

VMI CARBON AUDIT REPORT

2024 FINANCIAL YEAR

COMPLETED JUNE 2025

CONTENTS

[INTRODUCTION](#)

[EXECUTIVE SUMMARY](#)

[2024 CARBON FOOTPRINT](#)

[BENCHMARKING](#)

[LONDON | 2024 VMI CARBON FOOTPRINT BREAKDOWN](#)

[BRISTOL | 2024 VMI CARBON FOOTPRINT BREAKDOWN](#)

[YEAR ON YEAR COMPARISON](#)

[INTRODUCTION](#)

[STAFF ENGAGEMENT](#)

[SCOPE 1 & 2 | EMISSIONS UNDER DIRECT CONTROL](#)

[SCOPE 3 | INDIRECT EMISSIONS FROM OTHER ACTIVITIES](#)

[IMPROVEMENTS FOR MEASUREMENT](#)

[INTRODUCTION](#)

[2024 GOALS REVIEW](#)

[NET ZERO PATHWAY](#)

[AUDIT FIGURES](#)

[METHODOLOGY](#)

[A NOTE ON CAPITAL EXPENDITURE](#)

[DEFINITIONS & DESCRIPTIONS](#)

[RESOURCES](#)

[FURTHER READING](#)

[8 R'S OF WASTE PHILOSOPHY](#)

INTRODUCTION

This report outlines VMI's annual carbon footprint, measuring operational activity for the financial year running from 1st Jan 2024 to 31st December 2024. Ongoing measurement provides a basis from which to assess current short-term and long-term emission reduction goals as part of VMI's wider sustainability strategy.

A Carbon Footprint is measured in 3 Scopes:

Scope 1: direct emissions that come from fuel burned on site, such as gas used for heating.

Scope 2: indirect emissions that come from energy purchased from other sources, such as electricity.

Scope 3: indirect emissions from everything else across the business, from up and down the value chain. It's measured in 15 categories (as applicable), such as business travel, waste, purchased goods and services, staff commuting etc.

To accurately reflect the emissions that VMI has direct control over, in line with the Science-Based Targets initiative and GHG Protocol guidelines for SMEs, this report shows the emissions using both the location-based and the market-based electricity approach.

The total footprint is measured in tonnes of CO₂e (carbon dioxide equivalent); CO₂e is the collective unit of measurement of Greenhouse Gases including carbon dioxide, methane, nitrous oxide and water vapour. The footprint was calculated using Climate Essentials, with supporting evidence provided by Barry Bassett of VMI.

EXECUTIVE SUMMARY

Total 2024 Carbon Footprint

164.2tCO₂e: VMI's total annual footprint, which is the equivalent of:

*481 return economy class flights from London to Barcelona,
OR 37 petrol cars on the road for a year,
OR someone existing in the UK for 13 years.*

The largest contributors are products and services purchased (48%). This includes consumables and CapEx items such as for-hire batteries, camera equipment and lighting equipment. Delivery vehicles created 18% of emissions, followed closely by employee commuting at 10%.

VMI has reduced their total footprint by 47% compared to 2023 (311.1tCO₂e) and by 29% compared to the 2019 baseline (231.3tCO₂e)¹.

Total 2024 Operational Carbon Footprint excluding CapEx²

85.3 tCO₂e³: VMI's footprint, including all other relevant scope 3 emissions but without capital expenditure, which is the equivalent of:

*250 return economy class flights from London to Barcelona,
OR driving a petrol car from Lands End to John O'Groats and back 128 times,
OR the average person living in the UK for 7 years.*

When putting CapEx to one side, delivery vans become 34% and employee commuting becomes 19% of emissions, while services employed such as IT, accounting and advertising move into third place (17%).

Scope 1 emissions, which are under direct control of VMI, and are mainly gas and transport, represent 46% of the total footprint and should remain the focus for reduction efforts.

¹ VMI expanded their scope of measurement from 2021, including more areas of £spend and accurate employee data, so this particular 2019 comparison is not like for like.

² VMI cannot implement policies to directly reduce CapEx-associated emissions and the amount of these products VMI needs to purchase to stay in business is largely determined by client need. At times, the size of VMI's CapEx emissions skews analysis making charts and recommendations unhelpful. By occasionally excluding CapEx emissions from discussions, VMI can more clearly see where they can make the most direct and material reduction actions. There is more on this throughout the report

³ 85.3 tCO₂e is the figure excluding CapEx items listed as 'Product Purchases', 'Film/Cine Equipment products' and 'Capital Goods' on Climate Essentials. This is in line with the methodology used for the 2019 baseline figure (123.3 tCO₂e).

Scope 2 emissions represent only 2% of the total footprint due to VMI choosing a 100% renewable energy tariff and because they have installed on-site solar energy generation.

VMI has reduced their footprint, excluding CapEx, by 31% compared to the 2019 baseline figure (123.3tCO₂e).

Focus on scope 1 emissions

Having reached a 39% reduction in scopes 1 and 2 since 2019, good progress is being made in this area. Emissions from business-owned transport and gas usage make up 46% of VMI's footprint and VMI will clearly see the emission reduction benefits from the purchase of hybrid vehicles in Nov 2024 in their next audit.

Efforts should be made to finalise tracking of hybrid and EV vehicle charging to ensure true emissions are captured accurately. Divesting from and reducing gas use is the next step to reducing these emissions further.

Continue efforts to use influence with employees and suppliers

VMI has positioned itself as a leader within the business and the sector. Through its employee engagement plans, employee EV-ownership has increased. VMI also coordinates supplier sustainability meetings with other companies in the sector to collaborate and push for improvements and recognition in the wider industry for similar SMEs. These continued efforts to engage mindset shift in stakeholders, although not all measurable in carbon auditing, should not be overlooked in their significance.

Continued employee engagement is suggested to further reduce commuting emissions, especially targeting the 38% still using petrol or diesel vehicles.

Target setting

VMI has set a target of reaching net zero in Scopes 1 & 2 and 50% reduction in Scope 3 emissions by 2030, in line with SME Climate Hub and Race to Zero targets.

To do this, the goals for 2025 are to reach 65% reduction in Scopes 1 & 2 and 10% reduction in Scope 3 emissions. This report outlines reduction recommendations and a pathway in line with this target.

