

Macquarie Asset Management

# FY23 Sustainability Report





# About this report

This report provides an overview of our recent activities, covering the period from 1 April 2022 to 31 March 2023.



Barley nearing harvest at Viridis Ag’s dryland row cropping asset Tantanoola, in the Western Australian wheatbelt. Barley is grown in rotation with wheat and canola crops to improve soil health.



Xiaoyu Zhu works as a sustainability expert at Currenta and plays a vital role in several transformation projects. She is pictured examining an industrial switchbox at the Dormagen site in North Rhine-Westphalia, Germany.



EDGE Suedkreuz Berlin, the most sustainable office building in Germany, according to the German Sustainable Building Council’s DGNB system.<sup>1</sup>

1. Christine Schröder, ‘Truly outstanding: the Edge Suedkreuz office complex in Berlin’, 14 September 2022, <https://blog.dgnb.de/>.

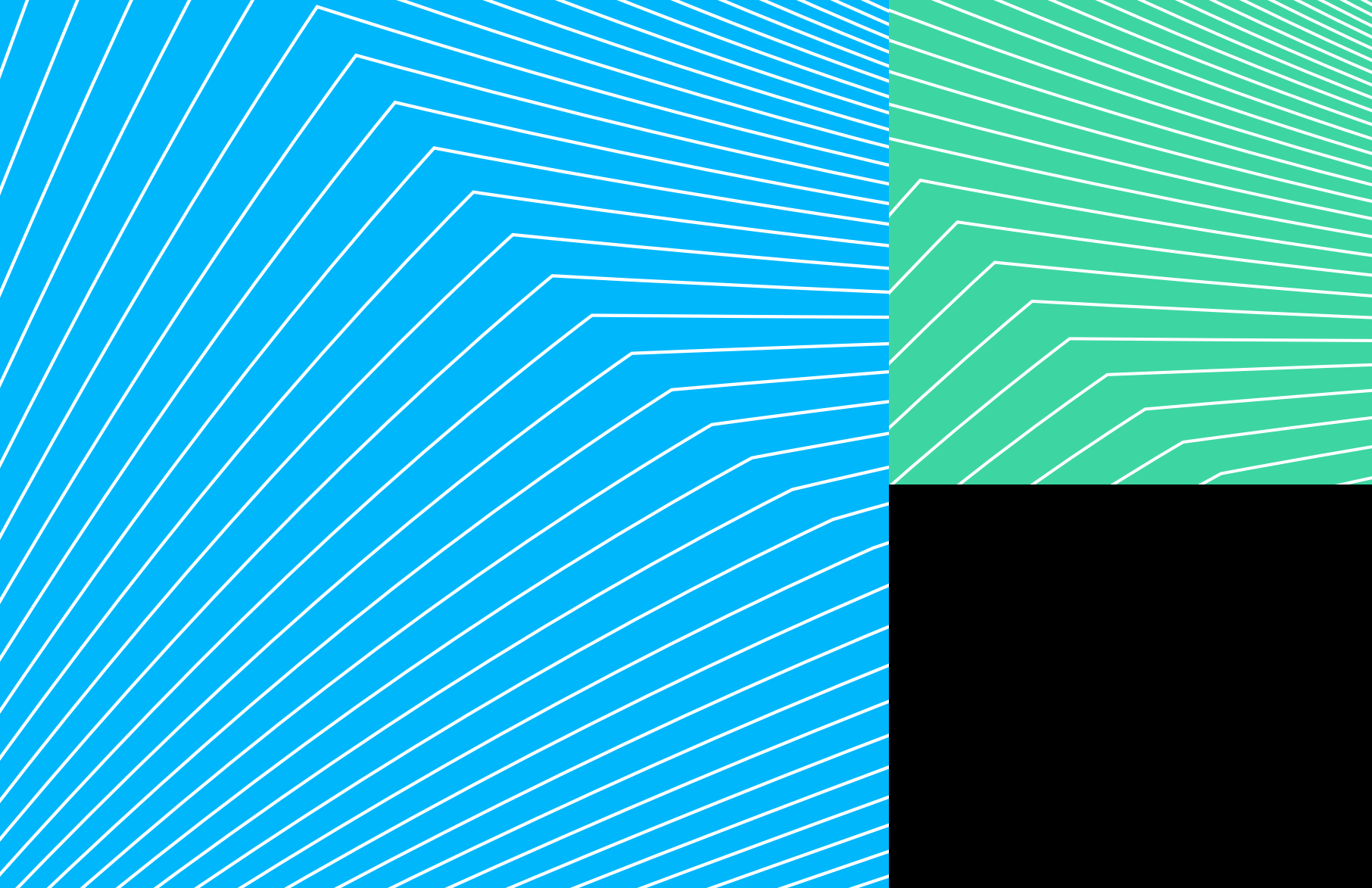
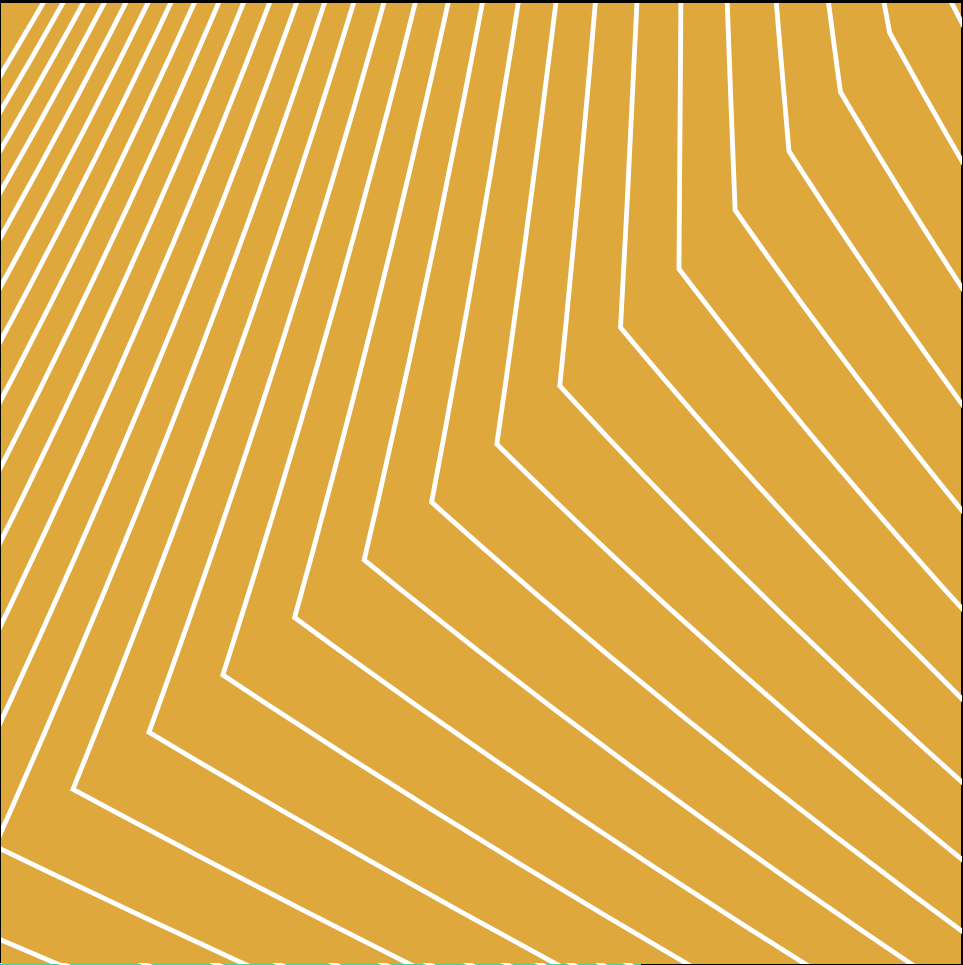
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# 01

## Introduction

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📷 The Lower Baker Dam, with a generating capacity of 111 MW, is part of the Baker River Hydroelectric Project in Washington, Puget Sound Energy's largest hydropower facility.





# Letter from MAM Group Head, Ben Way

### Protecting and growing assets

At Macquarie Asset Management (MAM), we view sustainability as part of our fiduciary duty to protect and grow our clients’ assets. This focus also helps us generate positive outcomes for our investee companies and the communities they serve.

As an integrated asset manager, we are trusted by institutions and individuals to invest their savings. Through our investments, we manage critical services and infrastructure that is relied upon by more than 280 million people every day.<sup>2</sup> It is therefore fundamental that we understand how these businesses deliver on their responsibilities to shareholders and the communities in which they operate. This includes through sound environmental, social and governance (ESG) policies and practices.

We know from experience that considering ESG risks and opportunities across the investment life cycle can improve operational performance and resilience. Importantly, it also creates long-term value. We’re seeing this play out as businesses prepare themselves to manage the physical and transition risks of climate change. In most cases, the energy transition is creating significant opportunities for businesses to preserve and create value. Those who aren’t adapting or evolving risk being left behind.

### Our role as an asset manager and investor

Global investment in the energy transition exceeded \$US1 trillion for the first time in 2022<sup>3</sup> and investment in new renewable energy supply now surpasses investment in fossil fuels.<sup>4</sup> We are seeing a significant acceleration in change across all sectors and geographies. Supported by the economics of green technologies and bolstered by transformative policy initiatives, including the United States’ Inflation Reduction Act and the European Union’s RePowerEU, we believe the energy transition will lead to even greater investment opportunities for our clients.

That is why we’re positioning ourselves to be at the forefront of the energy transition. In 2022, we integrated Macquarie’s Green Investment Group (GIG) into our asset management business. In doing so, we are delivering asset creation and investment opportunities to our clients – spanning mature and emerging sectors, in all regions, across the entire project life cycle. The same imperatives also compel us to invest in the transition of our existing portfolio.

Across our infrastructure and real estate assets, we’re seeing net zero pathways create commercial opportunities, beyond reducing emissions. In many cases, decarbonisation is driving energy efficiencies and cost reductions. And in other cases, it’s creating secondary product streams and services along value chains. It’s the reason why we’ve increased company engagements on climate change undertaken by our Public Investments business. In doing so, we can better understand how our investee companies are responding to these risks and opportunities, and share learnings across our portfolio.

### Supporting a managed and just transition

Alongside scaling green investments, we continue to support carbon-intensive industries and companies to decarbonise, including those in the electricity, water, gas, agriculture, transport, mining, oil and waste sectors. These industries provide products and services that communities rely on, which is why we believe long-term solutions lie in collaboration, rather than divestment. We have a role to play in supporting decarbonisation pathways that are well-managed and inclusive of workforces and local communities.

We also recognise that the impacts of a changing climate will not be evenly distributed, with lower-income communities and countries more at risk and with fewer resources to adapt. Active and continued engagement between communities, companies, employees, governments, multilateral organisations and investors will be critical to ensure we’re striving towards shared outcomes. Supporting emerging markets in their transition is one of many areas where we’re focused on delivering measurable social and environmental outcomes, as well as financial value for clients.

### Commitment to continuous improvement

In all areas of our work, we are committed to reflecting, learning and applying those lessons as we strive to do better. This is especially important when we’re working on complex challenges that affect many of our stakeholders. We place a high priority on listening and welcome your feedback on any of the issues touched on in this report.

Thank you for taking the time to read our report. We look forward to reporting on our future progress and remain committed to enhancing our transparency.

**Ben Way**  
Group Head  
Macquarie Asset Management

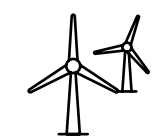
2. As of March 2023, the number of people reached is calculated by taking an estimate of the number of users for all MAM Real Assets portfolio companies. For example, for a specific toll road, the number of vehicles per day has been multiplied by the average number of passengers in a vehicle (two). Portfolio company data is collected from MAM’s asset management teams on a bi-annual basis.

3. ‘Global low-carbon energy technology investment surges past \$1 trillion for the first time’, BloombergNEF, 26 January 2023, <https://about.bnef.com/>.

4. ‘World Energy Investment 2023’, International Energy Agency, 2023, [www.iea.org](http://www.iea.org).

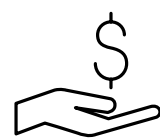


# FY23 sustainability highlights



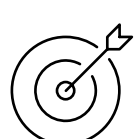
105+ GW

MAM green energy assets in development, construction or operation<sup>5</sup>



\$A1.7b

Invested, committed or arranged financing in MAM green energy assets<sup>6</sup>



~85%

MAM portfolio companies (as at Dec 2020) with Scope 1 and Scope 2<sup>7</sup> **net zero business plans** established by 2022<sup>8</sup>



652

Recorded **ESG company engagements** by MAM Public Investments<sup>9</sup>



\$A1.9b

Invested in MAM portfolios managed in alignment with the UN Sustainable Development Goals<sup>10</sup>



\$A3.8b

Invested in environmental or social thematic bonds through MAM funds<sup>11</sup>

5. As at 31 March 2023 on our balance sheet or under Macquarie management. Excludes lending and private credit funds. GW of green energy assets reflect 100% generating capacity of each asset, not the proportion owned or managed by Macquarie. Refer to the [FY2023 Basis of Preparation for ESG Reporting](#) for the definition of 'green energy assets'.

6. PwC has provided limited assurance over the total amount invested, committed or arranged by the Group in green energy assets in FY2023 (\$A2.2 billion), as detailed in the PwC independent assurance report available within Macquarie's FY2023 Basis of Preparation for ESG Reporting. MAM Private Markets' portion of the total amount invested, committed or arranged is \$A1.67 billion. Refer to the [FY2023 Basis of Preparation for ESG Reporting](#) for the definition of 'green energy assets'.

7. Scope 1 emissions: direct emissions from owned or controlled sources. Scope 2 emissions: indirect emissions from the generation of purchased energy.

8. The percentage of MAM's infrastructure and agriculture portfolio companies with board-approved net zero plans is calculated based on the number of portfolio companies (a) that were in MAM's portfolio at the time of its net zero commitment in December 2020 and (b) where MAM exercises control or significant influence. For the remaining assets, MAM is working towards establishing net zero plans over the next 12 months, or within 24 months of acquisition.

9. Across MAM Public Investments, with 482 different companies.

10. All portfolios that have stated alignment with the UN Sustainable Development Goals as a portfolio objective and are actively monitored by MAM Public Investments' Investment Risk team to ensure compliance with their objectives.

11. For the year ended 31 March 2023. These represent bonds that have been issued to address specific environmental or social concerns and have been grouped into four categories: green or climate bonds, social bonds, sustainability bonds, and sustainability-linked bonds. These bonds have been labelled by the issuers in accordance with industry-recognised standards such as ICMA's Green Bond Principles or the UNDP SDG Impact Standards for Bond Issuers and/or verified by an external ESG assurance provider.

