FCLTGLOBAL
FOCUSING CAPITAL
ON THE LONG TERM

2024 BLUE BOOK

A BLUEPRINT FOR THE LONG TERM

A Blueprint for the Long Term

Since our founding, FCLTGlobal and its members have steadfastly believed in the power of long-term thinking to forge a future that benefits both present and future generations. The journey from concept to realization has been both challenging and rewarding, marked by a steadfast commitment to moving beyond theoretical discourse towards tangible, actionable strategies. Our members, through their dedication and innovative approaches, drive the movement towards a more sustainable form of capitalism – one that values long-term gains over fleeting successes.

Prioritizing the future is not just an option but a necessity. The examples set forth by our members, and the broader community, underscore a universal truth – that focusing capital on the long term is imperative for achieving a sustainable and prosperous economy that works for all who rely on it.

The second volume of the FCLTGlobal Blue Book is more than just a publication; it is a blueprint for long-term decision-making in today's complicated business and investment landscape. Through the combined efforts of our members, we present a curated collection of real-world examples that demonstrate how more capital can be focused on the long term. Each story, each strategy within these pages, serves as a guide for companies and investors towards practices that not only yield immediate benefits but also secure a prosperous future for all stakeholders involved.

It is our fervent hope that this book will serve not only as a source of inspiration but also as a call to action. We invite readers to explore, to reflect, and to take on models of long-term decision-making that resonate from the examples featured herein.

This edition of the FCLTGlobal Blue Book is the latest of the many milestones on our shared journey towards a future where long-term thinking is not the exception, but the norm. Our gratitude extends to everyone who has contributed to this project; your insights, efforts, and visions have been instrumental in bringing this work to life.

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AON

Gregory C. Case, Chief Executive Officer

RESILIENT HUMAN CAPITAL

At Aon, we exist to shape decisions for the better – to protect and enrich the lives of people around the world. As our world becomes more volatile – economically, socially, and geopolitically – organizations and individuals are under constant pressure to make complex decisions, sometimes without the necessary facts, almost always at speed, and with a new degree of meaning and purpose.

According to our recently-released Global Risk Management Survey, the inability to attract and retain talent now ranks as a top risk for leaders, highlighting the increasingly critical role of business leaders, including people (HR) leaders, in driving interconnected and interdependent decisions around what enables people to thrive. As a result, organizations are rapidly reevaluating their workforce plans in a more holistic way by introducing new operating models, improving location strategies, redesigning rewards and benefits programs, and exploring how new technologies like artificial intelligence (AI) will influence future workforce requirements – all with an increasingly personalized and inclusive lens.

A NEW ERA OF THRIVING

Wellbeing is top concern for employees and employers alike. Aon's Global Wellbeing Survey identified that 50 percent of global employees are resilient, which demonstrates significant untapped potential in talent productivity and performance. Employees continue to express a strong desire for improved work-life balance, greater inclusivity, and mission-driven work. People are also living longer, meaning both their careers and retirement years are getting longer and retaining tenured employees presents new considerations.

We are also realizing that addressing these challenges with traditional approaches is no longer enough:

1. Managing programs and budgets alone is not moving the dial – business leaders must use data, advanced analytics, and technology to optimize sustained workforce impact.
2. New compliance regimes like pay transparency require urgent attention and create exciting opportunities for transformational change.
3. The links between wellbeing and sustainable high performance is no longer theoretical with the emergence of new ways to measure and report on human sustainability are emerging.

OPPORTUNITIES TO ADDRESS HUMAN CAPITAL

Our research demonstrates that organizations are more interested in wellbeing than ever before, however part of that interest stems from the fact that access to health care remains a challenge and costs are at an all-time high. For employees to be engaged, productive and successful, they need to be well. Despite evidence that improving employee wellbeing increases company performance by between 11 and 55 percent, many organizations are still uncertain how to capitalize on the opportunity.

At Aon, we have developed a data-driven approach to wellbeing that integrates our Human Capital – health, wealth, and talent – expertise in a simple way that focuses on connected value for our clients. This includes a spectrum of solutions that meets clients where they are:

- **Health solutions**: We provide world class support to employees in times of need. By using data-driven insights we can identify specific population health risks and offer targeted and inclusive solutions for clients, including the connection to appropriate and affordable care. This approach can reduce costs by up to 24 percent and increase colleague health by 10 percent or more.

- **Wellbeing solutions**: Through employee listening, digital assessments, data-led strategic insights, and scalable learning solutions, we educate colleagues, managers, and leaders on how to empower themselves and their teams to thrive in today's world. Collectively, this approach drives wellbeing, inclusion, and sustainable performance and can improve individual and team wellbeing by 20 percent.
- **Human Sustainability solutions**: We reimagine organizations with a human lens by integrating our health care and wellbeing data into core talent strategies. We visualize this via our Human Sustainability Index (HSI) dashboard, which links organizational HSI data with benefit, diversity, engagement, ways of working, and performance data to drive new insight and holistic strategies for talent and sustainability outcomes. These solutions are leading edge and enable organizations to identify optimal factors that drive sustainable performance, such as flexible working arrangements versus compensation.

AON'S INVESTMENT IN HUMAN SUSTAINABILITY

Aon is committed to advancing our approach to wellbeing. Since 2020, Aon has invested in innovative ways to accelerate this mission with its own colleagues and clients, including developing a Human Sustainability approach. Drawing on our existing health care approach, we designed a data strategy that would enable us to progress over time. This meant further developing the HSI, a tool that measures wellbeing, resilience, and sustainability at the individual, team, and organizational levels. HSI is now fully integrated into our early careers, (new and existing) manager and high-performance programs. The data enables our firm to tailor digital learning and coaching interventions to specific needs as they arise, and to identify skills gaps for the future.

We now leverage the HSI dashboard to help us meet and monitor real time challenges, such as our wellbeing response to climate disasters for affected colleagues and teams, as well as the long-term sustainability of our talent and its impact on our sustainable business performance. This helps us to report on and ultimately predict what investments and interventions will have the greatest impact going forward.

To learn more about our Human Sustainability Index, visit https://www.aon.com/en/capabilities/workplace-wellbeing/human-sustainability-index

APG

Ronald Wuijster, Chief Executive Officer

apg

INNOVATION THROUGH THE SUSTAINABLE DEVELOPMENT INVESTMENTS ASSET OWNER PLATFORM (SDI AOP)

SETTING A STANDARD FOR SDG INVESTING

In 2020, APG Asset Management, together with AustralianSuper, British Columbia Investment Management Corporation (BCI), and PGGM jointly established the Sustainable Development Investments Asset Owner Platform (SDI AOP). This platform seeks to accelerate investments that deliver on the UN Sustainable Development Goals (SDGs) and contribute to better financial and social outcomes for end beneficiaries. These goals, set by the UN in 2015, aim for a better, more prosperous world, by addressing urgent global issues such as water scarcity, healthcare access, and protecting the environment.

We have created a community of investors who promote the SDI AOP standard for investments in products or services that contribute to realizing the SDGs. These Sustainable Development Investments (SDIs) are underpinned by a clear definition of SDI and an SDI taxonomy. The definition and taxonomy can be applied to both public and private market investments and are publicly available. The SDI AOP enables asset owners and their managers to understand and more effectively communicate on the contribution their investments make to sustainable value creation through the SDGs.

In response to investor demand, the initiative has expanded its offering to cover more than 10,000 capital market equity and fixed income investments globally and across sectors. Moreover, in the last year or so, we have introduced a number of innovations such as thematic tagging on biodiversity and climate solutions, and a forward-looking innovation outlook.

INFORMING CAPITAL ALLOCATION BY INVESTORS

According to research by the Principles for Responsible Investment (PRI), an increasing number of global investors consider the SDGs to play a key role in their investment strategy, policy, asset allocation, and investment decisions. They also influence how investors implement active ownership. By providing a globally consistent SDG methodology and assessment framework the SDI AOP standard and its underlying classification helps investors to embed the SDG themes more effectively into their investment processes.

Collaboration with other initiatives is key and the Chair of the SDI AOP has been instrumental in the development of the Model Mandate by the International Corporate Governance Network (ICGN), and the UN supported Global Investors for Sustainable Development (GISD) Alliance. Its primary purpose is to provide guidance to asset owners to ensure that their stewardship and sustainability objectives are fully reflected in their agreements with the managers of their assets, and to provide practical assistance to enable them to do so, with specific reference to the SDGs.

ABILITY TO ACCOUNT FOR INVESTMENTS IN THE SDGS TRANSPARENTLY AND CONSISTENTLY

For the SDI AOP, the primary focus is on companies' contribution to the SDGs through their products and services (the "what"), while standard ESG assessments typically focus on conduct (the "how"). For example: making solar panels (SDI) versus having operational policies, management systems, targets, and disclosure in place (ESG). This approach enables investors to monitor and manage their global portfolios according to their contribution to the SDGs and to report to clients and external stakeholders transparently and consistently. It provides them with a common and auditable standard that incorporates concrete investment targets and examples.

DRIVING INNOVATION AND ENHANCING THE METHODOLOGY

The SDI AOP has developed an SDI Methodology to quantify the contribution of an investment to such goals. This includes detailed taxonomies and guidelines, SDI classifications, and a rating methodology. The process uses structured and unstructured data, artificial intelligence, and machine learning, combined with human validation. The SDI AOP is committed to driving innovation in the investment industry and is constantly evolving and improving.

In response to the growing demand for customized, sustainable index products, in 2021, APG, BlackRock, and index provider Qontigo launched the iSTOXX APG World Responsible Investment Indices. Philips Pensioenfonds, Qontigo, and BlackRock also launched a customized index (iSTOXX® PPF Responsible SDG Index) in the same year.

A more recent addition, in late 2022, is the SDI Innovation Outlook. This assesses the alignment of a company's patent portfolio with the UN SDGs, giving a forward-looking metric on how future products and services could contribute to the SDGS and increase potential for higher returns. A separate section has been added in the taxonomy to cover negative contributions – factors that go against achieving the SDGs. In 2023, a new overlay was introduced to help investors who prefer to take a theme-based approach to potential investments (biodiversity, climate change, financial inclusion, etc.) rather than targeting individual SDGs. For 2024, the focus will be on further developing our methodology to effectively calculate real-world outcomes and deliver impact, and to further structure our solution to enhance its application and value in private markets.

Baillie Gifford

Andrew Telfer, Joint Senior Partner

WHEN IS ”LONG TERM” NOT ENOUGH?

It's probably safe to assume that the majority of readers of FCLTGlobal's Blue Book are committed to the idea that investing is a task that revolves around real-world capital allocation and should be treated as a thoughtful long-term exercise. Actual investing involves understanding the interaction between real-world capital deployment, productivity gains, rising living standards, and investment returns. To work well it requires that multiple parties in the investment chain (asset owners, investment managers, company management, end beneficiaries) have alignment on time horizons and sufficient information to measure progress. We should never take this for granted.

The phrase "sufficient information" is key. Proponents of efficient markets theory will tell you that the only information required to measure progress is the share price of a company, arguing that it represents the distilled wisdom of investors, taking into account all relevant information. This idea is questionable at the best of times, but it is a particular problem for the long-term minded when long-duration growth stocks display the kind of volatility we have seen in the past few years. Ignoring the short term is all but impossible in the face of share prices doubling and halving in relatively short order.

CHALLENGES OF LONG-TERM INVESTING IN VOLATILE MARKETS

Ironically enough it could be argued that long-termism has in part been the cause of such high levels of volatility. High pandemic-era valuations implicitly assumed that the virtual-world stocks with rocketing revenues and growth would continue to expand in this way for a prolonged period, as alternatives were restricted and pricing power was strong. Fast forward three years and the much-reduced valuations of the same stocks appear to imply that growth is a thing of the past and that companies will revert to their pre-pandemic state, as if the uptake of new technologies has ceased altogether. Layered on top of all that is the as-taught-in-your-finance-degree mechanical application of a higher discount rate to future profits as interest rates have risen sharply.

What's wrong with this? Firstly, the over-simplified extrapolation of recent history into the future on both the upside and the down. The missing part of 'long termism' of late has been the acknowledgement that underlying trends matter far more than short-term boom and bust. Cutting through the noise, are these companies adapting to changing realities? Are they making progress, whether early stage advancement of science in laboratories, or next stage growth in market share and earnings? Secondly, there's the lack of nuance around discount rates. Companies that offer better value than their competitors through the application of technology and business models have pricing power which they can exercise to offset the impacts of higher inflation and interest rates. This doesn't seem to be reflected in the uniform reduction in valuations.

What's the takeaway? One is that communication is key at all points of the investment chain to make sure that long-termism doesn't fall apart just when it's most needed. One of the most valuable things long-term investors can do is to encourage the management of companies to invest for future growth even in the face of an unappreciative short-term market.

NURTURING LONG-TERMISM THROUGH EFFECTIVE COMMUNICATION

In the past year, our investment teams have been spending time with the management teams of hundreds of companies, encouraging them to keep that long-term focus even as average investor horizons are as short as they've ever been. Some examples of this are:

- A well-known innovative health company asked us for input on the proposed methodology and calibration of their proposed equity awards. We met with them to discuss the challenges and importance of setting long-term targets, and appropriate board composition.
- We met with a chip company to discuss how they gather insight from customer feedback and in particular the needs of AI developers to feed into long-term product development.
- We met with an Asian e-commerce platform to reassure management that market concerns over their lack of near-term profitability were misplaced. We understand and encourage their desire to take advantage of opportunity and that foregoing near-term profitability will multiply future earnings.
- We met in the US with a payments processing platform which has just switched to quarterly reporting from six-monthly in the wake of a share price fall. This had the hallmarks of unwelcome short-termism, so we discussed it. In the event, management seemed to be striking a pragmatic balance intended to better inform investors without being distracted from what looks to us like sensible counter-cyclical expansion.
- We presented research to a medical device manufacturer in which we showed untapped opportunities for them in emerging markets, demonstrating that their device facilitates had considerably higher per-unit savings than in developed markets, and why achieving market penetration may be less complicated than it seems. This led the firm to create a dedicated role to address the opportunity.

We don't usually seek to tell the companies in which we invest what to do – rather we invest in companies where we think management is already strong and aligned with our vision. But we know that they appreciate and gain confidence from discussions which aren't about how next quarter's earnings are looking. Even if we don't always agree on everything, offering management the freedom to think long term is a hugely valuable gift which ultimately benefits savers. We will keep on engaging.

Bain Capital

John Connaughton, Co-Managing Partner

CATALYZING SUSTAINABILITY AND RESILIENCE

Bain Capital's enduring commitment to lasting impact has remained the heart of our work since our inception. We've sought to partner differently and help our portfolio companies realize their long-term potential as more sustainable leaders in their industries and stronger supporters of their employees and communities. Simply put, these principles are good business and result in companies that achieve long-term growth and performance.

From this foundational belief, we codified five core ESG commitments in 2021 as priority areas where we believe our impact can be both meaningful and aligned with our skillset, value, and experience: active governance and stewardship; sustainable growth and reducing climate impact; fair employment, engagement, and wellbeing; diversity, equity, and inclusion; and community engagement.

ADDRESSING THE PRESSING NATURE OF CLIMATE RISKS AND OPPORTUNITIES

Across our firm, we are acutely aware of the immediacy and scale of global challenges, especially those related to climate change. Climate change poses a systemic risk to the global economy, presenting not just a strategic and business challenge for all companies and investors, but also an opportunity for those that align their portfolios and operations towards decarbonization.

Over the past two years, as part of our commitment to Sustainable Growth & Reducing Climate Impact, we have progressed our firm-wide climate ambitions and curated tailored pathways for decarbonization through close engagement with our portfolio companies and investments. Together, we work to ensure that climate risks and opportunities are assessed and to curate metrics for our investments to track progress. Over 80 percent of our Global Private Equity portfolio companies have already quantified their Scope 1 and Scope 2 emissions. We are actively engaged in advancing this initiative, striving to expand Scope 3 emissions measurement and moving to develop decarbonization goals that align with Science-Based Targets (SBTi) where possible.

Two of our recent private equity investments highlight our commitment to Sustainable Growth & Reducing Climate Impact over the long term. We completed a significant equity investment in EcoCeres, a leading bio-refinery specializing in 100 percent waste-based advanced biofuels, in January 2023. EcoCeres is the largest renewable diesel producer in Asia and one of the only two Sustainable Aviation Fuel (SAF) producers globally. The company is evaluating various forms of agricultural, waste, and processed residue forms of feedstock to further SAF production going forward. Through our partnership, EcoCeres benefits from our deep industry experience and resources to scale and advance renewable fuel technologies globally.

Additionally, in December 2023, Bain Capital Private Equity agreed to acquire a controlling stake in Eleda, a leading Nordic infrastructure development and services provider. The company is the market leader within several segments, many of which address the needs of the green transition including water and sewerage, power distribution, district heating, roads, data centers, railways, and electric vehicle charging stations. We are focused on the sustainability trends contributing to Eleda's opportunities, including electrification, renewable energy, and water preservation. Through our partnership, we are excited to help drive Eleda to the next stage and scale the foundational infrastructure for sustained growth.

Climate-related considerations are critical to investment evaluation in our Credit and Special Situations business units. With comprehensive diligence processes and the incorporation of material ESG factors into our investment decision-making framework, we diligently assess physical and transition climate risks.

An outcome of such an approach led to our investment in Reconomy, a next-generation provider of tech-enabled services with a mission to serve the circular economy. The company empowers leading global brands to transform sustainability ambitions into competitive advantages. Reconomy uses data and analytics to help clients meet and achieve zero waste goals, navigate complex regulatory policies, and create circular logistics networks. Since 2018, Reconomy Group has helped its clients reduce CO2 emissions by 35,000 tons and generated £331 million in social and economic value in over 80 countries. In 2023, Reconomy took a step further by completing an acquisition of Combineering – a green technology development company scaling waste recycling and recovery solutions.

Sustainability is also fundamental to our portfolio company Cuisine Solutions' long-term growth. Its facility in San Antonio, Texas was awarded the 2021 Sustainable Plant of the Year by Engineering Food Magazine. It has one of the largest solar installations in the city, meticulously devised stormwater management systems, and a water recycling program. The facility also uses natural, non-toxic materials – like compressed earth blocks made from subsoil, clay, and aggregate – to avoid further disrupting its surrounding environment.

DEEPENING OUR IMPACT ACROSS PORTFOLIOS

We continuously strive to deepen our decarbonization impact, make significant strides in our core ESG commitments, and measure progress over time. These progressive initiatives underscore our dedication to responsible and impactful investment practices that we believe will further drive value creation. As we look to the future, we have a unique opportunity to grow businesses for the long term, drive real value and resilience across our investments, and help our companies become more sustainable leaders in their industries.

Barclays

INNOVATION OF CLIMATE TECHNOLOGIES

The International Energy Agency estimates that 35 percent of emissions reductions required globally by 2050 will have to come from new technologies.[1] Innovative climate technologies will be needed to support the transition to renewable energy sources – especially in high emitting sectors, such as aviation and manufacturing. We believe that many of these climate tech companies, once scaled, will conceivably change the way the world operates, from how we build our homes, to our means of travel and food production.

However, global progress in scaling these technologies is disparate as access to capital remains the largest barrier to wide-spread adoption. Funding needs to increase by at least 590 percent to $4.35 trillion annually by 2030 to meet climate targets.[2] Whilst there are existing programmes helping to accelerate investment into climate tech – like the US Inflation Reduction Act – we need to see further activity on a global scale.

BARCLAYS' SUPPORT FOR CLIMATE TECH FINANCING

At Barclays, we have a target to facilitate $1 trillion of Sustainable and Transition financing by 2030, encompassing the long-term Green, Social, Transition and broader Sustainable financing requirements of our customers and clients. We are focused on supporting climate tech companies at every step in their lifecycle, as they scale from ideation through to IPO.

