

# Business Certification

University of Greenwich

*YEAR 3*

01 August 2021 to 31 July 2022

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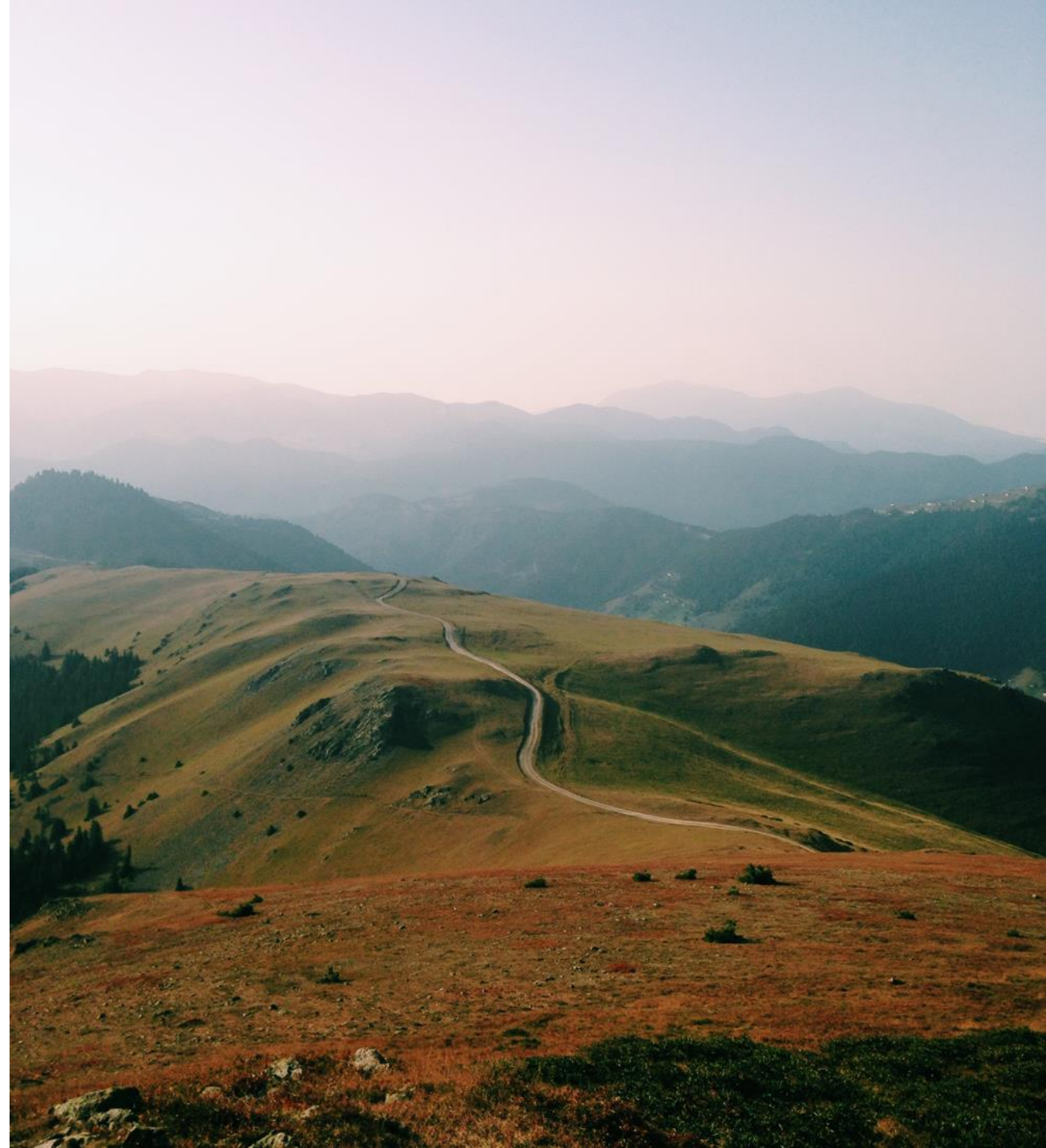
Measure



Engage



Communicate





# Measured carbon EMISSIONS

**6,723.8**  
tCO<sub>2</sub>e measured emissions

Measured emissions equivalent to  
**5,945 flights from London to New York**

**0.3**  
tCO<sub>2</sub>e per employee



## Buildings

**5,636.8 tCO<sub>2</sub>e**

Used enough electricity to power **3,698** UK homes for one year



## Travel

**1,036.6 tCO<sub>2</sub>e**

Travelled **167** times around the world



## Waste

**13.1 tCO<sub>2</sub>e**

Produced waste that weighs the same as **50** London buses



## Water

**37.2 tCO<sub>2</sub>e**

**19** litres per employee per day



## Procurement

N/A



## Homeworking

**252.4 tCO<sub>2</sub>e**

Used enough energy to power **78** UK homes for one year



# Step one.

# MEASURE





# Measured carbon footprint.

## Location *BASED*

### Reporting year:

01 August 2021 to 31 July 2022

### Reporting Boundary:

University of Greenwich (Avery Hill, Greenwich, Medway, Woolwich)

### Emissions measured:

Electricity, T&D losses, Natural Gas, Other fuels, Water, Waste, Fleet, Business Travel

### Highlights:

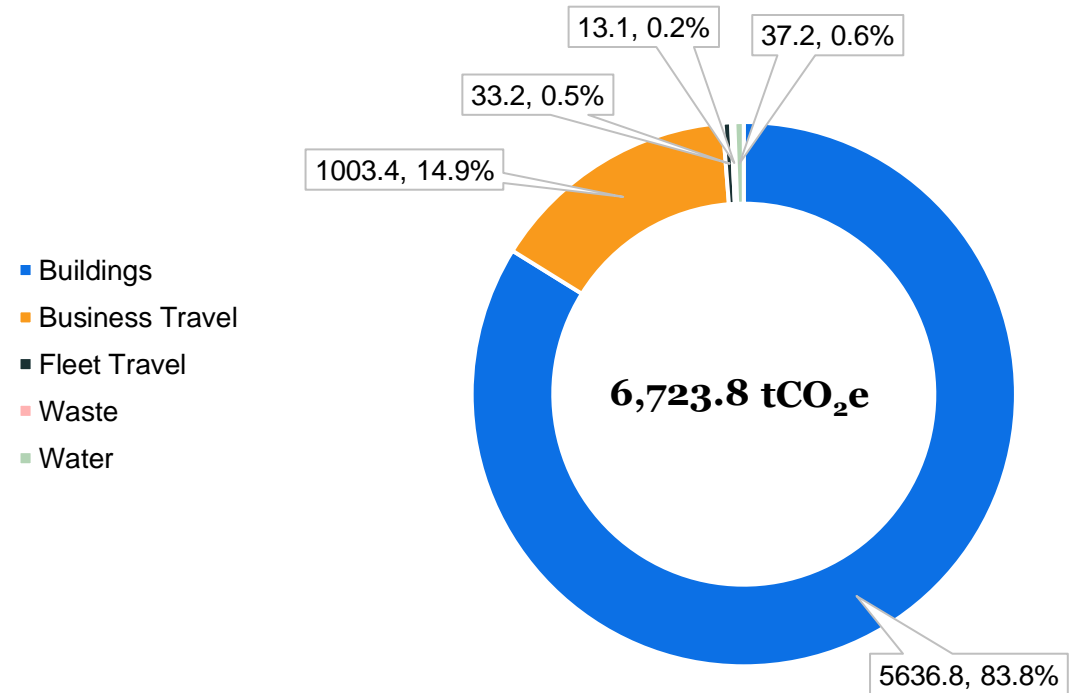
Carbon footprint (tCO<sub>2</sub>e): **6,723.8**

Per employee (tCO<sub>2</sub>e): **0.3**

Next reduction target: **5%**

Data quality score: **17 out of 20**

Carbon footprint by emission source for year ending 2022, tCO<sub>2</sub>e



Note: Your carbon footprint is reported two ways; one is using the location based method of calculating Scope 2 electricity emissions and the other the market based method. A location-based method reflects the average emissions intensity of grids on which energy consumption occurs (using mostly grid-average emission factor data). A market-based method reflects emissions from electricity that companies have purposefully chosen (or their lack of choice).



# Measured carbon footprint.

## Market *BASED*

### Reporting year:

01 August 2021 to 31 July 2022

### Reporting Boundary:

University of Greenwich (Avery Hill, Greenwich, Medway, Woolwich)

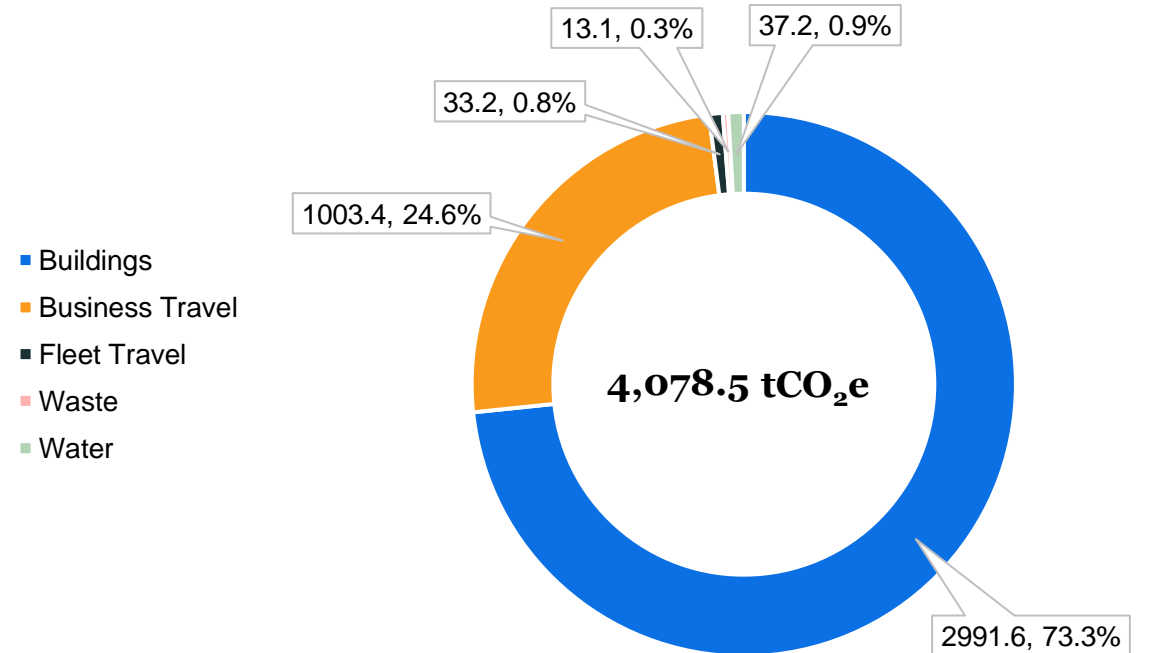
### Emissions measured:

Electricity, T&D losses, Natural Gas, Other fuels, Water, Waste, Fleet, Business Travel

### Highlights:

Carbon footprint (tCO<sub>2</sub>e): **4,078.5**  
Per employee (tCO<sub>2</sub>e): **0.2**  
Next reduction target: **5%**  
Data quality score: **17 out of 20**

Carbon footprint by emission source for year ending 2022, tCO<sub>2</sub>e



Note: Your carbon footprint is reported two ways; one is using the location based method of calculating Scope 2 electricity emissions and the other the market based method. A location-based method reflects the average emissions intensity of grids on which energy consumption occurs (using mostly grid-average emission factor data). A market-based method reflects emissions from electricity that companies have purposefully chosen (or their lack of choice).