**VMI'S OPERATIONAL
CARBON FOOTPRINT
HAS REDUCED BY
31% SINCE 2019.**

2024 CARBON FOOTPRINT

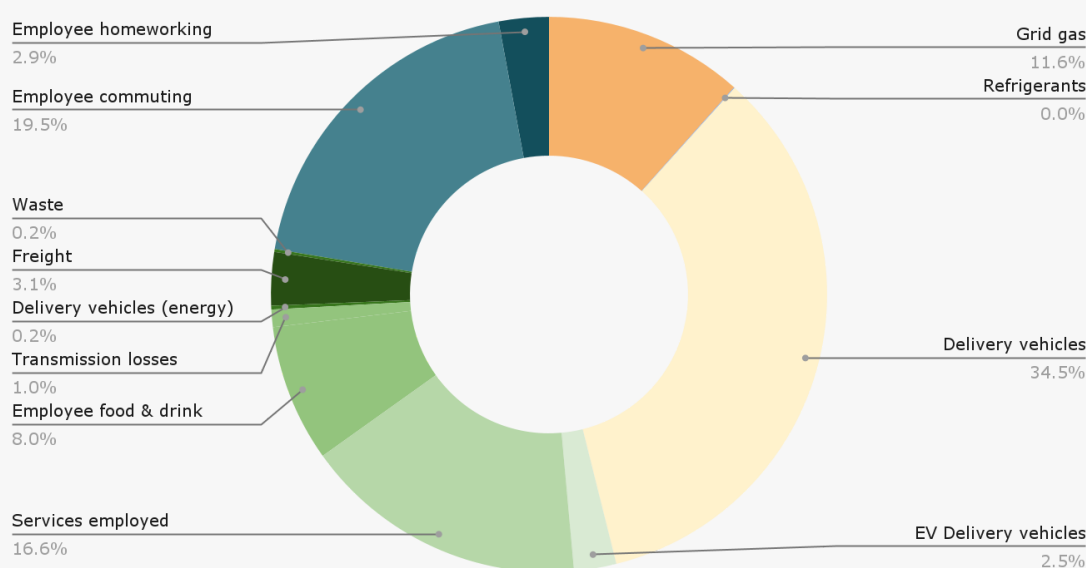
VMI's carbon footprint, excluding CapEx, across both London and Bristol sites is 86.4 tCO₂e. The footprint falls into scopes as below:

Scope 1 | 46% | 39.4 tCO₂e - Diesel vans, Grid gas, AC refrigerants.

Scope 2 | 3% | 2.1 tCO₂e - Electricity for EVs.⁴

Scope 3 | 51% | 44.9 tCO₂e - Purchased goods & services, fuel and energy related activities, freight, waste, other travel, employee commuting and home working.⁵

The largest emission areas are: transport from diesel vans (35%), employee commuting (19%) and services employed such as outsourced IT, accounting and advertising (17%).



A chart showing the breakdown of scopes by activity area across both VMI sites.

Grid gas emissions have been included in this report because the 'green gas' tariff definition is misleading in its exclusion of emissions on the Climate Essentials platform⁶. Octopus Energy, VMI's gas supplier, does not provide 'green gas' e.g. biomethane or hydrogen; it does however carbon-offset the natural gas it supplies by investing in global carbon-offsetting schemes.

VMI has opted to report on scope 2 emissions using both location-based and market-based approaches for transparency and a willingness to adhere to best practice advised by the GHG Protocol, although it is not a requirement for the size of the organisation. When reporting scope 2 emissions using the location-based approach, VMI's emissions increase from 2.1tCO₂e to

⁴ There is no mechanism on the Climate Essentials platform to differentiate the energy tariff with which, or where, these vehicles were charged.

⁵ These are the Scope 3 emission categories as listed in Climate Essentials.

⁶ Climate Essentials has been informed of this.

9.81tCO₂e⁷. This demonstrates the importance of choosing a 100% renewable electricity tariff.

This audit also includes the 17,326 kWh of onsite energy generated across both sites. VMI was a net exporter of electricity for 4 months (May-August) of the reporting period due to solar power.

BENCHMARKING

As businesses fluctuate, it is useful to reflect on intensity measures to ensure that true reductions are being made alongside increasing employee numbers⁸. Intensity metrics, such as per employee, are used to track reductions alongside other KPIs, such as £million turnover.



4.1tCO₂e per full-time employee (covering Scopes 1, 2, & 3).

The averages available from the Office for National Statistics (ONS) per sector are offered for comparison⁹. The arts and entertainment sector per employee has been used below.

Please note: The ONS looks at only Scope 1 emissions, and when using a like-for-like comparison, VMI is half a tonne above the ONS average. As a benchmark, VMI could use this as a new reduction target in Scope 1.

INTENSITY MEASURES	tCO ₂ e
ONS average tCO ₂ e per employee (scope 1) - arts, entertainment & recreation sector	1.4
VMI tCO ₂ e per employee (Scope 1 only)	1.9
VMI 2024 tCO ₂ e per employee (all scopes, excl CapEx)	4.1

⁷ More information about location-based vs market-based emissions in the Methodology, Definitions & References section.

⁸ More information in Methodology, Resources & Definitions.

⁹ Source: ONS [Dataset Emissions per employee, UK: 2015 to 2022](#).

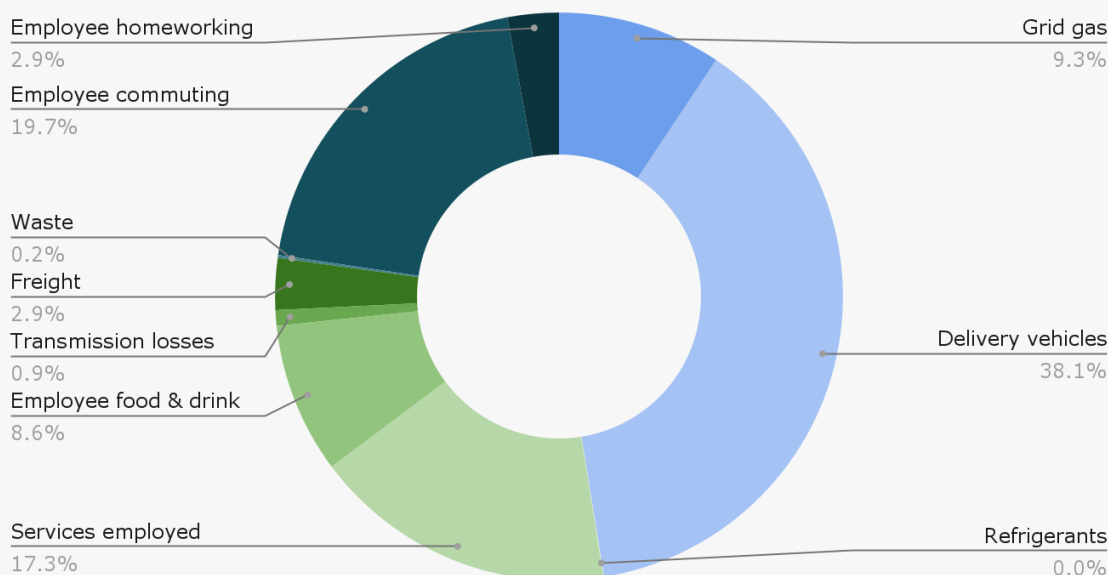
LONDON | 2024 VMI CARBON FOOTPRINT BREAKDOWN

