Estates

Ystadau

Cardiff University Travel Plan

2022 – 2027

Contents

1. Introduction

1.1 Overview

This Umbrella Travel Plan has been prepared to set out Cardiff University's approach to promoting sustainable travel options to its staff, students and other site users across its campus in Cardiff.

As one of Cardiff's major employers the university has been promoting sustainable travel options for a number of years with the first formal travel plan being adopted in 2010. A second iteration of the plan was launched in 2012, which was superseded by the current Travel Plan in 2014.

Cardiff University employs approximately 6900 staff and provides for around 33,000 students at its City Centre campus at Cathays Park and at the University Hospital of Wales site at Heath Park. It has a range of student residences across Cardiff including a residences Conference Centre at University Hall, and sports facilities on campus and at Talybont and Llanrumney.

As expected, the university generates considerable travel within the Cardiff area and the university has a dedicated team responsible for ensuring that its site users are supported in their travel needs. The COVID-19 pandemic and subsequent changes to ways of working and learning have led to a refreshed approach to travel combined with an increased commitment to address the environmental impact of the university's operations.

2. Background and Scope

2.1 Cardiff University

Cardiff University is a public research university in Cardiff, Wales. It was established in 1883 as the University College of South Wales and Monmouthshire and became a founding college of the University of Wales in 1893. It merged with the University of Wales Institute of Science and Technology (UWIST) in 1988 as the University of Wales College, Cardiff (University of Wales, Cardiff, from 1996). Cardiff University is the only Welsh member of the Russell Group of research-intensive British Universities. It adopted the operating name Cardiff University in 1999; this became its legal name in 2005, when it became an independent university awarding its own degrees.

The Cardiff University estate spans across Cardiff and can be broken down into the following sites:

Cathays Park Campus

The University's Cathays Park Campus is located in and around Cardiff's civic centre, 22 of the 26 Academic Schools are based on this large campus site alongside the university's Professional Services Departments.

Heath Park Campus

The Heath Park Campus is situated approximately 1 mile from Cardiff City Centre and is home to many of the university's Medicine and Healthcare-related courses. Our academic schools share the site with the University Hospital of Wales, one of the largest hospitals in the UK. The university has recently purchased the former Department of Work and Pensions (DWP) site at St Agnes Road. This site is now known as Heath Park West and is located adjacent to the main Heath Park Campus site.

Residences Sites

There are a number of student residences sites located within a four-mile radius of Cardiff City Centre. The largest residence sites are located at Talybont, with other larger sites at Senghennydd and University Hall. The Talybont residences site is also the location of some of the University Sport facilities, whilst the University Hall site also includes a residences Conference Centre and a Catering and Food Service production kitchen.

Other sites

All other university sites are included within the scope of the Umbrella Travel Plan and therefore the Umbrella measures as appropriate which seek to encourage staff and students to travel sustainably.

- Llandaff Boat House
- Unit 3 Regents Court
- Unit B1 Compass Business Park
- Palmerston Adult Learners Centre (Barry)
- Oxford Street Repository
- National Botanic Garden of Wales
- Studio 1 Letty Street
- Energy Research Building (Port Talbot)
- Nos. 11-20 Devon Place (Newport)
- St. Cadoc's School of Nursing & Midwifery
- Llanedeyrn Health Centre

- Velindre Hospital
- Llandough Academic Centre
- Tegfan', Newbridge-On-Wye

2.2 Existing Travel Plan Activity

Cardiff University has been active in promoting sustainable transport options to its staff and students since the inception of the Travel Plan. A range of sustainable transport initiatives are already in place at the university. Table 1 outlines the current University Travel Plan measures which are being promoted to students, staff and visitors:

Table 1: Current University Travel Plan measures

Mode	Measure	Detail	Uptake /Context
Active Travel	Cycle facilities	A range of cycle parking (covered, uncovered and lockable) is available across all university campus. With showers, lockers and changing areas being available on a building by building basis.	The university has increased the total number of secure cycle spaces across the campus sites by 536 in 2021/22. This significant investment has a resulted in a 25% increase in secure cycle parking spaces on campus
	High security bike locks	Gold standard D locks are sold through at the Security Centre reception at a discounted price to students and staff.	53 D locks sold from September 2020 to July 2022.
	Cycle to work scheme	Enables staff to lease bikes and equipment through a salary sacrifice scheme.	233 members of staff benefited from the scheme between July 2018 and July 2021.
	Ovo Bikes	Free membership to staff and students with 30 minutes free trip time.	13,500 Cardiff University OVO bikes (nextbike) memberships registered between April 2018 and August 2021, totalling £810,000 of benefit for university students and staff.
	Bike Training	Free bicycle training is available for staff and students.	Information not currently available.

