

#### **CDP Climate Change Report 2016**

#### France and Benelux edition

On behalf of 827 investors with US\$100 trillion in assets











#### **Key Messages**

151 companies responded to CDP in Benelux and France, accounting for 81% of the market capitalization in the region.

# 21 companies achieved the top score entering the CDP A List.

Their emissions represent 28% of the total reported emissions, and a decrease of 6 Mt of CO<sub>2</sub>e. Schneider Electrics, Royal Philips, L'Oréal, Atos, Proximus ING Group and Royal BAM Group were also leaders in 2016. Bic scored A also in 2013, KPN was graded A in 2011, 2012 and 2013 and Renault was part of the leaders in 2014. AkzoNobel, Bouygues, DSM, EDF, ENGIE, Group PSA, ICADE, Klépierre, Michelin, SUEZ and VEOLIA, are joining the list for the first time this year.

# Integrating climate change into business strategy is becoming main stream but targets lack ambition.

131 out of 141 companies have included climate change into their business strategy. 114 of them set specific targets and initiatives to reduce their climate impact. 2020 is the most common target year, while leaders distinguish themselves by setting long term targets, as far as 2050 and beyond.

## 53% of the companies managed to decrease their emissions in 2016.

For 115 companies that responded also last year the emissions decreased from 723 Mt CO<sub>2</sub>e to 712 Mt CO<sub>2</sub>e meaning a 2% decrease of total emissions. From these 115 companies, 61 decreased their emissions by average of 14%.

# 15% of the companies achieved A.

15% of the companies achieved an A score and 14% an A-, among them large emitters LafargeHolcim and Shell. 30% of respondents achieved a B score.

# Leaders are in the process of adopting Science Based Targets.

Proximus is the only company whose target has been approved by the Science Based Target (SBT) Initiative's official quality check. 19 companies are officially committed to SBT and currently in the process. 27% of the respondents indicated they are planning to set SBT in the coming 2 years.

# 6 companies account for 78% of all the emissions.

ArcelorMittal, EDF, ENGIE, LafargeHolcim, Shell and Total together account for 78% of all the emissions, however they make great progress in reduction. Excluding the particular case of LafargeHolcim, their emissions decreased by 18% (10,6 Mt CO<sub>2</sub>e).

# Scope 3 emissions are 4 times higher than Scope 1 and 2 combined.

77% of the companies reported on Scope 3 accounting for a total of 2,285 billion tons of CO<sub>2</sub>e.

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French Ministry of the Environment, Energy and Marine Affairs. President of COP21

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#### Foreword: Ségolène Royal

French Ministry of the Environment, Energy and Marine Affairs, President of COP21



I appreciate the fact that CDP is playing a key role in complementing the positive impact of the public policies put in place by further incentivizing companies to set ambitious climate science-based targets (SBTi). But there is still a long way to go since, as this report shows, if companies surveyed by CDP were to achieve their current targets, they would have covered only 25% of the 2°C pathway.

When Paris hosted the COP21, I made it my priority to achieve a highly ambitious agreement to fight climate change. And one of the major outcomes of the December 2015 Paris Agreement is the up-front recognition, in its article 2, of the role financial actors must play in "making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development." The message seems to have been clearly understood.

The first signatories of the Paris Pledge for Action, initiated just after COP21, comprised over 400 business, 150 cities and regions but also 120 investors managing \$11 trillion of assets. Eight months later, 130 investors representing over \$13 trillion of assets under management urged the G20 heads of state to ratify the Paris Agreement, double global investment in clean energy, tighten up climate disclosure mandates, develop carbon pricing and phase out fossil fuel subsidies.

Putting in place an incentive regulatory framework is essential to ensure the effectiveness of these business commitments. Policy makers and regulators have now fully taken up the issue. The FSB's TCFD, the G20's Green Finance Study Group and the announcement, by the European Commission, of the launch of a group of experts to accelerate the "green" mobilisation of the financial markets are the most recent illustrative examples. I do think that the French law on Energy Transition for Green Growth, voted last year, requiring mandatory climate-related disclosures for both companies (art. 173-IV) and investors (art. 173-VI), did trigger some of these reflections. Clearly, these appropriate policy frameworks already proved to be effective, as the number of corporate leaders according to CDP more than doubled within the leading French/Benelux scope.

In order to support and scale-up the momentum created by the COP21, I have decided that my ministry should comfort France's leading position in the fight against climate change.

During COP21, the "Energy and Ecological Transition for Climate" label was launched. It aims at flagging existing investment funds contributing to achieving the climate goals; it will also contribute to develop corporate disclosures on the "green" share of their activities as well as their carbon footprint in a standardised way. Very in line with CDP's remit. As of September, nine funds are labelled representing more than EUR 1 billion.

Last June, I also launched the first edition of the International Award on Investor Climate-Related Disclosures, clearly a pioneering initiative and already, with no less than 30 worldwide applications, a clear success. Alternative financing vehicles are also not left aside; by the end of this year I will be launching a "Crowdfunding for Green Growth" label.

I appreciate the fact that CDP is playing a key role in complementing the positive impact of the public policies put in place by further incentivizing companies to set ambitious climate science-based targets (SBTi). But there is still a long way to go since, as this report shows, if companies surveyed by CDP were to achieve their current targets, they would have covered only 25% of the 2°C pathway. This issue of standardised, science-based, performance metrics, i.e. metrics for measuring climate alignment of corporate strategies and investment portfolio is therefore paramount to scaleup the mobilisation of financial markets beneficial to the energy and ecological transition. What does it take? Political will, uniting existing efforts although allowing for a confrontation of approaches. The next milestone is to structure, in a robust manner, a liquid market for green assets. And the call I made for an umbrella coalition of green and climate investors' international coalitions during the last Paris open meeting of the TCFD last September should be a natural way forward.

#### Foreword: Paul Simpson Chief Executive Officer, CDP



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

net-zero emissions.

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

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

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

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

The glass is already more than half full on environmental disclosure. Over fifteen years ago, when we started CDP, climate disclosure was nonexistent in capital markets. Since then our annual request has helped bring disclosure into the mainstream. Today some 5,800 companies, representing close to 60% of global market capitalization, disclose through CDP.

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

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

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

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

#### Foreword: Cédric Vatier

Accenture Managing Director, Business Strategy & Sustainability



Most companies' business models still rely on the paradigm of consumption of raw materials, while they are responsible for more than 50% of total emissions. Consequently, decoupling raw material consumption from business growth is increasingly becoming a key strategic target for our companies.

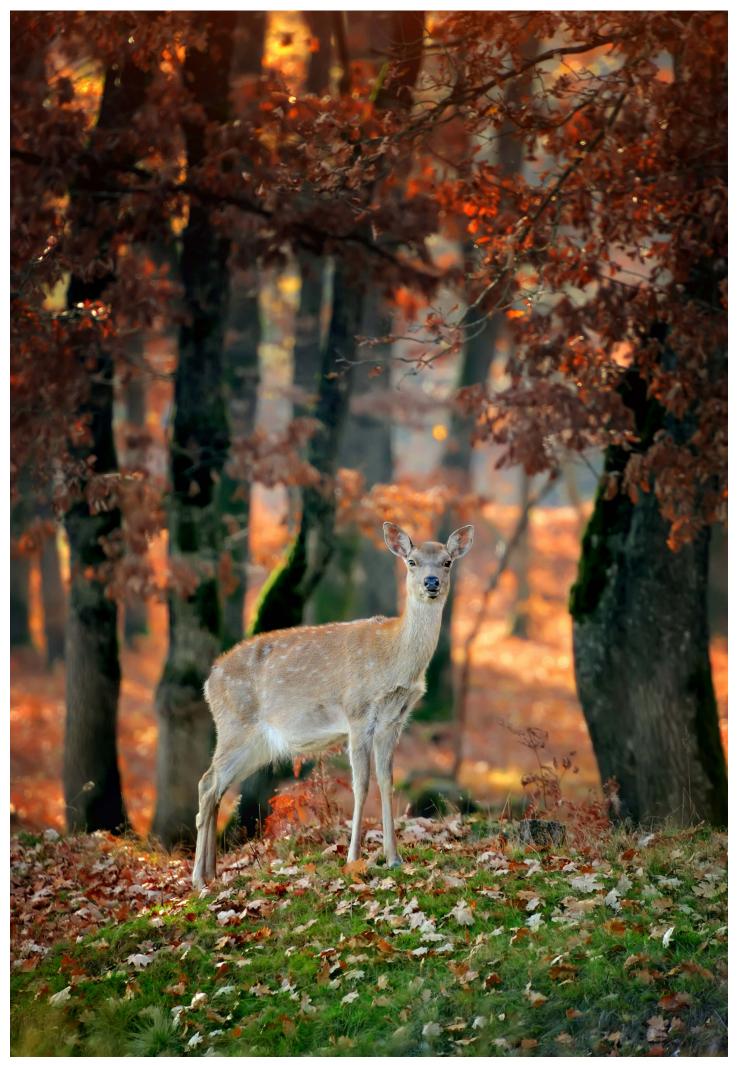
# The year 2016 saw companies and investors taking responsibility for fighting climate change themselves. Innovative solutions are now being investigated.

Last year, even before the launch of COP 21 last December in Paris, the growing momentum on the fight against climate change has been perceived by companies and reflected in their actions. Following the agreement, it was clear that waiting was no longer an option. Several initiatives such as the We Mean Business coalition have spurred companies' to strongly reinforce and disclose their commitments. The adoption of science-based emissions reduction targets is the most commonly shared commitment between companies and investors. However, everyone is conscious that commitments alone are not sufficient and companies are looking for innovative, efficient and scalable solutions to translate their commitments into actions.

The adoption of long-term commitments shows that climate-related challenges are being embedded into business and corporate strategies. Conventionally, the implementation of these strategies involves incremental improvements of environmental performance through initiatives such as energy efficiency, raw materials traceability, and waste and water management. However most companies' business models still rely on the paradigm of raw material consumption even if it is now known that materials are responsible for more than 50% of total emissions. Consequently, decoupling raw material consumption from business growth is increasingly becoming a key strategic target for our companies.

The solutions with the greatest impact involve shaping new business models that reinvent the use of energy and resources and prevent waste of materials, capacities and rethink lifecycles. To do so requires a combination of innovation regarding the business model itself but also technology innovation and people innovation. The conception and creation of new business activities are complex tasks and often require development of partnerships with other companies and start-ups as well as the capability to scale up. One of the key success factors which has triggered and enabled the rise of these new business models are digital technologies.

Another clear illustration of the growing interaction between business and climate is the financial perspective, both on the investment side, with climate-related risk investment disclosure, and on the funding side, with growing needs to finance low carbon technology. Executives are particularly focused on the funding of innovation to address business areas directly at risk from climate change impacts.



#### **Global Executive Summary**

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

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

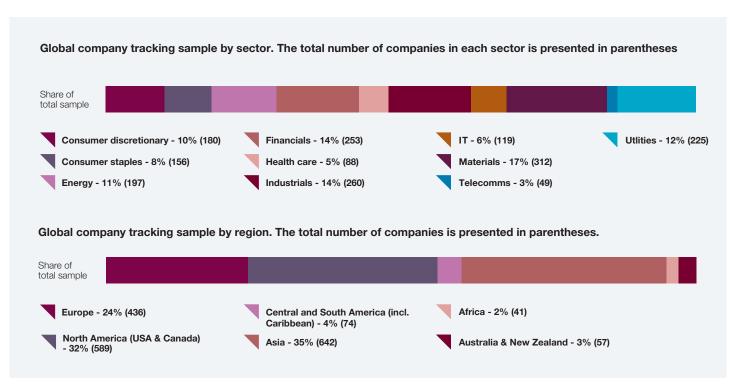
In the Paris Agreement, emissions reductions are talked about at the country level, and national governments will lead with policy changes and regulation. But companies can move much faster than governments, and they have an opportunity to demonstrate their leadership, agility and creativity in curbing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

The first in an annual series, the report establishes the baseline for corporate action on climate change. In future reports, CDP will track companies' progress on reducing greenhouse gas emissions in line with the goals of the Paris Agreement against

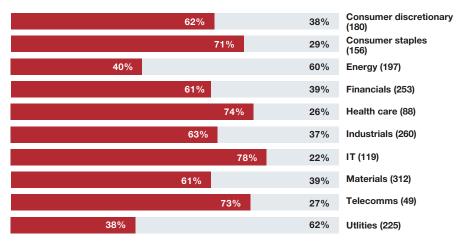
this benchmark. The report presents analysis on corporate climate action including emissions reductions, the adoption of targets based on the most up-to-date climate science ("science based targets"), use of internal carbon prices, and the uptake of renewable energy.

The benchmark established in this first report includes a number of companies failing to engage even with the critical first step of disclosure. Of close to 2,000 companies in this global tracking sample, only just over a thousand responded with data within the deadline. We hope the remaining 700 odd companies will start to engage during the course of the next five years.

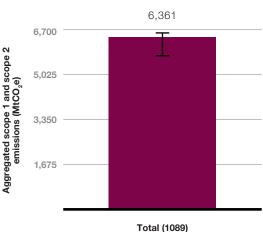
The 1,089 companies that provided the data for the global report will be tracked over the next five years to see how they are performing. Between them these companies account for 12 per cent of global greenhouse gas emissions, and 85 per cent of them have already set targets to reduce their emissions.



#### Companies responded and not-responded by sector. The total number of companies in each sector is presented in parentheses



Aggregated scope 1 and scope 2 emissions for total sample. The total number of companies responded is presented in parentheses



Share of companies responded

#### Visibility on the road

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

Share of companies not-responded

In order to achieve this success, however, companies need to measure their emissions, then work out how to reduce them.

Given that only 62 per cent of companies contacted by CDP for the report were able to provide data on their own emissions, many businesses have yet to grasp the importance of this challenge. However, the number disclosing is increasing, and the Paris Agreement should provide a greater incentive to engage.

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

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

There has been significant improvement in recent years in the numbers of companies setting targets for emissions reductions, but these targets are in many cases unambitious in their time horizon. While 55 per cent of companies have targets for 2020 and beyond, just 14 per cent set goals for 2030 or beyond, a situation that must change to achieve a transition to well-below 2°C.

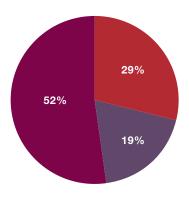
The headline figures from this report mask wide variance in performance both at company level and at sector level. Perhaps inevitably, the energy sector has a lower share of companies with emissions reduction targets, in particular for 2020 and beyond. This should not surprise us, because fossil fuel companies must undergo a major transition to mitigate climate change and are in general not ready to face up to this.

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

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

From the sample, 94 have publicly committed to science-based greenhouse gas reduction targets via the Science Based Targets Initiative. Eighty-five of those companies submitted a target to the initiative for official check, and 15 companies have passed the initiative's official check.

#### Share of companies setting an internal price of carbon



- Companies setting internal price of carbon
- Intention to do so in the next 2 years
- No intention to do so in the next 2 years

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

As well as recording them, we analyse the potential impact of the existing targets to see if they are compatible with the objective of limiting global warming to well-below 2°C.

We found that if the companies in the sample were to achieve their current targets, they could realise 1Gt CO<sub>2</sub>e (1,000 MtCO<sub>2</sub>e) of reductions by 2030. This is about one quarter of the 4GtCO<sub>2</sub>e (4,145 MtCO<sub>2</sub>e) of reductions that this group of companies would need to achieve in order to be in line with a 2°C-compatible pathway, leaving a gap of at least 3GtCO<sub>2</sub>e (3,145 MtCO<sub>2</sub>e) between where companies' current targets take them, and where they should be. This gap is equal to nearly 50 per cent of these companies' current total emissions.

The amount of emissions reductions pledged by companies has been increasing steadily from 2011 to 2015 and we hope to see it close at a faster rate in future years, as company targets become more ambitious in response to the regulatory certainty offered by the Paris Agreement.

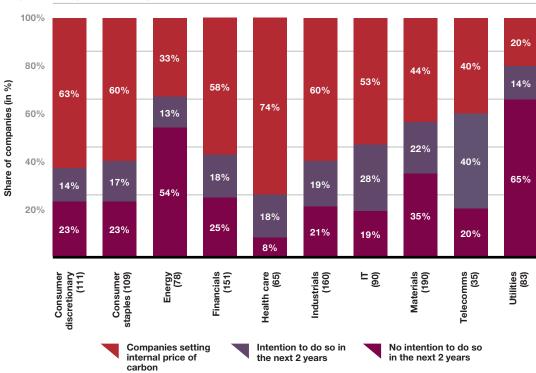
#### Transition planning: carbon pricing on the rise, yet companies lag in renewable energy production and consumption

Even those companies that have not set themselves targets have almost all established emissions reduction initiatives (97 per cent of all companies), although the success and scope of these initiatives has been varied.

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

Currently 29 per cent of responding companies use internal carbon pricing, while a further 19 per cent plan to do so in the near future. By 2017, about half of this sample should have introduced carbon pricing.

#### Companies setting an internal price of carbon by sector. The total number of companies responded is presented in parentheses for each sector.



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

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

#### Companies decoupling emissions from revenue, showing the low carbon transition does not mean low profit

A small group of companies are showing that reducing environmental impact is compatible with economic growth.

