Manchester Metropolitan University

Scope 3 Emissions Report

2022/23 data

About the report

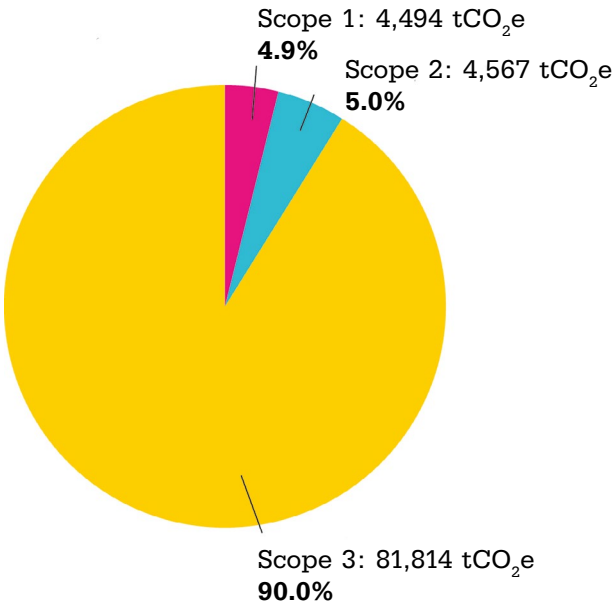
A large proportion of Manchester Met's carbon emissions are emitted outside of our direct operations; these are our scope 3 emissions. As a result, our influence over these emissions is typically linked to our business decisions and processes, and therefore presents a need to understand our scope 3 emission sources and the scale of these emissions in order to identify and take actions to reduce these emissions.

The Scope 3 Emissions Report details the University's scope 3 carbon emissions, which accounted for 90% of the University's total carbon dioxide equivalent emissions (CO_2e) in the reporting year 2022/23.

The report sets out our scope 3 emissions by source in terms of annual emissions data and targets. The report provides us with a better understanding of the scale of our carbon impacts and helps inform us of priority areas, potential efficiency opportunities across the organisation and actions needed to reduce our scope 3 emissions.

The University has set out its scope 3 reporting methodology and targets for scope 3 emissions as part of its **Leadership in Sustainability Strategy (2022-2026)**. In addition, Manchester Metropolitan University has recently appointed a third party consultant to help us further develop our Scope 3 Carbon Management Plan which will detail how the University plans to reach its commitment to be net zero carbon emissions (scope 3) before 2038. As such, we have amended our baseline year to 2022/23 to align with this piece of work.

Figure 1 - Manchester Met carbon emissions by scope



Our scope 3 emissions

Progress and targets:

- **Figure 1 (page 2)** provides a summary of Manchester Metropolitan University's carbon emissions by scope.
- **Table 1 (page 4)** details the reduction target and baseline for each of the measured scope 3 emission sources. Where possible, targets have been set to align with targets set in the University's Leadership in Sustainability Strategy (2022-2026).
- **Figure 2 (page 5)** provides a summary of carbon emissions attributed to residential accommodation (both Manchester Met owned and externally provided accommodation).
- **Table 2 (page 5)** details the carbon emissions attributed to residential accommodation

Emissions summary

Table 3 (page 6) shows year-on-year performance comparing 2022/23 scope 3 emissions data to the 2021/22 figures. The key contributing factors to substantive year-on-year changes to our scope 3 emissions are summarised below:

- A reduction in reported emissions associated with supply chain embodied carbon largely reflect an error identified in the methodology used to calculate these carbon emissions, which led to the University over-reporting these emissions prior to the reporting year 2022/23. The calculation methodology has been updated for 2022/23.
- Overall, emissions from overseas student travel to the University and back home have increased. The main contributing factors were a change in calculation methodology to accurately reflect the University's international student population, an increase in international student numbers (particularly students travelling long-distance), the inclusion of exchange students in the calculations, and the 2023 Government GHG emissions conversion factors for short and long-haul flights increasing compared to the previous year.
- Emissions from staff commuting appear to have increased due to a change in calculation methodology. In 2022/23 response rates to the employee travel survey were factored up to represent the total employee headcount, compared to the 2020 travel survey, where response rates were factored up to the Full Time Equivalent (FTE) figure.

