Climate change strategies and risk management - the perspective of companies and investors

CDP CEE 100 Climate Change Report 2014

13 January 2015

Report Writer

Communications Partner
Investor members

CDP works with investors globally to advance the investment opportunities and reduce the risks posed by climate change by asking over 5,000 of the world’s largest companies to report their climate strategies, GHG emissions and energy use through CDP’s standardized format. To learn more about CDP’s member offering and becoming a member, please contact us or visit www.cdp.net/en-US/WhatWeDo/.

Where are the signatory investors located?*

- **North America**: 200
- **Europe**: 366
- **Asia**: 70
- **Latin America & Caribbean**: 70
- **Australia & New Zealand**: 15
- **Africa**: 152

CDP investor base continues to grow*

<table>
<thead>
<tr>
<th>Year</th>
<th>CDP investor signatories</th>
<th>CDP investor signatory assets in US$ trillions</th>
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Investors by type

- **312** Asset managers
- **256** Asset owners
- **152** Banks
- **38** Insurance
- **27** Other

CDP investor members 2014

- ABRAPP—Associação Brasileira das Entidades Fechadas de Previdência Complementar
- AEGON N.V.
- ATP Group
- Aviva plc
- Aviva Investors
- Bank of America Merrill Lynch
- Bendigo & Adelaide Bank Limited
- BlackRock
- Boston Common Asset Management, LLC
- BP Investment Management Limited
- California Public Employees’ Retirement System
- California State Teachers’ Retirement System
- Calvert Investment Management, Inc.
- Capricorn Investment Group, LLC
- Catholic Super
- CCLA Investment Management Ltd
- ClearBridge Investments
- DEXUS Property Group
- Faches
- Fapes
- Fundação Itaú Unibanco
- Generation Investment Management
- Goldman Sachs Group Inc.
- Henderson Global Investors
- HSBC Holdings plc
- Infraprev
- KLP
- Legg Mason Global Asset Management
- London Pensions Fund Authority
- Mobimo Holding AG
- Mongeral Aegon Seguros e Previdência S/A
- Morgan Stanley
- National Australia Bank Limited
- Neuberger Berman
- Nordea Investment Management
- Norges Bank Investment Management
- NEI Investments
- Petros
- PFA Pension
- Previ
- Real Grandeza
- Robeco
- RobecoSAM AG
- Rockefeller Asset Management, Sustainability & Impact Investing Group
- Royal Bank of Canada
- Royal Bank of Scotland Group
- Sampension KP Livsforsikring A/S
- Schroders
- Scottish Widows Investment Partnership
- SEB AB
- Serpros
- Sistel
- Sompo Japan Nipponkoa Holdings, Inc
- Standard Chartered
- TD Asset Management
- The Wellcome Trust

* There were 767 investor signatories on 1st February 2014 when the official CDP climate change letter was sent to companies, however some investors joined after this date and are only reflected in the ‘geographical’ and ‘type’ breakdown.
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One irrefutable fact is filtering through to companies and investors: the bottom line is at risk from environmental crisis.

Paul Simpson
Chief Executive Officer, CDP

The global economy has bounced back from crisis and a cautious optimism is beginning to pervade the markets. As we embrace recovery we must remember that greenhouse gas emissions continue to rise and we face steep financial risk if we do not mitigate them.

The unprecedented environmental challenges that we confront today - reducing greenhouse gas emissions, safeguarding water resources and preventing the destruction of forests - are also economic problems. One irrefutable fact is filtering through to companies and investors: the bottom line is at risk from environmental crisis.

The impact of climate events on economies around the world has increasingly been splashed across headlines in the last year, with the worst winter in 30 years suffered by the USA costing billions of dollars. Australia has experienced its hottest two years on record and the UK has had its wettest winter for hundreds of years costing the insurance industry over a billion pounds.

Over three quarters of companies reporting to CDP this year have disclosed a physical risk from climate change. Investing in climate-change-related resilience planning has become crucial for all corporations.

Investor engagement on these issues is increasing. In the US a record number of shareholder resolutions in the 2014 proxy season led 20 international corporations to commit to reduce greenhouse gas emissions or sustainably source palm oil.

As mainstream investors begin to recognize the real value at risk, we are seeing more action from some of the 767 investors who request disclosure through CDP. The Norwegian pension fund, Norges Bank, with assets worth over $800 billion, expects companies to show strategies for climate change risk mitigation and water management, and have divested from both timber and palm oil companies that did not meet their standards.

There is growing momentum on the policy front with President Obama’s announcement of new federal rules to limit greenhouse gases in the US. In the EU, some 6,000 companies will be required to disclose on specific environmental, social and governance criteria as part of their mainstream reporting to investors. In China over 20,000 companies will be required to report their greenhouse gas emissions to the government.

There is a palpable sea change in approach by companies driven by a growing recognition that there is a cost associated with the carbon they emit. Measurement, transparency and accountability drives positive change in the world of business and investment. Our experience working with over 4,500 companies shows the multitude of benefits for companies that report their environmental impacts, unveiling risks and previously unseen opportunities.

We are standing at a juncture in history. With the prospect of a global climate deal coming from the United Nations process, governments, cities, the private sector and civil society have a great opportunity to take bold actions and build momentum in the run up to the Paris 2015 meeting. The decisions we make today can lead us to a profitable and secure future. A future that we can all be proud of.

1 http://www.un.org/climatechange/towards-a-climate-agreement/
EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

Not only do environmental changes open up new opportunities for companies to revise their strategies, but they could also contribute to increased revenues and reducing costs.

Piotr Piela
Partner, EY Business Advisory

Did the business care about energy or water consumption 30-40 years ago? Not really. Yet, the climate has changed dramatically since then.

In the world of shrinking natural resources, predominant dependency on fossil fuels as a source of energy and endangered liquidity of public finances, sustainability and climate risks have to be one of the priorities on the business strategy agenda. However, current risks may often turn into opportunities.

Not only do environmental changes create opportunities for companies to revise their strategies, but they could also contribute to increased revenues and reducing costs. Simultaneously, identifying and understanding potential risks and their impacts on the organisation is crucial for the development of a company.

The increasing interest in climate change and sustainability-related issues has been caused by a number of factors combined together. Majority of companies declare that they are aware of both risks and opportunities driven by changes in regulations. At the end of September 2014 European Council announced a new directive which obligated companies with more than 500 employees to disclose the non-financial data. Local governments have two years to implement this new rule in national law.

