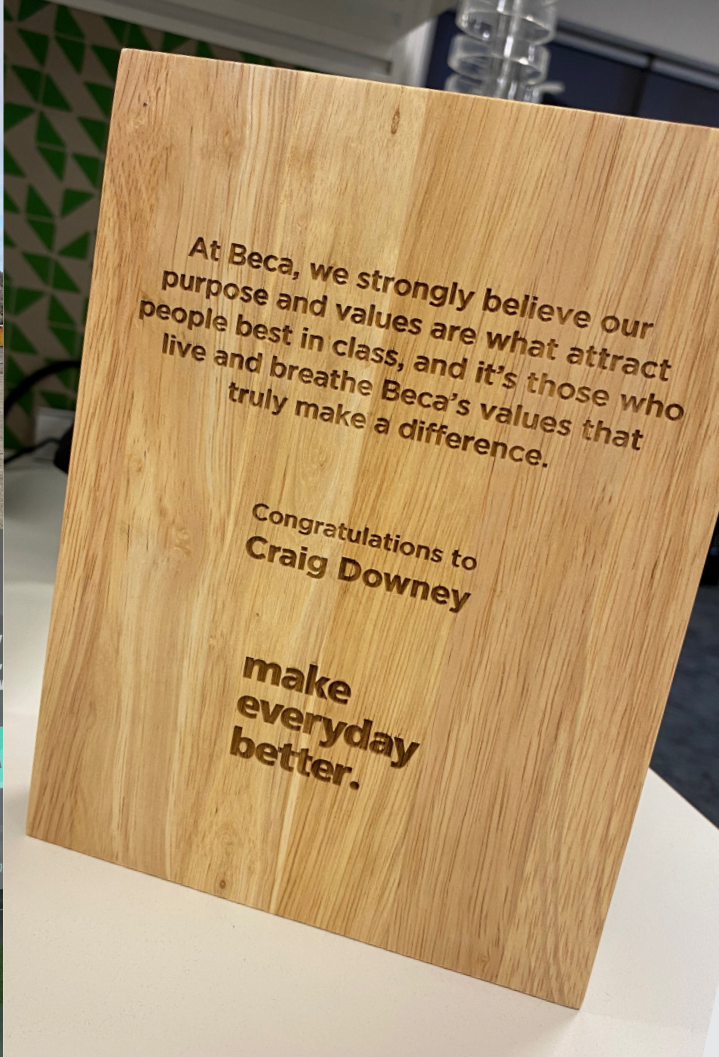
**Patrycja Bonkowska** Recognised with Special Merit in the Excellence in Construction, 2021 National Association of Women in Construction NZ Excellence Awards

**Priyani de Silva-Currie** Appointed New Zealand President of Institute of Public Works Engineering Australasia.

**Wharehuia Dixon (Ngāti Awa)** Appointed to the Engineering New Zealand Governing Board.







## Leadership

Empowering exceptional people is core to our strategy and our annual promotions round recognises, rewards and empowers our people. In April 2022, we celebrated the following appointments – 11 new Senior Principals, 70 new Principals, 71 new Senior Associates and 211 new Associates (note the Associates number includes the appointments made in December 2021).

We also welcomed eight new Technical Fellows at the 2021 Delivery and Technical Connect Conference – Quintin Blackburn, Hamish Denize, Lesley Hopkins, Chris Ivory, Dr John Marsh, Paul Robilliard, Gavin Shaw and Michael Warne. This brings our total number of Technical Fellows to 55, who together make up the specialist group of technical experts we have recognised since the inaugural appointments were made in 2013.

In appointing these leaders, we celebrate the importance that Beca places on technical and delivery excellence in delivering exceptional client experience. Some of the other key senior appointments made across the Group during the last financial year are listed below, although the director appointments did not take effect until 1 April 2022 or thereabouts:

**Brendon Dwyer** Director, Beca Carter Hollings & Ferner Ltd

**Debbie O'Byrne** Circular Economy Principal

**Eleanor Grant** Director, Beca Ltd

**Gavin Shaw** Business Director, Construction Sector Advisory

**John Blyth** Director, Beca Ltd

**Johnny McFarlane** General Manager, Project Strategy and Delivery

**Kay Lewington** Head of People & Culture New Zealand

**Lee Roberts** ANZ Global Minerals and Metals Segment Leader

**Matt Bismark** Director, CH2M Beca Ltd

**Matt Hunt** Technical Director, Airport Engineering

**Morgan Holtom** International Manager, Pacific

**Sarah Lang** Business Director, Govt. Advisory & Strategic Relationships

**Silven Thambrin** Director, PT Bimatekno Karyatama Konsultan

**Tim Mumford** Business Director, Digital Delivery

**Weng Yuen Kam** Business Director, Structural Engineering



## Project

### Shaw Tower, Singapore

Shaw Tower represents a new benchmark in human-centric building design. Opened in 1976, the then 35-storey Shaw Tower was Singapore's tallest building at the time and an icon of the city-state's ambitions to become a world leading business and technology hub. Over 45 years later, Shaw Tower is enjoying a comprehensive redevelopment that sets new benchmarks in environmental sustainability, occupancy wellness and a digitally enabled building.

Shaw Tower's vision embraces health and wellbeing by providing the highest quality environment and designing pandemic-ready features for future occupants. Wellbeing features include green spaces and sky terraces, open spaces for group exercise, and the regulation of air to reduce contaminants and improve air quality.

