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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 | 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 |
| Distribute the training via online platform |  |  |
| Include sustainable procurement training in inductions for relevant staff |  |  |
| Embed sustainable procurement into hiring, appraisals, and performance objectives | List sustainable procurement credentials as desirable in purchasing staff | Head of procurement  Procurement category managers  Sustainability  Human Resources | Incentivise purchasing staff to practise sustainable procurement as a priority | 03/2025 |
| Create incentives for success in sustainable procurement |  |  |
| **Procurement Process** | Create and distribute impact assessments for key commodity areas | Host SIAs on an online platform | Sustainability  Procurement category managers | Allows staff to quickly consider important sustainability concerns when purchasing | 01/2025 |
| Inform and encourage use by relevant staff |  |  |
| 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  Sustainability | 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 |  |  |
| **Suppliers** | Formulate supplier engagement programme, targeting key suppliers to provide data and improve their processes. | Filter suppliers by materiality and actionability | 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 |
| Contact suppliers to communicate standards, join NetPositive or request data according to supplier size and type |  |  |
| 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  Communications |
| Incentivise students to travel using non-flight options |
| Communicate the environmental impact of air travel to students |
| **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.

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