

Working Paper

Driving Low-Carbon Growth Through Business and Investor Action

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Overview

Achieving climate and development goals without the full backing of business and investors is not possible. Fortunately, evidence shows that more and more businesses and investors are taking a lead – and saving costs and making money in the process. While the private sector is hugely diverse and different sectors have different contributions to climate change and opportunities to take action, a growing number of businesses have shown that reducing greenhouse gas (GHG) emissions can be linked to significant cost savings and benefits without adverse impact on overall profits or performance. Indeed, there is evidence that such actions can lead to overall improvements in corporate profitability. At the same time, the emergence of new technologies and the growth of climate policy around the world have created a global market in low-carbon goods and services with a value of around US\$5.5 trillion¹ – larger than the global pharmaceutical industry.² Thus, although many businesses remain powerful opponents of climate-related policies, it is unsurprising that many others are now leading the charge for climate action.

Similarly shareholders and other investor stakeholders are increasingly aware that they need to take responsibility for the emissions associated with financial services provided to clients (called “financed emissions”). Analysis by the Carbon Tracker Initiative³ has played a key role in highlighting that using more than 20% of the currently listed coal, oil, and gas reserves over the next 40 years would push global warming over the 2°C warming target. This indicates that if we are to meet our climate goals, then a significant portion of such reserves would become stranded assets. Financial investors must find ways to avoid exposure to stranded assets and to take advantage of the growing market in low-carbon goods and services.⁴



Photo credit: Wang Song

About this working paper

This New Climate Economy Working Paper was written as a supporting document for the 2015 report of the Global Commission on the Economy and Climate, *Seizing the Global Opportunity: Partnerships for Better Growth and a Better Climate*. It reflects the research conducted for Section 2.8 of the full report and is part of a series of 10 Working Papers. It reflects the recommendations made by the Global Commission.

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The scale and influence of major global businesses and investors means that any effort to decarbonise the economy, whether at the global, national, or sub-national level, requires their engagement. Public policy plays a key role in requiring or incentivising businesses to reduce their emissions and in stimulating innovation, but business and investor leadership is also crucial. Such leadership was highlighted in the chair's conclusions to the United Nations Secretary General's Climate Summit 2014⁵ and by the Governments of Peru and France, who organised high-level events during recent climate negotiations showcasing business climate action. The Government of France also signalled the importance of business action by mandating the business community to hold a high-level summit dedicated to this topic in May 2015, with nearly 2,000 attendees, which was turned into an annual event with a successor in London in June 2016.⁶

The private sector was active in the run-up to and during the 2015 climate negotiations in Paris – most notably through vehicles such as the United Nations Framework Convention on Climate Change (UNFCCC) Non-State Actor Zone for Climate Action (NAZCA) Portal, which included commitments of action by 2,090 companies and 448 investors as of April 2016,⁷ and the Paris Pledge for Action, signed by over 688 companies and 176 investors with over US\$11 trillion in assets under management, that committed to help implement and exceed commitments made by governments in Paris.⁸ Other initiatives co-led by business that aim to catalyse action around the low-carbon transition include the Low-Carbon Technology Partnerships initiative (LCTPi) (see Box 4). It is not just in the climate arena that business leaders have been playing a significant role; in January 2016 the Business and Sustainable Development Commission (BSDC) was launched with the aim of articulating and quantifying the economic case for achieving the Sustainable Development Goals agreed by governments in September 2015, with global CEOs at the heart of project.⁹

The commitments discussed in such fora are almost all the output of international cooperative initiatives. These initiatives bring business and investors together, often with other actors, to deliver activities like target setting and implementation of action such as increasing the use of renewable energy, reducing drivers for deforestation, developing roadmaps for new low-carbon technologies like carbon capture and storage, or agreeing on common reporting and monitoring standards. These initiatives have the potential to shift corporate behaviour and scale up impact in significant ways. Increasing numbers of major companies are taking part in such initiatives, but their coverage is far from universal and the level of their ambition is not yet consistent with a 2°C pathway to stabilise climate change, let alone the aspirational goal of 1.5°C in the Paris Agreement.

This paper argues that by collaborating with other private sector partners and with public sector bodies, including national and local governments and international institutions, businesses can significantly increase the impact they are able to have. By working together to set and achieve commitments, businesses can share best practice, prompt positive competition, and improve their confidence that ambitious targets are credible and achievable. By pooling resources to engage with policy-makers, businesses can develop stronger arguments and more efficient engagement strategies. They make their voice more credible by demonstrating greater backing. Finally, to address systemic challenges such as deforestation, or rapid technology substitution, which requires simultaneous action from multiple fronts, businesses are increasingly realising they need to be part of broad public-private partnerships that can change the terms of a whole market.

In this paper we review different types of business and investor action on climate, and highlight areas in which international cooperation has the potential to enhance ambition and lead to greater impact and accountability. In Section 2 we explore the role of business in addressing climate change and the types of actions companies are taking. In Section 3 we explore the motivations for company action, including the benefits that accrue to businesses, and in Section 4 we describe sectoral and regional trends. Section 5 examines the limits to current ambition, while Section 6 explores different forms of private sector cooperation. Section 7 offers conclusions and recommendations.

Findings showcased in this paper are based on analysis of CDP data, which is self-reported data from companies that participate in CDP's climate change program. This data is primarily used to inform investor decision-making and for corporate benchmarking. Unless indicated otherwise, analysis is based on 2016 data, which includes 2,260 responding companies.¹⁰

2. The critical role of business

It is undeniable that businesses and their operations have a key role in bringing about a low-carbon transition. They are a large part of global infrastructure and major developers and deployers of new technologies and other innovations. Many businesses have global reach through their supply chains and, in the finance sector in particular, control significant financial resources that can be redirected to outcomes that deliver lower emissions, better social and health outcomes, and greater resilience. Government and business need to work closely together to achieve the breakthrough innovations needed to deal with climate change. As clearly highlighted in the New Climate Economy working paper, “Galvanizing Low-Carbon Innovation,”¹¹ a sharp increase in the rate of innovation is necessary to achieve a net-zero emissions economy in the second half the century. Public research programmes need to be well-funded, tightly managed, and closely linked to the private sector to accelerate innovation – and collaborative partnerships in research, development, and deployment (RD&D) will be fundamental.¹²

Increasingly businesses and investors are demonstrating the contribution they can make to the transition to a decarbonised economy. Their activities fall into three main categories. The first is cutting emissions: companies can cut their own emissions, through improved efficiency and the adoption of new technologies, processes and operating methods, while financial service companies can reduce the carbon intensity of their investments. For many companies, specific climate change-related internal targets have been an important route to delivering such emissions reductions. Second, some companies are actively working to increase the resilience of their operations and supply chains in the face of climate change and investors have a corresponding incentive to support such activity. Third, many companies are directly contributing to the growing global market for low-carbon and environmental goods and services, while investors have a shared interest in supporting the growth of this market.

2.1 CUTTING BUSINESS EMISSIONS

Most major businesses already undertake steps to improve the efficiency of their operations. Although this has always been an important activity for companies with high energy and resource costs, significant spikes in energy prices over the past two decades have made energy savings an increasingly important business activity to insulate companies from price volatility. These efficiency measures have had the benefit of reducing corporate emissions. For example, Ernst & Young (now known as EY) has conducted regular surveys of energy use and has found energy efficiency is consistently a widely deployed action. In a 2010 survey of 300 global companies with annual revenues of more than US\$1 billion that span 16 countries and 18 industry sectors, 82% were taking action on energy efficiency, a rate that was also observed in 2013.¹³

Strategies specifically aimed at reducing GHG emissions have unlocked further savings. Between 2014 and 2015 almost 1,209 companies in the CDP sample (i.e. 54% of them) reported carbon savings. Many of the actions that delivered these reductions came with good returns on investment. For example, an analysis of emissions reduction projects for 1,763 companies responding to CDP found that the average internal rate of return on investment (IRR) for improving efficiency in industrial processes was 23%. Among U.S. companies, where this is the biggest source of emission savings, some IRRs were found to be as high as 81%.¹⁴

Increasingly, businesses have found that setting specific climate change targets is a powerful driver of emissions reduction. In 2016, 78% of companies reporting to CDP stated that they had set either a carbon intensity or absolute emissions reduction target, with more than one sixth setting both. Most targets (84% for absolute targets and 90% of intensity targets) were relatively short-term – to 2020 or earlier. Companies disclosing to CDP in 2016 reported that they had reduced emissions by 596 million tonnes of CO₂e, approximately equivalent to the GHG emissions of Australia or South Korea (for 2012).¹⁵

Emissions that arise directly from a company’s operations are known for corporate reporting purposes as “scope 1” emissions. Those that arise from a company’s energy use are referred to as “scope 2” emissions. A number of companies have now gone beyond controlling these two types of emissions to take action on other indirect “scope 3” emissions, which include emissions from their supply chain, as well as emissions generated in the use and disposal of their products. Reducing supply chain emissions often requires engaging with a large number of supplier companies to require and support emissions reductions.

Interestingly, data from CDP's 2014 supply chain report shows that companies that engage with one or more of their suppliers are more than twice as likely to see a financial return from emission reduction investments and are almost twice as likely to successfully reduce their emissions, compared to those that do not.¹⁶ It is clear that the potential for impact through supply chains is very large. Because of their global reach, European companies have the potential to influence over an estimated 1 gigatonne (Gt) of annual CO₂ emissions in the rest of the world through their supply chains.¹⁷

While carbon targets remain the most common basis for corporate climate strategy, a second management tool is increasingly being widely used. Companies are using an internal carbon pricing mechanism, setting a notional price on the prospective emissions of planned investments and activities to guide business planning and investment decisions. By including a carbon price in the cost-benefit analysis for new investments, companies can manage the impacts of potential carbon-related government policies and avoid the risks of investments becoming stranded or delivering below their required return on investment should climate policy tighten in the future. This can be a powerful means of discovering and incentivising emissions reducing opportunities.¹⁸ 517 companies are already utilizing an internal price on carbon as an accounting and risk management tool, though prices vary widely, from under US\$1 to over US\$800 per tonne of carbon.¹⁹ An additional 732 companies are considering whether to do so and whether an internal carbon price can assist their strategic approach or operations.²⁰

Investors are beginning to use information that companies provide on their emissions and climate-related strategies to inform not just environment, social and governance (ESG) integrated funds (which are on the increase) but also mainstream investment decisions, both in terms of whether they allocate finance to companies or engage with them to drive improvements. A 2013 global survey found more than 80% of asset owners and nearly 70% of asset managers viewed climate change as a material asset risk.²¹ But anticipating regulatory risk and responding to stakeholder scrutiny is just as important and may have a more imminent impact on financial value. Modelling for short-term shifts in market sentiment induced by awareness of future climate risks indicated potential losses of up to 45% in an equity investment portfolio value and 23% in a fixed income portfolio.²²

The global movement for fossil fuel divestment is rapidly growing and is indicative of even wider shifts in capital flows. Across 43 countries, 436 institutions and 2,040 individuals representing US\$2.6 trillion in assets have committed to divest from fossil fuel companies. They include the world's largest sovereign wealth fund, Norway's Government Pension Fund Global (GPF) and Allianz, one of the world's largest financial asset managers.²³