The directive could result in a drive for improvement in public access to information and greater expectations of corporate transparency. Together with growing customers’ requirements, it puts pressure on companies to focus on sustainable procurement policies, distribution and logistics, water and waste consumption, but also evaluating new sources of green energy.

EY mission is to support our clients facing changing operational conditions. We try to constantly encourage them to communicate corporate sustainability practices by offering them cross-border services and our international teams’ experience. We believe that publishing sustainability reports or responding to organisations similar to CDP could become a significant part of EY Vision 2020 motto: “Building a better working world”.

EY Foreword
A pragmatic EU wide approach to non-financial reporting is the optimal solution for business and investors.

Steven Tebbe
Managing Director, CDP
Warsaw Stock Exchange is the biggest securities exchange in Central and Eastern Europe. WSE organises trading on one of the most dynamically growing capital markets in Europe. WSE operates a regulated market of shares and derivative instruments and the alternative stock market NewConnect for growing companies. WSE is developing Catalyst, a market for issuers of corporate and municipal bonds, as well as commodity markets. Since 9 November 2010, WSE is a public company listed on Warsaw Stock Exchange. For more information visit http://www.gpw.pl.

There is a proof that companies which raise the bar high in their business can deliver superior long-term results.

Pawel Tamborski
Chief Executive Officer,
Warsaw Stock Exchange

Socially Responsible Business on Warsaw Stock Exchange

The cornerstone of the Warsaw Stock Exchange strategy is to conduct its business in a responsible and transparent manner, in co-operation and in dialogue with all major stakeholder groups. The main motivation for the pursued policy of corporate social responsibility (CSR) is to improve the quality of the Polish capital market, among others by means of educational programmes, promotion of the highest standards of corporate governance and communication, and support for co-operation and active dialogue with and among market participants.

As the result of this approach Warsaw Stock Exchange has joined the UN Sustainable Stock Exchanges (SSE) initiative whose participants are committed to support corporate social responsibility and sustainable development on their capital markets. SSE was founded by the United Nations in 2009 in order to facilitate the exchange of experience among members in the development and promotion of corporate social responsibility and responsible investing among investors, listed companies, supervisors and capital market infrastructure institutions. WSE is the first stock exchange in the CEE region, and first stand-alone exchange in Europe to join this international body.

In addition, Warsaw Stock Exchange launched in 2009 the RESPECT Index, the CEE’s first corporate socially responsible index. The project is being constantly improved, and according to a more recent format introduced in 2013, after surveying the companies the list of index participants is revised annually in the second half of each year. The index portfolio includes the biggest listed stocks participating in the indices WIG20, mWIG40 and sWIG80.

Today the RESPECT index portfolio includes Polish companies listed on the WSE Main Market which follow the highest management standards of corporate governance, disclosure, and investor relations while taking into account environmental, social and governance criteria. The word RESPECT itself is an acronym for Responsibility, Ecology, Sustainability, Participation, Environment, Community and Transparency. The index participants are selected in a three-step process of verification organised by WSE and the Association of Listed Companies (SEG) in the areas listed above, and reviewed by the independent auditor - Deloitte.

There is a proof that companies which raise the bar high in their business can deliver superior long-term results. From its first publication on 19 November 2009 until the end of November 2014, the RESPECT Index gained close to 70%. In the same period the wide WIG index increased by 35%.

WSE, being itself a publicly traded company, have met all stringent requirements, and since 2013 is also among companies listed in RESPECT index. This is a significant fact, as it is of key importance to build corporate culture and positive attitudes of capital market participants, especially in a relatively young market like Poland.
Executive summary

Top risks:
- Reputation (69%)
- Cap and trade schemes (60%)
- Fuel/energy taxes and regulations (62%)
- Change in precipitation extremes and droughts (46%)

Top opportunities:
- Reputation (69%)
- Fuel/energy taxes and regulations (62%)
- Changing consumer behaviour (54%)
- Induced changes in natural resources (46%)
- Cap and trade schemes (46%)

Responding companies: 14
Directly responding companies: 4

Integrate climate change into business strategy: 100%
Set an emissions reductions target: 92%
Provide incentives for management of climate change: 77%

Top risks:
- Reputation (69%)
- Cap and trade schemes (60%)
- Fuel/energy taxes and regulations (62%)
- Change in precipitation extremes and droughts (46%)

Top opportunities:
- Reputation (69%)
- Fuel/energy taxes and regulations (62%)
- Changing consumer behaviour (54%)
- Induced changes in natural resources (46%)
- Cap and trade schemes (46%)

Reported Scope 1 and Scope 2 emissions: 100%
Scope 1 and 2 verification: 85%
Disclosure of climate change data beside CDP response: 77%

Reported both absolute and intensity targets: 23%
Reported absolute targets only: 46%
Reported intensity targets only: 23%
Executive summary

“The single biggest risk that exists to the economy today” is how former U.S. Treasury Secretary Henry Paulson has categorized climate change.

Businesses increasingly face the dual risks of climate and policy shocks. How companies build and demonstrate their resilience to these climate risks has important implications for their reputation with their stakeholders and for the value of their businesses. It is for these reasons that 767 investors representing US$92 trillion of assets (a third of the world’s invested capital) request listed companies worldwide to measure and report what climate change means for their business and how they react through CDP’s climate change program. This year, 1,971 companies - among them 70% of S&P500 - have responded to this call for critical climate change data, thereby playing a vital role in driving sustainable economies.

In the CEE Region, CDP requested the 100 biggest companies listed at the Warsaw, Prague, and Budapest Stock Exchanges as well as Nasdaq Baltic Market to disclose their climate change related risks and opportunities, policies and strategies and GHG emissions data and reduction targets. There have been only 14 companies ready to deliver the nonfinancial data related to climate change governance, yet the results prove that CEE has real leaders operating in the region. 100% of those reporting companies in the CEE region integrated climate change into their business strategy, 100% have board or senior manager responsible for climate change, and 92% have set emission reduction targets.

The CDP climate change questionnaire focuses on governance, risks & opportunities, and greenhouse gas (GHG) emissions accounting. CDP began scoring company responses to its questionnaire in 2007 to provide a gauge of the transparency of climate change information disseminated to the market. Participating companies receive a CDP disclosure score (from 0 to 100), assessing the completeness and comprehensiveness of the response. With a minimum of 50/100 in disclosure, companies also receive a performance band (from A to E), assessing the action taken towards climate change mitigation and adaptation. These two scores are solely based on the information disclosed in the CDP response on emissions measurement; climate related initiatives; risks & opportunities to the business; and external verification and assurance. Companies who score in the top 10% of the corresponding CDP analysis group (“sample”) are included in an annual index known as the Climate Disclosure Leadership Index (CDLI). All companies receiving an A as performance band are positioned in the Climate Performance Leadership Index (CPLI). In 2014, 187 of more than 5,000* participating companies worldwide formed the CPLI – demonstrating a superior approach to climate change.

