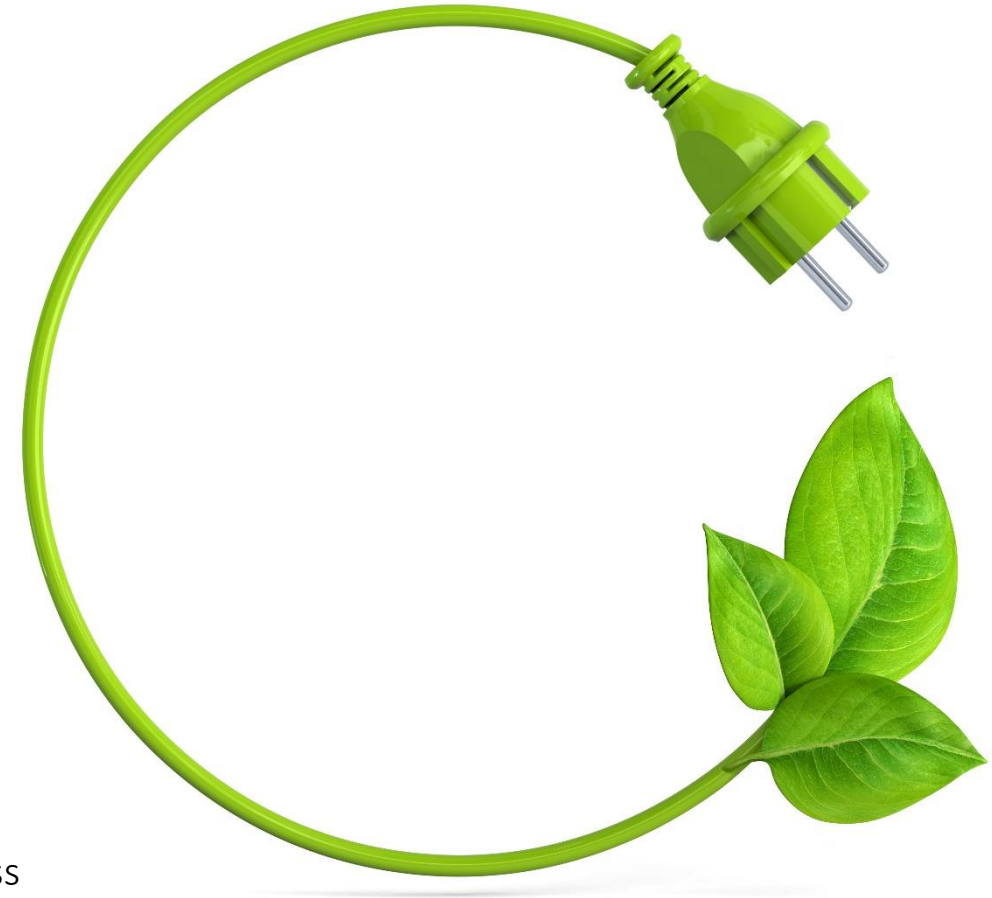
Deloitte.

BUSINESS IN THE COMMUNITY
The Responsible Business Network
Northern Ireland



Working Together Towards a Low-Carbon Future

Deloitte's Annual Report on the Business in the Community Northern Ireland Climate Action Pledge

April 2023

MAKING AN IMPACT THAT MATTERS since 1845

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Introduction from Business in the Community Northern Ireland

Foreword from Kieran Harding, Managing Director, Business in the Community Northern Ireland

There is no doubt that the climate crisis is a pressing issue which is affecting our planet on a vast and devastating scale.

We have seen that climate change is not only an environmental challenge but also a socio-economic one, with far-reaching implications for businesses, supply chains, industries and people around the world. While many of the impacts of climate change are still uncertain, the need for collaborative action to reduce greenhouse gas emissions from human caused activity is certain; Northern Ireland businesses must take climate action.

Business in the Community Northern Ireland (BITCNI) is the responsible business network, we work with organisations to tackle the biggest issues facing society and our Business Action on Climate campaign, supported by the Department of Agriculture, Environment and Rural Affairs, and the Department for the Economy, has been instrumental in putting Northern Ireland businesses at the forefront of taking collaborative action on climate change.

We challenge organisations in Northern Ireland of all sizes and from all sectors to sign the Climate Action Pledge and commit to reduce their absolute emissions by either 30% or 50% by 2030 and meet these targets with our support and guidance.

This important Pledge is an opportunity for businesses to highlight their leadership and commitment to collaborate on this critical issue; publicly demonstrating their action to meet ambitious carbon reduction targets.

This year has seen the number of Pledge signatories more than double since the previous Climate Action Pledge report, with several new SME signatories in particular making the commitment, following participation in BITC's successful Climate Action Programme.

We are delighted to have partnered with Deloitte once again, for the second Climate Action Report. This year, with an increase in signatories from a range of sectors, we have been able to build upon last year's report to provide a more in-depth analysis, an insight into hard-to-abate sectors, and spotlight some specific case study examples.

Business in the Community NI, along with its Climate Champion organisations, aspires for this annual report to highlight and showcase the leadership that businesses across Northern Ireland have demonstrated through collaborative climate action, and to inspire more organisations to follow them on this journey.

BITCNI will continue to encourage businesses to make braver and bolder decisions, and to grow a network of organisations acting more responsibly, for people, place and planet.