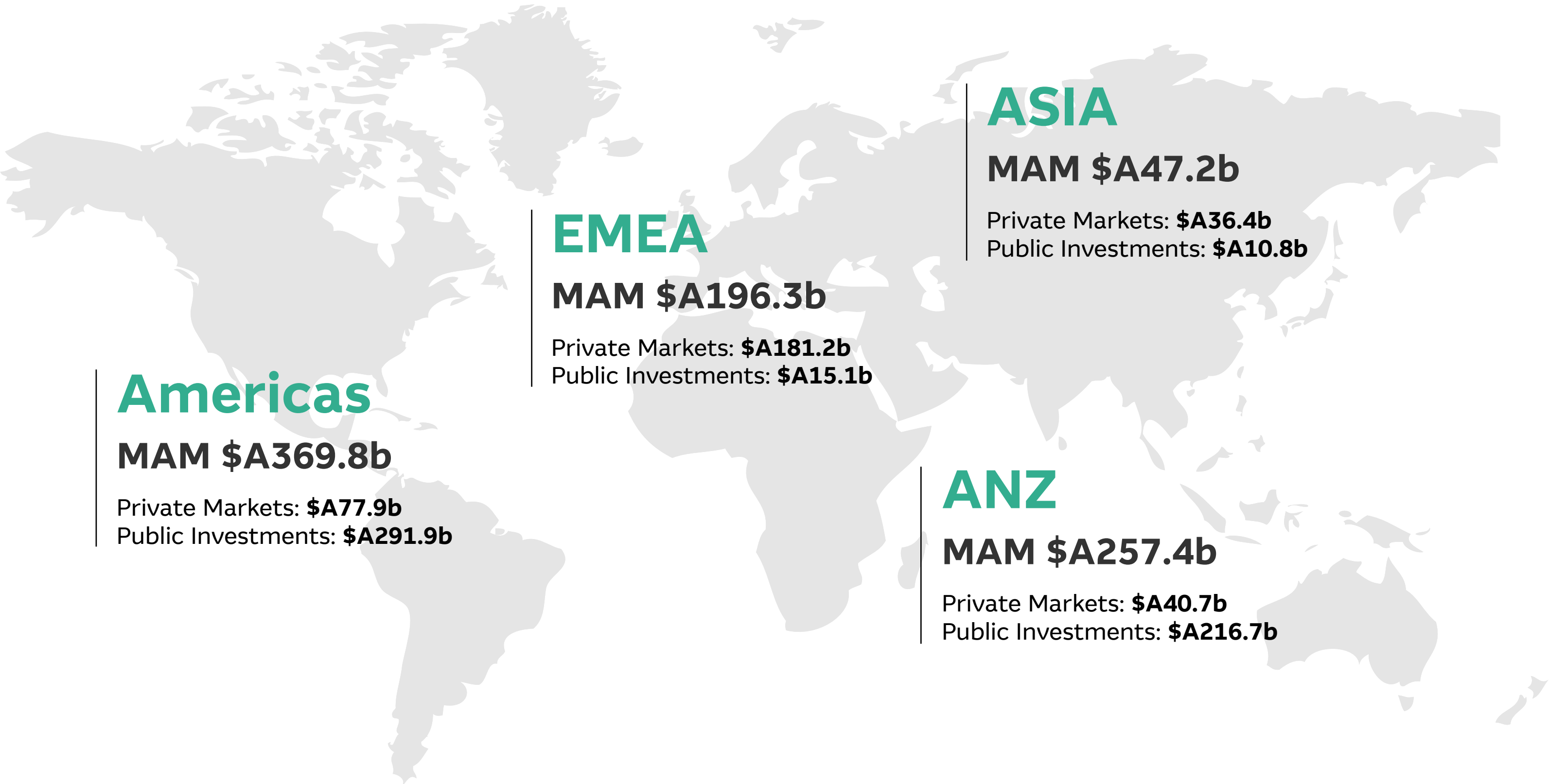
Rhyl Flats, United Kingdom





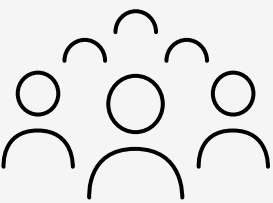
# Our footprint

Assets under management (AUM) where MAM investments are held:<sup>12</sup>



12. As at 31 March 2023.

## Scale of MAM’s business<sup>13</sup>



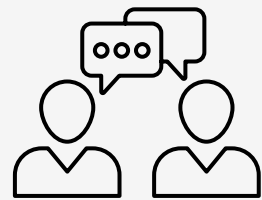
**~2500**  
employees



**25**  
markets around  
the world



**\$A870.8b**  
assets under management



**1,200+**  
institutional clients

13. As at 31 March 2023.





# Letter from MAM Chief Sustainability Officer, Kristina Kloberdanz

## Delivering on our net zero ambition

Investing to deliver positive impact for everyone is an ambitious vision. One of the ways we seek to do this is through our net zero commitment. As the world’s largest infrastructure manager,<sup>14</sup> and a global leader in the development of companies, assets and technologies that aim to accelerate the global transition to net zero, we believe our scale and experience provide us with a significant opportunity to support the transition to a low-carbon economy.

Since we made our net zero commitment in December 2020, our infrastructure and agriculture portfolio companies and real estate properties have been measuring and verifying their baseline emissions, setting interim 2030 targets, and identifying abatement measures to form the basis of their net zero 2040 business plans. This process is complex. Our teams have been navigating varying levels of influence, different ownership stakes and governance structures, and the priorities of our portfolio company management teams, co-investors and clients.

While we have made progress, with almost 85 per cent of our portfolio companies<sup>15</sup> and 400 real estate properties having net zero business plans in place by the end of 2022, we’ve only just begun. And, as our portfolio continues to grow, it’s possible our carbon footprint may go up before it goes down.

## Improving our data and disclosures

Over the past year, evolving regulations and reporting standards have increased the need to invest in our sustainability capabilities across legal, ESG governance, data and analytics. The proliferation of reporting frameworks, and difficulties in obtaining consistent and comparable ESG data, remain two of the biggest ESG challenges for asset managers.

As our regulatory and disclosure requirements continue to increase, so have our stakeholders’ expectations. While we have enhanced our disclosures to clients, including reporting our real asset funds’ carbon emissions and launching a publicly-available proxy voting dashboard, we know this is an area that requires ongoing investment. This is why we recently established a new Sustainability Data and Reporting team, supported by an ESG data platform, to centralise and enhance our governance and insights, and enable greater accountability in future.

## Creating sustainable investment solutions for clients

We continued to expand our suite of sustainability-related products and funds in FY23, reflecting our clients’ increasing interest in aligning their capital with investments that have clearly defined sustainable objectives or promote ESG characteristics. For example, we have developed strategies incorporating emerging market green bonds in our Public Investments business, and scaling core renewables and emerging energy transition solutions in our Private Markets business. Initiatives such as these help us to create sustainable investment opportunities for our clients.

Our Public Investments business, made up of specialist investment teams, allows us to offer a broad range of investment solutions, as we recognise that not all clients share the same view on ESG investing. While each mandate has a distinct approach to managing money, we fundamentally believe as a manager that sustainable investing helps to protect and create value for clients. Our commercial focus means there’s no compromise between our fiduciary obligations and seeking out attractive, sustainable investments.

As sustainable finance regulation continues to evolve – notably in Europe, the United States and Australia – we continue to review our offerings. We also continue to evaluate the financial impacts of ESG risks and opportunities, as this is important to building and maintaining our clients’ trust.

## Engaging with our people and peers

In our most recent employee survey, nearly 70 per cent of our people said they feel equipped to explain key sustainability issues. Since then, we have increased our employee engagement and training on sustainability topics, including greenwashing, inclusive hiring, and our net zero commitment. We also launched a dedicated podcast series ‘[Navigating to Net Zero](#)’ to share insights from our portfolio companies and properties on their decarbonisation journeys so far.

We continue to participate in working groups and advisory committees in areas where we believe we can contribute to the understanding and development of industry best practice and learn from others. Our work on the Sustainable Markets Initiative’s FAST-infra label aims to demonstrate the sustainability performance of infrastructure assets and accelerate private sector investment into sustainable infrastructure. Meanwhile, we are sharing our expertise in managing large-scale agriculture and natural asset portfolios to support the development of the Taskforce on Nature-related Financial Disclosures (TNFD) framework.

As ever, our team remains focused on continuing to improve our approach, tools and data to deliver value for clients.

A handwritten signature in black ink, appearing to read 'Kristina Kloberdanz'.

**Kristina Kloberdanz**  
Chief Sustainability Officer  
Macquarie Asset Management

14. IPE Real Assets Top 100 Infrastructure Investment Managers ranking 2022. The ranking was awarded in July 2022 and is the opinion of IPE Real Assets and not of Macquarie. No person creating the ranking is affiliated with Macquarie or is an investor in Macquarie-sponsored vehicles. IPE Real Assets surveyed and ranked global infrastructure fund managers. The ranking is based on AUM at 31 December 2021, which is defined by IPE as “the total gross asset value of all assets managed and committed capital (including uncalled)”.

15. The percentage of MAM’s infrastructure and agriculture portfolio companies with board-approved net zero plans is calculated based on the number of portfolio companies (a) that were in MAM’s portfolio at the time of its net zero commitment in December 2020 and (b) where MAM exercises control or significant influence. For the remaining assets, MAM is working towards establishing net zero plans over the next 12 months, or within 24 months of acquisition.



# Our approach to sustainability

## **Investing to deliver positive impact for everyone.**

At MAM, we seek to invest sustainably because we believe it leads to better outcomes for our clients, investee companies and communities over the long term. By supporting businesses to reduce their GHG emissions and transition to a low-carbon economy, we believe our efforts can help to preserve and create value, while delivering positive outcomes for communities and the environment.

## **We aim to be a global leader in sustainable asset management.**

We assess a range of commercial factors, including material ESG risks and opportunities, before actively investing in companies and managing our portfolios over their holding period. This is part of our fiduciary responsibility to our clients. From our experience in the sectors in which we operate, ESG integration can improve operational performance and contribute towards reduced risk, improved productivity, increased cash flow and better long-term value. As such, a disciplined approach to ESG is fundamental.

We are continuously seeking ways to improve our approach to sustainability, including developing tools, targets and investment performance standards, improving our systems for measurement and reporting, as well as enhancing our culture, resources and governance. We also recognise that the scale of the issues at hand requires a broader understanding of how ESG is being addressed within our industry. By working with others, we can identify opportunities to improve our sustainability practices and desired outcomes.



# Our approach to sustainability

**We consider a broad range of ESG factors when assessing the sustainability of our activities.**

Some ESG factors that may be considered by our investment teams are set out below. We also recognise their interconnectedness.

Environmental	Social	Governance
<ul style="list-style-type: none"><li>• Climate change risks</li><li>• Greenhouse gas emissions</li><li>• Biodiversity and ecosystems</li><li>• Resource efficiency</li><li>• Water usage</li><li>• Land use</li><li>• Waste and pollution</li></ul>	<ul style="list-style-type: none"><li>• Workplace health and safety (WHS)</li><li>• Community engagement and inclusion</li><li>• Diversity, equity and inclusion (DEI)</li><li>• Labour rights</li><li>• Human rights, modern slavery</li><li>• Privacy and data protection</li><li>• Animal welfare</li></ul>	<ul style="list-style-type: none"><li>• Business ethics and conflicts of interest</li><li>• Regulator/government relations</li><li>• Cyber security</li><li>• Anti-bribery and corruption, fraud prevention</li><li>• Sanctions</li><li>• Executive remuneration</li><li>• Supply chain</li></ul>

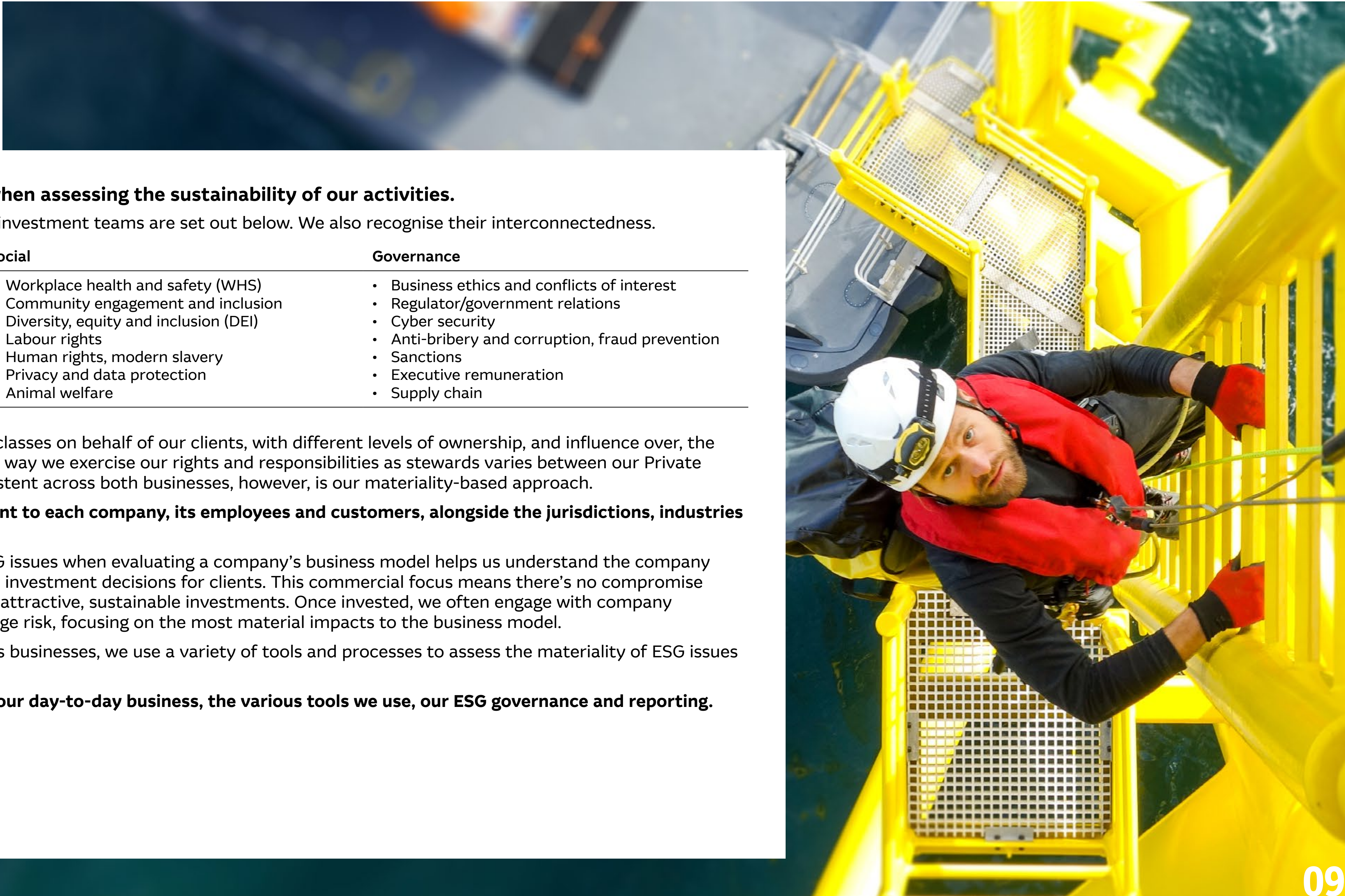
We manage a diverse suite of products and asset classes on behalf of our clients, with different levels of ownership, and influence over, the businesses in which we invest. Because of this, the way we exercise our rights and responsibilities as stewards varies between our Private Markets and Public Investments businesses. Consistent across both businesses, however, is our materiality-based approach.

