

# CDP Climate Change Report 2015

Turkey Edition

Written on behalf 822 of investors with US\$95 trillion in assets

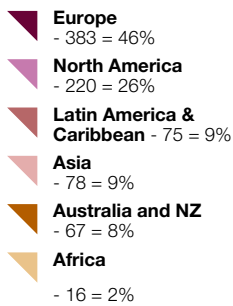
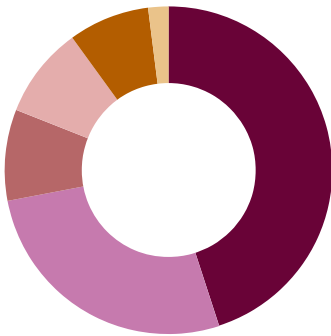


CDP Partner

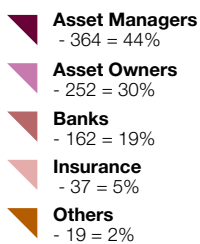
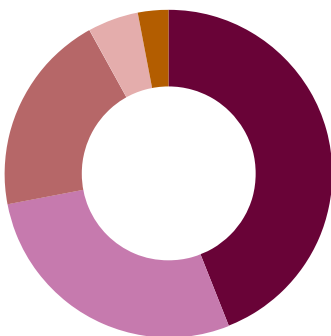
Scoring and Report Writing Partner

# Investor signatories and members

## 1. Investor signatories by location



## 2. Investor signatories by type



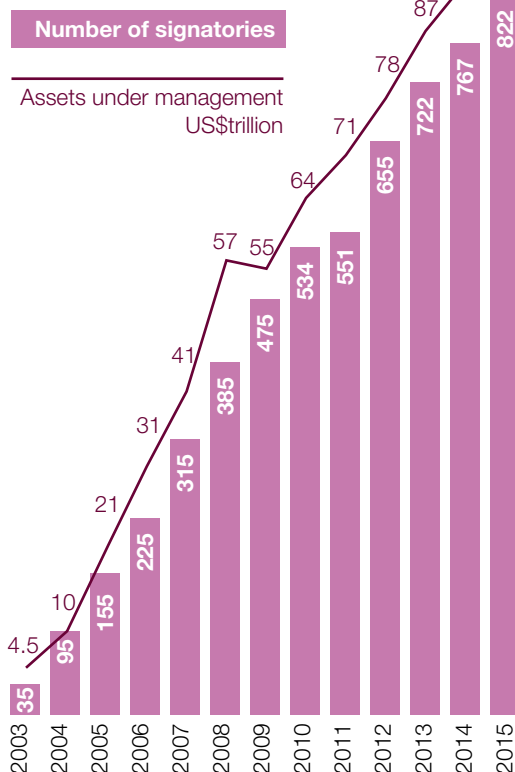
**CDP investor initiatives – backed in 2015 by more than 822 institutional investors representing in excess of US\$95 trillion in assets – give investors access to a global source of year-on-year information that supports long-term objective analysis.**

This includes evidence and insight into companies' greenhouse gas emissions, water usage and strategies for managing climate change, water and deforestation risks. Investor members have additional access to data tools and analysis.

**to become a member visit:**  
<https://www.cdp.net/en-US/Programmes/Pages/what-is-membership.aspx>

**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



## Investor members

- ABRAPP - Associação Brasileira das Entidades Fechadas de Previdência Complementar
- AEGON N.V.
- Allianz Global Investors
- ATP Group
- Aviva Investors
- AXA Group
- 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
- Environment Agency Pension fund
- Etica SGR
- Eurizon Capital SGR
- Fachesf
- FAPES
- Fundação Itaú Unibanco
- Generation Investment Management
- Goldman Sachs Asset Management
- Henderson Global Investors
- HSBC Holdings plc
- Infraprev
- KeyCorp
- KLP
- Legg Mason Global Asset Management
- London Pensions Fund Authority
- Maine Public Employees Retirement System
- Morgan Stanley
- National Australia Bank Limited
- NEI Investments
- Neuberger Berman
- New York State Common Retirement Fund
- Nordea Investment Management
- Norges Bank Investment Management
- Overlook Investments Limited
- PFA Pension
- Previ
- Real Grandeza
- Robeco
- RobecoSAM AG
- Rockefeller Asset Management, Sustainability & Impact Investing Group
- Royal Bank of Canada
- Sampension KP Livsforsikring A/S
- Schroders
- SEB AB
- Sompo Japan Nipponkoa Holdings, Inc
- Sustainable Insight Capital Management
- TD Asset Management
- Terra Alpha Investments LLC
- The Wellcome Trust
- UBS
- University of California

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## Paul Dickinson

Executive Chairman CDP



Decarbonizing the global economy is an ambitious undertaking, even over many decades... corporate leaders understand the size of the challenge, and the importance of meeting it. We are on the threshold of an economic revolution that will transform how we think about productive activity and growth.

**CDP was set up, almost 15 years ago, to serve investors. A small group of 35 institutions, managing US\$4 trillion in assets, wanted to see companies reporting reliable, comprehensive information about climate change risks and opportunities.**

Since that time, our signatory base has grown enormously, to 822 investors with US\$95 trillion in assets. And the corporate world has responded to their requests for this information. More than 5,500 companies now disclose to CDP, generating the world's largest database of corporate environmental information, covering climate, water and forest-risk commodities.

Our investor signatories are not interested in this information out of mere curiosity. They believe, as we do, that this vital data offers insights into how reporting companies are confronting the central sustainability challenges of the 21st century. And the data, and this report, shows that companies have made considerable progress in recent years – whether by adopting an internal carbon price, investing in low-carbon energy, or by setting long-term emissions reduction targets in line with climate science.

For our signatory investors, insight leads to action. They use CDP data to help guide investment decisions – to protect themselves against the risks associated with climate change and resource scarcity, and profit from those companies that are well positioned to succeed in a low-carbon economy.

This year, in particular, momentum among investors has grown strongly. Shareholders have come together in overwhelming support for climate resolutions at leading energy companies BP, Shell and Statoil. There is ever increasing direct engagement by shareholders to stop the boards of companies from using shareholders' funds to lobby against government action to tax and regulate greenhouse gasses. This activity is vital to protect the public.

Many investors are critically assessing the climate risk in their portfolios, leading to select divestment from more carbon-intensive energy stocks – or, in some cases, from the entire fossil fuel complex. Leading institutions have joined with us in the Portfolio Decarbonization Coalition, committing to cut the carbon intensity of their investments.

This momentum comes at a crucial time, as we look forward to COP21, the pivotal UN climate talks, in Paris in December. A successful Paris agreement would set the world on course for a goal of net zero emissions by the end of this century, providing business and investors with a clear, long-term trajectory against which to plan strategy and investment.

Without doubt, decarbonizing the global economy is an ambitious undertaking, even over many decades. But the actions that companies are already taking, and reporting to CDP, show that corporate leaders understand the size of the challenge, and the importance of meeting it.

We are on the threshold of an economic revolution that will transform how we think about productive activity and growth. We are beginning to decouple energy use and greenhouse gas emissions from GDP, through a process of 'dematerialization' – where consumption migrates from physical goods to electronic products and services. This will create new assets, multi-billion dollar companies with a fraction of the physical footprint of their predecessors.

Similarly, there is a growing realization that 'work' is no longer a place, but increasingly an activity that can take place anywhere. And it no longer relies on the physical, carbon-intensive infrastructure we once built to support it.

In the 19th century we built railway lines across the globe to transport people and goods. Now we need to create a new form of transportation, in the form of broadband. Investment in fixed and mobile broadband will create advanced networks upon which the communications-driven economy of the 21st century can be built – an economy where opportunity is not limited by time or geography, and where there are no limits to growth.

An economic revolution of this scale will create losers as well as winners. Schumpeter's 'creative destruction', applied to the climate challenge, is set to transform the global economy. It is only through the provision of timely, accurate information, such as that collected by CDP, that investors will be able to properly understand the processes underway. Our work has just begun.



Suzan Sabancı Dinçer, Chairman, Akbank

**Establishing regulations to replace the Kyoto protocol to restrict countries' CO2 emissions and other greenhouse gases will be an encouraging step forward for the future of our planet.**

As Akbank, since our establishment, we have embraced our fundamental principle as to create sustainable value through our employees, clients, and projects.

We have been proud to support the implementation of CDP, one of the major awareness and improvement projects worldwide, since 2010 in Turkey. In addition to our sponsorship, we annually report our policies concerning climate change to CDP.

Global Studies on climate change are also increasing in number and content. We are excited about the UN 21st Conference of the Parties that will be held in Paris where a "new global roadmap" is expected.

Establishing regulations to replace the Kyoto protocol to restrict countries' CO2 emissions and other greenhouse gases will be an encouraging step forward for the future of our planet.

Increasing participation of institutions from our country reporting to CDP, rise in the number of such institutions up to 46 from an initial eleven, the development in quality and content of these reports, are all greatly encouraging signs for us as a leading bank of the sector.

Akbank will continue to be a leader of change in the sector and in our country in accordance with its global sustainability goals.



Melsa Ararat, Director, CDP Turkey, Sabancı University

**The gap between the state and the corporate sector in Turkey in understanding the market risk of using coal based energy is a good reason to be hopeful that Turkey's current strategy may not survive the time.**

Turkey's corporate sector, dominated by family controlled business groups, has often been a driver of progressive change in the country. This is no surprise since controlling families have a longer-term investment perspective than most financial investors.

When we launched CDP in Turkey in 2010, we relied on this sense of responsibility and owner stewardship in closing the gap in the awareness of climate change risks between Turkey and the developed economies. This report presents the changes that took place during the past five years globally and also in Turkey.

Only 4 years after from a moderate start in 2010, in 2014, Turkey's two leading industrial firms, Tofaş and Arçelik, achieved 'A' band performance together with 186 global leaders in 2014. This year, a financial firm, Garanti Bank, has followed suit and is included in the list of 113 'A' class performers. Moreover, number of CDP respondents in Turkey increased more than in

any other country during this five years with 70% of the respondents achieving a disclosure score of above 80 out of 100.

While the corporate sector demonstrated a high level adaptation, awareness and transparency, Turkey's government announced its Intended Nationally Determined Contribution (INDC) that includes an emission reduction target but with a projected 116% increase in emissions by 2030 from 2013 levels. This strategy is based on a heavy reliance on coal for energy production with plans for 80 new coal-fired power plants and continued state subsidies for coal mining.

The gap between the state and the corporate sector in Turkey in understanding the market risk of using coal based energy is a good reason to be hopeful that Turkey's current strategy may not survive the time and the 'intention' may change.

<sup>1</sup> Known with Beko brand in Europe.

