Beca Group Climate-related Disclosure

MAY 2025

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About this report

Welcome to our 2025 Beca Group Ltd Climate-related Disclosure Report. At Beca Group, we recognise the need to take global action on climate change. Motivated by our purpose to "make everyday better" and our values-driven culture, we present our second **voluntary** climate-related disclosure to demonstrate our commitment to align with international best practice in sustainability reporting and to share the journey that many of our clients are on.

The New Zealand External Reporting Board issued the Aotearoa New Zealand Climate Standards (NZCS1) following our first disclosure in 2022. These standards set out a mandatory climate-related disclosure framework for some of New Zealand's largest entities.

While Beca Group is not a reporting entity and therefore not required to make a mandatory disclosure, we have used NZCS1 to frame our second voluntary disclosure.

During the development of this report, mandatory climate-related financial disclosure reporting was introduced in Australia. The implications of this for our Australian business have been considered and we anticipate we may be required to deliver climate-related financial disclosure reporting under the Australian regime.

We recognise that in future the requirement to provide climate-related disclosure reporting may extend to other geographies where we are present, and we will need to consider the interoperability of our climate reporting across the Beca Group.

The insights developed through the voluntary process we are undertaking supports us to be better prepared to meet mandatory reporting and will help us continue to deliver transformational solutions together with our clients.

Disclaimer

This report includes current and forward-looking statements about climate change, the impacts of it on Beca Group, and Beca Group's response to it. Forward-looking statements naturally carry a degree of uncertainty, which is exacerbated with climate reporting given the challenges with incomplete and estimated data. Climate change, and the impacts of it on individual businesses, is subject to considerable uncertainty. The information in this report (including, but not limited to, quantifications of the financial impacts of climate change) is based on estimates, judgements, assumptions and incomplete data that Beca Group considers to be appropriate under current circumstances. However, we caution reliance being placed on information that is subject to significant uncertainty. This report includes a range of forward-looking information, including climate-related scenarios (including economic scenarios), targets, metrics, forecasts, commitments, risks and opportunities, and anticipated impacts. This forward-looking information is based on assumptions, estimates and judgements that are uncertain and likely to change over time, including as a result of factors that are outside of Beca Group's control. Forward-looking statements should not be taken as guarantees of future performance, results, impact and/or circumstances, which may be materially different from those expected or stated at the time of this Report. Beca Group does not represent that the information in this report will not change following publication of this report and gives no undertaking to update the information over time (subject to relevant legal or regulatory requirements). Nothing in this report should be interpreted as advice, whether investment, legal, financial, tax or otherwise. Beca Group disclaims to the fullest extent possible any liability from loss arising from the content of this report.

01

A message from the Chair and Chief Executive

As we begin a new financial year, we are proud to share Beca's second Climate-Related Disclosure Report.

Beca Group has been reporting on sustainability through its Annual Sustainability Report since 2012 and has been a long-standing member of the Sustainable Business Council since 2008. Building on these foundations, we developed our first voluntary Climate-related Disclosure reporting in 2022. This latest disclosure reflects our tenacious commitment to transparency and accountability in addressing climate change risks and opportunities. While we are not required to report as a climate reporting entity, we recognise the significant value this process provides – not only for our stakeholders, but also as a strategic tool that drives sustainable growth across our business.

Climate change presents both challenges and opportunities for Beca. Understanding its impacts is critical to our long-term success and deeply connected to our purpose: **to make everyday better**. One of the most meaningful ways we deliver on this purpose is by working alongside clients and communities to support climate adaptation and resilience.

This report highlights how climate-related decision-making is embedded within our governance, processes, and planning – whether responding to New Zealand's Climate Standards or preparing for Australia's evolving climate reporting regime, where mandatory disclosures will soon apply. Our first report was framed using the Taskforce for Climate-related Financial Disclosures (TCFD) framework; this second iteration aligns with Aotearoa New Zealand Climate Standards, reflecting our commitment to continual improvement.

We are privileged to support many of our clients in preparing their own climate-related disclosures, gaining invaluable insights into the benefits these reports deliver. From fostering strong governance structures to enabling informed strategies and driving meaningful actions, these disclosures provide a foundation for organisations – including ours – to navigate the complexities of climate change effectively.

While we are proud of the progress reflected in this year's report, we acknowledge there is always more work ahead. For Beca, this journey serves as an opportunity to reflect on how we manage material climate-related risks while embracing significant opportunities that decarbonisation, adaptation, and resilience bring to our business.

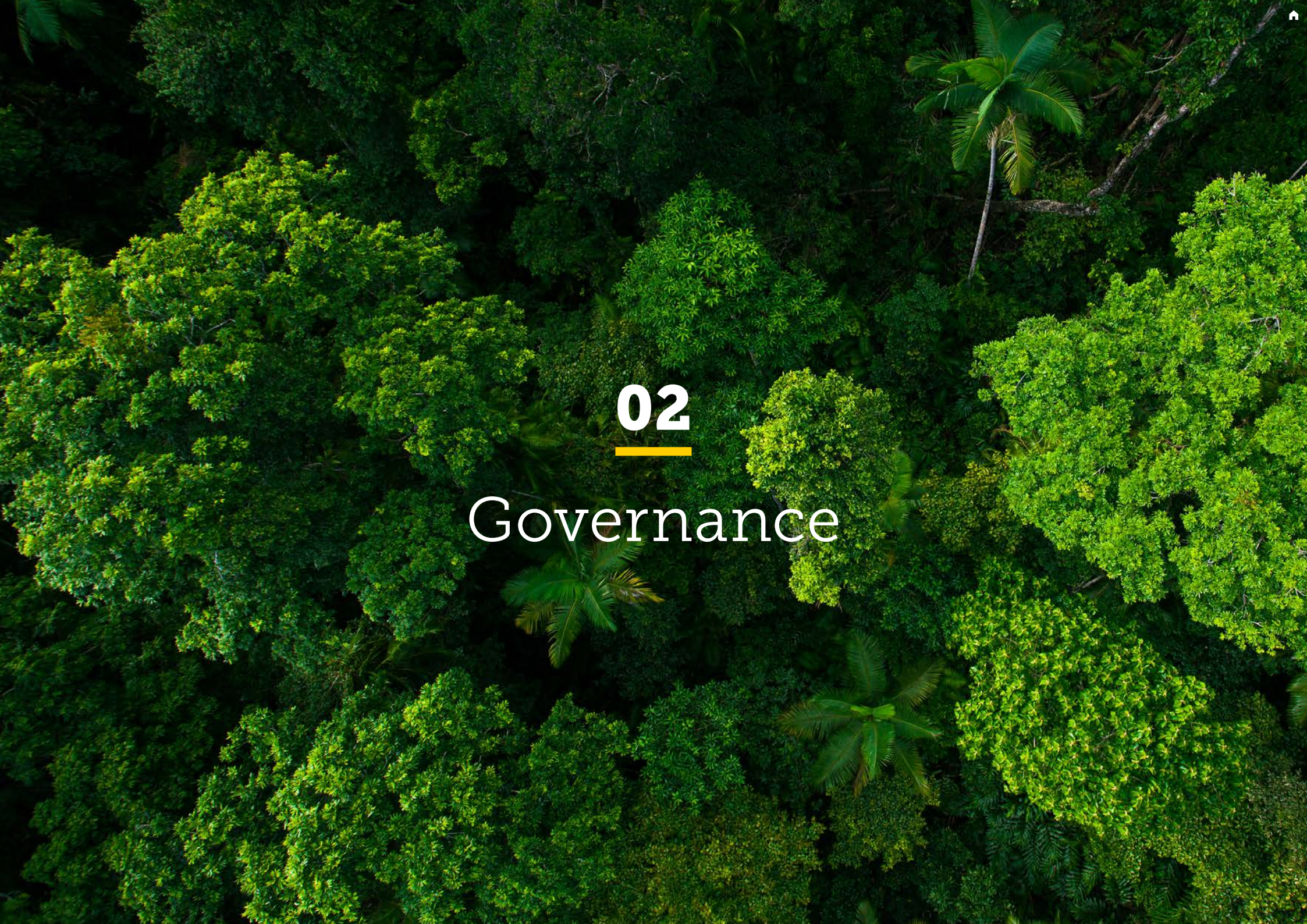
As an employee-owned company with a global perspective, we remain committed to maturing our sustainability and climate-related reporting. Leveraging insights gained along the way strengthens not only our sustainability strategy, but also the tangible impact we have on communities through innovative solutions.

Addressing climate-related risks and opportunities remains a critical pillar of our sustainable business focus – but it does not stand alone. It sits alongside other vital considerations: social equity, cultural connection, economic prosperity, and environmental stewardship. Together, these pillars form the foundation of how we strive toward creating a better tomorrow.

Looking ahead, we are motivated about what lies before us. Together with our people, clients, and partners, we will continue this journey – working collaboratively toward resilient communities and a sustainable future for generations ahead.

