

NOTTINGHAM TRENT STUDENTS' UNION

Carbon Report

2024 - 2025

Carbon Emissions Report

This is Nottingham Trent Students' Union (NTSU) annual carbon emissions report for the academic year 2024 - 25, covering all aspects of NTSUs carbon footprint across scopes 1, 2 and 3.

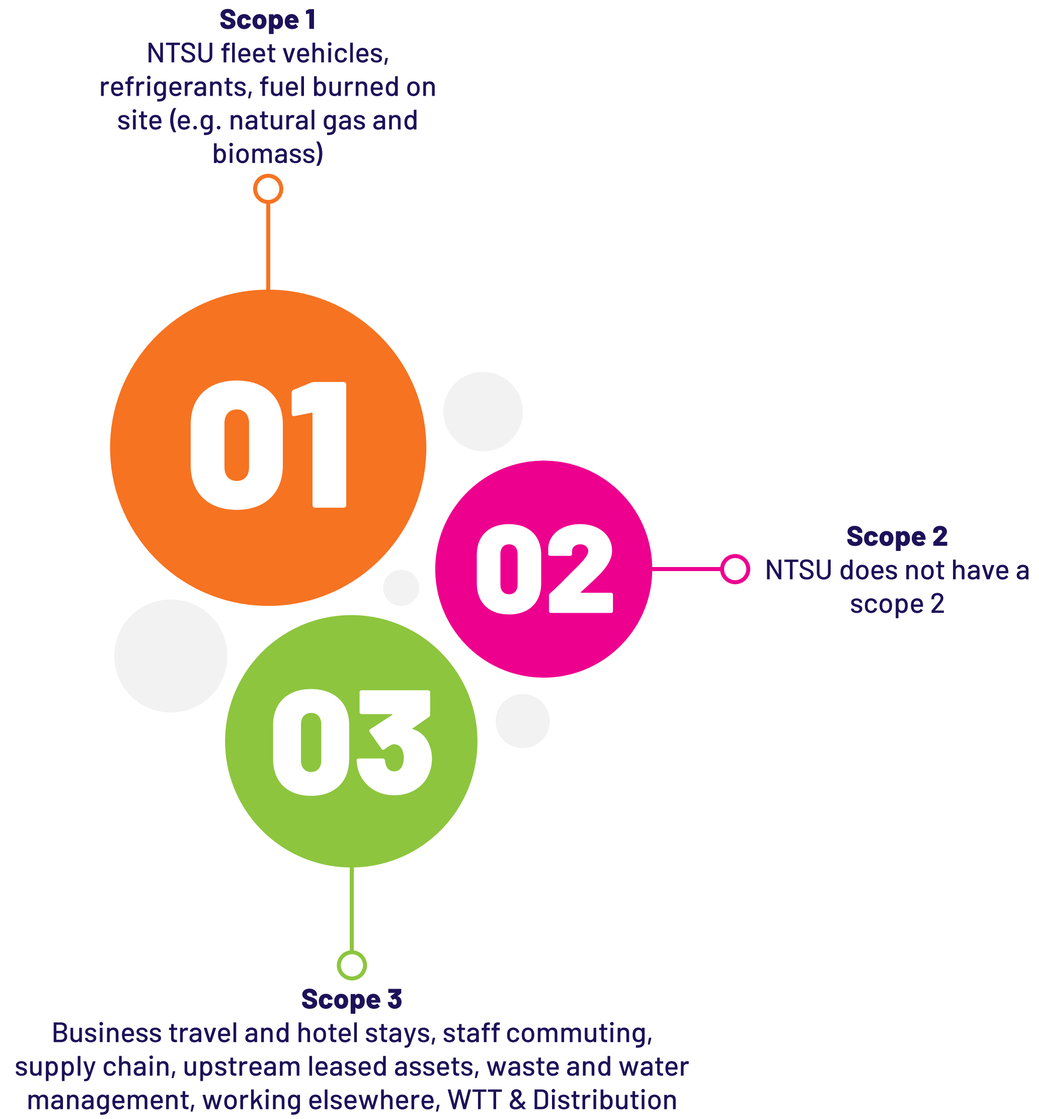
Carbon Emissions Breakdown

Scope 1 – direct emissions
This includes emissions from an organisations vehicle fleet and fuel burnt on site.

Scope 2 – indirect emissions of 'purchased' energy
These are emissions such as electricity and district heat.

Scope 3 – indirect 'other' emissions.
These arise from sources outside of an organisations control, but that are associated with their activities.

**Unlike other organisations, NTSU does not have a 'Scope 2'. Our buildings are leased from our partner organisations, Nottingham Trent University (NTU) and United Partnerships Programme (UPP), so although we use energy and heat on a daily basis, we don't have direct control over the emissions sources. As a result, these fall into our scope 3.*





Our Net Zero Target

NTSU has a target of achieving net-zero carbon across all three scopes by 2040, as committed to in our sustainability strategy. 2024/25 is our fourth year of carbon reporting and builds upon findings from our baseline year (2021/22) and following reporting years. We have not implemented any significant reduction activities, so this footprint represents another "business as usual" year of operations; this is largely due to reduced staff capacity within the sustainability remit.

NTSU is currently in the process of setting interim reduction targets on our journey to net-zero. We are conscious of aligning our actions towards global targets, such as those set in the Paris Agreement, during this process, as well as discussing next steps with our key stakeholders and interested parties. Due to limited staff resource, net zero pathways have not yet been developed; going forward this will be built into NTSU's Sustainability Strategy and Strategic Plan. As NTSU's reporting matures so will our reduction journey.

Our carbon footprint is one way of expressing our negative environmental impacts and demonstrates our commitment to reducing this impact. In addition to the development of reduction aims, we work closely with our staff and students to embed good practice and attitudes into all areas of our work.

