

ACHIEVING NET ZERO: IMPACTS AND OPPORTUNITIES FOR BUSINESS



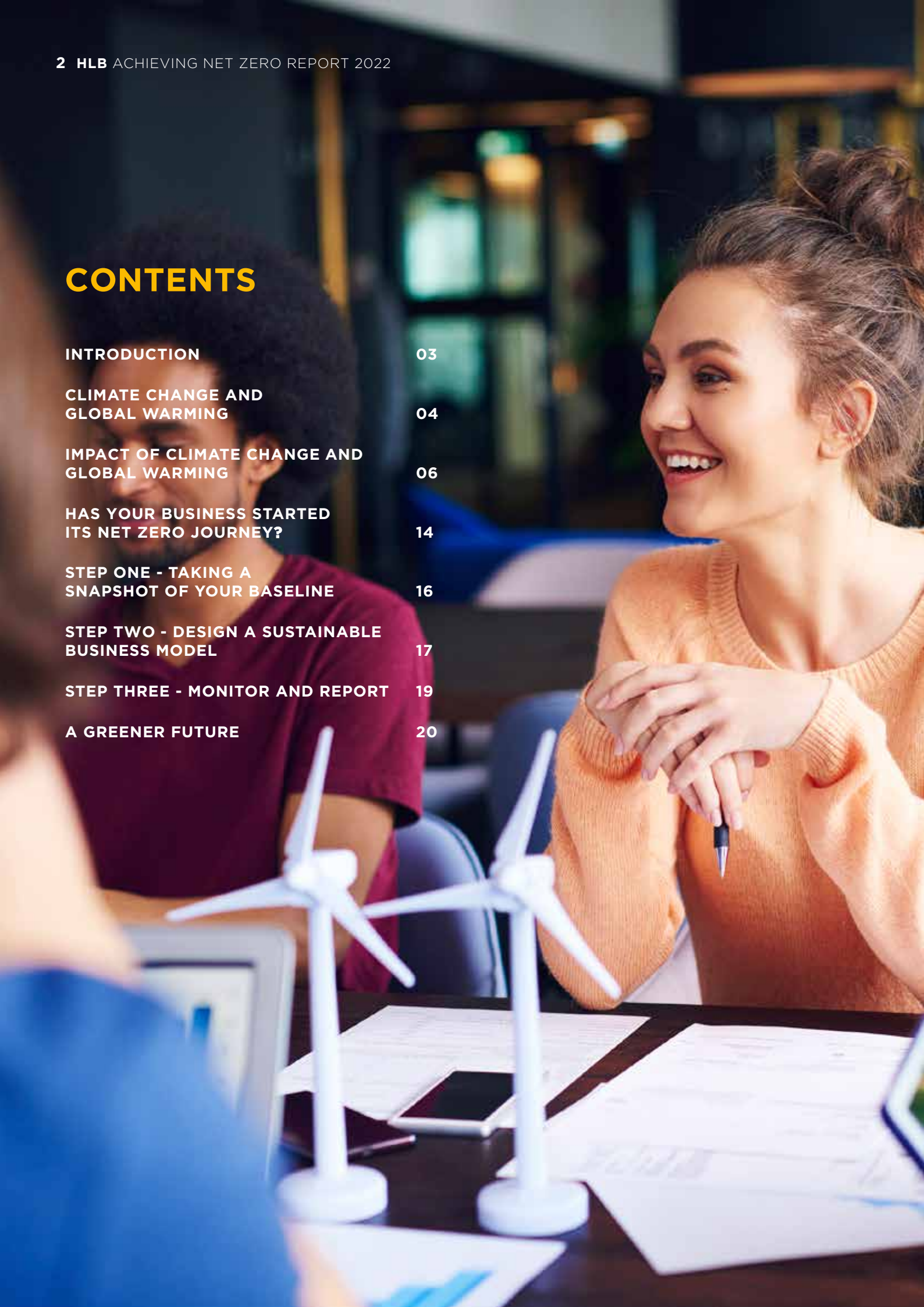
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INTRODUCTION

The next round of climate change talks at the Conference of the Parties (COP27) will push countries to move away from pledges, and into concrete action against climate change. This means that businesses will face ever-more mandates and regulations aimed at changing their practices and reducing their environmental footprint in a push to what the COP calls “net zero” gains in global warming. Effectively, a stabilization at 1.5 degrees of temperature increase.

