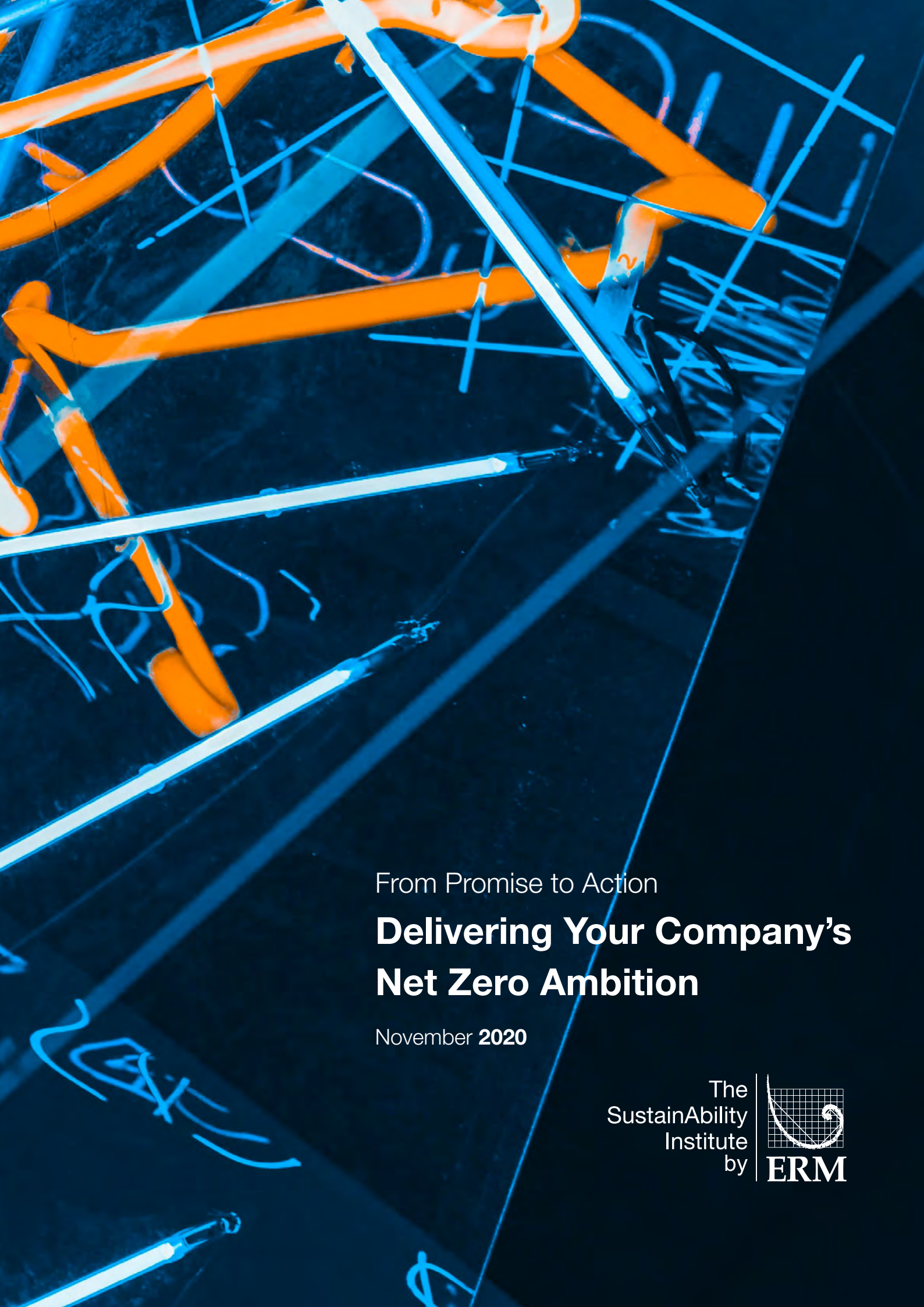
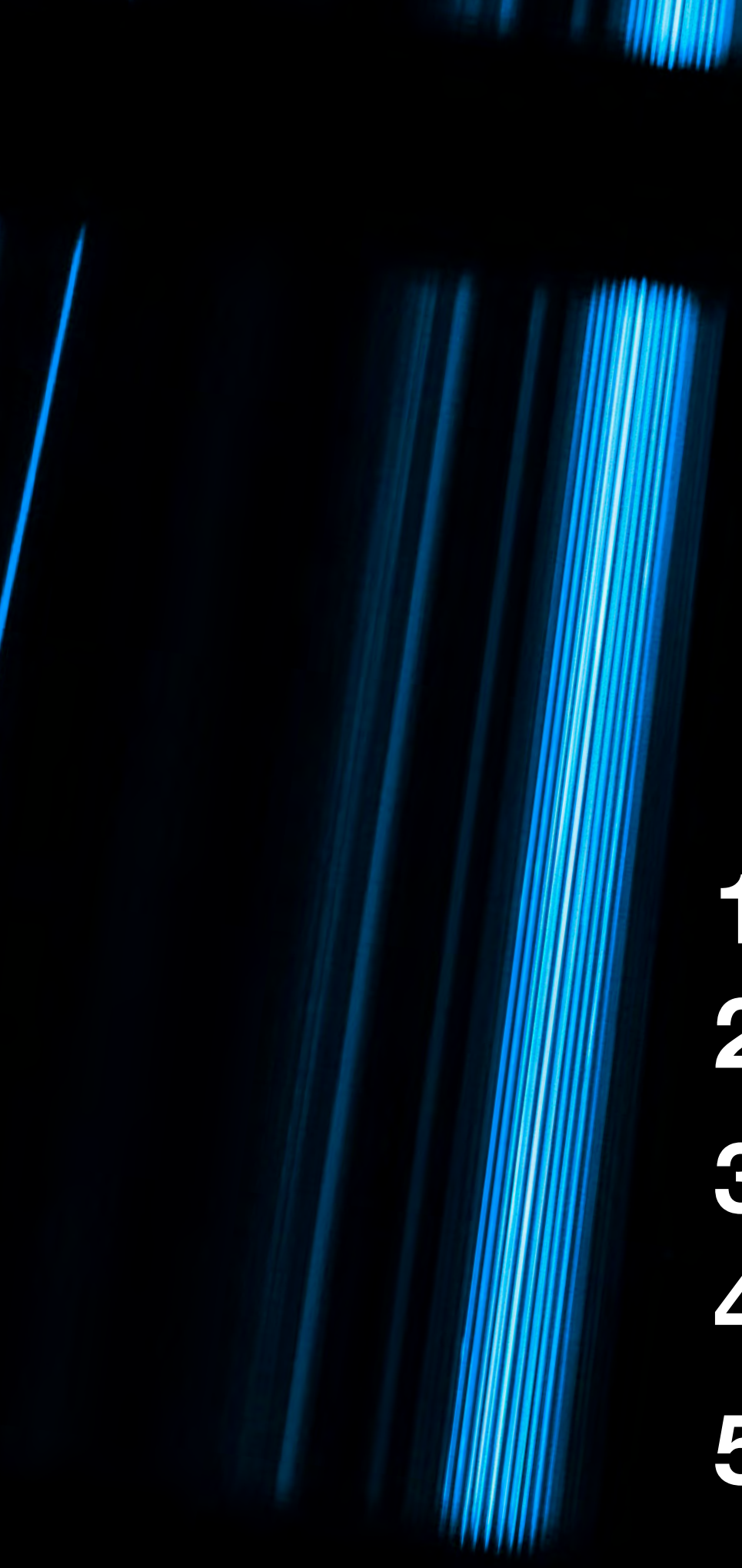


From Promise to Action

Delivering Your Company's Net Zero Ambition

November **2020**

The SustainAbility Institute by ERM



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Foreword

In October 2020, two of the world's largest banks – HSBC and JPMorgan Chase – joined the burgeoning ranks of institutions committing to climate-informed financing. As one of the world's largest energy investors, JPMorgan's new 'Paris-Aligned Financing Commitment' marked a particularly significant move because where the money goes, corporate executives will surely follow. With financial regulators around the world upping the pace by requiring greater climate-related financial disclosure as well – including the UK making TCFD-aligned reporting mandatory in one of the world's biggest financial centres by 2025 – the race is on to bring net zero carbon commitments to life.

Especially considering US President-elect Biden's commitment to bring the US back into the Paris Climate Agreement, the global policy trajectory towards limiting global warming to 1.5°C is accelerating forward. Spurred by extreme weather events, economic disruption, political upheaval, and public protest, the case for action is no longer in doubt.

Despite the massive disruption caused by COVID-19 – or perhaps even because of it – politicians, investors, and CEOs around the world are joining a chorus to advocate for a lower carbon economy. Even hard-nosed commentators, such as BlackRock's CEO Larry Fink, seem convinced that 'more sustainable' really does mean 'more resilient.'

ERM has been playing a leading role in the business of sustainability for decades. We provide the technical and commercial rigor needed to inform decision-making, shape action, and drive meaningful results in the real world.

Now we are turning our focus to the challenge of the low carbon transition. From our strategic work in our clients' boardrooms to the front line of their operations and capital projects, our team of 5,000 is doubling down on making the transition happen.

Right across the economy, we are helping clients in energy, mining, manufacturing, food, technology, and finance fully embrace the opportunities of a world in motion towards a net zero emissions future.

We have launched this *From Promise to Action* series of insight papers, client dialogues and events to help inform the transition. Perhaps even more than that, we hope we can play our own small part in achieving a lower carbon economy.

Matt Haddon
Global Lead, Low Carbon Economy Transition
ERM

Executive Summary

***From Promise to Action* is a series of research reports, interviews with senior executives at multinational corporations, and events exploring how companies are translating net zero emissions goals into practice.**

It is designed to help corporate leaders understand how to set and achieve the kind of ambitious carbon reduction targets necessary to keep global warming below 1.5°C as recommended by the Intergovernmental Panel on Climate Change[1].

"Delivering Your Company's Net Zero Ambition" is the first report in the series. It draws on insights from executive interviews, ERM's work with companies, and desk research. With the private sector facing increasing pressure to communicate and accelerate progress on bold climate ambitions, the report provides an overview of contextual forces influencing corporate climate strategy and offers succinct guidance on essential steps all companies must consider on their journey to net zero.

Several factors account for the growing urgency with which the private sector has been approaching climate change:

- Growing awareness of **climate risk**, with climate change increasingly recognized, including by investors, as the number one threat facing the planet.
- Rapidly **changing policies**, with a growing number of national and regional governments enacting regulations intended to help decarbonize the economy.
- Recognition of the **economic opportunities** presented by the low carbon economy transition.
- **Reputational considerations** shaped by changing expectations among consumers, employees, and the general public.
- **Risk of litigation** for climate-related damages from companies.

In response, a growing number of companies are announcing climate commitments. As of this report's publication date, more than 1,500 companies[2] have made a commitment to achieve net zero emissions in the next few decades, and by 2050 at the latest.

