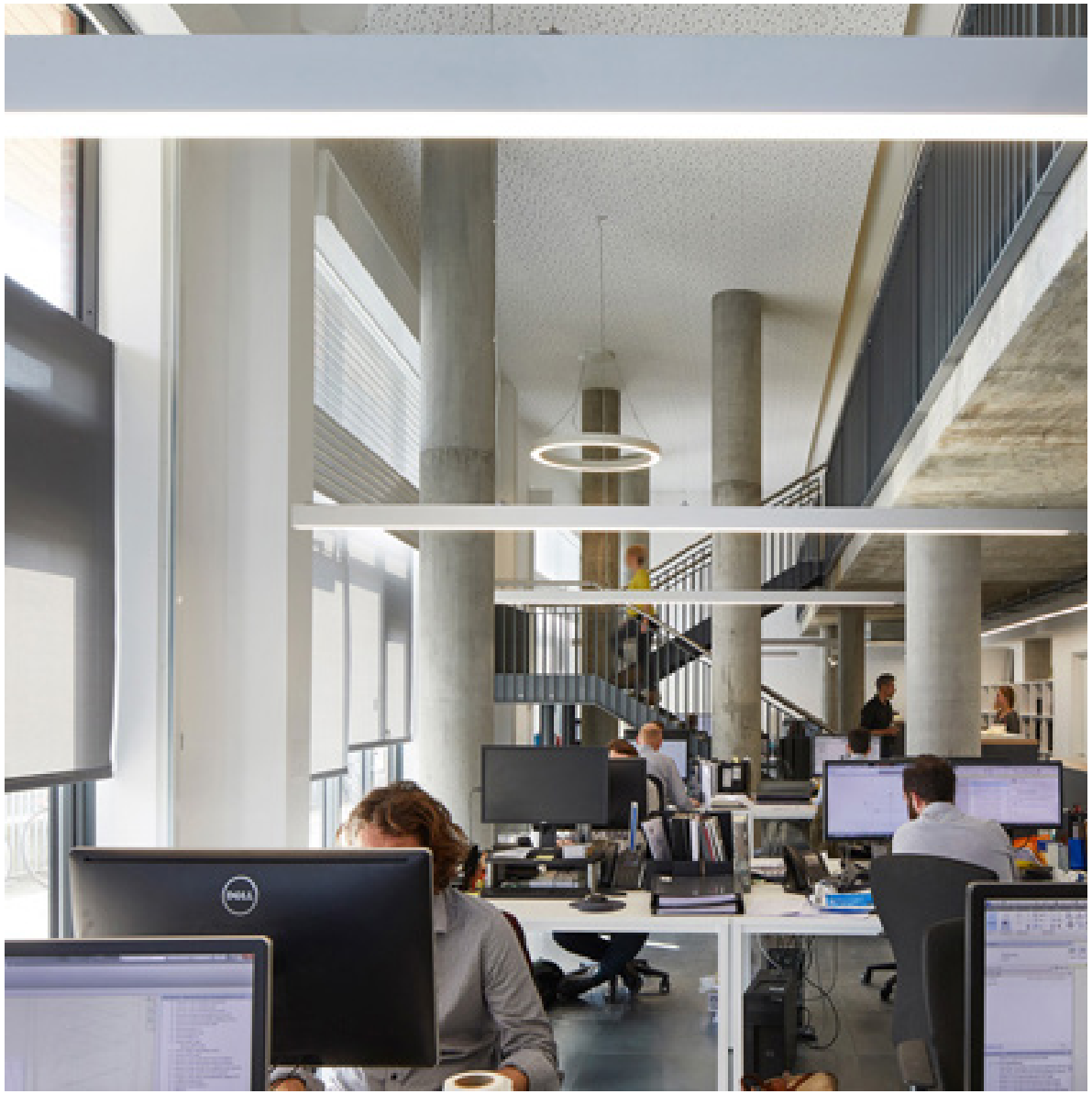
rivingtonstreetstudio

Carbon Reduction Report 2024



About Rivington Street Studio

Rivington Street Studio is an award-winning architectural practice established in 1989, specialising in the education and housing sectors. The practice has deep roots in sustainability, including delivering the first Passivhaus accredited school in London in 2015. Since then, RSS has produced numerous projects that provide industry sustainability exemplars.