	Bike security marking	Free bicycle security registration is available for both staff and students.	40 students and staff benefited from the March 2022 bike tagging session.
	Dr. Bikes sessions	Monthly, ½ day Dr. Bike maintenance sessions provided at Main Building car park from March to July 2022.	25 students and staff attend each session on average.
Public Transport	British Transport Police attendance at Student Union	Aimed at providing safety advice to students travelling by rail.	Information not available.
	My Uni Journey	Provides personalised journey plans by bus and rail to Cathays Park Campus, School of Journalism, Media and Culture and Heath Park Campus. Hosted by traveline.cymru	3500 website visits between August 2021 and July 2022.
	Annual Travel Season Ticket Loan	Interest free loan for staff to enable purchase of an annual season ticket at a discounted rate.	310 members of staff benefitted from the scheme between July 2018 and July 2021
Car share	Liftshare	University specific online scheme to match staff and students to share car, walking and cycling journeys for travel to university.	There are 597 Cardiff University lift share members registered since 2017.
Engagement	Changing Steps Cardiff	Smart phone application to enable members to track and be rewarded for sustainable transport journeys.	295 students and 252 staff joined the challenge in 2021/22

As can be seen from the table above the uptake of measures has been good and individual measures are working well. Successful measures will continue to be implemented as part of the updated Umbrella Travel Plan and are discussed in more detail in section 6.

2.3   Existing Modal Share

Staff and student travel surveys have been undertaken in 2012 and 2018. The 2018 staff survey received a 13% response rate and 339 students replied to the student survey.

The surveys revealed the following modal share in comparison to the 2012/2013 version (Table 2).

Table 2: Staff and Student modal share comparison, 2012 vs 2018

	Staff		Students	
Mode	2012	2018	2012	2018
Active Travel	51.8%	59.6%	74%	70.7%
Public Transport	25.9%	35.5%	11.8%	16.2%
Car Travel	57.1%	37.4%	14.2%	13.1%

Results based on respondents who use mode for at least part of their journey.

As can be seen from the table above there had been an increase in the percentage of respondents using both active travel and public transport modes to travel to university with an associated reduction in car travel.

Student travel had seen a reduction in both active travel and car travel but an increase in public transport usage.

Considering the most recent travel survey results, it is useful to understand changes to the existing travel patterns revealed as part of this updated travel plan.

2.4   Management and Reporting of the Travel Plan

2.4.1   Travel Plan Refresh Group

To ensure the travel plan was developed in consideration of the vast operational requirements of the university and in line with the university's strategic objectives a Travel Plan Refresh Group was established in 2022. The purpose of the group was agreed *'to provide strategic direction, leadership and decision making to ensure a refreshed Travel Plan is approved and implemented by September 2022 on behalf of Cardiff University.'*

Table 3 provides a summary of the Travel Plan Refresh group representation.

Table 3: Travel Plan Refresh Group membership

Academic Colleague (Geography and Planning)	Chair
PA / Administrator (Estates)	Minutes
Academic Colleagues	College Schools
Travel, Transport and Parking Services Manager (Estates Operations)	Delivery Team
Parking Management & Travel Planning Advisor / Project Manager	Delivery Team
Travel, Transport and Parking Services Co-ordinator	Delivery Team
Trade Union rep.	Staff
Bicycle User Group rep.	Active Travel users
CU SU staff rep.	CUSU Staff
CU SU Student Exec rep.	Student body
Staff Benefits rep.	Staff
Campus Services rep.	Staff
Academic & Student Support Services rep.	Staff
Communications & Marketing rep.	Staff/Students
Estates rep.	Staff
Safety and staff wellbeing rep.	Staff
University IT rep.	Staff
Arts, Humanities & Social Sciences rep.	College
Biomedical & Life Sciences rep.	College
Physical Sciences & Engineering rep.	College
Research and Innovation Services rep.	Tenant Staff

The remit of the Travel Plan Refresh Group is;

1   To provide direction, leadership and decision making into the development of a refreshed Travel Plan for the university.
2   To define the scope of the refreshed Travel Plan, including appropriate aims and objectives.
3   To ensure school / professional service requirements are considered, within the scope of refreshed Travel Plan.
4   To help overcome 'obstacles' to the successful approval and adoption of the refreshed Travel Plan policy.
5   Reviewing suggestions for improvements to existing access and travel arrangements identified during stakeholder consultation and to make recommendations.
6   To identify and consider the potential implications of any proposed Travel Plan measures required to be implemented through the refreshed Travel Plan (in relation to Access, Travel, Parking, and Public Transport).
7   Review and take account of the relevant findings from the Equality and Data Assessments as part of any recommendations.
8   Act as ambassadors for the process and engage with others within their colleges/schools/departments and groups which represent stakeholder views.

2.4.2   Travel Plan Delivery and Reporting

The Travel Plan will be delivered by the Travel Transport and Parking Services Team with support from the Travel Plan Refresh Group.

Externally the Travel Plan will be submitted to Cardiff City Council as the planning and transport authority and also to Transport for Wales for their feedback and information. As appropriate information contained within the Travel Plan will be used to lobby both organisations for continued improvement to the local transport network.

Figure 1 outlines the delivery, reporting and approvals structure of the new Travel Plan.