Table 1:
Scope 3 carbon emissions baseline and reduction targets

GHG protocol emissions category and definition	Emission source	2022/23 emissions (and baseline) (tCO_2e)	Reduction target
1) Purchased goods and services	Supply chain	52,050	Maintain Level 4 Flexible Framework status
	Water	26	Reduction in water related carbon emissions of 10% per m^2 of GIA[1] by 2026
2) Capital goods	Currently reported in Category 1		
3) Fuel and energy-related activities not included in Scope 1 or Scope 2	Upstream emissions of purchased fuels	710	Carbon emissions reduction commensurate with a 44% reduction in scope 1 and 2 emissions by 2026
	Upstream emissions of purchased electricity	1,100	
	Transmission and distribution losses	395	
4) Upstream transportation and distribution (of purchased goods and services)	Currently reported in Category 1		
5) Waste generated in operations	Management of waste from residential, non-residential, revenue/ refurbishment projects and maintenance activities	27	Carbon emissions reduction commensurate with a 60% operational waste recycling target by 2026
	Management of waste from construction activities	14	
	Wastewater	29	Reduction in wastewater related carbon emissions of 10% per m^2 of GIA by 2026
6) Business travel	Travel related emissions	1,693	30% reduction in business travel related carbon emissions by 2030
7) Employee commuting	Commuting emissions	2,171	20% reduction in commuting carbon emissions per employee (383 $kgCO_2e$/employee) by 2030
8) Upstream leased assets	Emissions from student accommodation (lessee)	380	Target to be established
	Emissions from referral and nomination agreement student accommodation	1,013	
9) Downstream transportation and distribution	Student commuting (daily)	10,274	Target to be established
	Student travel home – UK students	1,293	Target to be established
	Student travel home – Overseas students	10,641	Target to be established
	Total Scope 3	**81,814**	

[1] GIA - Gross Internal Area

Table 2: 2022/23 student accommodation carbon emissions summary

Carbon emissions by scope and source	2022/23 (tCO_2e)	Proportion split	Accommodation reported against
Scope 1 and 2 carbon emissions (University owned student accommodation)	1,720	55%	Archway, Vine, Dale, Dunham, Naylor, Cambridge, Cavendish, Warde
Scope 3 carbon emissions (Leased student accommodation) – natural gas & electricity consumption	380	12%	Briarfield, Needham, Oxford Court
Scope 3 carbon emissions (nomination agreement student accommodation) – natural gas & electricity consumption	1,013	33%	Albert Court, Artisan Heights, Medlock House, Moor Lane, New Rosamond House, Parkway Gate, Prospect Point, Rusholme Place, The Castings, Wilmslow Park