As part of our Sustainable Impact Capital mandate, we aim to bridge growth stage funding gaps by investing £500 million of our own equity capital into climate tech companies, helping to scale their technologies. Since the launch in 2020, we have deployed over £100 million into more than 20 climate tech companies. These include ZeroAvia, a hydrogen aviation company that aims to power aircraft with zero-emission engines, and Agricarbon, an agri-tech company specialising in scalable, high-accuracy soil carbon measurement.

As climate technologies scale, they will need to harness the power of capital markets to obtain larger volumes of finance. At Barclays, we have a dedicated team, Energy Transition Group, which provides holistic and cohesive strategic advice and financing solutions through the energy value chain, with a particular emphasis on decarbonisation.

In April 2023, Ohmium International, a leading green hydrogen company that designs, manufactures and deploys advanced proton exchange membrane electrolyzer systems using renewable energy to produce pressurized high-purity green hydrogen, partnered with teams across Barclays' Corporate and Investment Bank to help successfully close a $250 million Series C growth equity financing round. Barclays served as Placement Agent to Ohmium on the capital raise. The funding will be used to support Ohmium's expansion to 2GW in annual manufacturing capacity and the deployment of projects for the company's growing global customer pipeline in key regions. The investment will also provide significant capital to scale Ohmium's business, including accelerating its pioneering research and development programs to reduce the cost of green hydrogen production. At that time, this transaction was the 5th hydrogen deal in 13 months for Barclays' Sustainable & Impact Banking Group, now known as the Energy Transition Group, highlighting our deep sector knowledge across the entire hydrogen technology value chain and ecosystem.

At Barclays, we continue to explore opportunities for collaboration to unlock more capital for climate tech companies. We are clear that to build a better tomorrow, action to scale these climate technology companies needs to take place today.

BlackRock

Mark Wiedman, Head of Global Client Business

THE LOW-CARBON TRANSITION

The heart of BlackRock's business model is helping clients invest for the long-term, through strategies ranging from retirement target date funds to growth equity and infrastructure. As we look ahead, the most capital-intensive force shaping the global economy is the low-carbon transition: materials, production, transport, agriculture, and energy systems.

In the energy system alone, BlackRock estimates that companies' demand for capital will soar from $2.2 trillion per year today to $3.5 trillion[3] per year by the end of this decade.[4] The bulk will be centered on decarbonization — supply (oil and gas extraction and processing, renewable power plants, electricity transmission and distribution) and demand (automobiles, factory equipment, and building energy equipment).

Our clients sense this opportunity and are asking us how to invest. In a survey of 200 global institutional clients that we conducted in June 2023, 56 percent said they plan to increase decarbonization investments over the next three years, and nearly half said it was their top priority. In the United States alone, 65 percent of clients are seeking fresh investments.[5]

To meet this need, BlackRock's sustainable investment platform offers 500+ dedicated sustainable products and solutions with a combined $802 billion in AUM. Our transition suite offers private and public strategies with $138 billion in AUM, including $20 billion in private investments, $43 billion in liquid active, and $75 billion in index strategies. BlackRock has made more than 130 private markets transition investments in over 20 countries, including in emerging markets across Asia, Africa, Latin America, and the Middle East.[6]

For those clients wanting to align their portfolios with a net-zero pathway or track global temperature increases, we provide whole portfolio solutions, product choice, and transparency about a fund's alignment to sustainability metrics. And for those who want to limit or exclude exposure to particular sectors, we offer screened funds or bespoke implementations.

TRANSITION INVESTING FOR THE UNITED ARAB EMIRATES — AND BOLSTERING BLENDED FINANCE

At COP28 in Dubai, the United Arab Emirates' ALTÉRRA climate action fund selected BlackRock as one of three initial managers for a new $30 billion investment vehicle. We were awarded $2 billion, split between BlackRock private debt and infrastructure equity.

ALTÉRRA has committed $100 million to co-invest alongside our blended finance fund, Climate Finance Partners (CFP). CFP is one of the world's leading private-public partnerships for investing in decarbonization projects in emerging markets. Its blended finance structure utilizes catalytic capital, including from governments and philanthropies, to mobilize a broader institutional fundraise and accelerate flow of capital into emerging markets. BlackRock announced a $673 million final close of CFP at COP26 in Glasgow in 2021. To date, CFP has invested in the largest onshore wind farm in Africa, an independent power producer and renewable electricity developer in the Philippines, an operator and developer of solar PV power projects in Thailand, and a distributed solar developer and energy company in Brazil – with a projected combined pipeline of 4 GW of renewable capacity.

GROWTH EQUITY WITH DECARBONIZATION PARTNERS

We entered the growth equity space in 2021 by launching a joint venture with Temasek, the Singaporean sovereign investor. Decarbonization Partners is a dedicated late venture capital and growth equity platform, targeting de-risked technologies in the clean energy, electrification, and green materials spaces. It addresses a current gap in the climate capital stack: scaling innovative decarbonization technologies globally. The Decarbonization Partners Fund I has completed six investments to date, raised over $1.3 billion from institutional investors and is actively deploying capital. The team has made investments in areas such as battery technology, low-carbon hydrogen, advanced mobility platforms, and sustainable materials.

BROWN TO GREEN MATERIALS – A PUBLIC MARKETS EQUITY APPROACH

The transition is dependent on the raw materials that undergird it – requiring substantial investment in metals and materials. Sourcing them is a major contributor to global carbon emissions in itself. Decarbonizing how we source material - and investing in materials at the core of the transition, like copper - is part of the "brown to green" transition. In May 2021, the International Energy Agency projected that up to $450 billion investment a year would be required for materials alone by 2050. BlackRock evaluates companies in this space to identify firms that are best positioned to decarbonize their operations and have the resources and capacity to implement changes in realistic timeframes. We brought this approach to market through our "Brown to Green Materials Fund," launched in June 2023.

NEW ZEALAND INITIATIVE – A MODEL FOR PRIVATE AND PUBLIC SECTOR COOPERATION

New Zealand is one of the global leaders in climate finance and renewable energy. Over the coming years, we believe there will be significant investment to bring in more wind, solar, and geothermal plants, as well as improved transmission and storage. Last year, we announced plans to launch a New Zealand-focused climate infrastructure strategy, created on behalf of the country's institutional clients – including the New Zealand government. The initiative aims to provide access to greater pools of capital for the New Zealand companies building the country's renewable energy future. With a target raise of NZ$2 billion, it's the largest single-country low-carbon investment initiative we've created to date. As the world looks for ways to bring the private and public sectors together in the transition, BlackRock and New Zealand's climate infrastructure strategy can serve as a model.

BlackRock's low-carbon transition strategies and partnerships embody our fiduciary duty to our clients. By nurturing innovative solutions through Decarbonization Partners, focusing on the 'brown to green' shift with targeted funds, and fostering development through the New Zealand initiative, BlackRock is helping our clients shape a low-carbon future.

Bloomberg

Shawn Edwards, Chief Technology Officer

Bloomberg

PROVIDING ALTERNATIVE DATA ALONGSIDE TRADITIONAL FINANCIAL DATA BRINGS MORE TRANSPARENCY TO THE MARKETS

Alternative data, including consumer transaction data, geolocation data, app usage, and web traffic has seen an increase in investor demand over the last few years as firms seek to glean unique insights and generate alpha in new ways. Alternative data helps paint a higher resolution picture of the impact major events may have on a company's sales, while tracking trends in customer engagement in near-real-time.

According to a report from research firm Coalition Greenwich, 44 percent of investment firms already use alt data to support portfolio construction or trading, and a further 19 percent of respondents plan to start using it over the next 12 months. Grand View Research estimates that hedge funds spent billions of dollars on this type of data in 2022.

Currently, the alternative data market depends on high-cost data that only the biggest, most technical players are able to employ. Those players have dedicated data science teams to expertly clean the data for investment use cases.

LOWERING THE BARRIER TO ENTRY THROUGH TRANSPARENCY

Bloomberg's goal is to lower those barriers to entry by creating transparency and democratizing alternative data to make it accessible alongside more traditional financial datasets. Better data lets companies make more agile decisions in the near term and better-informed plans for the long term.

With that objective in mind, this year, Bloomberg launched ALTD <GO>, an alternative data tool integrated into the Bloomberg Terminal that provides an unprecedented look into the operating performance of companies on a mere seven-day lag. This new feature allows all Bloomberg Terminal clients to see alternative data analytics alongside traditional market data, broker research, estimates, and news for the first time, providing Bloomberg clients with a more comprehensive understanding of how companies are performing across multiple sources of information.

Alternative data is all about bringing in richer data-driven insights that help analysts and portfolio managers at our clients answer questions about companies and about what's going on in the world with more speed and depth than ever before. Our strategy is about getting the highest-value datasets and bringing them directly to the Terminal alongside existing research workflows. Acquiring Bloomberg Second Measure in late 2020 was the beginning of this strategy – that acquisition gave us access to consumer transaction data, which is the most in-demand type of alternative data among our clients.

When Bloomberg acquired Second Measure, it was a web application that deployed analytics based on billions of credit card and debit card transactions to help subscribers answer questions about consumer trends in near-real-time. By merging Second Measure's team of data scientists with Bloomberg veterans, Second Measure's startup mentality found extensive institutional support within Bloomberg. The team became something of a startup-within-a-business, moving quickly to bring ALTD <GO> to life.

ALTD <GO> also includes data from location analytics leader, Placer.ai, which analyzes foot traffic data. Placer.ai utilizes a privacy by design approach to incorporate data from a panel of tens of millions of mobile devices, applying machine learning and AI algorithms to make estimations on visits to retail locations across the U.S. Bloomberg plans to strategically add additional alternative data sources based on customer demand.

THE GROWTH OF ALTD <GO> AND THE FUTURE OF ALTERNATIVE DATA

ALTD <GO> currently provides consumer transaction data analytics on more than over 360 public tickers, primarily those with meaningful U.S. direct-to-consumer sales, and the function is already seeing real-world results. There have been strong levels of adoption from clients who traditionally have not had access to alternative data, like long-only asset managers and sell-side research firms. Adoption has also increased with customers in regions outside of the U.S.

The number of companies tracked in ALTD <GO> will grow rapidly in the coming months, and the team has already built infrastructure to significantly expand the tool's functionality — a crucial part of the initial design process, given the number and types of different alternative data sources Bloomberg plans to make available on the Terminal. For example, clients can now use Bloomberg Query Language (BQL) to retrieve alternative datasets found in ALTD <GO>, such as Bloomberg Second Measure and Placer.ai, for further analysis in their own models, in Microsoft Excel spreadsheets, or in BQuant.

And this is just the beginning of a long roadmap to bring even more transparency to this space. Over the coming months, Bloomberg will also provide alternative data via different distribution mechanisms and delivery options. For example, alternative data will soon be available as part of Bloomberg's Data License service.

By launching this product, we are empowering our clients with the ability to gain faster and deeper insights into the performance of companies and economies. The future of investment research will be driven by data and Bloomberg will continue to invest in innovative products and technologies that enable our clients to make better data-driven investment decisions.

Bunge

Greg Heckman, CEO

BUNGE

ELIMINATING DEFORESTATION AND REDUCING EMISSIONS TO DELIVER VALUE

For companies that set long-term commitments and goals, the outcome in mind may be clear but the journey rarely is. That was the case in 2015 when Bunge set its commitment to be free of deforestation and native vegetation conversion in our value chains in 2025. It was an ambition that would nudge us into new and uncharted territory, but we've believed all along that having the right mix of talent, deep supplier relationships with farmers, and industry experience makes Bunge deliver.

We soon realized that our non-deforestation commitment was part of an even bigger journey to do our part to decarbonize the food, feed, and fuel industries. This goal is now integral to our climate action plan and our long-term business growth strategy. Achieving this requires a company-wide effort and an investment in expertise and resources. Establishing the industry's most comprehensive monitoring and traceability system for crops across our value chains where deforestation is a greater risk was foundational to the success of our commitment and would unlock significant opportunities in the lower carbon solutions market while strengthening our relationship with key producers around the world.

We also knew our commitment would not be achieved solely within the walls of Bunge, so we engaged in more robust outreach and support to farmers who would be impacted by our decisions. We worked with our industry peers and our customers to align our approaches so we could achieve sector-wide success. Along our journey, we learned that seemingly small actions could achieve major results. In 2021, Bunge launched an unprecedented initiative in Brazil's important Cerrado biome to share best practices with grain dealers, with the intention of gaining traceability and monitoring capabilities into our indirect supply chain. Known as the Bunge Sustainable Partnership, the program helps partners implement supply chain verification systems, including satellite and farm-scale images.

This strategy has yielded highly promising results: At the beginning of 2023, we announced the traceability of over 80 percent of the soybeans acquired indirectly in areas at risk of deforestation in the Cerrado. In addition to the Sustainable Partnership Program becoming a vital instrument toward our goal of deforestation-free supply chains, the initiative also contributed to raising the standards of sustainability and transparency across the indirect soybean acquisition chain in Brazil, influencing the industry as a whole and promoting systemic change toward deforestation-free soy distribution in the country.

CONNECTING OUR SUSTAINABILITY GOALS

With increasing focus on ESG initiatives and emission reductions, our early investment in this long-term goal of eliminating deforestation in our supply chains positioned Bunge to respond to stakeholder concerns and investment priorities in a comprehensive, highly impactful way.

Progress toward our commitment also set the stage for our science-based targets (SBTs) in 2021. These targets are among the most ambitious in our sector and were a natural next step in Bunge's climate journey. They demonstrate Bunge's overall commitment to reduce greenhouse gas emissions throughout our operations. Meeting our SBTs is a foundational part of our business strategy. By meeting our pre-existing non-deforestation commitment, we will be on track to achieve our Scope 3 target.

These efforts not only help to make our business more sustainable, but they also help our customers – including many of the world's leading food companies – achieve their commitments as well. What's more, our ability to provide deforestation-free solutions to our customers enables us to help shape industry-wide solutions to common land use challenges.

ENGAGING FARMERS AND STAKEHOLDERS

Our ability to robustly monitor and trace our crops across the supply chain would not be successful without strong partnerships with farmers. Bunge is steadfast in ensuring farmers are equipped and rewarded for the essential role they play in conserving forests and native vegetation. Our relationships with farmers are built on trust and, over time, we've become partners in achieving our non-deforestation commitment. We have also provided resources to support farmers as they expand over previously cleared land.

- In 2018, Bunge joined The Nature Conservancy and a coalition of over 15 other companies, NGOs, and government entities to launch Agroideal.org, a free, online tool allowing users to integrate agronomic, environmental, and social data to make better decisions about how to sustainably expand agriculture production.
- A mobile app in Brazil, Agroapp Bunge, serves as a hub of information and tools to support sustainable production, in addition to offering farmers easy access to the data of the Rural Environmental Registry of their farms.
- Through Abiove, we support AgroPlus, a program that provides training, supporting materials and technical assistance to participating farmers in Brazil.
- Beyond our own monitoring, we offer public resources including an anonymous hotline for stakeholders to raise concerns about land use changes in our supply chain.

We take an active role in some of the most important networks and associations to align best practices for traceability, reporting, certification, and carbon accounting. We offer industry insight through engagement with sustainability-focused initiatives, including the Soft Commodities Forum (SCF), which enables collaboration between agribusiness to identify solutions to eliminate soy-driven deforestation and native vegetation conversion, as well as the Amazon Soybean Moratorium, a globally recognized voluntary commitment prohibiting the purchase of soybeans from designated areas.

BUSINESS PROGRESS AND FUTURE VISION

The journey we started on nearly a decade ago was high in ambition and risk, but the long-term approach was executed well and has delivered significant opportunities. Together, our non-deforestation and SBT commitments have strategically positioned Bunge to be the preferred partner for reducing carbon in food, feed, and fuel supply chains. Bunge's unique expertise and scale within the industry has allowed us to take risks and make an impact, resulting in meaningful real-world results for both the climate transition and our shareholders.

Carlyle

CARLYLE

ENERGY TRANSITION IN ACTION

Pursuing the energy transition requires managing the intersecting forces of energy availability, energy security and energy access – while simultaneously looking to decarbonize our energy systems.

As the world looks to transition our energy systems over the coming decades, at Carlyle we believe investment opportunities will not represent a simple binary between "green" and "brown" businesses, but instead a complex interplay of our global economy and energy systems that will demand tremendous amounts of capital.

To this end, at Carlyle, we leverage our global investment platform to accelerate the energy transition by investing across the full suite of electrons and molecules that make up our energy systems. Through our Renewable and Sustainable Energy platform, we seek to increase the amount of new renewable energy generation capacity, along with grid-stabilizing technologies such as storage and bi-directional charging; through our Corporate Private Equity platform, we support transition enablers, such as industrial opportunities manufacturing components needed for renewable energy development; and through our International Energy platform we invest in businesses that we believe have potential opportunity for value creation through decarbonization, for example through "gray-to-green" transformation of downstream oil & gas players to lower-carbon businesses. In our Global Credit platform, we lend to companies in the energy transition value chain and support certain of our borrowers with decarbonization activities.

THE CARLYLE CLIMATE GOALS

Given that the energy transition touches almost every sector and geography, Carlyle teams seek to assist certain portfolio companies across the globe to understand risks and potential value creation opportunities related to their carbon footprint, and then design and execute related decarbonization strategies that we believe drive financial performance. We recognize that companies across all sectors of the economy have a crucial role to play in decarbonizing, in order to remain competitive in the global economy. Hence, we are focused on providing the capital, expertise, and time to help global portfolio companies on this journey. This is why in 2022, Carlyle announced a goal to achieve Net Zero greenhouse gas (GHG) emissions by 2050 or sooner across Direct Global Private Equity and Global Credit investments, with two near-term goals:

1. 75% of Carlyle's in-scope portfolio companies' Scopes 1 and 2 emissions will be covered by Paris-aligned climate goals by 2025; and
2. Beginning in 2025, all new direct, majority-owned Corporate Private Equity, Energy and Power portfolio companies will set Paris-Aligned climate goals within two years of ownership.

Since setting the goal , 22 Carlyle portfolio companies have set Paris-aligned climate goals, and many more taking first steps to measure, report, and understand their emissions.

AN EXAMPLE OF BALANCING ENERGY TRANSITION AND ENERGY SECURITY

VARO is a leading European energy company that manufactures, stores, and distributes conventional fuels and sustainable energies and services. Given its scale, we believe VARO can play a key role in facilitating Europe's energy transition. In 2013, a fund managed by Carlyle acquired the company alongside the Vitol

Group. Since then, both teams have worked closely with management to develop and implement a transformation strategy designed to capture opportunities associated with the energy transition, “future-proof” the company, and respond to the needs of employees, customers, and governments. VARO aims to be the energy transition partner of choice for reliable, accessible, and sustainable energy solutions, and is positioned to empower customers to pursue their own decarbonization efforts. VARO is playing its own part in this effort, with a goal to achieve net zero emissions by 2040, in part through:

- Expanding CAPEX investments to USD $3.5 billion between 2022 and 2026—with at least two-thirds invested in biofuels, biomethane and bio-liquefied natural gas (bioLNG), hydrogen, e-mobility and carbon removals;
- Targeting to have 50% of group EBITDA come from the Sustainable Energies business by 2026;
- Setting a near-term reduction goal of 40% absolute reduction of Scope 1 and Scope 2 greenhouse gas emissions by 2030 and 15% reduction in Scope 3 greenhouse gas emissions intensity by 2030, each against a 2022 baseline.

