The Aotearoa Circle

Mā te Kaitiakitanga ko te Tōnuitanga Prosperity Through Guardianship

The Aotearoa Circle Year in Review 2024

Contents



The Aotearoa Circle launched in 2019 with a shared ambition to restore Aotearoa New Zealand's natural capital and strengthen the link between healthy ecosystems and sustainable prosperity.

We recognise a collective approach is needed for scale and momentum; the forming of our public and private sector partnership has been central to ensuring this.

Through our Partners, the contributions of our Rangatahi Advisory Panel, and the support of our Guardians, we lead from the front, accelerating activity and spotlighting gaps where more positive change is needed.

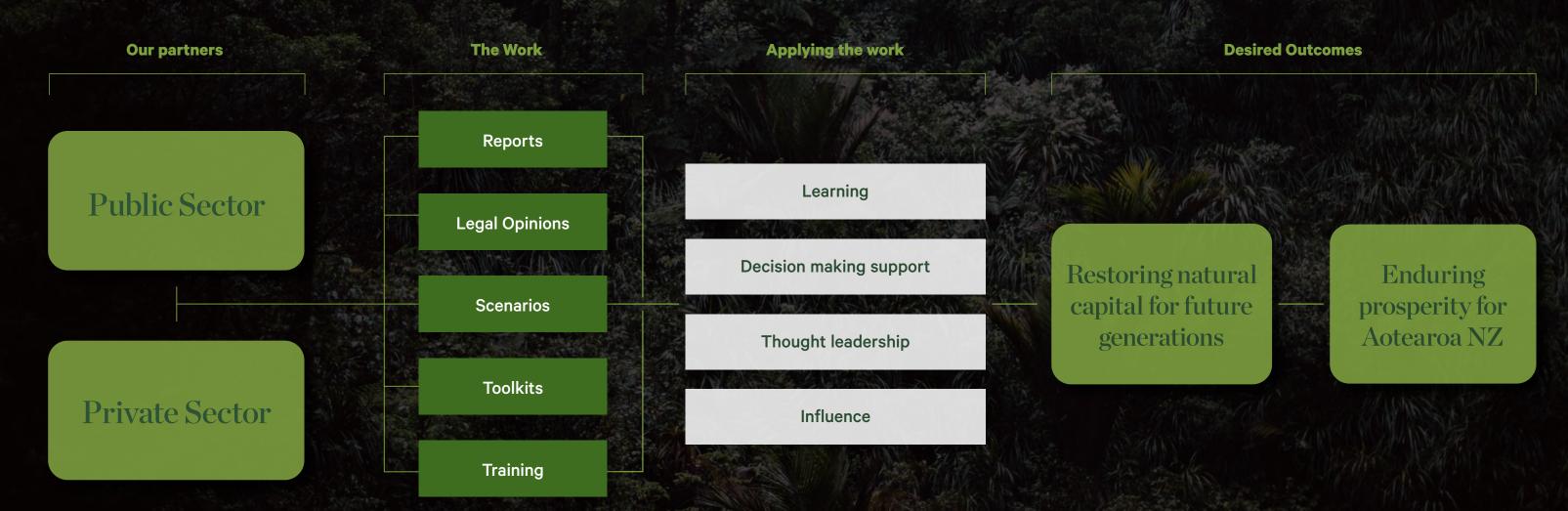
By convening the required capability and leadership, we're co-designing and driving priority actions that will improve the state of our natural capital and help Aotearoa New Zealand have a resilient and productive economy.

Kaora te taiao, kaora te tangata

When our environment is well, our people are well

How we work

Through our public & private partnership, we convene the capability and leadership required to co-design and drive action to restore natural capital for future generations and enduring prosperity in Aotearoa New Zealand.



Introduction from our Co-Chairs

Leading. A word we've been very conscious of this year as the economic turbulence continues to challenge us all.

Leading implies action – not stepping back. It implies courage - even when it would be understandable to be cautious. It implies commitment – to still act with urgency. And it also ensures momentum.

We're proud of the progress the Circle has achieved, leading from the front of the curve, with a record 11 workstreams delivered or initiated in 2024. We believe that even in economic challenging times, we need to stay focused on creating enduring and long-term prosperity, and our 2024 Year in Review demonstrates steps we have taken towards that.

Enabling the restoration of our natural ecosystems remains an urgent goal, particularly with our deadline to do so by 2035. We now have a decade to accelerate momentum and drive further meaningful action and outcomes.

We're strengthened by the continued support of our Partners and the forward-vision of our Rangatahi Advisory Panel who continue to be a source of inspiration.

We acknowledge the support of our Co-Patrons, Her Excellency, the Governor General of New Zealand, Dame Cindy Kiro and Sir Jonathon Porritt, a co-founder of the Circle. We are extremely honoured to have also been acknowledged by His Majesty, King Charles III.

Thank you to our co-Guardians: Carolyn Tremain, David Carter, Simon Limmer, Penny Nelson and Volker Kuntzsch for their mahi and an official 'welcome' to Izzy Fenwick who has progressed from being an emerging director with us to full Guardian. She brings a very unique perspective to our work, no doubt inspired by her father, and our co-founder, Sir Rob Fenwick.

A special thank you also to long-standing Guardian, Jane Taylor for her dedication and commitment over the past five years. Jane stepped down in December but worked on the Low Carbon Energy Roadmap and Biodiversity Native Forests workstreams and was the inaugural Premium Partner of the Circle. She will be sorely missed.

We would also like to recognise and thank our dedicated and passionate committed CEO and Circle team.

We head into 2025 with a very strong foundation: a new strategy, supported by a comprehensive programme of work, ensuring we continue our momentum, and leadership, for the betterment of New Zealand.



Co-Chair

Laurissa Cooney



Co-Chair

James Palmer

The Aotearoa Circle 2024 Year in Review

A letter from The King

In November, we received a letter from His Majesty, King Charles III recognising and commending us for the work that we are doing.

The letter was read out at our end of year celebration hui, by Her Excellency, the Rt Hon Dame Cindy Kiro, Governor General of New Zealand, and Co-Patron of the Circle, at Government House.

