

1. What are Scope 3 emissions?

Carbon emissions are categorised into three scopes:

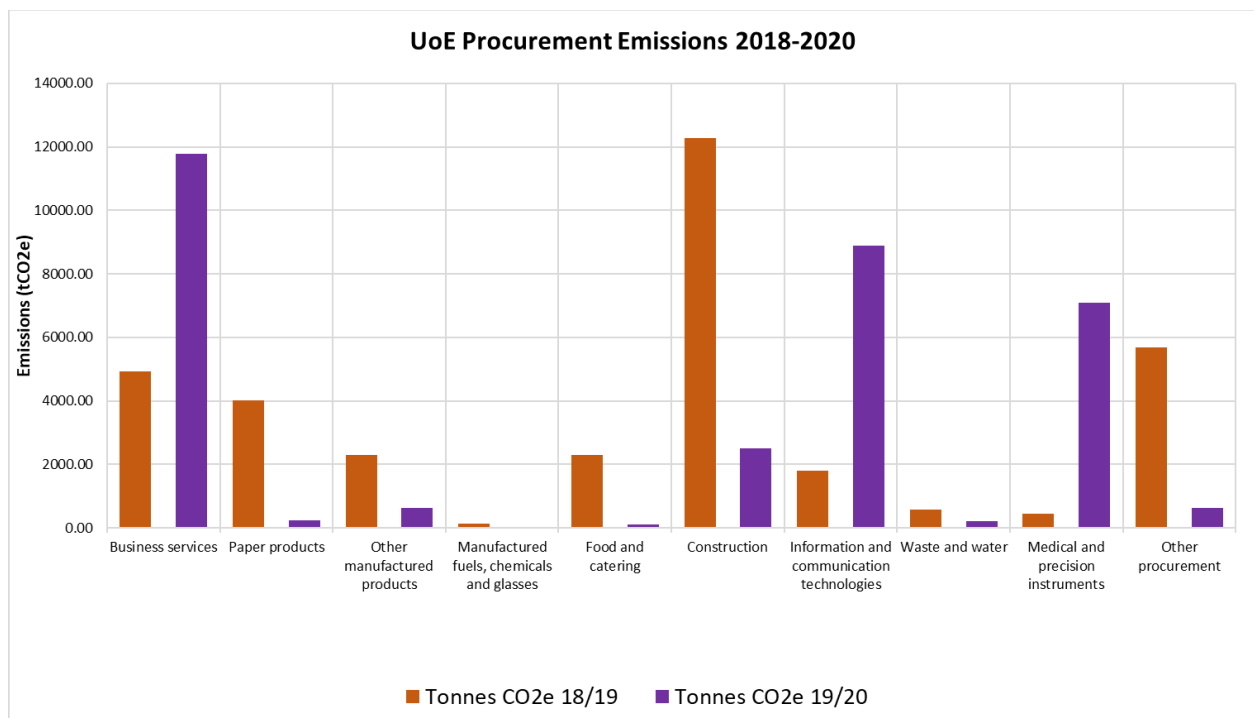
- a. Scope 1 - Direct emissions from owned or controlled sources (e.g. use of gas on site for heating water and spaces).
- b. Scope 2 - Indirect emissions from the generation of purchased electricity (i.e. from the national grid), steam, heating and cooling consumed for own use.
- c. Scope 3 - Includes all other indirect emission that occurs in a company's value/supply chain (both upstream and downstream).

Our Scope 1 and 2 emissions are well defined and currently total around 12,500 tonnes per year (as of 2019). Scope 3 emissions, however, are more challenging to measure as they are the scope 1 and 2 emissions of others; therefore we are more reliant on estimates. To help to control scope 3 emissions we can use policy, behaviour change and liaison with our suppliers.

2. Our emissions profile

This scope 3 emissions report details data that we currently hold, to set the scene and provide an indication of the baseline. Although we do not yet hold comprehensive data on our scope 3 emissions, we are able to monitor our impacts based on annual spend on goods and services.

The chart below sets out a comparison of our scope 3 emissions for the 2018/19 and 2019/20 financial years categorised into core areas. Data for 2018-19 is on the left (in orange) while 2019-20 is on the right (in purple). It should be noted that the 2019-20 data features the impact of the covid-19 pandemic and therefore should not be taken as 'business as usual'. Furthermore, this is not the total sum of our scope 3 emissions, but that which is available to us based on procurement spend.



For context, figures here show the total estimated scope 3 emissions, based on procurement spend.

	Scope 3 emissions	Change
2018/19	34,444.00	
2019/20	32,091.03	-2352.97

3. 2019 air travel emissions

The information below is intended as an indication of emissions from air travel taken on University business, booked through our travel providers Key Travel and Diversity Travel. They have supplied us with complete data on all bookings, allowing us to examine the information to understand types of journeys, purposes and environmental impacts (in terms of emissions). There is potential to go as far as calculating individuals' carbon footprints.