With these ambitions in mind, the company announced its ONE VARO Transformation strategy in 2022, laying out its path to provide customers the sustainable and reliable energy solutions needed to reach net zero. VARO’s “twin engine” strategy balances both energy security and energy transition requirements for multiple segments of its customers’ businesses. Here, “Engine 1” represents the Conventional Energies business while “Engine 2” refers to VARO’s Sustainable Energies business. In order to help accelerate progress on this strategy, Carlyle worked alongside the VARO team to serve as a thought partner in the overall construction of the strategy. Carlyle also helped to recruit their current CEO, Dev Sanyal, who has a demonstrated track record in this work from his previous role as EVP of Gas and Low Carbon Energy at BP.

Engine 1 consists of manufacturing, storage, trading, marketing, and distribution. This segment’s priority is to operate safely and reliably, reduce carbon emissions and intensity, and provide the energy security that is essential for customers.

Engine 2 consists of strategic growth pillars that VARO believes have the most attractive low-carbon growth potential while also capitalizing on VARO’s core strengths. These pillars include:

- **Biofuels**: VARO seeks to become an integrated producer of 2G advanced biofuels, including Sustainable Aviation Fuel (SAF). The company is targeting Biofuel production of more than 250,000 metric tons per year by 2026 with a long-term goal of more than 500,000 metric tons per year.
- **Biomethane & LNG**: Aiming to be a leading producer of biomethane and bio-LNG to play a role in decarbonizing industrial and road transport sectors. VARO plans to double the current facility capacity from 300 GWh to 650 GWh by 2026.
- **Hydrogen**: Utilizing its position as a hydrogen consumer to develop hydrogen production hubs.

Carlyle continues to work closely with VARO’s management to support the implementation of this strategy and the advancement of its ambitious ESG agenda along key pillars including leadership and governance, partnerships, and motivated employees. In a changing world, VARO believes that reorienting the company into the high growth, low-carbon sector will generate EBITDA growth, and place VARO at the forefront of the energy transition.

Caisse de dépôt et placement du Québec

Charles Emond, President & Chief Executive Officer

CDPQ

INVESTING IS NO LONGER LIKE RUNNING A MARATHON

For decades, pension funds around the world were perceived as reliably boring institutions. Using the same playbook, they rarely captured the spotlight. Few among the public gave much thought to how these funds invested their money, as long as they delivered the desired returns.

But times have changed.

Fifteen years ago, geopolitical discussions were not front and center. Today, they're held everywhere – from the newsroom to the boardroom. Similarly, climate change was accepted as a real but relatively distant peril. Today, it's an undeniable concern. Cybersecurity was barely – if at all – on the agenda. Today, it's a serious and omnipresent risk. And all the while, the pension industry has become subject to increased interest, pressure, and scrutiny.

A growing number of engaged stakeholders have emerged – with governments viewing pension funds as potential partners in building critical infrastructure and keeping their economies competitive. Interest groups attempt to leverage these funds to advance their agendas, and the broader public has become more interested in (and, in some cases, critical of) how and where pension funds invest their holdings.

A NEW PLAYBOOK FOR A NEW ERA

The playbook for pension funds needs to evolve because the game has fundamentally changed. Pension investing used to draw parallels with running a marathon. It demanded skill and stamina – but the parameters were clear and straightforward. Today, navigating the investment landscape can feel like competing in a decathlon, where an ever-greater range of abilities and disciplines is required to achieve success.

The pension industry needs a new, relevant, and consistent decision-making framework that is guided by key principles but also flexible enough to adapt to a dynamic global environment. This framework should encourage ambition for the future – forcing action and addressing our biggest challenges – while ultimately delivering returns.

And a crucial element of a new playbook, in my view, is the necessity to put our long-term capital to work in building the world we want to offer to future generations. To be part of the solution.

REMEMBERING WHO WE INVEST FOR

The focus on Environmental, Social and Governance (ESG) factors is not a fad. Nor does it run counter to the fiduciary duties of a pension fund. At CDPQ, we are taking concrete actions. We now have one of the world's largest portfolios of assets in renewable energy generation, and we are supporting companies from the highest-emitting sectors through our $10-billion envelope dedicated to the climate transition. We are also one of the few investors in the world who have committed to review our portfolio based on the minimum tax rate recommended by the OECD and supported by the G20.

To be successful over the long term, we must identify the right actions to make a difference, display courage not arrogance, innovate in the face of greater ambiguity, and determine the optimal speed to drive change.

As pension funds, we must always remember our purpose. Our responsibility to the people who entrust us with their savings should lead us to achieve sustainable performance. To deliver both performance and progress. There is no doubt in my mind that we can aspire to do well for our clients while also doing good for the world.

This is our opportunity to show leadership in confronting global issues as we carry out our vital mission. Three decades from now, when the new generation asks, “Where were you when you could have made a difference?”, I know what answer I want for CDPQ.

CPP Investments

John Graham, President & CEO

CPP Investments

INVESTING FOR THE LONG TERM BY ENABLING A WHOLE ECONOMY TRANSITION

CPP Investments is a global investor with a driving purpose: to contribute to retirement security for generations of Canadians. We know that successfully investing for the future requires skillful risk management and a scalable approach to uncovering opportunities. Today, there are more factors to consider when deploying capital than ever before. One of those many factors is sustainability. We carefully consider business-related sustainability factors at every stage of the investment process to maximize opportunities and mitigate risks.

REDUCING EMISSIONS AND BUILDING VALUE IN OUR PORTFOLIO THROUGH OUR DECARBONIZATION INVESTMENT APPROACH

CPP Investments has committed our portfolio and operations to be net zero of greenhouse gas emissions across all scopes by 2050. A company's ability to navigate the transition to net zero has an enormous impact on its future value. Recognizing this, a key part of our net-zero commitment is our Decarbonization Investment Approach (DIA), which we introduced in December 2021 to seek attractive returns from assisting business transformations in high-emitting sectors.

Our DIA is rooted in our belief that the only way to comprehensively decarbonize the real economy is to empower capital market participants to finance emissions reductions. While we may choose not to invest in particular companies on a case-by-case basis, we will not engage in blanket divestment that excludes investing in entire sectors of the economy – especially when those sectors need more help transitioning, not less. Blanket divestment also risks missing out on potential returns as these sectors adjust in response to regulation, economic incentives, and shareholder engagement.

In 2023, we implemented our DIA on more than ten companies in our portfolio, spanning the real estate, infrastructure, agriculture, energy, and tourism sectors. We partnered with portfolio companies to help them reduce emissions from their operations, deepen our understanding of sector-specific decarbonization levers, and enable ourselves to create decarbonization playbooks for a broad range of sectors while creating long-term value. The CPP Investments Insights Institute recently published the [Road to Zero: Decarbonization Investment Approach Progress Report]. The report provides details on our DIA, including how we chose the initial cohort of companies, as well as early insights from our ongoing efforts to decarbonize our portfolio at scale. We do this by supporting portfolio companies as they define their climate ambitions and explore the best decarbonization pathways to achieve those goals. The DIA offers a rigorous and structured three-step process to yield comparable results that can be refined by sector. This process includes establishing the company's emissions baseline and trajectory, assessing the current and projected abatement capacity, and defining a bespoke decarbonization action plan.

EARLY LEARNINGS FROM OUR DECARBONIZATION INVESTMENT APPROACH

Our learnings confirmed that while companies in similar sectors and geographies may share similar emissions drivers, there is no such thing as a "one-size-fits-all" decarbonization action plan. Furthermore, decarbonization requires a full-company transformation – both top-down engagement, from the board and C-suite, as well as involvement across multiple departments such as finance, procurement, operations, and facilities. Similarly, in order to ensure decarbonization plans are integrated into the company's business plans, it is important to make them actionable by formulating metrics to track progress and results.

While all the companies in our initial cohort uncovered interventions that could quickly reduce emissions, their decarbonization opportunities differ considerably in terms of feasibility and cost, based on their individual circumstances. At a macro-level, however, clear insights emerged about the decarbonization opportunities and barriers companies face:

- **Efficiency is always the most economic decarbonization lever** and provides breathing room to develop the final transition plan while engaging the entire employee base in the company's decarbonization efforts;
- **Companies can take scope 2 emissions reduction in their own hands**. As global efforts to decarbonize grids are underway, the use of off-site offtake agreements, such as power purchase agreements (PPAs), serve as a strong near-term solution for emissions reductions;
- **In instances where technology maturity and/or costs of low-carbon solutions are unfavorable but quickly evolving, bridge solutions should be explored to buy time as new technology improves**. Examples such as drop-in biofuels, purchase of bio-gas, and in some cases, extension of the useful life of equipment can provide a sufficient time buffer until new low-carbon equipment becomes commercially available; and
- **Uncertainty around solutions goes deeper than technical maturity**. While many companies highlight the technical challenges of certain decarbonization solutions, e.g. carbon capture, utilization, and storage (CCUS) and Green H2, there are also several supply-chain dynamics that place additional uncertainty on their adoption. For example, while the technology for CCUS is still evolving, there is uncertainty around storage and usage of captured carbon and associated permitting that is required for the technology to be deployed at scale.

Integrating sustainability considerations into all phases of the investment life cycle is fundamental to CPP Investments' commitment to reducing emissions in our portfolio and creating long-term value for contributors and beneficiaries. Based on our efforts to date, we believe that our Decarbonization Investment Approach can strengthen and accelerate our ability to meet that commitment.

Dow Inc.

Jim Fitterling, Chair & CEO

DOW'S APPROACH TO BUILDING A SUSTAINABLE CIRCULAR ECONOMY

At Dow, our ambition is to become the most innovative, customer-centric, inclusive, and sustainable materials science company in the world. To achieve this vision requires a combination of near-term adaptability and long-term strategic decision making. Since its separation from DowDuPont in 2019, Dow has made significant progress in advancing its ambition, supported by a long-term mindset that is reflected in everything we do. This approach has ensured Dow's business remains resilient across the economic cycle, delivering top-quartile cash flow, cost performance, net debt reduction and shareholder remuneration, all while advancing our Decarbonize and Grow as well as Transform the Waste strategies.

A DIFFERENTIATED PORTFOLIO WELL-POSITIONED TO MEET CUSTOMER NEEDS

In an industry positioned to solve many of the world's toughest challenges, there are several growth drivers that are increasing demand for our products, including connectivity, efficiency, and sustainability. Dow's global scale, leadership in materials science, and alignment to attractive market verticals enable us to capture growth across these trends while also remaining resilient.

PLAN TO ACHIEVE A NET-ZERO EMISSIONS FUTURE WHILE GROWING EARNINGS

Sustainability is a significant growth opportunity for Dow. In 2021, we announced a disciplined plan to continue delivering value growth while achieving a net-zero emissions future. We expect to increase underlying EBITDA by more than $2 billion through the execution of higher-return, lower-risk, faster-payback projects by mid-decade and another $1 billion from our Fort Saskatchewan, Alberta Path2Zero project by 2030. Our Decarbonize and Grow strategy includes implementing a phased, site-by-site approach to replace end-of-life assets with lower-emissions, lower-CapEx intensity, larger-capacity operations, all while targeting return on invested capital at or above 13 percent over the economic cycle. We have a clear path to a 30 percent reduction in Scope 1 and 2 emissions by 2030 over the 2005 baseline and achieving net-zero by 2050.

DEVELOPING THE WORLD'S FIRST NET-ZERO SCOPE 1 AND 2 EMISSIONS ETHYLENE CRACKER AND DERIVATIVES COMPLEX THAT WILL DECARBONIZE 20% OF DOW'S WORLDWIDE ETHYLENE CAPACITY

Notably, we are developing the world's first net-zero Scope 1 and 2 emissions ethylene cracker and derivatives complex in Fort Saskatchewan, Alberta. The project will decarbonize ~20 percent of our global ethylene capacity while more than tripling the ethylene and downstream derivative capacity at the site as it delivers ~$1 billion in EBITDA growth by 2030. This key investment allows us to meet the increasing needs of our customers and brand owners seeking to lower the carbon footprint of their products. Our disciplined approach positions us well to lead the industry in decarbonizing, growing, and accelerating our path toward carbon neutrality.

ACCELERATING THE DEVELOPMENT OF A CIRCULAR ECONOMY THROUGH A CAPITAL-EFFICIENT APPROACH

Innovating circular and sustainable solutions also remains a key aspect of our strategy. In October 2022, we accelerated our sustainability targets originally set in 2020 with a new commitment to commercialize 3 million metric tons of circular and renewable solutions annually by 2030, which is expected to result in more than $500 million in incremental EBITDA by 2030. To reach our target, we have a robust pipeline of strategic partnerships with leaders across the value chain to enable and scale waste transformation through mechanical recycling, advanced recycling, and bio-based solutions. This allows us to enable a more circular economy by serving as a major off-taker of circular feedstocks, with a capital-light approach for Dow. For example, we are partnering with Mura Technology to construct multiple world-scale advanced recycling feedstock facilities in the U.S. and Europe, as well as with Valoregen to build the largest single hybrid recycling site in France. When you combine this circularity target with the additional capacity from our Alberta project, we expect our circular, renewable, and scope 1 and 2 zero-CO2 emissions capacity will comprise over 50 percent of our global polyethylene capacity by 2030.

COMMITMENT TO DELIVERING LONG-TERM VALUE FOR ALL STAKEHOLDERS

We are committed to protecting the planet as we decarbonize our footprint and leverage our climate adaptation approach to stewarding water, bio-diversity and nature in our operations. We are advancing circular, renewable, and low-carbon products and technologies in collaboration with our partners. We continue cultivating an inclusive team and thriving communities as a responsible and invested employer and neighbor. All this is supported by driving strong governance practices and performance. Consistent with our longstanding commitment to transparency and accountability, we've set clear goals against which to measure our progress as outlined in our annual INtersections Progress Report. Notably, we've maintained our clear link to pay-for-performance by adding a quantifiable greenhouse gas emissions reduction metric to our long-term incentive compensation program.

By working at the intersections of science and sustainability, culture and accountability, Dow is partnering with others to encourage new thinking, advance issues that matter most to our stakeholders, and unlock new avenues of growth that will power our success for the future.

EY

Carmine Di Sibio, Global Chairman & CEO

MEASURING WHAT MATTERS: SUSTAINING FOCUS ON LONG-TERM VALUE CREATION

In a world that's changing faster than ever, the EY purpose building a better working world has been a guide, providing meaning for the work we do every day. This purpose has been an integral part of NextWave, the EY global ambition and strategy to create long-term value for EY people, clients, and society. It's remarkable to see how far the business community has come over the last decade in accepting that a focus on the long-term and the creation of stakeholder value are the pillars of a stable, financially stable organization. The next phase will see mandatory requirements from regulation and governments – ratcheting up long-term value on the Boardroom agenda. But where to start?

WALKING THE TALK

FCLTGlobal's research has shown when organizations "walk the talk" they generate higher returns, deliver higher sales growth and are more likely to invest in research and development, among other stakeholder benefits. While we are a sample of one, we've had five years to put our focus on long-term value into practice. And, over that time, we have achieved significant progress across a range of metrics from carbon reduction and employee training to diversity and serving the communities in which we operate. These efforts have led to an incredible 43 percent increase in global revenues since 2019.

At COP28, the Sustainable Markets Initiative (SMI) awarded EY the "2023 Terra Carta Seal" for sustained efforts to further non-financial reporting with clients, international bodies, business leaders, and other like-minded entities. The EY participation in two external initiatives was specifically recognized: the Embankment Project for Inclusive Capitalism (EPIC) – a collaboration of 30+ organizations – and the World Economic Forum's International Business Council (WEF-IBC) Stakeholder Metrics – a two-plus year collaboration between WEF, the Bank of America, and the Big Four. Forming and adhering to long-term strategies requires consistent, comparable, and robust measurement. Both initiatives were focused on the difficult task of maturing the non-financial reporting space and were designed to provide steppingstones to standardization.

The SMI also recognized the transformation of EY itself. NextWave was established in 2019 to create long-term value for EY stakeholders and communities. The strategy was based on the long-term value framework developed in EPIC, and in 2021 it was expanded to include the WEF-IBC Metrics. The EY Global Executive, the most senior body in EY, also established a new Non-Financial Reporting Hub to collect, monitor and report global EY sustainability and long-term value performance, both internally and externally. And each year since 2021, we have matured EY reporting and honed our processes.

As we get better, we help EY clients get better. We recently helped a consumer packaged goods company integrate their sustainability ambition across the company, supply chain, and disclosures. We helped a global consumer company decarbonize their logistics strategy through a data-driven roadmap; now projected to reduce 92 percent of emissions in the logistics chain by 2025 and maintain their market-leading position. We expect to see steady demand for these services as these objectives are increasingly prioritized.

MOVING FROM AMBITION TO ACTION

Stakeholders are looking for action. The voluntary disclosures thus far have not only been welcome but have whet the appetite for more. As disclosures move from voluntary to mandatory, reporting may be seen as yet another challenge, but it's also an opportunity to build more trust with stakeholders. So, what have we learned?

While many businesses have set long-term goals, many more struggle to implement them. Rather than delay and debate the complexity of a perfect plan, companies need to show they are acting now. Collaboration will be essential to achieving the changes we want to see. We learned this in our work with EPIC and WEF IBC – which involved well over 100 organizations. Collaboration always brings diverse ideas, better solutions, greater impact, and higher success rates. It's important to discuss shared challenges with each other, and with regulators.

Systems change will no doubt generate push-back, but sustainable, long-term growth requires a sustainable, long-term focus. That won't change.

SUSTAINING FOCUS

Many know the power of placing long-term value creation at the center of a company's purpose and strategy. But remaining focused while also combatting the basic day-to-day and the fundamental market, technological and geopolitical challenges makes this all the more challenging. Yet, that is exactly when it's most useful – as the lens through which leaders can determine priorities.

For EY, the focus on long-term value – and how we measure it – will evolve and continue as we seek to support the further convergence and optimization of non-financial reporting standards; deliver increased transparency and maturity in our reporting; and help organizations design, operationalize, and ease non-financial reporting looking to new technology and data collection methods.

GIC

Lim Chow Kiat, Chief Executive Officer

A COMMITMENT TO LONG-TERM CAPITAL & PARTNERSHIPS

As Singapore's sovereign wealth fund, GIC is responsible for safeguarding and enhancing the international purchasing power of the reserves under our management over the long term. We can only fulfill this mandate with the help of our many partners, including external fund managers, peer investors, investee companies, service providers, and community organisations such as FCLTGlobal. GIC believes that deploying long-term capital and embracing global partnerships are key strategies for both earning good, risk-adjusted returns and contributing to a better future.

PARTNERSHIPS BUILT ON A LONG-TERM COMMITMENT

Our partnership approach is characterised by a long-term mindset that prioritises collaboration over transactions, right from the start. Despite continued volatility in the economic landscape, we believe that investing is not a zero-sum game and that there are ample opportunities for investors and businesses to co-create value and generate returns, even in highly fragmented markets. GIC adopts a mindset of being fair, friendly, and firm with all of our partners. It's an approach we take seriously, apply across all geographies and asset classes, and hope to pass down from generation to generation.

Infrastructure investments offer a prime example of how long-term capital and partnerships can contribute to supporting economies, while also bringing measurable benefits to an investor's portfolio. Infrastructure businesses require consistent, long-term investments to serve their communities effectively. They also rely on committed partnerships with financial backers and governments to address challenges and keep essential services functioning well. Over more than a decade, infrastructure has become a significant part of GIC's total portfolio, with investments in companies that deliver critical services such as airports, seaports, electricity utilities, renewable energy generation, fibre networks, telecommunication towers, and others.