This so called the A List presents those public companies that are taking the most action to help drive the transformative action at scale that we so urgently need. Further, these corporations are implementing strategies that benefit their bottom line. These companies, such as Coca Cola HBC, which has saved US$20 million and reduced its emissions by 30,000 metric tons through product design, demonstrate that a low carbon future does not mean low profit. The vast majority of CPLI companies are able to identify financial and business opportunities through their climate change strategies and actions.

CDP’s reporting standard is a unique tool for companies to implement and manage their climate strategy. In the CEE region, CDP invites companies to use its questionnaire for their own internal development and to work together on reducing emissions and strengthening the business position.

*Includes companies participating through CDP supply chain program
The larger the awareness of investors and companies, the bigger the impact of climate change and environmental issues on global economy.

It is commonly known that economies depend on natural environment as all activities are associated to some extent with a flow of natural resources (e.g. fresh water, timber or food crops). Rising pressure by regulators and public opinion engage global economy beneficiaries to fight the environmental challenges.

Due to the rapid development of the “big data” and data centres, the meaning of information constantly increases. Nowadays, it is much easier for a company to evaluate the environmental impact of its actions and monitor its ongoing operations. Thus, making use of collected data, improving fields with lack of actions and following the example of business leaders is essential.

Central and Eastern Europe (CEE) Specific Challenges

The capital market has a great influence on the economical patterns, that is why analysis of financial performance is essential to economy development. Investors expect not only financial data, which help them to assess the past, but also the non-financial data to help them to assess the future.

Sustainability information can be used to improve financial efficiency and strengthen market position, but data disclosing is not enough to achieve measurable benefits.

Responding to CDP is a great opportunity for a company to revise its strategy, benchmark the performance, monitor and measure cost savings, and identify risks and opportunities associated with climate change. An increasing amount of requirements, which are imposed by public opinion and regulators, force companies to become transparent and reveal non-financial data, including environmental strategies and risk management.

The identification of areas where action is required usually takes place during the launching phase of improvement process. In order to identify ineffective areas of company’s operation, one has to monitor the CO₂e emission and the usage of fuel, water and electricity. However, there is a difference between having the information available and being able to use it in an efficient way.

In order to help companies meet this challenge, CDP designed and annually revises its international information request. The standardized questionnaire simplifies the data analysis, which also translates into facilitation for investors. Last year data provided by CDP were downloaded 8,8 million times from Bloomberg terminal what is a clear confirmation of the popularity of CDP’s standardized request.

CDP’s priority is to present good practice examples of local leaders and to prove the value of environmental strategy implementation, which could bring noticeable benefits.

Figure 1: How do the investors use non-financial performance in their investment decisions?²

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
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<tr>
<td>89%</td>
<td>said non-financial performance information played a pivotal role in decision-making at least once in the last 12 months</td>
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<tr>
<td>64,5%</td>
<td>had evaluated non-financial performance information</td>
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<td>32%</td>
<td>relied on their own informal evaluation</td>
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<tr>
<td>19,5%</td>
<td>used a structured process to assess this information</td>
</tr>
<tr>
<td>13%</td>
<td>used a third-party guideline</td>
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<tr>
<td>35,5%</td>
<td>had little or no review of the information</td>
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² Source: Tomorrow’s investment rules: Global survey of institutional investors on non-financial performance, EY Report

About CDP

CDP (formerly known as the Carbon Disclosure Project) is a global not-for-profit organization, we have pioneered and provide the world’s only global natural capital disclosure system through which more than 4,500 companies from more than 80 countries and 207 cities report, manage and share vital environmental information.

Measurement, transparency and accountability drive positive change in the world of business and investment. On behalf of investors, purchasers and governments, CDP requests environmental information from companies and cities on the impacts and dependencies they have on the world’s natural resources and their strategies for managing these.

CDP holds the largest and most comprehensive collection globally of primary corporate climate change, water and forest-risk information. We work to drive action by companies and cities to reduce greenhouse gas emissions, safeguard water resources and prevent the destruction of forest.
The Council of the European Union approved a new directive on disclosure of non-financial information for companies with over 500 employees within the EU.

In CEE with over quite immature market of Socially Responsible Investment (SRI) the companies neither felt the pressure from investors nor from the clients. With the new EU directive on non-financial data disclosure the legislator expects all big European companies to fulfill the transparency gap and help the financial market to assess properly the risks.

The Directive “2014/95” was approved by the EU Council on 29 September 2014. New obligation applies to companies with over 500 employees within the EU. By the laws specified in the directive they are obligated to disclose information on policies, risks and outcomes regarding environmental, social and employee-related aspects.

The aim of the directive is to encourage companies to disclose relevant and useful information rather than detailed reports in order to understand their development, performance, position and impact of their activities.

The Directive “2014/95” was approved by the EU Council on 29 September 2014. New obligation applies to companies with over 500 employees within the EU. By the laws specified in the directive they are obligated to disclose information on policies, risks and outcomes regarding environmental, social and employee-related aspects.

Changes in the regulations: new EU directive
From 2017 all big companies in EU (with over 500 employees) will be required to report the non-financial information.

Disclosure specified in the directive will influence all the information regarding the policies, risks and outcomes associated with not only environmental issues, but also social and employee-related aspects.

The directive will contribute to the growth of available data, which could result in the improvement of understanding companies’ strategies. It could also help predict directions of market development.

Responding to CDP is a chance to evaluate emission management strategies and discover the company’s position within the worldwide list of over 5,000 companies, which could be a significant incentive for investors.

The CDP initiative allows investors to manage the companies from their investment portfolio with much closer attention to the usage of natural capital. By doing so, they aim to protect their assets against any future changes of regulations regarding the climate change, energy, access to water and protection of natural resources.

Figure 2: Number of loss events worldwide 1980-2013

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<thead>
<tr>
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<td>2010</td>
<td>1700</td>
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<td>2012</td>
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Source: Münchener Rückversicherungs-Gesellschaft, Geo Risks Research
CDP highlights leading disclosers and best practice and draws attention to emerging trends or lack of action. The whole project assists the need for the flow of investments towards an economy based on sustainable energy and low carbon emissions investment.

