

# PROGRESS TOWARDS NET-ZERO BY 2050

CHALLENGES,  
TRENDS AND  
TEAMWORK

---

## ***THE B TEAM***



# MESSAGE FROM OUR NET-ZERO BY 2050 WORKING GROUP CO-CHAIRS

**We are unusual collaborators. One of us the first woman President of Ireland (1990-1997), well known as a global human rights advocate who champions the voices of the people most vulnerable to climate change. The other, a former CEO of a Fortune 200 US Power company, which was one of the largest power generation companies in the world and which emitted more than a billion metric tons of carbon dioxide (CO<sub>2</sub>) into the atmosphere during his tenure.**

We co-chair a working group of perhaps even stranger collaborators, from Founder of the Virgin Group Richard Branson and CEO Oliver Bäte of Allianz, to Sharan Burrow, the General Secretary of the International Trade Union Confederation. Our group of 12 leaders come from different geographies, sectors and backgrounds, but the thing we all have in common is a vision, and imperative, to accelerate the transition to a just and thriving net-zero greenhouse gas emissions (GHG) economy by 2050. A shift which will forever decouple economic growth from emissions, uphold human rights and set the world on a trajectory to create a prosperous world for our children and grandchildren.

We see no room for half measures, pointless debate or excuses for inaction. For the well-being of humanity, and for the future of business, we must peak global emissions in 2020. Equally, we must reach net-zero

GHG emissions by 2050 whilst upholding the fundamental rights of the people who have contributed least to this crisis and who are most vulnerable to its impacts. The transition away from fossil fuels must be one that protects workers, upholds rights, creates opportunity and protects the planet. We must not miss the opportunity this transition provides to build a new, more equitable, more socially inclusive economy that leaves no one behind. This is a huge undertaking and, as our fellow B Team Leader Christiana Figueres remarks, this is one moment where we must not be late.

Thankfully for all of us, the business case for action is now undeniable. The business opportunity to lead this transformation is historic and, as you will read in the pages that follow, our B Team companies are demonstrating the cost savings, risk mitigation, reputational benefits and new markets that can be accessed by businesses taking climate action. Investment capital has also begun the giant shift necessary to fuel this transition.

Yet despite these efforts, most of commitments made by the global business community are promises to be kept rather than a proven track record of the innovation, courage and tenacity needed to reach zero emissions by 2050. 2018 is a crucial year to change this. We anticipate that the findings of the [Intergovernmental Panel Climate Change's Special Report](#) on 1.5° will reveal the large gap between

our current actions and the action needed to stay well below 2°C, aiming for the much safer target of 1.5°C above pre-industrial global temperature. The Global Climate Action Summit in California, G20 meetings and COP24 must be occasions where non-state actors and governments digest the IPCC report message, demonstrate what they have achieved and learnt so far, and commit to continued innovation and learning to go further, faster.

This B Team progress report is a small contribution to demonstrating what we have learned as part of our commitment to a just transition to net zero by 2050. By sharing our experience and progress to date we aim to inspire other business leaders to undertake their own net-zero journey. It provides transparency

on where companies on their journey to net-zero are, what they are finding challenging and how they are benefiting.

We hope you find these stories helpful, and if you happen to be a business leader yourself, you will consider joining us and adding your own story at this pivotal moment in the history of mankind.

Best wishes,



David Crane

Mary Robinson



# INTRODUCTION TO THE B TEAM AND OUR WORK ON NET-ZERO BY 2050

## About The B Team

**We are a group of global leaders working together to redefine the role of business as a force for social, environmental and economic progress.**

**Our mission is to catalyse a movement of business leaders driving a better way of doing business, for the wellbeing of people and the planet.**

**Our approach is to find business-based solutions and lead by example, grow and lead a movement by using our collective voice, and to drive long-lasting and systemic change.**

The Paris Agreement catalysed unprecedented business action on climate. Today more than 650 businesses, with more than US\$15.6 trillion in market capital have made climate commitments. And these numbers keep growing. Thousands of companies are reporting absolute reductions in emissions. The B Team companies in this report are among them.

However, B Team companies realised that individual company action on their own operations, although greatly necessary, was not enough. The B Team Leaders and companies supported the Net-Zero greenhouse gas emissions by 2050 aspiration for a simple reason: it was what leading climate scientists were saying was needed to have a chance of staying below 1.5°C warming from pre-industrial levels, and stave off the worst effects of climate change.

When a number of B Team companies made the commitment to putting their businesses on a road to net-zero by 2050, they openly admitted that they didn't have all the answers of how they were going to get there. In fact, no one could effectively answer how the global economy, with its current constraints, was going to transition on the timescale needed.

To build the Net-Zero economy by 2050, B Team

companies also committed to working together beyond the four walls of their company, using their business models and their spheres of influence to shift competitors, policy makers and consumers towards a low carbon economy. These companies have advocated for ambitious policy and acted as a countervailing force against those who attempt to block progress, exemplified by their group efforts around US domestic policy as reported on p13. They have also demonstrated and advocated for good corporate governance through supporting and implementing the Task Force on Climate-Related Financial Disclosure (TCFD) recommendations and testing new initiatives within their business models, such as internal carbon prices.

The goal of this report is to assess our achievements, share challenges and lessons learned, and provide case studies and examples for other businesses considering the journey to net-zero. Just as importantly, it aims to encourage further teamwork and collaboration amongst B Team businesses and beyond to drive ambition within companies.

Comparing allowed emissions trajectories between the 1.5°C and 2°C limits <sup>1</sup>		
	1.5°C Limit	2°C Limit
Amount of emissions possible (from yr 2012) before temperature limit is hit	300 GT CO <sub>2</sub>	1010 GT CO <sub>2</sub>
Year by which global emissions must peak	Before 2020	Before 2020
Required reduction in global emissions by 2050, from 2010 levels	70-95 percent	49-72 percent
Year by which global energy and industry emissions must be phased out	2045-2055	2060-2075

<sup>1</sup>Source: "Assessing Transformation Pathways", Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC).

# THE CHALLENGE OF GETTING TO NET-ZERO BY 2050

The B Team companies working towards net-zero are from a diverse set of industries across the globe. Each face unique challenges and opportunities, yet common challenges can be identified. We have identified nine in this report. Some of these are solved within a company's own operations, but to overcome most of them companies are required to go beyond their four walls and work in partnership with other actors.

Taken together, the following challenges, and the responses to them, begin to build a picture of how the whole economy can transition to net-zero GHG emissions by 2050.

## Explaining Scopes 1, 2 and 3

For some companies, who rely on more intensive production and manufacturing processes, a significant proportion of their emissions are considered scope 1 emissions. For most of the companies in this report however, a greater proportion of their emissions are generated elsewhere in the value chain, outside of their direct control, such as through electricity use (scope 2 emissions), or by their supply chains or customers (scope 3 emissions).

### Getting to net-zero - Nine challenges to overcome

<p><b>1</b></p>  <p><b>Planning, engaging &amp; implementing</b></p>	<p><b>2</b></p>  <p><b>Doing more with less</b></p>	<p><b>3</b></p>  <p><b>Cleaning up our energy supply</b></p>
<p><b>4</b></p>  <p><b>Reducing emissions in supply chains</b></p>	<p><b>5</b></p>  <p><b>Building a net-zero world through our products</b></p>	<p><b>6</b></p>  <p><b>Empowering boards of directors</b></p>
<p><b>7</b></p>  <p><b>Making the right investments</b></p>	<p><b>8</b></p>  <p><b>Ensuring we make a just transition</b></p>	<p><b>9</b></p>  <p><b>Encouraging transformative policy</b></p>

### What does Net-Zero Greenhouse Gas Emissions by 2050 mean for a company?

**Take emissions to net-zero**

<p><b>Scopes 1, 2 and 3</b></p> <p>Covering your operations, energy, supply chain, product &amp; related consumer emissions</p>	<p><b>All greenhouse gas emissions</b></p> <p>Carbon Dioxide, Methane, HFCs, CFCs, Nitrous Oxide</p>
---	--

**By 2050 at the latest**



# CHALLENGE 1: PLANNING, ENGAGING AND IMPLEMENTING-SETTING AN EMISSIONS REDUCTIONS STRATEGY

**An often overlooked yet crucial stage of the corporate journey to net-zero is the process a company undertakes to plan out its journey to net-zero. Each of the B Team companies have developed customized strategies that match the character, mission and culture of their business.**

Dow demonstrates its strategy through the headline: Footprint, Handprint and Blueprint, which communicates their commitment to minimizing their own footprint, and delivering solutions that help their customers and the rest of society do the same. Unilever has extensively integrated sustainability content into its corporate website to communicate externally on progress towards the Unilever Sustainable Living Plan - encompassing the company's own operational carbon positive targets and its target to halve the greenhouse gas impact of its products across the lifecycle by 2030.

Safaricom has integrated the UN Sustainable Development Goals, which includes its goal to get to Net-Zero, into its core business strategy.

While the B Team companies have all created strategies that fit their individual needs, many have featured these common steps:

- **Understand your impact:** Conduct an emissions profile and footprint analysis, stakeholder interviews and a materiality assessment.
- **Set a target:** Declare the direction the company intends to go.
- **Develop a strategy:** Conduct a collaborative strategy process with key decision makers, relevant teams, workers and impacted communities and stakeholders.
- **Communicate:** Publically share the target and strategy.
- **Implement and measure:** Execute the strategy with regular intervals for reporting progress to stakeholders.

B Team companies also reached a common conclusion that buy in from a large range of stakeholders is critical for achieving their targets. This allows their emissions reduction strategies to be more closely integrated with their core business practices, rather than run separately. Companies are more likely to successfully reduce emissions when their strategies complement and contribute to a company's aims for growth and development.



# ⦿ CHALLENGE 2: DOING MORE WITH LESS - DRIVING EFFICIENCY THROUGHOUT THE BUSINESS

**Across the board, B Team companies working towards net-zero must lower their emissions by reducing the amount of resources needed to produce the same amount of products and services, or the same revenue.** According to the Shaping Energy Transitions report by The Energy Transitions Commission, we need to make a 3 percent annual improvement in average global energy productivity to 2050 in order to limit temperature rise to below 2°C. Improving energy efficiency also helps us reduce the scale of the challenge elsewhere, for example a company's overall demand for renewables.

**Unilever recognised that the first step towards their ambitious carbon positive target was improving energy efficiency. They set ambitious efficiency targets for water, waste, energy, and CO<sub>2</sub> emissions. Learn how these targets helped increase efficiency in Unilever's case study.**

Increasing productivity is a journey. At the beginning, many companies have experienced relatively straightforward wins tackling operational inefficiencies which, in some cases, can garner millions of dollars in saving. However, beyond this, companies identify that a deep understanding of your energy footprint and ability to deploy intelligent solutions is required. The B Team companies have taken up the energy efficiency challenge in their operations,

identifying where opportunities for greater efficiencies exist, then creating new business policies to capitalise on them. Allianz, for example, identified energy consumption, paper use and business travel as their biggest sources of emissions, so targeted these for efficiency improvements, resulting in a 25.3 percent reduction in emissions per employee in 2016.