2.2 INCREASING RESILIENCE

As the impacts of climate change become clearer for many business models, a number of businesses are taking action to manage the resulting risks. Under the Nairobi Work Programme on adaptation, the UNFCCC developed a database of over 100 climate adaptation actions undertaken by the private sector.²⁴ The Partnership for Resilience and Environmental Preparedness, an initiative by Oxfam and BSR, has developed a comprehensive tool to support businesses taking such actions, based on case studies of businesses already acting to build their resilience.²⁵

However, recent analysis by the Centre for Climate and Energy Solutions highlights that due to uncertainty around the precise nature and timing of climate impacts, business investments in resilience are largely based on continuing current policies and practices; that is, businesses are not preparing their operations and staff for a "new normal."²⁶

Some leading companies are taking steps to address climate-related risks where there is a clear business case to do so. These companies recognise that, while uncertainties exist about precisely how climate change will manifest over the coming years and decades, taking the range of predicted risks into account may be more financially prudent than waiting to act.²⁷

One business sector particularly concerned about this is (unsurprisingly) the insurance sector, which is actively involved in the management of disaster risk reduction and resilience. If climate risk is not addressed, significant proportions of the economy could become uninsurable, with significant knock-on costs for the whole economy.²⁸ Insurers have also been behind a number of initiatives that seek to incorporate understanding of disaster risk into investment decisions.²⁹

2.3 NEW GOODS AND SERVICES

The trend to reduce emissions and improve climate resilience has created major opportunities on which growing numbers of businesses are capitalising. The global low-carbon and environmental goods and services sector was estimated to be worth around US\$5.5 trillion in 2011–12, and to be growing at over 3% per year,³⁰ making it more than 10 times larger than the global pharmaceutical industry.³¹ It is an increasingly global sector: international trade in environmental goods and services totals nearly US\$1 trillion per year, or around 5% of all trade.³²

Low-carbon goods and services are not a specific category of product, but span many sectors, thus providing opportunities for many businesses to take advantage of market growth. For example, in the road transport sector, almost all major vehicle manufacturers now offer ultra-low-carbon vehicle models,³³ while new companies are coming to the market with business model innovations such as car sharing clubs. In energy, renewables like solar and wind power have dramatically come down in price in recent years and the success and growth of these markets is driving further business investment and increasing employment in these and related sectors.³⁴ Installed solar power increased by a factor of ten between 2009 and 2013. Over the same period, the cost of solar panels and batteries fell by more than half – in fact the costs of solar photovoltaic cells has fallen over 80% since 2008.³⁵ Businesses are offering an increasing array of goods and services that increase energy efficiency. Improved appliances, better quality built environments, and new digital services help people cut their energy use and emissions footprints. In 2014 the International Energy Agency (IEA) noted that the global energy efficiency market is now an “invisible powerhouse” worth at least US\$310 billion a year.³⁶

In the finance sector, there is a growing interest in the financing needs of the new economy and a desire to both classify such investments and understand their impact. In many cases, investors are making commitments to increase investments in climate solutions. The market for investments including some form of accounting for environmental, social and governance (ESG) factors now represents around a third of all assets under management, and evidence and practice suggest that consideration of ESG factors can reduce risk and improve investment and business performance. An example is that the long-term annual returns of one index comprising firms with high scores on ESG criteria has exceeded the S&P 500 by 45 basis points since its inception in 1990.³⁷

Identifying, evaluating, and acting on this information, however, is proving to be a challenge due to a data gap in the market. Mandatory reporting requirements prove the exception rather than the rule and corporate annual reports lack data about a company’s climate-change-related performance and strategies.³⁸ Although companies in the world’s largest economies still lag in providing such information, governments and regulators are acting to close this information gap.³⁹ Communicating the impact of climate change on shareholder value in mainstream, investor-oriented reporting has been a challenge,⁴⁰ but the market is moving to an agreed framework⁴¹ to report these metrics.

3. Drivers of action

Clearly a great deal of business action is driven by the requirements and incentives created by government policies. For example, in the European Union, there is strong evidence that emission reductions and new investments in efficiency and renewable energy have been driven by policies on carbon pricing, renewable energy targets, and energy efficiency standards.⁴² In both the European Union and the United States, and increasingly in other countries such as Korea and China, car manufacturers have been driven to produce more efficient vehicles by government standards.⁴³ Throughout the world, as climate policies from carbon pricing to energy efficiency standards have expanded, companies have been forced to comply. But at the same time, businesses are moving ahead of policy. The commitments in many of the initiatives announced in New York and Paris represent business action over and above policy requirements.

Businesses take action for a number of reasons, including: getting ahead of policy; stakeholder pressure and reputational gains; growing markets; and managing climate impacts.

3.1 GETTING AHEAD OF POLICY

Many businesses, expecting policy requirements to get tighter, are taking action to minimise the business risks of potential new policy impacts. The risk to companies and investors of tightening policy requirements is one key aspect of risk highlighted by Governor of the Bank of England Mark Carney in his 2015 speech on climate-related risks.⁴⁴ One investigation of this type of “transition risk” was made by the Carbon Tracker Initiative and Energy Transition Advisors, which in April 2015 launched a blueprint for stress testing energy sector companies.⁴⁵

CDP analysis from the automotive sector links emissions-related metrics to significant potential financial impacts on a company’s earnings in a global auto market where emissions regulation is tightening and there are significant penalties for noncompliance.⁴⁶ The recent admissions by Volkswagen and Mitsubishi that they had been falsifying emissions data have demonstrated how noncompliance can dramatically damage a company’s reputation and financial performance: Mitsubishi’s share price was slashed by 50% despite increased revenues and profit, and Volkswagen agreed to pay US\$14.7 billion to cover costs from the scandal.⁴⁷

3.2 STAKEHOLDER PRESSURE AND REPUTATIONAL GAINS

Businesses are also responding to changing demands from shareholders, customers, and other stakeholders.

In September 2014, 362 investors representing more than US\$24 trillion in assets signed a statement that they are “acutely aware” of the risks climate change poses to their investments and called on governments to develop an ambitious global agreement.⁴⁸ In April and May 2015, shareholders of European oil and gas companies Shell and BP passed resolutions requiring the companies to disclose the actions they were taking to deliver a low-carbon transition. Similar resolutions have been filed with other companies like Total and Statoil.⁴⁹ More than 190 resolutions on environmental and social policies were proposed in 2015 – up 88% over 2011.⁵⁰

Many of these investor actions are driven by stakeholder pressure on asset managers and owners – such as the nongovernmental organization (NGO)-organised fossil fuel divestment campaigns, examples of which include Go Fossil Free, jointly run by 350.org, People and Planet, Operation Noah, Medact, Move Your Money, and ShareAction.⁵¹

Companies are also increasingly aware of changing consumer expectations on climate change. After energy savings, climate change was cited as the second most common reason for taking emissions reduction actions in a 2010 Ernst and Young business survey.⁵² This should not be taken to mean that large numbers of consumers will change their buying practices based on climate criteria; but many consumer-facing companies acknowledge that generalised public concern – often amplified by NGO advocacy – feeds into the overall branding and reputation of a company.⁵³

Supply chain companies are increasingly taking action on climate change because of demand from their corporate customers. Through CDP’s supply chain program more than 75 major multi-national companies with over US\$2 trillion of procurement ask their suppliers to report their environmental risks and targets through CDP.⁵⁴

3.3 MANAGING COSTS AND SECURING MARKET POSITION

Many companies have found that emissions reductions make business sense because they save costs and provide investments with good internal rates of return. Setting and meeting carbon reduction targets can yield direct cost savings – largely through reduced energy consumption, but also through reduced resource use (e.g., using less metal or concrete reduces embedded emissions considerably). According to their own reports, 53 Fortune 100 companies are saving approximately US\$1.1 billion annually through emissions reduction and renewable energy initiatives.⁵⁵ In addition, over 90% of companies responding to CDP have identified financial and business opportunities from acting on climate change.⁵⁶

Action on climate change may be a sign of good corporate governance – indicating a good awareness of risks, responsiveness to a changing environment, and the ability to manage and secure change across a business. There is evidence that companies that have a strong focus on sustainability do better in attracting skilled employees for example.⁵⁷

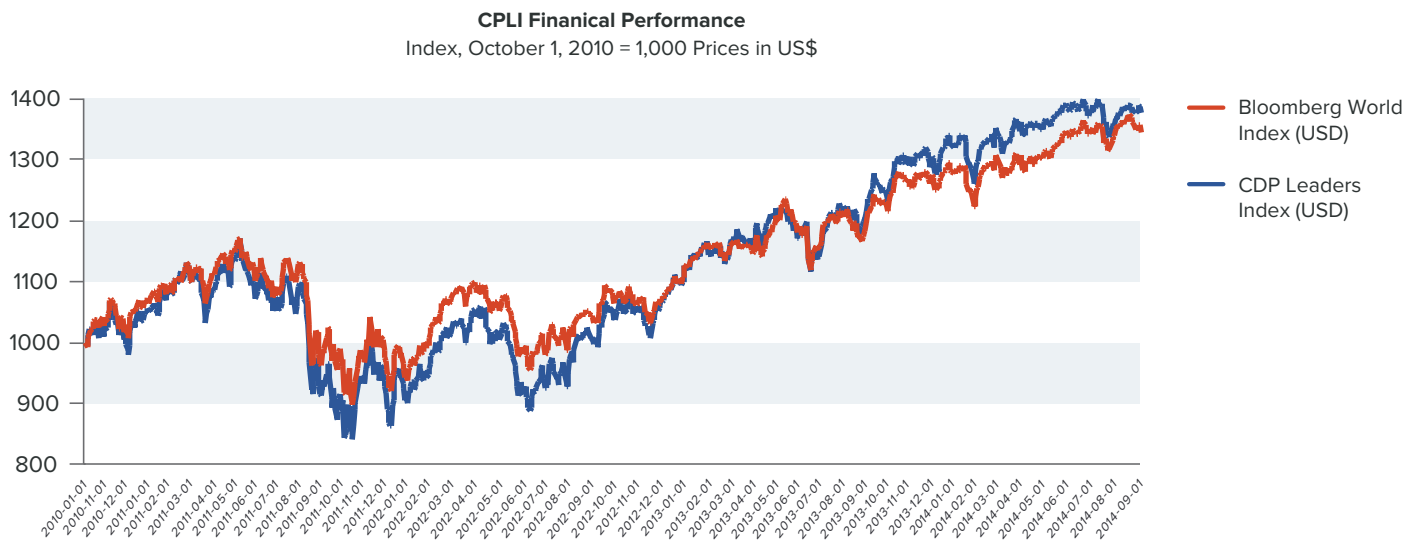
CDP found that companies that reported on their climate change risk and mitigation strategies demonstrated higher performance on three financial metrics that reflect overall corporate quality: return on equity, cash flow stability, and dividend growth. S&P 500 industry leaders that actively managed and planned for climate change generated 67% higher profitability than companies that did not disclose on climate change.⁵⁸

Businesses that are taking action will also be among the best situated to take advantage of the considerable new opportunities in low-carbon goods and services. Companies such as GE, Unilever, Nike, Ikea, Toyota and Natura are already reaping the benefits of offering ‘green’ products and services, a market which has grown to over US\$100 billion. Unilever’s purpose driven brands are growing at twice the rate of the rest of their portfolio and if GE’s Ecomagination was a standalone business, it would be a Fortune 100 company.