We have an inhouse sustainability forum, the Green Team, who seek to analyse and develop the strategic approach our employees take on our projects. The Team focuses on project and office processes and feed into the practice's inhouse management of carbon data and reduction. Since 2022 we have taken on board RIBA 2030 and LETI approaches, and we are now reviewing the Net Zero Carbon Building Standard to help us design and developed a project framework which embeds environmental performance analysis and data collection from inception to completion.

Our office is based in East London with projects throughout the UK.

Introduction

As a practice, we recognise that the most significant impact we can have on carbon emissions is through the design of our projects. We have been Architects Declare signatories since 2022 and are committed to the RIBA 2030 Climate Challenge.

We're working towards RIBA's and LETI's performance targets for the reduction of embodied carbon, operational energy, and potable water on our projects. Committed to achieving Net Zero by 2050, we are currently upskilling our team in line with the Net Zero Carbon Building Standard.

We believe it is vitally important to measure and analyse our business carbon footprint each year. This demonstrates our commitment towards achieving net zero and increases carbon literacy within our team. We do this through the standardised global framework: The Greenhouse Gas (GHG) Protocol, and categorise business related emissions under three Scopes as outlined on the following pages.

Last year we added detail to the final category of Scope 3 measurements: purchased goods and services (such as groceries, office stationery, etc.). We are now fully reporting against all scope measurements. We have also introduced WEEE certified IT equipment recycling programme to repurpose our technology, and contribute to a sustainable Circular Economy for Ewaste.

This report is based on the calendar year January - December 2024.

The carbon footprint data is based on our internal information together with that provided by staff who completed a survey in November 2024.

The new Shipman Youth Zone offers a safe, inclusive space for young people in Newham, in support of the borough-wide commitment to keep children and young people safe and remove barriers to their success. The project completed in February 2024. The project is Net Zero Carbon in operation and achieves BREEAM Outstanding.

In 2024, we measured our Scope 1 and Scope 2 emissions, and the applicable upstream and downstream factors including office goods within Scope 3. We also measured everyone's personal footprints.

Why are we measuring carbon emissions in this way?

- Standardised measurement tools – useful for benchmarking
- Accurate – uses carbon conversion factors to calculate emissions
- Facilitates the management and reduction of emissions
- Understanding and planning for how we will aim for Net Zero emissions as we head towards the 2030 and 2050 targets.

Summary

Our direct action in 2023 sought to review how we travel to, from and within work. We encouraged cycling and walking, providing support to employees through the cycle to work scheme and with provision of facilities at work to secure and maintain bikes. In 2024 we focussed on our Scope 2 Capital Goods items, including PC's & Laptops, and how to recycle our IT equipment. Our repurposed technology has put almost 20 t CO2e worth of ewaste back into use.

We measure and report carbon emissions based on a comprehensive global standardised framework known as the Greenhouse Gas (GHG) Protocol. The report categorises the direct and indirect emissions into three broad scopes:

Scope 1: Direct Emissions

Direct emissions are any GHG emissions from a company's owned or controlled sources. For example, emissions from company owned vehicles.

Scope 2: Indirect Emissions from purchased energy

This includes emissions from energy generated off-site and purchased by the business, i.e. electricity used to power an office.

Scope 3: Indirect Emissions

Indirect emissions are GHG emissions from sources that are not owned or controlled by the business, but are part of its operation. This includes newly included purchased consumables and capital goods (such as emissions due to the manufacturing of IT equipment and mobile phones), business related travel (such as flights and buses to project sites, or staff commutes), courier transport, etc.

According to the US Environmental Protection Agency (EPA), Scope 3 emissions can be defined as "the result of activities from assets not owned or controlled by the reporting organisation, but that the organisation indirectly impacts in its value chain."

In this report we've measured the relevant categories within Scopes 1 – 2, as well as measurement of upstream and downstream factors within Scope 3.