DAVID CARTER
Beca Executive Chair

AMELIA LINZEY
Beca Group Chief Executive



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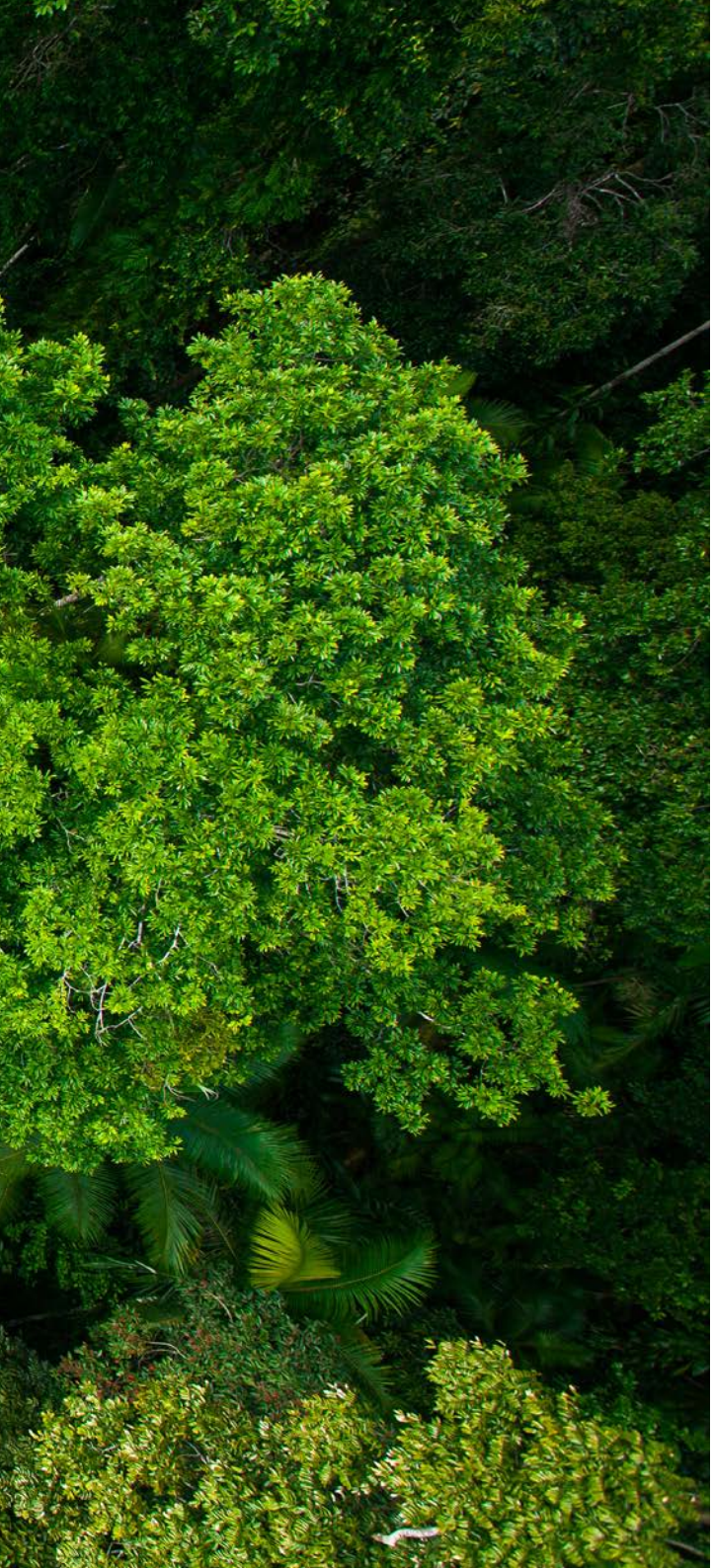
Governance



Board oversight of climate-related risks and opportunities

The Beca Group Limited (Beca Group) Board is responsible for the oversight of risks and opportunities for the Beca Group, including those relating to climate change. This includes responsibility to approve the Group Risk Management Policy and Sustainability Policy, periodically review major risks to which the Group is, and is likely to be, exposed, an annual review of Beca Group's sustainability objectives, and review the recommendations of the Sustainability Oversight Group.

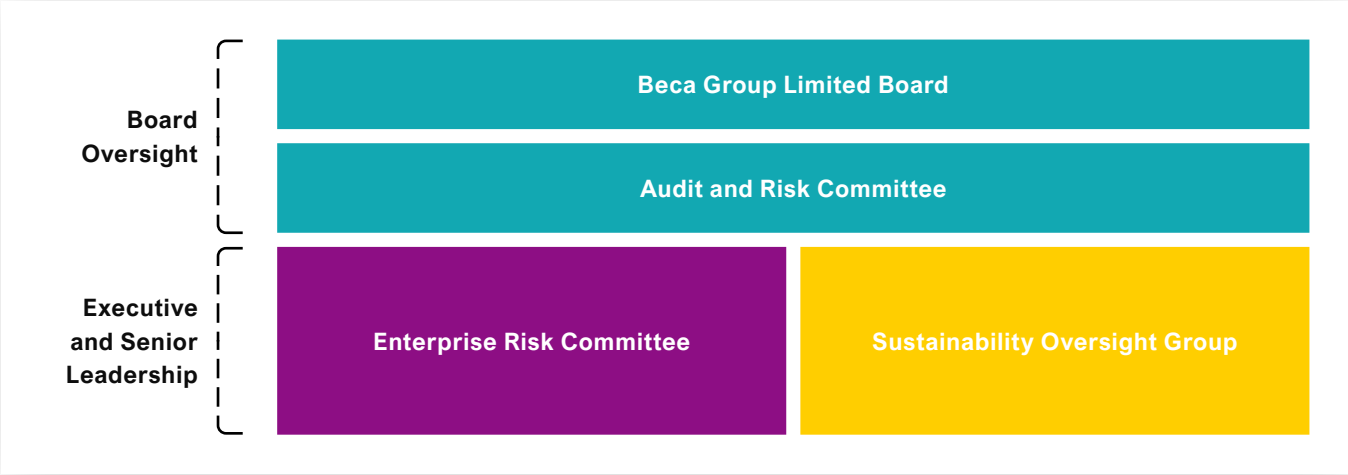
The Board is also responsible for approving the Beca Group strategy, which include the goals **Creating Positive Legacies** and **Living our Social Contract** (refer Strategy section below for details), both of which address the Group's climate-related risks and opportunities. The Board has an Annual Sustainability Action Plan as part of its policy suite, which is then delivered through the Handprint and Footprint work programmes overseen by the Sustainability Oversight Group. Strategic performance indicators are used by the Board to monitor progress made towards the Group goals each year.

Beca Group Environmental Policy

The Beca Group Environmental Policy, updated in December 2024, sets out the Beca Group environmental commitments. Beca Group is committed to minimising environmental impact directly resulting from our work activities (our footprint) and seeking to maximise the positive impacts and sustainable outcomes we can enable through the advice we give and the projects we work on with our clients and communities (our handprint). This engenders a responsibility to reflect our purpose, provide environmentally appropriate advice, and encourage positive environmental outcomes.

Audit and Risk Committee

The Audit and Risk Committee (ARC) supports the Board by reviewing and assessing the Group's business, quality and financial risk management systems and processes and compliance with them. This includes overseeing our Enterprise Risk Management programme, which includes climate-related risks. Committee members are appointed by the Beca Group Board and attend quarterly meetings. The Chair of the Committee is on the Board and reports to it on its meetings and activities.



Executive and senior leadership oversight of climate risks and opportunities

Executive Leadership Group

Our Executive Leadership Group (ELG) is responsible for executive management of Beca Group. Working alongside the Board, the ELG provides the long-term strategic direction and vision for our future and, once this is confirmed by the Board, sets out the road map of how our business delivers on that strategy and delivers value to our clients, our business, our shareholders and the worlds we work in.

The ELG is responsible for establishing and implementing our Enterprise Risk Management process. Climate-related risks are managed, categorised and assessed against enterprise risk criteria. This process includes an annual review of identified Group-level risks which includes risks that encompass sustainability issues, including climate change. The Audit and Risk Committee is informed of the key outcomes of this annual risk review.

Enterprise Risk Committee

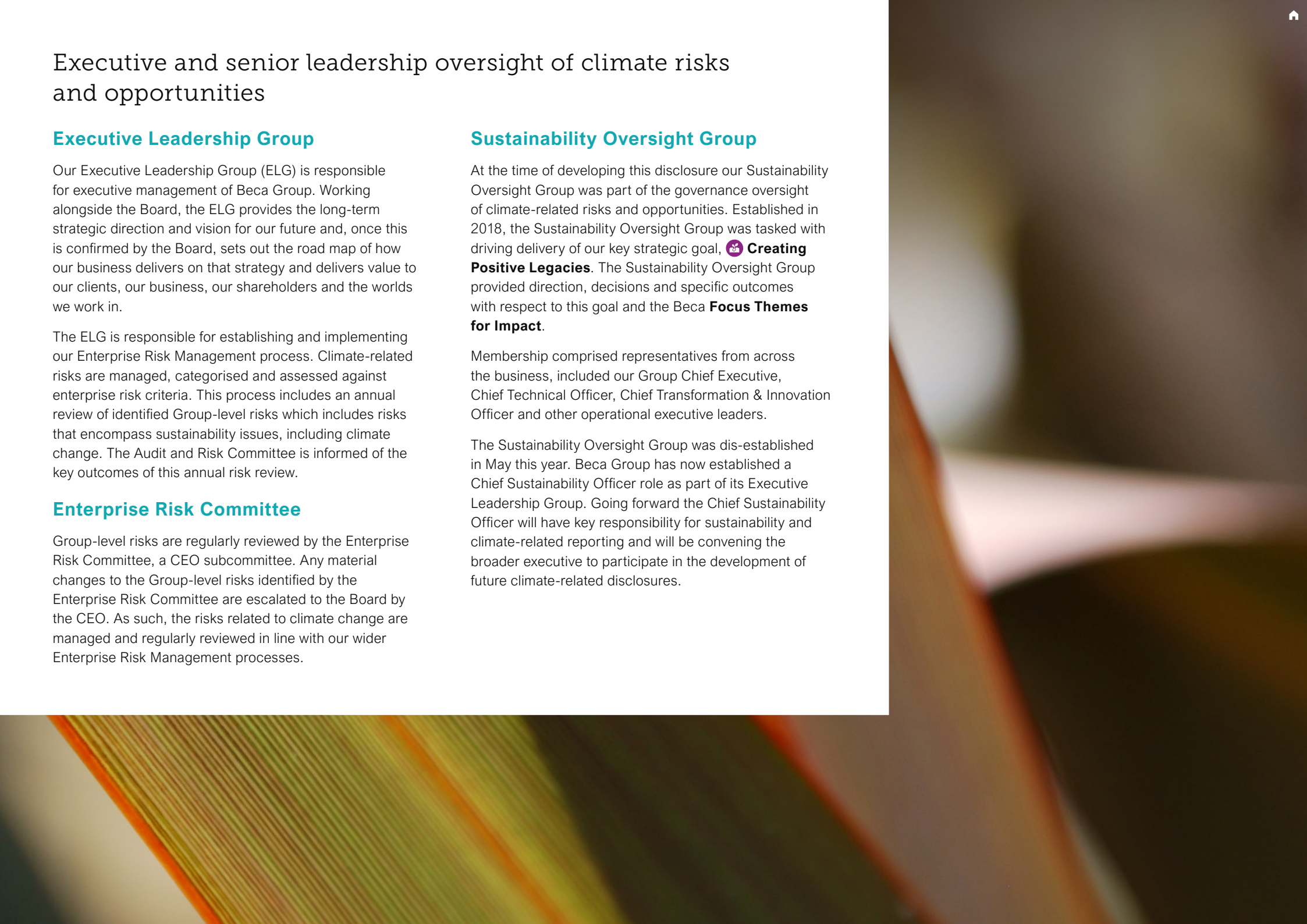
Group-level risks are regularly reviewed by the Enterprise Risk Committee, a CEO subcommittee. Any material changes to the Group-level risks identified by the Enterprise Risk Committee are escalated to the Board by the CEO. As such, the risks related to climate change are managed and regularly reviewed in line with our wider Enterprise Risk Management processes.