LIFE-CYCLE COLLABORATION

Our long investment horizon offers greater certainty to our partners to commit to innovative ventures which may take time to see results. The willingness and ability of long-term capital to support a company's growth over an extended period, along with the trusted partnership between investors and investees, equip companies with the confidence to continue developing across cycles. GIC's investment in a sanitation company in South America exemplifies how local communities can benefit from long-term capital. For over a decade, GIC's investment has helped the firm expand its coverage of clean water and proper sewage services from 2 to 31 million people and create employment opportunities for vulnerable communities. These efforts contributed to restoring the environment by reducing raw sewage discharges and reducing hospital admissions for water-borne diseases by 80 percent.

Long-term capital can likewise be crucial to catalyse innovation in the early days of a company's life cycle. For example, GIC's investment in a US firm developing a multi-day energy storage solution is helping to accelerate the transition to a cleaner, more reliable, and cost-effective grid. Although long-duration energy storage might be a relatively new area of innovation, it is critical in addressing the intermittency of renewable power generation, potential grid outages, and extreme weather events. By building its first manufacturing facility on the site of a former steel mill, the company is also taking a significant step towards transforming a former coalmining and steel-producing community into a clean energy hub.

RELIABLE AND RESPONSIVE CO-INVESTOR

Having a long history of co-investing with select external managers and direct investing capability positions us well to respond to co-investment opportunities, especially across real estate, private equity, credit, and infrastructure. Typically, our partners source attractive opportunities via their own networks, with us supporting part of the required capital through responsive due diligence, clarity of decisions, fair terms, and additional research. In recent years, we have extended more co-investing invitations to our partners, thus expanding the opportunity set further.

SYNERGIES THROUGH MULTI-FACETED INVESTMENT PARTNERSHIPS

We prefer to do more with long-time partners both in size and dimensions. For example, we may have multiple asset-class exposures to the same external manager, while for investee companies, we can be their shareholder, bondholder, and even landlord or joint-venture partner. Such partnerships are often strengthened through varied collaborations tapping the full scope of our organisations' talents and resources.

CONSTRUCTIVE ENGAGEMENT

Long-term capital also supports companies in making deep transformations, including the transition to more sustainable business practices, which will affect the longer-term prospects of assets and companies. We do this in a way that recognises the respective dynamics of the markets that they operate in, rather than imposing a "one-size-fits-all" approach. For instance, GIC's investment in a US utility firm has enabled the company to start transitioning its power generation fleet towards cleaner fuel sources, with the goal of retiring all coal-fired power assets by 2035. It's an example of how investing in the responsible retirement of carbon-intensive assets, rather than simply divesting, can be more effective to accelerate the decarbonisation of the real economy.

Providing long-term capital can deliver super-charged growth, particularly when it addresses the challenges posed by emerging mega-trends. However, deploying long-term capital well requires global partnerships, including governments, external fund managers, peer investors, investee companies, service providers, and community organisations. By expanding our investment universe, widening our perspectives, and leveraging each other's unique capabilities, these partnerships enable us to generate good, risk-adjusted returns, while solving complex issues and investing in the foundations of a better tomorrow.

Goldman Sachs

Goldman Sachs

BLOOMBERG PHILANTHROPIES AND GOLDMAN SACHS CATALYZE ~$500 MILLION OF INVESTMENT IN THE CLEAN ENERGY TRANSITION IN SOUTH AND SOUTHEAST ASIA

Despite growth in recent years, global climate finance flows continue to fall short of demand. In 2021-2022, average climate finance flows reached nearly $1.3 trillion — nearly double 2019-2020 levels, but well below the roughly $4.5-$5 trillion estimated need.[7] The gap is notably acute in Asia, where local economies remain heavily dependent on public-sector financing and where clean energy investment is not yet at scale — particularly in India and Vietnam, given their enabling environment and urgent need for carbon emissions reductions to meet country-specific climate goals. In India, for example, the power sector may need about $650 billion in additional financing to reach its 450 GW renewable energy target.[8] While private capital is beginning to mobilize and help emerging markets make progress on decarbonization goals, the public and private sectors must continue to work collectively to drive scale and commerciality of low-carbon solutions.

To help drive more capital, Goldman Sachs and Bloomberg Philanthropies partnered to seed $25 million in grant capital and launch the Climate Innovation & Development Fund ("the Fund" or "CIDF"), which was structured as a blended finance facility[9] and is managed by the Asian Development Bank (ADB). The Fund's goal was twofold: 1) increase the pace, scale, and ambition of climate solutions and 2) help transition to a low-carbon economy. The Fund was focused on catalyzing investment in low-carbon technologies across South and Southeast Asia. The seed money has since helped unlock ~$500 million in private-sector and government investments.

Combining our respective strengths uniquely positioned the CIDF for success. By leveraging our convening power, grant capital, industry knowledge, and in-region expertise, we could expand our efforts, scale rapidly, and help close the gap more efficiently. Our distinctive fund structure leveraged various finance mechanisms to mobilize capital through the targeted use of concessional financing such as performance-based incentives, capital expenditure grants, contingent guarantees or reserves.[10]

The following projects focused on clean energy, sustainable transport, energy efficiency, and adaptation activities to help improve the climate resilience of both livelihoods and infrastructure. Each was catalytic in nature within its regional context and is poised to have a lasting demonstration effect.[11]

VinFast: Provided a milestone-based grant that mobilized ~44x (44 times more than the grant amount) of investment capital to support Vietnam's leading electric vehicle manufacturer in its supply of electric buses and supporting charging infrastructure; ultimately being the country's first fully electric public bus fleet and first national electric vehicle charging network.

Green Cell: Mobilized ~14x CIDF's capital to partially fund an integrated battery energy storage system and off-site solar electricity arrangement for an electric bus fleet in India. This combination allows a portion of the bus fleet to be 100% powered by renewable energy, which may not have been economically viable otherwise.

AC Energy: Mobilized ~31x of investment capital to support an 88-megawatt windfarm in Vietnam with environmental and social-related safeguards and enhancements. The grant will de-risk the wind farm's project finance through the provision of a revenue reserve facility, which disburses funds when operations are curtailed due to environmental and social safeguards.

Australis Greener Grazing: Provided a matched, milestone and activity-based grant that mobilized ~14x of investment capital to support the development of seaweed as an agricultural feed supplement for innovative carbon abatement in Vietnam.

Tata Power: Provided a grant, mobilizing ~22x of investment capital, to partially fund the purchase and integration of South Asia's first 10-megawatthour grid-scaled energy storage project integrated into an electricity distribution network. The project will help Delhi's grid integrate clean energy sources like solar, and is expected to help reduce grid instability, black/brownouts, and damage to customer equipment through power surges.

GreenYellow: Used CIDF's grant as first loss capital for ADB's first financing of a solar photovoltaic rooftop portfolio for the commercial and industrial segment in Vietnam. This mobilized ~8x of investment capital.[12]

Greenway: Enabled the rollout of up to 1,000,000 improved cookstoves as a carbon credit project through a liquidity reserve which mobilized ~12x of investment capital. This initiative addresses health hazards caused by inefficient cooking practices, aiming to save lives and empower mostly women by reducing their domestic workload.

Each investment harnessed the power of innovative financing to help improve commercial viability at scale and maximize impact by tailoring solutions to meet regional needs. Here, we distill six key takeaways:

Strategic Partnerships: Strategic partnerships bring added value via pooled experience and expertise.

Additional Capital: Blending funds unlocked significant additional capital – more than 20x the initial investment on average.

Proof-of-Concept: Blended finance aids in proving the concept for innovative technologies and commercial viability.

Project Selection and Visibility: Rigorous project selection helps address the challenges of prioritizing which opportunities to pursue.

Innovative Financing: Innovative finance mechanisms improve commercial viability.

Regional Focus: Tailoring funds to specific regions can maximize impact.

For more information and key takeaways, explore the full report, *Progress and Lessons from the Climate Innovation and Development Fund*.

Hillhouse

Zhang Lei, Founder & CEO

RESILIENCE TO RALLY: WHAT TENNIS TEACHES US ABOUT BUSINESS POTENTIAL TODAY

VALUE INVESTING WAS TRADITIONALLY ABOUT IDENTIFYING THE POTENTIAL OF A BUSINESS; TODAY, IT'S ABOUT IDENTIFYING THE POTENTIAL RESILIENCE OF A BUSINESS.

I learned early in my career that some of the best lessons in investing could be drawn from the world of sports. At Yale Endowment, I was influenced by Charley Ellis, whose book, *Winning the Loser's Game*, has been a seminal text for investors across the globe for nearly 40 years. Charley provided me with a set of foundational principles that I have revisited again and again through nearly two decades since the founding of Hillhouse.

Perhaps surprisingly, Charley's sporting lessons did not come from the greats. It was courtside at recreational tennis that he identified a powerful metaphor for investment success. In recreational tennis, the winner tends not to be the player with the best volley from the net or most powerful serve, but the player who can consistently return the ball, leaving the onus on their opponent to make mistakes. When recreational tennis players win against themselves, they win against their opponents.

It is this concept that I reinforce with entrepreneurs, portfolio companies, and colleagues. To succeed over time, you don't have to be the strongest, but the most consistent – ready, with a steady mind, to rise to the occasion and capitalise on opponents' unforced errors. We've learned that the real investment opportunity out there is that of compounding capital over time. It is through consistency that companies build market share; it is through resilience that companies maintain it.

CALM AND READY AT THE NET

Over the recent past, the importance of consistency and resilience particularly stands out. For the past 40 years, Asia has followed a near constant upward growth trajectory. While Asia still delivered about two thirds of global growth last year, forecasts remain significantly lower than pre-pandemic projections, with both domestic output and external demand challenged by a series of global shocks.

Within Asian economies, and indeed globally, the journey through structural change –– in demographics, digitization, climate transition, and the evolution of the consumer –– is never straightforward; combined with a more challenging macroeconomic backdrop, these structural dynamics are testing companies' ability to get that 'ball back over the net'.

It is through these more difficult times that true leadership and management strength develop; under pressure, the greatest companies pivot, embrace change, and deliver despite major headwinds. Today, we see 'traditional' businesses evolving across markets, but particularly in Asia, where many management teams are ready for the next rally on the proverbial tennis court.

Many are ready because they have managed balance sheets conservatively; have taken a proactive approach to problem solving; and/or are willing to embrace technology to transform conventional business models for the next phase of growth. These tenets are what prepares and equips companies to keep going, even when it seems like they're on the brink of 'losing a set', with the rain about to stop play on the court.

CONSISTENCY DRILLS: BETTER UNDERSTANDING CUSTOMERS

During the pandemic, one of our portfolio partners, Belle, one of the world's largest shoe retailers, found themselves selling the latest footwear into a consumer population stuck at home in their slippers. Yet, right from the outset of our work with Founder Deng Yao and CEO Sheng Bajjiao in 2017, we knew that no other shoe retailer in the world could match the company's scale and supply chain; Belle's seamless manufacturing, distribution, and logistics networks were primed for digital transformation.

Digitizing the firm's offline stores future-proofed the company's existing loyal customer base. The strategy also drew on in-store employees' product insight and customer knowledge, empowering existing talent on a digital platform. Leveraging Belle and Hillhouse's existing capabilities, together we evolved the firm's CRM and technology efforts to discover, reach, and better understand customers. Three years later, in a global pandemic, this proximity to customers and digital agility was key to its resilience. At the height of global lockdowns, Belle was well ahead of its peers in its ability to adapt and pivot across a rapid response supply chain and digital network.

GROUNDSTROKES: BUILDING LOCAL FOR GLOBAL CAPABILITIES

From our work with Belle, we understood the gains to be made by tightening the feedback loop between customer, product development, and production – and the innovation potential of connecting supply chains, category expansion, and customer demand through data insights. Even strong performers had room to hone their 'groundstrokes'.

At the beginning of 2021, we acquired Philips Domestic Appliances, known today as Versuni. While the company had a sophisticated manufacturing process and management system, it lacked visibility on key metrics – from sales forecast and inventory management to cost controls and supply chain management – to optimize its operational resilience. Asia is the global leader in domestic appliance innovation, and, with Hillhouse's support, Philips Domestic Appliances could leverage the speed and agility of execution developed in Asia on a global basis.

Going back to basics, to the ways in which customers respond to new products and innovations at a local level, has revolutionized how Philips Domestic Appliances goes to market with its products. Data-centric product innovation has helped the business redefine competition in categories; by reimagining appliances for a new generation of users, Philips Domestic Appliances' newly launched Philips Airfryer quickly became the fastest selling product in the company's history.

Today, the company is doubling down on what it does best in its core categories – coffee machines, air purifiers, and hand-held steamers – where a data-centric approach can only enhance the strength of its existing presence, high brand awareness and significant market share. Unsurprisingly, Philips Domestic Appliances is now outperforming its closest peers by exceeding its own operational aspirations.

This is the beauty of businesses developing in Asia today. Innovation-led leaders, well-managed balance sheets, and conventional companies are optimising; in doing so, they are developing resilience for whatever challenges lie ahead. For management teams – and investors – ready for the next rally, the match is just getting started.

IFM Investors

David Neal, Chief Executive

IFM Investors

MULTI-LEVEL ACTION TO DELIVER LONG-TERM RETURNS

IFM Investors' purpose is to invest, protect, and grow the long-term retirement savings of working people.

WORKING WITH INVESTEE INFRASTRUCTURE COMPANIES THROUGH THE ENERGY TRANSITION

As one of the largest infrastructure investors in the world, our approach at investee companies centers on long-term ownership and the active management of essential community assets, such as water management services, tolls roads, and airports. While our asset-level activities remain vital to delivering real world emissions reductions, our approach has evolved to include system-level actions towards stronger economic, environmental, and social systems.

PUBLIC-PRIVATE COLLABORATION TO DRIVE SYSTEMIC CHANGE

We believe that long-term investment returns are dependent on healthy economic, environmental, and social systems, all of which can be positively influenced through policy advocacy. Systemic change cannot be achieved by the private sector alone. We need increased collaboration among all stakeholders and strong leadership from governments to address the complex and converging issues in the energy transition and unlock the capital it requires. Government needs to work with investors and set "rules of the road" that incentivize sustainable market behaviors and allocation of capital.

IFM believes investors have an important role to play in supporting appropriate government action. Governments face a fiendishly complex set of risks in steering economies through the energy transition. Setting policy and regulations that support an orderly transition can be aided by well-informed, long-term investors that recognize the need for public policy to reflect the public interest.

IFM has been working closely with governments globally to help achieve the public policy and investment settings that can facilitate investment in the energy transition and support climate risk mitigation. For example, IFM convened eight of Australia's largest investors representing around A$1 tr of assets under management to agree on a single set of recommendations – a policy blueprint – that we believe would help the Australian economy accelerate its energy transition. These include recommendations for how to increase competition in the delivery of greenfield transmission projects; enhance community consultation and planning; incentivize investment in community and distribution-level batteries through regulatory change; and develop a Sustainable Aviation Fuel (SAF) industry in Australia.

IFM also has entered collaborative strategic initiatives with other private sector organizations that seek to deliver strong long-term returns for our investors, as well as delivering broader sectoral and system benefits. For example, IFM entered into a memorandum of understanding with GrainCorp Limited (GrainCorp), the largest processor of renewable feedstocks in Australia and New Zealand, to jointly study the feasibility of producing SAF in Australia. Together, IFM and GrainCorp bring expertise spanning the entire SAF supply chain, from farming of renewable feedstocks to airside refueling. The initiative is a significant step in IFM's commitment to work with policy makers and the aviation sector to accelerate efforts to decarbonise aviation through the use of SAF.

IFM has also partnered with QIC, another of Australia's largest infrastructure fund managers, and designed and executed a large-scale power-purchase agreement program – the largest multi-asset, multi-state program of its kind in Australia – which will help reduce electricity costs and greenhouse gas emissions at key Australian airports, ports, energy utilities, roads, and hospitals. It is estimated the project will facilitate the supply of more than 400 GWh of renewable energy per annum by 2025.

IFM and QIC partnered in the program to help create the scale necessary to deliver cost savings and significant emissions reductions for the portfolio companies they manage. By joining this program, several of IFM's assets have been able to accelerate their net zero targets. (Neither IFM or GIC charged fees for organising the program, and other infrastructure businesses are encouraged to join the program to accelerate the Australian infrastructure sector's net zero efforts.)

IMPROVING INDUSTRY PRACTICE IN THE INTEGRATION OF SOCIAL FACTORS

In addition to the economic and environmental change occurring as part of the global energy transition, the integration of social factors into our investment activities is a core focus for IFM. For example, IFM's Chief Strategy Officer, Luba Nikulina, chairs the UK Taskforce on Social Factors, established by the UK Department for Work and Pensions, which has released guidance for the UK pensions industry on how social factors can be better incorporated into investment decisions and stewardship policies. The guide is intended to provide pension trustees with the tools to identify and monitor social risks and opportunities and develop consensus in approaching these across the pension investment landscape.

IFM looks forward to working with FCLTGlobal and other institutions seeking to focus capital on the long term to contribute to healthier environmental and social systems in the years to come.

Kempen

Maarten Edixhoven, Chair of the Management Board & CEO

SUSTAINABLE FARMING AT VAN LANSCHOT KEMPEN – A LONG-TERM SOLUTION TO A NEAR-TERM PROBLEM

Today, the agricultural sector is a frequent topic of interest and discussion. Whether this relates to healthy food, the climate, biodiversity, or spatial planning it plays a key role in several of the major issues currently facing our society. The agriculture sector is responsible for roughly one fifth of global greenhouse gas emissions and a significantly higher percentage on water and biodiversity impact. The WEF estimates that 50 percent of the global economy is under threat from biodiversity loss – equivalent to $44 trillion in global GDP. Similar findings apply for water: 50 percent of biodiversity loss in freshwater is caused by food systems, and food production is responsible for 70 percent of freshwater withdrawals. The entire food system is responsible for a third of emissions according to studies presented by the Global Alliance for the Future of Food this year. Yet only a mere 3 percent of total public climate capital is allocated towards improving the food system.

At Van Lanschot Kempen, we believe that more capital should be directed towards natural capital solutions. Inspired by our Dutch post-war agriculture history, sometimes a boon, sometimes a bane, agriculture has been our natural habitat. And one doesn't need to look far to find a solution. In fact, it can be found right under our feet: Our soil.

DESIGNING A SUSTAINABLE FARMLANDS FUND

Five years ago, our private markets team started a journey together with Dutch pension fund investors in designing a long-term oriented sustainable farmlands fund. The fund makes physical investments in farmland and invests alongside local farmers in the cultivation of crops, mainly for human consumption. Over the years, the fund has invested in a variety of over 25 different crops in nine different countries worldwide. The fund was relatively early in investing in an olive tree plantation in Portugal, benefiting from the world-leading Alentejo irrigation project. Since, it has acquired a citrus farm in Spain, Macadamia orchards in Australia, a cherry growing and packing operation in New Zealand, and Pistachio plantations in the U.S. A majority of investments are allocated to broad acre cropping or annual crops such as wheat, barley, canola, or vegetables.

The fund has "sustainable investments" as its objective and invests in agricultural land assets that contribute to environmental and social goals, including decent living standards and wellbeing for end-users, climate change adaptation in line with the Paris Agreement, transitioning to a circular economy, and protecting biodiversity and ecosystems from farm to fork. The Fund focuses on sustainable and regenerative agricultural practices and as such the Fund targets six impact themes and six Sustainable Development Goals (SDGs) as set in the 2030 Agenda for Sustainable Development of the United Nations around food, health, water, biodiversity, circularity, and climate.

