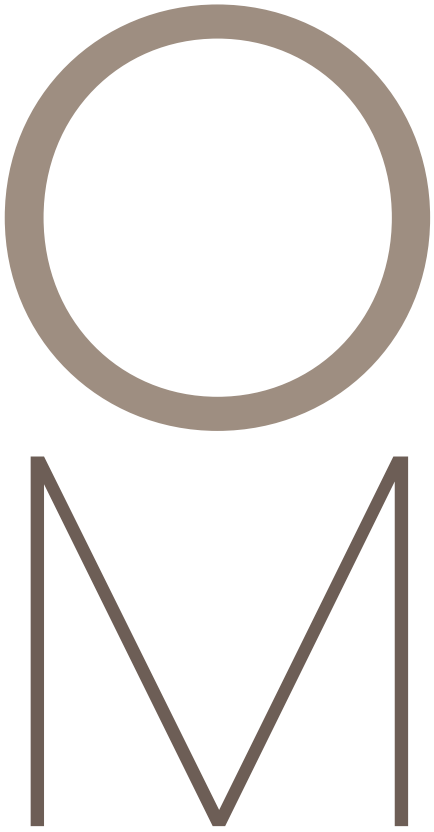


SUSTAINABILITY: THE POWER OF ACTIVE PURPOSE

UBS | OXFORD METRICA

ABOUT OXFORD METRICA

Oxford Metrica is a strategic advisory firm, offering informed counsel to boards.

Our advisory services are anchored on evidence-based research in risk and financial performance.
Our work includes statistical analysis and index construction for banks and insurers, risk and performance analytics for asset managers, due diligence support in mergers and highly customised services for corporate boards.

SUSTAINABILITY: THE POWER OF ACTIVE PURPOSE

UBS | OXFORD METRICA

CONTENTS

FOREWORD

November last year saw a major global gathering on which a great many hopes for the future were pinned: COP 26, the United Nations Climate Change Conference held in Glasgow. Two key outcomes from COP26 were the signing of the Glasgow Climate Pact and agreeing the Paris Rulebook. But, those achievements apart, can we judge COP26 a complete success? If we weigh it against the summit's originally stated goals, the answer has to be that, sadly, it fell short of what was hoped. The two outstandingly important agenda items not realized by COP were renewing targets for 2030 that align with limiting warming to 1.5°C, and an agreement on accelerating the phase-out of coal as a fuel.

This present report was originally prepared on the eve of the COP conference and its publication now offers a timely opportunity to revisit the issues addressed, but unfortunately largely left unresolved, by that conference. It offers a constructive and all-round practical way forward for companies at this juncture: the power of active purpose as enshrined in UBS's proprietary framework for guiding and assessing corporate environmental action.

UBS has long been a leader in this field. Out of nearly 12,000 companies ranked by the global environmental non-profit CDP, it was one of only 200 that were A-listed for environmental transparency and action to cut emissions, mitigate climate risks and develop the low-carbon economy. As the founding member in 2020 member of the Net Zero Asset Managers initiative (NZAMi) and in 2021 of the Net-Zero Banking Alliance (NZBA), it has committed itself to publishing financing targets for 2030 with a focus on reducing greenhouse gas emissions in priority sectors where the bank can have the most significant impact.

Opening with an overview of the current state-of-play in global warming, this report presents an outline of the UBS framework and concludes with use cases of three trailblazing companies, demonstrating how acting with active purpose and building sustainable strategies and processes around that purpose can have a real and lasting impact. We hope it will not only be welcomed by companies and organisations but drawn on as a basis for practical action. I extend my thanks to the team at UBS with whom we partnered in this project.

Dr Rory Knight
Chairman

Dr Rory Knight is Chairman of Oxford Metrica and a member of the board of the John Templeton Foundation where he chairs the investment committee. He was formerly Dean of Templeton College, Oxford University's business college. Prior to that he was Vizedirektor at the Schweizerische Nationalbank (SNB) the Swiss central bank.

THE CALL TO DEEP-GREEN THE CORPORATION

The 'E' in ESG (Environmental and Social Governance) has boomed of late. The number of green financial products available to investors has skyrocketed, making it superficially far easier for investors to put their money into companies and industries with a stated focus on the environment. At the same time, governments across the globe are continuing to put climate action at the heart of their policies, most notably the Paris Agreement with its aim of reducing temperature increases to a maximum of 1.5°C above pre-industrial levels.

But the battle is by no means won. The fight to reduce carbon emissions and check temperature increases will continue to demand action from all the stakeholders involved. Today, still only less than 1% of assets are devoted to impact investing[1]. The concentrations of atmospheric carbon dioxide (CO_2) and temperature anomalies remain at record levels.

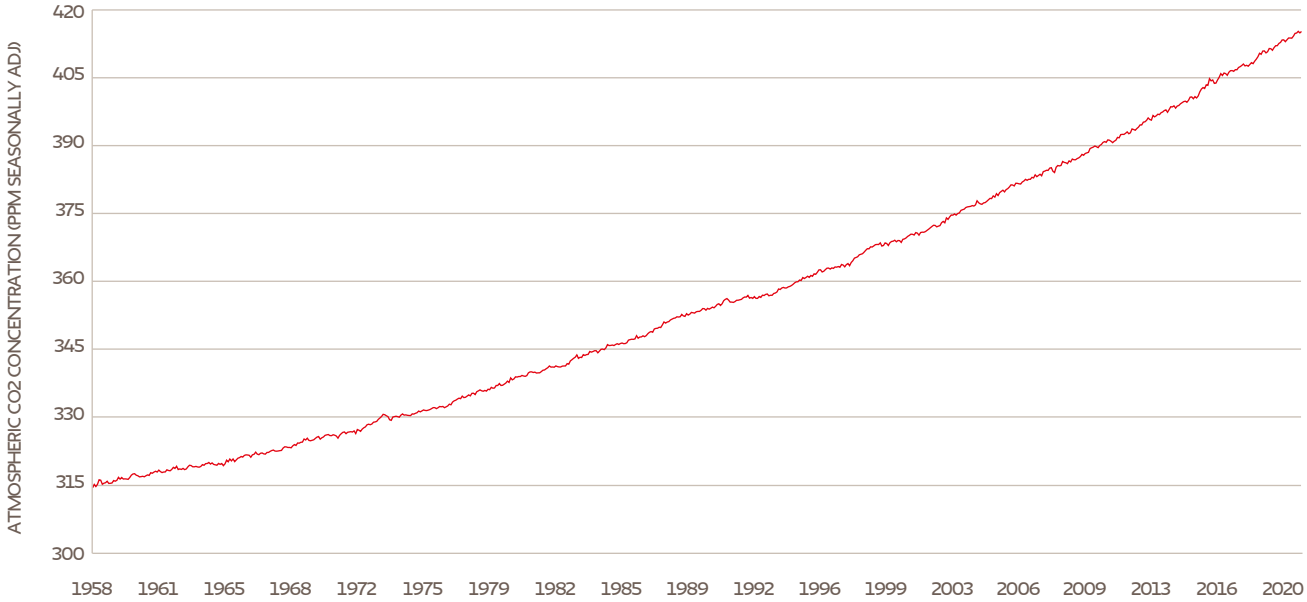


FIGURE 1. Atmospheric CO2 concentrations (Source: UC San Diego's Keeling Curve)

