

CDP Climate Change Report 2016

Nordic edition

Written on behalf of over 800 institutional investors with assets of US\$100 trillion





CDP 2016 climate change scoring partners

Contents

CDP works with a number of partners to deliver the scores for all our responding companies. These partners are listed below along with the geographical regions in which they provide the scoring. All scoring partners complete training to ensure the methodology and guidance are applied correctly, and the scoring results go through a comprehensive quality assurance process before being published. In some regions there is more than one scoring partner

and the responsibilities are shared between multiple partners.

In 2016, CDP worked with RepRisk, a business intelligence provider specializing in ESG risks (www.reprisk.com), who provided additional risk research and data into the proposed A-List companies to assess whether they were severe reputational issues that could put their leadership status into question.

FORMERLY FIRSTCARBON SOLUTIONS **ADEC** INNOVATIONS ESG SOLUTIONS

Australia & New Zealand, Benelux, Canada, DACH, Hong Kong, India, Ireland, Italy, Japan, Nordic, Russia, SE Asia, South Africa, Taiwan, UK, USA.







North America*

Central and Eastern Europe (CEE)

China

Deloitte DEKRA Latin America, Turkey France



Japan, Korea



*Aligned Incentives are retained as an alternative scoring partner in the event of a conflict of interest.

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Directors: Simon Barker, Sue Howells, Steven Tebbe

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CDP foreword

The work of CDP is crucial to the success of global green business in the 21st century. CDP is harnessing the power of information and investor activism to encourage a more effective corporate response to climate change.

Ban Ki-Moon, **UN Secretary-General**



Paul Simpson Chief Executive Officer. CDP

> **Measurement and** transparency are where meaningful climate action starts, and as governments work to implement the Paris Agreement, CDP will be shining a spotlight on progress and driving a race to net-zero emissions.

The choice facing companies and investors has never been clearer: seize the opportunities of a carbon-constrained world and lead the way in shaping our transition to a sustainable economy; or continue business as usual and face serious risks - from regulation, shifts in technology, changing consumer expectations and climate change itself. CDP's data shows that hundreds of companies are already preparing for the momentous changes ahead, but many are yet to grapple with this new reality.

Investors are poised to capitalize on the opportunities that await. Some of the biggest index providers in the world, including S&P and STOXX, have created lowcarbon indices to help investors direct their money towards the sustainable companies of the future. Meanwhile. New York State's pension fund - the third largest in the United States - has built a US\$2 billion low-carbon index in partnership with Goldman Sachs, using CDP data.

With trillions of dollars' worth of assets set to be at risk from climate change, investors are more focused than ever on winners and losers in the low-carbon transition. Information is fundamental to their decisions. Through CDP, more than 800 institutional investors with assets of over US\$100 trillion are asking companies to disclose how they are managing the risks posed by climate change. Their demands don't stop there: international coalitions of investors with billions of dollars under management are requesting greater transparency on climate risk at the AGMs of the world's biggest polluters.

The glass is already more than half full on environmental disclosure. Over fifteen vears ago. when we started CDP, climate disclosure was nonexistent in capital markets. Since then our annual request has helped bring disclosure into the mainstream. Today some 5.800 companies. representing close to 60% of global market capitalization, disclose through CDP.

The Paris Agreement – unprecedented in speed of ratification - and the adoption of the Sustainable **Development Goals (SDGs) marked the start of a** new strategy for the world, with a clear message for businesses: the low-carbon revolution is upon us. By agreeing to limit global temperature rises to well below 2°C, governments have signaled an end to the fossil fuel era and committed to transforming the global economy.

Now, we are poised to fill the glass. We welcome the FSB's new Task Force on Climate-related Financial Disclosures, building on CDP's work and preparing the way for mandatory climate-related disclosure across all G20 nations. We look forward to integrating the Task Force recommendations into our tried and tested disclosure system and working together to take disclosure to the next level.

We know that business is key to enabling the global economy to achieve - and exceed - its climate goals. This report sets the baseline for corporate climate action post-Paris. In future reports, we'll be tracking progress against this baseline to see how business is delivering on the low-carbon transition and enabling investors to keep score. Already, some leading companies in our sample - including some of the highest emitters - are showing it's possible to reduce emissions while growing revenue, and we expect to see this number multiply in future years.

Measurement and transparency are where meaningful climate action starts, and as governments work to implement the Paris Agreement, CDP will be shining a spotlight on progress and driving a race to net-zero emissions.

The Paris Agreement and the SDGs are the new compass for business. Companies across all sectors now have the chance to create this new economy and secure their future in doing so. High-quality information will signpost the way to this future for companies, investors and governments - never has there been a greater need for it.

Disclosure by investors on environmental matters, such as carbon foot-printing, will help in the global 2 degrees goal and the transition to a low-carbon economy.

Peter de Proft. **Director General**, **EFAMA** (European Fund and Asset Management Association)





Steven Tebbe. Managing Director Europe. CDP

> **Non-financial reporting** has come a long way over the last decade, from a dog-and-ponyshow to a mainstream requirement for financial markets to fully assess corporations.

Investors despise being kept in the dark. They worry about the issues they don't see or understand. **Disclosure of Environmental, Social and Governance** (ESG) information is an essential tool for investors to holistically evaluate risks and opportunities, while allowing companies to benchmark their performance against peers. Ultimately if companies want to woo investors and reduce their cost of capital, they need to be good at reporting.

In an attempt to correct the world's largest market failure, European policymakers created the first, legally-binding directive requiring companies across Europe to report ESG data as of this year. The so-called Non-Financial Reporting Directive (NFRD) recognizes the value of non-financial reporting for catalysing our transition to a low-carbon economy.

This Directive - while far from perfect - is an important step in the right direction. The NFRD would have been the opportunity to create a fully harmonized, integrated and light-touch corporate reporting system across Europe, thus enabling investors (and any other stakeholder) to compare companies across Europe on a level-playing field. In the short term however, the Directive runs the risk of leading to 28 different and possibly weak national regulations. Imagine playing the UEFA Euro Championship with every team largely making up their own rules.

Why would the Directive enable "weak" ESG reporting? The Directive offers ambiguous descriptions that give EU member states and companies much freedom to shape reported data compliance. In addition, information disclosure across the supply chain - key to addressing environmental and social issues - is not specified clearly and target-setting requirements are missing. Last but not least, the scope of the companies addressed by the legislation is too small in most countries. In Germany for example, it is likely that only 300 companies will be disclosing, while there should be scope for about 11.000 companies, considering their size and impact on our environment and society.

Fortunately, the NFR Directive will be revised in 2018. Now is therefore the opportunity for the European Commission to design a strong, consistent, EU-wide policy that builds on the expertise of successful practitioners and market-based models. Under the stewardship of the Financial Stability Board (FSB), a Task-Force on Climate-related Financial Disclosure (TCFD) is currently drafting a blue print for the G20

Closing the gap in Non-Financial Reporting

countries on consistent, climate-related financial risk disclosures. Those recommendations will be made public before the end of this year and build on CDP's work and expertise. We salute the leadership of the Task-Force and the political impulse this will give to the low-carbon transition in the world's major economies.

Less visible but just as important is another milestone currently underway in France. Since the United Nations COP21 Paris Agreement of 2015 requires "the alignment of financial flows with climate goals", existing, voluntary, investor climate disclosure should become mandatory. Requiring investors to align environmental criteria, climate change-related risks and scientific decarbonisation targets with their investment strategies will massively redirect capital towards the low-carbon economy that is essential for remaining safely below a 2-degree Celsius warming.

Many CDP signatories are ahead of the curve. Some of our avant-garde investors support voluntary initiatives such as the Portfolio Decarbonization Coalition, co-founded by CDP, and the Montreal Pledge. BlackRock, the world's largest asset manager, called on policy makers to make nonfinancial reporting a requirement for investment analysis and stop conflicting fiduciary duties. While over 800 institutional investors with US\$ 100 trillion assets under management keep calling for more thorough and comparable environmental corporate data through CDP, nearly 130 already walk-the-talk by applying climate disclosure to their own portfolios.

In anticipation of this development, policy makers in France have passed Article 173 into law, making climate reporting mandatory for institutional investors such as asset managers, insurance companies, pension and social security funds.

With about a third of the world's assets under management residing in Europe, the EU as a whole must follow France's leadership in closing the reporting gap. Triggering massive capital reallocation towards the low-carbon economy will enable the safe and liveable future we all want.

Investor insights from changes in the investment landscape



Odd Arild, Storebrand CEO



Philippe Desfosses, ERAFP CEO



Peter Harrison, Schroders CEO

The investment landscape is changing rapidly: the Paris Agreement set out a clear direction of travel on climate change for global policy makers, while developments such as France's Article 173 and the forthcoming Task Force on Climate-related Disclosure are driving greater disclosure and accountability from investors. In the light of this, we ask CEOs from three leading financial institutions how their organisations are responding and where they see the key challenges over the next few years.

1. As an investor what are your top priorities in helping to realise the goals of the Paris agreement? And how do you plan to align with policy-makers' 2 degree targets?

Odd Arild: We have the ambition to be a leading star when it comes to sustainable investments. In Storebrand, sustainability is not a niche, it is included in our main products and services. Which means that we literally have 570 billion NOK in carbon reduction programs. We are presently setting an overall group climate target which will assist us in reaching a 2 degree world. and a 2 degree regulatory ambition.

We have three priorities. The first is about measuring, reporting and lowering our carbon footprint through CDP, Portfolio Decarbonization Coalition (PDC), and Montreal Pledge. The second priority is to work with sustainability and carbon optimization in our main pension portfolios. We're also active in financial innovation - creating one of the world's first fossil free, sustainability optimized index near funds. Our third priority is to be able to report externally in our group communication to the market on our progress towards a 2 degree world.

Philippe Desfosses: Since its inception, as part of fulfilling its fiduciary duty towards the Scheme's contributors and beneficiaries, ERAFP has been working to determine the impact of its investments on the economy, society and the environment. In coming years it will rely not only on the development of appropriate tools to manage climate challenges but also on the experience it has already accumulated, particularly in the area of de-carbonization, such as for the low-carbon equity mandate awarded to Amundi or the virtual platform, built with AM League and Cedrus AM, that managers can use to demonstrate their capacity to reduce the carbon intensity of a portfolio of international equities.

In keeping with its socially responsible investment approach, ERAFP will continue to make a major contribution, in collaboration with the various other stakeholders, to speeding up the financing of the energy transition and to exceeding the objectives laid down by the Paris treaty.

Peter Harrison: The physical impacts and social and political responses to climate change will be defining investment themes of the coming years and decades. We are focusing on building our understanding of the implications for economies, industries and companies; developing tools to support better investment decisions, and engaging companies to promote more transparent and forward-thinking responses.

2. As an investor what are your main drivers for incorporating climate change risks and opportunities in investment decision making? And what are the main barriers?

OA: The main drivers are the risks and opportunities facing the companies we invest in. We believe that a tilt in investments from sustainability laggards to leaders will create greater returns in our portfolios. We also have a mission to influence and support our entire sector to professionalize climate risk, through our different products, services and external engagements like the PDC. The main barrier is data access in two areas; lower quality and availability of data and lack of regulations requiring transparency and reporting on climate risk.

PD: In exchange for the contributions that it receives from its beneficiaries, the Scheme undertakes to pay them pension benefits. This is a promise that the youngest among us will benefit from following a very long period of time. It is through nothing other than observance of our fiduciary duty that we have undertaken

Storebrand



Schroders

energy and climate-related initiatives, with a view to aligning our investment portfolios with international global warming containment objectives.