One of the main objectives was building a healthy soil that can effectively store carbon and restore a more resilient living system. Healthy soil leads to healthy plants and animals, healthy food, and ultimately to healthy people. The first results collected from our surveys and samples look promising. A number of readings on soil organic matter and water holding capacity have gone up, while the use of synthetic inputs and residues in our crops from pesticides or fungicides have dropped. It takes time and collective effort though to standardize the data and show a positive trend on certain metrics, such as soil microbial activity and biodiversity. Our investors are patient and understand that this is a long-term effort, but they do require an upward trend and rely on carefully agreed KPI's. Our most inspiring learning so far has been the engagement with a new generation of knowledge-driven, regenerative farmers who are countering a perception of an ageing industry of laggards. Instead, they are offering a much more promising and sustainable, and sometimes tech-savvy perspective.

CHALLENGES AND LEARNINGS IN REGENERATIVE FARMING

The transition to a more sustainable, nature-inclusive future requires a long-term outlook and cooperation across the entire food chain. Trust with the farmers is key and relationships have to be built on long-termism and fair share. Some urban myths need to be debunked, such as the idea that the shortage of food globally makes productivity the only key objective – or that the food system's evolution leaves no margin for the farmer. Sustainable, regenerative farming is all about being able to produce healthy crops long term, where our conventional farming system may run out of productive top soil in one or two generations. The principles defined around regenerative farming are well known: disturb the soil less; provide a greater diversity of plants; maintain living roots in the soil as much as possible; and keep the soil covered with plants and their residues at all times. Our key learning is that the principle of re-generation is just as important on the field as it is in our relationships. Re-generating relationships between farmers, consumers, and all other stakeholders within the chain is key in the process of transitioning our food system from an extractive to a symbiotic, collaborative system.

Investments in farmland are a vital part of this transition and as such can be very effective in combining financial return with sustainability goals. While the role of institutional capital in farmland may be debated and even be met with controversy, this only applies to most of the passive capital that merely seeks a financial return and reinforces the current system (go with the flow).

Institutional capital, however, can also greatly support and expedite the regenerative system and address the hurdles in demonstrating that it is financially attractive, in evidencing the ecological and agronomic impact, and in establishing alignment with the various stakeholders in the long run.

KPMG

Bill Thomas, Global Chairman & CEO

HOW WE MAKE THE DIFFERENCE

KPMG is at its strongest when our 270,000+ people throughout 143 countries and territories are aligned behind a common set of values and working side by side to solve problems. Every day, we bring the best people, innovative technology, and our collective experience to the table to help clients, businesses, governments, and the communities we serve.

Now more than ever, collaboration across discipline and geography is critical, especially as the world navigates shared and ever more pressing challenges. Businesses are essential in developing many needed solutions, and how we measure progress towards those solutions is a key driver of long-term value creation that will lead to a more sustainable future.

MEASUREMENT INSTILLS ACCOUNTABILITY

In 2021, KPMG launched Our Impact Plan, bringing together our environmental, social and governance (ESG) commitments under one umbrella. Measurement instills accountability, and by design, Our Impact Plan maps our trajectory to becoming a better business. From carbon emissions to Inclusion, Diversity and Equity (IDE), we analyze what we can and should be doing to meet our responsibility to help shape a better future by doing what we do best — solving problems to make lasting, meaningful change.

TRANSPARENCY BUILDS MOMENTUM

Three years on, we continue to publish our progress annually. We want our people, our clients and everyone who relies on us to understand where we are and where we are going. Being open and transparent, even when it may be uncomfortable, has been incredibly important. One of the most important lessons we've learned since starting this journey is that transparency fortifies commitment and keeps people focused on driving meaningful change, even if it may take longer than expected.

SMALL THINGS ADD UP TO BIGGER SUCCESSES

We continue to make strong progress against a range of goals that are important to our business, our people, and clients. For example, last year, we reached a 25 percent carbon emissions reduction against our 2019 baseline, achieved a 50:50 gender balance on our Global Management Team, and used our scale to invite more than 500 key global suppliers to disclose their carbon footprint data.

This year, for the first time, we are reporting with reference to the Global Reporting Initiative (GRI) guidance and have used GRI 3 to help shape our approach to our materiality assessment refresh. We're also making large investments throughout our organization on our people and technology to embed ESG in everything we do.

The old adage, what gets measured gets done, has been a guiding principle of our journey to build a better, more sustainable business. Each goal we set out to achieve is a piece of a much larger mosaic, and through Our Impact Plan, we continue to gather and analyze data about ourselves. Because of it, we are better positioned to invest in our people and have a better understanding of how we can better help our clients achieve their own goals.

By tying together purpose and profit, we're strengthening our business, while developing solutions and strategies for challenges that impact all of us.
It adds up to a more sustainable and more resilient future.

Liberty Mutual Investments

Vlad Barbalat, President & Chief Investment Officer

Liberty Mutual Investments™

CAPITAL AS A FORCE FOR GOOD: THE UNIQUE, LONG-TERM ADVANTAGES OF LIBERTY MUTUAL INVESTMENTS

LONG-TERM FOCUS AND THE ADVANTAGES OF MUTUAL STATUS

Liberty Mutual Investments (LMI) manages ~$100 billion in assets for Liberty Mutual Insurance, a Fortune 100 property and casualty insurance company. Insurance is the bedrock of commerce. Our products allow individuals and businesses, large and small, to transfer and share risks that would otherwise inhibit economic progress. As the investment arm of Liberty Mutual, our objective is to generate the capital needed to support this broader social purpose over the long run.

Being a mutual company provides us with distinct advantages in pursuing this mission with a long-term focus. Our structure fundamentally differentiates us from our competitors. Rather than distributing capital to shareholders, we grow, retain, and compound our capital in the interest of our policyholders, regulators, and broader stakeholders over time. Our mutual structure is fundamental to our commitment to investing with a long-term view, but equally critical is the differentiated culture and commitment to innovation that shape our approach to investing.

A DIFFERENTIATED CULTURE

Our culture is a sustained source of differentiation that drives our commitment to take a long-term perspective. LMI is guided by three cultural pillars:

- **Uncompromising Excellence**: We put our capital at risk every day, navigate complex problems, and represent our firm with partners across the globe. We take our responsibilities as stewards of Liberty's capital seriously and never compromise in our pursuit of excellence.
- **Intellectual Vitality**: We are not in the business of predicting the future, but we are in the business of being prepared for all its eventualities. To do that, we must sustain intellectual curiosity and an innate hunger for continuous learning. We are willing to question assumptions, to challenge each other constructively, and to consider perspectives that are different than our own. Intellectual vitality requires a culture that is deeply committed to a meritocracy above all – it is nonnegotiable.
- **Capital as a Force for Good**: Our investing philosophy is guided by driving strong financial returns, but we will never sacrifice our integrity or our duty to deploy our capital to projects and partnerships that ultimately serve as a force for good. We will use our influence, we will use our capital, and we will use our energy to drive a better future.

LONG-TERM FOCUS ≠ CAUTION: A PROVEN TRACK-RECORD IN DISRUPTIVE INNOVATION

LMI has been investing in venture capital on a large scale since the early 1980s, giving us a unique vantage point, access, and expertise. Through our partnerships and networks, we identify secular trends that have the potential for creating tectonic shifts in our economy. Beginning in 2010, we recognized and capitalized on the concept of "software eating the world" by strategically gaining exposure to software and software-enabling businesses across various sectors in our private investment portfolio. When we identify key trends, we invest across the entire value chain and capital structures of businesses driving the emergence of artificial intelligence, climate technology, and life sciences. These investments generate financial return and leverage our partnerships to deliver the full capabilities of Liberty Mutual Insurance to drive innovation and commerce.

To replace flawed systems, society needs disruptive technologies and innovative business models. LMI's dedicated investment teams in Energy Transition & Infrastructure (ET&I) and Impact Investing are helping meet this need for innovation in socially vital areas. These teams have the flexibility to invest across structures and sectors in projects and businesses that lack access to traditional sources of capital.

In the area of ET&I, LMI has been actively supporting the global transition to a decarbonized economy for more than a decade. The ET&I team has a strong track record of generating attractive returns across many low-carbon technologies. As an example, our capital is supporting the development and construction of some of the world's largest renewable energy and storage resources.

To expand its impact, LMI broadened the ET&I mandate to include new sectors. In digital infrastructure, we are bridging the digital divide by providing growth capital to fiber optic new builds in rural and underserved communities. Our capital also supports the "circular economy" by capitalizing on projects that remove agricultural waste and transform it into a valuable energy resource. We are also actively investing in onshoring for the energy transition, providing financing to manufacturing facilities that support both job growth and the domestic renewable energy value chain.

The recently launched Impact Investing strategy is positioning us at the forefront on a number of evolving social challenges and is pursuing investments that boost social mobility, expand access to essential services, and support resiliency, revitalization, and adaptation in distressed communities. It pursues these objectives by investing alongside partners with deep expertise in niche sectors who are typically employing a novel approach to solving pressing social challenges.

SUSTAINING OUR LONG-TERM COMMITMENT TO CAPITAL AS A FORCE FOR GOOD

LMI occupies a unique position in the financial industry, leveraging its status as a mutual company and differentiated culture to prioritize long-term goals and investments in innovation and societal impact. LMI's culture and dedication to disruptive innovation has not only yielded financial success but has also positioned the company at the forefront of major shifts in technology and industry trends. Across both Impact and ET&I investments, LMI maximizes long-term investment returns by building partnerships with innovative firms who are investing in areas where capital is most constrained. This focus on innovation, sustainability, and impact enables LMI to create capital as a force for good and contribute to meaningful change.

Mastercard

WHEN WE CONNECT WOMEN ENTREPRENEURS TO CAPITAL, THE WHOLE WORLD WINS.

In rural Brazil, a group of women banded together to gather baru, a wild chestnut. When they had little luck selling baru as a snack in local markets, they came up with a plan to turn their harvest into a base for a dark, frothy Guinness-like beer. Despite their ingenuity and hard work ethic, the women were missing a key ingredient for success: access to capital needed for equipment and distribution of their first batch. The plight of this baru cooperative is all too common for women entrepreneurs around the world, whether it's a simple one-woman operation or a hot tech startup with growth potential, women-owned firms are plagued by funding challenges.

Companies with only female founders raised just 2.2 percent of all venture funding in the first eight months of 2021, according to an analysis by Crunchbase; this is lower than any of the five previous calendar years. Historically, women entrepreneurs are less likely to get approved for bank loans and are often subject to higher interest rates and smaller loan amounts. In developing economies, women-owned businesses make up 23 percent of micro, small, and medium-size businesses but account for 32 percent of the overall financing gap.

Women entrepreneurs also do not always have banking services or digital tools, which can help grow an informal cash-based business into one with a larger financial footprint. While the proliferation of mobile money in sub-Saharan Africa has boosted financial inclusion for women, the gender gap in account ownership in developing economies overall has fallen but stands at 6 percent, according to the World Bank, and 740 million women — equivalent to 13 percent of the world's adults — still do not have a bank or mobile money account.

Nevertheless, there's a significant upside to supporting women-led businesses.

On a larger scale, attaining economic parity for women could add $12 trillion to the world economy, according to the World Economic Forum. If women were able to participate in entrepreneurship at the same rate as men, global gross domestic product would rise by an additional 3 percent to 6 percent, equivalent to $2.5 trillion to $5 trillion in value, according to one estimate. Lenders would also do well by investing in women. One study found that even though female-led startups receive less than half the funding that male-founded ones do, they generate 10 percent more cumulative revenue. This benefits the wider community as well, creating financial security and an asset base for entire family groups and local economies.

Mastercard is working to connect women entrepreneurs to the tools they need. We recently announced the fulfillment of our pledge to connect 25 million women entrepreneurs worldwide to the solutions they need to grow their businesses, two years ahead of schedule. To meet that ambitious goal, we focused on digital acceptance of payments, access to credit and mentorship, as well as networking and other forms of expertise.

In Latin America, Mastercard co-created a new value proposition to digitize small retailers so they are able to accept electronic payments and pay suppliers digitally. For instance, we are partnering with some of the largest consumer packaged goods brands by arming their network of small mom-and-pop distributors with the ability to accept digital payments. That allows these entrepreneurs to get paid almost in real time, giving them funds with which to purchase more stock, while at the same time equipping these brands with insight into which distributors might need additional capital in order to grow.

Meanwhile, for the women harvesting baru nuts in Brazil, help for their traditional business came in a very 21st-century form. Moeda, a social investing platform and veteran of our Start Path startup engagement program, uses blockchain to link worthy entrepreneurs with investors looking for both profit and social good, and it extended a microloan that allowed the cooperative to purchase equipment and turn their harvest into Baru Beer. That beer sold out in a matter of months, netting perhaps five times what the women could have earned by selling the nuts alone. And as those newly converted Baru Beer fans will agree, unlocking the potential of these fierce entrepreneurs will benefit everyone.

Women entrepreneurs face unique barriers to success, from challenges in obtaining funding to inadequate access to basic financial services and tools, but a world that works better for women creates limitless possibilities for us all. That's why Mastercard is committed to building an inclusive digital economy where everyone prospers and providing these women-owned small businesses with solutions that can help them grow and thrive. By harnessing technology, philanthropy and our network of partners, we're closing the capital, insights, and resources gap so women-owned businesses around the world can thrive, their communities thrive, and our economies thrive.

McKinsey & Company

Bob Sternfels, Global Managing Partner

McKinsey & Company

ACCELERATING LONG-TERM, INCLUSIVE ECONOMIC GROWTH AND A SUSTAINABLE FUTURE FOR OUR PLANET

Sustainable and inclusive growth is what we aspire to achieve through our work – and how we measure our long-term impact on society. We're making progress. Our clients contribute 20 percent to global GDP growth, create 1 million jobs per year, and make up 80 percent of reported CO2 emissions reduction. We're inspired by this. We also know there is much more to be done.

ACTING NOW FOR A SUSTAINABLE FUTURE

We're helping leaders build sustainable businesses for the long term. Last year, more than 3,500 of our colleagues worked on more than 1,600 sustainability engagements with 600 clients across nearly 60 countries and in every industry. We have introduced an internal carbon fee on air travel, and we continue to convene leaders, including at COP28, to launch fresh solutions. Our new Climate Transition Framework, for example, will help ensure people remain at the center of the net-zero transition, and Frontier – an advance market commitment we co-founded with Alphabet, Meta, Shopify, and Stripe – is helping to expand the global supply of carbon removal.

ACCELERATING LONG-TERM, INCLUSIVE ECONOMIC GROWTH

We believe that giving more people a chance to participate in the economy can accelerate long-term growth and that economic growth can in turn drive more inclusion. New businesses are critical in this. Our Leap by McKinsey colleagues helped clients build nearly 200 new businesses last year, creating more than 20,000 jobs and $140 billion in value. We have committed $2 billion to social responsibility efforts by 2030 and have so far contributed nearly $620 million in cash and in-kind support toward that commitment.

We are also working to build a more inclusive firm to ensure that everyone with the skills and talent has a shot at our firm. We have tripled our number of Black hires and elected twice the number of women partners in five years. Now our global workforce is 48 percent women. We continue to hire distinctive talent from anywhere and have increased our sources of recruiting to 1,700. Our progress in these areas inspires us to do even more.

INVESTING IN GOVERNANCE FOR LONG-TERM RESILIENCE

True resilience—the ability to absorb shocks and thrive as disruptions continue – is critical to long-term success. We have heavily invested in our governance capabilities, strengthening the foundation of our business for the long term. Since 2018, we have spent nearly $700 million on our risk management teams, capabilities, and processes. We have also introduced an industry-leading framework, CITIO, to assess proposed work along multiple dimensions, which includes vetting client organizations and relevant individuals. This extends to our suppliers and internal systems, where we have improved cybersecurity controls, data and document retention, and process management. Annually, 100 percent of our colleagues participate in a rigorous professional standards and risk training program.

These actions are just a few of the ways we are working every day, in every one of our 65+ global offices, to accelerate sustainable, inclusive, and long-term growth. We hope they inspire others as they continue to inspire us.

MFS

Carol Geremia, President & Head of Global Distribution

SHAPING LONG-TERM FOCUS: PRACTICAL STRATEGIES FOR ALIGNING TIME HORIZONS

We know from 100 years of investment management that patience is not just a virtue – it's an asset and a vital source of durable value creation for all of our stakeholders. We also know that in an extremely competitive market – and one that is exacerbating short-term incentives, actions, and expectations – having a genuinely long-term orientation is a source of differentiation and analysis advantage.

The best decisions that we make for our stakeholders – including our employees, clients, shareholders, communities, and suppliers – are those that prioritize their long-term success. Nurturing our culture, creating an environment that attracts and develops the best talent, and making decisions that place the value we create for others above all else has helped us to work cohesively and consistently towards aligning with our stakeholders. It has created a competitive moat around our client and employee value proposition decades in the making that allows us the surety of continuing to invest in the future health of our company.

BRINGING TOGETHER LEADERS TO SOLVE STAKEHOLDER CHALLENGES

Over the last few years, we have sought to structurally embed this ethos into our business by creating what we call our Client Alignment Platform, with the explicit purpose of being "an inclusive leadership forum, designed to enable, empower, and embed transformational projects and spark innovation in the organization that are aligned to the long-term mission, vision, and strategic goals" of the company; all to create value for our clients.

The platform brings senior leaders from all departments together and empowers them to understand, explore and solve challenges that stem from any potential misalignment with our stakeholders. This can range from how we better govern the journey our employees experience, to our corporate sustainability and DEI activities, and how we manage data and leverage technology in the midst of the digital transformation underway. During the last three years, over 350 senior colleagues (~16% of all employees) have worked together in small, dedicated teams to help us to not only solve but anticipate some of the biggest challenges the industry faces and have helped us remain strongly aligned with our stakeholders.

ADDRESSING TIME HORIZON MISALIGNMENT PRACTICALLY

As an investment organization, one of the most important stakeholders we have is our client, and one of the greatest sources of potential misalignment in our industry is of course the issue of time horizons and pervasive short-termism. Therefore, many of the project teams have directly and indirectly sought to address this issue on multiple fronts. Some practical examples include:

- Changing the way we present performance information to our Boards and our clients to underscore our commitment to long-term value creation. E.g., we included 1,3,5,10 year rolling returns pages in our product and client review books and changed the order of our performance metrics. Making seemingly simple improvements in transparency has actually enabled and facilitated discussions that are more oriented to long-term thinking.
- Bringing the organization together on the employee value proposition and having a holistic framework

to understand the employee journey over time. Identifying those key areas in the employees' journey where they need support, challenges, and opportunities to develop their skills has resulted in low employee turnover (e.g., 3-year turnover for all of MFS is 5.8% and for investment team is 3.3%) which is so important in the asset management industry where people are your capital.

- Transforming our mindset around data, leading to a significant multi-year investment in our technological tools that will allow us to deepen our value proposition to clients and employees in the long term. In an evolving data and technology environment, we have been expanding our platform and building new capabilities to better deliver on our purpose (e.g. evaluate risk and opportunities related to climate transition) with the client experience in mind (e.g. customization needs)

Each one of these actions is an important part of the mosaic of how we ensure we remain long-term oriented in our decision-making. All together, they are helping us to collectively – and intentionally – shape our shared future. Creating an environment for diverse groups of leaders to come together and take accountability over that alignment has helped us to create an exciting flywheel, that is both building the future leadership of the firm and delivering positive outcomes for all of our stakeholders.

MSCI

TRACKING KEY TRENDS FOR LONG-TERM INVESTORS IN THE YEAR AHEAD

Companies that aim to harness the potential of artificial intelligence may need to reinforce their capabilities in areas ranging from data privacy and regulatory compliance to talent management, according to the latest annual edition of MSCI ESG Research's Climate and Sustainability Trends to Watch, which outlines a series of currents for investors to keep an eye on in the year ahead.