1. Global Impact Investing Network (GIIN), Annual Impact Investor Survey, 2020

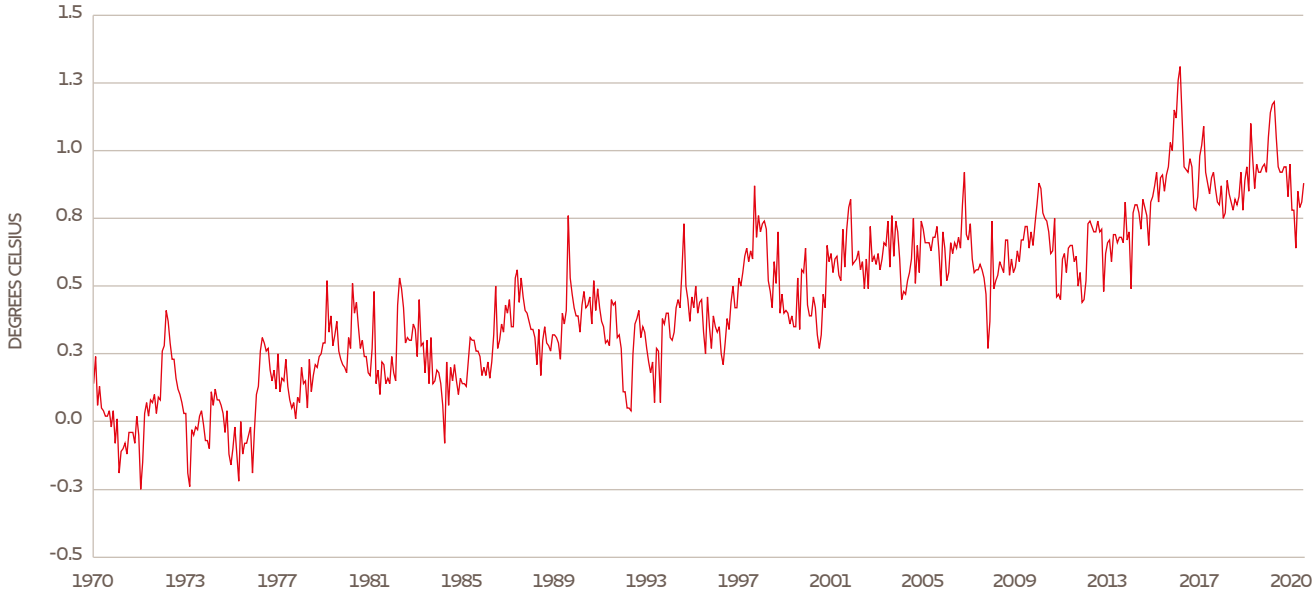


FIGURE 2. Temperature anomalies. (Source: National Centres for Environmental Information)

Accepting the imminence of the climate crisis is no longer enough. The effectiveness of mere tilts and exclusions in investors' portfolios is being questioned - and rightly so. The investment policies of passive investors in secondary markets for equities also do not appear to have any real impact on business decisions.

In the light of this, a new horizon in climate investing has opened up. A deep change in mind-set is under-way, and a second generation of climate investing is gaining momentum. There has been a distinct shift away from greening investors' portfolios towards greening the underlying business assets of the firms in which they invest, with a far sharper focus on long-term environmental impacts. A number of focussed investors are now leading the charge on this front.

What more then should investors do? Equally, what practical steps can companies take to build sustainability and ensure that climate change considerations inform all their all business operations? UBS firmly believes that embracing the power of active purpose and embedding sustainability in a valuation framework to support of that purpose is the natural next step forward in the evolution of the 'E' in ESG, offering a workable way for investors to support the change that is so urgently needed. Active purpose both allows a company to address climate change more effectively and provides an opportunity for investors to understand how their capital can make a positive difference to the environment. What is more, embedding such a proprietary valuation framework itself offers a great commercial opportunity and a more effective way for asset managers to perform their fiduciary duty of delivering returns while managing risks.

This paper provides an overview of UBS's proprietary valuation framework and presents case studies of three trailblazing companies, demonstrating how acting with active purpose and building sustainable strategies and processes around that purpose can have a real and lasting impact.

A FRAMEWORK FOR THE GREEN TRANSITION

Companies' social and environmental impacts have always imposed costs on society. Financial analysts frequently go to great lengths to identify the drivers of corporate value but only rarely take account of emissions. In consequence, UBS believes their efforts leave risks and rewards vastly mispriced. Even worse, when investors are not equipped to discern the actual value of a green transition, they can indirectly hold companies back from using the right green levers needed to protect the environment. While it is true that modelling the value of a green transition is challenging and involves numerous assumptions, these challenges can also provide a unique opportunity to analyse the true impact of companies' efforts to reduce their carbon emissions.

The EU's Emissions Trading System (ETS) is the cornerstone of EU policy to combat climate change. It allows emissions to be expressed in monetary terms and, in turn, to be reflected in corporate valuations. Though carbon markets are being introduced in a range of countries, ETS is the world's first major carbon market and its biggest. In May, its value reached a record high above US$60 and is expected to rise even higher[2]. Figure 3, presents the recent growth in EU ETS's carbon price.

FIGURE 3. EU ETS Futures Price (Euros) (Source: Ember, July 2021)

In Europe many of the most polluting sectors are ring-fenced and handed free allowances. Since they do not pay the full price of emissions, the result is a significant distortion in valuations. UBS's Quantitative Evidence and Data Science (QED) team have created a model that works across a range of ETS price scenarios in order to forecast the true cost of emissions. These models are plotted systematically using Marginal Abatement Cost Curves (MACCs), developed in collaboration with Material Economics, resulting in a sophisticated translation mechanism able to connect corporate investments in abatement with emission reductions.