## CDP Turkey Respondents in 2015

### BIST-100 Respondents in 2015

Afyon Çimento Sanayi T.A.Ş.	Pegasus Hava Taşımacılığı A.Ş.
Akbank T.A.Ş.	Sabancı Holding A.Ş.
Akçansa Çimento Sanayi Ve Ticaret A.Ş.	Şekerbank T.A.Ş.
Akenerji Elektrik Üretim A.Ş.	Soda Sanayi A.Ş. (SA)
Alarko Holding A.Ş.	T.Garanti Bankası A.Ş.
Anadolu Cam Sanayi A.Ş. (SA)	T.Sinai Kalkınma Bankası A.Ş.
Arçelik A.Ş.	T.Şişe Ve Cam Fabrikaları A.Ş.
Aselsan Elektronik Sanayi Ve Ticaret A.Ş.	TAV Havalimanları Holding A.Ş.
Brisa Bridgestone Sabancı Lastik San.ve Tic.A.Ş.	Tesco Kipa (SA)
Çelebi Hava Servisi A.Ş.	Tofaş Türk Otomobil Fabrikası A.Ş.
Çimsa Çimento Sanayi Ve Ticaret A.Ş.	Trakya Cam Sanayii A.Ş. (SA)
Coca-Cola İçecek A.Ş.	Turkcell İletişim Hizmetleri A.Ş.
Doğan Şirketler Grubu Holding A.Ş.	Türkiye Halk Bankası A.Ş.
İhlas Holding A.Ş.	Türkiye Vakıflar Bankası T.A.O.
Kardemir Karabük Demir Çelik Sanayi Ve Ticaret A.Ş.	Vestel Beyaz Eşya Sanayi Ve Ticaret A.Ş.
Migros Ticaret A.Ş.	Vestel Elektronik Sanayi Ve Ticaret A.Ş.
Netaş Telekomünikasyon A.Ş.	Zorlu Enerji Elektrik Üretim A.Ş.
OMV Petrol Ofisi A.Ş. (SA)	

### Non BIST-100 Respondents in 2015

Boyner Büyük Mağazacılık A.Ş.	Pınar Süt Mamülleri Sanayii A.Ş.
Duran Doğan Basım Ve Ambalaj A.Ş.	Sun Tekstil Sanayi Ve Ticaret A.Ş. (SA)
Ekoten Tekstil Sanayi Ve Ticaret A.Ş.	Yüksel İnşaat A.Ş.
Havalimanları Yer Hizmetleri A.Ş. (Havaş)	Yünsa Yünlü Sanayi Ve Ticaret A.Ş.
İhlas Ev Aletleri İmalat Sanayi Ve Ticaret A.Ş.	Zorlu Doğal Elektrik Üretim A.Ş.
Mondi Tire Kutsan Kağıt Ve Ambalaj Sanayi A.Ş. (SA)	

# Responding companies snapshot -Turkey 2015

Responding companies:

46

>70 disclosure score respondents:

29

Performance A and B band respondents:

11

Response and Scoring Summary

Integrate climate change into business strategy:

89%

Provide incentives for management of climate change:

89%

Set an emissions reductions target:

68%

Climate Change Management & Performance

## Top risks:

- ▼ Fuel/energy taxes and other regulations
- ▼ Reputation
- ▼ Change in precipitation extremes and droughts
- ▼ Change in mean temperature
- ▼ Changing consumer behaviour

## Top opportunities:

- ▼ Regulation
- ▼ Reputation
- ▼ Changing consumer behaviour
- ▼ Cap and trade schemes
- ▼ Change in temperature extremes

Risks & Opportunities

Reported Scope 1 and Scope 2 emissions:

89%

Reported increase in Scope 1 and 2 emissions from 2014:

58%

Scope 1 and 2 verification:

39%

Emissions Reporting

Reported both absolute and intensity emissions targets:

16%

Reported absolute targets only:

24%

Reported intensity targets only:

29%

Emission Reduction Targets

**The case for corporate action on climate change has never been stronger and better understood. With the scientific evidence of manmade climate change becoming ever more incontrovertible, leading companies and their investors increasingly recognize the strategic opportunity presented by the transition to a low-carbon global economy.**

Global	2010	2015
Analyzed responses	1,799	1,997
Market cap of analyzed companies US\$m*	25,179,776	35,697,470
Scope 1	5,459 MtCO <sub>2</sub> e	5,382 MtCO <sub>2</sub> e
Scope 2	1,027 MtCO <sub>2</sub> e	1,301 MtCO <sub>2</sub> e
Scope 1 like for like: 1306 companies	4,135 MtCO <sub>2</sub> e	4,425 MtCO <sub>2</sub> e
Scope 2 like for like: 1306 companies	794 MtCO <sub>2</sub> e	887 MtCO <sub>2</sub> e

\* Market capitalization figures from Bloomberg at 1 January 2010 and 1 January 2015.

And they are acting to seize this opportunity. The latest data from companies that this year took part in CDP's climate change program – as requested by 822 institutional investors, representing US\$95 trillion in assets – provide evidence that reporting companies are taking action and making investments to position themselves for this transition.

Growing momentum from the corporate world is coinciding with growing political momentum. Later this year, the world's governments will meet in Paris to forge a new international climate agreement. Whatever the contours of that agreement, business will be central to implementing the necessary transition to a low-carbon global economy.

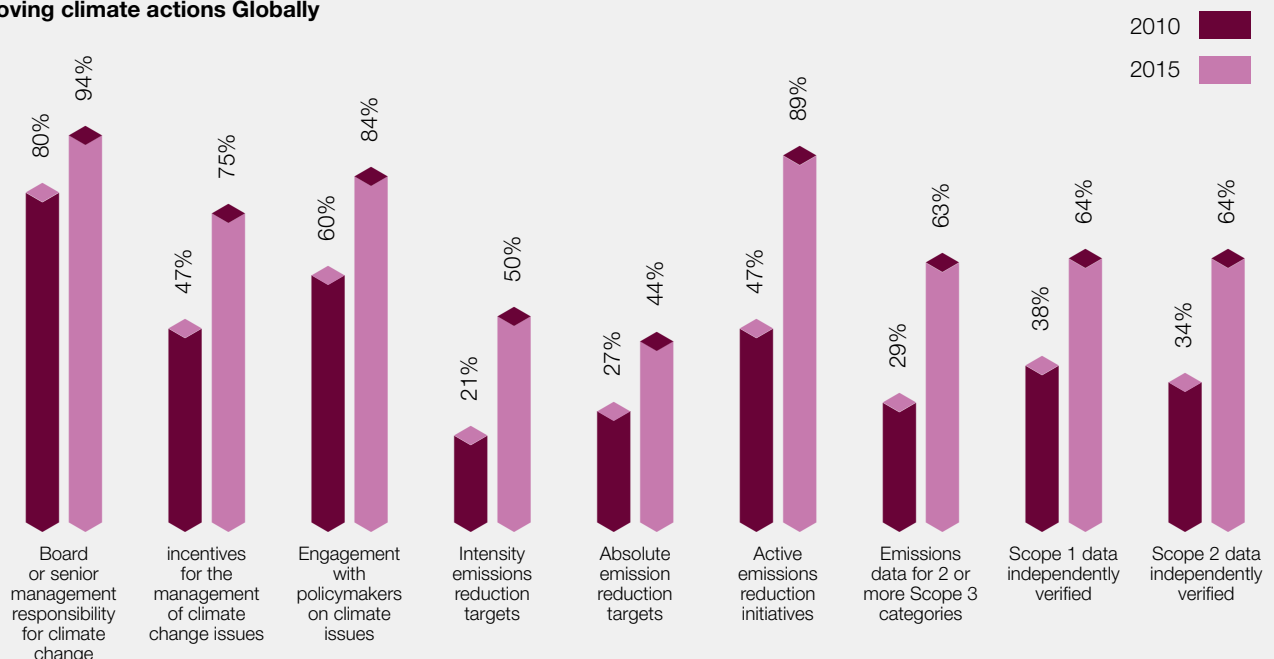
Business is already stepping up. The United Nations Environment Programme estimates that existing collaborative emissions reduction initiatives involving companies, cities and regions are on course to deliver the equivalent of 3 gigatons of carbon dioxide reductions by 2020. That's more than a third of the 'emissions gap' between existing government targets for that year and greenhouse gas emissions levels consistent with avoiding dangerous climate change.

Those investors who understand the need to decarbonize the global economy are watching particularly closely for evidence that the companies in which they invest are positioned to transition away from fossil fuel dependency.

By requesting that companies disclose through CDP, these investors have helped create the world's most comprehensive corporate environmental dataset. This data helps guide businesses, investors and governments to make better-informed decisions to address climate challenges.

This report offers a global analysis of the current state of the corporate response to climate change. For

## 1. Improving climate actions Globally





**We are targeting the full operational emissions for the organisation, including electricity, natural gas, diesel and refrigerant gases used in operational buildings and fleets.**

**J Sainsbury Plc**

**CDP has changed the way investors are able to understand the impact of climate change in their portfolio... promoting awareness of what risks or benefits are embedded into investments.**

**Anna Kearney  
BNY Mellon**

the first time, CDP compares the existing landscape to when the world was last on the verge of a major climate agreement. By comparing data disclosed in 2015 with the information provided in 2010, this report tracks what companies were doing in 2009, ahead of the ill-fated Copenhagen climate talks at the end of that year.

The findings show considerable progress: with corporate and investor engagement with the climate issue; in leading companies' management of climate risk; and evidence that corporate action is proving effective. However, the data also shows that much more needs to be done if we are to avoid dangerous climate change.

**Growing corporate engagement on climate change...**

For the purposes of this 2015 report and analysis, we focused on responses from 1,997 companies, primarily selected by market capitalization through regional stock indexes and listings, to compare with the equivalent 1,799 companies that submitted data in 2010. These companies, from 51 countries around the world, represent 55% of the market capitalization of listed companies globally.

The data shows significant improvements in corporate management of climate change. What was leading behavior in 2010 is now standard practice. For example, governance is improving, with a higher percentage of companies allocating responsibility for climate issues to the board or to senior management (from 80% to 94% of respondents). And more companies are incentivizing employees through financial and non-financial means to manage climate issues (47% to 75%).

Importantly, the percentage of companies setting targets to reduce emissions has also grown strongly. Forty four per cent now set goals to reduce their total greenhouse gas emissions, up from just 27%

in 2010. Even more – 50% - have goals to reduce emissions per unit of output, up from 20% in 2010.

Companies are responding to the ever-more compelling evidence that manmade greenhouse gas emissions are warming the atmosphere. This helps build the business case for monitoring, measuring and disclosing around climate change issues. But greater corporate engagement with climate change is at least partly down to influence from increasingly concerned investors.

**... Amid growing investor concern**

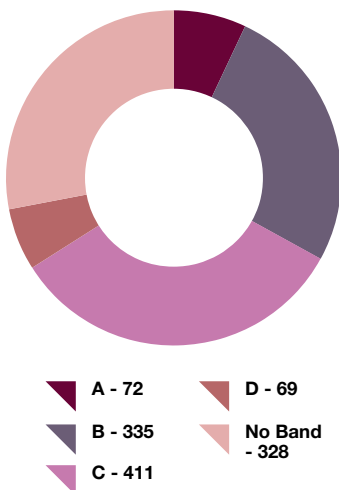
Since 2010, there has been a 54% rise in the number of institutional investors, from 534 to 822, requesting disclosure of climate change, energy and emissions data through CDP.

Investors are also broadening the means by which they are encouraging corporate action on emissions. In recent years, they have launched several other initiatives.

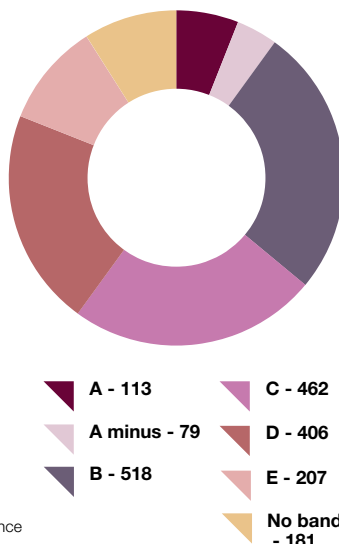
For example, a number of institutional investors have come together in the 'Aiming for A' coalition to call on specific major emitters to demonstrate good strategic carbon management by attaining (and maintaining) inclusion in CDP's Climate A List. The A List recognizes companies that are leading in their actions to reduce emissions and mitigate climate change in the past CDP reporting year. In 2015, following a period of engagement with the companies, the coalition was successful in passing shareholder resolutions calling for improved climate disclosure at the annual meetings of BP, Shell and Statoil, with nearly 100% of the votes in each case.