Our Results

Scope	Category		Total	Carbon Factor (kg Co_2e)	Total kg Co_2e	Carbon Factor Reference	Carbon Footprint (tonnes Co_2e)	Carbon Footprint per person (tonnes CO_2e)
1	Fuel (Combustion)	Gas	0	N/A	0	N/A	0	0
2	Utilities	Electricity	26,043.80	0.2071	5392.3688	UK electricity E25	5.3923688	0.16851152
3	Water	Supply	500 m3	0.1531	76.5550	Water supply D17	0.0765550	0.00239234
		Waste	1000 m3	0.1857	185.7400	Water treatment D17	0.1857400	0.00580438
	Purchased goods & services	Paper	0.34	1063.0152	136.193	Material use G86	0.136193	0.004256034
		Supplies	Varies	Varies	1950.1150	Varies	1.9501150	0.06094109
	Capital Goods	iPhones, IT	Varies	Varies	4363.8200	Varies	4.3638200	0.13636938
	Fuel and energy-related activities: WFH (working from home)		Varies	Varies	2915.5500	Varies	2.9155500	0.09111094
	Business Travel	Taxi	129.60 km	0.04399	5.7011	WTT- pass vehs & travel- land F49	0.0057011	0.00017816
		Tube	9,192.00 km	0.02780	255.5376	WTT- pass vehs & travel- land E90	0.2555376	0.00798555
		Bus	348.00 km	0.07447	25.9156	WTT- pass vehs & travel- land E80	0.0259156	0.00080986
		Train	14977.2 km	0.03546	531.0915	WTT- pass vehs & travel- land E87	0.5310915	0.01659661
		Plane	3,016.00 km	0.27101	817.3662	WTT- business travel- air F20	0.8173662	0.02554269
		Carshare	0 km	0.04399	0.0000	WTT- pass vehs & travel- land F49	0.0000000	0.00000000
		Walk	307.20 km	0	0	N/A	0	0
		Bike	515.04 km	0	0	N/A	0	0
	Employee Commuting	Tube	219,765.92 km	0.02780	6109.4926	WTT- pass vehs & travel- land E86	6.1094926	0.19092164
		Bus	6,402.00 km	0.07447	476.7569	WTT- pass vehs & travel- land E76	0.4767569	0.01489865
		Train	261,827.50 km	0.03546	9284.4032	WTT- pass vehs & travel- land E83	9.2844032	0.29013760
	Downstream transport and distribution	Motorbike	12.64	0.03134	0.396138	WTT- pass vehs & travel- land E61	0.000396138	0.0000012379
		Small van	7.04	0.05266	0.370727	WTT- pass vehs & travel- land F49	0.000370727	0.0000015852
CO_2	Total CO_2e 32.75tonnes							

Key Details and Clarifications

RSS started collecting and reporting on Carbon in 2019, and we are now collecting data on all scope items 1-3. The background information and historic data-sets we now have for the office allows us to start focusing on ways we can utilise this information to assist in finding realistic ways to set our own achievable Carbon Reduction targets. In order to do this we also need to analyse and understand the context within which we are operating, the assumptions that are being made and the details of data collected, as well as elements affecting carbon factors provided by the government for calculation purposes. The following provides information used and assumptions made in calculating our carbon footprint.

Carbon Factors:

These are provided by the UK Government and updated yearly to assist companies to calculate their Carbon Footprints. UK Government GHG Conversion Factors - 2024

https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2024

Scope 1:

Fuel (Combustion)

- The office uses no combustion or gas fired appliances.
- Fossil fuels may be burnt "upstream" to create the electricity that the office uses, however this is discounted here, and "factored-in" to Scope 2 - Utilities.

Scope 2:

Utilities - Electricity

Until the end of 2023 RSS offices had a fixed tariff on energy supply. In 2024, we switched to a more sustainable energy tariff and are receiving Zero Carbon Electricity as backed by Guarantees of Origin (REGO).

Scope 3:

3.1 Water

Supply / waste were included in 2023 to improve accuracy.

3.2 Purchased good and services

In 2022 we collected data for a sample month and multiplied by 12 to gain a yearly average. In 2023 we collected data over all 12 months. We found that there was less than a 5% difference in results so, in 2024 we have taken a sample month and multiplied by 12, to reduce office admin. / data collection time and efficiency.

3.3 Capital goods

RSS have implimented sustainable options for both :

- upstream acquisition of recycled / refurbished IT equipment including a recycled server, together with
- downstream recycling of office IT hardware

3.4 Fuel related activities / Work From Home (WFH)

WFH assessments are undertaken through analysis of work-patterns for staff as well as accounting for additional office resources required to support this. Further data on homeworking environments and house-sharing considerations are being reviewed, (is the employee WFH in an empty or shared property?). Figures are currently comparable to GHG calculation method figures provided for "Homeworking". These will be reviewed again in 2025.