**We focus on ESG matters that are most important to each company, its employees and customers, alongside the jurisdictions, industries and communities in which it operates.**

We believe that considering the most material ESG issues when evaluating a company’s business model helps us understand the company more comprehensively, allowing us to make better investment decisions for clients. This commercial focus means there’s no compromise between our fiduciary obligations and seeking out attractive, sustainable investments. Once invested, we often engage with company management to enhance value creation and manage risk, focusing on the most material impacts to the business model.

Across our Private Markets and Public Investments businesses, we use a variety of tools and processes to assess the materiality of ESG issues and opportunities.

**Find out more about how we integrate ESG into our day-to-day business, the various tools we use, our ESG governance and reporting.**








# 02

## Environmental

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 Barley nearing harvest at Viridis Ag’s dryland row cropping asset Tantanoola, in the Western Australian wheatbelt. Barley is grown in rotation with wheat and canola crops to improve soil health.



# Decarbonising our global portfolio

From our experience, carbon-intensive assets are becoming more expensive to insure, harder to finance, more challenging to recruit top talent to, and ultimately have a more limited set of future buyers.

That is why we believe decarbonising our portfolio is necessary to futureproof the businesses we invest in on behalf of our clients. As we do so, we are finding that engaging with these assets on their net zero pathways is unlocking energy efficiencies and cost reductions, as well as creating secondary product streams and services.

We are committed to investing and managing our portfolio in line with global net zero scope 1 and 2 greenhouse gas (GHG) emissions by 2040, where we have control or significant influence.<sup>16</sup> Where we do not have control or significant influence, such as in our managed portfolio of public securities, we will continue to support the goals of the Paris Agreement<sup>17</sup> in a manner consistent with our client-guided fiduciary and regulatory responsibilities.

As part of our net zero roadmap, we set a goal in December 2020 to establish net zero business plans across our portfolio, where we exercise control or significant influence, by the end of 2022. This has been a complex undertaking across our infrastructure and agriculture portfolio companies and real estate properties. Where did we get to?

~85%

of our infrastructure and agriculture portfolio companies (that were in our portfolio as of December 2020) had board-approved Scope 1 and 2 net zero plans in place at the end of 2022.<sup>18</sup>

~400

properties from our Core / Core-Plus real estate investment strategy had established Scope 1 and 2 net zero plans at the end of 2022.

For the remaining in-scope portfolio companies and properties, we are working towards establishing net zero plans by the end of 2023. For new investments, where we have control or significant influence, we are targeting completion of these steps within 24 months of acquisition.

In the year ahead, we’re focused on supporting our portfolio companies and properties to ensure their net zero business plans are firmly embedded within their organisations and supported by the right resources. We are also committed to providing them with access to the breadth of our green investment expertise, industrial capabilities and specialist external partners. And we will continue to proactively share our perspectives, learnings and best practice from across our global portfolio.



[Listen to our ‘Navigating to Net Zero’ podcast series](#)



[Find out what’s involved in setting a net zero business plan](#)

Over the reporting period, we also increased our recorded company engagements on climate change and the energy transition to better understand how our investee companies are adjusting their businesses to the significant changes the economy is undergoing. The investment team responsible for our Public Investments business’ Climate Solutions strategy met with the management of its portfolio holdings at least once to encourage additional carbon-related disclosures and the adoption of science-based targets. During some of these engagements, our team assessed the viability of the investee company’s available and proposed solutions for addressing climate change, the capital investment necessary to provide these solutions, and the potential customer demand.

16. MAM generally only has influence over scope 1 and 2 emissions. However, to the extent possible, in line with the Net Zero Asset Managers initiative guidance, MAM intends to support assets where it has control or significant influence to reduce their scope 3 emissions.

17. The Paris Agreement’s central aim is to strengthen the global response to the threat of climate change by maintaining a global temperature rise this century well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5°C. The Intergovernmental Panel on Climate Change concluded the need for net zero emissions by 2050 to remain consistent with 1.5°C.

18. The percentage of MAM’s infrastructure and agriculture portfolio companies with board-approved net zero plans is calculated based on the number of portfolio companies (a) that were in MAM’s portfolio at the time of its net zero commitment in December 2020 and (b) where MAM exercises control or significant influence. For the remaining assets, MAM is working towards establishing net zero plans over the next 12 months, or within 24 months of acquisition.





📷 Brame Energy Center, United States

Decarbonising our global portfolio

CLECO

Futureproofing electricity generation in Louisiana

Cleco’s electricity distribution network serves around 290,000 customers in Louisiana. Its 600 MW electric generation unit, known as Madison 3, is the largest of its fleet. However, it’s the largest emitter of CO<sub>2</sub> by a utility in the state.<sup>19</sup> Pursuing carbon capture and storage (CCS) technology presents an opportunity for Cleco to significantly decarbonise its Madison 3’s operations, while preserving and expanding local employment. The business case for investing in CCS technology also recently became more attractive as a result of the United States’ Inflation Reduction Act.

[Read more](#)

19. William Conway, Cleco former General Counsel, Chief Compliance Officer and Chief Corporate Development Officer, ‘Project Diamond Vault,’ <https://www.youtube.com/>.





📷 Goodstone Living's Smith's Garden development, United Kingdom

### Decarbonising our global portfolio

## Goodstone Living

### Developing new, energy-efficient rental homes across the UK

With around 40 per cent of homes built before 1946, the UK has the oldest housing stock in Europe.<sup>20</sup> Not only are older, unaltered properties less energy-efficient than newer-built homes, but they also have higher carbon emissions and carry greater cost implications for households.<sup>21</sup> Recognising the need to create more sustainable rental homes, we established Goodstone Living, a specialist residential investment manager and developer in the UK. To reduce emissions in both the construction and operation of its residential buildings, Goodstone Living is adopting a 'whole life' carbon approach.<sup>22</sup>

[Read more](#)

20. Simon Nicol, Mike Roys, David Ormandy et al, The cost of poor housing in the European Union, British Research Establishment, [bregroup.com](https://www.bregroup.com).

21. Office for National Statistics, Age of the property is the biggest single factor in energy efficiency of UK homes, January 2022, [ons.gov.uk](https://ons.gov.uk).

22. A whole life carbon approach identifies the best combined opportunities for reducing the lifetime emissions of a building, Royal Institute of Chartered Surveyors, Professional Standards and Guidance, UK Whole life carbon assessment for the built environment 1st edition, November 2017, <https://www.rics.org>.



# Finding and creating compelling climate solutions

With \$US1.1 trillion invested in the energy transition in 2022 – a new record and significant acceleration from the year before<sup>23</sup> – the move towards a lower-carbon economy is creating compelling investment opportunities for our clients.

Renewables are now the cheapest form of new electricity generation in almost every part of the world.<sup>24</sup> This has helped to deliver record levels of deployment in mature technologies like solar and wind, as well as drive accelerated levels of investment into emerging climate solutions that will enable deeper decarbonisation across all areas of the economy.<sup>25</sup>

In FY23, Macquarie’s GIG moved into our asset management business. This has enabled us to accelerate asset creation and investment opportunities to clients that span the energy transition landscape. Over this period, we scaled investment opportunities for our clients in the green energy transition, including through the launch of four specialised green asset developers. In addition, we also expanded our corporate-facing decarbonisation offerings beyond renewable power purchase agreements (PPAs), adding biomethane, e-mobility, carbon offsets, storage, behind-the-meter renewables and energy efficiency solutions.



Specialist global offshore wind business



Global utility-scale battery storage business



Electric vehicle infrastructure business



Biomethane producer and project developer

Within the reporting period, our Private Credit team’s Green Energy Debt Fund provided an additional €70 million of financing to solar PV and wind assets in France, Italy, Norway, Spain, Sweden, the UK and the US. The fund’s total assets are forecast to generate 3,901 GWh of renewable energy annually, equivalent to supplying the average consumption of more than 950,000 homes.<sup>26</sup> Meanwhile, within Public Investments, our Emerging Markets Debt team grew its fund’s alignment with the EU Taxonomy to more than 10 per cent. These investments are primarily allocated to green bonds supporting wind and solar power generation projects in Chile and India.

23. 'Global low-carbon energy technology investment surges past \$1 trillion for the first time', BloombergNEF, January 2023, <https://about.bnef.com/>.

24. 'Cost of clean energy technologies drop as expensive debt offset by cooling commodity prices', BloombergNEF, June 2023, <https://about.bnef.com/>.

25. 'Energy Transition in 2023: Into a New Era', Macquarie GEC, BloombergNEF presentation, February 2023.

26. Homes powered equivalent based on the average annual domestic consumption of each country (source: [Enerdata](#)) in which renewable electricity projects are generating, matched to the forecast average annual generation of assets in those respective countries.







📷 Ventos de São Zacarias, Brazil

### Finding and creating compelling climate solutions

## Norsk Hydro

### Supporting the low-carbon transition and industrial decarbonisation in Brazil

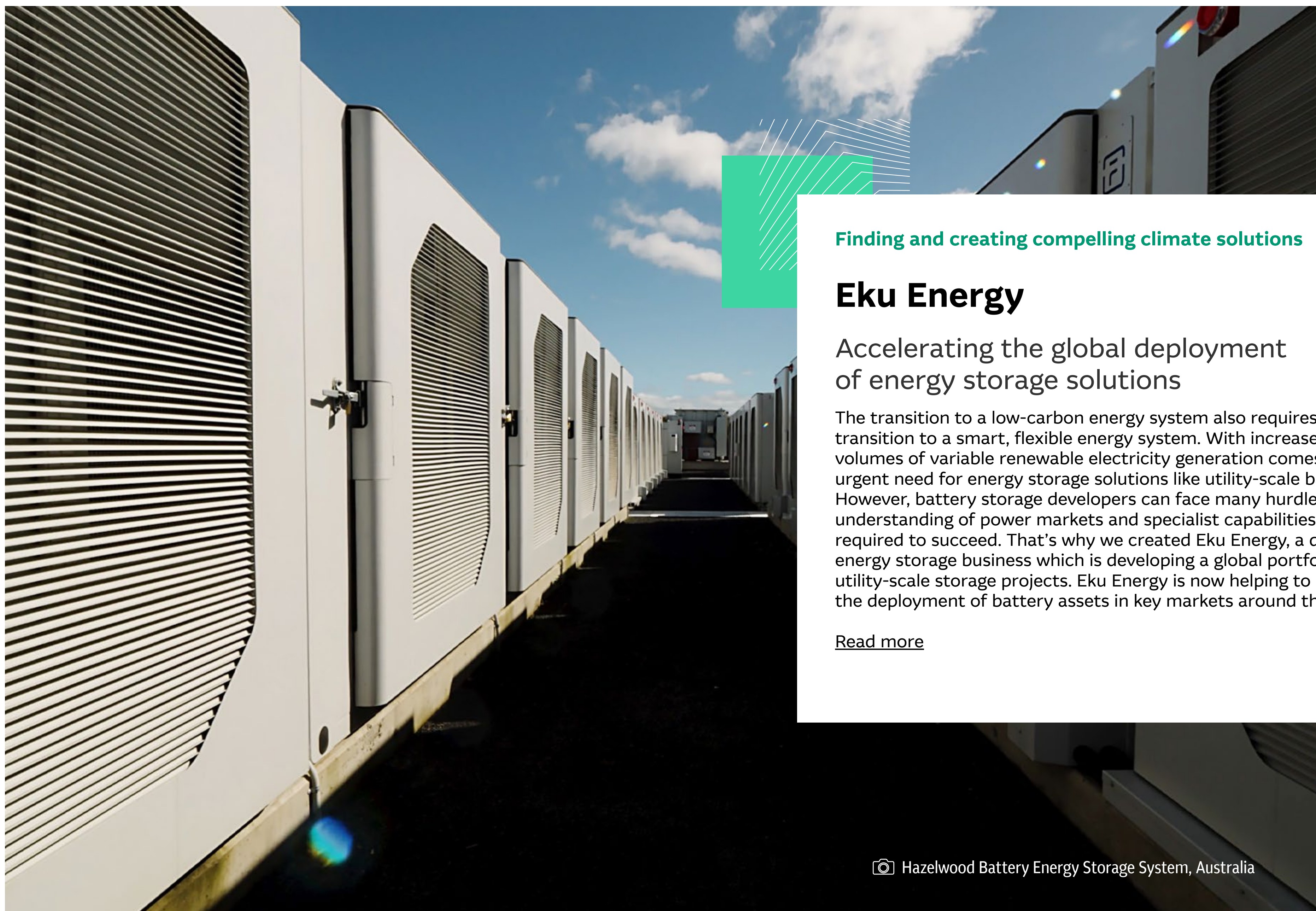
Norsk Hydro, a Norwegian aluminium company, has a target to reduce emissions by 30 per cent by 2030<sup>27</sup> and has been building out its global renewable energy business. Through our long-term partnership, we've been supporting the business to achieve its decarbonisation goals. By combining Macquarie's wind and infrastructure experience with Norsk Hydro's energy market expertise, the partnership has enabled the development of 1.3 GW of renewable energy capacity to date.<sup>28</sup> Most recently, we've partnered with the company's renewables entity, Hydro Rein, to develop, build and operate a 456 MW wind project in Brazil.

[Read more](#)

27. 'Hydro to produce first near-zero carbon aluminium in 2022', Norsk Hydro, 13 December 2021, <https://www.hydro.com>.

28. Calculation based on combination of megawatts developed or under development from joint projects: Markbygden Wind Farm (650 MW), Overturingen Wind Park (235 MW) and Ventos de São Zacarias (456 MW).





Finding and creating compelling climate solutions

## Eku Energy

### Accelerating the global deployment of energy storage solutions

The transition to a low-carbon energy system also requires the transition to a smart, flexible energy system. With increased volumes of variable renewable electricity generation comes an urgent need for energy storage solutions like utility-scale batteries. However, battery storage developers can face many hurdles. A deep understanding of power markets and specialist capabilities are required to succeed. That's why we created Eku Energy, a dedicated energy storage business which is developing a global portfolio of utility-scale storage projects. Eku Energy is now helping to accelerate the deployment of battery assets in key markets around the world.

[Read more](#)



# Reducing biodiversity loss and advancing nature-based solutions

Addressing biodiversity loss was a topic of considerable interest at COP27 and the subject of the latest meeting of the UN’s Convention on Biological Diversity (COP15).

Both events spotlighted links between the global environmental crises in climate and nature. Biodiversity loss can present a range of risks to businesses – from physical risks that can impact operations, including commodity price volatility and supply chain disruptions, to market risks, such as increasing consumer demand for products and services that are nature-positive. While the financial sector is becoming more attuned to the risks of biodiversity loss and is exploring opportunities to invest in safeguarding it, there’s still some way to go.