Investors are also applying principles of transparency and exposure to themselves. More than 60 institutional investors have signed the Montréal Carbon Pledge, under which they commit to measure and publicly disclose the carbon footprint of

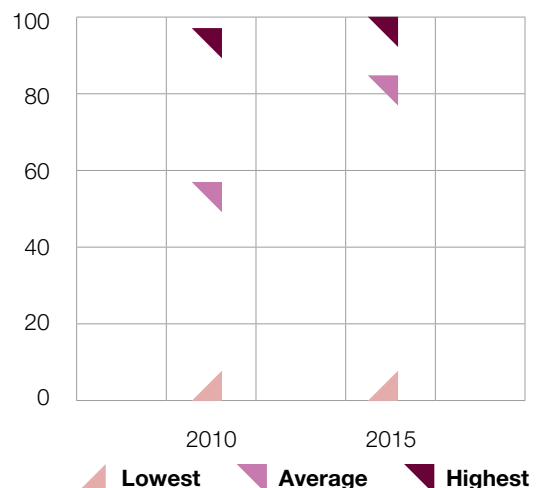
**2. 2010 performance bands globally\***



**3. 2015 performance bands globally**



**4. Disclosure scores over time Globally**



\* in 2010 and 2015 not all companies were scored for performance

**We have a public commitment to meet 100% of electricity requirements through renewables by fiscal 2018 and we will be investing in about 200 MW of solar PV plants.**

**Infosys**

**Google uses carbon prices as part of our risk assessment model. For example, the risk assessment at individual data centers also includes using a shadow price for carbon to estimate expected future energy costs.**

**Google**

their investment portfolios on an annual basis. It aims to attract commitment from portfolios totaling US\$3 trillion in time for the Paris climate talks.

Investors are seeking to better understand the link between lower carbon emissions and financial performance, including through the use of innovative investor products such as CDP's sector research, launched this year, which directly links environmental impacts to the bottom line. Some investors are taking the next logical step, and are working to shrink their carbon footprints via the Portfolio Decarbonization Coalition (PDC). As of August, the PDC – of which CDP is one the founding members – was overseeing the decarbonization of US\$50 billion of assets under management by its 14 members.

#### **Leading to effective corporate action**

Companies are responding to these signals. In total, companies disclosed 8,335 projects or initiatives to reduce emissions in 2015, up from 7,285 in 2011 (the year for which the data allows for the most accurate comparison). The three most frequently undertaken types of project are: improving energy efficiency in buildings and processes; installing or building low carbon energy generators; and changing behavior, such as introducing cycle to work schemes, recycling programs and shared transport.

More than a third (36%) of reporting companies have switched to renewable energy to reduce their emissions. On average, the companies that purchased renewable energy in 2015 have doubled the number of activities they have in place to reduce their emissions, showing their growing understanding or capacity to realize the benefits of lower carbon business. Further, 71% (1,425) of respondents are employing energy efficiency measures to cut their emissions, compared with 62% (1,185) in 2011, demonstrating that companies are committed to reducing wasted energy wherever possible.

Companies are also quietly preparing for a world with constraints – and a price – on carbon emissions. In the past year particularly, we have seen a significant jump in the number of companies attributing a cost to each ton of carbon dioxide they emit, to help guide their investment decisions. This year 435<sup>2</sup> companies disclosed using an internal price on carbon, a near tripling of the 150 companies in 2014. Meanwhile, an additional 582 companies say they expect to be using an internal price on carbon in the next two years.

However, these efforts have not proved sufficient to adequately constrain emissions growth. On a like-for-like basis, direct ('Scope 1') emissions from the companies analyzed for this report grew 7% between 2010 and 2015. Scope 2 emissions, associated with purchased electricity, grew 11%. There are many factors that might explain this, not least economic growth but this rise in emissions is also considerably lower than would have been the case without the investments made by responding companies in emissions reduction activities.

#### **Good progress – but it needs to accelerate**

Companies disclosing through CDP's climate change program have made substantial progress in understanding, managing and beginning to reduce their climate change impacts. However, if dangerous climate change is to be avoided, emissions need to fall significantly.

Governments have committed to hold global warming to less than 2°C above pre-industrial levels. The Intergovernmental Panel on Climate Change calculates that to do this, global emissions need to fall between 41% and 72% by 2050. Although more companies are setting emissions targets, few of them are in line with this goal. In most cases, targets are neither deep enough nor sufficiently long term.

More than half (51%) of absolute emissions targets adopted by the reporting sample extend only to 2014 or 2015. Two fifths (42%) run to 2020 but only 6% extend beyond that date. The figures for intensity targets are almost identical. This caution in target setting is likely the result of the uncertain policy environment: many companies will be awaiting the outcome of the Paris climate talks before committing to longer-term targets.

However, a number of big emitters – such as utilities Iberdrola, Enel and NRG – have established long-term, ambitious emissions targets that are in line with climate science. These companies recognize that there is a business case for taking on such targets and setting a clear strategic direction, including encouraging innovation, identifying new markets and building long-term resilience. Many other companies have pledged to do so through the We Mean Business 'Commit to Action' initiative.

CDP aims to work along a number of fronts to help other companies, especially in high-emitting sectors, join them. With its partners, CDP has developed a sector-based approach to help companies set climate science-based emissions reduction targets. The Science Based Targets initiative uses the 2°C scenario developed by the International Energy Agency.

Looking forward, CDP will encourage more ambitious target setting through our performance scoring, by giving particular recognition to science-based targets. We are planning gradual changes to our scoring methodology that will reward companies that are transitioning towards renewable energy sources at pace and scale.

In addition, CDP is working with high-emitting industries to develop sector-specific climate change questionnaires and scoring methodologies, to ensure that disclosure to CDP, and the actions required to show leading performance, are appropriate for each sector. In 2015, we piloted a sector-specific climate change questionnaire and scoring methodology privately with selected oil and gas companies, ahead of their intended implementation in 2016.

The numbers for companies using or planning to implement internal carbon pricing are based on the sample analyzed for Putting a price on risk: Carbon pricing in the corporate world. Of the 1,997 companies analyzed in this report 315 have disclosed that they set an internal carbon price, with 263 planning to do so. For more detail, see <https://www.cdp.net/CDPResults/carbon-pricing-in-the-corporate-world.pdf>



**The climate negotiations in Paris at the end of the year present a unique opportunity for countries around the world to commit to a prosperous, low carbon future. The more ambitious the effort, the higher the rewards will be. But Paris is a milestone on the road to a better climate, not the grand finale.**

Unilever



### **And business needs a seat at the table in Paris**

The Paris climate agreement will, we hope, provide vital encouragement to what is a multi-decade effort to bring greenhouse gas emissions under control. It will hopefully give private sector emitters the confidence to set longer-term emissions targets aligned with climate change. Companies and their investors therefore will be, alongside national governments, arguably the most important participants in ensuring the success of the global effort to rein in emissions.

Companies that have an opinion on a global climate deal are overwhelmingly in support: when asked if their board of directors would support a global climate change agreement to limit warming to below 2°C, 805 companies said yes, while 111 said no. However, a large number of respondents (1,075) stated they have no opinion, and 331 did not answer the question. This suggests either a lack of clarity around the official board position on the issue, or that many companies are not treating the imminent climate talks with the necessary strategic priority.

### **Conclusion**

The direction of travel is clear: the world will need to rapidly reduce emissions to prevent the worst effects of climate change. And the political will is building to undertake those reductions. The majority of those reductions will need to be delivered by the corporate world – creating both risk and opportunity.

CDP and the investors we work with have played a formative role in building awareness of these risks and opportunities. Our data has helped build the business case for emissions reduction and inform investment decisions. The corporate world is responding with thousands of emissions reduction initiatives and projects. But the data also shows that efforts will need to be redoubled, by both companies and their investors, if we are to successfully confront the challenge of climate change in the years to come.

## A deeper dive into corporate environmental risk

Central to CDP's mission is communicating the progress companies have made in addressing climate change, and highlighting where risk may be unmanaged. To better do so, CDP has introduced sector-specific research for investors.

This forward-looking research links environmental impacts directly to the bottom line and directs investors as to how they can engage with companies to improve environmental performance.

The research flags topical environmental and regulatory issues within particular sectors, relevant to specific companies' financial performance and valuation, and designed for incorporation into investment decisions. Sectors covered to date include automotive, electric utilities and chemicals. The research is intended to support engagement with companies, providing actionable company-level conclusions.

To better equip investors in understanding carbon and climate risk, CDP is also developing further investor tools such as a carbon footprinting methodology, and is working continuously to improve the quality of our data.

## Working towards water stewardship

CDP has this year introduced the first evaluation and ranking of corporate water management, using scoring carried out by our lead water-scoring partner, South Pole Group.

The questions in the water disclosure process guide companies to comprehensively assess the direct and indirect impacts that their business has on water resources, and their vulnerability to water availability and quality.

Introducing credible scoring will catalyze further action. It will illuminate where companies can improve the quality of the information they report, and their water management performance. Participants will benefit from peer benchmarking and the sharing of best practice.

Water scoring will follow a banded approach, with scores made public for those companies reaching the top 'leadership' band. Scoring will raise the visibility of water as a strategic issue within companies and increase transparency on the efforts they are making to manage water more effectively.

Furthermore, scoring will be used to inform business strategies, build supply chain resilience and secure competitive advantage. We hope that keeping score on companies and water will reduce the detrimental impacts that the commercial world has on water resources, ensuring a better future for all.

# Turkey Overview (2010-2015)

Turkey	2010	2015
Analyzed responses <sup>†</sup>	10	30 (5)
Market cap of analyzed companies US\$m	51,601	102,409
Scope 1	4.8 MtCO <sub>2</sub> e	20.7 MtCO <sub>2</sub> e
Scope 2	0.34 MtCO <sub>2</sub> e	2.3 MtCO <sub>2</sub> e
Scope 1 like for like: 7 companies	2.8 MtCO <sub>2</sub> e	3.9 MtCO <sub>2</sub> e
Scope 2 like for like: 7 companies	0.29 MtCO <sub>2</sub> e	0.20 MtCO <sub>2</sub> e

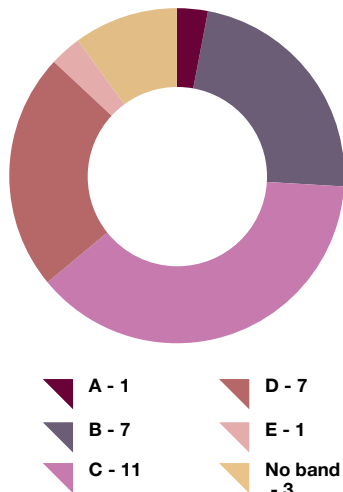
<sup>†</sup> the number in brackets refers to companies that responded after the deadline, or referred to a parent company. They are not included in analysis.