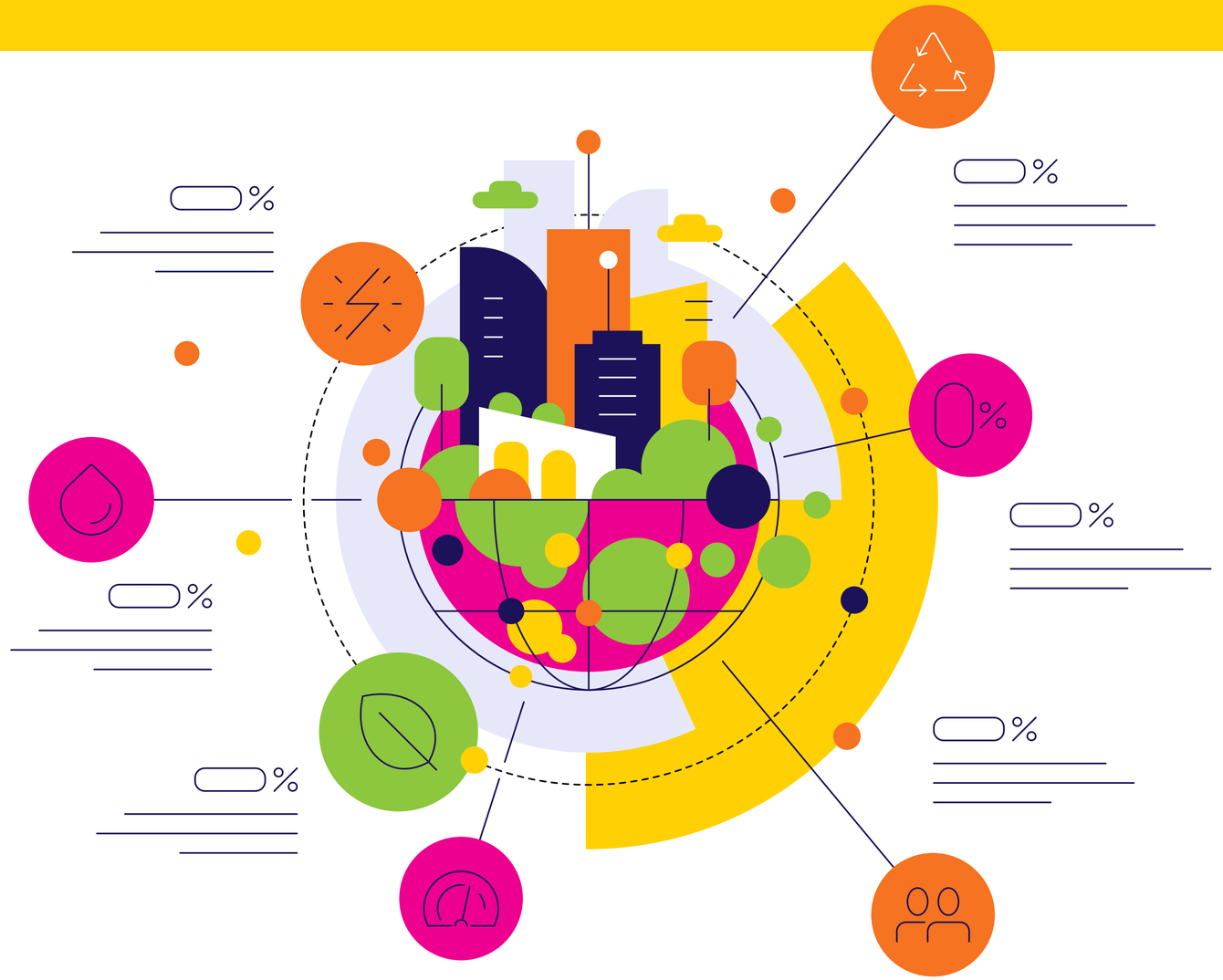
Joe Cormack
NTSU President
2026 - 2027

Methodological Changes

As we navigate our net zero and reporting journey, changes in methodology arise due to changes in legislation, better practice, and increased knowledge and expertise from our team on how we can improve the accuracy of our data.

This year there has only been one notable change in our methodology: Staff Commuting

We have standardised the number of working weeks when calculating averages for staff commutes, in previous years this figure has fluctuated resulting in incomparable data, we have now backdated previous years to provide a more accurate and comparable figure.



Our Footprint

Our total emissions for the 2024/25 academic year are 2201.92 tonnes CO_2 equivalent (tCO_2e).
That's equivalent to...



Driving around the
circumference of the globe

321 Times

In a diesel car
(that's 12,871,637km)

OR



1334 Return Flights

From London to New York
(average emissions, one passenger)

OR



100,000 Fully Grown Trees

Growing and absorbing
carbon for a year

OR



The weight of

2,100 Great White Sharks

Our Baseline

Although our overall footprint has increased, as we have increased activity and spend across the organisation, we have still made reductions in some areas.

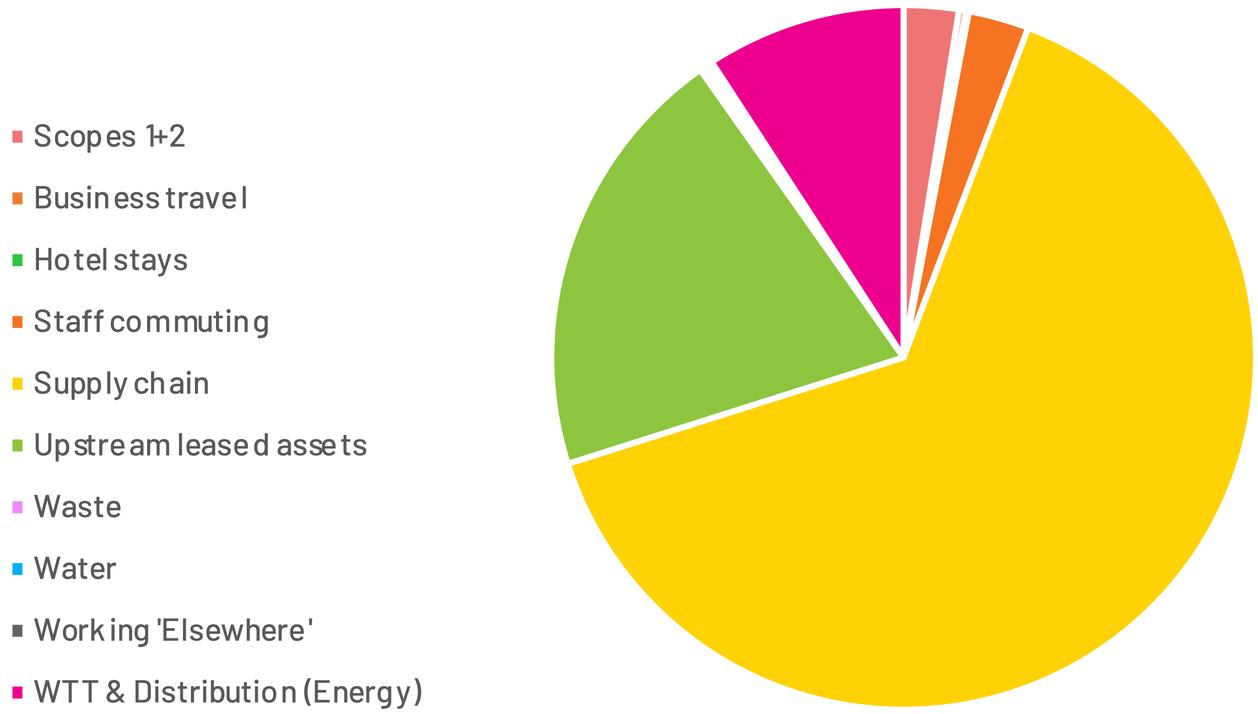


Figure 1. NTSUs Carbon Footprint (tCO_2e) Baseline Year 2021-22

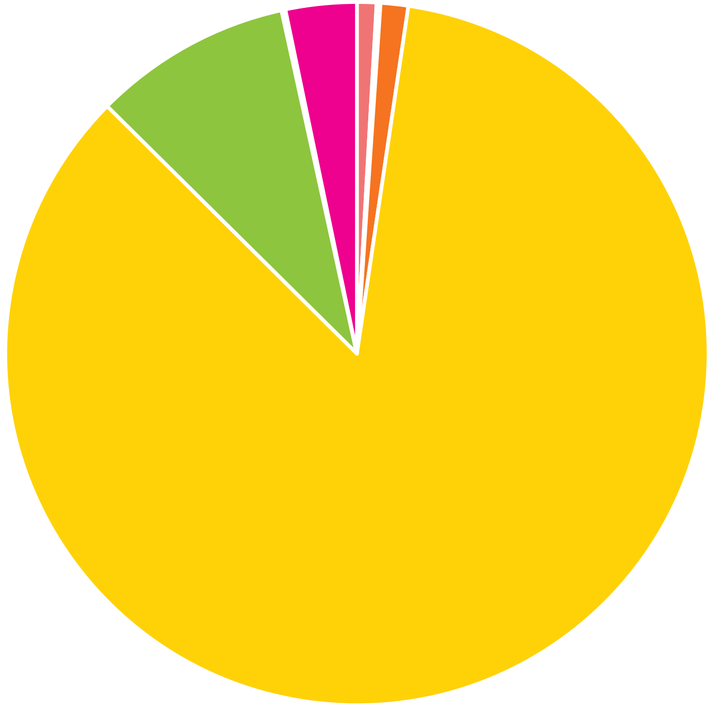


Figure 2. NTSUs Carbon Footprint (tCO_2e) 2024-25

Our Reporting Year

Compared to our baseline year (2021 / 22), we have made reductions in all emission areas except for our supply chain. Through conscious decisions, we are making positive steps towards reducing our carbon footprint in all other areas of our footprint, however our supply chain is much harder to control.

As our baseline year was still seeing the impact of the Covid 19 pandemic it is not entirely representative of a usual working year.

From our baseline our spend and activity within our supply chain has largely increased resulting in higher emissions for our procurement activities.