3,000

hectares of land registered under carbon, biodiversity and conservation projects in FY23<sup>29</sup>

During FY23, we continued to invest in nature-positive actions across our agricultural portfolio, including planting 60,000 trees in Eastern and Western Australia. With more than 4.7 million hectares of farmland, we have a variety of carbon sequestration projects under operation and development. And, as environmental markets mature, we expect the size of these carbon abatement opportunities to grow significantly. That is why we expanded our natural assets team and portfolio in FY23, including our acquisition of a majority stake in Forliance, a leading developer of nature-based climate protection projects.

During FY23, we also continued to support the development of frameworks to identify, measure and disclose nature-related risks and impacts as a founding member of the TNFD.

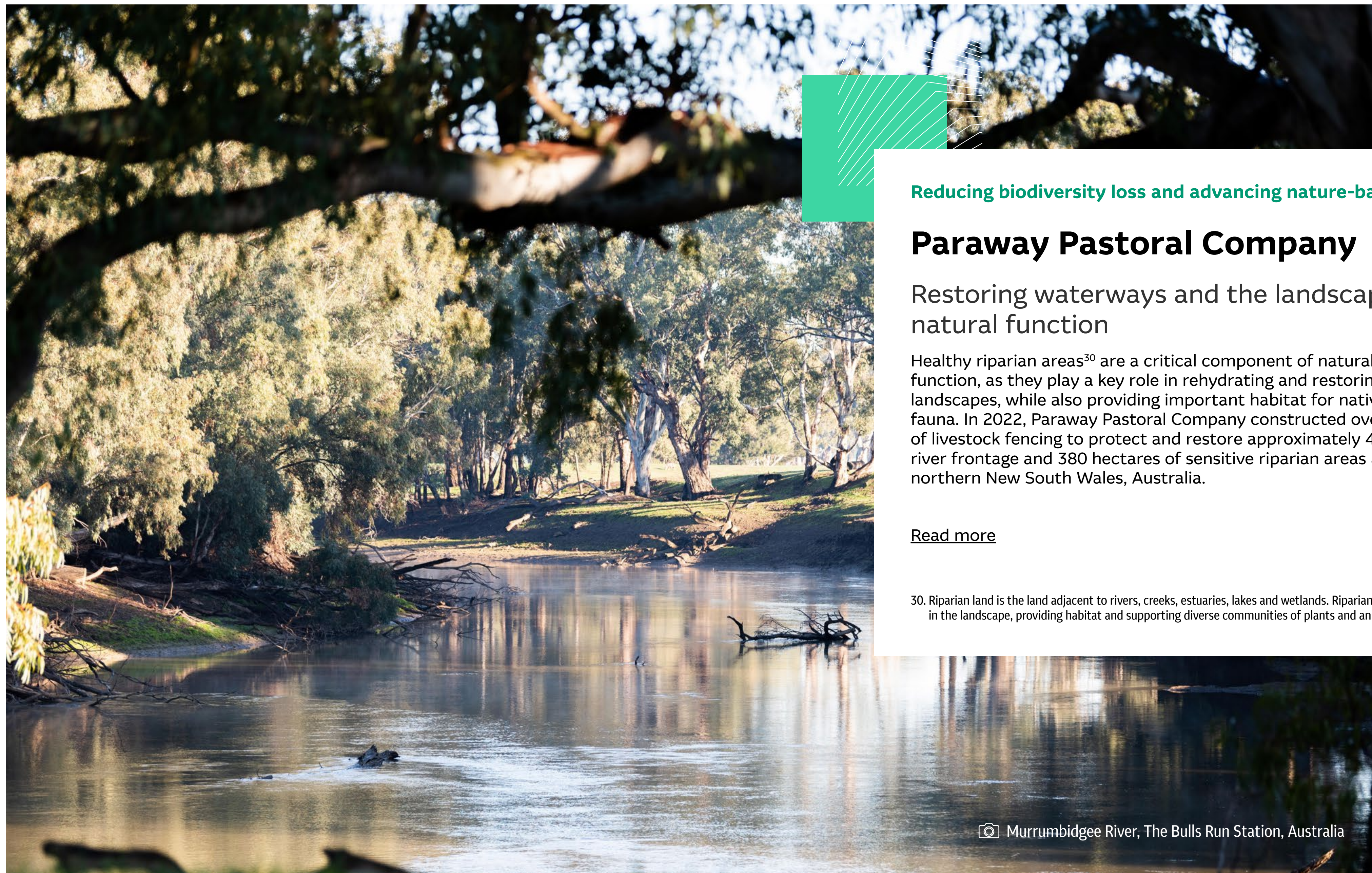
Within Public Investments, our Global Equities team began engaging with investee companies on their deforestation risk, based on analysis of their deforestation targets and reporting, certification and traceability processes, policies and risk assessments. Through this engagement, our team aims to encourage investee companies to reduce the physical risks of deforestation in their supply chains, recognising that addressing deforestation is an important, systemic factor in reaching net zero.

29. Projects include approximately 2,340 hectares of land registered under the NSW Biodiversity Conservation Trust, 600 hectares under the Clean Energy Regulator Emissions Reduction Fund, and 60 hectares with the Department of Climate Change, Energy, the Environment and Water’s Carbon + Biodiversity (C+B) Pilot.



Viridis Ag, Australia





**Reducing biodiversity loss and advancing nature-based solutions**

## Paraway Pastoral Company

Restoring waterways and the landscape's natural function

Healthy riparian areas<sup>30</sup> are a critical component of natural landscape function, as they play a key role in rehydrating and restoring natural landscapes, while also providing important habitat for native flora and fauna. In 2022, Paraway Pastoral Company constructed over 26 kilometres of livestock fencing to protect and restore approximately 48 kilometres of river frontage and 380 hectares of sensitive riparian areas across assets in northern New South Wales, Australia.

[Read more](#)

30. Riparian land is the land adjacent to rivers, creeks, estuaries, lakes and wetlands. Riparian areas play a unique role in the landscape, providing habitat and supporting diverse communities of plants and animals.

📷 Murrumbidgee River, The Bulls Run Station, Australia



# Unlocking value in the circular economy

Based on today’s consumption levels, sustaining our current growth trajectory would require 2.3 times the ecological resources of planet Earth by 2050.<sup>31</sup>

The good news is that a solution is within our reach. A circular economy will allow us to recover, repurpose and reuse materials, reducing resource consumption. It’s also a significant investment opportunity for our clients, given estimates that the circular economy could boost global economic output by \$US4.5 trillion by the end of the decade.<sup>32</sup>

2.8m

tonnes of waste treated every year<sup>33</sup>

In FY23, we further expanded our investment in the circular economy. This included acquiring two waste-to-resource businesses in the US, DTG Recycle and LRS, both with new materials recovery facilities. We also continued to invest in our existing waste businesses’ circular processes, including through Beauparc, which expanded into bioenergy during the year, producing energy from waste wood that would otherwise end up in landfill. In 2022, the biowood plant produced 13.8 GWh of low-carbon energy.

Beyond the waste sector, many of our portfolio companies are encouraging more sustainable product use and reuse. For example, in response to increasing amounts of e-waste<sup>34</sup> – fuelled by higher consumption of electronics, shorter life cycles and fewer repair options<sup>35</sup> – our telecommunications portfolio company 2degrees is helping to keep phones out of landfill in New Zealand by refurbishing and reusing them through the mobile recycling scheme RE:MOBILE.

Meanwhile, in the UK and Europe, some of our development partners in our Opportunistic real estate business are adopting innovative construction techniques and working with partners to increase the use of recycled materials. For example, sustainable office developer Edge is using prefabricated elements that require less material to produce and are simple to deconstruct and recycle at the end of a building’s life. At its London Bridge development in the UK, Edge has also incentivised its general contractor to procure recycled and sustainable materials, including steel reinforcements containing 97 per cent recycled content and using a neighbouring development site’s excess raw material to establish development foundations.

31. 'Vision 2050: The new agenda for business' (p.35), World Business Council for Sustainable Development, February 2010, <https://www.wbcsd.org/>.  
32. 'Making the \$4.5 trillion circular economy opportunity a reality', World Economic Forum, 14 November 2019, <https://www.weforum.org/>.  
33. As at 31 March 2023. Metric calculated by taking the amount of waste treated at each of MAM's infrastructure portfolio companies operating in the waste sector over the past 12 months.  
34. E-waste refers to all electrical and electronic equipment and its parts that have been discarded by its owner as waste without the intent of reuse.  
35. C.P. Baldé, E. D'Angelo, V. Luda, et al., 'Global Transboundary E-waste Flows Monitor 2022', United Nations Institute for Training and research, accessed July 2023, <https://ewastemonitor.info/>.



EDGE London Bridge,  
United Kingdom





## Unlocking value in the circular economy

### GreenWaste

#### Supporting a more circular economy in Northern California's waste market

Organic waste in landfills is one of the biggest sources of methane emissions in the United States.<sup>36</sup> In California, it is estimated that organic waste – such as food scraps, yard trimmings, paper and cardboard – makes up half of what is sent to landfill in the state.<sup>37</sup> GreenWaste, a California-based resource recovery and recycling company, has been playing its part in diverting organic waste away from landfill and processing it into reusable products and fuel sources. Supported by our investment, GreenWaste has been working to scale its waste diversion operations, helped by California's progressive regulatory environment.

[Read more](#)

36. 'Importance of Methane', United States Environmental Protection Agency, <https://www.epa.gov/>.

37. 'California's Short-Lived Climate Pollutant Reduction Strategy', CalRecycle, <https://calrecycle.ca.gov/>.



# Ensuring businesses are resilient to extreme weather

During the reporting period, the reliability of critical infrastructure continued to be tested as heatwaves and hurricanes swept through parts of the US, wildfires and drought impacted Europe, and Pakistan declared a state of emergency following catastrophic flooding.

As reported by the Intergovernmental Panel on Climate Change, extreme weather events have already resulted in catastrophic disruptions to infrastructure and the risk to energy infrastructure is increasingly significant.<sup>38</sup>

~280m

people who rely on MAM-managed essential services every day<sup>39</sup>

In FY23, we continued to invest in the adaptation and resilience of our infrastructure portfolio to improve early detection of potential risks and take proactive measures to reduce downtime of these critical assets. Many of our portfolio companies have been installing back-up power supplies to strengthen their networks, and are using sensors, drones and geospatial technologies to anticipate and manage extreme weather events.

We also recognise that the impacts of a changing climate will not be evenly distributed, with lower-income countries more at risk and with fewer resources to enable them to adapt. During FY23, through UK Climate Investments (UKCI), a joint venture with the UK government’s Department for Energy Security and Net Zero, we continued to support an affordable green housing platform in Kenya with energy efficiency and other measures to better cope with a more extreme climate. In India, we supported investments in waterless cleaning and wastewater recovery systems at various renewable energy plants to help them adapt to increasing water scarcity, especially in the most arid regions.

38. H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. et al., 'Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change', IPCC, 2022, <https://www.ipcc.ch>.  
39. As of March 2023, the number of people reached is calculated by taking an estimate of the number of users for all MAM Real Assets portfolio companies. For example, for a specific toll road, the number of vehicles per day has been multiplied by the average number of passengers in a vehicle (two). Portfolio company data is collected from MAM's asset management teams on a bi-annual basis.







Ensuring businesses are resilient to extreme weather

## TDC NET

### Investing to protect Denmark’s critical infrastructure against extreme weather

The two decades to 2019 saw the number of major floods around the world more than double and severe storms rise by 40 per cent.<sup>40</sup> These events can have a detrimental impact on digital infrastructure relied upon by communities and the economy for fast and reliable connectivity. Together, with our co-shareholders, we have supported Denmark’s largest digital infrastructure provider TDC NET<sup>41</sup> to build greater resilience in its digital network through a DKK10.5 million flood prevention and mitigation program.

[Read more](#)

40. ‘The human cost of disasters: an overview of the last 20 years’, United Nations Office for Disaster Risk Reduction, 2020, <https://www.undrr.org/>.

41. 99 per cent of Denmark is covered by TDC NET’s 5G network, ‘TDC NET H1 2023 Results’, TDC Net, <https://tdcnet.com/>.



📷 TDC NET data centre, Denmark





# 03

## Social

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📷 Xiaoyu Zhu works as a sustainability expert at Currenta and plays a vital role in several transformation projects. She is pictured examining an industrial switchbox at the Dormagen site in North Rhine-Westphalia, Germany.



# Building inclusive and affordable housing

Access to affordable housing is not only a basic human need – it can also support a range of economic benefits, including enhanced education, health and employment outcomes.

However, access is becoming increasingly challenging in many countries.<sup>42</sup> With the cost-of-living crisis weighing heavily on household budgets, we believe the need for inclusive and affordable housing will only increase. Additionally, fiscal constraints faced by many governments around the world are providing further opportunities for private investment in social infrastructure.

**300**  
specialist disability  
accommodation rooms  
financed to date  
across Australia<sup>43</sup>

We have been engaged in Australia’s specialist disability accommodation (SDA) sector since 2017, supporting the funding and construction of purpose-built residential property for people living with severe or profound disability and very high support needs.

During FY23, through our Australia-based platform My Specialised Accommodation Solutions (MSAS), we delivered 50 new SDA homes, providing more than 140 people with disabilities with high quality, customised homes. During the reporting period, we committed to finance 29 new SDA homes across eight new locations. We also developed and trialed a safeguarding mechanism and 'speak up' platform for tenants to anonymously raise an issue, or provide a suggestion, about their home or care. We expect this to play an important role in helping to safeguard tenant wellbeing.

42. 'Housing and inclusive growth', OECD iLibrary, accessed July 2023, <https://www.oecd-ilibrary.org/>.  
43. MAM's My Specialised Accommodation Solutions (MSAS) fund has financed 300 specialist disability accommodation rooms between December 2020 and March 2023.





Over the reporting period, our specialised build-to-rent residential businesses committed to increase access to sustainable, community-based housing at an affordable price. This included UK-based Goodstone Living<sup>44</sup> implementing community audits on its first two development projects, assessing the needs of the local communities to create bespoke social value strategies for each asset during development and operation. These strategies are focused on generating local jobs, supporting local businesses, and creating homes that local people can afford. In addition to providing a component of social housing, Goodstone Living will offer rental homes at mid-market price points to ensure that more than 50 per cent of its private units are affordable for at least 50 per cent of local residents. Discounted rents will also be offered to local enterprises and agencies to facilitate local job opportunities.

£1b+

investment made to date on behalf of clients in the UK local authority and social housing sector<sup>45</sup>

Across our Private Credit business, we continued to tailor long-term finance to the needs of not-for-profit builders and local government authorities during FY23.

This included providing £90 million of senior secured debt to UK-based Alliance Homes, with lending now totalling £180 million. This financing will allow Alliance Homes to grow its social and affordable housing stock in areas with significant need for housing in the west of England, with the aim of delivering 2,000 homes over 10 years. Meanwhile, we arranged a £58 million long-term financing package to enable London’s largest borough to build more than 200 affordable homes. These will provide a more permanent home to those currently homeless or in temporary accommodation.

44. MAM established Goodstone Living – a specialist real estate development and investment management business – in the UK’s purpose-built rental housing sector in 2021. See <https://www.goodstoneliving.com/>.  
45. Over £1 billion invested through financing to UK housing associations and local authorities since 2015.