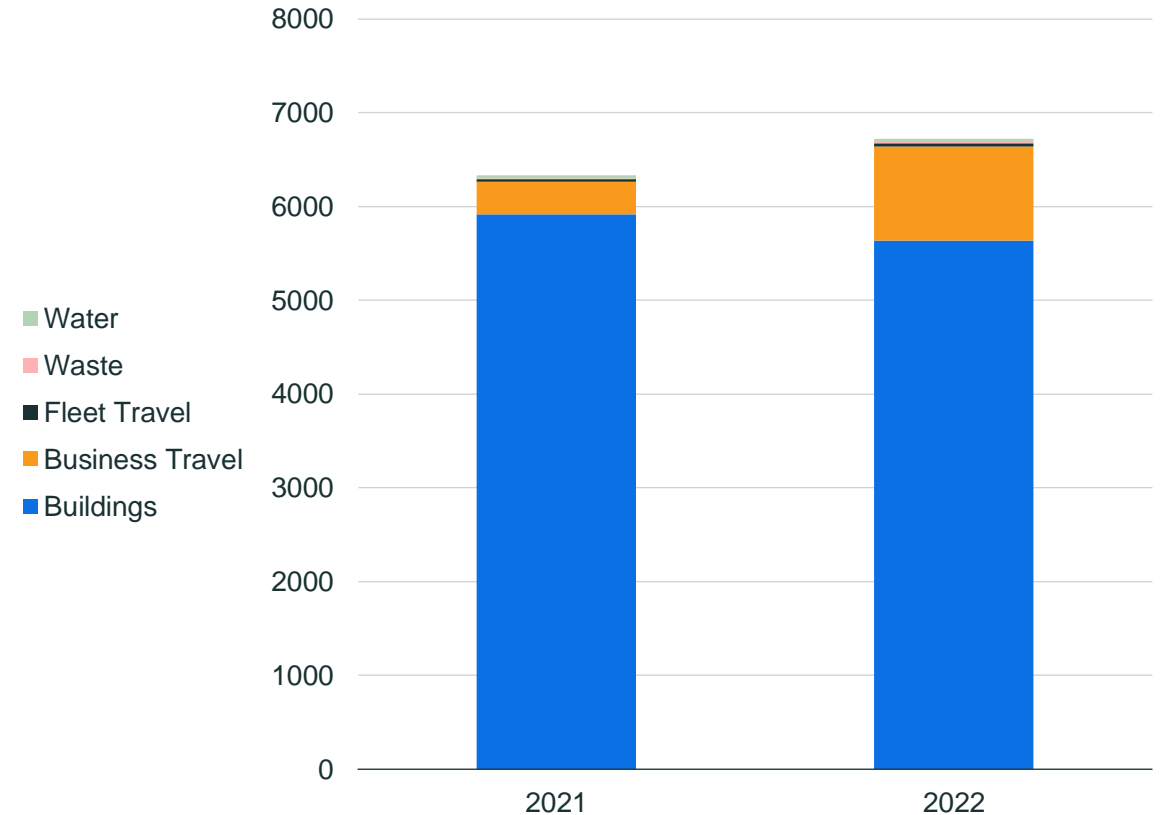
# Measured carbon footprint.

## Yearly *COMPARISON*

Source Category	2021	2022
Buildings	5,913.1	5,636.8
Business Travel	347.6	1,003.4
Fleet Travel	28.8	33.2
Waste	8.3	13.1
Water	30.9	37.2
<b>Total</b>	<b>6,328.8</b>	<b>6,723.8</b>

All rows and tables are rounded to one decimal place. This may lead to slight discrepancies in totals within the report.

Carbon footprint by emission source for year ending 2021 and 2022, tCO<sub>2</sub>e





# Carbon footprint.

## BUILDINGS

### Notes:

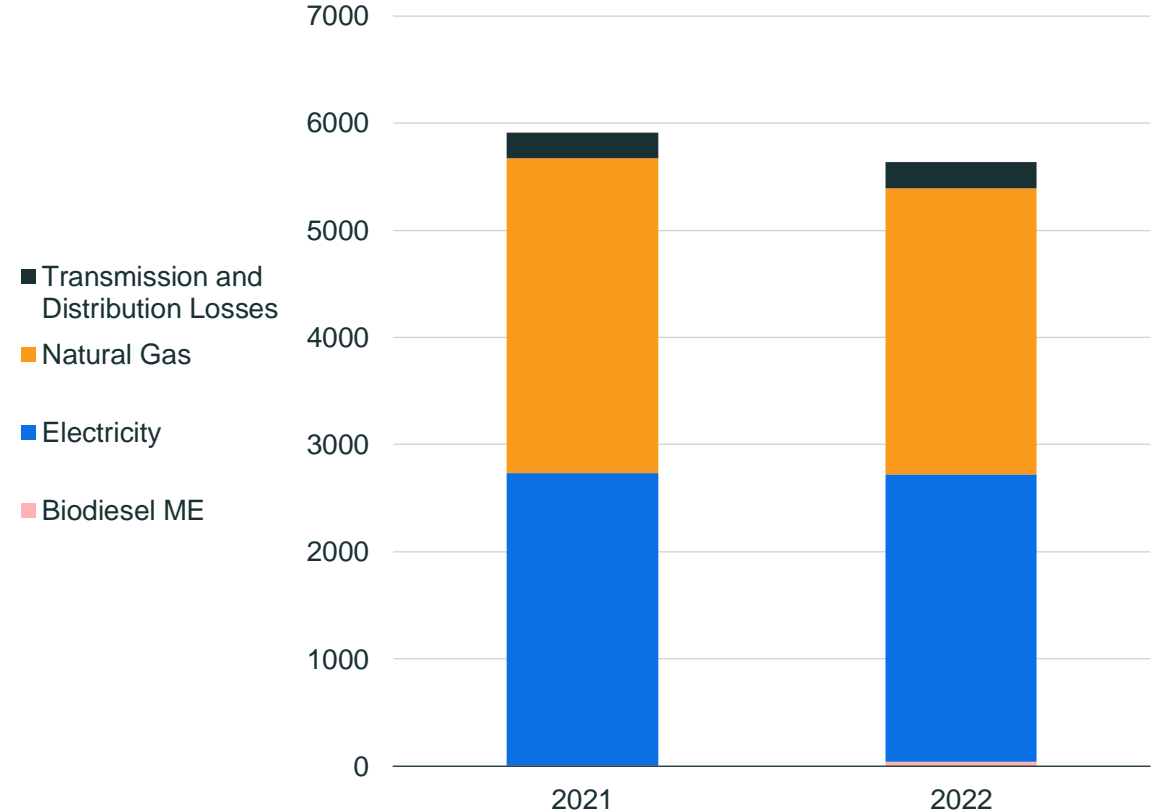
- Building emissions decreased by 4.7% compared to 2021.
- Electricity consumption accounted for the greatest proportion of building emissions, with gas contributing a similar amount.
- This creates an opportunity to achieve emissions reductions by implementing electricity-saving measures, such as installing LED bulbs or self-timed plug sockets which reduce plug load in out of office hours, and by implementing gas-saving measures, such as reducing temperatures in less-used areas of the building, insulating the building or considering switching to a low-carbon heating alternative, such as a heat pump.

<b>Buildings</b>	<b>2021</b>	<b>2022</b>
Biodiesel ME	3.0	42.4
Electricity	2,733.6	2,680.1
Natural Gas	2,935.5	2,670.6
Transmission and Distribution Losses	241.1	243.7
<b>Total</b>	<b>5,913.1</b>	<b>5,636.8</b>



All rows and tables are rounded to one decimal place. This may lead to slight discrepancies in totals within the report.