To help guide companies aspiring to deliver on net zero promises, this report details five essential steps senior business decision-makers must include in planning and execution:

- **Measure your footprint:** Understanding Scope 1, 2, and 3 greenhouse gas (GHG) emissions is the critical first step for all companies.
- **Set a net zero goal with clear interim targets:** Setting a clear target using an established methodology defines the company's ambition and provides a framework for delivery.
- **Reduce energy use:** Often overlooked, energy use and efficiency initiatives are effective ways for businesses to reduce their footprint and save money.
- **Switch to low carbon energy:** Switching to renewable energy sources is at the heart of low carbon transition and lets companies help shape the future energy markets.
- **Pursue carbon removal solutions:** For most companies, achieving net zero will require taking advantage of carbon removal technologies including carbon capture, utilization and storage (CCUS) and nature-based solutions.

The magnitude of decarbonizing the global economy cannot be underestimated, and every participating institution will face challenges along the way. This report briefly discusses some of the difficulties that companies are encountering including challenges related to government policy, internal mobilization, and collaboration. It also explores some steps that leaders are taking to overcome the obstacles faced.

We will continue to provide further insights and practical guidance to companies on delivering net zero through future interviews and forums, and in other publications in the *From Promise to Action* series.

Introduction

The private sector will be crucial to achieving a rapid transition to a low carbon economy and meeting the global challenge of climate change

This is a crucial decade. A rapid transition to a low carbon economy must occur to ensure society meets the goals of the Paris Climate Agreement and delivers on the promise of the Sustainable Development Goals.

The private sector will be central to this effort, which is attracting the attention of stakeholders including investors, employees, governments, and consumers keen to see which companies will lead the transition and seize the growth opportunities that climate leadership presents.

As the risks related to climate change become better understood and more tangible, and economics of transitioning to net zero becomes increasingly attractive, corporate leaders need to understand this agenda and implement it at pace in order to address the planetary challenges climate change presents, mitigate risks, and maintain competitive positions in the market.

The number of companies setting ambitious climate goals has been growing rapidly. More than 1,500 companies have made net zero[3] commitments and more than 1,000 companies[4] have committed to develop Science-Based Targets, a trend likely to accelerate in the lead-up to the COP26 global climate summit at the end of 2021.

This is an encouraging trend. Having the businesses translate their commitments into action will be important; however it will be even more crucial for this list to continue to grow and reach a critical mass if the global community is to have a shot at keeping global warming under 1.5°C as recommended by the by the Intergovernmental Panel on Climate Change (IPCC).[5]

To help guide companies aspiring to net zero[6] implement and deliver against such critical and ambitious targets, the SustainAbility Institute by ERM has launched *From Promise to Action*, a series of publications and virtual events exploring challenges businesses commonly face on the journey to net zero and the solutions to overcome them.

From Promise to Action will include in depth research, reports, and a series of interviews with senior executives responsible for climate action in major multinational corporations, all exploring how leading companies are translating net zero goals into practice.

In addition to looking at obstacles and ways to get past them, the series will examine how executives mobilize the resources needed to acquire and deploy new technologies, identify and select partners, and implement other actions required to eliminate emissions.

The first interviews were conducted before launching this paper. The insights gathered in those conversations with executives at Equinor, Google, Nestlé, and Unilever help inform this document. These four interviews and those to come will be available on the SustainAbility Institute by ERM website.

This report is the first paper in the *From Promise to Action* series and seeks to achieve the following:

- Set the context for the series by providing an overview of the key factors driving corporate climate action.
- Outline the essential steps and key considerations for companies in making net zero commitments and planning their implementation.
- Share initial observations on the challenges companies will face on this journey and highlight emerging solutions.
- Communicate insights from business leaders gathered via the initial interviews, in the course of work with ERM clients, and from our supporting research.

The rest of the series, running until COP26, will build on and deepen the insights shared here through publication of more interviews and reports as well as curated events.

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Accelerating the Low Carbon Economy: Key Forces Driving the Corporate Momentum

Growing awareness about climate risks, shifting policies, opportunities around innovation, and reputational considerations are the key forces driving corporate climate commitments

The number of companies taking proactive steps to assess their exposure to climate risk and reduce their carbon footprint is swelling as the impacts of climate change are felt up and down company value chains and from businesses' factory floors to their board-rooms.

There are many reasons for this acceleration. At a macro level, society and the private sector are increasingly attuned to climate-related risks, a combination that leads to increasing pressure on business from investors, employees, consumers, and other stakeholders.

Corporate action is also motivated by opportunity through the following: plummeting costs of low carbon power; growing consumer preferences for clean, smart technologies; and emerging opportunities for market growth, investment, and innovation.

While all businesses face a similar mix of pressure and possibility, managing the low carbon transition will be different for every organization. For some companies, the transition to low carbon solutions might be relatively easy; for others, it will require reimagining business models entirely.

As Bjørn Otto Sverdrup, Senior Vice President of Corporate Sustainability at Norwegian energy company Equinor noted in his interview with us, the oil and gas industry has been seeing "tectonic shifts". According to Sverdrup, "If you are producing oil and gas in a world that wants to reduce carbon, you need to reinvent yourself."

Based on our research, ERM's work with companies, and the From Promise to Action interviews conducted to date, we have identified several climate action drivers facing business.

Climate Risk

Backed by growing scientific evidence, climate change has been widely recognized over the last few years as the number one threat facing the planet.

While COVID-19 will likely usurp its position in 2020 and possibly 2021, assuming a vaccine is developed which will enable the world to move beyond the pandemic, climate will quickly regain that standing.

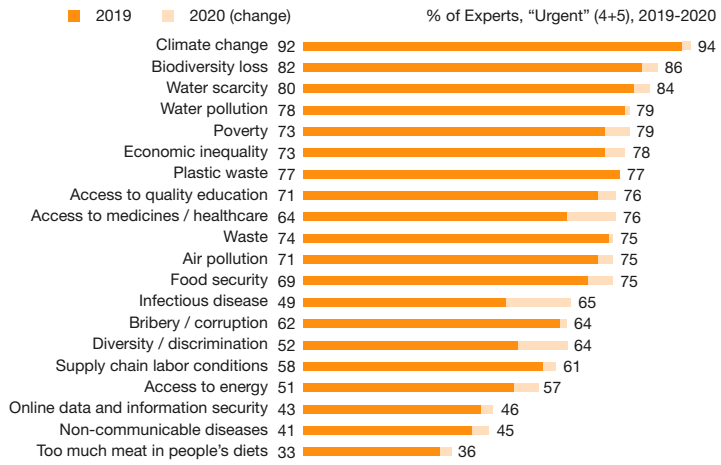
To cite some evidence, global warming has ranked consistently among the top risks in the annual World Economic Forum Global Risks Report[7] and has been cited as the most urgent sustainable development issue for more than ten years in a row in a global survey[8] of sustainability experts conducted by GlobeScan and the SustainAbility Institute (see Chart 1).

In 2019 alone, climate-related disasters were estimated[9] to have caused over $100 billion in damages worldwide. According to some estimates[10], the world's GDP could be 3 percent smaller by 2050 as a result of physical climate change impacts.

Growing awareness about climate risk and its likely financial impacts has been a key driver of rising investor concern on this topic as well. This has been reflected by increasing support from investors and companies alike for the recommendations of the Task Force on Climate-related Financial Disclosures[11] and a growing number of climate-focused investor alliances.

For instance, more than 450 global investors who collectively manage more than $40 trillion in assets have joined Climate Action 100+, the largest investor network focused on climate action.

Chart 1: The urgency of global sustainable development challenges



Source: The 2020 Sustainability Leaders, GlobeScan / SustainAbility Survey (2020). The chart represents results from a global sustainability expert survey conducted from May – July 2020.

Question
Considering society's numerous sustainable development challenges, please rate the urgency of the following. Please use a scale of 1 to 5 where 1 means "not urgent" and 5 means "very urgent".

Changing Regulations

The speed and scale of the climate-related corporate commitments are also being driven by a changing policy landscape.

Governments worldwide are putting forward nationally determined contributions to help meet the goals of the Paris Agreement.

A growing number of countries are announcing net zero targets too, with the EU and Japan aiming to become carbon neutral by 2050, and China striving for the same by 2060.

Such high-level commitments help to establish frameworks for targeted government policies and incentives such as subsidies for low carbon technologies and other means to stimulate climate-friendly investment.

Government action also helps to shift market dynamics and lowers the cost of low carbon technologies, thus making them more attractive to businesses and consumers.

Carbon pricing is another policy mechanism having a major impact on the private sector. The 'polluter pays' principle helps to increase pressure on companies not moving quickly enough to decarbonize while rewarding leaders incentivizing greater and faster transition.

Twenty-two percent of global emissions are already covered by a carbon price[12], and this coverage is expected to continue to increase.

Innovation and Economic Opportunities

Technological innovations and economic drivers are also accelerating climate-related commitments by expanding opportunities.

In the case of electric vehicles, policies aiming to phase out internal combustion engines and encourage electric vehicle uptake are driving industry innovation and record sales (see Case Study).

Climate-smart innovation can save companies money too. In the shipping industry for example, The New Climate Economy estimates[13] that if every available fuel efficiency option was implemented, companies could save over $30 billion dollars every year.

The same study estimates that the transition to a low carbon economy could result in a direct global economic gain of $26 trillion by 2030, which has massive potential to positively affect businesses in all sectors.

Furthermore, the transition to a low carbon economy is helping to generate new jobs. Bloomberg estimates[14] that by 2026 jobs for solar panel installers and wind turbine technicians will grow at a rate twice as fast as any other occupation.

Reputational Issues

Growing awareness and changing expectations among consumers, employees, and the general public are also major factors motivating companies to act on climate with more urgency and ambition.

Companies that are not seen as doing enough will likely suffer reputation and brand consequences, which may negatively affect their bottom line by hurting sales, impacting recruitment and competition for talent, or limiting the ability to attract investment.

As Magdi Batato, Executive Vice President and Head of Operations at Nestlé told us, "We are moving into an era where sustainability is a must-have, and the consumer will punish companies that are not being sustainable or acting in such a way."

There is ample data suggesting changing attitudes among consumers, employees, and other key stakeholder groups.

According to a recent study[16] conducted by IKEA and GlobeScan of consumers in 14 countries, nearly two thirds said they are worried about climate change, and 90 percent said that they are willing to change their behavior to help fight it.

In another survey[17] of employment trends, nearly half of participating technology sector employees said that a company's climate change efforts affect whether they want to work there, an indication of the rising importance of climate and sustainability issues for talent attraction.

Legal Liability

Due to the consensus around climate science and ever-clearer understanding of the risks climate change poses to the economy and society, there is a growing wave of litigation by civic groups and public institutions seeking compensation for climate-related damages that may be attributable to specific organizations' policies and actions.

At least 1,587 legal cases have been filed against[18] governments and companies since 1986. Companies specifically, especially those in and close to the fossil fuel industry, are facing more ligation seeking to hold them accountable for climate change.