Sustainability Oversight Group

At the time of developing this disclosure our Sustainability Oversight Group was part of the governance oversight of climate-related risks and opportunities. Established in 2018, the Sustainability Oversight Group was tasked with driving delivery of our key strategic goal, **Creating Positive Legacies**. The Sustainability Oversight Group provided direction, decisions and specific outcomes with respect to this goal and the Beca **Focus Themes for Impact**.

Membership comprised representatives from across the business, included our Group Chief Executive, Chief Technical Officer, Chief Transformation & Innovation Officer and other operational executive leaders.

The Sustainability Oversight Group was dis-established in May this year. Beca Group has now established a Chief Sustainability Officer role as part of its Executive Leadership Group. Going forward the Chief Sustainability Officer will have key responsibility for sustainability and climate-related reporting and will be convening the broader executive to participate in the development of future climate-related disclosures.



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Risk Management

Beca Group Risk Management

Effective management of risk is central to Beca Group remaining a successful and sustainable business. This means we need to maintain a current and comprehensive understanding of material risks and adopt a structured and consistent approach to assess and treat those risks.

Our Beca Group Risk Management Policy provides the overarching framework for assessing, monitoring and managing risks, including climate-related risks. The roles, responsibilities and implementation for risk management are addressed in this policy along with the associated risk management processes. These are aligned with the risk management standard ISO 31000:2018 Risk Management – Guidelines.

We manage our climate-related risks within these wider risk management processes. Our risk management processes operate on all levels of the business, so that climate-related risks and opportunities are accounted for in our projects and overall business strategy.

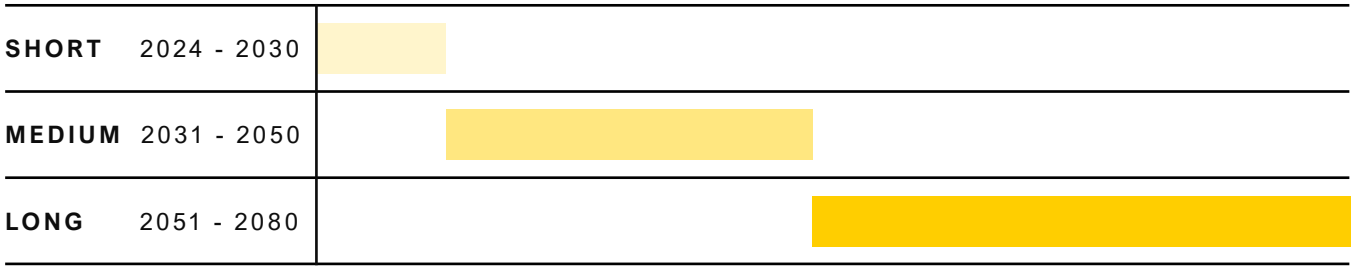
Climate-related risk management at enterprise level

Our Sustainability Oversight Group, now replaced through our Chief Sustainability Officer role, provide regular review and oversight for climate-related risk and opportunity. Those reviews are considered on an annual basis by the Enterprise Risk Committee and are used to inform our business strategy and objectives.

The Sustainability Oversight Group met in October 2024 to identify, review and prioritise the Beca Group's physical and transition climate-related risks and opportunities, considering the requirements of the New Zealand climate-related disclosure framework and the anticipated Australian climate-related financial disclosure regime under which Beca is an applicable reporting entity.

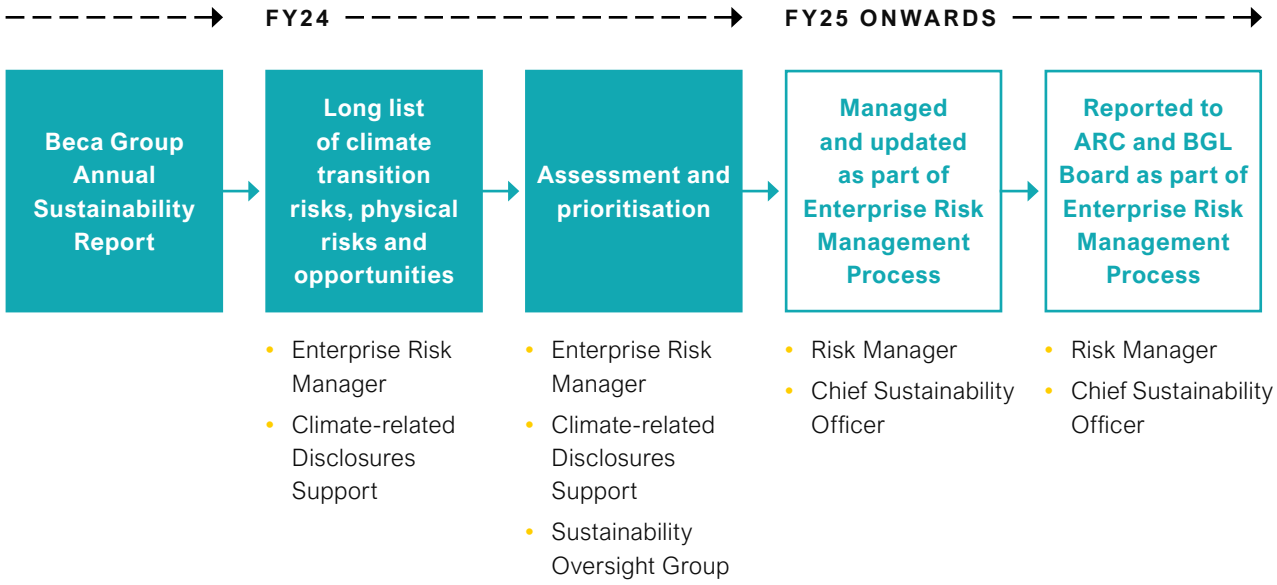
For this disclosure, climate-related risks were identified, assessed and prioritised in a risk register against our enterprise risk assessment criteria.

We recognise that the time horizons for the assessment of climate-related risks and opportunities need to reflect the longer-term implications and uncertainty associated with climate change. For this reason, we have used the following time horizons, drawn from sector climate scenario guidance, to assess our Beca Group climate-related risks and opportunities:



Going forward, the climate-related risk register will be managed and updated by the Risk Manager and Chief Sustainability Officer.

Climate risk management process and risk management responsibility



Climate-related risk management at project level

We have a great opportunity to drive change in the work and advice we give to clients every day. To continue providing value and manage risks at the project level, we have a suite of tools and systems in place. These include:

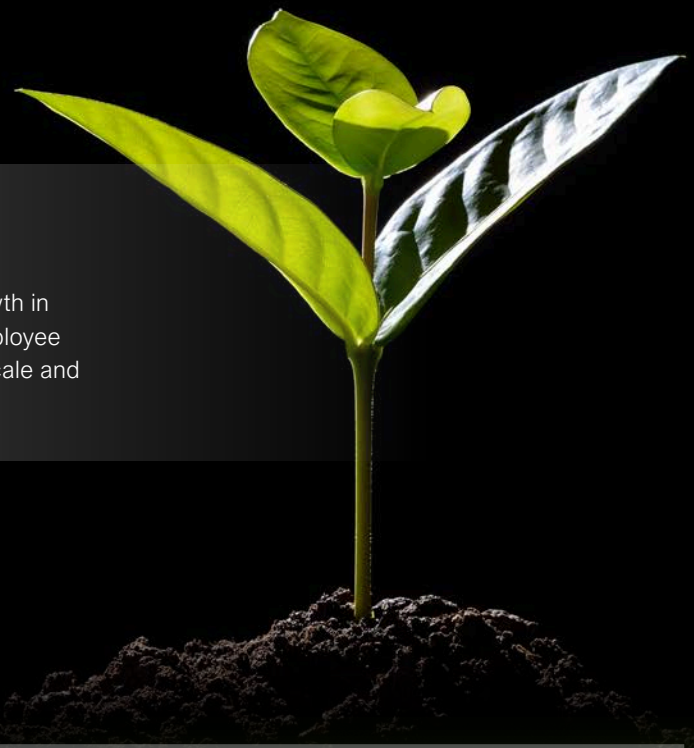
- A ‘bid/no bid’ process to determine how best to proceed with client service offers. This process prompts consideration of environmental issues including climate, societal expectations and our purpose to ‘Make Everyday Better’. We may identify significant risks on a given project through this process, as well as significant opportunities to maximise our potential positive impact.
- A risk categorisation system for projects and potential projects.
    - Non-routine projects deemed to have elevated risks require approval from a Risk Committee prior to the bidding process. The categorisation process considers the significance of environmental and social impacts among other risk sources.
    - In FY23 additional requirements to consider projects involving various types of carbon assessments and associated risk profiles were included in the risk categorisation process. This means that climate-related transition risks associated with undertaking carbon assessments for clients can be managed appropriately. For example, if the assessment is relied upon to represent a “Net Zero Carbon” outcome there are potential commercial implications and reputational risks that need to be managed.

The time horizons for considering project-level climate-related risk vary, depending on the nature of the project. The systems in place support risks being considered for the project lifecycle, and beyond. For example, it considers environmental impacts associated with the operation of an asset post-delivery.

04

Strategy

Our Aspirations for the Decade



01

A mission delivered with ‘intent’ – increased focus in areas for real impact and focused on outcomes to **make everyday better**

02

A business brand known for our enduring relationships with clients, our creative solutions and our employee ownership culture

03

Prosperity founded on solid growth in Australia, regeneration of our employee ownership and opportunities of a scale and excitement for our people

Vision / Mission / Purpose / Values Framework

Distinctive Point of View

Our Vision	**“Creative people together transforming the world”** At Beca, we harness the power of the collective to see the world from every perspective. We think big, not just for today but so communities everywhere will feel the impact of what we do for generations to come. Using hindsight to learn and foresight to anticipate we join the unthinkable dots together.			
Mission	We have a proud history, but for Beca to still be leading the way in 100 year’s time, we must push beyond where we are right now. Using our passion and care to do better, our meticulous attention to detail and our expertise, we’ll shape the outcomes of the future. By going beyond, we’re always adapting and improving to deliver substantial long-term benefits for everyone. From infrastructure you can’t see, to iconic buildings, to investing in more resilient futures, our thinking will become the communities and places of tomorrow. As we strive to do our best work, our ‘beyond’ work that’s built to endure and to thrive around the world, we become integral, yet often invisible in shaping places for future generations. Our solutions today provide a technical beacon of hope, leaving a meaningful legacy that continues to make everyday better for everyone.			
Purpose	**Make everyday better for everyone**			
Values	**Partnership**	**Tenacity**	**Enjoyment**	**Care**

Group Strategy and Goals

Our Purpose to 'Make Everyday Better' is encapsulated in our Group Strategy to Amplify Beca, which has eight goals to grow the business.