Goodstone Living’s Smith’s Garden development, United Kingdom.





## Building inclusive and affordable housing

### Local

#### Integrating impact housing in Australian build-to-rent developments

Like many countries around the world, Australia is experiencing a housing crisis, with an estimated 640,000 low-income households living in housing stress.<sup>46</sup> In a joint venture with its two principals, we established Australian-based residential developer and operator Local<sup>47</sup> to create new build-to-rent housing at attainable rental levels, boost housing supply and help alleviate housing shortages. As part of its development pipeline, Local has committed to allocate at least 10 per cent of each project to impact housing<sup>48</sup> targeting three groups: key workers like nurses and teachers; women over 55 who are at risk of homelessness; and people in need of specialist disability accommodation who don't currently have suitable homes to live in.

#### Read more

46. 'Quantifying Australia's unmet housing need: A national snapshot', Community Housing Industry Association, 31 January 2023, [www.communityhousing.com.au](https://www.communityhousing.com.au).

47. MAM established Local – a specialist build-to-rent developer in Melbourne, Australia – as a joint venture in 2021. See <https://localresidential.com.au/>.

48. Local defines 'impact housing' as social housing, key worker affordable housing, specialist disability accommodation, or age-in-place dwellings.



# Safeguarding opportunities for workers and communities through the transition

The impacts of decarbonisation will differ across countries, sectors and companies.

Workers and communities that are currently dependent on emissions-intensive industries may face location-specific challenges. As we work towards delivering on our net zero commitment, we have a role to play in supporting decarbonisation pathways that consider the needs of local communities and workforces.

During FY23, we supported our infrastructure portfolio companies in carbon-intensive industries to decarbonise and engage with stakeholders to align on long-term goals. Within Public Investments, we held targeted company engagements with select investee companies on their plans to transition away from fossil fuels, including how they are considering the impacts of these changes on their workforces and communities.

\$US1.5b

funding target for blended financing platform<sup>49</sup>

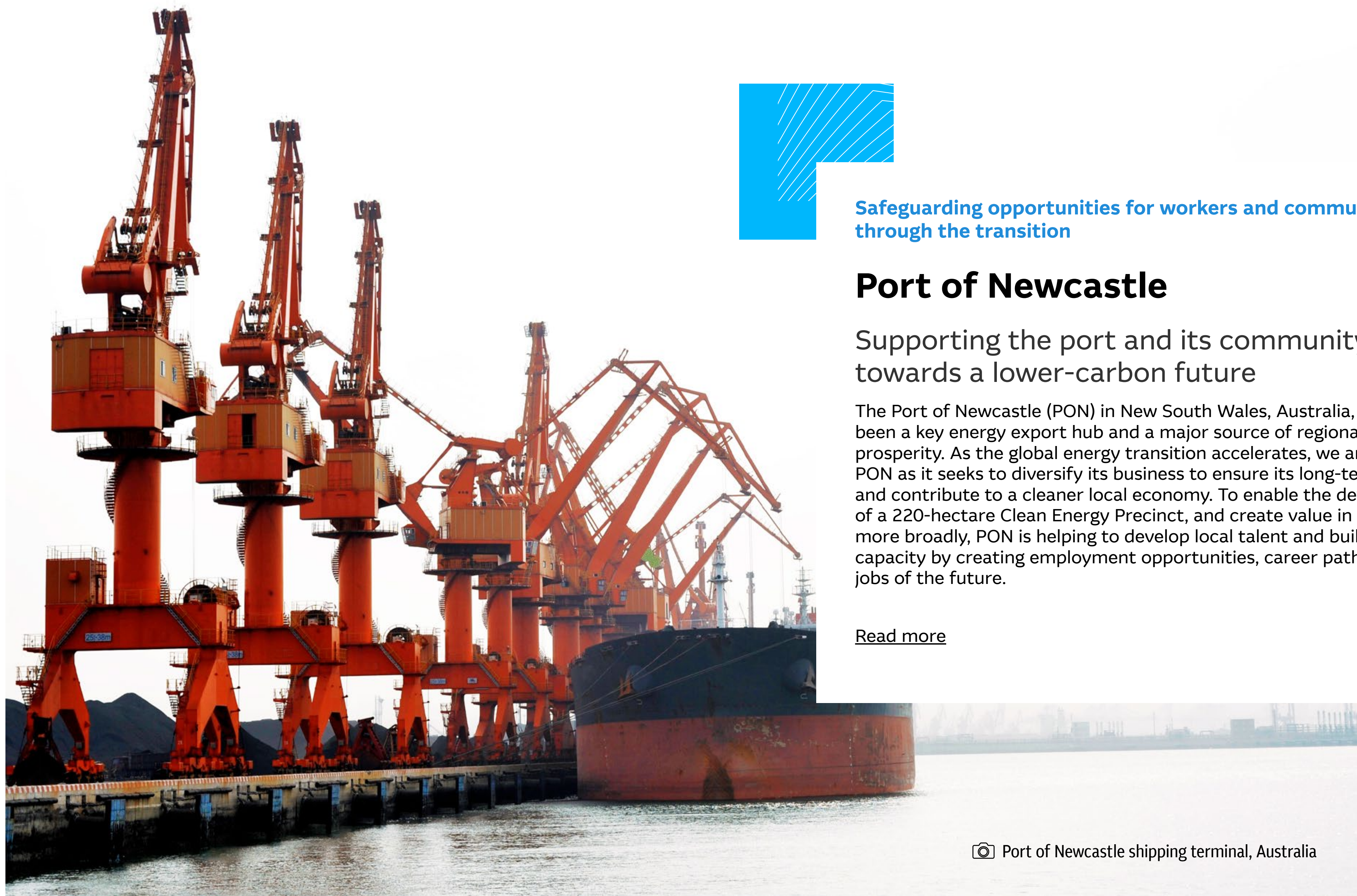
We are also focused on emerging markets where the transition is more challenging, and where rapid progress will be needed if these markets are to meet their sustainable growth ambitions within wider global climate goals. This includes leading the development of a new blended finance platform with the UN’s Green Climate Fund. It aims to deliver \$US1.5 billion of financing to the e-mobility sector over its 10-year investment term to drive the adoption of electric vehicles across India.

49. The blended financing platform is targeting \$US1.5 billion of financing over its 10-year investment term and aims to achieve a lifetime reduction of ~9.5 megatonnes CO<sub>2</sub> equivalent of GHG emissions.



Currenta, Germany





**Safeguarding opportunities for workers and communities through the transition**

## Port of Newcastle

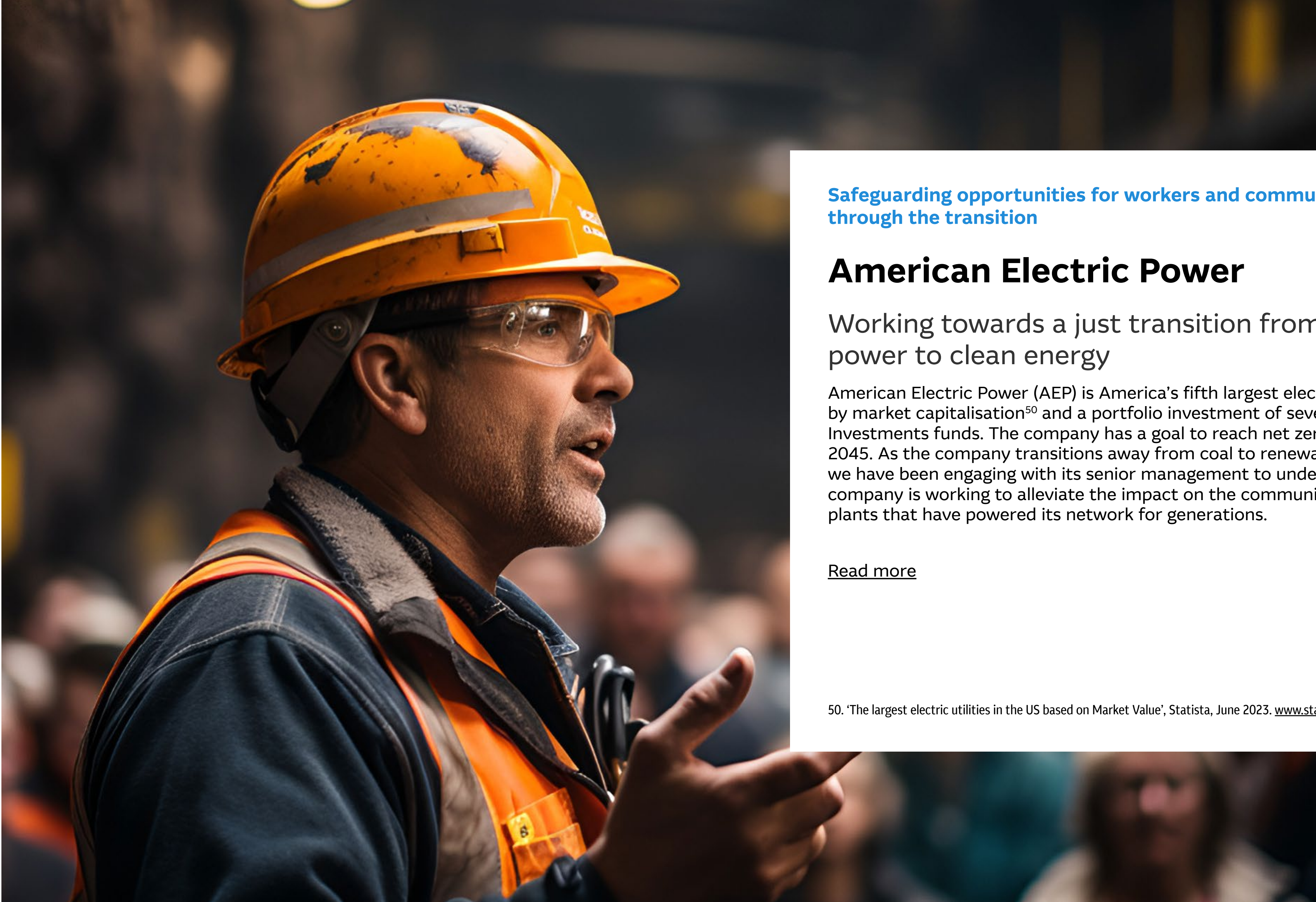
Supporting the port and its community towards a lower-carbon future

The Port of Newcastle (PON) in New South Wales, Australia, has long been a key energy export hub and a major source of regional economic prosperity. As the global energy transition accelerates, we are supporting PON as it seeks to diversify its business to ensure its long-term viability and contribute to a cleaner local economy. To enable the development of a 220-hectare Clean Energy Precinct, and create value in the region more broadly, PON is helping to develop local talent and building regional capacity by creating employment opportunities, career pathways and jobs of the future.

[Read more](#)

📷 Port of Newcastle shipping terminal, Australia





Safeguarding opportunities for workers and communities through the transition

## American Electric Power

Working towards a just transition from coal-fired power to clean energy

American Electric Power (AEP) is America’s fifth largest electric power company by market capitalisation<sup>50</sup> and a portfolio investment of several of our Public Investments funds. The company has a goal to reach net zero carbon emissions by 2045. As the company transitions away from coal to renewable energy generation, we have been engaging with its senior management to understand how the company is working to alleviate the impact on the communities built around the plants that have powered its network for generations.

[Read more](#)

50. ‘The largest electric utilities in the US based on Market Value’, Statista, June 2023. [www.statista.com](https://www.statista.com).



# Delivering community impact through partnerships

Many people around the world face systemic barriers to employment.

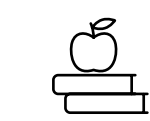
In response, most of the Macquarie Group Foundation’s grant funding – provided to over 30 non-profit partners globally – focuses on building effective pathways to employment. During FY23, we partnered with the Macquarie Group Foundation to help address barriers to employment in the UK and create a pipeline of skilled and motivated candidates to meet the growing demand for green jobs. This shared-value initiative, launched in conjunction with Generation UK, has already yielded positive results in its first year and is now expanding to France.

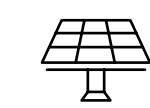
34%


MAM employees who contributed their time, money or skills in FY23<sup>51</sup> (+4% YoY)

Our people also continued to offer their time, money and skills to the causes they feel passionate about. Across Macquarie Group, our staff raised and donated \$A14.6 million during FY23, a \$A2 million increase on the previous financial year. The Foundation doubled the impact of these donations through its matching program. Our people also gave their time, either on their own or as part of a team, through hands-on volunteering or by providing professional expertise. More than \$A6.6 million<sup>52</sup> in value was contributed through skilled volunteering hours alone across Macquarie Group.

Through UKCI, we are helping developing countries respond to the challenges and opportunities presented by climate change. During FY23, the UKCI team visited some of its community projects in South Africa, Kenya and India, where the impact of the fund’s investment extends beyond promoting cleaner, greener growth in these developing countries. During the reporting period:

- 

Revego reinvested R94.2 million<sup>53</sup> (\$A7.9 million) in local sub-Saharan Africa communities, including through a tertiary scholarship scheme and an enterprise development program creating skilled jobs in the renewable energy sector.
- 

Cleanmax achieved water neutrality<sup>54</sup> at its Indian solar farm in Dindigu and its wind/solar hybrid plant in Jagalaru, following investment in groundwater recharge infrastructure and water-saving solar panel cleaning technology. Cleanmax is now working to roll out similar measures across its entire utility-scale portfolio.
- 

India Sun started using solar power to purify 180,000 litres of water annually, at zero cost to the local community of Bhadia, through the process of reverse osmosis.

51. In the 12 months to 31 March 2023. Calculated using transaction reports provided by Benevity, Inc. (provider of Macquarie’s giving platform), as a percentage of permanent MAM staff.