But the journey to net zero is as challenging as it is daunting. Globalized supply chains, energy demands, manufacturing emissions and more, all contribute to the net impact of business. The environment was long considered an externality, and our impacts on it weren't measured by traditional accounting methods or reporting. That is changing, and in this report, we'll explore how climate change is impacting business, why it is an issue, and how businesses can rise to this growing challenge.

43% OF SENIOR EXECUTIVES
ARE CONCERNED ABOUT
ENVIRONMENTAL AND CLIMATE
RISKS TO THEIR BUSINESS.¹



CLIMATE CHANGE AND GLOBAL WARMING

A natural function of the Earth's atmosphere is to keep in some of the heat that is lost from the Earth (The greenhouse effect). Evidence has shown that Earth's temperature is rising due to an increase in greenhouse gases (e.g., carbon dioxide, methane, nitrous oxide). As greenhouse gas emissions blanket the Earth, they trap the sun's heat. This leads to global warming and climate change. The world is now warming faster than at any point in recorded history.

The global climate has been changing since time began and will continue to change into the future. The Earth's temperature has fluctuated in the last few hundred years. However, since the Industrial revolution in 1950s, there has been a dramatic increase in global

temperatures (this is what we call global warming). The degree to which the climate warms in the future will depend on natural climate variability and the level of greenhouse gas emissions.

Some natural factors like volcanic activity and orbital changes lead to global warming. Human activities like burning fossil fuels, dumping plastics and waste in landfill, deforestation and some agricultural practices, lead to an increase in greenhouse gases.

THE PARIS AGREEMENT AND COP27

Each year, the United Nations holds a meeting to discuss climate change. This meeting is called the Conference of the Parties, or COP. At the Paris Climate Change Conference (COP21), on 12



December 2015, 196 countries came together for the first time to adopt a legally binding treaty on climate change, which became known as the Paris Agreement.

A recent report from the Intergovernmental Panel on Climate Change (IPCC) reveals that the Paris Agreement’s goal of limiting warming to 1.5 degrees C (2.7 degrees F) is still on “life support,” leaving almost 3.6 billion people worldwide dangerously exposed and vulnerable to climate impacts — with things set to worsen.

The 27th session of the Conference of the Parties (COP 27) to the United Nations Framework Convention on Climate Change (UNFCCC) will take place in Sharm El-Sheikh, Egypt in November 2022. Rania Al Mashat, Egypt’s minister for international cooperation, said: “For us, what we want

this COP[27] to be about is moving from pledges to implementation. And we want to highlight what are the practical policies and practices, the processes that can actually push the pledges [into action], to bridge that gap.” She added: “We want this COP to be about the practicalities: what is it that we need to do to operationalise the pledges into implementation?” Mohamed Maait, the Egyptian Finance Minister, made it clear that tackling the debt burden, which inhibits countries from taking measures that would reduce emissions, and making investments that would help them cope with the effects of the climate crisis, would be a key priority for Egypt.

IMPACT OF CLIMATE CHANGE AND GLOBAL WARMING

Fossil fuels – coal, oil, and gas – are by far the largest contributor to global climate change, accounting for over 75% of global greenhouse gas emissions and nearly 90% of all carbon dioxide emissions. Warmer temperatures over time are changing weather patterns and disrupting the usual balance of nature. This poses many risks to human beings and all other forms of life on Earth.

HOTTER TEMPERATURES

As greenhouse gas concentrations rise, so does the global surface temperature. The last decade, 2011-2020, is the warmest on record. Higher temperatures increase heat-related illnesses and make working outdoors more difficult. Wildfires start more easily and spread more rapidly when conditions are hotter.

MORE SEVERE STORMS

Destructive storms have become more intense and more frequent in many regions. As temperatures rise, more moisture evaporates, which exacerbates extreme rainfall and flooding, causing more destructive storms. Such storms often destroy homes and communities, causing deaths and huge economic losses.