In identifying efficiency opportunities B Team companies showcase how measuring and evaluation across all operations is critical and smarter for business. Safaricom is investing in the latest technology to ensure its measuring and monitoring of fuel and power consumption on each of its sites is accurate. This allows them to identify small improvements, analyse them, and ensure they are replicated across their sites.

**Tiffany & Co. reduced their own emissions 8 percent from 2014 to 2016, while their business and its retail and manufacturing footprint grew. Learn how they achieved this reduction in Tiffany & Co.'s case study.**

Several companies looked at their physical premises for opportunities to reduce energy use. BROAD Group has implemented diverse strategies, such as wall and roof thermal insulation, door and window energy-saving technologies, and using their fresh air heat recovery machines—which can save

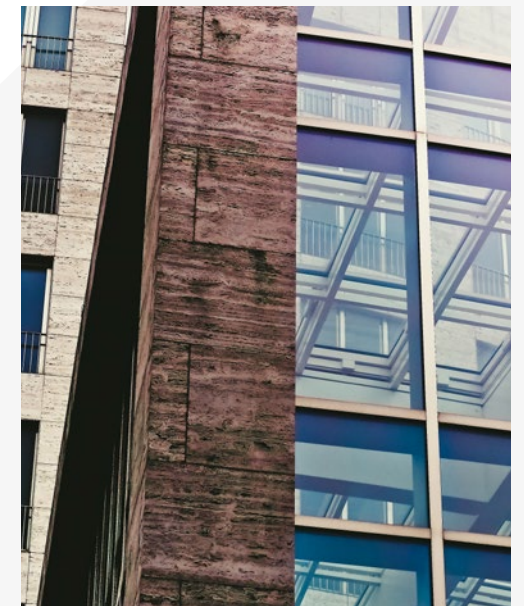
80 percent of heat loss which reduces the energy required to heat and cool their premises. They estimate once they complete all retrofits at their China Headquarters, they will be saving 900,000 kWh of electricity. Salesforce, Unilever, Virgin and Kering have integrated green building practices into their design, construction, and operations. They build their workspaces to leading green building standards such as LEED, BREEAM, and Green Mark.

For industrial sector companies, energy efficiency is key to reducing emissions. Dow's major sites rely on combined heat and power (CHP) plants, considered the most efficient way to produce steam and power, using 20-40 percent less fuel than conventional power generation while also reducing GHG emissions. They have also targeted manufacturing sites for greater efficiency. Dow Corning Corporation set a goal to reduce on-site energy intensity by 45 percent by 2021. At the end of 2016, energy intensity had already been reduced by 41 percent, saving USD \$14 million in annual utility costs.

**Natura have been carbon neutral since 2007, across all three scopes. This was achieved through a combination of reducing emissions and offsetting any emissions that cannot (yet) be eliminated. Learn how this process affected each aspect of their business in Natura's case study.**

**“Evidence over the last years has made it clear that growth in business value, and growth in emissions, have been decoupled in key countries. In fact, carbon emissions are increasingly an indicator of inefficiency and failure to innovate.”**

*Christiana Figueres,  
Former Executive Secretary of the United Nations Framework Convention on Climate Change (UNFCCC) 2010-2016.*





# CHALLENGE 3: CLEANING UP OUR ENERGY SUPPLY

**2016 represented a record rise in renewable energy capacity installed, up 10 percent on 2015, and also delivered yet further decline in the price. Solar PV costs alone have reduced 85 percent over 7 years, outcompeting fossil fuels in many regions of the world. Yet it remains the case that cleaning up an entire companies energy supply continues to be an immense challenge, especially for heavy-emitting sectors such as power, cement, chemicals and steel.**

For B Team companies, the geography and type of energy they need to fuel their business dictates how they respond to this challenge. Many B Team companies purchase electricity from renewable sources for their own operations. Natura purchases 100 percent of the electricity they consume from renewable energy production plants. Virgin Money succeeded in securing certified 100 percent renewable energy sources for all electricity contracts under their direct control. Unilever, Salesforce and BROAD Group have joined RE100, a global collaborative initiative of influential businesses committed to using 100 percent renewable electricity.

**BROAD Group has committed to using 100 percent renewable energy by 2045. Learn about how they're innovating to reach this goal in BROAD Group's case study.**

Supporting new-build projects, either by building on-site renewables, signing power purchasing agreements with new off-site projects, or providing investment into renewables, is particularly desirable,

as it provides a new supply of renewable energy and accelerates the shift in the overall power mix on the grid. Safaricom has a target for 15 percent of their sites to run on solar and wind power solutions in financial year 2017/2018. Allianz invests directly to help expand the market for renewables, and equally divested from coal-based business models (see example on page 16).

Where companies cannot purchase power directly from a specific renewable source, many use renewable energy credits. To stimulate renewable growth in a particular market they may invest in locations where they operate. In 2017, Tiffany & Co. purchased regional renewable energy credits for approximately 85 percent of its global electricity use. For 100 percent of its US electricity, Tiffany & Co. purchased solar credits from Utah, where much of the gold and silver Tiffany & Co. sources is mined.

The reliability and affordability of renewable energy sources continues to be a challenge for many companies. For example, the power needs of the chemical industry, which needs efficiently produced thermal

**In late 2015, Salesforce signed two virtual power purchase agreements (VPPAs) in West Virginia and Texas. Learn how these investments, along with other innovations, are helping Salesforce source 100 percent renewable energy in their case study.**

energy, make the goal of operating on 100 percent renewable sources unrealistic for Dow. However, Dow can and does make efforts to reduce the carbon intensity of the fuel it uses, and they've met their goal of using 400 MW of clean power by 2025, nine years early, with current capacity for low carbon or renewable sources now nearly 695 MW. To continue the momentum, they have increased their goal to 750 MW by 2025. The continued pursuit of targets and rising ambitions is indicative of Dow's commitment to the net-zero transition.

Most other B Team companies too still use a proportion of fossil fuels within their energy mix, and although they seek to transition to 100 percent renewables as quickly as possible, also invest in using

less and more efficient forms of energy to reduce their emissions in the here and now. Examples of these initiatives can be found in the individual company case studies, demonstrating a trend towards companies marrying technological innovations and better monitoring to reduce energy consumption.

B Team companies have confidence that technological advances in the way we fuel industrial processes, as well as in the way we store energy, will lead to the breakthrough which allows the economy to transition to 100 percent renewable energy, and put their weight into investment and advocacy opportunities that promote this eventuality (detailed in Challenges 7 and 9).



# CHALLENGE 4: REDUCING EMISSIONS IN SUPPLY CHAINS

**B Team companies know that to achieve a net-zero economy, companies must go beyond reducing emissions in their own operations and seek innovative ways to influence the indirect emissions generated by suppliers as well. These emissions can be difficult to quantify, and even more challenging to reduce. B Team companies reported that they were taking three clear steps towards meeting this challenge—signalling their company’s intent to decarbonise, assessing the performance of their suppliers, and working with their suppliers to reduce emissions.**

Commonly, companies are using their public targets, such as RE100 or Net-Zero by 2050, to signal their intentions to suppliers. By communicating openly with their suppliers about achieving reductions in emissions in their own operations, Unilever can begin to support and convince them of the feasibility of, and business case for, taking similar action. Unilever has published a Responsible Sourcing Policy which sets mandatory requirements their suppliers need to meet. BROAD Group actively supports suppliers reducing their GHG emissions, by highlighting the economic benefits of doing so. Natura has performed assessments on their supply chain which allow them to identify areas most in need of improvement, build long-term supplier partnerships and explore new business models. Salesforce has a policy for selection of new data centre sites which considers their level of emissions, whether the site has an active program

to reduce energy use, and whether they have incorporated climate change explicitly in to their strategy.

**The Kering ‘Clean by Design’ programme, concluding in April 2017, targeted 24 of the Group’s textile mill suppliers, covering 40 percent of the Group’s ready-to-wear supply chain. Learn how this initiative helped Kering improve resource efficiency and emissions reduction in their case study.**

By using such criteria B Team companies reduce emissions in their supply chains, incentivise other businesses to prioritise climate change and indirectly impact others in the industry using the same suppliers. Additionally, companies have introduced a price on

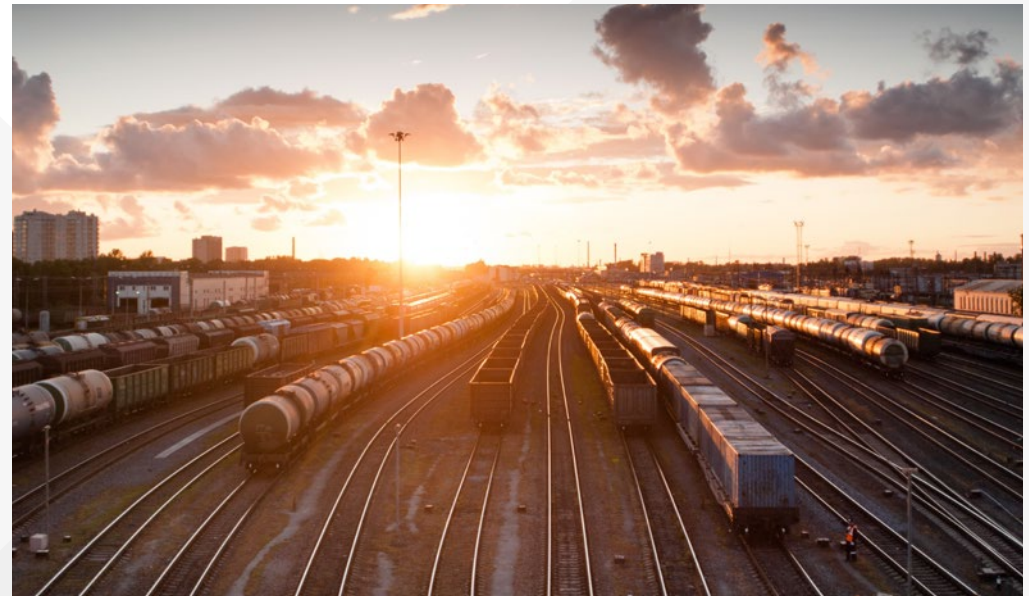
**Virgin Atlantic influenced its own airline catering suppliers to deliver more sustainable meals, and as a result influenced the entire industry. Read more about this in Virgin Group’s case study.**

carbon to attribute a monetary value to the consequences of the company’s environmental impacts throughout its supply chain. The price of carbon that

Kering uses is €62 per tonnes of CO<sub>2</sub> equivalent. This price is applicable globally and there is a mechanism for revision every three years, following the Environmental Profit & Loss methodology. Unilever introduced an explicit internal price of carbon of €30 per tonne in July 2016. They use it, first, to evaluate the business case for new capital investments of significant size and secondly, to create an internal annual charge on emissions of CO<sub>2</sub> from their manufacturing network. This levy has created an internal ‘Clean-Energy’ fund for 2017, which is being used to invest in installing renewable energy sources on their manufacturing sites. This greatly accelerates

their ambition to use 100 percent renewable energy by 2030.