Figure 1: Cardiff University Travel Plan delivery, reporting and approvals structure
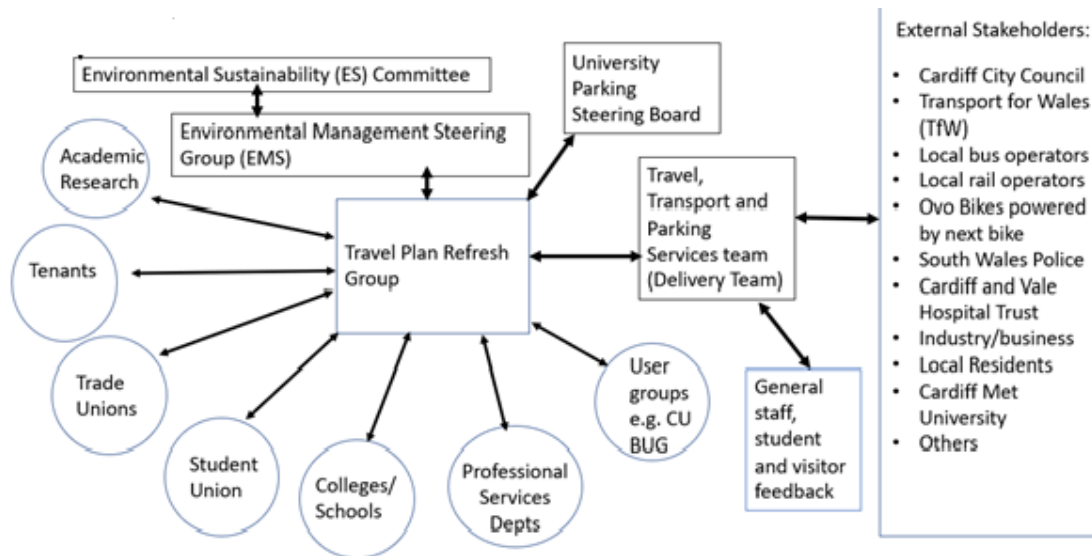
2.4.4 Travel Plan Hierarchy

The Travel Plan Refresh Group agreed that the development of the Umbrella Travel Plan should be based around a travel hierarchy which places the most sustainable modes of travel as the priority for the Travel Plan. The hierarchy is set out in Figure 2 below.

Figure 2: Cardiff University Sustainable Travel Hierarchy
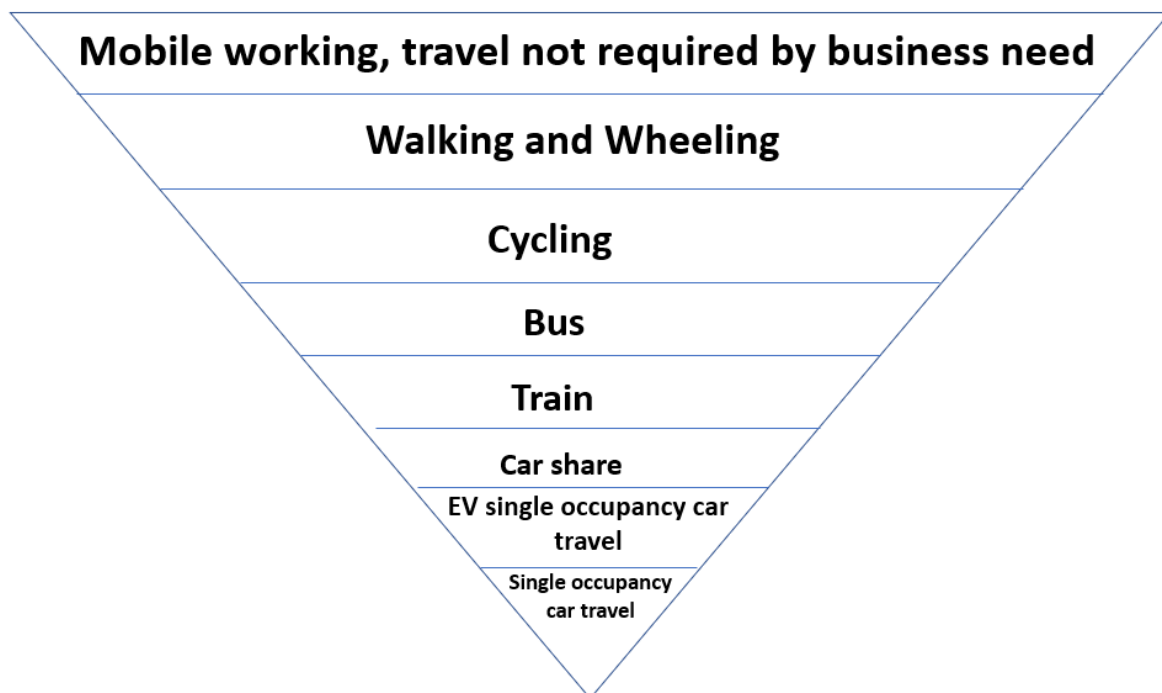
2.5   Umbrella Travel Plan

Given the size and geographical extent of the university this travel plan has been prepared as an 'umbrella' approach to the commitment to a site wide approach to sustainable transport measures. A number of travel plan measures proposed within this travel plan are relevant to staff, students and other users across all university buildings and it is important that staff and students are treated equitably in terms of their access to range of travel options as well as incentives to use them.

Scope of activities included

The initial focus of the travel plan has been on travel to and from the university by staff and students and also a review of existing fleet vehicles. Over the five year lifespan of this version of the Travel Plan the following core aspects of travel relating to the university will be included (see Table 4).