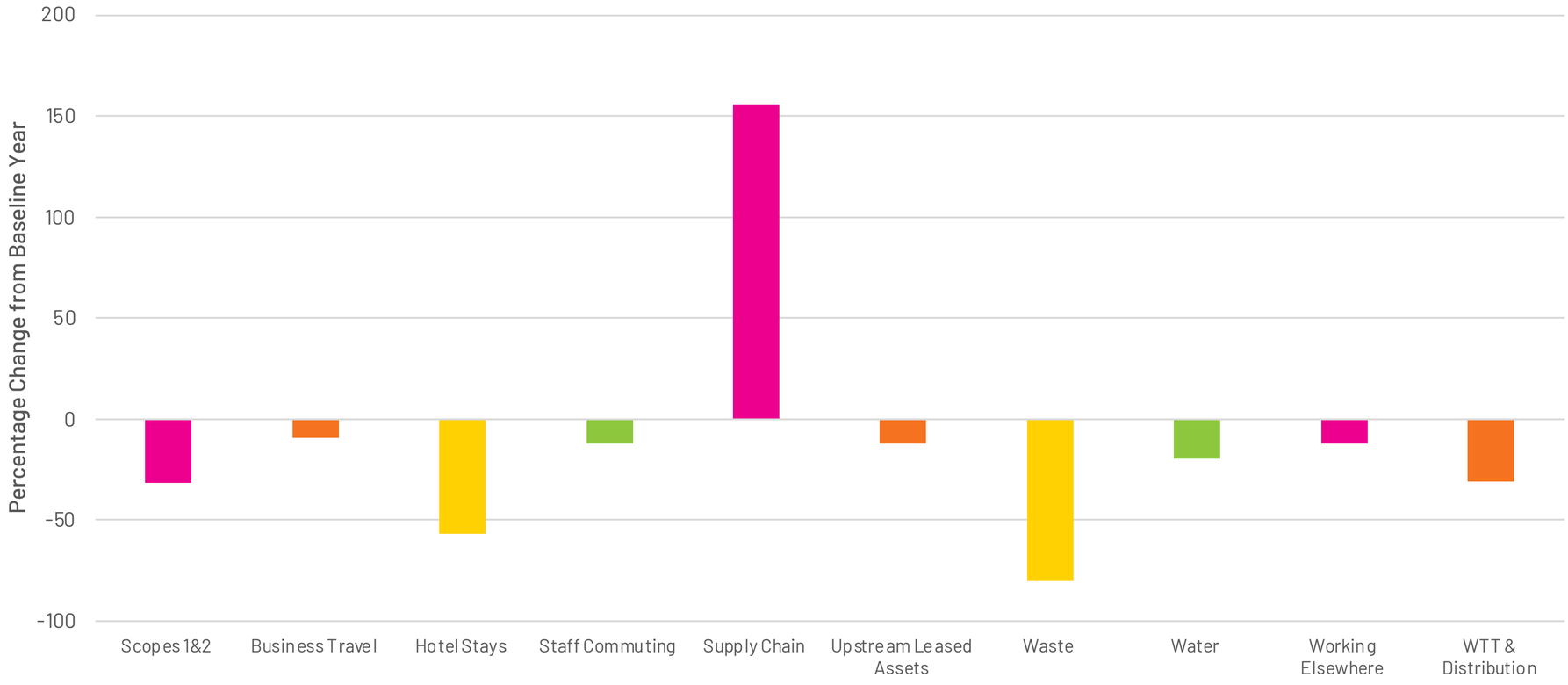


Figure 3. The percentage change for each emission areas from our baseline year (2021 / 22) to current reporting year (2024 / 25)

Scope 1

Our scope 1 emissions are formed of emissions from our fleet vehicles and refrigerant usage.

Our absolute emissions for these were 19.71 tCO_2e, contributing 0.9% of our total carbon footprint.

Our scope 1 emissions have decreased by 31.42% compared to our baseline, however have increased by 60.4% from the previous year (2023 / 24); this is due to the use of two extra vans and higher mileage of all vehicles relating to increased activity.

This is a further reduction from our baseline compared to the previous year, and is on a positive trajectory of continuous reduction from all previous years.



Fleet (Fuel)

NTSUs fleet vehicles are used each year by NTSU staff, societies, and NTU Sports Clubs for moving goods and transport to/from events. For our footprint calculations, NTUs percentage use of our fleet is calculated, and their usage is deducted from our total emissions.

Total fuel consumption (litres): 2818.9 (7.24 tCO_2e)



- We have acquired 2 more vans this year
- Fuel consumption has increased by 321.8 litres from last year and 1363.8 from our baseline year, average use of the shared vehicles with NTU has remained the same from the previous year
- Carbon emissions have only increased by 0.97 tCO_2e from last year, and 3.52 from our baseline year

The increase in emissions visible this year is attributed to increased activity requiring fleet vehicles, and consequently the acquisition of another van, as well as the use of two of NTU's owned fleet vehicles. There has been more events this year, largely student-run, which have required the use of the mini buses, and when not available, the use of the NTU fleet vehicles.



Refrigerants

NTSU uses refrigerants in our retail cooling units (fridges and freezers) and air conditioning units at City Campus (Byron building). Emissions are calculated according to the top-up amount.

Refrigerant Location / Type	Top-Up Amount	Total (tCO_2e)
Byron Air-Con	10% Assumed Loss	6.02
The Point Bar	1.54	2.96
The Point Bar	1.54	2.96

This year sees a 98.4% increase from the previous year and 82.65% increase from the baseline year. This is largely due to this year having two f-gas top ups, in comparison to both previous having none. Additionally, data for the two previous reporting years for the Byron Air-Con unit was unavailable, therefore a 10% assumed loss has been used. This is not an accurate representation of potential emissions and is likely an overestimation; we are working closely with NTU and UPP to address this issue and create a more accurate measurement of air-con refrigerants going forward.

Scope 3

**Our scope 3 emissions all come from sources outside of our direct control.
These are wide-ranging and help to quantify the impact of our broader activities at NTSU.**

Staff Commuting

NTSU is a multi-campus organisation and staff are encouraged to work across all sites. A recent staff travel survey (May 2024) showed that staff travel to City campus more than any other site (93% travel to City, 86% to Clifton and 67% to Brackenhurst). Overall, car travel is the primary commuting method of commute used by full-time staff.

Based on the recent survey data, it has been interpreted that 79% of our staff travel to work 5-days a week. The remaining 21%, on average, work from home 1.6 days a week. These survey results have been taken into account when calculating the staff commuting carbon footprint data.

Staff travel emissions have decreased by 22.3% from the previous year (2023/24), and by 12% from our baseline year. This is due to two main factors: the decrease in staff numbers of the 2024/25 reporting year, and the carbon conversion factors changing to account for less emissions for certain travel options.

Staff travel to/from home for work contributes 27.89 tCO_2e, 1.3% of our total emissions.



Staff Commuting

Our data shows that most of our staff commute either by car or on foot.

