



SMILES IN TANDEM

CARBON REDUCTION PLAN

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CARBON REDUCTION PLAN OVERVIEW

Smiles in Tandem is a three-surgery mixed independent and NHS dental practice in Huddersfield, established in 2022 when Karl and Marisa Walker-Finch took ownership of what was Graye's Dental Care, a long established practice. Environmental sustainability was placed at the core of what we do from the very outset. Our team has grown from 8 to 14 with a significant increase in the amount and variety of treatments we provide in the three years since it was established.

**WE AIM TO PROVIDE PERSON-CENTRED CARE IN A
SUSTAINABLE WAY SO THAT TOGETHER WE CAN
ENJOY A HEALTHY PLANET AND OUR PATIENTS CAN
ENJOY A HEALTHY SMILE AND MENTAL WELLBEING**

Our efforts to reduce our carbon footprint began immediately, including things like changing our electricity supply to a renewable one, improving our heating system and encouraging more environmentally friendly travel choices within the team and with our patients. This was done before taking the baseline measurement of our greenhouse gas (GHG) emissions.

We have made significant strides in reducing our carbon footprint by innovating within the healthcare sector to reduce waste and we hope to continue to make further improvements towards becoming as sustainable as reasonably practicable. Furthermore, we hope to inspire other healthcare professionals and practices to do the same, through public speaking engagements and our newsletter.

Our aim at Smiles in Tandem is to have reduced our greenhouse gas emissions by 50% from our baseline, by 2030.

We are committed to the government target of achieving net-zero by 20250, and the NHS's aim of net-zero by 2045. By making significant reductions in our emissions and investing in climate positive solutions in we reached net-zero in 2024. We understand, however, that a truly sustainable solution requires further reductions in carbon emissions in providing healthcare, rather than investing money in consideration or the emissions we do create.

We will continue to review our greenhouse gas emissions annually using ZeroBees with our next audit cycle to be completed before the end of 2025 for the year April 2024 to March 2025.

This Carbon Reduction Plan, in line with PPN 06/21, contains details of our baseline GHG levels, details of subsequent annual GHG levels and our areas of focus for further reductions moving forward. We understand that PPN 06/21 guidance does not currently apply to our small business, however as a pioneer in sustainability in healthcare, we wanted to set the standard and template for other practices.



ZeroBees is a boutique sustainability agency dedicated to accelerating sustainability and carbon reduction across SMEs and supply chains. Smiles in Tandem were part of the pilot scheme which helped develop the online platform for use by other dental practices.

METHODOLOGY

Smiles in Tandem were responsible for the collection and entry of their data for processing with emissions calculations generated by ZeroBees.

Our greenhouse gas emissions have been calculated in line with the GHG Protocol Corporate Accounting and Reporting Standard.

- Organisational boundary: Smiles in Tandem reports on its full operational boundary (all surgeries and administrative functions in Huddersfield).
- Scopes:
 - Scope 1 – Direct emissions from gas heating, anaesthetic gases, and fuel used in company-owned vehicles.
 - Scope 2 – Indirect emissions from purchased electricity.
 - Scope 3 – Indirect emissions across our value chain, including patient and staff travel, purchased goods and services (dental materials and sundries), waste disposal, business travel, and investment-related emissions.
- Emission factors: Calculations use the latest UK Government GHG Conversion Factors for Company Reporting (BEIS/DEFRA), supported by LCA data for specific dentistry products that we use.
- Reporting period: April–March financial year, with April 2022–March 2023 as our baseline.
- Assumptions and estimates: Where primary data was unavailable, we applied reasonable estimates (e.g. average patient journey distance, supplier-provided product weights).

GHG emissions have been expressed as tonnes of carbon dioxide equivalent (tCO₂e) which includes emissions from carbon dioxide, nitrogen oxides, methane, and fluorinated gases.

SUSTAINABILITY CHAMPION

The first step we took on our journey towards more sustainable healthcare was to promote a sustainability champion. This person sought further education on the topic of sustainability both within and outside of the healthcare environment. They were responsible for leading the team in finding new ways in which we could reduce our carbon footprint. They were also heavily involved in data collection and communication with our staff and patients about the changes we have been making.

