



Sustainable Travel Plan

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Sustainable Travel Plan

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Introduction

This is Glasgow Caledonian University's (GCU) third Sustainable Travel Plan (STP) and it sets out how the University will promote more sustainable travel in support of its commitment to carbon neutrality by 2040 and the vision and ambitions set out in [Strategy 2030](#).

Sustainable modes of travel are more active and/or lower carbon modes of transport. In 2014-15 (the baseline year for the University's greenhouse gas (GHG) emissions) travel was estimated to contribute 19,547 tCO₂e to GCU's carbon footprint (49% of the total) and by 2018-19, the last 'normal' year pre coronavirus pandemic, emissions dropped to 14,185 tCO₂e (42% of the total and 27% lower than the baseline).

Strategy 2030 sets out the GCU's vision as the University for the Common Good for the next decade and uses the [Sustainable Development Goals](#) (SDG) as a framework for achieving its ambition across six strategic themes (Figure 1). The commitment to carbon neutrality sits within the sixth theme: Engaged University Community committed to the Common Good.



Figure 1 Strategy 2030 vision and ambition.

Reducing GHG emissions from travel is critical to realising the University's commitment to carbon neutrality by 2040 and promoting more sustainable modes of transport contributes to the attainment of the following SDG (as detailed in Appendix A):

- SDG 1 – No Poverty
- SDG 3 – Good Health & Wellbeing

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- SDG 11 – Sustainable Cities & Communities
- SDG 13 – Climate Action

This STP highlights opportunities for more sustainable travel to and from the University. The measures listed in the accompanying List of Measures (STP-LM) detail how these opportunities will be explored to expedite the transition to carbon neutrality and contribute to the above SDGs.

Aims & Objectives

This STP covers the period for the academic years between the 2021-22 and 2025-26. Its aims are to:

- Support the University's transition to carbon neutrality by reducing greenhouse gas (GHG) emissions from travel to below 13,000 tCO₂e per year by 2025-2026 (at least 9% lower than emissions reported in 2018-19 and 34% lower than reported in the University's baseline year of 2014-15).
- Contribute to the attainment of the SDG on No Poverty, Good Health & Wellbeing, Sustainable Cities & Communities and Climate Action by promoting more active, lower carbon modes of travel to/from the University.

To achieve these aims, the STP will:

1. Develop the University's understanding of how different stakeholders travel.
2. Ensure appropriate mechanisms are in place to monitor travel and associated GHG emissions.
3. Use travel data and the travel hierarchy to identify opportunities for more sustainable travel.
4. Consult stakeholders to identify barriers and opportunities for more sustainable travel.
5. Work with partners to address barriers to more sustainable travel.
6. Develop measures to help University stakeholders choose more sustainable modes of travel.
7. Ensure a reporting mechanism is available to track progress delivering the STP aims.

Scope

The scope of this STP is all travel to and from GCU's campuses, including: student travel home (i.e. non-term address); student and staff commuting; business travel; and deliveries and collections by suppliers.

Campus Location

GCU has campuses in Glasgow and London that are both easily accessible by their city's transport infrastructure.

Glasgow Campus

Glasgow's bus terminus (Buchanan Bus Station) is next to the University, Queen Street and Glasgow Central Stations (with services to the rest of the UK) are a short walk away, as are Buchanan Street

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and Cowcaddens subway stations. There are two bike hire stations close by (on Cowcaddens Road and at Buchanan Bus Station) and there is a [growing network of dedicated cycle infrastructure](#) programmed for redevelopment around the University during the term of this plan. The M8 is a block away and although on-campus parking is limited, there are several multi-storey car parks within walking distance of the Campus. Glasgow Airport is a 15-20 minute drive away and a regular bus service from Buchanan Bus Station provides a frequent connection to the city centre.

The Campus' compact nature, which is contained within a city centre block with one vehicular access point, also lends itself to opportunities of managing emissions from supplier deliveries and collections.

London Campus

GCU's London campus is based in Spitalfields on Fashion Street. There is a bike hire station and an abundance of public bike parking spaces on Fashion Street. Liverpool Street rail and underground station are a short walk away and the area is well served by local bus services. There is no on-campus parking.

These factors represent a range of opportunities for reducing greenhouse gas emissions from travel activity by promoting more sustainable travel to, from and on behalf of the University.

