University of Surrey

Scope 3 Emissions Action Plan

Background

At the end of financial year 2022/2023, the Sustainability Team completed the first Scope 3 emissions account for the University of Surrey. The report identified a number of key areas which contribute significantly to the emissions profile of the University, and which must be addressed in order to meet our Net Zero commitment across all three scopes.

Scope 3 emissions are all indirect emissions for which an organisation is responsible except those released by the generation of electricity. This includes emissions from purchased goods and services, travel, commuting, water, and waste.

The action plan has been created to guide the University's approach to Scope 3 decarbonisation, prioritising actions in carbon-intensive areas which the University can most effectively influence. Having scoped, measured and analysed its Scope 3 emissions, the focus now shifts to targeting and acting. The following document seeks to set reduction targets for each Scope 3 category, and lay out the corresponding actions necessary to meet those targets.

Our Commitment

Achieve Net Zero carbon emissions across all three scopes by 2050.

Scope 3 Baseline

The University of Surrey's baseline for Scope 3 emissions, taken in 2018/2019, is **83,110tco2e**. In 2021/2022, Scope 3 emissions totalled **68,964tco2e**. The following table sets out emissions by category.

Emission Category	Carbon 2018/2019 (tc02e)	Percentage of scope 3 total 2018/2019 (%)	Carbon 2021/2022 (tco2e)	Percentage of scope 3 total 2021/2022 (%)
TOTAL	83,110	100	68,964	100
Purchased Goods and Services	66,419	79.9	56,997	82.6
Business Travel	1894	2.3	891	1.3
Employee Commuting	4274	5.1	2675	3.9
Homeworking	197	0.2	328	0.5
International Student Air Travel	5188	6.2	3848	5.6
Domestic Student inter-term Travel	148	0.2	142	0.2
Upstream Transportation & Distribution	106	0.1	205	0.3
Water & Wastewater	421	0.5	97	0.1
Fuel & Energy Related Activities	3658	4.4	3437	5.0
Downstream Leased Assets	805	1.0	344	0.5
Student Commuting	Unknown, significant		Unknown, significant	

Note: Student commuting has been omitted due to insufficient data, though given the size of the student population and the materiality of this category in other universities, it is likely to make a significant contribution. Waste has also been omitted due to lack of data granularity, though is assumed to be very small as is standard for UK universities. Both are included in the action plan regardless.

The category of purchased goods and services is disaggregated into subcategories below:

Subcategory	Carbon 2018/2019 (tco2e)	Percentage of category (%)	Percentage of scope 3 total (%)	Carbon 2021/2022 (tco2e)	Percentage of category (%)	Percentage of scope 3 total (%)
Laboratory/Animal House Supplies & Services	16,694	25.13	20.14	18,986	33.3	27.5
Estates & Buildings	15,923	23.97	19.21	4069	7.1	5.9
Computer Supplies & Services	12,305	18.53	14.85	15,090	26.5	21.9
Professional & Bought-in Services including consultancy	8738	13.16	10.54	8738	15.3	12.7
Audio-Visual & Multimedia Supplies and Services	2528	3.81	3.05	1933	3.4	2.8
Telecommunications	1485	2.24	1.79	390	0.7	0.6
Non Influenceable Spend	1438	2.17	1.74	622	1.1	0.9
Catering Supplies & Services	1367	2.06	1.65	1035	1.8	1.5
Medical, Surgical, Nursing, Dentistry Supplies & Services	1167	1.76	1.41	1193	2.1	1.7
Library & Publications	1059	1.59	1.28	1974	3.5	2.9
Furniture, Furnishings & textiles	1059	1.59	1.28	782	1.4	1.1
Stationery & Office Supplies	598	0.90	0.72	273	0.5	0.4
Facilities Operations	513	0.77	0.62	0	0.0	0.0
Health & Safety & Security	496	0.75	0.60	772	1.4	1.1
Workshop & Maintenance Supplies (including Engineering)	483	0.73	0.58	584	1.0	0.8
Agricultural/Fisheries/Forestry/Horticultural/Oceanographic Supplies & Services	299	0.45	0.36	253	0.4	0.4
Printing, Reprographics and Photocopying	169	0.25	0.20	232	0.4	0.3
Vehicles, Fleet Management (Purchase, Lease, Contract Hire)	35	0.05	0.04	9	0.0	0.0
Sports Science, and Recreation	31	0.05	0.04	0	0.0	0.0
Janitorial & Domestic Supplies & Services	31	0.05	0.04	62	0.1	0.1
Museums and Art	0	0.00	0.00	0	0.0	0.0

Due to the nature of Scope 3 emissions encompassing a wide range of distinct activities, it is necessary to prioritise those which satisfy two conditions:

1. Materiality – do they contribute significantly to the emission profile?
2. Actionability – can they reasonably and efficiently be reduced without requiring inordinate investment or relying on passive grid decarbonisation?