INCREASED DROUGHT

Climate change is changing water availability, making it scarcer in more regions. Global warming exacerbates water shortages in already water-stressed regions and is leading to an increased risk of agricultural droughts affecting crops, and ecological droughts increasing the vulnerability of ecosystems. Many people now face the threat of not having enough water on a regular basis.

A WARMING, RISING OCEAN

The ocean soaks up most of the heat from global warming. As the ocean warms, its volume increases since water expands as it gets warmer. Melting ice sheets also cause sea levels to rise, threatening coastal and island communities. In addition, the ocean absorbs carbon dioxide, keeping it from the atmosphere. But more carbon dioxide makes the ocean more acidic, which endangers marine life and coral reefs.

FOOD SCARCITY

Changes in the climate and increases in extreme weather events are among the reasons behind a global rise in hunger and poor nutrition. Fisheries, crops, and livestock may be destroyed or become less productive. Heat stress can diminish water and grasslands for grazing, causing declining crop yields and affecting livestock.

MORE HEALTH RISKS

Climate change is the single biggest health threat facing humanity. Climate impacts are already harming health, through air pollution, disease, extreme weather events, forced displacement, pressures on mental health, and increased hunger and poor nutrition in places where people cannot grow or find sufficient food.

Changing weather patterns are expanding diseases, and extreme weather events increase deaths and make it difficult for health care systems to keep up. Diseases such as malaria increase and an additional 280 million people may be affected.

POVERTY AND DISPLACEMENT

Climate change increases the factors that put and keep people in poverty. Floods may sweep away urban slums, destroying homes and livelihoods. Heat can make it difficult to work in outdoor jobs. Water scarcity may affect crops. Over the past decade (2010–2019), weather-related events displaced an estimated 23.1 million people on average each year, leaving many more vulnerable to poverty. Most refugees come from countries that are most vulnerable and least ready to adapt to the impacts of climate change.

SOLUTIONS

Collectively as a human race we need to respond to climate change and limit its negative effects. Options include:



ALTERNATIVE ENERGY

Using alternative energy such as solar, wind, or tidal can reduce the use of fossil fuels. This will reduce the amount of carbon dioxide released into the atmosphere. Carbon capture - this is the removal of carbon dioxide from waste gases from power stations and then storing it in old oil and gas fields or coal mines underground.

PLANTING TREES

Encouraging afforestation, means that there will be more trees to absorb the carbon dioxide in the atmosphere during the process of photosynthesis.

AGRICULTURE

Farmers will have to adapt as some crops may not be able to grow in a warmer climate.

WATER SUPPLY

Water transfer schemes could be used. This is where water is transferred from an area of water surplus to an area of water shortage, or where there is increased rainwater harvesting. Reducing the risk from sea level rise - areas at risk from sea level rise may use sea defenses to protect the land from being eroded away.

IMPACT ON BUSINESS

There are many impacts of climate change for companies as well as a series of business risks.

There are physical risks for, example, the operational impacts of extreme weather events, or supply shortages caused by water scarcity, but there are also transition risks that arise from society's response to climate change.



MATERIAL SHORTAGES

Increasingly turbulent weather events can have a dramatic impact on the supply of raw materials. Crops are one obvious example, but even mining and energy can be disrupted by major storms, bushfires, and more. The increased levels of major and catastrophic weather events impact supply chains from the root of production, right through to final-mile delivery.

ADMINISTRATIVE COSTS

Increased insurance premiums as a result of an uptick in weather-related claims, increased healthcare for less healthy and stressed workers, and even increased reporting requirements all lead to more expenses for businesses.



ENERGY COSTS

Energy and material scarcity drives prices higher, increasing the cost of production. Not only that, but regulations around sustainable energy can force companies to adopt more expensive practices or implement new systems.

CONSTRUCTION COSTS

Construction costs increase as governments mandate new building codes. These upfront costs are often offset by the life-cycle cost of energy thanks to more efficient designs, but they can make initial investments in capital infrastructure much more expensive than previously.

MARKETPLACE DISRUPTION

Changes in technologies, markets, and regulation can increase business costs, undermine the viability of existing products or services, or affect asset values.