Dame Cindy said, "The Aotearoa Circle epitomises the "ambition, creativity and tenacity" His Majesty refers to in his letter, in their determination to secure a more sustainable future. By encouraging proactive next steps with regards to climate adaptation and the restoration of our vital natural capital, The Aotearoa Circle gives us hope for a way forward."

The King's support further cements our resolve to continue our work to protect our natural capital for future generations.



BUCKINGHAM PALACE

I just wanted to send warm greetings and encouragement to the Aotearoa Circle as you meet at Government House in Auckland today. It gives me great hope to hear of organisations and businesses focussed on tackling the climate crisis, restoring Nature for generations to come and harnessing their co-operative power to work towards a zero carbon, Nature-positive future.

I have long believed that the private sector is absolutely crucial if we are to achieve a sustainable future for all. At the same time, the public, private and philanthropic sectors are most effective when they collaborate to achieve the scale of work that is so desperately needed. I can only say how pleased I am that the Aotearoa Circle not only understands these fundamental realities, but is actively working to bring them to life.

We stand at the threshold of a global transformation with the potential to secure a more sustainable future for us all. With ambition, creativity and tenacity – the very essence of human endeavour – the opportunities for this could be possible sooner, rather than too late in the day.

CHARLES R.

Our Partners

In 2024, we welcomed AGMARDT as a new Premium Partner, and had the continued support of Premium Partner, Jane Taylor who has now stood down as a Guardian, leaving a strong legacy.

Sharing similar outcomes with the Circle, **AGMARDT** will enable us to keep driving towards our 2035 vision, particularly in future shaping Aotearoa's food and fibre sector, to ensure enduring prosperity.

We also welcomed **BNZ** to our Leading Partners in 2024. Our Leading Partners commit extra resources and have priority access to all Circle workstreams, capability building opportunities and leadership groups. The Leading Partners also nominate one rangatahi to represent their organisation on the Circle Rangatahi Advisory Panel.

In 2024, Directors of Leading Partners were provided the opportunity to attend the Governing Natural Capital programme with Deloitte.























Thank you to our Partners in 2024.

Premium Partners

Jane Taylor AGMARDT

Leading Partners

ANZ

Bank of New Zealand

Department of Conservation

Fonterra

Genesis Energy

Mercury

Ministry for The Environment

Silver Fern Farms

Westpac

Zespri

Ākina Foundation

Active Partners

Alliance Ecology

Air New Zealand

ASB Bank

Aurecon NZ Limited

Beca

BRANZ
Cawthron Institute

Chapman Tripp

Contact Energy

Deloitte

DNA Design

EnviroNZ

ΕY

FENWICK

HSBC KPMG

Land Information NZ

Local Government New Zealand

Manaaki Whenua Meridian Energy

Ministry of Business, Innovation and Employment

Ministry of Foreign Affairs and Trade

Ministry for Primary Industries

Ministry of Transport

Moana New Zealand

New Zealand King Salmon

New Zealand Post

New Zealand Trade and Enterprise

Ngāi Tahu Holdings

Ngāti Whātua Ōrākei Whai Rawa Limited

NIWA

Pāmu

PwC

Rabobank

Ravensdown

RealNZ

Sanford

Sealord

T & G Global Limited

Te Puni Kōkiri

Tonkin + Taylor

Tourism Holdings Limited

Tourism New Zealand

Wellington City Council

*Full list of Partners as of 1 January 2024, and also those who joined during the 12 months to 31 December 2024

Rangatahi Advisory Panel

The Rangatahi Advisory Panel (RAP) has just completed its second year. It was formed to give life to the Circle's core purpose – to restore Aotearoa's natural capital for future generations.

The 2024 shadow board of young professionals, like the 2023 group before it, was drawn from representatives of our Leading Partners.

It's vital to have these future generations at the table to make our core purpose meaningful. They work together, bringing different areas of expertise, varied backgrounds and collective determination for action, holding the Circle to account and contributing to key workstreams.

In 2024 those workstreams were <u>Modern Genetic Technology</u> and the <u>TNFD</u> (Taskforce for Nature-related Financial Disclosures) Bootcamp.

In 2024 the RAP was invited by the Minister of Climate Change, Hon Simon Watts, to meet in Wellington. The purpose of the meeting was a chance for the RAP to provide feedback on the Government's draft Emissions Reduction Plan (ERP2). It also enabled the RAP to freely share their fears for the future and how they view the systems change needed to reverse our climate and nature crises.

The panel also met with Their Excellencies, The Right Honourable Dame Cindy Kiro and Dr. Richard Davies at our end of year celebration hui. RAP members Cameron Johnson (Department of Conservation) and Zoe Tilsley (Westpac) addressed the hui audience with a moving speech and call to action. We thank them all for their contribution to the Circle.



The 2023 & 2024 RAP Cohorts at our March Hui, Parliament



2024 RAP having lunch with Minister Watts



The 2024 RAP with Izzy Fenwick, Parliament



The 2024 RAP with Their Excellencies, The Right Honourable Dame Cindy Kiro and Dr. Richard Davies

The 2024 RAP



Bryn Wilson
Mercury



Caleb Poe BNZ



Cameron Johnson

Department of Conservation



Hinera Parker Genesis



Maggie Powell
Silver Fern Farms



Morgan Pepper



Tim Hodgson
Fonterra



Zoe Tilsley
Westpac

Former RAP Member

Bella Sigley, (Formerly) ANZ

Rangatahi Voices

from our 2024 Rangatahi Perspectives. Click to each circle read their full articles.

A selection of quotes



We're still on a journey to becoming a society where young people feel that their perspective is valuable.

Hinera Parker, Genesis



Morgan Pepper, ANZ



[Serious] weather events are starting to occur considerably more frequently, which raises a lot of alarm bells and does put a little bit of fire in the belly.

Bryn Wilson, Mercury



I don't think we can expect people to care about nature if they don't know or feel connected to it.

Cameron Johnson, DoC



I don't see my generation and our thoughts as being a tick box. I actually think we do have something to offer. And what we have to offer is valuable.