Table 4: Cardiff University Travel Plan – core aspects summary

Year	Focus
Yr 1 – 2022/2023	Staff and student commute to and from University and Fleet review
Yr 2 – 2023/2024	Business Travel
Yr 3 – 2024/2025	Student travel (including review of international student travel)
Yr 4 – 2025/2026	Commence project to review and update Umbrella Travel Plan
Yr 5 – 2026/2027	Umbrella Travel Plan update

Business Travel

Prior to the COVID-19 pandemic, staff business travel accounted for approximately 14% of the university's Scope 3 Carbon Emissions generated through travel. It is proposed that a sub project group will be formed in Year 3 to consider staff Business Travel in detail. Thus, the remit of this group should include a review of the existing business travel policy and to recommend measures to promote sustainable business travel and to reduce carbon emissions generated by this activity. Prior to Year 2, it is proposed that a review of available business travel related data be undertaken, as data quality will be essential to the success of the project.

There is currently a lot of best practice work taking place in the Higher Education sector related to staff Business Travel and it proposed that the sub project group will be well placed to benefit from the experience of other Higher Education institutions, when undertaking a review of staff Business Travel for the university.

Student travel

Student domestic travel

It is proposed that in Year 2 (2023/2024) the Travel Plan works closely with internal stakeholders to focus on measures to support students travel in and around the Cardiff and south Wales region by active and sustainable modes. Results of the student travel survey undertaken to inform this Travel Plan (set out in Appendix H) revealed a high number of students bringing cars to Cardiff to use for purposes outside of travel to and from university. The university residences provide term time accommodation for high numbers of students and therefore opportunities to support sustainable travel from residences will be examined as part of this focus in Year 2.

International Student Travel

The travel category with the greatest impact on the global environment in terms of carbon emissions is International Student home travel. In 2018 a total of 26% students at Cardiff University were classed as International and subsequently needed to travel from their home country to Cardiff in order to study on campus (Detail set out within Appendix I *Baseline CO2 emissions for Cardiff University and Scenario Modelling*). It is estimated that International student travel accounts for nearly 50% of Scope 3 travel emissions generated by the university (23,700 tonnes of CO2e).

It is proposed that a sub project group is formed in Year 3 of this Travel Plan to consider the impact of Student International Travel in detail. The group will be tasked with considering appropriate carbon reduction targets and to set out recommendations related to policy, and associated actions to be considered for implementation.

There is currently a lot of best practice work taking place in the Higher Education sector related to international student travel and it is proposed that the sub project group will be well placed to benefit from the experience of other Higher Education institutions, when undertaking a review of International Student Travel for the university.

Fleet vehicles

The university has a fleet of 67 vehicles used to support school and departmental operations. In 2020/21 it is estimated from mileage and fuel data that the university vehicle fleet produced 70 tonnes of CO2e. University fleet emissions are counted as Scope 1 emissions and the university has an objective to be carbon net neutral by 2030 for Scope 1 and 2 emissions.

The university has secured some funded resource from the Welsh Government Energy service to undertake a review of the university vehicle fleet. The review will create a Higher Education case study which will provide a number of core outputs for the university:

- a report showing what the electronic vehicle transition could look like with costings and energy data (current and proposed)

- recommendations on appropriate charging infrastructure for fleet vehicles

- a grey fleet report for staff mileage

- Support to create the business case for fleet transformation to electronic vehicles

- Support to present a business case to potential funders.

There are number of other measures that can be implemented through this Travel Plan in order to reduce the impact of Fleet Vehicles on Scope 1 emissions and to support/accelerate the university's strategic sustainability objectives relating to Scope 1 emissions.

2.5.1 Cluster Sites

In line with the umbrella approach to developing the travel plan specific clusters where site specific measures relevant to that geographical location and cluster of buildings have been identified. The following clusters of buildings have been identified as detailed in Table 5 below.

Table 5: Summary Table of Travel Plan cluster sites

	Cluster	Buildings
1	Queens / McKenzie	Queens Buildings McKenzie House Trevithick Library
2	Student Support Hub	Students Union CSL Abacws Deri House
3	Bute / Glamorgan	Bute Building Glamorgan Building
4	Main Building	Main Building Park Place Houses
5	Central Hub	Law Building CUCHDS Security Building Tower Building Sir Martin Evans Building
6	Redwood / Music	Redwood Building Music Building
7	Business Hub	Aberconway Building John Perceival Building Julian Hodge Building ASSL PG Teaching Centre
8	Maindy Road	SBARC 118 Maindy Road CUBRIC Building Hadyn Ellis Building OPTOM TRH
9	Talybont	Talybont Court, South, North, Gate Residences Sports
10	Residences	Aberconway Hall Aberdare Hall Cartwright Court Colum Hall Gordon Hall Hodge Hall Roy Jenkins Hall Senghennydd Court Senghennydd Road University Hall
11	Heath Park	Biobank Brecknock House

		Cancer Genetics Building
		Cardiff Medicentre
		Cochrane Building
		College House
		Denbigh House
		Dental School
		Graduate Centre
		Healthcare Sciences
		Henry Wellcome Buidling
		Institute of Medial Genetics
		Medicine
		Michael Griffiths Education Centre
		Neuadd Meirionydd
		Nursing and Midwifery
		Tenovus Building
		Ty Dewi Sant
		Ty Maeth
		Sir Geraint Evans Cardiovascular Research Building
12	Heath Park West	

2.6   Travel Plan Vision and Objectives

2.6.1   Travel Plan Vision

A Travel Plan vision has been agreed by the Travel Plan Refresh Group.

'To become an exemplar university in terms of its commitment to reducing transport related carbon emissions supported by the most environmentally committed staff and students'.