KIERAN HARDING
Managing Director
BITC NI

BUSINESS IN THE COMMUNITY
The Responsible Business Network
Northern Ireland

Organisations Participating in the Report

Company	Sector
AG Ltd.	Manufacturing
Allstate Northern Ireland	Information Technology
Almac Group Ltd	Manufacturing
Alpha Housing Association	Non-governmental organisation
Arbour Housing	Non-governmental organisation
Ardmore Advertising & Marketing Ltd	General Services
Ark Housing Northern Ireland	Non-governmental organisation
B4B Telecoms Ltd	Information Technology
Belfast Harbour	Transportation/Logistics
Bulrush Horticulture Ltd	Manufacturing
Business in the Community NI	General Services
CASC Ltd	Engineering
Cleaver Fulton Rankin Solicitors	General Services
Creative Composites	Manufacturing
Dalzell Landscape Company Ltd	General Services
Desmo Enterprises Limited &The Soap Story Limited	Manufacturing

Company	Sector
Dowds Group	Construction
Electronic Excellence	Manufacturing
Encirc Ltd	Manufacturing
firmus energy	Utilities
Graham	Construction
Greenview	Engineering
H&A Mechanical Services Ltd	Engineering
Henry Group	Construction
Irish News Group	General Services
Larchfield Estate	General Services
Lidl Northern Ireland	Retail
Location Cleaning Contracts Ltd	General Services
Mannok Build Ltd (Mannok Holdings DAC)	Manufacturing
Martin Contracting Services Limited	Construction
Maurice Flynn & Sons Ltd	Construction
MCS Group	General Services

Organisations Participating in the Report

Company	Sector
Milestone Rathfriland Ltd.	Retail
Mivan Ltd	Construction
MMSNI Ltd	Transportation/Logistics
MSM Contracts	Construction
Northern Bank Ltd t/as Danske Bank	Banking/Finance
Northern Ireland Water	General Services
Outsource	Information Technology
Portview Fit-Out Ltd	Construction
Power NI	Utilities
SONI	Utilities
Stephens Catering Company Ltd	General Services
Suki Teahouse Ltd	Food and Drink
Translink	Transportation/Logistics
TS Foods Limited	Food and Drink
Veolia	Waste/Environmental Services
Whiterock Capital Partners LLP	Banking/Finance

Foreword From Deloitte

Time is no longer running out to act on climate change; it's up, and our economy is at a crossroads. The need to address climate change has moved steadily higher on the business agenda as more businesses acknowledge that human-caused greenhouse gas emissions are changing the climate in ways that are harmful to the planet and humans.

Most businesses now understand the need to make fundamental investments and operational changes as the world moves toward a low-carbon and circular economy. This represents both a historic challenge and opportunity. It's a challenge because moving to a responsible business model requires effort, planning and vision. It also requires the creation of transparent and ethical supply chains, broad stakeholder engagement, and a means to measure, evaluate and assure progress against sustainability goals. It's an opportunity because organisations that can effectively meet these challenges stand to create a pronounced competitive advantage.

Work is being done, efforts are intensifying, policy is shifting. But still, we must do more. Which is why it is truly heartening to see the increased numbers of businesses who have signed up to the BITC Climate Action Pledge. It demonstrates the continued acceleration of focus on climate for the business community and the great work that is being done to promote the pledge and the holistic suite of offers that signing up to the Pledge offers.

Business Action on Climate Champion Organisations

CLIMATE STEERING GROUP

abp

Belfast Harbour

Danske Bank

encirc

LIDL

northern ireland water
Delivering what matters

power ni
part of energia group

SONI

Translink
Better. Connected

IN PARTNERSHIP WITH

Deloitte.

SUPPORTED BY

An Agency within the Department of Agriculture, Environment and Rural Affairs
www.daera-ni.gov.uk

Department for the Economy
www.economy-ni.gov.uk

02

The Wider Climate Agenda and Northern Ireland – Where are We?

The Wider Climate Agenda

Why Business Organisations are Increasingly Focused On a Low-Carbon Future

The urgent climate crisis means businesses need to urgently mitigate their environmental impacts. The shift to a low-carbon economy is underway and is likely to unfold far faster and with more profound implications than many might expect. Climate action is now being demanded on a number of fronts for businesses:

- Financiers and investors are increasingly demanding companies address emissions. Influence is being applied both by individual investors, some of whom are taking on activist roles and pushing for stronger climate action, and investor-led initiatives which are rapidly growing both in size and influence.
- Popular sentiment appears to have shifted. Nearly two-thirds of the 1.2 million people globally surveyed by the UN Development Program in 2020 said that climate change was a “global emergency.” That rising concern extends to consumers. In one recent study, more than 60% of respondents said that “companies have the opportunity, due to the pandemic, to be more thoughtful about how they incorporate sustainability into their business models moving forward. In a study of citizens across 14 countries conducted amidst the pandemic, more than 70% of respondents agreed that in the long term, climate change is as serious a crisis as COVID-19.
- Activist pressure seems to be mounting, largely led by the youth climate movement. The climate strikes in 2019 and 2020, attended by millions, helped push the issue higher on the global agenda, and other highly visible actions from various groups have captured global attention and galvanized many opinions.

The Wider Climate Agenda

Business Organisations are Increasingly Focused On a Low-Carbon Future (Continued)

- Employees are an increasingly vocal and expectant stakeholder group across all geographies. While workforce activism appears more noticeable for some sectors such as technology, it seems to be expanding across the board. Nearly 40% of millennials cite employer sustainability as a factor in deciding where to work.
- The regulatory environment is growing more stringent. Emissions requirements, clean energy standards, carbon pricing and border adjustments, and more are becoming increasingly commonplace, not only in Europe but in major markets in Asia and North America. Climate reporting and disclosure is also evolving quickly, with efforts underway to rationalise different standards and create an authoritative standard-setting body under the umbrella of the IFRS Foundation.

‘NEARLY 40% OF MILLENNIALS CITE EMPLOYER SUSTAINABILITY AS A FACTOR IN DECIDING WHERE TO WORK.’

The Climate Act in Northern Ireland; what does it mean for business?

With the climate bill now being in law in Northern Ireland, requisite legal targets have now been set to reach net zero carbon by 2050.

To achieve this, the Northern Ireland Assembly will develop Climate Action Plans (CAP) and specify a series of separate targets for government departments to develop sectoral, long-term plans. These Departments will be responsible for feeding in their respective policy and programme delivery content to the CAP.