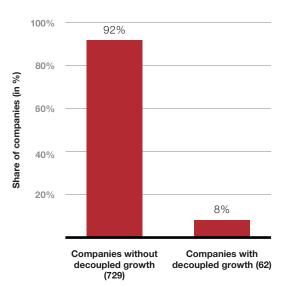
We report on the 62 companies in the sample that can be shown to have made impressive and consistent year on year achievements both in reducing emissions and decoupling growth of revenue from growth of emissions.

They include consumer staples companies such as J. Sainsbury and Walmart de Mexico, as well as utilities companies like Eversource Energy and Idacorp. The materials sector, also a heavy emissions source, is represented by the likes of Givaudan in Switzerland and Lixil in Japan.

"Decoupling" is defined for this purpose as having reduced emissions by 10 per cent or more over five years, while simultaneously growing revenue by 10 per cent.

The success of these leaders points the way for others to realise the opportunity for innovative companies to turn the challenge of emissions reduction from risk management to business success.

# Share of companies with decoupled growth over period of five years (time-series sample)

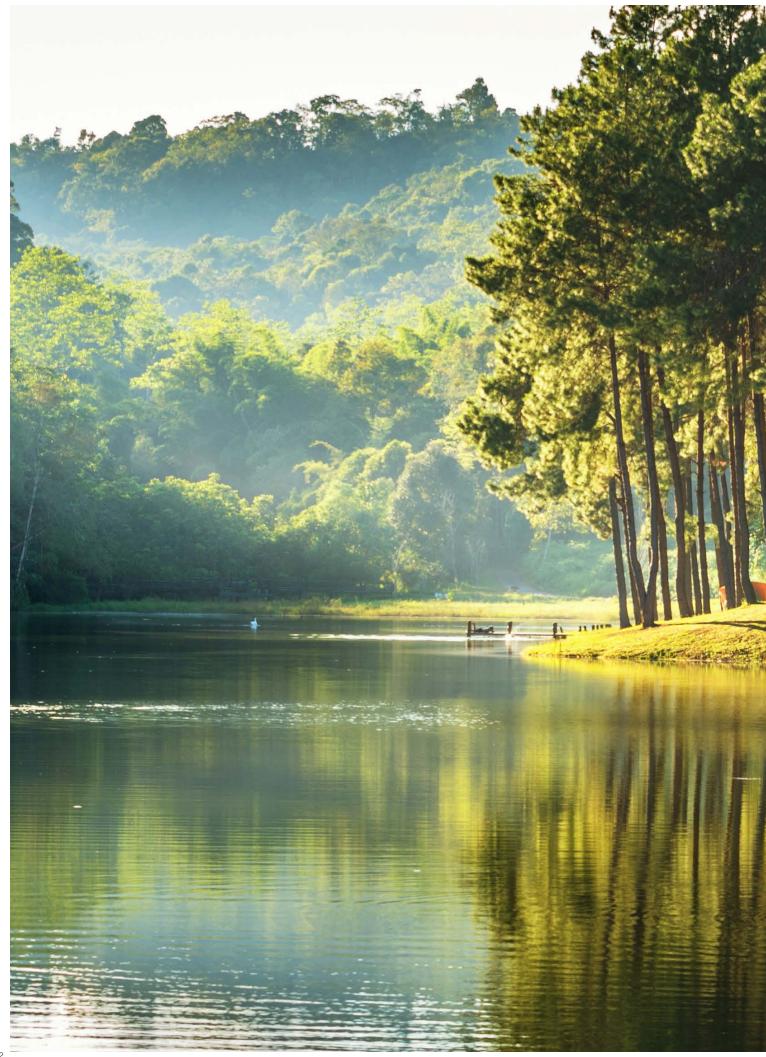


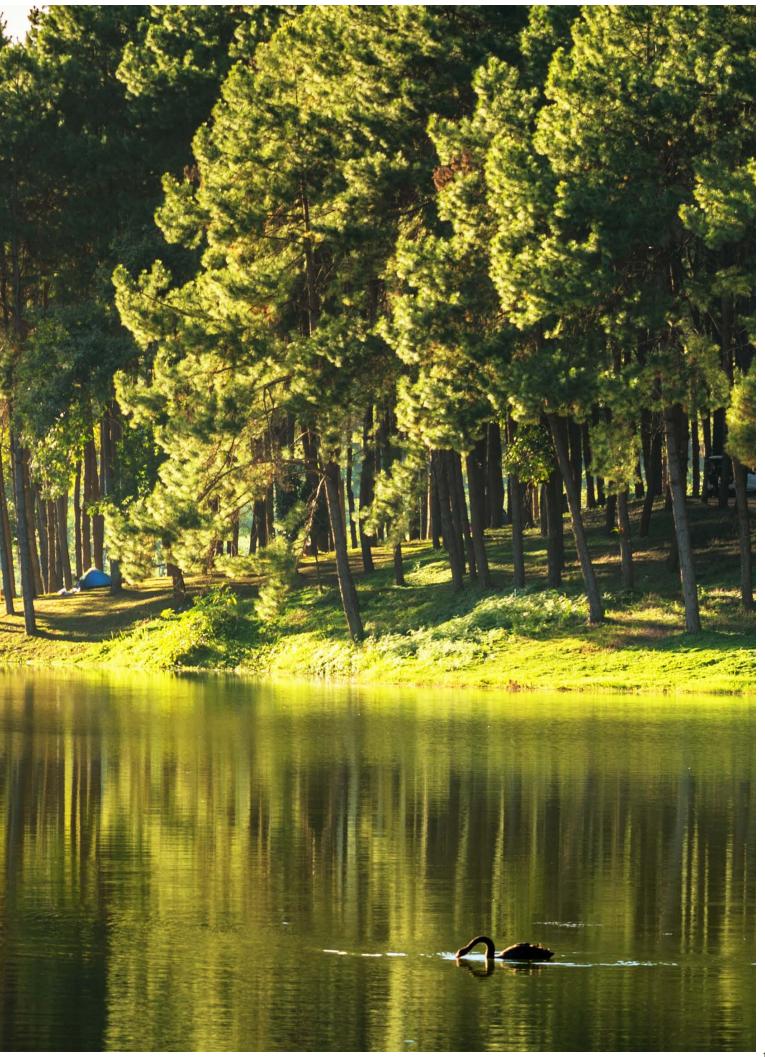
Although correlation must not be taken to be causation, it is worth noting that the group of companies that met the "decoupled growth" criteria increased revenue by 29 per cent over the five-year period of measurement, while reducing GHG emissions by 26 per cent. For the rest of the companies in the tracking sample, revenue decreased by 6 per cent while GHG emissions increased by 6 per cent.

Switching to renewable energy or producing its own renewable energy, using internal carbon pricing to make production more efficient, using innovation to create less energy intensive systems or even selling products to help customers reduce emissions are all strategies that add to the bottom line, rather than to costs.

Comparison of the changes in revenues (left) and GHG emissions (right) over the 5-year period between companies that achieved deocupied growth and other companies.

Company group (no. companies)	Total revenue: (trillic	on current USD)	Total emissions covered for evaluation GtCO <sub>2</sub> e		
	Year 1 of the 5-year period	Final year of the 5-year period	Year 1 of the 5-year period	Final year of the 5-year period	
No decoupled growth (730)	17.7	16.6 (-6%)	4.82	5.08 (+6%)	
Achieved decoupied growth (62)	1.31	1.70 (+29%)	0.468	0.345 (-26%)	





#### Close look at France & Benelux

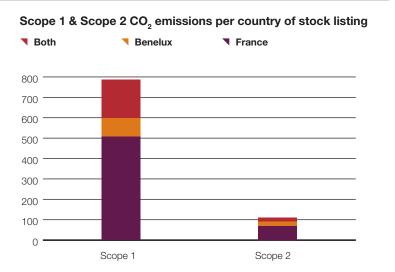
The France and Benelux region is an internationally oriented business environment where many multinational companies are established. This is reflected in the number of companies participating and providing detailed information on environmental impact to CDP's climate change program. A total of 151 companies responded to the CDP request, accounting for 81% of the market capitalization in the region. From those companies, 88 are stock listed in France, 48 in Benelux, and 5 of them in both markets<sup>1</sup>.

#### 897 Mt CO<sub>.</sub>e

Out of the 151 respondents, 9 companies responded through their parent companies and 1 responded too late to be included in the analysis<sup>2</sup>. This report analyses the 141 unique companies responding directly. 897 Mt CO<sub>o</sub>e were reported by

the 141 companies for Scope 1 and 2 combined. Scope 1 accounts for 88% of the total (787Mt CO<sub>2</sub>e) and Scope 2 with 110 Mt CO<sub>2</sub>e, accounts for the remaining 12%. These emissions are equivalent to total CO<sub>2</sub> emissions produced from the energy use of 93 million average households<sup>3</sup> in a year.





2 Respondent not included in analysis: BNP Paribas Fortis SA, Esso Ste Anonyme Francaise, Euler Hermes, Heineken Holding NV, KBC Ancora, Mobistar SA, Television Francaise (T.F.1), Wereldhave Belgium, Worldline SA and Manitou.

3 https://www.epa.gov/energy/greenhouse-gas-equivalenciescalculator

<sup>1</sup> Aperam, ArcelorMittal, Gemalto, Ses and Solvay.

#### Reporting emissions by scope

In order to differentiate direct and indirect emissions sources, three Scopes are defined by the GHG protocol accounting and reporting purposes:

- Scope 1: Direct GHG emissions from sources that are owned or controlled by the organization (the most relevant ones). Some examples are: emissions resulting from the combustion of fossil fuels for heating, industrial applications or operation of vehicles; emissions released during the manufacturing process in specific industry sectors (e.g. cement, iron and steel or ammonia); fugitive emissions, considered unintentional, from sources including refrigerant systems and natural gas distribution.
- Scope 2: Energy Indirect GHG emissions from the consumption of purchased electricity, steam, or other sources of energy (e.g. chilled water) generated upstream from the organization. Scope 2 emissions can be accounted using two main methods. In case both are reported, marked based method is the preferred and the one used for the data analysis.
  - <u>Location-based method</u>: reflects the average emissions intensity of grids on which energy consumption occurs. It applies to all locations where grids are used for the distribution of energy, where electricity demand causes the need for energy generation and distribution.
  - Market-based method: reflects emissions from the electricity that companies have chosen in the market or their lack of choice. Can include energy attribute certificates, direct contracts for both low-carbon, renewable, or fossil fuel generation, supplier specific emissions rates, or default emissions factors representing the untracked or unclaimed energy and emissions.
- Scope 3: Other Indirect GHG emissions that are a consequence of the operations of an organization, but are not directly owned or controlled by the organization. Some examples are: employee commuting, business travel, third-party distribution and logistics, production of purchased goods or emissions from the use of sold products. Scope 3 is by far the largest component of most organizations' carbon footprint.

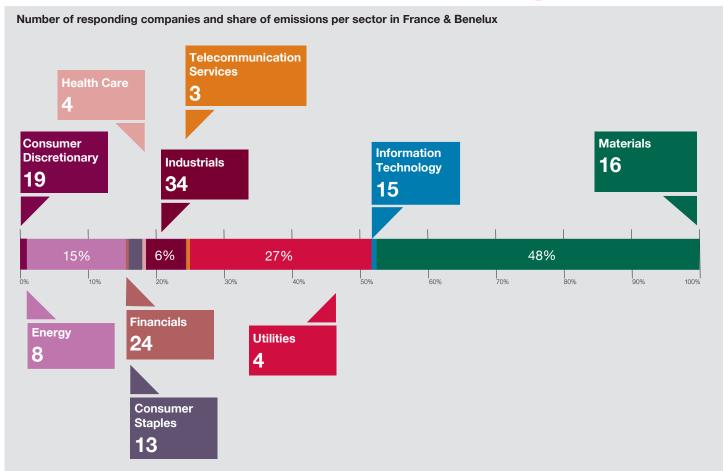
#### 6 companies emitted 78% of all emissions in the region

The six largest emitters are responsible for 78% of the total emissions reported for France and Benelux (697Mt CO<sub>2</sub>e): ArcelorMittal 191Mt (22%), LafargeHolcim Ltd 180Mt (20%), ENGIE 137Mt (15%), Royal Dutch Shell 81Mt (8%), EDF 69Mt (7%), Total 45Mt (5%). The 6 biggest emittors are the same as last year. Due to the merger of Lafarge & Holcim the total emissions of the top 6 increased by 11%.

#### Emissions contribution per company 2016







81% 2016 respondents' share of total market capitalization 15% of the responding companies achieved A

is the average performance score for France

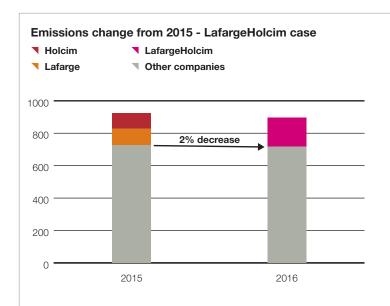
Bis the average
performance score
for Benelux

#### Excluding the special case of LafargeHolcim's merger overall emissions decreased by 2%

For the same 115 companies that responded also last year total GHG emissions decreased by 2% since last year (723 Mt  $\rm CO_2e$  in 2015 vs. 712 Mt  $\rm CO_2e$  in 2016). Scope 1 emissions decreased by 2% (636 Mt  $\rm CO_2e$  in 2015 vs. 621 Mt  $\rm CO_2e$  in 2016) and Scope 2 by 5% (96 Mt  $\rm CO_2e$  in 2015 vs. 91 Mt  $\rm CO_2e$  in 2016) compared to 2015. The particular case of Lafarge and Holcim merger added 78 million metric tons of  $\rm CO_2e$  to the total emissions of this year. Even so, it is important to notice that the overall emissions of LafargeHolcim decreased compared to Lafarge and Holcim combined in 2015, before the merger.

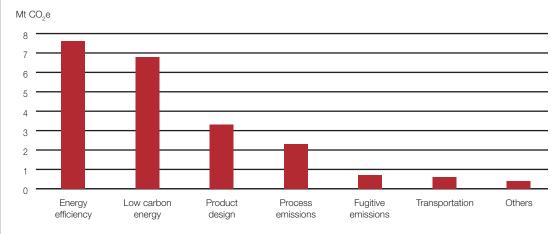
# Process energy efficiency and low carbon energy lead to the highest GHG emissions reduction

Looking at the reported carbon savings by emissions reduction initiatives, optimizing the use of energy is by far the one linked to the highest emission savings (7,7Mt CO<sub>2</sub>e in 2016). The installation of low carbon energy comes second, being able to avoid up to 6,9 Mt CO<sub>2</sub>e. It is also worth mentioning initiatives related to product design, such as chemical products reformulation, packaging optimization, eco-design or digitalization, and notice how innovation plays an important role in the transition to a low carbon economy.



This analysis only includes the 115 companies that also responded to CDP in 2015. The gray area represents 114 companies and they account for 88% of the total 115 company's emissions, in 2015 and 80% in 2016.

#### Carbon savings per emissions reduction initiative reported in France & Benelux



77

Schneider Electric continues strong leadership in sustainability by striving to become a carbonneutral company for all their sites by 2030, in line with their COP21 commitments including committment to realize 75% of product revenue with Green Premium™ ecoLabel with full digitized CO₂ information.

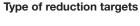
#### 77

#### Setting out emissions reduction targets is the key step towards decarbonization

Setting absolute and intensity emissions reduction targets in the short and long term is the key step for an effective climate change strategy. Despite the Paris agreement, not all companies have defined an emissions reduction target: 17% of companies do not have any emissions reduction target.

Many of the companies that have set emissions reduction targets focus on the short term. More than a quarter (26%) of the targets expires by 2016 and has not been updated yet.

More than half (56%) of the targets are set for the coming 4 years, while 19% of companies have set targets beyond with horizons getting as far as 2050. Proximus, for instance, has the ambition to reduce their Scope 3 by 50% between 2015 and 2040. L'Oréal aims to stabilize its incompressible  $\rm CO_2e$  emissions (around 400,000 tons per year until 2040) and Carrefour has the target to reduce its  $\rm CO_2e$  emissions by 70% in 2050 (baseline 2010).



- 17% No target
- **₹ 32%** Intensity target
- 21% Absolut target
- **▼ 30%** Both

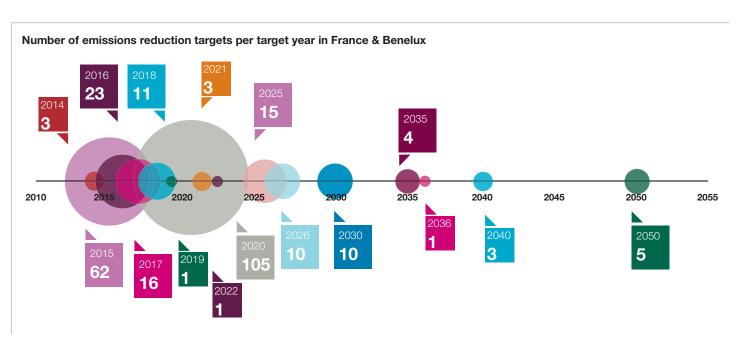


This analysis exclude targets linked to renewable energy consumption and production.

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Klépierre is committed to improving the energy efficiency of its shopping centers by 25% and reducing their carbon footprint by 30% by 2020 vs. 2013; optimizing waste management by enhancing more than 75% of waste by 2016 and recycling 50% of it by 2018; consolidating and favorably renewing environmental certifications from benchmarks such as BREEAM, BREEAM in Use and ISO 14001.