OPPORTUNITIES

However, with challenge comes opportunity. Climate change also offers business opportunities. Companies can become more energy efficient, thereby reducing their costs. Climate change can also foster innovation, inspiring new products and services which are less carbon intensive, or which enable carbon reduction by others.

Companies can enhance the resilience of their supply chains, for example by reducing reliance on price-volatile fossil fuels by shifting towards renewable energy.

Together, these actions can foster competitiveness and unlock new market opportunities.



RENEWABLE ENERGY IS CONSIDERED THE TOP NON-DIGITAL TECHNOLOGICAL ADVANCEMENTS FOR FUTURE SUCCESS BY 61% OF BUSINESS LEADERS, FOLLOWED BY ELECTRIFICATION CITED BY 46%.²



2: HLB International, 2022. HLB Survey of Business Leaders 2022: Powering your innovation engine



ACHIEVING NET ZERO

Net zero, also called carbon-neutral, refers to the balance between the amount of greenhouse gases released into and removed from the atmosphere. From a climate change perspective, net zero is the state at which global warming is limited to 1.5oC. It's achieved by reducing carbon emissions and removing carbon dioxide from the atmosphere. To ensure transparency along their journey to net zero, many companies have aligned with the Task Force on Climate-related Financial Disclosures (TCFD) and Sustainability Accounting Boards (SASB).

Reaching net zero emissions by 2050 is not going to be cheap. In its Sixth Carbon Budget released in 2020, the Committee on Climate Change estimated that the annual cost of achieving net zero would be 0.6% of gross domestic product (GDP) by the early 2030s, falling to around 0.5% by 2050. This would mean increasing investment in low carbon technologies from around £10 billion in 2020 to £50 billion by 2050.

Governments in most developed countries will impose tighter regulations to control emissions if they haven't already. Meanwhile, enterprises that have started their net zero journey are benefiting from lower energy costs, increased efficiency, and higher profitability.

Additionally, consumers are increasingly aware of the environmental impact of the brands they purchase from. More people are willing to pay extra for products and services from companies committed to reducing their carbon footprints.

According to the HLB Survey of Business Leaders 2021², 91% of participants believe how their companies respond to events that impact society, reflects on their brand and overall customer perception of their business, while 77% see opportunities to profit in the low carbon economy of the future.

HAS YOUR BUSINESS STARTED ITS NET ZERO JOURNEY?

The journey to net zero isn't without its challenges. For many businesses, the scale of transition is daunting, and are held back by the lack of budget and expertise to overhaul their infrastructure and business practices. Supply chain emissions are hard to control, and it's not easy for most businesses to accurately measure their environmental impact.

What's clear is that doing nothing is not an option. The costs of disastrous effects of climate change if left unchecked will be much higher than the costs of achieving net zero: many trillions of pounds, according to some estimates.

The good news is that you don't have to take all your medicine in one hit. The key is to have specific, measurable, achievable, relevant, and time-bound (SMART) objectives with a roadmap aligned to your stakeholder expectations. You can start with small but decisive actions to lay the groundwork for success

Becoming carbon-neutral can be a complex undertaking for businesses of any size. This report discusses a three-step roadmap and practical actions to help your company start its journey to net zero.



A 3-STEP ROADMAP FOR ACHIEVING SUSTAINABILITY

Having a sustainability strategy has been seen by many businesses as an 'add-on'. Opting in resulted in some benefits. Opting out led to no dire consequences. The social, environmental, and regulatory environment has changed rapidly. Postponing action will require more radical (and costly) transformations.

Businesses now need to determine how their vision, current operational principles, and values align with those shared by the societies they serve. Everything that the business does then needs to be oriented towards supporting your purpose. Every industry is facing the imminent need to transition from aggressive resource consumption to renewal, and ultimately – progressive decarbonisation.