We included sustainability as an agenda item at every practice meeting which was led by our sustainability champion.

BASELINE GREENHOUSE GAS EMISSIONS

April 2022 to March 2023 emissions summary

Smiles in Tandem

GHG emissions

01.04.2022 - 31.03.2023

zerobees 

Annually
104 tCO₂e

Based on reporting period 01.04.2022 - 31.03.2023

What is this equivalent to?

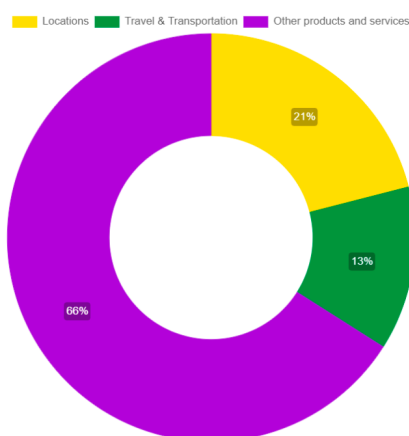
63

Return flights from London to New York

60

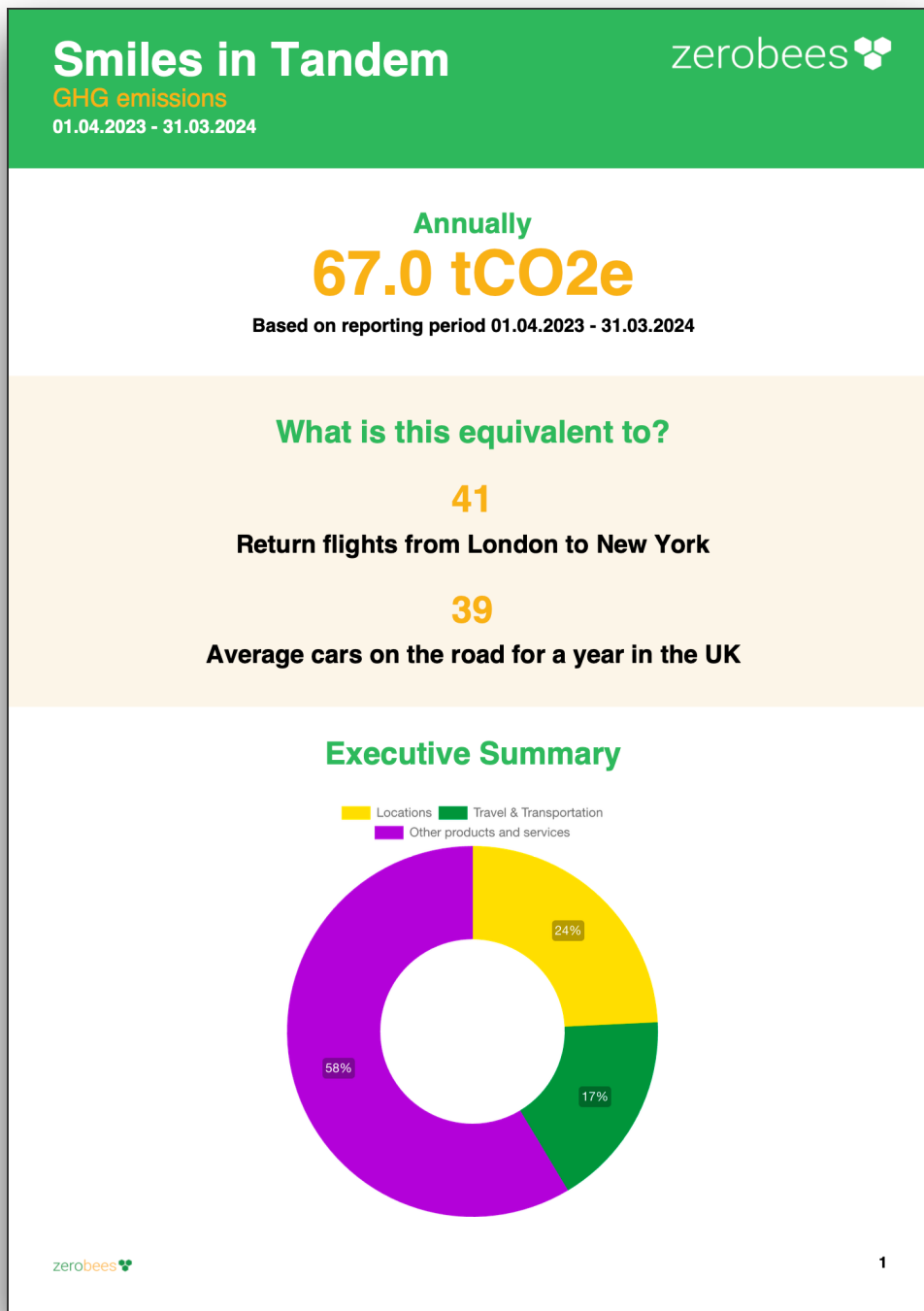
Average cars on the road for a year in the UK

