Ollscoil na Gaillimhe
University of Galway

Carbon Footprint 2025



University *of* Galway.ie

Reporting Methodology

The University of Galway 2025 Carbon Footprint Report was prepared using methodologies recommended by the Greenhouse Gas Protocol which is an internationally recognised standard for emissions reporting. In accordance with this protocol the report incorporates scopes 1, 2 and 3 emissions as part of the reporting boundary. An info-graphic taken from the Greenhouse Gas Protocol is shown on slide four as an illustration of direct and indirect emissions. This report outlines the University's emissions for the calendar year of 2025 in tonnes of carbon dioxide equivalent (tCO2e). The key data sources used for preparing the carbon footprint report are shown below along with explanatory notes on material restatements. Calculation of carbon emissions are based on current third-party conversion/emission factors in use at the time of reporting. When conversion factors are updated to reflect scientific, technological or sectoral changes it will be noted in the annual Carbon Footprint Report along with any restatement of previously reported emissions data.

Data Sources

- Scope 1 & 2 emissions data (mostly buildings energy data) comes from the Sustainable Energy Authority of Ireland (SEAI) Monitoring and Reporting tool.

- Emissions from the procurement of goods and services are calculated using spend based emission factors. The source spend data is from a purchase order report taken from the University's accounting system for January to December 2025 and extrapolated from 80% of expenditure. UK emissions factors (EXIOBASE) which are an internationally recognised standard are applied to spend categories.

- Commuting data is taken directly from the University's 2025 Travel Survey which was distributed to students and staff.

- Business travel emissions are calculated from data provided from the University's travel provider along with travel and expense claims from the University's accounting system. GHG conversion factors from the UK Department for Energy Security and Net Zero are used to calculate flight emissions.

Emissions Data Restatements

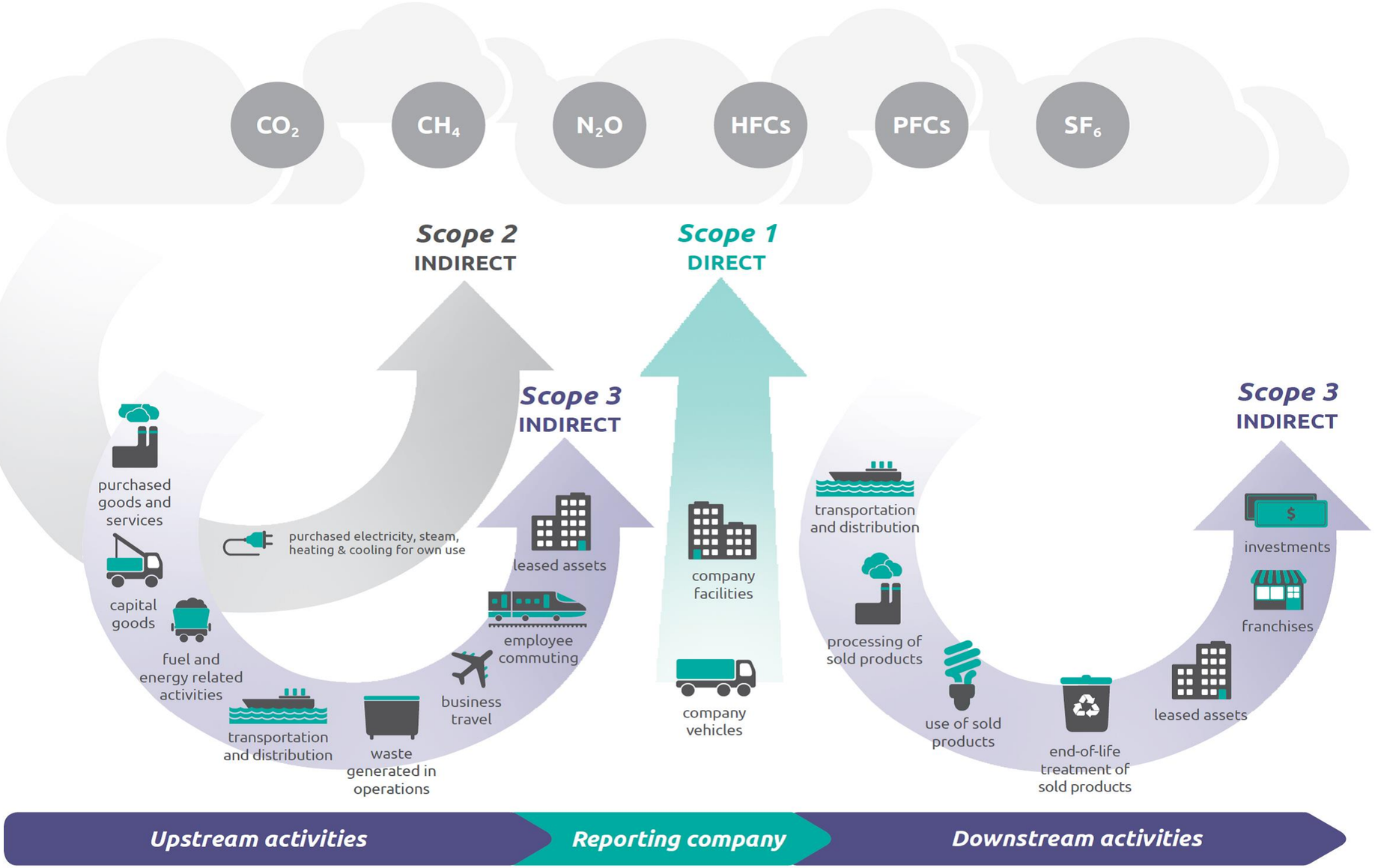
- **Construction of Library and Learning Commons**