VMI's carbon footprint, excluding Capex, in London is **77.2 tCO₂e**, making up 91% of the total 2024 footprint. The footprint falls into scopes as below:

Scope 1 | 47% | 36.6 tCO₂e - *Grid gas, Diesel vans, AC refrigerants.*

Scope 2 | 0% | 0 tCO₂e

Scope 3 | 53% | 40.5 tCO₂e - *Services employed, fuel and energy related activities, freight, waste, employee commuting and home working.*



A pie chart showing breakdown by activity area for London.



4.3tCO₂e per full-time employee.

The largest contributors in London are diesel vans (38%), employee commuting (20%) and services employed (17%). VMI replaced two diesel vehicles with hybrid vans in November 2024, however, Climate Essentials doesn't have the function to record hybrid van mileage. It is likely the true emissions are between 0.7 and 0.9 tCO₂e lower accounting for these two months of lower carbon mileage.

According to the staff survey, 31% of employees walk or use public transport, 19% drive EVs and a further 13% drive hybrid cars. It is suggested efforts are made to encourage the remaining 37% who drive petrol or diesel vehicles to switch to any lower-carbon commuting methods. Employee food and drink is tracked as 'low-meat content'. If shifts could be made to encourage 100% vegetarianism, as already happens in Bristol, this would further reduce emissions by up to 20%. It is clear from the positive employee behaviours listed above, that VMI has a truly engaged workforce.

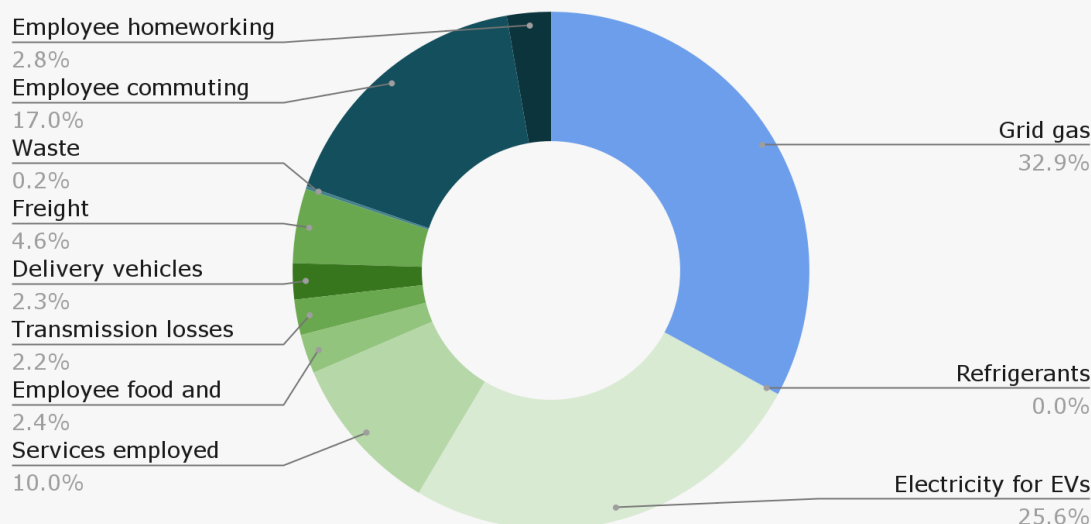
BRISTOL | 2024 VMI CARBON FOOTPRINT BREAKDOWN

VMI's carbon footprint, excluding CapEx, in Bristol is **8.2 tCO₂e**, making up 9% of the total 2024 footprint. The footprint falls into scopes as below:

Scope 1 | 33% | 2.7 tCO₂e - *Grid gas, refrigerants*

Scope 2 | 26% | 2.1 tCO₂e - *Electricity for electric vans.*

Scope 3 | 41% | 3.4 tCO₂e - *Services employed, employee food and drink, fuel and energy related activities, waste, employee commuting and home working.*



A pie chart showing the breakdown of scopes by activity area for Bristol.



2.7tCO₂e per full-time employee.

The largest contributors to the footprint total in Bristol are grid gas (33%), electricity for company-owned electric vans (26%) and employee commuting (17%). Emissions from charging VMI-owned vans are calculated through mileage. If vans were only charged onsite at VMI, this figure would be nil, thanks to renewable energy throughout VMI sites. There isn't evidence to guarantee this, and Climate Essentials doesn't yet provide a mechanism to record it.

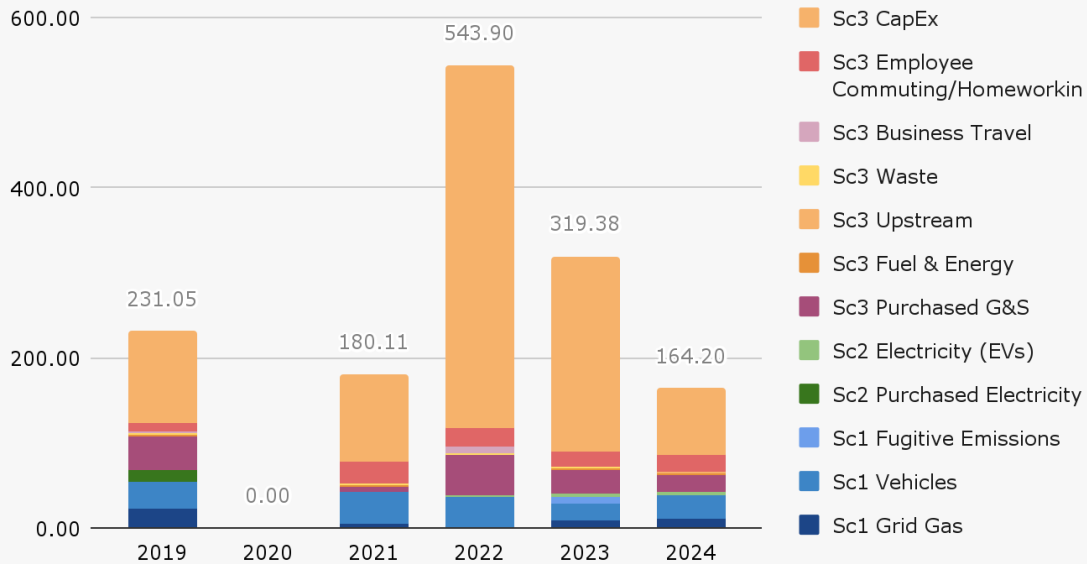
Most employees commute in cars, two of those are EVs and one employee walks/cycles. All food and drink provided to employees is vegetarian. This demonstrates that employee mindset is also greatly sustainability-focused at the Bristol site.