Reducing emissions in supply chains was identified by a majority of B Team companies as continuing to be one of the most challenging areas to tackle in the future, as well as the need to influence their customers. This is why companies are starting to work together, whether through associations like the Renewable Energy Buyers Alliance (REBA), or exchanging best practice on procurement procedures, to create the systemic changes that are needed to reduce emissions in their supply chain.





# CHALLENGE 5: BUILDING A NET-ZERO WORLD THROUGH OUR PRODUCTS

**Companies have the opportunity to reduce their indirect emissions further by considering the emissions from the use and disposal of their products. Doing so requires innovation and investment, but, as many of our companies have found, can also lead to new business opportunities and competitive advantage. This competitive advantage is only likely to increase, as companies reducing their own Scope 3 emissions will seek to buy low-carbon products, creating a virtuous circle.**

The responses from B Team companies on progress in this area suggested that the development of net-zero products remains challenging. It requires significant technical investment and ability to overcome societal inertia and perceptions that low-carbon products may be untested or more expensive than their high-carbon equivalents.

Companies that produce manufactured products, such as Dow and BROAD Group, have invested in technical solutions to build products that help other businesses reduce GHG emissions. BROAD Group innovated to create low-emission, low-energy air conditioning technology. Used in their own buildings and sold to customers around the world, these air conditioners reduce global CO<sub>2</sub> emissions by 300,000 metric tons per year, compared to standard air conditioning installs.

Unilever have been piloting circular economy practi-

es and working to embed circular thinking into their innovation process. The circular economy model keeps materials in a closed-loop system, as opposed to the traditional linear model of manufacture, use, dispose. Circular models will drastically reduce the impact of global consumption, including waste and emissions. In 2016, Unilever conducted internal workshops, scoped projects and provided training for

**Dow are delivering breakthrough chemistry innovations that helped reduce CO<sub>2</sub> emissions by 301 million metric tons in 2016. Learn more about these innovative products in Dow's case study.**

staff at all levels on the circular economy, to support the adoption of circular thinking in their business. Natura and Salesforce have managed to translate their low-carbon efforts into the marketing of their products to customers, responding to the reported post-Paris Agreement trend that sees a tipping point emerging for customer awareness and preference for low carbon products .

Natura focuses on packing products in 100 percent post-consumer recycled materials or 100 percent green polyethylene, and by offering customer refills has eliminated potential emissions from extracting virgin packaging materials. Salesforce purposely advertises to customers that it delivers a carbon-neutral cloud by offsetting emissions with high-quality

credits throughout their data center supply chain. This also includes indirect emissions such as those generated by manufacturing servers, data center operations and customers using Salesforce on their personal devices.

Allianz now designs over 150 sustainable products to incentivise and support lower GHG emissions profiles for their customers. Some of these products have the potential to encourage long-term, societal shifts towards lower carbon business models and lifestyles, as well as being worth more than 1.1 billion euros in revenue in 2016. For example, they include special

tariffs for electric vehicles and insurance for renewable technologies. Allianz also advises insurance customers on how they can minimize damage from climate impacts, and encourages those who have suffered losses to choose lowest-carbon replacements.

**Safaricom have partnered with M-KOPA to connect over 500,000 homes to affordable solar power. Learn more about how this partnership has helped reduce emissions in Safaricom's case study.**



# CHALLENGE 6: EMPOWERING BOARDS OF DIRECTORS TO EFFECTIVELY GOVERN A COMPANY'S TRANSITION TO NET-ZERO

**Climate change poses material risks and opportunities to every business, and therefore requires full board-level oversight.** Investors are increasingly demanding this, evidenced by December 2017's [announcement](#) by 225+ investors with more than USD \$26.3 trillion in assets, who pledged to engage with the world's largest corporate greenhouse gas emitters to improve governance on climate change, curb emissions and strengthen climate-related financial disclosures. Directors must make efforts to successfully integrate their understanding of how climate change impacts their business, and how it can effectively be managed, into their governance systems and board committees. It is important to assess and educate sitting board members today, rather than await board turnover, which has historically been slow.

Disclosure of the governance structures, strategies and risk management practices as it pertains to climate-related risks as a standard best practice is also crucial for ensuring the health of each company as well as the overall capital market system. Transparent, coherent reporting will lead investors and shareholders to support those boards and companies who are driving climate action, and ultimately should accelerate market forces to shift capital to low-carbon solutions. In June 2017, the Task Force on Climate-Related Financial Disclosure (TCFD) released its guidance to establish consistent voluntary disclosures

on their climate related risks and its governance of them. These principles for better disclosure were endorsed by Allianz, Dow, Kering, Natura, Safaricom, Salesforce, The Virgin Group and Unilever in a letter, which ultimately attracted signatures of over one hundred other CEOs. Allianz, Dow and Unilever have committed to implementing the recommendations of the TCFD.

While a truly concerted effort to ensure boards are climate competent and there is full board oversight on climate (rather than being relegated to one sub-committee) is still at a nascent stage, B Team companies are integrating climate into their governance structures in various ways.



## How do B Team company boards currently provide oversight on climate?

- Allianz has an executive director level Group ESG Board which is responsible for integrating ESG into all business lines and core processes dealing with insurance and investment decisions. The ESG Board is comprised of three Members of the Executive Board, who are responsible for Asset Management, Investments and Global Insurance Lines respectively.
- At Dow, the Executive Sustainability Team is appointed by the Dow Board of Directors to identify material sustainability risks and opportunities, including climate-related issues, and reports to the board every quarter.
- Kering has a Sustainability Committee at the board level which, amongst other things, is responsible for oversight of the progress towards the net-zero emissions target and climate change adaptation.
- Tiffany & Co. has a CSR Committee at the board level which meets at least twice a year with the responsibility of reviewing, and recommending goals, initiatives, and practices for social responsibility to the full Board.
- In 2016, Virgin Management established a Net-Zero Taskforce that meets every six weeks, and updated their Group governance to require quarterly reports to the board on progress towards the net-zero target, across the Group.

# CHALLENGE 7: MAKING THE RIGHT INVESTMENTS FOR THE NET-ZERO ECONOMY

**One of the paramount challenges in transitioning the global economy to net-zero emissions remains that trillions worth of public and private money is still invested in high-carbon industries, outpacing investment in the industries needed to sustain a net-zero economy.**

Companies play a key role in 'shifting the trillions'. They both produce and invest in innovation, facilitating leaps in technologies that can benefit the world. New technology brought to scale will help us reach a net-zero emissions economy on a faster timeline. And time is of the essence if we want to prevent locking in irreversible climate change. Allianz's vote of confidence in the renewables sector helps to attract other investors. However, there currently are not enough attractive renewable energy projects coming on to the market, and those in developing markets sometimes present unstable and high-risk investment opportunities.

**Allianz has cast a major vote of confidence in renewable technology with investments totalling 4.6 billion Euro. Learn how these investments are both turning a profit for Allianz and helping reach its net-zero goal.**

Virgin Group also invests in renewables. Recent successes include the purchase of the BMR Wind Farm from American Capital for \$43m in August 2016 and their investment in M-KOPA, collaborating with Safaricom to bring affordable solar power to over 500,000 homes in East Africa.



## Investing in offsets whilst still reducing overall footprint

**Many B Team companies are investing in carbon offsets to reduce their carbon footprint, whilst concentrating on reducing their overall emissions. Offsets are a stepping stone on the journey to full decarbonisation of both companies and the economy.**

- Kering's carbon offsetting contributes to the protection of more than 750,000 hectares of biodiversity-rich ecosystems, serving more than 400,000 people.
- Natura's offsetting purchases have contributed to the restoration of 2,155 hectares of rainforest, and conservation of a further 12,000 hectares.
- Salesforce has supported a 'Cool Effect' project which replaces open, wood-burning cook stoves with a more efficient alternative in Honduras, decreasing emissions and deforestation while also improving human health through better indoor air quality.
- Tiffany & Co. is the first major corporate backer of a landscape-scale conservation project in Kenya through its carbon offset purchases. The project protects a diverse ecosystem, endangered species and a critical watershed, while creating new sustainable economic opportunities for local communities.



# CHALLENGE 8: ENSURING WE MAKE A JUST TRANSITION

Although B Team companies are confident that a transition to a net-zero economy is possible, the outcome of the transition for those currently excluded from prosperity in the current economy is far from certain.

This transition, coupled with parallel economic trends of automation and other disruptive technologies, makes it essential that companies plan to create decent, low-emissions jobs, uphold rights, protect vulnerable workers and communities, and leave no one behind. Cooperation between employers and workers on planning and implementing the transition will be crucial to its overall success.

## What are B Team companies doing to ensure they make a just transition to net-zero?

- **BROAD Group is reducing its emissions whilst also focusing on increasing job opportunities and improving community infrastructure.**
- **Dow's network of Community Advisory Panels (CAPs) is in more than 20 communities around the world. In 2017, they asked these panels for feedback on Dow's strategy and progress towards their 2025 sustainability goals.**
- **Natura invites workers to trainings and meetings to discuss the ongoing net-zero strategy, and make decisions that could impact the wider workforce and community.**
- **Safaricom carries out training on energy conservation and clean energy with staff at all levels of the organisation.**
- **Tiffany & Co. supports the creation of rigorous responsible mining standards, which consider pressing issues facing the sector, including protecting human rights and providing safe and respectful workplaces whilst minimizing environmental harm.**



# CHALLENGE 9: ENCOURAGING TRANSFORMATIVE POLICY

**The majority of businesses today cannot reach net-zero without overcoming political and systemic challenges that define the status quo of today's economy.**

The global economy can be described as a large tanker ship, heading in one direction (rising emissions), that must be slowed, and turned in the opposite direction, in order to reduce emissions to net-zero. 'Turning the ship' requires concerted effort and willingness not just from businesses, but from other key players in the global economy including governments, sub-national governments, and the financial sector. All these actors both influence and constrain each other, and thus to 'turn the ship' the speed deemed necessary to reach net-zero by 2050, businesses must take on the challenge to both communicate to governments and investors it is willing and able to transition, and influence policy makers to create law and policy which incentivises action and deters inaction.

In 2015, B Team Leaders demonstrated the effectiveness of business influence on policy-makers when they went to COP21 in Paris to show business support for a long-term goal embedded in the Paris Agreement. Christiana Figueres credited the willingness of business to set long-term ambitious goals themselves, such as net-zero by 2050, as contributing to the passing of the Paris Agreement. Our companies working towards net-zero are using their voices and influence wherever they are to embolden policy-makers and bring more businesses along on the net-zero transition.