Maggie Powell, Silver Fern Farms

My heart is saying, I do have hope and I do strive to believe that we, as human beings, should be able to overcome anything, and this includes climate change.

Caleb Poe, BNZ



The idea of collaborating across industry is bigger than any kind of annual results.

Tim Hodgson, Fonterra

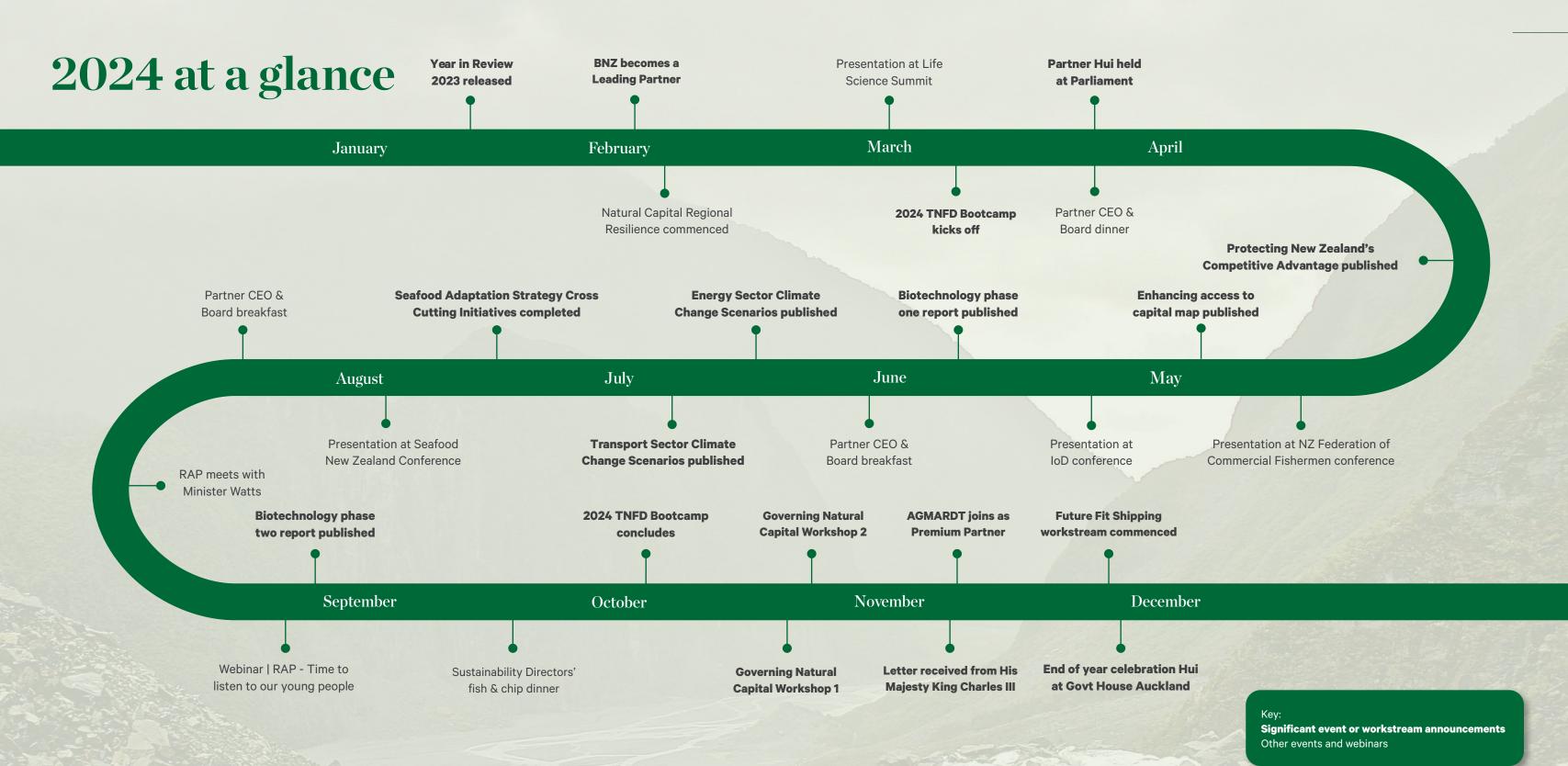


Bringing future generations into the conversation should become the standard, not the exception

Zoe Tilsley, Westpac







Interest in our reports

Although it's challenging to determine the exact reach and impact of our work, we are thrilled to see such strong engagement through our website.

TRANSPORT SECTOR CLIMATE SCENARIOS



Viewed

1,164

times

ENERGY SECTOR CLIMATE SCENARIOS



Viewed
1,026
times

BIOTECHNOLOGY PHASE ONE REPORT



Viewed
1,399
times

PROTECTING NEW ZEALAND'S COMPETITIVE ADVANTAGE



Viewed
4,652
times

SUSTAINABILITY FUNDING MAP



Viewed 1,309 times



Modern genetic technologies

Modern genetic technology is a complex area and a potentially controversial one. As we write this, public submissions are open for a new Gene Technology Bill, with the intention of potentially establishing a new regulatory regime for gene technology in New Zealand.

Back in May 2024, we launched our report Modern Genetic Technology: Applications in Aotearoa Food and Fibre Production. This report was Phase One of our work in this area. It was intended to provide support to decision makers in their understanding of the risks and opportunities associated with biotechnology.

It looked at three areas:

- Regulatory scenarios how does New Zealand's regulatory framework compare to the rest of the world?
- Socio-economic factors what are the potential socio-economic impacts of the use of modern genetic technology in food and fibre production?
- **Environmental impacts** using specific case studies to look at the potential environmental risks and benefits associated with these technologies.

The report found that there are many potential benefits, including the ability to enhance pest control, such as producing sterile Douglas-fir pines and the opportunity to produce more climate resilient plant and animal species. There are also risks, including those to our GE free reputation.

Our Phase Two report was published in August. It identified the key

socio-economic factors that decision makers might take into account, and identified the actions needed to deliver successful regulatory outcomes.

It is important to point out that neither report attempted to define what New Zealand should do in terms of biotechnology regulation, rather our Phase One report looked at what we could do, while Phase Two supported this by considering the "what next" - how to manage regulatory change.