**VMI HAS ACHIEVED
A 39% REDUCTION
IN SCOPES 1 & 2
EMISSIONS SINCE
2019.**

YEAR ON YEAR COMPARISON

YoY Comparison | Including CapEx

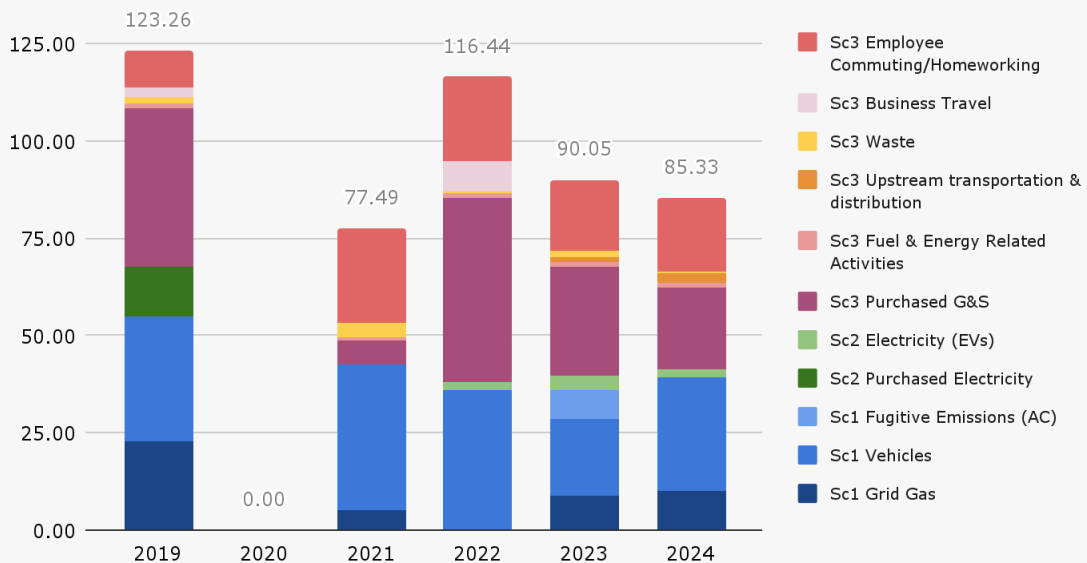
VMI's footprint, including CapEx, is 164.2 tCO₂e. The graph below illustrates the distribution of emissions created by VMI through the years of reporting, including CapEx. There has been a 49% reduction since last year.



YoY Comparison | Excluding CapEx

VMI's footprint, excluding CapEx, is 85.3 tCO₂e.

VMI has reduced its footprint by 5% since last year. The graph below illustrates the distribution of emissions created by VMI through the years of reporting, excluding CapEx¹⁰ as listed on Climate Essentials.



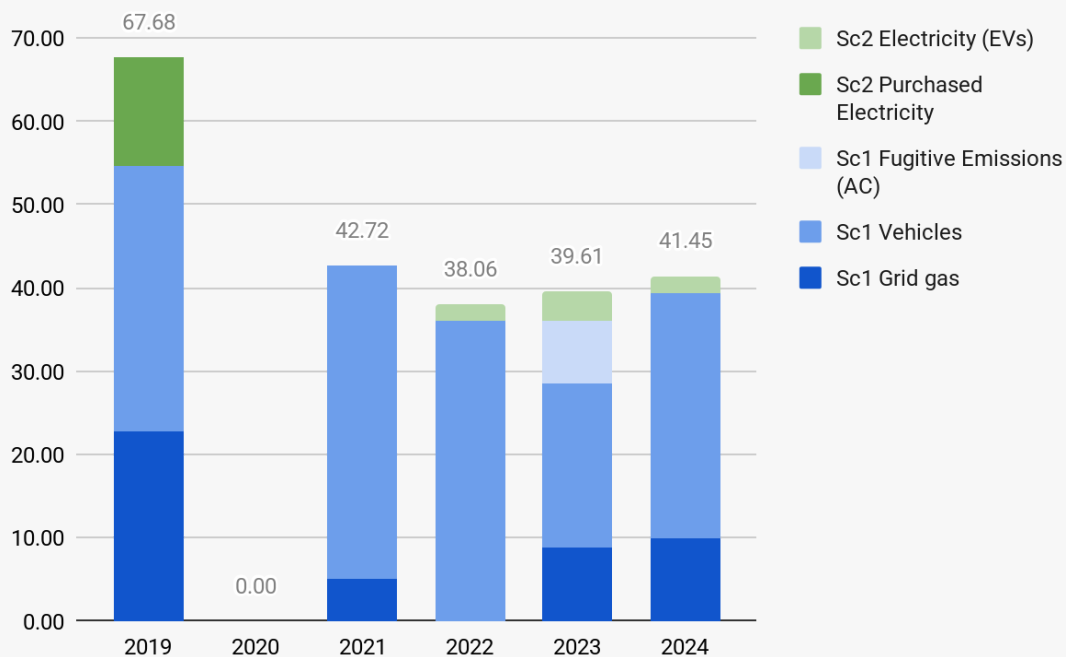
¹⁰ Please note grid gas emissions have been included in retrospective graphs to show transparency across all years of reporting. This has affected previous year's totals.

The graph above illustrates the areas in which VMI has made carbon savings, e.g. fugitive emissions, purchased goods & services and waste. It also highlights which emission hotspots remain consistent, and in some cases growing, as seen in vehicle emissions and grid gas use.

YoY comparison | Scopes 1 & 2 Exclusively

The graph below illustrates VMI’s Scope 1 and 2 emissions from 2019. There has been an increase of 5% overall since last year. 2019-2023 grid gas data is presented as recorded in the Climate Essentials tool.

There was no recorded gas use in 2021 in London, and no recorded gas use in either site in 2022.



A graph demonstrating the distribution of emissions in Scopes 1 and 2 across all years of reporting.

REDUCTION RECOMMENDATIONS & NEXT STEPS

INTRODUCTION

This section outlines further emission reduction recommendations based on the largest contributors to VMI's carbon footprint.