#### **Communicating progress**

#### Scoring criteria

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

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

A							
Leadership	<b>A-</b>						
		В					
Management			B-				
				C			
Awareness					C-		
						D	
Disclosure							D-

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

F: Failure to provide sufficient information to CDP to be evaluated for Climate Change1

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

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

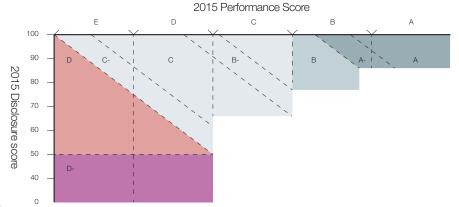
The final letter grade is awarded based on the score obtained in the highest achieved level. For example, Company XYZ achieved 88% in Disclosure level, 76% in Awareness and 65% in Management will receive a B. If a company obtains less than 40% in its highest achieved level, its letter score will have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

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

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

#### **Comparing scores from previous years.**

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



# A List Climate Excellence

#### 21 companies achieved the top score entering the CDP A List

Out of 141 companies there are 21 Climate leaders scoring A in the Benelux and France sample. In the global CDP report, 194 companies scored A meaning that 11% of the world climate leaders are part of the Benelux & France respondents. Since last year, there are 12 new companies joining the list: AkzoNobel, Bic (also scored A in 2013), Bouygues, DSM, EDF, ENGIE, Groupe PSA, ICADE, Klépierre, KPN (also scored A in 2011-13), Michelin, Renault (also scored A in 2014), SUEZ, and VEOLIA. In 2015

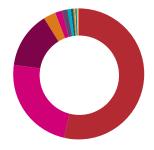
the A List emissions accounted for 0,25% (2,1Mt  $\rm CO_2e$ ) of the total reported emissions, this year the percentage rose to 28% (255Mt  $\rm CO_2e$ ) due to the incorporation of the big emitters as ENGIE, EDF and VEOLIA.

Schneider Electric has been part of the climate leaders list already for 6 consecutive years. Atos, Philips, L'Oréal and Proximus represent climate excellence for 4th consecutive year and BAM and ING Group achieved the highest score for 3rd consecutive year in a row.

Company	Years in A List
Consumer Discretionary	
Groupe PSA	1
Michelin	1
Renault	2
Consumer Staples	
L'Oréal	4
Financials	
ING Group	3
Industrials	
Bic	2
Bouygues	1
Schneider Electric	6
Royal BAM Group nv	3
Royal Philips	4
Information Technology	
Atos SE	4
Materials	
AkzoNobel	1
Koninklijke DSM	1
Real Estate	
ICADE	1
Klépierre	1
Telecommunication Services	
Koninklijke KPN NV (Royal KPN)	4
Proximus	2
Utilities	
EDF	1
ENGIE	1
SUEZ	1
VEOLIA	1

#### A list emissions

- ▼ 54% ENGIE
- ₹ 23% EDF
- 13% VEOLIA
- 3% SUF7
- 1% AkzoNobel
- 1% Michelin
- 1% Bouygues
- <1% Renault
- <1% Koninklijke DSM</p>
- <1% Groupe PSA</p>
- √ <1% Royal Philips
  </p>
- <1% Schneider Electric</p>
- <1% Royal BAM Group nv</p>
- <1% L'Oréal
- <1% Klépierre
- <1% Bic
- <1% Atos SE
- <1% ING Group
- <1% Proximus
- ▼ <1% KPN
- <1% ICADE

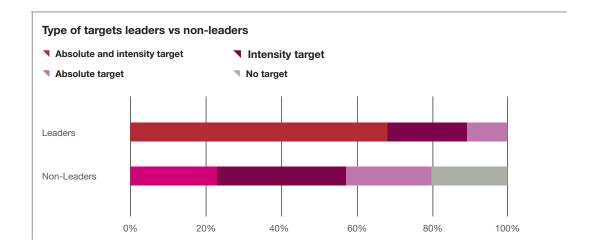


#### Three emissions intensive companies joined the A List

ENGIE (3<sup>rd</sup> largest emitter), EDF (5<sup>th</sup> largest emitter) and VEOLIA (7<sup>th</sup> largest emitter) joined this year the climate excellence list for France and Benelux. Together they represent 92% of the A List emissions contribution showing that large emitters can be a part of the climate leadership with the right strategy, the right targets and emissions reduction initiatives.

#### Climate leaders distinguish themselves in multiple ways

They set absolute and intensity targets that allow them to drive their business decisions in the direction of a low carbon economy. They use climate change as an opportunity to innovate, optimize the use of energy and resources, and rethink their operations in order to create value for their customers, their stakeholders and the planet.



In 2016, Proximus achieved the target of reducing  $\mathrm{CO}_2\mathrm{e}$  emissions of their own operations in Belgium by 70% and they set the target to become a carbon neutral company in 2025. The company focuses mainly on energy efficiency and they are planning to pay the corresponding compensation for carbon emissions they are unable to reduce, including the emissions generated by refrigerants.

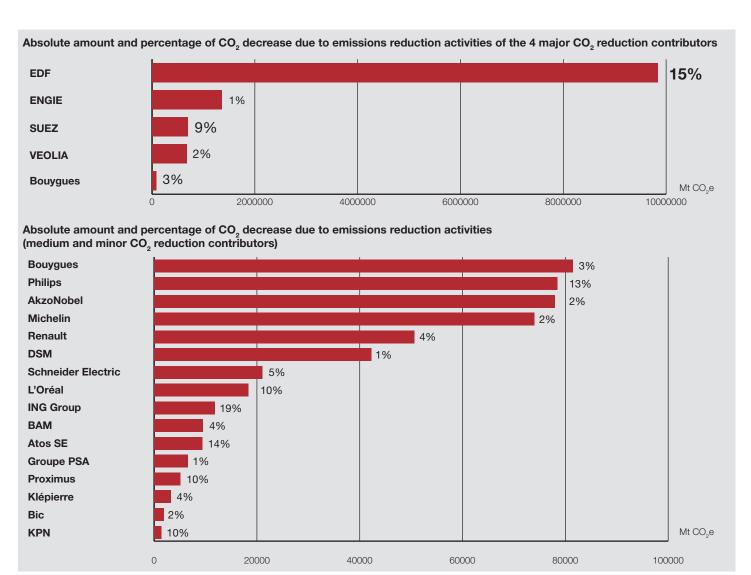
SUEZ is planning to increase the biogas recovery capacity from 30% to 50% by 2020, covering 100% of landfill sites and increasing energy performance. The company is also developing partnerships with plastic-intensive industries producing high-quality recycled plastic (ex. partnerships with Unilever, Lego). In 2016, the Group was strongly involved in the organization of COP 21, acting as an official partner of the event and as a founding member of Solutions COP 21, to create awareness on water and climate issues. SUEZ also chaired the Circular Economy Group at the French Association of Private Companies in 2016 to catalyze ambition of the industry in this field.

Philips aims to have carbon-neutral operations by 2020. With their Green Operations program improving the environmental performance of manufacturing facilities with relation to climate change, water, waste and chemical substances. Over the last years, Philips has increased its use of renewable energy and they anticipate to further reduce its carbon footprint by 231,374Mt CO<sub>2</sub>e (representing a 99% of their total scope 2 emissions).

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KPN managed to become climate neutral for their operations (zero net Scope 1 and 2 emissions) this year by structurally reducing absolute energy consumption, using green electricity and gas, migrating to 100% CO<sub>2</sub>e zero emission cars and offsetting carbon by purchasing Gold Standard CO<sub>2</sub>e certificates.





ING Group managed to decrease its Scope 1 and 2  $\rm CO_2e$  emissions by 19% due to energy efficiency activities, mainly in terms of electricity consumption and renewable energy use. In 2016, ING financed 23.8 billion euros sustainable transitions which represents 22% more compared to last year. In 2016, 49% of the company's project financing plus other lending was dedicated to renewable energy (wind, solar, water and geothermal power) around the world. ING private banking in Benelux offers  $\rm 3^{rd}$  party climate change investment funds for clients to diversify their portfolios and mitigate investment risks.

In 2016, ENGIE Group decided not to embark anymore in new coal-fired power plant projects and to close the Dutch Gelderland and Britain's Rugeley coal plants. The company also acquired 95% stake in Solairedirect, a global leader of competitive solar, with 100% voting rights. This acquisition made ENGIE a market leader in the solar sector in France with a total gross installed capacity of 383 MW.

The Group has a 3-year transformation plan to focus its new developments on low CO<sub>2</sub>e activities, activities not exposed to commodity prices and integrated customer solutions. In this context, ENGIE announced the cession of 3 GW coal power-plant in India and Indonesia and 8,7 GW of thermal activities in the US.

BAM has rebuilt the majority of its Dutch offices into open plan shared office spaces using the latest energy saving measures. In 2016 BAM used 75 kWh per square meter in its buildings in the Netherlands achieving a 62% reduction compared to 2015. The company has also started the REnnovates innovation project, which aims to reduce the impact of adding solar power to the electricity grid by integrating batteries. BAM is part of Ellen MacArthur Foundation's CE100 program, working actively with clients to develop business models for "circular buildings", including the ABN AMRO pavilion in the Netherlands.



**EDF** decreased intensive CO<sub>2</sub>e emissions (from 102gCO<sub>2</sub>e/kWh to 95 gCO<sub>2</sub>e/kWh) thanks to GHG emissions reduction activities such as decommissioning and modernization of thermal generation power plants and investments in renewable energies. In France particularly, 95% of EDF electricity is produced by hydro and nuclear plants, fossil fuel represents less than 2% of EDF generation mix

In 2016 Bouygues overachieved the target of making 20% of its commercial property surface area "positive energy" by 3%. During this last year, they have also reduced total emissions by 13% (3% due to emissions reduction activities and 11% due improvements linked to energy consumption). The company has a cutting-edge expertise in positiveenergy buildings, eco-neighborhoods and smart grids, and offers innovative solutions to customers while using the best energy-saving technology on own premises. The Group pursues a proactive policy to control and reduce the environmental footprint of its business activities. It remains committed to recycling materials and making eco-design part of its offerings to customers. Bouygues plans to launch smart grid projects in Lyon and Marseille for several hundreds of thousands of square meters of residential and office space saving energy and CO<sub>o</sub>e emissions. The company also works to protect biodiversity

In 2015 Renault launched "RCI Mobility" subsidiary, in order to develop and manage car-sharing services. The company also announced the new "Hybrid Assist" technology allowing to reduce  $CO_2$  emissions to as low as 76 g/km at an affordable cost. On the long term strategy, Renault is very focused on innovation, dedicating 2/3 of their R&D expenses to develop zero-emissions technologies (Electric Vehicles). Moreover, the company has set a specific target for the manufacturing scope: achieve a 20% renewable energy share into the total energy consumption by 2020.

BIC, a new entry to the 2016 A List, is very focused on improving its use of materials. The company invested 28m€ and had 242 employees working in R&D in order to integrate new technologies and processes in its products. With its Ecolutions line of products, BIC is limiting the use of plastic from fossil fuel and looking for alternative materials. In 2016 BIC is planning to launch 3 innovative and responsible products and use 90% of cardboard from certified recycled sources.

Intra company transport is an important contributor of BIC's Scope 3 emissions. In order to compensate these emissions, the company set up in 2015 carbon pricing at Group level (17,90€/ton CO₂e). This carbon pricing is also taken into account when building new facilities, this is the reason why the Group is working on getting these facilities LEED certified.

# Amongst the 6 biggest GHG emitters in France and Benelux, 2 companies managed to score A and 2 others A-

After LafargeHolcim merger this year the company scored A-. Before the merger, both companies (Lafarge S.A and Holcim Ltd.) were leading the materials industry in terms of carbon efficiency. The merger allows them to capitalize on synergies from innovation and assets efficiency to further improve their performance. Company's new 2016 approach to sustainability will help customers avoid 10 Mt of CO<sub>2</sub>e being released from buildings each year through their innovative solutions. In order to do so, a methodology to estimate carbon emissions saved over the life cycle of cement based solutions is currently being developed by LafargeHolcim.

Another of the top 6 emitters on the list, Shell, managed this year to score A- due to the multiple carbon initiatives it implements. In 2016, the energy intensity of Shell's refineries decreased by about 6%, due to a combination of improved equipment reliability, better operating processes and energy-efficiency projects. Key components of Shell's business strategy for climate change are supplying more natural gas to replace coal for power generation, investing in low carbon energy, and progressing Carbon Capture and Storage (CCS) technologies. To advance, de-risk and commercialize CCS technologies, Shell is involved in CCS demonstration projects to drive down the costs of CCS long-term, including the Quest project capturing and storing CO<sub>2</sub>e emissions from oil sands operations in Canada and other projects in Australia, Norway and Qatar.







#### Integrating climate change in the business Strategy and Governance and setting Targets and Initiatives for carbon emissions reduction are key to become part of the climate A List

CDP evaluates 4 steps in the progress towards environmental stewardship: Disclosure, Awareness, Management and Leadership¹. Leading companies stand out for very particular reasons. They create a positive impact inside and outside their organization by integrating climate change in their Strategy and Governance while setting carbon reduction targets and initiatives that are ambitious and at the same time realistic and measurable.

The table (right) shows what percentage of the leadership scoring is attributed to different sections of the questionnaire. Therefore, it demonstrates what CDP incentivizes with its leadership scoring and can guide companies aspiring to the A List when allocating their resources and efforts.

# Verification is the area which France & Benelux companies have the most room for improvement

CDP's climate change questionnaire can be divided in four feedback categories: Governance & Strategy, Risk & Opportunity Management, Verification and Emissions Management. CDP can provide responding organizations with information regarding their performance for each category. These categories provide a deeper insight of how their response scored, and can help to identify areas for improvement<sup>2</sup>.

On average, verification is the area in which France & Benelux companies have the most room for improvement. For companies that scored A- and therefore nearly managed to join the A List Emissions Management is the aspect with the biggest opportunity for improvement.

#### **Distribution of Leadership Points**

Strategy 26%

Governance 15%

Targets & Initiatives 15%

Emissions Data 10%

Scope 3 10%

Communications 5%

Energy 5%

Emissions Performance 5%

Sign off 5%

Risks 0%

Opportunities 0%

missions Methodology 0%

Scope 2 breakdown 0%

Emissions Trading 0%

Categories appearing with 0% are only assessed in one or several of the other three steps: Disclosure, Awareness and Management.

#### Average score per feedback category

	Emis	sions Management	Gove	ernance & Strategy		& Opportunity agement	Verif	ication
France & Benelux	С	Awareness	С	Awareness	С	Awareness	D	Disclosure
A- scoring companies average	В	Management	A-	Leadership	Α	Leadership	А	Leardership

- 1 CDP's approach to scoring is explained on page 20, in the Communication progress chapter.
- 2 The details of which questions fall into each one of the four feedback categories can be found here: https://www.cdp.net/Documents/Guidance/2016/CDP-Scorecategories-2016.pdf



# **Science Based Targets**After COP21 commitments

# A "business-determined contribution" is key for the transition to a low carbon economy

The critical role of business in the transition to a low carbon economy is unquestionable. Companies are not only the key contributor to the emissions release, but they also have the potential to reduce emissions through innovation and technological change.

The Paris Climate Agreement has given a clear signal to businesses about the scale of the challenge and the effort required. The Science Based Target initiative (SBT) provides to businesses the right reference to set targets that are in line with the emissions reduction required to achieve the COP 21 global commitment. Targets adopted by companies to reduce greenhouse gas (GHG) emissions are considered "science-based" if they are in line with the level of decarbonization required to keep average global temperature increase below 2°C compared to pre- industrial temperatures and they pass the SBT's official quality check.

CDP has calculated that showing a 2.1% year-onyear emissions reductions would result in a 56% reduction between 2010 and 2050 which would keep the world aligned with a 2°C scenario in 2100. The Intergovernmental Panel on Climate Change recommended absolute reductions between 49% and 79% over the same time period. The figure below shows how the evolution of Carbon emissions would look like in the coming years in 2 different scenarios. Note that only 41 companies with absolute emissions reduction targets could be included in the analysis<sup>4</sup>.

- Scenario 1: Assuming a linear emissions reduction with companies being able to meet their current emissions targets.
- Scenario 2: Assuming linear emissions reduction needed to achieve SBT targets (-2,1% year-onyear)

If the 39 companies were to achieve the targets they have set today, their emissions would fall by 23% (83Mt  $\rm CO_2$ e) by 2050. This first step accounts for a 53% of the emissions reduction needed from this companies to keep average global temperature rise under 2°C.

It can be concluded that these companies need to raise their ambition level as they renew their expiring targets in order to achieve an additional emissions reduction of 75Mt CO<sub>2</sub>e. To put this into perspective, in 2016 energy efficiency initiatives of the companies in the sample resulted in 15Mt CO<sub>2</sub>e emissions reduction. However, reducing emissions will become more difficult and more expensive over time as the most cost

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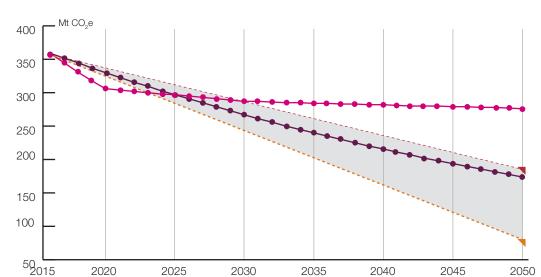
Targets adopted by companies to reduce greenhouse gas (GHG) emissions are considered "science-based" if they are in line with the level of decarbonization required to keep average global temperature increase below 2°C compared to pre- industrial temperatures.