In addition to wellbeing considerations, the project goes above and beyond existing sustainable building standards. Shaw Tower is projected to achieve an energy efficiency performance of 40% better than building code requirements. To achieve these superior sustainability standards, Beca is working alongside Shaw Towers Realty Pte Ltd and Lendlease to integrate several innovative building services systems such as active chilled beams, smart lighting systems, Internet of Things (IoT), renewable power generation and building data analytics systems.

Beca is working with building owner, Shaw Towers Realty Pte Ltd and appointed Development & Project Manager, Lendlease, to deliver a stunning refresh to a building that will make every day better for occupants and visitors alike.



## Research

### Biogas in New Zealand

Beca was part of a joint study with Firstgas Group and Fonterra (with EECA supporting) to assess the potential of biogas in replacing New Zealand's residential natural gas networks.

Biogas is a green fuel derived from organic waste like kitchen food waste or manure. The benefits and potential of biogas in New Zealand were explored based on international trends. Local barriers to implementation were highlighted and potential strategies for addressing these identified. The research found countries that have experienced the fastest and most transformative uptakes in biogas production benefited from support by government via green investment schemes, guaranteed Feed-In Tariffs, as well as cross-industry collaboration.

The study found that biogas has the potential to offset up to 20% of New Zealand's domestic gas demand by 2050. The findings of this project are helping to shape NZ's future energy and waste strategies and have been referenced in the He Pou a Rangi (Climate Change Commission) advice to government.





# A diverse and inclusive business

Fostering a diverse and inclusive business means valuing difference, supporting a gender balance, and enhancing cultural diversity. We know that we are stronger when people from different backgrounds and perspectives work together.

We are committed to growing an environment where our people:

- have equal opportunity to build a career that reflects their ability and passions, and
- believe in their potential, feel they belong, are connected and able to thrive.

Our staff survey in 2017 identified 'positive business culture' and 'recruiting and maintaining talent' as priority focus areas. Fostering a work environment that is safe for everyone and embraces difference not only means that our business culture is positive for everyone, but we are also armed with the many strengths that diversity brings.

The Diversity and Inclusion Steering Group has been established to champion and lead Diversity and Inclusion (D&I) across Beca, set Group D&I priorities, and recommend initiatives with the agreement of the Beca Executive Leadership Team.

The Beca Diversity and Inclusion Steering Group is drawn from employees across the business to provide diverse representation, thought leadership and guide alignment of D&I initiatives.



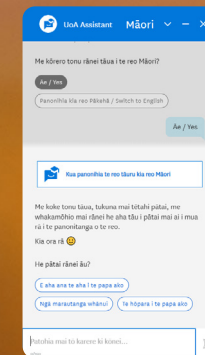
## We have 90 ethnic groups. Here are the most common:

1%	Fijian Irish Samoan	
1.10%	Pacific Islander	
1.30%	Prefer not to answer	
1.35%	Filipino	
1.40%	Middle Eastern	
2.14%	Singaporean	
2.64%	Malaysian	
3.34%	Thai	
3.94%	Māori	
4.24%	Indian	
4.29%	South African	
5.58%	Indonesian	
7.83%	Chinese	
7.93%	European	
7.98%	Australian European	
10.27%	British	
48.90%	New Zealand European	

### Project

#### University of Auckland Multilingual Chatbot

Sustainability is often associated largely with environmental sustainability; however, cultural sustainability can be just as important to investing in the future of our society. The maintenance of language is a key part of knowledge repository in a culture. Developing resources in multiple languages can support cultural sustainability and increase accessibility.



FranklyAI, a Beca digital enterprise, was commissioned by Waipapa Taumata Rau University of Auckland to help expand a "chatbot" on their web page from only English, into a conversational agent fluent in Te Reo Māori, Samoan and Mandarin. This project was part of the University of Auckland's larger goal to be fully bilingual (English/Te Reo Māori) by 2030 — 2040.

The virtual assistant can serve as the first point of contact for prospective students, and building multilingual capability is

essential to ensuring the website's services are widely accessible and can inform as many prospective students as possible. The project team worked to ensure a consistent tone and language, training the agent to understand what the user may say to it in three additional languages. The multilingual conversational agent is currently operational on the University of Auckland website and is collecting ongoing data on user interactions to help improve its functionality. In the future, the University of Auckland hopes to expand the agent into Vietnamese and Tongan as well.





## Rainbow Tick certification in New Zealand

### We're proud to have achieved Rainbow Tick certification

The Rainbow Tick is a certification for organisations that complete a D&I assessment process, which tests if a workplace accepts, understands and welcomes sexual and gender diversity.

## Reconciliation Action Plan

The Beca Reconciliation Action Plan (RAP) was created in 2017 to bridge the gap with Aboriginal and Torres Strait Islander Peoples at work and in society. With our commitments set in our RAP as our guide, we are working towards delivering on our promises to drive our company to reconciliation both internally and in the communities in which we operate. Through our four state and territory-based teams, collectively we develop and implement a range of initiatives that help progress on our commitment.

Some of the initiatives we help facilitate include:

- Managing our strategic partnership with Indigenous Defence and Infrastructure Consortium (iDiC).
- Hosting engaging morning tea's with Indigenous elders/guest speakers to mark important dates including National Sorry Day, National Reconciliation Week and NAIDOC Week.
- Sponsoring the University of Melbourne's Victorian Indigenous Engineering Winter School (VIEWS Program) to open pathways into engineering for Indigenous youth.