Monitoring Travel

GCU has mature systems for monitoring significant aspects of travel, such as: student travel home (UK & International); student and staff commuting and business travel. Whilst these systems are mature for the Glasgow campus, it will be beneficial to improve the University's understanding of student and staff at GCU London travel. Systems for monitoring travel by suppliers, contractors and visitors is less evolved, but these categories are not significant sources of GHG emissions.

The main sources of data for understanding travel to GCU are triennial student and staff travel (commuting) surveys and annual business travel data (provided by a range of suppliers and GCU's expenses claims system). The University has also developed a methodology that combines survey data with student data to understand UK domiciled and international student travel home (which will be incorporated into the next student and staff travel survey). In addition, the University also periodically monitors travel through focus groups, surveys of supplier traffic and bike counts. This data provides the starting point for this STP.

Changes in travel patterns are reported through annual carbon footprint reports and travel survey reports. As part of its STP the University will continue to report on travel and commits to refining arrangements for monitoring travel, particularly for GCU London, and building an evidence base to support its transition to carbon neutrality.

Travel Patterns & Opportunities

In 2014-15 (the baseline year for the University's GHG emissions) travel was estimated to contribute 19,547 tCO₂e to GCU's carbon footprint (49% of the total) and by 2018-19, the last 'normal' year pre coronavirus pandemic, emissions dropped to 14,185 tCO₂e (42% of the total and 27% lower than the baseline).

Travel emissions are determined by mode of travel, distance travelled and journey frequency. GCU's travel data highlights a number of changes to these parameters for travel at GCU, which are discussed below, but include: more students and staff living closer to the University; more students and staff choosing to walk or cycle; the decarbonisation of the transport system; some domestic business flights being switched to travel by train.

A breakdown of emissions by the main travel categories in GCU's annual carbon reports is provided in Figure 2, with the sections that follow discussing opportunities for each of these categories.

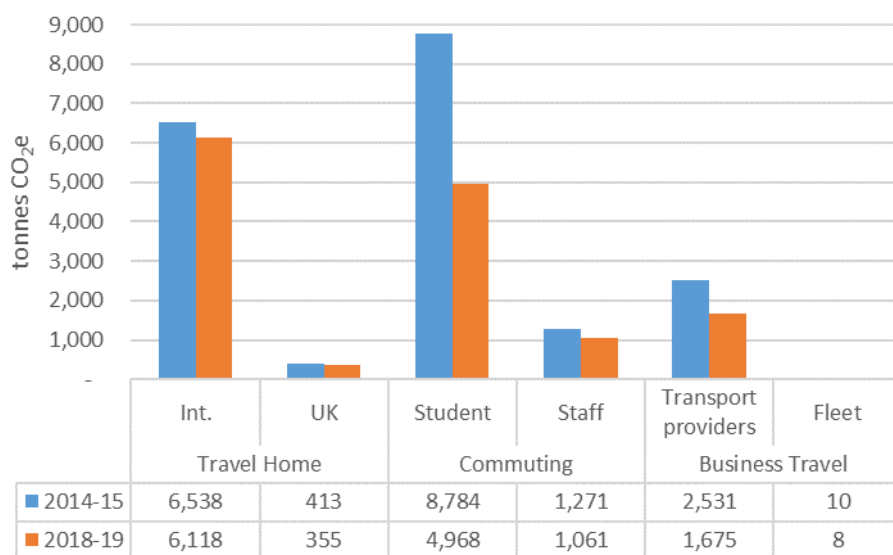


Figure 2 GHG emissions by the main travel category in GCU's annual carbon reports (2014-15 and 2018-19)

Student Travel Home

International student travel home in 2018-19 was estimated to account for 18% of travel emissions (6,118 tCO₂e), whilst UK domiciled student travel home accounted for 1% (355 tCO₂e). Between 2014-15 and 2018-19 emissions for international students declined 6% and 14% UK domiciled students.

Emissions in this category are estimated using survey data extrapolated to the wider student population. For students flying home (i.e. international students and some UK domiciled students) travel between home and airport is not included because relative to the whole journey, it is not a material source of emissions.

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Emissions from international students' travel home fluctuate depending on the number of international students and the proportion from Europe and rest of the world. Students from Europe tend to have lower emissions because they fly shorter distances (albeit more often) than those from the rest of the world.

Emissions from UK domiciled students exclude students who live locally (i.e. in the greater Glasgow area) and are dominated by flights, even though the majority of journeys are by train (Figure 3).