2. "Carbon Hits Record 50 Euros on Tighter Pollution Rules." Bloomberg, May 4, 2021. www.bloomberg.com/news/articles/2021-05-04/carbon-permits-hit-record-50-euros-on-tighter-pollution-rules

"MATERIAL ECONOMICS IS A MANAGEMENT CONSULTING FIRM ADVISING COMPANIES ON THE LINK BETWEEN SUSTAINABILITY AND BUSINESS PERFORMANCE." – MATERIALECONOMICS.COM

The measures, which are sector-specific, incorporate CAPEX and OPEX values and can be incorporated into a clear discounted cash flow (DCF) model. DCF models has been around for a long time and still rules the world of active investing, but by adding three extra line items - emission costs, green OPEX and green CAPEX - the real impact of a green transition or lack thereof can be captured. Green OPEX and CAPEX are treated as incremental to business as usual and simply layered on top of the baseline numbers.

The cost of emissions therefore can be expressed as:

Emission Cost = (GHG Emissions – Free Allowances) - Price of EU ETS-Pass through

When a company has free allowances to spare, its emission costs turn negative, i.e., a company can sell its emission permits and make a profit. If a company cannot cover its emissions with its free allowances, it can buy additional emission permits at the market price. Part of the cost may be passed on to customers depending on the competitive dynamics in the industry concerned. The true scale of the cost is likely to fluctuate over time and reflect the abatements achieved.

Despite its simplicity, the framework accurately captures the dynamics of valuation. As such it both justifies investments and helps supports companies in their climatic efforts. It performs a foundation for company-specific climate engagements, identifies areas where announced targets are not aggressive enough and in those cases encourages companies to take further action.

GREENING HEAVY INDUSTRIES

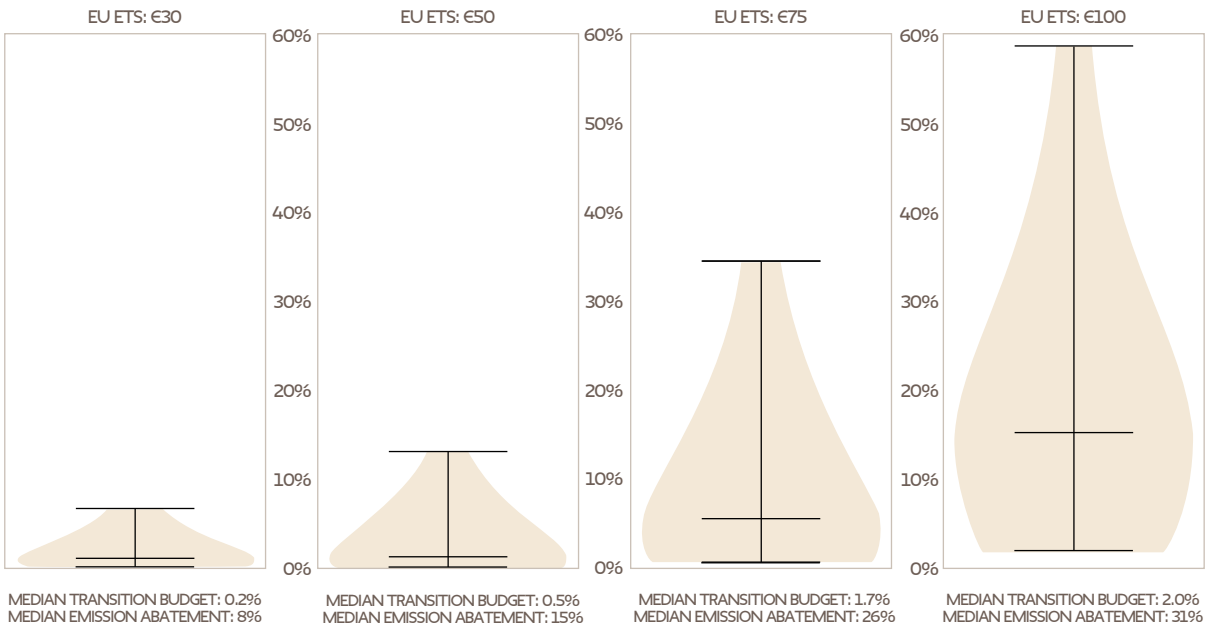
In heavy industries such as aluminium, cement, chemicals and steel emissions are part and parcel of the production process itself. Smelting processes and kilns are highly energy-demanding and still predominately fuelled using coal. Yet their products are essential to society. Without any commercial substitutes in sight, an end to the current dependence on cement or steel is unthinkable. While steel is in theory infinitely recyclable - an important circular process in developed countries with scrap metal to spare - but developing countries still need to add new steel.

Emissions from heavy industry are materially solid and classed as 'hard-to-abate' - a toxic combination. In Europe, the full ETS price would force many of these companies out of business or to have to relocate to other regions. Production in other regions would by no means be any greener, and therefore most of these sectors are included in the EU's carbon leakage list, i.e., they get free allowances.

Despite this, other substantial abatements are not only possible but can add significant value. UBS believes this is one of the most overlooked opportunities in markets today, both from an investment and a climatic points of view. The MACCs imply an abatement potential of around 30% by 2030 for most of these sectors. If such abatements are achieved, free allowances will no longer needed and can in turn be sold and turned into profit. This is how ETS can incentivise reductions. Not achieving these reductions is not only economically short-sighted but leaves companies exposed to unnecessary risks. Pushing forward with energetic green transformation programmes therefore pays dividends across three dimensions: companies, investors and the global climate.

Figure 4 is based on fourteen European cement and steel companies and highlights the valuation and abatement potential of a green transition. The 'Barbapapa'-like shapes in the charts depict how valuation impacts are distributed under different ETS price scenarios for 2030. On the assumption that ETS will reach €75 by 2030, the average company should now be allocating 1.7% of its annual revenue to green transition strategies, thus allowing emissions to abate by 26%.