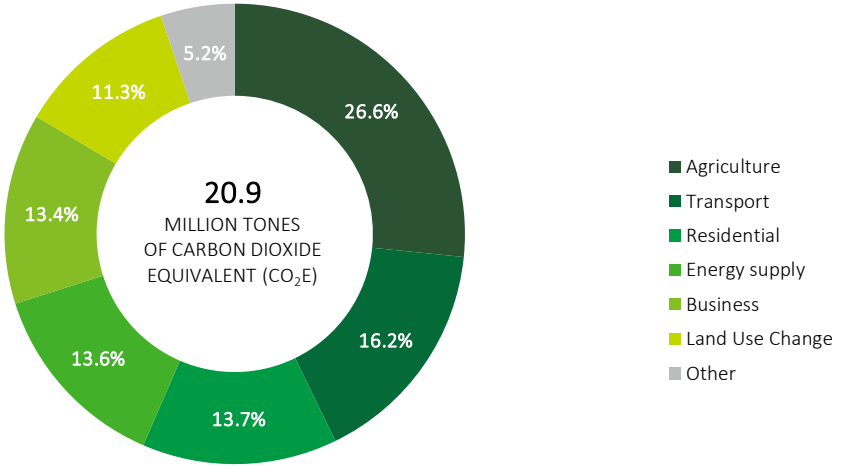
The agriculture sector has been set a target to reduce methane omissions to 46%. This is lower than the methane limits for the rest of the UK, but it was justified by the Climate Change Committee because Northern Ireland's agricultural industry is a net exporter of food. This target will require significant changes within Northern Ireland's agriculture sector. Increased investment in agriculture R&D, collaborative partnerships and co-ordinated efforts are all key to create a more climate resilient, low-emission sector.

The target for the energy sector is that 80% of electricity should come from renewables by 2030. This will require up to 1,400MW of additional renewables which equates to around 50 new renewable generators, to be built over the next seven years. Northern Ireland's current electricity grid infrastructure will currently struggle to connect to those new generators. Therefore, large-scale planning and investment will be required from the main energy operators.

The construction sector will also be heavily impacted by the new Act. ESG requirements will become ever more rigorous; robust sustainability and social value practices will need to be an integral part of a company's strategy. For example, any business that is tendering to the public sector will see marks awarded for social value increase from 10% of marks up to 20%.

For those businesses who are willing and demonstrate the required flexibility and innovation capabilities to change, there will be distinct advantages to be had when they are seeking to secure new and existing business.

The Context: Greenhouse Gas Emissions By Sector in Northern Ireland



$MICO_2E$

Sector	Base year	2019	2020	Change base year to 2020	Change 219 to 2020
Agriculture	5.3	5.6	5.6	0.3	0.0
Business	3.9	2.7	2.8	-1.1	0.1
Energy Supply	5.3	2.8	2.8	-2.5	0.1
Industrial Process	0.8	0.2	0.2	-0.5	0.0
Land Use change	2.8	2.4	2.4	-0.5	0.0
Public	0.4	0.1	0.1	-0.3	0.0
Residential	3.7	3.0	2.9	-0.8	-0.1
Transport	3.4	4.3	3.4	-0.1	-0.9
Waste Management	1.8	0.7	0.7	-1.1	0.0
Total	**27.5**	**21.8**	**20.9**	**-6.6**	**-0.9**

In 2020, Northern Ireland's net greenhouse gas emissions were estimated to be 20.9 million tonnes of carbon dioxide equivalent (MtCO2e). This net figure is a result of an estimated 22.0 MtCO2e total emissions, offset by 1.1 MtCO2e of emissions removed through sequestration.

The net figure of 20.9 MtCO2e, in 2020, represents a decrease of 4.2% compared with 2019. The longer-term trend showed a decrease of 23.9% compared with emissions in 1990.

In 2020, agriculture was the largest emitting sector, responsible for 26.6% of emissions. Transport contributed 16.2% to overall emissions, whilst the residential, energy supply and business sectors contributed 13.7%, 13.6% and 13.4%, respectively. The largest decreases between 2019 and 2020, in terms of tonnes of carbon dioxide equivalent, were in the transport (-0.9 MtCO2e) and residential (-0.1 MtCO2e) sectors.

The decline in transport emissions reflects the travel restrictions imposed during the COVID-19 pandemic. Reduction in travel is reflected across all vehicle types, but particularly passenger cars and buses. The decline in residential emissions was driven by fuel switching from coal to natural gas, displacing more carbon intensive fuels.

Northern Ireland accounted for 5.2% of UK greenhouse gas emissions in 2020. In the UK there has been a 49.9% reduction in emissions between the base year and 2020. During the same period, the reduction in emissions in Northern Ireland was 23.9%, compared to 52.6% in England, 51.0% in Scotland and 40.0% in Wales.

To achieve this overall GHG emissions target of 82% by 2050, a 48% reduction in all emissions needs to be achieved by 2030 and 69% by 2040. It is acknowledged that achieving these reductions will difficult and the reductions of 18% achieved in the last 31 years highlight the scale of the challenge ahead in the coming 29 years. In the next ten years, Northern Ireland will have to do almost twice as much in less than a third of the time means that we need a fundamental change in our approach. We must take action urgently.

03

Climate Action Pledge
Summary Findings
and Results Overview

Measuring a Business Scope 1 & 2 Emissions

A business' carbon footprint is measured by totalling all its greenhouse gas emissions; it is typically divided into three areas or 'scopes'.

SCOPE 1 EMISSIONS

- Those coming from the fuel (e.g., petrol, diesel or gas) that is directly used within the business and from other sources such as landfill sites or industry. These are known as scope 1 emissions.