Emissions related to the construction of the new Library and Learning Commons which commenced during 2025 are excluded from the procurement figures. The full carbon footprint for the library's construction will be reported in the year when control of the asset is transferred to the University which is expected to be during 2027. This treatment is in line with the GHG Protocol which states that organisations should account for the total cradle-to-gate emissions of new buildings in the year of acquisition. Procurement emissions previously reported for 2023 and 2024 which had previously included some initial expenditure on the project have now been restated to exclude same.

- **Business Travel**

During 2025 the UK Department for Energy Security and Net Zero published updated conversion factors for business flights which were materially different from the factors used for prior years. For the purposes of consistency and comparability the updated factors have been applied to years 2022-2024 and flight emissions restated accordingly.

Direct and Indirect Emissions (Scopes 1 , 2 , 3)

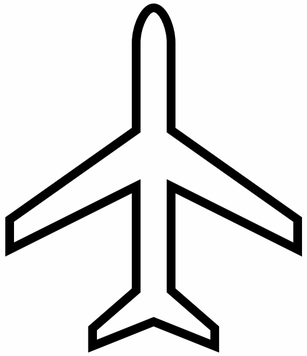


Source: GHG Protocol

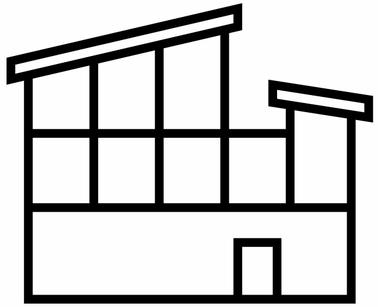
One tonne of CO_2



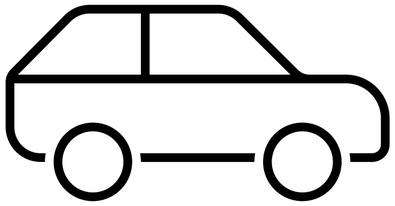
Equivalent of One Tonne of CO_2



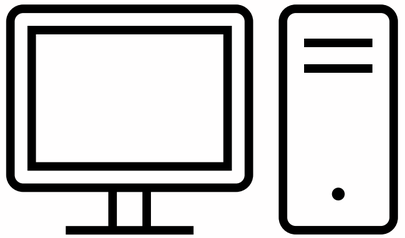
Return economy flight Shannon to Boston x 1 passenger