3.4 OVERALL BETTER PERFORMANCE

It is likely that the above benefits in terms of reduced costs, better governance and new markets will lead to overall better performance. Indeed, a 2015 study by Thomson Reuters found that companies with superior sustainability profiles outperformed their peers in terms of both stock market value and financial performance.⁵⁹ Because companies with well-developed climate strategies tend to also be large and profitable businesses, cause and effect are difficult to disentangle – it is not clear whether climate action has led to increased profitability, or vice versa. However academic evidence to date does appear to bear out this correlation. Improving a company’s environmental performance can lead to better or equal economic or financial performance, and does not need to increase costs.⁶⁰ Companies that effectively target their investment in sustainability actions tend to outperform those that do not.⁶¹ Analysis conducted in 2014 showed that CDP’s Climate Performance Leadership Index – an index based on companies that lead the way in action to mitigate climate change – outperformed the Bloomberg World Index financially by 9.1% over the last four years (see Figure 1).⁶²

Figure 1
Companies taking action on climate change outperformed the benchmark 2010-14



Source: CDP, 2014.⁶³

3.5 GROWING CLIMATE IMPACTS

In recent years, many businesses have become increasingly aware of the direct climate risks to their operations, particularly in sectors dependent on water and agricultural supplies. In 2016, 91% of companies responding to CDP considered climate change a risk to their operations. They identified almost 5,000 specific risks to their business from physical impacts related to climate change, the most common one being changes in rainfall extremes and droughts. These weather-related events can be costly. For example, in the United States, events like droughts Midwest and Hurricane Sandy made 2012 the second most expensive year on record for weather disasters, costing US\$110 billion.⁶⁴

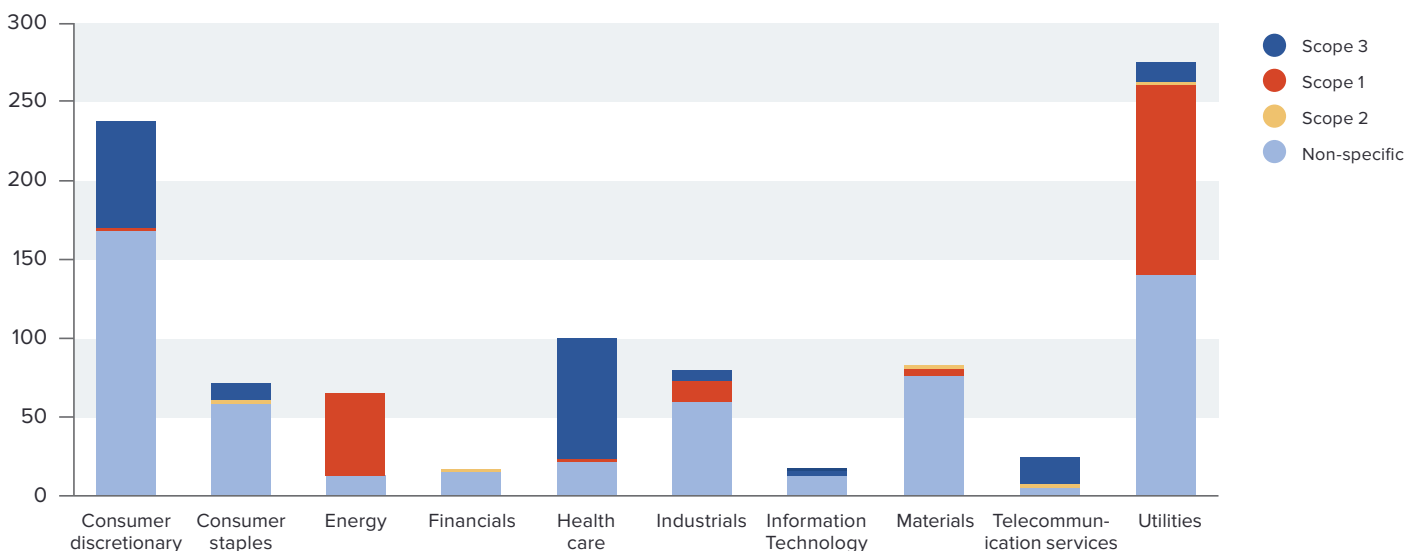
In 2014 Lloyd’s of London noted that the cost of weather-related losses around the world had increased from an annual average of US\$50 billion in the 1980s to close to US\$200 billion over the last decade.⁶⁵ The reasons for this increase are varied and include a greater value of assets placed in vulnerable contexts, but the trend of concern around climate-related impacts is clear.

4. Sectoral and regional trends

SECTORAL TRENDS

Companies from different sectors show differences in motivations and investments based on their different risks and opportunities. For example, analysis of CDP data commissioned by the World Economic Forum suggests that consumer companies tend to target indirect emissions, while utilities and energy companies focus on reducing direct emissions (see Figure 2).⁶⁶

Figure 2
Emissions reduction targets by sector and scope



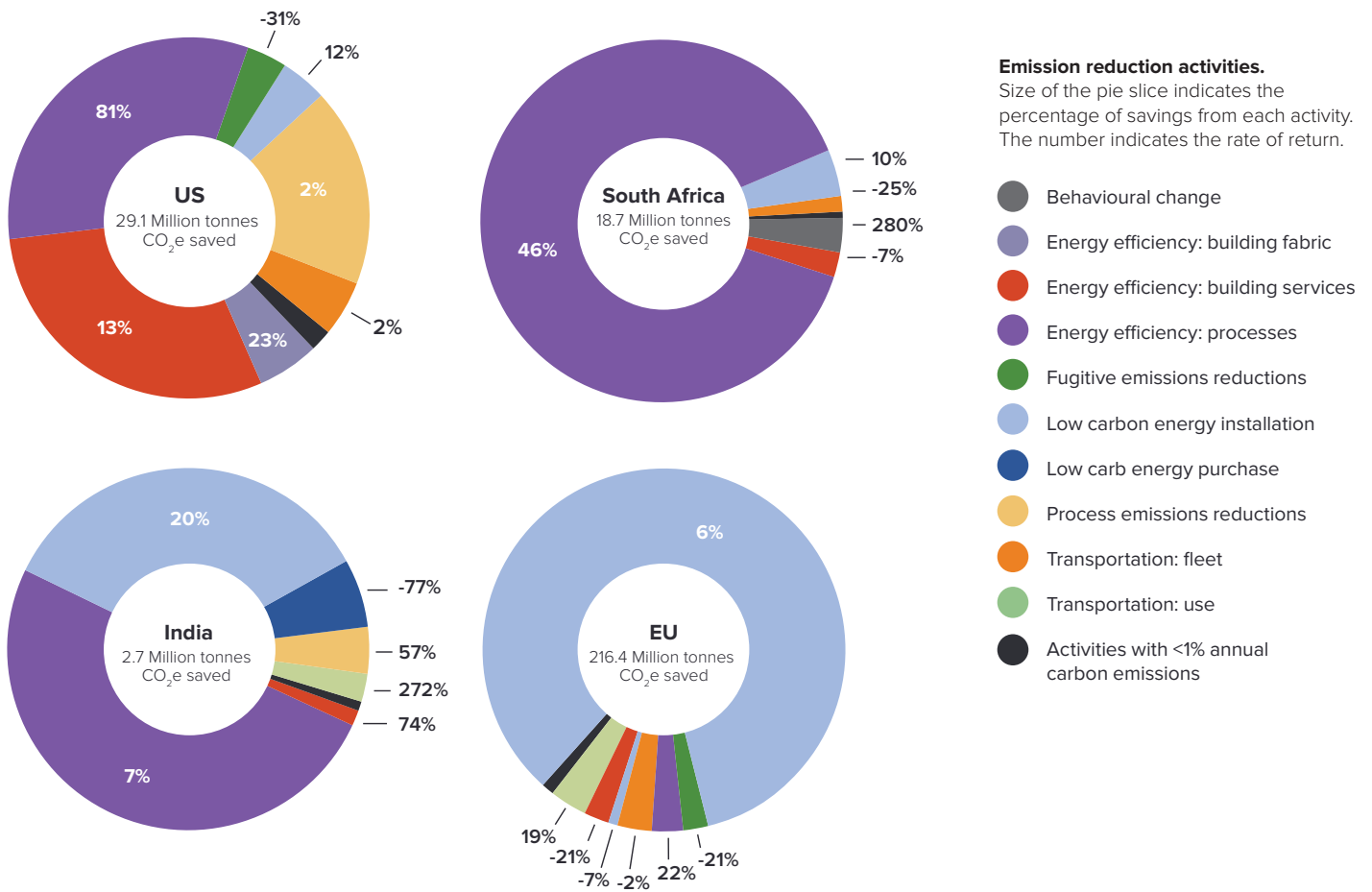
Note: Scope 1 is direct emissions, scope 2 is emissions from energy used by the operation, and scope 3 is emissions from the supply chain.
Source: World Economic Forum, 2015.⁶⁷

REGIONAL TRENDS

Figure 3 illustrates the internal rates of return and emissions savings that were achieved in 2013 by 454 companies in the European Union; 260 companies in the United States; 43 companies in South Africa; and 20 companies in India. Overall, these savings are equivalent to Poland’s 2013 emissions.⁶⁸

Many of these emissions reduction activities had excellent internal rates of return. For example, as shown in Figure 3, the internal rate of return for process energy efficiency measures shows averages of 46% in South African companies and 81% in U.S. companies.⁶⁹

Figure 3
CO₂e savings and internal rate of return from emission reduction activities made by companies in the European Union, United States, India, and South Africa



Note: The pie represents the emissions saved by emission reduction activities (indicated above the pie) and each pie piece represents the amount of emissions saved by each activity. The number on each pie piece shows the internal rate of return of this activity.