### Buildings emissions for year ending 2021 and 2022, tCO<sub>2</sub>e





# Carbon footprint.

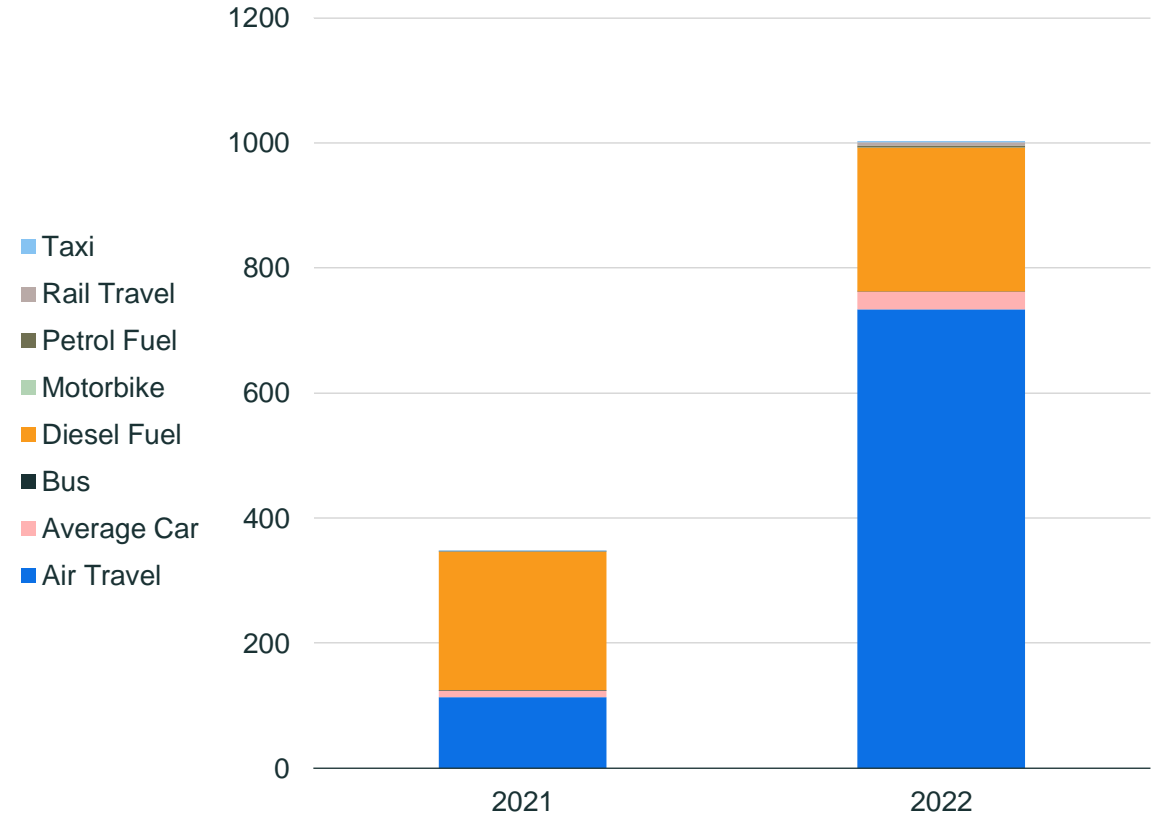
## Business TRAVEL

### Notes:

- Business travel emissions increased by 188.7% compared to 2021, which is expected in the post-COVID recovery, however, this is a trend you should look to reverse from 2022 to 2023.
- Air travel accounted for the greatest proportion of travel emissions, therefore encouraging staff to incorporate several overseas visits into one trip, set an air travel budget and opt for virtual meetings instead, where possible.

Business Travel	2021	2022
Air Travel	113.4	733.9
Average Car	10.2	28.7
Bus	1.1	0.3
Diesel Fuel	220.8	229.4
Motorbike	0.6	0.1
Petrol Fuel	0.6	3.0
Rail Travel	0.7	5.8
Taxi	0.2	2.0
<b>Total</b>	<b>347.6</b>	<b>1,003.4</b>

Business travel emissions for year ending 2021 and 2022, tCO<sub>2</sub>e



All rows and tables are rounded to one decimal place. This may lead to slight discrepancies in totals within the report.





# Carbon footprint.

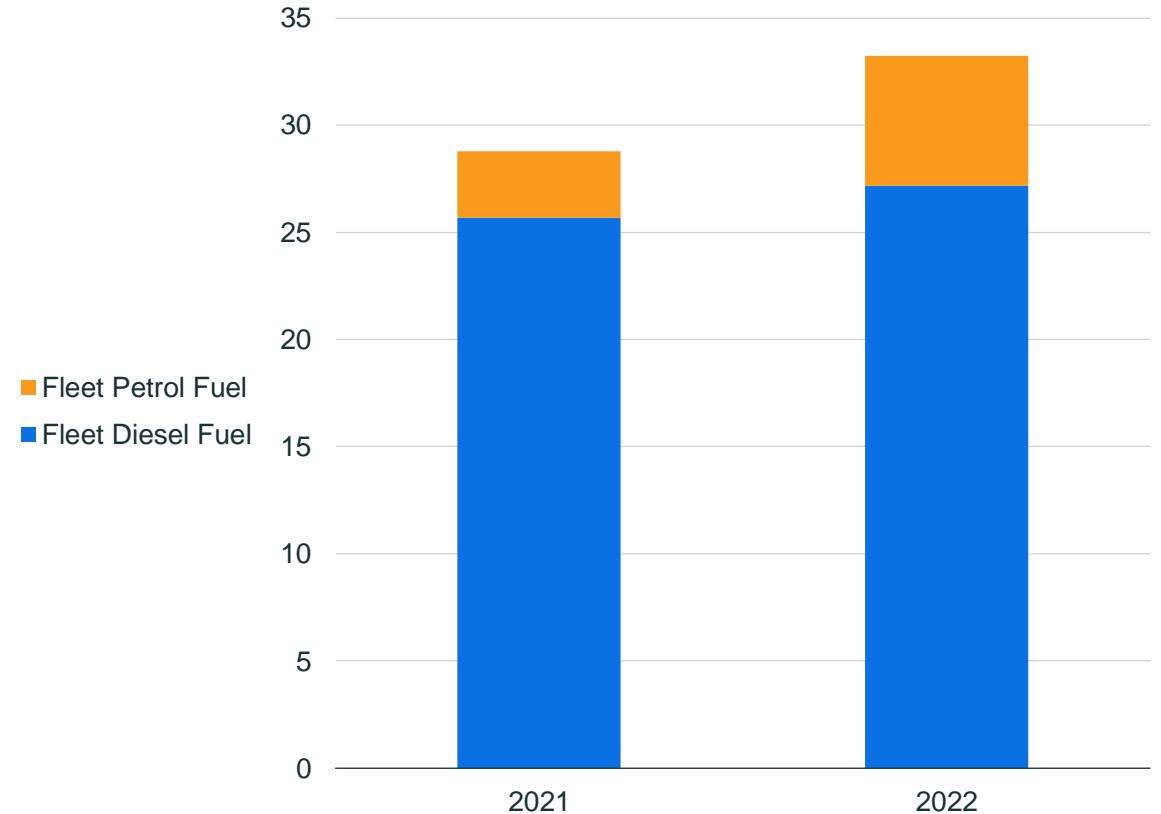
## Fleet TRAVEL

### Notes:

- Fleet emissions increased by 11.8% compared to 2021, another expected trend post-COVID but again one which we want to see reversed next year.
- Once again petrol and diesel cars make up the whole of your fleet, therefore electrifying even a small portion of your fleet could see significant reductions in emissions

<b>Fleet Travel</b>	<b>2021</b>	<b>2022</b>
Fleet Diesel Fuel	25.7	27.2
Fleet Petrol Fuel	3.1	6.1
<b>Total</b>	<b>28.8</b>	<b>33.2</b>

Fleet travel emissions for year ending 2021 and 2022, tCO<sub>2</sub>e



All rows and tables are rounded to one decimal place. This may lead to slight discrepancies in totals within the report.



# Carbon footprint.

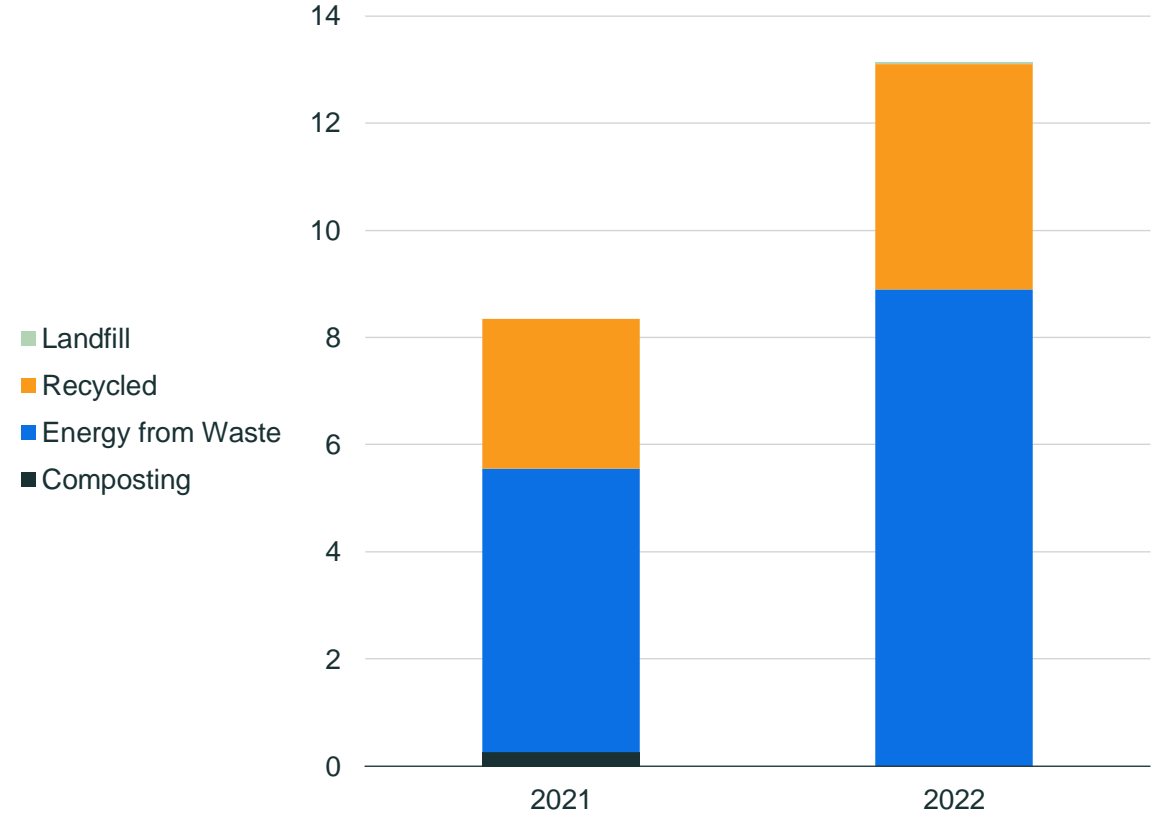
## WASTE

### Notes:

- Waste emissions increased by 57.8% compared to 2021, with most waste avoiding landfill through recycling or incineration to create energy from waste. Eliminating landfill completely and considering how you can reuse materials, making your waste streams more circular as opposed to linear.