## SPIES

We've been a proud supporter of (SPIES) South Pacific Indigenous Engineering Students since 2018. SPIES is a student led group designed to create networks amongst students and with the engineering industry. Our partnership aligns with our commitment to increasing diversity and to support Māori and Pasifika students as they transition into their chosen careers.

Through mutual mentoring relationships set up as part of the programme, we provide support to SPIES members to better prepare for the workforce, and leadership opportunities and cultural awareness for our employees as mentors.

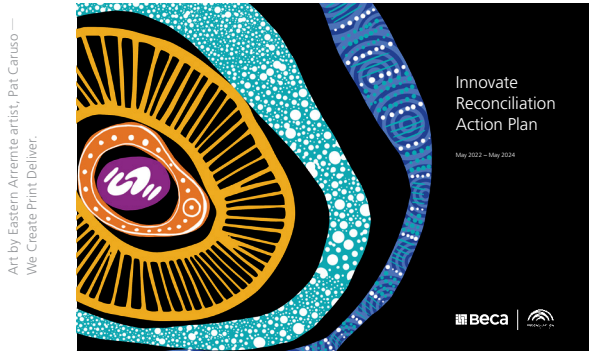
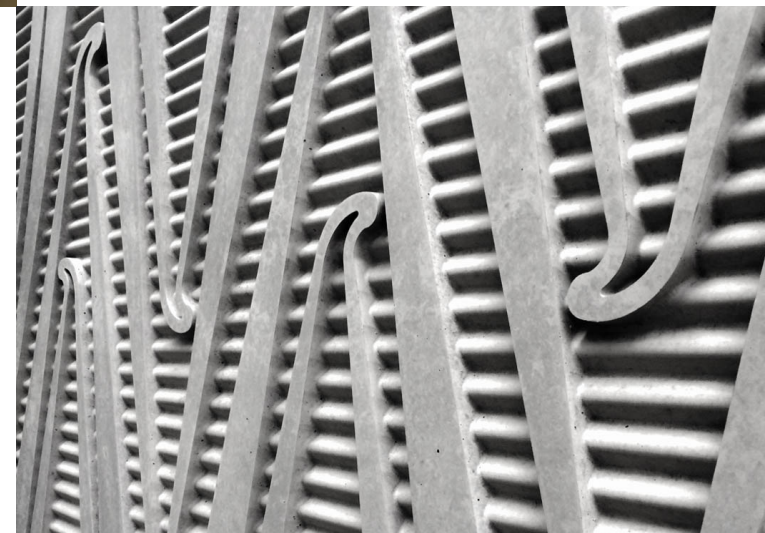
## Investing in cultural competency

Our employees come from a diversity of cultures. We believe this enhances our creativity and strengthens our solutions. Part of our role and responsibility is to ensure we're creating a fair and inclusive work environment for the diverse groups within the organisation. The initiatives below Beca has recently launched focused around our Māori, South Pacific and Aboriginal and Torres Strait colleagues and communities.

## Te Ao Māori at Beca

This year saw the launch of Te Ahi Tūtata (our Māori business team), who are supporting us in our journey towards Te Ao Māori inclusivity, both internally and in partnership with our clients.

Refer to [Upholding Technical & Professional Leadership](#).



Art by Eastern Arrernte artist, Pat Caruso - We Create Print Deliver.





# Shaping resilient and adaptive communities

As cities and communities continue to develop at pace and scale, evolving to manage and prepare for an uncertain and increasingly hazardous future is critical. This includes not only our physical infrastructure systems, but also our social infrastructure and community wellbeing.

Through the work we do with our clients, we have significant opportunity to positively contribute towards building resilient and adaptive communities. For many years, we have been supporting our clients to identify the risks to their stakeholders and communities and make plans to mitigate these risks. Climate-related risks have become increasingly important in recent years.

This year, we have appointed a Business Director specifically to lead our market strategy for climate change risk and adaptation. The initial focus of this role is to raise awareness of climate risk and adaptation across our business groups and main geographies (New Zealand, Australia and the Pacific as focus areas).

We are also supporting our clients to undergo physical climate risk assessments, climate scenario analysis, TCFD disclosures and adaptation plans. Internally, a focus on resilient and adaptive communities means accounting for significant risks in our own business planning. Led by our in-house climate risk and adaptation specialist teams, this year we completed climate scenario analysis for Beca Group and completed our first climate-related disclosure under the Task-Force for Climate-Related Disclosures (TCFD) framework.

As a result, we added climate change to our Enterprise Risk Management Process. In FY23, we will begin the process of transition and adaptation planning.

Climate risk and adaptation is a vast topic that spans across disciplines. Any project or initiative in the climate risk and resilience space requires extensive coordination among all necessary leadership, management and stakeholders.

For this reason, we have systems in place that integrate climate risk considerations into our BAU systems. One example of this is an automatic prompt that requires job managers to consider climate risk when setting up projects that have a design element.





**Case Study**

**Tourism Holdings climate scenario and TCFD Report**

Accounting for climate-related risks is becoming an integral part of financial reporting as climate change considerations become more prominent in the business world.

The international Financial Stability Board created the Task Force on Climate-Related Financial Disclosures (TCFD) to establish a framework under which companies can disclose these climate-related risks and opportunities.