Figure 2: Carbon emissions from student accommodation

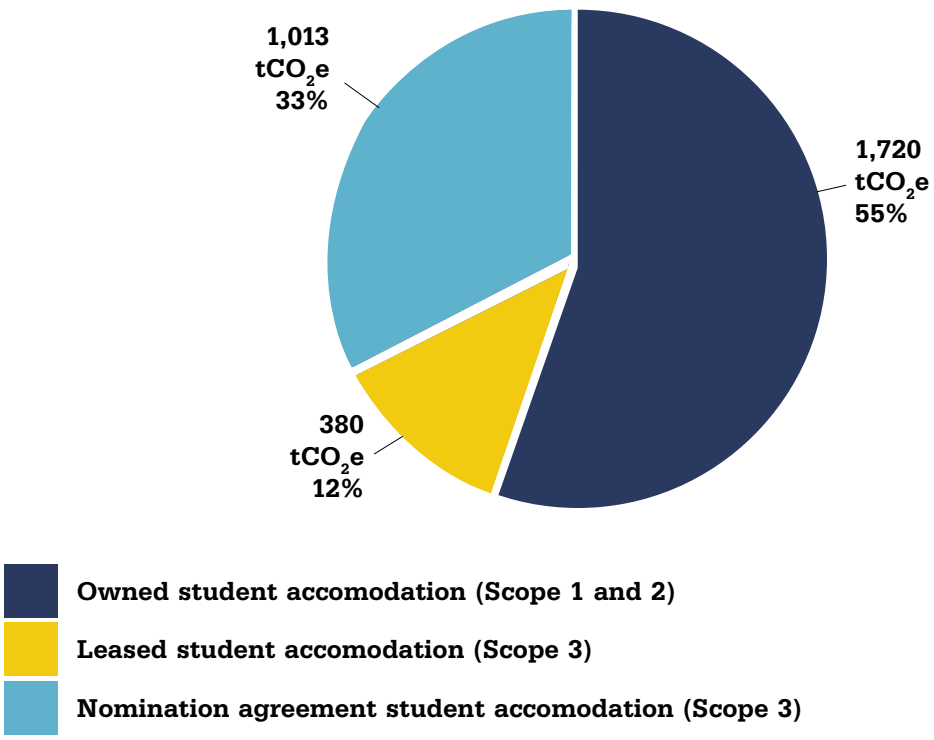


Table 3:
2021/22 - 2022/23 Scope 3 emissions comparison summary and performance discussion

GHG protocol emissions category and definition	Emission source	2021/22 emissions (tCO_2e)	2022/23 emissions (tCO_2e)	22/23 performance against 21/22	Discussion
1) Purchased goods and services	Supply chain	63,481	52,050	-18%	Apparent reduction in emissions associated with calculation error in reporting supply chain emissions in previous years. Calculation methodology has been updated in 2022/23.
	Water	20	26	+30%	Water consumption has increased year on year by c. 10,000m^3 or 8%. In addition, the UK government's carbon conversion factor for water supplied has increased by 19%.
2) Capital goods	Currently reported in category 1				
3) Fuel and Energy-related activities not included in Scope 1 or Scope 2	Upstream emissions of purchased fuels	766	710	-7%	<10% change
	Upstream emissions of purchased electricity	1,044	1,100	+5%	<10% change
	Transmission and distribution losses	366	395	+8%	<10% change
4) Upstream transportation and distribution (of purchased goods and services)	Currently reported in Category 1				
5) Waste generated in operations	Management of waste from residential, non-residential, revenue/ refurbishment projects and activities maintenance	21.6	26.9	+25%	Under review
	Management of waste from construction activities	17.6	13.8	-22%	Under review
	Wastewater	36.7	29.2	-20%	Water consumption and, therefore, wastewater production has increased by 8% year on year. In addition, the UK government's carbon conversion factor for water supplied has decreased by 26%.

GHG protocol emissions category and definition	Emission source	2021/22 emissions (tCO_2e)	2022/23 emissions (tCO_2e)	22/23 performance against 21/22	Discussion
6) Business travel	Travel related emissions	511	1,605	+214%	Emissions associated with business travel has increased due to return to 'business as usual' following COVID pandemic and as a result of 2023 Government GHG emissions conversion factors for flights increasing compared to the previous year.
	Hotel stays	Not reported	88	N/A	N/A
7) Employee commuting	Commuting emissions	1,880	2,171	+15%	Increase in emissions associated with staff commuting due to a change in calculation methodology.
8) Upstream leased assets	Emissions from student accommodation (lessee)	285	380	+33%	Under review
	Emissions from referral and nomination agreement student accommodation	990	1,013	+2%	<10% change
9) Downstream transportation and distribution	Student commuting (daily)	9,953	10,274	+3%	<10% change in student commuting and UK student travel home emissions Emissions from overseas student travel between University and home have increased due to: a change in calculation methodology; an increase in international student numbers; the inclusion of exchange students in the calculations; and the 2023 Government GHG emissions conversion factors for flights increasing compared to the previous year.
	Student travel home – UK students	1,199	1,293	+8%	
	Student travel home – Overseas students	5,176	10,641	+115%	
	Total scope 3	**85,746**	**81,814**	**-4%**	

Manchester Metropolitan University

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