Both reports drew on the expertise of representatives from research institutes, entities with commercial genetics interests, Māori researchers, government representatives, industry good bodies and thought leaders.

Our <u>Phase One report</u> was a detailed, 162-page document put together after a rigorous process of interaction with these experts and stakeholders. PwC acted as secretariat for this work, which required a great deal of technical expertise and understanding. We are very grateful for the substantial time and thought they put in.

As well as acknowledging PwC and the dozens of sector representatives who gave their time to bring together the latest research and thinking, we must also acknowledge and thank those who inspired this work.



Read phase one



Read phase two

Project funding provided by





Protecting New Zealand's competitive advantage

When the Circle commissions work from one of our Partners, the goal is never to shock. We seek to inform, to work together to achieve systems change by highlighting the challenges to the restoration of natural capital and by seeking to overcome those challenges as Partners.

In the case of our <u>Protecting New Zealand's Competitive Advantage</u> report however, there were absolutely ripples of surprise at some of the findings. The work, produced by the team at Chapman Tripp, took a snapshot of changing expectations from our key trading partners regarding our ESG (Environmental, Sustainability and Governance) reporting standards and practices. It showed that those expectations have grown significantly, with an "explosion of measures in many of New Zealand's key export markets to require ESG disclosures or more directly regulate corporate sustainability practice."

The report, launched in April, found that 80% of New Zealand's exports by value are going to markets that have mandatory ESG reporting in force or proposed.

There are four ways our exporters can be affected:

- Through direct regulatory requirements imposed on our exporters by the importing jurisdictions
- Through Carbon Border Adjustment Mechanisms (CBAM) which impose a cost on embedded emissions in certain products

- Through supply chain rules which mean that customers insist that New Zealand companies must supply robust ESG reporting to support the importers targets
- Through changing consumer expectations which then put pressure on those firms importing New Zealand products

Even organisations not undertaking the exporting themselves may be affected if they are part of the supply chain for a New Zealand company which does export.

The scale and speed of these trends was what took some New Zealand exporters by surprise. The report found a wide audience thanks to strong media interest and the support of organisations such as NZTE, which organised two webinars to help educate the broadest possible community about what our work revealed.

Our thanks to the incredible team at Chapman Trip who worked relentlessly to put the report together in a very short space of time, particularly Alana Lampitt (Partner), Nicola Swan (Partner) and Kate Wilson-Butler (Director - Climate, Sustainability & ESG).



Businesses who want to proactively manage ESG trade risk would do well to stay attuned to these developments.

Kate Wilson-Butler

Partner, Chapman Tripp





Read the report

CLICK TO READ



Energy sector climate scenarios

Energy has certainly been in the spotlight in Aotearoa in 2024. But while the public conversations have been about energy pricing and security, The Circle has also been concerned with an overarching issue that will determine both how affordable our energy is for the foreseeable future and how reliable our energy systems are.

That issue is climate change. Climate change will continue to impact how we can produce energy. Then, how we produce and use energy impacts the severity of climate change, which then flows through to impacts on nature.

In June, working with PwC as secretariat and many players from within the energy sector, we published the Energy Sector Climate Change Scenarios for New Zealand. The energy sector covers a diverse landscape, including generation, transmission and distribution, and retail. Up to 80% of domestic energy generation comes from renewable sources, such as onshore wind, solar, hydro, geothermal, and biomass. However, the total amount of energy we use is largely fossil-fuel based.

The climate change scenarios included in our report are hypothetical futures that are developed to explore the potential impacts of climate change. These scenarios are not predictions or forecasts, and they are designed to be challenging to confront business-asusual thinking. In the case of this report, we looked at four possible scenarios, defined primarily by the average rise in global temperature and ranging from "Hot House" (average global temperature rise of 3.3C by 2080) right through to "Coordinated Effort" (a rise of 1.5C).

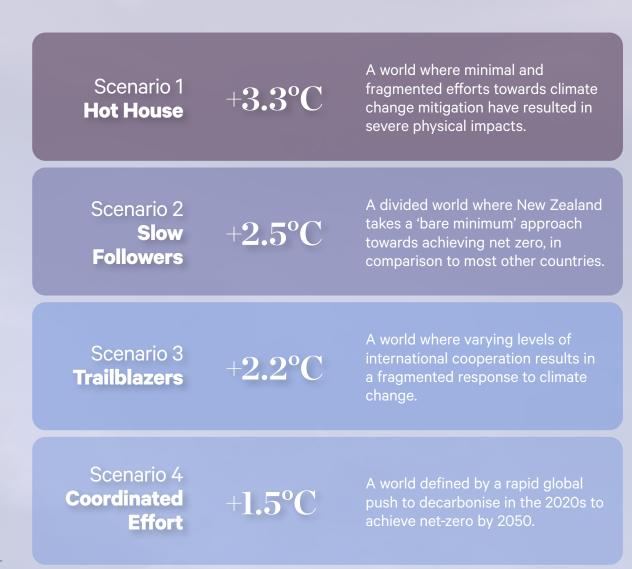
The scenario narratives describe risks and opportunities. Understanding these risks can assist with planning to mitigate them - partly or fully.

We want to thank PwC for their work and expertise, and we also want to express our gratitude to the many energy sector stakeholders who participated in the process of creating these scenarios. They came from a wide range of energy generators, retailers, network companies and beyond the sector from research bodies, engineering businesses and more. Having this variety of experts providing the clarity of thought needed to produce meaningful and challenging scenarios is a privilege.

We hope this report is proving to be a useful reference for New Zealand's decision makers and for businesses, iwi and communities who want to understand how climate change could impact our energy sector, as well as all of us who depend on it.



Read the report





Transport sector climate scenarios

In June, we published the Transport Sector Climate Change Scenarios which began, "transportation is key to both our wellbeing and sustainable prosperity. It is a requirement for migration, for community cohesion, for food distribution and for the provision of other essential goods and services." But as it also pointed out, it is as vulnerable as it is essential.

The report's aim was to develop a common vision of what the transport sector in Aotearoa New Zealand could look like under different climate change futures.