STAFF ENGAGEMENT

VMI is already a recognised leader in creating a culture where climate impact is prioritised in decision-making, empowering staff and demonstrating to clients that it is strongly committed to supporting the industry's transition to low-carbon.

Staff engagement and communication will continue to be a vital part of the success of any sustainability strategy. It is recommended that all employees are sent this document, and space is given to report back with suggestions and questions about how to make the best use of the information in their departments.

SCOPE 1 & 2 | EMISSIONS UNDER DIRECT CONTROL

Business-owned transport

Diesel accounts for 34% of VMI's total footprint, an increase of 9% since last year. VMI replaced two diesel vans with hybrid vans, and Bristol has been diesel-free for 2 years, demonstrating a commitment to avoiding fossil fuel use, with consideration given to what is available and investment cycles. The Avoid - Improve - Shift model for transport is included as a reminder of further reduction steps.

- **Avoiding** fuel use at the outset, e.g. prioritising electric vehicles and vans, would remove these emissions. VMI could also consider space for more EV charging stations where possible.
- When that is not possible, **shifting** to alternative drop-in fuels is the next best step.
- VMI could consider using a telematics system to **improve** insight into fuel use. It is also suggested to have regular low-emission driving training with staff to encourage **improved** practices - this would help reduce overall fuel consumption.

Fossil fuel-based facility heating

Gas emissions represent 12% of VMI's total footprint. The installation of electric heaters, a ground or air-source heat pump could reduce natural gas use and emissions and could be a cost-saving measure, particularly given

VMI's electricity generation. More information from [Ofgem](#), the [Boiler Upgrade Scheme](#) and [UK Business Climate Hub](#).

Energy efficiency

To further reduce both Scope 1 & 2 emissions, it is suggested VMI carry out a facilities energy audit, and as a result, outline an Energy Management System (EMS) to reduce overall energy use. This may also support emissions reductions and lower utility bills.

NB: VMI already purchases 100% renewable electricity. However, energy efficiency measures remain crucial to ensure the distribution of renewable energy as the global supply is not entirely renewable - yet!

SCOPE 3 | INDIRECT EMISSIONS FROM OTHER ACTIVITIES

Scope 3 accounts for all other indirect emissions from business-related activities. As VMI doesn't have direct control over these emissions, it is crucial to continue to communicate company policies to employ purchasing power in reduction efforts.

Internal Communications

- **Environmental Policy:** audit yourselves against your current policy; update and publish a new policy incorporating recommendations from this audit.
- **Catering / Subsistence policy:** Mandate business-expensed food to be vegetarian only in the London office; it is already happening in Bristol!
- **Conduct an employee home working analysis:** Analyse the difference in emissions impact between energy used for homeworking or office working and energy used in commutes, and adjust policies/employee asks accordingly.
- Provide additional **training and support** for the team to understand this audit, and refresh on the importance of climate action at home and in the office.
- **Employee Home Electricity Incentivisation:** Further encouragement for employees to switch to 100% renewable electricity providers and divest from gas at home where possible. Provide information and promote government programmes to help with these initiatives e.g. [Green Deal](#), [Boiler Upgrade Scheme](#) and [Warmer Homes Plan](#). Include questions on this in the staff survey so it can be tracked and included in your emissions reporting.
- **HR Hiring Policy:** To prevent an emissions increase larger than the growth of the team, it is suggested to advertise new roles locally and consider commuting/ homeworking factors when hiring.

Suppliers

- Focus on **repairing, reusing and buying second-hand** when purchasing capital goods to reduce embodied carbon. Suppliers of laptops, etc, such as [Apple Refurbished](#) and [BackMarket](#). Emissions are higher for goods due to embodied emissions in the manufacture and transportation. It is recommended VMI purchase only second-hand items such as internally-used IT equipment and furniture, and record this effectively so it can be reflected in future audits. *It is noted that this is not possible for all CapEx purchases for external hire such as lighting and camera equipment, and batteries.*
- **Use your purchase power:** Create a procurement programme which asks what suppliers are doing to measure and reduce their emissions, such as 100% electricity, vehicle electrification or low-carbon delivery options. Engage with suppliers to ensure they have the support and collaboration needed on their own pathways to decarbonisation.
- **Review your bank** and, if necessary, consider moving to a Co-Op or divested bank (Triodos, Nationwide). Find out more at [MyMotherTree](#). *(Not yet acknowledged in carbon footprinting)*
- **Remind employees of social and environmental pension choices and ensure financial investments are divested.** If necessary, move from institutions investing in arms, coal, oil and natural gas. *(Not yet acknowledged in carbon footprinting)* Find out more at [Bank Better](#), [bank.green](#), [Finance Innovation Labs](#).

IMPROVEMENTS FOR MEASUREMENT

General

It is suggested that VMI use the Climate Essentials data document to gather all information needed for the audits. Efforts made in advance of the audit will increase the accuracy of data, increase efficiencies and reduce queries. This document, adjusted for VMI, is attached [here](#).

Scope 2 emissions

All Scope 2 emissions were created through EV charging. Recording how any company-owned vans were charged, e.g. on-site using 100% renewable energy or tracking off-site charging, would allow further confirmed reductions¹¹.

¹¹ Climate Essentials has no mechanism to account for this at the time of writing. This has been brought to the platform's attention.

Scope 3 emissions

Home working and commuting emissions

Review of the staff survey questions to ensure all data is collected at the time of response. This includes questions on home electricity tariff, equipment for home working and clearer instructions on mileage for commutes.

CapEx Waste audit

Embodied emissions in CapEx purchases are largely out of the control of VMI, however, the end of life choices may offer VMI influence. Choosing not to purchase items which aren't repairable and/or don't have circular programmes offered (buy-back, second-life, recyclability) may be an option.

VMI should consider doing a waste audit for the capital goods that it owns, ensuring there is a best practice end-of-life process in place for each. e.g. understanding where equipment can be repaired, warranties, where batteries get recycled, where to sell equipment to secondhand buyers, how broken kit is disposed of, etc. It is likely that VMI is already appropriately disposing of or recycling many of these items. Formalising this process through a full waste audit and waste policy, with focus on CapEx purchases, may prove beneficial and likely provide a positive story.

Using VMI's collaboration platform with other rental houses to advocate for further circularity from manufacturers may provide significant emissions savings in the extended value chain.

Couriers

Improvements to courier tracking, including modes of transport and mileage will provide a fuller picture of true downstream transport emissions. Work with suppliers to obtain account reports of all orders sent. This can prove to be a positive story if all couriers within a local radius are proven to be via low carbon modes of transport.