2.6.2   Travel Plan Aim

The main aim of the Travel Plan is to support a travel hierarchy which places the health and wellbeing of staff, students and the local environment as the top priority.

2.6.3   Travel Plan Objectives

This vision and aim are supported by a number of strategic Travel Plan objectives;

A. Minimise transport related carbon emissions produced through university operations.
B. Support the health and wellbeing of staff and students through placing active and sustainable transport modes at the heart of university transport policy.
C. Ensure equality of access to the university so as to not prioritise vehicular travel over active and sustainable modes.
D. Support the university's development aspirations to provide world class teaching and learning facilities.

The Travel Plan will contribute and support a number of both internal and external agendas relating to these objectives including;

Internally
 E. Support the Environmental Sustainability Strategy by focusing on reducing the environmental impacts of University travel and transport activities.
 F. Contribute to university's Net Zero strategy.
 G. Support the University Health and Wellbeing Strategy.
 H. Support and align with the Better Ways of Working Strategy.

Externally
I. Align with and support Cardiff Council's 'One Planet Cardiff' strategy.
J. Align with and support the Welsh Government's 'Net Zero Wales' plan.
K. Alight with and support Well-being of Future Generations Act 2015.

3 Policy Context

The Travel Plan has been prepared in the context of a range of university policies and documents as well as national, regional and local policies. These are outlined in this section.

3.1 National Policy

Decarbonising Transport – A Better, Greener Britain

The Department for Transport's Transport Decarbonisation Plan was published in 2020. It sets out the Government's commitment to decarbonising all forms of transport to meet the target of net zero transport emissions by 2050 which legislates the UK's transport contribution to climate change.

The Plan sets out the path to achieving net zero and focuses on the following key priorities:

1. Accelerating modal shift to public and active transport
2. Decarbonising Road Transport
3. Decarbonising how we get our goods
4. UK as a hub for green transport technology and innovation
5. Place-based solutions to emissions reduction
6. Reducing carbon in a global economy

The Decarbonisation Plan is accompanied by a Toolkit aimed at local authorities which provides a range of advice on measures to reduce carbon emissions by transport including:

- Highlighting the benefits of different interventions
- Setting out the actions local authorities can take to reduce carbon emissions
- Sharing best practice and lessons learnt from case studies of successful schemes already delivering local benefits
- Signposting local authorities to other published guidance and methodologies

Planning Policy Wales - Technical Advice Note 18: Transport

Note 18 focuses on integration between land-use planning and transport. As an evolving site Cardiff University has development programmes which are devised in accordance with the Welsh Assembly Planning Policy, Transport Strategy and Environmental Strategy. The University Travel Plan will support the following sustainable development objectives set out within the advice note:

- Promoting resource and travel efficient settlement patterns
- Ensuring new development is located where there is or will be, good access by public transport, walking and cycling thereby minimising the need for travel and fostering social inclusion
- Managing parking provision
- Promoting walking and cycling
- Supporting the provision of high quality inclusive public transport

Note 18 sets out that Transport Assessment should be required to support of development proposals that are likely to result in significant trip generation and should include the production of a

'Transport Implementation Strategy' which should set objectives and targets relating to manging travel demand.

<u>Llwybr Newydd - Transport Strategy 2021</u>

The vision for the Transport Strategy is 'an accessible, sustainable and efficient transport system' that is;

- Good for people and communities
- Good for the environment
- Good for places and the economy
- Good for culture and the Welsh language

Through its commitment to promoting sustainable transport and the development of this Travel Plan the university will address the impact travel generated by the university has on the local environment.

<u>Active Travel Act 2013</u>

The Active Travel (Wales) Act 2013 aims to facilitate and promote walking and cycling in Wales. The Act places a requirement on Local Authorities in Wales to prepare maps that identify current and future active travel routes and to also require new road schemes to consider the needs of cyclists and pedestrians at the design stage.

Cardiff University will support the local authority to consider the requirements of the Act and to work in partnership to support improvements to active travel routes in the area.

<u>Well-being of Future Generations Act 2015</u>

The Act places a requirement on Welsh public bodies to work jointly to consider the longer-term impact of any decisions that are made, in particular to address social, environmental, economic and cultural well-being issues. The university and this Travel Plan supports a number of the well-being goals set out within the Act including;

- A globally responsible Wales
- A prosperous Wales
- A healthier Wales
- A more equal Wales

3.2   Local policy

<u>Cardiff City Council – Local Transport Plan</u>

The Local Transport Plan identifies the key transport issues relevant to Cardiff and sets out the high-level interventions needed to address them over the Plan period of 2015-2020 as well as setting out ambitions up to 2030.

As a key major local employer, the university will continue to support the local authority in the interventions set out within the Plan specifically around developing the strategic public transport network, developing the active travel network and supporting sustainable travel in general.

<u>Cardiff's Transport White Paper; Transport Vision to 2030 Changing how we move around a growing city (2019)</u>

The Transport White Paper sets out a vision for the city that includes

- Expanding on the Metro plans for a new tram-train routes and stations
- Introducing new Bus Rapid Transit services and Park and Ride sites
- Re-prioritisation of streets to provide more space to active travel users

The Paper discusses Cardiff's response to the climate emergency, the need to address air quality issues, how to create safe and healthy communities, manage a growing city and tackle congestion whilst supporting business.