Waste	2021	2022
Composting	0.3	-
Energy from Waste	5.3	8.9
Recycled	2.8	4.2
Landfill	-	0.04
<b>Total</b>	<b>8.3</b>	<b>13.1</b>

Waste emissions for year ending 2021 and 2022, tCO<sub>2</sub>e



All rows and tables are rounded to one decimal place. This may lead to slight discrepancies in totals within the report.



# Carbon footprint.

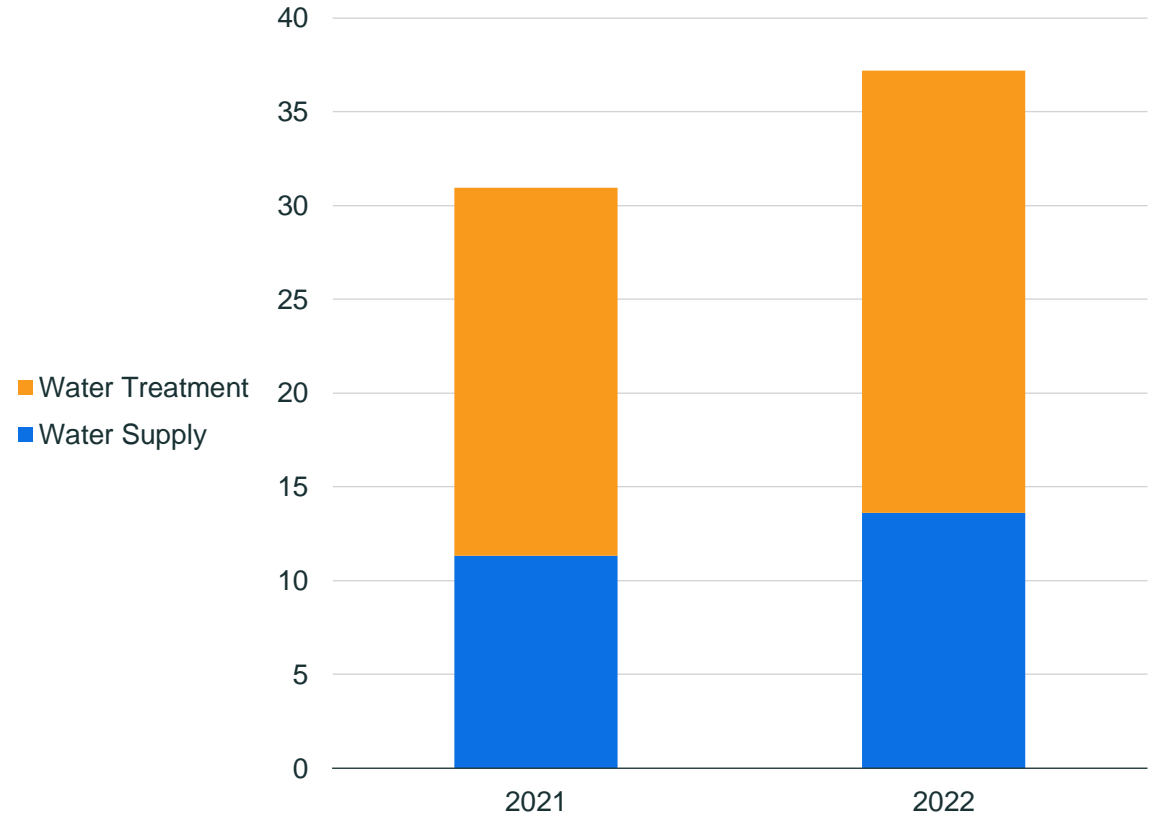
## WATER

### Notes:

- Water emissions increased by 20.4% compared to 2021 due to significant reductions in both water supply and treatment
- Reductions could be made by installing aerators to taps, using toilet cistern hippos and reusing wastewater for onsite purposes, such as watering plants, allotments or herb gardens.

Water	2021	2022
Water Supply	11.3	13.6
Water Treatment	19.6	23.6
<b>Total</b>	<b>30.9</b>	<b>37.2</b>

Water emissions for year ending 2021 and 2022, tCO<sub>2</sub>e



All rows and tables are rounded to one decimal place. This may lead to slight discrepancies in totals within the report.



# Measured carbon footprint.

## BY SCOPE

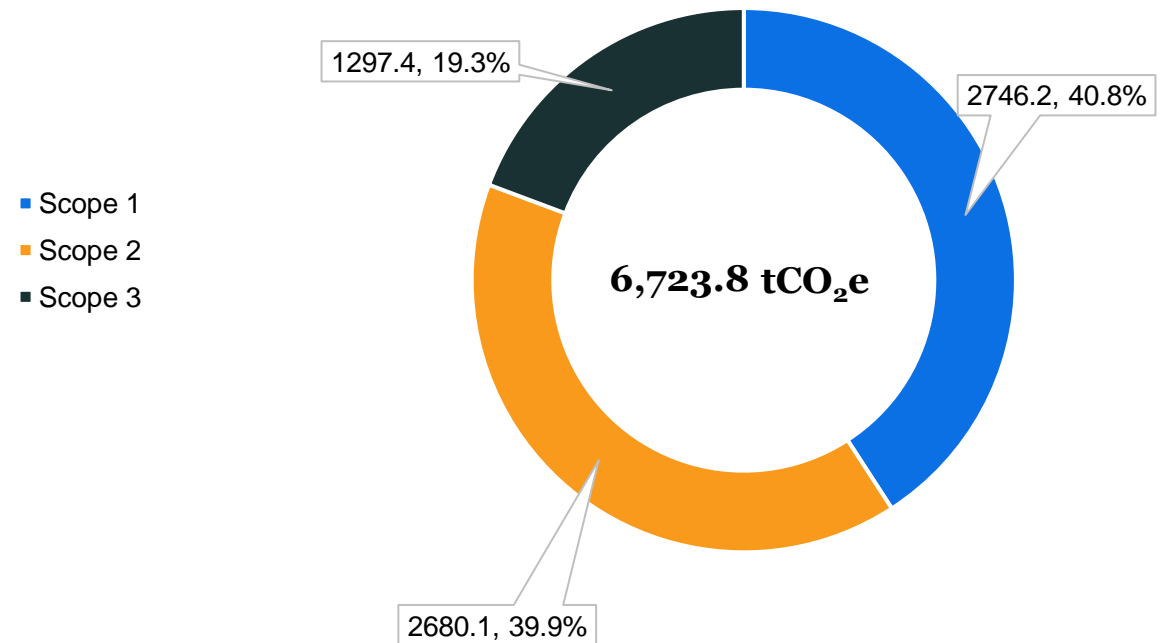
### Notes:

- Whilst all of your Scope 1&2 emissions are included in the business certification, only some elements of Scope 3 (waste, business travel and T&D losses of electricity) are measured here.

Scope	tCO <sub>2</sub> e	%
Scope 1	2,746.2	40.8
Scope 2	2,680.1	39.9
Scope 3	1,297.4	19.3
<b>Total</b>	<b>6,723.8</b>	<b>100.0</b>

All rows and tables are rounded to one decimal place. This may lead to slight discrepancies in totals within the report.

Measured carbon emissions by scope for year ending 2022, tCO<sub>2</sub>e





# Carbon footprint.

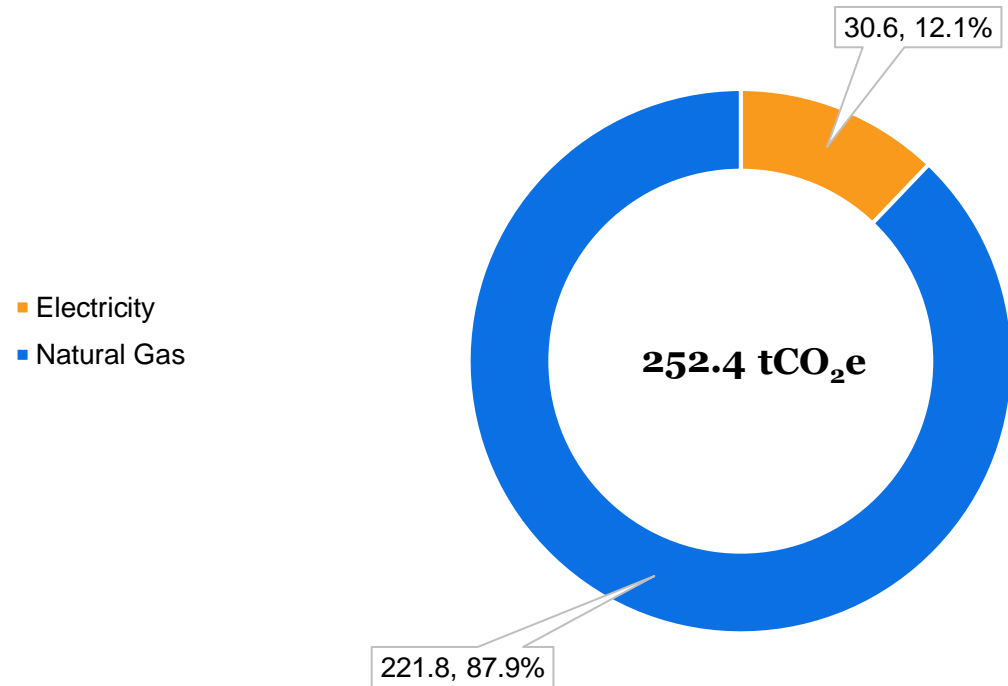
HOME OFFICE

## Notes:

- Due to the uncertainties surrounding Home Office emissions, and the fact that commuting emissions have not been calculated as part of your footprint, these figures are provided for information only in order to give an indication of the scale of the impact associated with home office energy consumption. They have not been included in your carbon footprint total.

Homeworking	tCO <sub>2</sub> e	%
Electricity	30.6	12.1
Natural Gas	221.8	87.9
<b>Total</b>	<b>252.4</b>	<b>100.0</b>

## Homeworking emissions for year ending 2022, tCO<sub>2</sub>e



All rows and tables are rounded to one decimal place. This may lead to slight discrepancies in totals within the report.