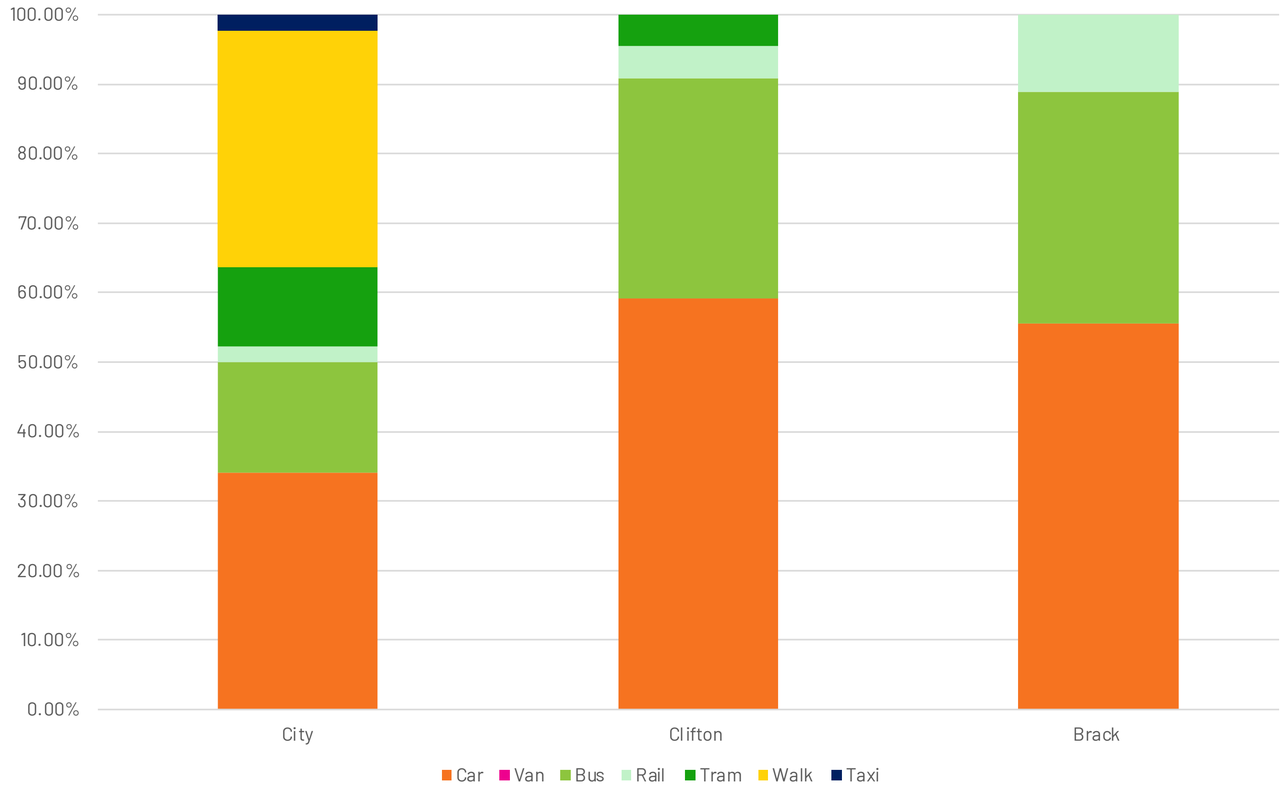


Figure 4. Mode of staff commuting, by campus (%)

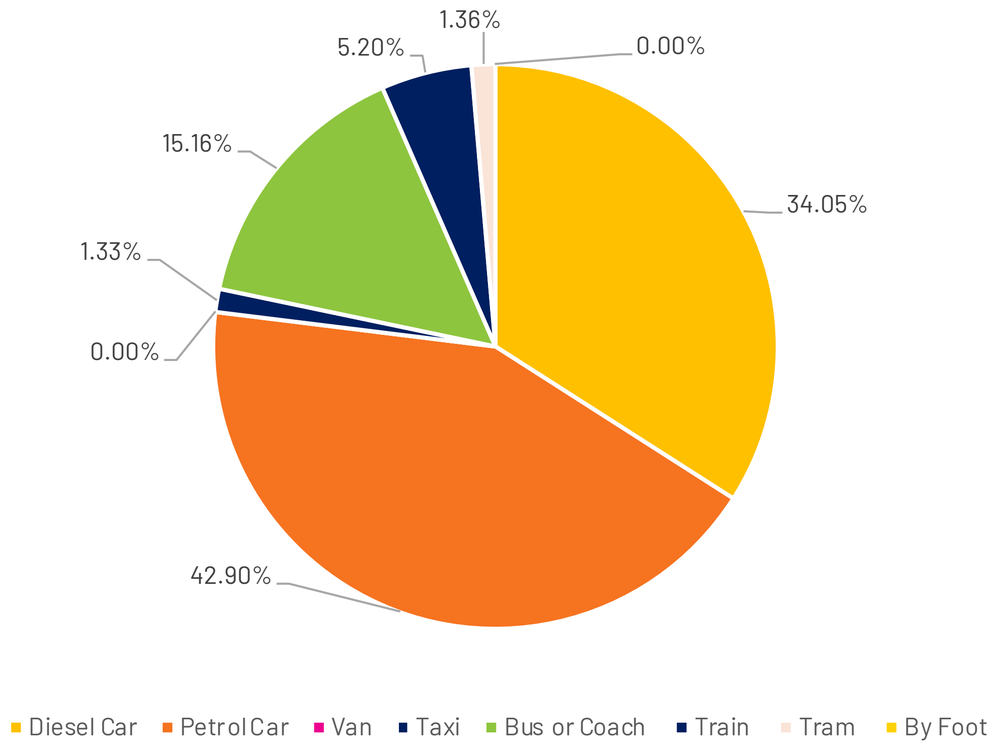


Figure 5. Staff Commuting (tCO_2e)

Transport

NTSU's business travel includes all journeys made by staff for work-related reasons (i.e. cross-campus travel, travel to/from an event, and late-night taxi reimbursements (covering the cost of safe travel home when public transport is not running)). Our business travel also covers any contracted coach bookings, i.e., those used during Freshers to transport students to events.

Our business travel has decreased by 9.44% relative to our baseline, and only increased by 0.1% from the previous year (2023/24). This year has seen similar patterns in business travel, consisting mainly of staff trips, and contracted taxis and coaches for students and the Freshers period. Our business travel emitted 3.26tCO2e and contributed 0.1% of our total carbon footprint for the 2024/25 year.

Our business travel emitted 3.24 tCO_2e and contributed 0.2% of our total carbon footprint.

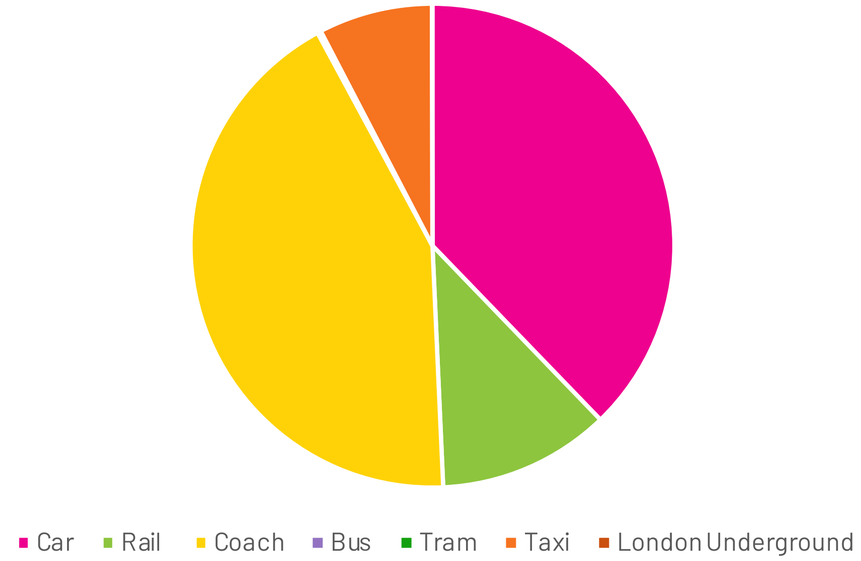
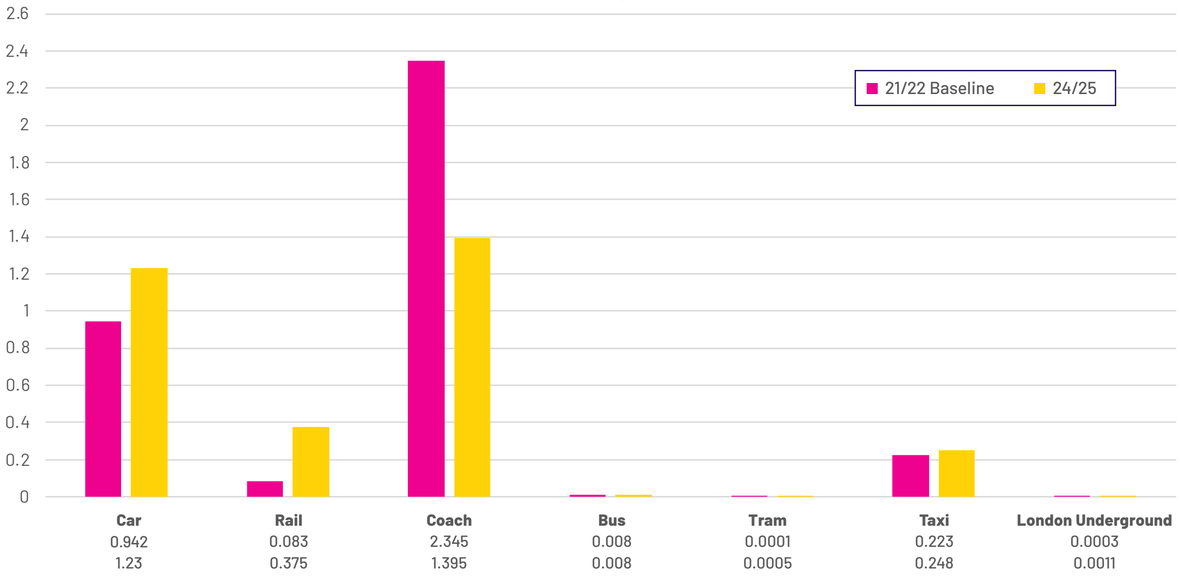