3.5 Business travel

Using Rapport 3 to collect travel data has proved unreliable. In 2024 we have implimented a separate data form for monthly staff completion, to improve accuracy.

3.6 Employee commuting

Assessed using home address to office distances, together with employee declared travel methods. There may be some double counting here when considered alongside individual WWF Carbon Footprint calculations, which also provide a "communting" assessment.

3.7 Downstream transport and distribution

Reduced courier journeys in 2024 have been complemented by carbon emissions for printing deliveries included in printer's own carbon reports.

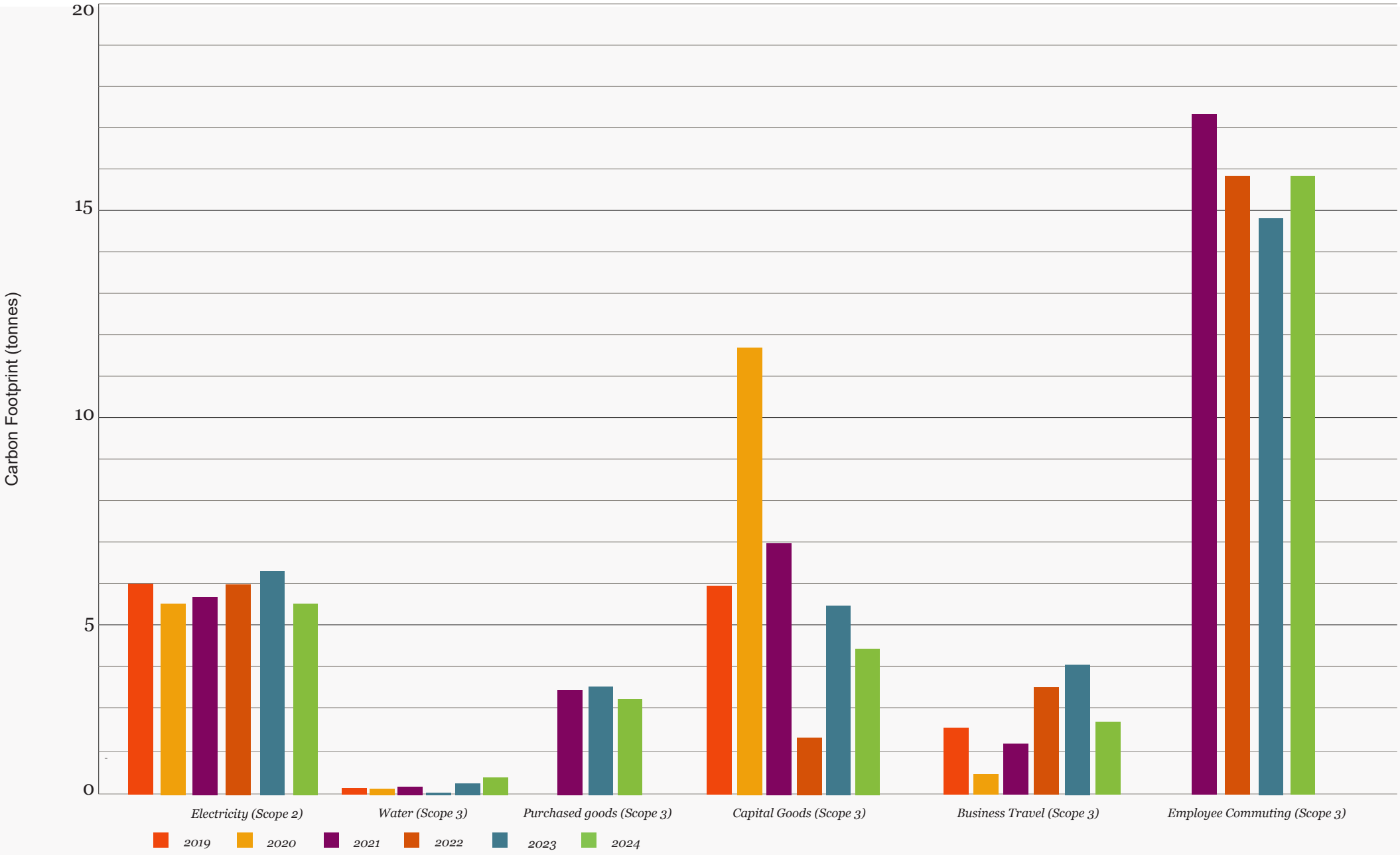
Employee Carbon Footprint Data

Towards the end of each calendar year, we ask employees to use the WWF Carbonfootprint.com calculator to provide their own footprint calculations. We anonymize this information to provide the Employee Footprints table / averages. We now respond to employees privately on request, to provide them with their scope compared to both office and national/world average Carbon Footprints. The aim of this will be to assist awareness and comparisons for staff members.