Turkey has shown the largest percentage growth in the number of companies participating in CDP's climate program over the last five years, with 35 companies now disclosing – two and a half times more than the 10 which disclosed in 2010. Meanwhile, the number of emission reduction activities they are undertaking has increased more than 300%. This is at least partly explained by the

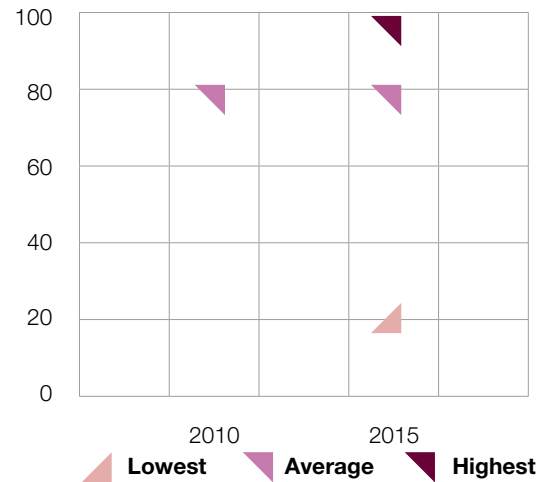
## 1. 2010 performance bands in Turkey



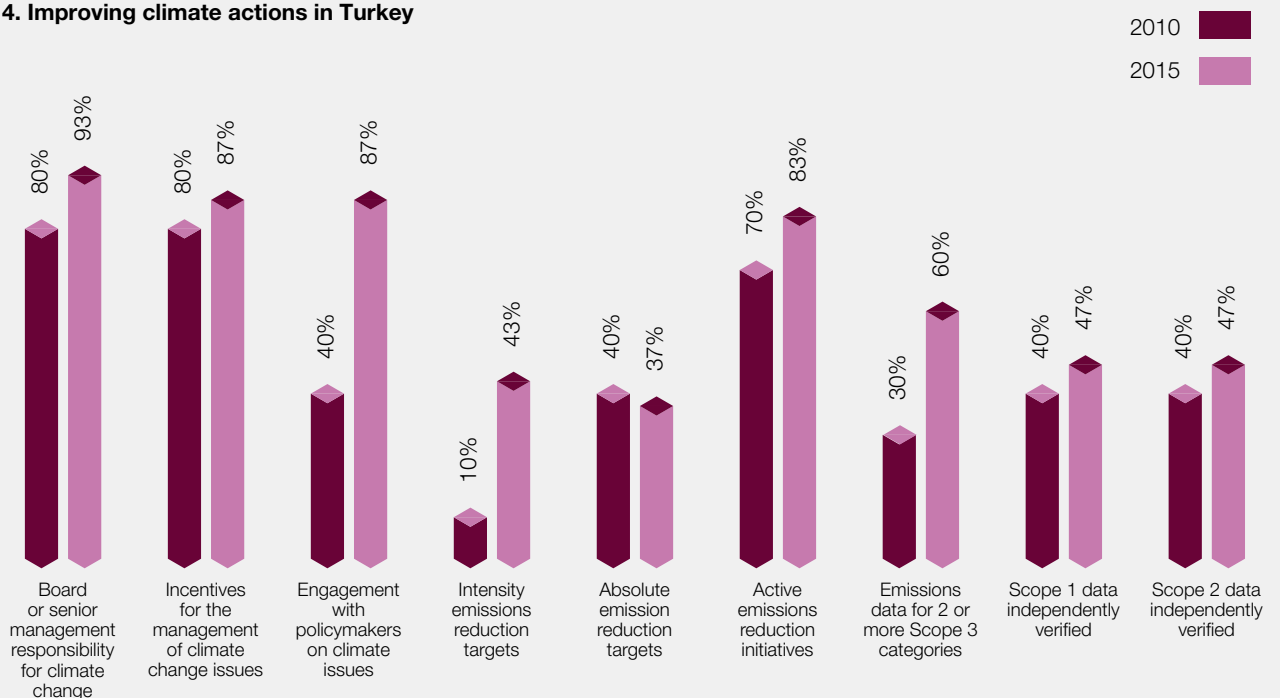
## 2. 2015 performance bands in Turkey



## 3. Disclosure scores over time in Turkey\*



## 4. Improving climate actions in Turkey



(\*) CDP Turkey results scored in 2011 for the first time. So there is no 2010 value.

# 250%

**growth in the number of Turkish companies participating in CDP's climate program between 2010 and 2015**

country's strong economic growth over recent years, and the increasing internationalization of its economy.

Turkish companies perform largely in line with global averages in terms of carbon disclosure and performance, although they lag somewhat in terms of target setting and the verification of emissions data. They also report significant opportunities from climate change: Tire company Brisa Bridgestone, for example, cites a new concept tire that helps improve vehicle fuel efficiency and reduce emissions.

Turkish companies appear particularly mindful of the physical risks posed by climate change. Nine in ten report physical climate exposures, compared with the global average of 79%. This is up from 70% in 2010, which itself was above the global average, then, of 59%.

Given that only seven companies disclosed in both 2010 and 2015, emissions performance should be treated with caution. Scope 1 emissions have risen 39%, but Scope 2 emissions are down 30%.

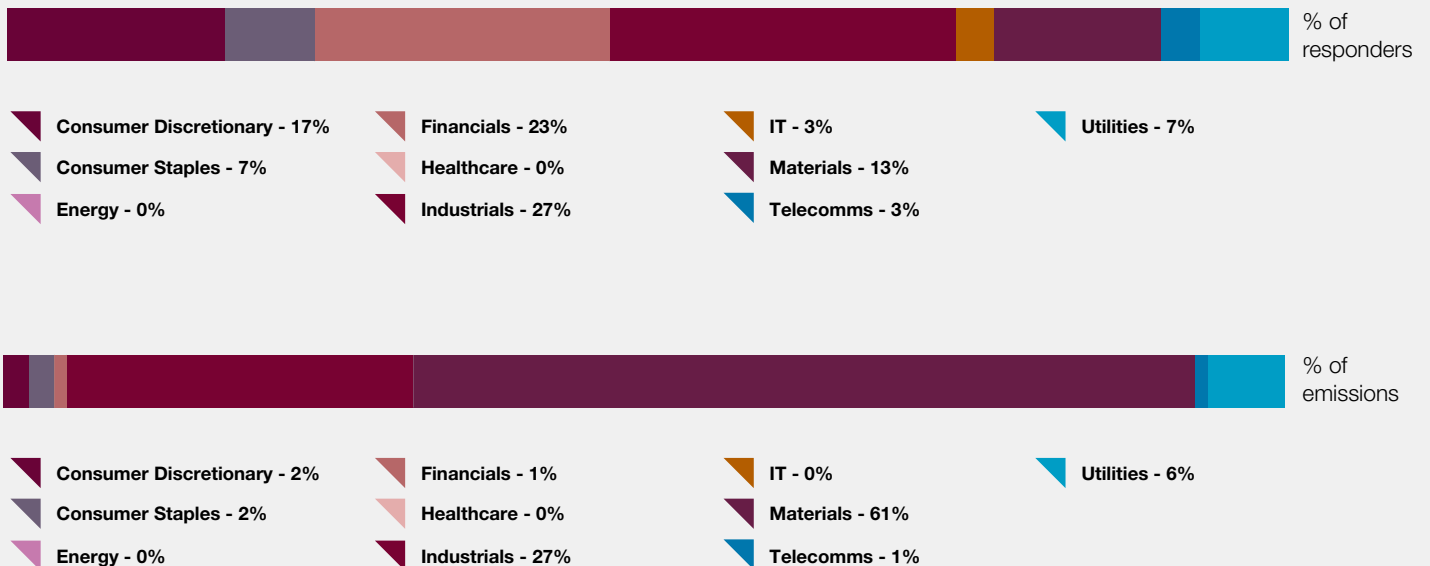


**Garanti Bank has identified that one of the most significant areas that customers need support is development of innovative products for renewables. Consequently, Garanti Bank has included a long-term target in its strategy related to developing products and services that help catalyze the transition towards a more sustainable economy... the technical and regulatory know-how accumulated in renewable energy continues to make Garanti Bank a preferred financing partner for investors in this field.**

T.Garanti Bankasi



## 5. Proportion of 2015 companies and emissions by sector in Turkey



# Company Responses Overview - Turkey 2015

In 2015, CDP requested climate change information from BIST-100 companies, and also extended invitations to companies that responded to the questionnaire in previous years but are not included in BIST-100 index in 2015. CDP Turkey 2015 Climate Change Report presents the progress achieved by responding companies in reducing emissions, responding to climate related risks and opportunities, and mobilizing influence to manage climate change.

## Scoring in 2015

In 2015, company responses in Turkey were assessed by Deloitte Turkey both for disclosure and performance, according to the CDP scoring methodology.

## Highlights in 2015

- Significant improvement in disclosure and transparency
- More progress is expected in external verification
- Better account of environmental risks to stabilize, maximize and grow shareholder return
- Increased targets identified by Turkish companies to reduce emission
- Raised awareness in terms of climate change related opportunities
- More than half of the initiatives disclosed is related to emission reduction and energy efficiency
- More should be done to decrease emissions in the high emitting sectors such as manufacturing and energy

## Global success – but it needs to accelerate

There are 113 companies that achieved an 'A' level performance globally.

In order to achieve an "A" performance band, the company's response must be publicly available, there should be a certain amount of decrease in Scope 1 and 2 emissions of the respondent when compared to previous year's emission results and Scope 1 and Scope 2 emissions should be disclosed and independently verified by a third party.

This year, T. Garanti Bankası is the only Turkish company that achieved an "A" performance. Considering that large emerging economies such as China, India and Brazil don't have any "A" performers, this is a notable achievement for Turkey.

More should be done to decrease emissions in the other sectors such as manufacturing and energy. Therefore in the following years, we expect Turkish companies to increase the rate of third party verification on emissions. Also Turkish companies should initiate more aggressive projects and targets to reduce the emissions in the following years.

