

Carbon Reduction Plan for SharpSmart



NET
ZERO
TOGETHER

SUPPLIER: SHARPSMART LTD

PUBLICATION DATE: SEP 2024

REPORTING PERIOD: JUL 2022 - JUN 2023

WWW.SHARPSMART.CO.UK/NET-ZERO-TOGETHER



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The Story So Far

Sustainability and the pursuit of environmentally responsible solutions has been an integral part of our UK core brand focus for 24 years. Through greener products, waste reduction initiatives, and industry-redefining processes, our sustainability transformation strategies are driving the carbon reduction goals of not only our own business, but the entire UK healthcare sector.





SharpSMART has been proactively providing a product and service that is both safe and sustainable for over 20 years. In that time, we've partnered with hospital trusts all over the UK working together to achieve the highest standards of sustainability and carbon emission reductions in the industry.

We're constantly working to improve waste segregation throughout the NHS and supporting new waste streams to divert a higher volume of waste away from landfill, treatment and high-temperature incineration. Our extensive experience providing services in every area of a hospital enables us to manage all types of healthcare waste and always use the best practices of management, disposal, treatment and recovery. Our partnership approach has us working with the NHS to develop auditable and reportable waste plans and milestones that help deliver improvements related to safety, efficiency and carbon footprint reduction.

Working within the four walls of the hospital, we deliver much more than the traditional 'waste collection' approach that healthcare waste companies generally provide; our consultants are on-site conducting waste audits, KPI management strategies and staff training.

We further support the NHS by identifying resources being disposed of that can be either recovered, recycled, or sent for alternative treatment, while also working to eliminate all single-use plastic and packaging associated with containers for sharps and clinical waste.

By aligning with NHS and industry partners, we're consistently forward-thinking and working towards developing new innovations in sustainable waste management; further supporting our partners by providing sustainability education and messaging that's clear and easy to understand. We offer total transparency and visibility of the CO2 generation across our business and related services which enables us to analyse the data and take action where and when needed.

[Here is a breakdown of 2023...](#)

2599.8^{***}

Tonnes of **waste diverted from High Temperature Incineration** using our technology.

1354.7^{**}

Tonnes of **single-use plastic saved** through our reusable containers

316

No. of Employees

£30.1m

Revenue



Reporting period: 11st July 2022 - 30th June 2023

**11,358 tonnes of single-use plastic has been avoided from our customer's supply chain through the use of Sharpsmart reusable containers.

***2,508 tonnes of waste diverted from High Temperature Incineration using Sharpsmart treatment technology.

Our Commitment to Achieving Net Zero

As an organisation, we are committed to bold collective action in decarbonising our operations and partnership strategies, to achieve net **zero emissions by 2040.**



Sharpsmart Ltd (“Sharpsmart”) is a supplier of the world’s first reusable sharps container system, which now supports over 140 hospitals and healthcare sites in the UK in reducing their carbon emissions.

Sharpsmart are committed to leading the healthcare waste industry in practices that minimise environmental impact through innovation and offering total waste management solutions that help to reduce the carbon footprint of healthcare waste.

As part of its Delivering a Net Zero National Health Service (NHS) Strategy, the NHS has set out a clear aim to become the world’s first net zero national health service, with targets to reach net zero for carbon emissions within its control by 2040 and within its wider sphere of influence (NHS Carbon Footprint Plus) by 2045. As a partner that has continuously innovated within sustainability in mind and pushed for more sustainable approaches within healthcare waste management, Sharpsmart are fully supportive of these ambitions.

These ambitious targets require bold collective action, and by working with our customers, employees and supply chain we believe we can achieve Net Zero, together.



Baseline Emissions Footprint

Our baseline emissions will form a reference point against which all future emissions will be measured.



Sharpsmart's baseline emissions are a record of the greenhouse gases that are produced prior to the introduction of any carbon reduction strategies. They will form the reference point against which all future emissions will be measured.

Intensity Metrics

- ▶ **Total tCO₂e per *FTE on gross scope 1, 2 & 3:** 18.1
- ▶ **Total tCO₂e per *£m Turnover on gross scope 1, 2 & 3:** 191.7

Table 1. UK GHG emissions and energy use data for baseline year 01 July 2021 to 30 June 2022