The Paper sets out targets for travel to work journeys by Cardiff residents which include mode share targets by 2030 of:

- 43% of journeys by active travel
- 33% of journeys by public transport, and
- 25% of journeys by car.

These targets provide a useful benchmark for the University to consider its own commute to work targets for staff.

<u>CCC Bus Strategy Consultation 2021</u>

Cardiff City Council drew up a nine-point strategy designed to make buses more attractive and affordable for commuters based on their 2020 'Transport White Paper'. An eight-week consultation on the priorities for draft strategy was held in the summer of 2021 to understand how the aim of doubling the number of people who use buses within the city could be achieved as part of plans to reduce congestion and improve air quality.

Potential options for the new strategy included; the introduction of reduced bus fares, integrated ticketing, low emissions buses, improved infrastructure and improved customer services from providers.

Of particular interest to the university was the inclusion of a new transport interchange at Heath as well as the development of a city centre package that considered plans for additional transport hubs around the city to enable interchange between train, bus, cycling and walking.

The outcome of the consultation and finalised bus strategy is awaited from the Council.

3.3   University Policies

<u>University Strategy The Way Forward 2018-2023: Recast COVID-19</u>

The impact transport has on the university can be considered alongside a number of the University Values set out within the strategy:

- Equality, diversity and inclusion – The university is committed to equal pay, treatment and opportunity, to supporting diversity and creating an open and inclusive community. *Providing equality of access to the University to all users is a key objective of this travel plan by ensuring support is provided to users of all modes of travel.*
- Environmental sustainability - We promote sustainability education and enable students and staff to make positive changes to our environmental impact, in particular our aim to become carbon neutral by 2030. *The travel plan will support, encourage and enable staff and students and other users to travel to, from and within the campus by sustainable modes of travel by not only providing the facilities and incentives required but by also outlining the benefits and reasons to do so.*
- Financial resilience - We are committed to creating the necessary surplus both to invest for the future and for insurance against unexpected adverse events. *Implementation of a successful travel plan will provide a range of supported travel options to staff and students through the adoption of a travel hierarchy which places the most sustainable modes as a priority (including working from home).*
- Civic mission - We will fulfil our civic mission and broader social responsibilities and are committed to the Welsh language. *The travel plan will support the University to be considered a 'good neighbour' through minimising the impact that its travel needs has on the local environment. Through managing demand for car parking and promoting sustainable travel choices will help support a strong public transport network in Cardiff city and local regional area.*

<u>A more sustainable university - Environmental Sustainability Enabling Strategy 2018-2023 (Recast 2020)</u> Recast-Environmental-Sustainability-Strategy-action-plan-web-April21.pdf (cardiff.ac.uk)

The vision of the Strategy to '*building an inclusive, sustainable, and resilient future for our community and to bring about environmental benefits not only to Cardiff and Wales but to the wider world'* sets out Cardiff University's commitment to leadership in sustainability and an improved environmental performance.

The strategy identifies the role of transport in achieving success:

- *'We will baseline the environmental impact of the University's travel mileage by managing the university's vehicle use through a smarter sustainable Travel Policy, resulting in setting appropriate targets to reduce our CO2 Emissions and Duty of Care Risks'.*

- *'All operational university buildings to take part in environmental sustainability behavioural change programme. (use to promote sustainable travel initiatives – Green Impact)'.*

- *'All operational university buildings to take part in environmental sustainability behavioural change programme'.*

Key priorities for the lifetime of the strategy support underpinning goals adapted from the United Nations Sustainability Development Goals and the Welsh Government's Well-being of Future Generations Act, Well-being Goals which include the following where the travel plan has a role:

A prosperous university

- To be a carbon neutral institution by 2030. (Scope 1 and 2)

A healthier university

- To reduce carbon emissions from travel by using less polluting modes and promoting technological alternative.

A globally responsible university

- To consider impact of university activities on global sustainable development and well-being. Recognising the impact of travel, reducing carbon emission of travel.

Figure 3 provides a summary of the UNSDGs that Travel Plan will closely align with and support. Please note this is not an exhaustive list as different measures in the Travel Plan that will support other UNSGs e.g. Cycling specific measures aim at increasing the number of female cyclists will support UNSDG 5 'Gender Equality'; measures to implement discounted ticketing for Public Transport will support UNSDG 10 'Reduced Inequalities'.

Figure 3 – UNSGDs aligned with the Cardiff University Travel Plan

Better Ways of Working

The Better Ways of Working programme aims to achieve more flexibility for all Professional Services staff in the way that we work and where work takes place, through a smart working approach that balances the needs of the university, teams and staff.

The Better Ways of Working programme, which will facilitate changes to:

- give staff and teams more flexibility about where work is performed through smart working, which in turn can have a positive impact upon both productivity and wellbeing
- reduce the Professional Services estate footprint, related costs and carbon emissions associated with campus buildings and commuting to work.

Smart working refers to all forms of adaptable working across different physical locations, digital platforms and IT infrastructure. Many staff have enjoyed elements of the flexibility that homeworking allows - over 85% of Professional Services staff (from the 45% that responded to a Cardiff University staff survey in December 2022) would like to continue working from home for a significant part of their working week.