As a result of increased frequency of events caused by climate change (see Figure 2), more and more investors take into consideration non-financial environmental data to protect their long term investments. Investor initiatives play a crucial role in driving the reduction of emissions, improving water and forest management, and enhancing the change of the corporate behaviour in order to encourage companies to reveal their environmental data and to become transparent in the matter of climate change risk management.

Implementation of emission reduction activities could improve financial results.

The information provided to CDP by respondent companies shows that engagement and awareness of the climate change problem can have measurable influence on financial results and increase shareholders value. Taking actions against climate change can bring real savings. As an example, ING Group saved approximately 0,25 million EUR and estimated reduction in the emissions accounted for 5,500 metric tons per year through product design (i.a. mobile application reduce paper usage).

Moreover, high level of environmental awareness is already reflected on companies’ stock prices. An increasing number of institutional investors publically state that they systematically include sustainability assessments in their portfolio evaluations, such as the CDP Performance Scoring.4

The market performance of the Climate Performance Leaders Index (CPLI) (1) has been compared against that of a broad market index, the Bloomberg World Index, (2) and that of a global sustainability index, the Dow Jones Sustainability World Index (DJSWI), (3) for the period since the launch of the CPLI in October 2010. The results support the adoption of quantitative carbon data in developing investment strategies. Over this four year period the CPLI gained 37.53%, outperforming the Bloomberg World Index which gained 34.24% and the DJSWI which gained 31.38%.

Leading companies are also present within CEE 100, however, none of them responded directly to CDP but through their parent company. Reporting to local CDP offices creates an opportunity to prove that they are truly engaged in environmental strategy at regional level. Local reporting system could motivate the companies to present their effort and achievements to the local stakeholders.

![Figure 3: CPLI financial performance 2010 – 2014](https://dl.dropboxusercontent.com/u/2496269/CDP-141015.mp4)

4 Source: data in US$ from 1/10/2010 to 22/9/2014, source ECPI based on data by Thomson Reuters Datastream and Bloomberg
The financial performance of the Polish companies, whose parent companies belong to the CPLI 2014, confirm that their performance is better than main stock index in Poland (WIG Index) (see Figure 4). Furthermore, two of the companies performed better than the RESPECT index, which collects socially responsible Polish companies. On the other hand, the analysis of the financial performance of companies from Czech Republic yields no dependency on the climate performance of the parent company. Telefonica and Philip Morris AS, whose parent companies are included in the CPLI 2014, did not perform as well as the main index on the Prague Stock Exchange – PX index (see Figure 5).

Figure 4: Financial performance of CEE leaders in 2010 – 2014⁶ - companies from Poland

Financial performance 2010-2014
Index, October 1, 2010 = 100. Prices calculated in US$

- Bank Zachodni WBK S.A. +86%
- ING Bank Śląski S.A. +79%
- RESPECT +49%
- Budimex S.A. +45%
- WIG +22%

Figure 5: CEE leaders financial performance 2010 – 2014⁷ - companies from Czech Republic

Financial performance 2010-2014
Index, October 1, 2010 = 100. Prices calculated in US$

- PX +15%
- Philip Morris CR AS +10%
- Telefónica O2 Cz. Rep. AS -22%

6 Source: data in US$ from 1/10/2010 to 22/9/2014, based on data by WP Finanse and GPWinfostrata.pl
7 Source: data in US$ from 1/10/2010 to 22/9/2014, based on data by QUOTES.WSJ.COM and QUOTENET.COM
Engagement in environmental issues could improve operations of a company by turning risks into opportunities.

Identification of the market risks and opportunities might be helpful in the process of designing a business strategy, that is why CDP asks companies to give attention to key drivers of both chances and threats related to climate change. The companies that fulfilled the CDP questionnaire had a chance to indicate the drivers responsible for these risks and opportunities in the following categories:

- changes in regulations,
- changes in physical climate parameters,
- changes in other climate-related developments.

85% of the responses were associated with the risks driven by changes in regulations. 10 out of 13 companies (77%) identified all drivers – changes in regulations, physical climate parameters and other climate-related developments. Such an outcome represents the growth in awareness of climate-related issues among companies.

92% of responding companies did perceive opportunities driven by changes in regulations, while 85% indicated opportunities driven by changes in other climate-related developments. In total of 10 companies (77%) identified opportunities driven by changes in regulation, in physical climate parameters and in other climate-related developments.

Reputation: risk or opportunity?

69% vs. 69%

Companies which responded to the questionnaire were not only aware of the importance of emission reduction activities, but also took action to improve their performance in the field of environmental protection. Changes in regulations were shown to be the most frequently reported risk driver, and companies actively cooperate with the policy regulators in order to affect and partly control this risk. (see also: Overview of 2014 Disclosure)

85% of the responding companies declared engagement with policy makers, not only in a direct way, but also through other activities (see Figure 6).
Identification of both risks and opportunities related to climate change could be a drive for performance improvement activities.

All of the responding companies make use of the data they collect, identifying risks and opportunities, and react launching emission reduction initiatives. 66% of all initiatives involve improvement of energy efficiency. The second most popular type of action regards low carbon initiatives including renewable sources of energy (see Figure 7). These activities help to achieve financial savings and reduce total emissions.

The company declares deep influence of environmental aspects on its internal and external strategies and projects.

As an example, in 2011 the construction of rainwater harvesting installation was completed in the HQ in Warsaw. Collected rainwater is used to irrigate the company’s green areas.

Additionally, on behalf of every client who resigns from the use of the paper statement the company plants a tree (roughly 520 000 planted trees since 2008).
60% of reported initiatives are believed to have a short payback period, up to three years. These surprisingly fast returns of capital indicate that environmental initiatives could bring almost immediate results (see Figure 8).

Among all identified investment areas low carbon energy purchases required the largest amount of monetary expenses (see Figure 9). Nevertheless, these investments were responsible for 84% of reported annual CO₂ equivalent (CO₂e) savings. Behavioural change initiatives achieved the best annual CO₂e savings to investment required ratio. The most financially effective driver (ratio of savings to investment) was the one associated with changing processes around energy efficiency, which covered roughly 99% of reported monetary savings.
The insufficient rate of direct responses prevents CDP from scoring CEE 100 companies, restraining the development of the environmental strategy.

In 2014 only four companies in CEE responded to CDP directly and ten companies referred to their parent company’s response. The difference between the method of reporting results in understanding of the level of maturity of climate change management and progress that enhances lower Greenhouse Gases (GHG) emissions. For the companies using direct communication method obtaining such information is straightforward. However, the analysis of the parent companies’ responses can only sketch the situation of the subsidiary companies located in CEE as extracting the specific data is not possible. Thus, drawing conclusions on the situation in the CEE region is limited and CDP encourages the listed companies to respond directly.