SCOPE 2 EMISSIONS

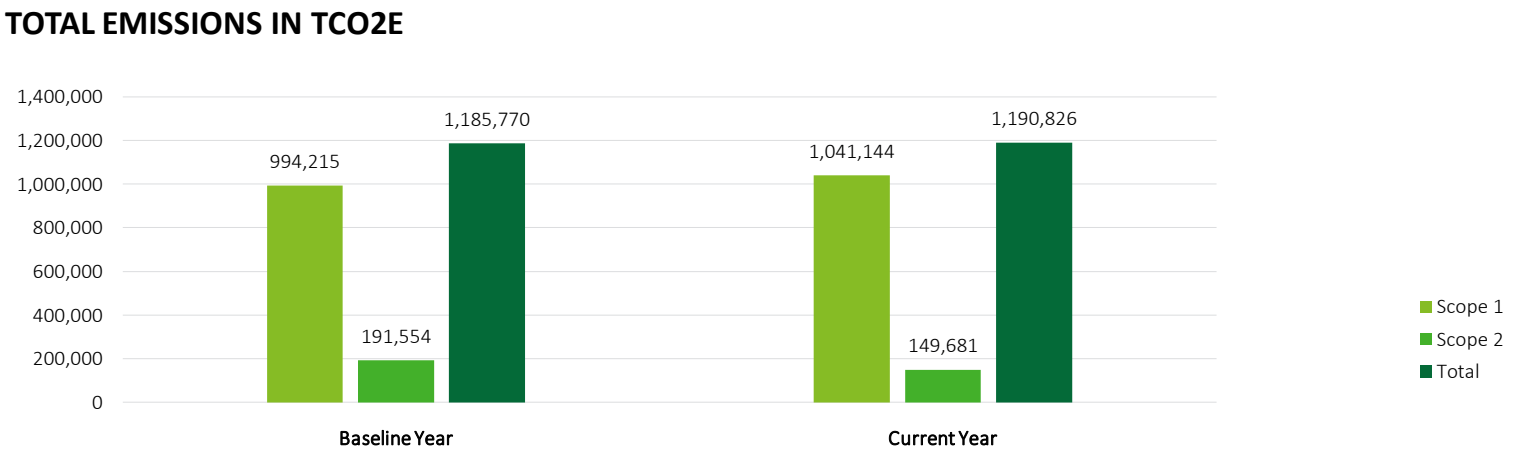
- Those coming from the electricity that is used within the business, even if it is generated somewhere else. These are known as scope 2 emissions. Together scope 1 and 2 emissions are sometimes referred to as "territorial" emissions.

SCOPE 3 EMISSIONS

- Those associated with the goods and services that are produced elsewhere but imported and consumed by the business. After taking into account the carbon footprint of any goods and services produced but that are exported and consumed elsewhere, these are known as scope 3 or consumption-based emissions.

- In this report, the focus is on scope 1 and 2 emissions. It excludes consideration of Scope 3 which includes long-distance travel or consumption-based emissions. The reason being that scope 1 and 2 emissions are more directly under the control of businesses and because the carbon accounting and management options for these emissions are better developed.
- It is intended that in the future, BITC will work with the Pledge signatories to help them work towards measuring and recording their scope 3 emissions.
- Having a baseline of carbon emissions is key to tracking progress over time.

Carbon Emissions Data: Comparing the Chosen Base Year Versus the Current Year



The data collected from the increased number of businesses shows an increase in scope 1 emissions. There has been a 4.7% increase in total scope 1 emissions. This can be partly explained with a return to full operations post covid; businesses generally are expanding and increasing output.

The total emissions for the baseline years chosen by the businesses totalled 1,185,770 tCO2e. The current years data shows emissions of 1,1190,826 tCO2.e. That shows an increase of approximately 5,000tCO_2e or 7%.

Emissions from scope 1 for this year account for 84% of emissions with the remaining 16% falling under scope 2.

The increase in emissions is entirely within scope 1. It has seen an increase of 4.7%

There has been a decrease in scope 2 emissions between the base year and current year of 16%.

A Breakdown Analysis of Scope 1 Emissions

SCOPE 1 EMISSION AREAS

Scope 1 emissions covers the Green House Gas (GHG) emissions that a company makes directly, for example while running its boilers and vehicles. Scope 1 emissions are divided into four areas:

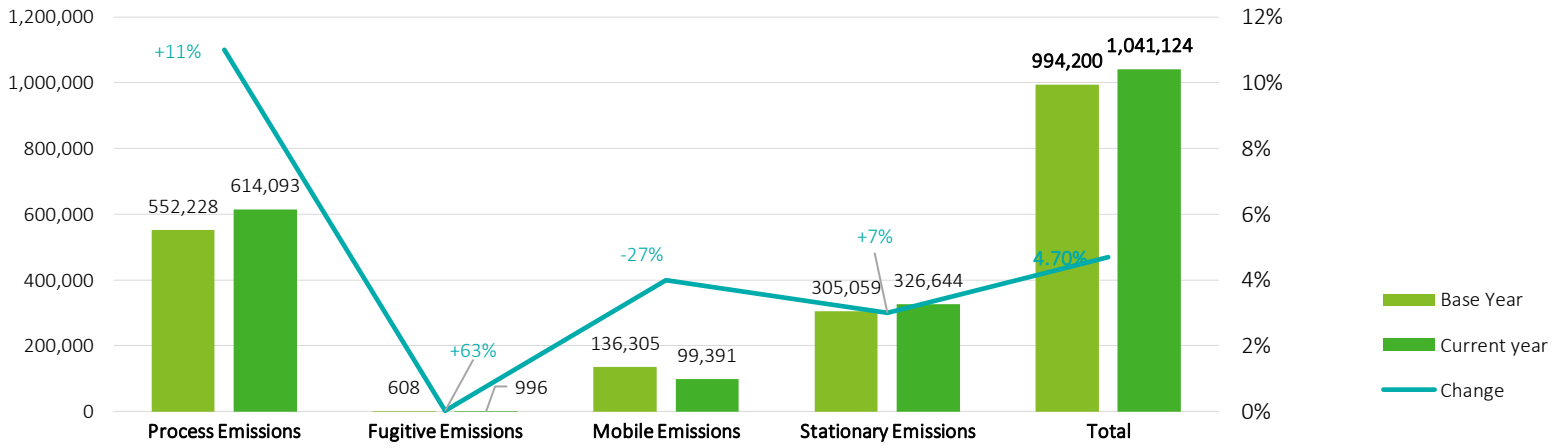
Process Emissions: The emissions that are produced by the chemical transformation of raw materials.
Fugitive Emissions: The emissions produced by leaks of greenhouse gases, for example from refrigeration and air-conditioning units.
Mobile Emissions: The emissions that are produced by mobile sources i.e., fuels burned in vehicles.
Stationary Combustion: The emissions that are produced by use of fossil fuels in furnaces and boilers etc.