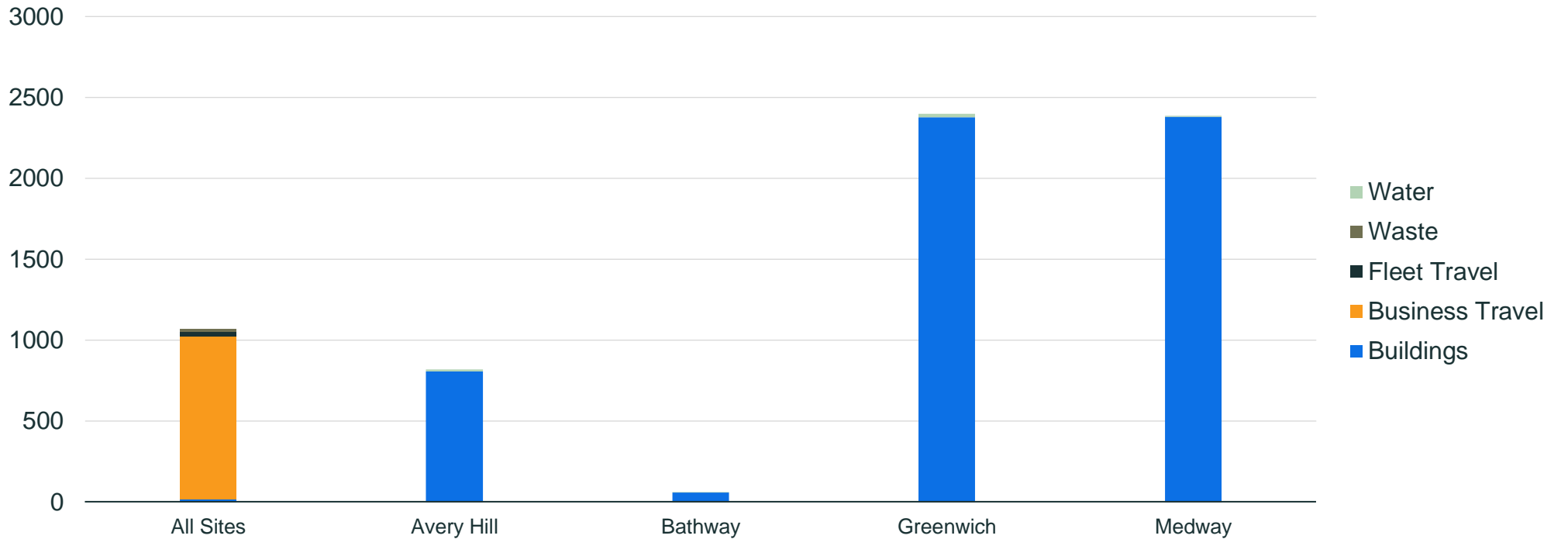
# Carbon footprint.

BY LOCATION

Carbon footprint for each location

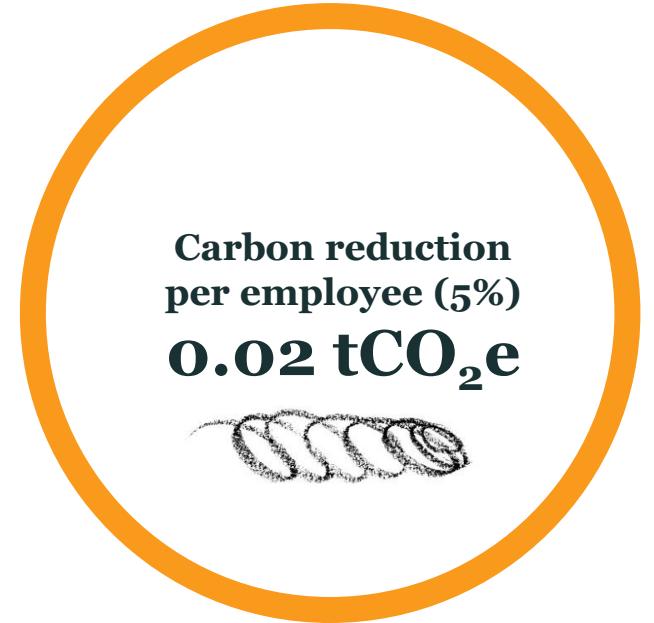
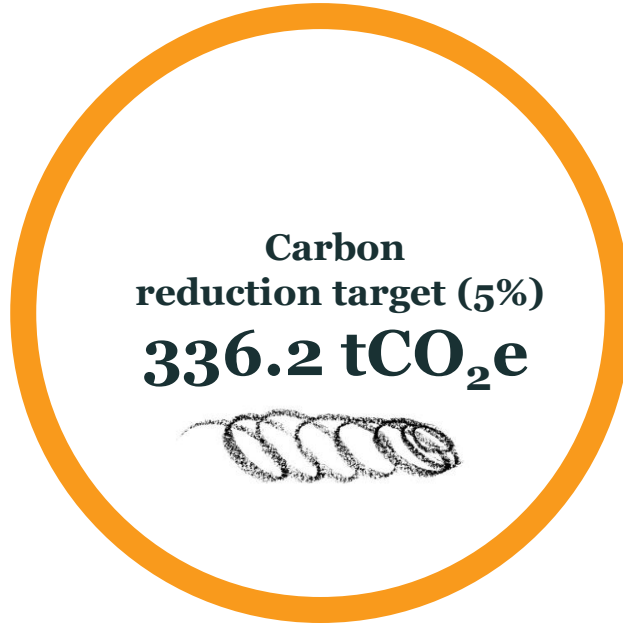
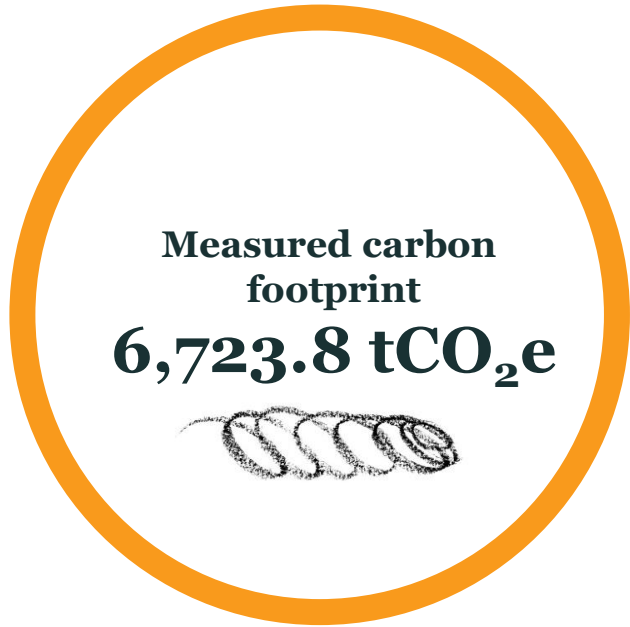
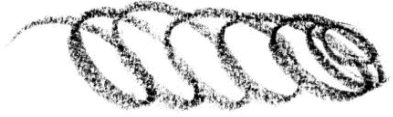
tCO<sub>2</sub>e

**Note:**  
All Sites includes business travel, fleet and waste, since the data submitted was cumulative for the whole business.





# Looking ahead. Targets for next year.



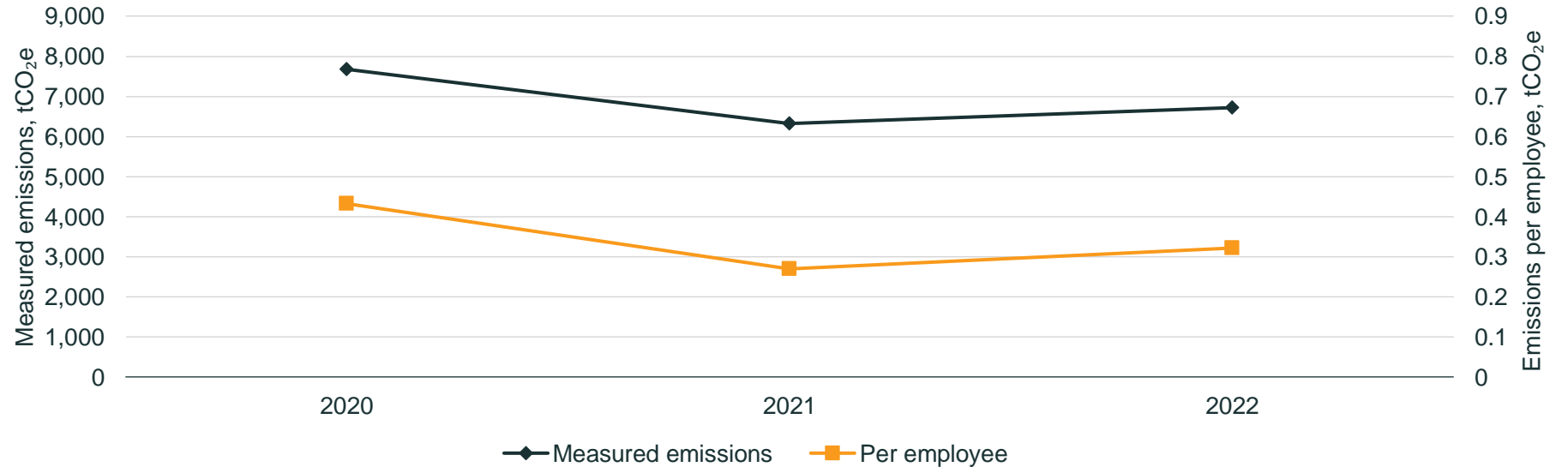


# Historical Carbon Emissions

## Reported carbon emissions year ending 2020 to 2022

**Note:**

This graph shows absolute reported carbon emissions for each year the Planet Mark Business Certification was measured using the location-based method. Planet Mark's Business Certification covers scope 1, 2 and some 'core' scope 3 emissions



Improvements in data quality and changes to the business reporting boundary may impact the emission sources included in each year's certification. Meaningful comparisons, therefore, may not be possible without normalisation (not shown here). Annual reductions are based on the previous year's emissions (a rolling baseline), with certification awarded based on a minimum normalised reduction requirement or the emissions banking approach.