Investors might well be examining whether companies developing AI foundation models or AI-driven applications for consumers are integrating guardrails and guidelines covering privacy. While AI has the potential to unlock improvements in labor productivity, investors might also ask which companies will invest in their employees alongside AI and which will limit their focus to cutting costs.

The ability of companies to manage the basics in connection with AI is one of eight trends that could command the attention of companies and investors in 2024.

The importance of investments in nature will only increase -- Investors are increasingly able to assess the possible impacts of nature-related loss on their portfolios. Rising levels of debt distress in developing countries could fuel the market for debt-for-nature swaps that, with risk guarantees from multilateral development banks, could generate interest from private investors. The voluntary carbon market could see an increase in nature-related investments.

Climate transition risk in private markets comes into focus -- Investors are sharpening their view of risks to private assets that may accompany the transition to a low-carbon economy. Distressed-debt funds, for example, appear to face the highest levels of climate-transition risk compared with other private equity or debt. Private companies in distressed-debt portfolios could see an average fall in their operating margins of 133 basis points in a market with a hypothetical global carbon price of USD 75 per ton.

Homeowners and workers confront climate hazards -- Extreme weather and other effects of climate change are increasingly affecting where and how people live and work. In three U.S. states that face higher-than-average exposure to acute climate hazards -- Oklahoma, Arkansas and Mississippi -- the cost of homeowners insurance relative to income is already among the least affordable in the country. Rising levels of heat and humidity add to the costs for workers and management alike. Measuring risk holistically – and managing it – is an immediate challenge.

Challenges for corporate oversight -- 2024 could present new challenges for corporate oversight amid an acceleration of efforts to assess the quality of listed-company audits. The number of audit deficiencies flagged by overseers in the U.S., U.K., and India rose 302 percent as of September 2023 from a year earlier, according to the report. At the same time, more and more companies are aiming to recruit directors whose skills match evolving demands that range from technology and cybersecurity to engineering and sustainability. That may compound the difficulty of finding candidates who are not already filling director roles elsewhere; the number of board seats occupied by directors who possess each of three core competencies (finance, risk management and industry experience) fell overall at large-cap companies globally in 2023.

On the lookout for orphaned emissions -- Financial regulators in a growing number of countries are poised to roll out requirements that companies publish their greenhouse gas emissions and other climate-related financial information. Still, it will be important to distinguish genuine corporate climate transition plans from differences in accounting. Companies have used methods ranging from excluding emissions from business units slated for sale to structuring finance as corporate debt issued by special purpose vehicles to keep fossil-fuel assets without counting their emissions in top-line tallies.

Scrutiny of supply chains ups the need for corporate action -- The European Union's requirement for products to be free of commodities produced on recently deforested land is slated to come into effect, potentially ushering in the first of a series of similar initiatives globally that will force companies to not only ramp up their risk assessments and reporting but to monitor such risks proactively. For example, the need for action could drive demand for satellite monitoring, blockchain ledgers for grain, and electronic tagging of cattle. Besides food producers needing to revamp their traceability efforts, sustainable finance frameworks in the EU and elsewhere will also obligate companies to report on risks to human-rights, including modern slavery.

The SFDR's unintended consequence for climate capital -- EU funds that have sustainability as a main objective need to consider so-called principal adverse indicators (PAIs) as prescribed by the bloc's Sustainable Finance Disclosure Regulation. Yet as of June 2023, companies in emerging markets fell short far more often than their developed-market peers on PAIs tied to compliance with international norms and board diversity. Emerging-market issuers also lagged on carbon and energy-related indicators. While such roadblocks may get in the way of companies' inclusion in sustainable investment products and portfolios, the learnings may be applied in the future; the EU Commission is expected to revise the SFDR's technical standards this year. Still, investors may be watching for any changes that affect how their capital is steered and for any shift in the balance between sustainable-investment objectives and imperatives for a global climate transition.

Ultimately, amid the challenges, there are silver linings.

Nasdaq Inc.

LEVERAGING TECHNOLOGY TO SIMPLIFY THE LIVES OF OUR CLIENTS

Nasdaq's role as an exchange operator, public company, and provider of ESG-focused marketplace solutions gives us a unique perspective on the challenges corporates face in navigating the capital markets and investor engagement. Nasdaq as an Enterprise is on our own ESG journey – a strategy underpinned by our corporate purpose: to advance economic progress for all. Our approach to ESG is focused both internally and externally.

Internally, we manage our businesses' ESG-related risks and opportunities and thecorresponding impact we have as an organization across our own operations. For example, we are taking steps to minimize our environmental footprint and address the negative effects of climate change. In 2022, our net-zero emissions targets were approved by the Science Based Targets initiative, and we achieved carbon neutrality for the fifth consecutive year. We've continued to solidify our position as a destination for the world's leading talent by deepening our culture of diversity, equity, and inclusion. By leading with best-practice governance policies, we continue to solidify our business resilience. These efforts have earned us industry-leading rankings from leading ESG raters and recognition by respected third-party validators for our inclusive workplace policies.

Externally, we strive to have positive economic and societal impact through the Nasdaq Foundation. We support the establishment of thoughtful partnerships aimed at diversifying entrepreneurship and creating accessible pathways to the wealth capital markets can create, expanding our community impact around the globe. Importantly, we also focus on the impact we have on the world through our ESG-related products and services that support our clients' objectives.

Nasdaq's Capital Access Platforms Division is taking advantage of technology to help corporates unlock ROI on their sustainability reporting processes and help investors gain more transparency through unique data and analytics, so they can make better investment decisions. Within Nasdaq's Market Services Division, our Nordic and Baltics markets are leading the global effort in addressing the scale of investment required for green transformation and developing a broad spectrum of investment channels across public and private. Nasdaq's Financial Technology Division is playing an important role in the development of global carbon credit markets. By providing institutional grade infrastructure to the market, we can help address many of the pain points that have so far prevented the market from achieving scale and emerging a genuine tool in the fight against climate change. Recent examples of how these divisions simplify the lives of our clients in their sustainability and impact investing journey include:

CAPITAL ACCESS PLATFORMS

We've been on this journey for many years now to be a true partner to corporates and investors as well as a bridge that helps both groups unlock ROI. Our goals are to help corporates elevate their sustainability reporting process and assist investors in achieving transparency through unique data and analytics to make better decisions. We recently launched three new offerings designed to help corporates and investors streamline their sustainability and impact investing journeys.

Designed for corporates, Nasdaq Metrio™ is a Software as a Service (SaaS)-based, end-to-end platform that helps them to better collect, measure, and report sustainability data. Since the Metrio acquisition announcement last year, Nasdaq quickly integrated

Nasdaq OneReport® and Metrio legacy technologies (combining the power of two market-proven solutions with over 30 years of integrated product history). The platform also features a new Carbon Accounting and Management product for companies looking to focus on their scope 1, 2, and 3 emissions.

The new Nasdaq eVestment® ESG Analytics solution generates greater transparency for the global institutional market, so investors can make better data-driven impact investment decisions. The offering provides qualitative and quantitative information for the institutional investment community to understand risks and exposures. Asset owners, managers, investors, and consultants will now have more transparency – including sustainability and diversity data – so they can make more informed decisions.

Nasdaq Sustainable Lens™ is a SaaS-based ESG intelligence platform that harnesses the power of generative artificial intelligence (AI) to help companies navigate complexity and stakeholders' asks for greater transparency. Nasdaq has been leveraging AI for several years, and Sustainable Lens is the latest example of how we're using technology to help simplify and reduce cost burdens for companies around sustainability and ESG reporting.

MARKET SERVICES

Our European Market Services has developed a standardized and transparent framework to facilitate both equity and debt financing for companies. These initiatives include Nasdaq Green Designations and sustainable bonds, educating institutional and public investors to allocate capital to environmentally conscious companies and projects.

Nasdaq also acquired a majority stake in Puro.earth, the world's leading crediting platform for engineered carbon removal. This strategic partnership connects industrial carbon removal, based on the Puro Standard, with buyers seeking to implement sustainability goals by removing carbon dioxide from the atmosphere. Beyond the benefits of providing our global network of corporate clients with access to scienced-based carbon removal projects, we also envision the partnership to support the development of global carbon marketplaces that will be critical in scaling the investment and innovation required to achieve the net-zero ambition.

FINANCIAL TECHNOLOGY

Nasdaq's technology – provided to financial market infrastructures, carbon registry platforms, and other service providers around the world – underpins full trade lifecycle of carbon credits, from trading platforms to the post-trade infrastructure that sits behind the market.

Carbon credit marketplaces, such as CIX Exchange in Singapore which leverages Nasdaq's trading technology, are vital in establishing market-driven prices, allowing participants to compare individual carbon projects and trade standard contracts. Nasdaq also recently launched a pioneering new technology that securely digitizes the issuance, settlement, and custody of carbon credits, allowing market operators and registries to create standardized digital credits and distribute them with full auditability throughout the transaction lifecycle.

In the first major use case of this technology, it will be used by Puro.earth – to register CO2 Removal Certificates, or CORCs. The ability to track issuance, retirement, and the transfer of the assets is vital to provide full traceability and transparency, avoid double counting, and improve overall integrity of the market.

NBIM

Nicolai Tangen, Chief Executive Officer

NORGES BANK
INVESTMENT MANAGEMENT

CLIMATE ACTION AT NBIM

The purpose of the Government Pension Fund Global is to safeguard and build financial wealth for future generations. We believe that long-term value creation for the fund depends on sustainable development in economic, environmental, and social terms. Analysis of our equity portfolio's transition risk shows that a scenario with a delayed policy response would lead to greater financial losses than staying on a 2C pathway. We therefore stand to benefit from an orderly transition.

NBIM has worked with climate change in mind for more than 15 years, and in September 2022 we launched a dedicated Climate Action Plan. Our headline ambition is for our portfolio companies to achieve net zero emissions by 2050. The plan describes how we are working on the market, portfolio, and company levels to achieve this. At the market level, we support standard setters in their efforts to improve the management of climate-related risks and advocate for mandatory climate-related reporting. At the portfolio level, we systematically monitor climate risk in the portfolio, and integrate it into our investment and divestment decisions. At the company level, we want to support our portfolio companies through the climate transition and engage with them to set targets and develop transition plans of their own.

Many of our functions are involved in the implementation of the plan. The market level work is conducted collaboratively across teams, drawing on our experts, but led and coordinated by our Corporate Governance department. It includes engagement with regulators and participation in initiatives that can support capacity building. Our portfolio-level work is mainly led by our investment and risk areas, and company engagements are led by the Corporate Governance department, while our ESG Analytics team supports our data tools and analysis throughout.

HOW WE APPROACHED THE PROJECT

A key tenet of our Climate Action Plan is the "engage to change" approach. We decided to start with the companies with the highest emissions, aiming to conduct in-depth dialogue with the ca 200 companies who are responsible for 70 percent of the financed emissions in our portfolio. In the past year, we have built out this focused engagement through dedicated 'dialogues' with companies in high-emitting sectors and will continue this work in 2024. We refer to these as our net-zero dialogues. In practice, we integrate them with our existing company facing investment and ownership activities.

As a basis for this strengthened dialogue, in August 2023, we published updated climate change expectations of companies, emphasising the need to shift from setting emissions reduction targets to transition planning. We have introduced a small number of 'core' expectations to signal our highest priorities, which directly inform our voting and ownership activities. These core expectations include board oversight, climate risk disclosures, greenhouse gas reporting, net zero 2050 and interim targets, and transition plans. Our updated expectations were shared with the boards of selected companies, and we follow up with letters to "laggards" in cases where companies' practices fall significantly short of our expectations.

The presence of targets is a starting point, but they need to be evaluated. In 2023, we conducted a pilot analysis of the cement industry, assessing how companies' relative emissions performance aligns with the industry pathway. Pathways help us evaluate whether companies plan to reduce their emissions in line with the reduction that the entire industry needs to achieve year-by-year.

IMPACT OF THE CHANGE

One of the key performance indicators we use to evaluate the effectiveness of our climate work is an internal net zero tracker. We have observed a positive development, as close to 65 percent of the fund's financed scope 1 and scope 2 emissions are now covered by net zero targets. We also observe that target setting is linked to emissions reductions: there is a 2 percent reduction for companies with strong targets, compared to an 8 percent increase for those without.

At the company level, we have set specific objectives for each net-zero dialogue. Objectives can include building a relationship with the company, understanding their strategy, conveying our expectations, and seeking impact over deliverable changes in strategy or disclosure. While it is too early to assess progress, we have built a strong understanding of companies' decarbonisation efforts and going forward will engage in a deeper and even more targeted way to effect change. We also observed positive results of our first shareholder resolutions: of the four that we filed, we decided to withdraw two following commitments made by the targeted companies.

This is very encouraging, although we are careful in attributing these outcomes to our engagement. We are a minority investor in all the companies we own, which are subject to pressures from other shareholders, stakeholders, regulators, and market forces.

WHAT WE LEARNED

To analyse the progress of our work, we depend on good data. While climate and sustainability disclosures from companies have increased, we still face challenges in the coverage, quality, and availability of this information. This is why we strongly support initiatives such as the International Sustainability Standard Board's climate standard. Value chain risk and Scope 3 information is particularly key, and good forward-looking information about transition planning and changing business models is still a work in progress for many companies. We need companies to expedite their decarbonisation efforts. We are no longer talking about "hard to abate" but "expensive to abate" – the technology is there, and we want our portfolio companies to invest in a way that creates sustainable value.

The biggest challenge relates to systemic issues, the underlying coordination failures, which are hard for companies and investors alike to address on their own. The high cost and low impact of individual efforts is one example of this; for instance, auto manufacturers rely on critical minerals supply for transitioning and on consumer demand for EVs. Another example is policy uncertainty and occasional backtracking, which makes companies' investment and capital allocation decisions difficult in some sectors. More broadly, we increasingly recognise the importance of a multi-stakeholder perspective, and of analysing the entire value chain to assess the interdependencies of companies' action with suppliers and clients, among others. Finally, we acknowledge the need to devote increased attention to climate physical risk, in light of its ever more apparent manifestation.

Nuveen, A TIAA Company

nuveen
A TIAA Company

ADDRESSING AFFORDABLE HOUSING SHORTAGES THROUGH PUBLIC-PRIVATE PARTNERSHIP AND SUSTAINABLE AND RESPONSIBLE INVESTMENT

The preservation of affordable housing is paramount to protecting underserved populations and maintaining the supply of below-market rental units in high-growth areas. For more than a decade, Nuveen has helped tackle this challenge, investing in preserving the supply of safe, quality, low-cost housing. As of 3Q23, Nuveen has a platform that manages over 161 affordable housing assets, with approximately 32,000 units across 24 states. Given the greatest household expenditures are housing related, Nuveen's underlying mission in this space is to provide residents with affordable rent and targeted supportive services. By lessening the impact of those severely rent burden, residents then have an opportunity to spend their income towards other essential items, including improving health outcomes, and increasing educational advancement, and financial security.

The cost-burden on lower-income renters has become increasingly untenable and lower-income earners in the bottom quintiles of the U.S. population is only growing. Nearly half of extremely low-income renter households are senior citizens and citizens living with diverse abilities. One-third of extremely low-income renter households are in the labor force – 85 percent of whom work more than 40 hours each week.[13]

A STRATEGY TO PROTECT AND BUILD AFFORDABLE HOUSING FOR LOW-INCOME COMMUNITIES

We estimate there are approximately 650,000 units at risk of losing their affordability protections by 2030 unless there is active intervention.[14] In 2022, Nuveen Real Estate launched the Global Impact Investing Sector. Drawing upon more than a decade of investment experience in the space, the U.S. Impact Housing Strategy focuses on building resilience among low-income communities in the U.S., primarily by investing in rent-subsidized, income-restricted, and Naturally Occurring Affordable Housing (NOAH) assets. The strategy concentrates on preserving existing affordable housing stock and developing new units in designated communities. More than 95 percent of our portfolio serves renters who earn 60 percent or less of the Area Median Income (AMI).

In addition to quality housing, Nuveen is committed to providing social services that can positively affect our residents' lives and build strong, healthy communities. Many communities facing the adverse effects of the nationwide affordable housing shortage today are also victims of generational disinvestment in key quality of life resources. Our strategy helps address that disinvestment by building a larger and more sustainable ecosystems for communities to thrive.

BRIDGING PUBLIC AND PRIVATE SECTORS

Addressing the affordable housing crisis will require both scale and partnerships. Our strategy includes building relationships that create an important bridge between private capital and public resources. The traditional model for housing must be reimagined so that municipalities, governments, and private capital can collaborate on this issue – achieving more together than any group could independently. For Nuveen, that partnership approach has driven success and growth. It has yielded many off-market opportunities and allowed us to deliver significant volume of units for communities in need. Investment and partnership at this level benefits residents, investors, and communities as a whole.

SOLUTIONS AND OPPORTUNITIES FOR COMMUNITIES IN NEED

Nuveen's analysis of the U.S. Census American Housing Survey found that lower income renters have a higher share of households living in physically inadequate housing conditions. Moreover, according to a National Low Income Housing Coalition analysis, 11 million extremely low-income renter households occupy or have access to only 3.7 million affordable and available units, leaving a shortage of 7.3 million rental homes.[15]

Responsible institutional investors of affordable housing are providing residents with a safe and sustainable living experience. The numerous benefits from institutional investment entering the affordable housing sector include, but are not limited to:

- ✓ Enhanced resident satisfaction because of improved living conditions, ultimately resulting in lower resident turnover.
- ✓ Increasing seniors' ability to age in place, given the enhanced focus on health and wellness.
- ✓ Integrated sustainability plans that lower utility bills for residents, ultimately creating more room in the budget for other essentials.
- ✓ Providing residents access to WiFi and telehealth.
- ✓ Closing economic gaps through on-time credit reporting and access to rent relief.

In 2023, Nuveen's parent company, TIAA, committed to seed the Nuveen Real Estate U.S. Impact Housing fund with $250 million through the TIAA General Account. The fund is focused on generating strong risk adjusted returns, primarily by investing in a geographically diverse portfolio of properties, including assets that are rent-subsidized, income-restricted, and/or Naturally Occurring Affordable Housing (NOAH). The fund also intends to invest in regenerative development and financing that supports diverse developers of affordable housing. This creates a compelling portfolio allocation for institutional investors, as demand for affordable housing has intensified nationwide and more investors are seeking opportunities that produce positive societal benefits and steady returns.

We view investments in housing through an impact lens, with an intentional focus on upward mobility and financial inclusion. When working in specific communities, we think about solutions holistically – not just as assets, but as bridges to better healthcare, education, transportation, and business development. We are proud of the results we have helped to deliver, but the job is far from done and we look forward to making more progress on this issue in the years ahead.

Onex

Bobby Le Blanc, CEO

CULTIVATING SUSTAINABLE GROWTH FOR THE LONG TERM: EMPOWERING SMALL & MID-SIZED COMPANIES IN THE ONEX PORTFOLIO

At Onex, our commitment to sustainable investing is a collaborative effort to drive long-term value across our diverse portfolio companies. While larger corporations often boast dedicated sustainability teams, small to mid-size companies typically lack such resources. Indeed, there has been a prevailing presumption that sustainability is less critical for smaller enterprises. However, a paradigm shift is underway as smaller companies, embedded in the supply chain of larger counterparts, face increasing pressure from customers and other stakeholders to align with sustainability-related best practices and guidelines, and in some cases, to set targets for improvement. This is particularly true in the area of carbon emissions and climate, as more companies look to measure and reduce their scope 3 emissions found in their up and downstream supply chains.