As of May 2020, 40 fossil fuel companies found themselves facing[9] a host of lawsuits seeking compensatory damages, presenting claims of investors being defrauded, and arguing human rights violations.

The consequences of such lawsuits will be wide-ranging including impacts on stock price, fines, legal fees, and reputational damage.

Case Study

Policy Accelerates Electric Vehicle Uptake

A growing number[15] of countries are enacting policies and making commitments to increase electric vehicle purchases and phase out internal combustion engine vehicles.

For example, Norway and Canada have set targets requiring all new light vehicles sold to be zero-emissions by 2025 and 2040, respectively.

Supporting policies including carbon pricing schemes that encourage the adoption of electric vehicles through progressive emissions pricing, and financial incentives like purchase subsidies and tax credits that make electric vehicles more affordable, are also common.

Overall, policies incentivizing electric vehicle purchases coupled with economic and technological forces like the falling costs of batteries, increased battery range, and expanding charging infrastructure are driving down prices and propelling sales.

In 2019, a record 2.1 million electric vehicles were sold worldwide, accounting for 2.6 percent of all car sales and representing a 40 percent year-on-year increase.

"

Ultimately, if you are producing oil and gas in a world that wants to reduce carbon, you need to reinvent yourself. The time horizon required to achieve this transition is decades, but everybody wants to see changes overnight.

Bjørn Otto Sverdrup
Senior Vice President of Corporate Sustainability
Equinor

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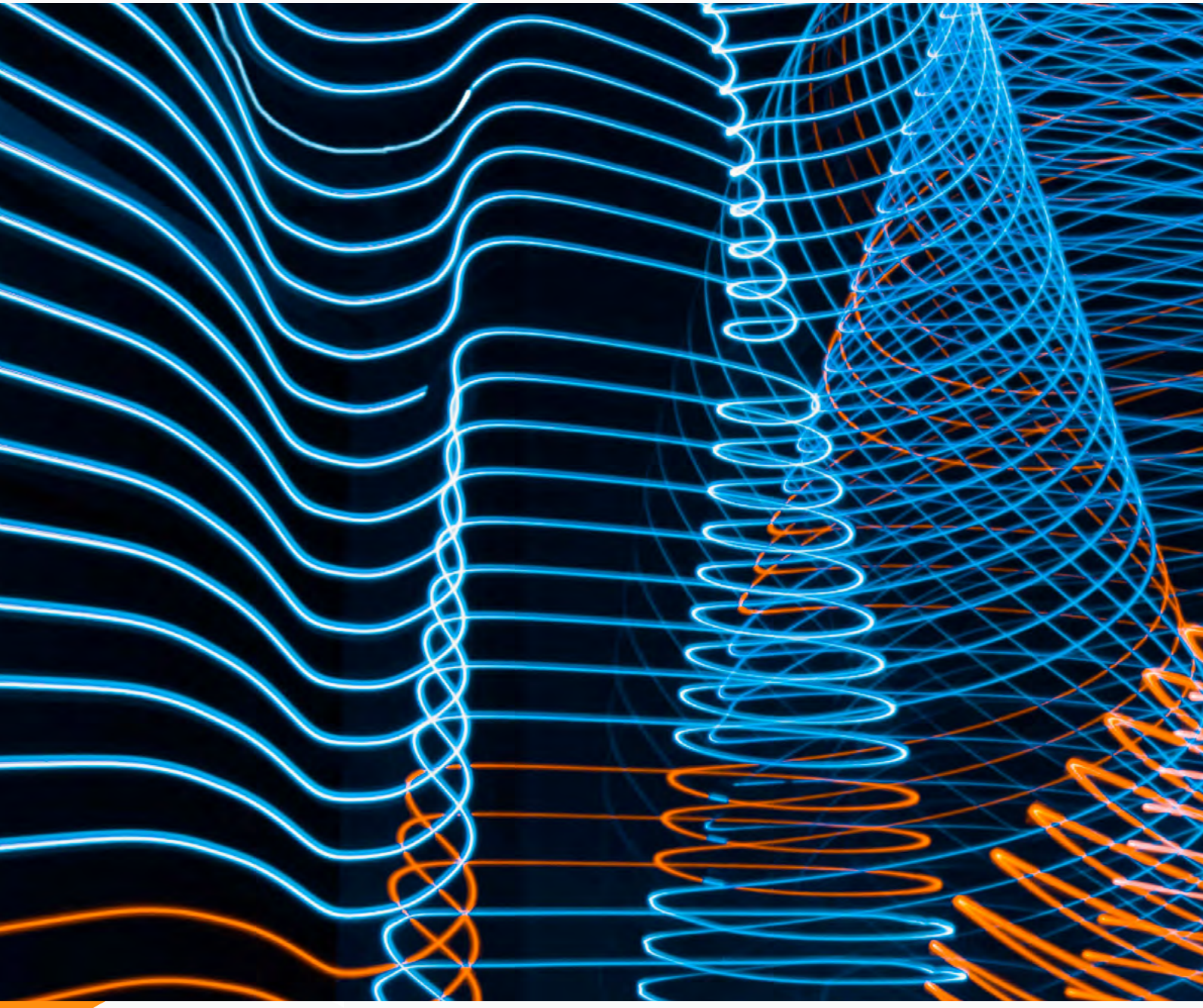
We are moving into an era where sustainability is a must-have, and the consumer will punish companies that are not being sustainable or acting in such a way.

Magdi Batato
Executive Vice President and Head of Operations
Nestlé



Five Essential Steps for Every Company Aspiring to Net Zero

While every company's journey will be unique, there are several key steps that every business must consider in the process of setting a climate goal and planning its implementation

Every company's starting point and low carbon journey will be unique.

Depending on their maturity and readiness related to this topic, not all businesses will be in a position to commit to net zero emissions now.

Ultimately though, keeping global warming under 1.5°C will not be possible without every business in every industry reaching net zero emissions by 2050. Net zero or better must be the ultimate destination of every company's climate journey.

While the number of net zero commitments has almost tripled in the last year[19], knowledge and understanding of how to translate high-level goals into practical roadmaps and plans is still sparse.

Yet the achievement of ambitious climate goals will not be possible unless companies distill them into specific steps and actions to guide internal leaders, business units, and value chain partners. Sharing emerging knowledge, learning from leaders, and being open about mistakes will be key to continued progress.

This section introduces five essential steps that we believe must be part of every company's net zero roadmap. It is our contribution to filling this knowledge gap, based on our research, client work, and interviews. We will build on this exploration and deepen guidance on these steps in future *From Promise to Action* work.

The five steps below must be embraced collectively and advanced rapidly to ensure sufficient progress towards the net zero global economy.

While these steps need to form part of every company's approach, they do not represent everything that will be required of every business—each organization's low carbon transition journey will need to be tailored to its particular circumstances.

Footprint First

Quantifying your company's footprint is a critical first step. It enables understanding of where emissions reduction opportunities exist and the targets needed to achieve them.

A detailed GHG inventory and its comprehensive analysis also help companies identify potential vulnerabilities to future carbon emissions limits that may be imposed explicitly by law or implicitly by things like shifting consumer preferences.

Put simply, mapping your footprint is the foundation of your company's net zero journey. The importance of this was reinforced by the executives we interviewed, who universally cited mapping operations and carbon footprinting as critical first steps. "Numbers are really important—understand your figures, set ambitions, and start following up," Bjørn Otto Sverdrup of Equinor said.

Defining organizational and operational boundaries is one of the first things companies must do before they begin mapping. To draw organizational boundaries, the Greenhouse Gas Protocol advises choosing between "Control" and "Equity" approaches. Under the Equity share approach, a company accounts for GHG emissions from operations according to its share of equity; while under the Control approach, a company accounts for GHG emissions from operations over which it has control.

Defining operational boundaries is equally important. Here the Greenhouse Gas Protocol[21] distinguishes between direct Scope 1 emissions from sources owned by the company (e.g., company facilities, vehicles) and Scope 2 indirect emissions resulting from company activities but which originate from sources owned by other entities (e.g., purchased electricity). Other indirect emissions occurring upstream and downstream in a company's value chain are classified as Scope 3 emissions (e.g., emissions generated from purchased goods and services, use of sold products, and employee commuting).

Accounting for direct emissions is relatively straightforward, while value chain emissions are much harder to quantify. But most companies' value chain emissions form the greatest part of their footprint and businesses are under growing pressure to take responsibility for reducing them. Chart 2 shows the estimated ratios of Scope 1, 2, and 3 emissions for companies in different sectors.

As companies have greater control over direct emissions, making them easier to calculate and reduce, they typically start by looking at emissions savings in their own operations. There they can increase energy efficiency and reduce costs while also identifying options for purchasing renewable sources of power. Once they have made progress on direct emissions, they can investigate their value chains.

Getting Your GHG Inventory Right

- **Define organizational and operational boundaries and follow guidance and standards in the Greenhouse Gas Protocol[20]**
- **Make sure to capture a comprehensive assessment of the entire value chain, including Scope 1, 2, and 3 emissions**
- **Strive to include parts of the value chain that can be hard to quantify (e.g., product use), even if that means initially relying on broad estimates**
- **Take the time to analyze collected data to understand risks and opportunities**
- **Use this process as an opportunity to strengthen relationships with suppliers and other stakeholders across the value chain**

Marc Engel, Chief Supply Officer at Unilever described his company's approach as "inside out". The company started with reductions in direct emissions. It was then able to tackle its indirect emissions, in particular the carbon footprint generated by its 48,000 suppliers.

Knowing where the most significant emissions are across the value chain is critical for business planning purposes. Once there is a clear understanding of where emissions are coming from, it becomes easier to set targets to reduce them and agree on measures to deliver them.

> "As a first step, I advise companies to map their own carbon footprint. Artificial intelligence is getting better at accurate extrapolation to help with this.
>
> **Marc Engel**
> *Chief Supply Chain Officer*
> ***Unilever***

Case Study

ERM Works With Pernod-Ricard to Report its Greenhouse Gas Emissions Across the Value Chain and to Set Science-Based Targets

Pernod Ricard, the world's second-largest wine and spirits seller, is a global leader in the alcohol industry.

The company owns a wide variety of beverage brands including well-known whisky brands (e.g., Chivas, Jameson), vodka brands (e.g., Absolut), and other beverage brands (e.g., Havana Club, Mumm and Perrier-Jouët champagne, Beefeater Gin).

In response to the growing pressure globally to preserve finite resources, among other initiatives Pernod Ricard has been working to set targets to reduce the company's carbon footprint across its value chain.