In 2016, Salesforce, Tiffany & Co., Virgin and Unilever, took a public stand and reiterated their pledge to global climate action by signing the "Business Backs Low-Carbon USA" open letter with other U.S. businesses encouraging the U.S. government and world leaders to maintain commitments made in the historic Paris Agreement. B Team businesses led private sector representation at the People's Climate March, demonstrating the support of business leaders for the US climate movement. In May 2017, as it became clear the U.S. government was considering withdrawing from the Paris Agreement, B Team companies mobilised again. They performed high-level influencing work, including direct outreach to President Trump's former CEO Council, peer-to-peer outreach to targeted CEOs and outreach to other world leaders at the G20 and G7. Led by CEO of The Dow Chemical Company, Andrew Liveris, B Team businesses coordinated a letter supporting climate action, signed by 30 CEOs of prominent businesses – including JP Morgan, Goldman Sachs, Disney and Coca Cola—which was featured in the Wall Street Journal and read more than 10,000 times online. Tiffany & Co. placed an ad in The New York Times and amplified the message on social media calling for the U.S. to remain in the agreement. The B Team companies also supported and helped drive the 'We Are Still In' campaign, bringing together more than 1,400 businesses, tertiary institutes, cities and states in the US committed to upholding the Paris Agreement.

Another notable example of teamwork includes B Team Leaders' mobilisation in response to a request from Natura Co-Founder Guilherme Leal in June 2017,

to support a letter to the Brazilian President opposing a piece of legislation that would accelerate deforestation. A Brazilian Federal judge has since issued a ruling temporarily putting a halt to the mining plans, which many confirm is at least partly due to the international outcry.

In November 2017 Unilever, Kering, Natura, Salesforce, and Virgin supported the launch of 'Powering Past Coal', an alliance of more than 25 countries, states and regions, led by the United Kingdom and Canada and including Fiji, Mexico, the Marshall Islands, France, Costa Rica, New Zealand, Quebec, Oregon and Alberta, and their declaration to accelerating growth through a rapid transition from coal power to clean power. Coal phase-out is integral to both company and country long-term strategies to Net-Zero by 2050.



## What do you expect the greatest challenge in reducing emissions to be in the future?





# CONCLUSIONS

**This report has guided us through the challenges and steps companies are taking on their net-zero journeys. In this process, we have found each challenge falls broadly into one of the following categories: operational, technical, systemic, societal and political.**

Many **operational challenges** have been described in this report. From the governance examples on how core skills and competencies are being improved to properly evaluate risk and reward, to the internal mechanisms companies are introducing, such as internal carbon prices, large strides are being made in this challenge area. Operational challenges are not easy to overcome, but with courage and willingness to test new processes, companies can make substantial progress reducing their emissions. They can then demonstrate these best practices to others in the business community to contribute to building a net-zero economy, through vehicles like this report.

There are of course **technical challenges** to reaching net-zero, with some industries having no fully-defined technology to help them completely reduce their emissions. For example, the thermal energy that Dow needs for its industrial activities cannot be produced effectively with renewable energy. Some small technical challenges can be overcome within businesses, but mainly businesses rely on working together, or partnering with businesses in other industries to create breakthroughs.

There are also **systemic challenges** to tackling climate change in the business world that are not inside any one company's control—even the large multinational companies represented in this report. These can include supply chains, communities and

customer preferences. To tackle these challenges, companies will need to engage with others to advance their climate agenda. Globalisation of companies supply chains and reliance on outsourcing makes this particularly difficult, as companies must influence a highly-distributed network of small suppliers over a large geographic range. There also still remain societal challenges to addressing climate change. We can no longer tackle climate while ignoring the impacts on people, both of climate risk and of our decisions on how we reduce carbon. Climate action should not negatively affect people's lives; instead it should enhance the lives of those who are most excluded by today's economy.

Finally, there are **political challenges**. Political challenges still impact each piece of the net-zero journey, and can either restrict or accelerate renewable energy rollout, patterns of investment and the incentives for companies to take risks on new business models. The lack of an enabling policy environment, and the existence of actors who wish to slow climate progress, is why business advocacy for the net-zero economy continues to be of paramount importance. Business actors continue to be influential voices who, by standing alongside civil society and other non-state actors, can shift both international agreements and national policy.

When analysing these challenge types, it becomes evident that no one company is going to pull off a just transition to net-zero without collaboration. Technical, political, systemic and societal challenges demand a much broader set of actors to collaborate towards solutions. Even the companies represented within The B Team cannot tackle these problems on their own. But they can collaborate effectively to help each other by sharing best prac-

tice on technical improvements, combining their voices to influence policy makers, working strategically within global value chain systems to identify common suppliers and grouping together to demonstrate the business case for a just transition to net-zero emissions.

Yet there is reason to be positive. One of the most promising conclusions is the strong trend towards companies decoupling growth from rise of emissions. For example, Unilever's GHG impact of all products rose by 8 percent since 2010. However, sales grew 30 percent over the same period. They are decoupling their value chain GHG impacts from business growth.

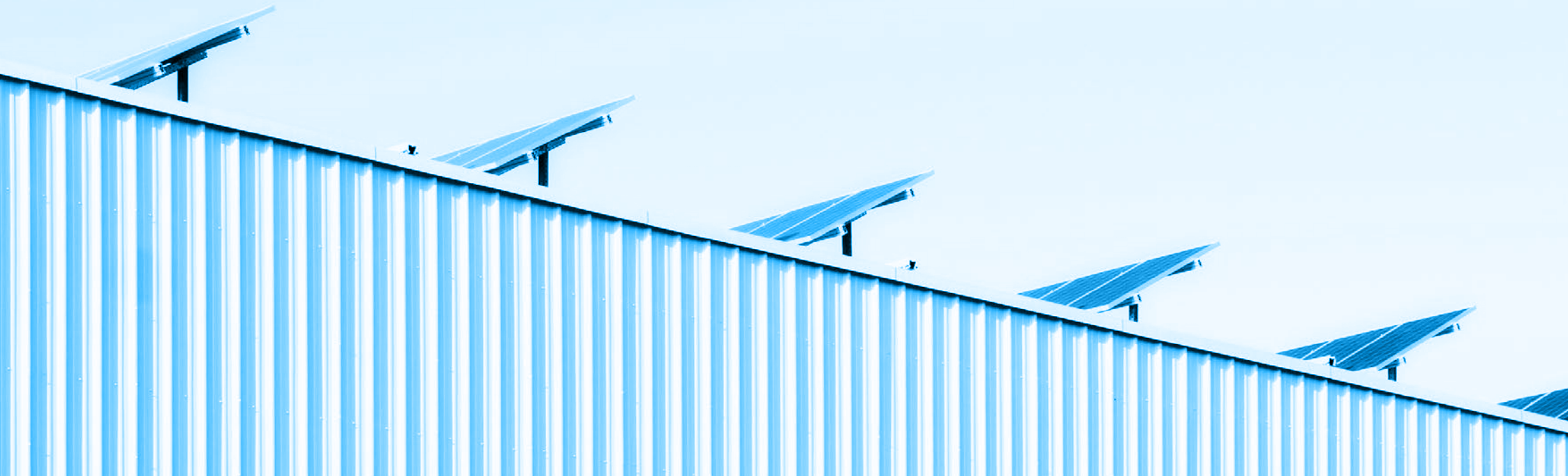
**“ This report marks another important milestone in our battle against climate change. I’m happy to see so many companies taking a positive and proactive approach to safeguard our planet for generations to come. We need more businesses to use the examples here as inspiration to change their own businesses for good. ”**

*Sir Richard Branson,  
Founder, Virgin Group*





# **APPENDIX:** **COMPANY CASE STUDIES**



# CASE STUDY: ALLIANZ

Casting a major vote of confidence in the net-zero economy with its investments

## Highlights

- By the end of 2016, Allianz had reduced CO<sub>2</sub> emissions by 25.3 percent per employee since 2010.
- Allianz has cast a major vote of confidence in renewables – with investments totaling 4.6 billion euro by the end of 2016.
- In 2016, 45.1 percent of Allianz’s own energy came from renewable sources.
- Allianz has sent a strong signal to the market by divesting 225 million Euro in equity from coal-based business models and placed 3.9 billion Euro fixed-income assets in run-off in 2015.
- Since 2012 Allianz has been net-zero for its operational emissions, by investing directly in emissions reduction projects in developing countries.

## Company Initiative Spotlight

**Responsible investing:** Allianz screen its equity and fixed income investments using 37 environmental, social and corporate governance (ESG) criteria including carbon emissions, and energy efficiency. This guides the development and implementation of sustainable investment strategies, ensuring that capital flows to businesses prioritizing ESG considerations and pushing companies to go further to meet these standards

**Responsible insurer:** Allianz advise customers on how to reduce risks and minimize damage from climate change, while encouraging lower emissions replacements for those who have suffered losses. They offer over 150 Sustainable Solutions for their customers—from special tariffs on electric cars to environmentally-themed funds. In 2016 these products represented 1.1 billion Euro in revenue.

**Reducing their emissions from corporate operations:** Allianz has committed to reduce CO<sub>2</sub> emis-

sions as well as energy consumption per employee by 30 percent by 2020, against a 2010 baseline. By the end of 2016, they had already achieved a 25.3 percent reduction per employee mainly through energy efficiency initiatives, reducing business travel, or using low-carbon options, and increasing use of renewable energy in their energy mix.

## Net-Zero Leadership

**Developing regulatory frameworks that support the net-zero economy:** Allianz understands effective regulatory frameworks are crucial to support low-carbon investing and is an active part of initiatives like the Finance Initiative of the UN Environmental Programme (UNEP FI), the Munich Climate Insurance Initiative (MCII), the Geneva Association and ClimateWise. These provide opportunities for Allianz to convey messages to decision makers and develop innovative solutions to mobilise finance for the transition to a net-zero world and for adapting to climate change.

**Adopting new recommendations on financial disclosure:** Allianz publically signaled that it will adopt the recommendations of the Task Force on Climate-related Financial Disclosures in its reporting for the fiscal year 2017.

**Debt financing for carbon reduction projects:** Allianz’s Reducing Emissions from Deforestation and Degradation (REDD+) investments in Kenya, the Democratic Republic of the Congo and Indonesia not only generate CO<sub>2</sub> certificates, but are helping to protect biodiversity and support local communities.

## About Allianz:

Allianz are one of the world’s largest insurers and asset managers, with operations in more than 70 countries. Allianz’s own emissions footprint is relatively small, however, their indirect impacts and opportunity for influence is considerably larger. While reducing their operational emissions where possible they have sought to innovate within their business model to tackle scope three emissions and provide leadership to shift capital markets to support a net-zero transformation.