FIGURE 4. Valuation and abatement grow as EU ETS price rises (Source: UBS QED)

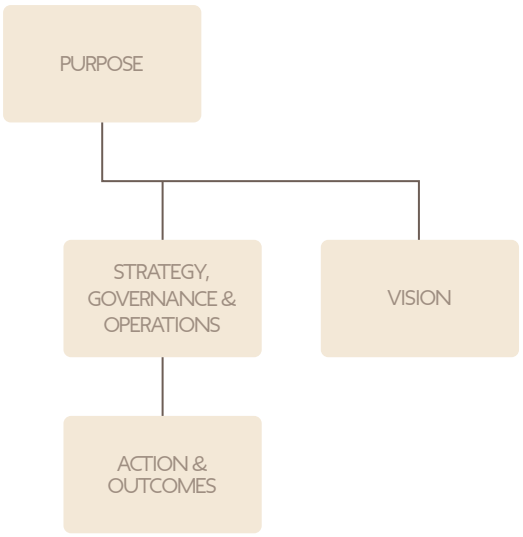


THE POWER OF ACTIVE PURPOSE

Purpose is the fundamental *raison d'être* of a corporation, the quintessence of its existence. A useful definition is provided by Oxford University in its recent guide to boards, *Enacting with purpose within the modern corporation*[3] which defines purpose as an encapsulation of the ultimate existential *why* of a corporation - not merely in commercial terms but in its broader social and cultural dimensions. As such, active purpose transcends the grandiloquent, if well-intentioned, rhetoric of values, mission and vision and injects a direct, interventionist function into strategy, governance and operations.

Figure 5 presents this paper's hierarchical framework of purpose, showing how it can both define the vision of the company with respect to sustainability and also drive business operations and strategy to achieve that goal. A well-articulated purpose aligns the interests of - and delivers value for - all the stakeholders concerned. It certainly does not involve removing the discipline of other financial metrics such as shareholder value. Indeed these can be deployed more effectively within a framework of actionable purpose.

FIGURE 5. Purpose Hierarchy



3. Enacting with purpose within the modern corporation, A framework for boards, Rupert Younger, Colin Mayer, Robert G. Eccles, 2020

THREE TRAILBLAZERS

This section presents case studies of three organisations in three very different sectors – energy, fashion and banking – in different countries and continents that have actively realised their clearly stated purposes. The common theme of the cases is their impact on sustainability. These corporations inject purpose into every aspect of their management processes from strategy to governance and operations. The cases describe how each firm first articulates its purpose, then how that purpose has driven the firm's vision and finally the impact on its current strategy and operations. Current strategic status and outcomes in each case are assessed. Finally, an analysis explores why the organisations have been successful in their sustainable action and climate fight.

ORSTED: A DANISH POWER COMPANY

PURPOSE

Orsted states its overriding purpose as halting climate change and creating 'a world that runs entirely on green energy'[4], a message that is echoed throughout all its documentation. Orsted has put active purpose at the very centre of its business model, and it now informs all aspects of its vision, strategy and operations. Orsted's purpose has evolved significantly since 2009, when the company first decided to move gradually from fossil fuels towards green energy. This journey involved a further leap in 2017 when the company changed its name from Dong Energy to Orsted and signalled its complete divestment of oil and gas. It continues to build a global presence in its operations across the US, Europe and most recently Taiwan. Orsted's transformative journey and rebranding highlight the importance of making purpose central to all that they do. Its success was acknowledged in 2020 by being voted the most sustainable company in the world in Corporate Knights Global Ranking[5].

VISION

Orsted's purpose has translated into a vision of the future of the company's sustainability and its climatic impact. It has set a series of clearly defined climate targets for itself over the next two decades in order to 'create a world that runs on green energy'[4]. The company aims to become carbon-neutral in its direct emissions (scope I/II) by 2025 and phase out all use of coal by 2023. Furthermore, Orsted has also focused on its indirect emissions, aiming to reducing these by 50% by 2032 and achieve full carbon neutrality in all its emissions by 2040. All these aims are in compliance with the Paris Agreement of achieving 1.5°C above pre-industrial global temperatures.

4. Orsted Sustainability report 2019 is the source for all statements and metrics reported

5. Corporate Knight's Global 100 Ranking, 2020

STRATEGY

In order to realise its vision Orsted has translated its vision into a set of strategies. The company has identified four key levers to help create a greener global energy system and bring about a decarbonised world:

1. Increase green electrification

2. Phase out fossil fuels

3. Scale up green power deployment

4. Increase energy efficiency.

Orsted's operational business model makes use of all four of these levers. Its main operations are in wind solutions, with a 30% global market share in off-shore wind but it also offers a variety of tailored green solutions to its customers including off-shore and on-shore wind plants, solar photovoltaic systems, storage solutions and sustainable biomass. In addition, in the management of its offshore logistics Orsted has launched several initiatives to reduce emissions, including optimised speed and routes for vessels, R&D into carbon alternatives and other additional investments in technology. Furthermore, Orsted continues to reduce its reliance on fossil fuels through the conversion of the majority of its combined-heat-and-power (CHP) plants to 96% sustainable biomass.

Looking beyond its direct operations Orsted energetically engages with its suppliers to reduce emissions. The firm has identified their most carbon-intensive activities, and in 2020 started a decarbonisation programme for its top suppliers of offshore wind installations. Finally, in order to decarbonise as much as its business as possible Orsted has focused on the emissions impact of its own administration, aiming to increase the use of electric vehicles, improve waste disposal processes and ensure its buildings operate under green certification. Overall, Orsted is deploying a comprehensive range of strategies to ensure that its core operations and their indirect impact are both aligned with its purpose and vision for climate change and carbon neutrality.

ACHIEVEMENTS

Between 2006 and 2019 Orsted reduced its carbon intensity by over 86%, and 86% of its generated energy now comes from renewable sources. In addition, Orsted reduced its use of coal by 91% over the same period. Overall, the impact of Orsted's business practices has been highly significant. In absolute terms its carbon intensity fell from 462 grams of carbon dioxide equivalent per kilowatt hour of electricity generated in 2006 to 65 in 2019. In addition, the company is on track to reach its target in scope III emissions, achieving a 4% reduction between 2018 and 2019 to 34.6 metric tons of carbon dioxide equivalent ($MTCO_2$ Eq.). Figure 6 and 7 show its projected trajectory for both direct and indirect emissions relative to the IPCC's 1.5°C target.