# 4 ABN Amro Holding, ADP (Aéroports de Paris), Air France – KLM, AkzoNobel, AMG Advanced Metallurgical Group NV, Arcadis, BNP Paribas, Bouygues, bpost, Cap Gemini, Casino Guichard-Perrachon, Danone, Eiffage, ENGIE, Groupe PSA, Groupe SEB, JCDecaux SA, Koninklijke DSM, Koninklijke KPN NV, L'Oréal, Maurel Et Prom, Michelin, Ontex Group NV, Orange, PostNL, Proximus, Randstad Holding nv, Rexel, Royal Dutch Shell, Royal Philips, Safran, SANOFI, Schneider Electric, Sopra Steria Group, Suez Environnement, Total, VEOLIA, Vinci, Vopak.

#### CO, Emissions projection 2050

- CO<sub>2</sub> emissions with 39 France & Benelux companies being able to meet their current targets
- SBT yearly reduction of 2,1%
- ▼ SBT absolute reduction of 49%
- SBT absolute reduction of 79%



effective options have been exploited first. Next to increasing the level of ambition and the impact of emissions reduction activities, there is a need for a larger group of companies to set and deliver targets in line with Science.

#### Scope 3 is the most common reason why targets fail SBT quality check

In order to set a Science Based Target, the first step is to understand what a SBT means and be able to translate it into the company business. So far, SBT experienced that most company's targets are rejected because they do not meet the requirements related to Scope 3 emissions. The main reasons are listed below:

- Businesses do not set a Scope 3 target even when these emissions are greater than 40% of total emissions.
- Most of the companies do not conduct an estimation of the amount of Scope 3 emissions and do not determine the contribution of different categories being unable to affirm if the target covers a significant part of Scope 3 emissions.
- Scope 3 targets have no clear timeframe or can't be measured.
- Carbon offsetting is accounted as part of the target or included on avoided emissions.

Setting an ambitious target of emissions reduction for each Scope, is also the most difficult criterion to meet. SBT take into account emissions from suppliers and customers, so companies must collect data from external organizations and reduce emissions that they are not directly responsible for. This makes it challenging to control or keep a close track of these emissions and measure progress.

Absolute and intensity emissions reduction targets are accepted as SBT targets, even so, companies that were able to get their target approved had aggressive absolute emissions reduction targets which are the most meaningful in terms of limiting atmospheric GHG concentration and are easier to assess than the intensity ones. It is key to express target reductions in a consistent format having the basic GHG accounting knowledge.

#### Proximus is the only company with approved SBT

A total of 19 responding companies committed to setting a SBT meaning they submitted a commitment letter (step 1) accounting for 1% of the total CO<sub>2</sub>e emissions (17 MtCO<sub>2</sub>e) and only one company is officially certified: Proximus. This represents an 20% of the total number of SBT committed companies in Europe (73 EU Continental and 96 with UK-Ireland). The majority of these 19 companies ranked in the highest positions on the CDP scoring for 2016, proving, once again, that leaders follow best practices and go always one step further in global commitment for climate change. The International Post Corporation and Thalys, 2 non-responding companies in the France & Benelux region, have also their SBT officially approved.

	Commited to have a SBT Representing 17MtCO <sub>s</sub> e			
Altarea Cogedim	KERING	Proximus		
Atos	KPN			
AXA	L'Oréal			
BNP Paribas	Renault			
Carrefour	Royal Philips			
Crédit Agricole	Société Générale			
Danone	Sodexo			
Groupe PSA	Sopra Steria Group			
Groupe SEB	SUEZ			
ING Group				

### Getting a Science Based Target There are 3 steps to follow to get the Science Based Targets approved: ■ Step 1: Submission of the commitment letter form: Submitting the "Commitment" Letter" indicates a company is committed to set a science-based target (this companies are automatically recognized as "committed to setting a sciencebased target"). ■ Step 2: Developing a target: when setting a new target, companies have up to 2 years to develop and announce a science-based target. ■ Step 3: Announcing the target: Once a proposed target has been developed, companies must submit the "Target Check Form". The information in the form enables the Science Based Targets team to review the target against the eligibility criteria. Eligibility Criteria: **Boundary**: The target must cover company-wide Scope 1 and Scope 2 emissions and all relevant GHGs as required in the GHG Protocol Corporate Standard. **Timeframe**: The target must cover a minimum of 5 years and a maximum of 15 years from the date of announcement of the target. **Level of ambition**: At a minimum, the target will be consistent with the level of decarbonization required to keep global temperature increase to 2°C compared to pre-industrial temperatures, though SBT encourage companies to pursue greater efforts towards a 1.5° trajectory. ■ Scope 3: An ambitious and measureable Scope 3 target with a clear time-frame is required when Scope 3 emissions cover a significant portion (greater than 40% of total scope 1, 2 and 3 emissions) of a company's overall emissions. The target boundary must include the majority of value chain emissions as defined by the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (e.g. top 3 categories, or 2/3 of total scope 3 emissions). **Reporting**: The company will disclose company-wide GHG emissions inventory on an annual basis.

We talked to Philippe Deconinck, CSR Manager Environment & Supply Chain about getting their emissions reduction targets approved by the SBTI's official quality check.

Proximus commits to reduce absolute Scope 1 and 2 GHG emissions by 30% between 2015 and 2025. Proximus further commits to reduce total Scope 3 GHG emissions by 50% between 2014 and 2040, with an interim milestone target of 10% reduction by 2025.

#### Q: Why have you decided to adopt Science Based Targets? What does it mean for Proximus?

In 2008 Proximus defined a target to reduce emissions by 70% by 2020 and we reached that target in 2015, 5 years ahead. After talking to our CEO and setting a new target to reduce 30% GHG emissions by 2025, we decided to become carbon neutral from 2016 on by offsetting the emissions we cannot reduce.

Following the Paris COP21 agreement, Proximus committed to 3 We Mean Business initiatives:

- Adopt a science-based emissions reduction target
- Commit to 100% renewable power
- Report climate change information in mainstream reports as a fiduciary duty

Having SBTs is clear evidence that we are committed to tackling climate change. It helps us better explain the carbon neutrality journey to our stakeholders. It is an external confirmation that we are doing the right things.

#### Q: What was your strategy to adopt SBTs?

It is important to get a good insight into the data for all the three scopes – 1, 2 & 3. Then we can measure them, analyze them and set the right initiatives to manage them.

For Scope 1 we did a forecast until 2025 including parameters such as the evolution of square meters, the building plan, our fleet, or our data centers and networks. Our new office buildings will be carbon neutral and will not use fossil fuels at all. We are placing them close to the train stations and offer options to work from home in order to limit employee commute. In 2011 we started offering a green fleet to our employees selecting the most efficient cars.

Regarding Scope 2 we buy 98% green electricity from certified renewable sources and we have a few solar panel installations producing our own energy.

Scope 3 is for us the most complex one. In order to prepare a reliable forecast, we had to first understand very well every one of the 15 categories. Eight of them were relevant to report on – including impact analysis, data sources and data reliability. In the short term the most important category for us is the use of sold products. In order to tackle this category, we analyzed our key products and we calculate their footprint monthly. For our TV setup box for instance, we have 2014 as a baseline and we want to reduce the emissions with 50% by 2019 at the latest. This will be key to reach our internal milestone of 10% reduction by 2025.

#### Q: What was the most challenging part of the process to get SBT approved?

The most challenging part was definitely gathering the data. For Scope 3 it took us a while to find the right sources of information and to figure out where third parties where getting the data from. The second challenge was setting the forecast. Since 2007 we have a model to forecast Scope 1 and 2, but for Scope 3 it was more difficult to come up with the right and realistic forecast. We analyzed different methodologies and ensured that the data could be used in a consistent way, being able to compare them on yearly basis.

#### Q: What advice would you give to a company that wants to adopt SBTs?

We would definitely encourage companies to go for SBT. They can use it as a management tool, to gain credibility, strengthen reputation and show responsibility. Start by identifying the right data and their reliability, calculate baseline data, understand what is required and set a realistic but challenging target. Management will feel more comfortable going for realistic commitments that can be also achieved. Once you have the commitment from management you can lead from the top and engage employees.

#### Investor perspectives



Odd Arild, Storebrand CEO



Philippe Desfosses, ERAFP CEO



Peter Harrison, Schroders CEO

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

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

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

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

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

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

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

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

**PD**: In exchange for the contributions that it receives from its beneficiaries, the Scheme undertakes to pay them pension benefits. This is a promise that the youngest among us will benefit from following a very long period of time. It is through nothing other than observance of our fiduciary duty that we have undertaken energy and climate-related initiatives, with a view to aligning our investment portfolios with international global warming containment objectives.

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

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







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

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

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

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

# 4. Environmental disclosure is a fast evolving field, how is better data, disclosure and research affecting investor decision-making?

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

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

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

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

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

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

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

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

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

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

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

# 7. If we were to have a similar conversation in 3 years' time, what do you think would be some of the key successes for an investor in managing climate change risks and opportunities?

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

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

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

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

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

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

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

#### **Custom questions**

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

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

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

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

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

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

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

#### **Closing the gap in Non-Financial Reporting**

by Steven Tebbe,
Managing Director Europe, CDP



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

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

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

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

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

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

public before the end of this year and build on CDP's work and expertise. We salute the leadership of the Task-Force and the political impulse this will give to the low-carbon transition in the world's major economies.

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

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

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

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

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

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



Within the framework of the COP21 agreement, the Carrefour group set a voluntary target of reducing  $\mathrm{CO}_2$  emissions by 40% by 2025 compared to 2010 levels. Carrefour has since joined the carbon pricing program of the UN's "Caring for Climate" initiative thus providing a further means by which to meet our targets. An internal carbon price enables Carrefour to include the impact of greenhouse gas emissions as part of our investment decision processes. We are the first European mass-merchandising retailer to do so.

Setting an internal carbon price is a means of accelerating change. Doing so will result in our giving preference to technologies which emit lower quantities of  $\mathrm{CO}_2$  and which require less energy in our stores. We are continuously testing new technologies such as bio methane, solar and wind power, and we are also creating partnerships with alternative energy providers.

The carbon price has been calculated on a country-by-country basis, factoring in each country's specific characteristics in terms of the energy mix and the level of technological development. Setting an internal carbon price ensures that our approach forms part of Carrefour's investment decision process in the long term.

Improving our non-financial performance also means acting in a responsible, profitable and sustainable way in coordination with the company's partners to help our customers. Quite simply, it means doing our job well.

Jérôme Bédier Deputy Chief Executive Officer, General Secretary Carrefour Group



### **Climate Finance**

## The Paris Agreement sent a clear call for action to private sector

3 key business implications came out from the agreement:

- A stable investment climate: financing mechanisms are in place to spur green investments in developing countries along with a strong focus on technological advance and capacity building.
- A decentralized carbon pricing approach: no direct reference is made to a mechanism to price the carbon, pending further discussions under the Sustainable Development mechanisms and linking of existing individual carbon markets.
- Business becomes part of the dialogue: recognition of business contribution and call for further commitments. Furthermore, business representatives are part of the Ad Hoc working group serving as a platform for non-party interaction and platform for knowledge sharing.

#### Financial investments and their linked environmental risk are rising on the international climate change agenda

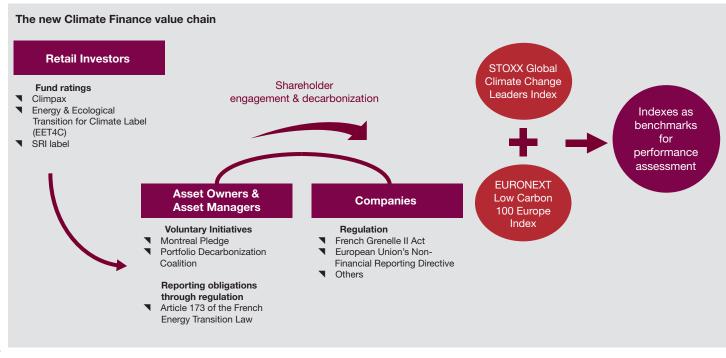
Tremendous achievements in responsible investment have been made last year and many are still under way. The scope of initiatives covers now the full range of actors: from national regulations to stock exchange and from individual investors to large institutional investors.

## Investment in funds: CLIMPAX will give investors an efficient tool to integrate climate change into their financial decisions

The rating measures the degree to which a fund is invested in companies exposed to climate change risks and reflects its recognition of climate change as an important investment factor. CLIMPAX is unique as it ultimately targets retail investors by bringing an understanding of the climate impact of investment choices to the wider public. With rating tools such as CLIMPAX and labels like the SRI label or the Energy & Ecological transition for climate label, not only individual investors, but also asset owners and asset managers will be able to choose and invest in "climate friendly" funds.

## Investment in companies: to decarbonize a portfolio its carbon footprint has to be measured

The carbon footprint of a portfolio can be measured on a voluntary basis (e.g. Montreal Pledge and Portfolio Decarbonization Coalition) or because of regulatory reasons (e.g. Article 173 in France). There's ever-growing pressure (from governments, civil society and from the investment community) for companies and their investors to measure and reduce their carbon footprint. A portfolio's carbon footprint is the sum of a proportional amount of each portfolio company's emissions (proportional to the amount of stock held in the portfolio). A carbon footprint is a useful quantitative tool that can inform the creation and implementation of a broader climate change strategy.



Joining the Montreal Carbon pledge, investors commit to measure and disclose the carbon footprint of their investment portfolios on an annual basis through any publicly visible reporting channel. So far, 117 Investors have measured the carbon footprint of portfolios and say that doing so they can: improve their understanding of the portfolio risks and opportunities that climate change presents; give answers to stakeholder questions on climate change; publicly demonstrate commitment to tackling climate change. From the France and Benelux CDP respondents 2016, AXA Group and BNP Paribas are part of the investors that have signed the pledge.

Decarbonization is the process through which investors reduce portfolio exposure to GHGemissions and align their portfolios with the climate economy of the future. There are different approaches to portfolio decarbonisation, which can be achieved across asset classes, including engagement, divestment, as well as techniques such as "best-in-class" and "negative screening". Both active investment management and passive management via the replication of low-carbon or climate-aligned indexes are possible strategies. The aim of the Portfolio Decarbonization Coalition (PDC) is to centralize, document, and present to Governments, current and future decarbonization action worldwide, across all of these different approaches.

When large institutional investors start to engage and/or re-allocate capital on the basis of companies' GHG emissions, it provides a strong incentive for those companies to re-channel their own investments from carbon-intensive to low-carbon activities, assets and technologies. So far, 27 investors joined the PDC and decarbonized collectively more than 100 billion USD in 2015 (e.g. Amundi, Mirova, CDC, ERAFP, FRR, Humanis). They are expected to present another 100 billion USD of decarbonization at COP 22.

#### French Energy Transition Act - Article 173

In August 2015, a few months ahead of the Paris Conference, the French government released the Energy transition for green growth act, aiming at setting the goals of the new energy model. Among the 215 articles, the 173 strengthened the requirements of climate-related mandatory disclosure for listed companies and of risk assessment carried out by investors. By the end of 2016, this regulation requires investors to report on climate-related financial risks and mitigation initiatives, as well as climate-related impacts (GHG emissions) of their activities and portfolios. Investors will also have to include climate-related risks in their stress testing and report on Environmental Social and Governance (ESG) risks assessment considered into their investment strategy.

Some important consequences for businesses include the implementation of low carbon initiatives into the corporate and investment strategy and the incorporation of climate-related risks into the processes of risks identification, analysis and reporting. Companies will also need to develop their own risk modeling approach and insurance companies will be especially impacted since they will need to identify the most exposed industrial sectors. Physical risks such as climatic events or water scarcity and transition risks (e.g. stranded assets, investors' preferences) will have to be part of the new ESG criteria as well.

## Swiss government put in their agenda regulations in line with Article 173

Sustainable development is becoming a key topic to integrate into financial decisions and Swizerland will join this quiet revolution in the financial industry. The Swiss government plans to voluntarily include climate disclosure benchmarks linked to  $\mathrm{CO}_2$  regulation. The country aims to be the first one reporting on their financial flows being in line with the 2°C Paris goal. This initiatives build on a partnership with the 2° Investing Initiative and more innovative partnership are being planned for the coming year.

Norway and Sweden are also part of this financial transformation introducing regulations to lead the change. In the case of Norway, for instance, the government decided to yeld its sovereign asset fund from coal, and the Swedish government is working on multiple proposals to improve the information given to investors in order to be able to determine which climate-related risks regulators and financial firms should address.

## **Benchmarking of investments: low carbon indices to evaluate performance**

In order to benchmark their investments, asset owners and asset managers need low carbon indices against which they will evaluate their performances. In Europe, the most important ones are managed by Euronext (Euronext Low Carbon 100 and Euronext European Climate Index, based on CDP scores

and Carbone 4's Carbon Impact Analytics) and by STOXX® (STOXX® Low Carbon Indices, based and CDP and South Pole Group data). Such indices show significant outperformance over time compared to reference indices such as STOXX Global 1800 and EURO STOXX.