Electricity consumption average household 2.5 months



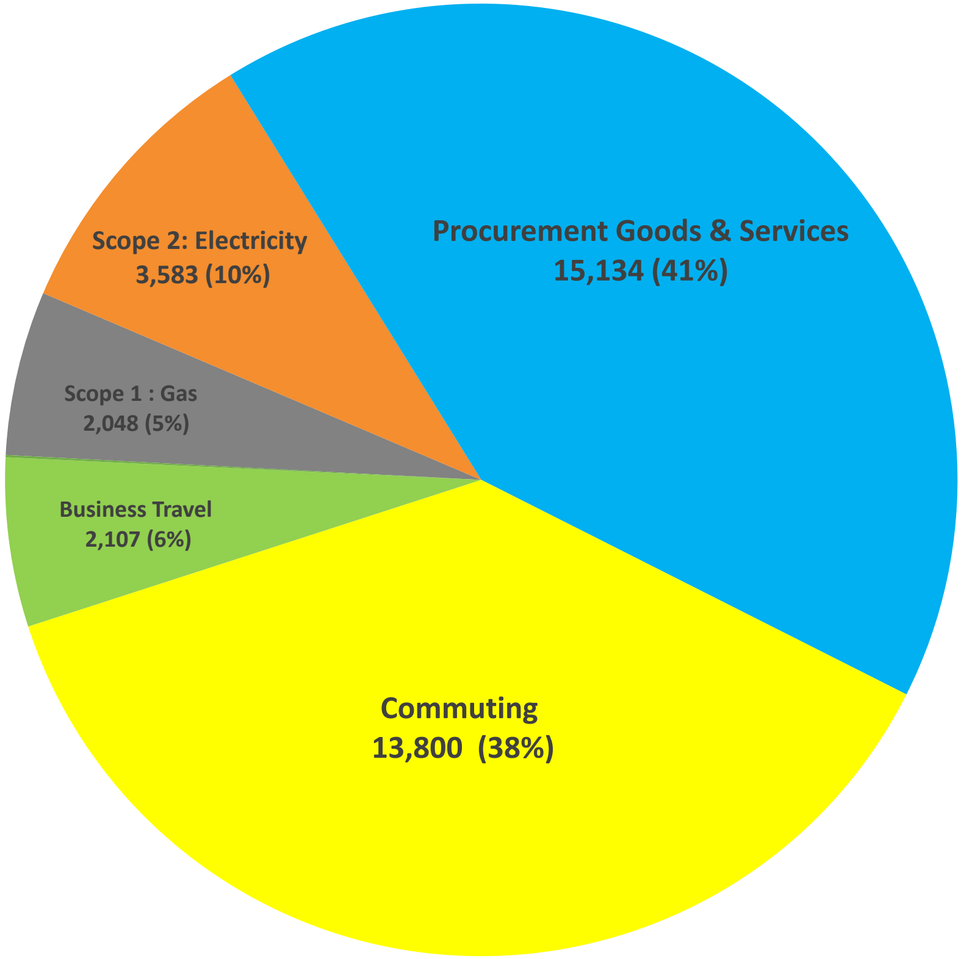
15 petrol car return journeys from Galway to Dublin



Manufacture and transportation of 3 laptops and 3 monitors