It examines three possible scenarios for climate change defined primarily by the average rise in global temperature.

The scenarios are:

- Bypass to Breakdown, which assumes a global average temperature rise of 3.9C by 2100
- Short detour, with a 1.7C rise by 2100
- Fully charged, a 1.4C rise by 2100

These scenarios are challenging as they are intended to be. They are also designed to align with External Reporting Board (XRB) Climate Standards. The text box opposite quotes the highest warming scenario, "Bypass to Breakdown" which demonstrates how bad things could be in a world with a global average temperature rise of 3.9C - where current policies will see us.

This scenario paints a picture of a future Aotearoa where we have isolated communities, an entrenched reliance on fuel imports, more shipping disruptions and significant inflationary impacts.

The work also imagines a better world, where climate change has been limited by shared global efforts and we have a resilient transport sector which minimises its contribution to planet warming.

KPMG acted as secretariat for this work and the experts who contributed came from right across the sector. We thank them for their efforts, the results of which were shared on our website and via various forms of outreach, including a well-attended webinar.



Read the report

Scenario 1 **Bypass to breakdown**

+3.9°C

NZ focusses on adaptation strategy to build climate resilience. Global emissions reduction policies and investment falter, and current socio-economic trends continue, resulting in more than +3.9°C by 2100 in a 'hot house world'.

Scenario 2 **Short detour**

+1.7°C

Meaningful global action on decarbonisation is delayed until the early 2030s, followed by a sudden and globally uncoordinated economic transformation.

Scenario 3 Fully Charged

+1.4°C

transition to a low emissions future accelerates through the 2020s.



Enhancing access to capital

CLICK THE IMAGE BELOW TO READ

In 2021, The Aotearoa Circle established the Centre for Sustainable Finance: Toitū Tahua. This was the direct result of the work done in our Sustainable Finance Forum's 2030 Roadmap for Action.

Today we are proud to see the achievements of the independent Centre, as they work to create a more sustainable and equitable financial system.

Our work and focus have not completely moved away from finance, which is critical to enable efforts to restore nature and create sustainable prosperity for Aotearoa.

In 2024, we created and published a sustainability funding map which shows what is available in New Zealand. This was an action required from our adaptation roadmaps for Seafood, Agriculture and Tourism.

This living document can be found on our website. It maps funding sources for individuals and enterprises seeking to access green finance. These sources include Government co-funding, crowd sourcing, local council funding, non-government funding and grants and more.

Our intention is to maintain this interactive map through 2025 and encourage its use by the widest possible audience.



TNFD Bootcamp

Measuring our impact and dependencies on nature is challenging. Whilst many New Zealand organisations are still in the process of learning how to both measure and respond to their climate impacts, nature is the next step.

As we saw with the release of The Circle's report <u>Protecting New Zealand's Competitive Advantage</u> this year, international markets increasingly expect us to be able to report this information – certainly climate and increasingly nature.

Measuring nature impacts and dependencies is recognised as a harder prospect than climate. There is more complexity – what do you measure? There is more uncertainty – how do you calibrate against agreed international standards when "nature" can be different in different places? "Nature" potentially includes water, air (and hence climate), soil and all lifeforms in the biosphere.

How to narrow this down into a useable and meaningful form for business is captured in the Taskforce for Nature-related Financial Disclosures framework, which is internationally recognised as a follow-up to TCFDs (the Taskforce for Climate-related Financial Disclosures), that are increasingly being adopted worldwide. The TCFDs were released by the Financial Stability Board in 2017.

Their cousins, the TNFDs were officially released in 2023 with the overarching goal of redirecting global financial flows towards nature-positive outcomes. That same year, The Aotearoa Circle offered Leading Partners a bootcamp course aimed at executive level, to help with the understanding and adoption of TNFDs. We repeated this course in 2024 but extended the offer to all Partners and a small selection of other interested organisations.

The course builds an understanding of nature related impacts, dependencies, risks, and opportunities, through a te ao Māori lens.

This year our 2024 Rangatahi Advisory Panel was invited to take part in one of the workshops to share their feedback with participants. We also facilitated a shared lunch for both of our TNFD Bootcamp cohorts, creating an opportunity for them to exchange valuable lessons and insights from their TNFD journeys, as well as to provide feedback on how the Circle can further support New Zealand's TNFD initiatives.

The Circle enjoyed being a part of these but have chosen not to facilitate them in the future. We thank the PwC team for providing the second bootcamp series and to the nine partners who participated.

Participants of the TNFD Bootcamps learnt to use the 'LEAP' approach, a critical internal assessment process that supports the understanding of naturerelated issues.

Locate: Identify an organisation's potentially material sources of nature-related dependencies, impacts, risks and opportunities.

Evaluate: Develop an understanding of the organisation's potentially material dependencies and impacts on nature.

Assess: Understand which nature-related risks and opportunities are material and should be disclosed by the organisation.

Prepare: Decide how the organisation should respond to the material nature-related issues identified in the LEAP approach, including what to disclose and how to disclose the material issues identified.



Governing natural capita

Following feedback from our 2023 TNFD bootcamp participants, The Aotearoa Circle, in partnership with Deloitte, held a bespoke two-day course designed to enhance understanding of TNFDs at board level.

Over 25 directors from our Leading Partners took part in the course. They were encouraged to approach it with a positive, future-focused attitude, as well as be engaging and collaborative with a leadership mindset.

The two sessions built upon attendees' existing knowledge by providing insights, practical tools and understanding to help directors continue to steer their business toward long-term financial stability and success while positively contributing to society and nature.

Session 1: Woven together by Nature

The purpose of this session was to explore and understand:

- The global situation for nature including global trends and regulatory landscape
- The relationship between climate, nature and business, including the value at risk and the value to be gained
- What the key drivers are and why they're important for New Zealand businesses
- The importance of nature in New Zealand including how nature relates to te ao Māori and the role of Te Tiriti o Waitangi.

Session 2: Empowered Leaders

Session two focussed on equipping the participants with practical tools and questions to ask including:

- Understanding their director duties relating to nature and access tools and questions to help their organisations respond
- Preparing for the regulatory & market environments of the future and what steps to take next on the nature journey
- Setting actionable next steps for their organisation and inspiring collective action including TNFD framework opportunities.