# Performance STOXX Global Climate Change Leaders vs. STOXX Global 1800 6% higher returns over past four years STOXX Global Climate Change Leaders EUR (Gross) STOXX Global 1800 EUR (Gross)



#### LC100 vs Euro STOXX price

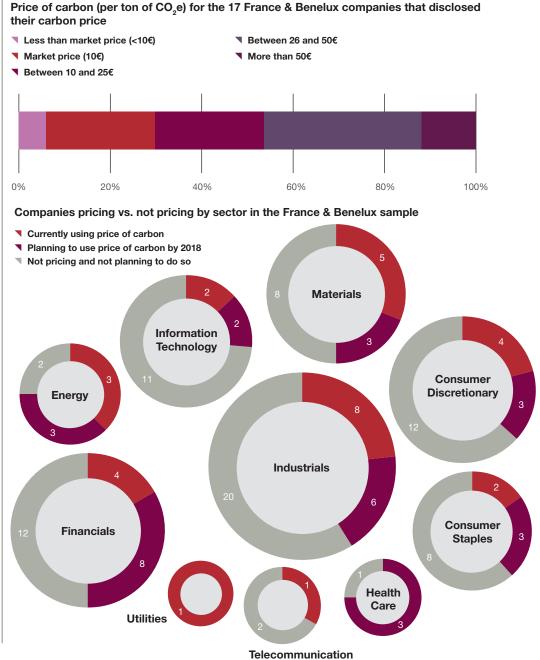
28% higher returns over past eight years



## Climate change leaders use Carbon Pricing as part of their strategy

Carbon pricing can help companies to make the right business decisions about investing in new projects or acquiring new assets. 67% of the respondents disclosed to CDP that they do not use an internal price on carbon and do not plan to adopt this approach in the next two years. Over a 25% of

them are in high-emitting industries. As data around carbon exposure continues to improve, investors may question the risk-preparedness of these companies for climate regulations. On the leaders side, 65% use carbon pricing as part of their strategy and another 29% are planning to do so within the next two years.

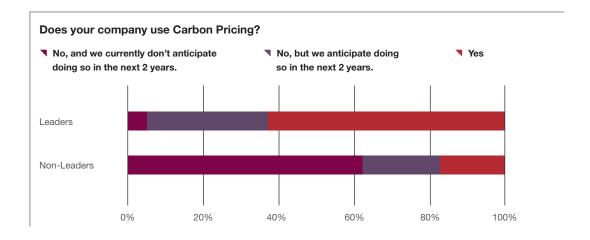


Out of the 35 companies using carbon pricing, 17 specified in their responses the exact price used by their business. 24% of the total use market price (10€/ton CO₂e) 6% use a lower price than the one assigned by the market and the lasting 70% apply a carbon price higher than 10€/ton CO₂e being AkzoNobel the one on top of the list using a price of carbon of 135€/ton CO₂e for the evaluation of their projects emissions impact.

As part of their strategy and commitment to COP 21, AkzoNobel includes a real carbon price (from 50€/ton to 135€/ton) for environmental and sustainability assessments in RD&I projects and investment decisions above 1 MM€.

Carrefour Group aims to reduce its  $\mathrm{CO}_2\mathrm{e}$  emissions by 70% in 2050 (baseline 2010), with an intermediate target of 40% by 2025. This is the reason why in October 2016 the company developed an internal carbon pricing tool used in decisions about investment in assets. The carbon impact tool provides comparisons between a reference and a project scenario and evaluate their respective magnitude (tons) and cost ( $\bigcirc$ ) of GHG emissions for 6 energy-intensive usages: refrigeration, lighting, sanitary water, cooling, heating and low carbon energy production.

LafargeHolcim uses internal price of carbon to estimate the economic impact on the production cost of the sites that are under the defined mechanisms in each country or region. Based on the efficiency of each production site and predicted market demand, LafargeHolcim makes decisions that are based on the financial impact that these assets have and could have in the future. (Current LafargeHolcim carbon price is 26€/ton)



## 5 Global Business Initiatives could help cutting GHG emissions billions of tons every year

Every year business could reduce its emissions by 3,2 to 4,2 billion tons of  $\mathrm{CO_2e}$  by joining climate change initiatives. The commitments made in Paris will hopefully cut off 6 billion tons of GHG reaching 61 billion tons of  $\mathrm{CO_2e}$  into the atmosphere by 2030, but that's still far from the 42 billion tons required for an emissions reduction pathway that could keep the average temperature rise below  $2^{\circ}\mathrm{C}$ .

The table below show 2 potential scenarios:

- Direct Impact: considering the initiatives achieve their most ambitious goals for membership and action
- Systemic Impact: considering all relevant companies join the initiatives.

Initiative	Direct impact (Gt CO <sub>2</sub> e)	Systemic impact (Gt CO <sub>2</sub> e)
Science based targets Companies set emissions reduction targets based on keeping temperature change below 2°C	1,9	5,0
EP100 Companies commit, over 25 years, to doubling their economic output from each unit of energy	0,3	2,4
RE100 Companies commit to using 100% renewable electricity	1,2 - 1,5	4,5 - 5,7
Zero deforestation Companies commit, by 2020, to using no commodities that cause deforestation	0,5 - 1,2	0,7 - 1,5
Low carbon technology partnership initiative Companies work to develop and use more low carbon technology in their industry	N/A	9-10



## RE100: world leaders committed to 100% renewable energy

RE100 is a collaborative, global initiative of influential businesses committed to 100% renewable electricity, working to increase the demand and delivery of renewable energy.

The private sector accounts for around half of the world's electricity consumption. Switching this demand to renewables will accelerate the transformation of the global energy market and the transition to a low carbon economy.

Companies part of the RE100 are encouraged to set a public goal to procure 100% of their electricity from renewable sources of energy by a specified year. The initiative also works with companies to address barriers and develop transparent reporting mechanisms.

6 of the CDP 2016 responding companies are part of the RE100 and have set renewable energy targets:

- Credit Agricole will be using 100% renewable electricity in its global operations by the end of 2016.
- **DSM** set the target to source 50% of its purchased electricity from renewables by 2025 and aims to be 100% renewable in the future.
- NG is committed to power 100% of its operations with renewable electricity by 2020. In 2015 ING purchased 18.395 MWh with guarantees of origin (GOs) from various local projects for the electricity consumption (solar or hydro technologies). For their US operations, they purchased 100% renewable energy from a local wind project (4.000 MWh) and for European operations most of their renewable electricity is purchased via utilities suppliers who bundle the electricity contracts with GOs. The total low carbon energy purchased equals to 86% of the total MWh sourced in 2015.
- ▶ KPN has been using 100% electricity from renewable sources since 2013. In the Netherlands for instance, the company uses electricity generated by Princess Amalia Wind park (offshore wind park in North Sea, 210.000 MWh) and renewable electricity by the Golden Raand bio mass plant (586.000 MWh).
- ▶ Philips aims by 2020 to power 100% of its operations with renewable electricity. In 2015 the company has purchased a total of 88.943 MWh of low carbon electricity in Europe, has issued 138.362 MWh Renewable Energy Certificates (RECs) for their American Operations and has purchased 298.489 MWh of low carbon electricity via energy attribute certificate backed supplier contracts world-wide. The total low carbon energy purchased equals to 56% of the total MWh sourced in 2015.
- **Proximus** has already met its R100 goal and its sourcing 100% of its electricity from renewable energy.

RE100 initiative could mean a reduction of 1,2 to 1,5 billion metric tons of CO<sub>2</sub>e if current members achieve their most ambitious goals. In a scenario where all relevant companies join this initiative, the reduction could be equal to 4,5 to 5,7 billion metric tons of CO<sub>2</sub>e.



### We Mean Business: Commit to Action

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

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

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

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

## Companies in 42 countries have taken action.

At the beginning of 2015 just 3 **US companies** had made commitments via this platform. By Paris, this number had grown to more than 50 companies. The fastest growing issue with US companies has been science-based targets, with 33 companies making that commitment. Climate action remains popular with **European companies**, with 237 taking action, predominantly in mainstream reporting on climate and science-based target setting.



Laurel Peacock
Senior Sustainability Manager
NRG Energy



44

465+ Companies



+\$10 Trillion USD



183 Investors



>US\$20.7 Trillion Assets Under Management



1000+ Commitments



Companies

South America



## Translating Paris into business strategy

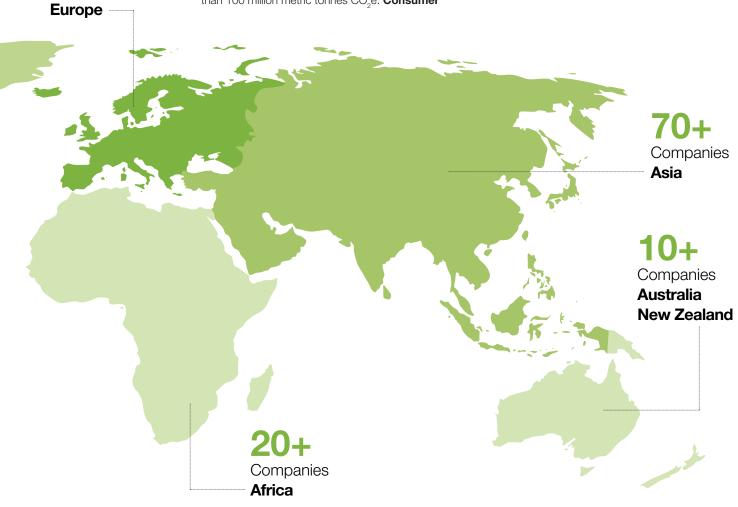
Thirteen companies headquartered in Brazil have taken action, including materials company Braskem (price on carbon) and the consumer brand Natura (science-based targets, deforestation, policy engagement, and mainstream reporting on climate). In India, 17 companies, including Tata & Sons and Mahindra,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

Sector trends show that companies in every industry are acting. Strongest growth in 2016 has been in the industrials sector. Together, this sector accounts for over 20% of corporate action via the We Mean Business platform, as well as more than 100 million metric tonnes CO<sub>2</sub>e. Consumer

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

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

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





235+

Companies











## **Circular Economy**

## The opportunity to close the 2°C

## Half of the worldwide emissions are related to materials

The Paris Agreement marks a new phase in international cooperation on climate change. To reach the 1.5°C ambition it is estimated that annual global GHG emissions need to be reduced by 26 billion tons  $\mathrm{CO_2e}$  in 2030. Based on United Nations Environment Programme (UNEP), if all policies and measures proposed by all the participating countries are successfully implemented, it will deliver a reduction of 11-13 billion tons  $\mathrm{CO_2e}$ . There is still a reduction of about 15 billion tons  $\mathrm{CO_2e}$  needed to reach the 1.5°C target and materials as a sector is responsible for more than half of the worldwide emissions.

OECD research even shows that 54-64% of the emissions are related to materials. More efficient use of materials, increasing the use intensity, extending product lifetime, recovering and reusing materials can therefore make an important contribution to reducing emissions. If we are able to reduce the emissions related to materials by about 20-30% with circular economy strategies, we are already closing half of the emission gap between current commitments and the 1.5°C pathway in 2030.

#### **Shift from Linear to Circular Supply Chain**

For decades supply chains and products flowed in one direction: from manufacturing to consumption to landfill. In a world with limitless resources, this linear model worked and served as the foundation for business growth. But in a world with increasingly constrained resources and environmental challenges, supply chains need to work based on a circular approach where valuable resources are taken back to be reused.

Scope 3<sup>5</sup> mainly representing supply chain, accounts for a total of 2.285 Mt CO<sub>2</sub>e reported. Despite the fact that reporting on Scope 3 is not compulsory, 77% (109 out of 141) of the responding companies in Benelux and France have disclosed these emissions. Use of sold products is the main driver behind the reported Scope 3, followed by investments, fuel and energy related activities, upstream & downstream and waste management.

## Circular economy will be worth \$4.5 trillion by 2030

It's the point of the circular economy: to reduce dependencies on increasingly scarce natural resources, including water and forest, and allow companies to generate revenue from "waste." Waste here is not rubbish, either figuratively or literally. Waste means lost economic and business opportunity: lost resources, underused assets. Just how much potential revenue? According to Accenture research, the circular economy will be worth \$4.5 trillion by 20306.

CDP Responses this year show that companies are developing circular business initiatives as part of their sustainability and climate strategy. A List companies report investment in one or multiple circular business activities. Great examples are among companies who made it to the A List for the first time in 2016, such as Michelin, DSM and AkzoNobel.

to materials with about 20-30% with circular economy strategies, we are already closing half of the emissions gap between current commitments and the

1.5°C pathway in 2030.

If we are able to reduce

the emissions related

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5 The GHG Protocol Corporate Standard classifies company's Scope 3 GHG emissions as all indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.

6 Accenture, "Waste to Wealth: Creating Advantage in a Circular Economy", 2015.

#### Scope 3 business activity contribution

■ 36% Purchased goods & services

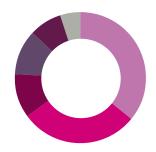
₹ 29% Investments

■ 11% Fuel and energy related services

■ 11% Upstream & Downstream

■ 8% End of life treatment of sold products

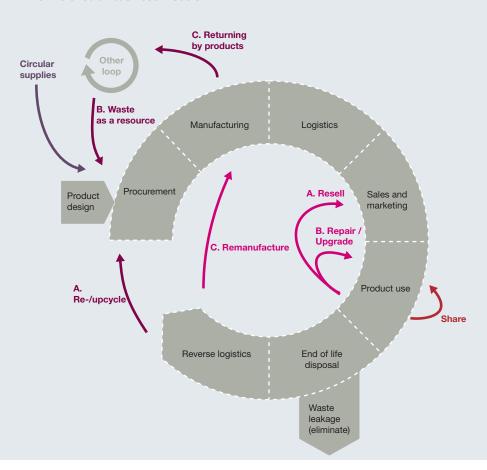
**▼ 5**% Others



#### **Accenture has identified 5 Circular Economy Business Models**

#### **Business Model Business Model Examples** Provides fully renewable, recyclable or biodegradable resource AkzoNobel, BAM Circular inputs that underpin circular production and consumption system. DSM, SUEZ supplies Enables a company to eliminate material leakage and maximize Arcelor Mittal, Resources the economic value of product return flows. Kering, ICADE recovery Saint-Gobain, VEOLIA Allows companies to extend the lifecycle of products and assets. Value that Air France KLM, **Product life** would otherwise be lost through wasted materials are instead maintained or KPN extension even improved by repairing, upgrading, remanufacturing or remarketing products. Promotes a platform for collaboration among product users, either individuals Groupe PSA, **Sharing** or organizations. Orange, Renault **Platforms** Provides an alternative to the traditional model of "buy and own.\*" Products are Michelin, Philips **Product as** used by one or many customers through a lease or pay-for-use arrangement. a Service \*can be applied to product flows in any part of the value chain

#### The five circular business models



## Circular supplies

**BAM** is contributing to the circular value chains thanks to its innovations - one example is Low Energy Asphalt Concrete (LEAB), produced with fewer scarce natural resources and lower CO<sub>2</sub> emissions than conventional asphalt. Furthermore BAM puts a lot of effort into dialogue with clients, partners and suppliers on recyclability of construction materials and buildings.

**DSM is reinventing chemicals.** DSM has developed a new production technique for renewable fuel by converting corn crop residue into cellulosic bio-ethanol. The company is also engaging its suppliers through a Supplier Sustainability Program (SSP). Progress towards targets is shared on a monthly basis within sourcing and on a quarterly basis with the Managing Board. The Supplier Sustainability Plan 2015 addressed a number of relevant topics for the materiality matrix: Sustainable & circular value chains, Biobased economy, Responsible business practices and Climate change & renewable energy.

## AkzoNobel has a sustainability-anchored strategy of "more value from fewer resources"

In 2013 AkzoNobel sold 11,000 tons of paints and coatings that would have previously been discarded, thanks to the work of a dedicated taskforce, making a profit of 4,5 million EUR. Besides this operational eco-efficiency program helped manufacturing site in Sweden to achieve annual savings of up to € 3.8 million and 11,650 ton CO₂e by updating processes and changing behaviors. Meanwhile, in Barcelona, paint yields have been increased and water use has been reduced by reusing white wash water in the next white batch. AkzoNobel wants to reduce its CO₂ footprint by more than 25% by 2020.

**SUEZ** is reducing emissions along the lifecycle of products and services through circular economy. The company discusses with all its partners on the value chain possibilities to optimize both the conception of the goods (recycling capabilities) and the final recycling processes, to reduce scope 3 emissions. In 2015 SUEZ launched a new Sustainable Procurement Policy binding Group's subcontractors and suppliers to its Sustainable Development Policies. SUEZ also opened in 2014 Plast'Lab, a research centre dedicated to creating secondary plastics for industrial, which could significantly reduce the energy consumption and related GHG emissions of its clients.

## Sharing platforms

provided by RCI Mobility.

Groupe PSA offers solutions to their clients who start seeing cars only as a transportation mean. Groupe PSA proposes a range of solutions responding to the new expectations of customers, who now see cars less as capital goods and more as a form of mobility. This includes **short-term leasing** responding to several needs, including regular short-term leasing, extended test drives of new vehicles and replacement vehicles during maintenance services and **urban public carsharing**. The cooperation agreement signed in 2015 by PSA Group and the Bolloré group lends concrete form to a shared ambition to become a major player in the intra-urban carsharing market worldwide.

**Orange launches a supporting "modularity", a collaborative project among CE 100 members.** In the first instance, this project would provide a high level assessment of some current modularity example. In the second instance, this project would focus on a specific product or «product family» and see how modularity / Product Service System (shift from ownership to usage) will play out towards Circular Economy.