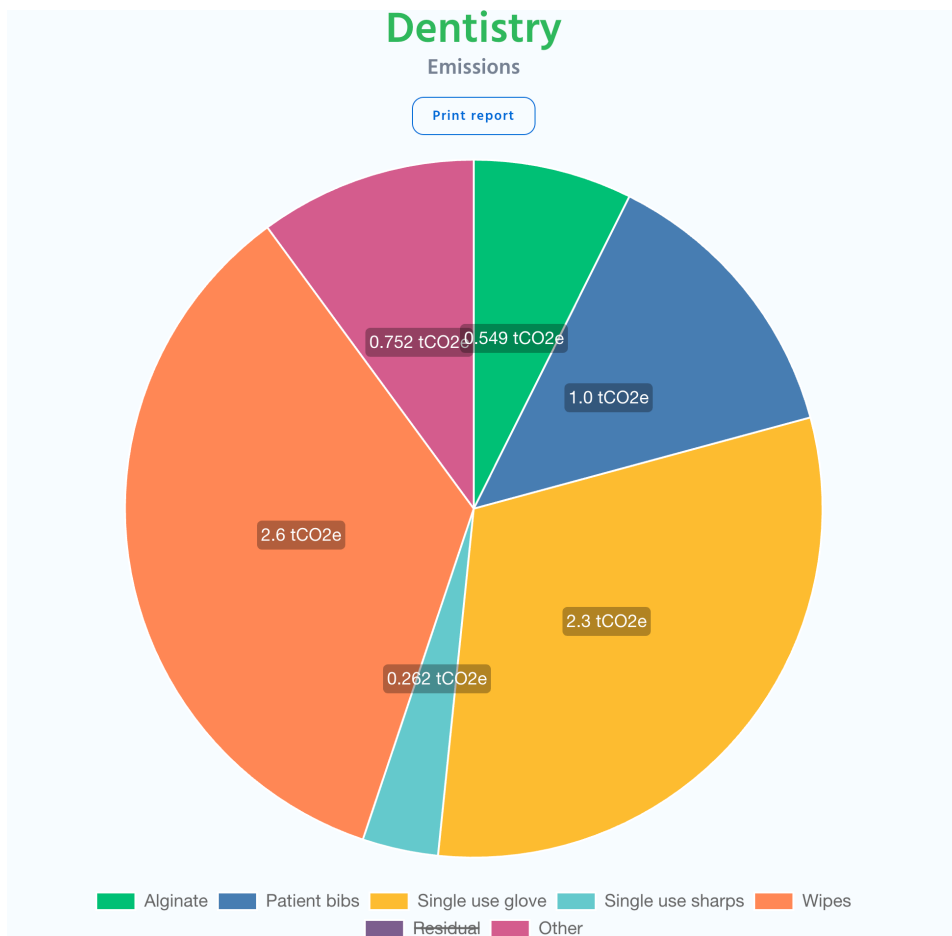
Executive Summary



CURRENT GREENHOUSE GAS EMISSIONS

April 2023 to March 2024 emissions summary





Source of GHG emissions due to the dentistry being done at Smiles in Tandem 2023-24

EMISSIONS REDUCTION TARGETS

We reached net-zero following the conclusion of our 2023-24 calculations. During this first cycle following our baseline calculations, we reduced our GHG emissions by 36%, and then invested in a methane capture from landfill initiative in Brazil in consideration of the 67 tCO₂e we created during the year.