The Better Ways of Working project aims to deliver the following outcomes:

- support the University on delivering against The Way Forward 2018-2023: Recast COVID-19, matching its ambition to survive and thrive post COVID-19
- introduce new ways of working that improve wellbeing and reduce our carbon footprint
- ensure key procedures and processes will become more consistent and efficient.

Estates Strategy – Campus development frameworks

Cardiff University is nearing the completion of its campus development masterplan. This is the biggest campus upgrade for a generation and equates to a £600m investment.

This Travel Plan will support Estates Development projects which are scheduled to be delivered during the lifetime of the plan. This Travel Plan will predominantly support the Estates short term investment plan, covering the next 2 to 3 years. Some of the projects scheduled for delivery during this period include and not limited to:

- The Centre for Student Life entrance and Students' Union building;

- Aberconway Library refurbishment;

- New Law building feasibility work;

- Campus internal spaces project;

- Healthcare relocation from Eastgate House to Heath Park West;

- Reconfiguration of Queens Buildings project;

- Residence sites refurbishments

This Travel Plan may also support longer term Estates Development projects which are scheduled within the next 5 years, as and when projects come forward.

3.4   Planning requirements

A number of university buildings are subject to planning requirements as part of consent granted to permit their development. Within the specific consents for the development are requirements to develop and implement sustainable travel plans.

Table 6 sets out existing requirements placed on the university to implement specific building related travel plans.

Table 6: Existing University Building Specific Travel Plan Requirements

Development / Year Submitted	Specific Requirement / Commitment	Monitoring Timescales
Abacws 2021	Specific modal share targets for staff and students by 2025 (based on 2018 figures) Staff: SOV – 25% Car Sharing – 6% Walk – 20% Cycle – 25% Train – 17% Bus – 7% Students : SOV – 2% Cycle 18% Train – 14%	Requirement to monitor travel plan annually for first five years (2021 – 2025)
SBARC	Site specific but references development of the Umbrella Travel Plan. Measures include as a minimum; • Development of a refreshed umbrella Sustainable Travel Plan for Cardiff University • Negotiation with local bus, train or tram companies an increase in the local service provision for the development. • Provision of a public transport information system in a publicly accessible area. • Provision of EV recharging stations. • Consultation with the local authority on the state of the local cycling network and on improvements. • Provision of dedicated and convenient cycle storage • Provision of cyclists' facilities • Lighting, landscaping and shelter to create pleasant pedestrian and public transport waiting areas • Restrictions or charging for car parking • Provision of suitable taxi drop-off or waiting areas	No specific monitoring requirements as linked to this Umbrella Travel Plan.
Translational Research Hub Maindy Road	• Negotiation with local bus, train or tram companies an increase in the local service provision for the development. • Provision of a public transport information system in a publicly accessible area. • Provision of EV recharging stations. • Consultation with the local authority on the state of the local cycling network and on improvements.	No specific monitoring requirements set out

	• Provision of dedicated and convenient cycle storage • Provision of cyclists' facilities • Lighting, landscaping and shelter to create pleasant pedestrian and public transport waiting areas • Restrictions or charging for car parking • Provision of suitable taxi drop-off or waiting areas	
Heath Park West	No specific planning requirements at present. However, current build out includes no plans for cycle parking or sustainable transport facilities. Extensive parking available on site initially will be subject to the parking management strategy (discussed later in the travel plan) and consideration as part of parking supply for Heath Park campus. Further work required to agree approach to ensure support for active and sustainable transport users.	

The commitments to implementing sustainable transport measures at the above developments will be carried out through the implementation of measures set out within this Travel Plan.

4. Site Overview and Audit

This section of the Travel Plan sets out the existing transport network which provides for the University. It also provides detail on infrastructure and facilities that directly support staff and students in travelling to specific university buildings by sustainable modes of travel.

4.1 Location of University Campus

Cardiff University is located in the centre of Cardiff City Centre and has two main campus sites, Cathays Park and Heath Park. A range of residences for student living accommodation is also provided by the university. A location plan and campus map are provided as Appendix A.

4.2 Public transport

The map (Figure 4) below details at a high level the bus routes and stops, railway lines and stations in the vicinity of the University.

Figure 4: Public transport Network
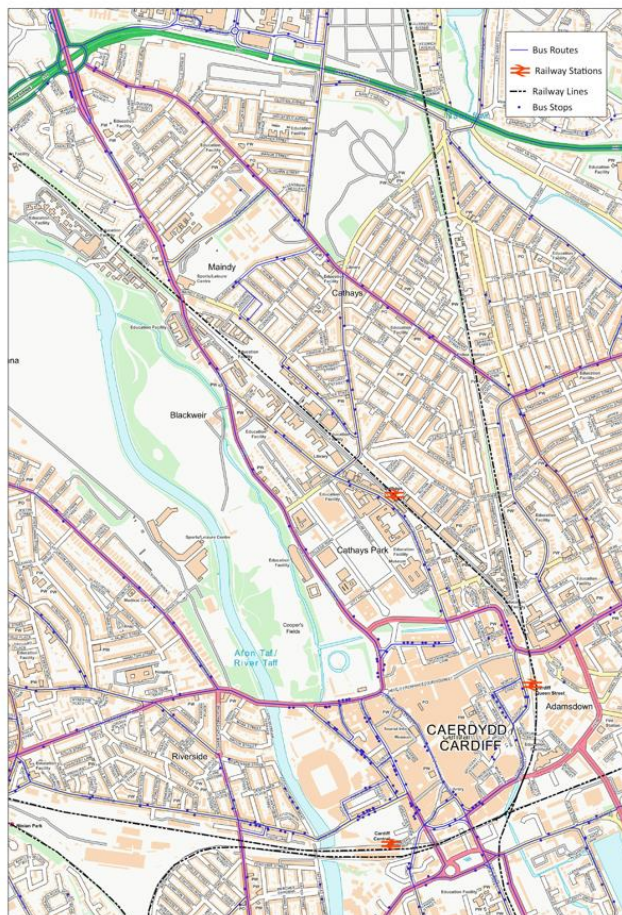
4.2.1 Bus