Renault MOBILITY will offer self-service rentals 24 hours a day, 7 days a week. The company will offer the possibility to use its vehicles on rental basis to public and private clients. Electric and gasoline vehicles will be available and the solution will be implemented in urban and rural areas through partners in order to offer a local service. In the Netherlands for instance, Renault is part of a car sharing initiative in Utrecht, where 150 ZOEs (one of the Renault's electric model) will be shared among inhabitants. With this adaptable and afordable service, Renault has the objective to meet all kinds of travel needs (individuals and fleets). Renault MOBILITY uses the technological solutions

### Product life extension

KPN long term strategy includes the release of 100% circular networks and services by 2025.

To reach this goal KPN has set short term targets for 2016 with focus on environmental aspects as e-waste, particulate matter and raw material use. As part of its short term strategy, KPN created a network for smart Machine-to-Machine (M2M) communication. With this network KPN is able to realize new services that enable customers to reduce cost and environmental footprint. The resulting avoided energy consumption for customers was 73% in 2015. KPN is the first company including Fairphone in their devices offer, the world's first ethical modular smartphone that can be completely disassembled maximizing product's life.

## Air France and KLM launched programs for bringing back aircraft

waste. The company recovers waste back into a new production cycle streamlining and controlling all technical waste flows. The process includes procedures to reuse and recover spare parts. In 2015, 130 tons of aircraft parts and metal were recycled trough the KLM's ScrapPlaza program. Last year the program was focused on the plastics waste stream investigating reuse opportunities for plastic cabin components. KLM opened the plastic repair shop, where aircraft components are repaired and given a new life. Air France launched a re-use campaign and recovered 250 Business Class chairs, 572 Economy chairs and 7.000 onboard entertainment systems selling them to third parties.

## Resource recovery

ArcelorMittal's recycling rate of end of life/obsolete steel products is 87% making them one of the biggest recyclers of steel in the world – and reducing around 30 Mt CO<sub>2</sub>e yearly. It's R&D team is working on optimal recycling of by-products and other residues which has enabled, for instance, slag to be used as a low carbon substitute in cement or as a fertilizer to enhance soil. Their dedicated life cycle analysis experts are assessing the impact of steel products throughout their life cycle from production, use and end-of-life phases. This enables them to verify whether new solutions proposed by R&D can reduce harmful environmental impacts and demonstrate the performance of steel compared to other materials. Finally they have developed a successful new commercial model that leases rather than sells steel sheet piles in construction projects; reuse rather than recycling reduces still further the carbon footprint for each use of the sheet pile.

**ICADE** is committed to reducing water consumption and waste production. New construction projects which are HQE-certified comply with strict requirements in terms of waste reduction and recovery during the construction and operation phases. Icade has set itself an ambitious goal: to recycle or recover 100% of waste by 2020. In addition, Icade intends to reduce its water consumption by 25% by 2020 and to have at least 25% of new constructions with a rainwater harvesting system.

Kering partnered with a textile upcycler to test te viavility of a textile-to-textile chemical recycling technology. The technology will make possible to separate and extract polyester and cotton from end-of-use textiles. The recovered resources can be afterwards reused to produce new textiles creating a circular manufacturing process.

Saint Gobain adhers to circular economy principles, aiming for zero non-recovered waste. The company is planning to recycle internal waste implementing a recycling service for construction waste. Though different collaborations (CertainTeed's L'Anse facility (US) and Warden Electric). Warden Electric, for instance, bought a power plant and converted it from coal, oil and natural gas to biomass. The excess steam generated is recirculated to another facility for use in production, replacing the natural gas previously used. CertainTeed provides waste, from wood pallets, generated in its production process to the power plant to be burned for additional green biomass input. Moreover, to improve water usage, Saint Gobain have implemented systems to recover the water from their emissions (during dehydration and drying) and from rainwater.

Veolia's restructuration has a new strategic plan: "Resourcing the world".

Veolia has conducted a major restructuration between 2013-2016 and designed a new strategic plan for 2016-2018 based on local demand: "Resourcing the world". The company focuses on mitigation actions needed to reduce GHG emissions, with the design of new type of contracts on energy performance and water efficiency (acquisition of Altergis to strengthen energy services) and the development of circular economy by waste and heat recovery (acquisition of recycled plastic manufacturer AKG Kunststof to enforce its position of producer of recycled raw materials).

### Product as a service

By offering leasing instead of buying Michelin turns the case of re- and upcycling end of life tires upside down. Michelin's initiatives are best described through its 4R strategy. The first R stands for "Reduce" by designing lighter tyres, using fewer raw materials, capable of carrying heavier loads, lasting more kilometres or increasing the number of landings. Emphasis is also placed on reducing the rolling resistance of tyres, thereby lessening fuel consumption and CO<sub>2</sub>e emissions. The second R stands for Reuse by repairing, retreading and re-grooving tyres. The last two Rs, Recycle and Renewable, express Michelin's dedication to recycling and recovering when and where possible, as well as using renewable biomaterials for new tyres manufacturing.

Product as a service: Philips "Light as a Service" deal with Amsterdam Airport Schiphol. Under the terms of this deal Philips will retain ownership of the lighting equipment and Schiphol will pay for the light used. The project will utilize LED-based products that will deliver 50% energy savings relative to legacy lighting. Light as a Service offers state-of-the-art hassle-free lighting systems, does not require any customer investment, provides energy efficiency (lower CO<sub>2</sub> emissions), and supports the circular economy (less waste to landfill).

Business model innovation offers companies powerful options for embracing the circular economy. But many of the models, if not most, would not be possible without the support of innovative new technologies—especially digital ones such as social, mobile, analytics, cloud and machine to machine' technologies (e.g. the wirelessly connected internet of things).

Designing value chains to embed circular business models all the way through to the customer's use and return is a major new frontier for digital that revolutionizes levels of service and flexibility, when the physical and digital worlds merge and products start to flow between users, markets, and lifecycles at very low transaction costs.

## Circular Supplies Business Model Best Practice: AkzoNobel, DSM, Philips and Google partnering to reduce carbon footprint

In October 2016 a unique partnership has been set up in the Netherlands: AkzoNobel, DSM, Philips and Google have made a long-term agreement to jointly source power from renewable energy projects. As a first step, those four companies have agreed to source a total of 350.000.000 kWh a year from Windpark Krammer once it becomes operational in 2019. This is equivalent to the total annual energy consumption of 100,000 households. With this initiative the companies will make a significant contribution to the realization of the Dutch Renewable Energy Target agreed in the Dutch Energy Agreement for Sustainable Growth - to generate 14% of the energy from renewable sources.



Sourcing renewable electricity in this way will help us deliver on DSM's global commitment to source at least half of our purchased electricity from renewable sources by 2025. To deliver on the Paris climate agreement goal of reducing the temperature increase to well below 2° Celsius, it is key that we join forces and build innovative partnerships like the one with Windpark Krammer.

Atzo Nicolaï, President DSM Netherlands

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We are proud to be part of the future of energy sourcing. This partnership shows that innovation does not stop at product development. It also means finding new ways of working together and illustrates our commitment to becoming more sustainable. In addition, by supporting communities to create more green energy, we are helping our cities to become cleaner and more liveable.

Knut Schwalenberg, Director of AkzoNobel Nederland

Philips has set ambitious goals for 2020 with our sustainability program "Healthy People, Sustainable Planet". Carbon neutrality is an important goal of our operations. So, we strive to only use 100% renewable electricity. This agreement is another step in realizing this goal. Windpark Krammer gives us the opportunity to source wind energy for our operations, a novel approach. I am proud to have teamed up with fellow Industrial participants in this first-of-a-kind cooperation in Europe. It's a perfect example of integrating circular economy principles.

Hans de Jong, CEO Philips Benelux



## **Natural Capital**

### Water

>25%

## US\$2.5 billion

companies identify CO<sub>2</sub> reduction opportunities through improved water management

financial impacts from water risk

Water plays a critical role to achieve the climate neutral ambitions set by the Paris Agreement.

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

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

Encouragingly, companies are already reporting that improved water management can lead to emissions reductions, such as **L'Oréal, Mitsubishi**, and **Mars**. If given proper attention, water security can be transformed from a limiting to an enhancing factor for delivering on commitments to tackle climate change.

- In 2015, more than a quarter of reporting companies identified opportunities to reduce emissions through improved water management. Read the 2016 global water report (released 15th Nov) to see how companies are improving water management to realize greater emissions reductions.
- Companies disclosing to CDP reported financial impacts from water risk, in 2015, totalled more than US\$2.5 billion.

### **Forests**

10-15%

of the world's GHG is due to deforestation

42%

of companies stipulate zero deforestation

**Up to 33%** 

carbon mitigation could be acheived by adressing deforestation

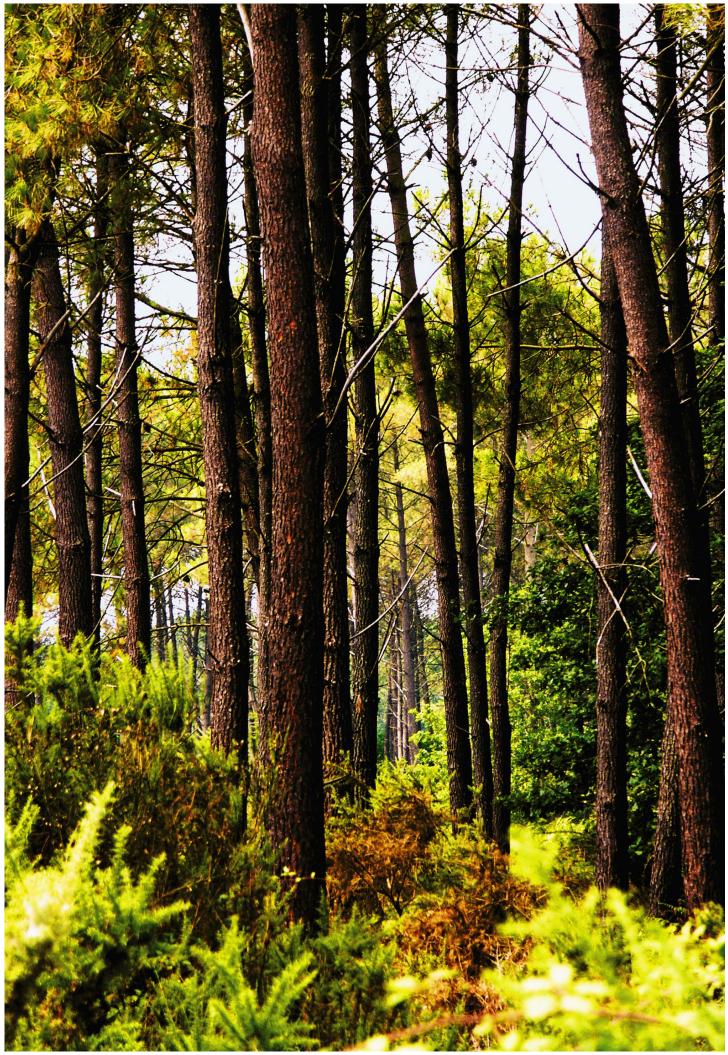
Deforestation and forest degradation account for approximately 10-15% of the world's greenhouse gas emissions. Addressing deforestation is therefore critical for meeting international ambitions to prevent dangerous climate change.

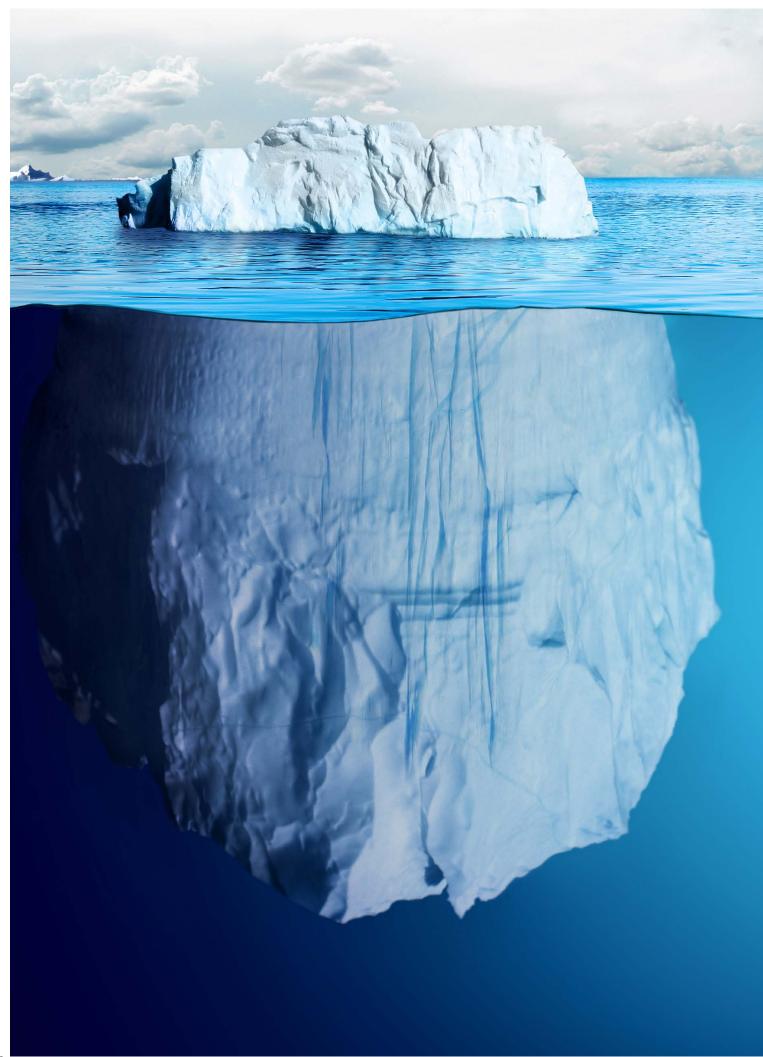
In fact, the most immediate and effective mechanism for mitigating climate impacts could come through curbing deforestation, according to the Stern Review<sup>1</sup>.

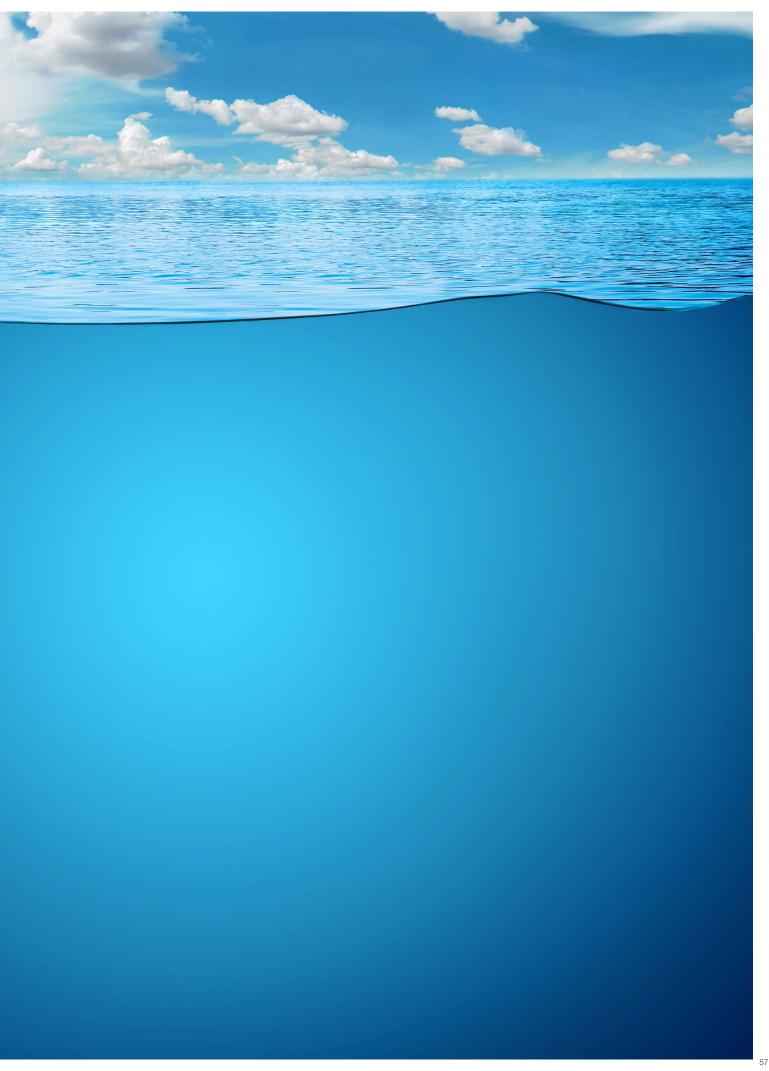
Global demand for agricultural commodities is the primary driver of deforestation, as land is cleared to produce soy, palm oil and cattle products. Alongside timber and pulp, these commodities are the building blocks of millions of products traded globally. These in turn are wealth generators which feature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

- 81% of European companies reporting to CDP's forest program in 2016 have commitments to address deforestation yet only 42% stipulate zero or zero net deforestation and forests degradation within a 2020 timeframe. Read the 2016 Global Forests Report (released in early December) to see how companies are translating these into meaningful actions.
- Up to 33% of the carbon mitigation needed annually to keep temperature rises in check could be achieved by addressing deforestation².