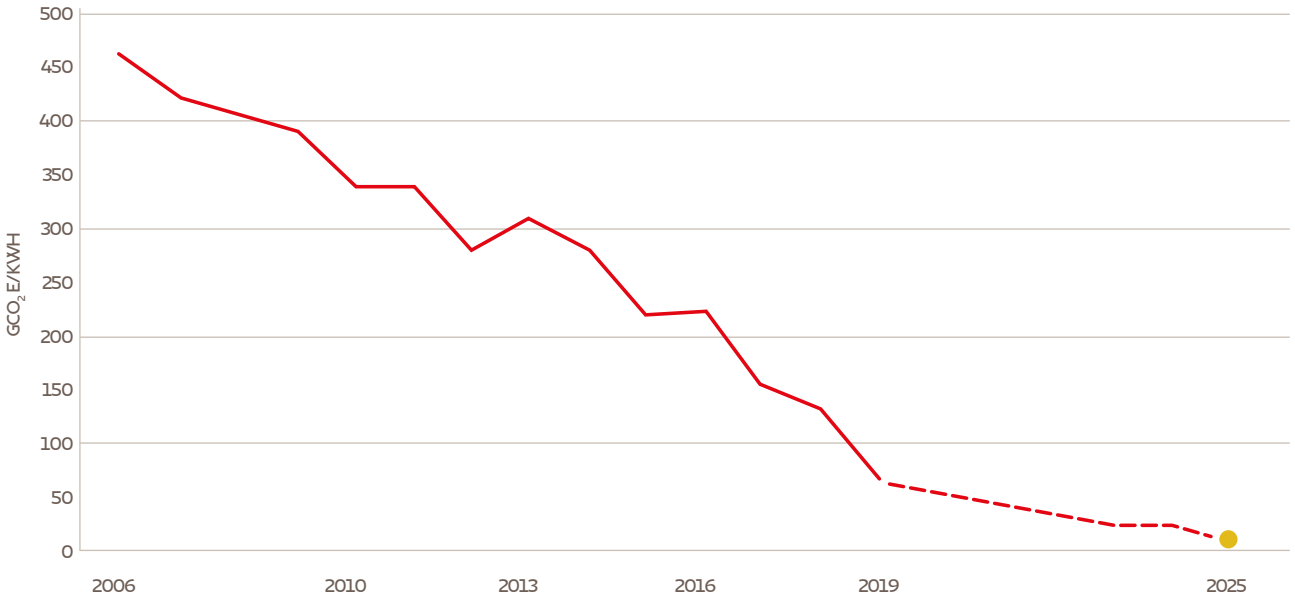


FIGURE 6. Direct emissions (Scope I/II) (Source: Orsted Sustainability report 2019)

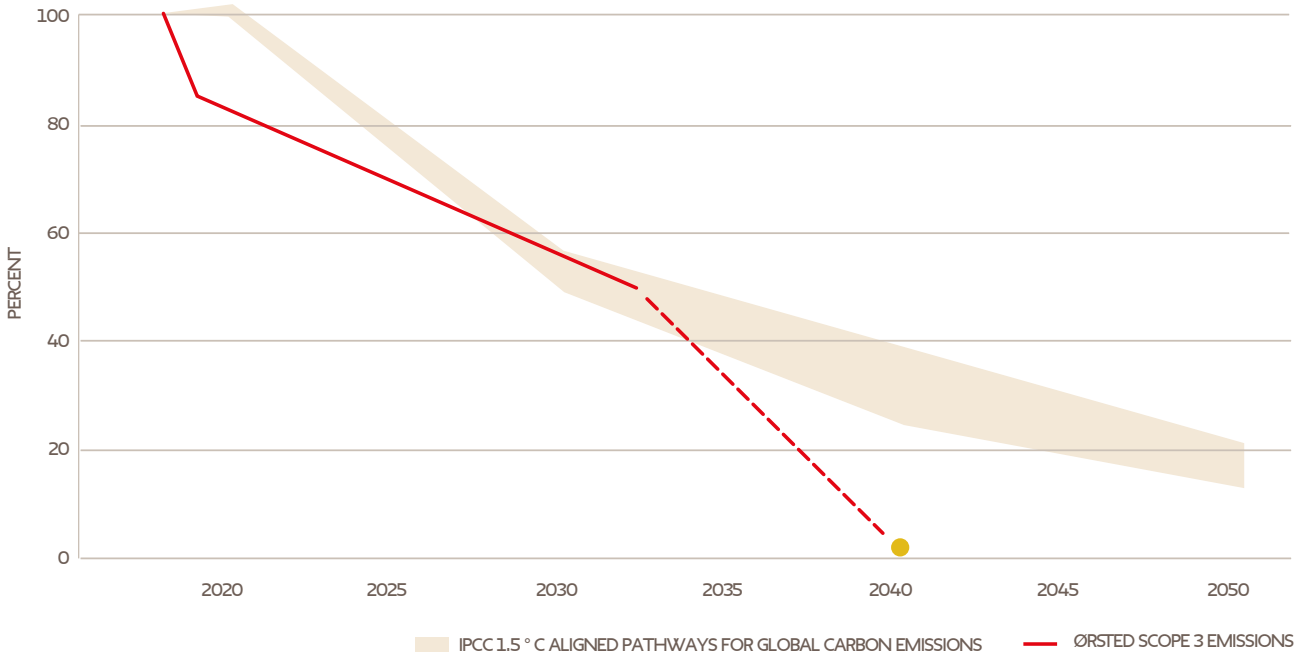


FIGURE 7. Indirect emissions (Scope III) (Source: Orsted Sustainability report 2019)

The actions undertaken by Orsted to invest in climate change have placed the company at the very forefront of efforts to achieve sustainability. Deeper analysis of their internal strategy for sustainability clearly shows how the company has been so successful.

FACTORS BEHIND ORSTED'S SUCCESS

Four key factors can be identified:

(1) *Climate risk assessments*

Orsted firstly carried out rigorous risk assessments for all of its sustainable challenges. The firm set out to identify what social challenges needed be tackled. The process involved deep engagement with external stakeholders including supply partners, the local community and government.

(2) *A framework for sustainability*

Orsted then created a straightforward framework known as the 'Orsted sustainability programme' to define and address fields for action. This involved decarbonisation, off-shore and on-shore wind generation, green financing, resource management, workplace safety and employee diversity and inclusiveness.

(3) *Governance*

Orsted introduced an integrated governance structure to ensure sustainability plays a central role in all its business decisions. This structure is two-way, incorporating both top-down and bottom-up approaches, with the board of directors at the top providing overall strategic guidance on sustainability and approval of sustainable targets.

(4) *Incentives*

The focus on climate change has been further strengthened through an incentivised remuneration package for the executive board.

KERING: A LUXURY FASHION HOUSE

PURPOSE

Kering is a global leader in high-end fashion that firmly believes luxury and sustainability are totally compatible. François Henri Pinault, who leads the group, has put sustainability at the heart of its business - in his own words: 'we care about our impact on the planet and on people and see this responsibility as an opportunity to reinvent our business and indeed luxury as a whole"[6]. This puts at centre stage Kering's dual purpose of innovating to produce luxury goods in a sustainable way and of moving the industry as a whole towards more sustainable practices.