**Equity investments:** Through its in-house investment platform for alternative equity investments, Allianz Capital Partners (ACP), Allianz has grown its equity investment in renewable energy from 2.4 billion euro in 2015 to 3.5 billion euro in 2016. This includes 71 wind farms and seven solar parks in France, Germany, Italy, Sweden, Austria, and Finland. In the U.S., ACP’s wind and solar portfolio generates sufficient renewable energy to supply over 1.6 billion households. Allianz also offers renewable infrastructure investment funds to third party clients through Allianz Global Investors, with a total of over 1.6 billion euro in 2016.

“What I worry about is climate change, which poses the biggest threat. This is one reason why we no longer finance coal-based business models and will double our equity investments in renewable energy.”

Oliver Bäte, CEO

## Renewable Energy Investments

	2016	2015	2014
Renewable energy portfolio: Total € bn invested	4.6	2.8	1.9
Private Equity (€ bn)	3.5	2.4	1.7
Infrastructure Debt (€ bn)	1.1	0.4	0.2
Renewable energy portfolio: Total number wind and solar	87	72	59

# CASE STUDY: BROAD GROUP

## Reimagining buildings and construction for a net-zero world

17

THE B TEAM

### About Broad Group:

BROAD Group are a central air conditioning manufacturer, energy service provider, clean air technology innovator and sustainable building leader based in China. They are reducing their own footprint, while innovating new technologies and process to accelerate the net-zero transition across the construction and building sector.

### Highlights:

- BROAD Group has reduced GHG emissions 10.2 percent since 2014. In 2016, BROAD Group's emissions reduction initiatives reduced CO<sub>2</sub> emissions by 1,100 - 1,450 tons.
- Working towards their commitment of using 100 percent renewable energy by 2045, BROAD Group got 30 percent of their energy from renewable sources in 2016, up from using no renewable energy in 2014. They invested in a 170,000 panel solar roof - the largest on an urban building in China—to reduce their reliance on non-renewable energy.
- They operate a virtual carbon price between subsidies of BROAD Group, which is gradually increasing the price of carbon to 100USD/ton of carbon.
- In 2016, BROAD Group invested 4 billion Yuan to research and develop the sustainable vertical construction and the sky city project, which demonstrated that low emission high-rise buildings can also be built efficiently and at low cost.

### Company Initiative Spotlight

#### Energy conservation at BROAD Town:

BROAD Town is a major corporate campus in China, providing community facilities for BROAD employees and their families, as well as housing BROAD's headquarters, factories and sustainable building innovation projects, such as the mini sky city. Most of the buildings in Broad Town have been retrofitted for energy saving, and once completed it is estimated this will save 900,000kwh of energy. Energy savings have been achieved through wall and roof thermal insulation (which can save 80 percent of heat loss from a building), the use of door and window energy-saving technologies, and by building exterior solar shading; which, in summer, can reduce air-conditioning use by 70 percent.

#### Cutting emissions in product testing:

The main source of emissions in BROAD Town is from energy used to test BROAD non-electric air conditioning products. BROAD has innovated with the processes and technologies used to test its products, and has reduced the frequency of the tests which has saved between 850 to 1,300 tonnes CO<sub>2</sub> per year.

#### Innovating to provide low-emission hot water:

There is a huge demand for hot water in BROAD Town. The standard tap water heating process is fueled by natural gas. BROAD have developed a new process using the cooling water and exhaust heat from testing equipment, to heat water for daily use. This process cuts CO<sub>2</sub> emissions by 80 tonnes per year. The technique is still in the experimental stage

at BROAD town, but the Chinese government has invested in its development and expansion. BROAD Group plan to share the technology with their air-conditioning users, and all districts adopting natural gas heating. This innovation alone could save more than 10 billion m<sup>3</sup> of natural gas annually in China.

#### Reducing supply chain emissions:

BROAD Air Conditioning Co. Ltd., a subsidiary of BROAD Group reduces carbon emission, environmental pollution and energy consumption by guiding suppliers and users to adopt energy reduction measures. The company evaluates suppliers and chooses those who can provide low-carbon materials and components, and guides them to reduce GHG emissions further by stimulating economic benefits.

### Net-Zero Leadership

**Incorporating a price on carbon:** BROAD Group has incorporated a carbon price into the virtual operation of their business planning.

**Low-carbon products at the heart of their business:** BROAD have designed non-electric air conditioning units with combustion engines that are more energy efficient and emit lower levels of nitrogen oxides than standard air conditioners. With tens of thousands of BROAD non-electric air conditioning units in use all around the world, this represents a saving of 300,000 metric tonnes of CO<sub>2</sub> emissions every year.

**Prioritising a just transition to the net-zero economy:** BROAD's net-zero by 2050 strategy is not simply about reducing energy consumption and emissions. They are equally focused on growing opportunities for employment and ensuring the well-being of communities and workers. BROAD's strategy prioritises opportunities to source clean energy and improve energy efficiency that are also able to increase job opportunities and improve community infrastructure.

“Sustainable development is critical in an era where social transformation and accelerating urbanization is occurring in many countries.”

Zhang Yue, CEO



# CASE STUDY: THE DOW CHEMICAL COMPANY (DOW)

Proving energy intensive companies can take major steps on the journey to Net-Zero

18

THE B TEAM

## About DOW:

The Dow Chemical Company is a U.S.-based global material sciences company, manufacturing leading chemical, plastics and agricultural products. Operating in a highly energy intensive industry, Dow are setting their own ambitious targets, and are active supporters of smart policies which will transform the economy.

## Highlights:

- By ingraining energy efficiency into the continuous optimization of its everyday processes, Dow was able to reduce its energy intensity by 40 percent between 1990 and 2015.
- In 2016, Dow's energy intensity decreased from a 2015 level of 4,540 British Thermal Units (BTUs) per pound of production to 4,490 BTUs.
- In 2016, more than 301 million tonnes of CO<sub>2</sub> were not released into the atmosphere, directly attributable to use of Dow's insulation products.
- Dow has set the 2025 Goal to grow globally over the next 10 years while limiting their absolute GHG emissions to not exceed their 2006 baseline.
- Dow is one of the pioneering companies leading on incorporating a carbon price into their business planning and risk management strategies.

## Company Initiative Spotlight

**A major focus on energy efficiency:** Dow operates an energy intensive company, in an energy intensive industry. Reducing the energy required for production is both a major challenge and an opportunity. By ingraining energy efficiency into the continuous optimization of their everyday processes, Dow reduced energy intensity and save more than 6,100 trillion BTUs from 1990 - 2015. Dow's major sites rely on combined heat and power plants. These plants are considered the most efficient way to produce steam and power, using 20-40 percent less fuel than conventional power generation while also reducing GHGs. Dow Corning Corporation set a goal to reduce energy intensity by 45 percent by 2021, versus a baseline of the average of 1998 - 2001. At the end of 2016, energy intensity for its sites had been reduced by 41 percent, through the execution of a multimillion-dollar energy-efficiency project portfolio, with total savings of \$14 million USD in annual utility costs.

**Increasing renewable purchasing:** The reliability and affordability of alternative energy sources is the greatest challenge for Dow. Current forms of renewable energy only produce electrical energy and cannot efficiently produce thermal energy needed in the chemical industry. However, approximately 9 percent of their purchased electricity is from renewable sources, which, due to the scale of their operations makes Dow the third biggest corporate user of clean energy in the U.S. Dow met their goal to use 400 megawatts of clean power by 2025 nine years early, in 2016. Current capacity is now nearly 695 megawatts (MW) from renewable sources. To continue the momentum, they have increased their goal to use 750 MW by 2025.

## Net-Zero Leadership

**Supporting clean-energy through science and technology:** Dow are committed to producing products that help others reduce GHG emissions. For example, DOWTHERM™, is a heat transfer fluid used in 35 large solar power plants, with a total capacity of more than 700 megawatts. These plants will provide enough electrical generation capacity to meet the needs of more than 1 million homes with clean-energy, saving close to 4 million tonnes of CO<sub>2</sub> emissions each year.

**Pioneering an internal price on carbon:** Dow is one of the companies leading on incorporating a carbon price into their business planning and risk management strategies. The price of carbon is included in the Company's internal calculations used for prioritizing capital projects.

**Leading a just transition to the net-zero economy:** A key component of ensuring a just transition to the net-zero economy is consultation with workers and the community. Dow are in constant communications with stakeholder audiences regarding their sustainability strategy. They have Community Advisory Panels (CAPs) in more than 20 communities around the world where they have a major manufacturing presence. In 2017, Dow asked these CAPs for their feedback on their strategy and progress on the 2025 Sustainability Goals, which includes interim targets on their journey to net-zero GHG emissions by 2050. In 2013, employees were asked to give input on what became their 2025 Sustainability Goals, and employees continue to provide feedback with an annual global employee opinion and action survey. Dow are also in regular reviews with Works Councils and unions regarding their strategy development.

**Towards a Circular Economy:** Dow has been driving 20 projects in their 2025 goal to 'Advance a Circular Economy'. This includes the 'Hefty Energy Bag Project', designed to convert previously non-recycled plastics into energy. In the Omaha, Nebraska pilot this project has resulted in an estimated 36 tonnes of plastic being diverted from landfills.

“Our 2025 Sustainability Goals will help redefine the role of business at its intersection with society. They will be our guide as we work to improve the well-being of humanity with solutions that are good for business and good for the world.”

Andrew Liveris, Chairman and CEO

### About Kering:

A global Luxury group, Kering develops an ensemble of luxury houses in fashion, leather goods, jewellery and watches: Gucci, Bottega Veneta, Saint Laurent, Alexander McQueen, Balenciaga, Brioni, Christopher Kane, McQ, Stella McCartney, Tomas Maier, Boucheron, Dodo, Girard-Perregaux, Pomellato, Qeelin and Ulysse Nardin. Kering is also developing the Sport & Lifestyle brands Volcom and Cobra.

### Highlights:

- From 2015 to 2016, Kering reduced their emissions by 6 percent (pro forma) through energy efficiency programmes and purchasing of green electricity.
- In 2016, Kering became the first luxury group, and the first French company, to have their emissions reductions goals approved by the Science-Based Targets initiative. These goals include reducing GHG emissions in their operations by 50 percent, and across their supply chain by 40 percent, by 2025.
- In 2016, the proportion of renewable electricity used within the Group grew to 27.7 percent, from 23 percent in 2015.
- Kering are emissions neutral, offsetting scope one and scope two GHG emissions annually. Kering partner with offset programs that contribute to the welfare of the community and the conservation of biodiversity in the geographic areas where it operates.

### Company Initiative Spotlight

**Improving energy efficiency of stores and infrastructure:** In 2016, energy consumption across the Group fell 10.5 percent. A number of initiatives supported this, including the systematic replacement of conventional lighting in stores with LEDs, the opening of a new Idea Lab dedicated to energy efficiency and new building certification guidelines (covering the HQE, BREEAM, LEED certifications along with labels such as BEPOS, Passiv' Haus, Minergie A and NZEB).