ANALYSIS OF SCOPE 1 EMISSIONS

An increase in process emissions has been the main area that has seen an increase in emissions. Process emissions increased 11% from 552,228 tCO_2e to 614,093 tCO_2e.

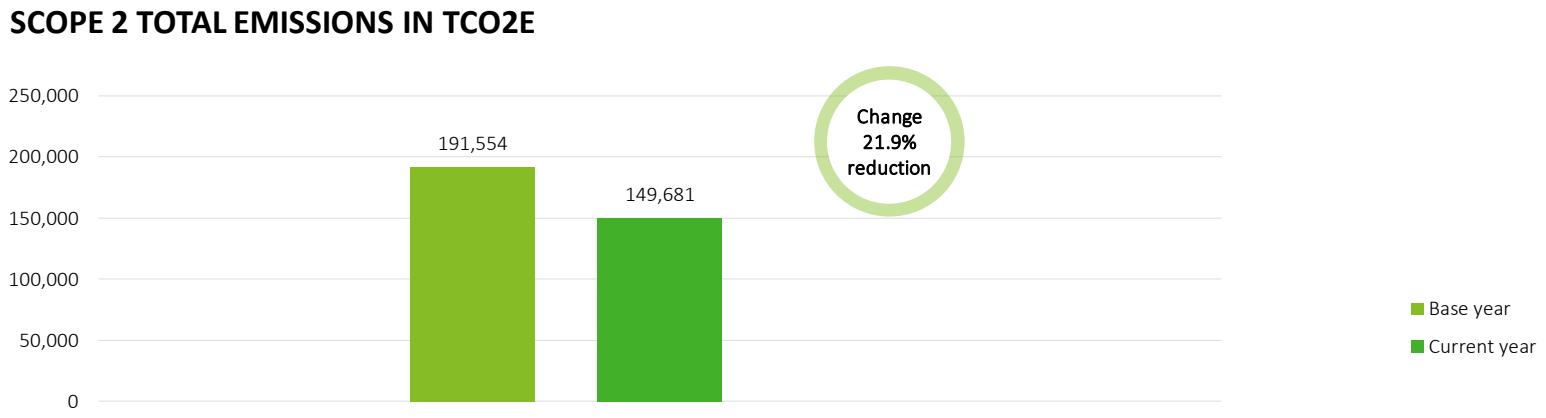
Process emissions are industrial production processes which chemically or physically transform materials. During these processes, many different greenhouse gases, including CO_2, CH4, N2O, and PFCs, can be released. Cement production is a notable example of an industrial process that releases a significant amount of CO2. Organisations that produce a high amount of process emissions typically exist within the 'hard-to-abate' sectors' i.e. those carbon-intensive sectors with few clear, viable low-emission alternatives, such as road freight, steel and cement making, chemicals, aviation, and deep-sea shipping. The next section of this report provides a deep dive into understanding the particular challenges that hard-to-abate sectors face.

TOTAL EMISSIONS IN TCO2E



It is encouraging to see that mobile emissions have dropped by 27%. Mobile emissions are produced in fossil fuel use in company vehicles i.e. fleet vehicles and company cars. Diesel usage is the main source of mobile emissions and was the main driver around the decrease from the base period to the current year. The decrease likely stems from investment in company vehicle efficiency i.e. introductions of electric vehicles and operational changes resulting in more efficient usage of transport.

A Breakdown Analysis of Scope 2 Emissions



ANALYSIS OF SCOPE 2 EMISSIONS

Scope 2 refers to indirect emissions from the generation of our purchased electricity; district heating & cooling; and owned electric vehicles

The majority of scope 2 emissions come from purchased electricity. There has been a significant decrease in scope 2 emissions from the base period of 21% from191,5543tCO2e to 149,681tCO2e . A reduction at this scale would suggest that many companies are now purchasing electricity from renewable sources. When it comes to energy usage, companies now have a dual focus to include reduction in usage and a switch to renewable sources.

Specific business initiatives to encourage sustainable use of energy combined with energy companies providing services designed to enhance energy efficiency and save on cost means that there has been a significant decrease in energy used from purchased electric.

04

In-depth view points

Decarbonising ‘Hard-to-Abate’ Industries

Decarbonising Hard-to-Abate Industries

The decarbonisation imperative

As addressing the climate crisis becomes increasingly urgent, every business should be on a path toward mitigating its own environmental impact. That includes so-called “hard-to-abate” industries; carbon-intensive sectors with few clear, viable low-emission alternatives, such as road freight, steel and cement making, chemicals, aviation, and deep-sea shipping.

For years, decarbonising these industries was deferred as attention focused on easier-to-address emission sources, such as electricity generation and passenger vehicles. But today, spurred by the potential existential stakes of a planetary emergency, a range of stakeholders—from regulators and investors to downstream customers and activists are increasingly turning their attention to hard-to-abate businesses, which account for roughly one-third of global CO2 emissions.

Achieving the Paris Agreement goals is likely only possible if emissions in these sectors are also reduced. And doing so brings knock-on benefits throughout the supply chain and helps companies address scope 3 emissions; green steel feeds into automaking and other manufacturing processes, just as low-carbon cement enables low-carbon construction.