Figure 6. Business Travel

Figure 7. Business Travel in 2024 / 25 compared to our baseline year 2021 / 22



Hotel Stays

Hotel stay emissions are calculated by multiplying number of rooms x number of nights x conversion factor. Conversion factors vary by country. In the UK, all locations except London have the same conversion factor.

Hotel stays for business purposes contribute 0.66 tCO_2e; 0.02% of our total emissions. This is a 47.5% decrease compared to the previous year, and a 56.73% decrease from the baseline year. This is due to a large decrease in the number of overnight stays required from staff travel, with most business travel only requiring one day attendance.



Upstream Leased Assets

NTSU's buildings are all leased from NTU and UPP across three campuses and four buildings. Within these spaces, utilities are managed independently from NTSU.

NTSU does not have sole occupancy within these buildings. Our emissions are calculated according to percentage occupancy.

Emissions related to our upstream leased assets have decreased by 12.14% since our baseline year, and by 22.5% from the previous year (2023/24). Within this, gas (kWh) usage has decreased by 17%, Electricity (kWh) by 20%, district hear (kWh) by 43%, and biomass (kWh) by 40% from the previous year.

Due to NTSU's limited control over our upstream leased assets, NTSU's scope of influence only includes members of staff reducing their individual usage. Data shows that there has been a decrease across all areas in the quantity on gas, electricity, district heat, and biomass usage over this reporting year for the leased assets. There has also been a decrease in the carbon factor resulting in the carbon equivalent of the activity being lower.

This category contributes 201.05 tCO_2e to our total carbon footprint and remains our second largest contributor at 9.1%.

Vehicle	Total Building Area (m^2)	SU Occupancy (m^2)	SU Occupancy (%)
Byron (City)	6095.50	3050.99	50
Benenson (Clifton)	1841.90	1397.45	76
DH Lawrence (Clifton)	951.70	323.94	34
Main Hall (Brack)	2028.72	359.18	18

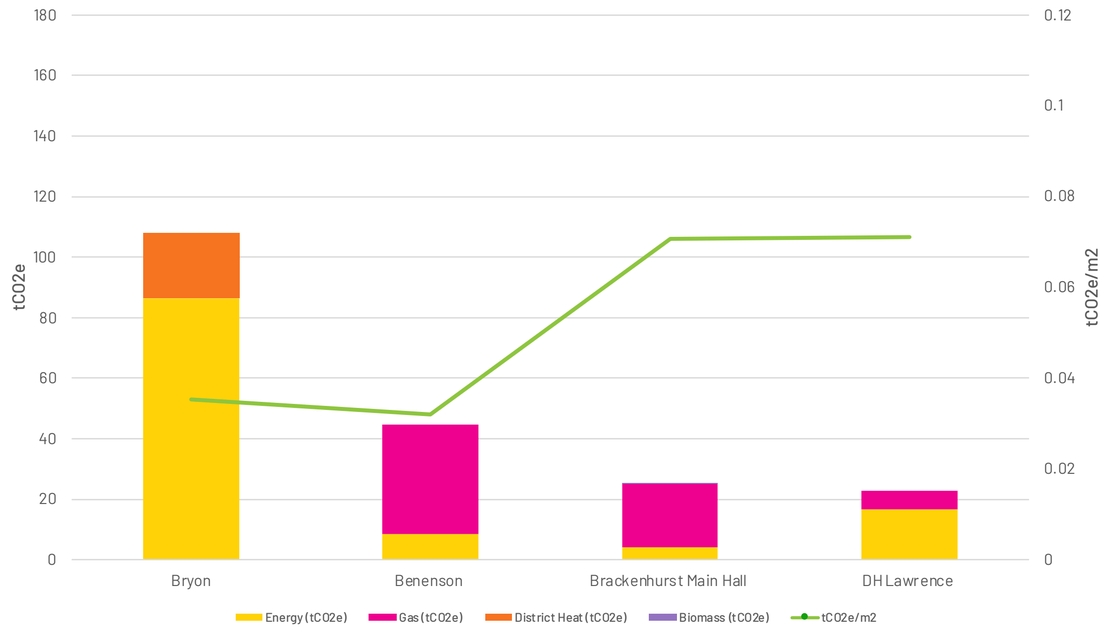


Figure 8. NTSU's Upstream Leased (tCO_2e and tCO_2e/m^2) for NTSU buildings across City, Clifton, and Brackenhurst campus.

Supply Chain

NTSUs supply chain is the biggest contributor of our emissions throughout our footprint, at 85.1%. In 2024 / 25, NTSU spent approximately £2.8million on goods and services - nearly £500,000 more than in our baseline year.

The categories of spend have slightly changed this reporting year. As an organisation, we have chosen to report all purchases through our consortium together under 'NUSSL'. This includes alcohol, consumables and some general cost of sale items, such as groceries and stationary. This has resulted in NUSSL becoming NTSU's largest emissions area due to the nature of the products included, which aligns with the similar trends displayed in previous reporting years due to the high carbon factor of alcoholic products.

The total emissions from our procurement activities are 1873.51 tCO_2e. This is a 155.5% increase compared to our baseline, however our activities and purchasing behaviour have rapidly increased since 2021/22, along with the baseline year being a low activity and cost year due to the Covid-19 pandemic. Additionally, this has also increased (29.6%) from the previous year; this is attributed to increased spending on more carbon intensive products, and carbon conversion factors changing, attributing more carbon to certain products.