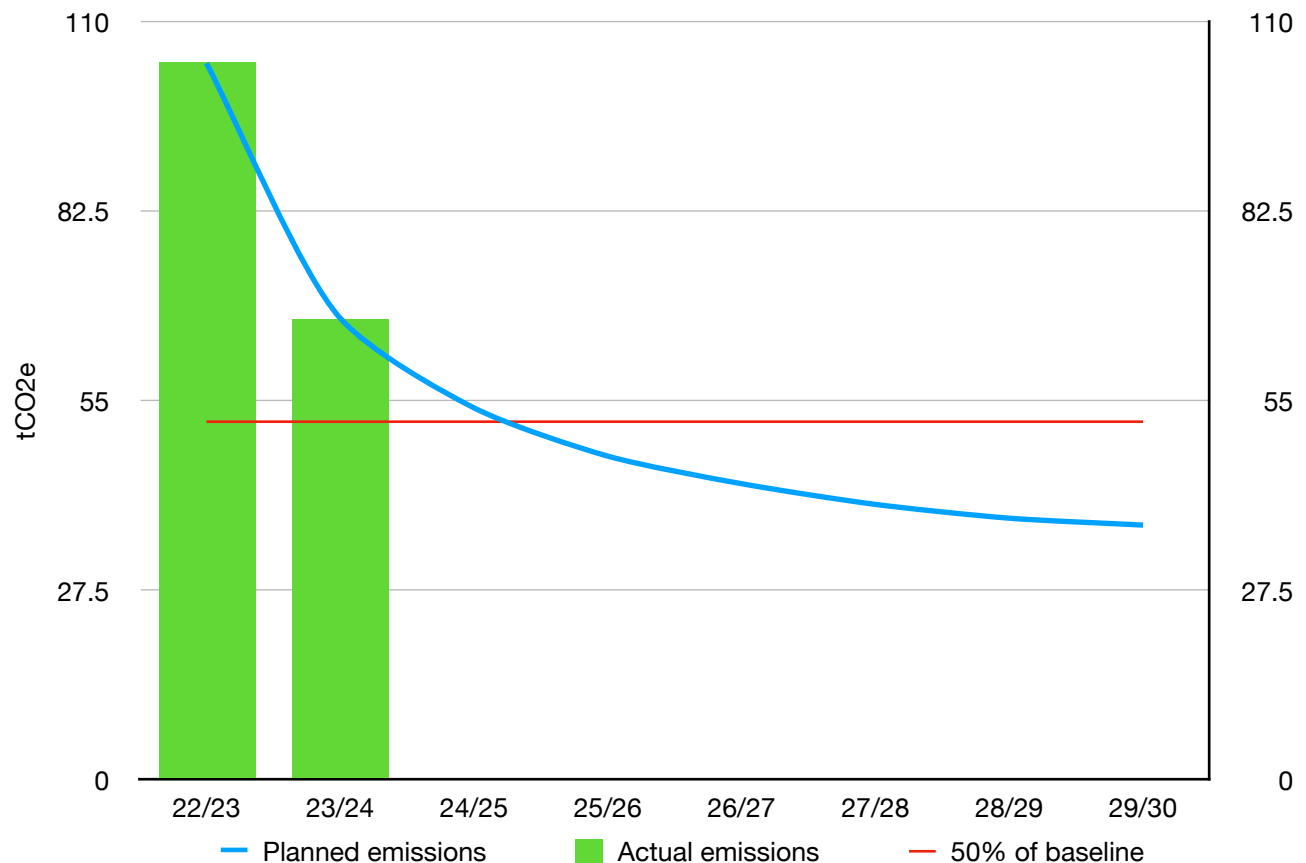
In order to continue to reduce our impact on the climate, we are aiming to further reduce our GHG emissions to 50% of our baseline, by 2030. We're aiming to hit this target without making adjustments for the significant growth of the practice, with an anticipated doubling of turnover by the conclusion of the 2025-26 financial year, compared to the 2021-22 year.