<sup>1</sup> Stern review: The Economics of Climate Change, Chapter 25 Reversing Emissions from Land Use Change <a href="http://webarchive.nationalarchives.gov.uk/+/http://www.hm-treasury.gov.uk/media/C7F/7E/ch\_25\_reversing\_emissions.pdf">http://webarchive.nationalarchives.gov.uk/+/http://www.hm-treasury.gov.uk/media/C7F/7E/ch\_25\_reversing\_emissions.pdf</a>







## **Appendix 1**

## Investor signatories and members

#### Investor signatories by location

- **Europe -** 382 = 46%
- **North America -** 223 = 27%
- Latin America & Carribean -73 = 9%
- Asia 71 = 9%
- Australia & New Zealand -67 = 8%
- **Africa -** 13 = 1%



#### Investor signatories by type

- Asset Managers 363 = 40%
- **Asset Owners -** 256 = 30%
- Banks 158 = 19%
- **Insurance -** 39 = 5%
- **▼ Others -** 13 = 2%



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

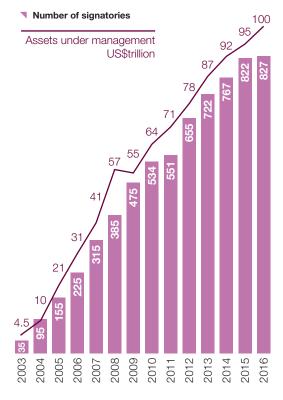
Our global data from companies and cities in response to climate change, water insecurity and deforestation and our award-winning investor research series is driving investor decision-making. Our analysis helps investors understand the risks they run in their portfolios. Our insights shape engagement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

For more information about the CDP investor program, including the benefits of becoming a signatory or member please visit:

https://www.cdp.net/Documents/Brochures/investorinitiatives-brochure-2016.pdf

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

#### Investor signatories over time



#### **Investors Members**

ABRAPP - Associação Brasileira das Entidades Fechadas de Previdência Complementar ACTIAM AEGON N.V. Allianz Global Investors ATP Group Aviva Investors AXA Group Bank of America Merrill Lynch Bendigo and Adelaide Bank BlackRock Boston Common Asset Management, LLC BP Investment Management Limited British Columbia Investment Management Corporation California Public Employees' Retirement System California State Teachers' Retirement System Calvert Investment Management, Inc. Capricorn Investment Group Catholic Super CCLA Investment Management Ltd DEXUS Property Group

Etica SGR Fachesf FAPES Fundação Itaú Unibanco

Generation Investment Management

Goldman Sachs Asset Management

Henderson Global Investors

Hermes Fund Managers

HSBC Holdings plc Infraprev

KeyCorp

KI P

Legg Mason, Inc. London Pensions Fund Authority

Maine Public Employees Retirement System

Morgan Stanley

National Australia Bank NEI Investments

Neuberger Berman

New York State Common Retirement Fund

Nordea Investment Management

Norges Bank Investment Management Overlook Investments Limited

PFA Pension

POSTALIS - Instituto de Seguridade Social dos Correios e Telégrafos

Rathbone Greenbank Investments

Real Grandeza

Robeco RobecoSAM AG

Rockefeller & Co. Royal Bank of Canada

Sampension KP Livsforsikring A/S

SEB AB

Sompo Japan Nipponkoa Holdings, Inc Sustainable Insight Capital Management

Terra Alpha Investments LLC

The Sustainability Group The Wellcome Trust

UBS

University of California

University of Toronto Whitley Asset Management

# Appendix 2 Responding and non-responding companies

#### Key to appendix

AQ(L)	Answered Questionnaire Received Late
AQ(SA)	See Another
F	Failure to provide sufficient information to CDP to be evaluated for Climat Change <sup>1</sup> .

#### Key to appendix

Company

DP	Decline to participate
NR	No Response

Country

Response status

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

Aalberts Industries         Netherlands         F (DP)           AB SCIENCE SA         France         F (NR)           Abc Arbitrage         France         F (NR)           Abiyax SA         France         F (NR)           Ablynx NV         Belgium         F (DP)           ABN Amro Holding         Netherlands         D           Accell Group         Netherlands         F (NR)           AccorHotels         France         C           Ackermans & van Haaren         Belgium         F (NR)           Actia Group         France         F (NR)           Adocia SAS         France         F (NR)           Adocia SAS         France         B           Aedifica SA         Belgium         F (NR)           Aegon         Netherlands         C           Affine         France         F (NR)           Ages SA/NV         Belgium         F (NR)           Agra-Gevaert N.V.         Belgium         F (NR)           Air France - KLM         France         B           Airbus Group         Netherlands         B           Airbus Group         Netherlands         A           Akka Technologies         France         F (NR) <th>Company</th> <th>Country</th> <th>Response status</th>	Company	Country	Response status
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Accell Group         Netherlands         F (NR)           AccorHotels         France         C           Ackermans & van Haaren         Belgium         F (NR)           Actia Group         France         F (NR)           Adocia SAS         France         F (NR)           ADP (Aéroports de Paris)         France         B           Aedifica SA         Belgium         F (NR)           Aegon         Netherlands         C           Affline         France         F (NR)           Ageas SA/NV         Belgium         F (NR)           Agra-Gevaert N.V.         Belgium         F (NR)           Air France - KLM         France         B           Air Liquide         France         B           Air Liquide         France         B           Airbus Group         Netherlands         B           Akka Technologies         France         F (NR)           AkzoNobel         Netherlands         A           Albioma         France         F (NR)           Alcatel - Lucent         France         F (NR)           Altom         F (DP)           Altamir Amboise         France         F (NR)           Alten	Ablynx NV	Belgium	F (DP)
AccorHotels         France         C           Ackermans & van Haaren         Belgium         F (NR)           Actia Group         France         F (NR)           Adocia SAS         France         B           ADP (Aéroports de Paris)         France         B           Aedifica SA         Belgium         F (NR)           Aegon         Netherlands         C           Affine         France         F (NR)           Ageas SA/NV         Belgium         F (NR)           Agra-Gevaert N.V.         Belgium         F (NR)           Air France - KLM         France         B           Air Liquide         France         B           Air Liquide         France         B           Airbus Group         Netherlands         B           Akka Technologies         France         F (NR)           AkzoNobel         Netherlands         A           Albioma         France         F (NR)           Alcatel - Lucent         France         F (NR)           Altaxis SA         Belgium         F (DP)           Altamir Amboise         France         F (NR)           Alten         France         B           Altice NV </td <td>ABN Amro Holding</td> <td>Netherlands</td> <td>D</td>	ABN Amro Holding	Netherlands	D
Ackermans & van Haaren Belgium F (NR) Actia Group France F (NR) Adocia SAS France F (NR) ADP (Aéroports de Paris) France B Aedifica SA Belgium F (NR) Aegon Netherlands C Affine France F (NR) Ageas SA/NV Belgium F (NR) Agra-Gevaert N.V. Belgium F (NR) Air France - KLM France B Air Liquide France B Airbus Group Netherlands B Akka Technologies France F (NR) Alaxiona France F (NR) Altariar Amboise France F (NR) Altarea Cogedim France B Altice NV Netherlands F (NR) Altarea Cogedis France F (NR) Altarn Technologies France C AMG Advanced Metallurgical Group NV Netherlands C Amoeba SAS France F (NR) Amplitude Surgical SAS Amplitude Surgical SAS France F (NR) Attherlands F (NR)	Accell Group	Netherlands	F (NR)
Actia Group France F (NR) Adocia SAS France F (NR) ADP (Aéroports de Paris) France B Aedifica SA Belgium F (NR) Aegon Netherlands C Affine France F (NR) Ageas SA/NV Belgium F (NR) Agra-Gevaert N.V. Belgium F (NR) Air France - KLM France B Air Liquide France B Airbus Group Netherlands B Akka Technologies France F (NR) Alcatel - Lucent France F (NR) Alstom France F (NR) Altamir Amboise France F (NR) Altamir Amboise France B Altice NV Netherlands F (NR) Altamir Technologies France C AMG Advanced Metallurgical Group NV Netherlands C Amoeba SAS France F (NR) Amplitude Surgical SAS France F (NR) Amsterdam Commodities NV Netherlands F (DP)	AccorHotels	France	С
Adocia SAS  France  France  B  Aedifica SA  Belgium  F(NR)  Aegon  Netherlands  C  Affine  France  France  F(NR)  Ageas SA/NV  Belgium  F(NR)  Agfa-Gevaert N.V.  Belgium  France  B  Air Liquide  France  B  Airbus Group  Netherlands  B  Akka Technologies  France  France  F(NR)  Aliaxis SA  Belgium  F(NR)  Aliaxis SA  Belgium  F(NR)  Acatel - Lucent  France  F(NR)  Altamir Amboise  France  Atten  Atten  France  France  France  F(NR)  Altara Cogedim  France  A-  Alten  France  France  F(NR)  Altara France  France  France  France  France  France  France  F(NR)  Altara Cogedim  France  A-  Alten  France  France  F(NR)  Altara Technologies  France  F(NR)  Alten France  F(NR)  Franc	Ackermans & van Haaren	Belgium	F (NR)
ADP (Aéroports de Paris)  Aedifica SA  Belgium  F (NR)  Aegon  Netherlands  C  Affine  France  F (NR)  Ageas SA/NV  Belgium  F (NR)  Agfa-Gevaert N.V.  Belgium  F (NR)  Air France - KLM  France  B  Air Liquide  France  B  Airbus Group  Netherlands  B  Akka Technologies  France  F (NR)  Alcatel - Lucent  France  Finance  Finance  F (NR)  Altamir Amboise  Alten  France  F (NR)  Alten  France  B  Amoeba SAS  France  F (NR)  Netherlands  C  Amoeba SAS  France  F (NR)  France  F (NR)  Alterlands  France  F (NR)  C  Amplitude Surgical SAS  France  F (NR)  F (DP)  Amsterdam Commodities NV  Netherlands  F (DP)  Refined  F (NR)  F	Actia Group	France	F (NR)
Aedifica SA  Aegon  Netherlands  C  Affine  France  F(NR)  Ageas SA/NV  Belgium  F(NR)  Agfa-Gevaert N.V.  Belgium  F(NR)  Air France - KLM  France  B  Air Liquide  France  B  Airbus Group  Netherlands  B  Akka Technologies  France  F(NR)  Alcatel - Lucent  France  F(NR)  Alstom  France  France  F(NR)  Altamir Amboise  France  France  F(NR)  Altarea Cogedim  Attran Technologies  France  F(NR)  Amplitude Surgical SAS  France  F(NR)  Aegon  Netherlands  France  F(NR)  F(NR)  F(NR)  F(NR)  F(NR)  C  C  Amoeba SAS  France  F(NR)  Aetherlands  F(NR)  F(N	Adocia SAS	France	F (NR)
Aegon Netherlands C Affine France F (NR) Ageas SA/NV Belgium F (NR) Agfa-Gevaert N.V. Belgium F (NR) Air France - KLM France B Air Liquide France B Airbus Group Netherlands B Akka Technologies France F (NR) Alcatel - Lucent France F (NR) Aliaxis SA Belgium F (DP) Altamir Amboise France F (NR) Altarea Cogedim France F (NR) Altran Technologies France F (NR) Amplitude Surgical SAS France F (NR) Amsterdam Commodities NV Netherlands F (DP)	ADP (Aéroports de Paris)	France	В
Affine France F (NR) Ageas SA/NV Belgium F (NR) Agfa-Gevaert N.V. Belgium F (NR) Air France - KLM France B Air Liquide France B Airbus Group Netherlands B Akka Technologies France F (NR) AlzoNobel Netherlands A Albioma France F (NR) Alcatel - Lucent France F (NR) Alstom France F (NR) Altamir Amboise France F (NR) Altamea Cogedim France F (NR) Altran Technologies France C AMG Advanced Metallurgical Group NV Netherlands C Amplitude Surgical SAS France F (NR) Amsterdam Commodities NV Netherlands F (DP)	Aedifica SA	Belgium	F (NR)
Ageas SA/NV  Agfa-Gevaert N.V.  Belgium  F (NR)  Air France - KLM  Air France - KLM  France  B  Air Liquide  France  B  Airbus Group  Netherlands  B  Akka Technologies  France  F (NR)  AkzoNobel  Netherlands  A  Albioma  France  F (NR)  Alcatel - Lucent  France  F (NR)  Alstom  France  F (DP)  Alstom  France  F (NR)  Altamir Amboise  France  France  A-  Alten  France  B  Attran Technologies  France  F (NR)  Altarna Technologies  France  F (NR)  Altarna Technologies  France  France  C  AMG Advanced Metallurgical Group NV  Netherlands  France  F (NR)  Amsterdam Commodities NV  Netherlands  F (DP)	Aegon	Netherlands	С
Agfa-Gevaert N.V.  Air France - KLM  Air Liquide  France  B  Akka Technologies  France  F (NR)  AkzoNobel  Netherlands  A  Albioma  France  F (NR)  Alcatel - Lucent  France  F (NR)  Aliaxis SA  Belgium  F (DP)  Alstom  France  F (DP)  Altamir Amboise  France  F (NR)  Altarea Cogedim  France  A-  Alten  France  B  Altice NV  Netherlands  F (NR)  Altran Technologies  France  C  AMG Advanced Metallurgical Group NV  Netherlands  F (NR)  Amsterdam Commodities NV  Netherlands  F (DP)  Atherlands  F (NR)  Amsterdam Commodities NV  Netherlands  F (DP)	Affine	France	F (NR)
Air France - KLM France B  Air Liquide France B  Airbus Group Netherlands B  Akka Technologies France F (NR)  AkzoNobel Netherlands A  Albioma France F (NR)  Alcatel - Lucent France F (NR)  Aliaxis SA Belgium F (DP)  Alstom France F (NR)  Altamir Amboise France F (NR)  Altarea Cogedim France B  Attice NV Netherlands F (NR)  Altran Technologies France C  AMG Advanced Metallurgical Group NV Netherlands C  Amoeba SAS France F (NR)  Amsterdam Commodities NV Netherlands F (DP)	Ageas SA/NV	Belgium	F (NR)
Air Liquide France B Airbus Group Netherlands B Akka Technologies France F (NR) AkzoNobel Netherlands A Albioma France F (NR) Alcatel - Lucent France F (NR) Alaxis SA Belgium F (DP) Alstom France F (NR) Altamir Amboise France F (NR) Altarea Cogedim France B Altice NV Netherlands F (NR) Altiran Technologies France C Amoeba SAS France F (NR) Amsterdam Commodities NV Netherlands F (DP)	Agfa-Gevaert N.V.	Belgium	F (NR)
Airbus Group  Akka Technologies  France  F (NR)  AkzoNobel  Netherlands  A  Albioma  France  F (NR)  Alcatel - Lucent  France  F (NR)  Aliaxis SA  Belgium  F (DP)  Alstom  France  F (NR)  Altamir Amboise  France  France  F (NR)  Altarea Cogedim  France  A-  Alten  France  B  Altice NV  Netherlands  France  C  AMG Advanced Metallurgical Group NV  Netherlands  F (NR)  Amplitude Surgical SAS  France  F (NR)  Netherlands  F (NR)  France  F (NR)  Amsterdam Commodities NV  Netherlands  F (NR)  Retherlands  F (NR)  France  F (NR)  France  F (NR)	Air France - KLM	France	В
Akka Technologies France F (NR)  AkzoNobel Netherlands A  Albioma France F (NR)  Alcatel - Lucent France F (NR)  Aliaxis SA Belgium F (DP)  Alstom France F (NR)  Altamir Amboise France F (NR)  Altarea Cogedim France A-  Alten France B  Altice NV Netherlands F (NR)  Altarn Technologies France C  Amoeba SAS France F (NR)  Amsterdam Commodities NV Netherlands F (NR)  An  Amsterdam Commodities NV Netherlands F (DP)	Air Liquide	France	В
AkzoNobel Netherlands A  Albioma France F (NR)  Alcatel - Lucent France F (NR)  Aliaxis SA Belgium F (DP)  Alstom France F (DP)  Altamir Amboise France F (NR)  Altarea Cogedim France A-  Alten France B  Altice NV Netherlands F (NR)  Altran Technologies France C  AMG Advanced Metallurgical Group NV Netherlands C  Amoeba SAS France F (NR)  Amplitude Surgical SAS France F (NR)  Amsterdam Commodities NV Netherlands F (DP)	Airbus Group	Netherlands	В
Albioma France F (NR)  Alcatel - Lucent France F (NR)  Aliaxis SA Belgium F (DP)  Alstom France F (DP)  Altamir Amboise France F (NR)  Altarea Cogedim France A-  Alten France B  Altice NV Netherlands F (NR)  Altran Technologies France C  AMG Advanced Metallurgical Group NV Netherlands C  Amoeba SAS France F (NR)  Amplitude Surgical SAS France F (NR)  Amsterdam Commodities NV Netherlands F (DP)	Akka Technologies	France	F (NR)
Alcatel - Lucent France Finance A- Altarea Cogedim France A- Alten France B Altice NV Netherlands Finance C AMG Advanced Metallurgical Group NV Netherlands Finance Finance Finance C Amoeba SAS France Finance Financ	AkzoNobel	Netherlands	A
Aliaxis SA  Belgium  F (DP)  Alstom  France  F (DP)  Altamir Amboise  France  France  F (NR)  Altarea Cogedim  France  A-  Alten  France  B  Altice NV  Netherlands  F (NR)  Altran Technologies  France  C  AMG Advanced Metallurgical Group NV  Netherlands  F (NR)  Amoeba SAS  France  F (NR)  Amplitude Surgical SAS  France  F (NR)  Amsterdam Commodities NV  Netherlands  F (DP)	Albioma	France	F (NR)
Alstom France F (DP)  Altamir Amboise France F (NR)  Altarea Cogedim France A-  Alten France B  Altice NV Netherlands F (NR)  Altran Technologies France C  AMG Advanced Metallurgical Group NV Netherlands C  Amoeba SAS France F (NR)  Amplitude Surgical SAS France F (NR)  Amsterdam Commodities NV Netherlands F (DP)	Alcatel - Lucent	France	F (NR)
Altamir Amboise France F (NR)  Altarea Cogedim France A-  Alten France B  Altice NV Netherlands F (NR)  Altran Technologies France C  AMG Advanced Metallurgical Group NV Netherlands C  Amoeba SAS France F (NR)  Amplitude Surgical SAS France F (NR)  Amsterdam Commodities NV Netherlands F (DP)	Aliaxis SA	Belgium	F (DP)
Altarea Cogedim France A-  Alten France B  Altice NV Netherlands F (NR)  Altran Technologies France C  AMG Advanced Metallurgical Group NV Netherlands C  Amoeba SAS France F (NR)  Amplitude Surgical SAS France F (NR)  Amsterdam Commodities NV Netherlands F (DP)	Alstom	France	F (DP)
Alten France B  Altice NV Netherlands F (NR)  Altran Technologies France C  AMG Advanced Metallurgical Group NV Netherlands C  Amoeba SAS France F (NR)  Amplitude Surgical SAS France F (NR)  Amsterdam Commodities NV Netherlands F (DP)	Altamir Amboise	France	F (NR)
Altice NV Netherlands F (NR)  Altran Technologies France C  AMG Advanced Metallurgical Group NV Netherlands C  Amoeba SAS France F (NR)  Amplitude Surgical SAS France F (NR)  Amsterdam Commodities NV Netherlands F (DP)	Altarea Cogedim	France	A-
Altran Technologies France C  AMG Advanced Metallurgical Group NV Netherlands C  Amoeba SAS France F (NR)  Amplitude Surgical SAS France F (NR)  Amsterdam Commodities NV Netherlands F (DP)	Alten	France	В
AMG Advanced Metallurgical Group NV Netherlands C  Amoeba SAS France F (NR)  Amplitude Surgical SAS France F (NR)  Amsterdam Commodities NV Netherlands F (DP)	Altice NV	Netherlands	F (NR)
Amoeba SAS         France         F (NR)           Amplitude Surgical SAS         France         F (NR)           Amsterdam Commodities NV         Netherlands         F (DP)	Altran Technologies	France	С
Amplitude Surgical SAS France F (NR)  Amsterdam Commodities NV Netherlands F (DP)	AMG Advanced Metallurgical Group NV	Netherlands	С
Amsterdam Commodities NV Netherlands F (DP)	Amoeba SAS	France	F (NR)
. ,	Amplitude Surgical SAS	France	F (NR)
ANF France F (NR)	Amsterdam Commodities NV	Netherlands	F (DP)
	ANF	France	F (NR)