Travel providers - Timeframe covered by data

Key Travel 1st November 2018 – 25th November 2019

Diversity Travel 3rd March 2019 – 30th November 2019

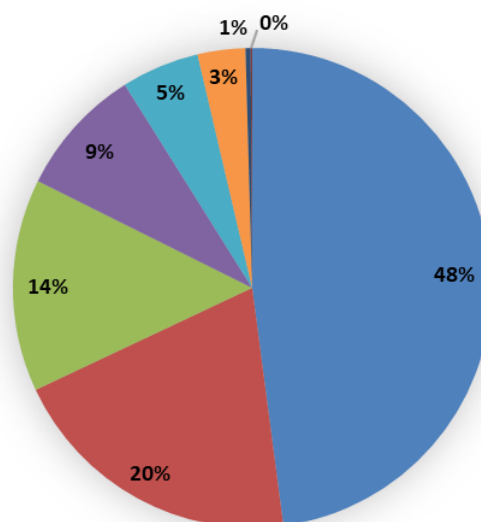
Summary of air travel during the above dates:

	Key Travel	Diversity Travel	Total
Number of flights	1,721	2,123	3,844
Distance travelled (miles)	3,172,575.50	2,780,044.63	5,952,620.13
Average distance	1,843.45	1,309.49	1,548.55
Total kgCO _{2e}	929,301	1,258,704.16	2,188,005.16
Total tCO _{2e}	929.3	1,258.7	2,188
Average kgCO _{2e} (per flight)	540	592.9	569.2
Average tCO _{2e} (per flight)	0.54	0.59	0.57

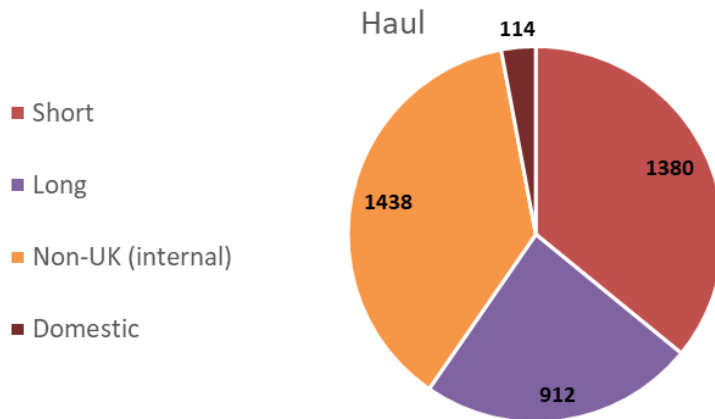
Emissions calculations include radiative forcing, the measure of the additional impact of aviation – including the emissions of nitrous oxides and water vapour at high altitudes.

Trip Purpose

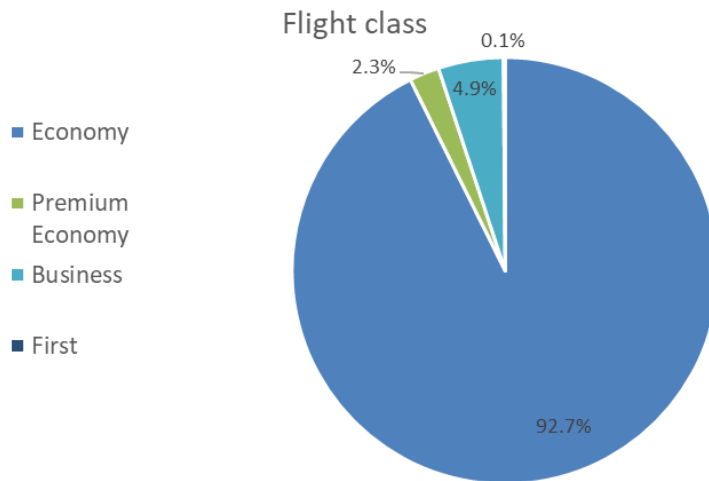
- Conference or exhibition (48%)
- Meeting (external) (20%)
- Research (14%)
- Student recruitment (9%)
- Field trip (5%)
- Meeting (Internal) (3%)
- Staff recruitment (1%)
- International Visiting Fellowship Visit (0% - 2 instances)



This chart is for general indication of type of trips being made. Data is based on Diversity bookings only as 'purpose' field through Key travel is free-text – there are too many variants to categorise.



Domestic (UK) flights account for around 3% of total flights booked. For UK-based and neighbouring European countries, flights are often cheaper and quicker.



Approximately 93% of flights booked are economy – per passenger this is the lowest carbon impact. Higher classes have a higher carbon impact per passenger

4. Next steps

Our Sustainability Sub-Strategy and Climate Action Plan 2021-26 includes Scope 3 carbon emissions as one of our 13 priority areas, recognising the focus needed to reduce the carbon emissions produced from our less prominent activities. We will define, measure and report on our scope 3 emissions, and determine a path to net zero for these types of emissions. Our emerging Carbon Management Plan (CMP) will incorporate scope 3 emissions as a specific strand of our net zero target.

5. Scope 3 Methodology

In the UK scope 3 emissions are calculated using the latest [DEFRA conversion factors](#). This allows 'activity data' (for example distance travelled, fuel used, tonnes of waste disposed) to be represented as greenhouse gas emissions.

The [Greenhouse Gas Protocol](#) has identified 15 categories of scope 3 emissions, set out below:

Upstream activities	Downstream activities
Purchased goods and services	Transportation & distribution
Capital goods	Processing of sold products
Fuel & energy-related activities	Use of sold products
Transportation & distribution	End-of-life treatment of sold products
Waste generated in operations	Leased assets
Business travel	Franchises
Employee commuting	Investments
Leased assets	

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