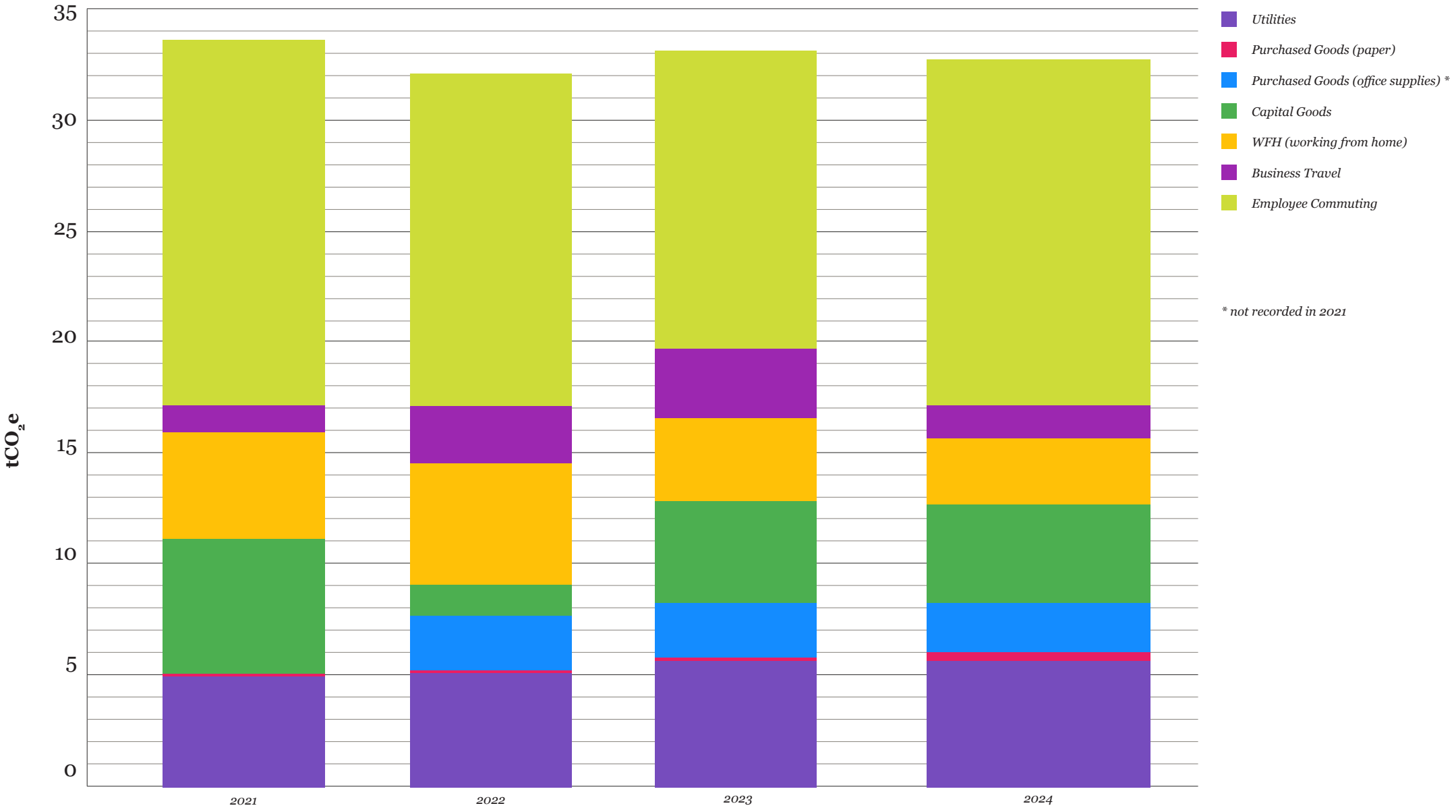
General Commentary

To date, 2019 and 2021 were used as baseline years. As 2023 figures include all scope items, this will become our baseline year going forward, from 2025.