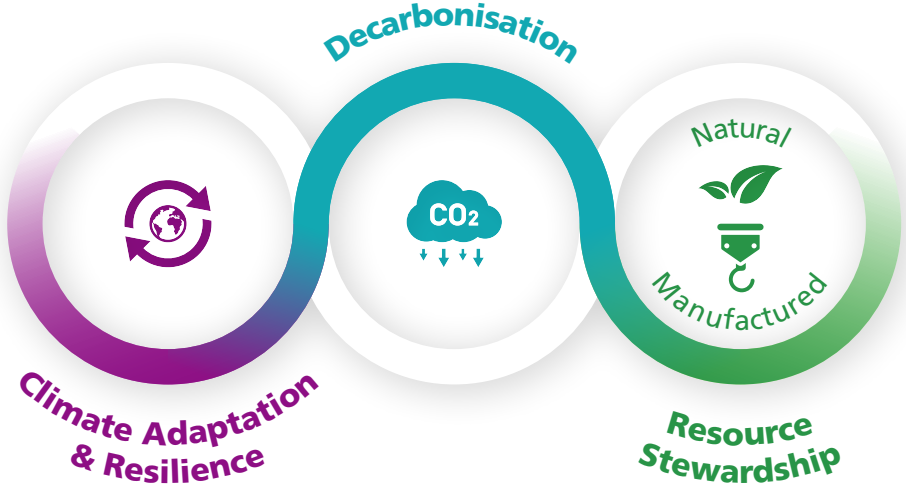
As part of this strategy, our Chief Sustainability Officer will drive implementation of the corporate sustainability programme.

Our material sustainability issues

In 2023 we completed a refresh of our material sustainability issues for the business. Our materiality process identified and prioritised the most important issues from the perspective of the business and its key stakeholders. The objectives of the process were to:

- Assess significant social and environmental topics,
- Identify developing threats and opportunities,
- Prioritise resources for the issues that matter most,
- Better manage important risks, and
- Identify where we can make a significant positive impact.

Three sustainability areas of importance were identified:



These issues are important to our clients and the work we do with them, and they are also relevant to our own business operations. We actively help our clients assess and adapt to the impacts of climate change, decarbonise, and value the natural and manufactured resources relied upon and impacted by their operations and supply chains. We also look at our own business operations closely, reducing our impact and identifying opportunities to increase positive outcomes for the business, and the communities we work within.

Climate-related risks and opportunities

Climate-related risks are the potential negative impacts of climate change on our business model, strategy, and objectives, while climate-related opportunities are the potential positive impacts.

It is critical that we explore the value to be derived from climate-related opportunities while also managing the risks.

Our approach to identifying climate-related risk and opportunity

Our approach to identify climate-related risk and opportunity extends beyond New Zealand to our group operation and to the implications of climate change for our Australian and wider regional business operations.

Since our first climate-related disclosure in 2022, we continue to build and embed the maturity throughout the business to identify our physical and transition climate-related risks, the corresponding impact to our business, and to explore the potential opportunities associated with climate change.

In September 2024, the Sustainability Oversight Group held a dedicated workshop to review the list of climate-related physical risks and transition risks and opportunities, including those identified in 2022, as well as risks and opportunities identified in 2024 through our Beca Group risk management processes.

In October 2024, a further workshop was held with the Sustainability Oversight Group, facilitated by the Group Enterprise Risk Manager, and supported by our technical specialists involved in the delivery of climate services. The workshop confirmed and prioritised our current material climate-related risks and opportunities, in line with our enterprise risk management framework.

Our current material climate-related physical risks, transition risks, and opportunities identified through our risk management processes and reviewed and refined by our Sustainability Oversight Group and Enterprise Risk Manager are:

RISKS

- **Increasing chronic physical impacts of climate change negatively impacts our markets and client operations.**
- **Decreased demand from our clients for existing services.**
- **Failure to achieve our business operations carbon reduction "Footprint" targets.**
- **Lack of alignment with potential changes in policies / priorities at one or more levels of Government.**

OPPORTUNITIES

- **To become known as a market leader in climate-related services and strengthening existing and developing new services and tools to reflect the increased demand for climate-related services.**
- **To leverage our climate resilience / sustainabilty experience and compentency to move into nature impacts and nature-related disclosures.**
- **To utilise our existing multi-disciplinary service offerings with a climate lens to increase positive impact for our clients.**

Definitions from the Aotearoa New Zealand Climate Standards

Physical risks

Physical risks relate to the physical impacts of climate change. Physical risks emanating from climate change can be event-driven (acute) such as increased severity of extreme weather events. They can also relate to longer-term shifts (chronic) in precipitation and temperature and increased variability in weather patterns, such as sea level rise.

Transition risks

Transition risks relate to the transition to a low-emissions, climate resilient global and domestic economy, such as policy, legal, technology, market and reputation changes associated with the mitigation and adaptation requirements relating to climate change.

Opportunities

Opportunities are the potentially positive climate-related outcomes for an entity. Efforts to mitigate and adapt to climate change can produce opportunities for entities, such as through resource efficiency and cost savings, the adoption and utilisation of low-emissions energy sources, the development of new products and services, and building resilience along the value chain.

Climate Scenario Analysis

Climate scenario analysis is a process used to explore the potential impacts of climate change.

We recognise that while climate change presents great uncertainty, there is a need to consider time horizons beyond the traditional short- to medium-term. With this in mind, in December 2024 our Sustainability Oversight Group explored two plausible, yet challenging, descriptions of how the future may unfold, to better understand how climate-related risks and opportunities could impact our strategy and business model over time. This process was supported by our Group Enterprise Risk Manager and technical specialists from our sustainability and climate-related reporting services.

The analysis took place as a standalone workshop. As we develop our maturity and integrate climate-related risk management into wider risk management processes, we intend to further integrate climate scenario analysis into our Group level strategy processes.

Our Climate Scenarios

Two scenarios, rather than the three required for New Zealand climate reporting entities, were considered appropriate for the Beca Group's voluntary reporting at this time. This reflects the number of scenarios required for Australian climate reporting entities where the Beca Group also operates. In developing climate scenarios specific to Beca Group, we drew on External Reporting Board guidance for entity scenario development, the Construction and Property, Energy and Transport sector scenarios, and technical specialists from our sustainabilty and climate-related reporting services to create plausible, challenging and internally consistent climate scenarios.

Time horizons

The time horizons adopted for assessing our climate-related physical and transition risks and opportunities for this exercise are consistent with the sector scenarios that we based our Beca Group scenarios on:

SHORT-TERM	2024 - 2030
MEDIUM-TERM	2031 - 2050
LONG-TERM	2051 - 2080

The scenario development process resulted in two climate scenarios with descriptions of the future, tailored to reflect the nature of our business and designed to support robust assessment of the resilience of our business model and strategy.

These scenarios are summarised below. The full climate scenarios used for climate scenario analysis are included in Appendix A.

TO DEVELOP THE TWO SCENARIOS, WE:

1. Reviewed three New Zealand scenarios reflecting key sectors in which we operate, Construction & Property, Energy and Transport, then tailored the scenarios to the Beca Group specific context.
2. Drafted archetypes or skeletons of the scenarios and reviewed these with internal subject matter experts, who provided input to make the scenarios more relevant for our business and to suggest focus areas for questions.
3. Developed the full narrative for the two scenarios, looking at key drivers and assumptions for the business.
4. Drafted focal questions for each scenario to help 'constrain' the analysis at the workshop and target areas where strategic insight could lead to decision and action.
5. Tested and confirmed the scenarios and process for analysis with internal subject matter experts and the Sustainability Oversight Group.

Scenario 1

› Kōwhai

Scenario overview

A world that transitions immediately and smoothly towards a low carbon economy, limiting global warming to 1.5°C above pre-industrial temperatures. New Zealand achieves net-zero by 2050.

There is rapid implementation of decarbonisation policy, which is synchronised with technology trends to support transition and decarbonisation efforts, including increased investment in a wide range of energy sources and increased energy efficiency. The physical impacts of climate change are felt across the country and are worst in the short-to medium-term.

Beca in Kōwhai

- Some of our traditional service offerings are challenging, due to stringent decarbonisation policies and steep increase in carbon price.
- Significant opportunities for our business to support the development of the energy network in preparation for 100% renewable energy.
- Pressure on our business to stay up-to-date with technology trends to win work over multinational competitors exposed to wider ranges of technology.
- Opportunities for our business to innovate and grow across services offerings.
- Increased litigation risks for our business as rapid introduction of decarbonisation policies and regulations creates a complex legal environment.
- High expectations from employees and clients who anticipate that we will respond to changes.
- Heightened Shareholder expectations, as they consider the potential for both growth and impact while the business navigates the transition.

Average increase in global temperature (2100)	1.5°C
Global emissions	Peak in the 2020s and then decline to reach net-zero by 2050
Global policy ambition	High
NZ policy ambition	Ambitious and coordinated
Physical risk severity	Low – Moderate
Transition risk severity	Low – Moderate
Socio-political instability	Low – Moderate
Technology change	Fast

Scenario 2

› Waiporoporo

Scenario overview

A world in which climate policy stalls at the current level of development and global warming increases to 3.3°C above pre-industrial levels.

Policy direction changes towards adaptation, regional security and resource scarcity.

With emission unabated, the physical impacts of climate change get progressively worse through the century.

Beca in Waiporoporo

- Increased work for our business in climate adaptation and emergency response, due to increasingly severe physical impacts.
- More scrutiny on the cost of projects and loss of advisory work to organisations resorting to in-house.
- Criticism of our business for not taking enough climate action, and, for the climate action we are taking, wasting money on a hopeless cause.
- Day-to-day operations are not impacted by energy conservation measures as businesses are given exceptions, however employees find it difficult to commute due to weather extremes, increasing the desire for hybrid working. In the short-term, this is exacerbated by frequent damage to offices from climate hazards, which limits the ability to use offices until resilience measures are put in place.
- Climate-passionate employees feel particularly disenfranchised by the lack of climate action, even if our business is taking more action than competitors.

Average increase in global temperature (2100)	3.3°C
Global emissions	Continue to grow through the century
Global policy ambition	Low
NZ policy ambition	Limited
Physical risk severity	Extreme
Transition risk severity	Low – Moderate
Socio-political instability	High
Technology change	Slow

Climate-related risk and opportunity materiality

Figure 1 presents the potential outcomes of climate scenario analysis. Each climate-related risk and opportunity has been scored for the three time horizons under the Kōwhai and Waiporoporo scenarios using materiality ratings. These materiality ratings were developed based on the Beca Group enterprise risk management framework:

- Our risk consequences consider impacts to health and safety, the environment, human resources, finance, reputation, legal and business interruption.
- Our opportunity consequences consider impacts to health and safety, the environment, human resources, finance and reputation.