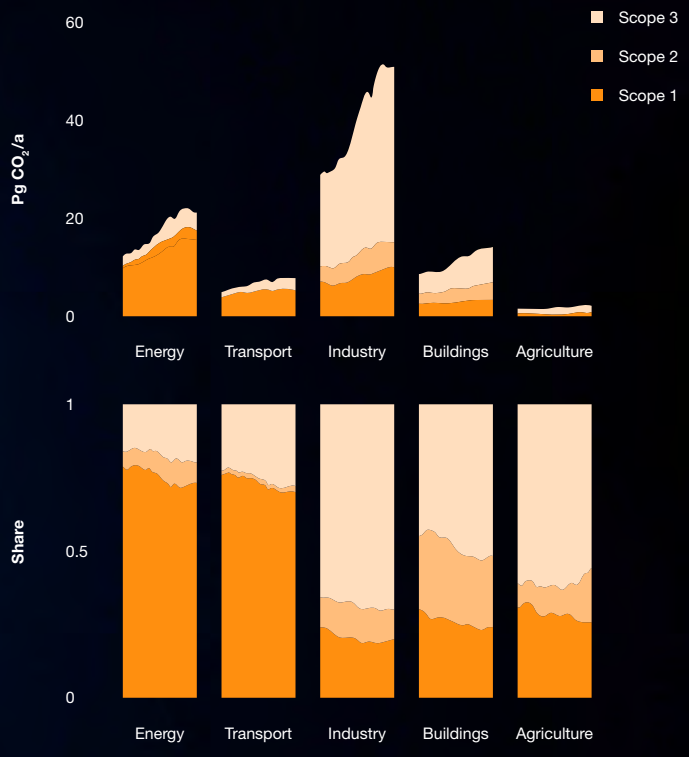
For several years, ERM has supported Pernod Ricard in calculating and reporting its Scope 3 emissions to improve the quality of the data it collects, the methodology of their calculations, and therefore, the accuracy of the emissions reported.

ERM also supported Pernod Ricard in defining its Science-Based Target consistent with reducing the overall intensity of its carbon footprint by 50 percent by 2030 and in moving towards 100 percent renewable electricity by 2025.

> We have been working on Scope 1 and 2 for a while, but a big step this year was to include Scope 3. It's a big change of mindset from just looking at energy efficiency and how you can transition operations that you have complete control over to looking at your entire portfolio.

Bjørn Otto Sverdrup
Senior Vice President of Corporate Sustainability
Equinor

Chart 2: Scope 1, 2, and 3 emissions from key sectors



Source: The growing importance of scope 3 greenhouse gas emissions from industry

The chart shows the share of Scope 1, 2 and 3 emissions from five key economy sectors as defined by IPCC. Only co_2 emissions are included in the calculations and exclude other greenhouse gases such as methane.

Know Your End Goal

Regardless of company size or sector, net zero entails a major commitment and can be daunting.

Achieving decarbonization individually as a business and collectively across societies will require fundamentally transforming the way the global economy and businesses operate.

Despite the challenges, many companies, cities, investors, and governments are embracing net zero ambitions (see Chart 3). And now that China, the world's largest carbon emitter[23], is committed to becoming carbon neutral by 2060, it will be harder for other nations and companies to argue against defining similar ambitions themselves.

Increasing focus on decarbonization is also evident in disclosure trends, with a growing number of companies referencing "net zero" and "carbon neutrality" in public reporting (see Chart 4).

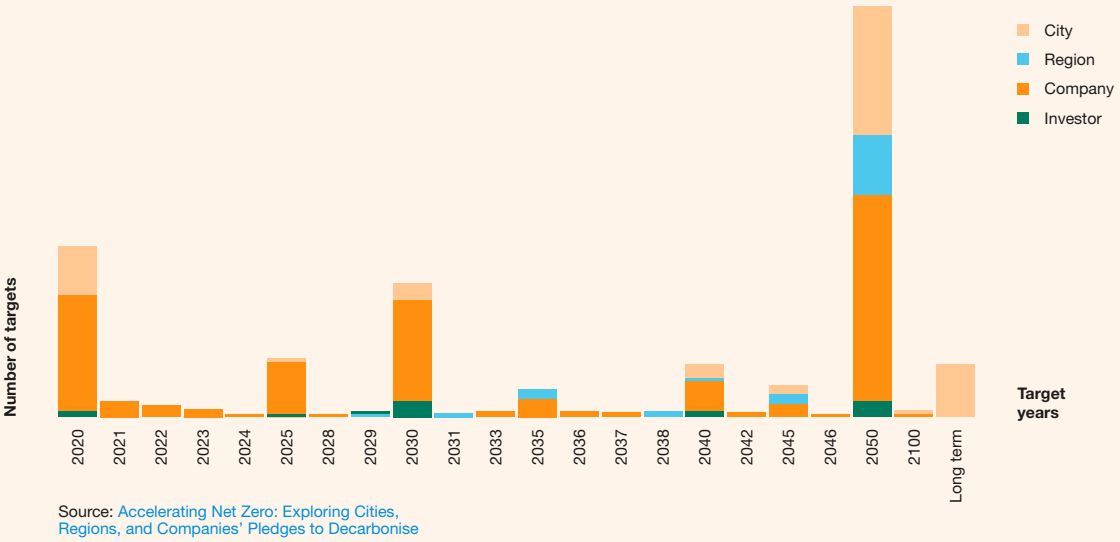
Geographically, such mentions appear most frequently in reporting by Europe-based companies (see Chart 5).

By sector, companies in the financial, consumer goods, and industrial sectors mention "net zero" and "carbon neutrality" most frequently, while healthcare, oil and gas, and utility companies are least likely to use these terms in their reporting (see Chart 6).

Making a Carbon Reduction Commitment

- **Use a well-established methodology like the one recommended by the Science-Based Targets Initiative[22]**
- **Aim to address all your global operations and the entire value chain (Scopes 1, 2, and 3) with your goal. Be clear about how and why you are using offsets if they are required as part of a net zero or carbon neutral goal**
- **Consider framing and implementing a carbon negative or lifetime neutrality goal**
- **Follow up commitments with detailed roadmaps including interim milestones and specific steps that will lead to your final goal**

Chart 3: Net zero target years for different actor types (cities, regions, companies, and investors)



Source: Accelerating Net Zero: Exploring Cities, Regions, and Companies' Pledges to Decarbonise

When setting emissions reductions goals, companies presently choose among a range of approaches such as a methodology recommended by the Science-Based Targets Initiative (SBTi)[24], a carbon neutrality goal, or a net zero target (see Table 1).

While this diversity of approaches may encourage participation, it creates uncertainty as to the ideal approach and makes performance comparison difficult.

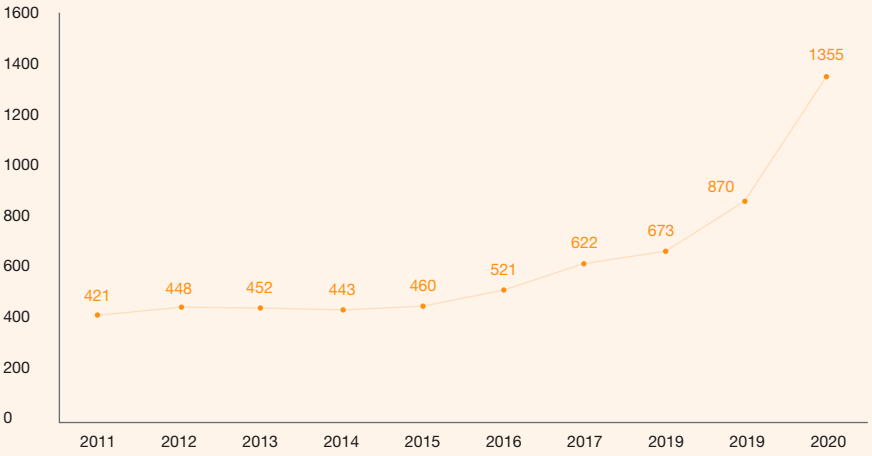
To help address this, SBTi recently launched a process designed to produce the first science-based global standard for corporate net zero targets by the end of 2021.

Some companies are raising the leadership bar even higher than net zero by setting carbon negative goals, aiming to remove more GHG gases from the atmosphere than they are producing, or even more than they have produced over their history of operating.

For instance, by 2050 Microsoft aims to remove all the carbon the company has emitted either directly or by electrical consumption since it was founded in 1975.

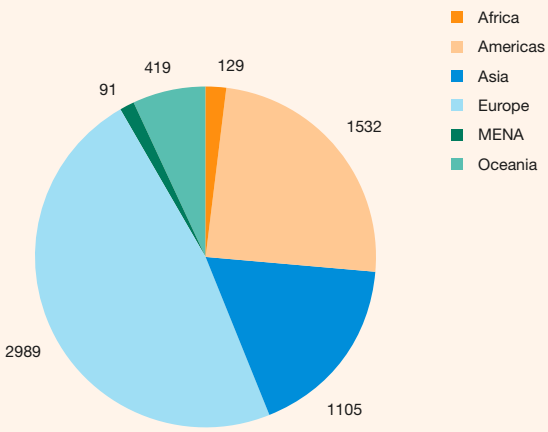
Similarly, Danish manufacturer Velux aims to become "lifetime carbon neutral" by 2041, capturing the equivalent of all its historic emissions.

Chart 4: Net zero mentions in corporate reporting, 2011-2020



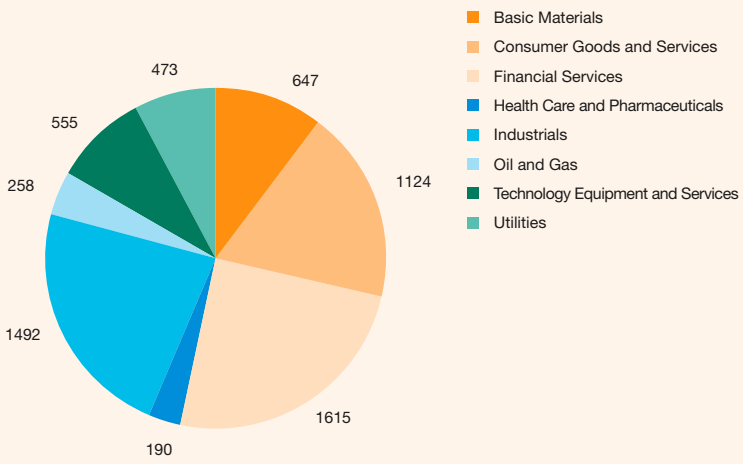
Source: Datamaran. The data shown covers an analysis of global corporate disclosure, illustrating the number of net-zero mentions in corporate reports by sector. The terms searched were: "net zero", "net-zero", "carbon neutral" and "carbon neutrality".

Chart 5: Net zero mentions in company reporting by region



Source: Datamaran. The data shown covers an analysis of global corporate disclosure, illustrating the number of net-zero mentions in corporate reports by sector. The terms searched were: "net zero", "net-zero", "carbon neutral" and "carbon neutrality".

Chart 6: Net zero mentions in company reporting by sector



Source: Datamaran. The data shown covers an analysis of global corporate disclosure, illustrating the number of net-zero mentions in corporate reports by sector. The terms searched were: "net zero", "net-zero", "carbon neutral" and "carbon neutrality".