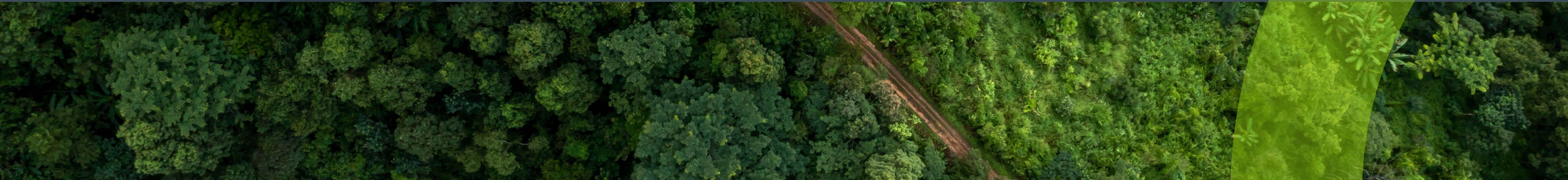
Emissions source	Carbon (tCO ₂ e)
Total Scope 1	3041.84
Total Scope 2	447
SCOPE 3	
Category 4: Upstream transportation and distribution	91.02
Category 5: Waste Generated in Operations	458.28
Category 6: Business travel	144.89
Category 7: Employee Commuting	205.53
Category 8: Downstream transportation and distribution	20.96
Total Scope 3	921
Grand Total	4409
Intensity Metric 1 - per FTE	18.1
Intensity Metric 2 - per £m Revenue	191.7

Adjustments:

Rainham Gas was using extrapolated data: 591,400 kg CO₂e total, Now using flogas primary data for 5 months (extrapolated across the year) with 411,456 kg CO₂ total. Spennymoor Electric missing from baseline year. Now using primary data for 7 months, extrapolated across the year. Adding 50,073 kg CO₂ to baseline year. Spennymoor Gas missing from baseline year. Now using primary data for 8 months, extrapolated across the year. Adding 45,346 kg CO₂ to baseline year. Stoke gas was using extrapolated data: 99,162 kg CO₂e total, Now using Crown Gas primary data for 8 months (extrapolated across the year) with 190,975 kg CO₂ total. Downstream Transportation was missing from baseline year. Now using extrapolated data for postal and courier services. Adding 20,959 kg CO₂ to baseline year.

Current Emissions Reporting

By monitoring our current carbon footprint and comparing to the baseline year, we are evaluating the success of our carbon reduction initiatives and identifying further areas for action



SharpSmart's emissions for this reporting period show a slight increase overall compared to the baseline reporting year.

However, we did achieve:

- ▶ A 33% reduction in our Scope 2 emissions
- ▶ A 22% decrease in gas consumption within Scope 1

Both of these reductions represent significant steps in the right direction on our journey to net zero.

Given the considerable business expansion during this period, the relative reduction in carbon intensity shown by our intensity metrics is in line with our commitment to sustainable growth.

Table 2. UK GHG emissions and energy use data for reporting year 2: 1st July 2022 - 30th June 2023

Emissions source	Carbon (tCO ₂ e)	vs Baseline Year
Total Scope 1	3255.8	7%
Total Scope 2	301.0	-33%
SCOPE 3		
Category 4: Upstream transportation and distribution	33.3	
Category 5: Waste Generated in Operations	650.6	
Category 6: Business travel	182.5	
Category 7: Employee Commuting	213.0	
Category 8: Downstream transportation and distribution	23.2	
Total Scope 3	1102.5	20%
Grand Total	4659.3	6%
Intensity Metric 1 - per FTE	16.1	-11%
Intensity Metric 2 - per £m Revenue	154.5	-19%