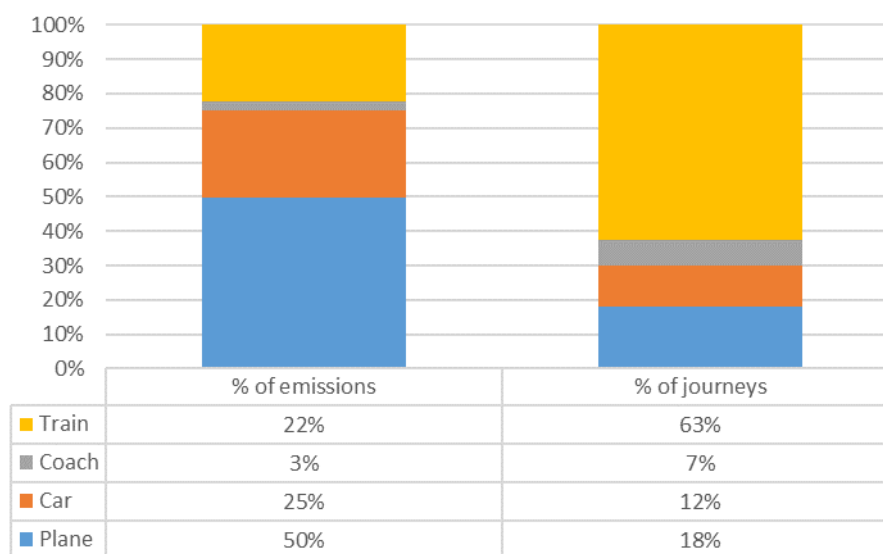


Figure 3 Comparison of emissions and journey type for UK domiciled students.

Opportunities for reducing emissions from international students' travel home are currently unclear and will be investigated to create the evidence base needed to development interventions for future STP. For reducing emissions from UK domiciled students travel home, there is an opportunity to reduce emissions by 22% to less than 275 tCO₂e per year by 2025-26 (compared to 2018-19) by promoting alternatives to flying home. Proposed measures are detailed in the STP-LM.

Student & Staff Commuting

In 2018-19 student and staff commuting to the Glasgow campus accounted for 15% and 3% of total emissions (respectively). These emissions are grouped together because of the similarities in travel choices and interventions.

Between 2014-15 and 2018-19 emissions declined 43% for students and 17% for staff. This reduction is attributed to three factors: a higher proportion of students and staff living within 10 miles of the University; more students and staff choosing to walk or cycling to campus; and the decarbonisation of the transport system.

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Emissions from commuting are estimated from the triennial travels surveys and whilst the data for Glasgow is very good, there is an opportunity to improve data for London. This will be one of the priorities for this STP.

GCU's 2018 Travel Survey indicates that the proportion of students living within 10 miles of the Glasgow Campus increasing from 54% in 2015 to 74% in 2018 (Figure 3), whilst for staff the proportion changed from 58% to 63%. Living closer to the University means shorter commutes and greater access to Glasgow's public transport network.

Further analysis of the 2018 Travel Survey data indicates that since 2015 the proportion students and staff living within 5 miles of the University, where average commuting distance is 2.6 miles, increased from 38% to 51% for students and 33% to 39% for staff. This segment of the University's population has the highest potential for switching to walking and cycling due to the comparatively short commute distance and number of individuals that don't walk or cycle. There is also potential for more cycling for those living within 10 miles of the University, where average commute distances are 7.3 miles.