Sources: UK Government GHG factors (DEFRA) , US EPA for electricity and transport, Dell Life Cycle Assessments for Dell Pro 3 16 P216260 and Monitor Display P2725D

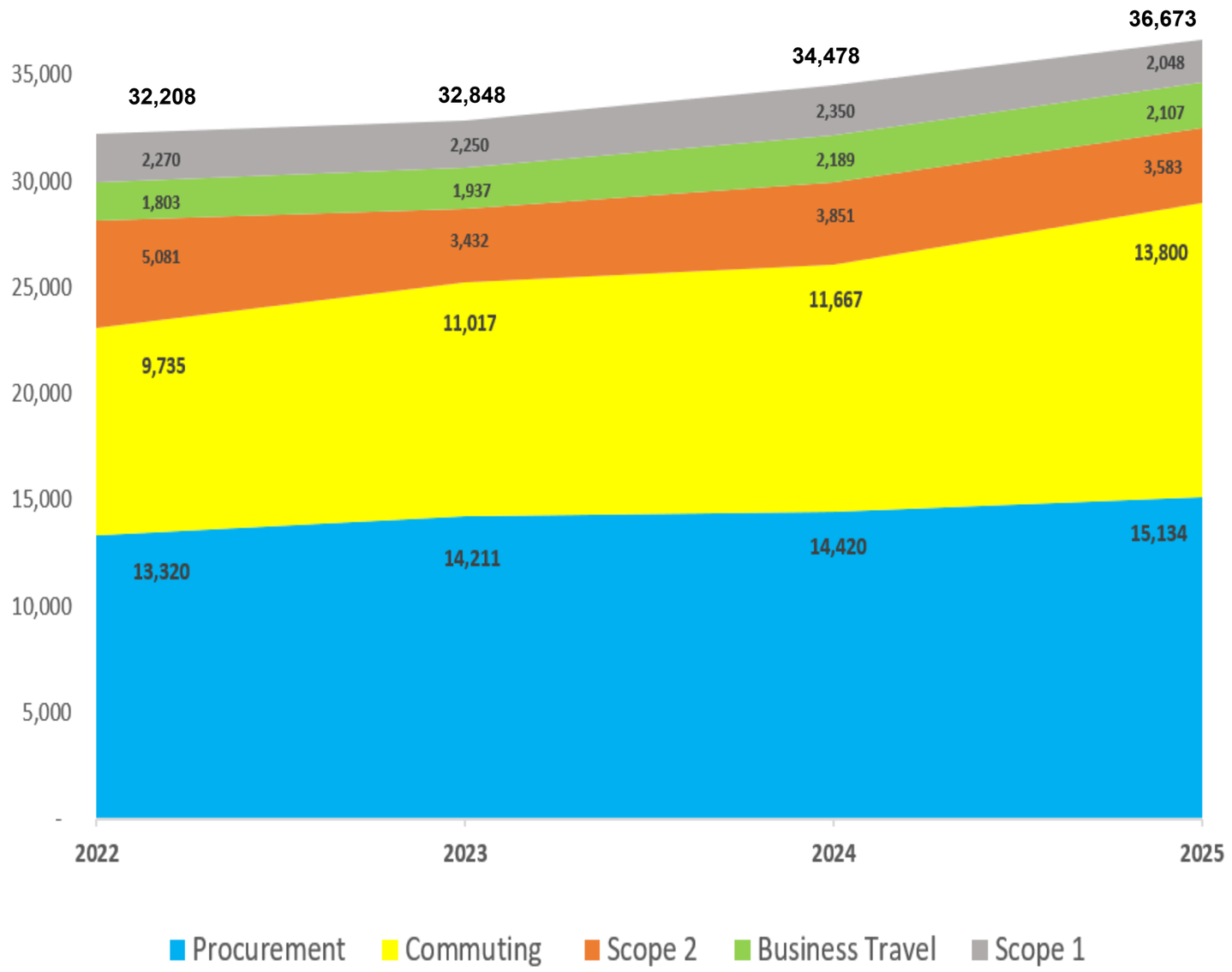
2025 Emissions Categories (in tonnes CO2e)