**Growing use of renewable energy:** Kering's immediate use of electricity from renewable sources grew 12.5 percent from 2015 to 2016. The proportion of renewable electricity used across the Group also grew, thanks to numerous green energy contracts implemented by the brands with the Group's support. In 2016, Kering renewed their master energy agreement for all brands in Italy and France, as it had already done in the United Kingdom, to ensure that electricity consumed in both countries is fully renewable in origin.

**Optimising transport of goods:** Transportation of goods represents 57.4 percent of the Group's direct emissions. While absolute emissions for transportation grew between 2015 and 2016, major efforts are being made to measure and reduce the environmental impact of transport. In 2016, these efforts included delivery schedule optimisation to ensure only fully loaded trucks were on the roads and to reduce distances covered, a review of air and land transport suppliers to ensure use of those with the lowest emissions profiles, and reductions to packaging of goods, which improves truck loading factors and ultimately reduces the number of trucks on the road.

**Engaging with upstream suppliers:** For Kering, up to 75 percent of their environmental impact comes from upstream suppliers extracting, producing and transforming raw materials like leather, precious stones and cotton. In 2016, they joined the International Platform for Insetting (IPI), which encourages companies to reduce CO<sub>2</sub> emissions in their supply chains, in addition to offset programmes. For example, the Kering Clean by Design programme concluded its first phase at 24 of the Group's textile mill suppliers in April 2017, covering 40 percent of the group's ready-to-wear supply chain. Clean by Design was initially developed by the Natural Resources Defense Council (NRDC), America's largest environmental advocacy organisation. Each mill went through a resource efficiency audit, from which an individualised action plan was drawn up to improve the mill's current management, maintenance, and processes, whilst also implementing new technological improvements. Working hand-in-hand, Kering and the suppliers have instated over 150 energy and water efficiency improvements to date, with an average 2.5 years' return on investment. In addition to such environmental benefits as total phase-out of fossil fuels and an average 12 percent reduction in CO<sub>2</sub> emissions per textile mill, the programme has also resulted in economic savings, closer collaboration and greater transparency.

### Net-Zero Leadership

**Carbon pricing:** Kering's EP&L makes it possible to attribute a monetary value to the consequences of the company's environmental impacts throughout its supply chain. The price of carbon that Kering uses is 62€ per tonne of CO<sub>2</sub>. This price is applicable globally, and there is a mechanism for revision every three years, following the EP&L methodology.

**Sharing knowledge to transform the industry:** In mid 2015, Kering released the methodology behind their pioneering EP&L, to allow other companies to benefit from applying the practice to their own operations. In November 2015, they released a report jointly authored with BSR (Business for Social Responsibility) entitled *Climate Change: Implications and Strategies for the Luxury Fashion Sector*, which analysed current and future climate risks for key materials. By sharing knowledge Kering is accelerating the ability of the entire fashion sector to transition to a net-zero GHG emissions economy.

**Investing in high-quality offsets:** In 2016, Kering offset 135,636 tonnes of the CO<sub>2</sub> emissions generated in 2015. Carbon credits have been purchased with the support of several REDD+ (Reducing Emissions from Deforestation and Forest Degradation) programmes, and subject to VCS (Verified Carbon Standard) and CCBA (Certification of Competency in Business Analysis) certification and audit. This guarantees not only the generation of carbon credits, but also their benefits for biodiversity and local populations. Overall offsetting purchases contributed to the protection of more than 750,000 hectares of particularly biodiversity-rich ecosystems, which represent a resource for more than 400,000 people.

“More than ever I am convinced that sustainability can redefine business value and drive future growth. As business leaders we all have a crucial role to play to embed sustainability across our activities while developing this next important phase of our sustainability strategy.”

François-Henri Pinault, CEO & Chairman

# CASE STUDY: NATURA

A frontrunner - a carbon neutral company since 2007

## About Natura:

Natura is Brazil's top cosmetics manufacturer, and the country's leader in the direct sales sector.

## Highlights:

- Emissions that cannot be avoided are 100 percent offset. Consequently, Natura has been a carbon neutral company since 2007.
- Absolute emissions in 2016 totaled 303,424 t CO<sub>2</sub>eq across Scope 1, 2 and 3, demonstrating a reduction of 17,843 t CO<sub>2</sub>eq from 2015 levels.
- They are also the first company in Latin America to use electric vehicles to deliver products to consultants and consumers which emit nine times less CO<sub>2</sub>eq than conventional vehicles.

## Company Initiative Spotlight

Natura's Carbon Neutral Program is divided into three main areas: measurement, reduction and offsetting emissions.

- **Measurement:** Every year, Natura monitors the amount of greenhouse gases released into the atmosphere using an audited inventory.
- **Reduction:** In line with their 2050 Sustainability Vision, Natura commits to reductions throughout their value chain. By 2020, they have committed to reduce their relative GHG emissions by 33 percent, compared to their 2012 baseline levels. That is a challenge for Natura as a whole since they have already reduced GHG emissions by 33 percent between 2007 and 2013. In terms of absolute emissions, the result for 2016 was 303,424 t CO<sub>2</sub>eq, for their value chain (Scope 1, 2 and 3). This was down by 5.4 percent in comparison with 2015, also due to the lower production levels.
- **Carbon offsetting:** Emissions that cannot be avoided are 100 percent offset. Consequently, Natura has been a carbon neutral company since 2007. The offsetting is done by purchasing carbon credits. They have designed the carbon offset program so that it will generate further social and environmental benefits. They purchase credits from projects associated with forest regeneration and maintenance, energy efficiency or the substitution of fossil fuels.

Natura wants to influence the consumer to really drive down the emissions of their products. They incentivize consumers to recycle and reuse their products

e.g. their fragrance bottles, which are already made of recycled materials. They are also changing the products they sell, increasing sales of low emission items, notably in soap and body care.

Natura has thought through solutions in transport to reduce emissions. They have made a reduction of air shipment for exports to other Latin American operations, increased the use of coastal shipping to supply distribution centers in the north and northeast of Brazil, while reducing the use of road transportation.

## Net-Zero Leadership

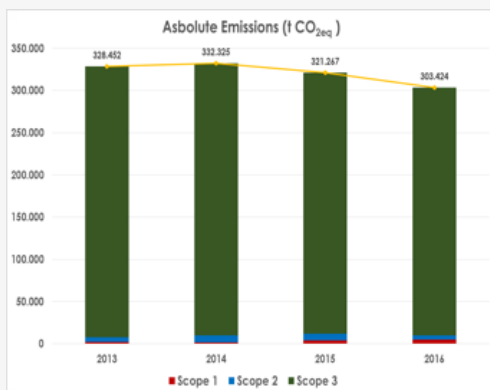
Natura actively participates in various platforms that allows it to use its influence to advocate for a net-zero economy. It collaborates with the Brazilian NGO Ethos to advocate for the inclusion of policy which enables Brazil to reverse the decline in the share of renewable sources in the Brazilian energy matrix and establish as a minimum proportion of 50 percent of renewable sources by 2030. It's also worked with them to defend the creation of a multilateral mechanism for carbon pricing and promote mechanisms for the maintenance and restoration of forests.

In 2016, Natura achieved their goal of locally offsetting emissions in each of the countries that are part of their international operations, through the purchase of credits in Mexico and Chile. In Chile, they bought 26,000 carbon credits from the Valdiviana Coastal Reserve, a protected area managed by The Nature Conservancy. In Peru, they bought 62,420 carbon credits from the country's largest forest initiative, the company Bosques Amazónicos, and now have two projects running in that country. Moreover, in

Argentina, in 2015, 70,000 carbon credits were purchased from the Rawson wind farm. It was the largest transaction ever of its kind in the country and the first one carried out voluntarily. In Mexico, they signed a contract a project for eco-efficient cooking stoves. This alone will generate 190,000 t CO<sub>2</sub>eq in credits and benefit 4,367 families. They also have been purchasing a similar project in Brazil that benefit almost 8,000 families.

“We are proud to have been carbon neutral since 2007, but this clearly doesn't go far enough. At Natura we have committed to generate positive impact socially and environmentally by 2050.”

Guilherme Leal, Co-Founder





# CASE STUDY: SAFARICOM

## Decoupling network growth from CO<sub>2</sub> emissions

### About Safaricom:

Safaricom is a leading communications company in Kenya with the widest and strongest coverage. It is the home of the successful Mobile Money service- M-PESA which is used by 27.8 million people in Kenya.

### Highlights:

- Safaricom significantly reduced their carbon intensity, considering the growth in their network footprint (12 percent in their 2G network, 30 percent in their 3G network). Their carbon intensity per GB of data has decreased by 48 percent since FY15 (2kg of CO<sub>2</sub>e per GB).
- The company's carbon emissions in 2017 were reduced by 0.8 percent and fuel usage also decreased by 2.7 percent.
- Safaricom has committed to develop science-based targets based on their footprint and industry.

### Company Initiative Spotlight

Safaricom has set out a range of policies to better understand their emissions profile and the different ways it can be reduced.

**Energy Audits:** Safaricom carries out energy audits once every two years and make recommendations on initiatives required to reduce energy usage and improve efficiency in existing processes. The biggest contributors to their footprint are the electricity and diesel generators used to power their network during power outage or when grid supply quality is poor. Scope 3 emissions currently constitute about 4 percent of their total carbon footprint.

**Renewable energy:** Safaricom has a target for 15 percent of their base transceiver stations and mobile switch rooms to run on solar and wind power solutions in financial year (FY) 2017/2018. 3 percent of their sites are currently 100 percent renewable. In addition, in Kenya more than 80 percent of the power from grid is renewable. That means the more they connect their sites to grid power the better their carbon footprint.

**Energy efficiency:** Safaricom is developing a rectifier efficiency improvement program on 200 sites for FY 2017/2018 to raise efficiency to above 95 percent up from 90 percent or less. They are also developing the automation of measuring and monitoring of fuel and electric consumption on each site. This system is able to accurately capture the power usage ensuring 100 percent accountability and reduction of diesel pilferage currently estimated at 25 percent. Lastly,

since cooling system requirements take about 70 percent power consumption in their sites, they are converting old indoor sites to outdoor, which do not require any form of cooling. All new sites installed are outdoor.

**Staff training and awareness:** Safaricom has also carried out training on energy conservation and clean energy solutions for all staff. Specific energy audit training has also been done for the technical staff.

### FUTURE DEVELOPMENTS

Safaricom is bringing an expert onboard to develop Science Based Targets, set key milestones for the net-zero aspiration and form benchmarking with other organisations in the related industry.

Their target is also to reduce reliance on diesel (standby generators) by 50 percent by the year 2020. About 80 percent of their sites currently rely on standby generators.