VISION

Kering works to ensure that sustainability is the key to both its own and the wider fashion industry's success. The group's mantra – 'creating tomorrow's luxury with care, collaboration and creation'[6] enshrines its vision of how the group is seeking to meet its own environmental and social goals while at the same time using its influence to change how the fashion industry as a whole tackles environmental change. The company's vision is to conform to European net zero carbon targets by 2050 initiative and meet the 1.5°C target laid out in the Paris Climate Agreement.

STRATEGY

The group's core strategy is to apply innovation to create value though sustainability. To that end, the firm has adopted a broad sustainability strategy involving a range of new initiatives and investments. In 2017 the company launched a sustainability strategy with a number of key targets to be met by 2025. It rests on three pillars: 'Care, Collaboration and Creation'. The first pillar, 'Care', focuses on climate, environment and the sourcing of raw materials. In terms of the environment, the group aims for a 40% reduction in its overall environmental impact intensity by 2025. In carbon emissions Kering is looking at a 50% reduction, which will include both scope I/II and controlled scope III emissions. Furthermore, it aims to achieve a 40% reduction in the upstream emissions of the goods and services it purchases. These emission targets are addition to its target of 100% sustainable sourcing and traceability of raw materials by 2025.

Kering's environmental strategy is underpinned by its pioneering 'Environmental profit and loss ledger' (EP&L), which allows a detailed analysis of Kering's ongoing environmental impact (see further details below). In addition to their environmental and climate targets Kering continues to innovate in accordance with the 'Create' pillar of its threefold strategy. This pillar involves creating a continuously regenerative fashion industry through the use of new technology and 'smart' environmental solutions. Looking ahead, a next generation start-ups will enable Kering to continue its push towards complete sustainability.

6. Kering Sustainability Progress Report (2017-2020) is the source for all statements and metrics reported

ACHIEVEMENTS

Kering has been highly successful in meeting its and broader environmental goals. By 2019, it had reduced its environmental impact intensity by close to 30%. Figure 8 presents its reduction in environmental intensity since 2015, highlighting that Kering is well ahead in achieving its 40% reduction target. Furthermore, between 2015 and 2018 the group reduced its greenhouse gas emissions intensity by a further 36% overall and reduced emissions from its own operations by 77% through increasing reliance on renewable energy. In 2018, Kering passed a significant milestone by becoming totally carbon-neutral in all its operations and supply chain. In regard to sourcing and traceability, the group has achieved 100% responsible sourcing for all its gold purchasing and 88% traceability for its key raw materials.

In addition, in respect of its second pillar of its strategy, 'Collaboration', the group has actively engaged in a range of technological and innovation projects. For instance, it has entered into partnerships with the company Plug and Play in order to encourage start-ups as part of its Plug and Play's 'Fashion for Good' programme.

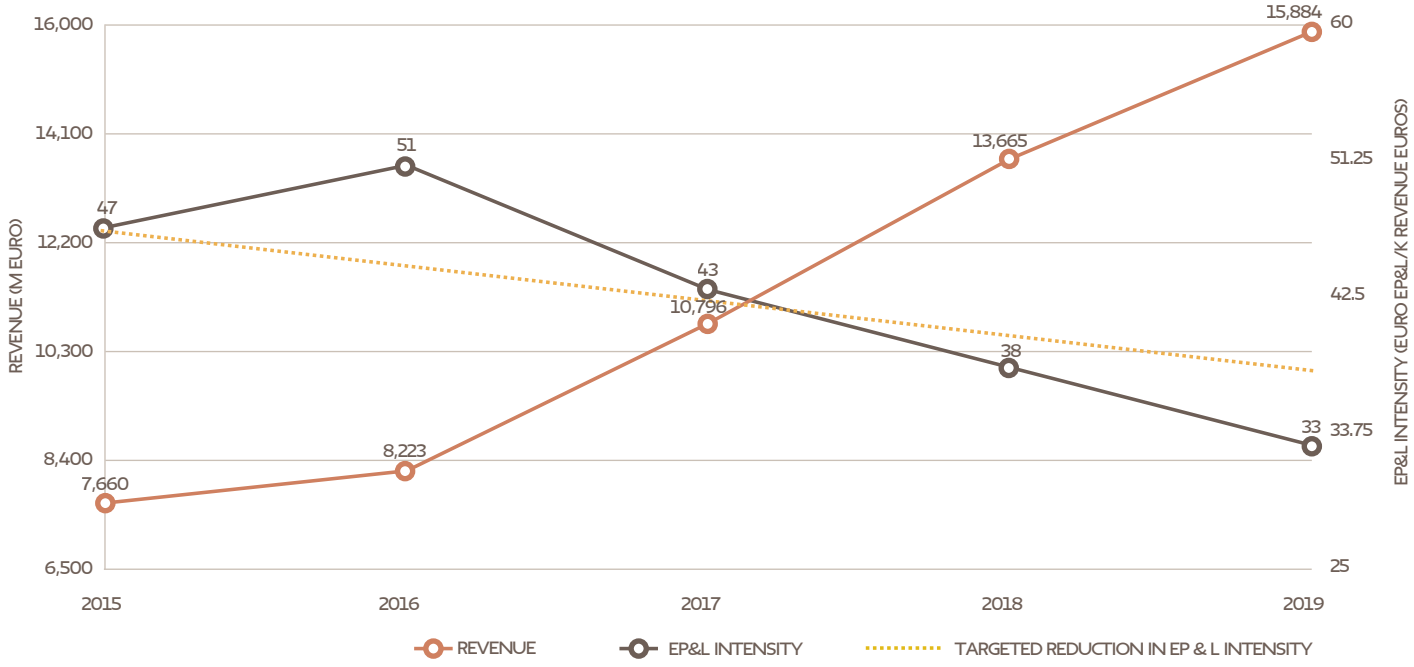


FIGURE 8. Evolution of the EP&L impacts relative to revenue (Source: Kering Environmental Profit and Loss (EP&L) Group Results, 2019)

THE FACTORS BEHIND KERING'S SUCCESS

Two main factors stand out: broad frameworks to set standards underpinned by clear quantitative metrics.

(1) *Setting Standards*

Kering has been extremely proactive in setting its standards for sustainable practices, for instance, again actively engaging in respect of its 'Collaboration' pillar with its suppliers to ensure activities outside its direct control are also aligned with best practices. The primary standard is the Kering Standards of Raw Material and Manufacturing Processes, which identifies best practice in traceability, social compliance and environmental protection. Further standards include the Kering Ethical Gold Framework, its Manufacturing and Product Restricted Substance List and its Animal Welfare Standards. By actively ensuring that suppliers are complying

with its own targets, the group has put itself at the forefront of their environmental strategy, encouraging its industry as a whole to follow suit.