KEY	
RISK MATERIALITY	
Extreme	Risks that are perceived to have significant impacts and/or are extremely likely to occur under a given scenario.
High	Risks that are perceived to have significant impacts and/or are highly likely to occur under a given scenario.
Moderate	Risks that are perceived to have moderate impacts and/or are moderately likely to occur under a given scenario.
Low	Risks that are perceived to have limited impacts and/or are unlikely to occur under a given scenario.
OPPORTUNITY MATERIALITY	
Excellent	Opportunities that are perceived to have significant impacts and/or are almost certain to be realised.
Very Good	Opportunities that are perceived to have significant impacts and/ or are expected to be realised in most cases.
Good	Opportunities that are perceived to have moderate impacts and/or are likely to be realised.
Minimum	Opportunities that are perceived to have limited impacts and/or are unlikely to be realised.

DESCRIPTION	TIME HORIZON	SCENARIO 1 KŌWHAI	SCENARIO 2 WAIPOROPORO
PHYSICAL RISKS			
Increasing chronic physical impacts of climate change negatively impacts our markets and client operations.	**2024 - 2030**		
	2031 - 2050		
	2051 - 2100		
TRANSITION RISKS			
Decreased demand from our clients for existing services.	**2024 - 2030**		
	2031 - 2050		
	2051 - 2100		
Failure to achieve our business operations carbon reduction “Footprint” targets.	**2024 - 2030**		
	2031 - 2050		
	2051 - 2100		
Lack of alignment with potential changes in policies / priorities at one or more level of Government.	**2024 - 2030**		
	2031 - 2050		
	2051 - 2100		
OPPORTUNITIES			
Opportunity to become known as a market leader in climate-related services and strengthening existing and developing new services and tools to reflect the increased demand for climate-related services.	**2024 - 2030**		
	2031 - 2050		
	2051 - 2100		
Opportunity to leverage our climate resilience / sustainability experience and competency to move into the nature impacts and nature-related disclosure space.	**2024 - 2030**		
	2031 - 2050		
	2051 - 2100		
Opportunity to utilise our existing multi-disciplinary service offerings with a climate lens to increase positive impact on our clients.	**2024 - 2030**		
	2031 - 2050		
	2051 - 2100		

Figure 1: Beca Group climate scenario analysis outcomes

Next steps – Climate transition planning

We recognise that transition planning is not only a key part of a climate-related disclosure, but a core element of robust business planning and a businesses's overall strategy.

We are committed to further developing our climate transition planning over the coming year and into the future.

We have an emission reduction plan informed by our Greenhouse Gas (GHG) inventory and decarbonisation strategy.

The next steps for the coming year will be to:

- Build on this work to develop our Beca Group climate adaptation plan,
- Define our short-term climate business strategy, and
- Bring these components together into a comprehensive and consistent climate transition plan that will support and inform our long-term business strategy.

Beca global headquarters in Auckland: Te Paeroa o te Kawau (Photo credit - Katrina Cooper, Many Talents Media)

05

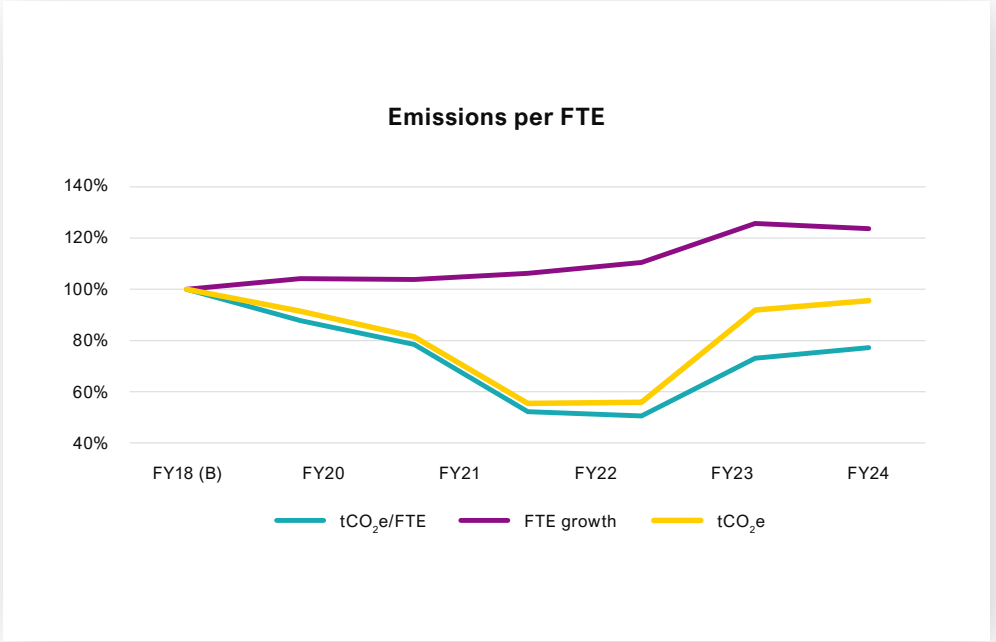
Metrics and Targets

Measuring our impact – Greenhouse Gas Emissions

As a founding signatory of the Climate Leaders Coalition (NZ) in July 2018, we measure and publicly report our annual GHG emissions against a science-aligned emissions reduction target, and working with our clients, employees and suppliers to reduce their emissions.

Emissions for FY24 have been measured using the Operational Control approach, the boundaries for which were defined in accordance with the International Standards Organisation standard ISO 14064-1:2018. Our methods, assumptions and limitations are included in Appendix B.

Our emissions reduction targets are aligned with international best practice from the Science Based Target Initiative (SBTi). Our targets have been developed using an absolute approach and include emissions over which we have direct control, as well as all material Scope 3 categories (including business travel, employee commuting and purchased goods and services). We account for all material Scope 3 emissions to provide the broadest opportunity to influence and reduce our emissions.



Decarbonising our business

Our Beca Group GHG reduction target is 32% by 2030, from an FY18 baseline. FY24 gross GHG emissions were estimated at 33,931 tonnes of carbon dioxide equivalent (tCO_2e). This is a decrease of approximately 4% compared to our baseline FY18 emissions. Of these emissions, our New Zealand region generated 50% of emissions (16,974tCO_2e), our Australian region 40% (13,599tCO_2e), and our Asia Pacific region 10% (3,358tCO_2e). Growth in full time equivalent roles (FTEs) has increased approximately 24% since our baseline year, with a steady decrease in emissions per FTE (excluding COVID-19 years).

Carbon offsets were not purchased for the FY24 reporting period.

Progress against targets

Category 1 and 2 reduction of 50% by 2030 from FY18 baseline, in line with 1.5°C

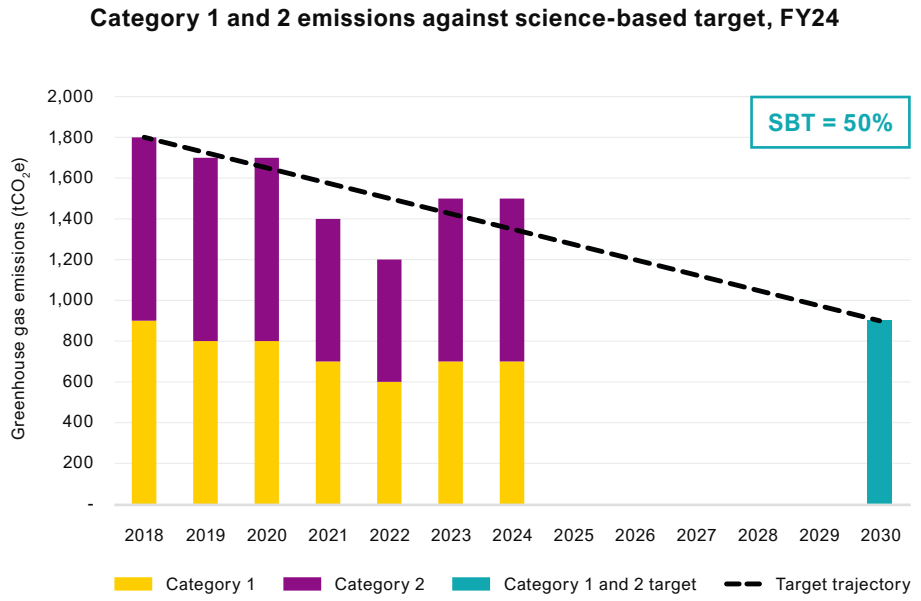
By FY24 we achieved a 17% reduction against this target of 50% from the FY18 baseline. Contributing to this are fleet emissions reduction of 26% and office energy (electricity) reduction of 8%. Examples of savings include:

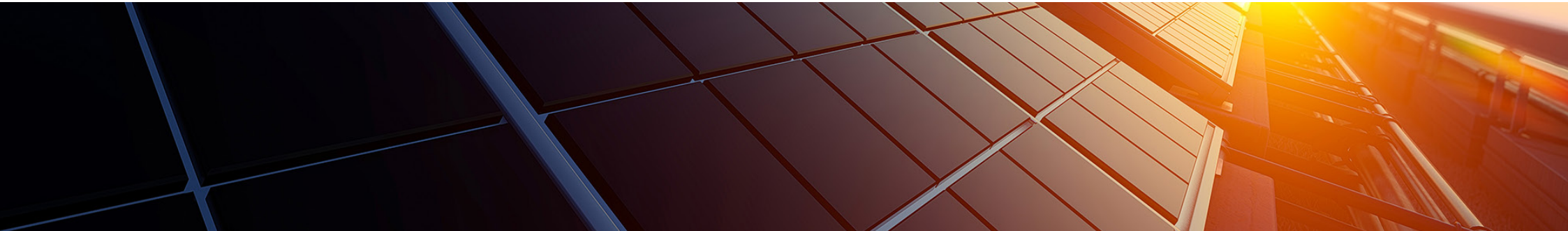
Our Christchurch office has seen a 10% reduction in energy (72009 kWh) and carbon emissions (6.1 tCO_2-e) for FY24 against the developed 2021 baseline.

- Our Melbourne office, where we continue to purchase GreenPower, saving 161,908 kWh and 128 tCO_2-e.
- Our continued reduction in Internal Combustion Engine vehicles, with four EVs purchased and replacing fleet this year.
- Our successful trial of EROAD and subsequent decision to roll it out to all our fleet.