APPROACH

To address this evolving landscape, our sustainability team held an information session for all our small to mid-sized companies. This session aimed to introduce key sustainability concepts, outline the cost and revenue benefits of sustainability initiatives, discuss the importance of identifying material ESG factors to their business, and highlight market-leading best practices. Following this foundational step, our team engaged individually with each portfolio company to assess their current level of sustainability knowledge and initiatives, and to determine the best next steps. Our objective was to guide each company to develop or enhance its own bespoke sustainability strategy that is focused on the most financially material considerations and tailored to the company's unique circumstances and sector-specific needs. We typically held these meetings with the CEO, CFO, and/or COO to ensure strategic alignment at the outset, with subsequent responsibilities for implementation delegated across the organization as needed.

IMPACT

The impact of our sustainability approach has been substantial. We found that many of our smaller companies had been grappling with the issue of how to address the increasing sustainability expectations of their customers, particularly with respect to carbon measurement and reduction, in a cost-effective and efficient way. Our companies welcomed the engagement by our ESG team, as it provided them with additional expertise and guidance without having to hire a dedicated resource or engage an external consultant. The value delivered to our portfolio companies is exemplified by the transformative journeys of two of our portfolio companies, as detailed below. However, it is important to note that these two examples are just a snapshot of the progress made, as many of our other smaller companies have made substantial progress on the sustainability front, driving positive environmental, social, and financial outcomes along the way.

One of our portfolio companies, **Precision Global**, is a consumer packaging company with facilities in Europe and North America. The company sought to enhance its approach to sustainability to compete more effectively with peers. Our ESG team worked closely with management to formulate a sustainability approach, which began by conducting a materiality assessment to identify the sustainability topics most likely to drive value and mitigate risk. This resulted in the establishment of key pillars for the company's sustainability strategy, which reflects industry best practices. Our team provided ongoing support to operationalize the strategy, by integrating these key pillars into its company-wide strategy and risk management process. This included establishing a working group with accountability for each pillar, identifying KPIs, establishing baseline measurements, setting targets, and creating reporting goals. The company also launched an enhanced 'greener' product line, which helped foster an enhanced dialogue with its major customers and boosted the brand's reputation.

Walter Surface Technologies is a portfolio company that provides consumable surface technology solutions for metalworking end-users, including abrasives, safety / PPE, complementary chemicals, twist drilling products and tooling. Recognizing the growing importance of sustainability, the company sought guidance from our ESG team to advance its sustainability approach, with a particular focus on identifying revenue growth opportunities. Our ESG team collaborated with the company to identify the most material sustainability initiatives that would meet or exceed evolving customer expectations and better compete with peers. Through this engagement, the company identified new revenue growth opportunities, with sustainability considerations integrated into product launches and targeted sales strategies. Additionally, the company's customers are increasingly asking for data and information relating to its carbon emissions. It has been able to provide that information by utilizing tools provided by Onex to measure its carbon emissions, while also identifying opportunities for increased energy efficiency and emissions reduction.

LEARNINGS

The above examples highlight the value of proactively working with our portfolio companies to understand their current sustainability initiatives and evolving best practices for their industry. We have found that small and mid-size companies have many of the same sustainability challenges and opportunities, but often do not have the resources to address them. Providing guidance and assistance through our ESG team has been a significant value-add for our companies, as it is helping them to future-proof their businesses by meeting or exceeding evolving customer and stakeholder expectations, enhancing business reputation, and spurring product innovation. Given the obvious business benefit, we are confident that these initiatives and innovations will be long term in nature, reflected in our exit valuations, and will continue past our hold period. Our approach has also emphasized the importance of tailored, collaborative approaches that consider the unique circumstances of each company, which we believe will ultimately drive additional value on exit and long-term change.

Ontario Teachers' Pension Plan

TAPPING INTO INNOVATION TO UNLOCK GROWTH

Today's business environment is characterized by greater uncertainty and volatility, stressed supply chains, and higher interest rates – and we're experiencing one of the most challenging economic and geopolitical environments for investing in a generation. At the same time, many industries are being challenged by upstart technology companies looking to disrupt traditional industries and processes. Disruption is happening all around us – just look at the healthcare, energy, and food industries. This trend is only going to accelerate. With so many businesses being impacted by disruption, we consider innovation critical to helping our portfolio companies stay resilient in a rapidly changing world. Those that don't adapt will be left behind.

At Ontario Teachers', we view innovation as a core part of our long-term business philosophy and a key catalyst for growth and value creation. We stood up a new asset class – Teachers' Venture Growth – roughly five years ago to partner with cutting-edge technology companies that are aiming to become the leaders in their markets. We also launched a venture studio – Koru – that works exclusively with our portfolio companies. When we think about investing for the long term, we need to help our businesses maintain their resilience in the face of unprecedented and rapid disruption. Backed by a team of successful innovators and creators within the start-up world, Koru marries the knowledge, expertise, and advantages of our portfolio companies with a start-up methodology and approach to build new opportunities and businesses.

THE TOOLS TO UNLOCK GROWTH

The Koru team provides our portfolio companies with the tools to uncover, test, and build new technology-enabled products and capabilities to drive financial growth and keep pace with the innovation curve. To uncover new opportunities, Koru hosts hack-a-future sessions together with participating portfolio companies to workshop ideas and then turns them into tangible business concepts. With a focus on speed to market, the concept is incubated, and the team works to build the minimum viable product. Once finalized, the Koru team holds immersion sessions to ensure the product, tool, or service is integrated within the portfolio company. Koru provides continued support as the capability is embedded in the business.

CREATING VALUE

Koru has helped our companies solve business pain points and leverage opportunities in our global portfolio to build long-term value. One of Koru's success stories is FYLD, which was born out of a partnership with our portfolio company SGN, a gas distribution company in the UK. The idea behind FYLD is that technology can help field workers be safer and more productive. Utility and construction crews do essential work, but field workers were filling out repetitive, paper-based forms by hand, causing decision makers to react late. Managers were unable to address safety and operational challenges efficiently.

FYLD reimagined remote field operations by replacing paper-based risk assessments with a digital solution. Taking a data-driven approach, the solution delivers risk assessments via video and voice analytics, flags potentially dangerous working conditions, and prompts control measures.

While FYLD was launched as a standalone business, it was built for, and created in partnership with, SGN.

FYLD has helped the natural gas distribution company reduce worker injuries and incidents by 20 percent and has cut time spent on risk assessments by 75 percent. In the time since, FYLD has onboarded more than 100 companies globally in hazardous sectors ranging from gas, electricity, and water to highways and construction. It has also won a host of awards, including the U.K. Energy Innovation Centre's Innovator of the Year award.

Koru also partnered with Fairstone – a Canadian lender – to help expand its product offering. Together, the lender and Koru created Fig, which is a fully digital lending experience. Fig simplifies the borrowing process for consumers, allowing them to apply for personal installment loans in a few clicks. This seamless process frees up Fig's team to support customers.

Koru, with the long-term focus of Ontario Teachers', is continuing to partner with portfolio companies to unlock value within their businesses – whether that is new growth opportunities or finding efficiencies. Innovation and self-disruption can be untapped resources for businesses searching for growth. For a long-term investor, we see that continued innovation will help create more resilient and more valuable businesses.

PwC

THREE LESSONS IN PREPARING FOR THE NEW CLIMATE ERA

We are entering a new era of a permanently altered climate. Adapting to extreme weather conditions globally – while striving to mitigate the damage – is a long-term challenge par excellence. And for this task we are vastly unprepared. Our all too human tendency to prioritize today's concerns over tomorrow's needs has led us here, and it will take a collective shift in priorities to preserve a livable future for all.

Business, for our part, needs to do more. In PwC's 2023 Global CEO Survey, over half of CEOs acknowledged that their companies will be exposed to climate change risks within the next five years. However, only 17 percent reported taking proactive measures to safeguard their workforce and physical assets from the effects of climate change. That's a dangerously low number, considering companies are already seeing their operations being affected by extreme weather throughout the world (the US alone is now hit by a billion dollar weather disaster every other week on average[1]) and we are expected to breach the red line of 1.5 °C of global warming within this decade.[2]

So what will enable business leaders to proactively adapt to a rapidly changing climate that will affect their companies for decades to come? PwC has prioritized long-term thinking about climate change risk deep into our strategy as a network, and the lessons we've learned along the way might help others think about how to bolster their own resilience.

Use data to make long-term risks relevant now.

The effects of climate change can seem distant, even abstract. We know climate change is real, but sometimes we're not entirely sure how it will affect us and when. This can make it tempting to delay action on a threat that feels remote.

When we took the time to clearly understand how climate change might affect us at PwC, the risks became tangible, immediate, and personal. Our climate risk teams can predict how extreme shifts in weather and a changing climate will affect the earth's land surface. Even in our own work environments, our teams showed us how much our offices are likely to be exposed to climate hazards such as drought, extreme heat, and extreme precipitation or flooding.

When we can see that certain PwC offices from Tokyo to Tampa may face up to 200 days a year of potentially deadly temperatures, climate change feels very real, very quickly. This stark picture of our risks helped to galvanize action and, more importantly, give our people the granular information they need to take steps to adapt. Having clear data on our own risks helped to dispel misunderstandings that climate change's effects will happen only in the distant future, elsewhere, and to other types of businesses. We made public highlights of our climate risks, in part to encourage other companies to examine theirs.

Use data to define clear next steps and create the teams and processes to deploy them.

A detailed analysis of our climate risks enabled us to identify key issues for our business and potential responses. It wasn't easy – it took great effort to translate technical climate data into pragmatic business risk assessments, and then educate and mobilize a network of leaders in every territory to act on them.

We built climate resilience into the core of our enterprise strategy, establishing a leadership structure to oversee the process within our own operations. We appointed Climate Risk Leaders from across our network to implement their own local climate risk analyses and work across multiple functions to put adaptation measures in place. We looked afresh at our security and business continuity functions, globally and locally, to anticipate climate hazards. Climate resilience is very much a part of our network risk management framework, and climate-related risk is considered within the enterprise risk management processes of all our PwC firms.

Demonstrate that climate adaptation is not a distraction from building business value.

Rather, it is central to value creation and preservation. Our climate risk analysis helped us quantify the benefits of action and the costs of inaction. The analysis helped us build a business case for steps like securing our supply chains and adopting climate resilient infrastructure. This brought to light opportunities too: to innovate, to operate more efficiently and sustainably, and to help the communities in which we operate to adapt. After all, climate change doesn't affect just PwC offices; it affects our clients, our people, and our communities in the region. Uncovering our climate risks helped us think holistically about how to help the wider communities of which we are a part.

Revealing PwC's own climate risks made a global issue personal, helping us see the urgency and value of building resilience – and helping us make decisions today to help secure the long-term future of our network and our communities. Business leaders must understand their own climate risks and the steps they can take right now to adapt.

Schroders

Peter Harrison, CEO

HUMAN CAPITAL MANAGEMENT AND LONG-TERM RESILIENCE

Companies work with a diverse set of capitals to create value – financial, physical, and human. The latter is increasingly talked about but rarely analysed in detail. Labour markets have sought to re-establish their bargaining power in recent years, first via the "great resignation" and again through heightened strike activity. The knowledge economy continues to grow. The emergence of generative AI has led us into the era of cognitive abundance, where competitive differentiation lies in the interaction with, and application of, knowledge; no longer just access to information.

Cyclical inflections and short-term cost pressures often emphasize identifying key talent. Long-term demographic trends imply growing skills gaps and labour shortages, as early as 2030. We believe these issues increase the significance of human capital management. The harder it becomes to find skilled workers, the more companies need to be good developers and stewards of talent; to be good employers and offer better work-life balance, better compensation, and effective development and training.

To further our understanding of the value of sustainable human capital management, we have conducted and published detailed research in collaboration with the California Public Employees' Retirement System (CalPERS) and the University of Oxford's Saïd Business School. This work helps to inform our engagement and portfolio management activities and is integrated into our broader work on secular trends such as deglobalization and demographic shifts.

HUMAN CAPITAL RESEARCH

An organisation's human capital refers to its people's capabilities; a cumulative, unique, path-dependent set of individual and collective attributes. These include skills, experiences, and relationships available to the firm to create economic value. It is a special type of intangible asset that produces economic wealth by unlocking value from otherwise inert forms of capital on firms' balance sheets. Human capital management catalyzes this crucial transformation, turning assets into earnings by driving productivity.

Human capital is a critical source of competitive advantage and resilience. Maintaining it requires the synergistic combination of many systems – culture and inclusion, incentives and compensation, access to opportunities for professional development, and environments conducive to innovating.

Qualitative and quantitative analysis of human capital management prompts us to ask new questions about how value can be created sustainably. Indeed, human capital return on investment (HCROI) in combination with employee economic value added (EEVA) – among other metrics – helps us assess the effectiveness of such management. HCROI is positively correlated with forward excess returns over multiple time horizons and across multiple sectors, even after controlling for a variety of factors. Companies with stronger HCROI create more value. Analysis can also help us determine why companies with similar levels of labour investment see different outcomes. For now, corporate disclosure of human capital-related data remains poor. Better disclosure would significantly benefit market participants and asset owners.

HUMAN CAPITAL IN ACTIVE OWNERSHIP

Faced with continuing economic volatility, we expect that companies with strong human capital management are likely to be more capable of navigating the future effectively. We identify four key sub-themes for engagement on human capital: culture and oversight, investment in the workforce, engagement and representation, and health, safety, and wellbeing. We set out our approach and expectations of companies in our Engagement Blueprint.

Disclosures that enhance our ability to interpret these attributes are an increasingly important part of the investor toolkit. However, our experience to date is that human capital data disclosed by issuers is frequently incomplete and inconsistent.

We therefore launched an engagement initiative in Q3 2023 with our US holdings to explain the importance of HCM disclosures and to encourage all our holdings to move towards more universal and comparable human capital reporting metrics. This includes both core quantitative metrics, applicable across sectors and geographies, as well as the most appropriate qualitative information based on individual companies and their business models. We believe that this combined approach will give investors a more complete picture of human capital management quality at investee companies.

Our approach is aligned with that of the Human Capital Management Coalition, a cooperative effort among a diverse group of institutional investors representing over $8 trillion in assets. We also believe that the metrics we have asked for are cost-effective to collect and can be substantiated by supporting narrative that explains these firms' human capital management strategies and challenges.

HUMAN CAPITAL IN PORTFOLIO MANAGEMENT

As active investors, we are trying to find companies where the market is mispricing their potential. Human capital management analysis forms part of the whole mosaic our investors look at when assessing a company. It adds to the more traditional financial analysis we do around things like valuations or forecasts. Practically, this may take the form of helping to ask the right questions of companies to find out where their approach to human capital management might give them an advantage, or not. Much of what we ideally want to know is not typically disclosed by companies, or not in a format that enables comparison.

We have analysed the strength of human capital management of individual companies in collaboration with a variety of desks, from European to Japanese Equities. We have also integrated human capital measures into some of our quantitative funds. In Europe, our investors engaged companies in the technology sector to understand the sustainability of their innovation, the strengths of their human capital management strategies, and to share findings of common best practices.

Such an approach allows active managers like us to gain greater insights into companies within our investment universe. In time, we can seek to identify the leaders and laggards in human capital management and make better informed allocation and engagement decisions.

For more information on Schroders' human capital work, explore our Insights and Podcast.

State Street

Ronald P. O'Hanley, Chairman & Chief Executive Officer

STATE STREET

MAINTAINING BOARD SKILLS TO ENSURE LONG-TERM SUCCESS

Corporate boards are the shareholders' fiduciaries. They are charged with overseeing the development and execution of strategy within a clear risk framework and holding management accountable for the same. Accordingly, the three critical requirements of a successful board are: a deep understanding of long-term strategy; CEO selection and succession planning; and effective risk oversight. As I have written about previously, the exigencies of near-term results may push a board to allocate less time on these core pillars of the long-term lens. A board must of course keep its eye on the peaks and valleys of its firm's short-term performance — though this is sometimes influenced by anomalous company, industry, and/or market developments — as this performance is often a leading indicator of momentum and investor returns. But the board's responsibility is to maintain a long-term vision and preserve management's focus on a foundation for continuous innovation, growth, and return.

Given the importance of their role, how can corporate boards ensure they are an effective cornerstone of long-term strategic growth? Success hinges on building a board with broad, complementary experiences, skills, and qualifications. In this respect, the importance of board diversity — in all its myriad forms — cannot be overstated. Diversity of thought, perspective, and expertise is at least as important as other forms of diversity, as these attributes help to ensure that the board has the fundamentals in place regardless of specific topic.

Apart from diversity, other intangible attributes and characteristics for effective board membership include directors that are independent-minded, hyper-competent, responsive, capable, curious, have unimpeachable business ethics, and perhaps above all else, are adaptable. For example, an individual board member might not be an expert on a host of important new business drivers — including Artificial Intelligence (A.I.), social media use, blockchain, or climate change — but they are a fast learner and big picture thinker who upskills quickly, embraces collaboration, and understands how these new challenges and opportunities might impact thinking around long-term strategy and risk management.

Clients, regulators, and markets expect new business drivers like those to be integrated quickly and effectively into business strategy. We see this with the reality of topics such as cybersecurity, climate risk, and A.I. Multiple constituencies now expect companies to identify, measure, disclose, and adapt to the related strategic opportunities and risks. What are some steps a board might take to equip itself to best oversee the long-term evolution and growth of its company amidst this continuing stream of new and complex opportunities and considerations? Some ideas:

Identify knowledge gaps and provide depth of material: Survey the board to self-identify areas where it might benefit from greater expertise; and then act on any identified needs via an active new director and board refreshment program. In addition, ensure a dedicated board resources program and library are in place that is continually curated by management (and board members) with new material.

Draw deep on internal company expertise: It all starts with promoting strong and qualified talent and fostering trusted engagement between the board and internal management and teams. These internal personnel thoroughly know the organization and can demonstrate how novel subject matter relates to strategy, operations, and risk through formal board-level presentations and trainings, and informal interactions, as appropriate.

Embrace external experts and education opportunities: Engage with experts (e.g., subject matter experts, academics, and consultants) to augment material presented by management. This includes considering bringing in external experts and/or encouraging and sponsoring board members to attend conferences and events that specifically foster board-level understanding and socialization. For example, the National Association of Corporate Directors (NACD) offers regular conferences on a variety of topics.

Go where the knowledge is: Assign select board directors to visit company offices and operations centers and attend small group sessions, production tours, and interactive town halls to see up-close the application and effects of new developments. It may also be useful to incorporate meetings with clients and regulators during these opportunities.

Consider new board committees or working groups: It may be useful to add a new board-level committee beyond the typical audit, nominating, and compensation committees. Committees aligned to a specific discipline or subject matter can accelerate a board's understanding and ability to effectively oversee new critical topics. Adding a new committee should be done thoughtfully, as it will consume additional director and management time and may be difficult to alter or sunset if not successful.

Board and committee rotation and succession planning: Leverage existing committee structures and memberships to position current directors to gain valuable experience to assume board leadership roles (e.g., committee chairs). This includes rotating directors through several committees to gain a more comprehensive understanding of the company and thereby contribute more fully to board-level discussions.

Board mentoring and talent-management process: Talent management and the professional development of the next generation of leaders is a critical part of any company fulfilling its long-term strategic vision. Board members' direct engagement with high-potential individuals beyond the C-suite and upper-level managers can be useful in deepening the board's strategic understanding and also elevating company talent. Board members might consider serving as mentors to high-potential mid-level managers to provide support and guidance to more junior executives while also providing board members with valuable new perspectives on the organization.

Change is perhaps the only constant in business. As new opportunities, challenges, and risks present themselves, skill sets must never remain stagnant. This holds true especially at the board level. New ways of supporting corporate boards — and enabling individual board members to evolve through deeper corporate understanding and subject matter expertise — are essential components of delivering upon any company's long-term strategic goals.