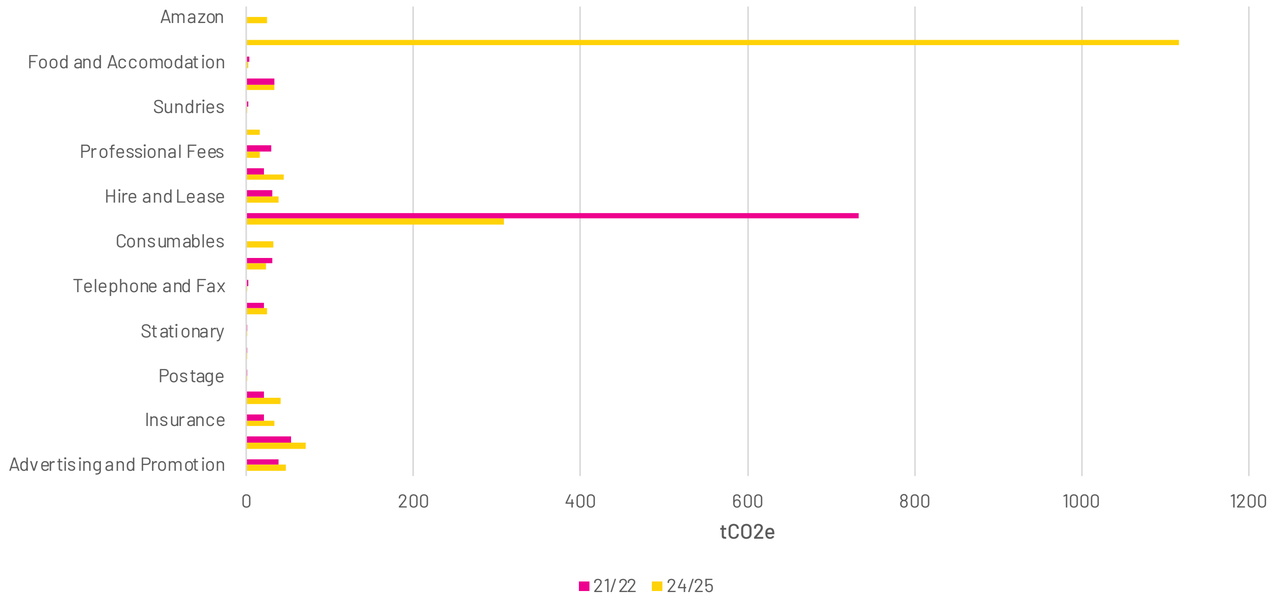


Figure 9. supply chain (tCO_2e) comparing current year vs baseline

*See Appendix 2 for a comparison from baseline year

Waste

In 2024/25, NTSU produced 70.66 tonnes of waste through our activities, accounting to 0.668 tCO_2e, 0.03% of NTSU's total emissions; this is a 79.82% reduction from our baseline year and a 42.2% reduction from 2023/4.

Although the amount of waste produced has slightly increased this year compared to last year, our carbon footprint has drastically reduced. Halfway through the 2024/25 reporting year, NTSU changed waste contractor from Enva to Veolia. This significant decrease in carbon emissions is due to this change in tender, as Veolia has a higher recycling rate compared to Enva. Whilst Enva divert 98% of their waste from landfill, reducing carbon emissions slightly, Veolia use incineration for 100% of their non-recyclable waste, therefore 100% of our waste is being diverted from landfill and the carbon emissions associated with this are lower.

This change will result in further reductions in waste emissions over subsequent years as we enter a full reporting year with Veolia.

There has been another large change in the carbon conversion factors for waste disposal in 2024/25. The change in factor attributes less carbon emissions per tonne of waste, therefore if the quantity we produced and waste collector had remained the same we would have still seen a reduction.

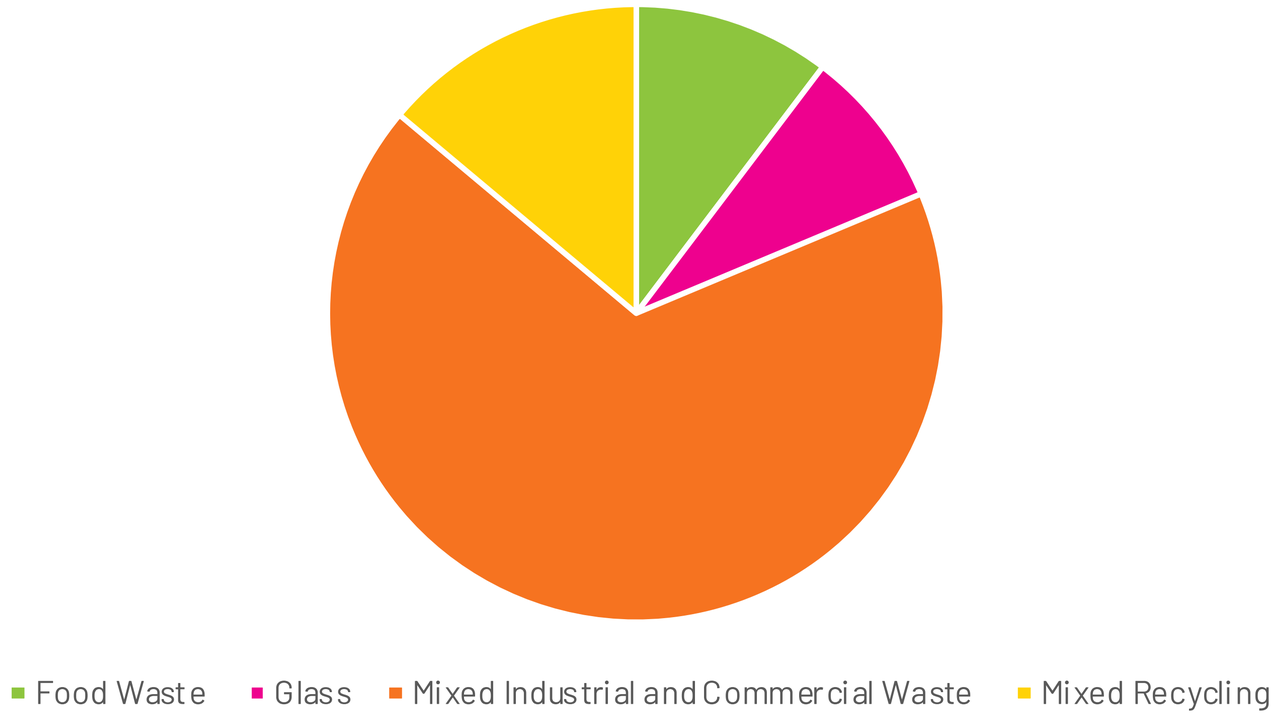


Figure 10. Waste (tCO_2e)

*See Appendix 3 for the breakdown of waste produced at each campus

Water

In 2024/25, NTSU used 2122 m^3 water in our buildings, equalling 0.75 tCO_2e. This contributes 0.03% of our total carbon emissions.



Building	Water Supply tCO_2e	Water Treatment tCO_2e
Byron SU (City)	0.38	0.32
Benenson (Clifton)	0.01	0.10
DH Lawrence (Clifton)	0.0007	0.0006
Main Hall (Brackenhurst)	0.014	0.012

We have made a 19.31% reduction on our water emissions from our baseline year, and a 14.7% decrease from the previous year (2023/24).

The carbon conversion factor has reduced this year for both water supply and treatment and therefore our footprint has reduced.

Working Elsewhere

NTSU is a cross-campus organisation and staff are encouraged to work from each location within their role. Some non-student facing staff members in the organisation have options to work from home where appropriate. According to our May 2025 staff travel survey, 21% of full-time staff work from home an average of 1.6 days per week.

Compared to the baseline year and the 2023/24 year, staff are on average working from home less days per week, and the number of staff working from home has likewise decreased, resulting in a 42% decrease in emissions from our baseline year and a 46.5% decrease from the previous year.

The electricity and heating associated with working from home for NTSU staff contributes 1.65 tCO_2e - 0.1% of our total emissions.

Well-To-Tank and Transmission & Distribution

Well-to-Tank (WTT) and Transmission & Distribution emissions account for the emissions related to the production of fuels and energy purchased and consumed by the Students' Union that are not included in our scope 1 and upstream leased assets.

In 2024/25, this category was responsible for 72.17 tCO_2e, which contributes 3.3% of our total emissions. There has been a 31.17% decrease in WTT emissions compared to our baseline, and 13.1% reduction compared to the previous year.

		tCO_2e
Scope 1 and U.L.A Emissions	WTT (scope 1)	14.22
	WTT and T&D	50.27
Transport Emissions	Business Travel	0.48
	Staff Commuting	7.21

Next Steps

NTSU is committed to reporting our carbon footprint annually.





Entering into the fifth year of carbon reporting, we are well-positioned to accelerate NTSU's net zero journey and commit to implement net zero pathways over the following reporting year. This will begin with investigating ways of de-carbonising our supply chain, and working with our landlords and stakeholders to influence decisions to reduce our scope 3 emissions.

We will continue to work cross-functionally with our staff and students across all campuses to encourage positive behaviour change, with the aim to reduce scope 1 emissions within our fleet vehicles.