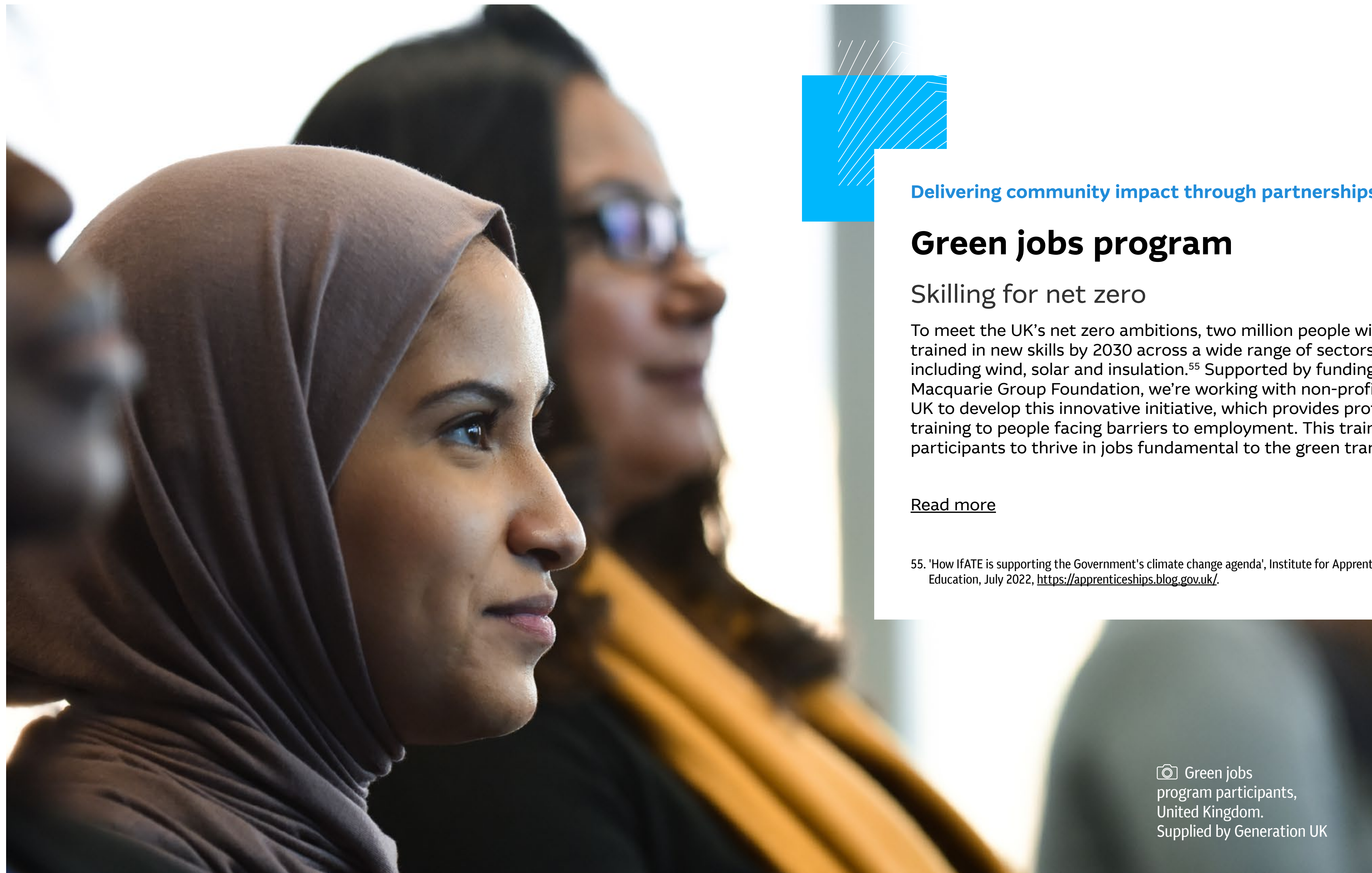
52. In the 12 months to 31 March 2023. Figure calculated using Taproot Foundation’s average hourly value of pro bono service (\$US195 per hour converted to \$A290.36 as per the exchange rate on 31 March 2023) multiplied by Macquarie employees’ skilled volunteering hours (22,874 hours).

53. Revego African Energy Limited, <https://revegoenergy.com/>.

54. Water neutrality is the process whereby a company’s water footprint is reduced as far as practicably possible, with any remaining consumption offset. Water neutrality was independently assured by LRQA. See CleanMax Annual ESG Report 2022-23 for details: <https://www.cleanmax.com/>.







Delivering community impact through partnerships

## Green jobs program

### Skilling for net zero

To meet the UK's net zero ambitions, two million people will need to be trained in new skills by 2030 across a wide range of sectors and professions, including wind, solar and insulation.<sup>55</sup> Supported by funding from the Macquarie Group Foundation, we're working with non-profit Generation UK to develop this innovative initiative, which provides profession-specific training to people facing barriers to employment. This training will enable participants to thrive in jobs fundamental to the green transition.

[Read more](#)

55. 'How IfATE is supporting the Government's climate change agenda', Institute for Apprenticeships and Technical Education, July 2022, <https://apprenticeships.blog.gov.uk/>.

📷 Green jobs  
program participants,  
United Kingdom.  
Supplied by Generation UK



# Fostering more diverse, equitable and inclusive cultures

We believe the diverse experiences, skills and views of our people allow us to make better decisions, deliver a broad range of services to clients around the world, and gain a deeper understanding of the communities in which we operate.

Following the appointment of MAM’s Global Head of DEI in FY23, we launched MAM’s updated DEI strategy. We have taken steps to improve the quality of our internal DEI data, including launching a self-identification campaign, in which over 85 per cent of our employees participated, and expanding our demographic data to reflect disabilities, race and sexual orientation. We also established and reviewed our DEI baseline metrics to understand where we can improve at the business and regional levels.

42.6%

Representation of women across MAM’s business (+1.3% YoY)

50/50

Proportion of women and men promoted in the FY23 promotion cycle

50%

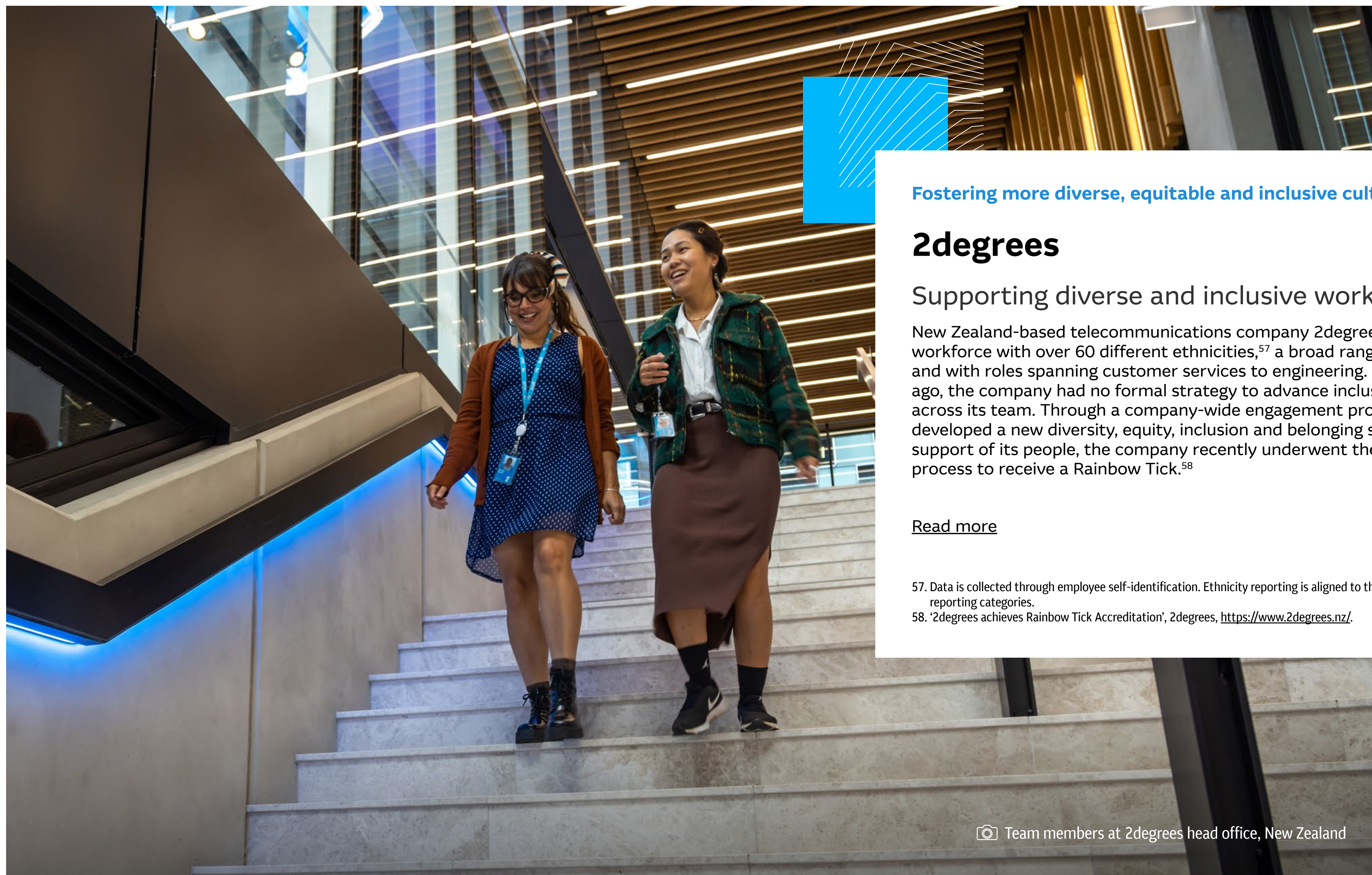
Executive Director promotions from an underrepresented group in FY23<sup>56</sup>

In our Private Markets business, we continued to embed DEI considerations into our due diligence processes and encouraged our assets to implement board-approved DEI strategies. This included upskilling our non-executive and HR directors on the importance of using data in DEI strategies, and creating tools such as a DEI policy and Self-ID playbook to help our portfolio companies adopt DEI best practices.

56. MAM currently defines an underrepresented group as anyone identifying as a woman, a person with disability, First Nation/Indigenous, Black/African American, Latinx, Asian, and/or a member of the LGBTQ+ community.







Fostering more diverse, equitable and inclusive cultures

## 2degrees

### Supporting diverse and inclusive workplaces

New Zealand-based telecommunications company 2degrees has a diverse workforce with over 60 different ethnicities,<sup>57</sup> a broad range of generations, and with roles spanning customer services to engineering. Yet, as of two years ago, the company had no formal strategy to advance inclusivity and equity across its team. Through a company-wide engagement program, 2degrees developed a new diversity, equity, inclusion and belonging strategy. With the support of its people, the company recently underwent the accreditation process to receive a Rainbow Tick.<sup>58</sup>

[Read more](#)

57. Data is collected through employee self-identification. Ethnicity reporting is aligned to the [Stats New Zealand](#) ethnicity reporting categories.

58. '2degrees achieves Rainbow Tick Accreditation', 2degrees, <https://www.2degrees.nz/>.

📷 Team members at 2degrees head office, New Zealand



# Ensuring good businesses are safe businesses

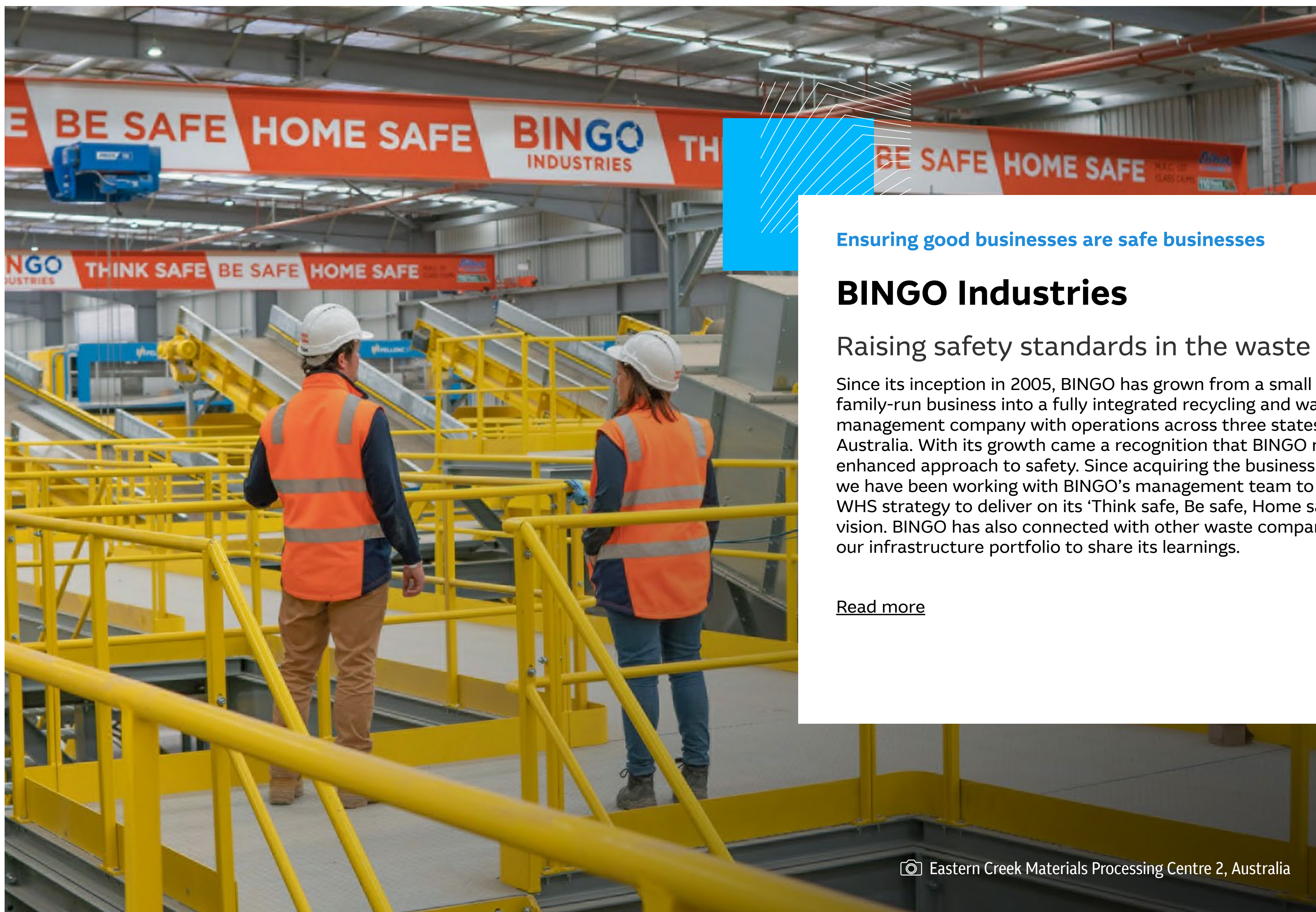
We believe a safe workplace is also a productive workplace, with a more engaged workforce and a better relationship with the broader community.

During FY23, we prioritised training, industry benchmarking and enhancing safety processes to improve workplace health and safety (WHS) across our infrastructure portfolio companies. This included hosting 17 masterclasses with almost 160 of our Real Assets nominee directors, asset managers and operating partners. Delivered in partnership with an external advisor, the training was designed to simulate a portfolio company board’s WHS committee meeting, where our nominee directors engaged with the CEO and chief safety officer of a fictional business on WHS strategy, critical risk management, incident investigations and WHS performance.

Over the reporting period, we also reviewed and enhanced our approach to managing assets with process safety risk, including bulk liquid terminals, industrial gas facilities and gas distribution and transmission networks. This included piloting a high-impact, low-probability (HILP) review at one of our portfolio companies in South Korea. The systemic review was aimed at better understanding and gaining confidence in the processes used to identify and manage high-impact, low-probability events. Following the pilot’s success, we will be rolling out the HILP methodology to other assets with process safety risk in the coming years.