At present, we are projected to have halved our GHG emissions in 2025-26 based on planned changes and their estimated impact on our carbon footprint.

GHG emissions at Smiles in Tandem

Reporting period	tCO ₂ e emissions	Reduction compared to baseline
April 2022 - March 2023	104	
April 2023 - March 2024	67	36%

Actual and planned emissions at Smiles in Tandem



EMISSIONS MANAGEMENT

The following environmental management measures have been implemented before the completion of the 2023-24 measurement cycle. This is not an exhaustive list but one which reflects some of the more significant changes we've made.

1. Financial review

Following the baseline GHG emissions calculation, it was discovered that a very significant proportion of our carbon footprint arose from where the owner's pension was being invested. This was addressed immediately.

2. 100% renewable electricity

We changed our electricity supplier to Octopus on a 100% renewable supply tariff.

3. Energy improvements to the facilities

We have installed a more efficient boiler, smart thermostat and smart meter.

We swapped all light fittings for LED lighting.

We have promoted the use of opening windows rather than the air conditioning on hot days.

4. Waste reduction initiatives

We have made significant reductions in the amount of clinical waste we have generated by educating the whole team on the correct segregation waste into clinical, general and recycling disposal streams.

We have introduced recycling bins and made them widely available

We installed a compost for cardboard packaging and food scraps from staff lunches

5. Travel

Within dentistry, studies have demonstrated that over 64% of emissions come from travel from both patients' journeys and staff commuting.

Patient travel

- Appointment consolidation - We have engaged with the whole team and our patients to consolidate appointments to reduce travel, including encouraging families to visit together and combining multiple appointments such as dental health reviews and hygienist appointments to be done at the same visit.

Staff travel

- We have also informally recommended that staff, where possible walk to work, use public transport, or car share. If driving is necessary, the benefits of electric vehicles has been discussed, and walking the last mile to work has been promoted as a way of taking a small step in the right direction.

6. Clinical improvements

We have significantly reduced the number of single-use items used at the practice, including:

- using reusable aspirator tips whenever appropriate
- no longer using tray liners or single use plastic sleeves which have no evidence of efficacy
- not putting out a 3-in-1 tip, mouthwash cup and patient bib by default for every appointment
- Using washable towels in our local decontamination unit instead of single use cloths
- Reduced steripouch use by utilising sealable containers for exam kits in surgery.

- Provided reusable hand towels as an alternative to paper towels in staff and patient bathrooms

In addition to the reduction in single use items listed above, further improvements have been made by:

- using intra oral scanning rather than conventional dental impressions, significantly reducing waste
- using in-house milling instead of sending jobs to laboratories, reducing waste and travel of work to and from laboratories

7. Stock and sundry management

We undertook a comprehensive review of our stock and made sure we:

- Kept to single monthly orders from as few suppliers as possible, meaning less deliveries and less packaging
- Stock more sustainable options for sundry sales to make more sustainable oral healthcare options available to our patients
- Buying only paper only made from 100% recycled sources
- Using biodegradable mouthwash cups instead of plastic

8. Optimising facility utilisation

We are continually striving to maximise the use of our currently building, both in terms of providing the optimal amount of working space for our growing team, and ensuring we utilise our available surgery time as effectively as possible to provide the maximum amount of care, for the level of GHG that are created from our building on a daily basis.

9. Digitising processes

Through changing to Dentally, our practice management software, we have implemented a patient portal allow our patients to digitally complete the significant amounts of necessary documentation, such as updating medical histories, or providing consent forms and treatment estimates without needing to print them.

We have also set up a shared cloud drive which has replaced many of the paper documents, such as policies, staff files and log books.

Intangibles

In addition to the above listed environmental management measures we have taken, all of which have an impact on our GHG emissions, there have been several measures that we have taken that are beneficial for the environment that are less tangible and unlikely to be reflected in our emissions measurements.

Preventative dentistry

Reductions in the impact of patient travel to the practice largely revolve around focusing on preventative dentistry, minimising the number of interventions and therefore appointments any patient may need. The impact of this is not likely to be noticed in measuring a carbon footprint, as with reduced number of appointments for each patient will lead to an increased number of patients we are able to help, and thus it may be anticipated that the number of patient journeys will remain fairly stable.