A strong barrier lies in Research which still needs to be encouraged in order to develop robust indicators. It would provide at issuer level, a comprehensive picture of companies' environmental impacts and especially direct and indirect emissions. Most available methodologies only cover part of scope 3 emissions. Thus, in some sectors such as the automotive industry or the financial sector, global emissions tend to be underestimated

PH: Hitting the commitments our global leaders made in Paris will mean changes on a far bigger scale than financial markets seem to be preparing for, spreading beyond the most obvious sectors or niche asset classes. We need new thinking to understand how large and far reaching the impacts will be. We need to accept that perfect clarity on policies looks unlikely and focus on what we can do: better thinking, better models, better data and a clearer view of how we adapt the portfolios we manage.

3. As an investor how do you balance the needs of the present against the longer term needs of delivering investment/business strategies that avoid dangerous levels of climate change and the associated impacts of these?

OA: As a pension company, we invest for customers who will stay with us for up to 50 years. Our mission is to create the best possible retirement for our customers, both in terms of financial return, but also to support the health of the society where our customers will retire.

PD: As the French public service additional pension scheme manager. ERAFP has a verv long-term responsibility towards its contributors and beneficiaries. Driven by its fiduciary duty, ERAFP prioritizes long term investments and seeks to raise the awareness about the importance of changing economic structures with a view to de-carbonization.

PH: At Schroders we have a long tradition of long term, fundamental analysis. That experience convinces us that taking account of structural trends such as climate change does not have to mean compromising shorter term performance. In fact, we are not going to be able to help our clients meet their goals, which are typically far longer than investment cycles, unless we establish long term views of critical structural trends such as climate change.

4. Environmental disclosure is a fast evolving field, how is better data, disclosure and research affecting investor decisionmaking?

OA: Better data is definitely improving our possibilities to make informed investments optimising return and climate risk. We supported a government bid in Sweden to standardise disclosure of carbon foot printing of mutual funds. We also support data development and availability in other areas, such as water or political instability where we in fact have developed our own system to predict a coup d'état in different countries.

PD: In 2015, with the help of a specialized organization' services. ERAFP have extended its perimeter and reported on the carbon footprint of 87% of its total assets. Beyond its carbon footprint, ERAFP made also a comparison of the energy mix attributable to ERAFP's equity portfolio with an energy generation breakdown for the International Energy Agency's '2°C' scenarios between 2030 and 2050. The fast evolving environmental disclosure tools allow ERAFP to expand and deepen its analyses in order to develop the most efficient decarbonization strategies.

PH: Good investment decisions rely on analysis and analysis needs data. While climate science is awash with data, most of it of little use in helping us choose one investment over another. Rigorous, relevant and consistent data at company and asset levels - like that the CDP promotes and collates - is critical to our ability to get past quantifying the scale of the problem and into deciding how to navigate it.

5. What would you like to see from companies with regards to improved transparency on climate change relevant issues?

OA: We would like to see an increase in regulation when it comes to climate reporting, and higher taxes based on polluters pays principle. The real costs of operation have to be brought to the surface, so that we as investors better can adapt our investments to this.

PD: As a member of the Institutional Investors Group on Climate Change (IIGCC), ERAFP takes part in engagement initiatives towards regulatory authorities but also companies in the most exposed sectors in order to improve their climate reporting. ERAFP is also involved into the extractive industries transparency initiative (EITI). ERAFP would like companies, especially the most exposed to climate change risks,

Investor Q&A

communicate on strategic resilience and their efforts to manage environmental impacts.

PH: Ours is a forward looking industry and information that provides more insight into companies' future planning will be vital; how companies assess changes in their industries, the assumptions they make, the strategies they form and the products they develop. No one has all the answers and more frank discussion on how companies approach the challenge is more important than holding on for definitive answers.

6. What role can engagement play in driving corporate behavioural change in the climate change context and how do you measure its success?

OA: Engagement plays an important role as a complement to divestment and portfolio tilting. We focus engagement within the climate areas to group activities within PRI, often initiated by CDP. In this way we want to increase availability of data, which is our target of engagement. We can then use it to make decision on tilting and divestment.

PD: ERAFP is an extremely engaged asset owner, maintaining dialogue with many of the companies the Scheme invested in. Through its asset managers, in 2016, ERAFP supported more than 10 shareholder resolutions on climate change. ERAFP is also involved in engagement initiatives through Institutional Investors Group on Climate Change (IIGCC), ShareAction/RE100, Carbon Disclosure Project or alongside Mirova on oil exploration's themes. Forcing companies to discuss and think with a long term approach, ERAFP is convinced that asset owners' union, followed by their asset managers, will allow the acceleration of companies' change, among which the most advanced already oriented their development towards the energy transition.

PH: Engagement is a key part of our responsibilities as responsible, active investors. We regularly talk to management teams about why we think climate change is an important issue, as well as our expectations for disclosure and transparency. That work is intrinsically tied up with how we approach investing and the benefits are evident in the decisions we make and the changes we see in companies.

7. If we were to have a similar conversation in 3 years' time, what do you think would be some of the key successes for an investor

in managing climate change risks and opportunities?

OA: Integration. Integration of competence, and tools. Managing climate risk must be at the core of the investment strategy covering all assets in all assets classes and not seen as a side activity for certain SRI funds. The global pension capital consists of the 40 000 billion USD - that is the money we need to get to work if we want to create a better, more sustainable future.

PD: Because you can't manage what you don't measure. ERAFP thinks that a crucial key of success consists in good measures of its investment climate related risks. ERAFP is working on it using and questioning current carbon foot-printing methodologies. Working with its asset managers on portfolio de-carbonization approaches, disclosing the results of its work on these areas and engaging with companies on carbon disclosure are other keys that ERAFP use to manage climate risks and opportunities.

PH: We have to build better tools to measure, quantify and analyse the risks and opportunities climate changes represents to companies and portfolios. Unless we can do that, we are going to struggle to know if we are on the right track. Progress has been made with things like carbon footprinting, but we are in the foothills of what needs to be done.

8. How are you engaging with the Sustainable Development Goals 2030 agenda?

OA: SDG sets a clear direction on what the focus should be to reach a more sustainable future. We now work to integrate the SDGs in our strategy and targets, so that we ensure that the company's strategy is in line with the goals of the world. Already in 2016 we will as a group start to report on our contribution to the SDGs.

PD: In line with its socially responsible investor's status since its beginning, ERAFP has developed a best in class strategy. This approach has had positive results since ERAFP's portfolio is globally more carbon efficient than its benchmark. By selecting the most sustainable players but also being a strongly engaged investor on ESG issues, ERAFP aims to contribute to the Sustainable Development Goals agenda 2030. Its recent signing of the Energy Efficiency Investor Statement at COP 21 and of the 2016 global investor letter to the G20 are examples of its ongoing efforts to limit climate change and promote a Sustainable Development.

PH: The Sustainable Development Goals highlight the changes we are seeing in social and political awareness of the challenges facing many of the world's poorest countries and people. This backdrop of growing awareness and commitment will have direct implications for how we manage money. We are working hard to build an understanding of the potential changes into our decision making.

Custom questions

Storebrand is in the unique position of facing the risk of increased claims from climate change as well as the risks of decreased portfolio returns from it. How do vour investment activities reduce the risk of increased claims from climate change?

OA: Companies with significant greenhouse gas emissions often make for poor financial investments. In order to make it easier to identify the companies we wish to invest in, we rate potential companies according to how sustainable they are. The environmental impact is a decisive factor when we make our assessment, which makes it easier to pinpoint which companies we do not wish to invest in. We also have an exclusion policy on negative environmental impact, with exclusion of for example more than 60 companies based on their poor climate record.

We also work in the area of financial innovation, and have launched a number of products recently. They are important not only to our customers, but also as examples to inspire and show our sector what is really possible. SPP/ Storebrand presently have the world's largest green bond fund. We have also launched a unique series of products: a near index equity mutual fund that is fossil free, and optimised for a high sustainability level of the remaining companies. We are able to deliver a low tracking error in comparison to 'standard' indices, a low fee, and a substantially lower climate related risk.

In ERAFP's "Combating Climate Change" approach it says that in order to meet the ambitions of the SRI charter in limiting greenhouse gas emissions investors should "provide tangible evidence of their approaches impact". What is your view on the current state of Asset Manager's ability to provide this?

PD: ERAFP discusses with its asset managers to understand their portfolio companies' management and improves it. This year, ERAFP has entered into an agreement with Cedrus AM and amLeague to establish a framework that asset managers can use to demonstrate their know-how in the reduction of carbon intensity by applying their expertise in the management of a notional portfolio of international equities. In the coming months, with the benefit of the Cedrus AM return of experience, ERAFP will be working on ways to extend its "low carbon" management approach, either through investment in open funds or through a call for tenders to select an asset manager to create a dedicated fund.

Chief Economist recently published the findings of a survey of 18 Chief Economists. Its finding was pretty bleak in terms of the level of integration of climate change risk into their forecasting process. What impacts, in your opinion, do you think that this lack of macro-level analysis will have on the effective integration of climate change risks into the investment process?

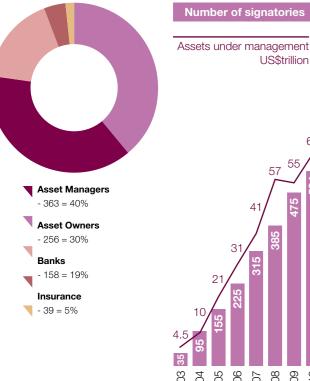
PH: Although it was disappointing that more of the City's economists don't build climate trends into their forecasts, it was not altogether surprising. The problem lies with tools and models as much as awareness; most in our industry knows the scale of the challenge and the impacts it will have, but the potential dislocation does not fit easily with models that are designed around linear trends. Unless we can come up with better ways of analysing the financial implications of climate change, we are going to find it hard to avoid being surprised down the line.

CDP Investor signatories and members

KLP reflections on Nordic cooperation on high emitting sectors

1. Investor signatories by location





CDP's investor program – backed in 2016 by 827 institutional investor signatories representing in excess of US\$100 trillion in assets - works with investors to understand their data and analysis requirements and offers tools and solutions to help them.

Investor members

Complementar

ABRAPP - Associação Brasileira das Entidades Fechadas de Previdência

Our global data from companies and cities in response to climate change, water insecurity and deforestation and our award-winning investor research series is driving investor decision-making. Our analysis helps investors understand the risks they run in their portfolios. Our insights shape engagement and add value not only in financial returns but by building a more sustainable future.

For more information about the CDP investor program, including the benefits of becoming a signatory or member please visit: https:// www.cdp.net/Documents/Brochures/investorinitiatives-brochure-2016.pdf

To view the full list of investor signatories please visit: https://www.cdp.net/en-US/ Programmes/Pages/Sig-Investor-List.aspx

3. Investor signatories over time

US\$trillion

55

2008 2009 2010

2002

87

2013

2014 2015

2012

2011





Jeanett Bergan. Head of Responsible Investments, KLP

In our view, the primary strength of the **CDP** sector research reports is that they reflect a depth of analysis - both of the relevant industry and climate change science - that we as a broad-based global investor would be unable to match.

In the spring of 2015, KLP began using the CDP sector research reports as a basis for company engagement. KLP, Ilmarinen (Finland), and Folksam (Sweden) already engaged with a focus list of companies through the Nordic Engagement Cooperation (NEC). We approached CDP to determine whether we might receive assistance in using the first CDP sector research report on the automotive sector to cosign letters to companies. Fortunately, CDP proved more than willing to help, and assisted in drafting letters and assembling company contact information.