Therefore, the priority categories are:

1. Purchased goods and services (particularly lab supplies, estates & buildings, computer supplies & services, and business services).
2. Employee commuting.
3. Student commuting.
4. Business travel.

These categories (excluding student commuting as it has not been calculated) comprise 72,587tco2e, around 87% of total scope 3 carbon. High priority will be reflected in the number of actions and the reduction targets.

Note: the following categories will be omitted from actions:

- Fuel & energy related activities – this can only be reduced proportionally to reduction in energy use and procurement of low carbon energy, both of which are set out in the Net Zero plan.
- Downstream leased assets – this category accounts for the energy use of leased assets, and as such is subject to the same consideration as fuel & energy related activities due to their being situated on the University's campuses.

Data improvement

Through the data collection phase, it was recognised that many areas of the University's Scope 3 footprint suffer from insufficient or suboptimal data. This is true of any activity data which is not automatically reported, such as energy and water. Data improvement is essential not only to ensure validity, but also to permit the measurement of progress over time. The following actions are to be taken alongside decarbonisation efforts:

Emission category	Data improvement actions
- Purchased goods and services	- Integrate supplier specific data into measurement – both via the NetPositive tool, and data sourced from suppliers directly where they have produced product carbon footprints. - Implement asset management in key areas – IT and lab equipment. - Encourage reduction in use of purchasing cards.
- Business travel	- Encourage all travel booking to go through our travel booking agency, who supplies emission information.
- Employee commuting - Homeworking	- Create an employee commuting survey. - Remeasure homeworking to account for survey results
- International student air travel - Student commuting - Domestic student inter-term travel	- Create a student commuting and travel survey.
- Upstream transportation & distribution	- Source data directly from suppliers.
- Water & wastewater	- Continue to replace manual water meter reads with AMR data.
- Waste	- Request more granular waste data from our waste processing supplier, including processing method by waste category.
- Fuel & energy related activities	- N/A
- Downstream leased assets	- N/A

Actions

While improved data will be necessary in order to accurately track Scope 3 decarbonisation, action must be taken immediately to reach the goal of total decarbonisation by 2050

Purchased goods and services

Area of concern	Action	Sub-actions	People responsible	Purpose/Outcome	Completion Date
People	Provide sustainable procurement training to all staff involved in purchasing, according to job role	Select appropriate training material for each level of staff Distribute the training via online platform Include sustainable procurement training in inductions for relevant staff	Procurement category managers Key budget holders and relevant purchasing staff	Ensure sustainability is a priority for purchasing staff, and that they have the knowledge to embed sustainability into contracts and purchasing decisions	03/2025
	Embed sustainable procurement into hiring, appraisals,	List sustainable procurement credentials as desirable in purchasing staff	Head of procurement Procurement category managers	Incentivise purchasing staff to practise sustainable procurement as a priority	03/2025

	and performance objectives	Create incentives for success in sustainable procurement	Sustainability Human Resources		
Procurement Process	Create and distribute impact assessments for key commodity areas	Host SIAs on an online platform Inform and encourage use by relevant staff	Sustainability Procurement category managers	Allows staff to quickly consider important sustainability concerns when purchasing	01/2025
	Implement asset management for key commodity areas	Includes IT equipment, capital lab equipment, AV equipment.	Procurement category managers IT DOFOs (Labs)	Allows use of product carbon footprints to more accurately calculate footprint from high-impact commodities	
	Explore options for inter and intra university equipment sharing	Options include Warp-it and Cambridge equipment sharing database	Sustainability DOFOs (Labs)	Reduces need to procure new items in a high impact commodity area, lowering emissions and waste	
	Adopt lifecycle thinking, whole-life costing and value for money principles		Head of procurement Procurement category managers	Over time this will reduce emissions due to reduced need to purchase new items	
	Create sustainability specifications for relevant goods	Carbon product footprint where available	Procurement category managers DOFOs	By restricting choice, ensures low carbon, energy efficient options are given priority, reducing emissions and waste.	