The analysis of both types of responses (direct and indirect through the parent company) shows that the majority of the responding companies did demonstrate best practice in the management of climate change (see Figure 10). Companies which responded directly could announce that they had already implemented the key indicators of best practice. On the other hand, the companies responding indirectly were not in position to provide the same conclusions. They should consider changing their approach to the direct responding. Due to the fact that they had already forwarded their non-financial data to their parent company, changing the reporting method used to communicate with CDP would not impose significant burden but help in strategical approach toward tackling the climate change also on the local level.

The companies that did implement best practice indicators put the boards of directors or senior managers in charge of controlling the management of climate change. These companies also managed to integrate the climate change issues into their business strategy (all respondents). The majority of the companies have set either absolute and/or intensity targets regarding emissions reduction (12 out of 13) and reported their climate change management in mainstream reports (12 out of 13). In addition, these companies offer monetary or non-monetary incentives to their employees for achieving the climate change management objectives (10 out of 13).

Figure 10: Key indicators of best practice in the climate change management (2014)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Direct response</th>
<th>Parent response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions reductions due to implementation of activities</td>
<td>54% 23%</td>
<td>0%</td>
</tr>
<tr>
<td>Disclosure of climate change inf. in mainstream filings/external communications</td>
<td>69% 23%</td>
<td>0%</td>
</tr>
<tr>
<td>Disclose intensity targets</td>
<td>38% 8%</td>
<td>0%</td>
</tr>
<tr>
<td>Disclose absolute targets</td>
<td>46% 23%</td>
<td>0%</td>
</tr>
<tr>
<td>Climate change integrated into overall business strategy</td>
<td>69% 31%</td>
<td>0%</td>
</tr>
<tr>
<td>Rewarding climate change progress</td>
<td>54% 23%</td>
<td>0%</td>
</tr>
<tr>
<td>Board/other senior management oversight</td>
<td>69% 31%</td>
<td>0%</td>
</tr>
</tbody>
</table>

EY Turkey Commentary

EY Turkey has been the reporting partner of CDP Turkey since its launch in Turkey in 2010. Since then, the number of companies reporting has risen from 10 in 2010 to 41 in 2014. In 2014 more than ever Turkish companies responded to CDP and most of those responses showed an improvement in the CDP scores compared to the ones from last year. Response rates for integrating climate change management into the broader corporate strategies, risk management procedures and with commitment from top management were particularly high. Conversely, most respondents have not yet set emission-reduction targets or obtained external assurance of their emissions’ data.

It is more and more frequently observed that the EY clients around the globe consider the climate change management and sustainability not to be just about the environment, but about making good business sense and being fundamental for helping to maintain the long term growth.

In summary, encouraging progress has been observed in Turkey, but still more needs to be done. The CDP 2014 Reports will result in further development of the awareness about the issues and opportunities that climate change presents to business.

Zeynep Okuyan Gökyılmaz
Head of Climate Change and Sustainability Services in Turkey

9 This report considers only 13 responses in total due to the fact that two of the responding companies belonged to the same group.
This chapter includes the key statistics prepared based on the collected responses. This year’s CDP Investor Request for information considered CEE 100 corporate climate change strategies, including companies from Austria, Romania, Hungary, Poland, Luxembourg, Slovakia, Slovenia and Czech Republic. CDP’s request was sent out to the 100 biggest CEE companies listed at the CEE stock exchanges. The questionnaire was designed to gain information regarding management, risks and opportunities related to climate change and Greenhouse Gas emissions.

**Response rate**

14 companies responded to the questionnaire, four of which submitted their response directly while the rest (10) sent their responses via the parent companies (see Figure 13). This report considers only 13 responses in total due to the fact that two of the responding companies belonged to the same group.

The response rate accounted for 14% and the CEE 100 response rate was significantly lower than that of other European countries (e.g. Spain, Portugal, Italy, United Kingdom).

One of the aims of this report is to encourage companies to respond to CDP annually. The initiative allows a comparison of over 5,000 companies worldwide by using the CDP’s reporting standard. The evaluation of company’s emissions management helps to discover new opportunities and fields for performance improvement. Besides, reporting to CDP creates a chance to be named in a prestigious local annual report what could influence the reputation of the company.

### Figure 11: Sections of CDP’s 2014 Climate Change Information Request

- **Management:** Climate change management including governance and strategy.
- **Risk & Opp.:** Identified risks and opportunities related to climate change.
- **Emissions:** Scope 1, 2 and 3 emissions.

### Figure 12: The origins of questioned companies (CEE*)

*Companies from Austria and Great Britain were asked for response, because they operate mostly in CEE*

### Figure 13: Number of requests and responses to CDP from CEE 100 Companies

- **Requests:** 100
- **Direct response:** 4
- **Response from parent company:** 9

### Table 2. 10 biggest companies in CEE 100 that expected to respond in 2015 (by capitalization)

<table>
<thead>
<tr>
<th>Company name</th>
<th>Country</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>PKO Bank Polski SA</td>
<td>Poland</td>
<td>Financials</td>
</tr>
<tr>
<td>Bank Pekao SA</td>
<td>Poland</td>
<td>Financials</td>
</tr>
<tr>
<td>CEZ AS</td>
<td>Czech Republic</td>
<td>Energy</td>
</tr>
<tr>
<td>PZU Powszechny Zakład Ubezpieczeń SA</td>
<td>Poland</td>
<td>Financials</td>
</tr>
<tr>
<td>Polskie Górnictwo Naftowe i Gazownictwo SA</td>
<td>Poland</td>
<td>Energy</td>
</tr>
<tr>
<td>KGHM Polska Miedź SA</td>
<td>Poland</td>
<td>Materials</td>
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<tr>
<td>OMV Petrom SA</td>
<td>Romania</td>
<td>Energy</td>
</tr>
<tr>
<td>Grupa mBank SA</td>
<td>Poland</td>
<td>Financials</td>
</tr>
<tr>
<td>Vienna Insurance Group AG Wiener Versicherung Gruppe</td>
<td>Austria</td>
<td>Financials</td>
</tr>
<tr>
<td>Polski Koncern Naftowy ORLEN SA</td>
<td>Poland</td>
<td>Energy</td>
</tr>
</tbody>
</table>
Overview of 2014 Disclosure

Regarding the structure of the Climate Change Information Request, the following sections have been established to present the results of the questionnaire:

- Governance and Strategy,
- Climate Change Risks,
- Climate Change Opportunities,
- Emissions: Scope 1 and Scope 2,
- Targets,
- Verification,
- Scope 3 Emissions.