Table 1: Key GHG emissions reductions terms

Term	Definition
Science-based target	Targets to reduce a company's GHG emissions in line with the level of decarbonization required to limit global temperature rise to at or below 2°C at a minimum or 1.5°C compared to pre-industrial temperatures, as described by the IPCC.
Net zero emissions goal	Goals to reduce a company's GHG emissions to a level where they are balanced by GHG removals. Presently, there is no uniform standard for a net zero goal and no alignment on the extent to which net zero can include offsets. SBTi is in the process of developing a standard by the end of 2021.
Carbon neutral goal	Goals to reduce a company's emissions to a level where they are balanced by CO_2 removals (including emissions offsets). Carbon neutral goals include only CO_2 emissions (exclude other GHG emissions, such as methane).
PAS 2060 Carbon Neutrality	Internationally recognized standard for carbon neutrality certification, which companies use to measure, reduce, and offset their carbon emissions and certify their carbon neutrality.
Carbon negative or climate positive goal	Goals to remove more carbon emissions from the atmosphere than emitted by the company.

Many companies that have become carbon neutral, or that are planning to achieve carbon neutrality soon, have done so with the help of offsets.[25] However, there is growing pressure[26] on companies to minimize reliance on offsets, limiting them to the short-term as a transition solution.

As Michael Terrell, Head of Energy Market Strategy at Google, said in his interview for the SustainAbility Institute, "With climate change progressing and the need for a carbon-free economy becoming ever more pressing, the time for carbon offsets has passed."

It is important that those industry sectors that have immediately available, cost-effective solutions to achieve zero emissions implement them. Some sectors will have a longer transition journey and may need to use offsets in the short to medium term.

Going beyond the reduction of direct emissions in net zero goals is critical to accelerating private sector progress on decarbonization. The average company's upstream supply chain emissions are estimated[27] to be around five-and-a-half times greater than those generated by direct emissions.

IKEA, Unilever, BT, and Ericsson are global leaders in reducing carbon emissions in supply chains, and they have recently established a platform called 1.5°C Supply Chain Leaders to increase knowledge sharing and support more rapid global supply chain decarbonization.

While a long-term goal for achieving net zero emissions sets a clear vision, creating short and medium-term milestones is critical to ensuring a controlled and cost-effective pathway.

Clear short-term plans are also priorities for investors anxious about climate risk in their portfolios. In some industry sectors like oil and gas or steel and cement, short-term pathways help demonstrate that a business not only understands climate risk but also that it is managing the low carbon transition of the business in a measured way.

Case studies

ERM Works With ArcelorMittal to Produce Climate Report and Set a Carbon Neutrality Target

ArcelorMittal, a global leader in steel and mining, is one of the world's largest industrial emitters of carbon and thus has, along with other industrial emitters, come under pressure from stakeholders to develop strategies to reduce its carbon footprint.

To address this pressure, ArcelorMittal worked with ERM to develop[28] a Climate Action Report, the first among steel companies, to outline the company's strategy for aligning its carbon footprint with the goals of the Paris Agreement.

In compiling the report, ERM helped assess ArcelorMittal's climate management and disclosure processes for alignment with TCFD recommendations and then helped develop an action plan to realize alignment.

Furthermore, during internal stakeholder engagement conducted by ERM, carbon neutrality discussions occurred and ArcelorMittal decided to set a 2050 carbon neutrality target for its European operations, which built the foundation for a 2050 groupwide carbon neutral target the company set in 2020.

ERM Supports Novartis in Setting a Science-Based Target

Novartis, one of the world's largest pharmaceutical companies, worked with ERM to set a Science-Based Target.

ERM first modeled targets that were most sensible for Novartis and in line SBTi requirements, using information provided by the company.

The result was a target to reduce absolute Scope 1, 2, and 3 GHG emissions 35 percent by 2030 from a 2016 base-year.

With a target defined, ERM advised Novartis on the target setting process following the steps as outlined by the SBTi.

"

With climate change progressing and the need for a carbon-free economy becoming ever more pressing, the time for carbon offsets has passed.

Today, companies should find their market niche and go big, focusing on transforming the energy system rather than following it.

Michael Terrell
Head of Energy Market Strategy
Google

Less Energy, Less Carbon

Reducing energy use and increasing energy efficiency are usually the most cost-effective and straightforward steps for companies to take on their decarbonization journey.

These actions generally benefit the bottom line at the same time as reducing emissions, yet they are often overlooked, leaving their massive potential underutilized.

According to the International Energy Agency, with targeted energy efficiency policies and solutions, we could deliver over 40 percent of the GHG emissions reductions needed to meet global climate goals without adding new technology.[29]

Furthermore, implementing energy efficiency measures would enable smarter allocation of resources across the economy, which could increase global output by $18 trillion through 2035.[30]

One company that has been able to make significant energy and cost savings through improved efficiencies is Google. To reduce energy consumption, Google applied[31] its DeepMind machine learning technology to their energy intensive data center systems.

By analyzing historical temperature and other baseline data, DeepMind evaluated various operating scenarios and parameters to derive a framework to optimize energy consumption. When applied to a live data center, the framework was able to consistently reduce cooling energy consumption by 40 percent.

Reducing energy use reduces energy costs. This is true in direct operations, and effective energy efficiency programs can produce significant cost saving and emissions reductions in supply chains too.

Take Walmart, as an example. At the end of 2017, more than 800 of their supplier factories in China had joined[33] the Walmart Factory Energy Efficiency Program, which was designed to help supplier factories identify and implement energy efficiency opportunities.

Walmart reported in 2018 that supplier factories had saved $40 million in operational costs and reduced CO_2 emissions by 270,000 metric tons since the program was launched in 2014.

Through smart product design and by encouraging behavioral changes, companies can also enable energy and cost savings for consumers. In 2019, Home Depot offered[34] 24,000 U.S. Energy Star products in their stores and sold over 24 million Energy Star units, which they estimated saved their customers $1.2 billion in energy costs and reduced carbon emissions by seven million metric tons.

Scaling Up Energy Efficiency

- **Undertake an energy audit to identify potential efficiency gains across your operations**
- **Use analytical tools to quantify emissions and cost savings and calculate payback periods (which can sometimes be a matter of months) to strengthen the business case for investment into energy efficiency technologies or processes**
- **Expand energy efficiency initiatives into the supply chain and other parts of the value chain, including enabling energy savings by consumers**
- **Explore partnerships to increase knowledge sharing**

Many companies map the technologies and energy saving approaches that will be most cost effective using a ‘marginal abatement cost curve’ analysis.

Marginal abatement cost curve calculations allow companies to make informed decisions about ways to reduce emissions and the amount of investment that might be required to do it. Such analysis can be a powerful tool for making a business case to leadership and building internal buy-in.

External partnerships and collaboration platforms often play important roles in corporate energy efficiency efforts.

For instance, the EP100 initiative shares best practices, initiates knowledge-sharing and peer-learning, and exhibits thought leadership around energy efficiency from its member companies.

The commitments that members are required to make include: doubling economic output from every unit of energy; implementing energy management systems; committing to energy productivity targets; and owning, occupying, and developing buildings that operate at net zero carbon emissions.

Pursuing energy efficiency gains is an essential element in pursing net zero, but it is only a stepping-stone, not the final destination. To truly achieve net zero ambitions, companies must transition to low carbon power.

Case Studies

ERM Helps Modine Identify Energy Efficiency Opportunities

Modine, a U.S.-based heat transfer product manufacturer, partnered with ERM to help its Chungnam, South Korea facility identify energy efficiency opportunities as part of its effort to reduce energy consumption.

ERM employed a process known as Cost Determination and Reduction. Through this process, ERM identified 11 energy efficiency project ideas and provided Modine actionable paths to achieve each.

If implemented in full, the 11 ideas would reduce the Chungnam facility's yearly energy consumption by 12 percent.

Equinor: Energy Efficiency Leads to Cost Savings & Carbon Emissions Reductions

In its 2019 CDP Climate response, the Norwegian oil and gas company Equinor estimated[32] potential cost savings of $30 million as a result of energy efficiency measures.

According to Equinor, these savings have been achieved through reducing CO_2 costs associated with the Norwegian carbon tax scheme; decreasing maintenance costs at high energy consuming facilities because they are used less often; increasing revenues from gas sold on the market that would otherwise be consumed for energy generation; and reducing potentially high investment and operational costs.

The estimate is based on typical abatement costs, CO_2 tax and quota prices, and natural gas market prices.

Energy efficiency measures are a key component of Equinor's Climate Roadmap, which aims to achieve carbon neutral global operations by 2030, grow renewable energy capacity tenfold by 2026, and achieve net zero emissions (including production and final consumption of energy) by 2050.

> "Look for easy strategies for saving energy - the cheapest and cleanest options are sometimes not those in use, and you will quickly get pay back from energy cost savings. Once you've done it yourself, you're more credible talking to your suppliers when you need them to do the same.
>
> **Marc Engel**
> *Chief Supply Chain Officer*
> ***Unilever***

Choose Low Carbon Power

Use of renewable energy and other sources of low carbon power is rapidly increasing as a result of technological advances, plummeting costs, and smart government policies.

Transitioning to renewable power will be one of the core elements of every company's net zero plan.

A 2018 report[35] from the International Renewable Energy Agency (IRENA) and CDP analyzed 2,410 companies, finding that 47 percent actively sourced 465 terawatt hours of renewable electricity, almost the equivalent of France's entire electricity demand.

As companies scale up renewable energy use, they should set clear goals and identify interim targets that will help to achieve them. According to the IRENA and CDP report[36], while close to half of the companies they studied source renewable electricity, only 17 percent of them have a renewable electricity target.

RE100 is a global platform that brings together companies who have made commitments to source 100 percent of electricity from renewable sources. As RE100 notes, setting a target lets a company focus its actions, mobilize resources, and demonstrate its commitment. Committing to source 100 percent of electricity from renewable sources can be a powerful signal and momentum generator.

According to RE100, such targets "require driving change in all company operations, in all geographies, which is crucial for impacting energy markets across the globe."[37]

Companies choosing to use renewable power may source it from the market or generate it themselves. According to IRENA and CDP[38], the two most common methods for sourcing renewable energy are:

- Purchasing unbundled renewable energy certificates, which are tradeable certificates usually representing one megawatt-hour of renewable electricity; and
- Power Purchase Agreements, which are contracts between companies and independent power producers, utilities, or financiers to purchase an agreed amount of renewable electricity at an agreed price.

While no one strategy fits all, in all cases companies should aim for an approach where they are actively procuring or producing electricity from renewable sources, as opposed to a passive approach where they simply rely on the percentage of renewable electricity available in the grid.