Through this first engagement with NEC and CDP, KLP reached out to both the companies featured in the automotive sector reports, as well as the largest non-responding companies in the sector. Due to the format of the sector research reports, we already had access to specific recommendations for each company, even those at the top of the leaderboard.

The report also included examples of each company's progress, which the letters highlighted as well. The Volkswagen emissions scandal erupted a few short months later, suggesting that the engagement was perhaps more timely than anticipated.

CDP's sector research for investors provides the best and most tailored environmental data in the market. CDP's team of analysts, voted no. 1 climate change research provider in 2015 by institutional investors, takes an in-depth look at high emitting industries one-by-one, starting with the automotive industry, electric utilities, diversified chemicals, metals & mining, cement and steel. Forthcoming is research on the oil & gas industry

The full reports are available to CDP investor signatories and include detailed analysis, methodology and recommended areas of engagement for investors to raise with company management teams. For more information see:

https://www.cdp.net/en/investor/sector-research

For the European electricity sector, NEC, in collaboration with CDP, broadened the engagement to include additional Nordic investors. CDP played an invaluable role in both drafting and coordinating letters among the various lead and supporting investors. We were also delighted to learn that a group of Dutch investors had begun a similar initiative using the CDP sector research reports.

In our view, the primary strength of the CDP sector research reports is that they reflect a depth of analysis - both of the relevant industry and climate change science - that we as a broad-based global investor would be unable to match. The reports offer specific insights on companies' carbon risk management distilled into actionable engagement points for investors. We look forward to continuing these sector-based engagements with CDP for the reports to come.

About KLP

Kommunal Landspensjonskasse (KLP) is Norway's largest pension fund managing public employees' pensions as well as delivering safe and competitive financial and insurance services to the public sector. The group has total assets of NOK 577 billion invested globally in equities, bonds, infrastructure and property. KLP has been CDP's Norwegian partner since 2007.

Nordic overview of the 2016 climate results

The challenge of climate change and how to address it is now firmly on the global agenda. The Paris Agreement has been ratified at unprecedented speed by the international community, including some of the world's biggest carbon emitters, such as the US, China, India, the EU and Brazil. and will enter into force in November

This historic agreement, with defined goals to limit climate change and clear pathways for achieving its goals, marks a step-change in the transition to a lowcarbon world.

In the Paris Agreement, emissions reductions are talked about at the country level, and national governments will lead with policy changes and regulation. But companies can move much faster than governments, and they have an opportunity to demonstrate their leadership, agility and creativity in curbing their own substantial emissions. Many companies had already realised the need for action before Paris, and they played an important role in making that summit a success. Others, however, are yet to come on board.

1 This chapter is adapted from the executive summary published at the 2016 CDP's Global Climate Change Report. Please visit www. cdp.net/en/reports/downloads/1228 for full information on global tracking sample and statics

2 The analysis in this section primarily focuses on 143 Nordic companies selected by their market capitalization and which submitted their CDP responses by 15.7.2016. In total 204 Nordic corporations, representing 79% of the market capitalization of the Nordic stock exchanges disclosed climate change information to their stakeholders through CDP in 2016. These companies are listed on page

The first in an annual series, CDP's Global Climate Report¹ establishes the baseline for corporate action on climate. In future reports, CDP will track companies' progress on reducing greenhouse gas emissions in line with the goals of the Paris Agreement against this benchmark. This chapter is adapted from the global results analysis with specific focus on the action and practices in the Nordic region², and covers only a subset of the data available through CDP.

This year's analysis draws particular attention to corporate climate action on emissions reductions, the adoption of targets based on the most up-to-date

climate science ("science based targets"), use of internal carbon prices, and the uptake of renewable enerav

The CDP scoring looks at the ways companies assess a wide range of climate change risks and impacts and then go on to put policy, strategy and governance in place to manage these risks and impacts. In these broad terms the Nordic companies are demonstrating that most are already well aware of the climate change implications to their business and are taking action to address environmental issues beyond initial screenings or assessments, with the average score of B- in the Nordics. One guarter of the companies reached the leadership level showcasing best practice, with an impressive 14 companies reaching the A list. However, of the 260 largest Nordic companies requested to provide environmental information to investors through CDP, almost 45% failed to provide any data for assessment.

Visibility on the road

Although companies and governments are starting to realise the benefits of the low-carbon transition, the need for a complete economic shift can make it hard for individual companies to start the process of change. A shift in thinking is also needed, to see the transition as an opportunity, rather than a restriction.

In order to achieve this success, however, companies

Figure 1: Nordic sample by sector. The total number of companies requested to provide climate change information in each sector is presented in parentheses.



Figure 2: Nordic 2016 investor sample by region. The total number of companies requested to provide information from Nordic countries is presented in parentheses.

Share of total Nordic sample		
Denmark (42) -16%	Norway (42) -16%	Other* (15) -6%
Finland (42) -16%	Sweden (119) -46%	* Companies operating and listed the in Nordic stock exhanges but incorporated elsewhere

Figure 3: Nordic companies responded and not-responded by sector. The total number of companies requested to provide information in each sector is presented in parentheses.

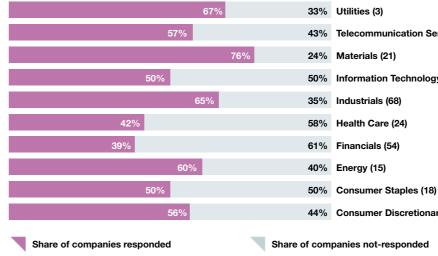


Figure 5: Reported Scope 3 categories in the Nordic region

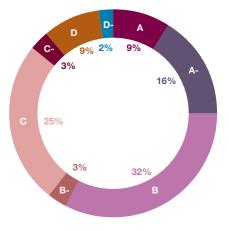
Business travel	
Capital goods	
Downstream leased assets	
Downstream transportation and distribution	
Employee commuting	
End of life treatment of sold products	
Franchises	
Fuel and an energy related activities (act included in Oce	
Fuel-and-energy-related activities (not included in Sco	ppe 1 or 2)
Investments	
Processing of sold products	
Purchased goods and services	
Upstream leased assets	
Upstream transportation and distribution	
Use of sold products	
Waste generated in operations	
Not relevant, calculated	Relevant, not yet calculat
Not relevant, explanation provided	Not evaluated*
Relevant, calculated	* including both responses: "No

43% Telecommunication Services (7)

- 50% Information Technology (16)
- 44% Consumer Discretionary (34)



Figure 4: 2016 company scores in Nordic region



need to measure their emissions, then work out how to reduce them.

Although 80% per cent of Nordic companies reporting to CDP in 2016 were able to provide data on their own (Scope 1&2) emissions, compared to a significantly lower number of 62% globally, many Nordic businesses have vet to grasp the importance of reliable and complete data to decision makers. From the reporting companies only 58% (Scope1) and 54% (Scope 2) of responders are independently verifying any portion of emissions data.

Almost all companies with data verification process in place are independently verifying at least 70% of emissions data (56% of responding companies for Scope 1 and 51% for scope 2). Consequently, almost half of the companies report that there are still emissions within the reporting boundary which are not included in their disclosure, albeit a minority (28%) of the excluded Scope 1 or 2 emissions data is reported to be relevant but not yet calculated, or there are e.g. facilities, specific GHGs, activities or geographies that are not yet evaluated at all.

68% of Nordic responding companies are also already reporting emissions data for 2 or more named Scope 3 categories, and 52% of companies have external verification/assurance process in place for some portion of the Scope 3 emissions.

From the reported Scope 3 categories, "Business travel" is by far the most reported category with 127 companies reporting emissions data on travelling. However, only 109 state this data to be relevant for the overall scope 3 emissions.

hat

Emissions data reported	% of companies reporting
None	4%
Only Scope 1	10%
Only Scope 2	6%
Scope 1 & Scope 2	80%
Emissions data for 2 or more named Scope 3 categories	68%

In absolute terms both Scope 1 and Scope 2 emissions reported by Nordic companies have increased significantly from 2015. This is largely due to improved reporting methodologies and revised boundaries from a handful of high emitting companies, while 75% of companies reported to have been able to reduce absolute global emissions through proactive emission reduction activities, with an average of 9.4% of average global absolute emissions reduced in the reporting year 2015. It's also clear that the emission contribution between companies is uneven, with only 20 of the highest emitting companies contributing to over 85% of the aggregated Scope 1 and Scope 2 emissions.

Emission contribution between sectors also vary significantly, with typically high emitting Materials and Utilities sectors contributing to 45% of the total aggregated emissions while only representing 13% of the reporting companies

Business gearing up to go low-carbon, but targets lack long-term vision

Eighty per cent of Nordic companies that provided data have already set targets (comprising absolute and/or intensity targets) to reduce their greenhouse gas emissions. Setting targets is not enough, however, without realistic plans for meeting them. Even meeting those targets might not be enough if the targets themselves are inadequate.

There has been significant improvement in recent years in the number of companies setting targets for emissions reductions, but these targets are in many cases unambitious in their time horizon. A significant proportion (46%) of the absolute targets adopted by the Nordic sample still extend only to 2015 and 2016. and while 37% of Nordic companies have set targets for 2020 and beyond, just 5% set goals for 2030 or beyond - a situation that must change to achieve a transition to well-below 2°C.

The headline figures from global and Nordic analysis mask wide variance in performance both at company level and at sector level. In the Nordic region the Utilities sector has a lower share of companies with emissions reduction targets, in particular for 2020 and beyond, while globally the Energy sector clearly stands out with fewer adopted emission reduction targets. This comes as no surprise as fossil fuel companies continue to undergo a major transition to mitigate climate change and are generally facing steeper barriers in the face of this transition. Interestingly, in the Nordic sample both Financials and Information Technology sectors, which are traditionally sectors with lower own emissions, have also lower shares of companies with emission reduction targets.

Given that this data is mostly based on calendar year 2015, and so predates the Paris Agreement, we may reasonably hope to see a jump in longer term targets in the next report, which will be based on data generated after the Paris Agreement.

Companies striving to ensure they are taking meaningful action should set science-based targets; this report and its successors will monitor how many companies are setting targets in line with the latest climate science.

13 Nordic companies are amongst the 94 global organisations in total which have publicly committed to adopt science-based greenhouse gas reduction targets via the Science Based Targets Initiative.

What is a Science Based Target?

The world's leading climate scientists and governments agree that it is essential to limit the increase in global average temperature to below 2°C to mitigate the dangerous effects of climate change. Businesses, which account for a substantial portion of global GHG emissions, can align with this goal by setting corporate GHG reductions targets based on global emissions budgets generated by climate models. Companies globally are raising their ambitions to set science-based targets and ensure their longterm sustainability and profitability.

By making this commitment, companies will be agreeing to set science-based emissions reductions targets in line with the Science-Based Targets Initiative's Call to Action criteria within the next 2 years.