In this environment, a ‘wait-and-see’ approach is increasingly risky. Instead of adopting a defensive, reactive posture toward decarbonisation that seeks to mollify stakeholders or comply with regulatory mandates, companies in hard-to-abate industries have an opportunity to proactively shape their low-carbon future through deep collaborations targeting the fundamental drivers of demand. There are many benefits to moving early: access to novel and differentiated insights; the ability to share risks and investments and to influence the direction of the transition in their favour; and the opportunity to strengthen relationships with customers and other ecosystem players during the early phases of the transition. Early movement can also initiate a snowball effect; as a handful of leaders begin to decarbonise, others will likely quickly follow suit to remain competitive.

‘Companies in hard-to-abate industries have an opportunity to proactively shape their low-carbon future through deep collaborations targeting the fundamental drivers of demand’

Decarbonising Hard-to-Abate Industries

The decarbonisation imperative (Continued)

In the following section, we outline two key strategic challenges which face most businesses in hard-to-abate sectors; technical gaps and business model gaps and explore why collaborative ecosystem approaches could be the most effective way to overcome them.

While each hard-to-abate industry faces its own idiosyncratic set of challenges in transitioning to lower-emission operations, from a strategic perspective such businesses typically face two dilemmas: *technical gaps* and *business model gaps*.

Technical gaps arise when direct electrification is structurally constrained, while other viable low-carbon alternatives do not exist or are not yet available at scale to replace current carbon-intensive processes or energy sources. For example, emissions from internal combustion engines in road freight could be reduced with the expansion of battery electric vehicles for some applications, but for many uses, fuel cell electric vehicles using hydrogen could be required. Hydrogen is also required to produce synthetic sustainable fuels for aviation, as well as synthetic methanol and green or blue ammonia for shipping. Producing such fuels at scale requires large amounts of renewable energy (to produce green hydrogen), but also widespread use of carbon capture technology (for blue hydrogen), each of which remains nascent and expensive. Losing technical gaps often requires focused research, development, and deployment, all backed by patient capital.

‘TWO KEY STRATEGIC CHALLENGES WHICH FACE MOST BUSINESSES IN HARD-TO-ABATE SECTORS; TECHNICAL GAPS AND BUSINESS MODEL GAPS’

Decarbonising Hard-to-Abate Industries

The decarbonisation imperative (Continued)

To get there, hard-to-abate industries can look to share development costs and advocate for supportive policy moves that can catalyse early-stage technology development or create the regulatory or market incentives to accelerate progress.

Technical gaps can also bleed into business model gaps that forestall decarbonisation efforts. In some cases, a viable low-carbon solution exists but is deficient on one or more relevant dimensions: It may be more expensive to implement or operate, it may be less productive, it may yield a lower-quality output, it may require changes in supplier or customer behaviour, and so on. Implementing such solutions unilaterally could put the organisation at a disadvantage relative to competitors. Business model gaps can be addressed by enhancing market demand and demonstrating a willingness to pay for new solutions; evolving more agile and flexible approaches to deploying new products or services; and collaborating with new partners to share the risk in exploring novel business models.

Whatever the specific challenge hard-to-abate businesses face, the root cause is likely traced back to one of these twin strategic constraints, and in both cases, escaping those constraints likely requires working beyond the four walls of the business.

> ‘BUSINESS MODEL GAPS CAN BE ADDRESSED BY ENHANCING MARKET DEMAND AND DEMONSTRATING A WILLINGNESS TO PAY FOR NEW SOLUTIONS’

Decarbonising Hard-to-Abate Industries

The decarbonisation imperative (Continued)

ECOSYSTEM SOLUTIONS FOR THE TOUGHEST DECARBONISATION CHALLENGES

Addressing the technical and business model gaps characteristic of many hard-to-abate industries requires first recognising that decarbonisation is a systems problem and thus should be tackled through collective, ecosystem approaches. Accepting that decarbonisation is a systems problem that demands multi-stakeholder approaches also necessitates a profound mindset shift for many. 'Winning' no longer (only) means besting your competitors but working collectively to achieve lower emissions. Adopting a systems view enables players to understand the bottlenecks and critical interdependencies on the path to decarbonisation, and then design ecosystem solutions with specific behavioural targets for different players working across the entire value chain. Organisations can work collaboratively to remove barriers, reach critical tipping points, and accelerate adoption of new technologies and business models.

The key to moving the needle is to get past the typical points which lead some companies to a wait-and-see approach; the mistaken belief that technology development curves and policy shifts are fundamentally uncertain. In fact, neither is uncertain. We may not know everything we would like about future outcomes with respect to either technology or policy, but that doesn't mean we should be paralysed by ever-deepening analyses to try to better predict them.

Instead, we should move to do what we can to act on the fundamental drivers of demand conditions in any market-based domain: the needs, wants, and behaviours of people. This can shift trends related to product attributes, investment, IP sharing, and standards setting. Demand by like-minded companies and organisations can kickstart and accelerate decarbonisation change.