**All new cooler equipment purchases are to be 100 % HFC-free by end of 2015 (depending on the availability of the coolers). HFC gas; for eg. R 134-a was the most used gas in our system in 2009. The global warming potential (GWP) of this gas is 1300. We aim to reduce our emissions by using HFC-free gas of which GWP is 0.001 with this program.**

**Coca Cola İçecek**

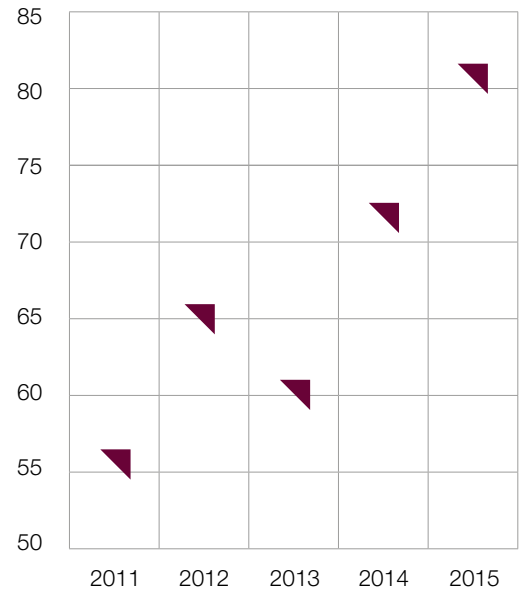
**Arçelik aims to reduce total eCO2 emissions of its domestic production sites from 2010 (base year) to 2020 by 70% per sales revenue.**

**Arçelik**

### Increased transparency and organizational trust

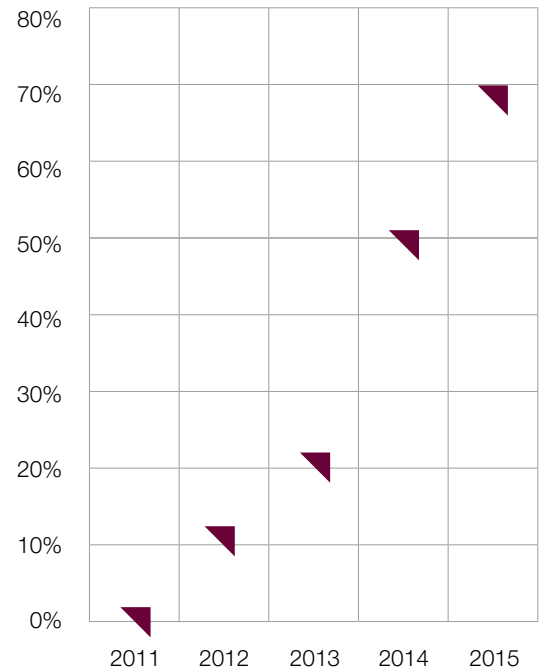
The findings show considerable progress in respondents' engagement with the climate issue, transparency in disclosing the climate risk and actions taken. There is a significant increase in the average disclosure points earned by respondents in 2015 when compared to information disclosed since 2011. This is a strong indication that more Turkish companies are taking action for more transparent climate change strategies and reporting.

### 1. Yearly Average Disclosure Points



Furthermore, there is a significant increase in the rate of respondents that achieved disclosure points of 80 and above in 2015. The data shows significant improvements in commitment to the corporate management of climate change. What was a leading behaviour in 2011 is now a standard practice. Per the analysis in table 2, nearly 70% of the respondents achieved 80 points and above in 2015 where as in 2014, this rate was only 49%.

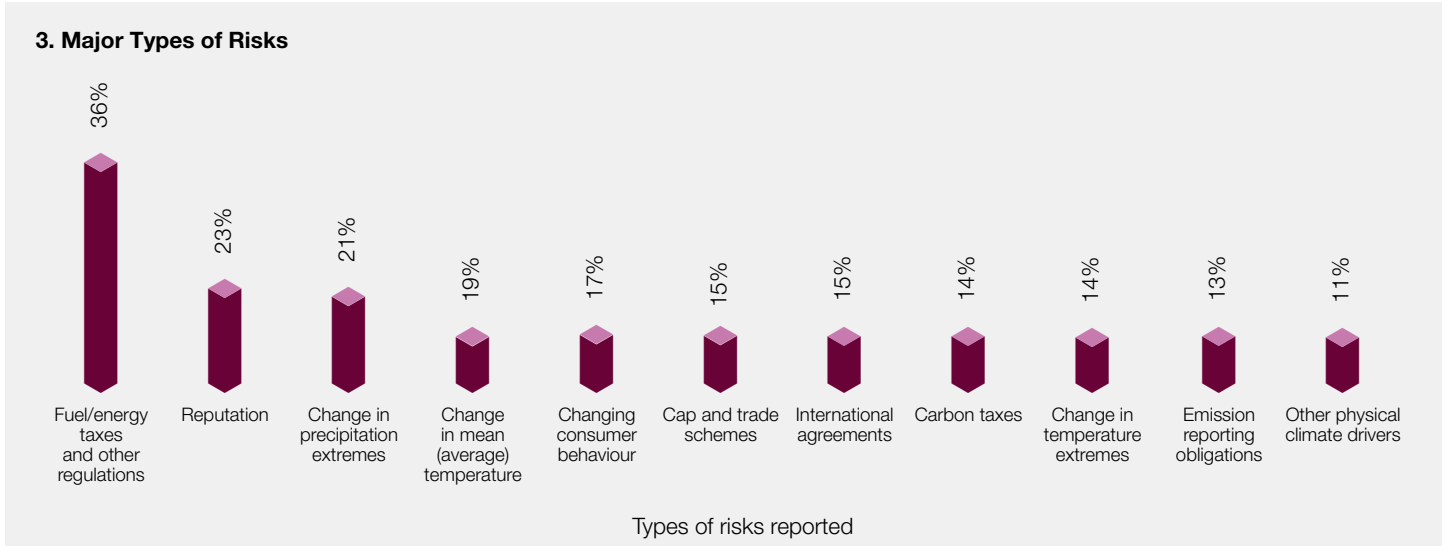
### 2. Rate of respondents that have 80 points and above



**Companies take better account of environmental risks to stabilize, maximize and grow shareholder return.**

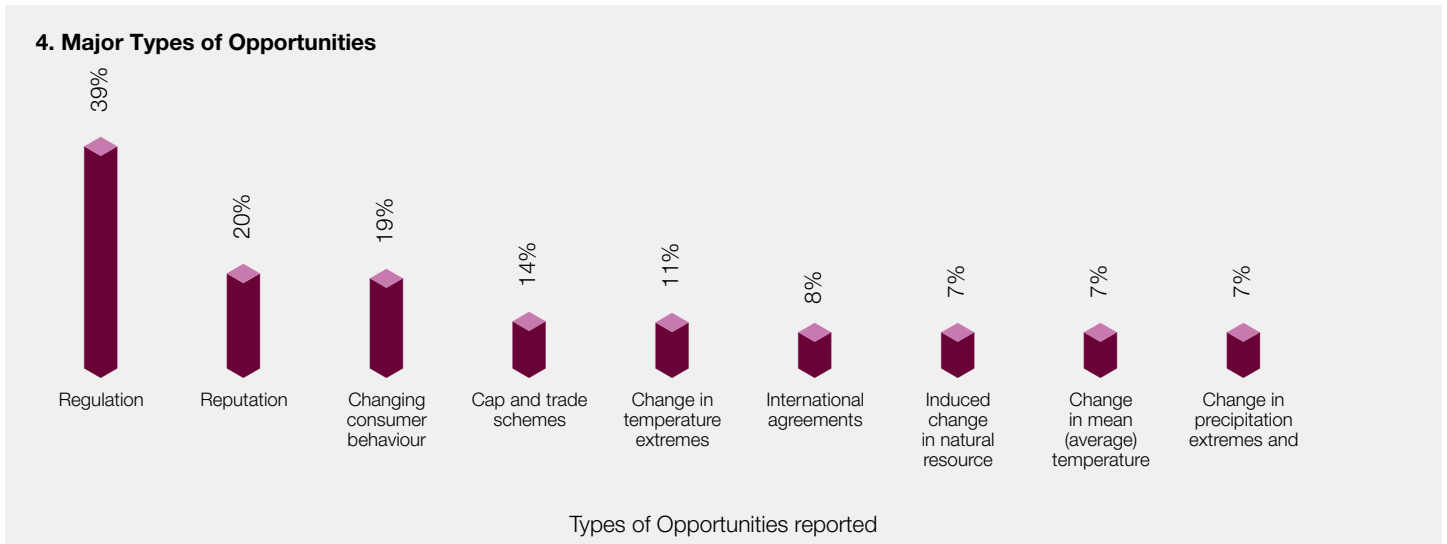
In common with other developing countries, climate change poses both risks and opportunities for Turkey. The major risks are regulatory, reputational and change in precipitation extremes and droughts. Regulatory risks identified are mainly related to fuel/energy prices and taxes.

Most commonly reported risks are related to increasing operational costs due to fuel and electricity prices, carbon taxes, energy performance certificate requirements of the buildings and energy consumption reduction targets set by Ministry of Energy and Natural Resources.



**Companies raise awareness in terms of climate change related opportunities**

There are 39 regulation related opportunities identified by the respondents this year. It is followed by reputational risks of 20 and changing customer behavior of 19 opportunities. Most commonly reported opportunities are presented below:



As jet kerosene is our main operational cost item, any taxes on fossil fuels will have a considerable effect on our operational expenses. As climate change is seen to be one of the major problems humanity is facing, fossil fuels will most likely be more and more expensive as they are the main source for human induced climate change. To be able to fund mitigation and adaptation studies governments may incur extra taxes on fossil fuels, which will in turn increase our operational expenses.

**Pegasus**

Due to increased public concern both in Turkey and in rest of the world, climate change is very important in managing corporate reputation. Today, it is critical that companies safeguard their reputations through effective communications with all their stakeholders about their environmental performance on climate change issue.

**Şişecam**



If a binding agreement for GHG emission reduction commitments is made at the upcoming COP meetings in Paris, Turkey can not avoid making national emission reduction commitments. And such a commitment will eventually be reflected as sectoral emission reduction target to be enforced with a cap system for each industrial installation. During this process, several Turkish industrial sectors may have to reduce their emissions through low carbon technology investments or through offsetting their GHG emissions, in order to keep their emissions under the allowed threshold levels. This may bring opportunities by accelerating the demand for renewable energy and energy-efficiency projects, which the company can finance.

Türkiye Vakıflar Bankası

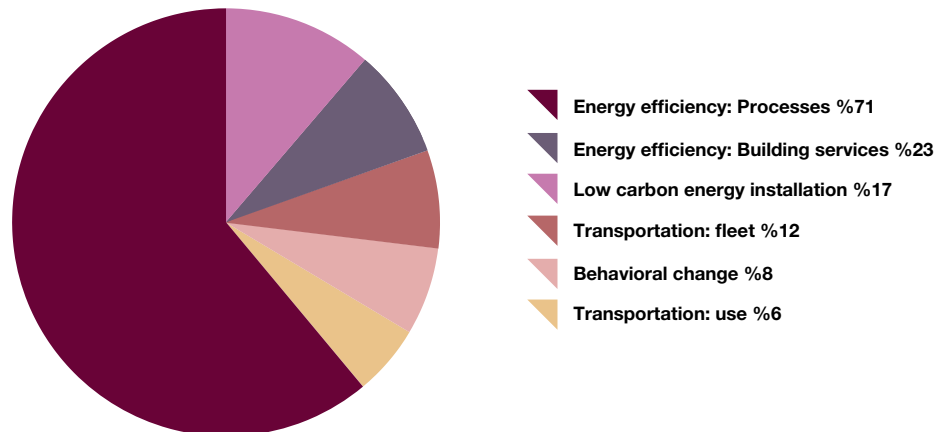
It is expected within the next 3-5 years that the energy efficient “inverter” type air conditioners will be obligatory in the market. It means that the rest of the air conditioners will be phased out. And İhlas Home Appliances may have the chance to increase its sales. Inverter type A/Cs are already in the product portfolio of İhlas. The A/Cs are imported from outside the country.

İhlas Ev Aletleri

### Most of the initiatives taken by companies are related to energy efficiency processes

Companies have taken a series of common-sense steps to curb carbon pollution and other greenhouse gases through initiatives that drive energy efficiency and promote clean energy. In 2015, respondents disclosed 163 initiatives taken to have emission reduction and energy efficiency. However, 32% of the respondents did not set any targets to reduce emissions. More should be done to take action and responsibility in climate change.

#### 5. Number of initiatives taken in 2015



#### Out of 163 initiatives, 71 are related to energy efficiency processes incorporated to company policies and procedures such as:

- ▼ Reduction of lamp consumptions and increase in LED illumination
- ▼ Increase in alternative fuel usage such as natural gas
- ▼ Modernization of air conditioning systems, use of inverter type air conditioners
- ▼ Machine and equipment changes to provide saving energy
- ▼ Replacement in electrical equipment with efficient types
- ▼ Consolidation of servers in data centers.
- ▼ Shifting to new and energy efficient ATM machines and servers.