Once targets have been developed, companies will submit the targets for a quality check. The Technical Working Group of the Science Based Targets Initiative will verify that the targets meet the criteria. Please visit www.sciencebasedtargets.org for criteria, guidance, methodologies and tools for setting GHG emission reduction targets in line with climate science. For further information, you can contact the We Mean Business - Commit to Action team at commit@cdp.net

Figure 6: Aggregated scope 1 and scope 2 emissions for total Nordic sample and 20 highest emitting companies

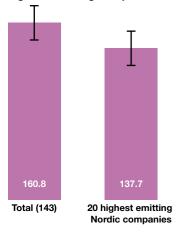


Figure 7: Nordic aggregated scope 1 and scope 2 emissions by sector

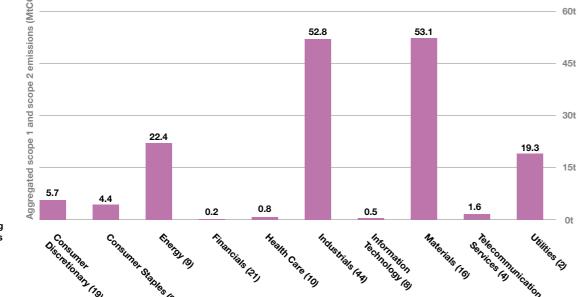
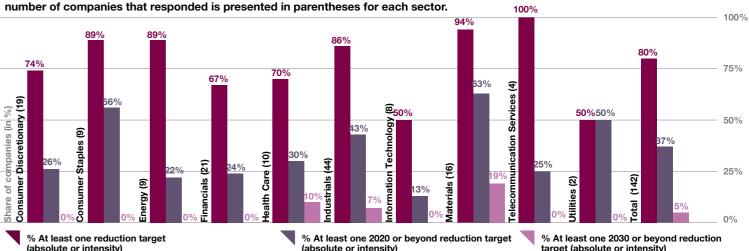


Figure 8: Nordic companies with emission reduction targets (total and by sector). The



Company targets could achieve just one quarter of the emissions reductions required by science; Paris Agreement expected to help close that gap

CDP analyses and records the potential impact of exisiting targets to examine their compatibility with the objective of limiting global warming to well-below 2°C.

CDP's global analysis found that if the companies in the sample were to achieve their current targets, they could realise 1Gt CO₂e (1,000 MtCO₂e) of reductions by 2030. This is about one guarter of the 4GtCO₂e (4,145 MtCO₂e) of reductions that this group of companies would need to achieve in order to be in line with a 2°C-compatible pathway, leaving a gap of at least 3GtCO₂e (3,145 MtCO₂2e) between where companies' current targets take them, and where they should be. This gap is equal to nearly 50 per cent of these companies' current total emissions.

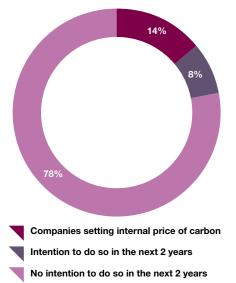
The amount of emissions reductions pledged by companies has been increasing steadily from 2011 to 2015 and we hope to see it close at a faster rate in future years, as company targets become more ambitious in response to the regulatory certainty offered by the Paris Agreement. The emission reduction targets reported by Nordic companies also capture a positive signal with the reported absolute targets aiming to an average 4.8% emission reductions annually.

Transition planning: carbon pricing on the rise, yet companies lag in renewable energy production and consumption

Even those companies that have not set themselves targets have almost all established emissions reduction initiatives (97 per cent of all companies globally, 89 per cent of Nordic companies), although the success and scope of these initiatives have been varied. Companies in the Nordic region reported in

target (absolute or intensity)

Figure 9: Share of companies setting an internal price of carbon



total 474 emission reduction initiatives spreading across all sectors, although significantly fewer companies in the Information Technology (63%) and in Utilities (50%) sector have reported to have launched even one emission reduction initiative. The types of initiatives launched and reported in 2016 vary. although initiatives aiming to increase process energy efficiency are most common.

Increasingly, companies are also utilising internal carbon pricing as an approach to help them manage climate risks and opportunities. Companies are using this tool in a range of different ways including risk assessment in their scenario planning, as a real hurdle rate for capital investment decisions and to reveal hidden risks and opportunities in their operations. Some companies embed a carbon price deep into their corporate strategy, using it to help to deliver on climate targets, whether it be an emissions or energy related target or to help foster a new line of lowcarbon products and services.

Currently only 14% (compared to global 25%) of responding Nordic companies use internal carbon pricing, while a further 8 per cent (19% globally) plan to do so in the near future. By 2017, about half of this sample should have introduced carbon pricing.

Renewable energy will need to play a major role in any global shift to a low carbon economy. So far, relatively few companies (just 5% globally) have targets for increasing their renewable energy generation, while 11% have targets for renewable energy consumption.

Of the companies in the utilities sector, 90% of which are electric power companies, fewer than a third both globally and in the Nordics have renewable energy generation targets.

Figure 10: Development of key trends in the Nordic region

% of responders with Board of senior management responsibility for climate change



% of responders with incentives for the management of climate change issues



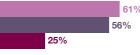
% of responders reporting engagement with policymakers on climate issues to encourage mitigation or adaptation



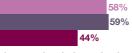
% of responders reporting absolute emission reduction targets **

43% 30% 20%

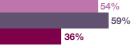
% of responders reporting intensity emission reduction targets**



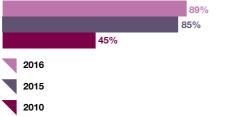
% of responders independently verifying any portion of Scope 1 emissions data*



% of responders independently verifying any portion of Scope 2 emissions data*



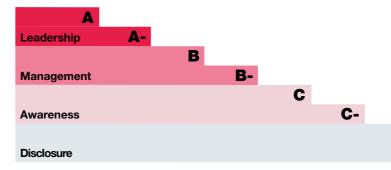
% of responders reporting active emissions reduction initiatives in the reporting year



** Companies may report multiple targets. However, in these statistics a company will only be counted once.

* This takes into account companies reporting that verification is complete or underway, but does not include any evaluation of the verification statement provided.

Central to CDP's mission is communicating the progress companies have made in addressing environmental issues, and highlighting where risks may be unmanaged. In order to do so in a more intuitive way, CDP has adopted a streamlined approach to presenting scores in 2016. This new way to present scores measures a company's progress towards leadership using a 4 step approach: Disclosure which measures the completeness of the company's response; Awareness

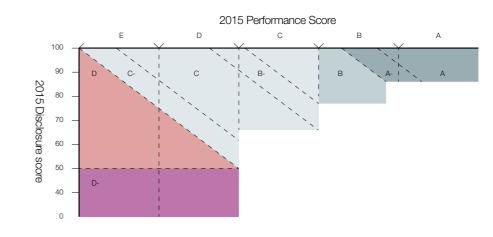


F: Failure to provide sufficient information to CDP to be evaluated for Climate Change ¹

1 Not all companies requested to respond to CDP do so. Companies who are requested to disclose their data and fail to do so, or fail to provide sufficient information to CDP to be evaluated will receive an F. An F does not indicate a failure in environmental stewardship.

The scoring methodology clearly outlines how many points are allocated for each question and at the end of scoring, the number of points a company has been awarded per level is divided by the maximum number that could have been awarded. The fraction is then converted to a percentage by multiplying by 100 and rounded to the nearest whole number. A minimum score of 75%, and/or the presence of a minimum number of indicators on one level will be required in order to be assessed on the next level. If the minimum score threshold is not achieved, the company will not be scored on the next level.

The final letter grade is awarded based on the score obtained in the highest achieved level. For example, Company XYZ achieved 88% in Disclosure level, 76% in Awareness and 65% in Management will receive a B. If a company obtains less than 40% in its highest achieved level, its letter score will have a minus. For





considers the extent to which the company has assessed environmental issues, risks and impacts in relation to its business; Management which is a measure of the extent to which the company has implemented actions, policies and strategies to address environmental issues; and Leadership which looks for particular steps a company has taken which represent best practice in the field of environmental management.

	Leadership	75-100%	А
		0-74%	A-
	Management	40-74%	В
		0-39%	B-
	Awareness	40-74%	С
		0-39%	C-
	Disclosure	40-74%	D
D-		0-39%	D-

D

example, Company 123 achieved 76% in Disclosure level and 38% in Awareness level resulting in a C-. However, a company must achieve over 75% in Leadership to be eligible for an A and thus be part of the A List, which represents the highest scoring companies. In order to be part of the A-list a company must score 75% in Leadership, not report any significant exclusions in emissions and have at least 70% of its scope 1 and scope 2 emissions verified by a third party verifier using one of the accepted verification standards as outlined in the scoring methodology.

Public scores are available in CDP reports, through Bloomberg terminals, Google Finance and Deutsche Boerse's website. CDP operates a strict conflict of interest policy with regards to scoring and this can be viewed at https://www.cdp.net/Documents/ Guidance/2016/CDP-2016-Conflict-of-Interest-Policy. pdf

Comparing scores from previous years.

It is important to note that the 2016 scoring approach is fundamentally different from 2015, and different information is requested, so 2015 and 2016 scores are not directly comparable. However we have developed a visual representation which provides some indication on how 2015 scores might translate into 2016 scores. To use this table a company can place its score in the table and see in which range it falls into in the current scoring levels. For more detailed instructions please refer to our webinar: https://vimeo.com/162087170.

Nordic companies on the A list



Investing in CD
A List: strong p
change leaders

Company	Country	Climate Score	Consecutive years in the A-list
Consumer Discretionary			
Electrolux	Sweden	А	1
Consumer Staples			
SCA	Sweden	А	1
Energy			
Neste Corporation	Finland	А	1
Health Care			
Novo Nordisk	Denmark	А	1
Lundbeck	Denmark	А	1
Industrials			
Kone	Finland	А	2
Skanska	Sweden	А	1
Valmet	Finland	А	1
Information Technology			
EVRY	Norway	А	1
Materials			
BillerudKorsnäs	Sweden	А	2
Metsä Board	Finland	A	1
Novozymes	Denmark	А	1
Stora Enso	Finland	А	1
UPM-Kymmene Corporation	Finland	А	1

The number of Nordic companies in the global climate A list increased significantly from 2015 (5 companies), with 14 companies achieving top scores and meeting the strict A list criteria in 2016.

The A list represents the highest scoring companies and is acknowledgment of a company's positive and effective actions to mitigate and adapt to global climate change. For a company to be eligible for inclusion to the A list, a company must

- achieve over 75% of available points at all scoring levels, including the Leadership level;
- grant public access to their CDP response;
- not report any significant exclusions in emissions;
- ▼ and have at least 70% of its scope 1 and scope 2 emissions verified by a third party verifier using one of the accepted verification standards as outlined in the scoring methodology.

In 2016, the number of companies reaching the global A list represents roughly 10% of all companies scored as part of the investor information request both globally and in the Nordic region. Both Nordic and global A list companies represent various sectors, including a number of traditionally heavy emitting sectors such as Industrials, Materials, Energy and Utilities, signaling of positive shift and ambition towards low carbon solutions from key industries.

There are additionally impressive 25 Nordic companies that reached the Leadership level and are classified with A- scores, which means that these companies are also demonstrating best practice in the field of environmental management, but did not meet the 75% points threshold or some of the other A List requirements listed in above.

%

higher returns over past 4 years

STOXX® Low Carbon Indices provide easy new way to climate-friendly and attractive returns

Performance STOXX Global Climate Change Leaders vs. STOXX Global 1800 ------ STOXX Global Climate Change Leaders EUR (Gross)



This year CDP collaborated with STOXX® and South Pole Group on the development of a new series of low-carbon indices, one of which now makes investing in CDP's A List companies very easy: The STOXX® Global Climate Change Leaders Index.

STOXX[®] Climate Change Leaders Index is the first ever that tracks the CDP "A List" available to market participants offering a fully transparent and tailored solution to address long-term climate risks, while participating in the sustainable growth of a lowcarbon economy.