CARBON REDUCTION PATHWAY

INTRODUCTION

Below is a list of key milestones from VMI's journey to Net Zero so far and key goals VMI has set for the future.

2018 Achievements

- All electricity is 100% renewable.

2019 Achievements

- First carbon audit undertaken. Benchmark set for further carbon reduction.
- Became a verified London Living Wage Employer.

2021 Achievements

- Bristol's energy changed to Octopus, a renewable energy company creating and supporting UK renewable energy and not reliant on REGOS.
- Web and cloud hosting using a 100% renewable energy provider.

2022 Achievements

- VMI is Certified Carbon Neutral; using albert's off-setting scheme, Ecologi.
- Bristol office fitted with solar photovoltaic panels, ceiling insulation, wall insulation, double glazing and LED lighting.
- Catering policy created: all meals and drinks paid for by the company are either low-meat (London) or vegetarian (Bristol). This was decided by polling all staff.
- Internal travel policy created: minimising air and road travel and promotes video conferencing, rail travel, and discriminates, where possible, between airlines based on fuel and fleet efficiency.
- All employees are given an extra day holiday when travelling by rail instead of air for personal holidays.
- Waste Audit completed through Collect My Waste.

2023 Achievements

- Bristol celebrates 1 year diesel-free!
- VMI is a net exporter of solar energy during some summer months.

2024 Achievements

- London replaces two diesel vans with hybrid alternatives.
- VMI increases net exporting of solar energy from two to four months.

2024 GOALS REVIEW

Below are the proposed goals set out in last year's audit for 2024; it is useful to review these targets against what was achieved. This allows us to adjust targets that proved challenging last year and look ahead to what is achievable for 2025.

- 70% reduction in Scopes 1 & 2 emissions compared to 2019.

39% reduction achieved, although emissions were 2% higher than in 2023.

- 40% of the vehicle fleet are EVs by the end of 2024; *saving approx 8tCO₂e.*

Currently at 28% across both sites. Two diesel vans were replaced with hybrids in London in Nov 2024; and Bristol remains diesel-free.

- VMI goes entirely paperless; *saving approx 1tCO₂e.*

There were no costs, and therefore no emissions, associated with stationery in 2024.

Other points are unable to be tracked due to reporting or evidence gaps.

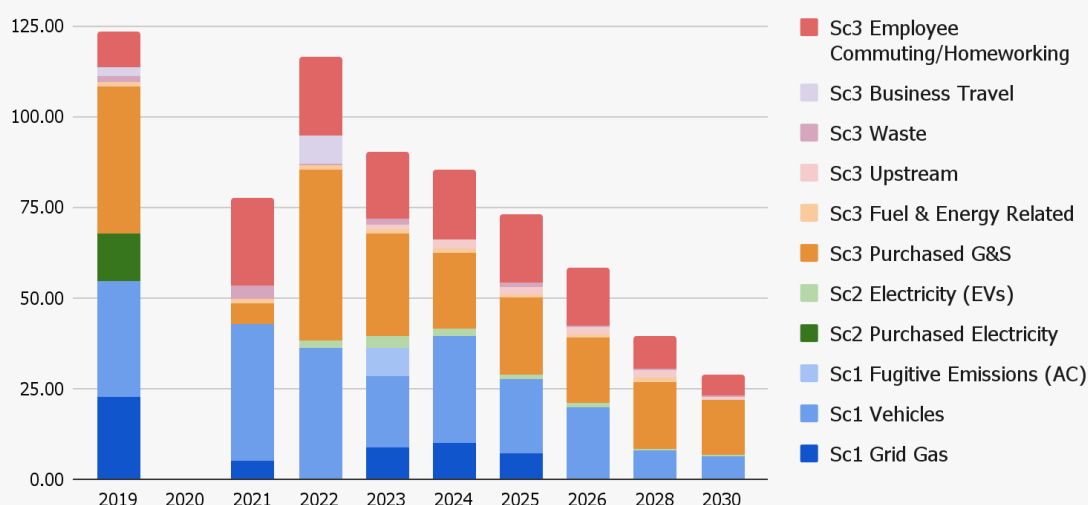
- All local courier and subcontractor transport supply will be procured from electric or human-powered vehicles; *saving approx 1tCO₂e.*

- Continued staff engagement efforts means a 25% increase in renewable energy at home; *saving approx 1.5tCO₂e.*

NET ZERO PATHWAY

Below is an outline of a possible Net Zero Pathway for VMI. Reductions are calculated from the baseline year, 2019, with associated estimated carbon savings. All emissions savings are approximate and estimated using 2024 audit figures and provide a base for VMI to implement further emission reductions.

The pathway is aligned with the [Race to Zero SME Climate Commitment](#). The Commitment is to halve all emissions by 2030 and achieve net zero by 2050. VMI has already reached a 39% reduction in scopes 1 & 2 since 2019. This demonstrates that VMI can push to reach 50% reductions well before 2030.



2025 Goals | 65% reduction in Scopes 1 & 2, 10% scope 3 reductions = 71tCO₂e remaining.

- Natural gas dependency removed from Bristol; *saving approx 2.7tCO₂e.*
- 60% of the vehicle fleet are hybrid or electric by the end of 2025; *saving approx 12tCO₂e.*
- Accurate home working and commuting data available through staff survey question improvements, *saving approx 2tCO₂e.*

2026 Goals | 75% reduction in Scopes 1 & 2, 30% reduction in scope 3 = 59tCO₂e remaining

- London moves premises and is no longer reliant on natural gas, *saving approx 9.9tCO₂e.*
- The London move also enables a 50% increase in staff using public transport instead of driving to work, *saving approx 8tCO₂e.*
- Homeworking and commuting analysis complete, allowing additional reductions from those with longer commutes; *saving approx 4tCO₂e.*

2028 Goals | 80% reduction in scopes 1 & 2, 35% reduction in scope 3 emissions = 38tCO₂e remaining.

- 80% of vehicles at VMI are hybrid or electric. All charging of VMI electric vehicles takes place on site. Because of solar panels, this energy is 100% self-generated and renewable, *saving approx 20tCO₂e*.
- Continued staff engagement leads to increased public transport to work and EV take up for commutes.
- Solar Panels pay off capital investment meaning from now VMI Bristol largely is electricity cost-free and has possibly created a profit-centre as may be paid for supplying excess generated electricity to the national grid.

2030 Goals | Net Zero reached in Scopes 1 & 2! 50% reduction in Scope 3 emissions (excl CapEx) = 29tCO₂e remaining.

- Working with the supply chain, both upstream and downstream to further reduce Scope 3 emissions as much as possible.