Category 3 and 4 reduction of 30% by 2030, from FY18 baseline, in line with well-below 2°C

By FY24 we achieved a 4% reduction against this target of 30%. Contributing to this are air travel emissions significantly reducing by 58%, and employee commuting reducing by 4%. Purchased goods and services emissions have increased 19% since our baseline year, reflecting the growth in our business. Our focus for the last 24 months has been on air travel emissions, with an internal campaign to maximise the value of travel and extending trip lengths to reduce frequency of travel where practicable. We continue to focus on this, as well as identifying/assessing opportunities to reduce supply chain emissions and improve data accuracy from suppliers. The office moves of Melbourne (June 2024) and Auckland (February 2025) are also key initiatives in our Ways of Working programme and are expected to support employee commuting (albeit much of the impact will be realised in subsequent years).





Our Handprint

Decarbonisation remains a critical strategic focus for our business and our clients. We have a responsibility to help clients take a long-term view of their business's decarbonisation decisions and align their project targets to overarching organisation targets and wider national and international commitments. By meeting this responsibility, we simultaneously assist to reduce our client's footprint, and maximise the positive sustainability outcomes we can have through the work we do with our clients. This philosophy is what we call our Handprint.

To increase our Handprint impact in decarbonisation, we have developed a methodology to assess the emissions associated with an individual project or programme of works against emissions reduction trajectories estimated to limit global temperature increase to 1.5°C. The methodology aims to determine the most ambitious and achievable carbon budget for a project, while recognising that 1.5°C is an aspirational target. Current estimates of likely outcomes suggest, while still technically achievable, this target will be difficult to achieve.

The methodology can be applied during project or asset design to:

- Provide context of works against a pre-agreed trajectory for client long-term asset planning decisions, e.g. to identify where and when further carbon interventions are needed.
- Support client decision making around carbon emissions targets by comparing different options for a project, e.g. allowing for long-term carbon reduction planning.
- Present the carbon impact of the completed design or project against agreed temperature trajectory.

Emission baselines for applicable projects within our Building Structures, Water, Transport and Infrastructure businesses are currently being developed.

06

Glossary

Defined terms sourced from XRB Aotearoa New Zealand Climate Standards and NZGBC Climate Scenarios for the Construction and Property Sector.

Aotearoa New Zealand Climate Standards: Standards issued by the External Reporting Board that comprise the climate-related disclosure framework.

Climate-related scenario: A plausible, challenging description of how the future may develop based on a coherent and internally consistent set of assumptions about key driving forces and relationships covering both physical and transition risks in an integrated manner. Climate-related scenarios are not intended to be probabilistic or predictive, or to identify the 'most likely' outcome(s) of climate change. They are intended to provide an opportunity for entities to develop their internal capacity to better understand and prepare for the uncertain future impacts of climate change.

Climate-related opportunity: The potentially positive climate-related outcomes for an entity. Efforts to mitigate and adapt to climate change can produce opportunities for entities, such as through resource efficiency and cost savings, the adoption and utilisation of low-emissions energy sources, the development of new products and services, and building resilience along the value chain.

Climate-related risk: The potential negative impacts of climate change on an entity.

Metric: A quantity indicative of the level of historical, current, and forward-looking climate-related risks and opportunities for a given entity. These indicators are used to track climate-related risks and opportunities and can also be used to measure progress against targets over the duration of the period for which a target is set.

Paris Agreement: Also called the Paris Climate Accords, is a legally binding international treaty signed during COP 21 in Paris by 196 Parties. It sets targets to limit global warming to well-below 2°C.

Physical risk: Risks related to the physical impacts of climate change. Physical risks resulting from climate change can be event-driven (acute), such as increased severity of extreme weather events. They can also relate to longer-term shifts (chronic) in precipitation and temperature and increased variability in weather patterns, such as sea level rise.

Scenario analysis: A process for systematically exploring the effects of a range of plausible future events under conditions of uncertainty. Engaging in this process helps an entity to identify its climate-related risks and opportunities and develop a better understanding of the resilience of its business model and strategy.

Target: A specific level, threshold, or quantity of a metric that an entity wishes to meet over a defined time horizon in order to achieve an entity's overall climate-related ambition and strategy.

Task Force on Climate-related Financial Disclosures (TCFD): The Financial Stability Board created the TCFD to develop recommendations on the types of information that companies should disclose to support investors, lenders, and insurance underwriters in appropriately assessing and pricing a specific set of risks – risks related to climate change.

Transition plan: An aspect of an entity's overall strategy that describes an entity's targets, including any interim targets, and actions for its transition towards a low-emissions, climate-resilient future.

Transition risk: Risks related to the transition to a low-emissions, climate-resilient global and domestic economy, such as policy, legal, technology, market and reputation changes associated with the mitigation and adaptation requirements relating to climate change.

A

Full Climate Scenarios

Scenario 1

› Kōwhai

Physical risk severity
Moderate

Transition risk severity
Moderate

Policy reaction
Immediate and smooth

Technology change
Fast

Socio-political instability
Low - moderate

Average temperature change in NZ (2100)
+1.3°C

Average sea level rise in NZ (2100)
0.39m

Increase in number of hot days in NZ (2100)
+18 days

Increase in rainfall intensity in NZ (2100)
2.7%

Increase in extreme wind speeds in NZ (2100)
-1.4%

NZ population (2050, 2100)
6.2 mil, 6.6 mil

Carbon price (2025, 2050)
$84, $250

Electricity grid emissions (2050)
0 $kgCO_2/kW$

% renewable energy in NZ (2050)
89%

Focal questions:

- What aspects of a rapid transition pose the greatest risk for our business?
- What aspects of a rapid transition create the most opportunity for our business?
- How might a rapid transition impact our workforce? How might our capabilities change in response to the market?
- How would stakeholders (including clients, shareholders and employees) expect our business to pivot to a low carbon economy?
- How would our Group statistics change in response to a rapid transition?

Around the world...

Kōwhai represents a world that shifts immediately and smoothly towards a low carbon economy, limiting global temperature increase to 1.5°C above pre-industrial temperatures. The push to decarbonise results in rapid decline of emissions, achieving net-zero emissions by 2050. International policy and technology trends are synchronised to support the transition and decarbonisation efforts, including investment in a wide range of renewable energy sources and increased energy efficiency. The physical impacts of climate change are felt across the world in the short- to medium-term, with the worst impacts immediately post-transition.

In Aotearoa New Zealand...

Policy

Following international agreement for immediate action in the mid-2020s, Aotearoa New Zealand successfully transitions to a low carbon economy, utilising the flourishing renewable energy network. Central and local government policies change in line with global changes and are enacted swiftly to support the transition.

As well as supporting low carbon activities, policies target reduction of emissions, including reducing air travel, particularly in the short-term, as alternative aviation fuels are still being implemented. While our business is practiced in virtual collaboration, this impacts the export market that consists of projects in regions such as the Pacific Islands. Additional collaboration and partnership with organisations in project home countries is needed for work to continue.

Procurement policies are tightened up to incentivise organisations to participate in the transition and government contracts now require compliance with ESG certifications, such as B Corp. Private tenders also become increasingly comprehensive regarding sustainability and carbon performance. Pressures from energy and carbon limits are pushed through the supply chain, until only organisations taking meaningful climate action can get work.

Economic

The cost of carbon and fossil fuels increases steeply in the short-term to disincentivise emissions intensive activities.

As large emitters are put under increasing pressure to decarbonise in the short-term, there is increased demand for a more diverse and stable energy supply, driving investment in renewable energy. As the energy sector grows, there are opportunities for our energy business to guide the future of the sector and strengthen the infrastructure needed to support a 100% renewable electricity grid. However, as fossil fuels are phased out rapidly and the grid capacity expands, it can't keep pace in the short- to medium-term, resulting in shortfalls in generation. Supply issues drive high energy prices. In the medium-term, energy efficiency improvements and greater use of demand control infrastructure are implemented to smooth the transition to an electrified economy.

As our key clients face pressure to quickly pivot to low carbon activities, we are relied upon to guide them through the short-term uncertainties.

The uncertainty associated with the fast transition to a low carbon economy, combined with the physical impacts of climate change materialising in the medium-term, causes insurance prices to rise. Organisations continuing to emit through to 2050 struggle to access insurance..

Social

Social changes start to occur in the 2020s, prompted by the widespread consensus that immediate action is the only way to limit global warming to 1.5°C. Changes in market behaviour, working habits, purchasing and investment, as well as shifts in government funding, reflect societies commitment to the transition to a low carbon economy. However, due to the rapid nature of the transition, some organisations fail to implement a just transition, creating social disparities in the short-term and a sense of social upheaval. This is particularly evident in the energy market, as supply issues in the short-term result in price increases and energy poverty for vulnerable communities. The government steps in to implement redistribution policies to reduce social disparities in the medium-term.

There aren't enough skilled employees to enable rapid decarbonisation, particularly in the first decade, so migration pathways are opened to address the growing demand for skilled labour and enable the development of new industries. Universities and trades course offerings pivot to meet the demand for a workforce with climate change, circular economy and sustainable design skills. With enhanced opportunities to support both public and private sector clients to transition to a low carbon economy, our business grows in numbers and draws upon the rapidly expanding pool of talent.

The widespread support and drive for a low carbon economy creates a wave of enthusiasm and high expectation for our business. Employees are eager to see sustainable practices woven through the company and the projects they work on. Clients look to us to develop innovative and sustainable solutions that can be implemented efficiently to meet rapidly evolving needs.

Shareholder expectations also heighten as they consider the potential for both growth and impact as the business navigates the transition. There are some uncertainties as the potential risks and rewards of investing in emerging markets are weighed up.

Environmental

Despite a swift pivot to a low carbon economy and the successful limiting of global warming to 1.5°C above pre-industrial temperatures by the end of the century, the physical impacts of climate change are still felt across the country in the short- to medium-term. Sea level rise averages 0.4m and more frequent and severe storms greatly impact communities on the coast.

These impacts influence broad public support for investment in low carbon, resilient infrastructure and land-use changes to reduce exposure and vulnerability to climate hazards. Such changes are evident in the projects coming to market.

There are significant efforts to preserve, then restore, ecosystems and protect Aotearoa New Zealand's natural resource base. In the short-term this creates tensions as some resources are relied upon for low carbon and renewable energy technologies (e.g. minerals). By 2050, technology and recycling developments reduces such competition. Businesses are driven to become nature positive and strong resource management planning reforms support the regeneration of the natural environment.

Beca Group is a key participant in the natural regeneration space, with environmental service offerings growing to meet demand.

Technological

In order to achieve net zero by 2050, investment in and uptake of low carbon, and carbon reducing technologies, is prioritised. There are strong demand signals internationally and nationally for green hydrogen production. The ambitious build out of renewable energy generation and rapid scaling of grid capacity to support 100% renewable electricity makes Aotearoa New Zealand an attractive country for investing in low carbon technologies.