The index has performed strongly against a global benchmark, outperforming by 6% over 4 years.

Being based on the CDP "A List" database, this unique index concept includes carbon leaders who are publicly committed to reducing their carbon footprint.¹

1) The index is price weighted with a weight factor based on the free-float market cap multiplied by the corresponding Z-score carbon intensity factor of each constituent Components with lower carbon intensities are overweighted, while those with higher carbon emission are underweighted

Our Climate A List com-

companies who lead on

today and in the future.

It is exciting to see the

the STOXX[®] Global

rising investor interest in

Climate Change Leaders

◥◥

climate change mitigation

prises a strong set of

Index.

)P's Global Climate performance by climate

Data from Dec. 19, 2011 to Aug. 31, 2016

Key benefits for investors:

- Constituents are forward-looking leaders with superior climate change mitigation strategies and commitments to reducing carbon emissions
- In addition to Scope 1 & Scope 2, also incorporates Scope 3 data
- Significantly (80%) lower carbon footprint ¹ while still containing high emitters
- Similar risk-return profiles compared to the benchmark
- Use reported carbon intensity data only

CDP is looking forward to contributing to innovative solutions that can add real value for investors in the future.

Novo Nordisk has committed to set a science-based emission reduction target in line with the Science Based Targets Initiative's Call to Action criteria, and signed up for the RE100 pledge to work towards 100% of electricity consumption from renewable sources by 2020

Novo Nordisk

Case study: Novo Nordisk, Health Care

with diabetes and other serious chronic diseases. This is a tremendous responsibility that we take with us in everything we do, relying in our scientific expertise and deep disease understanding to help people achieve better health.

Novo Nordisk has signed up for the RE100 initiative and pledged that all our electricity consumption from production will come from renewable sources by 2020.

Dorethe Nielsen Senior Director, Environmental Strategy Novo Nordisk A/S





00/00/00

81%

of European

companies reporting to CDP's forest program in 2016 have commitments to address deforestation yet only 42% stipulate zero or zero net deforestation and forests degradation within a 2020 timeframe.

In 2015, more than 25%

of reporting companies identified opportunities to reduce emissions through improved water management

Up to 31%

of the carbon mitigation needed annually to keep temperature rises in check could be achieved by addressing deforestation.

Forests

Deforestation and forest degradation account for approximately 10-15% of the world's greenhouse gas emissions. Addressing deforestation is therefore critical for meeting international ambitions to prevent dangerous climate change.

In fact, the most immediate and effective mechanism for mitigating climate impacts could come through curbing deforestation, according to the Stern Review.

Global demand for agricultural commodities is the primary driver of deforestation, as land is cleared to produce soy, palm oil and cattle products. Alongside timber and pulp, these commodities are the building blocks of millions of products traded globally. These in turn are wealth generators which feature in the supply chains of countless companies across sectors.

Read the 2016 Global Forests Report (released in early December) to see how companies are translating these into meaningful actions. www.cdp. net/en/forests

Nordic companies reporting on he manage and mitigate deforestation their commodity supply chains in
Ahlstrom Corporation
BillerudKorsnäs
H&M Hennes & Mauritz
Holmen
Kesko Corporation
Metsä Board
Neste Corporation
Oriflame Cosmetics
Orkla
SAS
SCA
Skanska
TETRA PAK
UPM-Kymmene Corporation
Nobia

* representing total 44% response rate from all Nordic companies requested to respond to the 2016 CDP Forest questionnaire

Natural capital and climate change

Water

ow they on risk in clude*
Finland
Sweden
Sweden
Sweden
Finland
Finland
Finland
Sweden
Norway
Sweden
Sweden
Sweden
Sweden
Finland
Sweden

Water plays a critical role in achieving the climate neutral ambitions set by the Paris Agreement.

A large-scale shift in energy generation is key to reducing emissions. However, several low carbon technologies require a stable supply of good quality water, such as hydroelectric power, nuclear power and power plants fitted with Carbon Capture and Storage (CCS) equipment. Changes in water availability are already negatively impacting companies operating in countries heavily dependent on hydroelectricity such as Brazil. For example, French utilities ENGIE reported that financial impacts, associated with ongoing droughts in Brazil, cost their organization approximately US\$223 million, almost 3% of operating income in 2014.

Worsening water security can severely undermine businesses ability to transition to a low carbon future. Leading companies recognize that corporate water stewardship is necessary for both business resilience and decarbonisation efforts.

Sound and effective water governance is essential for driving dynamic, low carbon economic growth. Companies reporting to CDP are taking action, with 68% reporting board level oversight of water issues and 82% integrating water into their business strategy. Furhermore, companies are already reporting that improved water management can lead to emission reductions, such as L'Oreal and Mars. If given proper attention, water security can be transformed from a limiting to an enhancing factor for delivering on commitments to tackle climate change.

Read the 2016 global water report (released 15th Nov) to see how companies are improving water management to realize greater emissions reductions www.cdp.net/water

Nordic companies reporting on how they manage and mitigate water risks include**							
Assa Abloy	Sweden						
BillerudKorsnäs	Sweden						
H&M Hennes & Mauritz	Sweden						
Holmen	Sweden						
Metsä Board	Finland						
Nokian Tyres	Finland						
Nordic Semiconductor	Norway						
Norsk Hydro	Norway						
Novozymes	Denmark						
Orkla	Norway						
Sandvik	Sweden						
SCA	Sweden						
UPM-Kymmene Corporation	Finland						
Vestas Wind Systems	Denmark						
William Demant Holding	Denmark						

** representing total 31% response rate from all Nordic companies requested to respond to the 2016 CDP Water questionnaire

The key of Metsä Board business strategy is to increase the share of bioenergy along with improving energy efficiency while offering sustainable packaging materials to its customers.

Metsä Board

Case study: Metsä Board, Materials

The year 2015 has every chance of becoming historically important in reducing global warming, thanks to the agreement reached in Paris at the end of the year. The forest industry plays a notable role by offering sustainable products and solutions to help with reaching the goals set. COP21 targets are also guiding Metsä Board's operations.

Our strategy for combating climate change concentrates on three areas: increasing the use of bioenergy, improving energy efficiency and lightweighting our paperboards. By investing in bioenergy, as well as energy and material efficiency, Metsä Board's CO₂ emissions have decreased by 42% since 2009 and in 2015 more than 80% of the fuels we used were bio-based. We are continuously looking for new areas of energy efficiency at our manufacturing units. When calculating the return of an investment project we also use an internal carbon price.

The investments in a chemical recovery plant and a low-consistency refining at Metsä Board Kaskinen mill in 2015 are good examples of our efforts. These investments together with earlier ones have allowed the mill to reduce its electric energy consumption by 28% compared to 2009. Kaskinen mill produces high-yield pulp that plays an important role in the lightweighting of our paperboards.

Metsä Board's lightweight and safe paperboards benefit the whole packaging value chain.

Mika Joukio Chief Executive Officer Metsä Board



This profile is collaborative content supported by Metsä Board

We Mean Business: Commit to Action

Translating Paris into business strategy

Companies are taking direct and ambitious action on climate change. More than 465 companies globally, and 37 in the Nordic region have made commitments to climate action via the We Mean Business commitments platform "Commit to Action," representing a tenfold increase in two years.

Progress in 2016 has remained strong, suggesting a positive response to the Paris Agreement and its universal commitment to a low-carbon economy.

Companies have been adopting more aggressive targets-around emissions reductions, renewable energy, deforestation, water, and energy productivityand improving operational or governance measures for climate risk through use of a price on carbon, more responsible policy engagement mechanisms, and greater transparency on climate governance in

mainstream reports.

Corporate action has grown across all of these issues. The strongest growth has been in companies committing to science-based emissions reduction targets, from 50 companies in late 2015 to nearly 190 today.

Companies in 42 countries have taken action.

At the beginning of 2015 just 3 US companies had made commitments via this platform. By Paris, this number had grown to more than 50 companies. Climate action remains popular with European companies, with 237 taking action, predominantly in mainstream reporting on climate and science-based target setting. The fastest growing issue with Nordic companies has been also the science-based targets, with 13 companies making that commitment.

Thirteen companies headquartered in Brazil have taken action, including materials company Braskem (price on carbon) and the consumer brand Natura (science-based targets, deforestation, policy engagement, and mainstream reporting on climate). In India, 17 companies, including Tata & Sons and Mahindra, have made bold commitments to renewable energy and energy productivity. Important first movers in China, like industrials company Broad Group, have made a range of commitments, importantly including setting science-based targets.

Sector trends show that companies in every industry are acting. Strongest growth in 2016 has been in the industrials sector. Together, this sector accounts for over 20% of corporate action via the We Mean Business platform, as well as more than 100 million metric tonnes CO₂e. Consumer discretionary and

235 +

Companies Europe

Setting science based targets is the right thing to do, but also makes perfect business sense. Setting a science-based target directly answered the needs of our customers, all of whom are thinking about their own carbon footprints. It is also critical for investors who need to know that we are thinking of potential risks, in the short-, medium- and long-term.

Laurel Peacock **Senior Sustainability Manager NRG Energy**

90+ Companies North America

+\$10 183 Companies Trillion USD Investors



Management

South America 1000 +

25 +

Companies

Commitments

WE MEAN BUSINESS

economic opportunity through bold climate action

465+



Companies

Africa

consumer staples companies also represent 20% of committed companies, led by major brands like Walmart, The Coca-Cola Company and Honda Motor Company. IT sector participation has accelerated post-Paris, with companies including Apple and Facebook making 100% renewable power commitments.

By acting early and decisively, these companies are better able to manage their climate risk, gain competitive edge over their peers, and reap the reputational benefits that early leadership provides.

To find out more please visit www.cdp.net/commit.