Comparison to our baseline year of 2019



Total Carbon Footprint Breakdown

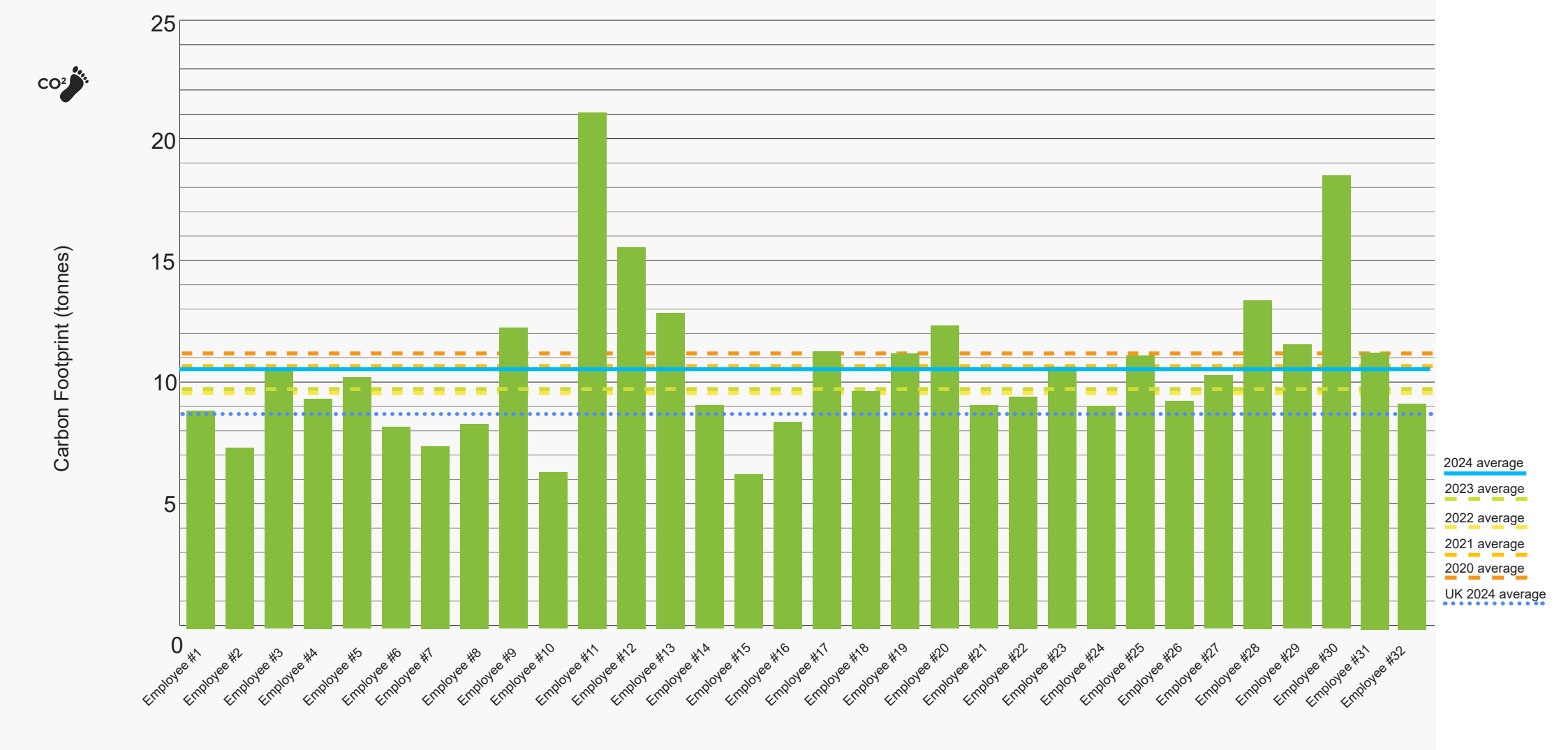


Employee footprints 2024

At the end of 2024 we repeated the annual survey of employee footprints using the WWF Footprint Calculator tool. The results showed that our average carbon footprint increased to 10.7 tCO_2e, above the UK average (8.8 tCO_2e - WWF.org) and well above the global average (6.6 tCO_2e - WWF.org).

We ask all staff to complete this at the end of each year and feed back to staff in order to :

- Encourage awareness of their environmental impacts and limit their carbon footprint where possible.
- Get a more accurate picture of our collective environmental impact.
- Understand the impacts of our daily choices.