In the short-term there's a wide range of technology in development and there are some challenges with coordination, as organisations adopt different, incompatible technologies. Such rapid development puts pressure on our business to stay up-to-date with trends and win work over multinational competitors who are exposed to wider ranges of technology, and also provides significant opportunities for Beca Group to innovate and grow across service offerings.

Legal

Rapid introduction of decarbonisation policies and regulations leads to a complex legal environment regarding green-washing, green-hushing, green-wishing and general climate inaction. There is increased scrutiny of larger emitters and mandated sustainability and climate reporting, such as climate-related disclosures, are monitored closely by authorities. Organisations that don't comply with regulations face steep civil and criminal penalties.

As organisations undertake their low carbon transition, there is higher demand for professional services to guide them and ensure they're following the law. This results in more work for our business, however there are increasing litigation risks as clients face intense regulatory pressures and, if dissatisfied with our services, they may seek legal action to shift the burden of non-compliance. Although risks may be managed through contract negotiations, Beca Group is required to compete with larger, multinational organisations who accept litigation risk in exchange for high return projects.

Scenario 2

› Waiporoporo

Physical risk severity
Extreme

Transition risk severity
Low

Policy reaction
Limited

Technology change
Slow

Socio-political instability
High

Average temperature change in NZ (2100)
+3.7°C

Average sea level rise in NZ (2100)
0.74m

Increase in number of hot days in NZ (2100)
52

Increase in rainfall intensity in NZ (2100)
9.3%

Increase in extreme wind speeds in NZ (2100)
-5.6%

NZ population (2050, 2100)
6.6 mil, 7.9 mil

Carbon price (2025, 2050)
$35, $35

Electricity grid emissions (2050)
0.06 kgCO_2/kWh

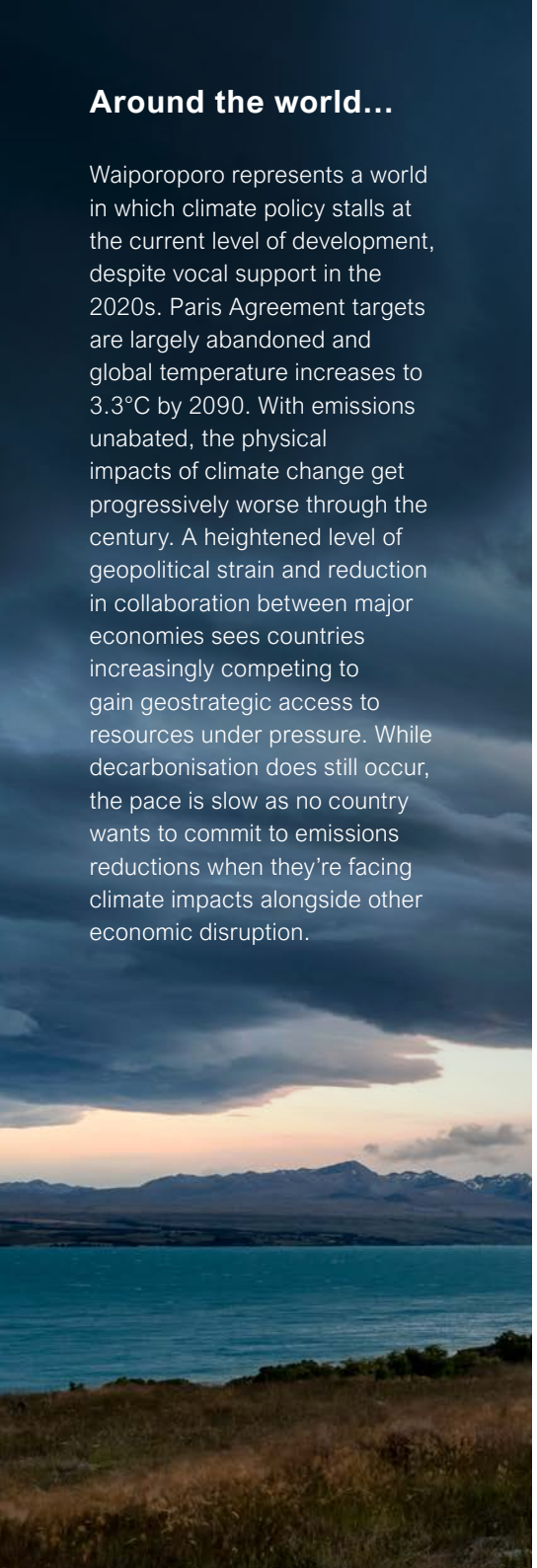
% renewable energy in NZ (2050)
46%

Focal questions:

- If no action is taken, and our business is seen to work for known polluters, how would we respond to potential public enmity?
- In the short- to medium-term an increase in required maintenance could benefit consultancy profits, how will our business balance our responsibilities if our competitors choose not to act?
- If increasingly divided governments cancel projects between parliamentary terms, how will our business reduce exposure to risk?

Around the world...

Waiporoporo represents a world in which climate policy stalls at the current level of development, despite vocal support in the 2020s. Paris Agreement targets are largely abandoned and global temperature increases to 3.3°C by 2090. With emissions unabated, the physical impacts of climate change get progressively worse through the century. A heightened level of geopolitical strain and reduction in collaboration between major economies sees countries increasingly competing to gain geostrategic access to resources under pressure. While decarbonisation does still occur, the pace is slow as no country wants to commit to emissions reductions when they're facing climate impacts alongside other economic disruption.



In Aotearoa New Zealand...

Policy

Despite recognition that current decarbonisation policies aren't going to allow Aotearoa New Zealand to meet its obligations under the Paris Agreement, there is no change to policy direction during the 2020s. As the physical impacts of climate change are felt more strongly, the national policy direction shifts towards resilience and adaptation, and addressing regional security and resource scarcity. The Resource Management Act is reframed to reduce barriers to agriculture, technology, and land use, and fuel taxes are removed. A greater percentage of government spending is allocated to responding to climate events and adapting physical assets. In the short- to medium-term, this increases the amount of available work for our business as capital expenditure becomes more affordable.

To address rising resource scarcity, strong measures are put in place, such as access to energy being limited for non-critical functions. This includes having carless days, water restrictions, and limits on air conditioning and heating use. These changes make carve-outs for business, and therefore our day-to-day operations aren't impacted. Our employees find it more difficult to commute, increasing the desire for hybrid working opportunities.

Economy

The cost of carbon remains at $\$35/tCO_2e$ to 2050, reflecting the ongoing reliance on fossil fuels, and economic growth remains tied to resource-intensive production and consumption. While investors are aware of the environmental damage of fossil-fuel reliant businesses, they continue to provide access to capital due to strong short-term returns. Over the 2030s, the worsening impacts of climate change continue to be understood, and the cost of capital begins to rise to meet this heightened risk. In the long-term, access to capital is determined more by the physical risks that organisations are exposed to.

As our key clients look to adapt their buildings and other infrastructure, the amount of work available increases in the short- to medium-term. With more businesses having to expend capital for adaptation rather than growth, there is increased scrutiny on the costs of our work.

The cost of insurance continues to climb alongside the frequency and severity of weather events. In some areas, insurance isn't available at all. Pressure mounts on the government to become an insurer of last resort, but politicians are wary of setting unaffordable precedents. Sectors that are exposed to greater levels of climate risk are more likely to go bankrupt, changing the range of viable businesses within Aotearoa New Zealand. In the long-term, compounding pressures result in a focus on survival in businesses, reducing work for Beca Group outside of maintenance.

Social

In the short-term, sustainable consumption isn't a priority for consumers and the uptake of renewables remains low and therefore expensive on a per capita basis. As the impacts of climate change become more noticeable, consumer and government priorities lie in ensuring security of resources. Aotearoa New Zealand's more vulnerable communities bear a disproportionate percentage of the burden of negative effects, exacerbating social inequality. Worsening impacts increase costs across the board, such as for insurance and housing. People struggle to pay their bills, and some are forced into unmanaged retreat. Social cohesion continues to degrade across the country.

Criticism is directed towards organisations from both sides. Some believe that organisations aren't doing enough to address climate change and others see action as supporting a 'radical left-wing agenda'. This increasingly puts our business, alongside competitors, in the public eye, in a no-win situation.

Rising temperatures and severe weather events put increasing pressure on existing health and transport infrastructure, resulting in the need for further investment from already stretched government coffers. While our business is well placed to provide infrastructure, successive increasingly divided governments struggle to agree on what needs to be built, resulting in a string of concept design level only work. An ageing population requires more money to be spent on healthcare with less tax take available, increasing social division between younger and older New Zealanders. Behaviours change in response to climate hazards, however infectious disease spread is exacerbated by increased temperatures. Although hybrid working mitigates some risk, our workforce is periodically impacted by more frequent public health crises.

Nationally, population growth is at the higher end of projections due to increasing numbers of climate refugees. As a developed nation, Aotearoa New Zealand is seen as relatively safe internationally, which helps in attracting skilled workers. The growing number of refugees is increasingly a charged topic, both politically and socially. The change in population distribution in the short- to medium-term drives a redistribution in the spatial distribution of work across the country. This changes the profitability profile of our offices.

Technology

In the short-term, there is little investment in technology to decarbonise sectors such as Energy, Transport, and Buildings and Construction, as businesses struggle to find a business case based on competitor and consumer behaviour. Business-as-usual continues for Beca Group in these sectors - some, more ambitious companies, have interest in circular economy and renewables opportunities for their projects and others just want to get projects done as quickly and cost effectively as possible.

As we enter the 2030s and the physical impacts of climate change are realised, infrastructure begins to require increased maintenance or risk becoming unusable. This has the potential to increase the amount of work available for our business, and likely coincides with increased price sensitivity. Disruption in international supply chains increases the cost of maintaining and developing new infrastructure. During the 2030s, government agencies begin to recognise the need to begin building for adaptation, resulting in an uptick in available public works in the Transport and Energy sectors. Fault driven blackouts occur with increased frequency, resulting in some businesses seeking to install off-grid generation, an opportunity for the Power sector. Hydroelectric dams face greater variability of production due to unreliable rainfall, particularly in dry years.

Adoption of EV technology slows due to lack of government support relative to Internal Combustion Engine (ICE) vehicles. Trends are towards larger vehicles due to anxiety about climate impacts. Public transport investment continues at a slow pace, with a focus on buses that share clogged road infrastructure. Cycling is still seen as dangerous due to reduced investment in cycleways and an increased variability in weather. Short distance aerial forms of mobility are adopted in the 2040s but are expensive and therefore largely cater to the wealthy. Infrastructure to support aerial mobility is designed by our business but is rare enough to not become a significant opportunity. The average worker still commutes via car but journey times increase to uncomfortable levels. Our employees increasingly request hybrid working modes to reduce their time spent commuting. Urban sprawl continues, and the lack of integrated infrastructure planning and central government funding make the cost of developing mode-shifting infrastructure prohibitively high.