Temasek Holdings

Dilhan Pillay, Executive Director & Chief Executive Officer

TEMASEK 50 YEARS

TEMASEK'S PATHWAYS TO DECARBONISATION

As the climate crisis intensifies, governments, businesses, and societies face multifaceted challenges. At Temasek, we recognise the long-term effects of climate change on the resilience and commercial viability of our portfolio. Sustainability is, therefore, a resolute commitment and an ongoing journey for us. We embed it in all that we do – from our mandate to deliver sustainable value over the long term to our strategy for how we operate as an institution, shape our portfolio, and engage our investees to build sustainable businesses. We have been steadily intensifying efforts to deploy capital and catalyse solutions to tackle the climate crisis, to create a more resilient and inclusive world so that every generation can prosper.

OUR COMMITMENT TO SUSTAINABILITY AND CLIMATE ACTION

Environmental sustainability, climate change mitigation, adaptation, and transition are critical levers towards a greener economy. We have committed to halve our portfolio emissions (from 2010 levels) by 2030 and achieve a net zero portfolio by 2050. To guide our investment decisions and account for potential exposure to transition risk, we have set an internal carbon price of US$50 per tonne of carbon dioxide equivalent (tCO2e), informing us of the true cost of capital for the long-term value of our investments. This helps us better prepare for a world where current or future regulation could increase the environmental cost associated with business activities, in line with the Paris Agreement, resulting in financial impact on businesses. We expect to raise this internal carbon price progressively to US$100 per tCO2e by 2030. To drive progress towards our targets, we developed a climate strategy that is informed by science and the relevant policy and technology roadmaps, and have also accelerated efforts along these three pathways to decarbonisation.

INVESTING IN CLIMATE-ALIGNED OPPORTUNITIES

To support the acceleration towards net zero, Temasek's investments and efforts span several key areas reflecting the real economy: food, water, waste, energy, materials, clean transportation, and the built environment.

Temasek invests in companies seeking to scale pivotal and commercially viable decarbonisation technologies, such as renewable energy and solutions, and bring them to market quickly. Through our investments in early-stage companies, we also back nascent but innovative and promising next generation technologies and solutions that may not be commercially viable yet, but have immense potential to decarbonise adjacent sectors and transform economies. Solutions include those in geothermal energy; nuclear energy including fusion; and hydrogen, which could all have a transformative impact as technology advances.

ENABLING CARBON-NEGATIVE SOLUTIONS

Temasek has also deployed capital into ventures at the forefront of decarbonisation. We launched GenZero, an investment company that aims to accelerate decarbonisation globally and drive positive climate impact by investing in nature-based solutions, tech-based solutions, and carbon ecosystem enablers. We have also invested in carbon removal and carbon capture solutions to support the mitigation of climate change.

As we lean into the transition of the real economy, we are also prepared to selectively invest in carbon-intensive businesses to help accelerate their transition to net zero. Reflecting Temasek's focus on real-world decarbonisation, we acknowledge that emissions trajectories of such transition investments may therefore differ from our core portfolio.

ENCOURAGING DECARBONISATION EFFORTS IN BUSINESSES

The success of our portfolio companies underpins our own success. Close engagement strengthens everyones' long-term resilience. To encourage ongoing alignment, we developed a Climate Transition Readiness framework that is shared with our portfolio companies and we work with them to transition their operations. For example, the merger of Sembcorp Marine and Keppel Offshore & Marine to form Seatrium is expected to accelerate the group's transition towards providing renewable energy and cleaner offshore and marine solutions.

Another key engagement opportunity is our annual Ecosperity conference, a platform for global leaders, policymakers, investors, and civil society to share developments, insights, and best practices on sustainable development.

RADICAL COLLABORATION TOWARDS A COMMON GOAL

The world is not yet on track to net zero. The urgency to find effective, sustainable solutions has never been greater, and our collective journey requires a systems approach. In addition to direct investments, we established Decarbonization Partners, a joint venture with BlackRock, to focus on late-stage venture capital and early-growth private equity investments with the sole purpose of advancing decarbonisation solutions.

Asia is also where the action needs to happen – and at speed, even as it balances competing interests of social and economic development with the decarbonisation of its energy systems. Asia accounts for half of global carbon emissions, with about 85 percent of energy produced from fossil fuels. Given fiscal constraints and limited access to private capital, especially for marginally bankable projects, the substantial costs associated with a just transition make the adoption of greener solutions challenging.

This is where opportunity lies for all players and sectors to lean in. With appropriate structuring and adaptation of frameworks by governments, alongside partnerships with multilateral development banks, concessionary and philanthropic capital can provide first-loss capital to fund critical developments. This, in turn, encourages private sector buy-in, which will help expand progress and hopefully foster a cascade of innovation.

Our joint venture with HSBC, named Pentagreen Capital, is an example of how we are catalysing financing for marginally bankable clean infrastructure projects. Temasek also signed a Memorandum of Understanding with the Monetary Authority of Singapore, Allied Climate Partners, and the International Finance Corporation, at COP28 to establish a blended capital partnership, with the goal of addressing climate finance gaps and increase the bankability of green sustainable projects in Asia.

The climate crisis does not discriminate based on borders, entities, and sectors. We recognise that partnerships are crucial for us to catalyse sustainable solutions, and pool resources with complementary capabilities. It is more critical now than ever for the international community to come together. When we work together, our efforts can be stronger and our impact, amplified. We look forward to continued collaboration and partnerships that will enable us to deploy meaningful solutions today to shape a sustainable future for generations to come.

Vista Equity Partners

Robert F. Smith, Founder, Chairman & CEO

VISTA

ADVANCING THE DIGITAL ECONOMY IN A DOWN MARKET

Over the last decade, we've witnessed a massive expansion in the software-as-a-service (SaaS) sector. According to IDC, forecasted worldwide revenue for enterprise applications will grow from $279.6 billion in 2022 to $385.2 billion in 2026, at a 5-year CAGR of 8.0%.[18] The primary driver behind this growth has been the overwhelming productivity that SaaS can provide, reaching into every aspect of the economy as a force for positive disruption. Yet, after a period of prolonged monetary expansion – in which capital and ambition were flowing through the economy and software multiples reached record highs – the broader tech sector has experienced a re-rating over the last two years. During this time, rising inflation and interest rates, as well as geopolitical uncertainly, have caused volatility in the financial markets. Many investors have struggled to make new investments and create realization opportunities for their portfolio
and investors.

Thanks to Vista's disciplined investment approach, the firm has maintained its momentum. Since November 30, 2021 – when the market correction began – our firm has completed or signed 21 monetization events. Across these events, we have generated $18.7 billion in total value, including monetizations of $14.5 billion (including co-investment) with $4.2 billion in unrealized value still to be captured.[19] With over two decades of experience investing in enterprise software companies, Vista's disciplined approach and focus on value creation, profitability, and innovation within our investments have been central to the firm's long-term resilience. These principles are underpinned by a prioritization of talent and diversity among our investment team.

A FOCUS ON VALUE CREATION

Since inception, Vista has focused exclusively on enterprise software and has done more than 610 private equity transactions.[20] This experience allows us to identify companies with market-leading potential – quickly and with conviction. Our team develops investment theses with an understanding of the operational factors we can control and influence that aim to de-risk and generate returns. We then partner with executives to accelerate the corporate maturity of their businesses, executing value creation strategies that can expand revenue and deliver EBITDA growth.

A recent example of this value creation approach was our investment in Cvent, a provider of event management software. Early in our investment period, Cvent adopted one of Vista's core best practices around pursuing longer-term, multi-year contracts with its customers. During the COVID-19 outbreak when live events shuttered, we pivoted the business and were able to retain much of its revenue, while at the same time investing in a virtual event platform. Within five months, Cvent scaled its virtual events business to over $60 million in bookings. Vista sold Cvent to Blackstone for $4.6 billion in June of 2023.[21]

A FOCUS ON PROFITABILITY

In today's higher interest rate environment, more limited partners are focused on investments that have a path to profitability and the capacity to generate free cash flow rather than pursuing growth alone. At Vista, we've assessed over 9,000 companies since our founding, including over 2,000 deals since March of 2020. Yet, we only invest in about 5 percent of the companies they view or consider.[22] We aim to transform our investments into highly profitable, mission-critical assets with defensible top-line growth and market positions.

In June, we announced the sale of Apptio to IBM for $4.6 billion after a four-year transformation. During Vista's ownership, Apptio evolved into a comprehensive IT financial planning platform, growing its total addressable market and opening new go-to-market channels to double revenue and increase EBITDA margins by more than four times. During the partnership, Apptio expanded its customer base by more than 3.3x and currently serves more than 60 percent of the Fortune 100.[23]

INNOVATION

In addition to macro headwinds, today's software companies face technological disruption with the arrival of generative AI – a technology which could alter our society in a similar fashion as the internet. By encouraging thoughtful AI adoption within our portfolio, we believe we can build more resilient businesses and create new opportunities in product development, demand generation, customer retention, and more. Vista is actively supporting its companies across several key vectors with a lens toward AI: product innovation, product uplift, portfolio enablement, and risk and readiness. We leverage our value creation and product innovation systems to programmatically understand the evolving generative AI ecosystem, establish best practices for success, and ensure the entire portfolio will benefit from shared learnings.

We encourage our companies to explore AI use cases through Vista's annual Global Hackathon. This year, 250 participants across 35 companies competed with generative AI use cases spanning from personalized student instruction to automated software testing. We also welcomed STEM students from historically Black colleges and universities to participate in the competition and gain hands-on experience.

A FOCUS ON DIVERSE PERSPECTIVES AND TALENT

Our culture is founded on an engineering mindset and a commitment to excellence. We prioritize diversity and a team dynamic where everyone has a seat at the table. This is why people choose to grow their careers at Vista with a 95 percent retention rate at the Vice President level.[24] Diversity and inclusion help fiduciaries to maximize value creation and set up their business for long-term success. Diverse organizations even see a 12 percent increase in employee performance and retention on average compared to nondiverse organizations.[25] Vista reached gender parity at the start of 2022, and currently over 40 percent of the firm are people of color.[26] Our talent strategy encourages a highly cohesive, integrated team that has evolved as our firm has grown.

Today's economic and technological environments present challenging dynamics for many investors and software companies. But thanks to our focus on value creation, profitability, and innovation, we feel confident in our ability to continue to successfully execute our investment strategies with purpose.

Votorantim

João H. Schmidt, Chief Executive Officer

VOTORANTIM

TRANSFORMING BUSINESSES FROM THE GROUND UP

Investing with a long-term approach has always been part of our DNA. Since our foundation in 1918, we have pioneered practices and adopted an entrepreneurial mindset that has guided our way of doing business for the last century. Historically, Votorantim has a solid industrial background, with high-carbon-emitting operations (hard-to-abate) and energy-intensive sectors, such as building materials, metals and mining, and agriculture. Over the years, these companies have evolved. While joining the global effort to adapt to climate change, we have transformed our business model to encourage our portfolio companies to do the same.

STRONG GOVERNANCE, ROBUST STRATEGY

Today, each portfolio company must manage its business strategies in-line with a long-term strategy articulated with Votorantim. Votorantim helps maintain this alignment in three ways: by influencing, monitoring, and reporting. We influence the portfolio companies to adopt best practices, contributing to the long-term viability of the business. We follow the incorporation of ESG criteria into investment decisions and company evaluations while monitoring risks. And we do this while communicating transparently about initiatives undertaken by Votorantim and the portfolio companies.

Following this method, our companies are encouraged to adopt goals aligned with the Science Based Targets Initiative (SBTi) and report data based on GRI standards. The portfolio companies are members of the United Nations Global Compact, serving as ambassadors for multiple Sustainable Development Goals and related initiatives. Votorantim Cimentos, CBA, and Citrosuco are also part of the Net Zero Ambition Movement, which aims to reach net zero operations by 2050, and have adopted cutting-edge practices in their business sectors to achieve this goal.

MOVING TOWARDS CARBON NEUTRAL-CONCRETE

At Votorantim Cimentos, our building materials business, the goal is to produce carbon-neutral concrete by 2050. Like other large-scale industrial assets, the cement industry is considered hard-to-abate primarily due to the nature of its production process, but there is much room to improve. Votorantim Cimentos is leading this change by committing to limit its net emissions to 475kg of carbon per ton of cementitious product by 2030, representing a reduction of almost 25 percent in emissions compared to the base year (2018). The moving parts to fulfill this goal are centered around co-processing. We start with substituting fossil fuels for alternative fuels, such as biomass and different kinds of waste. We opt for by-products from other industries, strengthening our circular economy. We prioritize energy efficiency by optimizing the use of renewable sources. And we fund the creation of new technologies, by investing in innovative processes and partnerships to improve operational efficiency. Through this robust plan of action and as an example, the company has recently raised $150 million with the International Financial Corporation (IFC) to invest in emissions-reducing initiatives.

LOW-CARBON ALUMINUM

CBA is one of the largest producers of low-carbon aluminum in the world. While the global average emissions are around 12.6 tons of carbon per ton of aluminum produced, CBA's levels are about 3 tons CO_2/ton – more than 4x lower than global peers (according to data provided by CRU). As the only fully vertically integrated aluminum company in Brazil, CBA's goal is to reduce emissions by 40 percent until 2030 (on average for cast products, cradle-to-gate) compared to the base year (2019). As the aluminum operation is energy-intensive, the company invests in renewable self-production, counting on 23 hydroelectric plants to supply energy for their production process. CBA also supports circularity through a business unit focused on recycling aluminum scrap, which requires only five percent of the electricity needed to produce primary aluminum, improving energy efficiency. Today, CBA has an A leadership level score from CDP (Disclosure Insight Action) and follows the recommendations of TCFD (Task Force on Climate-Related Financial Disclosures). This is the first Brazilian company to join the First Movers Coalition – a World Economic Forum initiative to promote innovative clean technologies across eight hard to abate sectors, including aluminum.

PRODUCTION CHAIN ADVANCEMENT FOR A LOW-CARBON ECONOMY

As one of the largest orange juice producers in the world, Citrosuco has prioritized making its production chain sustainable. To do so by 2030, the company aims to reduce carbon emissions (scopes 1 and 2) by 28 percent compared to the base year (2019). The plan is to pursue biodiversity conservation projects for 100 percent of the land owned while reducing greater social vulnerability by 100 percent in selected territories where it operates. 68 percent of Citrosuco's production comprises certified sustainable fruit, with 100 percent of owned farms certified by the Sustainable Agriculture Initiative Platform. The company has an A- grade from CDP and is recognized with a gold-level rating from EcoVadis, a rating agency that establishes best practices in corporate sustainability. To diversify its portfolio, Citrosuco launched a new business unit, Evera, specialized in developing natural ingredients. Evera's ability to fully utilize the fruits and offer unique solutions to the market broadens the horizons for innovation in the citrus industry.

NEW BUSINESS OPPORTUNITIES FOR THE GREEN ECONOMY

Nature-based solutions have significantly impacted our portfolio. Through Reservas Votorantim, we introduced a new PES (Payment for Environmental Services) methodology, which will be implemented at Legado das Águas, the largest private Atlantic Forest reserve in Brazil. Project PES Carbonflor accounts not only for avoided deforestation but also for the impact of climate change and carbon credit generation from forest conservation efforts. In a partnership between Reservas Votorantim and CBA, we have issued the first carbon credits from the Cerrado biome in Latin America. This issuance was part of a REDD+ project that represented a milestone in the Brazilian carbon market and was first applied at Legado Verdes do Cerrado, a 79,000-acre private reserve owned by CBA and managed by Reservas Votorantim.

BUSINESS TRANSFORMATION IN HARD-TO-ABATE ASSETS

Votorantim is in many ways proof that hard-to-abate operations can transform themselves. Simply divesting from these assets altogether squanders the opportunity to utilize companies' pre-existing networks, capabilities, and industry expertise to create long-term value at scale going forward. As an engaged investor, we own our role in fostering this transformation in our portfolio companies and see the climate transition as an opportunity for diversification and growth in a changing world.

Appendix

1 International Energy Agency, 2023. https://www.iea.org/reports/net-zero-roadmap-a-global-pathway-to-keep-the-15-0c-goal-in-reach

2 World Fund, 2023. https://www.worldfund.vc/knowledge/whitepaper

3 Unless otherwise noted, source for data is BlackRock and monetary figures are in USD

4 BlackRock Investment Institute, "Tracking the low-carbon transition," July 2023

5 BlackRock, "Global perspectives on investing in the low-carbon transition," September 2023

6 As of December 31, 2023

7 Sourced from: Climate Policy Initiative, Global Landscape of Climate Finance - 2023 & 2021.

8 Sourced from: Bloomberg, Press Release.

9 Blended finance is defined as the strategic use of development finance (from public or philanthropic sources) to mobilize additional private sector finance in sustainable development.

10 ADB administered Fund financings in accordance with Development Finance Institutions agreed principles on the use of Blended Concessional finance for private sector projects. (link)

11 All grant mobilization figures for each CIDF project have been provided by ADB. Grant mobilization figures are rounded estimates as of the investments' financial close date.

12 Sourced from: ADB, "GreenYellow Sign Deal for Commercial and Industrial Rooftop Solar in Viet Nam". (link)

13 The GAP Report 2023; ACS PUMS 2021

14 The State of the Nation's Housing 2019; Joint Center for Studies, Harvard University

15 The GAP Report 2023; ACS PUMS 2021

16 NASA finding: US has already experienced 23 $1 billion dollar weather disasters in 2023.

17 'Global warming in the pipeline,' Nov 2, 2023 publication led by James Hansen of Colombia University Earth Institute.

18 IDC, "IDC Forecasts Steady Growth for Enterprise Applications through 2026 in Support of Digital Business Objectives" 01/12/2023

19 Vista Equity Partners, as of 11/30/2023. Unrealized value is based on 9/30/2023 valuations or latest transaction.

20 Vista Equity Partners, as of 12/31/2023. Note: inclusive of signed deals. Transactions include platform investments, add-on acquisitions, and monetizations, and excludes public toe-hold positions. Add-on transaction count reflective of platform investments with above 40% Vista ownership and excludes add-ons for public portfolio companies where Vista has less than 50% board representation.

21 Case study provided for informational purposes to illustrate Vista's value creation experience. It should not be assumed that investments made in the future will be comparable in quality or performance to the investments described herein. Please visit www.vistaequitypartners.com for a list of current and former portfolio companies

22 Vista database, as of 12/31/2022, inclusive of signed and/or closed Platform and add-on investments since 2000. Past performance is not necessarily indicative of future results. There can be no assurance that historical trends will continue during the life of any Vista Equity Fund. There can be no assurance that any pending acquisition will be consummated at all or on the current terms of the agreement.

23 Case study provided for informational purposes to illustrate Vista's value creation experience. It should not be assumed that investments made in the future will be comparable in quality or performance to the investments described herein. Please visit www.vistaequitypartners.com for a list of current and former portfolio companies.

24 Vista Equity Partners, represents average retention rate from 01/01/2016 – 10/24/2023 for PE investment professionals (VP and above). Excludes operating professionals.

25 Gartner, "Diversity and Inclusion Build High-Performance Teams," 09/20/19.

26 Vista Equity Partners, as of 12/31/2023. Data reflects all lines of business in VEP and VCG and includes employees across operations and all investment strategies – private equity, credit, public and permanent capital. VEP senior staff reflects employees at the Exec Office, MD/SMD, SVP and VP level; VCG senior staff reflects employees at the Executive Director level and above. People of color reflects U.S. data, while female reflects global headcount. People of color reflects Asian, Black or African American, Hispanic or Latino or employees who are two or more races.

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