Governance and Strategy

It may be quite surprising that only 77% of responding companies provide some incentives for management of climate change, especially in comparison with Figure 14. Incentivizing management to deal with climate change is one of the key best practices among leaders in climate change management. Usually, taking environmental issues seriously requires provision of additional incentives at least to the key employees responsible. This encourages them to pay attention to problems and opportunities related to climate changes. Usually, their remuneration would partly depend on their performance or achieving targets related to climate change. It is one of the way to prove that company deals with environmental issues not only by declaring so.

Figure 14: Companies’ responses to strategy related questions

100% have board or senior manager responsible for climate change
100% integrate climate change into business strategy
100% have climate risk management procedure in place

CEE responses show a strong governing structure and strategies for environmental changes. All companies which responded to the questionnaire declared that the direct responsibility for climate changes lays on the board of directors (92%) or a senior manager/officer (8%). Likewise, all companies take climate change issues and environment related risks into consideration during the process of designing the business strategy.

10 out of 13 companies admitted to reward performance of employees by providing additional incentives for reliable management of climate change issues (see Figure 15). The monetary incentive is usually not the only gratification method and some companies reward employees by recognition. A monetary type of incentive was reported by every company providing also additional motivation measures. Among companies that reported directly, the only type of the prizes awarded was the monetary one (in some cases, no rewarding system was in place at all).
Climate Change Risks

The most common (85% of companies) reported risks were reputation, cap and trade schemes. Cap and trade schemes could influence a company directly, e.g. the cost of operating increases when a company has to buy additional or more expensive rights to emit GHG (see Figure 16). Some companies indicated indirect impact of cap and trade, e.g. hotel companies could suffer from decreasing number of reservation due to higher prices of plane tickets caused by additional fees demanded by airline operators.

Reputation turned out to be considered at the same relevance. Companies indicated that damaging their reputation could lead to loss of some existing clients and difficulties in finding new ones. This could also influence current and potential contacts with business partners (suppliers, dealers).

Climate Change Opportunities

Climate changes do not always translate into risks. In fact, a higher percentage of responding companies identified opportunities rather than risks related to climate changes (92% vs. 84%). The most commonly reported categories of opportunities were reputation (92%) and changing consumer behaviour (77%) (see Figure 17). Good social reputation of a company definitely helps to acquire new clients, keep existing customers and attract investors. The change in behaviour of the consumers could decrease energy usage or enable the company to expand their portfolio by adding sustainable and green products.

Company’s point of view: Ferrovial

“We believe that efforts to fight climate change are appreciated by investors, analysts and customers. Trends on sustainable investing are not just related to stock markets, but increasingly focused on particular projects (i.e. large infrastructure projects). (…) Moreover, most of the infrastructure investors and funds are increasingly considering these drivers for making decisions around their portfolios of projects. (…) Ferrovial believes that a noncompliance with our targets in order to combat climate change and continue improving day by day may have a negative impact on Ferrovial reputation, ratings, share value and revenues.”

Initiative example: Accor

“Planet 21 is Accor’s sustainable development program, which aims to promote more environment-friendly approach among their customers.

The program is structured around 7 pillars (e.g. health, carbon, innovation) and 21 commitments (e.g. support responsible purchasing practices, conduct business openly and transparently, increase the use of renewable energy).

There is an interesting example on how changing consumer behaviour could bring savings and reputation improvement. The basic principle is to offer guests the option of reusing their towels, with half of the savings on laundry bills being allocated to the tree planting projects.”
Direct response
Response from parent company

Figure 17: Percentage of companies reported opportunities from the most commonly reported categories

- 46% Induced changes in natural resources
- 54% Cap and trade schemes
- 62% Fuel/energy taxes and regulations
- 69% Changing consumer behaviour
- 92% Reputation

Response from parent company
Direct response

Emissions: Scope 1 and Scope 2

All responding companies reported their Scope 1 and Scope 2 emissions (see Figure 18). A significant percentage (69%) of answers showed a decrease in the emissions compared to the previous year and only one company did not report any changes.

The Greenhouse Gas Protocol

The Greenhouse Gas Protocol (GHG Protocol) was developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD) in order to deliver a standardized tool for the companies (and cities) to understand, measure, manage, report and reduce greenhouse gas emissions. The GHG protocol allows companies to account for the GHG impact on their own operations and increase the profits and efficiency as a result. It helps businesses to identify the full impact of their activities and focus on areas of their value chain, where the potential of improvement is the greatest.

There are three categories of emissions according to the GHG protocol:
- Scope 1 - all direct GHG emissions,
- Scope 2 - indirect GHG emissions from consumption of purchased electricity, heat or steam,
- Scope 3 - other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g. T&D losses) not covered in Scope 2, outsourced activities, waste disposal, etc.
Targets

92% of responding companies showed emissions reduction targets (see Figure 19). An absolute target indicates a percentage of emissions reduction which a company wants to achieve in the specified time period with regards to the base year. Every intensity target has its own unit and CO₂e emissions reduction assigned to that unit, e.g. tCO₂e per employee or hotel room or agency.

Quickly developing and expanding companies may not be eager to set an absolute target, which they would not be able to achieve. Those which do so and additionally have a relative target can drive both total emission reduction and measure the efficiency of their operations. Leading companies should consider setting both absolute and intensity target in the future.

In order to achieve the predefined goals, companies define different methods to drive investment in emissions reduction activities. Compliance with regulatory requirements/standards accounted only for 17% of all reported methods. Equally important turned out to be employees’ engagement (see Figure 20).

Verification

85% of companies indicated that Scope 1 and Scope 2 emissions data have been externally assured (70%) or with assurance underway (15%) (see Figure 21).

Scope 3 Emissions

91% of responding companies reported some of their Scope 3 emissions. The highest level of emissions was reported from the use of sold products (74%), however, this was indicated as relevant by only 58% of Scope 3 emissions reporting companies (see Figure 22). The rest described it as irrelevant or have not evaluated such a category. According to responding companies the following categories of the sources of Scope 3 emissions were the most relevant (reported by 75% of companies):

- Fuel-and-energy-related activities (not included in Scope 1 or 2),
- Business travel,
- Employee commuting.