(2) *Quantitative metrics*

Since 2012 Kering has pioneered quantifiable approaches to measuring its environmental impact through its Environmental Profit and Loss (EP&L) ledger. This tool enables the company to accurately measure the environmental effectiveness of six key areas in all four tiers of its supply chain. Figure 9 shows the contributions of each. The resulting profit and loss account can generate metrics either in absolute monetary terms or in the form of intensity. These metrics allow detailed analysis and monitoring in a range of environmental areas, including raw materials, and allows comparisons to be carried out over time and in different geographies. With Kering's EP&L now available in digital format, the group has greatly increased its transparency vis-à-vis both its internal and external stakeholders. This framework underpins all the group's strategic decisions in sustainability and helps allocate the right resources to particular environmental initiatives. Furthermore, since 2016 Kering has been the first luxury company to be certified by the Science Based Target Initiative (SBTI), providing the group with certified quantifiable targets to reduction of its carbon footprint and greenhouse gas emissions.

	TIER 0:STORES, WAREHOUSES, OFFICES	TIER 1: ASSEMBLY	TIER 2: MANUFACTURING	TIER 3: RAW MATERIAL PROCESSING	TIER 4: RAW MATERIAL PRODUCTION	TOTAL IN MILLIONS:
AIR EMISSIONS						7% €34.9
GHGs						36% €186.0
LAND USE						32% €169.8
WASTE						100% €32.3
WATER CONSUMPTION						6% €33.3
WATER POLLUTION						13% €68.0
TOTAL IN MILLIONS	8% €41.7	6% €33.3	10% €53.7	11% €55.8	65% €339.8	100% €524.3

FIGURE 9. EP&L Impacts across supply Chain Tiers split by impact area (Source: Kering Environmental Profit and Loss (EP&L) Group Results, 2019)

THE SHINHAN FINANCIAL GROUP

PURPOSE

Shinhan defines its purpose as extending far beyond that of a traditional retail and corporate banking institution. The Korean bank seeks to build a mutual eco-system between finance and society and use its financial services to benefit society as a whole by delivering 'compassionate finance', and offering customers long-term support with the bank acting as a 'companion for the future"[7].

VISION

Shinhan's mantra of 'building a better world through finance' incorporates a vison of significant action on climate change and of driving the transition to a low-carbon economy. To that end, the bank's 'ECO transform 20.20' initiative involves the creation of a mutually beneficial cycle offering both benefits for the environment and added value for corporate stakeholders.

STRATEGY

Shinhan has adopted a number of concurrent core strategies to increase its sustainability and meet its climate targets. In 2017 the group established a three-pronged strategy, 'CSR 2020', spanning responsible growth, social partnerships and investing in the future. The strategy involves pursuing broad-ranging environmental strategies such as establishing environmental finance solutions and managing environmental risks.

In addition, in order to make its strategy fully transparent to its stakeholders the group has set out a range of specific ESG targets. The group aims to be a leader in low-carbon financing, to expand its eco-friendly management and to strengthen its environmental partnerships. It sets out to offer low carbon financing through its green financing capability and implement an environmental risk management system. The group has also established a set of eco-friendly polices, at the heart of which is the bank's 'ECO Transform 2020' initiative. This initiative sets two climate-specific goals to be achieved by 2030: a reduction of greenhouse gas emissions by 20% from 2012 levels and the issue of 20 trillion KRW in loans for low-carbon projects. In December 2019 Shinhan also unveiled a group-wide 'Principles for Responding to Climate Change' programme, setting out not just five key principles but, equally importantly, a specific set of steps to combat climate change.

ACHIEVEMENTS

Shinhan has been extremely proactive and is well on target to achieve its climate goals. The group has issued over 16.2 trillion KRW in green financial loans since 2017, allocating capital to a variety of green projects. Between 2018 and June 2020 the bank also issued 2.15 trillion KRW in sustainable finance bonds for eco-friendly projects and renewable energy investments. Furthermore, the group itself is well ahead in meeting its own emissions goals, reducing its greenhouse emissions by 19% since 2012, generating a carbon dioxide equivalence of 90,195 (expressed per kilogram or tonne of CO_2) in 2019 against a target of 92,356. Figures 9 and 10 describe group-wide performance with regard to two climate targets, illustrating that the group is well on course to meet its 2030 goals.