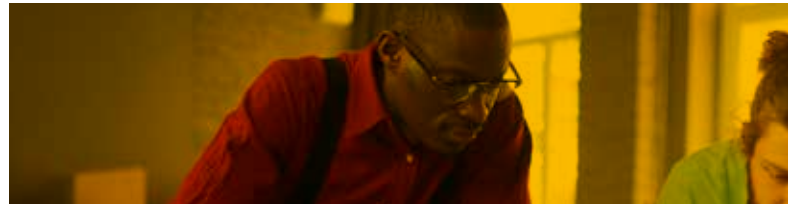
Placing sustainability at the core of your pandemic recovery and wider operational strategic reset will foster competitive advantage through the next growth cycle. For many businesses the scale of the transition is daunting. However, leaders now face the challenge of having to take action or risk future survival. There will be no winners in a climate crisis. The long-term gains from seeking a sustainable business strategy now outweigh any downsides or objections

Our Sustainability Report 2021 explores how businesses can benefit and grow from governmental incentives, market transition, and emerging pockets of 'green finance' growth.



STEP ONE

TAKING A SNAPSHOT OF YOUR BASELINE



STEP TWO

DESIGN A SUSTAINABLE BUSINESS MODEL



STEP THREE

MONITOR AND REPORT

STEP ONE

TAKING A SNAPSHOT OF YOUR BASELINE

The first step is to understand where you are starting from, the 'as-is'- materiality assessment, review of your risk register prompted by new ESG regulations, consumer perception, shareholder demands, and market shifts. Businesses can then determine what investments can mitigate short-term risks and ensure longer-term business growth. You can then benchmark your new actions against desired sustainability outcomes to determine your carbon impact. This step also helps you uncover new markets and identify processes that may become redundant.

Understand your carbon emission: Measuring your baseline carbon emission using our in-house HLB Carbon Calculator. Take stock of all the ways your business uses electricity and fossil fuels at every step of your business activity and wider supply chain. These include powering commercial locations or offices, running tech systems, business travel, and transporting raw materials and products across sites. Understand your water consumption and waste management activities.

Data management: Staying on the course of strategic change is only possible if you have reliable data at hand. Even the big sustainability-oriented companies face tremendous difficulties in getting the right data for decision-making. In some cases, you may use connected devices to monitor energy, water, and heating consumption around the clock to measure energy usage patterns. Identify key areas of waste to see where you can innovate and transform business processes. In others, you may have to rely on your sources of data not controlled or owned by you.

Implement new technologies: Leverage the right tools and reporting capabilities to consolidate data and develop insights to inform your strategy. Carbon calculator to start off with, but other tools and technologies like digital platforms, Internet of Things (IoT) devices, AI, and machine learning, to help speed up the net zero transition to minimise carbon emission activities such as document printing, offsite face-to-face meetings, business travel, etc.

Once you have the baseline numbers, you can then take some strategic decisions to get a step closer to your sustainability milestone and targets with a refreshed risk register and strategic outlook plan.

STEP TWO

DESIGN A SUSTAINABLE BUSINESS MODEL

Next, create a roadmap for a sustainable long-term business model designed for a net zero economy as you identify opportunities for innovations and growth drivers along the way. Your strategy should address universal business areas, including supply chain management, logistics, manufacturing, and product development.


Rethink procurement and sourcing: Improve visibility by collecting baseline data from your suppliers and doing your due diligence to assure the integrity of your supply chains. You may consider moving to near-sourcing—procuring from local suppliers to reduce transit miles. Try and work with more ‘green’ suppliers.

Improve logistics and distribution efficiency: Reassess your approach to long-distance freight transportation, especially by heavy goods vehicles (HGV). Explore flexible distribution product strategies such as e-commerce, click-and-collect, pay-per-use product rentals, and unattended retail solutions.

Reduce waste and redundancy: Use data analytics to remap and optimise your value chain processes. Cut back on waste and pollution through materials reuse and resource regeneration. For example, you can implement a circular strategy to infuse recycled materials into new products.

New product innovation or service offerings: Leverage your journey towards de-carbonization as an opportunity to reshape your business model to a new ideal. Explore ways to launch new sustainable products and services that can also help fund your transition.

Balance the energy cost of your technology portfolio: Rapid digitisation means that legacy, energy-inefficient hardware could be your largest source of energy consumption. Host your data in facilities powered by renewables and retire outdated assets through hardware rationalisation projects. Migration to cloud-based applications can counterbalance the increasing costs of maintaining hardware on premises.