Nordic companies disclosing climate data in 2015

Company	Country	2016 Score	2015 Score	Public
Consumer Discretionary	0			<u> </u>
Alma Media	Fi	В	96 B	Public
Amer Sports	Fi	C	82 D	Public
Backer	Se	(SC)	(SC)	Public
Bilia	Se	AQ(L)	(30) 84 E	Not Public
Clas Ohlson	Se	B	04 ⊑ 88 C	Public
Dometic	Se	С-	(SC)	Not Public
Ekornes	No	 B	97 C	Public
Electrolux	Se	 A	97 C 99 B	Public
Europris	No	A-	not scored	Public
Fiskars	Fi	C	48	Not Public
H&M Hennes & Mauritz	Se	A-	93 B	Public
Husqvarna	Se	B	92 C	Not Public
JM	Se	A-	94 B	Public
Lego Group	 Dk	(SC)	(SC)	Public
Modern Times Group MTG	Se	(30) B	95 C	Public
Nobia	Se	C	95 C 89 D	Public
Nokian Tyres	 Fi	C	83 D	Public
S Group	Fi	C	not scored	Public
Sanoma	 Fi	D	33	Public
Scandic Hotels Group	Se	B	not scored	Public
Schibsted	No	C	97 D	Public
Stockmann	Fi	B	97 D 94 B	Public
Suominen	 Fi	(SC)	not scored	Public
Consumer Staples	11	(30)	Hot scored	PUDIC
Carlsberg Breweries	Dk	С	74 D	Public
Cermaq	No	 B	97 C	Public
Kesko	Fi	A-	100 A	Public
KMC	DK	(SC)	not scored	Public
Lantmannen	Se	(SC)	(SC)	Public
Lerøy Seafood Group	No	<u>(00)</u> B	72 D	Public
Marine Harvest Group	No	A-	99 C	Public
Oriflame Cosmetics	Se	B	99 B	Public
Orkla	No	B	98 B	Public
Raisio Oyj	Fi	C-	not scored	Not Public
REMA1000	No	A-	95C	Public
SCA	Se	A	100 A-	Public
Swedish Match	Se	C	91 E	Public
Energy		<u> </u>	01 L	
Det Norske Oljeselskap	No	С	70 D	Public
DNO International	No	C	98 E	Public
DOF	No	B	99 B	Public
Fred. Olsen Energy	No	C	96 D	Public
Lundin Petroleum	Se	B-	95 D	Public
Neste Corporation	Fi	A	97 C	Public
Petroleum Geo-Services	No	C	90 D	Public
Seadrill Management	No	C	85 D	Not Public
Solstad Offshore	No	B	99 B	Public
Statoil	No	A-	100 B	Public
Subsea 7	No	C	not scored	Public
Financials				
Aker	No	D	not scored	Public
Atrium Ljungberg	Se	B	74 C	Not Public
Castellum	Se	A-	93 B	Public
Citycon	Fi	B	83 B	Public
	Dk	B	98 B	Public
Danske Bank				
Danske Bank			97 B	Public
Danske Bank DNB Entra	No	A- B	97 B 97 B	Public Public

	Country	2016 Score	2015 Score	Public
Company	ŏ	50	20	Р
Hoist Finance	Se	D	not scored	Public
Hufvudstaden	Se	В	100 B	Not Public
Industrivärden	Se	С	93 D	Public
Klövern	Se	С	94 D	Public
KLP Insurance	No	В	100 B	Public
Nordax Group	Se	D-	not scored	Public
Nordea Bank	Se	В	100 B	Public
Norwegian Property	No	A-	97 C	Public
Nykredit	Dk	С	not scored	Public
OP Financial Group	Fi	В	91 C	Public
Ratos	Se	D	AQ (L)	Not Public
SEB	Se	A-	98 B	Public
Sponda	Fi	A-	99 A-	Public
Storebrand	No	В	100 B	Public
Svenska Handelsbanken	Se	В	95 C	Public
Swedbank	Se	В	97 B	Public
Topdanmark	Dk	С	90 C	Public
Health Care				
BioGaia	Se	В	92 C	Public
Coloplast	Dk	В	92 C	Public
Ferrosan Medical Devices	Dk	(SC)	(SC)	Public
Getinge	Se	С	79 D	Public
Lundbeck	Dk	Α	98 B	Public
Meda	Se	В	99 B	Public
North Denmark Region	Dk	С	90 D	Public
Novo Nordisk	Dk	Α	100 B	Public
Recipharm	Se	C-	not scored	Public
William Demant Holding	Dk	C-	76 E	Public
Össur	ls	D	24	Public
Industrials				
ABB	Se	В	77 D	Public
A.P. Moller - Maersk	Dk	D	66 D	Public
Addtech	Se	D	28	Public
Alfa Laval Corporate	Se	AQ (L)	not scored	Public
Assa Abloy	Se	С	93 C	Public
Beijer Alma	Se	С	90 D	Public
Caverion	Fi	B-	89 D	Public
D/S Norden	Dk	В	99 B	Public
Danfoss	Dk	(SC)	(SC)	Public
DSV	Dk	D	72 D	Public
Eltek	No	С	93 D	Public
Finnair	Fi	A-	99 B	Public
FLSmidth & Co.	Dk	D	56 E	Public
Frontline	No	С	96 D	Not Public
Golden Ocean	No	В	92 C	Not Public
Grundfos	Dk	(SC)	not scored	Public
Inwido	Se	С	32	Public
ISS	Dk	В	95 B	Public
Kone	Fi	Α	100 A	Public
Konecranes	Fi	В	98 C	Public
Kongsberg Gruppen	No	В	69 E	Public
		A-	99 B	Public
Lassila & Tikanoja	Fi	A-		
	Fi Fi	A- A-	100 B	Public
Lassila & Tikanoja			100 B 98 B	Public Public
Lassila & Tikanoja Metso	Fi	A-		
Lassila & Tikanoja Metso NCC	Fi Se	A- B	98 B	Public
Lassila & Tikanoja Metso NCC Nibe Industrier	Fi Se Se	A- B B	98 B 88 C	Public Not Public
Lassila & Tikanoja Metso NCC Nibe Industrier Nolato	Fi Se Se Se	A- B B C	98 B 88 C 89 D	Public Not Public Public

	Country	2016 Score	2015 Score	Public			Country	2016 Score	2015 Score	Public	
Company					Company			N	ล	۵	
Rockwool International	Dk	В	97 B	Public	Telecommunicat	on Service					
SAAB	Se	A-	100 B	Public	Elisa		Fi	B	100 B	Public	
Sandvik	Se	C	95 D	Public	Lemcon		Fi	(SC)	not scored	Public	
SAS	Se	A-	97 B	Public	Millicom Internation	al Cellular	Se	B	92 C	Public	
Securitas	Se	С	92 D	Public	Telenor Group		No	A-	99 A	Public	
Skanska	Se	Α	94 B	Public	TeliaSonera		Se	B-	95 B	Public	
SKF	Se	B	95 C	Not Public	Utilities			_			
Systemair	Se	D	41	Public	Eltel		Fi	D	not scored	Not Public	
Swep	Se	(SC)	(SC)	Public	DONG energy		Dk	B	not scored	Not Public	
Tomra Systems	No	C	84 E	Public	Fortum		Fi	A-	100 A-	Public	
Trelleborg	Se	С	73 D	Public	Vattenfall Group		Se	В	89 D	Public	
Uponor	Fi	В	92 C	Not Public	To read the publi	c compan	y res	ponses	in full, acces	ss dynamic	
Valmet	Fi	A	97 B	Public	graphs on emiss	ion data a	nd th	e globa	l A list, pleas	e visit the	
Veidekke	No	A-	98 B	Public	CDP website at v	vww.cdp.ı	net				
Vestas Wind Systems	Dk	С	94 C	Public	-						
Volvo	Se	A-	100 A-	Not Public	KEY for company						
Wärtsilä	Fi	В	96 C	Public	AQ(L): Answered						
Yit °-	Fi	С	87 D	Public	(SC): Answered que program, with a pu						
ÅF	Se	С	82 D	Public	SA: See other	inine reshol	196. J	00162110	n avallaule 101	ρυσιισατίοι ι.	
Information Technology					Not public: the co	mpany res	ponde	ed privat	elv to CDP inv	/estor	
Atea	No	В	96 B	Public	- signatories only		p 01101	ou pritu	0.9 00 0.21		
Basware	Fi	С	31	Public	Public: the compa	iny respons	se car	h be read	in full at the (CDP website	
Enea Software	Se	(SC)	not scored	Public	Bold: companies t	hat are in t	he glo	bal A lis	t		
Ericsson	Se	В	99 B	Public	-						
EVRY	No	Α	97 B	Public	Dk Denmark						
Fingerprint Cards	Se	C-	not scored	Public	Fi Finland						
Napatech	Dk	(SC)	(SC)	Public	Is Iceland						
Nokia Group	Fi	A-	100 A	Public	 No Norway Se Sweden 						
Nordic Semiconductor	No	В	94 C	Public							
Tieto	Fi	В	98 B	Public	KEY for scores						
Scandec Systemer	No	(SC)	(SC)	Public	Range: from A to	D- (A is the	best	score).			
Scanfil	Fi	(SC)	not scored	Public	-						
SimCorp	Dk	D-	not scored	Not Public	Leadership (A, A						
Vaisala	Fi	В	99 A-	Public	advance environm						
Materials					risks and opportur						
Ahlstrom	Fi	С	90 D	Public	implemented strate	egies to mi	ligate	or capita	alize on these	risks and	
BillerudKorsnäs	Se	Α	99 A	Public	- Management (B,	B-). Comr	anv h	as taken	actions to ac	Idress	
Boliden Group	Se	A-	97 B	Public	- environmental issu						
Borregaard	No	В	91 D	Public	Awareness (C, C						
Chr. Hansen Holding	Dk	B-	85 D	Not Public	how environmenta					0	
Fiskeby	Se	(SC)	(SC)	Public	Disclosure (D, D-					formation for	
Flexiket	Dk	(SC)	(SC)	Public	assessing the mate	urity of prod	cesses	s and ac	tions taken.		
Hexpol	Se	С	92 D	Public							
Holmen	Se	A-	88 B	Public	The four levels rep		•			, 0	
Huhtamäki	Fi	В	92 C	Public	 a good environment the presence of a reserver of a reserver						
Kemira	Fi	A-	99 B	Public	 required in order to 						
Luossavaara-Kiirunavaara	Se	D	not scored	Not Public	give a clear picture						
Metsä Board	Fi	Α	100 B	Public	to environmental s						
Novozymes	Dk	Α	100 A-	Public	next. Please see p						
Norsk Hydro	No	С	85 C	Public	Leadership	75-100%					
Outokumpu	Fi	B-	100 B	Public							
Skanem	No	(SC)	(SC)	Public		0-74%	A				
SSAB	Se	D	AQ (L)	Public	Management	40-74%	В				
Stora Enso	Fi	Α	99 B	Public		0-39%	В	-			
Terrafame	Fi	С	not scored	Public	Awareness	40-74%	С				
Tetra Pak	Se	(SC)	(SC)	Public	Awareness						
UPM-Kymmene	Fi	Α	99 A-	Public	-	0-39%	С	-			
Yara International	No	С	AQ (L)	Public	Disclosure	40-74%	D				
	-			-	_			-			

Appendix CDP Investor Signatories

3Sisters Sustainable Management LLC AB Aberdeen Asset Managers Aberdeen Immobilien KAG mbH ABRAPP - Associação Brasileira das Entidades Fechadas de Previdência Complementar Achmea NV ACTIAM Active Earth Investment Management Acuity Investment Management Addenda Capital Inc. AFGON N V AEGON-INDUSTRIAL Fund Management Co., Ltd AGE Investment Inc. AIG Asset Management AK Asset Management Inc. Akbank T A Alberta Investment Management Corporation (AIMCo) Alberta Teachers Retirement Fund Board Alecta Align Impact, LLC Alliance Trust PLC Allianz Global Investors Allianz SE Alguity Investment Management Altira Group Amalgamated Bank AMF Pension Amlin plc AMP Capital Investors AmpegaGerling Investment GmbH Amundi AM ANBIMA - Associação Brasileira das Entidades dos Mercados Financeiro e de Capitais Antera Gestão de Recursos S.A. APG Appleseed Fund Aquila Capital Arabesque Asset Management Arisaig Partners Asia Pte Ltd Arjuna Capital Arma Portföy Yönetimi A. Armstrong Asset Management ASM Administradora de Recursos S.A. ASN Bank Assicurazioni Generali S.p.A ATI Asset Management Atlantic Asset Management Pty Ltd ATP Group Auriel Capital Australia and New Zealand Banking Group Australian Ethical Investment AustralianSuper Avaron Asset Management Aviva Investors Aviva plc AXA Group AXA Investment Managers BAE Systems Pension Funds Investment Management Baillie Gifford & Co. BaltCap BPER Banca Banco Bradesco S/A Banco BTG Pactual SA Banco Comercial Português S.A. Banco da Amazônia S.A. Banco de Credito del Peru BCP Banco de credito social cooperativo Banco de Galicia y Buenos Áires S.A. Banco do Brasil Previdência Banco do Brasil S/A Banco Popular Español S.A. Banco Sabadell, S.A. Banco Santander Banesprev - Fundo Banespa de Seguridade Social bankmecu Bank Handlowy w Warszawie S.A.