Source: We Mean Business, 2014.⁷⁰

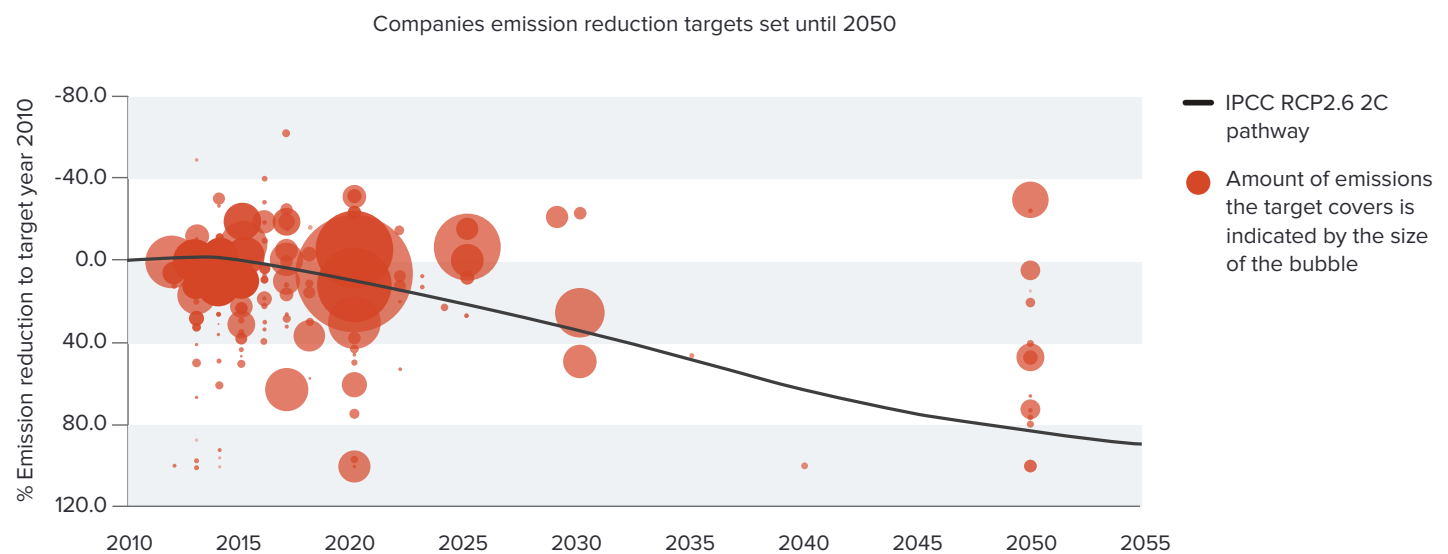
5. The need to increase ambition

It is clear that many major businesses are taking action on climate change, that the number of companies acting is increasing, and that the commitments are getting stronger. However, leadership contingent of companies is relatively limited and the majority of the targets are too short term and below the ambition required to keep global warming below 2°C. To achieve our climate ambitions we need companies with climate strategies and targets to set stronger ones, we need more companies to take on such ambitions, and we need to engage a more diverse set of businesses, bringing in sectors and regions where there is relatively little ambition right now but where change is fundamentally needed.

Although more companies are setting emissions targets, few are in line with the 2°C goal. In most cases, targets are neither deep enough nor sufficiently long term. Less than half (40%) of absolute emissions targets adopted by the reporting sample in the 2016 CDP annual disclosure report extended only to 2015 or 2016. Almost half (48%) ran to 2020 but only 10% extend beyond that date. The figures for intensity targets are almost identical.⁷¹

Analysis of targets reported to CDP – likely from the more ambitious companies – carried out by Oxford Energy and Climate Advisers on behalf of the World Economic Forum,⁷² clearly shows that the existing level of ambition can make a real contribution to bringing the world closer to a 2°C scenario, but that such targets and the actions to implement them need to be adopted by more companies and extended beyond 2020 (Figure 4).

Figure 4
Assessment of corporate emissions reduction targets, 2010–50



Source: *We Mean Business*, 2014.⁷³

IPCC RCP2.6 2C pathway is the Intergovernmental Panel on Climate Change (IPCC) representative concentration pathway to reach the 2°C warming target.

Note: The graph compares GHG emissions reduction targets of over 1,200 companies with the IPCC 2°C pathway. Each bubble represents the most ambitious GHG reduction target the company has set and the size of the bubble indicates the amount of GHG emission reduction in the target. Some companies are setting ambitious long-term targets in line with science. However, many targets (those above the grey line) are not ambitious enough to reach the requirements of a 2°C pathway.

As discussed above, action differs across sectors, with the most ambitious target setting emerging from less energy-intensive companies or those less reliant on fossil fuel-associated fixed assets. Companies also differ in where they focus their activities and commitments, with some (e.g., utilities and energy companies) focusing on scope 1 emissions while others (such as consumer companies) focus on scope 3 (indirect) emissions. Analysis of CDP 2014 data shows fewer commitments to reduce scope 2 emissions (reductions through purchased energy).⁷⁴

However while the available data indicates a case for action, it is too limited (on targets, baselines, and specific measures undertaken) to enable further meaningful assessment or comparisons in terms of the impact, effectiveness, or business return of specific measures adopted by one company or sector compared to another. Without a much larger pool of comparable data points, further analysis is difficult. This may undermine the case for action and also hamper businesses' learning and collaboration to reduce emissions. Individual business commitments on climate change may deliver increased action and impact, but they may also provide limited results in relation to the effort expended to secure them. As the evidence grows that action on climate change is well correlated with good business outcomes it will be easier for businesses to take action.

To scale up action and to widen the group of engaged and active companies to include more from energy intensive industries and extractive sectors, more needs to be done to align business interests with the trajectory of the net-zero economy. This will involve governments sending the correct policy signals, and businesses revising their strategies.

For many businesses such strategies can not only deliver real cost savings and efficiencies but also present significant new market opportunities. Of course such opportunities need to be good enough to justify spending limited capital, which is where policy can provide a critical role shaping the choices businesses have to make. For all businesses, failure to act means that the long-term economic impacts of severe climate change will be huge. In turn governments need to demonstrate consistent, long term, and co-ordinated commitments to the net-zero economy, such as those embedded in the Paris Agreement, so that businesses have the confidence to accelerate their investment strategies.

But many companies are not taking action on their emissions, even when it may be in their own economic interests to do so, and others could raise their level of ambition. Unfortunately, market barriers and limited information still hamper even cost-effective emissions reductions.

6. The potential of international cooperation

To scale up action towards the low-carbon economy, governments need to strengthen policy. But this change will be easier if more businesses actively support an economic transition. Business resistance makes policymaking harder, particularly when national governments are anxious about the competitiveness effects of unilateral action. When businesses demonstrate successful action and develop and deploy innovations, they make policymaking easier.

Business leadership represents a shift in the nature of the dialogue between business, society and government. That shift is already visible in events like the annual Business and Climate Summit, organised by business groups with a combined network of 6.5 million companies from over 130 countries, which in 2015, resulted in a call for a new alliance between business and governments to mainstream climate policy and raise ambition in line with climate science.⁷⁵ Many companies recognise the need for, and opportunity associated with, moving beyond business as usual in addressing climate change and setting emissions targets. Moreover, companies are increasingly looking to shape policy, rather than waiting for government, and recognise the need for commitment to specific, implementable actions over and above targets.

Active cooperation amongst companies opens the door to broader and more ambitious corporate participation; to establishing harmonised and useful tools to measure emissions and identify opportunities for reductions; and to companies acting together to resolve constraints that retard action. Increasingly complex and global supply chains can make it difficult for companies to gain traction with suppliers to secure major changes. Cooperative commitments can encourage policy decision-making, overcome

competitiveness concerns, and drive technology solutions. In fact, analysis by the Massachusetts Institute of Technology (MIT) Sloan School of Management found that companies that profit from sustainability are more than twice as likely to say that sustainability has increased their collaboration with competitors. They are also likely to be collaborating more with customers, suppliers, government, local communities, and NGOs.⁷⁶

For these reasons, companies in many sectors are working together. Of the 183 international cooperative initiatives captured in the Climate Initiatives Platform,⁷⁷ at least a third have private sector participants or members. Increasing the breadth and depth of such engagement will hasten transition to a low-carbon economy.

There are different drivers for companies to participate in these initiatives. Recent analysis highlights the most common drivers: being recognised as a leader in sustainability, getting ahead of regulation, cost savings, and creating new markets.⁷⁸

This section describes the ways in which international initiatives are already happening, broadly categorised as:

- Collective commitment platforms
- Collaborative initiatives that seek market or system transformation
- Policy engagement groups

These categories are fluid and overlapping. An initiative can start in one form and grow to encompass or focus on another. Some initiatives are broad enough to encompass all three; for example, the Caring for Climate Initiative, which was developed by the United Nations Global Compact to promote business responses to climate change, includes commitments to act, collaborations with other members, and policy engagement. As of January 2013, almost 400 companies had endorsed Caring for Climate.⁷⁹ Another example is the Climate and Clean Air Coalition, which brings together governments, civil society and the private sector to improve air quality and reduce short-lived climate pollutants across sectors.⁸⁰

One of the key reasons international initiatives offer an opportunity to increase business ambition and deliver additional climate action, is the fact that they operate in different jurisdictions, including places that do not yet have policies to drive emission reduction activities. These initiatives can help fill an institutional void in some countries by raising standards and building institutional capacity. They can not only speed up implementation or increase policy ambition, but can also create additional climate gains in countries with weaker climate policies.

Element of competition and collaboration may drive leaders engaged in collaborations to set ever bolder targets. By collaborating on issues of pre-competitive value businesses can remove barriers for action and raise best practice across participants, and by observing stronger actions being taken by their peers leaders can inspire each other to increase ambition and lead to dynamic target setting.

Table 1 shows some of the international climate initiatives involving business under the three categories described earlier: collective commitment platforms, collaborative initiatives that seek market or system transformation, and policy engagement groups. While many collaborative initiatives seek to affect change in more than one or all of these ways, they have been categorised according to their core activities. Companies in the real economy and investors both collaborate, although there is a specific set of collaborations in the finance sector, as shown in Table 1. Scaling up and replicating these types of collaborative initiatives can deliver significant increases in action and, in many cases, there are strong business drivers to do so.

Table 1
Examples of international initiatives involving the private sector

Initiative type	Sector	Type of activities and commitments	Examples
Collective commitment platforms	Corporate	Emission reduction targets over a specific time frame Carbon or energy intensity targets Begin eliminating hydrofluorocarbons (HFCs) in own supply chain or operations Building or procuring renewable energy for own supply	Science Based Targets Initiative ⁸¹ RE100 Initiative ⁸² WWF’s Climate Savers ⁸³ Oil and Gas Climate Initiative ⁸⁴ Consumer Goods Forum’s ⁸⁵ Sustainable Refrigeration Resolution, Refrigerants Naturally! ⁸⁶ †We Mean Business Commit to Take Action campaign ⁸⁷ *EP100 ⁸⁸ *EV100 ⁸⁹ *Business Alliance on Water and Climate ⁹⁰
	Finance	Decarbonising a percentage or amount of own investment portfolio Measuring and disclosing carbon footprint of own investment portfolio Adopting mechanisms to incorporate climate and carbon risks into own investment decisions	ClimateWise Principles ⁹¹ Investor Platform for Climate Actions ⁹² RiSE ⁹³ Montreal Carbon Pledge ⁹⁴ CDP’s Carbon Action Initiative ⁹⁵ Principles for Responsible Investment (PRI) investor working group on Climate Corporate Lobbying ⁹⁶
Collaborative initiatives aimed at market or system transformation	Corporate	Creating and implementing sectoral roadmaps to achieve the 2°C goal Ending tropical deforestation through joint supply chain management Support market transformation bringing new low-carbon goods and services Public private technology partnerships	International Air Transport Association’s 2020 and 2050 emission targets ⁹⁷ Cement Sustainability Initiative ⁹⁸ International Road Transport Union’s 30 by 30 Resolution ⁹⁹ en.lighten Initiative ¹⁰⁰ Tropical Forest Alliance 2020 ¹⁰¹ Consumer Goods Forum’s Zero Net Deforestation Resolution ¹⁰² World Business Council for Sustainable Development’s (WBCSD) Low Carbon Technology Partnership Initiative (LCTPi) ¹⁰³ Low Carbon Rail Transport Challenge ¹⁰⁴ *Below50 ¹⁰⁵