In addition to a reduction in travel, a focus on preventative care will reduce the frequency of recalls and the additional material costs associated with providing treatment.

Biodiversity

Adjacent to our practice building was a small gravel area which was weeded regularly but otherwise left uncared for. Using this space, we have created our wild garden by spreading peat-free compost and scattering wildflower seeds and planting flowers from our home gardens. Further compost for this area will be created from our aforementioned compost bins. Whilst this will not show up on our GHG emissions measurements, promoting biodiversity not only benefits our planet, but also is a visible demonstration of our commitment to provide environmentally friendly healthcare.

Buy well, buy once

In the short term, a slightly large outlay on some equipment and materials has come about as we've implemented a buy well, buy once policy. We're committed to the long term benefits of reduced need replace failing equipment by buying better quality in the first place, and ensuring all equipment is maintained to the highest standard.

Sustainability promotion

We have also been keen to promote positive environmental changes throughout our patient base, with our suppliers, and with other healthcare providers. In this regard we have:

- Included a "For Our Planet" section in our monthly patient newsletter detailing what improvements we've made in the last month on our sustainability journey
- Promoted the benefits of walking or using public transport when attending appointments
- We plant a tree through Ecologi for every new patient who joins us on recommendation from an existing patient creating our Forest of Smiles
- Quizzed our suppliers on their environmental credentials in the hope of educating them and underlining the importance of their role in our sustainability journey
- Spoken at a study club to share our sustainability journey amongst fellow healthcare professionals in the hope that they too can start to take positive steps forward.

Invested in climate positive solutions

Finally, whilst we continue to strive to lower our GHG emissions, we have invested and committed to continue to invest in climate positive solutions in response to our annual GHG emissions. In light of the 67tCO₂e in the 2023-24 cycle, we invested in a methane capture from landfill project through Ecologi.

AREAS OF FOCUS TO REDUCE EMISSIONS

Since the completion of the 2023-24 cycle, we have implemented the following changes, the impact of which will be seen when the 2024-25 calculations are finalised.

- Switched to reverse osmosis (RO) water instead of distilled water which required a much greater use of electricity running almost all day every day to produce the levels required for the practice.
- Switched our clinical waste from orange hazardous waste bags to tiger strip bags. We needed to change our waste management service in order to do this however our new waste management provider has far more sustainable credentials, including empowering us to change to the much less environmentally damaging waste disposal workflow for tiger stripe bags.
- We have trained one of our dental nurses in oral health education and fluoride application which will bolster our focus on preventative care. These appointments are provided alongside existing ones to avoid additional patient visits.
- We have installed Veraco dispensers, which provide a paper towel soaked in disinfectant, eliminating the need for single use wipes.
- We have removed our computer server which we were required to run 24/7 by switching to cloud based radiography software.
- Provided tablets for updating medical histories, signing consents, providing estimates in-house for patients who we unable to access their patient portal on their own mobile device, further reducing the amount of paper use.
- We have continued to discuss sustainability in our newsletters and our staff meetings, including improving staff awareness of a sustainable pension fund option.

Moving forwards, we have identified the following areas to further reduce our GHG emissions:

- Install solar panels
- Convert our attic to maximise our facility utilisation
- Assess the viability of switching to a more local supplier for dental materials to reduce procurement emissions
- Improve energy efficiency
- Continue to optimise diary booking and attract new patients to optimise our chair utilisation
- Reinforce the impact of sustainable travel choices for our patients and our team, possibly with some incentive to sustainable travel choices amongst team members
- Switch to seed impregnated thank you cards to promote sustainability across our patient base to further promote environmental awareness across our patient base
- Karl has also been booked to speak at a national dental conference on Smiles in Tandem's sustainability journey

DECLARATION

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

Emissions have been reported and recorded as accurately as possible and GHGs converted in accordance with Government emission conversion factors.

Signed on behalf of Smiles in Tandem

Karl Walker-Finch
Owner and Principal Dentist

Date: 29th September 2025