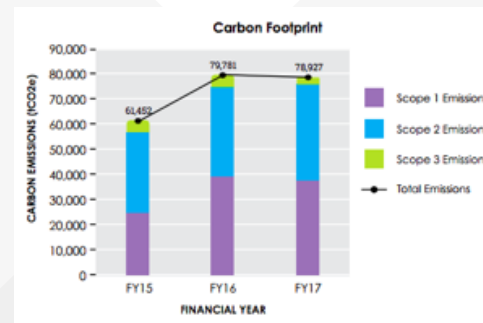
### Net-Zero Leadership

**M-KOPA Solar Solutions:** Safaricom has partnered with M-KOPA to provide GSM-controlled domestic solar power systems, designed to help low-income households in rural areas liberate themselves from kerosene lighting. As of May 2017, M-KOPA had connected over 500,000 homes to affordable solar power with 500 new homes being added every day. Over the next four years, 300,000 tonnes of CO<sub>2</sub> will be reduced based upon 1.3 tonnes of CO<sub>2</sub> per M-KOPA Solar system.

**Carbon offsets through tree growing:** Safaricom has already allocated a carbon footprint to each of their functional divisions within the business. They intend to plant trees to offset carbon emissions, particularly from air travel.

“In response to the very serious threat of climate change, we have made the very bold commitment to becoming a net zero carbon-emitting company by 2050.”

Bob Collymore, CEO



# CASE STUDY: SALESFORCE

Achieving ambitious milestones in their sustainability journey

## About Salesforce:

Salesforce is an American cloud computing company which produces the world's top customer relationship management application.

## Highlights:

- As of 2017, Salesforce achieved net-zero for both its direct and indirect greenhouse gas emissions.
- Salesforce will continue to operate as a net-zero greenhouse gas emissions company, and will continue to innovate to reduce the amount of offsets it uses. For example, in 2016 they announced efforts with the city of San Francisco, CleanPowerSF, which aims to source 100 percent of the city's electricity demand from renewable energy resources by 2030.
- In 2017, Salesforce began delivering a carbon neutral cloud for its customers, offsetting relevant emissions throughout its data center supply chain. This includes indirect (Scope 3) impacts such as manufacturing servers, data center operations, and the impact of customers using Salesforce on their personal devices.

## Company Initiative Spotlight

**Benefits of the Cloud:** To deliver their customers a carbon neutral cloud Salesforce went above and beyond, offsetting emissions throughout their data center supply chain. This includes indirect (Scope 3) impacts such as manufacturing servers, data center operations, and the impact of their customers using Salesforce on their personal devices.

**Road to Net-Zero Greenhouse Gas Emissions:** Salesforce understands that making progress on climate change means measuring, taking responsibility for, and mitigating emissions. Since 2011, they have disclosed their annual carbon emissions to the Carbon Disclosure Project.

They also signed on to initiatives such as We Mean Business and the American Business Act on Climate to demonstrate their support to move the United States, and the world, toward a more sustainable, low-carbon future.

- Salesforce achieved net-zero greenhouse gas emissions using a three-step, iterative process: avoid, reduce, mitigate.
- Avoid emissions by siting facilities on clean electricity grids.
- Reduce emissions through resource efficiency.
- Mitigate remaining emissions through renewable energy or high-quality carbon credits.

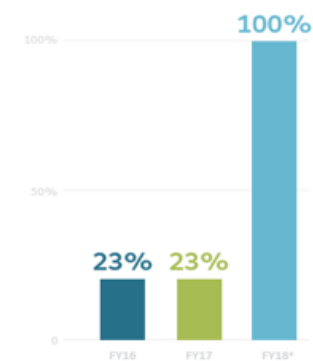
## Net-Zero Leadership

**Commitment to 100 percent Renewable Energy:** In 2013 Salesforce became one of the first cloud companies to commit to powering all data center operations with renewable energy. In 2015, they expanded their commitment to cover all global operations by signing on to RE100, a group of influential businesses working to massively increase corporate demand for renewable energy. At Salesforce, 100 percent renewable energy means procuring renewable energy equivalent to their electricity use globally on an annual basis in the countries where they operate. In late 2015, they signed two virtual power purchase agreements (VPPAs) in West Virginia and Texas. These projects are now online and are expected to generate 227,000 megawatt hours annually. Salesforce achieved 35 percent renewable energy in FY17.

**Carbon credit projects supported by Salesforce:** One high-quality project is 'Proyecto Mirador', a Cool Effect project which replaces open, wood-burning cookstoves with a more efficient alternative in Honduras, decreasing emissions and deforestation while also improving human health through better indoor air quality. Each cookstove reduces CO<sub>2</sub> emissions by nearly 15 metric tons over its 5-year life. Salesforce is also supporting solar water heating in India. The project displaces fossil fuels by supplying households, universities and commercial buildings with a more reliable, clean source of power for hot water. They also engage with local utilities and governments to improve access to renewable energy, not just for themselves, but for the communities they operate in.

## Journey Toward Net-Zero

Percent of Scope 1 and 2 Emissions Mitigated



\*We anticipate mitigating Scope 1 and 2 emissions in FY18.

“Because we consider the environment a key stakeholder, we are committed to a sustainable future for all. Climate change is not only a threat to the planet, but also to our fundamental value of equality for all.”

Marc Benioff, Chairman & CEO

# CASE STUDY: TIFFANY & CO.

## Reducing emissions and advocating for the net-zero economy

23

THE B TEAM

### About Tiffany & Co.:

Founded in New York in 1837, Tiffany & Co. is the world's premier jeweler and America's house of design. An iconic brand with a rich and storied heritage, Tiffany & Co. is a global manufacturer and retailer of jewelry and luxury accessories.

### Highlights:

- In 2017, Tiffany & Co. announced that they had purchased renewable energy credits equivalent to 100 percent of electricity use in the U.S. and more than 20 other countries in which they operate (totalling approximately 85 percent of their global electricity use in 2017). They also purchased carbon offsets for more than the balance of their remaining emissions to create positive impacts beyond Scope 1 and 2 emissions.
- From 2014 to 2016, Tiffany & Co. grew their retail and manufacturing footprint while reducing their total global greenhouse gas emissions by approximately 8 percent (from 46,388 to 42,757 metric tons of CO<sub>2</sub>e). As a result, their emissions per square foot are approximately 11 percent lower today compared to 2014 (from 34.0 to 30.3 pounds of CO<sub>2</sub>e per square foot).

### Company Initiative Spotlight

**Renewable energy:** As well as Tiffany & Co.'s major investments in renewable energy credits, they are also investigating expansions of on-site solar generation. In 2016 this was nearly 2MW capacity in New Jersey, 250kW capacity in Rhode Island and 144kW capacity in Cambodia generating 1,997 MWh of clean energy in 2016 (of which 692 MWh were sold as renewable energy credits).

**Energy efficiency:** As part of meeting their net-zero emissions target by 2050, Tiffany & Co. is aiming to improve energy efficiency and reduce absolute GHG emissions in their operations by 15 percent, from 2013 to 2020. Great strides have been made in more efficient retail lighting by installing LEDs in all new stores worldwide and converting original lighting to LEDs at existing stores which reduces total energy use by 20 percent on average year over a year. They have also invested in building upgrades, efficient office technology such as server virtualisation, installing efficient cooling systems in server rooms and utilizing cloud services, and building green with LEED® certification.

**Green funding:** Tiffany & Co. launched a dedicated Green Fund through which any employee can propose new and innovative carbon and resource saving projects to be assessed separately from other investments.

**Combating deforestation:** To help end forest loss, Tiffany & Co. set a goal in 2015 to remove commodity-driven deforestation from its key supply chains by 2020. Working closely with Rainforest Alliance, they formalized guidance and goals for sustainably sourcing

wood and paper products in 2016. With a strong preference for FSC certification, they seek recycled and virgin content from known, legally designated and well-managed forests where high conservation values, sustainable practices and human rights are respected.

**Vertical integration:** Tiffany & Co. sources the majority of its diamonds as rough, directly from mines or from suppliers with a limited number of known mines. Tiffany & Co. also cuts and polishes diamonds in their own state-of-the-art facilities around the world. Their vertical integration model is unique in the industry and it helps to incorporate environmental and social integrity in sourcing, processing and crafting jewelry. Tiffany & Co. reduced total emissions at its diamond and jewelry manufacturing locations by approximately 20 percent between 2015 and 2016.

### Net-Zero Leadership

**Backing a low carbon USA:** In 2016, Tiffany & Co. took a public stand and reiterated their pledge to global climate action by signing the "Business Backs Low-Carbon USA" open letter with other U.S. businesses encouraging the U.S. government and world leaders to maintain commitments made in the historic Paris Agreement of 2015. In May 2017, as it became clear the U.S. government was actively considering withdrawing from the Paris Agreement, Tiffany & Co. placed an ad in The New York Times and amplified the message on social media calling for the U.S. to remain in the agreement. At the same time, Tiffany & Co. added its name to a C2ES ad with a short list of companies outlining the importance of

the agreement to U.S. businesses. In response to the U.S. decision to leave the Paris Agreement, and in the spirit of collaboration which remains the hope for success, they signed the multi-sector "We Are Still In" letter with large coalitions of businesses, mayors, governors, faith leaders, university presidents and NGOs indicating that they will continue to support climate action.

**Protecting the environment through high-quality offset purchases:** Through its carbon offset purchases, Tiffany & Co. is the first major corporate backer of a landscape-scale conservation project in Kenya which protects a diverse ecosystem, endangered and iconic species and a critical watershed, while creating new sustainable economic opportunities for local communities.

**Respect for workers and miners:** Tiffany & Co. aims to embed its net-zero principles into programs alongside other environmental, social and governance considerations. For example, they support the creation of rigorous responsible mining standards which consider pressing issues facing the sector, including protecting human rights and providing safe and respectful workplaces whilst minimizing environmental harm and reducing emissions.



# CASE STUDY: UNILEVER

Driving towards halving the GHG impact of their products, across their entire lifecycle

24

THE B TEAM

## Highlights:

- By 2017, Unilever reduced CO<sub>2</sub> emissions from energy at their manufacturing sites by 47 percent per tonne of production compared to 2008, with a 8.1 percent reduction since 2016.
- They reduced overall energy use 2.8 percent per tonne of production in 2017, with a 26 percent reduction since 2008.
- By September 2017, 66 percent of Unilever's grid electricity used in manufacturing was sourced from renewable sources, up from 63 percent in 2016.
- As of end 2016, the GHG emissions impact of their products across the entire lifecycle has risen 8 percent since 2010. However, with 30 percent sales growth in that time, they have succeeded in decoupling business growth from their lifecycle GHG impacts.
- In 2017 Unilever had their Science Based Target formally approved, which challenges them to, by 2030, a 100 percent reduction of scope 1 and scope 2 GHG emissions from a 2015 base year, and a 50 percent reduction in GHG emissions per consumer use from the life cycle of their products, compared to a 2010 base year.