Beca was commissioned by Tourism Holdings to help better understand their climate-related risks and opportunities, and to support them in preparing their first disclosures under the TCFD framework. In partnership with Tourism Holdings leadership, the Beca team compiled a list of the company’s climate-related risks and opportunities, which were then prioritised and tested against three climate change scenarios developed by the Network for Greening the Financial Sector (NGFS).

The findings from this project will help guide the organisation’s strategy going forward, informing conversations already under way around supply chains, changing customer behaviour, legal compliance and opportunities to invest in alternate technologies. This project was published as part of Tourism Holding’s annual report, and supported an important member of the tourism sector to develop a long-term business model that is prepared for climate change mitigation and adaptation.

**Case Study**

**Ebeye Mid-Corridor Housing Project**

The Ebeye Mid-Corridor Housing Project is a story of community resilience and adaptation. Ebeye is the most populated island of Kwajalein Atoll, in the Marshall Islands. The people of Ebeye were removed from their home islands in the Kwajalein Atoll by US authorities some 60 years ago due to military testing.

To help improve the community’s quality of living and address equity issues, the Kwajalein Atoll Development Authority (KADA) developed plans to build new community housing for the people of Ebeye, and Beca was commissioned to prepare a design for the buildings. Ebeye’s low elevation and harsh conditions make it extremely exposed to the adverse effects of climate change such as sea level rise, inundation, and coastal erosion. With this in mind, Beca helped to redevelop current housing into two-storey apartment blocks that maximised natural ventilation, enabled rainwater harvesting and included common areas for passive and active recreation.

The Ebeye housing project was developed with extensive engagement with the Ebeye community. Engagement was key to ensuring the complex design was cost effective, sustainable, high quality, low maintenance, appropriate for the local environment and most importantly supported by the wider community. Beca was recognised for excellence in community engagement, community planning and master planning and won Silver in the Association of Consulting Engineers New Zealand (ACENZ) awards in September 2022.

**Case Study**

**DEI Alliance — embedding sustainable outcomes into regeneration**

To be a first-class Defence Force and keep Aotearoa New Zealand safe and secure, the New Zealand Defence Force (NZDF) needs the right tools for the job. That includes its infrastructure, facilities and surrounding environment. The Defence Estate and Infrastructure Alliance (DEI Alliance) is a professional services alliance accelerating NZDF’s intended \$2.1B regeneration out to 2030 of the aging Defence Estate. The DEI Alliance brings together experience from four separate organisations (NZDF and Beca, Ernst & Young and GHD) to realise a shared vision – a more modern, resilient and sustainable future for the service people of Aotearoa New Zealand. Underpinning DEI Alliance’s work is NZDF’s Sustainability Framework, Tuku Iho. The framework takes an integrated approach to delivering a sustainable Defence Estate for its people and the communities in and around NZDF’s camps and bases. The Sustainable Infrastructure Standards (SIS) operationalise NZDF’s sustainability aspirations into practical, technical expectations that can be embedded in design. Through their work as part of the DEI Alliance, the Beca sustainability team is working collaboratively with their colleagues to implement these standards across a range of DEI Alliance projects during the design and construction phases. Work to drive sustainable outcomes through the DEI Alliance is revealing evolving opportunities to enhance resilience to the effects of climate change, and to integrate user requirements, engineering expertise and science-based principles for a holistically sustainable Estate.



# Decarbonising our economy

Economies around the world are moving to reduce their carbon emissions to respond to climate change and shift towards a healthier, more sustainable future.

With growing global temperatures, rising sea levels, and increasingly severe weather events, the speed and scale of decarbonisation needed to address the climate crisis can seem daunting. Barriers to fast paced decarbonisation include access to technology, greener fuels, financing and skilled people. However, opportunities are also plentiful, like new partnerships with supply chains and peers within industries, post-COVID new ways of working, and growing green business and services.

Across our business, we are acutely aware of the need to take urgent action to reduce our use of fossil fuels. Internally, we continue to look for effective ways to reduce the emissions associated with our own business operations (footprint).

Through projects, we support our clients to understand their greenhouse gas emissions, develop emissions reduction plans and consider the climate change risks to their infrastructure and operations (handprint). Over the last 24 months, we have established a Future Energy pan-Beca team, co-led by Mark Jacob from our Power team and Shane Gowan our Energy Transition Lead.

This trans-Tasman, pan-Beca team is working with our clients across the entire energy supply chain — from generation, transmission, storage, distribution and use, to support their decarbonisation goals.

Through our strategic partnerships like our Joint Venture with Wood plc, we can bring global experience and local knowledge to support our clients in their decarbonisation journeys.

Our senior leaders play active roles in external professional organisations:

- **Peter McCafferty** General Manager Power, on the board of the NZ Wind Association
- **David Carter** Chairman of the Beca Board, on the Board of Aotearoa Circle
- **Lee Ang Seng** on the Board of the Singapore Green Building Council as 1st Vice President for 2021-2023
- **Amelia Linzey** on the Board for the Infrastructure Sustainability Council and
- **Shane Gowan** on the leadership group for the National Low Carbon Energy Roadmap, with strong connections to the NZ Hydrogen Council and NZ Bioenergy Council.

In FY23, we will continue to develop and evolve the Future Energy pan-Beca team and strengthen our ability to support our clients. Internally, we have a Science Based Target initiative (SBTi) aligned target for 2030 that we are actively working towards.

Beca is an original 2017 signatory to the Climate Leaders Coalition, and we are proud to continue to meet the increasingly ambitious signatory commitments. We measure all emissions over which we have direct control (Categories 1 and 2), as well as emissions that we can influence (Categories 3 to 6). This includes emissions from all offices across New Zealand, Australia and our Asia hubs.