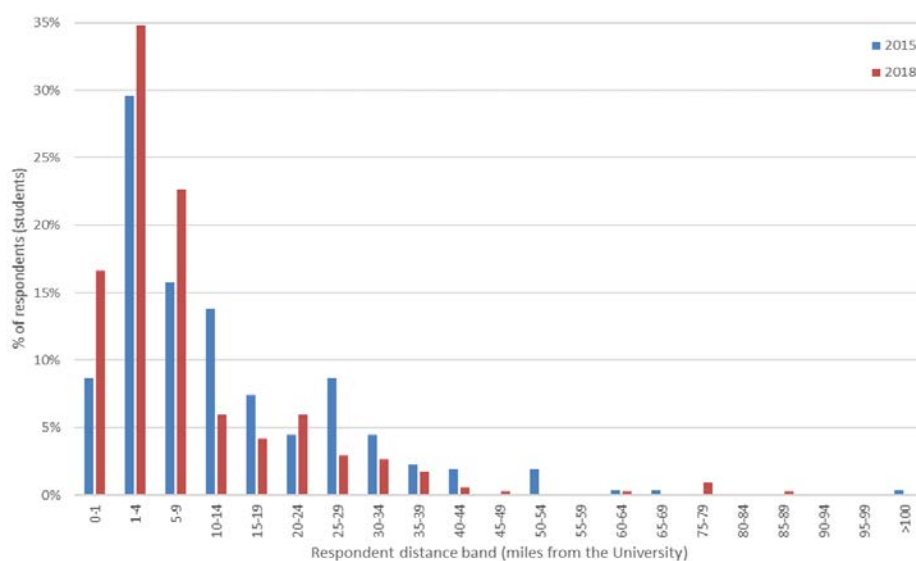


Figure 4 In 2018 a higher proportion of students lived closer (with 10 miles) of the University than in 2015 (2015 and 2018 Travel Surveys).

In addition to living closer to the University, the 2018 Travel Survey also showed that a greater proportion of both students and staff are choosing lower carbon modes of transport to commute (Figure 4). Between 2015 and 2018, the proportion of students walking or cycling to the University increased from 21% to 35%, whilst for staff the proportion increased from 17.4% to 19%. During the same period, with the exception of train travel for staff, all other modes of transport lost modal share. A higher proportion of students and staff living within walking and cycling distance of the University are potential factors behind the increase in walking and cycling levels.

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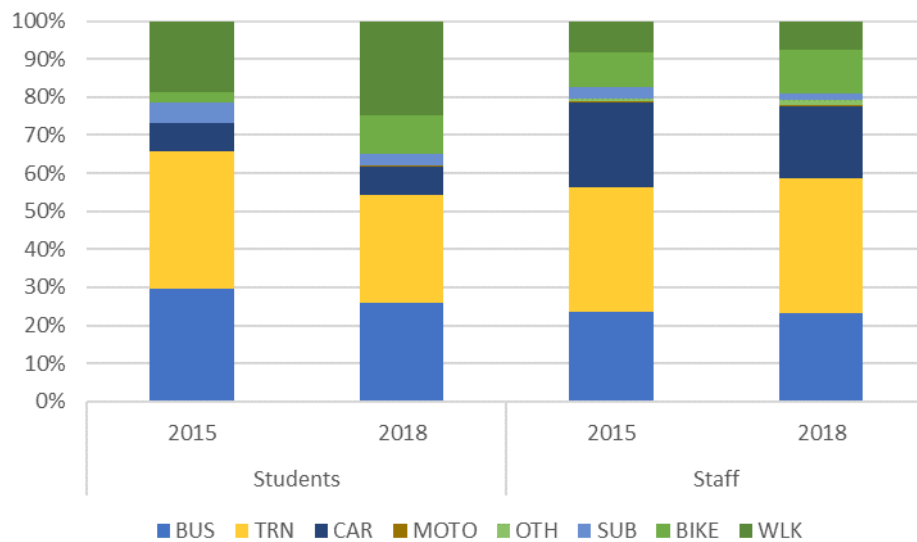


Figure 5 Between 2015 and 2018 the proportion of students and staff walk or cycling has increased whilst there has been a decline in the reliance on carbon emitting modes of transport (2018 Travel Survey).

The third factor contributing to the falling emissions from student and staff commuting is the decarbonisation of the transport system (Figure 5).