## Company Initiative Spotlight

**Towards 100 percent renewable energy:** Unilever has set the ambitious goal of obtaining 100 percent of their energy from renewable sources by 2030. By September 2017, 34.7 percent of the energy used in manufacturing was generated from renewable sources. Also, 107 manufacturing sites in 35 countries across all continents purchased 100 percent of their grid electricity from verified renewable sources, with 66 percent of total grid electricity used by manufacturing operations being generated by renewable resources.

**Growing the renewable energy supply:** In order to achieve their target of being carbon positive by 2030, Unilever is supporting the generation of renewable energy for its own use, and to make available to the markets and communities in which they operate. In 2017 Unilever directly generated 10 percent of total energy from renewable sources at 72 manufacturing sites including solar, wind, hydro and biomass. During 2017, 176 manufacturing sites used some form of renewable energy.

**Lower impact factories:** New factories have a significant role to play in the decarbonisation of their factory portfolio. In 2014, Unilever launched a £250million Green Bond with proceeds used to finance four new factories. The bond will mature in December 2018 with new factories 50 percent less carbon-intensive and factory extensions 30 percent less carbon-intensive.

**Engaging suppliers:** Since 2008, Unilever have requested key raw material and packaging suppliers disclose emissions data and climate change strate-

gies, with 120 suppliers invited to respond in 2017. This disclosure is used to better understand our upstream footprint, what initiatives key suppliers have embarked on to reduce emissions associated with goods and services purchased, and to uncover opportunities for collaboration. In 2017, they evaluated the availability of lifecycle footprint emissions data of some key raw materials, via a survey. Fifty-one suppliers participated, of which 15 collect and report this evidence against a recognised methodology. In 2018 Unilever will continue to see where and how they can uniquely leverage its experience and expertise to support suppliers for maximum impact on the upstream footprint of key suppliers.

## Net-Zero Leadership

**Carbon pricing:** In July 2016, Unilever introduced an explicit internal price on carbon — currently of 40 Euro per tonne — which they use to evaluate new capital investments. They have also created an annual internal charge on CO<sub>2</sub> emissions from their manufacturing network. This levy was used to create an internal Clean-Energy fund for 2017, which invested in renewable energy for their manufacturing sites.

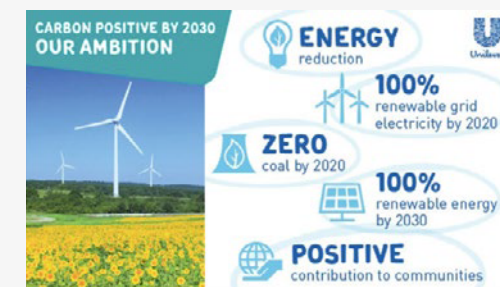
**Climate-related Financial Disclosure:** In 2017, the Taskforce on Climate-related Financial Disclosure issued its report on how companies should identify and disclose financial impacts of climate change on their business. Unilever's Chief Financial Officer, Graeme Pitkethly, served as Vice Chair of the Taskforce. Unilever was among the first companies to commit to implementing the recommendations of the TCFD report.

## About Unilever

Unilever is truly a global consumer goods giant, with more than 400 household-name brands, that 2.5 billion people use every day. With 57 percent of their business in emerging markets, Unilever see their enormous global reach, including customers and supply chains, as an opportunity to build a brighter future.

**Helping consumers reduce their impact:** Over 60 percent of Unilever's value chain GHG footprint comes from consumer use, primarily from heated water for showering, which is more difficult to influence. Unilever helps consumers make more sustainable choices through the products they design and through communications online, on packaging and in store.

**A business model for the future:** Unilever's Sustainable Living Plan has embedded sustainability, including climate action, in the core of their business model. The plan to grow their business, while halving their environmental impact and grow positive social impacts, guides every business decision. In 2016, Sustainable Living brands grew 40 percent faster than the other brands — illustrating the strong business case for their model.



### About Virgin Group:

Virgin is a leading international investment group and one of the world's most recognised and respected brands. Conceived in 1970 by Sir Richard Branson, the Virgin Group has gone on to grow successful businesses in sectors including mobile telephony, travel & transportation, financial services, leisure and entertainment and health and wellness.

### Highlights:

- A number of Virgin companies are purchasing renewable energy, including Virgin Money who have succeeded in securing certified 100 percent renewable energy sources for all electricity contracts under their direct control.
- Virgin is accelerating the net-zero transition through investing in breakthrough technology and ideas that can bring the clean energy economy to scale.
- Virgin Money are already measuring their use of resources and have recorded a reduction in total miles travelled by employees from 6.4m (2015) to 5.7m (2016) and increased their percentage of energy from renewable sources from 51 percent (2015) to 56 percent (2016).
- Virgin Atlantic is investing in new fleets, fuels and improvements which lead the way for the aviation sector to reduce its emissions.
- Virgin is improving its governance and measures its progress towards net-zero, by setting up a Net- Zero Taskforce at Virgin Management. This Taskforce manages a Group environmental strategy and provides quarterly reports to the Virgin Board on their net-zero progress across the Group.

### Company Initiative Spotlight

**Investing in new fleets and new fuels:** Virgin Atlantic have already achieved a 22 percent reduction in absolute aircraft emissions (from 5.2 million to 4.1 million tonnes, 2007-2016) through their multi-billion dollar investment in more efficient aircraft. Their new aircraft (A330s, 787s and soon A350s) save 30 percent (approx.) per trip compared to previous models. Small operational improvements – such as onboard weight reductions or efficient flying techniques – also add up. In 2016 VAA reported savings of 21.5k tonnes in CO<sub>2</sub>/£3m fuel by driving behavioral changes to help their captains fly more efficiently.

**Building Green:** Virgin Atlantic and Virgin Holidays' new office building, VHQ, has been named excellent by BREEAM for its base build. They also installed new LED lighting at their Gatwick hangar. They've estimated this will give a saving of 310,000 kWh each year, a reduction of 19 percent against the old bulbs.

**Helping all Virgin companies transition:** Virgin Management, as brand ambassadors for the Virgin Group, are determined to demonstrate Virgin's 'Change business for good' vision and stimulate other Virgin companies to get to net-zero as fast as possible. In 2015 they switched to a renewable energy electricity tariff, and launched a new travel and expenses policy which puts environmental consideration at the heart of travel decisions. Both their head offices in London have achieved a gold SKA rating.

**Purchasing renewable electricity:** Virgin Money have taken numerous steps to make headway towards their Net Zero Greenhouse Gas (GHG) Emissions by 2030 target. As well as securing 100 percent renewable energy for electricity contracts within their direct control, they have replaced their lights with LEDs and invested in more efficient mobile and

desktop software which has the additional benefit of being more secure. They continue to reduce the need for unnecessary business travel, measuring a reduction in total miles travelled by employees from 6.4m (2015) to 5.7m (2016).

### Net-Zero Leadership

**Transforming the aviation sector:** Virgin Atlantic has played a leading role within a high emitting sector. It, along with a small number of other airlines, championed the Carbon Offsetting and Reduction Scheme for International Aviation (CORSA) which launched in October 2016. This scheme actively encourages airlines to buy sustainable aviation fuels – thus creating huge additional momentum for a global market in low carbon fuels. It also will provide billions of dollars of funding for credible conservation and renewable projects around the world – removing an estimated 2.5 billion tonnes of CO<sub>2</sub> over its 15-year lifespan.

**Innovating new fuel solutions:** For nearly ten years, Virgin Atlantic has been supporting and developing low carbon jet fuel approaches. In 2011 they partnered with clean-tech company LanzaTech, because of the fantastic sustainability profile and commercialisation potential of their waste-to-fuels technology. By focusing on using waste-streams, many of the risks associated with earlier agricultural biofuel feedstocks—such as land, food and water competition—are avoided. In 2016 Lanzatech produced their first significant batch of ethanol-to-jet (4,000 USG).

**Investing for the planet:** Virgin is also investing in renewables. It purchased a BMR Wind Farm from American Capital for \$43m in August 2016. The wind farm has a 36 MW onshore in Jamaica and a

pipeline of 10 potential projects in the region. It's also invested in M-KOPA, giving a \$1m investment in the project focused on solar power in East Africa, primarily Kenya. M-KOPA helps families gain access to energy using solar technology at affordable prices.

**Influencing suppliers:** Virgin Atlantic, working with the Sustainable Restaurant Association (SRA), require all caterers to work towards comprehensive sustainability criteria, provide a statement of assurance that they meet these standards, and confirm compliance through an annual SRA audit. Gate Gourmet UK, which serves more than 50 percent of their flights was first to comply fully with these standards. As suppliers adopt these working practices for Virgin Atlantic, the impact amplifies when they go on to provide services to other airlines. For example, Virgin Atlantic's requirement for sustainable fish in the UK means they are now offered as standard to other Gate Gourmet UK customers.

“I'm proud of how far Virgin has come already. Innovation, resilience and ambition for a better future has driven the companies in the Virgin Group towards positive progress. We're also focused on working across industries and sectors to achieve these goals. It's only when we come together that true change will occur.”

Sir Richard Branson, Founder

# JOIN US ON THE JOURNEY TO NET-ZERO BY 2050

**This report has demonstrated significant progress, but has also revealed that a significant amount of the journey to net-zero by 2050 is still untrodden.**

**To tackle climate change and build a prosperous economy for all, every company must plan to:**

- **Demonstrate their emissions reductions to date, and renew their ambition for greater reductions in 2018.**
- **Peak their emissions by 2020.**
- **Reach net-zero by 2050.**

2018 is a crucial year for ensuring that we continue to take bold climate action. Key events in 2018, such as the G20 meetings, the Global Climate Action Summit in California, and COP24, are opportunities for the business community to both demonstrate their progress, and demand governments help them unlock further action by setting enabling policy, and committing their countries to long-term, net-zero plans.

The B Team knows the time is ripe to expand the group of CEOs ready to meet this challenge. Our Net-Zero 2050 Team is a leadership group of CEOs from B Team companies and beyond, who are working together to accelerate the just

transition to Net-Zero GHG emissions by 2050.

The Net-Zero 2050 pledge they make is formally recognized as part of the We Mean Business coalition's Take Action campaign and works in collaboration with the Science Based Targets Initiative.

CEOs joining this team must lead by example by committing their company to set a science-based target, and further pledge to phase out all greenhouse gas emissions (Scope 1, 2 and 3) by January 1, 2050. They also pledge to use their influence to advocate for policies that support an economy-wide transition to net-zero greenhouse gas emissions by 2050.

**For more information on the Net-Zero 2050 Team please visit our [webpage](#) or get in touch with:**

**Emily Hickson**

*Senior Manager, Net-Zero by 2050*  
[eh@bteam.org](mailto:eh@bteam.org)

***We would like to thank the B Team companies for sharing the initiatives, efforts and challenges they've undertaken on their way to becoming net-zero businesses by 2050.***