2025 Carbon Footprint: Key Figures (in tCO2e)

- Total emissions for 2025 are estimated at 36,701 tCO2e, a 6% increase (2,195) from 2024 levels (34,506 tCO2e). The largest contribution to this increase is commuting which increased year on year from 11,667 tCO2e to 13,800 tCO2e in 2025 (18%).
- Scope 3 emissions from procurement (15,134 tCO2e) and commuting of students and staff (13,800 tCO2e) account for 79% of the University's emissions during 2025.
- Procurement excludes construction of library and learning commons which commenced during 2025.
- All of scope 2 emissions relate to electricity imports while 92% of scope 1 emissions are from natural gas which is mainly used for campus heating.
- Waste & Water (not shown in the chart) totals 28 tCO2e.

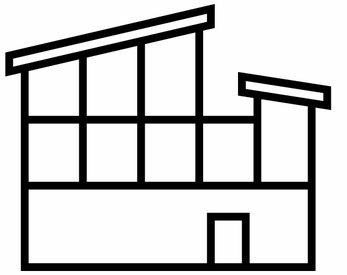
Emissions Categories 2022-2025 (in tonnes CO2e)

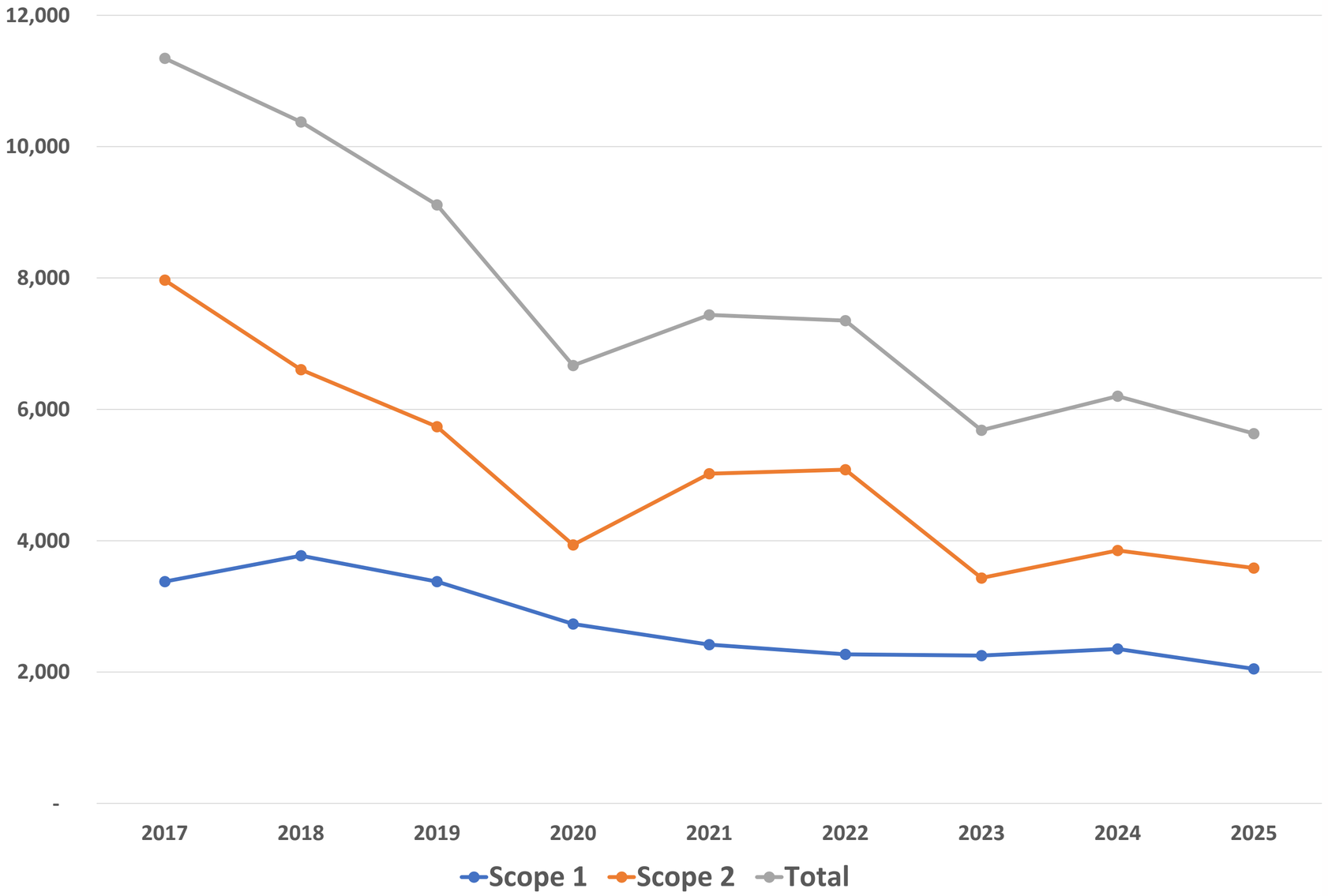


Highlights 2022-2025

- **Total emissions** have risen steadily from 32,208 tCO2e in 2022 to 36,673 tCO2e for 2025, an increase of 14% driven primarily by commuting and procurement.
- **Procurement** of goods and services is the largest contributor to the University's carbon footprint, with average annual emissions at 14,271 tCO2e.
- Emissions from **commuting of staff and students** have increased over the last 4 years by 42% from 9,735 tCO2e in 2022 to 13,800 tCO2e in 2025. The main reason is due to the longer distances students are having to travel to/from the campus. *(Source – Student/Staff Travel Survey 2023 and 2025).*
- **Scope 2** emissions (electricity) have fallen 29% since 2022 from 5,081 tCO2e to 3,583 tCO2e due to increased use of renewable energy such as solar PV.
- **Flights** emissions increased by 13% between 2023 and 2025 (from 1,535 tCO2e to 1,834 tCO2e) and the number of flights taken increased by 27% (from 3,113 tCO2e to 3,954 tCO2e).
- **Scope 1** emissions , mostly natural gas for heating, have fallen by 10% since 2022 mainly driven by the installation of more efficient heating systems and improved energy management.
- *Note: Waste and Water emissions which total 119 tCO2e from 2022-2025 are not included in these figures.*

Scope 1 & 2 Emissions (in tonnes CO2e)