We were joined by a number of esteemed speakers including Andrew Mitchell, Founder and Vice Chair of the Stewardship Council for the Taskforce on Nature-Related Financial Disclosures.

Thank you to Deloitte for their exceptional work in making this come to life.

The Governing Natural
Capital course was incredibly
beneficial for the Silver
Fern Farms Directors. This
is exactly the sort of work
needed in Aotearoa New
Zealand to prepare executives
and directors for the future.

Rob Hewett Director, Silver Fern FarmsSpoken at the 2024 Deloitte Partner Annual General Meeting

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Seafood Sector Adaptation Strategy

The Circle has a long history of work with the marine sector. We published our Marine Sector Climate Scenarios in 2020, followed by our Seafood Sector Adaptation Strategy (SAS) in 2021.

In 2021 we moved into the adaptation implementation phase and this year the SAS Implementation Group has been hard at work finalising a comprehensive adaptation pathways portfolio for the seafood sector.

This portfolio includes three action pathways for the deepwater, inshore, and aquaculture sectors, featuring strategies, outcomes, and actions for the sector to adapt to climate change.

Accompanying this work will be Ti Tiriti guidance, featuring a briefing paper that summarises the whakapapa of Māori in Aotearoa's fishing industry. It will also provide guidance on applying the principles of Te Tiriti o Waitangi while undertaking the actions stepped out in the portfolio. This will include practical examples and case studies from across the seafood sector.

Throughout this process, the SAS workstream uncovered bigger, cross-sector challenges that, unless addressed, pose a significant barrier to adaptation for the sector. These cross-cutting issues require a partnership at the systems level to solve. The four issues identified are highlighted across the page.

The SAS Implementation Group developed four detailed business cases to address these issues, which were presented to the SAS Leadership Group, key seafood sector leaders, for consideration.

Since their creation, several work programmes inside and outside of The Aotearoa Circle have been initiated to help tackle these barriers. The insights on fleet decarbonisation contributed to the creation of The Aotearoa Circle's new workstream, <u>Future Fit Shipping</u>, which will offer insight and clear next steps to tackle New Zealand's shipping emissions.

This work has been ongoing for three years, and we are immensely grateful to our dedicated Implementation Group for their efforts in developing a valuable tool for the seafood sector. The adaptation pathways portfolio is currently in its design phase, and we look forward to publishing it in May 2025.

The four cross cutting issues identified were:

- 1. Agile regulatory framework the understanding that the current regulatory system stifles some of the best response options to climate change.
- **2. Oceans as a national research priority -** the need for a coordinated, collaborative plan for research that supports the seafood sector's adaptation to climate change.
- 3. Climate change & vulnerability forecasting the understanding that industry lacks the ability to forecast climate impacts at the level needed for making both strategic and operational decisions.
- **4. Fleet decarbonisation -** the need to understand more about sustainable marine fuels.

Natural Capital Regional Resilience

Climate change is negatively impacting nature - the very nature we rely on for a thriving economy. But how will the changing face of nature impact our future prosperity and what are the opportunities for additional innovation, collaboration and land use consideration?

The <u>Natural Capital Regional Resilience (NCR2)</u> project is a New Zealand-first attempt to adopt a systems approach to understanding the intricate links between nature and society in a particular region, and forecasting the effects of climate change.

This groundbreaking workstream, led by PwC, started last March and is one of our most significant initiatives. It aims to develop a comprehensive analysis of climate-driven nature degradation in the Bay of Plenty, offering insights that could shape the future of regions across New Zealand.

The insights gained will also lay the groundwork for other regions to bolster their resilience.

The complexity of this workstream stems from the unprecedented pace of change driven by the dual crises of climate and nature. Traditional predictors are no longer reliable, requiring an exploration of critical tipping points—thresholds beyond which certain economic activities may become unsustainable.

The forthcoming report will translate climate science into actionable strategies, highlighting the operational, financial, commercial, social, and ecological implications for the region.

It underscores the urgent need to invest in resilience strategies now, because the cost of inaction will potentially far outweigh the investment required.

While the report addresses significant climate impacts on nature, it also signals gaps, such as the absence of certain economic models and the need for financial valuation of ecological services. Future storm impacts also remain an area for further exploration.

Ultimately, the NCR2 project aspires to create collaborative action, safeguarding the Bay of Plenty's prosperity for future generations and to provide a replicable methodology for regions across Aotearoa to prepare for climate change.

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We need to put our heads together, innovate and adapt and plan our future in a way that ensures that those who follow us, for generations beyond counting, will thrive in this beautiful place that is our home. We are the leaders. It is for us to make it happen now.

Pā McGowan Founder, Tīwaiwaka Co-Chair of Natural Capital Regional Resilience workstream

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Thanks to our workstream contributors

Energy Sector Climate Scenarios

Secretariat:

PwC New Zealand

Leadership Group:

- Beca
- BlueFloat Energy and Elemental Group
- Clarus
- Contact Energy
- Genesis Energy
- Mercury
- Meridian Energy
- NIWA
- Orion Group
- Powerco
- Unison Networks
- Vector
- Wellington Electricity

Working Group

- Bioenergy Association of New Zealand
- Beca
- BlueFloat Energy and Elemental Group
- Clarus
- Contact Energy
- Energy Resources Aotearoa
- External Reporting Board (XRB)
- Genesis Energy
- Mercury
- Meridian Energy
- NIWA
- Orion Group
- Powerco
- Scion

- Unison Networks
- Vector
- Wellington Electricity

Wider Advisory:

NZ Geothermal Commission

Enhancing Access to Capital:

- ANZ
- ASB
- Beef + Lamb
- BNZ
- Cawthron Institute
- DairyNZ
- EY
- Go Rentals
- HSBC
- Māori Tourism
- MPI
- MfE
- MBIE
- Moana
- Rabobank
- Sanford
- Sealord
- Terra Moana
- The Centre for Sustainable Finance: Toitū Tahua
- TIA
- Westpac

Governing Natural Capital

Deloitte New Zealand, Including:

- Louise Aitken
- Frances Arns
- Clark Tipene

Modern Genetic Technologies

PwC New Zealand, Including:

- Annabell Chartres
- Pete Chambers
- Ben Wakely
- Sophie MacAskill
- Cassie Clark

Protecting New Zealand's Competitive Advantage

Chapman Tripp, including:

- Nicola Swan
- Alana Lampitt
- Kate Wilson-Butler

Natural Capital Regional Resilience

Secretariat:

PwC New Zealand

Co-chairs:

- Simon Limmer, Indevin Group
- Pā Ropata, Tīwaiwaka
- Fiona McTavish, Bay of Plenty Regional Council

Seafood Adaptation Strategy

Leadership Group:

- Dan Bolger, Fisheries New Zealand
- Craig Ellison, (formerly) Sanford
- Doug Paulin, Sealord
- Gary Hooper, Aquaculture NZ
- John Morgan, NIWA
- Dr Kayla Kingdon-Bebb, WWF
- Todd Charteris, Rabobank
- Volker Kuntzsch, Cawthron Institute

Implementation Group:

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- Dr Charles Heaphy, Sealord
- Dr Dave Taylor, Aquaculture NZ
- Jane Symonds, Cawthron Institute

- Jodie Kuntzsch. Moananui
- John Willmer, Seafood New Zealand
- Megan Linwood, MPI
- Michelle Cherrington, Moana
- Dr Peter Longdill, (formerly) Sanford
- Ruth Cook, (formerly) MPI
- Stuart Yorston, Sealord
- Dr Vonda Cummings, NIWA

With special thanks to:

- Kylie Grigg, Te Ohu Kaimoana
- Kayla Martin, Te Ohu Kaimoana
- James Butler, Cawthron Institute
- Fiona MacMillan, Seafood New Zealand
- Steve Maskell, DNA Design
- Regan Kerr, Rabobank
- Dr Rob Murdoch, NIWA

TNFD Bootcamp

PwC New Zealand, Including:

- Annabell Chartres
- Camden Howitt
- Phoebe McCartie
- Matt Gilbert
- Electra Scott

Transport Sector Climate Scenarios

Secretariat:

KPMG New Zealand

Working Group:

- Aurecon
- Colonial Motor Group
- External Reporting Board (XRB)
- Freightways
- Kāinga Ora
- Kiwirail
- Ministry of Transport
- MOVE Logistics

- NZ Airports Association
- NZ Post
- Otago Regional Council
- Tourism Holdings Limited
- Turners Auctions
- Waka Kotahi
- Wellington City Council
- Z Energy

Wider Interest Group:

- Air New Zealand
- Auckland Airport
- Auckland Council
- Auckland Transport

• Health new Zealand

- CentrePort
- IAG
- Infrastructure CommissionLGNZ
- Mainfreight
- Maritime New Zealand
- Marsden Maritime Holdings
- Mondiale VGL
- Port Otago
- Ports of Auckland
- South PortThe Warehouse Group

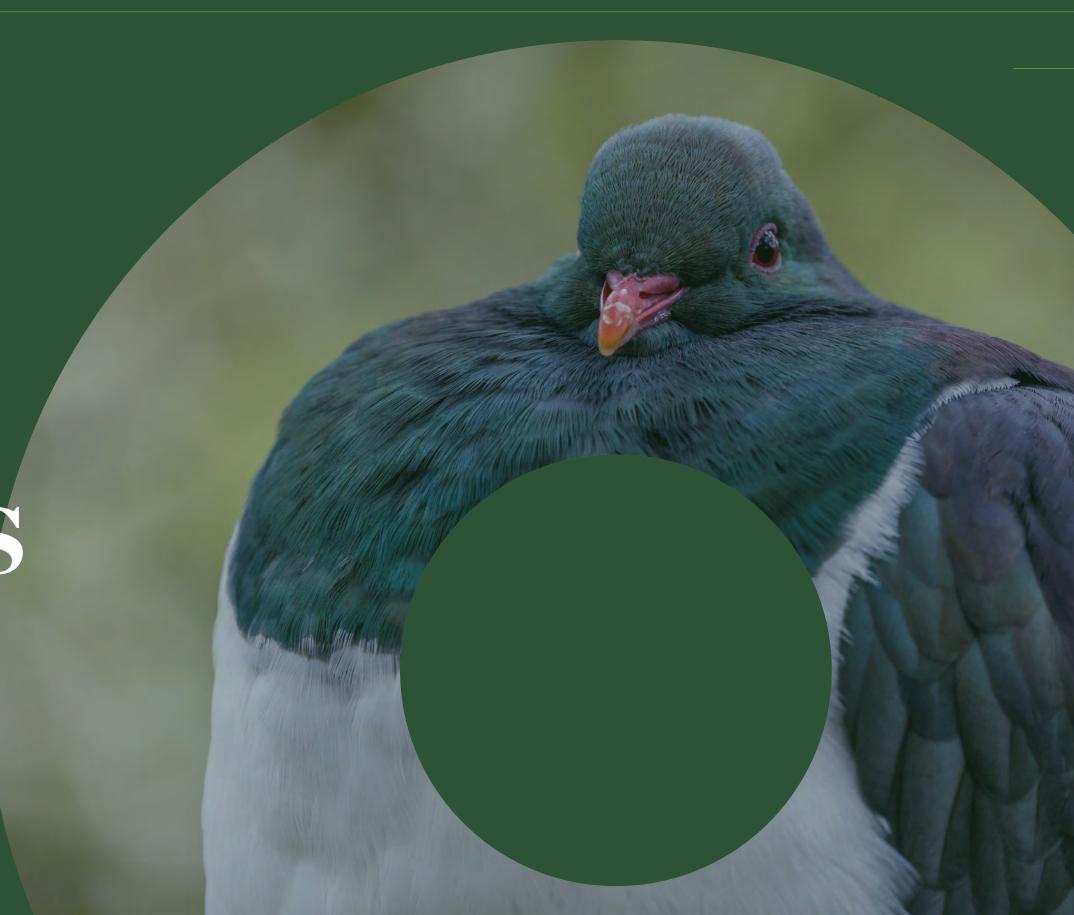
Guest Contributors:

- Richard Threlfall, KPMG
- Tom Marron, KPMGSteph Ward, KPMG
- Dan Haines, KPMG
- Jess Vandermeer, KPMG
- Pete Bernhardt, Strategy PractitionerDion Cowley, Hiringa Energy

• Michael Roth, Auckland Council

- Monique Cornish, DPMC
- Dr Rod Carr, Climate Change Commission
- Jon Chadwick, PwC

Final Remarks



Looking forward to 2025

What a rollercoaster ride 2024 was but as our review demonstrates, look what was collectively achieved.