2035 Goals

- Continual carbon auditing and residual carbon reductions and offsetting.
- Look to become a Carbon Positive Company by continuing to offset at our 2019 carbon baseline levels and by creating more renewable electricity than the company needs, further decarbonising the national grid.

2040 Goals

- Continual carbon auditing and residual carbon reductions and offsetting.

2050 Goals

- Celebrate 20 years of continual Net Zero!

METHODOLOGY, DEFINITIONS & RESOURCES

AUDIT FIGURES

A table showing the full breakdown of emissions per activity area as listed on the Climate Essentials tool.

Activity area	tCO2e market-based	tCO2e location-based
Scope 1		
Grid Gas ¹²	9.98	9.98
Refrigerants	0.03	0.03
Delivery vehicles	29.42	29.42
Scope 2		
Electricity for EVs	2.10	2.10
Purchased electricity	0.00	7.77
Scope 3		
Purchased Goods and Services		
Services Employed	14.13	14.13
CapEx (excl IT)	78.30	78.30
Employee Food and Drink	6.82	6.82
CapEx - IT equipment	0.57	0.57
Fuel and Energy related activities		
Transmission Losses	0.87	0.87
Delivery vehicles	0.19	0.19
Transport		
Freight	2.65	2.65
Employees		
Commuting	16.62	16.62
Homeworking	2.48	2.48
Waste		
Water	0.06	0.06
Recyclable	0.06	0.06
Food	0.02	0.02
Total	164.2	171.97

¹² The Climate Essentials platform doesn't calculate emissions in line with the GHG Protocol when the 'green gas' tariff is selected. This is due to not having a standardised definition for 'green gas'. VMI's gas is not greener than other standard tariffs however the gas provider offsets against VMI's use of gas. Offsetting doesn't remove the emissions created. Creative Zero will always disclose all created emissions in line with GHG Protocol.

METHODOLOGY

See Climate Essential's [Methodology Document](#) for the emissions calculations methodology. All evidence was provided by Barry Bassett of VMI and reviewed by Kati Hall of Creative Zero.

Further methodology resources

[BEIS](#) - UK Government carbon emissions factors and methodology.

[Climatiq](#) - global emissions factors database.

[EPA Greenhouse Gas Equivalencies Calculator](#) - US Government factors.

[GHG Protocol](#)

[SBTi](#)

A NOTE ON CAPITAL EXPENDITURE

Capital Expenditure has been measured and figures included for completeness in this audit, however, VMI has little to no control or influence over the emissions created in the making of products they purchase as Capital Expenditure. VMI can not create or implement policies to directly reduce these emissions and the amount of these products that VMI needs to purchase to stay in business is largely determined by its clients. Further, the significant size of VMI's CapEx emissions skews the analysis to the point of making these charts unhelpful. By excluding, VMI can clearly see where they can make the most direct and fruitful reduction actions.

It is recommended that VMI continue to engage with its upstream suppliers, prioritised by spend, and apply any influence they have, requesting these suppliers to reduce and offset/inset/carbon-remove their emissions. VMI should ensure it maximises the life of all CapEx purchases.

Requesting product-level emissions data for its Capital Expenditure in future years will allow VMI's CapEx emissions to be mapped more accurately, the request for this data is likely a good mechanism to market-signal to these manufacturers that hire companies, like VMI, are going to be making CapEx choices partially based on emissions in the near future.

DEFINITIONS & DESCRIPTIONS

ENERGY USE | MARKET-BASED AND LOCATION-BASED APPROACHES

The market-based method calculates emissions from electricity that companies have either intentionally selected or have been limited to. Emissions are determined by the electricity emissions associated with

contractual agreements based on the company's electricity providers. This method is important to recognise when the provider exclusively uses 100% renewable energy sources, which VMI's does.

The location-based method employs the average emissions intensity of a country to determine emissions and doesn't account for Renewable Energy Certificates or Guarantees of Origin (REGOs) supplied by energy providers. The average UK grid carbon intensity factor for the reporting year is used. This is an important method to use as it acknowledges the actual electricity reaching VMI and that businesses play a role in advocating for the decarbonisation of the national grid as a whole.

DATA ANALYSIS | ACTIVITY-BASED VS SPEND-BASED APPROACH

The GHG Protocol recognises two primary methods for calculating carbon emissions: the activity-based and spend-based approaches. The GHG Protocol recommends prioritising activity-based calculations whenever possible, as they align more closely with real-world emissions, but acknowledges that a hybrid approach combining both methods can be a practical solution for many organisations.

The **activity-based method** relies on direct data from an organisation's operations, such as the number of kilowatt-hours of electricity consumed, litres of fuel burned, or miles travelled by employees. Emissions are then calculated by applying specific emission factors from recognised sources (e.g., UK Government GHG Conversion Factors or IPCC guidelines). This method provides a more accurate and representative measure of an organisation's carbon footprint, as it directly correlates emissions to actual activities. However, it requires detailed data collection, which can be time-consuming and complex for businesses with less structured environmental reporting systems.

In contrast, the **spend-based method** estimates emissions based on financial expenditure, using industry-average emission factors per unit of currency spent. For example, if a company spends £50,000 on business travel, it would apply an emissions factor that reflects the average carbon intensity of that expenditure category. This approach is often used when activity data is unavailable or incomplete, making it a more accessible option for businesses in the early stages of carbon accounting. However, because it assumes a standardised emissions intensity across all spending in a category, it lacks granularity and precision, potentially leading to over- or underestimations.

METRICS

Absolute emissions refer to the total quantity of greenhouse gases released into the atmosphere, measured in units like tonnes of CO₂ equivalent. This metric provides a clear picture of an organisation's or country's overall environmental impact.

Intensity metrics, on the other hand, measure emissions relative to a specific output, such as per unit of production, revenue, or GDP. This allows for comparisons of efficiency over time or between entities, even if total emissions are increasing due to growth.

Absolute emissions are essential for tracking overall reductions, while intensity metrics help assess efficiency improvements.

NET ZERO DEFINITION

To qualify as 'Net Zero' in line with Science Based Targets, companies must reduce emissions from their baseline year by 90-95% and only then offset the remainder.

The SBTi defines net-zero emissions for companies as reaching a state of no impact on the climate resulting from the company's GHG emissions. Reaching a status of science-based net-zero emissions implies the following two conditions:

- Achieving a scale of value chain **emissions reductions** consistent with the depth of abatement at the point of reaching global net-zero in pathways that limit warming to 1.5°C with no or low overshoot.
- Neutralising the impact of any source of any residual emissions by **permanently removing** an equivalent volume of atmospheric CO₂.