Intensity Metrics

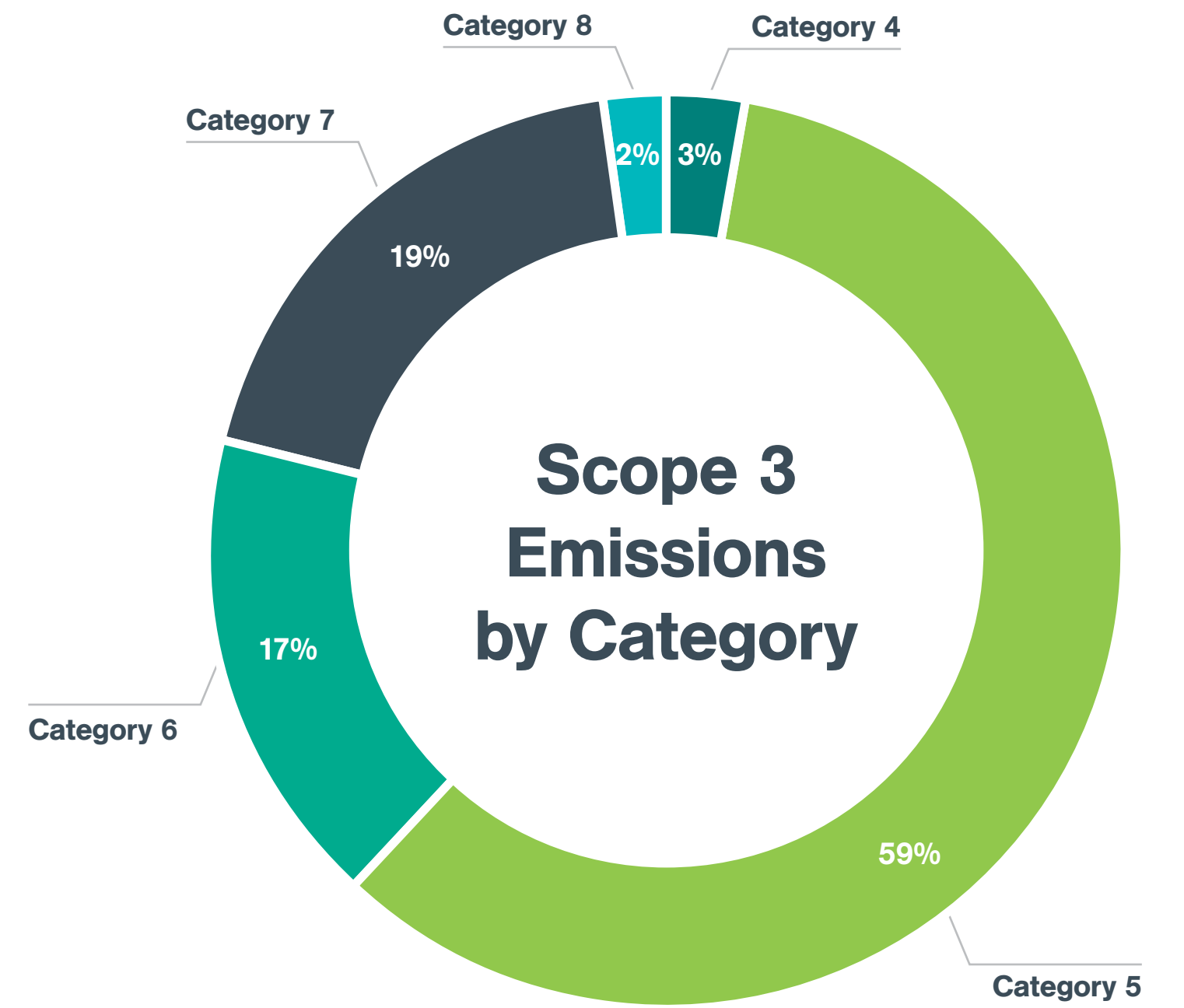
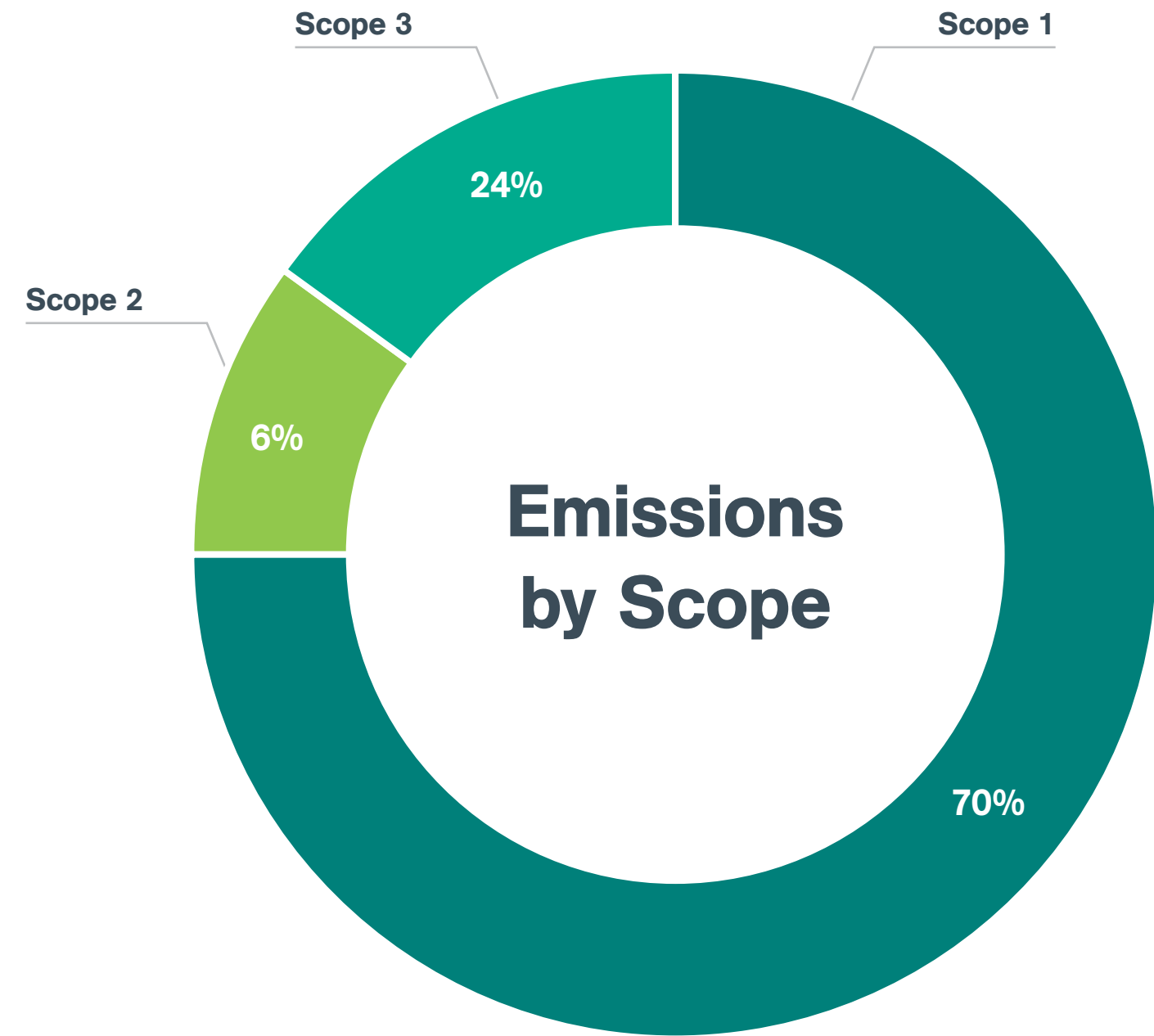
▶ Total tCO₂e per *FTE on gross scope 1, 2 & 3: 16.1 (-11% vs baseline year)