Initiative type	Sector	Type of activities and commitments	Examples
	Finance	<p>Collaborate to create new financial instruments to drive low-carbon investments, such as green bonds</p> <p>Investors collaborating to engage companies on their climate performance</p> <p>Aiming to decarbonise a sectorally significant quantity of investment portfolios</p>	<p>Portfolio Decarbonisation Coalition¹⁰⁶</p> <p>Banking Environment Initiative's Soft Commodities Compact¹⁰⁷</p> <p>Low Carbon Investment Registry¹⁰⁸</p> <p>Climate Bonds Initiative¹⁰⁹</p> <p>Green Bonds Principles¹¹⁰</p> <p>1 in a 100 Initiative¹¹¹</p> <p>Ceres' Investor Network on Climate Risk (INCR)¹¹²</p> <p>Ceres' Shareholder Initiative on Climate and Sustainability (SICS)</p> <p>Focusing Capital on the Long Term Initiative¹¹³</p>
Policy engagement groups	Corporate	Support adoption of ambitious climate targets, a robust international framework agreement, and policies to drive low-carbon and resilient outcomes	<p>We Mean Business coalition's international policy support statements¹¹⁴</p> <p>CEO Climate Leaders Statement¹¹⁵</p> <p>World Bank Carbon Pricing Leaders Coalition¹¹⁶</p> <p>Caring for Climate Business Leadership Platform¹¹⁷</p> <p>Ceres Business for Innovation Climate and Energy Policy (BICEP)¹¹⁸</p> <p>The Prince of Wales's Corporate Leaders Group¹¹⁹</p>
	Finance	<p>Support policy development, as above</p> <p>Support change in financial regulations to support low-carbon investment, carbon portfolio disclosure, and increased resilience</p>	<p>Global Investor Coalition on Climate Change¹²⁰</p> <p>Institutional Investment Group on Climate Change¹²¹</p> <p>2 Degrees Investing Initiative¹²²</p> <p>ClimateWise¹²³</p>

* Launched since COP21

† This is a platform which brings many of the commitment platforms named here into one place and currently has 9 separate commitments that companies can sign up to in the areas of renewable energy, carbon pricing, deforestation in supply chain, water use management, responsible lobbying, adopting a science-based target, reporting on climate change in mainstream reports, reducing short-lived climate pollutants and energy productivity); as well as 4 commitments for investors (signing the Montréal Pledge for carbon transparency, joining the Portfolio Decarbonisation Coalition, investing in low-carbon assets and reporting on climate change in mainstream reports); and invites companies to join the Low Carbon Technology Partnership Initiative.

6.1 COLLECTIVE COMMITMENT PLATFORMS

Most climate actions by businesses and the financial sector have been undertaken by individual companies acting alone. But in recent years, several initiatives have set new norms and expectations for how businesses should respond to climate issues. The key mechanism is a new commitment or target to be adopted by companies. These new initiatives inspire companies to join a “club” of leaders willing and able to effect change by demonstrating action and inviting others to do the same. Such commitments promote ambition and, by being part of a wider initiative, provide an external endorsement of action, supporting the credibility of the commitment and the company.

Corporate commitment platforms

Targets for corporate initiatives range from emission reductions to positive commitments around energy sourcing, production processes, or supply chain impacts. An example of the latter is the RE100 Initiative agreement to source electricity from 100% renewable sources, with a clear time frame for reaching that goal.¹²⁴

Some initiatives are sectoral or thematic and include actors from a range of sectors, including national, regional or city governments. They may be organised by companies themselves or in collaboration with national governments, local governments or NGOs. Such collective commitment platforms help increase climate action. Benchmarking against peers can be a useful driver to incentivise action, as well as giving confidence to companies to engage with regulators to move from voluntary action to mandating new ways of operating.

Some platforms simply encourage companies to make commitments and report on them through a common framework, while other platforms provide a knowledge-sharing forum and support companies with tools and methodologies to make and implement commitments. WWF’s Climate Savers is an example. Climate Savers has 28 cross-sectoral members. Recent analysis shows that if all members reach their targets, its expected impact in 2020 would be an annual emissions reduction (compared to business as usual) of 10–32 MtCO₂e, but that this could rise to 1,000–1,300 MtCO₂e a year if industry peers achieved similar ambition levels.¹²⁵

The Science Based Targets initiative goes even further, encouraging companies to set medium- and long-term emissions reduction targets consistent with a global 2°C trajectory (see Box 1). The initiative provides a rigorous methodology based on sectoral shares of total emissions to give these targets independent credibility.¹²⁶

Box 1

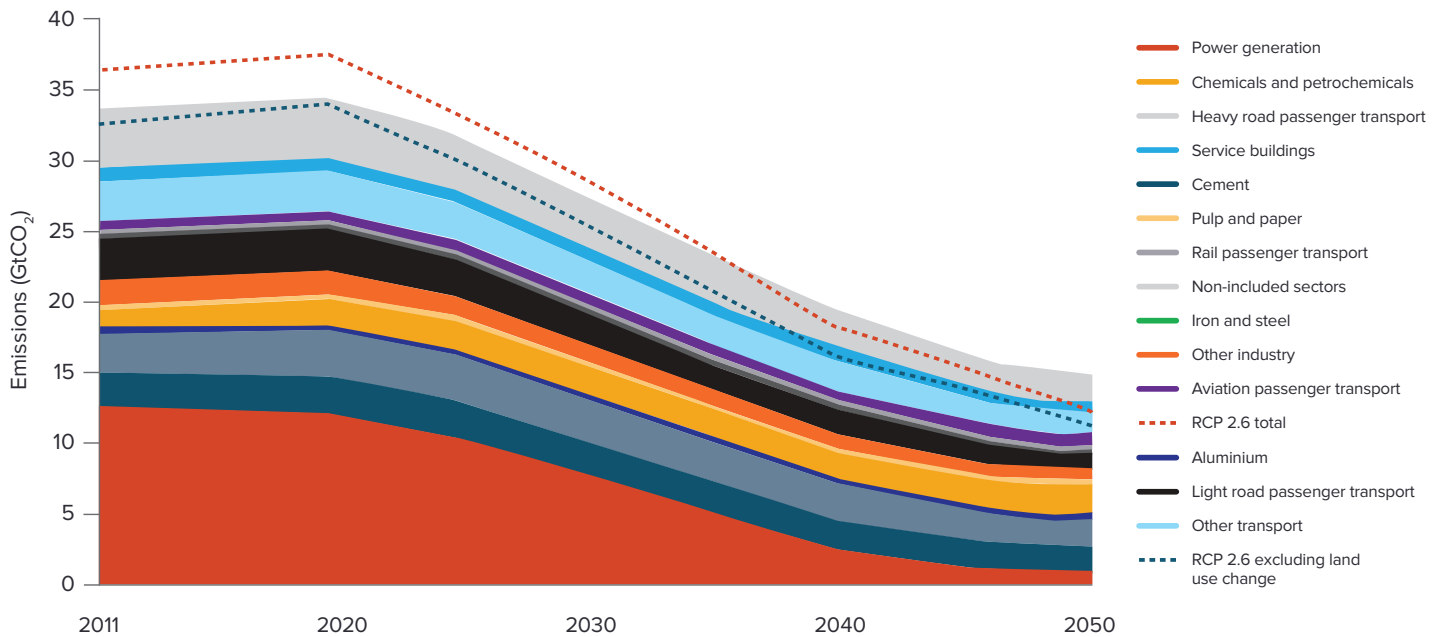
The Science Based Targets Initiative: A Corporate Commitment Platform

The Science Based Targets Initiative was developed by CDP, the United Nations Global Compact, the World Resources Institute, and WWF in May 2014. The initiative provides companies with tools and resources to set targets consistent with keeping global temperatures well under a 2°C increase above pre-industrial levels. An initiative by We Mean Business encourages companies to sign up to Science Based Targets. As of mid-2016, 155 companies had committed to setting science-based targets.

By setting science-based targets, companies commit to reduce their fair share of emissions in line with what is required by climate science. They can use any method they choose, as long as they are able to clearly demonstrate that it meets the objective. For example, in the “sectoral decarbonisation approach,” the global carbon budget is first broken down by sector, emission reduction potential, and cost savings. Then, within each sector, company targets are derived relative to their share of activity within their sector and their carbon intensity relative to the rest of their sector.

This methodology and approach is based on the 2°C scenario developed by the International Energy Agency (IEA), which sets out a carbon budget of 1,055 gigatonnes (Gt) of CO₂ until 2050. Figure 1.1 provides a breakdown of the emissions pathway that needs to be achieved from 2011 to 2050 for each industry sector to put the world on a 2°C pathway.

Figure 5

Sectoral breakdown of absolute CO₂ emissions budget, 2011-50

Source: IEA ETC 2DS, 2014 and Sectoral Decarbonisation Approach Report.¹²⁷

Finance sector commitment platforms

In the finance sector, a growing number of initiatives aim to set standards for responsible behaviour. The Principles for Responsible Investment (PRI) are six principles for investors to use in incorporating ESG issues into investment practice. To date there are over 1,500 signatories representing US\$60 trillion. The PRI initiative, which supports signatories in taking action, launched a Reporting Framework in 2012 that provides a set of standardised indicators to measure progress. PRI members report having engaged more than 1,660 companies in around 60 countries, seeking improvement in (ESG) policies and practices, including carbon emissions disclosure, targets, and corporate lobbying on climate policies.¹²⁸

Under the Montreal Carbon Pledge asset owners and investment managers commit to measuring and disclosing the carbon footprint of their assets. By 2015, 120 investors representing more than US\$ 10 trillion in assets had made this commitment.¹²⁹ ClimateWise is a global insurance leadership group established in 2007 and convened by the University of Cambridge Institute for Sustainability Leadership to drive action on climate change risk. Members commit to following six ClimateWise principles across their business activities and are independently reviewed against them.¹³⁰

6.2 COLLABORATIVE INITIATIVES AIMED AT TRANSFORMING MARKETS OR SYSTEMS

Individual business action, even within a collective platform, is rarely sufficient to transform whole markets and sectors in a low-carbon direction. The more ambitious the targets, the more likely companies will encounter system barriers to achieving their goals. To overcome these barriers a critical mass of companies is needed to build economies of scale, shift demand, and advocate for consistent regulatory policies. The key aspect distinguishing these initiatives from commitment platforms is that companies actively collaborate with others to affect change within a market or system by adopting a joint goal or target. Such a collective initiative can deliver a greater level of systemic change, but can have a lower level of individual accountability because of the longer timescales, broader approaches and more fragmented and diverse nature of participation in these collaborations.

As noted above, as sustainability issues become more complex, more global, and more material, businesses recognise that they cannot make the necessary impact acting alone. At the same time, sustainability-related collaborations are becoming more

strategic and transformational in nature, with more businesses addressing a strategic challenge or aiming to transform a market in which they operate.¹³¹

Collaborating internationally can be an effective and efficient method to scale up action, transform markets, get ahead of regulation, and ensure continued competitiveness.¹³² The objectives of these collaborations can be very different but usually include developing common standards, sharing information to catalyse innovation, creating a consolidated advocacy platform to influence policymakers and suppliers, and sharing investments to save costs or reduce risks.¹³³ These collaborations can be defined as “pre-competitive-collaboration” in which competitors share early stages of research that benefit all.¹³⁴

A number of initiatives have emerged to catalyse the low-carbon transformation of specific sectors, value chains, technologies or products.