Conclusions and Key Findings

Our carbon footprint for 2024 sits at just over 32.75 tonnes of CO_2e , which while this represents a healthy decrease from 2023, is still above that of 2022.

Reasons for fluctuations in our carbon footprint are summarised as follows:

- As per the scope exercise table on pages 5-7, we have included data for additional Scope 3 categories since 2023, such as purchased goods and consumables (tea, coffee, flowers, cleaning products etc).
- Employee commutes (calculated using the distance-based method) have increased, and account for the highest percentage of total carbon emissions at 48%, with almost all employees travelling to and from the office 3-5 times a week.
- Meetings and site visits are now more often in-person however the majority of projects are closer to the office, so emissions related to business travel have reduced.
- Our office electricity use has decrased slightly since 2023 however detailed analysis sees this higher than previous years and the day-night usage at 75%-25%. Most of our staff work in the office (WITO) at least 3 days and work from home (WFH) 2 days per week. The office is occupied 8.30am to 6.30pm, Monday-to Friday. Further investigation into energy use may be fruitful.
- UK Government GHG Conversion Factors (2024) rise and fall from year to year, and so this can impact the "tCO2e carbon footprint" calculation even if the scope item remains unchanged.

While overall our carbon footprint has decreased since last year, it is important to acknowledge additional categories for which the practice's carbon footprint information has being collected and analyse where fluctuations have arisen:

- Inclusion of purchased goods does make a large difference to the carbon footprint. In 2022 this was averaged based on a typical month. While a month by month analysis has was included in 2023, the "typical month" has strategy been re-implimented in 2024.
- Capital goods purchases have decreased in 2024 (IT equipment and mobile phones). In 2020 and 2021 we bought unusual amounts of IT equipment to facilitate home working. During 2023 we purchased additional PCs, laptops and a reconditioned server, however in 2024 less equipment was required. We also impliemented an WEEE / Ewaste recycling strategy although this has not been factored into figures for 2024.
- Having reviewed electricity consumption with our IT team, our server was replaced in the 4th quarter of 2023 to a more energy efficient model. We did not see the anticipated reduction in energy consumption during 2024, so will aim to analyse and review other potential improvements in office energy consumption and efficiency during 2025. In this way we hope to decrease the daily energy use of the office as a whole.
- Figures for employee commuting have increased during 2024, and further review of how the practice can help employees in reducing these figures will be discussed.

Fluctuations in 2024 carbon factors for calculating total CO_2e (e.g., UK phasing out coal as a source of energy, however increased use of gas as energy source for electricity creation) has lead to changes in the carbon footprints across many categories. Other carbon factors changes and their effects include:

- WITO has increased and WFH has decreased as a whole, across the office, where new and younger staff are chosing to work in the office more. This has had two effects on the overall carbon footprint as follows:
- The Scope 3: Work from home or "Homeworking" carbon footprint has decreased by approximately 10% since 2023, which helps with carbon reduction
- Staff commuting has as a result increased, and pushed up carbon associated with use of buses, trains and tube by almost 14% since 2023.
- Car and taxi journeys have typically become lower carbon, due to the average vehicle frequently being more efficient or electric / hybrid (ULEZ impact), and less journey are being taken by car.

The three main areas of focus for 2025 reductions should be utilities, goods, and communting, and aim to work together to find ways to keep reducing our Carbon Footprint.

Targets & Next Steps

In 2025 we will be considering our office move, planned for 2026. Key drivers for this will be location, energy efficiency and use. These factors will influence our decision making as we acknowledge that reducing travel for staff and visitors alike, can have a large impact on carbon.

Our long-term ambition is to move to 100% renewable energy supplies for our office electricity. We will also look into metering our water supply, providing information to better understand our consumption, and target reductions where possible.

We have become more detailed and analytical during 2024 data collection; we anticipate introducing further and more strategic carbon reduction measures in 2025.

What is the target?

"Net Zero" seeks to ensure the UK reduces its greenhouse gas emissions by 100% from 1990 levels by 2050. How will we help to achieve this through our yearly reductions?

Scope 1

- No direct reliance on fossil fuels for office heating (gas).

Scope 2

- Monitor and reduce office electricity consumption.
- Switch to green energy supplier with renewable sources.