▶ Total tCO₂e per *£m Turnover on gross scope 1, 2 & 3: 154.5 (-19% vs baseline year)

SCOPE 1
3255.8
 tCO₂e
 +7% vs baseline year

SCOPE 2
301.0
 tCO₂e
 -33% vs baseline year

SCOPE 3
1102.5
 tCO₂e
 +20% vs baseline year



NOTES ABOUT METHODOLOGY:

Sharpsmart Ltd has adopted an operational control approach to establishing the boundary. The methodology adopted in line with the Greenhouse Gas Protocol¹ and the BEIS Environmental Reporting Guidelines². The calculations were completed on the SmartCarbon™ Calculator³ using the UK Government emissions factors⁴.

CO₂e is the universal unit of measurement to indicate the global warming potential (GWP) of Greenhouse Gases (GHGs), expressed in terms of the GWP of one unit of carbon dioxide. There are seven main GHGs that contribute to climate change, as covered by the Kyoto Protocol: carbon

dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃). Different activities emit different gases. Using CO₂e allows all greenhouse gases to be measured on a like-for-like basis.

For National grid electricity consumption, Sharpsmart Ltd. has included factors for the transmission and distribution of electricity (T&D) losses, which occur between the power station and site(s). The emissions from T&D has been accounted for in Scope 3. As with other Scope 3 impacts, reporting T&D is voluntary but is recommended standard practice by UK Government².

Emissions Reduction Targets

Our pathway to net zero.





Emissions Reduction Targets

Last year we set a target to achieve a 5% reduction in our gas consumption for the coming 12 month period. Through our planned initiatives, we were able to exceed this target, achieving a 28% reduction in gas consumption across our business despite processing more waste volumes. Work continues through our carbon reduction initiatives to hit our short and medium term Emission Reduction Targets.

As a result of ongoing investment, our strategic growth plan and increasing customer demand, we anticipate that there will be further projects to enhance our operations, including expansion of our transport fleet, treatment processes and staff resources, in the coming years. However, we aim to undertake this growth in a responsible manner and, through our net zero strategy and carbon reduction projects outlined below, in order to reduce our carbon impact.

In order to continue our progress to achieving Net Zero, our interim targets will be to:

- ▶ Achieve a minimum of 10% gas reduction at our waste processing facilities in the next 12 months
- ▶ Achieve a 10% reduction in overall tCO₂e by 2025 focusing on processing and transport efficiencies across our operations to reduce fuel, energy and water consumption
- ▶ Achieve a further 25% reduction in tCO₂e by 2030 through exploration of alternative fuels, sustainable waste treatment, technology and sustainable procurement processes.