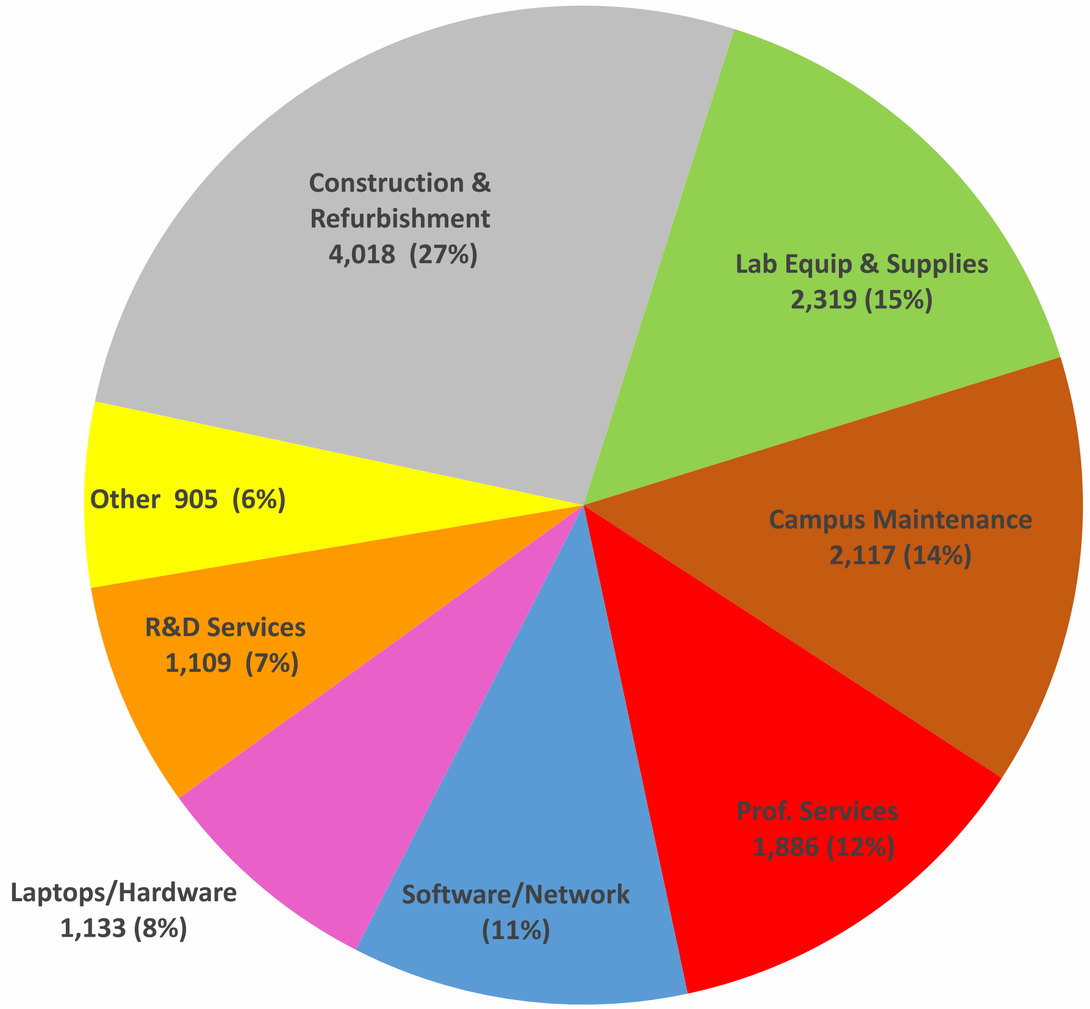




Key Points:

- Over 2017-2025 Scope 1 & 2 emissions have fallen from 11,345 tCO_2e in 2017 to 5,631 tCO_2e in 2025, a decrease of 50%.
- During 2017-2025 fossil fuel emissions (scope 1) have decreased by 39% from 3,378 tCO2e to 2,048 tCO2e while electricity emissions (Scope 2) have decreased by 55% from 7,967 tCO2e to 3,583 tCO2e.

2025 Purchased Goods & Services Emissions (in tonnes of CO2e)



Key Points:

- Emissions from purchased goods and services are calculated using spend based emission factors. While this methodology provides an initial reporting baseline the intention is to move towards a hybrid approach which includes supplier-specific carbon data for high value vendors along with use of spend based estimates.

- Construction & Refurbishment of Buildings include redevelopment of Corrib Village, fire system upgrades and restoration at Nuns Island for Urban Lab.

- Emissions related to the construction of the new Library and Learning Commons which commenced during 2025 are excluded from Construction & Refurbishment figures. The carbon footprint for the library's construction will be reported in the year when control of the asset is transferred to the University which is expected to be during 2027. The Whole Life Carbon Assessment for the Library and Learning Commons (at design phase) estimated construction emissions at approx. 5,710 tCO2e.

- Campus Maintenance relates to facility management services, repairs, cleaning and security services.

- Professional services include consultancy and advisory fees, insurance, advertising and memberships fees.

2022-2025 Purchased Goods & Services Emissions – (in tonnes CO2e)