## 2030 reduction targets

- 50% absolute reduction in Scope 1&2 (Category 1&2) emissions by 2030 from a 2018 baseline, consistent with the aim of limiting planetary warming to 1.5°
- 30% absolute reduction in Scope 3 (Categories 3–6) emissions by 2030 from a 2018 baseline, consistent with the aim of limiting planetary warming to well below 2°
- 32% combined absolute reduction target across all emissions. This is in line with the level of ambition recommended by the SBTi.



## Case Study

### Sealord Energy Transition

Sealord is focused on integrating sustainability into its core business operations and has made a commitment to achieve a 67% reduction in carbon emissions by 2035. It firmly believes it can meet the needs of today without damaging the needs of generations to come.

As programme partners with EECA, Beca worked in partnership with Sealord's operators and management to develop a tailored study that identified a practical emissions reduction pathway to achieve this transition. The study focused on Scope 1 and 2 emissions associated with process heat at Sealord's land-based processing site, as well as the propulsion and onboard processing aboard three of Sealord's fishing vessels. By implementing the energy transition pathway resulting from the study, Sealord can expect to reduce Scope 1 and 2 GHG emissions associated with its land-based processing site by 83%.

Several projects were identified which could generate immediate energy savings on Sealord's fishing vessels, and a plan was developed for the acquisition of low carbon fuelled vessels in the future. With this study now complete, Beca is ready to support Sealord in implementing the identified recommendations over the coming years.



## Case Study

### KiwiRail Electrification

Beca was commissioned by KiwiRail to investigate options for extending KiwiRail's existing electrification network in the North Island. While rail is a relatively low-carbon mode of freight haulage, KiwiRail has identified opportunities for significant reduction in freight emissions through a new fleet of low-emission locomotives.

The Beca study developed a high-level scope and cost associated with 'filling in the gaps' in the electrification network that would support fully electric freight services between Auckland, Tauranga and Wellington. KiwiRail will now extend this study to develop a locomotive power business case that also considers on-board battery, bio-fuel and hydrogen fuel cells.

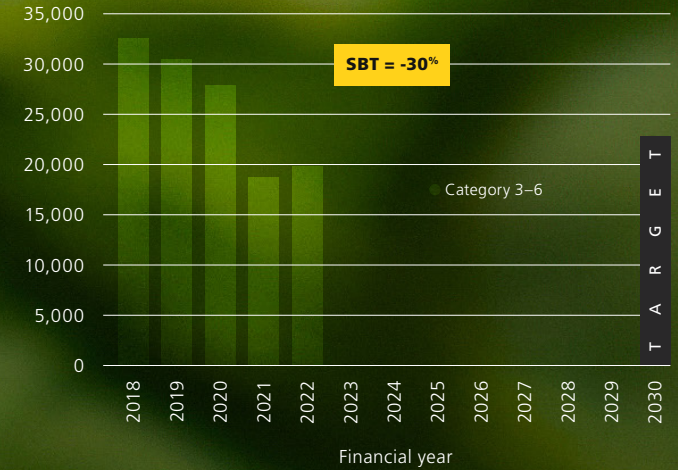
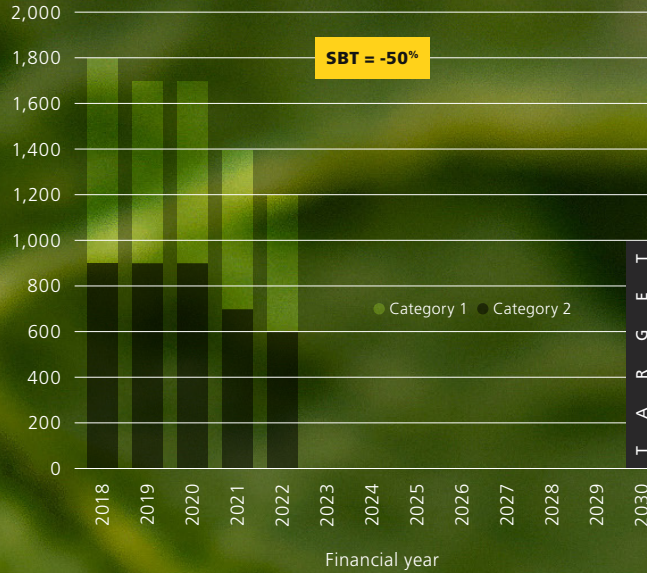
We have an annual carbon reduction programme that spans our footprint as well as our handprint. In FY22 we have been developing a methodology for measuring the performance of the carbon impact of the projects we work on.

In FY22, Beca leadership endorsed our approach to follow best practice science-based performance measurement. We anticipate being able to share the outcomes of this programme in FY23 and we look forward to seeking cross-industry collaboration.





# Carbon emissions (tCO2e)



We measure all emissions over which we have direct control (Categories 1 and 2), as well as emissions that we can influence (Categories 3 to 6). This includes emissions from all offices across New Zealand, Australia and our Asia hubs.

Our emissions reduction continued to be heavily influenced by restrictions from the COVID-19 pandemic. A number of our offices were closed for periods of the year as a result of Government requirements.