#### When compared to 2014, there is a significant increase in the number of initiatives taken in transportation fleets such as:

- ▼ Selling the old trucks and transportation vehicles and replacing them with the new trucks to reduce CO2 emissions
- ▼ Technical optimization
- ▼ Establishing new distribution centers in order to reduce the distance travelled by distribution trucks

#### Also there are several behavioral changes initiated in 2015. These changes follow the global trends such as:

- ▼ Reduction of office supplies use
- ▼ Reducing the number of cars that are used by middle level managers, and integrating more service buses for commuting
- ▼ Reduction in printed papers
- ▼ Energy efficiency and sustainability training to employees

## 2015 Leadership Criteria

### Each year companies that participate in CDP's climate change program are scored against two parallel assessment schemes: performance and disclosure.

The performance score assesses the level of action, as reported by the company, on climate change mitigation, adaptation and transparency. Its intent is to highlight positive climate action as demonstrated by a company's CDP response. A high performance score signals that a company is measuring, verifying and managing its carbon footprint, for example by setting and meeting carbon reduction targets and implementing programs to reduce emissions in both its direct operations and supply chain.

The disclosure score assesses the completeness and quality of a company's response. Its purpose is to provide a summary of the extent to which companies have answered CDP's questions in a structured format. A high disclosure score signals that a company provided comprehensive information about the measurement and management of its

carbon footprint, its climate change strategy and risk management processes and outcomes.

The highest scoring companies for performance and/or disclosure enter the A List (Performance band A) and / or the Climate Disclosure Leadership Index (CDLI). Public scores are available in CDP reports, through Bloomberg terminals, Google Finance and Deutsche Boerse's website.

In 2015 the climate change scoring methodology was revised to put more emphasis on action and as a result achieving A is now better aligned with what the current climate change scenario requires.

CDP operates a strict conflict of interest policy with regards to scoring and this can be viewed at <https://www.cdp.net/Documents/Guidance/2015/CDP-conflict-of-interest-policy.pdf>

#### What are the A List and CDLI criteria?

##### To enter the A List, a company must:

- ▼ Make its response public and submit via CDP's Online Response System
- ▼ Attain a performance score greater than 85
- ▼ Score maximum performance points on question 12.1a (absolute emissions performance) for GHG reductions due to emission reduction actions over the past year (4% or above in 2015)
- ▼ Disclose gross global Scope 1 and Scope 2 figures
- ▼ Score maximum performance points for verification of Scope 1 and Scope 2 emissions (having 70% or more of their emissions verified)
- ▼ Furthermore, CDP reserves the right to exclude any company from the A List if there is anything in its response or other publicly available information that calls into question its suitability for inclusion. CDP is working with RepRisk in 2015 to strengthen this background research.

*Note: Companies that achieve a performance score high enough to warrant inclusion in the A List, but do not meet all of the other A List requirements are classed as Performance Band A- but are not included in the A List.*

##### To enter the CDLI, a company must:

- ▼ Make its response public and submit via CDP's Online Response System
- ▼ Achieve a disclosure score within the top 10% of the total regional sample population\*

\*Note: while it is usually 10%, in some regions the CDLI cut-off may be based on another criteria, please see local reports for confirmation.

#### Communicating progress

Central to CDP's mission is communicating the progress companies have made in addressing climate change, and highlighting where risk may be unmanaged. To better do so, CDP is changing how our climate performance scoring is presented, and we have introduced sector-specific research for investors.

#### Banding performance scores

Starting with water and forests in 2015 and including climate change and supply chain in 2016, CDP is moving to present scores using an approach that illustrates companies' progress towards environmental stewardship. Each reporting company will be placed in one of the following bands:

- ▼ **Disclosure** measures the completeness of the company's response;
- ▼ **Awareness** measures the extent to which the company has assessed environmental issues, risks and impacts in relation to its business;
- ▼ **Management** measures the extent to which the company has implemented actions, policies and strategies to address environmental issues;
- ▼ **Leadership** looks for particular steps a company has taken which represent best practice in the field of environmental management.

We believe that this approach will be clearer and easier to understand for companies, investors and other stakeholders. Water and forest scores will use this new presentation of banded scores in 2015, while the updated scoring methodology for climate change will be available in February 2016 with results in late 2016.

## 2015 Climate Leaders in Turkey

### CDP 2015 CLIMATE PERFORMANCE LEADERSHIP INDEX (CPLI)\* - A LIST COMPANY

T.Garanti Bankası A.Ş.	Financials	A
------------------------	------------	---

### CDP TURKEY 2015 CLIMATE DISCLOSURE LEADERSHIP INDEX (CDLI)

T.Sinai Kalkınma Bankası A.Ş.	Financials	99
Brisa Bridgestone Sabancı Lastik San.ve Tic.A.Ş.	Consumer Discretionary	98
T.Garanti Bankası A.Ş.	Financials	98
Turkcell İletişim Hizmetleri A.Ş.	Telecommunication Services	97
Arçelik A.Ş.	Consumer Discretionary	96



Gökhan Alpman, Partner, Deloitte Turkey

Deloitte Turkey is delighted to be the 2015 sponsor of CDP Turkey Climate Change report as the scoring and the report writing partner. This year 46 companies responded to CDP. We congratulate those companies in addressing one of the society's and next generations' most important challenge which is climate change and global warming. Stakeholders, including consumers, employees, investors and regulators, are demanding that organizations improve their sustainability performance. Going forward, in order to effectively compete, more businesses should think about a new world shaped by corporate social responsibility, stakeholder expectations and develop innovative ways to address them.

The topic sustainability is complicated with several uncertainties in Turkey, and while the business impact of sustainability is real, most companies do not

know where to begin or how to address the risks. A sustainability strategy is most effective when aligned and integrated with existing short term and long term strategic planning of the companies, and coordinated with a reasonable approach to the related risks and rewards. As more Turkish companies are starting to report on their climate change and sustainability efforts; effective controls and independent verification around gathering, maintaining, and presenting relevant data becomes a vital part of a mature reporting process.

The Deloitte network is committed to driving societal change and promoting environmental sustainability. Working in innovative ways with government, non-profit organizations, and civil society, we are designing and delivering solutions that contribute to a sustainable and prosperous future for all.

1

## GOVERNANCE AND STRATEGY

Increasingly, companies in Turkey have stronger governance structures and strategies for climate change. This is reflected in increases in percentages associated with questions on senior level responsibility associated with climate change, integration of climate change into business strategy, and having a climate risk management procedure in place. 95% of the respondents stated that highest level of direct responsibility for climate change within their organization is senior level and above. 87% of the respondents have board oversight for climate change.

71% of responding companies reported Scope 3 emissions

2

## CLIMATE CHANGE RISKS

Responding Turkish companies appear particularly mindful of the physical risks posed by climate change. Nine in ten report physical climate exposures, compared with the global average of 79%. This is up from 70% in 2010, which itself was above the global average then of 59%. Among the companies that responded to this question in 2015, 95% identified climate change risks driven by changes in regulation, 61% identified risks of reputation, and 55% identified risks driven by changes in precipitation extremes and droughts.

3

## CLIMATE CHANGE OPPORTUNITIES

Among the companies that responded to this question in 2015, 92% identified climate change opportunities driven by changes in regulation, 53% driven by changes in reputation, and 50% driven by changes in consumer behavior. Most commonly reported opportunities are presented on the right.

39% indicated that Scope 1 and Scope 2 emissions has been externally assured or assurance is underway

4

## EMISSIONS: SCOPE 1 AND SCOPE 2

In 2015, 89% of companies reported their Scope 1 and Scope 2 emissions. This represents a slight increase from 94% in 2014. However, a significant portion of respondents (58%) reported an increase in their emissions. On the positive side, 58% reported a decrease in Scope 1 and Scope 2 emissions.

5

## TARGETS

Only 68% of companies have targets for reducing emissions from their core operations. However, this represents a slight increase from 53% in 2014. More should be done to decouple business growth from emissions growth as Turkey's economy is expected to grow in the near future.

39% have an absolute emissions reduction target

6

## VERIFICATION

39% of the respondents indicated that Scope 1 and 2 emissions have been externally assured or assurance is underway. This represents a significant increase from 2014 (29%). Interest in verification is expected to grow given the new regulations on Measurement, Reporting and Verification (MRV) systems requiring companies in energy intensive sectors to get external verification in the near future.

68% have an emissions reduction target

7

## SCOPE 3 EMISSIONS

In 2015, 71% of companies reported Scope 3 emissions representing a significant increase from 63% in 2014 and 42% in 2013. However, reporting on Scope 3 indirect emissions is still at a very early stage and hence companies are yet to build capacity to successfully assess and report on many of their impacts across their value chains.

58% reported an increase in Scope 1 and Scope 2 emissions

1

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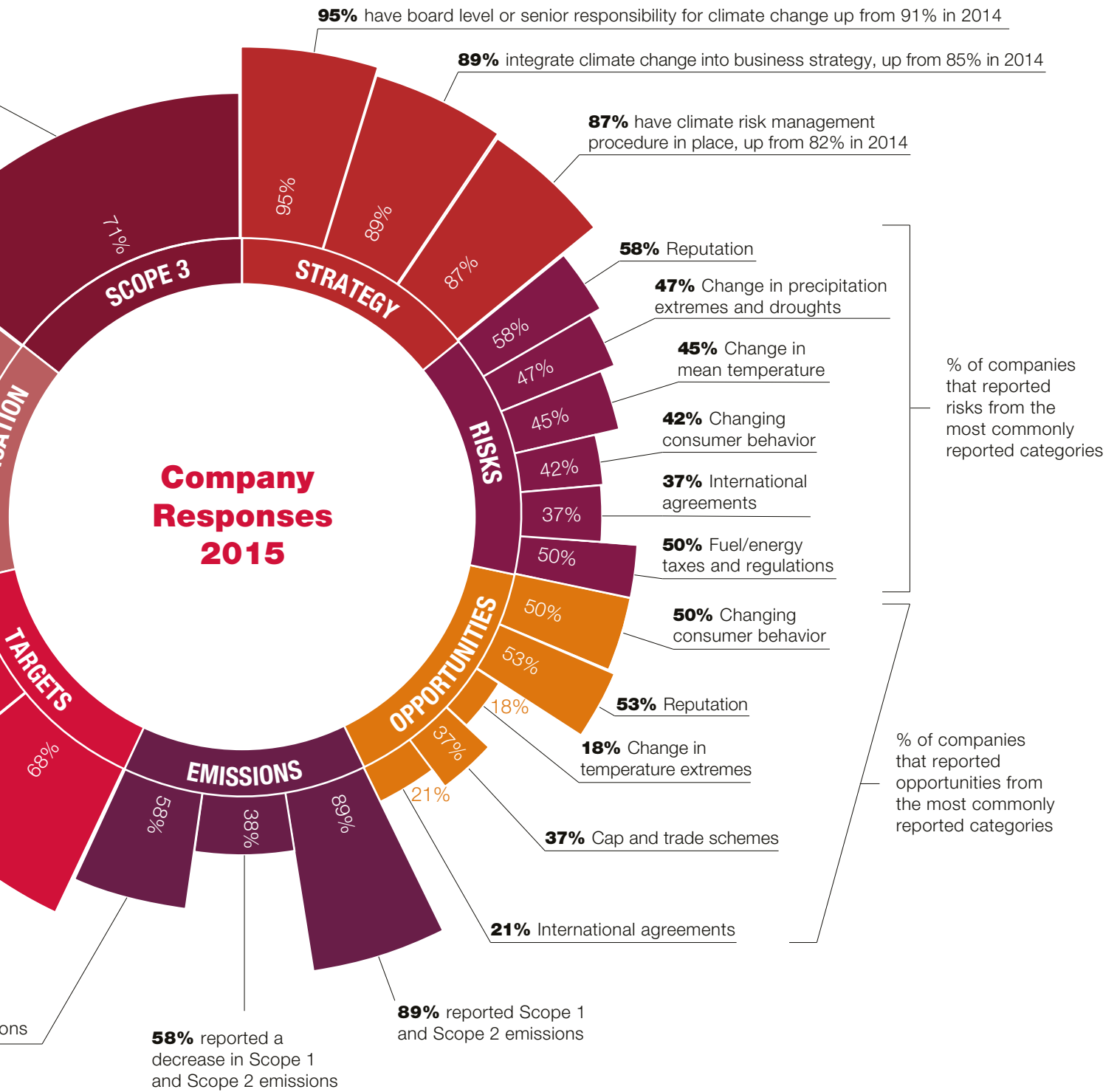
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7