Ensuring good businesses are safe businesses

## BINGO Industries

### Raising safety standards in the waste sector

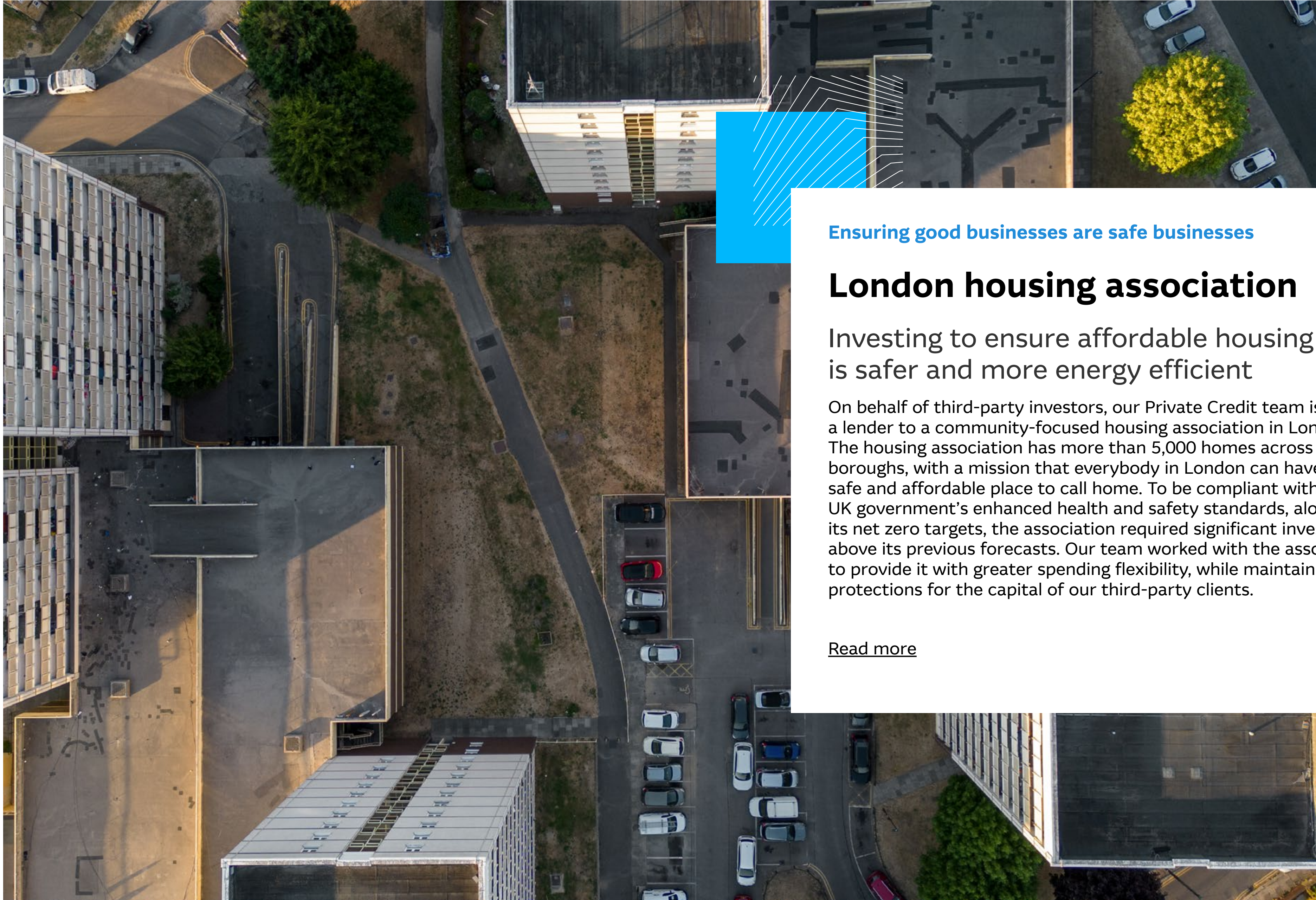
Since its inception in 2005, BINGO has grown from a small family-run business into a fully integrated recycling and waste management company with operations across three states in Australia. With its growth came a recognition that BINGO needed an enhanced approach to safety. Since acquiring the business in 2021, we have been working with BINGO's management team to develop a WHS strategy to deliver on its 'Think safe, Be safe, Home safe' safety vision. BINGO has also connected with other waste companies within our infrastructure portfolio to share its learnings.

[Read more](#)



# Case study

## Social



Ensuring good businesses are safe businesses

## London housing association

Investing to ensure affordable housing is safer and more energy efficient

On behalf of third-party investors, our Private Credit team is a lender to a community-focused housing association in London. The housing association has more than 5,000 homes across nine boroughs, with a mission that everybody in London can have a safe and affordable place to call home. To be compliant with the UK government's enhanced health and safety standards, along with its net zero targets, the association required significant investment above its previous forecasts. Our team worked with the association to provide it with greater spending flexibility, while maintaining protections for the capital of our third-party clients.

[Read more](#)



## Protecting human rights and addressing modern slavery risk

There are an estimated 50 million victims of modern slavery around the world – that’s nearly one in every 150 people.<sup>59</sup>

This isn’t just a serious ethical issue: companies which find modern slavery in their supply chains can face significant legal, regulatory, operational and reputational risks. That’s why it is more important than ever for companies to implement processes to identify, manage, prevent and, where necessary, remediate adverse human rights impacts, as well as provide robust disclosures.

During FY23, we introduced a risk-based approach to implementing Macquarie’s good practice principles<sup>60</sup> across our infrastructure, green investments and agriculture portfolios. This included using a third-party risk rating tool, supported by qualitative analysis, to identify portfolio companies that are exposed to elevated human rights risks arising from their industry or jurisdictions, and assess how their risk management processes align with our good practice principles. We also trained our nominee directors sitting on these portfolio company boards to work with them to improve their human rights risk management and to report annually on their progress towards aligning with Macquarie’s good practice principles.

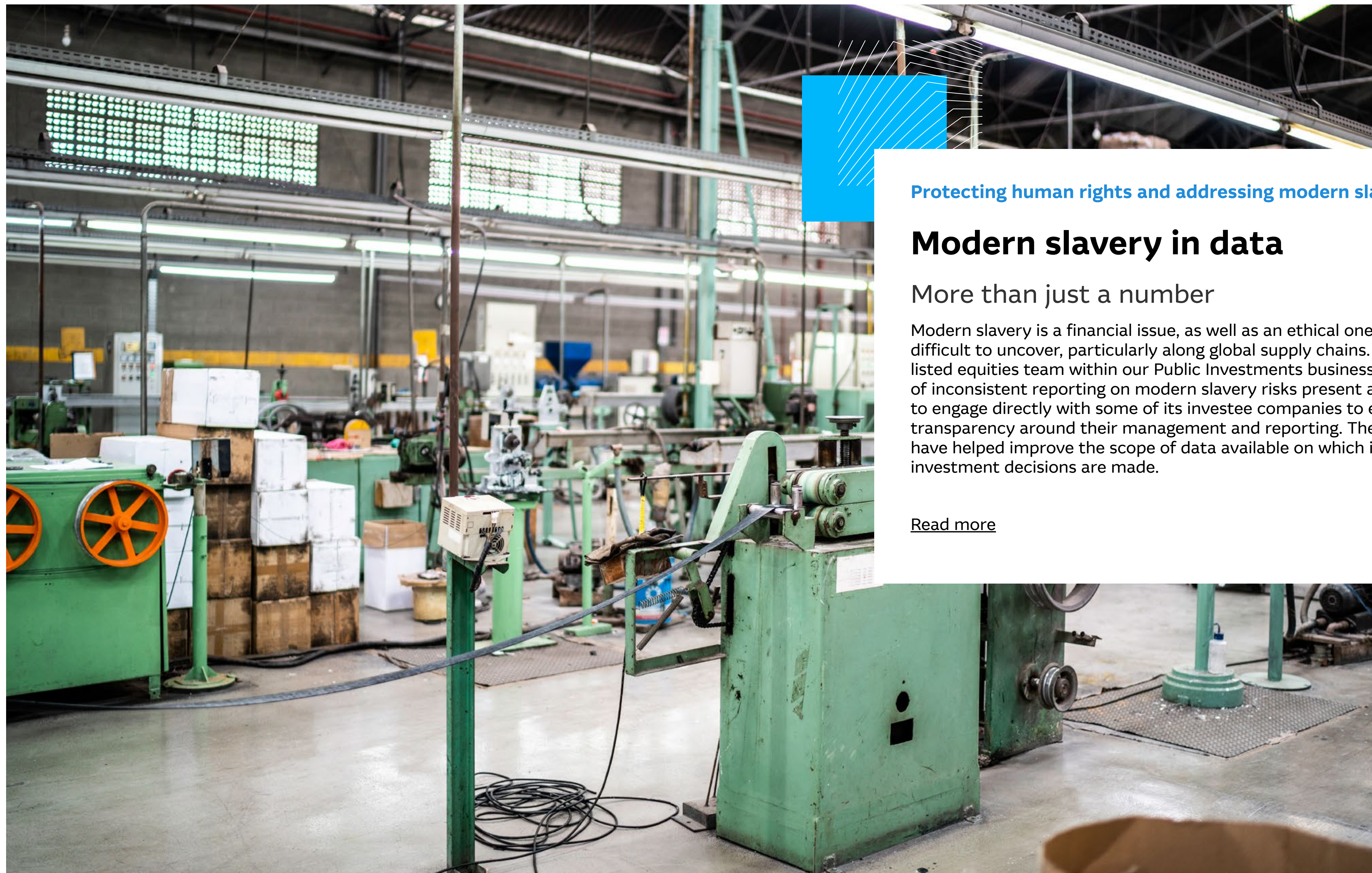
Within Public Investments, our SDG Oversight Committee added two specific human rights-related datapoints to our SDG database during FY23. These datapoints evaluate companies on their efforts to assess forced labour risks in their supply chains and their overall human rights disclosures. Prior to recommending these datapoints for inclusion, we engaged with the organisations responsible for the assessments to gain an understanding of their processes and methods for evaluating companies.

59. 'Global Estimates of Modern Slavery Forced Labour and Forced Marriage', International Labour Organization, Walk Free, and International Organization for Migration, September 2022, p.10, <https://www.ilo.org/>.

60. In 2021, Macquarie Group developed investee company human rights good practice principles and guidance to support Macquarie representatives who sit on the boards of investee companies (nominee directors) to oversee and manage human rights risks. They were developed with reference to international good practice guidance, with a focus on the UN Guiding Principles on Business and Human Rights.







Protecting human rights and addressing modern slavery risk

## Modern slavery in data

### More than just a number

Modern slavery is a financial issue, as well as an ethical one. But it can be difficult to uncover, particularly along global supply chains. For a boutique listed equities team within our Public Investments business, the challenges of inconsistent reporting on modern slavery risks present an opportunity to engage directly with some of its investee companies to encourage greater transparency around their management and reporting. The team's findings have helped improve the scope of data available on which its quantitative investment decisions are made.

[Read more](#)



# 04

## Governance

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📷 EDGE Suedkreuz Berlin, the most sustainable office building in Germany, according to the German Sustainable Building Council's DGNB system.<sup>61</sup>

61. Christine Schröder, 'Truly outstanding: the Edge Suedkreuz office complex in Berlin', 14 September 2022, <https://blog.dgnb.de/>.



# Promoting sound corporate governance through stewardship

We believe there’s a strong correlation between sound governance and long-term value creation.

In our experience, companies that effectively manage material risks and opportunities in their business models – including those related to sustainability – are better positioned to deliver durable, long-term financial performance.

In FY23, we further embedded sustainability into our **Public Investments** business by:



Strengthening our ESG governance through the creation of a **Global ESG Oversight Committee** to oversee our ESG-related activities.



Enhancing our disclosure on how two funds consider ESG issues, including **being among the first to utilise** the CFA Institute’s Global ESG Disclosure Standards for Investment Products.<sup>62</sup>



**Doubling our recorded company ESG engagements** to promote better understanding across our investment teams of issues raised with companies and opportunities to reduce business risk.<sup>63</sup>



Launching a publicly-available **proxy voting dashboard**, providing detailed statistics on our proxy voting activities and policies.<sup>64</sup>

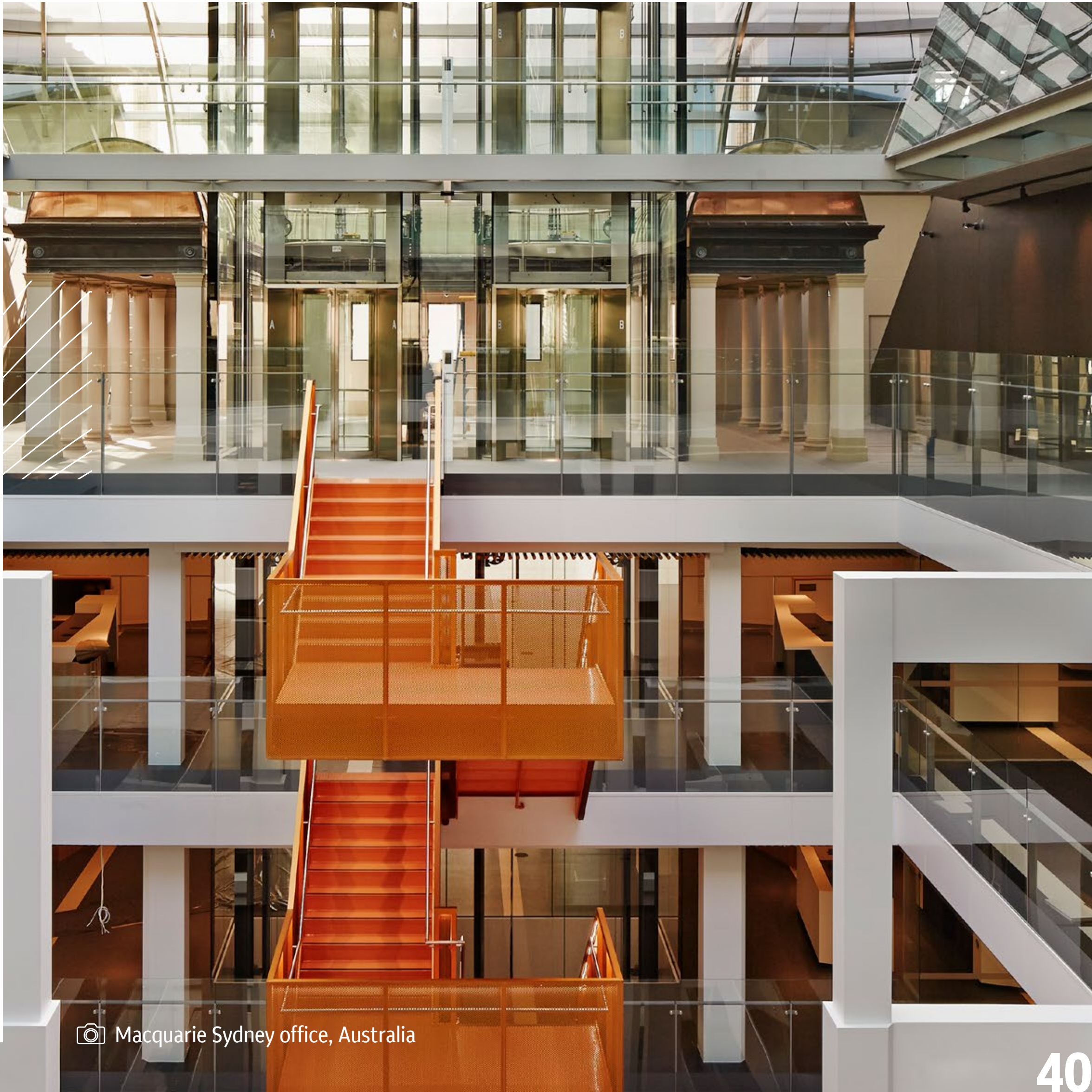


**Voting on 86,682 unique proposals**



Growing our SDG scoring system to hold more than **150 data points for ~10,000 companies**

62. MAM Public Investments’ Climate Solutions Strategy and Sustainable Equity Income funds disclose under the CFA Institute’s standards.  
63. Public Investments recorded over 650 company ESG engagements with 480 different companies in more than 25 markets, covering more than 15 ESG-focused themes during FY23.  
64. [MAM Proxy Voting Dashboard](#).