### Beca included components

Category	Description
1	Beca-owned and leased fleet, natural gas consumption in Beca buildings
2	Electricity used within our offices
3	Corporate travel (air, taxi, rental cars, mileage claims), employee commuting, energy used when working from home
4	Purchased goods and services, waste, accommodation, transmissions and distribution losses
5	N/A
6	N/A

FY22 emissions increased against FY21 by 5% as restrictions eased and business activities began to resume (increases were a result of increasing air travel, vehicle use and employee commuting in particular).

In the same way we support our clients, a specialist team has developed a decarbonisation trajectory model for Beca, showing multiple pathways that our business could follow to reach our 2030 target. The model enables growth, national policy context and planned initiatives to be considered, and provides a visual representation of how each 'initiative' might contribute to our overall target. This is informing our business in the development of their ongoing Decarbonisation Plan including setting of interim targets in FY23.

Our emissions trends are shown below. Our inventory is third party audited.

FY22 gross greenhouse gas emissions were estimated at 21,171 tonnes of carbon dioxide equivalent (tCO2e). This is a decrease of 39% compared to our baseline FY18 emissions. Of these emissions the New Zealand hub generated 58% (12,280 tCO2e), our Australia hub 27% (5,716 tCO2e), and our Asia hub 15% (3,175 tCO2e).



# FY22 emission reduction initiatives

OCT 2021

Completed a staff-wide baseline travel to work survey.



Signed up to Mevo's Virtual Fleet car share subscription

Audited end-of-trip facilities at all 22 offices and presented recommendations for FY23 investment.

DEC 2021



FEB 2022

Beca's Melbourne office switches to 100% renewable power by purchased GreenPower

Signed up to Auckland Transport's Travelwise programme and commenced travel plan

Changed our Vehicle Policy to phase out allocated vehicles.

MAR 2022

11 Plug-in-hybrid vehicles (PHEV's) added to company fleet.

Carbon estimates per flight, accommodation and rental car booking available for Australian teams travelling.

Beca recognised by Climate Leaders Coalition for emissions reduction activity.

60% of office energy audits completed including in Wellington, Christchurch, and Auckland offices.



MAY 2022

Partnered on the Toyota Hydrogen project to explore the potential of hydrogen technology

Released our inaugural climate-related disclosures report (TCFD)

Joined the Sustainable Business Council Clean Car Accelerator Group.



JUN 2022

12-month trial using in-vehicle telematics system (ERoad) for better fleet optimisation.

AUG 2022

FY22 GHG inventory completed and verified by a third-party.

SEP 2022



Beca supports Climate Leaders Coalition (CLC) as a signatory of its new Statement of Ambition to accelerate climate change action.

ONGOING

Engaged top vendors in supply chain for emissions data.



# Harnessing digital transformation

The start of the COVID-19 pandemic saw an unprecedented demand for digital solutions to support our own business operations and those of our clients.

This resulted in an increased requirement for digital skills and further catalysed our focus to actively build on our digital capability and digital leadership. We are also providing guidance and advice to clients on their digital transformation journeys. Our Digital Business Leaders Group is responsible for driving change and enhancing our digital capability.

In early 2022, we undertook a digital maturity survey, which helped define the areas in which to invest and change to ensure we had the skills, services and products to stay relevant for our clients in a digital world. These areas informed our Digital Transformation Strategy, which has four key pillars:

Development of new digital products and services to help our clients solve new problems more effectively

- Use digital to enhance the services we currently provide to improve customer experience and added value
- Develop our people to become leaders in a digital world
- Use digital solutions to drive efficiencies in how we deliver projects and enable us to be more creative.

Digital Twin technology is key to delivering on all four pillars of our strategy, whether this be internally, engaging and collaborating with our customers, or in the services and products we provide.

## Digital products

Some of the digital products we have developed are helping our clients achieve cost and productivity efficiencies, improved stakeholder communication and positive sustainable outcomes, including:

- BTune is a smart technology service for buildings that improves HVAC energy efficiency. BTune analyses, monitors, optimises and maintains the energy performance of a building's HVAC system, reducing building energy use, running costs, and carbon emissions by 40%.
- CAPEXinsights supports clients to achieve more efficient and successful capital project outcomes.

Find out more about our digital products and service offerings.

[learn more](#)



## Case Study

### Te Whau Pathway

Beca was commissioned by Auckland Council to support the preliminary and detailed design for Te Whau Pathway, a shared walking and cycling path connecting the Waitematā and Manukau Harbours.

The pathway was developed to provide safer and more sustainable alternatives for travel, support the local community and enhance the surrounding environment. Community engagement was a central component of this work and determined many aspects of the final design.

Beca supported Auckland Council to share information with and seek feedback from a community liaison group, consisting of representatives from a number of different groups including cycling advocates, environmental groups, youth boards and schools. In addition to the community liaison group, a large range of communicative tools were used to help reach as many people in the community as possible. Social Pinpoint was paired with Beca's Artificial Intelligence tool Frankly AI; this created an interactive interface in which users could drop location-specific pins on Social Pinpoint's map and then give more detailed feedback by chatting with the Frankly conversational agent.

The community liaison group advised that there was a large Mandarin speaking population along the Whau, and so a Mandarin language option was offered for Frankly users. The Social Pinpoint / Frankly tool was well used by the community, and feedback was received across a diverse range of age groups, local board areas and ethnicities.

This project was one of the first times that Beca has used this innovative community engagement tool (Social Pinpoint paired with Frankly), which reached far more people than traditional feedback forms. Once completed, the Te Whau pathway will reflect the needs and wants of the community and provide new commuting and recreation opportunities for the residents and visitors of Tāmaki Makaurau.