		Efficiency of goods using energy e.g. white goods & IT Given percentage of recycled or recyclable material for wood, plastic, metal products Construction and refurbishment done according to BREEAM standards	Sustainability		
Suppliers	Formulate supplier engagement programme, targeting key suppliers to provide data and improve their processes.	Filter suppliers by materiality and actionability Contact suppliers to communicate standards, join NetPositive or request data according to supplier size and type	NETpositive Procurement category managers Sustainability	Improve relationships with suppliers, improve availability of low-carbon commodities over time, provide more accurate supplier-specific data	03/2025
	Map supply chains for highest impact suppliers		Sustainability	More accurate data for high-impact suppliers	
	Implement sustainability requirements into new contracts	Require signup to NetPositive	Procurement category managers	Ensures sustainability as a consideration early in the purchasing process for high-impact procurement, leading to lower emissions.	

		Require carbon reporting Require commitment to reduction in emissions Compare sustainability credentials of new potential suppliers			
	Agree sustainability KPIs with key suppliers who meet materiality and actionability criteria	Set reduction targets for supplied goods & services	Procurement category managers	Ensures improvements in sustainability, including reduced emissions, over time.	

Travel & Commuting

The following table is adapted from the GHG Protocol's Corporate Value Chain Accounting and Reporting Standard, and communicates the intricacies of addressing different relevant subcategories of the University's travel & transport related emissions.

Category	**Size**	**Influence**	**Outsourcing**	**Sector Guidance**
Employee commuting	Large	Medium	No	High
Student commuting	Likely Large	Medium	No	Medium
Business travel	Medium	High	Outsourced	High
Student air travel	Large	Very Low	No	Low
Domestic student inter-term travel	Very Small	Very Low	No	Low
Homeworking	Very Small	Low	No	Medium

Some categories, such as business travel, have a small footprint, but are more easily influenced by policy & procedure, and therefore represent a realistic – if small – opportunity for decarbonisation.

Others, such as student air-travel, have a comparatively very high footprint, but are very difficult to influence. The materiality of this category is largely determined by number and country of origin of international students, which is not influenceable. According to EAUC guidance, this category only accounts for one return journey per year, so encouraging students to remain on campus between terms does not reduce emissions.

As such, fewer actions are proposed for student air travel despite its materiality while we anticipate further guidance from the sector.

Category	Action	People
Business travel	First and business class flights not permitted	Sustainability Transport Executive Board (approval)
	Domestic flights not permitted	
	Flights to destinations within 6-8 hours by train not permitted	
	All travel to be organised through our provider, with justification for travel clearly made	
Employee commuting	Supply EV charging points on campus	Sustainability Procurement category managers Projects Transport Communications HR rewards
	Encourage uptake in cycle use through communications, salary sacrifice, subsidy, and infrastructure	
	Encourage uptake in public transport through service proliferation, communications and subsidy	
	Encourage homeworking where possible	
Student commuting	Encourage uptake in cycle use through communications, subsidy, and infrastructure	Communications Transport HR Rewards
	Encourage uptake in public transport through service proliferation, communications and subsidy	
Student air travel & Domestic student inter-term travel	Incentivise students to remain in town within academic year	Student experience Events Accommodation
	Incentivise students to travel using non-flight options	

	Communicate the environmental impact of air travel to students	Communications
Homeworking	Provide energy efficient laptops and work phones	Procurement Sustainability Communications
	Encourage staff to take energy reduction measures when at home	
	Investigate help on energy saving measures for staff working from home	
	Encourage staff to coordinate homeworking days with housemates	

Waste

While waste generated in operations likely does not contribute a large amount of carbon to the footprint of the University, there are still numerous and significant environmental concerns which must be addressed despite insufficient data to track improvement.

Action	**People**
Communicate the University's three waste streams to staff, students & visitors via digital & physical messaging	Sustainability Communications Accommodation
Create bin specifications to encourage consistency between departments & buildings	Procurement category managers Waste / Logistics
Ensure provision of food bins to enhance recyclability of general waste	Sustainability Waste/Logistics Accommodation
Implement reuse / redistribution of old equipment using equipment exchange scheme	Sustainability Team DOFOs
Include specifications for recyclable material for wood, paper, plastic and metal products	Procurement
Negotiate increasing recycling rate KPIs with waste supplier	Procurement Sustainability

Water & Wastewater

Action	**People**
Use Aguardio sensors in student accommodation to encourage students to reduce shower time	Sustainability Procurement Accommodation Academics involved in water use reduction
Use consistent low-flow fixtures to ensure consistent water pressure	Procurement
Specify the procurement of water-efficient goods	Procurement
Include greywater reuse systems, water recycling, and green infrastructure in newly built and refurbished buildings	Procurement Projects
Use physical and digital messaging to encourage reduced water use in labs, kitchens and accommodation	Sustainability Communications Behaviour change working group
Work with landscaping to continue mulching and xeriscaping practises	Grounds and Landscaping

Targeting

Our commitment is to achieve Net Zero carbon across all three scopes by 2050.