CARBON NEUTRAL DEFINITION

Carbon neutrality is defined by an internationally recognised standard – [PAS 2060](#) – which sets out requirements for the quantification, reduction and offsetting of greenhouse gas emissions. In this standard, the definition of a carbon-neutral footprint is:

'a condition in which during a specified period there has been no net increase in the global emission of greenhouse gases to the atmosphere as a result of the greenhouse gas emissions associated with the subject during the same period'.

Carbon neutrality relates to the balance between emitting carbon and absorbing carbon from the atmosphere in carbon sinks. In general, when

companies claim carbon neutrality they are counterbalancing [CO2 emissions](#) with [carbon offsets](#) without necessarily having reduced emissions by an amount consistent with reaching net-zero at the global or sector level. This may conceal the need for deeper emissions reductions that are in line with what the science requires for the world to keep global warming to [1.5°C](#).

RESOURCES

[Climate Essentials platform](#) (*VMI login details needed*) including further information about methodology, emissions factors and calculations.

[Doughnut Economics](#) - reframing economics to meet the needs of all people within the means of the living planet.

[How Bad Are Bananas](#) - recommended reading for 'humanising' carbon by relating it to everyday activities.

[Climate Change Committee Report](#) - 7th carbon budget for UK, including recommendations for households and businesses.

[Carbon Offsetting advice](#) - written by Creative Zero to support clients in offsetting decisions.

FURTHER READING

Information about Energy Efficiency grants for businesses:

[Ofgem](#)

[Energy Savings Trust](#)

[The Shift](#) - The Fuel Report authored by Creative Zero and Film London.

[Climate Change Committee Report](#) - role of SMEs and businesses to achieve net-zero by 2050.

[People Power!](#) - report demonstrating the roles of individuals.

[The Generator Project](#) - Mapping generator usage in London with a resource page for suppliers of alternative energy generators in the UK.

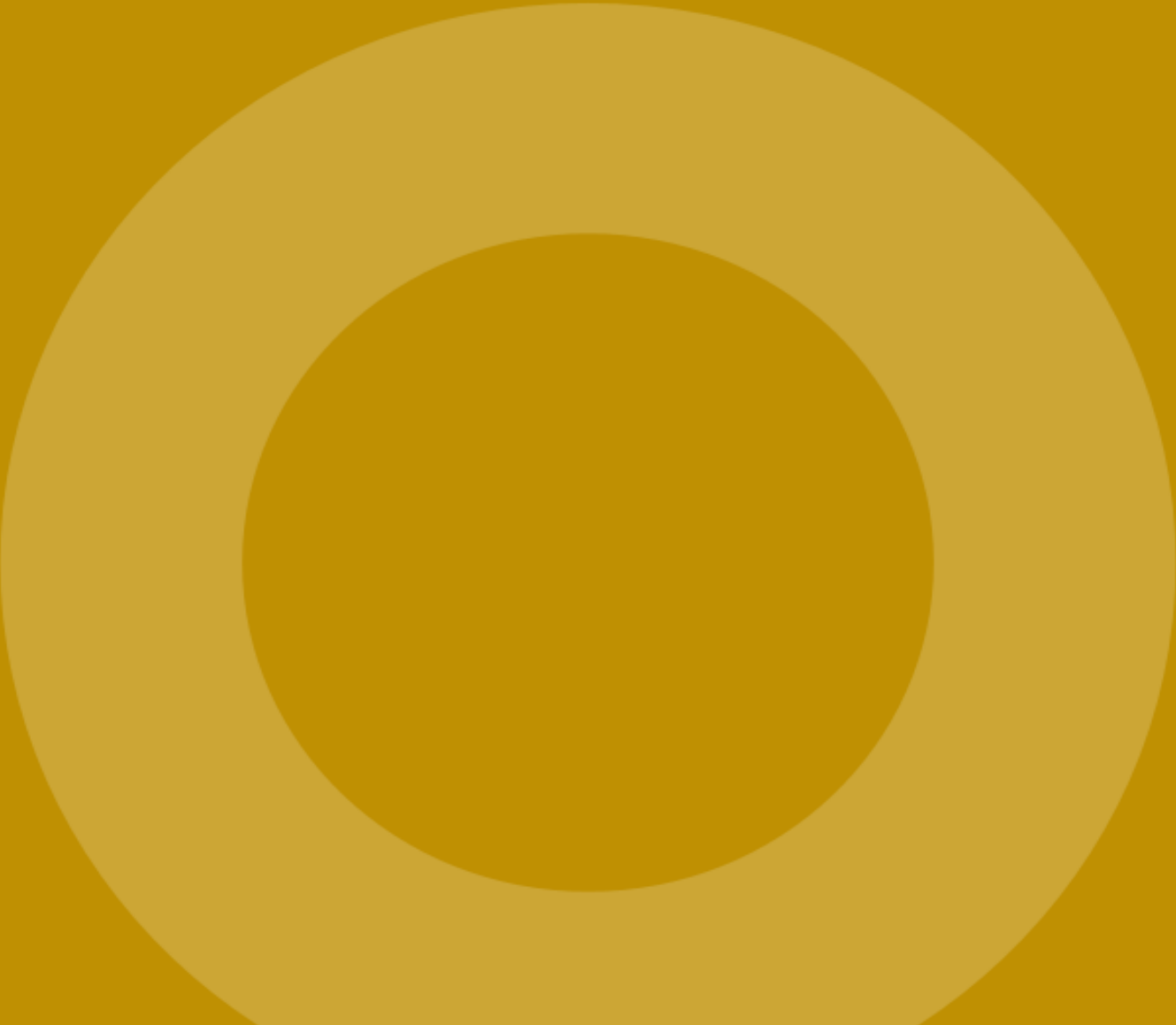
8 R'S OF WASTE PHILOSOPHY

REFUSE	Don't do the thing or buy the thing in the first place. Don't do it the old way. No more "that's how it's done". Look for innovation.
REUSE	Don't buy new. Use what's on hand. Make do.
REPAIR	Fix what's broken. Bring it somewhere to be fixed if you can't do it yourself
REHOME	Don't put something usable in the bin, find a new home for it. Instead of buying new, find what you need from someone getting rid of it.
RECYCLE	Take back what you can and turn it into something new. Upcycle. If you can't recycle internally, use facilities.
REPLACE	If something isn't sustainable, replace it with sustainable alternatives; power sources, materials, a job flow.
ROT	Ensure what you create can go back into nature. There's no "waste" in nature, business should follow suit.
RESPECT	New ideas can be hard to share, hear and understand. A culture of respect for people and the planet is necessary for transition.

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