# Prioritising health and safety



We are committed to the wellbeing of our employees and safer designs for our community. As a company we focus on preventing injury and ill health to our employees. Through project work, we strive to develop infrastructure and systems that can better safeguard the health and safety of our clients, the public and the environment. We have developed a Safety in Design approach so that safety is considered through all stages of our design projects. To ensure we are operating with health and safety front of mind, we have Health Safety & Environment (HSE) champions and a HSE Steering Committee in each region Beca Group operates in: New Zealand, Australia and Asia.

Year	Results
2021	3.82
2019	3.93
2017	3.52

Beca's biannual HSE survey is distributed to all Beca staff and is intended to gauge the health and safety culture across the business. The HSE culture index scores are based on the Hudson Safety Culture model and are mapped onto a scale that ranges from "pathological" (if somebody gets hurt, it is their fault) to "generative" (safety is simply a way of life).

According to this index, Beca Group is in good shape, nearing the "proactive" space of the HSE continuum (we actively look for to solutions. Our committed and visible leadership is beginning to transform our HSE performance). Results from 2021 indicate there was a slight dip from 2020.

We aspire to creating a leading culture where health and safety is part of everything we do. Training forms a large part of what our internal HSE team offers, and through this we are building our people's capability in safety in various situations and wellbeing.

Broadly our trainings fall into the categories of psychological health, site safety training, hazard awareness training and process training. We have set hazard identification and management processes such as reporting via our incident management system, office risk registers and quarterly office reviews to ensure we proactively identify risks associated with our business activities. Our HSE teams conduct regular H&S inspections at construction sites, to provide guidance and support to our people and contractors on site.

We have digitised HSE Planning embedded in our internal project management system (PDS), which gives our teams access to real time data for better visibility of HSE activities on projects. The HSE objectives for the year ahead are as follows:

### HSE Objectives for 2022/23

- Embed our HSE behaviours through proactive leadership, increased awareness and positive messaging
- Take action on improvement areas from our HSE Culture Survey
- Actively encourage, support and educate our people to become healthier and happier versions of themselves
- Our key HSE Risks are understood and managed across the business
- Increase awareness of environmental management within Beca
- Reduce our carbon footprint by 32% by 2030

Highlights in the HSE space for FY22 include a learning review of existing Online Modules and Work Instructions due to internal feedback that this was a 'tick & flick' / 'tick box' exercise.

This is an ongoing process to ensure the modules are fit for purpose and provide key information needed for ongoing employee safety.

This also follows a general shift in how the business delivers training from formal in person workshops and modules, to interactive online sessions that incorporate work outside of the formal learning setting.

Our current ISO HSE Accreditation is 45001: Occupational Health and Safety Management Systems (OHSMS).

## SCORE



Increasing informed. Increasing leadership commitment, visibility and communication

Increasing employee trust, involvement, responsibility, accountability and reduced at risk behaviours



## Case Study

### Lion — Former West End Brewery Transformation

Sustainability in infrastructure is usually focused on the design, in which building features are developed to make efficient use of resources like energy, light and carbon. But what happens at the end of the asset's lifecycle? The decommissioning of the former West End Brewery in Adelaide demonstrates there are often many opportunities for sustainability and resource efficiency at the end of an asset's life as there are at the beginning.

When Lion made the difficult decision to close and decommission its iconic West End Brewery, it recruited Beca's support with project management and technical guidance. The aim was to acknowledge the brewery's significance, while enabling future opportunities.

A strong sustainability focus led to almost all of the brewing equipment being reused or relocated. Boilers, canning lines, tanks and pasteurisers were some of the many items that were identified for re-use. Other equipment such as compressors, labellers, and centrifuges were relocated to Lion breweries elsewhere in Australia. The pieces that could not be salvaged were instead recycled to minimise waste.

There is still ongoing work occurring at the eight-hectare site, where the majority of the above-ground infrastructure has progressed through deconstruction phase. The project's goals are to leave a positive legacy for the environment, for future uses of the area and for the wider community. The decommissioning will also ensure the site is safe for the surrounding community.





# Prioritising wellbeing of our people



Wellbeing is a wide-ranging concept affected by physical and psychological wellness, as well as a sense of purpose and connection. A team performs best when all team members are healthy, motivated, and engaged.

It is important that we look out for the wellbeing of our people to allow them to perform to the best of their abilities. We also strive to prioritise the wellbeing of our clients and communities and seek projects that have broader social benefit.

Our Wellbeing Committee comprises at least one wellbeing representative from each of our offices. The Committee meets bi-monthly to discuss upcoming group wellbeing initiatives and campaigns and what is going on locally in the wellbeing space. Two key risks identified by our teams this year have been ergonomics and psychological health.

The COVID-19 pandemic has also brought a number of challenges with absences due to illness in our teams. We have invested in supporting the health of our staff while being flexible enough to meet project deadlines and client expectations, through the following ways:

- People Leader psychological health training offered by an external organisational psychologist (Dr Laura Kirby).
- Workplace Psychological Health training for our people providing basic skills to provide others with support and support your own wellbeing. Developed an additional workshop with Dr Laura Kirby, which launched in 2022, focused on building resilience.
- HSE, People and Culture (P&C), and people leaders worked together to confidentially manage psychological health incidents that occur with our staff.
- Ran webinars with external experts on aspects of health (including Sleep, Nutrition and Vaccination) and various areas of wellbeing.
- Worked with People and Culture teams to develop flexible working guidelines that allow our people to bring their best selves to work.
- Leadership training to enable our people leaders to provide suitable support to our employees.