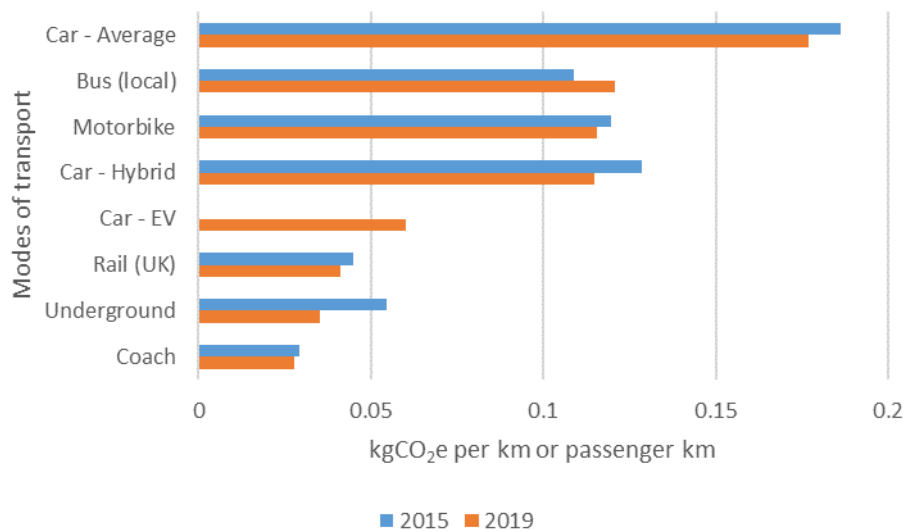


Figure 6 Carbon intensity (UK emissions factors) of different modes of transport used for commuting to GCU.

In addition to the ongoing decarbonisation of the transport system, there are two key opportunities for reducing emission from student and staff commuting: encouraging more students and staff to walk or cycle to University and simultaneously encouraging fewer to drive. These opportunities have the potential to reduce emissions from student and staff commuting by 17% and 5% relative to

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2018-19 to less than 4,100 tCO₂e and 1,000 tCO₂e per year by 2025-26 (for students and staff respectively). Proposed measures to reduce emissions from student and staff commuting are detailed in the STP-LM for both Glasgow and GCU London.

In addition to the above opportunities, as the sector emerges from the pandemic, the University will consider whether new ways of working that what worked well during the pandemic can potentially be maintained and contribute to emission reductions from student and staff commuting whilst enhancing the overall student experience.

Business travel & GCU fleet

In 2018-19 business travel at GCU was responsible for 1,683 tCO₂e or almost 5% of total reported emissions, with air travel responsible for nearly 89% of these emissions (Figure 6). GCU's fleet is not a material source of emissions (at 8 tCO₂e in 2018-19) but is included in this section because it can be impacted by similar levers used to lower emission in this category.

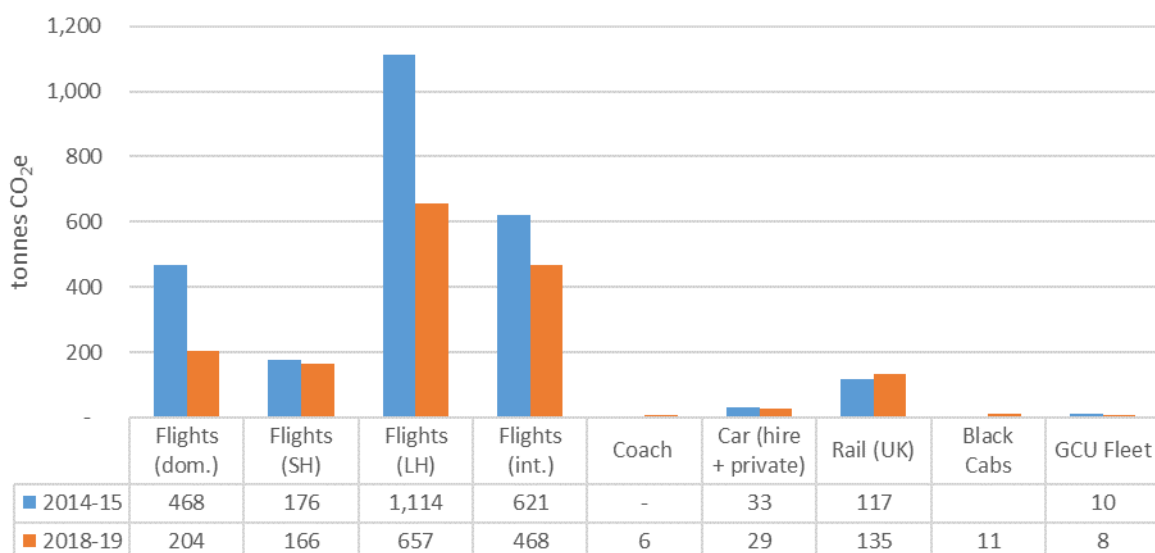


Figure 7 Emissions by business travel category (NB. data to calculate emissions from coach travel and black cabs was not available for 2014-15).

The STP aims to cut emissions from travel activity to below 1,400 tCO₂e per year by 2025-2026 (16% lower than emissions reported in 2018-19 and 44% lower than in 2014-15).

These reductions will be achieved through the implementation of soft and hard measures. Soft measures include a refresh of policies and procedures governing travel to more explicitly promote sustainable travel. Hard measures include a series of tools and campaigns to raise awareness of more sustainable modes of transport for business travel. The STP-LM details a series of measures to reduce emissions from business travel.