Company		Ticoponico ciatac
Anheuser Busch InBev	Belgium	A-
APERAM	Luxembourg	В
Arcadis	Netherlands	В
ArcelorMittal	Luxembourg	В
Argan	France	F (NR)
ARKEMA	France	В
ARTPRICE.COM	France	F (NR)
Ascencio	Belgium	F (NR)
ASM International	Netherlands	С
ASML Holding	Netherlands	С
Assystem	France	F (NR)
Atenor Group	Belgium	F (NR)
Atos SE	France	A
Atrium European Real Estate	Channel Islands	F (NR)
Aubay	France	F (NR)
Aufeminim.com	France	F (NR)
AUSY	France	F (NR)
AXA Group	France	В
AXWAY SOFTWARE SA	France	F (NR)
Banque Nationale Belgique S.A.	Belgium	F (NR)
Barco NV	Belgium	В
Bastide Le Confort Medical	France	F (NR)
BE Semiconductor Industries N.V	Netherlands	F (NR)
Befimmo SA	Belgium	A-
Bekaert NV	Belgium	D
Beneteau	France	F (NR)
Beter Bed	Netherlands	F (NR)
BHF Kleinwort Benson Group	Belgium	F (NR)
Bic	France	A
BinckBank	Netherlands	F (NR)
Biocartis NV	Belgium	F (DP)
bioMérieux	France	F (NR)
Blue Solutions	France	F (NR)
BNP Paribas	France	A-
BNP Paribas Fortis SA	Belgium	AQ (SA) - BNP Paribas
Boiron Sa	France	F (NR)

# Appendix 2 Responding and non-responding companies

Company	Country	Response status	Compa
Bolloré	France	D F (NIP)	Dexia S
Bonduelle	France	F (NR)	D'letere
Bourbon	France	F (NR)	ECA
Bouygues	France	A	Econoc
bpost	Belgium	В	Edenred
Brederode S.A.	Belgium	F (NR)	EDF
Brunel International	Netherlands	F (DP)	Edify Sa
Bureau Veritas	France	С	Eiffage
Cap Gemini	France	A-	Elia Sys
Carrefour	France	В	Elior
Casino Guichard-Perrachon	France	В	Elis
Catering International & Services	France	F (NR)	ENGIE
CBo Territoria	France	F (NR)	EOS Ima
Cegedim Sa	France	F (NR)	Eramet
Cegereal	France	D	Erytech
Cegid Group	France	F (NR)	ESI Gro
Celyad SA	Belgium	F (NR)	Essilor I
Cerenis Therapeutics Holding SA	France	F (NR)	Esso St
CFE SA	Belgium	F (NR)	
CGG SA	France	F (NR)	Euler He
Chargeurs Sa	France	F (NR)	Eurazeo
Club Méditerranée	France	В	— Euro Dis
CNP Assurances	France	В	Eurocor
Coface SA	France	F (NR)	Eurofins
Cofinimmo SA/NV	Belgium	В	Euronav
Colruyt	Belgium	F (NR)	Euronex
Compagnie Des Alpes	France	F (NR)	Europad
Compagnie du Bois Sauvage S.A.	Belgium	F (NR)	Europca
Constellium	France	С	Europea
Corbion	Netherlands	В	EUTELS
Core Laboratories N.V.	Netherlands	D	EVS Bro
Credit Agricole	France	В	Exel Ind
Dalenys	Belgium	F (NR)	Exmar N
Danone	France	В	Fagron
Dassault Systemes	France	C	Faiveley
DBV Technologies SA	France	F (NR)	Faurecia
Deceuninck NV	Belgium	F (NR)	FFP
Delhaize Group	Belgium	В	Financiè
·	-		
Delta Lloyd Deelnemingen Fonds	Netherlands	F (DP)	Flow Tra
Delta Lloyd NV	Netherlands	D F (NIP)	Fluxys E
Delta Plus Group	France	F (NR)	Foncière
Derichebourg Multiservices	France	F (NR)	Foncière

Company	Country	Response status
Dexia SA	Belgium	F (NR)
D'leteren S.A./N.V.	Belgium	F (NR)
ECA	France	D
Econocom	Belgium	F (NR)
Edenred SA	France	F (DP)
EDF	France	A
Edify Sa	Luxembourg	F (NR)
Eiffage	France	D
Elia System Operator	Belgium	F (NR)
Elior	France	F (NR)
Elis	France	F (NR)
ENGIE	France	A
EOS Imaging SA	France	F (NR)
Eramet	France	F (DP)
Erytech Pharma	France	F (NR)
ESI Group	France	F (NR)
Essilor International	France	В
Esso Sté Anonyme Française	France	AQ (SA) - Exxon Mobil Corporation
Euler Hermes	France	AQ (SA) - Allianz SE
Eurazeo	France	С
Euro Disney Sca - Regr	France	AQ (SA) - Walt Disney Company
Eurocommercial Properties NV	Netherlands	F (DP)
Eurofins Scientific	France	F (NR)
Euronav N.V.	Belgium	D
Euronext NV	Netherlands	F (NR)
Europacorp Promesses	France	F (NR)
Europcar Groupe SA	France	F (NR)
European Assets Trust	Netherlands	F (DP)
EUTELSAT COMMUNICATION	France	F (NR)
EVS Broadcast Equipment S.A.	Belgium	F (NR)
Exel Industries Sa-A Shs	France	F (NR)
Exmar N.V.	Belgium	F (NR)
Fagron	Belgium	F (NR)
Faiveley Sa	France	F (NR)
Faurecia	France	С
FFP	France	F (NR)
Financière de Tubize SA	Belgium	F (DP)
Flow Traders	Netherlands	F (NR)
Fluxys Belgium	Belgium	F (NR)
Foncière de Paris SIIC	France	F (NR)
Foncière des Régions	France	A-
Fugro	Netherlands	F (NR)

any	Country	Response status	Company	Country	Response status
ren	France	F (NR)	Inter Parfums	France	F (NR)
apagos N.V.	Belgium	F (NR)	Intertrust NV	Netherlands	F (NR)
ameloft	France	F (NR)	Intervest Offices NV	Belgium	F (NR)
aztransport Et Technigaz	France	F (DP)	Ion Beam Applications S.A. (IBA)	Belgium	F (DP)
ecina	France	В	Ipsen	France	D
emalto	Netherlands	AQ(L)	Ipsos	France	С
enfit	France	F (NR)	Jacquet Metals	France	F (NR)
enticel Sa	France	F (DP)	JCDecaux SA.	France	В
FI Informatique	France	D	KBC Ancora	Belgium	AQ (SA) - KBC Grou
mv	Belgium	F (NR)	KBC Group	Belgium	В
l Events	France	F (NR)	Kendrion NV	Netherlands	F (DP)
randvision NV	Netherlands	F (NR)	Kering	France	A-
reenyard Foods	Belgium	F (NR)	Kinepolis Group NV	Belgium	F (NR)
roupe Bruxelles Lambert SA	Belgium	F (NR)	Klépierre	France	A
roupe Crit	France	F (NR)	Koninklijke Ahold	Netherlands	С
roupe Eurotunnel	France	D	Koninklijke DSM	Netherlands	A
roupe Flo	France	F (NR)	Koninklijke KPN NV (Royal KPN)	Netherlands	A
roupe Fnac	France	D	Korian-Medica	France	F (NR)
roupe Gorgé	France	F (NR)	La Poste	France	В
oupe Open	France	F (NR)	LafargeHolcim Ltd	Switzerland	A-
oupe Partouche	France	F (NR)	Lagardère S. C. A.	France	С
roupe PSA	France	A	LATECOERE	France	F (NR)
oupe SEB	France	С	LDLC.com	France	F (NR)
uerbet	France	F (NR)	Le Belier	France	F (NR)
AULOTTE GROUP	France	F (DP)	Le Noble Age	France	F (NR)
avas	France	F (NR)	Leasinvest Real Estate Sca	Belgium	F (NR)
eijmans Nv-Cva	Netherlands	A-	Lectra SA	France	F (NR)
eineken Holding NV	Netherlands	AQ (SA) - Heineken NV	LEGRAND	France	В
eineken NV	Netherlands	A-	LISI	France	AQ(L)
ermès International	France	F (NR)	L'Oréal	France	A
ghCo	France	F (NR)	Lotus Bakeries	Belgium	F (NR)
ome Invest Belgium	Belgium	F (NR)	Lucas Bols NV	Netherlands	F (NR)
ınter Douglas NV	Netherlands	F (NR)	Luxempart S.A.	Belgium	F (NR)
ADE	France	A	LVMH	France	F (DP)
Logistics	France	В	M6-Métropole Télévision	France	F (NR)
E + XAO	France	F (NR)	Maisons France Confort	France	F (NR)
id	France	F (NR)	Manitou BF	France	AQ(L)
CD	United Kingdom	AQ(L)	Manutan International	France	F (NR)
erys	France	В	Marie Brizard Wine & Spirits SA	France	F (NR)
otel	France	F (NR)	Marseill Tunnel Prado-Carena	France	F (NR)
G Group	Netherlands	Α	Maurel Et Prom	France	C
genico	France	В	Melexis N.V.	Belgium	F (NR)
nate Pharma SA	France	F (DP)	Mercialys	France	F (NR)

# Appendix 2 Responding and non-responding companies

Company	Country	Response status	Company	
ersen SA	France	F (NR)	Proximus	
GI COUTIER	France	F (NR)	PSB Industries SA	
chelin	France	A	Publicis Groupe SA	
thra Pharmaceuticals	Belgium	F (NR)	Quilvest S.A.	
bistar SA	Belgium	AQ (SA) - Orange	Randstad Holding nv	
tea	Belgium	F (NR)	Recticel N.V.	
tupet SA	France	F (NR)	Recylex SA	
iotix	France	F (NR)	Refresco Gerber	
s SA	France	D	Reinet Investments	
ex	France	F (NR)	Remy Cointreau	
paraten Fabriek - NEDAP	Netherlands	F (NR)	Renault	
t	France	В	Resilux	
ı Sa	France	F (NR)	Retail Estates NV	
8	France	F (NR)	Rexel	
	France	С	Roularta Media Group Nv	
	France	A-	Royal BAM Group nv	
diotv	France	F (NR)	Royal Boskalis Westminster	
	France	F (NR)	Royal Dutch Shell	
NV qu	Netherlands	В	Royal Philips	
iroup	France	F (NR)	Royal Wessanen NV	
/	Netherlands	F (NR)	RTL Group	
able	France	F (NR)	Rubis	
IV	Belgium	C	Safran	
	Netherlands	F (NR)	SAFT	
SA	France	F (NR)	Saint-Gobain	
ipe	France	F (NR)	SANOFI	
Group NV	Belgium	C	Sartorius Stedim Biotech	
	France	F (NR)	SBM Offshore	
	France	В	Schneider Electric	
oud nv	Netherlands	F (DP)	Scor SE	
	France	F (NR)	Séché Environnement	
rma SA	France	F (NR)	Sequana	
Sa	France	F (NR)	Serge Ferrari	
Ricard		A-	Serge Ferran	
	France		Sioen Industries Nv	
agest Interactive	France	F (NR)		
	Belgium	F (NR)	Sipef NV	
Vacances	France	F (NR)	SIPH SA (Societe Internationale de Plantation d'Heveas SA)	
Omnium	France	F (NR)	Sligro Food Group	
oire	France	AQ(L)	Socfin	
	Netherlands	A-	Socfinaf	
SA	France	F (NR)	Socfinasia SA	
ts Chimiques Auxiliaires et de see	France	F (NR)	Société Commerciale de Brasserie SA	

Company	Country	Response status
Société Générale	France	В
Sodexo	France	A-
Sofina	Belgium	F (NR)
Soitec	France	F (DP)
Solocal Group	France	F (NR)
Solucom SA	France	F (NR)
Solvac SA	Belgium	F (DP)
Solvay S.A.	Belgium	В
Sopra Steria Group	France	A-
Spadel Sa	Belgium	F (NR)
SPIE SA	France	AQ(L)
Sqli SA	France	F (NR)
Stallergenes Greer PLC	United Kingdom	F (NR)
Stef	France	F (DP)
Steinhoff International Holdings	Netherlands	С
STMicroelectronics Nv	Switzerland	В
Suez Environnement	France	А
Sword Group	France	F (NR)
Synergie Sa	France	F (NR)
arkett	France	D
Fechnicolor SA	France	D
Fechnip Sa	France	A-
elegraaf Media Groep	Netherlands	С
Felenet Group Holding NV	Belgium	B-
Féléperformance	France	F (DP)
Γélévision Française (T.F.1)	France	AQ (SA) - Bouygues
Ten Cate	Netherlands	F (DP)
Fessenderlo Group	Belgium	F (NR)
Tessi Sa	France	F (NR)
TFF Group	France	F (NR)
Thales	France	A-
Thermador Groupe	France	F (NR)
Γigenix Nv	Belgium	F (NR)
ΓKH Group	Netherlands	С
TNT Express	Netherlands	С
Tom Tom NV	Netherlands	F (NR)
Total	France	В
Transgene Sa	France	F (NR)
Trigano Sa	France	F (NR)
TxCell SA	France	F (NR)
Ubisoft Entertainment	France	D
JCB SA		
CB SA	Belgium	С

Company	Country	Response status
Umicore	Belgium	AQ(L)
Unibail-Rodamco	France	F (NR)
Union Financiere De France	France	F (NR)
USG People	Netherlands	F (DP)
Valeo Sa	France	В
Vallourec	France	A-
Valneva	France	F (NR)
Valtech	France	F (NR)
Van de Velde NV	Belgium	F (NR)
Van Lanschot NV	Netherlands	В
Vastned Retail Belgium NV	Belgium	F (NR)
Vastned Retail NV	Netherlands	F (NR)
VEOLIA	France	А
Vetoquinol Sa	France	F (NR)
VGP NV.	Belgium	F (NR)
Vicat SA	France	F (DP)
Viel Et Compagnie	France	F (NR)
Vilmorin & Cie	France	F (DP)
Vinci	France	В
Viohalco SA	Belgium	F (NR)
Virbac Sa	France	F (NR)
Vivendi SA	France	С
Vopak	Netherlands	С
Vranken - Pommery Monopole	France	F (NR)
Warehouses De Pauw Comm. V.A.	Belgium	F (NR)
Wendel SA	France	F (NR)
Wereldhave	Netherlands	С
Wereldhave Belgium	Belgium	AQ (SA) - Wereldhave
Wolters Kluwer	Netherlands	С
Worldline SA	France	AQ (SA) - Atos SE
Zetes Industries Sa	Belgium	F (NR)
Zodiac	France	F (DP)



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