05
Case Study
Analysis

Mannok Building Supplies

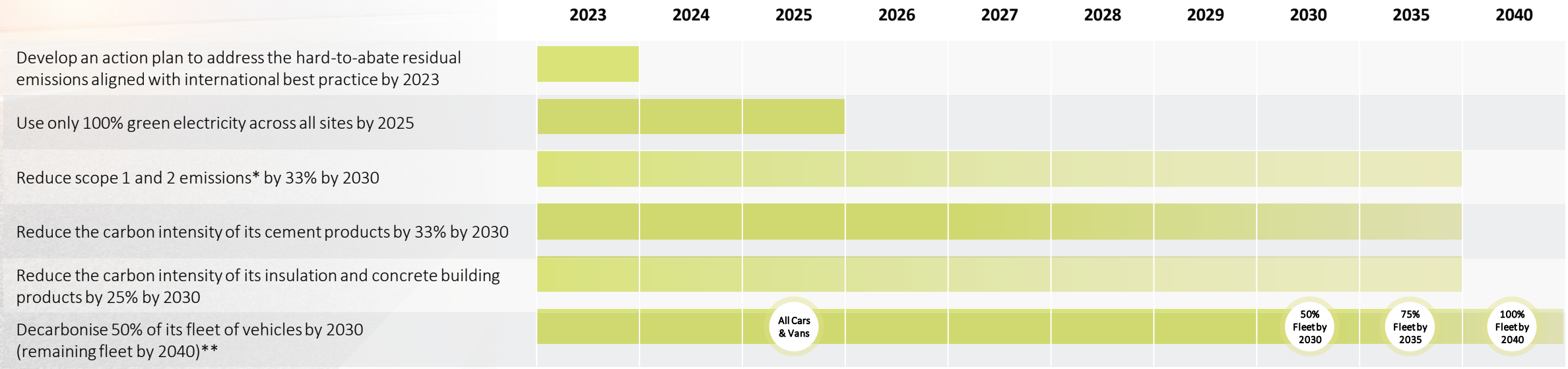
An Overview

Mannok's sustainability objectives center around making a meaningful contribution to combatting the sustainable built environment and worst effects of climate change by achieving net zero carbon emissions by 2050 and developing a suite of lower carbon products.

Mannok has been proactive in developing a climate action plan and have a considerable number of projects and initiatives in place and have some significant gains across a range of areas to include:

- The Business and Biodiversity Charter award
- Several net zero hydrogen projects in place
- Climate reporting with BITC
- Several feasibility studies in place focusing on developing a suite of lower carbon products

The following tables set out Mannok's objectives across a range of sustainability areas;



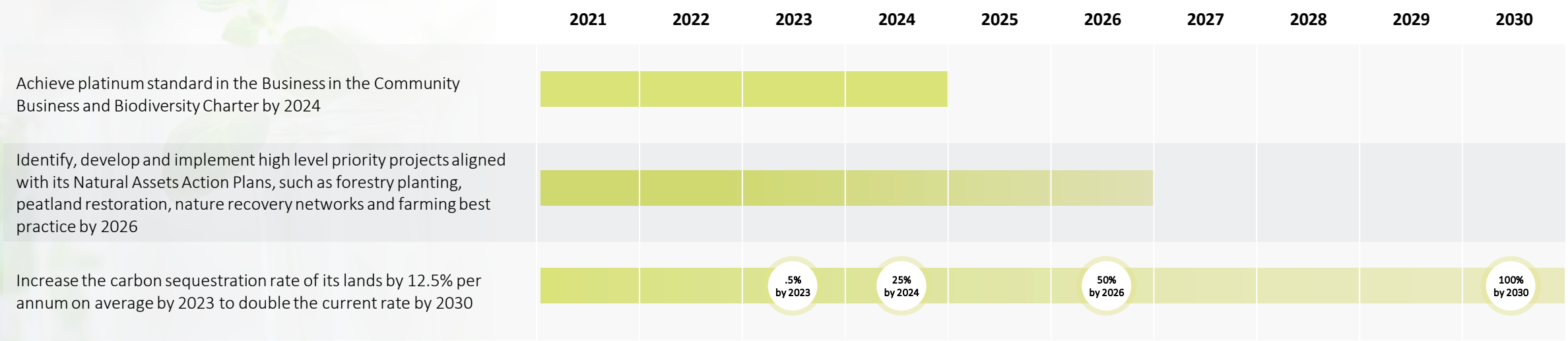
* Scope 1 Emissions: Direct emissions that occur from sources that are controlled or owned by an organisation. Scope 2 Emissions: Indirect emissions associated with the purchase of electricity, steam, heat, or cooling.
** Subject to the availability of suitable vehicles & technology platforms in the supply chain.

Mannok Building Supplies

Biodiversity Targets

OBJECTIVE is "to help re-balance nature and impact positively on the biodiversity rich landscape where we operate through an ambitious programme of restoration, protection and enhancement."

MANNOK WILL:

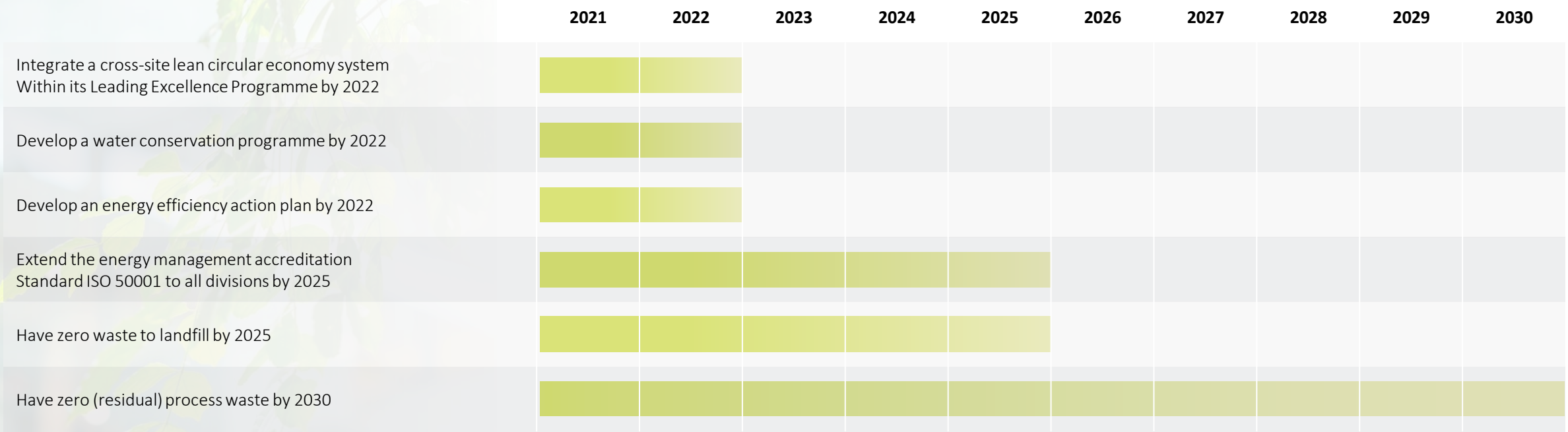


Mannok Building Supplies

Resource efficiency & circular economy Targets

OBJECTIVE is "to ensure the efficient use of valuable resources, eliminate waste and ensure all the materials we use and products we manufacture support a sustainable and circular future."