The following year should see consistent staffing capacity within sustainability and across the organisation to ensure de-carbonisation methods can be considered and implemented to continue our journey towards net zero by 2040.

National changes will also impact our journey, as the National Grid continues to de-carbonise through more reliance on renewable energy over fossil fuels this should see our energy emissions decrease. Further legislation for business will also impact our supply chain emissions, as more of our suppliers incorporate their own de-carbonisation strategies.

Phil Kynaston
NTSU CEO
2022 - Present

Business As Usual

The 2024/25 reporting year represented another ‘business as usual’ year in terms of activity and carbon, however staff resource was limited due to the Sustainability Officer post not being filled for 6 months.

This has impacted the organisations net zero journey but this report aims to provide continued transparency for our members and stakeholders about our environmental impact.

We are continuously on our journey to develop net zero pathways that will aid development to continue in a way that protects the environment and reduces our carbon emissions. Staff and students are continuously being encouraged to make every effort to improve their behaviour and we will remain reporting on this to he highest level of accuracy. We understand there is still room for improvement, and the changes in methodology from this year has shown us this is an ever evolving and improving space that we intend to keep up with the times with.

We are excited to start exploring carbon reduction opportunities, and improve on our reporting processes to ensure continued data accuracy.

We hope you’re as invested in this carbon reduction journey as we are. If you have any questions about the process, don’t hesitate to get in touch
sustainability@su.ntu.ac.uk

Abby King
Sustainability Officer
2024 - Present



Data Sources & Calculations

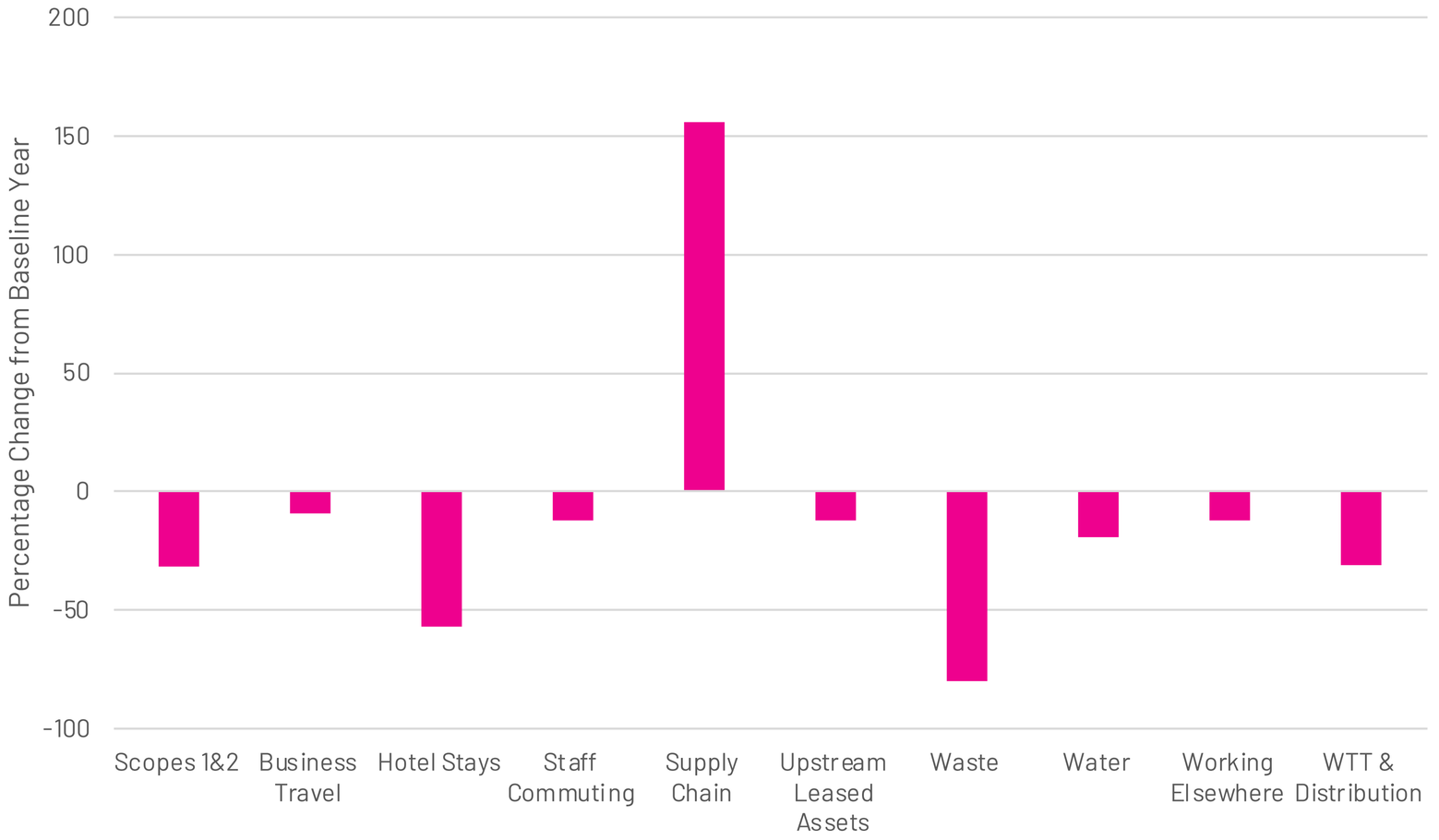
Emissions Category	Sources of Data
Scope 1 (Fuel and Refrigerants)	• Fuel consumption (litres) supplied by AllStar Business portal & reporting team. • 2025 BEIS conversion factors applied.
Business Travel	• Calculated using data from NTSU Financial reports (mileage claims) and contracted coach and taxi accounts. • 2025 BEIS conversion factors used for each mode of transport.
Hotel Stays	• Calculated using data from NTSU Financial reports (accommodation claims). • 2025 BEIS conversion factors applied based on hotel location.
Staff Commuting	• Modal split for travel from the May 2025 staff travel survey adjusted to account for staff numbers in 2024/25. • 2025 BEIS carbon conversion factors applied for each mode of transport.
Supply Chain	• NUS Services Ltd. Purchasing Body, and all other cost of sales purchases. • Emissions (tCO_2e) calculated using HESCET tool, associated with institutional procurement spend.
Upstream Leased Assets (Energy Use)	• Electricity, gas and district heat consumption retrieved by NTUs Energy Team. • 2025 BEIS carbon conversion factors applied.
Waste	• Waste composition and disposal methods from ENVA – NTSUs waste contractor, and occupancy percentage applied for NTSU space. • 2025 BEIS carbon conversion factors applied for each waste type.
Water	• Water consumption in m^3 provided by NTU Energy Team, and occupancy percentage applied for NTSU space. • 2025 BEIS carbon conversion factors applied for both supply and treatment.
Well-To-Tank, Transmission & Distribution	• Electricity, gas, district heating, fuel & biomass consumption for managed estate retrieved. • Travel emissions for business travel and staff commuting. • 2025 BEIS carbon conversion factors applied.
Working Elsewhere	• Staff working from home calculated based on May 2025 Staff Travel Survey and adjusted to the number of full-time staff employed for the 2024/25 academic year. • 2025 BEIS carbon conversion factors applied, with heating weeks accounted for in conversion factor.

For more information on how our emissions are calculated, please refer to the NTSU Carbon Reporting Process document.