Sectoral focus

Carbon-intensive companies and sectors tend to focus on reducing emissions on their own production. For example, see the World Business Council for Sustainable Development’s (WBCSD) Cement Sustainability Initiative described in Box 2. For these sectors, choosing to work together can be motivated by a desire to maintain a social license to operate by demonstrating a willingness to tackle environmental issues; wanting to stay ahead of regulation; and wanting to alleviate competitiveness concerns by bringing a large proportion of a sector with them on the journey. Significant efficiencies accrue to companies that are able to measure, verify and report according to a global standard. Voluntarily co-creating standards and implementing them across global operations, including in places that have not yet established reporting requirements, may allow companies acting together to influence and encourage the international development of such standards.

In the transport sector, for example, the International Air Transport Association (IATA), the trade association of the world’s airlines, made a commitment to carbon-neutral growth in aviation from 2020 and to reduce net CO₂ emissions by 50% by 2050.¹³⁵ In road transport, the 30 by 30 Resolution of the International Road Transport Union pledges to deliver a 30% emissions reduction by 2030 in terms of carbon emissions per tonne-kilometre or passenger-kilometre.¹³⁶

Box 2

Cement Sustainability Initiative: Transforming an Industrial Sector

The Cement Sustainability Initiative (CSI) promotes sustainable development in the cement industry, a significant heavy industry sector that accounted for emissions of 2.2 GtCO₂e globally in 2011.¹³⁷ CSI has a number of priorities, including CO₂ emissions reduction, in which members are expected to set clear targets for reductions per unit of cement produced within their own operations.

The success of CSI may be attributed to its longevity (it has been operating for 16 years) and the inclusion of a large percentage of the industry (approximately 30% of the world’s cement production). Members are required to set up and report on emissions reduction targets. Membership includes a considerable number of companies from developing countries, and this global network is underpinned by a standardised measurement, reporting, and verification process (MRV), which includes regular and independent auditing of company targets and progress.

The initiative also provides a strong network for sharing knowledge and best practices. Many CSI members actively engage with the initiative at a senior level, up to and including executive management committees and company CEOs. All these factors (longevity, coverage, targets, MRV standards, senior leader engagement, outreach across borders and knowledge sharing), provide the group with greater credibility and support for achieving its sustainability goals than companies would have acting alone. This credibility also contributes to CSI’s ability to engage with national business associations and governments to influence the development of regional and national standards relevant to this sector (Figure 6).

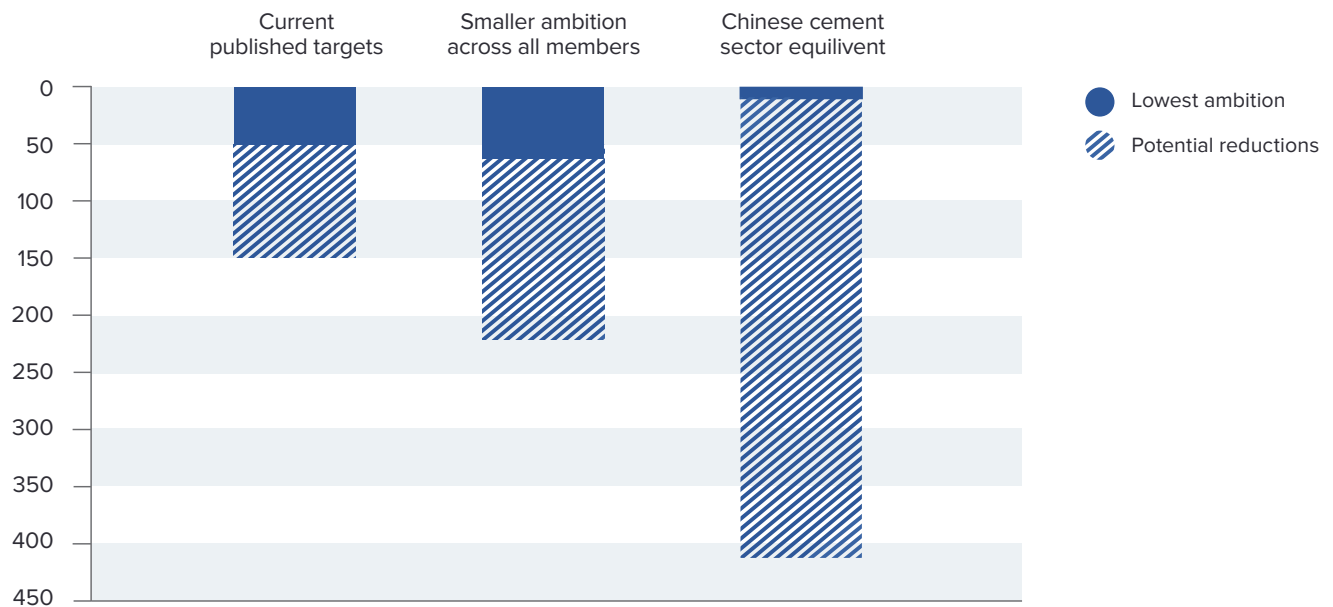
CSI has identified the barriers to scaling up emissions reduction in the cement sector as being primarily economic and regulatory: a lack of infrastructure, as well as lack of R&D funding for technological advancements (such as clinker substitution, carbon capture and storage, and fuel switching).¹³⁸ It seeks to overcome some of these barriers by creating partnerships with other sectors, (e.g., as part of the Low Carbon Technology Partnerships initiative).

Box 2 (continued)

Cement Sustainability Initiative: Transforming an Industrial Sector

Figure 6

Current and potential future emissions reduction shows the CSI initiative's growing ambition



Source: Cambridge Institute for Sustainability Leadership, 2015.¹³⁹

Supply chain management

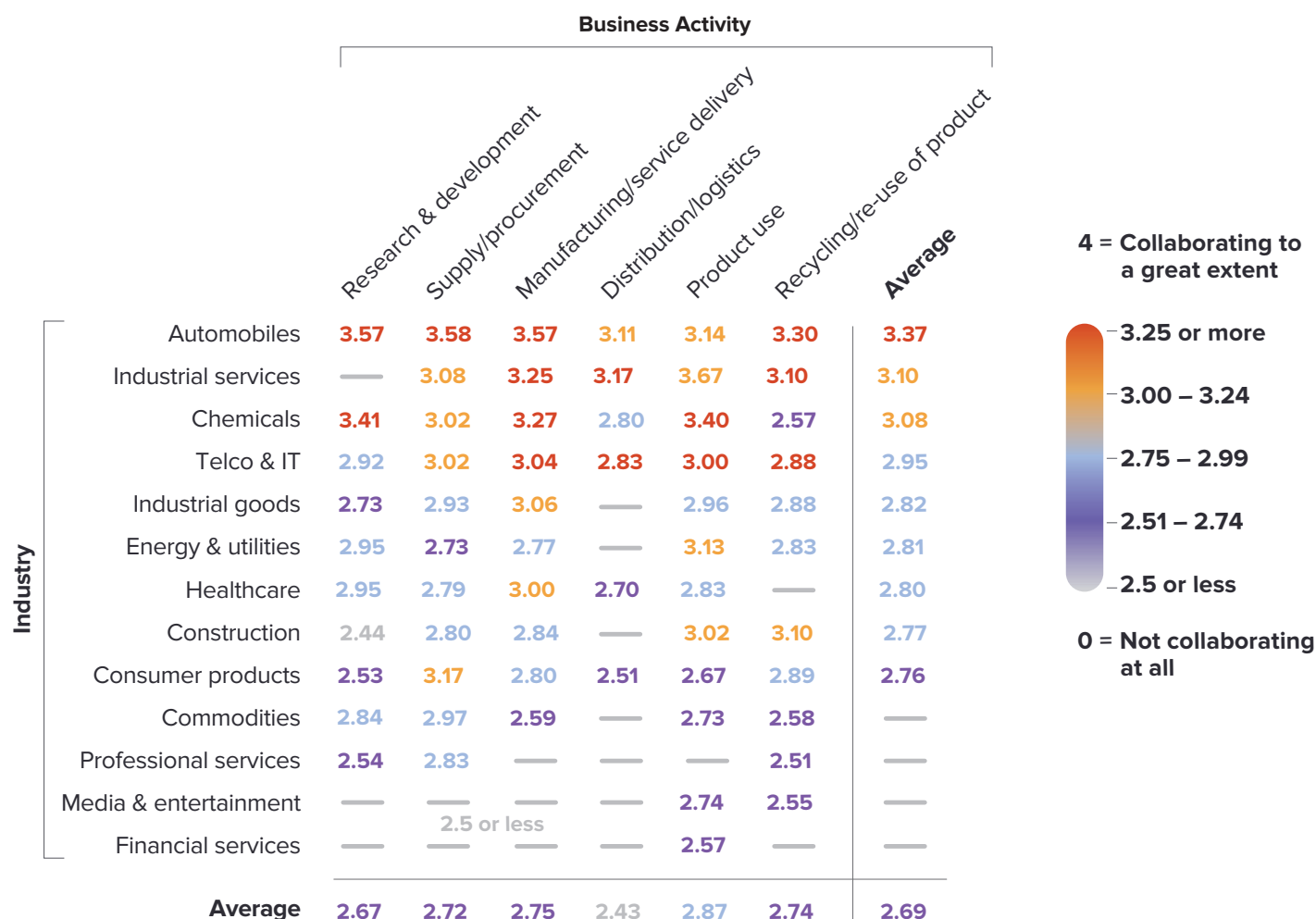
The globalisation and complexity of supply chains is increasing all over the world and for many companies that seek to reduce emissions, working across their value chains is critical. Coming together with others in their sector, including competitors, to achieve a common goal can significantly increase a company's ability to impact its supply chain or investments and reduce the risk of competitiveness losses from moving alone. For example, 75% of companies in forest-related sectors reporting to CDP in 2015 recognized at least one supply-chain risk associated with forest commodities with the potential to generate a substantive change in business operations, revenue, or expenditure.¹⁴⁰

The strength of each partner is likely to differ across industries. For example, the automotive industry, with its experience of simultaneous engineering (a method of designing and developing products, in which the different stages run simultaneously, rather than consecutively) and a long history of collaborative R&D work, stands out as one of the strongest industries for sustainability collaborations.¹⁴¹ Because consumer goods companies are exposed to sustainability issues predominately through their supply chains, they tend to collaborate more on procurement initiatives (see the high response by the consumer goods industry to collaboration on supply chain issues in Figure 5). In contrast, many service industries, such as financial institutions and media companies, have focused less on the sustainability of their products or supply chains (see also Figure 5), which admittedly are less energy-intensive than in other industries. This pattern has been consistent over several years of research by the MIT Sloan School of Management: the more resource-intensive industries do far better in corporate sustainability activities than service industries.¹⁴²

Figure 7

Resource-Intensive Industries Lead Sustainability Collaborations in Product-Related Activities

Survey question: On a scale of zero to four, to what extent are your organization’s sustainability collaborations focused on the following business activities?