Scope 3

- Monitor goods and services - use low carbon suppliers and aim to reduce our scope 3.1 carbon footprint (office supplies) by 10 %.
- We started collecting recycling data in 2023 and continued to monitor recycling in 2024. We have now recorded waste and recycling from consumables and so can target areas for reduction (increasing overall proportion of recycling / recycled goods where possible).
- We are addressing Ewaste and WEEE, and have implimented an IT recycling strategy during 2024. We now actively recycle tech and IT equipment for reuse, and so are helping to reduce its contribution to landfill.
- We are implimenting new travel monitoring within the office, aiming to reduce and improve travel / transport methods to and from project sites to reduce carbon.
- We contiune to encourage and assist staff in making low carbon, energy and transport choices in commuting and while working from home.
- We continue to support active travel by creating additional support for sustainable modes of transport including cycling and walking.

In simple terms, "net zero means cutting carbon emissions to a small amount of residual emissions that can be absorbed and durably stored by nature and other carbon dioxide removal measures, leaving zero in the atmosphere". As a company and as individuals, to achieve the Net Zero goal, "emissions need to be reduced by 45% by 2030 and reach net zero by 2050." - https://www.un.org/en/climatechange

Now that we are fully collecting data for scopes 1-3, we can look at ways to reduce our carbon footprint as an office, and individually. We recognise that travel, whether it be commuting to the office or within office time, as well as utilities and purchased goods contribute a large proportion of the offices' Carbon expenditure. We we will look to ways to further encourage more staff members to cycle and walk to work, or from work to meetings and project site locations as an additional strategy to reduce our carbon footprint.

We are a carbon neutral company. Our main goal is to reduce our emissions; where this cannot be done, we offset via an accredited offsetting solution.

In addition to considering our own environmental impact, social sustainability is a key part of our business. We provide an active Social Value programme, with project-specific initiatives. This is multi-faceted and includes apprenticeships, work experience, charities, education partnerships, our supply chain and professional support – and in all instances encourages others to consider their environmental impact.

As architects, we encourage all clients to seek the highest standards of sustainability for their projects and work closely with them to meet targets, including embodied carbon as well as energy use, travel and transport, water consumption etc. Throughout any project we regularly meet our clients to report against carbon reduction, maintain our involvement , post completion and aim to obtain information about building energy in-use. This is essential for targeting Net Zero in all we do.

Scope of Carbon footprinting exercise

	2019 (Baseline)	2020	2021	2022	2023	2024
Scope 1						
Fuel Combustion	n/a	n/a	n/a	n/a	n/a	n/a
Scope 2						
Purchased electricity/ heat						
Location based	Yes	Yes	Yes	Yes	Yes	Yes
Market based				Yes	Yes	Yes
Scope 3 (upstream)						
3.1 Purchased goods and services (coffee, hotels, food and drink, milk, sandwiches, printing paper, alcohol, water, tea, laundry)				Yes (partial)	Yes	Yes
3.2 Capital goods (IT equip, phones, fitout and refurb)	Yes	Yes	Yes	Yes	Yes	Yes
3.3 Fuel and energy-related activities Work from home energy	n/a	Yes	Yes	Yes	Yes	Yes
3.4 Upstream transportation and distribution	n/a	n/a	n/a	n/a	n/a	n/a
3.5 Waste generated in operations (amount of recycling and landfill waste)				Yes	Yes	Yes
3.6 Business travel (flights, train, bus etc)	Yes	Yes	Yes	Yes	Yes	Yes
3.7 Employee commuting (Based on a typical week)			Yes	Yes	Yes	Yes
3.8 Upstream leased assets	n/a	n/a	n/a	n/a	n/a	n/a
Scope 3 (downstream)						
Downstream transport and distribution (couriers)			Yes	Yes	Yes	Yes
Processing of sold products	n/a	n/a	n/a	n/a	n/a	n/a
End-of-life treatment of sold products	n/a	n/a	n/a	n/a	n/a	n/a
Waste disposal and treatment of products	n/a	n/a	n/a	n/a	n/a	n/a
Downstream Leased assets	n/a	n/a	n/a	n/a	n/a	n/a
Operation of franchises	n/a	n/a	n/a	n/a	n/a	n/a
Operation of Investments	n/a	n/a	n/a	n/a	n/a	n/a
Employee footprints						
All staff WWF footprints		Yes	Yes	Yes	Yes	Yes

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