MANNOK WILL:



Mannok Building Supplies

An in-depth view on the challenges of cement

After water, cement is the most widely used substance on Earth. Its use is essential in the manufacture of building products and in infrastructure. It provides resilience in our society and businesses supporting construction, including renewable energy projects.

Since 1990, the cement industry has reduced its relative CO2 emissions by approximately 20%. However, today the manufacture of cement still accounts for up to 8% of all CO2 emissions. If the cement industry was a country, it would be the third largest CO2 emitter, surpassed only by China and the United States.

Typically, the calcination process, i.e., the melting of limestone to produce clinker, the intermediary stage of cement production, emits around 60% of the total production emissions. The 40% balance of emissions comes from the direct burning of fossil fuels.

The calcination process is necessary in cement production, and it is very difficult to reduce these emissions. Consequently, the cement industry is categorised as 'hard-to-abate' and requires extra effort and investment to decarbonise and reduce emissions.

For the direct scope 1 fuel, the main decarbonisation pathway deployed is through the use of alternative, non-fossil fuels.

In recent years fossil fuels have been displaced in the production of cement with locally sourced alternative fuels (SRF – Solid Recovered Fuel). This SRF is waste which cannot currently be reused or recycled, which is diverted from landfill and is used as an alternative to fossil fuels in the cement production process. Adoption of SRF has had a direct impact on emissions from the cement production:

- Alternative fuel use has increased by 36.4% of our total fuel use by weight since 2014
- 11.5% CO2 reduction has been achieved per t/clinker (2013 – 2020)

Cement manufacturing still accounts for 98% of overall carbon emissions and Mannok is aware of the need to significantly reduce cement carbon emissions to ensure the long-term sustainability and viability of the business and for the benefit of the planet. To achieve this, Mannok must significantly scale decarbonisation efforts through collaboration, innovation and strategic new investments in order to align with The European Cement Association's 'CEMBUREAU 2050 Carbon Neutrality Roadmap'.

The Mannok 2030 Vision defines how the organisaion will accelerate efforts to decarbonise the business and assist in making the transition to net zero carbon.

'If the cement industry was a country, it would be the third largest CO2 emitter, surpassed only by China and the United States.'

Galgorm Collection

Already the recipient of a Green Tourism Silver Award, luxury hotel and spa resort Galgorm is committed to working towards a sustainable future. Through participation in responsible business network Business in the Community Northern Ireland's (BITCNI) Climate Action Programme, Galgorm has been supported to create action plans for each operational area within the Collection, with the aim of achieving carbon neutrality by 2030.

Galgorm takes responsibility for the environmental impact of how it runs its business very seriously and this ethos is instilled throughout its team. Galgorm started its sustainability journey in 2019, with the formation of a green committee. This committee focussed on day-to-day energy savings within the resort such as waste management and recycling, and the resort was soon awarded a Green Tourism Silver Award.

Galgorm then signed up for membership with Business in the Community and through this participated in the Climate Action Programme. Through the programme, Galgorm's Head of Spa Operations, Tara Moore, and Group Safety and Compliance Manager, Jonny McKay, completed Carbon Literacy Training and were able to relay the knowledge they gained on to seven other senior staff members.

Galgorm Collection

As the next part of the programme, Galgorm received three bespoke one-to-one carbon footprinting workshops with a qualified consultant. These workshops focused on how Galgorm can measure its carbon footprint, and how to create and implement an action plan. Galgorm then signed BITC's Climate Action Pledge, which provided direction and a commitment to reduce its scope 1 and scope 2 greenhouse gas emissions, and to begin to map out the reduction of its scope 3 emissions. Galgorm's primary aim is to be carbon neutral by 2030 and BITC's Climate Action Programme has played a key role in helping it to create a strategy to achieve that aim

> 'BUSINESS IN THE COMMUNITY HAS BEEN REALLY INSTRUMENTAL IN DRIVING US FORWARD WITH OUR GREEN POLICIES AND MAKING SURE THAT WE'RE SETTING EVERYTHING IN PLACE'

IMPACTS AND OUTCOMES

- Provision of own-branded stainless steel water bottles and mains-filtered water stations throughout the spa – no plastic bottles on site
- Provision of electronic menus and an online concierge service through the Galgorm app
- Replacement of plastic room keys with environmentally-friendly wooden ones
- Introduction of an electric fleet of vehicles, which includes laundry and maintenance buggies, and an slectric bus to move guests around the resort
- New BMS system for controlling heat systems – other energy systems to be integrated into this
- Replacement of halogen lights with LED (80% complete)
- Planting of trees and plants by grounds team around new projects onsite.

06

Conclusions and Recommendations

Conclusion

This report demonstrates that there is an upward shift in the focus that businesses are putting on emissions and climate generally. With nearly 50 businesses now involved, the analysis demonstrates that businesses are taking positive steps in reducing their impact on the environment. Many have demonstrated significant reductions across scope 1 and 2 emissions.

The decisions that our businesses are making now can and will help to create a better future, but it will require a profound and lasting change in attitudes and behaviors and it will depend on sharing knowledge and experience more broadly than ever before. Those businesses that have taken part in this report are demonstrating that they are willing to do just that.

For more information on Business Action on Climate visit www.bitcni.org.uk/climate

Or email environment@bitcni.org.uk

Deloitte.

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