A man with glasses and a red shirt is leaning over a table, writing on a notepad with a pen. The scene is lit with warm, yellowish light, creating a focused and professional atmosphere. The background is slightly blurred, showing what appears to be an office or meeting room setting.

Prepare for electrification and alternative fuels: Switch your energy supplier to one that uses renewable sources and purchase electric vehicles for your fleet. When upgrading your facilities, incorporate non-electric sources of heating or cooling.

Digitalisation of the supply chain: A strong digital supply chain can minimise the impacts of geographic boundaries on your operations and make it more adaptable and resilient to changes. Digitalised online payments are supporting business in providing consumers with a better experience. These technologies are helping businesses with real-time product information to improve and automate inventory management, procurement, business analytics, and customer relationship management and potentially help you and your customers track and understand CO2 emissions right through the product life cycle journey.

Progress toward a more sustainable business strategy will require you to rethink what you measure and reset your reporting baseline.

STEP THREE

MONITOR AND REPORT

What gets measured gets done. In fact, 90% of S&P 500 Index Companies already publish sustainability reports to keep stakeholders and the public informed. 25 countries, including Australia, China, the EU, South Africa, and the UK, have made environmental, social, and governance (ESG) disclosures and reporting mandatory for larger companies and financial institutions.

Here's how to go beyond tick-box reporting to monitor and report on progress against sustainability best practices:

Follow the Task Force on Climate-related Financial Disclosures (TCFD) guidelines: Collect, assess, and disclose climate-related risks and opportunities as part of your company's Environmental, Social, and Governance (ESG) reporting.

Use technology to aid reporting: Use AI and data analytics solutions along with data lake and data warehousing technologies to break down data silos while supporting a data cleansing process to yield relevant, unbiased, and properly formatted raw data entries for analysis. Keep up with regulatory changes by implementing technologies which dynamically extract key insights for a particular business sector.

Automate your reporting: Streamline ESG reporting by connecting self-service business intelligence tools to your cloud data repositories to support disclosures and strategic decision-making. Also, use automated compliance management solutions to investigate new avenues for green growth. Use digital audit to inform your ESG reporting requirements.

Stay abreast of consumer feedback and stakeholder opinions: A business presence on social media platforms can gather insights so as to enrich your strategic planning with first-hand feedback. Failure to respond to dissatisfaction can undermine your reputation and even result in legal action. Brands that listen and adapt to changes will benefit from wider consumer and governmental support.

A GREENER FUTURE

The 'greening' of business has begun. Companies from technology to logistic players have pledged to reduce their carbon footprint and become net zero or carbon-negative within a decade. This market transition is a perfect opportunity to start your journey towards a more sustainable business. Resetting your strategic objectives around a refreshed purpose provides a compass for everything you do. A sustainable business will be a profitable business that will be around in the long term. Companies that lag in their net zero initiatives will risk losing market share to more sustainable competitors.



Through various initiatives and the work of the HLB Sustain CSR group chaired by me, [Vijay LNarasimhan](#), HLB specialises in developing and embedding sustainability strategy for businesses to gain competitive advantage through compliance, business optimisation, business growth, and managed business risk. Download [HLB's Sustainability Report 2021](#) to learn how to implement an effective sustainability strategy.

HOW HLB CAN HELP

There is no escaping the challenges of net zero regulations and a reduced environmental impact. Climate change must be met with a steadfast, well-considered, and earnest response or the costs to our way of life will be immense.

The good news is that the majority of these mitigations and pivots bring with them opportunities as much as they do challenges. The short-term pain of implementing better carbon practices will open businesses up to more efficiency, lower energy costs, and ultimately more profitability.

The HLB sustainability advisory team specialises in developing and embedding sustainability strategy for businesses that aids in their overall growth. We help create competitive advantage through business optimisation, business growth, compliance, and managed business risk.

Get in touch today and let us guide you through the next phase of development that brings us all closer to net zero while also growing your business.

GET IN TOUCH

We are ready to help you reduce your carbon footprint and the environmental impact of your business.



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