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58% reported an increase in Scope 1 and Scope 2 emissions



# CDP Turkey 2015: Response Status Table

Company	Sector	2015 Score	2015 Response Status	2014 Response Status	Permission status	Disclosed Emissions	Targets
<b>BIST 100 COMPANIES</b>							
AFYON ÇİMENTO SANAYİ T.A.Ş.	Materials	60 D	AQ	NR	P	1 2	int
AKBANK T.A.Ş.	Financials	79 C	AQ	AQ	P	1 2 3	abs int
AKÇANSA ÇİMENTO SANAYİ VE TİCARET A.Ş.	Materials	92 D	AQ	AQ	P	1 2 3	int
AKENERJİ ELEKTRİK ÜRETİM A.Ş.	Utilities	88 C	AQ	AQ	P	1 2 3	
AKFEN HOLDİNG A.Ş.	Industrials		DP	DP			
AKSA AKRİLİK KİMYA SANAYİ A.Ş.	Consumer Discretionary		DP	NR			
AKSA ENERJİ ÜRETİM A.Ş.	Utilities		NR	X			
ALARKO HOLDİNG A.Ş.	Industrials	17	AQ	AQ	NP		
ALBARAKA TÜRK KATILIM BANKASI A.Ş.	Financials		NR	X			
ALKİM ALKALİ KİMYA A.Ş.	Materials		NR	NR			
ANADOLU CAM SANAYİ A.Ş. (T.Şişe ve Cam Fabrikaları A.Ş.)	Materials		SA	SA			
ANADOLU EFES BİRACILIK VE MALT SANAYİ A.Ş.	Consumer Staples		DP	DP			
ANADOLU HAYAT EMEKLİLİK A.Ş.	Financials		NR	NR			
ANADOLU ISUZU OTOMOTİV SANAYİ VE TİCARET A.Ş.	Industrials		NR	NR			
ARÇELİK A.Ş.	Consumer Discretionary	96 B	AQ	AQ	P	1 2 3	abs int
ASELSAN ELEKTRONİK SANAYİ VE TİCARET A.Ş.	Industrials	95 B	AQ	AQ	P	1 2 3	abs
AYGAZ A.Ş.	Utilities		NR	NR			
BAGFAŞ BANDIRMA GÜBRE FABRİKALARI A.Ş.	Materials		DP	AQ			
BEŞİKTAŞ FUTBOL YATIRIMLARI SANAYİ VE TİCARET A.Ş.	Consumer Discretionary		NR	DP			
BİM BİRLEŞİK MAĞAZALAR A.Ş.	Consumer Staples		DP	NR			
BİZİM TOPTAN SATIŞ MAĞAZALARI A.Ş.	Consumer Staples		NR	NR			
BORUSAN MANNESMANN BORU SANAYİ VE TİCARET A.Ş.	Materials		NR	DP			
BRİSA BRIDGESTONE SABANCI LASTİK SAN.VE TIC.A.Ş	Consumer Discretionary	98 B	AQ	AQ	P	1 2 3	abs int
ÇELEBİ HAVA SERVİSİ A.Ş.	Industrials	70 D	AQ	AQ	NP	1 2	
ÇİMSA ÇİMENTO SANAYİ VE TİCARET A.Ş.	Materials	93 C	AQ	AQ	P	1 2 3	int
COCA-COLA İÇECEK A.Ş.	Consumer Staples	94 B	AQ	AQ	P	1 2 3	abs int
DOĞAN ŞİRKETLER GRUBU HOLDİNG A.Ş.	Industrials	31	AQ	NR	NP		
DOĞUŞ OTOMOTİV SERVİS VE TİCARET A.Ş.	Consumer Discretionary		NR	DP			
ECZACIBAŞI YATIRIM HOLDİNG ORTAKLIĞI A.Ş.	Industrials		NR	NR			
EGE ENDÜSTRİ VE TİCARET A.Ş.	Consumer Discretionary		NR	X			
EİS ECZACIBAŞI İLAÇ, SINAI VE FINANSAL YATIRIMLAR SANAYİ VE TİCARET A.Ş.	Health Care		NR	NR			

Company	Sector	2015 Score	2015 Response Status	2014 Response Status	Permission status	Disclosed Emissions	Targets
<b>BIST 100 COMPANIES</b>							
ENKA İNŞAAT VE SANAYİ A.Ş.	Industrials		NR	NR			
EREĞLİ DEMİR VE ÇELİK FABRİKALARI T.A.Ş.	Materials		DP	NR			
FENERBAHÇE SPORTİF HİZMETLER SANAYİ VE TİCARET A.Ş.	Consumer Discretionary		NR	NR			
FİNANSBANK A.Ş.	Financials		NR	X			
FORD OTOMOTİV SANAYİ A.Ş.	Consumer Discretionary		NR	DP			
GALATASARAY SPORTİF SİNAİ VE YATIRIMLAR A.Ş.	Consumer Discretionary		NR	NR			
GÖLTAŞ GÖLLER BÖLGESİ ÇİMENTO SAN. VE TİC.A.Ş.	Materials		NR	NR			
GOODYEAR LASTİKLERİ T.A.Ş.	Consumer Discretionary		NR	DP			
GÖZDE GİRİŞİM SERMAYESİ YATIRIM ORTAKLIĞI A.Ş.	Financials		NR	NR			
GSD HOLDİNG A.Ş.	Financials		NR	NR			
GÜBRE FABRİKALARI T.A.Ş.	Materials		NR	NR			
HÜRRİYET GAZETECİLİK VE MATBAACILIK A.Ş.	Consumer Discretionary		DP	NR			
İHLAS HOLDİNG A.Ş.	Industrials	30	AQ	NR	P		
İPEK DOĞAL ENERJİ KAYNAKLARI ARAŞTIRMA VE ÜRETİM A.Ş.	Energy		NR	NR			
İTTİFAK HOLDİNG A.Ş.	Industrials		NR	NR			
İZMİR DEMİR ÇELİK SANAYİ A.Ş.	Materials		NR	NR			
KARDEMİR KARABÜK DEMİR ÇELİK SANAYİ VE TİCARET A.Ş.	Materials	72 E	AQ	AQ	NP	1 2	
KARSAN OTOMOTİV SANAYİİ VE TİCARET A.Ş.	Consumer Discretionary		DP	DP			
KARTONSAN KARTON SANAYİ VE TİCARET A.Ş.	Materials		DP	DP			
KOÇ HOLDİNG A.Ş.	Industrials		NR	NR			
KONYA ÇİMENTO SANAYİİ A.Ş.	Materials		NR	NR			
KOZA ALTIN İŞLETMELERİ A.Ş.	Materials		NR	NR			
KOZA ANADOLU METAL MADENCİLİK İŞLETMELERİ A.Ş.	Materials		NR	NR			
LOGO YAZILIM SANAYİ VE TİCARET A.Ş.	Information Technology		DP	X			
MENDERES TEKSTİL SANAYİ VE TİCARET A.Ş.	Consumer Discretionary		DP	X			
METRO TİCARİ VE MALİ YATIRIMLAR A.Ş.	Consumer Staples		NR	NR			
MİGROS TİCARET A.Ş.	Consumer Staples	82D	AQ	DP	NP	1 2 3	
NET TURİZM TİCARET VE SANAYİ A.Ş.	Consumer Discretionary		NR	NR			
NETAŞ TELEKOMÜNİKASYON A.Ş.	Information Technology	61D	AQ	AQ	NP	3	
NUH ÇİMENTO SANAYİ A.Ş.	Materials		NR	X			
OMV PETROL OFİSİ A.Ş. (OMV)	Energy		SA	SA			



Company	Sector	2015 Score	2015 Response Status	2014 Response Status	Permission status	Disclosed Emissions	Targets
<b>BIST 100 COMPANIES</b>							
OTOKAR OTOMOTİV VE SAVUNMA SANAYİ A.Ş.	Industrials		NR	NR			
PARK ELEKTRİK ÜRETİM MADENCİLİK SANAYİ VE TİCARET A.Ş.	Materials		NR	NR			
PEGASUS HAVA TAŞIMACILIĞI A.Ş.	Industrials	93B	AQ	NR	P	1 2	int
PETKİM PETROKİMYA HOLDİNG A.Ş.	Materials		DP	AQ			
SABANCI HOLDİNG A.Ş.	Financials	94C	AQ	DP	NP	1 2 3	abs
SASA POLYESTER SANAYİ A.Ş.	Materials		NR	NR			
ŞEKERBANK T.A.Ş.	Financials	89D	AQ	AQ	P	1 2 3	int
SELÇUK ECZA DEPOSU TİCARET VE SANAYİ A.Ş.	Health Care		NR	X			
SODA SANAYİ A.Ş. (T.Şişe ve Cam Fabrikaları A.Ş.)	Materials		SA	X			
T. İŞ BANKASI A.Ş.	Financials		DP	NR			
▼ T.GARANTİ BANKASI A.Ş.	Financials	98A	AQ	AQ	P	1 2 3	int
▼ T.SINAI KALKINMA BANKASI A.Ş.	Financials	99C	AQ	AQ	P	1 2 3	abs
T.ŞİŞE VE CAM FABRİKALARI A.Ş.	Industrials	91C	AQ	AQ	P	1 2	
TAT GIDA SANAYİ A.Ş.	Consumer Staples		DP	NR			
TAV HAVALIMANLARI HOLDİNG A.Ş.	Industrials	89C	AQ	AQ	P	1 2 3	int
TEKFEN HOLDİNG A.Ş.	Industrials		NR	NR			
TEKNOSA İÇ VE DIŞ TİCARET A.Ş.	Consumer Discretionary		NR	NR	NP		
TEKSTİL BANKASI A.Ş.	Financials		NR	NR			
TESCO KİPA (Tesco)	Consumer Staples		SA	SA			
TOFAŞ TÜRK OTOMOBİL FABRİKASI A.Ş.	Consumer Discretionary	93B	AQ	AQ	P	1 2 3	abs int
TRAKYA CAM SANAYİ A.Ş. (T.Şişe ve Cam Fabrikaları A.Ş.)	Industrials		SA	SA			
TÜMOSAN MOTOR VE TRAKTÖR SANAYİ A.Ş.	Industrials		NR	X			
TÜPRAŞ-TÜRKİYE PETROL RAFİNERİLERİ A.Ş.	Energy		NR	NR			
TURCAS PETROL A.Ş.	Energy		NR	NR			
TÜRK EKONOMİ BANKASI A.Ş.	Financials		NR	AQ			
TÜRK HAVA YOLLARI A.O.	Industrials		NR	DP			
TÜRK TELEKOMÜNİKASYON A.Ş.	Telecommunication Services		NR	DP			
TÜRK TRAKTÖR VE ZİRAAT MAKİNELERİ A.Ş.	Industrials		NR	DP			
TÜRK TUBORG BİRA VE MALT SANAYİ A.Ş.	Consumer Staples		NR	X			
▼ TURKCELL İLETİŞİM HİZMETLERİ A.Ş.	Telecommunication Services	97C	AQ	AQ	P	1 2 3	abs
TÜRKİYE HALK BANKASI A.Ş.	Financials	93C	AQ	AQ	P	1 2 3	