It is worth noting, that companies report only some of their Scope 3 emissions. If they are not able to calculate emissions, they usually mark some sources as: “Relevant, not yet calculated”. That gives only part of the picture. As an example: employee commuting and fuel-and-energy-related activities were reported as relevant by 75% of responding companies, but only 46% companies calculated emissions in these categories. CDP encourages companies to focus and calculate emissions for those categories that can be classified as relevant in their own business context. This is also reflected in the scoring.
Figure 22: Sources of Scope 3 emissions

- **Total Scope 3 emissions %**
- **Companies reporting the Scope 3 source as relevant %**

**Sources:**
- Use of sold products
- Fuel-and-energy-related activities
- Purchased goods and services
- Upstream transportation and distribution
- Franchises
- Investments
- Employee commuting
- Waste generated in operations
- Business travel
- End of life treatment of sold products
- Upstream leased assets
- Processing of sold products
- Downstream leased assets
- Other (upstream)
- Other (downstream)

Emissions percentages include:
- 74.1%
- 11.5%
- 7.5%
- 2.3%
- 0.9%
- 0.9%
- 0.6%
- 0.5%
- 0.5%
- 0.4%
- 0.2%
- 0.1%
- 0.1%
Fortum business strategy is directly related with low carbon economy, why?

Fortum believes, the future energy system will be based on CO2-free electricity production and resource efficiency. Therefore our long-term strategy defines a path towards Solar Economy. There will be a gradual transition from traditional energy production based of finite energy sources and combustion fuels towards production forms based on infinite and zero-emissions renewable energy sources. A Solar Economy doesn’t mean only solar electricity and power. Energy from the sun is utilised either directly as solar electricity or heat, or indirectly as hydro, ocean, wind and bioenergy, and geothermal energy.

How do you see the transition to the future low carbon energy system?

Resource efficiency will become a central issue globally. Efficiency of energy production and consumption must be improved. The natural resources and energy sources deployed must be used as efficiently as possible. However, the transition will take time in the capital-intensive energy industry and will advance in phases. We are aware that this process requires major technological advance, infrastructure investments, legal changes and increased awareness of market players. The new energy system of the future includes smart grids and heating solutions to support it. The overall concept also consists of eco-efficient construction and an electric transportation system. Fortum’s R&D work is already geared to enable a low-carbon future.

How do you see climate change risk and opportunities?

Our key environmental responsibility indicators, specific CO2 emissions and energy efficiency, are embedded in the core areas of our strategy: CO2-free hydro and nuclear power production and energy-efficient combined heat and power production. We use these key indicators to measure our ability to respond to two major global sustainability challenges: mitigating climate change and improving resource efficiency. Our

EU electricity production emissions in 2013 were 70g/kWh which is significantly below the European average. We can clearly see climate change opportunities such as enhancing reputation, becoming more efficient in the energy production or developing new products or services. There are also some risks like increasing operational costs, but we try to adopt a long term perspective. The cost incurred by low emission production need to be borne, however in the long term perspective we expect both environmental and economic benefits.

Do You find CEE market challenging? What sort of solutions are used by Fortum that can contribute to the transformation of Polish energy sector?

Fortum’s international experience shows that every country should create its own reduction methods to optimally use available energy sources. That is why in Poland we support the development of high-efficiency cogeneration, this is production of heat and electricity in one technological process. This technology significantly increases efficiency – even up to 90% in comparison to 30-45% in separate heat or electricity production. We are confident that at the moment it is one of the key solutions for Polish energy sector. In the next couple of years it will strongly contribute to the implementation of the environmental regulations imposed on European level.

You are the owner of one of the most modern and effective CHP plant in this part of Europe. What did you do in order to reduce the level of CO2 emissions?

We opened the Częstochowa CHP in 2010. The value of the investment was around PLN 530 million. From the beginning it met strict environmental regulations which will be in force from 2016 in the EU. The CHP was designed to use coal and biomass. Initially the biomass share was 25% and we have gradually increased to current 35%. It is worth stressing that in 2009 when our CHP was under construction the level of CO2 emissions in Częstochowa was around 445 g/kWh. As of today it is 265 g/kWh in comparison to almost 900 g/kWh average in Poland. The level of CO2 emissions is continuously monitored and reported internally on monthly basis. We develop new systems and forms of energy production which will be benign for the climate and environment.
Obrascon Huarte Lain (OHL) is a large international concessions and construction group with more than 100 years of history. It operates in more than 30 countries across all 5 continents. At present, the OHL Group is: an international reference in the construction of hospitals and railways, strategic promoter of public-private projects, 31st largest international contractor and 6th in Latin America and a reference partner of Abertis, the world leader in toll roads.

OHL is disclosing to CDP since 2009 what do you think was the most important in our cooperation?

We are supporting several external initiatives related to low carbon economy such as CDP, Foro Pro Clima, ENCORD, CONAMA or Rainforest Alliance. But the OHL climate change management has been influenced by CDP guidelines since 2009. This guidelines have contributed largely to the performance of the organization on carbon management and these efforts have been recognized with a 99A- score in 2014 CDP.

You implemented your international low-carbon strategy over 7 years ago in 2007 by the approval of the “Commitment to the Fight against Climate Change”...

This policy aims to minimize the impact on the atmosphere and applies to OHL activities across the five continents. We had defined priority lines of action in the “Energy and Environmental Master Plan 2011-2015”, which integrates and coordinates the efforts from all our business divisions.

Could you please explain the strategic lines and milestones of your strategy?

OHL had implemented very high standards towards our Greenhouse Gases (GHG) Inventory. We are managing direct and indirect emissions (scopes 1+2+3) from the group globally and verifying 100% of our data according to several standards (ISO 14064-3, ISE 3000 and considering all categories included in the GHG Protocol SC3). That leads us to the improvement of our performance in energy efficiency and GHG emissions, with more than 125,000 CO₂ tonnes avoided by initiatives implemented only in 2013, linked to an investment of 2,500,000 euros.

What are those initiatives?

Among others OHL looked into performances in business travel management, changing transport features and increasing videoconferences (65,518 tnCO₂e saved in SC3). Reduced 35% of the GHG emissions in Spanish vehicle fleet from 2010 with new hybrid technology vehicles. Increased low carbon electricity purchases for Spanish offices, with guarantees of origin (up to 33% in 2013; 244.41 tnCO₂e saved in SC2). Invested in photovoltaic solar energy self-generation for Mexico infrastructures in OHL Concessions (up to 640,000 kWh; 286 tnCO₂e saved annually) and the residences of Novaire, OHL Services subsidiary (up to 131,208 kWh; 31.58 tnCO₂e saved annually). OHL Implement new energy efficiency projects in Terminales Maritimas del Sureste (TMS), harbour terminal of OHL Concessions as well as invests in high energy efficient lighting for Mayakoba tourist complex.