Source: *Joining Forces*, 2015.¹⁴³

Business activities addressed by sustainability collaborations vary by industry, but most often involve the product use phase. One area where a history of progressive change and action can clearly be seen is in the soft commodities sector, specifically around palm oil, where collaboration has grown in both scale and ambition. The Roundtable on Sustainable Palm Oil has worked to create a common sustainability standard for sourcing palm oil,¹⁴⁴ with some of the same companies being involved in the commitment made by the Consumer Goods Forum to achieve zero net deforestation by 2020.¹⁴⁵ This goal has received further collaborative support through the Tropical Forest Alliance 2020, bringing together governments, consumer companies and NGOs to achieve it (Box 3). These initiatives have the potential for significant impact on emissions. If the ten private sector members of the Tropical Forest Alliance 2020 with zero net deforestation goals achieve their goal just with respect to palm oil, it could lead to an annual emissions reduction of 20–200 MtCO₂e in 2020. This could become as high as 460 MtCO₂e per year if all global palm oil were sourced sustainably by 2020.¹⁴⁶ There is increasing momentum in this direction: 52 companies have signed the New York Declaration on Forests,¹⁴⁷ 51 companies have committed to remove commodity-driven deforestation via We Mean Business,¹⁴⁸ and 70% of companies responding to CDP in 2015 have committed to reduce or remove deforestation and forest degradation from their commodity supply chains.¹⁴⁹ Clearly there is significant overlap in these sectors but these commitments nonetheless show signs of change.

Box 3

Tropical Forest Alliance 2020: A Collaborative Initiative Changes Market Dynamics

The Tropical Forest Alliance 2020 is a public-private partnership that aims to connect, mobilise, and support its partners from the private sector, governments and civil society, in their common goal to reduce the deforestation of tropical forests. The Alliance focuses on changing the market dynamics of the key commodities that drive deforestation: palm oil, soy, beef, and paper and pulp.

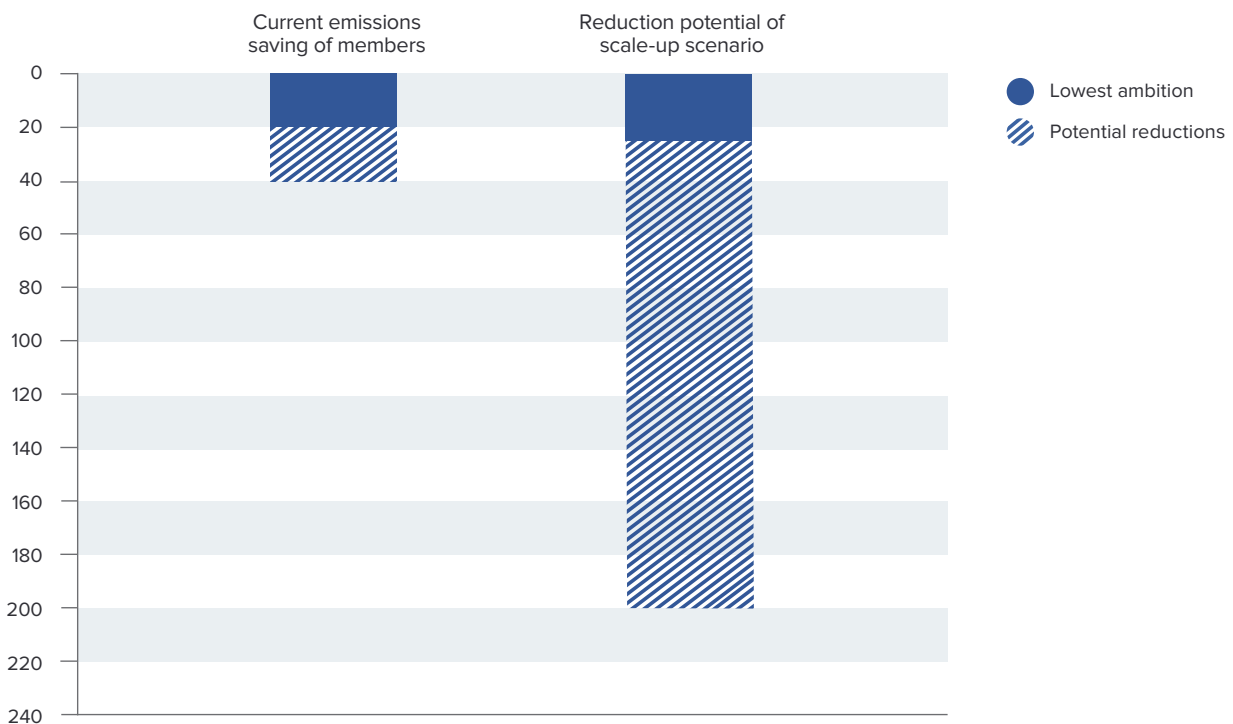
As the Alliance is a collaboration between business (through the Consumer Goods Forum, with 400 members), governments and NGOs, there is strong potential for it to have a significant impact. The initiative brings together countries outside the geographical focus areas that are willing to support efforts as well as tropical countries where deforestation is taking place.

Developing countries are motivated to join the initiative because of its emphasis on the economic benefits of sustainable land management practices (such as the potential for increased crop yields). Private sector actors are motivated to participate for a variety of reasons.¹⁵⁰ Many companies joined the initiative because working together ensures they have a greater say in aligning efforts to secure deforestation-free supply chains. They also have greater control over purchasing sustainable (and certified) products and remain competitive faced with a customer base that is increasingly sensitive to the deforestation issue. Member companies also increase their credibility and enlarge their influence in societal movements.

According to some stakeholders, a key barrier to scaling up impact, at least in the short term, could be the different drivers and different levels of ambition within the initiative. Developing country companies may be more focused on achieving additional co-benefits (e.g., increased economic benefits associated with a more sustainable product) than large developed country companies, who may be more focused on supply chain management, demonstrating emission reductions, and improving their company image. Limited data on the traceability and guarantee of emissions reduction clearly also hampers efforts.

Figure 8

Current and potential future emissions reduction if Tropical Forest Alliance grows in ambition



Source: Cambridge Institute for Sustainability Leadership, 2015.¹⁵¹

Technology focus

Some initiatives are focused on increasing the development and deployment of low-carbon technologies. Examples include the en.lighten Initiative, which has encouraged the deployment of low-energy lighting systems, and Refrigerants Naturally!, which has spurred the growth of new appliances.

The en.lighten Initiative was convened by Philips and OSRAM, two major lighting suppliers, working with the United Nations Environment Programme, and aims to drive a transformation of the market for lighting. Its key contributions include supporting countries and regions in setting up waste and recycling systems (to avoid problems with mercury that is included in some lighting technologies) and creating innovation and testing centres to ensure standards are maintained. The initiative's work has supported economic development in target countries, allowing local manufacturers to take advantage of new technologies; supported the creation of local infrastructure; and used a regional focus to create efficiencies and cost savings in such systems. These accomplishments have clearly created a business return for the multinational lighting manufacturers who have invested significant time and resources to support this initiative and in return have seen the development of new markets. By 2020 the initiative will have delivered projected emissions reductions of about 60 MtCO₂ annually if all participating countries with binding targets deliver.¹⁵²

In this field, a number of partnerships to drive forward technological change are increasing through the Low Carbon Technology Partnerships initiative of World Business Council on Sustainable Development. This initiative brings companies together to develop and implement actions to address climate change through a set of sectorally structured groups of companies that commit to headline ambitions and develop detailed action plans to be implemented over 10–15 years (Box 4). Public-private partnerships are established in key regions to deliver outcomes.

This area of collaboration has significant scope for expansion. It overlaps with efforts to set business targets and commitments, but the more business can do to unlock action based on a commercial logic, the greater the potential scale of the action. Because the business opportunities for action on climate change are only now becoming clear, it is possible to envisage much greater expansion of efforts of this kind.

Box 4

The World Business Council for Sustainable Development's Low Carbon Technology Partnerships initiative: Business Takes the Lead in 2°C Transition

The Low Carbon Technology Partnerships initiative (LCTPi)¹⁵³ was developed by the World Business Council for Sustainable Development (WBCSD), the Sustainable Development Solutions Network (SDSN), and the International Energy Agency as a platform for businesses to play a role in leading and accelerating the transition to a low-carbon economy. The initiative was launched during the 20th Conference of Parties in Lima in December 2015, and now includes over 150 companies and 70 partners from around the world. Members work to achieve the initiative's overarching goal of limiting global warming to 2°C.

Companies can join any of nine working groups focused on: carbon capture and storage, cement, chemicals, climate-smart agriculture, energy efficiency in buildings, forests, low-carbon freight, low-carbon transport fuels, and renewable energy. Each working group has determined ambitions and an action plan and works to achieve them primarily through collaboration, particularly public-private partnerships. Initiative actions will contribute to achieving countries' intended Nationally Determined Contributions and the global Sustainable Development Goals, and to removing barriers to technological innovation through introducing appropriate policy and financial instruments.

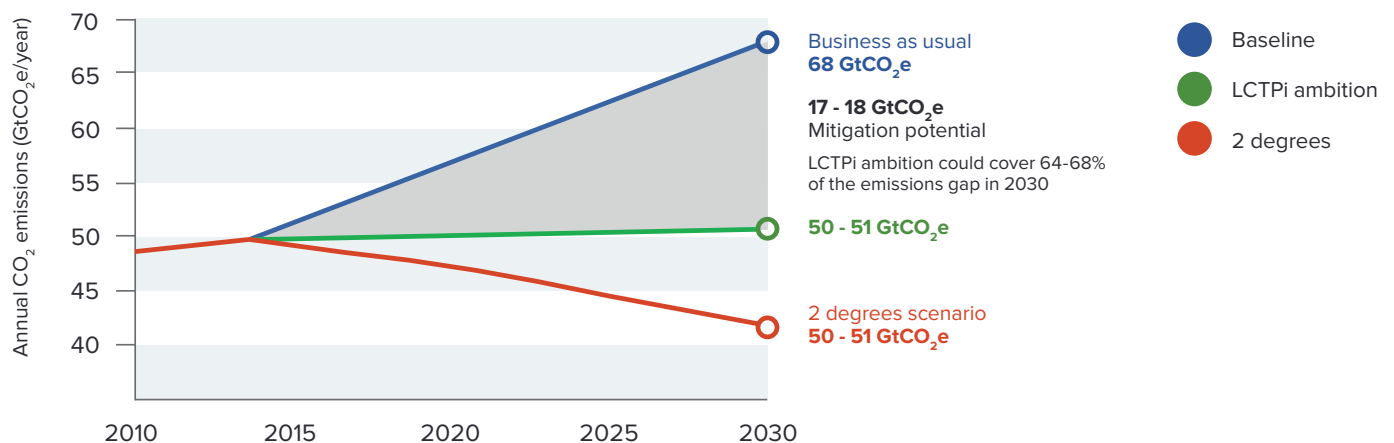
Impact analysis, conducted by PwC in 2015, shows the initiative could cut GHG emissions by 25% by 2030 moving the world 65% of the way towards keeping emissions below the 2°C warming target.¹⁵⁴ The analysis also indicated that the LCTPi could generate US\$5–10 trillion of investment towards low-carbon sectors of the economy, supporting 5–10 million jobs globally by 2030.¹⁵⁵

Box 4 (continued)

The World Business Council for Sustainable Development's Low Carbon Technology Partnerships initiative: Business Takes the Lead in 2°C Transition

Figure 9

Low Carbon Technology Partnerships Initiative Emissions Reduction Target Would Land 65% of the Way from Business as Usual towards the 2°C Target by 2030



Source: LCTPi and PwC, 2015.¹⁵⁶

Finance sector collaborations

A number of finance sector initiatives are driving collaboration aimed at market or system transformation. Some are aimed at decarbonising portfolios, while others focus on influencing companies to change behaviour. Yet others focus on increasing the number of green financial products on the market to drive up the capital invested in low-carbon goods and services. Underpinning much of this activity are a range of initiatives aimed at significantly improving data on climate risks and opportunities for investors.