Management & Monitoring




The STP-LM for this STP details the measures that will be introduced to reduce emissions from travel associated with the University to below 13,000 tCO₂e. This is 9% lower than the travel emissions reported in 2018-19 and 34% lower than reported in the University's baseline year of 2014-15 (Table 1). A summary of the reductions across all travel categories and the number of measures and interventions listed in the STP-LM is provided in Table 1.

Categories	tCO ₂ e			% reduction by 2025-26 relative to		Measures in the Impl. Plan
	2014-15	2018-19	2025-26	2014-15	2018-19	
Monitoring	N/A	N/A	N/A	N/A	N/A	2
Travel Home – Int.	6,538	6,118	6,100	-7%	0%	1
Travel Home - UK	413	355	275	-33%	-23%	2
Commuting - Student	8,784	4,968	4,100	-53%	-17%	16
Commuting - Staff	1,271	1,061	1,000	-21%	-6%	
Business - Not owned	2,531	1,675	1,415	-44%	-16%	7
Business - Fleet	10	8	5	-49%	-36%	2
Other	N/A	N/A	N/A	N/A	N/A	4
TOTAL	19,547	14,185	12,895	34%	9%	34



Table 1 – Summary of reductions in travel emissions and number of measures in each travel category.

The execution of the STP through the implementation of the measures listed in the STP-LM will be reviewed annually by GCU's Sustainability Working Group. Progress will be reported to the University's Executive Board and more widely through the sustainability section of the University's webpages.

Appendix A – STP contribution to the SDG

SDG	Target & Overview of STP contribution
	<p>Target 1.2 -- By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions</p> <p>The Scottish Government considers an individual to be living in poverty when they live in “households whose equalised income is below 60% of the UK median income”</p> <p>GCU’s STP contributes to this target by promoting lower-cost modes of transport (e.g. walking and cycling) for commuting to University and sign-posting students and staff to information about how they can lower the cost of commuting if they don’t want to walk or cycle (e.g. by highlighting how to access the lowest bus fares or how to reduce the cost of parking near the University).</p>
	<p>Target 3.4 -- By 2030, reduce by one third premature mortality from non-communicable diseases (NCD) through prevention and treatment and promote mental health and well-being</p> <p>The WHO defined NCD as “chronic diseases [...] of long duration and are the result of a combination of genetic, physiological, environmental and behavioural factors.” The WHO list the main types of NCD as “cardiovascular diseases (e.g. heart attacks and strokes), cancers, chronic respiratory diseases (e.g. chronic obstructive pulmonary disease and asthma) and diabetes” and highlight(not exclusively) inactivity and pollution as risk factors.</p> <p>GCU’s STP contributes to this target by promoting modes of travel that are inherently less polluting and encourage more physical activity (such as walking and cycling). Proposals to electrify the University’s fleet and discourage engine idling on campus will contribute to reducing pollution locally. Proposals to reduce flying will have a positive impact on pollution levels more globally.</p>
	<p>Target 3.9 -- By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination</p> <p>Fossil-fuel modes of transport are significant sources of air pollution and there ample examples of action to address the issue from international engine standards (e.g. EURO engine standards) to local air quality controls (e.g. Low Emission Zone in Glasgow or London’s Ultra Low Emission Zone).</p>

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SDG	Target & Overview of STP contribution
	<p>GCU's STP contributes to this target by promoting lower-carbon (and therefore less polluting) modes of transport for commuting and business travel, as well as anti-idling campaigns for the Campus in Glasgow.</p>
	<p>Target 11.2 -- By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons</p> <p>GCU's triennial travel surveys reveal that respondents frequently are not aware of the sustainable travel options available to them, particularly for commuting to the University.</p> <p>GCU's STP contributes to this target through the provision of advice for commuters (e.g. GCU_SmartTravel) that helps them identify the cheapest, fastest and least environmentally damaging travel option for their commutes.</p>
	<p>Target 13.3 -- Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning</p> <p>GCU's triennial travel surveys reveal that environmental concerns are rarely a factor influencing how individuals commute or travel for business.</p> <p>GCU's STP contributes to this target, particularly around human and institutional capacity and impact reduction, through travel policy and process change for business travel and travel advice for commuters (e.g. GCU_SmartTravel).</p>



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