Transitioning to Low Carbon Energy

- **Map your company's energy requirements (power use, liquid fuels, etc.), taking into consideration heating and cooling as well as processing and transportation**
- **Switch to renewable power where possible; low-cost options now exist in most countries**
- **Take an active approach to sourcing via renewable power generation or through long-term power purchasing agreements**
- **Electrify transport fleets to reduce emissions from transportation**
- **Work with partners where major investment into new, transformational technologies like hydrogen or biofuel is needed**
- **Join coalitions of energy buyers and other collaborations to advocate for changes in the grid and energy market**

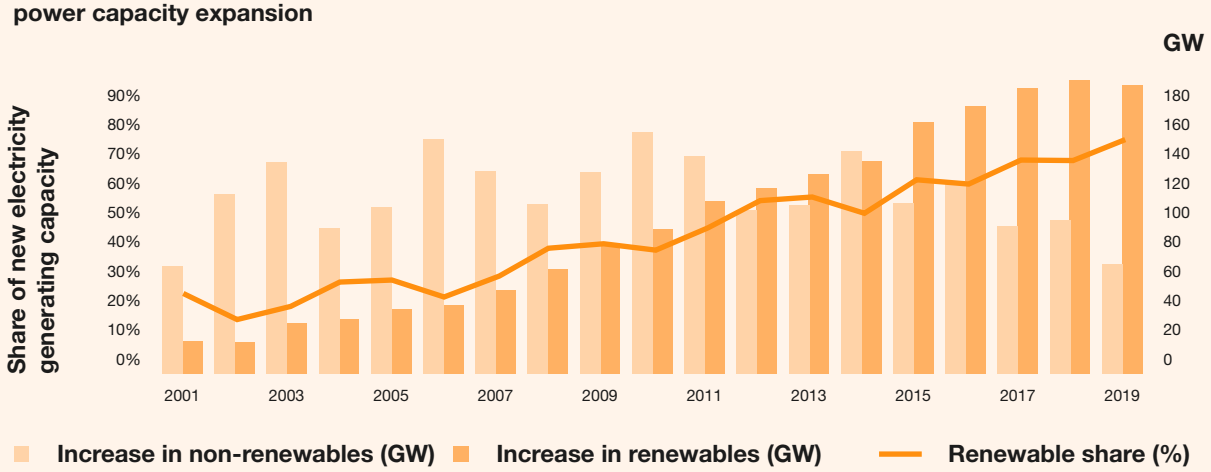
By expanding their own generation capacity and pursuing direct long-term agreements with electricity providers, companies not only reduce their own carbon footprint, they help shift energy markets.

The Renewable Energy Buyers Alliance, which unites large energy consumers, is a great example of how companies can help drive a low carbon energy future. Through collective action, advocacy, and other measures, the members of the Alliance are hoping to spur the development of 60 gigawatts[39] of renewable energy by 2025.

Another way companies can influence changes in the market is through their supply chains. By setting renewable energy targets for suppliers and helping them achieve these goals, companies can help speed energy market transitions.

Apple has been cited[40] as a global leader on this front. Launched in 2015, Apple's Supplier Clean Energy Program aims to transition Apple's entire supply chain to 100 percent renewable electricity by 2030. To support the Program's aims, Apple developed the Clean Energy Portal, an online platform to help suppliers identify commercially viable renewable energy projects. The Portal also provides policy guidance and financial analysis tools.

Chart 7: Renewable share of annual power capacity expansion



Source: IRENA, Renewable capacity highlights, 31 March 2020

For industrial companies (e.g., steel, chemicals, and cement) and heavy transportation (e.g., airlines, shipping, and trucking), the low carbon transition is difficult due to the energy intensive processes they employ and their reliance on hydrocarbon-based fuels.

To decarbonize, these kinds of companies need innovative processes and new fuel solutions that will help them overcome challenging technical barriers.

The Mission Possible Platform is a coalition of businesses, governments, and non-profits working together to reduce emissions from industry and heavy transportation. Some of the solutions highlighted by the Platform as offering the greatest potential include increasing energy and material efficiencies, electrification, using hydrogen or biomass as a heat source or fuel, and carbon capture and storage.

Hydrogen technologies are widely regarded as offering great potential in the transition to the low carbon economy. Recent years have seen increasing interest in both green hydrogen produced using renewable power and blue hydrogen produced using gas with carbon capture, with most major governments supporting investment into technology innovation and pilot tests.

Part of the appeal is that hydrogen provides a very versatile option for fueling industry processes, such as steel production, and heavy transport, such as trucking. ERM is involved in one of the pioneering hydrogen projects in the UK (see Case Study).

By implementing energy efficiency measures and transitioning to renewable energy, companies will take giant leaps towards net zero. However, given the amount of GHG emissions already in the atmosphere and inherent difficulties decarbonizing certain industries, this journey will not be complete without also implementing carbon removal solutions.

RE100 identifies the following five elements as core to corporate leadership on renewable energy sourcing.

- **Ambition:** The ambition and speed of a company's renewable electricity sourcing target. The ambition delineates the climate scenario used to inform the target's level of action, while the speed delineates the timescale to achieve the target.
- **Impactful Procurement:** The impact a company's renewable electricity sourcing target and actions have on the grid by adding capacity and/or on the market by incentivizing the development of new capacity.
- **Sustainability:** The environmental and social co-benefits a company can derive from a renewable electricity sourcing strategy and its reduction of any associated negative environmental and social impacts.
- **Influence:** The influence a company has on policymakers, regulators, and utilities in supporting the growth of renewable energy and on suppliers in the development of their own renewable electricity sourcing targets.
- **Transparency:** The transparency with which a company should publicly disclose its renewable electricity sourcing actions and data so that stakeholders clearly understand the company's strategy and its status.

Source: RE100: Business Leadership in the Transition to Renewable Electricity

ERM and Consortium of Companies Pursue Green Hydrogen from Offshore Wind

ERM, along with a consortium of companies including Engie and ODE, are working to deploy a 400 turbine, four GW, floating wind-to-hydrogen farm.

The project, known as Dolphyn, aims to convert seawater into hydrogen in the North Sea and pump it to shore to heat homes in the United Kingdom.

Dolphyn's integrated floating wind turbine platforms will intake water, desalinate it, and convert it to hydrogen utilizing proton exchange membrane technology.

Because the platforms will generate their own wind power for the water-to-hydrogen conversion process, they will be completely self-sufficient thanks to an on-board energy storage system.

The project, according to Tim Strawn, Regional CEO at ERM, could provide "a significant opportunity to progress towards a carbon neutral society."

"

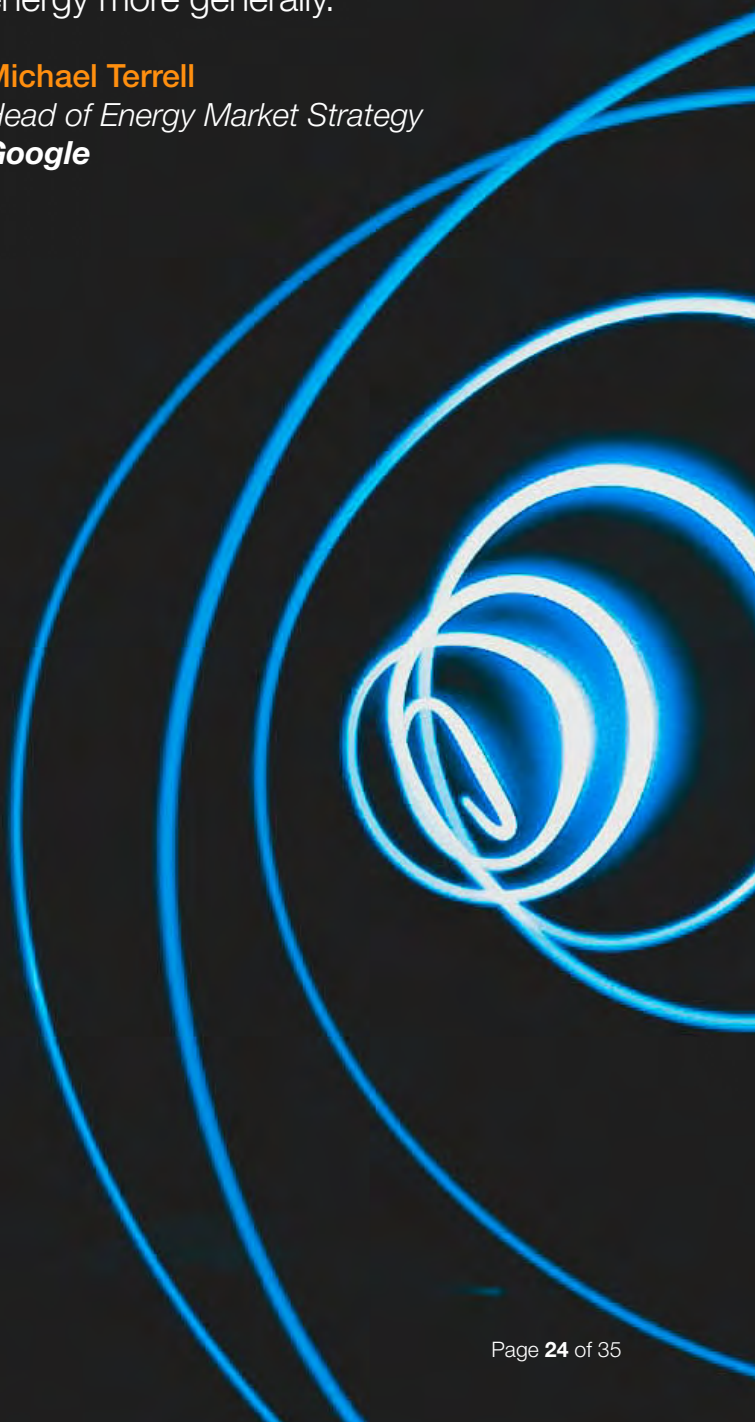
Existing policy structures in many of the electricity markets we operate in have made achieving our clean energy goals difficult. Rather than working within these structures, in some places we have looked to partner with governments to develop policies that provide access for all companies to buy clean energy and strengthen the market for clean energy more generally.

Michael Terrell
Head of Energy Market Strategy
Google

"

With electricity we have reached a tipping point for renewable power. We see that the market is there and progress has been made. There is no excuse for any company not to convert to green energy now – everyone should be able to do that across markets.

Marc Engel
Chief Supply Chain Officer
Unilever



Remove Remaining Carbon

While avoiding emissions is critical to reduce climate risks, the necessary scale of investment in energy efficiency and clean energy technology, the time required for implementation, and the amount of emissions already present in the atmosphere mean that achieving required long-term reductions will not be possible without carbon removal.

There are many ways to capture CO_2 from the atmosphere and lock it away in plants, soils, oceans, or long-lived products.

The IPCC notes[42] that removing and storing CO_2 would be required under the majority of scenarios deemed capable of limiting warming to 1.5°C or less.

Carbon capture, utilization and storage (CCUS) involves capturing CO_2 and either permanently storing it or using it in economically beneficial ways so that it does not reenter the atmosphere.

Despite high potential, the development and deployment of CCUS solutions has been slow.

A recent ERM report[43] points to the need to dramatically scale-up the use of CCUS technology if the Paris Agreement's goals are to be reached.

The same report notes that there have been significant barriers that account for slow progress to date including costs, lack of investment, and the absence of governmental policies and incentives.