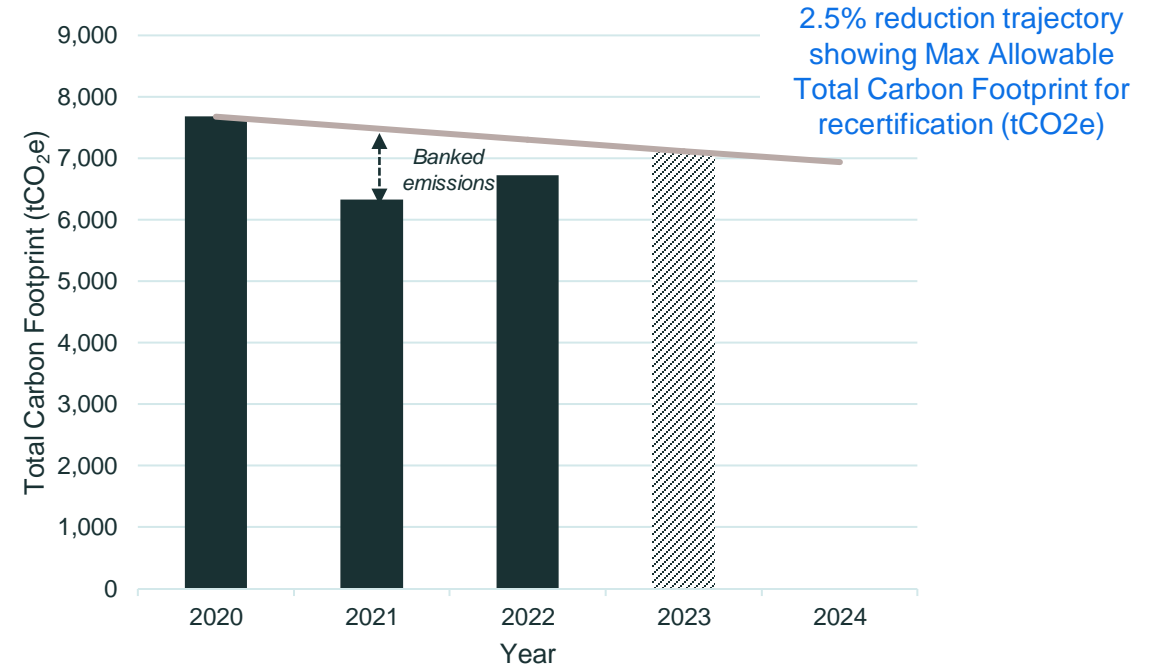
# Carbon footprint.

## EMISSIONS BANKING

University of Greenwich had a minimum target of 6,170.6 tCO<sub>2</sub>e for YE2022 but their footprint increased by 395 tCO<sub>2</sub>e, based on location-based reporting. This means that they did not make an absolute reduction in emissions between YE2021 and YE2022. Using the emissions intensity metric also resulted in an increase in terms of tCO<sub>2</sub>e per employee.

We are therefore re-certifying University of Greenwich using our Emissions Banking approach. This allows companies to re-distribute savings made in one year across the following three years of certification. In YE2021 University of Greenwich banked 1,156.7 tCO<sub>2</sub>e of emissions savings and 553.2 tCO<sub>2</sub>e of this has been used up in YE2022. This leaves 603.4 tCO<sub>2</sub>e of emissions in the bank for YE2023 (the final year that these banked emissions can be used). The hatched column shows University of Greenwich's maximum permissible emissions in YE2023 if they were to use up all their banked emissions. **Next year, we strongly recommend focusing on emission reductions as banked emissions might not be enough to pass.**

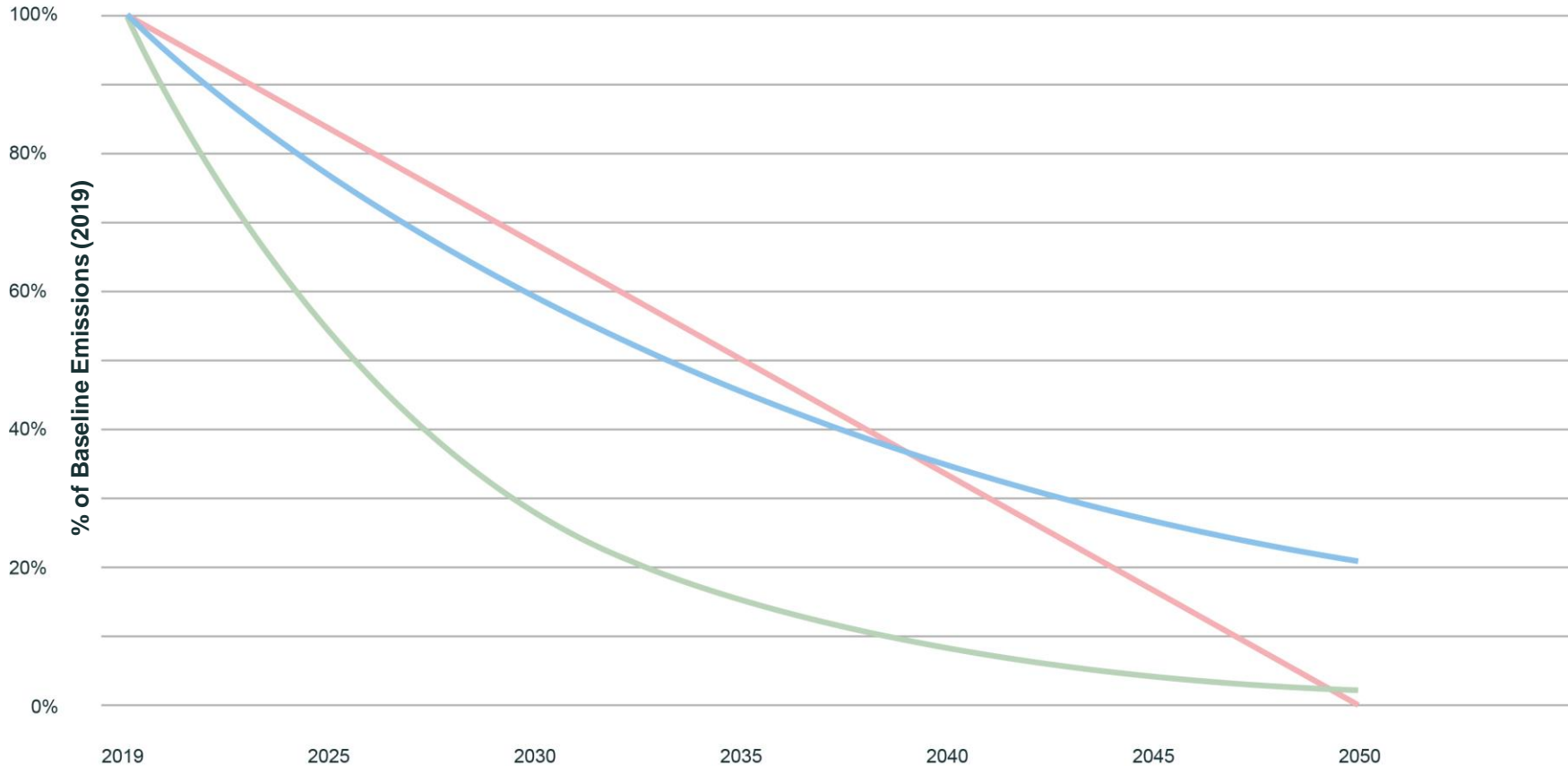
Emissions Banking 2020-2024, tCO<sub>2</sub>e





# Target setting.

## A Decade of Action: Pathways to Net Zero through varying emissions reduction trajectories



**Planet Mark 5% annual reduction**

- 5% year on year reduction is the minimum annual reduction recommended by the Planet Mark.

**Planet Mark 12% annual reduction**

- 12% year on year reduction is based on the mean average reduction achieved by the Planet Mark holders in Ye2019.
- A 12% year on year reduction from a 2019 baseline will set you on track to meet the UK target Net Zero by 2050.

**Net Zero 2050**



# Step two.

## ENGAGE

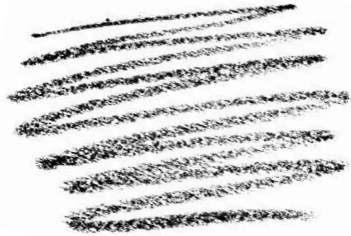




# Workshops.

Our engagement experts will help unlock your employees' passion to innovate and take ownership of their environmental impacts.

Together, we celebrate every commitment and champion every success, providing positive reassurance to help you drive change from within.



<b>Workshop</b>	<b>Description</b>
<b>Sustainability Energiser</b>	A 1 hour session for everyone in the business. It raises awareness about sustainability, the business case for acting on climate change and the carbon footprint of the company. Includes brainstorm session inviting participants to come up with solutions.
<b>Sustainability Plan Workshop</b>	A 3 hour session which lifts the lid on operational carbon emissions, supporting a brainstorming sessions to understand impacts and consider actions that can make a material difference. Participants leave with a one-year Sustainability Plan with SMART targets, roles and responsibilities.
<b>Business Sustainability Essentials Training</b>	A 3 hour session covering the basics of business sustainability and the role your employees can adopt in driving change from within. Offered as both public and private event.
<b>Stakeholder Engagement Workshop</b>	A 30min-1 hour session, focussing on the member's sustainability journey to date, ambitions ahead with the view to encourage their suppliers/customers to join. Q&As, networking opportunity.



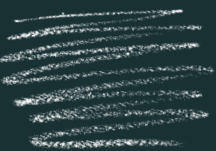
# The Eden Project

## *PARTNERSHIP*

At Planet Mark, we recognise that that we need nature to address the greatest challenges of our time.

The Eden Project, an educational charity, connects us with each other and the living world, exploring how we can work towards a better future.

As part of your certification with the Planet Mark, a number of tickets have been assigned to your organisation so you can visit the Eden Project for free – please get in touch to arrange your Eden Project visit and inspire and encourage positive action.





# Cool Earth

## *PARTNERSHIP*

Protecting our rainforests is one of our best lines of defence against climate change.

- Cool Earth is helping rainforest communities to protect nearly 100,000 hectares of biodiversity rich rainforest across three continents.
- Behind this huge milestone are thousands of families whose futures have been transformed.
- We have protected one acre of Peruvian rainforest in your company name.