Macquarie Sydney office, Australia

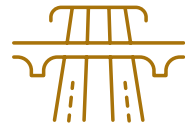


# Promoting sound corporate governance through stewardship

Within our **Private Markets** business, we implemented initiatives to strengthen our sustainability governance and stewardship, including:



Integrating the **Green Analytics team** into our asset management business to bolster our green reporting capabilities.



Increasing our participation in the 2023 GRESB Infrastructure Assessment with 25 infrastructure funds and 112 assets, alongside the GRESB Real Estate Assessment with eight real estate funds and nine Private Credit funds.



Establishing a **Private Credit ESG Working Group** to implement and monitor our ESG principles, policies and procedures within our Private Credit business.



Establishing a new **Sustainability Data and Reporting team**, supported by an ESG data platform, to centralise and enhance our governance and insights.



Disclosing more Real Assets portfolio company data in our client reporting, including metrics for **GHG emissions, net zero progress and DEI**.

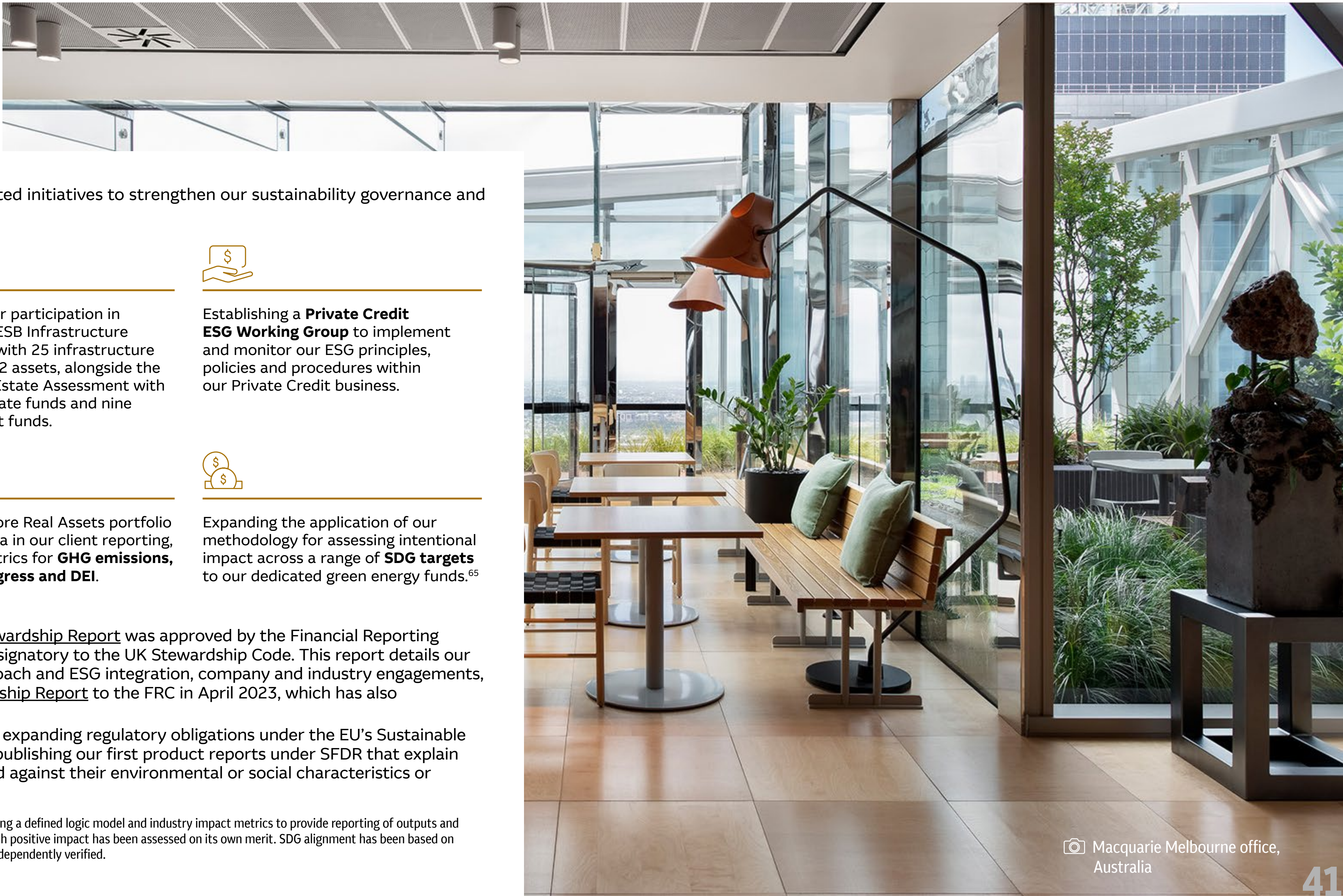


Expanding the application of our methodology for assessing intentional impact across a range of **SDG targets** to our dedicated green energy funds.<sup>65</sup>

During the reporting period, our first MAM-wide Stewardship Report was approved by the Financial Reporting Council (FRC) as part of our commitment to being a signatory to the UK Stewardship Code. This report details our governance processes and policies, investment approach and ESG integration, company and industry engagements, and proxy voting. We submitted our second Stewardship Report to the FRC in April 2023, which has also been approved.

We also implemented various processes to meet our expanding regulatory obligations under the EU's Sustainable Finance Disclosure Regulation (SFDR). This included publishing our first product reports under SFDR that explain how our Article 8 and Article 9 funds have performed against their environmental or social characteristics or sustainable investment objectives.

65. MAM has developed a methodology for reporting against the UN's SDGs using a defined logic model and industry impact metrics to provide reporting of outputs and outcomes considered to benefit and/or contribute to these global goals. Each positive impact has been assessed on its own merit. SDG alignment has been based on information that is self-reported by MAM portfolio companies and is not independently verified.





# Protecting cyber security and data privacy

In our increasingly connected and data-driven world, cyber and data security risk has risen significantly. It is inherent in the use of the technology platforms that support our business activities.

During FY23, we enhanced our cyber security and IT capabilities within our Real Assets business by:



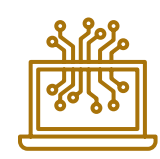
Appointing two senior technology executives as Cyber and IT Leads within our newly formed Portfolio Performance Group



Commencing cyber readiness exercises with our portfolio companies and creating a forum to share key learnings in cyber incident response



Strengthening our cyber security due diligence processes and piloting an assurance framework to assess and mitigate cyber risks



Providing our portfolio companies with access to expert networks and up-to-date threat information through our partnerships with industry and government

During FY24, we are rolling out our updated cyber risk assessment framework across all portfolio companies and providing cyber security training to their board directors.





# Partnerships and advocacy

During FY23, major global events – including COP27 in Sharm El-Sheikh, COP15 in Montreal, and the World Economic Forum in Davos – highlighted a significant gap between various countries’ climate targets and the reductions needed to meet the goals of the Paris Agreement.

We joined industry leaders at these events and spoke on a number of panels, including the Sustainable Markets Initiative (SMI) roundtable on Blended Finance and Scaling Natural Capital Investments at COP27.

12,000+

Unique viewers watched the GEC London replay online<sup>66</sup>

Over the reporting period, we hosted more than 240 leaders in industry, finance and policy at Macquarie’s Green Energy Conference (GEC) in London in February 2023 – the first in a series of events also hosted in New York and Sydney. During the event, leaders debated key trends in the global transition to net zero and the importance of partnerships in finding solutions to complex decarbonisation challenges.

## MAM affiliations

 Member since 2010	 Signatory since 2015	 Signatory since 2021	 Member since 2020	 Supporter since 2020	 Founding member 2021
 Member since 2017	 Signatory since 2020	 Ally since 2021	 Member since 2016	 Member since 2020	 Signatory since 2021
 Signatory since 2021	 Member since 2021	 Member since 2022	 Member since 2009	 Member since 2023	

66. As recorded on LinkedIn - 12,264 unique online viewers as of 17 August 2023.



Macquarie Green Energy Conference 2023, United Kingdom

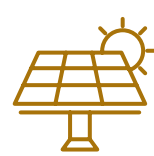


# Partnerships and advocacy

During FY23, we also worked to advance our understanding of ESG issues and opportunities, and contribute to the development of industry best practice, by:



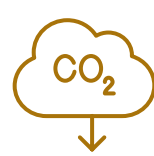
Sharing our expertise in managing large-scale agriculture and natural asset portfolios towards the development of the **TNFD framework**



Supporting the development of the FAST-Infra Sustainable Infrastructure Label as an active member of the **SMI's Financial Services Task Force**



Contributing to solutions that aim to scale up private investment to achieve the UN's SDGs through the **Global Investors for Sustainable Development Alliance**



Helping to accelerate various climate solutions through our involvement with the **Climate Finance Leadership Initiative** country pilots in India and Colombia



Supporting efforts to mobilise public and private investment through the **Just Energy Transition Partnerships** in Indonesia and Vietnam



Co-leading workstreams on ESG data harmonisation and emerging markets green energy capital mobilisation in the **One Planet Sovereign Wealth Fund Network**

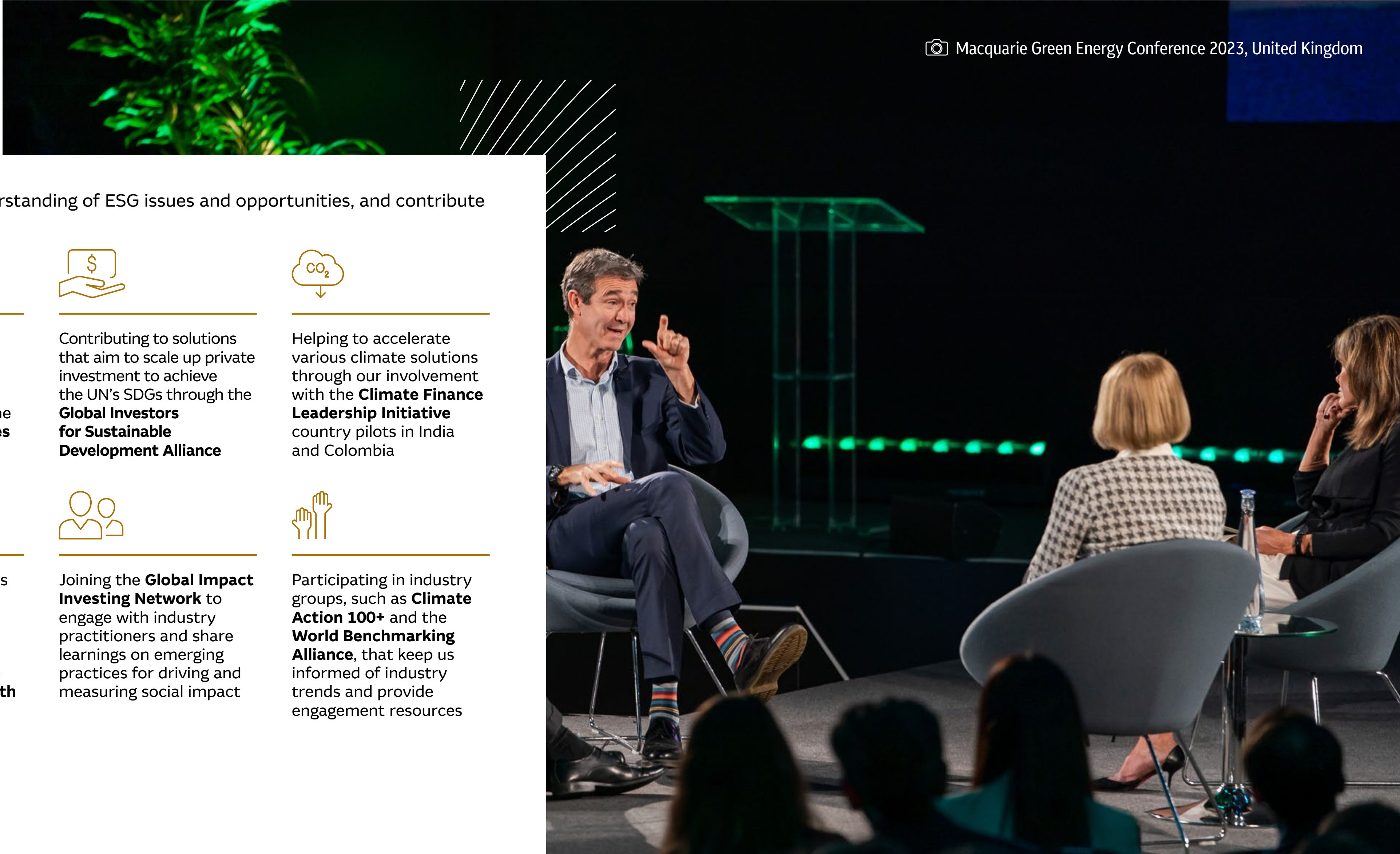


Joining the **Global Impact Investing Network** to engage with industry practitioners and share learnings on emerging practices for driving and measuring social impact



Participating in industry groups, such as **Climate Action 100+** and the **World Benchmarking Alliance**, that keep us informed of industry trends and provide engagement resources

Macquarie Green Energy Conference 2023, United Kingdom







### Partnerships and advocacy

## Sustainable Markets Initiative

### Scaling sustainable infrastructure investment with the FAST-Infra label

The world needs to invest an additional \$US18 trillion in infrastructure above current projections by 2040, including \$US3 trillion to meet the UN's SDGs.<sup>67</sup> However, investors currently lack a common framework for evaluating the sustainability of infrastructure projects. This is the challenge a new initiative, developed by FAST-Infra and co-chaired by Macquarie, aims to address. By creating a globally applicable sustainable infrastructure label, the initiative aims to give investors confidence and visibility over a project's contribution to existing taxonomies and standards.

[Read more](#)

67. 'Global Infrastructure Outlook', Global Infrastructure Hub, <https://outlook.gihub.org/>.

📷 Bangui Bay Wind Farm, Energy Development Corporation, Philippines



# Explore our earlier sustainability reports

[MAM 2021 Sustainability Report](#)

[MAM Private Markets 2020 Sustainability Report](#)

[MAM Infrastructure 2019 Sustainability Report](#)

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