You have managed to gain great results in your efficiency. Have you found any interesting business opportunities related to your low carbon strategy?

OHL is promoting self-generated solar power, our supply from this source had increased by 800% since 2010 and reached up to 772,500 kWh in 2013 (with an investment of more than 1,000,000 euros). Our strategy encouraged the R&D Innovation to promote energy efficiency with Projects like OASIS (Operation of Safe, Intelligent and Sustainable Highways), which research for the highway of the future; Solar Future, which focuses on the development of the best technologies in thermosolar power generation; Cubipod, which is a new sustainable construction element for breakwaters that allows to reduce concrete consumption in up to 45%; etc.

What are your plans for the future?

Current challenges for the group include, in climate change, the improvement of supply chain management and, in other areas, the progression on water footprint in line with CDP Water program guidelines.
Investor's perspective - interview with Kajetan Czyż, Analyst, Governance & Sustainable Investment
F&C Investments

F&C Investments is a global asset management company with over EUR 104 billion of assets under management. The company manages portfolios across multiple asset classes on behalf of a wide range of clients including insurance funds, pension schemes, public authorities and charities as well as private individuals through savings schemes, investment trusts and mutual funds.

You represent an investment company with a history of over 140 years, with assets under management of over EUR 100 billion. Who are F&C’s clients and what are your investment objectives?
F&C Investments (F&C) manages funds on behalf of insurance companies, institutional investors, pension funds and private individuals.

How important is responsible investment for your company and how is this being implemented?
F&C has been on the forefront of responsible investment ever since we launched the first ethical investment fund in the UK 30 years ago. Today our responsible investment activities include a range of sustainable and ethical funds, a voting and engagement service as well as the integration of ESG performance and risk factors into our investment decisions. We have developed and implemented a system which allows our dedicated Governance and Sustainable Investment team to notify fund managers of potential risks relating to the company they are considering investing in. Where appropriate, investment decisions are altered and / or we contact the company directly to assess how the given issue is being addressed.

With regards to climate risk, we employ a range of approaches, among them:

Low carbon investing: our ethical investment products (USD 5.76 billion as of 30 June 2014) integrate climate risks through their criteria. E.g. in our responsible funds range we require high emitting companies to take meaningful steps to manage their greenhouse gas emissions (utilities, extractives, transport) for the company to be included in the fund. Specific involvement thresholds (i.e. proportion of group revenue) for certain activities also apply e.g. coal mining, tar sands, methane emissions, gas flaring, road building, and aviation. Companies breaching these thresholds are excluded from the funds.

Emissions reducing investing: F&C has two dedicated funds targeted at opportunities related to addressing climate change. One focusing on listed equities (F&C Global Climate Opportunities) and a private equity fund supporting smaller, non-listed companies (F&C Climate Opportunity Partners LP).

Active ownership: F&C has a comprehensive global programme of engagement with companies. In 2013 we engaged with 716 companies in 47 countries and achieved 293 instances of change. With 187 companies we discussed climate change specifically. Results of engagement are tracked and recorded.

Climate policy advocacy: e.g. we travelled to the UNFCCC COP19 to engage directly with Polish policy makers responsible for the country’s ‘Energy Strategy 2050’ which will have a significant impact on European climate policy. We also engage in a broad scope of EU and global climate policy through policy consultation submissions, direct meeting with policymakers as well as actively supporting the work of the IIGCC (Institutional Investors Group on Climate Change).

Do you assess corporate emission reduction strategies, and if so how?
Yes, we do. However, depending on the product the approach may differ. For example in our responsible fund range we would expect - for companies not breaching our criteria outright - a certain minimum standard of good practice to be employed. In the F&C Climate Opportunity Partners LP we actively seek companies which will benefit from a transition to a low carbon economy. Across our mainstream investment products climate risks are reviewed along with other environmental risks during the investment process.

Do you see companies being exposed to risk and opportunities depending on their emission reduction strategy? Have you divested or invested in companies specifically because of the company’s carbon strategy?

Risks relating to climate change are in fact materialising today. The utilities sector for example is already today seeing changes to their business on two fundamental levels. Firstly, milder and wetter winters in Northern Europe and drier and hotter summers in Southern Europe are not only impacting the output of hydro plants, but also changing the demand estimates utilities use to project fuel requirements and earnings estimates. Secondly, energy efficiency policies are reducing power demand growth in Europe, decoupling it from GDP growth while at the same time, thermal power is being substituted by renewable power. This is creating overcapacity and lowering wholesale electricity prices, squeezing our conventional producers out of the market.

So far this has led a number of major utilities closing or mothballing relatively new power plants, 50GW across the EU in the last five years and more closures and divestments are in the pipeline. Corporate climate change strategies differ on a number of factors depending on the sector and location in which the company operates. Climate risks and opportunities can relate to impacts such as changes to product demand (e.g. oil sector, renewable energy), security of supply chains (e.g. food retail), physical impacts to company assets (e.g. roads, refineries) and increased costs due to carbon pricing (e.g. utilities). Each of these aspects are assessed based on materiality and how the company is addressing the issue. Companies which incorporate these issues into their strategic outlook reduce their long term investment risk and potentially also stand to benefit as markets transition.
Appendix 1: Central and Eastern Europe Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of requested companies</th>
<th>Number of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poland</td>
<td>52</td>
<td>7</td>
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<tr>
<td>Hungary</td>
<td>15</td>
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<tr>
<td>Lithuania</td>
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<td>Estonia</td>
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<td>Czech Republic</td>
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<tr>
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<td>Austria*</td>
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<td>Serbia</td>
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<tr>
<td>Great Britain*</td>
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</tbody>
</table>

*Companies operating mostly in CEE

Appendix 2: Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>CEE</td>
<td>Central and Eastern Europe</td>
</tr>
<tr>
<td>CPLI</td>
<td>Climate Performance Leadership Index</td>
</tr>
<tr>
<td>CO₂e</td>
<td>CO₂ equivalent</td>
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<td>DJSWI</td>
<td>Dow Jones Sustainability World Index</td>
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<td>EU</td>
<td>European Union</td>
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<tr>
<td>GHG</td>
<td>Green House Gases</td>
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<tr>
<td>SRI</td>
<td>Socially Responsible Investment</td>
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