In 2019, we started work on understanding how we work and what our future workplace may look like. A core project team was formed with our CEO, Greg Lowe as sponsor, to expediate our Workplace Transformation project. This initiative is ongoing, involving pilots in five of our offices and will inform the “way we work” going forward.

Last year we undertook the Wellbeing 360 survey, which helped us gauge the general health of our people and inform future wellbeing initiatives. The survey is conducted every two years. The W360 takes a 360° holistic approach that focuses on four components; mental wellbeing; physical wellbeing; social wellbeing; and work wellbeing.

Wellbeing 360 is grounded in the sound philosophy that each health segment is interconnected and has a real effect on overall health and vitality. This year, 361 people attended psychological health workshops for people leaders and employees.



The COVID-19 pandemic has posed a significant challenge as far as the wellbeing of our people. Areas of Improvement identified by the wellbeing survey include:

- 1 in 2 could improve their physical activity habits
- 2 in 4 could focus on areas of their diet to improve nutrition
- There was an increase in extreme/severe anxiety and depression.

Beca has a number of resources available to support our staff through mental health challenges:

- An Employee Assistance Programme (EAP), which is a confidential programme that aims to assist employees with personal and/or work issues which are adversely affecting their work performance. Included in this programme are three confidential counselling sessions.
- Guided Mindfulness Meditation sessions that offer an opportunity to briefly press pause and refresh for 15–20 minutes approximately once a week.
- Beca’s ‘Be Well Aware’ wellness programme, which takes a holistic approach to our wellbeing. The internal portal provides information and resources relating to physical, psychological, social and work wellbeing. Various initiatives are run throughout the year, including challenges, flu vaccinations, health checks, webinars and articles.

### External recognition in health and safety

We have received recent recognition in the wellbeing space, notably through the following two awards:

Country	Award	Description
New Zealand	2021 Headfit “Ministry of Health Large Workplace of the Year” Award	Headfit awards celebrate excellence in workplace mental health.
Singapore	2021 bizSAFE Enterprise Exemplary Award	The bizSAFE Enterprise Exemplary Award recognises bizSAFE STAR companies that have shown outstanding workplace safety and health (WSH) performance and proven to have high standards of employees’ health, safety, and wellbeing.



## Research and Climate Action

### Blue Carbon

Carbon sequestration — the process of capturing and storing atmospheric carbon dioxide. Conversations around carbon sequestration often focus on mechanical carbon capture or terrestrial carbon sinks like trees, grasslands and soil.

However, the marine environment plays a huge role in the earth’s chemical cycles, including in carbon sequestration processes. Vast networks of algal life, as well as seagrasses, mangroves and salt marshes store and cycle most of the Earth’s atmospheric carbon.

The Core and Restore project is a unique, whole-community collaboration with ambitious plans to measure, protect and restore coastal blue carbon ecosystems across Te Taihū (The Top of the South Island). The project is led by the Tasman Environmental Trust and involves key partners Beca, Cawthron Institute, Ngāti Apa ki te Rā Tō, Nelson City Council and Onetahua Restoration.

The project team is working to collect the first robust, internationally credible, verifiable blue carbon data in Te Taihū. Beca has been involved in core sampling seabed sediments in seagrass and saltmarsh habitats, to allow sub-samples to be collected and sent off to the lab to determine the amount of carbon stored in the sediments of each habitat.

The project goals are to develop outputs that could enable Core and Restore to:

- scale up blue carbon sampling across Te Taihū using community-based crews;
- work with local communities to initiate blue carbon restoration projects where they are most needed; and
- develop a business model that enables Core and Restore to ‘stand on its own feet’ financially.

Along with research, Core and Restore is teaching communities about the value of coastal ecosystems for storing carbon, enhancing biodiversity, improving resilience and providing a managed retreat option.

Empowering and upskilling community members to measure blue carbon is a model that could potentially be rolled out by communities around the country to quickly build a national blue carbon dataset and accelerate efforts to protect and restore blue carbon habitats.

Core and Restore was recently featured in New Zealand’s first emissions reduction plan as an example of a nature-based solution in the Blue Carbon space.



# Financial sustainability



Our focus on financial sustainability enables us to invest in our people, as well as our systems and processes that help our people deliver sustainable outcomes for our clients.

After a century of operation, employee-ownership remains key to Beca's future. It underpins our positive, purpose-driven and growth-oriented culture and it gives meaning to our 'social contract'. That is, we're accountable, we don't let each other down, and we strive for excellence in everything we do.

Our ownership model is underpinned by shareholding principles dating back to our early days: a belief that success is built on the aggregated achievements and contributions of all of us. It's about empowering our exceptional people — giving those who are making a sustained contribution the opportunity to purchase shares and become owners of the company.

The Beca Group Limited Board is responsible for monitoring the business and affairs of Beca Group, including setting strategic direction, establishing goals for management and monitoring the achievement of those goals.

The Board is accountable to all shareholders and represents and promotes their interests with a view to building long-term shareholder value with due regard to other stakeholder interests.

## Revenue by Geography

NZ\$ million for the year ended 31 March 2022	New Zealand	Australia	Asia
Revenue	NZ\$479.3m	NZ\$117.0m	NZ\$40.2m