7. Shinhan Financial Group CSR Report 2019 is the source for all statements and metrics reported

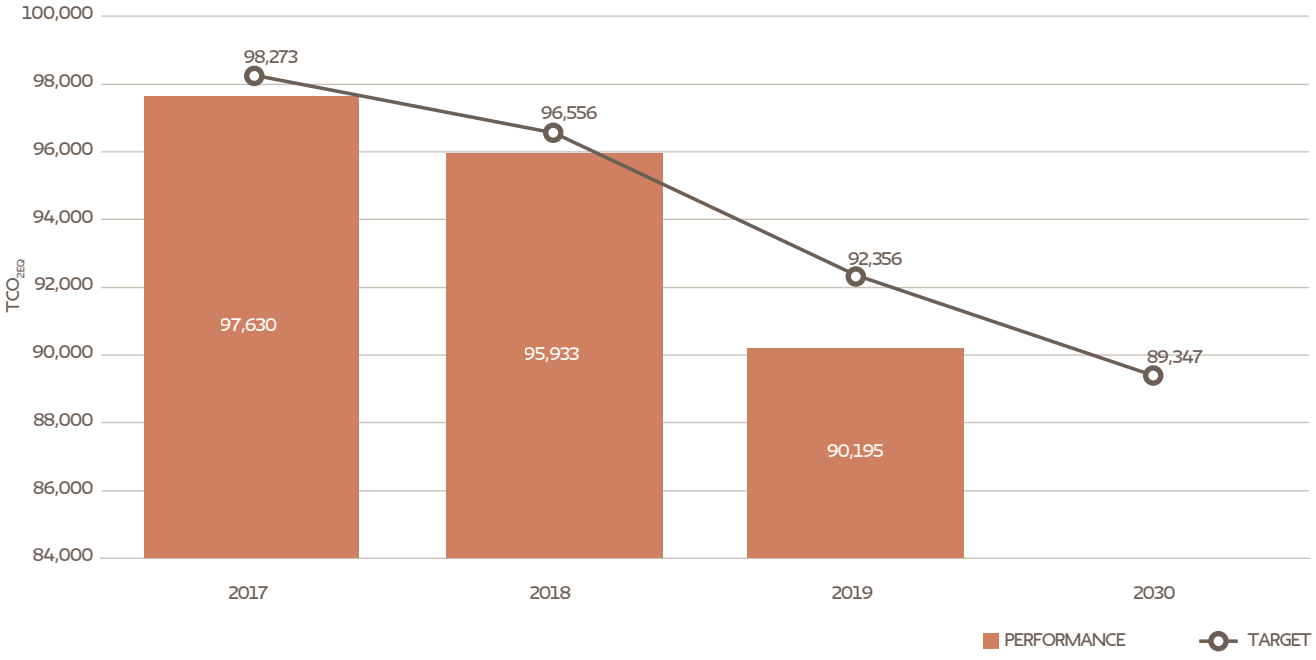


FIGURE 10. Volume of greenhouse gas emissions (Source: Shinhan Financial Group CSR Report 2019)

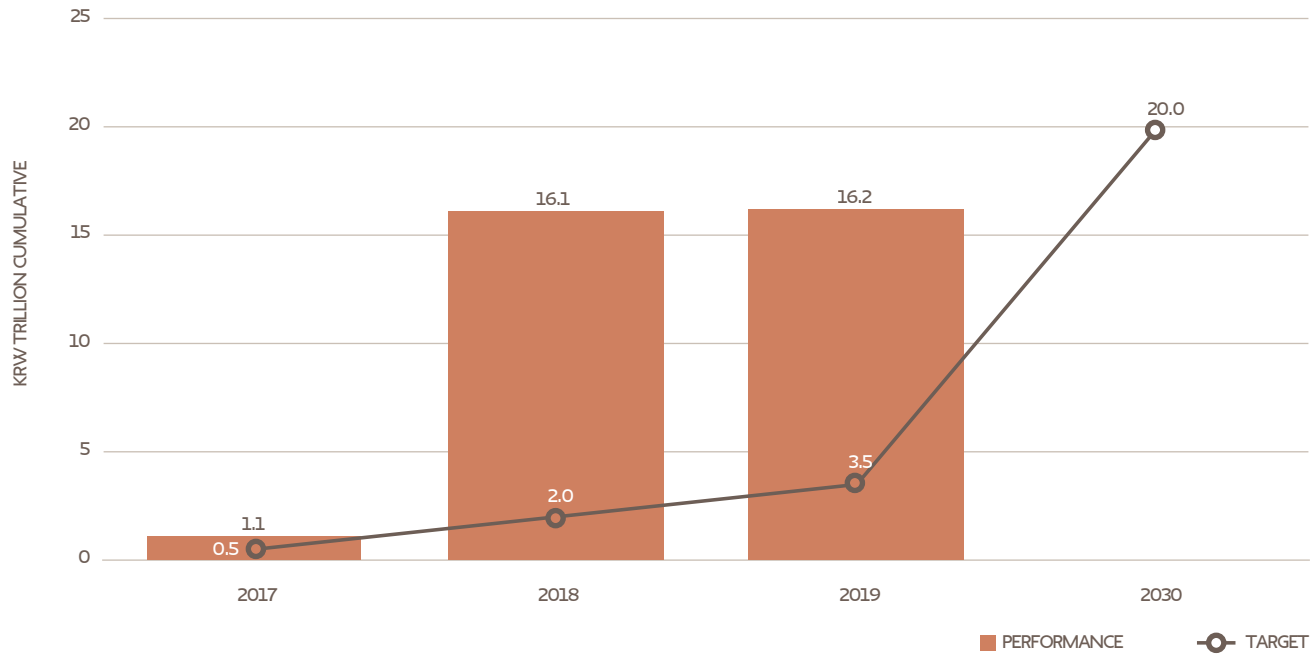


FIGURE 11. Value of investments and loans in Eco- friendly industries (Source: Shinhan Financial Group CSR Report 2019)

FACTORS BEHIND SHINHAN'S SUCCESS

Two outstanding factors are identifiable: firstly, the group's tightly focussed governance structure and, secondly, its commitment to standards set by the Task Force on Climate-Related Financial Disclosures (TCFD).

(1) *Governance*

The group has introduced an integrated governance structure to co-ordinate its sustainability efforts, appointing a central social responsibility committee with a direct connection to its board and senior leadership in order to oversee the efforts of the group as a whole. In addition, in 2019 Shinhan established two further groups: a Group Sustainability Management Council and a Group Sustainability Management Working Group. The former's role is to set the firm's management strategies in sustainability and the latter's to actually implementing the tasks. This threefold approach, embracing oversight, strategy and action, allows the company to set goals, implement them effectively and then track their progress in achieving its climate goals.

(2) *Standards*

In 2017 Shinhan became a signatory of the Task Force on Climate-Related Financial Disclosures (TCFD), and since 2019 the bank has disclosed its activities in line with TCFD requirements, making full disclosure of its governance, strategies, risk management and climate change activities. In addition, as part of the bank's adherence to TCFD standards, it has undertaken an in-depth climate risk analysis of the group's carbon emissions in order to identify their main sources. In line with TCFD recommendations the group has adopted a straightforward and transparent framework, for disclosure, thus equipping its stakeholders with a clear means to keep track of its climatic impact actions.

NOTES

BANKING

BNY Mellon
Credit Suisse
Deutsche Bank
Invesco
Schroders
Templeton & Phillips
UBS

ENERGY & MINING

BP
De Beers
Exxon Mobil
Gazprom
Gold Fields
Royal Dutch Shell

FOOD

DongA One
General Mills
Nestlé

FOUNDATIONS

John Templeton Foundation
TWCF

HEALTH CARE

Baxter
Bristol-Myers Squibb
Johnson & Johnson
Merck Serono
Natura
Novartis
Novo Nordisk
Solvay

INDUSTRIAL

ABB
Aker Solutions
BAA
BAE Systems
General Electric
INI
Jardine Matheson
Kone

INSURANCE

AIG
Aviva
FM Global
If
ING Group
Munich Re
OIL
RSA
SCOR
Swiss Life
Swiss Re
Zurich Insurance Group

PROFESSIONAL SERVICES

Accenture
Aon
Ashurst
Blue Rubicon
Deloitte
Edelman
EY
Freehills
Hill & Knowlton
Ince & Co
KBC Peel Hunt
Kenyon International
Marsh
Ogilvy PR
OTC Markets Group
Porter Novelli
PriceWaterhouse Coopers

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