Bank J. Safra Sarasin Ltd Bank Leumi Le Israel Bank of America Merrill Lynch Bank of Montreal Scotiabank Bankhaus Schelhammer & Schattera Kapitalanlagegesellschaft m.b.H. Bankinte Banque Libano-Française Barclays Basellandschaftliche Kantonalbank BASF Sociedade de Previdência Complementar Basler Kantonalbank Baumann and Partners S.A. Bavern LB BayernInvest Kapitalanlagegesellschaft mbH BBC Pension Trust Ltd. BBVA Bedfordshire Pension Fund Beetle Capital Bendigo & Adelaide Bank Limited Bentall Kennedy Berenberg Bank Berti Investments BlackRock Blom Bank SAL Blumenthal Foundation BM&FBOVESPA BMO Global Asset Management EMEA BNP Paribas Investment Partners BNY Mellon BNY Mellon Service Kapitalanlage Gesellschaft Boardwalk Capital Management Boston Common Asset Management, LLC BP Investment Management Limited Brasilprev Seguros e Previdência S/A. Breckenridge Capital Advisors British Airways Pension Investment Management Limited British Columbia Investment Management Corporation Brown Advisory BSW Wealth Partners BT Financial Group BT Investment Management Busan Bank CAAT Pension Plan Cadiz Holdings Limited CAI Corporate Assets International AG Caisse de dépôt et placement du Québec Caisse des Dépôts Caixa de Previdência dos Funcionários do Banco do Nordeste do Brasil (CAPEF) Caixa Econômica Federal Caixa Geral de Depósitos CaixaBank, S.A Caja Ingenieros Gestión California Public Employees' Retirement System California State Teachers' Retirement System California State Treasurer California State University, Northridge Foundation Calvert Investment Management, Inc. Canada Pension Plan Investment Board Canadian Imperial Bank of Commerce (CIBC) Canadian Labour Congress Staff Pension Fund Dexia Asset Management CAPESESP Capital Innovations, LLC Capricorn Investment Group, LLC CareSuper Carmignac Gestion CASER PENSIONES Cathay Financial Holding Co. Ltd Catherine Donnelly Foundation Catholic Super CBF Church of England Funds CBRE Cbus CCLA Investment Management Ltd Cedrus Asset Management

Celeste Funds Management Limited Central Finance Board of the Methodist Church CERES-Fundação de Seguridade Social Challenger Change Investment Management China Development Financial Holdings Christian Brothers Investment Services Christian Super Christopher Reynolds Foundation Church Commissioners for England Church of England Pensions Board CI Mutual Funds' Signature Global Advisors Mountain Cleantech AG ClearBridge Investments CM-CIC Asset Management CNP Assurances The Colorado College Columbia Threadneedle Investments Comerica Incorporated COMGEST Bâtirente Commerzbank AG CommInsure Commonwealth Bank of Australia Commonwealth Superannuation Corporation Compton Foundation Confluence Capital Management LLC Connecticut Retirement Plans and Trust Funds Conser Invest CPR AM Crayna Capital, LLC. Credit Agricole Credit Suisse Gruppo Bancario Credito Valtellinese CTBC Financial Holding Co., Ltd. Cultura Bank DGB Financial Group Daesung Capital Management Daiwa Securities Group Inc. Dalton Nicol Reid Dana Investment Advisors Danske Bank Group de Pury Pictet Turrettini & Cie S.A. Degroof Petercam DekaBank Deutsche Girozentrale Delta Lloyd Asset Management Demeter Partners Desjardins Group Deutsche Asset Management Investmentgesellschaft mbH Deutsche Bank AG Deutsche Postbank AG Development Bank of Japan Inc. Development Bank of the Philippines (DBP) DEXUS Property Group DLM INVISTA ASSET MANAGEMENT S/A DNB ASA Domini Social Investments LLC Dongbu Insurance DoubleDividend Doughty Hanson & Co. DWS Investment GmbH DZ Bank E.Sun Financial Holding Co Earth Capital Partners LLP East Capital AB East Sussex Pension Fund Ecofi Investissements - Groupe Credit Cooperatif EdenTree Investment Management Edward W. Hazen Foundation EEA Group Ltd EGAMO Eika Kapitalforvaltning AS Ekobanken medlemsbank Elan Capital Partners Element Investment Managers ELETRA - Fundação Celg de Seguros e Previdência

Elo Mutual Pension Insurance Company Environment Agency Pension fund Environmental Investment Services Asia Limited Trustees of Donations to the Protestant Episcopal Church Epworth Investment Management eQ Asset Management Ltd Equilibrium Capital Group equinet Bank AG ERAFP Erik Penser Fondkommission Erste Asset Management Erste Group Bank Essex Investment Management Company, LLC ESSSuper Ethos Foundation Etica Sor Eureka Funds Management Eurizon Capital SGR Evangelical Lutheran Church in Canada Pension Plan for Clergy and Lay Workers Evangelical Lutheran Foundation of Eastern Canada Evangelisch-Luth. Kirche in Bayern Evli Bank Plc FACEB – FUNDAÇÃO DE PREVIDÊNCIA DOS EMPREGADOS DA CEB FAELCE – Fundacao Coelce de Seguridade Social FAPERS- Fundação Assistencial e Previdenciária da Extensão Rural do Rio Grande do Sul Federal Finance Fédéris Gestion d'Actifs FIDURA Capital Consult GmbH FIM Asset Management Ltd FIM Services Finance S.A. Financiere de l'Echiquier FIPECq - Fundação de Previdência Complementar dos Empregados e Servidores da FINEP, do IPEA, do CNPg FIRA. - Banco de Mexico First Affirmative Financial Network First Bank First State Super First Swedish National Pension Fund (AP1) FirstRand Ltd Florida State Board of Administration (SBA) Folketrygdfondet Folksam Fondaction CSN Fondation de Luxembourg Fondazione Cariplo Fondo Pegaso Fondo Pensione Cometa Fondo Pensione Gruppo Intesa Sanpaolo - FAPA Fonds de Réserve pour les Retraites - FRR Foundation North Fourth Swedish National Pension Fund, (AP4) FRANKFURT-TRUST Investment-Gesellschaft mbH Friends Fiduciary Corporation Friends Life Fubon Financial Holdings Fukoku Capital Management Inc FUNCEF - Fundação dos Economiários Federais Fundação AMPLA de Seguridade Social - Brasiletros Fundação Atlântico de Seguridade Social Fundação Attilio Francisco Xavier Fontana Fundação Banrisul de Seguridade Social Calouste Gulbenkian Foundation Fundação Chesf de Assistência e Seguridade Social -Faches Fundação Corsan - dos Funcionários da Companhia Riograndense de Saneamento Fundação de Assistência e Previdência Social do BNDES - FAPES FUNDAÇÃO ELETROBRÁS DE SEGURIDADE SOCIAL - ELETROS Fundação Itaipu BR - de Previdência e Assistência Social FUNDAÇÃO ITAUBANCO Fundação Itaúsa Industrial

FUNDAÇÃO SANEPAR DE PREVIDÊNCIA E ASSISTÊNCIA SOCIAL - FUSAN Fundação Sistel de Seguridade Social (Sistel) Fundação Vale do Rio Doce de Seguridade Social -VALIA FUNDIÁGUA - FUNDAÇÃO DE PREVIDENCIA COMPLEMENTAR DA CAESB Futuregrowth Asset Management GameChange Capital LLC Greentech Capital Advisors, LLC GEAP Fundação de Seguridade Social Gemway Assets General Equity Group AG Generation Investment Management Genus Capital Management German Equity Trust AG Gjensidige Forsikring ASA Global Forestry Capital SARL Globalance Bank Ltd GLS Gemeinschaftsbank eG Goldman Sachs Asset Management Goldman Sachs Group Inc. GOOD GROWTH INSTITUT für globale Vermögensentwicklung mbH Good Super Government Employees Pension Fund ("GEPF"), Republic of South Africa GPT Group Greater Manchester Pension Fund Green Alpha Advisors Green Cay Asset Management Green Century Capital Management Green Science Partners GROUPAMA EMEKL L K A. GROUPAMA S GORTA A. Groupe Crédit Coopératif GROUPE OFI AM Grupo Financiero Banorte SAB de CV Grupo Santander Brasil Banca Monte dei Paschi di Siena Group Guardians of New Zealand Superannuation Hall Capital Partners LLC Hang Seng Bank Hannon Armstrong Sustainable Infrastructure Capital, Inc Hanwha Asset Management Company Harbour Asset Management Harrington Investments, Inc Harvard Management Company, Inc. Hauck & Aufhäuser Asset Management GmbH Hazel Capital LLP HDFC Bank Ltd. Healthcare of Ontario Pension Plan (HOOPP) Heart of England Baptist Association Helaba Invest Kapitalanlagegesellschaft mbH Henderson Global Investors Hermes Investment Management HESTA Super **HIP Investor** Holden & Partners HSBC Fundo de Pensão HSBC Global Asset Management (Deutschland) GmbH HSBC Holdings plc HSBC INKA Internationale Kapitalanlagegesellschaft mbH HUMANIS Hyundai Marine & Fire Insurance Co., Ltd Hyundai Securities Co., Ltd. **IBK** Securities IDBI Bank Ltd. Infrastructure Development Finance Company Industry Funds Management Iguana Investimentos Illinois State Board of Investment Ilmarinen Mutual Pension Insurance Company Imofundos, S.A Impax Asset Management Making Dreams a Reality Financial Planning

Fundação Rede Ferroviaria de Seguridade Social - Refer IndusInd Bank Ltd. Industrial Alliance. Insurance and Financial Services Inc. Industrial Bank of Korea Industrial Development Corporation Inflection Point Capital Management ING Group N.V. Insight Investment Instituto Infraero de Seguridade Social - INFRAPREV Instituto Sebrae De Seguridade Social - SEBRAEPREV Insurance Australia Group Integre Wealth Management of Raymond James IntReal KAG Investec Asset Management Investing for Good CIC Ltd Irish Life Investment Managers Itau Asset Management Itaú Unibanco Holding S A Jantz Management LLC Janus Capital Group Inc. Jarislowsky Fraser Limited Jessie Smith Noves Foundation Jesuits in Britain JMEPS Trustees Limited JOHNSON & JOHNSON SOCIEDADE PREVIDENCIARIA Johnson Private Wealth Management, LLC Joule Assets Inc. JPMorgan Chase & Co. Jubitz Family Foundation Jupiter Asset Management Kagiso Asset Management Kaiser Ritter Partner Privatbank AG KB Kookmin Bank **KBC** Asset Management KBC Group KCPS Private Wealth Management KDB Asset Management Co. Ltd Kendall Sustainable Infrastructure, LLC Kepler Cheuvreux **KEPLER-FONDS KAG** Keva KeyCorp KfW Bankengruppe Killik & Co LLP Kiwi Income Property Trust Kleinwort Benson Investors Korea Investment Management Co., Ltd. Korea Technology Finance Corporation (KOTEC) **KPA** Pension La Banque Postale Asset Management La Financière Responsable La Française Laird Norton Family Foundation Lampe Asset Management GmbH Landsorganisationen i Sverige Länsförsäkringar LaSalle Investment Management LBBW - Landesbank Baden-Württemberg LBBW Asset Management Investmentgesellschaft mbH LD Lønmodtagernes Dyrtidsfond Legal and General Investment Management Legg Mason Global Asset Management LGT Group LGT Group Foundation LIG Insurance Light Green Advisors, LLC NORTHERN STAR GROUP Living Planet Fund Management Company S.A. Lloyds Banking Group Local Authority Pension Fund Forum Local Government Super LocalTapiola Asset Management Ltd Logos portföy Yönetimi A. . Lombard Odier Asset Management London Pensions Fund Authority Lothian Pension Fund LUCRF Super Ludgate Investments Limited