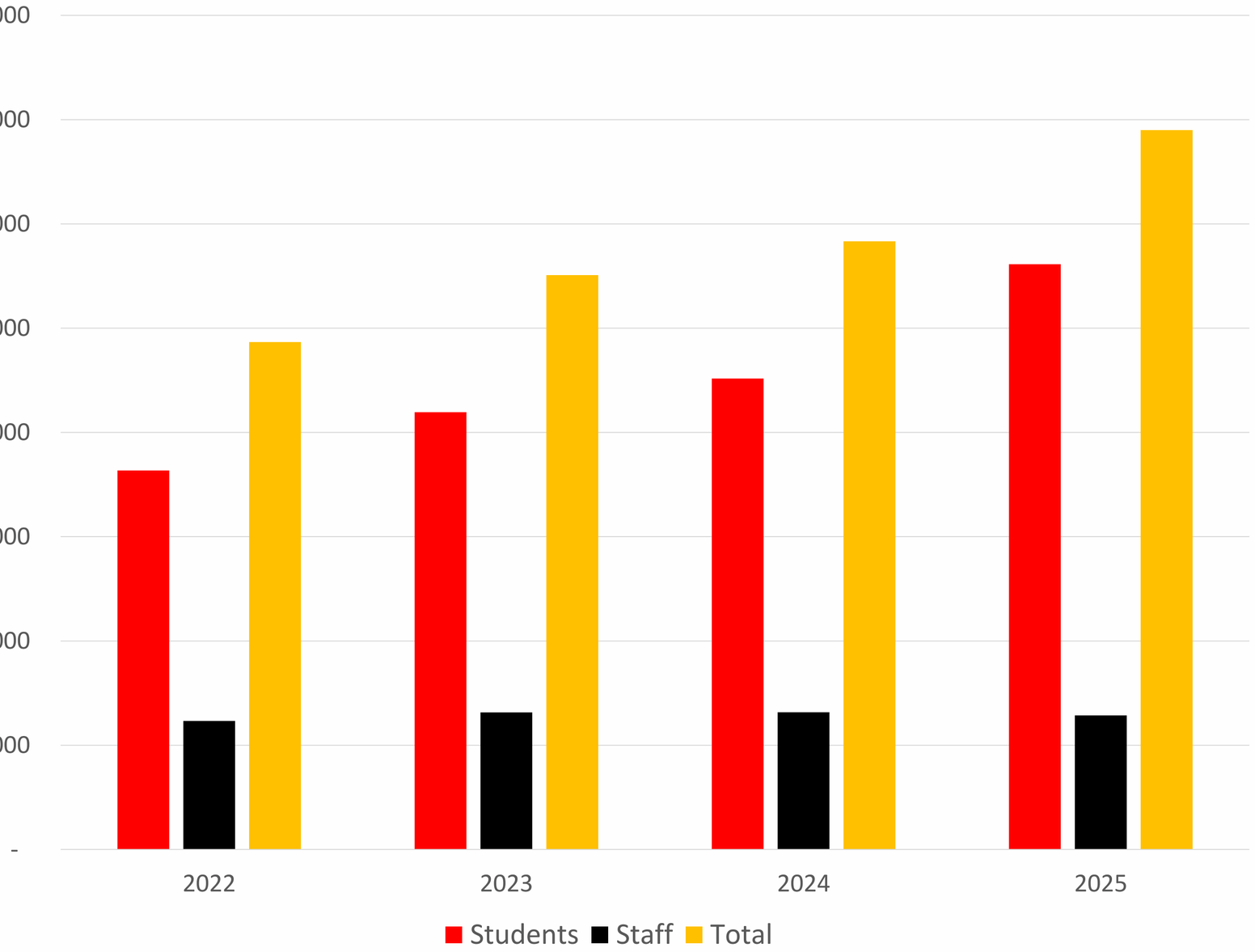
Spend Category	2022	2023	2024	2025	Total for 2022-25		2025 %	Total % 2022-25
Construction & Refurb Buildings (note 1)	2,578	4,084	4,204	4,018	14,884		27%	26%
Lab Equipment & Supplies	3,639	3,933	2,512	2,319	12,403		15%	22%
Campus Maintenance (note 2)	2,008	1,795	2,139	2,117	8,059		14%	14%
Professional Services (note 3)	1,537	1,437	1,791	1,886	6,651		12%	12%
Software & Network Services	1,379	1,153	1,818	1,647	5,997		11%	11%
Laptops & Computer equipment	1,221	763	757	1,133	3,874		7%	7%
Education Services	572	658	579	678	2,487		4%	4%
R&D services	292	306	532	1,109	2,239		7%	4%
Other	93	82	88	228	491		2%	1%
Total Procurement Emissions	**13,320**	**14,211**	**14,420**	**15,134**	**57,085**		100%	100%

Note 1: Construction & Refurbishment includes capital works such as redevelopment of Corrib Village, upgrades to fire systems and restoration at Nuns Island for Urban lab. It excludes the ongoing construction of the Library and Learning Commons.

Note 2: Campus maintenance relates to facility management services, repairs, minor works, cleaning and security services.

Note 3: Professional Services relates to consultancy and advisory services, insurance, marketing and promotions.