Similar to the IPCC conclusions, the ERM report also found that many studies which examine scenarios considered able to achieve the goals of Paris Agreement count on CCUS to play a major role, attributing it with the potential to reduce global GHG emissions by up to 25 percent.

Fortunately, after several years of declining interest and investment, there are signs that worldwide interest in CCUS is growing.

According to an IEA report[44], since 2017, plans for 30 new, large-scale CCUS facilities have been announced. If fully deployed, these projects would triple existing global CO_2 capture capacity.

Carbon Capture, Utilization and Storage

- **CCUS may be required where technology solutions to tackle emissions are limited (e.g., cement, steel, chemicals sectors)**
- **Identify operational processes most likely to require CCUS solutions to reduce emissions**
- **Review technology options, and if some of them are offsite, determine transportation options**
- **Where major investments and new technologies are required, look for potential technology and financing partners**
- **Develop a clear stakeholder engagement plan to ensure you have buy-in from critical individuals and groups**

Nature-based Solutions

- **Quantify options for carbon sequestration potential using nature-based solutions on company property where the company has significant coastal or land-based assets and/or across the company's value chain**
- **Determine the nature-based emission removals the company would like to achieve through insetting[41] and/or offsetting – typically as part of a net zero or carbon neutral goal and due to no other available mitigation options**
- **Ensure nature-based carbon insets or offsets use accepted methodologies and be clear about how the company can claim carbon emissions reductions through their use**
- **Be transparent about use of nature-based carbon credits and how emissions reductions are reported**

As part of their decision-making process on carbon removal initiatives, businesses should consider the following four advantages of CCUS technologies highlighted by IEA[45]:

- CCUS can be retrofitted to existing power and industrial plants.
- CCUS can tackle emissions in sectors where other technology options are limited (e.g., cement, iron, steel, chemicals).
- CCUS is an enabler of least-cost, low-carbon hydrogen production.
- CCUS can remove co_2 from the atmosphere by combining it with bioenergy or direct air capture to balance emissions that are unavoidable or technically difficult to abate.

Due to the high cost of CCUS technologies and the inherent complexity of carbon removal projects, recent years have seen a growing number of CCUS hubs. The key benefits of hubs include the possibility of sharing transportation and infrastructure and achieving economies of scale.

One of the key success factors for this approach is the selection of partners, both among the private sector and public authorities, which should be an important consideration for businesses considering CCUS options.

In addition to CCUS, nature-based solutions for sequestering carbon is another high potential co_2 removal method. A recent study[46] estimates that nature-based solutions could deliver 37 percent of the emissions reductions needed to keep global warming to 1.5° C.

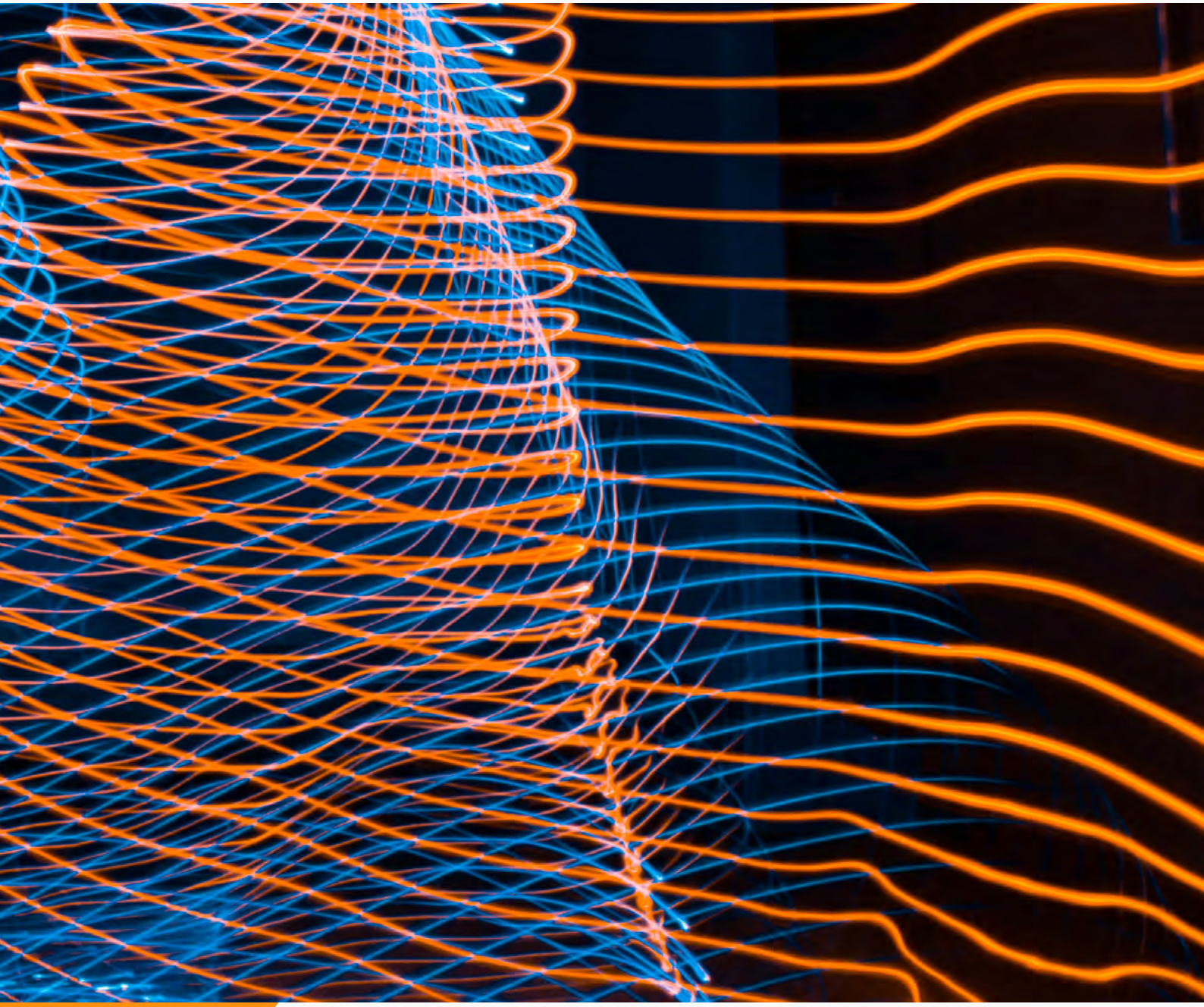
Protecting, improving management of, and restoring natural resources form the three core tenets of nature-based solutions. Alone or in tandem, these core tenets offer many emissions reduction opportunities which companies can utilize based on their business needs.

Companies increasingly recognize the high potential of nature-based approaches. Over 600 businesses with revenues equaling $4.1 trillion recently joined[47] a 'Business for Nature Call to Action' to signal their commitment to invest in reversing nature losses and to ask for further measures from governments to support the protection, restoration, and sustainable use of natural resources.

ERM is currently supporting two global initiatives that are helping to create market opportunities for nature-based solutions. The Capitals Coalition hosts over 370 leading organizations to transform the way decisions are made by including the value provided by nature, people, and society. ERM was part of the team that wrote the Natural Capital Protocol[48] and continues to support the Coalition by providing technical advice on valuation issues.

ERM is also a partner in the Natural Climate Solutions Alliance which aims to scale up affordable natural climate mitigation solutions for achieving the goals of the Paris Agreement. The Alliance brings together public and private stakeholders to identify opportunities and barriers to investment into carbon credits in new and existing markets to increase financing for natural climate solutions.

> "One of our biggest opportunities and challenges is the need to finish off the deforestation work and look at regeneration of nature as it is part of our net zero strategy.
>
> **Marc Engel**
> *Chief Supply Chain Officer*
> ***Unilever***



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Navigating the Low Carbon Future: Challenges and Solutions

Smart policies, resource mobilization, and effective partnerships are among the key factors that will determine the success of net zero efforts

The magnitude of the task to decarbonize the global economy cannot be underestimated and the part each company must play will bring challenges.

From development and adoption of low carbon technologies, to shifting business models, and creating new products and services, decarbonization will require redesigning entire economic systems, consumption cycles, and capital flows.

In the executive interviews we conducted, we asked about the obstacles that companies are encountering on their net zero journey and what to anticipate in the future. Interviewees told us about the importance of and challenges related to government policy, internal mobilization, and collaboration.

We examine these issues and some potential solutions below, and we will continue to explore these topics and more in future interviews, online forums, and in other publications planned in this *From Promise to Action* series.

Smart Policy

Government policies and mechanisms such as subsidies, carbon pricing, and market reforms will be critical to rewarding early adopters of net zero goals and incentivizing those just beginning to consider them.

Active engagement between companies and policymakers will play a vital role. This should focus on solutions and ensure that policies are informed by the best available science as well as business needs and capabilities. As Magdi Batato of Nestlé noted, "Raising awareness through collaboration is important, but we need to focus on solutions, making sure that we have standards that make sense."

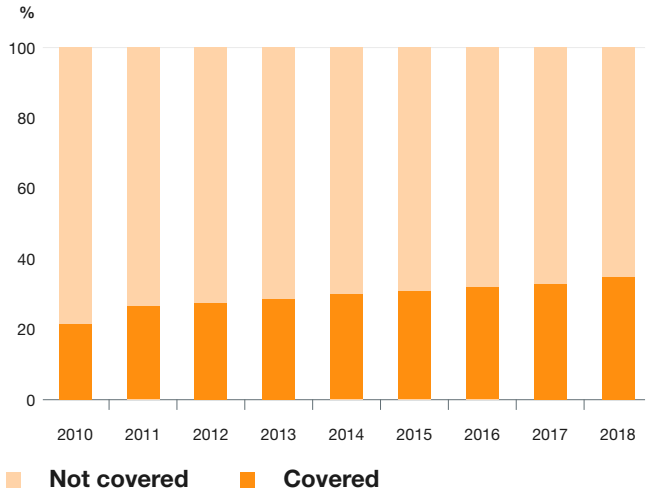
Beyond enabling transformation at the individual company and sector level, policy will be paramount for driving systemic, economy-wide change. According to Google's Michael Terrell, "Changing policy takes time, but when you do it, it leads to broader change than just one company."

There is a raft of evidence[49] that highlights the critical role of governmental policy in market transformations generally, which applies to the low carbon energy transition today. The growth of investment in energy efficiency solutions and renewable energy production are good examples of how targeted policies and interventions can propel innovation and market forces in a low carbon direction.

In 2018, 35 percent of global energy consumption was covered[50] under energy efficiency policies (e.g., energy efficiency standards for buildings, cars and other means of transportation, and household appliances), continuing a growth trend of 1.4 percent year-on-year over the past decade (see Chart 8).

While expansion of policies favoring or rewarding energy efficiency has somewhat slowed in the last couple of years, they have been instrumental in generating more than $240 billion in global annual investments in energy efficiency from companies, governments, and individuals.