It is essential to account for the unique challenges and opportunities presented by each area of Scope 3 when setting reduction targets – some categories will be able to be improved at a faster rate than others. The table below sets out our reduction targets at milestone years for each category. Purchased goods and services has been included as a whole, but the priority subcategories have also been included due to their distinct nature.

Emission Category	2030	2040	2045	2050
Purchased Goods and Services	30%	50%	80%	**100%**
IT	30%	60%	**100%**	
Lab equipment	30%	50%	80%	**100%**
Buildings & estates	30%	50%	80%	**100%**
Business services	30%	50%	**100%**	
Business Travel	20%	50%	**100%**	
Employee Commuting	20%	50%	**100%**	
Student Commuting	33%	**100%**		
Homeworking	50%	**100%**		

International Student Air Travel	10%	30%	60%	**100%**
Domestic Student inter-term Travel	20%	50%	80%	**100%**
Upstream Transportation & Distribution	20%	50%	80%	**100%**
Waste (emissions)	40%	60%	80%	**100%**
Waste (recycling rate)	40%	60%	80%	>90%
Water & Wastewater	**100%**			
Fuel & Energy Related Activities	**100%**			
Downstream Leased Assets	**100%**			

- **Purchased goods and services**: The 2030 target of a 30% reduction reflects the recent efforts put in place to begin decarbonising this category from the demand side, such as close work with procurement and suppliers, which we anticipate will cause a sharp drop in emissions by the end of the decade, followed by a smooth decrease until 2050 as the carbon footprint of available goods and services decrease passively.
- **IT**: IT has a more ambitious reduction target for a few reasons: Suppliers are already offering detailed product carbon footprints, and the IT items we procure tend to be largely standardised with little need for variation or highly specialised equipment. It is thought that sufficient options will be available by 2045 to procure only Net Zero products.
- **Business services:** The footprint of this area is largely composed of building use, which will see rapid decarbonisation post-2030, and transport, which it is thought will be replaced by increased digitalisation of services.
- **Lab equipment, estates & buildings:** These categories have been given a 100% reduction target by 2050 as they are thought to be more complex, varied, and resistant to decarbonisation. Lab equipment for example will require highly specialised equipment, reducing

potential for supplier section based on emission credentials, while estates & buildings will continue to use high carbon materials such as concrete and require heavy vehicles resistant to electrification.

- **Business travel and international air student travel**: These categories are largely dependent on the decarbonisation of the aviation industry, which in the UK has set a 100% reduction target by 2050, set out in the "Jet Zero" plan. It is thought that achieving 0 emissions in international student air travel is dependent on this. A more ambitious target of 100% reduction by 2045 in business travel emissions has been selected due to the greater control we have over this area, and the assumption that precedent will continue to be set in restricting flights across the sector.
- **Employee commuting, student commuting, domestic student inter-term travel and upstream transportation & distribution**: Inter-term travel and transportation and distribution have a target of 100% reduction by 2050 as they are thought to be more resistant to decarbonisation, as the former requires unavoidable long-distance journeys transporting persons and goods to university accommodation, while the latter relies on large freight transport which is challenging to electrify. Employee and student commuting however have been set at 2045 to reflect the anticipated emission reduction in public transport and passenger vehicles, both of which are targeted for greater use by staff and students in the action plan.
- **Water & wastewater, leased assets, and fuel & energy related activities**: Emissions from leased assets and fuel & energy related activities are directly proportional to Scope 1 and 2 emissions, which have been committed to a 100% reduction by 2030. The UK has set a 2030 goal for Net Zero in water utilities, and our own ongoing demand reduction, leak detection and efficiency work will support this.

Offsetting

As far as possible, the university will seek to achieve Net Zero through genuine emission reduction by reducing demand, increasing efficiency, and greening supply. However, it is inevitable that some residual emissions will remain given the scale and diversity of Scope 3 emissions. The university will explore how to best use accredited schemes to offset residual emissions each year.