As we look to 2025, I'm mindful of what we need to deliver against our target to restore Aotearoa New Zealand's natural capital by 2035. This means assessing what the most impactful projects the Circle can deliver incrementally each year over the next decade to ensure we don't reach a critical tipping point for nature and climate.

Given the sense of urgency, our focus is threefold. Firstly, to change leadership mindset. Secondly to remove roadblocks, and thirdly, sell the vision of what New Zealand has to gain if we front foot a commitment to climate and nature.

We will be building out a workstream around articulating our 2035 Vision for New Zealand and look forward to sharing more soon.

Our amplification of effort is demonstrated in our 2025 programme which includes the Future Fit Shipping workstream with Deloitte - a cross-cutting initiative from our Tourism Sector, Seafood Sector and Agri-Sector Adaptation Roadmaps. It aims to support Aotearoa New Zealand in decarbonising its maritime industry by considering the

potential of four different sustainable marine fuels, and 'what would need to be true' to execute a green shipping corridor with Australia. It will also include an economic impact assessment of not moving on green corridors as well as input from our Rangatahi Advisory Panel.

The Circle, in partnership with KPMG, will also deliver a world-first integrated climate, nature and te ao Māori scenarios for the seafood sector. What we learn from this process will inform resilience-building and adaptation measures as well as developing the modelling to use on other sectors.

We also start our first project under the Nature Finance Forum, working with the Chapman Tripp team, on finding tangible solutions to legislative barriers that discourage or prevent landowners from investing in nature.

The final outputs of our three-year Seafood Sector Adaptation Strategy workstream will also be completed including to an Maori guidance, cross cutting initiatives and adaptation pathways for individual species. Finally, we plan to extend the Governing Natural Capital programme to a wider group of Directors, as well as scope opportunities in the voluntary carbon market and collation of data for TNFD reporting.

I'd like to join my Co-Chairs and thank our Partners, Guardians, Co-Patrons, Rangatahi Advisory Panel and of course, my wonderful Circle team for their ongoing support, commitment and mahi in 2024.

Our foot is placed firmly on the accelerator as we step into the new year with an increased sense of urgency. We will work smarter and harder with our partners.

As His Majesty King Charles III said in his letter to the Circle, it's about, "harnessing our co-operative power to restore nature for generations to come."

And that starts now.



Partner Perspectives

A selection of quotes from our 2024 partner perspectives.

Business serves customers, which means everybody. And so business needs to reflect, in all of the things it does, the communities in which it operates and their expectations.

Vince Hawksworth

Former CEO, Mercury

The truth is we don't get a thriving economy without a thriving community, and we don't have a thriving community without a thriving environment. We need to fix the fundamentals of this relationship, or we will just be chasing our tails.

Amelia Linzey

Chief Executive, Beca

I think we've got to believe we can do it. We've got to do more. We've got to move faster, but I think the option of not making headway isn't an option. I live in hope.

David Walsh

Chief Executive, NZ Post

Aotearoa's environmental future hinges on strong collaboration between the public and private sectors. However, when it comes to the link between policy and implementation there needs to be better co-ordination across public and private sectors.

Matt Baber

Director, Alliance Ecology

Yes, I am still optimistic because I believe New Zealanders are inherently ingenious. I also believe we have a deep sense of care. Many companies are innovating for good.

Peter Chrisp

Chief Executive. NZTE

We can see that New Zealand's export community will be required to meet certain climate goals...meeting very strict environmental goals and decarbonisation goals is an expectation with the customers and markets that we sell to.

Gareth Edgecombe

Chief Executive, T&G Global

Our people

Founder



Sir Rob FenwickCo-Founder - The Aotearoa Circle

Co-Patrons



Her Excellency, The Rt Hon Dame Cindy Kiro, GNZM, QSO DTsJ

Governor-General of New Zealand



Sir Jonathon PorrittCo-Founder - The Aotearoa Circle

Co-Chairs



Laurissa Cooney

Director - Air New Zealand, Goodman

Property Ltd, Ngā Tāngata Tiaki

Chapter Zero Steering Committee Member



James Palmer
Secretary for The Environment

Guardians



Carolyn Tremain
CEO - MBIE
Chair - Public Sector Auckland Career Board



David Carter

Executive Chair - Beca

Trustee - University of Auckland Foundation

Director - Meridian Energy

Advisory Board Member - Koi Tū: The Centre for Informed Futures



Izzy Fenwick
CEO & Co-Founder - FENWICK
Director & Founder - Futureful



Jane Taylor

Deputy Chair - XRB

Director - The Aspen Institute NZ, OTPP NZ Forest Investments Ltd



Penny Nelson

Director-General - Department of Conservation



Simon Limmer
CEO - Indevin Group



Volker Kuntzsch
Former Co-Chair
CEO - Cawthron Institute
Director - Moananui

Team



Vicki Watson
Chief Executive



Mark Fitzpatrick

Director - Implementation



Jo JalfonDirector - Communications



Hannah Dooley
Executive Assistant



Jessica HopkinsProject Coordinator

Former Patrons

Dame Patsy Reddy as the Governor-General of New Zealand

Founding Guardian

Vicky Robertson - Former Secretary for The Environment

Former Guardians

Fraser Whineray, 2019-2021 Sir Chris Mace, 2020-2021

Stephen England-Hall. 2019-2022

Former Team

Fiona MacMillan - Director of Engagement and Communications

"We know what is happening, we know what we must do – now, we must simply do it."

- Sir Rob Fenwick, March 2020



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