Carbon capture technology investment decreases as governments look increasingly inwards. Breakthroughs in technology occur but are few and far between and as a result carbon capture remains too expensive to be commercially viable at a large scale. Compounding pressures force a focus on survival, maintaining existing assets, and doing whatever we can to keep the lights on.

Environment

Through the 2020s investment in restoring and protecting the environment is seen as a nice-to-have by businesses. Early adopters of frameworks such as the Taskforce for Nature-related Financial Disclosures and Science Based Targets for Nature don't see a return on their investment as banks continue to provide capital regardless of their environmental targets. Environmental metrics continue to track upwards and away from targets until disclosures quietly disappear from company annual reports and websites in the late 2020s with little fanfare. At the same time, the government reduces the level of scrutiny on individual polluters under the Resource Management Act as the prevailing belief is that the free market will drive change. Due to limited consumer interest, these polluters continue their behaviour unchanged. The distribution of our service offerings changes in response to the limited availability of sustainability and environmental work.

Extreme weather days become more frequent and compounding. On extreme hot days, outdoor labour is restricted due to health and safety concerns, reducing productivity. Those who can't escape the heat, such as native species and livestock, increasingly suffer from heat exhaustion and death. Sea levels rise at an accelerating rate, posing existential threats to coastal communities. While some regions experience more rainfall, others become drier to the point of no longer supporting certain forms of agriculture.

Increased scrutiny on non-essential government spending results in the Department of Conservation having to surrender certain areas of the country as irreparably damaged. The size of this area increases over time, resulting in mass extinction of sensitive species and ecosystems. By 2050, Aotearoa New Zealand's endemic biodiversity is near total systemic collapse. There are growing numbers of pests that negatively affect infrastructure as well as human health.

Legal

During the 2020s, businesses who fail to act on climate change face increasing litigation from the public. Despite some early successes, the Aotearoa New Zealand legal system doesn't recognise that a lack of action on climate change materially impacts claimants and therefore strikes down numerous cases. Through the early 2030s, fewer cases are brought with fresh ideas before the Law Society decides climate cases should be considered frivolous and thrown out. There is no government desire to change the legal precedent and therefore businesses remain unchallenged from a legal perspective.

B

GHG Methods, Assumptions and Limitations

Description of methods, assumptions, and limitations

Greenhouse Gas (GHG) emissions have been measured in accordance with the International Standards Organisation standard ISO 14064-1:2018.

The Operational Control approach was used for consolidating emissions across our offices and legal entities. This approach establishes an organisational boundary based on operations which Beca Group has control over. The organisational boundaries were defined using the methods described in the ISO 14064-1:2018 standard.

GHG emissions are calculated using activities data (e.g., litres of fuel used) multiplied by GHG emissions factors (e.g., kg CO_2e per litre of fuel used). Where available, all emissions factors have been sourced from relevant government agencies across our various geographies. The kg CO_2e emissions factors are then converted to t CO_2e for reporting purposes. In the event that no emissions factor is available for the exact year, the next most recent suitable emissions factor is used as a rule of thumb.

For New Zealand, the Ministry for the Environment (MfE) has released annual updates to GHG emissions factors[1]. At a minimum, there is a two-year lag between when emissions factors are released and the year they apply to. For example, 2020 factors apply to data collected from 2018 onwards. At the time of preparing this GHG inventory, the most up to date GHG emissions factors from the Ministry for the Environment available were applied to the 2024 financial year.

In Australia, emissions factors have been sourced from the National Greenhouse Account (NGA) Factors, which are released annually by the Australian Government's Department of Climate Change, Energy, the Environment and Water[2]. The emissions factors are released based on the Australian financial year. In order to best align the emissions factors with our reporting period, the August 2023 NGA (for the 2023 year) factors have been applied to our FY24 emissions inventory.

In Asia, emissions factors from the Institute for Global Environmental Strategies (IGES) have been sourced for electricity[3]. For Singapore, a national grid emissions factors have been sourced from the Energy Market Authority[4].

Where a local emissions factor is not available, the New Zealand Ministry for the Environment publications are used as default.

United Kingdom's Department for Energy Security and Net Zero (DESNZ) is used to quantify well-to-tank emissions across all hubs[5].

[1] *Ministry for the Environment. (2024). Measuring Emissions: A Guide for Organisations. 2024 Detailed Guide. New Zealand Government.*

[2] *Australian National Greenhouse Accounts Factors (2023).*

[3] *IGES List of Grid Emission Factors (2024).*

[4] *EMA Electricity Grid Emissions Factors (2022).*

[5] *Department for Energy Security and Net Zero (2024). UK Government GHG Conversion Factors for Company Reporting. UK Government.*

Motu Economic and Public Policy Research emissions factors are used to quantify purchased goods and service (PG&S) emissions that are applied to Beca Group's New Zealand spend categories[6]. Carnegie Mellon University Green Design Institute emission factors are applied to Australia and Asia hub spend categories to quantify PG&S emissions[7].

A summary of specific exclusions of sources, including facilities, operations or assets with a justification for their exclusion is included below:

CATEGORY	EXCLUSION	JUSTIFICATION	APPROXIMATE CONTRIBUTION TO INVENTORY (%)	WHY EXCLUDED
Category 1	Reimbursed fuel purchases for Beca Group fleet	Any reimbursed staff fuel purchases in company vehicles are not captured. However, this is expected to be an uncommon occurrence.	Assumed will be *de minimis*.	Data currently unavailable
Category 1	HFCs lost from HVAC systems	Efforts have been made to establish the presence and specifications of HFCs, and potential leakage rates from HVAC systems. We will strengthen our relationship with facilities' managers to gain access to this data in future.	Unknown	Data currently unavailable
Category 2	Tenant Electricity (partial)	The office location in Fiji consists of a very small number of employees. Data for tenant electricity couldn't be obtained this year. For future years, we will improve collection of data for our Pacific Islands offices.	Assumed will be *de minimis*.	Data currently unavailable
Category 2, 3, 4	Beca HunterH2O exclusions (partial)	There is some Beca HunterH2O data which was unable to be collected due to systems not processing the data, or difficulties in collating. These sources include tenant electricity in small offices, business travel (staff reimbursed mileage has been included), purchased goods and services, and some fuel and energy related activities. As Beca HunterH2O transitions to Beca Group systems, data collection will be easier to manage.	Assumed will be *de minimis*.	Data currently unavailable
Category 1, 2, 3, 4	Netherlands location	The office location in the Netherlands consists of a very small number of employees. This office is utilised for a time-limited single project.	Assumed will be *de minimis*.	Data currently unavailable
Category 3	Rental Cars (partial)	If rental cars are booked last minute and preferred suppliers (Avis, Hertz and Thrifty) don't have cars available at the time, then we need to rent outside of preferred suppliers.	Rental cars already less than 1% of inventory. These emissions will be *de minimis*	Costly to obtain
Category 3	Reimbursed taxi	The travel booked outside of these systems is not included (e.g., employee expense claims).	Assumed will be *de minimis*.	Data currently unavailable
Category 3	Reimbursed staff travel (partial)	Occasionally employees pay for other travel personally and are then reimbursed. With exception of contractual reimbursed employee mileage, systems aren't in place to record this information.	Reimbursed mileage already less than 1%. These emissions will be *de minimis*	Data currently unavailable
Category 3	Accommodation Asia	Accommodation stays for Asian geography employees is excluded as data isn't measured by Asia offices.	Likely to be significantly less than 1%	Data currently unavailable

[6] *Motu Economic and Public Policy Research. (2014). "Consumption-based greenhouse gas emissions input-output model". Obtained by Motu Economic and Public Policy Research from Statistics New Zealand, MBIE and MfE in 2013. https://www.motu.org.nz*

[7] *Carnegie Mellon University Green Design Institute. (2002) Economic Input-Output Life Cycle Assessment (EIO-LCA) US 2022 (428 sectors) Purchaser model [internet], Available from https://www.eiolca.net*

CATEGORY	EXCLUSION	JUSTIFICATION	APPROXIMATE CONTRIBUTION TO INVENTORY (%)	WHY EXCLUDED
Category 3	Public Transport	Public transport is growing in popularity as a mode of transport and is thought to be more widely used across our Australian and Asian offices. At present, expense claims for business travel on public transport are manually intensive and don't generate data that is readily usable for reporting. Public transport used for employee commuting is captured in our employee commuting emissions. For future years, we may consider capturing data from corporate issued travel cards for business travel purposes.	Likely to be significantly less than 1%	Data currently unavailable
Category 3	Up and Down-stream Transportation and Distribution	Due to our nature as a consulting service, we don't produce any physical products. Therefore, there are no emissions relating to the transportation or distribution of products. Use of courier services is assumed to be minimal to the inventory and courier packages are currently not tracked.	Likely to be significantly less than 1%	Data currently unavailable
Category 4	Capital Goods	We did not purchase any capital goods which aren't already covered under Scope 3, Category 1 (Purchased Goods and Services) during FY24, and therefore no emissions from the purchase of additional capital goods are included in this inventory.	None	Not applicable
Category 4	Downstream Leased Assets	We did not own any downstream leased assets in FY24. Therefore, emissions from the operation of downstream leased assets are not included in this inventory.	None	Not applicable
Category 4	Waste (partial)	Waste data for some Asia and Pacific Islands offices wasn't able to be obtained. This has been excluded from the inventory due to the small number of employees in those offices.	Assumed will be *de minimis*.	Data currently unavailable
Category 6	Franchises	We didn't own any franchises in FY24, therefore no emissions from the operation of franchises are included in this inventory.	None	Not applicable
Category 5	Use, and End-of-life Treatment and processing of Sold Products.	We do not sell any physical products, however the business increasingly sells and rents the use of software as a service. Attempts were made to obtain data on volume and type of products sold to estimate electricity consumption relation to use. This data wasn't readily available and has been excluded.	Likely to be less than 1%	Data currently unavailable
Category 6	Investments	While we have several subsidiary companies and several joint ventures under the control of Beca Group Limited, all purchasing and financial control is centralised, as are all employee numbers and associated corporate activities. As such, all relevant information associated with these subsidiaries is already included in the Group data and is therefore not included separately in this inventory. We note that this category will require close monitoring in future, particularly where fewer liquid assets are invested in.	None	Not applicable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