Company	Sector	2015 Score	2015 Response Status	2014 Response Status	Permission status	Disclosed Emissions	Targets
TÜRKİYE VAKIFLAR BANKASI T.A.O.	Financials	91C	AQ	DP	P	1 2 3	int
ÜLKER BİSKÜVİ SANAYİ A.Ş.	Consumer Staples		NR	NR			
VESTEL BEYAZ EŞYA SANAYİ VE TİCARET A.Ş.	Consumer Discretionary	62D	AQ	AQ	NP	1 2 3	abs
VESTEL ELEKTRONİK SANAYİ VE TİCARET A.Ş.	Consumer Discretionary	95B	AQ	AQ	P	1 2 3	abs
YAPI VE KREDİ BANKASI A.Ş.	Financials		NR	DP			
YAZICILAR HOLDİNG A.Ş.	Industrials		NR	NR			
ZORLU ENERJİ ELEKTRİK ÜRETİM A.Ş.	Utilities	92C	AQ	AQ	P	1 2 3	
<b>NON-BIST 100 COMPANIES (*)</b>							
BOYNER BÜYÜK MAĞAZACILIK A.Ş.	Consumer Discretionary	68D	AQ	AQ	NP	1 2 3	int
DURAN DOĞAN BASIM VE AMBALAJ A.Ş.	Materials		AQ*L	AQ	NP	1 2 3	abs
EKOTEN TEKSTİL SANAYİ VE TİCARET A.Ş.	Consumer Discretionary	91B	AQ	AQ	P	1 2 3	abs int
HAVAALANLARI YER HİZMETLERİ A.Ş. (HAVAŞ)	Industrials	71C	AQ	X	NP	1 2	int
İHLAS EV ALETLERİ İMALAT SANAYİ VE TİCARET A.Ş.	Consumer Discretionary	57D	AQ	AQ	P	1 2	abs
MONDİ TİRE KUTSAN KAĞIT VE AMBALAJ SANAYİ A.Ş. (Mondi PLC)	Materials		SA	SA			
PINAR SÜT MAMULLERİ SANAYİ A.Ş.	Consumer Staples	95B	AQ	X	NP	1 2 3	int
SUN TEKSTİL SANAYİ VE TİCARET A.Ş. (Ekoten Tekstil)	Consumer Discretionary		SA	SA			
YÜKSEL İNŞAAT A.Ş.	Industrials	95C	AQ	AQ	P	1 2 3	abs
YÜNSA YÜNLÜ SANAYİ VE TİCARET A.Ş.	Consumer Discretionary	92B	AQ	AQ	P	1 2 3	abs
ZORLU DOĞAL ELEKTRİK ÜRETİM	Utilities	90C	AQ	AQ	P	1 2	

(\*) Companies listed but BIST-100 drop-out and/or companies who voluntarily respond to CDP.

## KEY TO RESPONSE STATUS TABLE

(AQ) Answered questionnaire

(NR) No response

(DP) Declined to Participate

(X) Company was not included in any CDP samples in that year

(SA) Company is either a subsidiary or has merged during the reporting process. See company in brackets for further information on company status.

(NP) Non-public

(P) Public

1 Disclosed Scope 1 Emissions

2 Disclosed Scope 2 Emissions

3 Disclosed Scope 3 Emissions

abs Absolute targets

int Intensity targets

▼ CDLI Turkey Leader

▼ CPLI Leader



Company	Country
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## Consumer Discretionary

Best Buy Co., Inc.	USA
BMW AG	Germany
Coway Co Ltd	South Korea
Fiat Chrysler Automobiles NV	Italy
Las Vegas Sands Corporation	USA
LG Electronics	South Korea
Melia Hotels International SA	Spain
NH Hotel Group	Spain
Nissan Motor Co., Ltd.	Japan
Sky UK Limited	United Kingdom
Sony Corporation	Japan
Wyndham Worldwide Corporation	USA
YOOX SpA	Italy

## Consumer Staples

Asahi Group Holdings, Ltd.	Japan
Brown-Forman Corporation	USA
Diageo Plc	United Kingdom
J Sainsbury Plc	United Kingdom
Kesko Corporation	Finland
L'Oréal	France
Nestlé	Switzerland
Philip Morris International	USA
SABMiller	United Kingdom
Suntory Beverage & Food	Japan
Unilever plc	United Kingdom

## Energy

Galp Energia SGPS SA	Portugal
PTT Exploration & Production Public Company Limited	Thailand

## Financials

Company	Country
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Bank of America	USA
BNY Mellon	USA
CaixaBank	Spain
Citigroup Inc.	USA
Credit Suisse	Switzerland
Dexus Property Group	Australia
Foncière des Régions	France
Grupo Financiero Banorte SAB de CV	Mexico
Host Hotels & Resorts, Inc.	USA
ING Group	Netherlands
Intesa Sanpaolo S.p.A	Italy
Investa Office Fund	Australia
Investec Limited	South Africa
Kiwi Property Group	New Zealand
Macerich Co.	USA
MAPFRE	Spain
Nedbank Limited	South Africa
Principal Financial Group, Inc.	USA
Raiffeisen Bank International AG	Austria
Shinhan Financial Group	South Korea
Simon Property Group	USA
Standard Chartered	United Kingdom
State Street Corporation	USA
T.GARANTİ BANKASI A.Ş.	Turkey
The Hartford Financial Services Group, Inc.	USA

## Health Care

Roche Holding AG	Switzerland
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## Industrials

Abengoa	Spain
Carillion	United Kingdom
CNH Industrial NV	United Kingdom

Company	Country
CSX Corporation	USA
Dai Nippon Printing Co., Ltd.	Japan
Deutsche Bahn AG*	Germany
Deutsche Post AG	Germany
FERROVIAL	Spain
Huber + Suhner AG	Switzerland
Hyundai E&C	South Korea
Kingspan Group PLC	Ireland
Kone Oyj	Finland
Obrascon Huarte Lain (OHL)	Spain
Pitney Bowes Inc.	USA
Raytheon Company	USA
Royal BAM Group nv	Netherlands
Royal Philips	Netherlands
Samsung C&T	South Korea
Samsung Engineering	South Korea
Schneider Electric	France
Senior Plc	United Kingdom
Shimizu Corporation	Japan
Siemens AG	Germany
Stanley Black & Decker, Inc.	USA
United Technologies Corporation	USA

### Information Technology

Accenture	Ireland
Adobe Systems, Inc.	USA
Alcatel - Lucent	France
Apple Inc.	USA
Atos SE	France
Autodesk, Inc.	USA
Cisco Systems, Inc.	USA
EMC Corporation	USA
Google Inc.	USA

Company	Country
Hewlett-Packard	USA
Hitachi, Ltd.	Japan
Juniper Networks, Inc.	USA
LG Innotek	South Korea
Microsoft Corporation	USA
Samsung Electro-Mechanics Co., Ltd.	South Korea
Samsung Electronics	South Korea

### Materials

BillerudKorsnäs	Sweden
Givaudan SA	Switzerland
Harmony Gold Mining Co Ltd*	South Africa
International Flavors & Fragrances Inc.	USA
Kumba Iron Ore	South Africa
Sealed Air Corp.	USA
Symrise AG	Germany
The Mosaic Company	USA

### Telecommunication Services

Belgacom	Belgium
KT Corporation	South Korea
LG Uplus	South Korea
Sprint Corporation	USA
Swisscom	Switzerland
Telefonica	Spain
Telenor Group	Norway

### Utilities

ACCIONA S.A.	Spain
E.ON SE	Germany
EDP - Energias de Portugal S.A.	Portugal
Entergy Corporation	USA
Iberdrola SA	Spain

\*Deutsche Bahn responded through Mittelstand program and is not included in analysis

\*Harmony Gold Mining is not part of analysis sample

## Commit to Action








This year CDP and We Mean Business are inviting companies to look beyond their CDP disclosures and commit to leadership through ambitious climate action.

In 2015, there is a unique opportunity for the business community to help safeguard its future profitability and sustainability, with the UN Climate Change Conference in Paris just weeks away. To maximize the chance of reaching a global agreement on climate, it is crucial that a message of business leadership reaches governments and policymakers.

CDP is offering companies a platform to accomplish this. Alongside our We Mean Business Coalition partners, we invite companies to commit to a set of innovative and practical climate initiatives. Leveraging the power of businesses, we will also work with companies to develop business and technology solutions to the challenges that climate change presents. Over 265 companies have made over 520 commitments, representing over US\$7 trillion market cap as of November 2015.

Join the growing number of companies that have already taken steps to safeguard their future prosperity by visiting [www.cdp.net/commit](http://www.cdp.net/commit).

### The Climate Commitments

-  Commit to adopt a science-based emissions reduction target ▼
-  Commit to procure 100% of electricity from renewable sources ▼
-  Commit to removing commodity-driven deforestation from all supply chains ▼
-  Commit to reduce short-lived climate pollutant emissions ▼
-  Commit to responsible corporate engagement in climate policy ▼
-  Commit to put a price on carbon ▼
-  Commit to report climate change information in mainstream reports as a fiduciary duty ▼

### Committed companies in Turkey

AKÇANSA ÇİMENTO SANAYİ VE TİCARET A.Ş. ▼

ARÇELİK A.Ş. ▼ ▼

ÇİMSA ÇİMENTO SANAYİ VE TİCARET A.Ş. ▼

T.GARANTİ BANKASI A.Ş. ▼

T.SINAI KALKINMA BANKASI A.Ş. ▼ ▼ ▼

TAV HAVALİMANLARI HOLDİNG A.Ş. ▼





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Please note: The selection of analyzed companies in this report is based on market capitalization of regional stock indices whose constituents change over time. Therefore the analyzed companies are not the same in 2010 and 2015 and any trends shown are indicative of the progress of the largest companies in that region as defined by market capitalization. Large emitters may be present in one year and not the other if they dropped out of or entered a stock index. 'Like for like' analysis on emissions for sub-set of companies that reported in both 2010 and 2015 is included for clarity. Some dual listed companies are present in more than one regional stock index. Companies referring to a parent company response, those responding after the deadline and self-selected voluntary responding companies are not included in the analysis. For more information about the companies requested to respond to CDP's climate change program in 2015 please visit:

<https://www.cdp.net/Documents/disclosure/2015/Companies-requested-to-respond-CDP-climate-change.pdf>

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