A noteworthy example of an initiative aiming to decarbonise portfolios is the Portfolio Decarbonisation Coalition founded by Amundi, AP4 (the fourth Swedish national pension fund), CDP and the United Nations Environment Programme Finance Initiative (UNEP-FI) in September 2014. As of mid-2016 it had 27 institutional investors.¹⁵⁷ The Banking Environment Initiative's Soft Commodities Compact¹⁵⁸ is an interesting example of investors seeking to align banking industry services with corporate deforestation commitments. A direct response to the Consumer Goods Forum's zero net deforestation commitment, its signatories have committed to financing the transformation of supply chains and raising industry-wide banking standards. A practical outcome of this collaboration has been the development of a "sustainable shipment letter of credit"¹⁵⁹ which can be used to differentiate shipments and therefore open the possibility of offering preferential terms for more sustainable trade.

Investors have an important role as major shareholders in companies. The Ceres' Shareholder Initiative on Climate and Sustainability (SICS) co-ordinates the efforts of investors seeking to engage investee companies on climate, clean energy, and related sustainability risk and opportunity issues, allowing for a much greater impact than companies acting alone. In the last two years, SICS's resolutions and company dialogues have helped produce over 100 corporate commitments to address critical risks related to climate change of which three-quarters have been implemented.¹⁶⁰

To direct more finance towards climate change solutions, the Climate Bonds Initiative¹⁶¹ has developed an internationally recognised and trusted standard that helps investors identify accredited climate-friendly investments. It also works with stakeholders to grow the market by driving down the cost of capital and developing aggregation mechanisms for fragmented sectors. As of 2015, the total value of climate-aligned bonds stood at US\$597.7 billion, a 20% increase from 2014.¹⁶²

The short termism of the investment cycle, with many investors demanding quarterly reports, can be a major barrier to shifting capital from high- to low-carbon goods and services. The Focusing Capital on the Long Term initiative brings together investors and corporate leaders to identify ways to reverse this through changes in asset manager contracts, benchmarking, evaluation and incentives, and clear statements of investment beliefs.¹⁶³

Despite an increase in the volume and frequency of information on climate change made available by companies, access to more data for equity investors has not always translated into more comprehensive insight into companies. Inconsistencies in climate-related disclosures are major obstacles to incorporating climate-related risks into investment and credit decisions. The next step is to develop standardized methodologies for understanding the climate sensitivity of investment portfolios based both on the type of investment and the actual investments made. At the behest of the G20, the Task Force on Climate-related Financial Disclosures¹⁶⁴ is a recently established industry-led initiative that aims to develop voluntary, consistent climate-related financial risk disclosures for use by companies in providing information to investors, lenders, insurers, and other stakeholders. It will consider the physical, liability and transition risks associated with climate change and what constitutes effective financial disclosures across industries, and will release a report and a set of recommendations in late 2016. Membership of the Task Force is comprised of private providers of capital, major issuers, accounting firms and rating agencies providing a unique collaboration between the users and preparers of financial reports. It was launched in 2015 by Mark Carney, Governor of the Bank of England and Chair of the G20 Financial Stability Board, and is chaired by Michael Bloomberg.

Also worth highlighting is the Statement on fiduciary duty and climate change disclosure:¹⁶⁵ a collective commitment by a leading group of companies and institutional investors to strengthen and align climate-related corporate reporting to the investment community through a common framework. More fundamentally, it is a recognition that, because climate change is beginning to affect economic activity in various tangible ways, it has become relevant for consideration by shareholders and plan beneficiaries irrespective of how they view its moral or societal implications.

6.3 POLICY ENGAGEMENT GROUPS

Groups have formed to offer corporate and investor support for policies to slow climate change.

Corporate support for policy change

Business has a significant influence on policy development, which can be both positive and negative for climate action. Government policy and regulation affect business decisions, often in fundamental ways, so it is unsurprising that companies will seek to shape policy, whether to encourage action they believe necessary or useful, or to maintain the status quo.¹⁶⁶

Business may seek to influence policy to obtain certainty to help their decision-making.¹⁶⁷ Many companies have called on governments to send clear, long-term, and stable climate policy signals to guide investment and innovation. Currently, some investments are seen as too risky given uncertainties around future climate policies. In 2015 over 1,000 major companies called on governments to introduce carbon pricing policies, precisely to send such a signal.¹⁶⁸ Companies can positively support climate policy formation in different ways, including through public statements or letters to governments,¹⁶⁹ through trade association reports, by seconding staff to government offices, by being involved in public events on the margins of policy negotiations,¹⁷⁰ or by engaging in private meetings with policymakers.

Trade associations and business groups play a fundamental role in shaping the politics around climate change. Working through trade and collaborative groups, businesses can bring greater weight to bear and deliver greater influence. Clearly, this influence is not always aimed at supporting climate action. In Europe, for example, trade associations have lobbied against ambitious climate targets, support for renewable energy, and a robust carbon price.¹⁷¹ Similarly, some U.S. trade associations have opposed policy interventions to reduce emissions and some even continue to deny climate science.¹⁷²

Efforts have increased to highlight and engage negative corporate lobbying on climate change. For example, in 2012 a report by the Union of Concerned Scientists revealed that a number of top U.S. companies were spending heavily to block action on climate change or discredit climate science, sometimes despite their own public commitments to sustainable and green values.¹⁷³ In 2012, the United Nations Global Compact, along with partners, published a set of guidelines for responsible corporate engagement in climate policy.¹⁷⁴

However, major growth in business collaboration in support of climate action through national, regional and international groups has also occurred over the last decade. A growing number of business groups focus on supporting constructive climate policy, including Ceres's Business for Innovative Climate and Energy Policy and the California Business Alliance for a Clean Economy in the United States; the Prince of Wales's Corporate Leaders Group (CLG) in the European Union; CEBDS and Empresas Pelo Clima in Brazil; the Japanese Climate Leaders Partnership; the National Business Initiative of South Africa; and the Chilean CLG.¹⁷⁵

Many of these groups collaborate at the global level through We Mean Business, a coalition that brings together the B Team, BSR, CDP, Ceres, The Climate Group, CLG, and the WBCSD, alongside many other global partners, to amplify the business voice and catalyse climate action. Being part of a broad alliance or a partnership between business and governments can also be a highly influential way of creating political space for climate action.¹⁷⁶

Another major new international grouping addressing policy engagement and involving business is the Carbon Pricing Leadership Coalition, an action-based platform set up on the back of support for carbon pricing at the United Nations Climate Summit in September 2014. The coalition brings together leaders from government, the private sector and civil society to share experiences on carbon pricing and to expand the evidence base for the most effective carbon pricing systems and policies, with the ultimate aim of increasing such systems and policies globally.¹⁷⁷

Investor support for policy change

The Global Investor Coalition on Climate Change provides a platform for dialogue among investors and governments on international policy and investment practice related to climate change. It brings together four regional groupings spanning Europe, North America, Australia and New Zealand, and Asia, and manages a database to identify and record climate change actions undertaken by the global investor community.

Investors have also been getting more involved in influencing specific financial regulation that will make it easier to direct investments towards the new climate economy. ClimateWise, for example, hosted a number of roundtable discussions with the United Kingdom's Prudential Regulation Authority to consider the role of the regulator in addressing climate change risk.

Wider attempts to transform the financial sector are also under way. The UNEP Inquiry into the Design of a Sustainable Financial System is working with central banks and financial regulators to examine how the financial system as a whole can help support the low-carbon transition. It argues for an expansion of the scope of risk management to include climate factors and mechanisms to facilitate the flow of capital into low-carbon investment. The Inquiry has highlighted the importance of involving coalitions of actors in taking forward its findings and has already contributed to the development of a number of initiatives from co-convening China's Green Finance Task Force with the People's Bank of China to supporting a national inquiry into the green economy and the financial system of Brazil's banking association.

7. Conclusions and recommendations

The commitment of major global businesses to climate action will make the transition to a low-carbon economy much easier, both economically and politically. Many leading companies have committed to action, and found both cost savings and new markets as a result. But business action remains too limited in terms of the numbers of businesses participating and the scale of projected emissions reduction, which is not commensurate with the global goal of holding warming below 2°C.

International cooperation can galvanise leadership, generate norms of good practice, and overcome competitiveness barriers.

It is too soon to know how successful recent corporate cooperative initiatives will be, but they offer the potential to shift the huge resources of business investment and innovation towards driving a low-carbon transition. More broadly, there is a need to engage businesses around the world, not just in developed countries. The prize is to align business interests more closely with the requirements of a below 2°C pathway, to drive deeper emissions reductions, and to expand low-carbon markets.

The Global Commission on the Economy and Climate therefore recommends that all major businesses adopt short- and long-term emissions reduction targets and implement corresponding action plans, and all major industry sectors and value chains agree to market transformation roadmaps, consistent with the long-term decarbonisation of the global economy. Financial sector regulators and shareholders should actively encourage companies and financial institutions to disclose critical carbon and environmental, social, and governance (ESG) factors and incorporate them in risk analysis, business models, and investment decision-making.

The finance sector should expand long-term and responsible ownership and financing practices, and improve its capabilities, incentives, standards and rules in order to facilitate the decarbonisation of the global economy. Businesses should adopt common standards for measuring, reporting, and verifying emissions data using best practice protocols, and include their results in integrated financial reports. Businesses should work to ensure that trade associations and other groups representing them do not act to block action on climate change, and speak out when they do.

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ABOUT THE NEW CLIMATE ECONOMY

The Global Commission on the Economy and Climate, and its flagship project The New Climate Economy, were set up to help governments, businesses and society make better-informed decisions on how to achieve economic prosperity and development while also addressing climate change.

In September 2014, the Commission published *Better Growth, Better Climate: The New Climate Economy Report*. Since then, the project has released a series of country reports on the United States, China, India and Ethiopia, and sector reports on cities, land use, energy and finance. In July 2015, the Commission published *Seizing the Global Opportunity: Partnerships for Better Growth and a Better Climate*, and in October 2016, the Commission published *The Sustainable Infrastructure Imperative: Financing for Better Growth and Development*. It has disseminated its messages by engaging with heads of governments, finance ministers, business leaders and other key economic decision-makers in over 40 countries around the world.

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