# COOL EARTH



# Step three.

COMMUNICATE





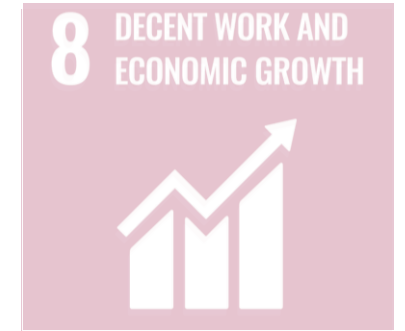
# Communicating your international influence.

The Sustainable Development Goals (SDGs), also known as the Global Goals, are a collection of 17 interrelated goals set by the United Nations. They cover a broad range of social and economic development issues. These include poverty, hunger, health, education, climate change, gender, equality, water, sanitation, energy.

By measuring and reducing your carbon footprint with the Planet Mark, you can directly and measurably contribute to up to 9 SDGs addressing 18 SDG targets.

Contributing towards

**7 SDGs**







# SDG alignment.



**6** CLEAN WATER AND SANITATION

6.3 - 95% of water treated  
6.6 - Acre of rainforest protected

**9** INDUSTRY, INNOVATION AND INFRASTRUCTURE

9.4 - Reduction in energy use

**13** CLIMATE ACTION

13.3 - Acre of rainforest protected, storing 260 tCO<sub>2</sub>  
13.3 - Donation to the Eden Project

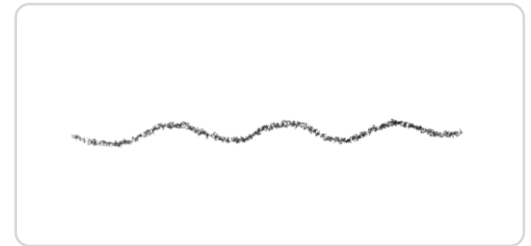
**7** AFFORDABLE AND CLEAN ENERGY

7.3 - Reduction in energy use  
7.2 - 1% of energy demand met by renewable energy

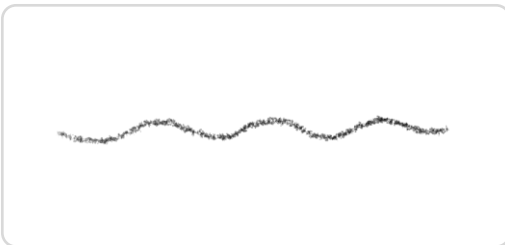
**11** SUSTAINABLE CITIES AND COMMUNITIES

11.6 - Measured carbon emissions  
11.6 - 32% of waste recycled and composted  
11.4 - Donation to the Eden Project  
11.4 - Acre of rainforest protected

**14** LIFE BELOW WATER



**8** DECENT WORK AND ECONOMIC GROWTH



**12** RESPONSIBLE CONSUMPTION AND PRODUCTION

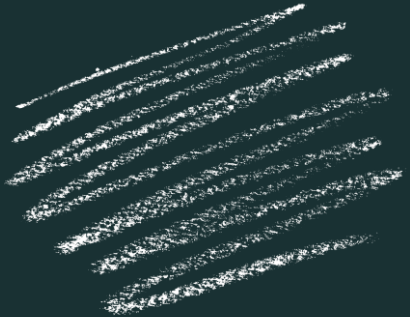
12.6 - Measured carbon emissions  
12.5 - 32% of waste recycled and composted

**15** LIFE ON LAND

15.2 - Acre of rainforest protected, storing 260 tCO<sub>2</sub>



# 5 ways to accelerate your sustainability journey.



## 1. Review our recommendations

**Guidance for general best practice:** See the Appendix of this report for recommendations to do with Data Collection & Quality, Building, Waste, Travel, Paper, Staff Engagement and Supplier Engagement.

## 2. Join our online community

**Planet Mark online community platform:** If you haven't already, invite your team to join our exclusive member-only community platform, where you can check out inspirational initiatives to implement in your own organisation and collaborate with other Planet Mark Members. Join [here](#).

## 3. Use our toolkits & resources

**Toolkits & Guides:** Go to our Members Area on our [website](#) and make use of resources available to Planet Mark members.

## 4. Connect with us

**Social media channels:** We're active across social media and would love to help share your sustainability stories across our platform, just connect and tag us please!

## 5. Need more support?

**We can help.** We are here to support on your sustainability journey, no matter where you're at. If you're on a path to net zero, we have a suite of Net Zero [Solutions](#) to offer. If you want further stakeholder engagement support, browse our list of workshops [here](#) or just get in touch to discuss.



# Data Report.

## APPENDIX



Source	Scope	Unit	01 August 2020 to 31 July 2021		Current 01 August 2021 to 31 July 2022		% Change in tCO <sub>2</sub> e from previous year	% total carbon footprint	% Change in amounts from previous year
			Amount	tCO <sub>2</sub> e	Amount	tCO <sub>2</sub> e			
			<b>Buildings</b>						
Biodiesel ME	1	litres	17,777.0	3.0	253,083.0	42.4	1324%	1%	1324%
Electricity (location based)	2	kWh	12,874,191.1	2,733.6	13,859,283.4	2,680.1	-2%	40%	8%
Electricity (market based)	2	kWh	12,874,191.1	16.4	13,859,283.4	34.9	113%	-	8%
Natural Gas	1	kWh	16,026,730.0	2,935.5	14,630,230.5	2,670.6	-9%	40%	-9%
Transmission and Distribution Losses	3	kWh	12,832,448.1	241.1	13,777,301.4	243.7	1%	4%	7%
<b>Travel</b>									
Fleet Diesel Fuel	1	litres	10,216.8	25.7	10,621.6	27.2	6%	0.4%	4%
Fleet Petrol Fuel	1	litres	1,423.2	3.1	2,809.4	6.1	95%	0.1%	97%
Air Travel	3	passenger.km	637,593.7	113.4	4,777,303.1	733.9	547%	11%	649%
Average Car	3	km	59,608.4	10.2	168,226.3	28.7	181%	0.4%	182%
Bus	3	passenger.km	10,417.1	1.1	3,473.8	0.3	-69%	0.005%	-67%
Diesel Fuel	3	litres	87,877.7	220.8	89,683.4	229.4	4%	3%	2%
Motorbike	3	km	5,664.9	0.6	1,087.9	0.1	-81%	0.002%	-81%
Petrol Fuel	3	litres	253.5	0.6	1,409.0	3.0	448%	0.1%	456%
Rail Travel	3	passenger.km	20,955.1	0.7	171,806.4	5.8	685%	0.1%	720%
Taxi	3	km	941.1	0.2	9,824.3	2.0	944%	0.03%	944%
<b>Waste</b>									
Composting	3	tonnes	29.2	0.3	-	-	-	-	-
Energy from Waste	3	tonnes	248.2	5.3	418.0	8.9	68%	0.1%	68%
Landfill	3	tonnes	-	-	0.1	0.04	-	0.01%	-
Recycled	3	tonnes	294.7	2.8	197.4	4.2	50%	0.1%	-33%
<b>Water</b>									
Water Supply	3	cubic metres	75,936.8	11.3	91,294.5	13.6	20%	0.2%	20%
Water Treatment	3	cubic metres	72,139.9	19.6	86,729.8	23.6	20%	0.4%	20%
<b>Location Based</b>									
<b>Total</b>		<b>tCO<sub>2</sub>e</b>		<b>6,328.8</b>		<b>6,723.8</b>	<b>6%</b>		
No. employees		Number		23,406		20,881			
<b>Total per employee</b>		<b>tCO<sub>2</sub>e</b>		<b>0.3</b>		<b>0.3</b>	<b>19%</b>		
Total floor space		m <sup>2</sup>		-		141,935.0			
<b>Building emissions per m<sup>2</sup></b>		<b>tCO<sub>2</sub>e</b>		<b>-</b>		<b>0.04</b>	<b>-</b>		
<b>Market Based</b>									
<b>Total</b>		<b>tCO<sub>2</sub>e</b>		<b>3,611.6</b>		<b>4,078.5</b>	<b>13%</b>		
No. employees		Number		23,406		20,881			
<b>Total per employee</b>		<b>tCO<sub>2</sub>e</b>		<b>0.2</b>		<b>0.2</b>	<b>27%</b>		
Total floor space		m <sup>2</sup>		-		141,935.0			
<b>Building emissions per m<sup>2</sup></b>		<b>tCO<sub>2</sub>e</b>		<b>-</b>		<b>0.02</b>	<b>-</b>		



# About this report – General.

<b>Company Name</b>	University of Greenwich
<b>Sector</b>	University Education
<b>Reporting Period</b>	01 August 2021 to 31 July 2022
<b>Year Of Certification</b>	3rd
<b>Reporting Boundary</b>	University of Greenwich (Avery Hill, Greenwich, Medway, Woolwich)
<b>Emission sources included</b>	Electricity, T&D losses, natural gas, other fuels, water, waste, fleet, business travel
<b>Total FTE Employees (annual average no.)</b>	20,881
<b>Total Internal Floorspace (m<sup>2</sup>)</b>	141,935
<b>Data Collection Lead</b>	David Jackson, Sustainability Project Officer, <a href="mailto:D.Jackson@greenwich.ac.uk">D.Jackson@greenwich.ac.uk</a>
<b>Baseline Conversion Factor</b>	BEIS 2021
<b>Current Conversion Factor</b>	BEIS 2022
<b>Methodology</b>	We follow the GHG Protocol for Corporate Emission Reporting and The National TOMs Framework for Social Value Reporting. Refer to Planet Mark Business Certification Scheme Rules for detailed information on the methodology and standards used in the preparation of this report.
<b>Community Project</b>	Contributions to the Eden Project and to Cool Earth's Asháninka community rainforest project have been made as part of Planet Mark Certification.
<b>Prepared by</b>	Ruari Phipps, Sustainability Consultant, Planet Mark
<b>Checked by</b>	Jamie Beevor, Head of Technical, Planet Mark Alex Smith, Technical Consultant, Planet Mark
<b>Date</b>	26 April 2023



# About this report – Caveats (i).

Operational Boundary	Scope	Unit	Data Source	Data Accuracy	Comments, omissions, estimates or extrapolations	Organisational Boundary
Electricity	2 and 3	kWh	Primary source - emissions report & invoices	Actual	<p>An emissions report was the primary source of evidence, with invoices provided to spotcheck.</p> <p>Your electricity consumption is shown in the carbon footprint as Purchased Electricity emissions (Scope 2 emissions) and Electricity Transmission and Distribution losses (Scope 3 emissions).</p> <p>Your scope 2 electricity emissions are reported in two ways; using the location-based method and the market-based method. Location-based electricity emissions have been calculated using carbon emission factors for average national or sub-national grid electricity and market-based electricity emissions have been calculated using carbon emission factors for your specific electricity supply fuel mix as published on your invoices covering the reporting period.</p>	All sites
Natural Gas	1	kWh	Primary source - emissions report & invoices	Actual	An emissions report was the primary source of evidence, with invoices provided to spotcheck.	All sites
Building Fuel	1	litres	Primary source - emissions report	Actual	The CHP emissions from biomass have been excluded as due to the varied nature (size, efficiency, running hours etc) of CHP units, we cannot determine the amount of biomass that would've been needed to produce the kWh output that has been provided in the evidence. The total weight of biomass is needed to determine the associated emissions, which was not available, and thus this emissions source has been excluded from our calculations, but it is recommended that the tonnes of biomass burned during the reporting period is provided in future.	All sites

Note: unless otherwise stated in the report all electricity emissions are location based (i.e. calculated using carbon emission factors for average UK national grid electricity). Do let us know if your electricity is from 100% renewable energy and we will provide dual reporting to show both market based and location based electricity emissions.