Appendix

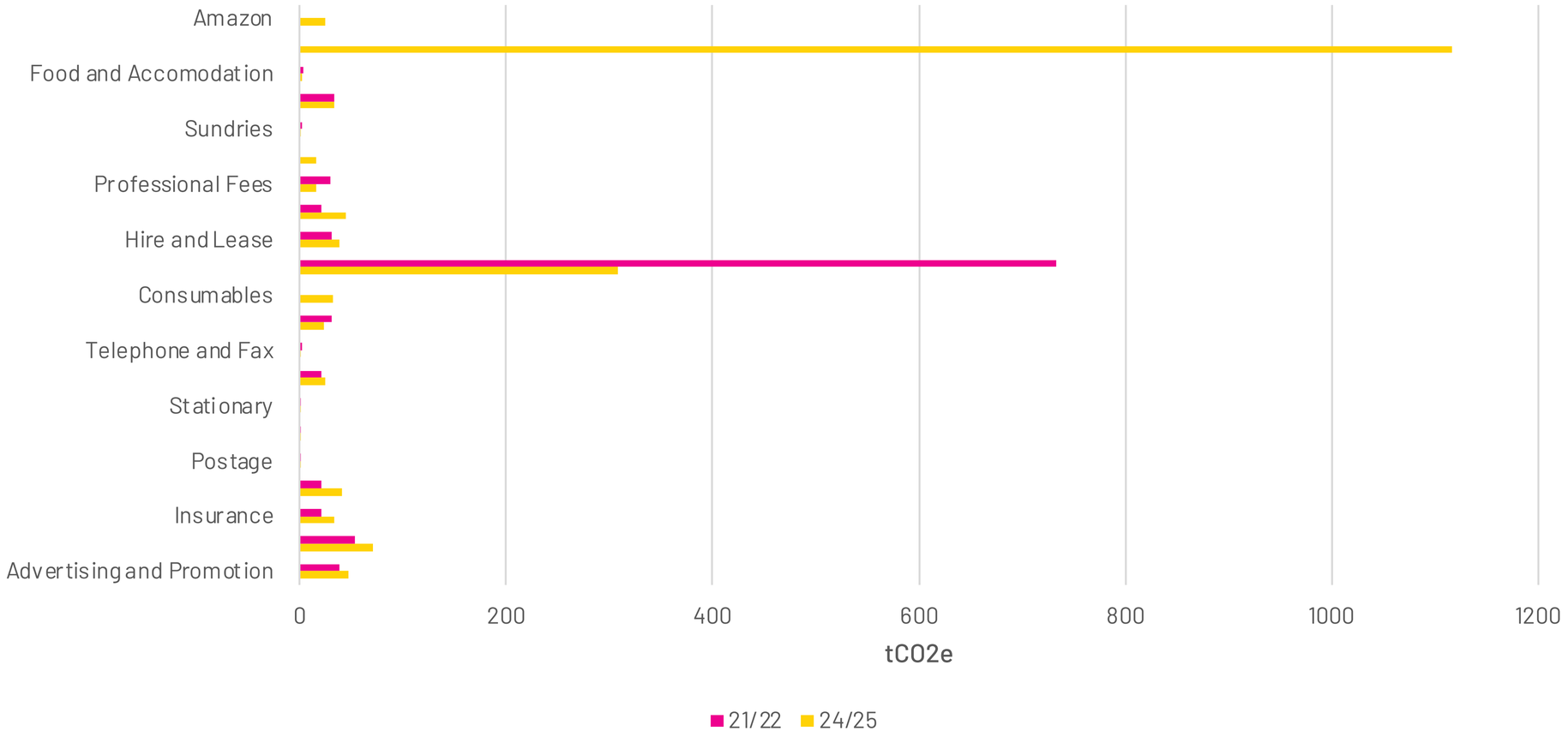
Appendix 1

The percentage change in emission areas from the previous year to current reporting year



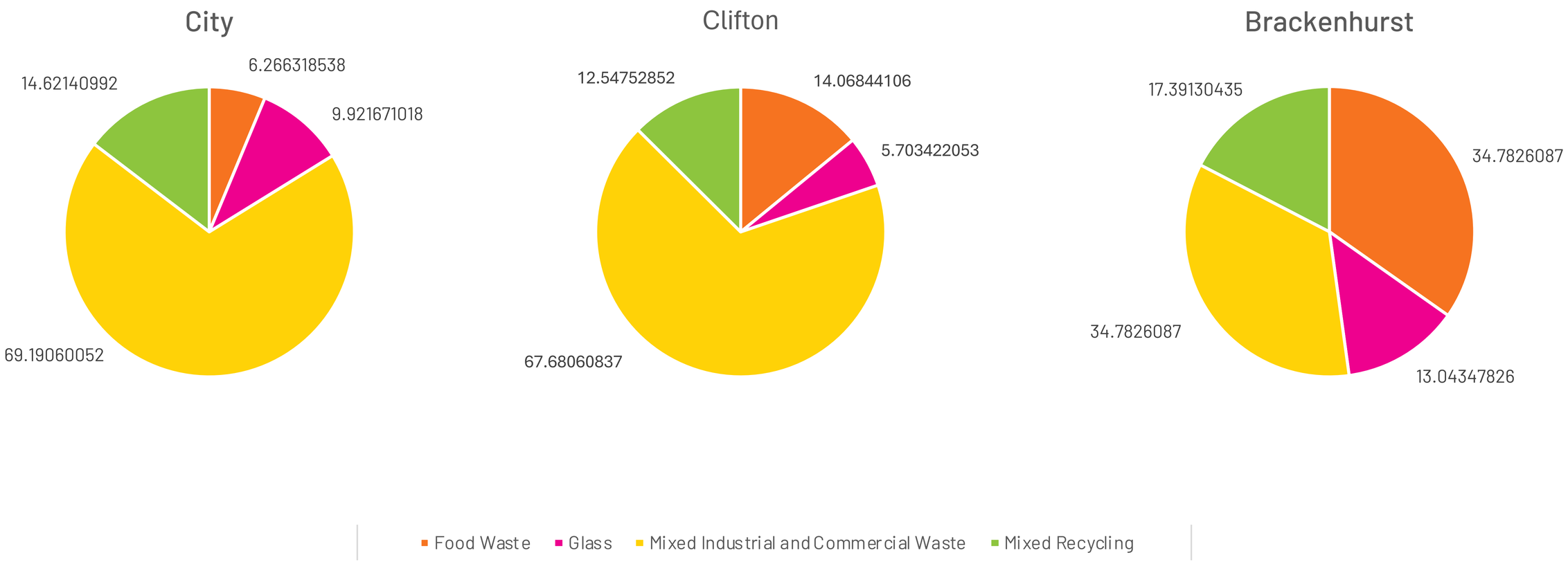
Appendix 2

Supply chain compared to baseline year (some categories have changed slightly and therefore are not comparable, i.e. NUSSL includes alcohol and consumables)



Appendix 3

Breakdown of waste composition for each individual campus



Glossary

Our Glossary of Sustainable Language

Carbon Footprint
The total amount of greenhouse gases (including carbon dioxide and methane) generated by our actions

Carbon Emissions
The release of carbon-based gasses, primarily carbon dioxide and methane, into the atmosphere

District Heat
A system that distributes heat from a centralised source, such as a power plant or incinerator, to multiple buildings

Net-Zero Carbon
Balancing the amount of greenhouse gases released into the atmosphere with an equivalent amount removed, resulting in no net increase

General Cost of Sales
Represents the direct costs attributed to the production of goods or delivery of services sold by a company

Baseline Year
The first year we started reporting on our carbon emissions

Supply Chain
The network of individuals, organisations, resources, activities, and technology involved in creating and selling a product or service

F-Gas
A man made chemical containing fluorine, widely used in refrigeration, air conditioning, heat pumps, and fire protection

Biomass
Organic material derived from living or recently living organisms, such as plants, animals, and micro-organisms

Transmission and Distribution
The two key stages in delivering electricity from power plants to consumers, together forming the electrical grid

Upstream Leased Assets
Assets such as offices, vehicles, or machinery, that a company leases from another entity and operates, but does not own or include in its Scope 1 or 2 inventories

Carbon Conversion Factors
Numerical coefficients that translate activity data into equivalent greenhouse gas emissions

Purchasing Consortium
A group of Students' Unions' that are committed to purchasing certain products from a select group of suppliers that are transparent about their sustainability and environmental impact

Well To Tank
The full lifecycle energy and greenhouse gas emissions associated with producing and delivering fuel from its initial source to the vehicles storage tank

NOTTINGHAM TRENT STUDENTS' UNION

BE A PART OF SOMETHING MORE

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