Lutheran Council of Great Britain Macquarie Group Limited Magellan Financial Group MagNet Magyar Közösségi Bank Zrt. Maine Public Employees Retirement System MainFirst Bank AG Malakoff Médéric MAMA Sustainable Incubation AG Man Mandarine Gestion MAPFRE Maple-Brown Abbott Marc J. Lane Investment Management, Inc. Martin Currie Investment Management Maryknoll Sisters Maryland State Treasurer Matrix Asset Management Mediobanca Meeschaert Gestion Privée Meiji Yasuda Life Insurance Company Mellon Capital Mendesprev Sociedade Previdenciária Mercer Investments Merck Family Fund Mercy Investment Services, Inc. Mergence Investment Managers Merseyside Pension Fund MetallRente GmbH Metrus – Instituto de Seguridade Social Metzler Asset Management Gmbh MFS Investment Management McLean Budden Midas International Asset Management, Ltd. Miller/Howard Investments, Inc. KDB Daewoo Securities Mirae Asset Global Investments Mirae Asset Securities Co., Ltd. Mirova Mirvac Group Ltd Missionary Oblates of Mary Immaculate Mistra, The Swedish Foundation for Strategic Environmental Research Mitsubishi UFJ Financial Group Mitsui Sumitomo Insurance Co.,Ltd Mizuho Financial Group, Inc. MN Mobimo Holding AG Momentum Outcome-based Solutions Monega Kapitalanlagegesellschaft mbH Mongeral Aegon Seguros e Previdência S/A Montanaro Asset Management Limited Morgan Stanley MTAA Superannuation Fund Nanuk Asset Management The Nathan Cummings Foundation National Australia Bank Limited National Bank of Canada NATIONAL BANK OF GREECE S.A. National Grid Electricity Group of the Electricity Supply Pension Scheme National Grid UK Pension Scheme National Pensions Reserve Fund of Ireland National Union of Public and General Employees (NUPGE) NATIXIS Natural Investments LLC Nedbank Limited Needmor Fund **NEI** Investments Nelson Capital Management, LLC NEST - National Employment Savings Trust Nest Sammelstiftung Neuberger Berman New Alternatives Fund Inc. New Amsterdam Partners LLC New Forests New Mexico State Treasurer New Resource Bank

New York City Employees Retirement System New York City Comptroller New York City Teachers Retirement System New York State Common Retirement Fund Newground Social Investment Newton NGS Super Woori Investment & Securities Co., Ltd. NH-CA Asset Management Company Nikko Asset Management Co., Ltd. Nissay Asset Management Corporation NN Group NV Nomura Holdings, Inc. NORD/LB Kapitalanlagegesellschaft AG Nordea Investment Management Norfolk Pension Fund Norges Bank Investment Management North Carolina Retirement System North East Scotland Pension fund Northern Ireland Local Government Officers' Superannuation Committee (NILGOSC) Northern Trust NorthStar Asset Management, Inc Northward Capital Pty Ltd Notenstein Privatbank AG Nvkredit Oceana Investimentos ACVM Ltda OceanRock Investments Oddo & Cie Office of the Vermont State Treasurer Öhman ÖKOWORLD Old Mutual plc Oliver Rothschild Corporate Advisors OMERS Administration Corporation Ontario Pension Board Ontario Teachers' Pension Plan OP Wealth Management Oppenheim & Co. Limited Oppenheim Fonds Trust GmbH OppenheimerFunds Opplysningsvesenets fond (The Norwegian Church Endowment) OPTrust Oregon State Treasurer Osmosis Investment Management Overlook Investments Limited PAI Partners Park Foundation Parnassus Investments Paul Hamlyn Foundation Pax World Funds PCJ Investment Counsel Ltd. Pensioenfonds Vervoer Pension Fund for Danish Lawyers and Economists Pension Protection Fund Pension Denmark Swedish Pensions Agency People's Choice Credit Union Perpetual PETROS - The Fundação Petrobras de Seguridade Social PFA Pension PGGM Vermogensbeheer Phillips, Hager & North Investment Management PhiTrust Active Investors Pictet Asset Management SA **Pioneer Investments** Piraeus Bank S.A. PKA Plato Investment Management Pluris Sustainable Investments SA PNC Financial Services Group, Inc. Polden-Puckham Charitable Foundation Porto Seguro S.A. POSTALIS - Instituto de Seguridade Social dos Correios e Telégrafos Power Finance Corporation Limited

PREVI Caixa de Previdência dos Funcionários do Banco do Brasil PREVIG Sociedade de Previdência Complementar Previnorte - Fundação de Previdência Complementar Progressive Asset Management, Inc. Prologis Provinzial Rheinland Holding Prudential Investment Management Prudential Plc Psagot Investment House Ltd Public Sector Pension Investment Board Q Capital Partners Co. Ltd **QBE** Insurance Group OIC Quantex Quilter Cheviot Asset Management Quotient Investors Rabobank Raiffeisen Fund Management Hungary Ltd. Raiffeisen Kapitalanlage-Gesellschaft m.b.H. Raiffeisen Schweiz Genossenschaft **RPMI** Railpen Investments Rathbones / Rathbone Greenbank Investments RBC Global Asset Management Real Grandeza Fundação de Previdência e Assistência Social **REI** Super Reliance Capital Limited Resona Bank, Limited Reynders McVeigh Capital Management River Twice Capital Advisors, LLC Robeco RobecoSAM AG Robert & Patricia Switzer Foundation Rockefeller Asset Management, Sustainability & Impact Investing Group Rose Foundation for Communities and the Environment Rothschild & Cie Gestion Group Royal Bank of Canada Roval Bank of Scotland Group Royal London Asset Management RREEF Investment GmbH Ruffer LLP Russell Investments Sampension KP Livsforsikring A/S Samsung Asset Management Co., Ltd. Samsung Fire & Marine Insurance Co.,Ltd., Samsunglife Insurance Samsung Securities Sanlam Life Insurance Ltd Santa Fé Portfolios Ltda Santam Santander Brasil Asset Management Sarasin & Partners SAS Trustee Corporation Saskatchewan Healthcare Employees' Pension Plan Sauren Finanzdienstleistungen GmbH & Co. KG Schroders SEB Asset Management AG Second Swedish National Pension Fund (AP2) ekerbank T.A. Seligson & Co Fund Management Plc Sentinel Investments SERPROS - Fundo Multipatrocinado Service Employees International Union Pension Fund Seventh Swedish National Pension Fund (AP7) The Shiga Bank, Ltd. Shinhan Bank Shinhan BNP Paribas Investment Trust Management Co., Ltd Shinkin Asset Management Co., Ltd Siemens Kapitalanlagegesellschaft mbH Signet Capital Management Ltd Sisters of St Francis of Philadelphia Sisters of St. Dominic Sixth Swedish National Pension Fund (AP6) Skandia

PREVHAB PREVIDÊNCIA COMPLEMENTAR

Smith Pierce, LLC SNW Asset Management Social(k) Sociedade de Previdencia Complementar da Dataprev - Prevdata Società reale mutua di assicurazioni SOCIÉTÉ GÉNÉRALE Socrates Fund Management Solaris Investment Management Limited Sompo Japan Nipponkoa Holdings, Inc Sonen Capital Sopher Investment Management Soprise! Impact Fund South Yorkshire Pension Fund SouthPeak Investment Management SPF Beheer bv Spring Water Asset Management Sprucegrove Investment Management Ltd Standard Chartered Standard Chartered Korea Limited Standard Life Investments Standish Mellon Asset Management State Bank of India State Street Corporation StatewideSuper Stewart Investors Stockland Storebrand ASA Strathclyde Pension Fund Stratus Group Sumitomo Mitsui Financial Group Sumitomo Mitsui Trust Holdings, Inc. Sun Life Financial Superfund Asset Management GmbH SURA Peru (AFP Integra, Seguros SURA, Fondos SURA, Hipotecaria SURA) SUSI Partners AG Sustainable Capital Sustainable Development Capital Sustainable Insight Capital Management Svenska Handelsbanken Svenska kvrkan Svenska kyrkans pensionskassa Swedbank Swift Foundation Swiss Re Sycomore Asset Management Symphonia sgr Syntrus Achmea Asset Management T. Rowe Price Garanti Bank T. SINA KALKINMA BANKASI A. Taishin Financial Holding Co.,Ltd Tasplan Tata Capital Limited TD Asset Management (TD Asset Management Inc. and TDAM USA Inc.) TD Securities (USA) LLC TIAA Telluride Association Telstra Super Tempis Asset Management Co. Ltd Terra Alpha Investments LLC Terra Global Capital, LLC TerraVerde Capital Management LLC Transport for London Pension Fund The Brainerd Foundation The Bullitt Foundation The Church Pension Fund of Finland The Children's Investment Fund Management (UK) LLP Clean Yield Asset Management The Collins Foundation The Co-operators Group Ltd The Council of Lutheran Churches The Daly Foundation The Hartford Financial Services Group The Joseph Rowntree Charitable Trust

SEB AB

The New School The Pension Plan For Employees of the Public Service Alliance of Canada The Pinch Group The Presbyterian Church in Canada The Russell Family Foundation The Sandy River Charitable Foundation The Sisters of St. Ann The Sustainability Group at the Loring, Wolcott & Coolidge Office The United Church of Canada - General Council The University of Edinburgh Endowment Fund The Wellcome Trust Third Swedish National Pension Fund (AP3) TOBAM Tokio Marine Holdings, Inc Toronto Atmospheric Fund Trillium Asset Management, LLC Triodos Investment Management Tri-State Coalition for Responsible Investment Trusteam Finance Tryg Turner Investments Unione di Banche Italiane S.c.p.a. UBS UniCredit SpA Union Asset Management Holding AG Union Investment Privatfonds GmbH Unionen Unipension FAIF A/S Unipol UNISONS Staff Pension Scheme UniSuper Unitarian Universalist Association United Church Funds United Nations Foundation Unity College Universities Superannuation Scheme (USS) University of California University of Massachusetts Foundation University of Sydney Endowment Fund University of Toronto University of Toronto Asset Management Corporation University of Washington Van Lanschot Vancity Group of Companies Varma Mutual Pension Insurance Company Ventas, Inc. Veris Wealth Partners Veritas Pension Insurance Vexiom Capital Group, Inc. VicSuper Victorian Funds Management Corporation VietNam Holding Ltd. Vinva Investment Management Vision Super Pty Ltd VOIGT & COLL. GMBH VOLKSBANK INVESTMENTS Bank Vontobel AG Trust Waikato Walden Asset Management WARBURG - HENDERSON Kapitalanlagegesellschaft für Immobilien mbH Water Asset Management, LLC Wells Fargo & Company Wespath Investment Management West Midlands Pension Fund West Yorkshire Pension Fund Westfield Capital Management Company, LP Westpac Banking Corporation WHEB Asset Management White Owl Capital AG Whitley Asset Management Woori Bank Xoom Capital YES BANK Limited

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