Progress against these targets will be demonstrated in Carbon Reduction Plans Sharpsmart publish for future reporting periods.

Carbon Reduction Projects

Environmental management measures: 7 pillars
that will guide our net zero journey.





Emissions Reduction Targets

Over the past 12 months our teams have been working hard to drive efficiencies and reduce our carbon impact.

- ▶ Improvement on intensity metrics, generating an 11% and 19% reduction on intensity metric 1 and 2 respectively.
- ▶ Achieved a 28% reduction (vs our 5% reduction target) in t(CO₂e) products from gas consumption.
- ▶ LED high bay lighting fitted to reduce electrical consumption from 250w to 100w per fitting.
- ▶ Installed a new high efficiency boiler reducing nitrogen oxide emissions down from 200+ NO_x to below 100 NO_x and increase in efficiencies.
- ▶ Improved steam pipe insulation, reducing energy losses.
- ▶ Introducing low pressure running on steam boilers for non-production days to reduce standby gas costs.
- ▶ Installation of a new autoclave to increase capacity and reduce gas consumption per tonne.
- ▶ Upgraded drive and feed control on existing waste shredder to reduce empty running.
- ▶ Upgraded condenser system to go with new autoclave to reduce the energy consumption per tonne of waste treated.



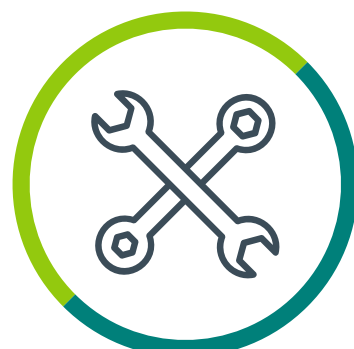
Workforce Driving sustainability awareness, while cultivating a resourced learning environment for each staff member and our customers to minimise their individual and collective environmental impact.



Digital Optimisation A heightened focus on technology utilisation to reduce resource inefficiency, drive quality in communications and reporting, and strengthen service delivery.



Travel, Transport & Maintenance Proactively reducing carbon emissions from transport associated with hospital services, supply chain infrastructure and business travel.



Facilities & Maintenance Establishing purposeful energy-saving initiatives across all Sharpsmart facilities, with site-optimised maintenance planning and water conservation disciplines.



Supply Chain & Stock Management Harnessing our individual and collective purchasing power to drive supply chain decisions that reduce carbon impact across the full life cycle.



Processing & Treatment Delivering technology innovations and green processes that reduce the carbon footprint of waste containment, processing, treatment, and disposal.



Clinical Site Services Embedding net zero principles across all clinical service touchpoints including logistics, supply chain, portering, container tracking, installation, and mobilisation.

As a business, we are taking steps to reduce our environmental impact across 7 key pillars that underpin our Net Zero Together strategy. Overleaf we will explore just some of the carbon reduction reduction initiatives planned for the next 12 months.

Processing & Treatment

Reduce our cycle times and increase batch weights being processed through our treatment systems.

Reduce energy consumption of our plants through improved automated processes, the delivery of real time data and improved communications.

Implement an energy management system to monitor and reduce energy consumption.

Travel, Transport & Maintenance

Minimise road miles, fuel usage and subsequent CO2 emissions through improved routing.

Reduce road accidents and vehicle incidents alongside subsequent emissions to repair and replace vehicles and their parts through the introduction of a driver behaviour monitoring programmes.

Utilise solar power to reduce fuel consumption and maintenance.

Explore alternative fuelled vehicles and commit to trialling suitable vehicles where possible.

Partner with vehicle manufactures which utilise suitable recycled and responsibly sourced materials, aerodynamic vehicle designs and the latest technology to ensure vehicles will minimise their impact on the environment.

Declaration and Sign Off

Aligning with our global commitment to green innovation and environmental stewardship, we are committed to achieving Net Zero emissions by 2040.





This Carbon Reduction Plan has been completed in accordance with PPN 06/21 and associated guidance and reporting standard for Carbon Reduction Plans.

Emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard and uses the appropriate Government emission conversion factors for greenhouse gas company reporting .

Scope 1 and Scope 2 emissions have been reported in accordance with SECR requirements, and the required subset of Scope 3 emissions have been reported in accordance with the published reporting standard for Carbon Reduction Plans and the Corporate Value Chain (Scope 3) Standard.

This Carbon Reduction Plan has been reviewed and signed off by Sharpsmart’s Senior Leadership Team (SLT).

Dan Daniels, CEO

SIGNED ON BEHALF OF SHARPSMART

September 2024

DATE:

Transforming sustainability goals in healthcare waste management



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