Chart 8: Share of final energy use covered by mandatory efficiency policies, 2010-2018



Source: IEA, Share of final energy use covered by mandatory efficiency policies, 2010-2018

In the renewables market, policies are likewise helping to drive investments. At the end of 2019, 87 countries had enacted[51] official policies outlining or enshrining into law 2030 renewable energy targets. If all these targets are achieved, they would add an estimated 721 gigawatts of new renewable energy capacity globally.

According to IRENA[52], some of the most effective policy instruments for further increasing the renewable energy share include clearly defined renewable energy targets (including for specific sectors such as power and transportation), fossil fuel subsidy reforms, and carbon pricing policies.

While global renewables investment reached an all-time annual record of $282.2 billion in 2019, it will have to increase significantly in order to meet the Paris Agreement goals. To do this, action by both the policymakers and corporations will be essential.

> "Changing policy takes time, but when you do it, it leads to broader change beyond just one company.
>
> **Michael Terrell**
> *Head of Energy Market Strategy*
> ***Google***

Rallying the Troops

For companies to truly deliver on net zero ambitions, achieving internal buy-in and mobilizing the necessary resources to translate goals into action on the ground is critical.

C-suite commitment is key to building internal alignment around a common goal. As Marc Engel of Unilever noted, "You need to live and breathe the commitment from the top level to make it work."

While commitment from senior leaders is essential, getting staff at all levels and in all functions on board is equally important for long-term success. Transitioning to low carbon models will require redesigning every part of businesses and their value chains. As Bjørn Otto Sverdrup of Equinor commented, "What comes from the top is very important, but those at the top don't always have all the good answers or readymade strategies."

Achieving buy-in at the executive level and throughout the organization is much easier when net zero commitments align with the corporate mission and culture. As Nestlé's Magdi Batato put it, commitment to the low carbon transition must be engrained "in the company's DNA" and align with the core values.

Building a business case for net zero plays an important role in building company-wide momentum. Mitigating climate risk is often the foundation of building the case internally but highlighting opportunities is equally important. In their CDP Climate survey responses companies mention four climate-related opportunities most frequently[53].

The two biggest are increased revenue through heightened demand for low emissions products and enhanced competitive positioning to meet changing consumer preferences. Companies also see great opportunities in increasing revenue from solutions to climate adaptation needs and greater capital availability.

> "What comes from the top is very important, but those at the top don't always have all the good answers or readymade strategies. Everybody in the business has a very important role to drive performance. Great teams can achieve a lot in changing a company.
>
> **Bjørn Otto Sverdrup**
> *Senior Vice President of Corporate Sustainability*
> ***Equinor***

> "If you pursue net zero to follow others, or for PR reasons, or because somebody on the management team is pushing for it – you won't get very far. Make sure that your climate ambition links to the company's core values. Once you have that, get the CEO and the management team behind it to ensure execution.
>
> **Magdi Batato**
> *Executive Vice President and Head of Operations*
> ***Nestlé***

Working Together

Partnerships among private sector players and cross-sector collaboration between businesses, governments, NGOs, academia, and other stakeholders will be key to the successful decarbonization of the global economy.

Collaboration platforms such as the We Mean Business Coalition, Race To Zero Campaign, RE100, The Climate Pledge, the Science-Based Targets Initiative, and others have been instrumental to scaling the ambition of the private sector through collective action aimed at multiplying the number of climate commitments and equipping companies with the tools they need to achieve their targets.

Google's Michael Terell says that partnerships offer an opportunity for companies to build on their strengths. He believes that companies should "focus on what is unique about their footprint and find like-minded partners, then help them to achieve their goals and develop deeper solutions which would lead to transformational change."

A good illustration of effective climate collaboration at scale is BP and Microsoft's digital energy innovation partnership[54], in which each company is contributing their expertise to the achievement of their shared net zero ambitions. Microsoft is supporting BP in the digital transformation of its energy systems and infrastructure through Microsoft's Azure cloud services, while BP will provide renewable energy for Microsoft's data centers around the world.

Another area where collaborations have been very effective at driving solutions is hydrogen. The Dolphyn project, mentioned earlier in this report, aims to convert seawater into hydrogen in the North Sea, and is a great example of cross-sector multiparty collaboration bringing together engineering, energy, chemistry, and technology expertise.

In a forthcoming report by the SustainAbility Institute, to be published in December 2020, we explore the dynamics driving the evolution of how companies collaborate within and outside their sectors, highlighting some of the innovative models of collaboration that have developed as a result. We also present a collaboration life cycle framework, a practical tool to guide practitioners during the development of and participation in effective and impactful collaborations.

"

Focus on what is unique about your footprint and find like-minded partners, and then help them to achieve their goals and develop deeper solutions which would lead to transformational change.

Michael Terrell
Head of Energy Market Strategy
Google

Case Study

Working with Shell to Support Low Carbon Transition Through Stakeholder Convenings

Shell Powering Progress Together, a global series of events run by Shell, provides a forum for discussion and action on energy challenges for a broad range of stakeholders.

SustainAbility, an ERM Group company, was invited by Shell US to support the design and execution of the 2018 and 2019 US Shell Powering Progress Together forums.

The forums sought to accelerate the expansion of California's transition to renewable energy by fostering conversations and connections between thought leaders, decision-makers, influencers, and community advocates.

ERM's tasks focused on facilitating engagement between the various stakeholders, devising the program, and identifying the speakers.

Both forums demonstrated the importance of stakeholder engagement and collaboration in supporting the low carbon transition and net zero aspirations.

"

Partnering with other companies, NGOs, and governments is essential. Decision-makers often get impatient and push for drastic environmental laws. Raising awareness through collaboration is important but we need to focus on solutions, making sure that we have standards that make sense

Magdi Batato
Executive Vice President and Head of Operations
Nestlé

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Conclusion

In this inaugural *From Promise to Action* series report, we outlined five essential steps that each company must consider on their path to net zero.

We also explored some emerging challenges and the actions companies are taking to overcome them.

Getting to net zero is a journey. While every institution embarking will face obstacles, neither business nor society can afford to delay the transition to a low carbon economy. It is essential to act now.

It is encouraging to see a growing number of companies committing to net zero emissions. The task now is for these leaders to deliver their commitments and for the number of businesses in every industry embracing this effort to reach the critical mass necessary to ensure the global economy reaches net zero by 2050.

The five steps emphasized in the report – from comprehensive footprinting to carbon removal solutions– form the foundation of corporate decarbonization strategies. Each step consists of myriad smaller actions not detailed in this paper that companies also need to understand and address. As progress is made, transparency will be critical, playing a central role in keeping stakeholders, especially investors, informed and satisfied.

While focusing on what companies must do to deliver on their net zero emissions goals, the report also recognized the role various enablers will play in the low carbon transition. Smart, targeted government policies and similar support from investors will be crucial. Similarly, building the kind of business case necessary to mobilize internal support, combined with establishing the right partnerships, can catalyze progress.

In the same way as for companies pursuing net zero, *From Promise to Action* will be a journey for us as well. While aiming to help private sector leaders understand the rationale for and then embrace aggressive climate action, the outputs of the series will be cumulative, deepening along the way. We welcome any feedback readers have on how to make the insights we share more useful and actionable.

We look forward to sharing this expedition with you, anticipating that collectively we will manage safe passage to a vibrant low carbon economy in which business and society share the opportunity to thrive.

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Interviews

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Footnotes

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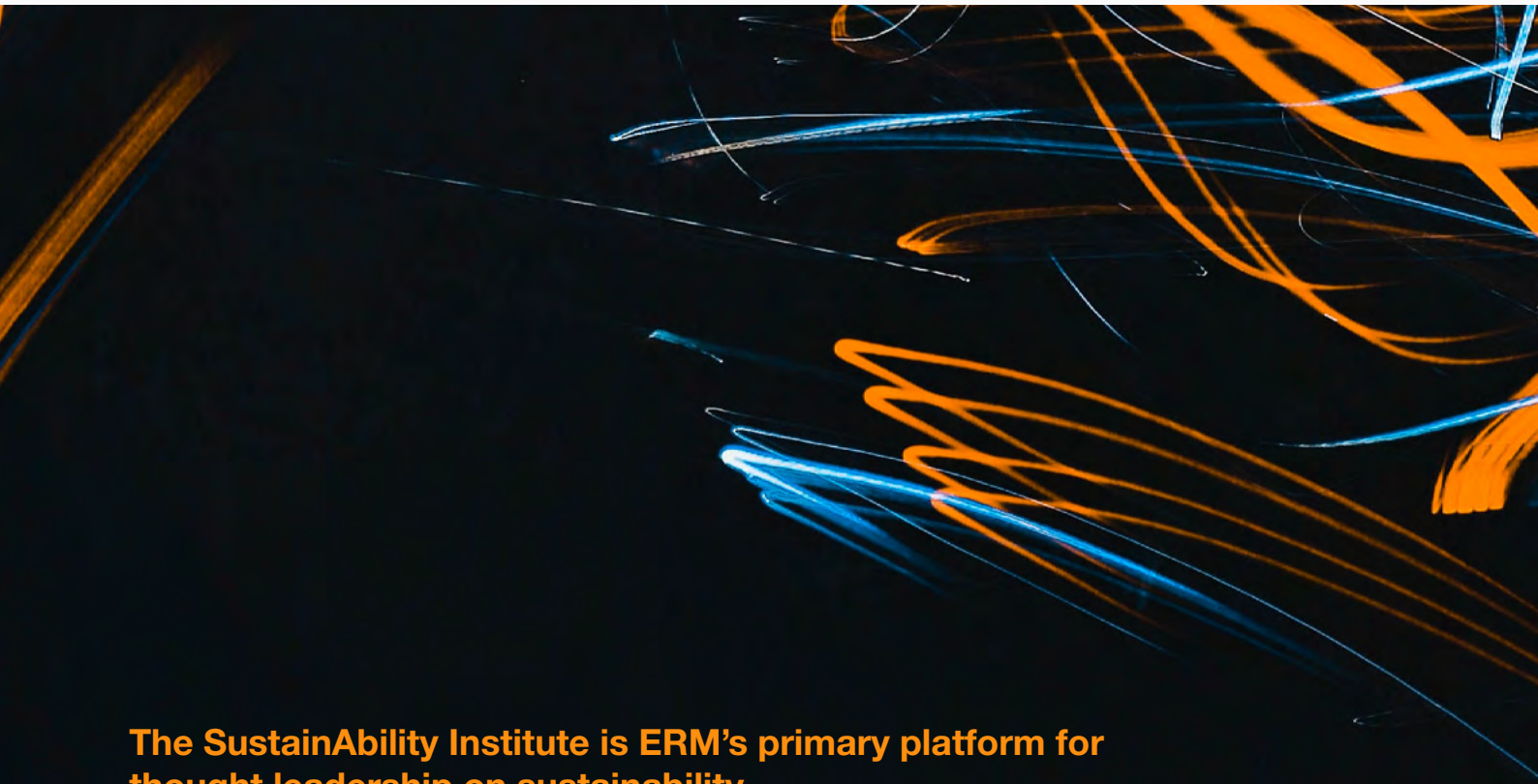

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