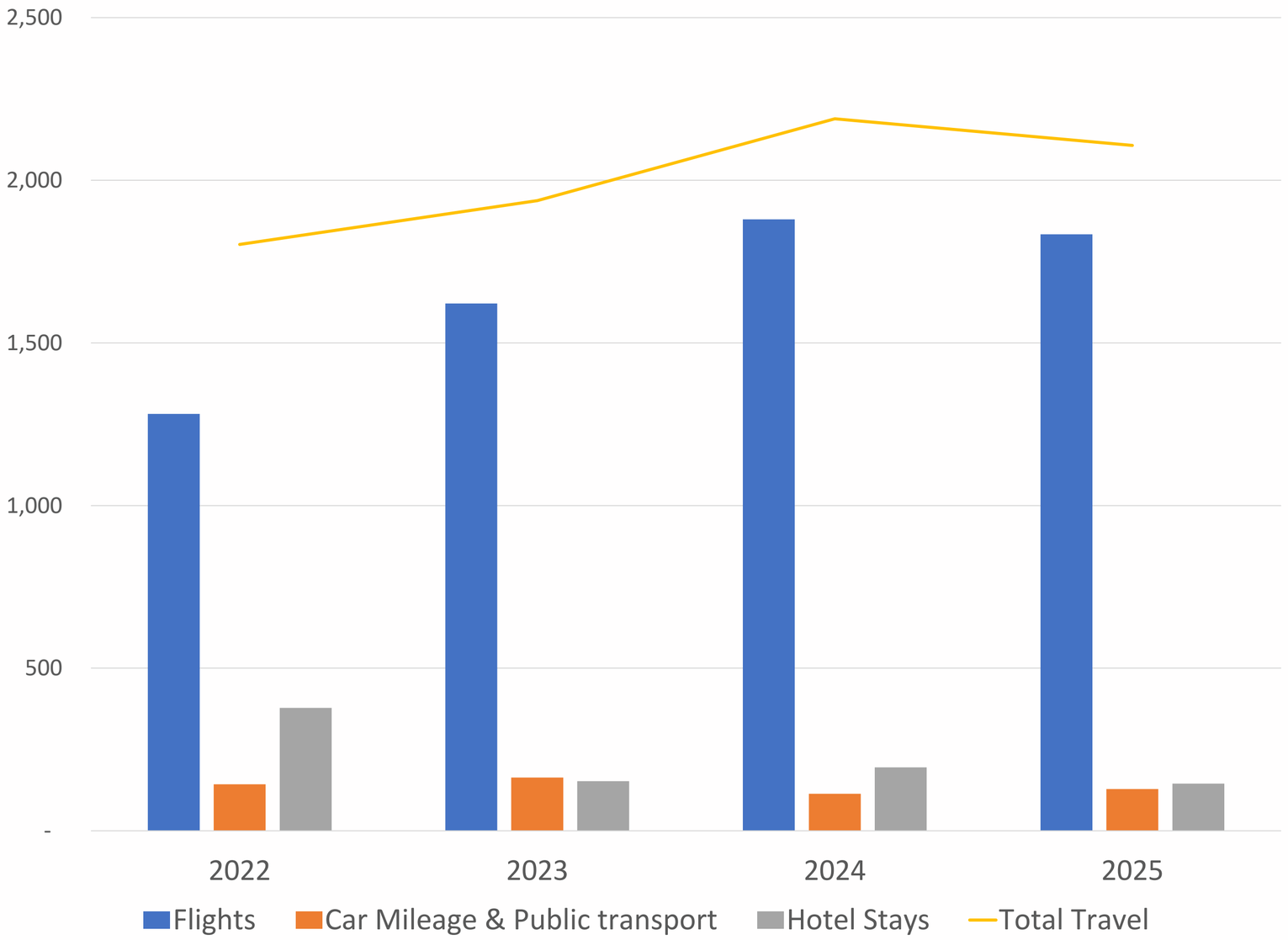
Commuting Students & Staff Emissions – (in tonnes CO2e)



Key Points

- Emissions data are based on student and staff surveys conducted in 2022, 2024 and 2025.Commuting results for 2022 are adjusted for the impact of Covid when travel to/from campus was partially reduced.
- Total 2025 commuting emissions by students and staff to/from the campus amount to 13,800 tCO2e. This represents an increase of 42% since 2022 when commuting emissions were 9,735 tCO2e.
- The main cause of this increase is the longer commute distances students are having to take. Emissions from student commuting have increased by 54% in 4 years from 7,269 tCo2e in 2022 to 11,227 tCO2e in 2025.

Business Travel Emissions – (in tonnes CO2e)



Key Points

- Total business travel emissions for 2025 were 2,107 tCO2e which is line with 2024 levels of 2,189 tCO2e. Flights account for 87% of these emissions (1,834 tCO2e).
- Flights: During 2025 long haul flights (i.e. greater than 3,400 km) contribute to 63% of emissions while 36% come from short haul (less than 3,400 km). In 2025 economy class flights account for 96% of flight emissions while business class only accounts for 3%.
- Variables which impact on the calculation of flight emissions are haul (long or short), class (economy or business), distance travelled (KM) and number of passengers. UK Government conversion factors are applied to these inputs to calculate estimated emissions.
- Other travel emissions for 2025 relate to car mileage (89 tCO2e), public transport (40 tCO2e) and hotel stays (145 tCO2e).

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To learn more about sustainability at the University of Galway and our plans to reduce our carbon footprint, please visit

www.universityofgalway.ie/sustainability

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