# About this report – Caveats (ii).

Operational Boundary	Scope	Unit	Data Source	Data Accuracy	Comments, omissions, estimates or extrapolations	Organisational Boundary
<b>Onsite solar consumption</b>	2	kWh	Primary source - consumption report	Actual	All solar energy generated onsite was consumed onsite by Univeristy of Greenwich. The feed-in-tariff supported the installation of these panels.	All sites
<b>Water Supply &amp; Treatment</b>	3	m <sup>3</sup>	Primary source - emissions report & invoices	Actual and estimated meter reads with some interpolation to match reporting period	An emissions report was the primary source of evidence, with invoices provided to spotcheck.	All sites
<b>Homeworking Energy</b>	3	kWh	Secondary source - University of Greenwich's calculations	Estimated	Homeworking electricity & gas consumption figures (kWh) were taken from the University of Greenwich's own calculations, using an EcoAct methodology.	All sites
<b>Fleet Vehicles</b>	1	litres	Primary source - travel report	Actual	None	All sites
<b>Private Vehicles Used for Business</b>	3	Km/litres	Primary source - travel report	Actual	Total fuel consumption in staff-owned vehicles was provided, and 75/25 split between petrol and diesel was assumed, following the guidance of the University of Greenwich (UoG).	All sites
<b>Air Travel</b>	3	pkm	Primary source - travel report	Actual	The travel from the diversity travel report was assumed to be economy class, in consistency with YE2021. Hotel stay emissions were excluded from the footprint as UoG excluded them.	All sites

Note: unless otherwise stated in the report all electricity emissions are location based (i.e. calculated using carbon emission factors for average UK national grid electricity). Do let us know if your electricity is from 100% renewable energy and we will provide dual reporting to show both market based and location based electricity emissions.



# About this report – Caveats (iii).

Operational Boundary	Scope	Unit	Data Source	Data Accuracy	Comments, omissions, estimates or extrapolations	Organisational Boundary
<b>Rail Travel</b>	3	pkm	Primary source - travel report	Actual	Where distance travelled was available it was preferred. Only cost per trip available, we assumed £0.55 per mile. Calculations based on 2021 analysis of Planet Mark members' rail journeys.	All sites
<b>Taxi Travel</b>	3	km	Primary source - travel report	Actual	Where distance travelled was available it was preferred. Where only cost per trip was available, we assumed £2.53 per mile. Calculations are based on a fixed start price of £2.8 per journey, an average cost of £2.02 per mile and an average taxi journey of 5.36 miles. Sources: UK national average taxi costs, Numbeo and 2019 Passenger journeys per person per year - Taxi and Private Hire Vehicle Statistics: England 2021.	All sites
<b>Bus Travel</b>	3	pkm	Primary source - travel report	Actual	Assuming £5 per km as UoG have. 10% uplift applied as UoG also uplift in their calculations when using their cost conversions.	All sites
<b>Motorbike Travel</b>	3	km	Primary source - travel report	Actual	Assuming £5 per km as UoG have. 10% uplift applied as UoG also uplift in their calculations when using their cost conversions.	All sites
<b>Waste Recycling</b>	3	tonnes	Primary source - supplier report	Actual	We have updated our approach to calculating emissions from waste. This change in methodology has led to a reduction in our estimate of the weight of waste arisings based on the number of bin collections and this may result in an apparent reduction in the waste emissions estimate.	All sites

Note: unless otherwise stated in the report all electricity emissions are location based (i.e. calculated using carbon emission factors for average UK national grid electricity). Do let us know if your electricity is from 100% renewable energy and we will provide dual reporting to show both market based and location based electricity emissions.





# About this report – Caveats (iv).

Operational Boundary	Scope	Unit	Data Source	Data Accuracy	Comments, omissions, estimates or extrapolations	Organisational Boundary
Energy from Waste	3	tonnes	Primary source - supplier report	Actual	We have updated our approach to calculating emissions from waste. This change in methodology has led to a reduction in our estimate of the weight of waste arisings based on the number of bin collections and this may result in an apparent reduction in the waste emissions estimate.	All sites
Waste Composting	3	tonnes	Secondary source - estimated	Actual	We have updated our approach to calculating emissions from waste. This change in methodology has led to a reduction in our estimate of the weight of waste arisings based on the number of bin collections and this may result in an apparent reduction in the waste emissions estimate.	All sites
Headcount		no.	Primary source - note from payroll	Actual	Used the total students & FTE staff headcount.	All sites
Floor Area		m <sup>2</sup>	Secondary source - data submission form	Assumed Actual	Used the total residential & non-residential Gross Internal Area.	All sites
Statement					As stated through this report we are only measuring emissions from these sources for the Planet Mark certification. Electricity, T&D losses, natural gas, other fuels, water, waste, fleet, business travel. The Planet Mark certification does not include emissions associated with scope 3 emissions not associated with the sources listed before	

Note: unless otherwise stated in the report all electricity emissions are location based (i.e. calculated using carbon emission factors for average UK national grid electricity). Do let us know if your electricity is from 100% renewable energy and we will provide dual reporting to show both market based and location based electricity emissions.



# About this report.

## Data Quality.

### Data quality score

The data quality score is based on the 'Data Quality Matrix' in the Planet Mark Business Certification Scheme Rules and provides an indication of data assurance when using information in this report in your business.

	01 August 2020 to 31 July 2021	01 August 2021 to 31 July 2022	Definition
<b>Relevance of boundary</b>	4	4	Boundary accurately reflects the entire business carbon footprint for the studied period. (eg 95% of organisational activity included)
<b>Data completeness</b>	3	3	12 months of data provided for most sources.
<b>Transparency</b>	3	3	Majority disclosure of assumptions and/or some original evidence provided.
<b>Data accuracy</b>	3	3	Some use of primary data sources and minimal estimated data.
<b>Consistency</b>	4	4	Consistent or consistently improved methods, boundary and data completeness allowing for meaningful comparisons.
<b>Total score</b>	<b>17 out of 20</b>	<b>17 out of 20</b>	

**As a way to improve your data quality score for future reports, it is recommended:**

- To include the tonnes of biomass used in CHP energy production as primary data;
- Include hotel stays in your total footprint



# Recommendations.

APPENDIX





# Guidance for general best practice.

## Data collection and quality

**Evidence pack:** Collate all relevant invoices in an electronic evidence pack.

**Utilities:** Take readings of all meters on the last day of the month. Investigate the installation of smart meters.

**Headcount:** Ask HR for a table showing monthly full time equivalent headcount for the whole reporting period.

**Fuel:** Introduce fuel cards.

**Travel:** Ask your travel suppliers to provide you with a report detailing mileage and mode of transport so you can accurately add data to your carbon footprint. For non centrally booked travel record mode of travel, destination/origin and distances travelled in expense claim forms.

## Building

**Energy efficiency:** Regular 'energy audits' will help identify where most energy is being used and potential wastage from equipment, lights and heat loss. Investigate the installation of LED, T5 and sensor lighting and the upgrade of heating controls.

## Waste

**Carry out a waste management audit:** To understand what waste you are producing, where it is coming from and what the best route for it would be. Provide plenty of bins for segregating waste correctly and encouraging recycling.

**Engage your waste management supplier** to help you reduce landfill waste and instead increase the proportion that goes to recycling and to energy from waste.



# Guidance for general best practice.

## Water

**Check your meters at night**, or when water is not in use, to monitor leakage.

**Introduce a water use awareness campaign** in communal kitchen areas.

## Travel

**Record all business travel** and promote public transport options for business meetings.

**Arrange safe and fuel efficient driving training** for all drivers. Plan driver routes to finish at their homes.

**Choose fuel efficient vehicles.** Electric or hybrid cars are exempt from various taxes. Subsidies are also available for smallest vehicles. Provide incentives for employees to opt for low carbon cars, and limit choices to those which meet sustainability criteria

**Choose travel management companies**, airlines, taxi companies, couriers and other providers that are Planet Mark certified, and look for clear progress on improving fuel efficiency and pursuing credible, sustainable solutions for travel.

## Paper

**Buy paper from sustainable forests** or recycled content. Ask for FSC or PEFC branded paper as a minimum - ideally with the EU Eco label.

**Choosing recycled content paper**, your carbon emissions from paper use are reduced by 30% but choosing sustainably sourced paper the benefits are more holistic as you support the demand for sustainably managed forests which may otherwise be cut down for a different land use such as agriculture.



# Guidance for general best practice.

## **Staff engagement**

**Organise annual sustainability workshops.**  
Carry out an energy awareness and 'switch off' campaign.

## **Supplier engagement**

**Explore your possibilities and choose consciously.** Check the [Planet Mark website](#) for companies that are currently engaged on reducing their carbon footprint.

# A BRIGHTER future.



# THANK YOU

## Get in touch

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