Cardiff University is well served by the local bus network. To and from the southwest area including residential areas Cearau, Ely, Michaelston, to and from the northwest including Creigiau, Pentyrch, and to the west Canton, Pentrebane, Llandaff, Pontcanna, Llandaff and Radyr directions.

4.2.2 Park and Ride

There are three park and ride sites located within Cardiff City Centre. Cardiff West, South and East. Currently only the East Cardiff Bus service is operational currently which provides service to St Ederyn's and Cardiff Gate Business Park via City Centre and Newport Road. Service H59 to the UHW Heath Hospital is provided free of charge (provided by the Cardiff and Vale Health Board).

4.2.3 Rail

Heath Park Campus

The nearest railway station to the Heath Park Campus is Heath High Level Station and Heath Low Level Station which are located on Heath Halt Road approximately a mile from the University Hospital of Wales.

Heath High Level station connects users with Coryton and Rhymnney (and places in between) to the north and Cardiff City Centre (Cardiff Queen Street and Cardiff Central) to the south. Heath Low Level connects users with Coryton and Rhiwbina to the north and Cardiff Queen Street and Central to the south.

Cathays Park Campus

Cathays Station is the nearest one to the Cathays Park campus. The station is located directly behind the Centre for Student Life (CSL) building and opposite Main Building on Park Place. Cathays Station provides services into Cardiff Central station as well as directly to the Northwest to Treherbert, Tonypandy, Pontypridd and Radyr.

Figure 5 Regional Rail Network
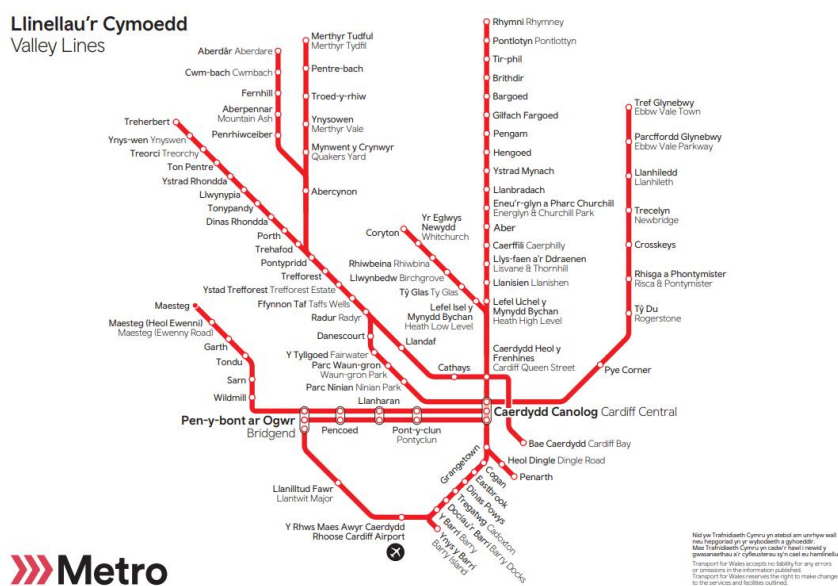
Cardiff Central station and Cardiff Queen Street Station are both located within an approximate 20-minute walk from Main Building. Services north to Rhymney, Ebbw Vale and Aberdare and south to Cardiff Bay and Barry are provided from Cardiff Queen Street Station.

Cardiff Central provides both local and national connections including locally to Maesteg, Bridgend and other Valley line destinations and to the West, Swansea, Carmarthen and Pembrokeshire and to the East Newport, Bristol, London and further afield into England.

4.4   Bicycle Provision

4.5.1   Bike Hire

Users of the OVO bike hire scheme need to register to become a member. Registration is via the website or app. Bikes can then be rented from one of the numerous stations available across the city. Cardiff University staff and students are able to benefit from free membership and 30-minute loan period. After the free period bikes are loaned at £1 per 30 minutes or £10 a day. Bikes must be parked at and returned to an official OVO station.

E-bikes are also available as part of the scheme in Cardiff with a cost of £2 per 30 minutes for casual users of £1 per 30 minutes for members.

A map of the current OVO bike stations is included as Appendix B

4.5.2   Cycle and Pedestrian Network

Cardiff benefits from a fairly extensive cycle and pedestrian network with a range of segregated and pedestrian and cycle only routes available in the vicinity of the Cathays Park campus.

The Taff Trail which links the Brecon Beacons to Cardiff connects the University campus with a number of residential areas to the north of the Cathays Park campus including; Cardiff Bay, Grangetown, Pontcanna, Gabalfa, Llandaff North, Whitchurch, Radyr and Togwynlais

A map of the cycle and pedestrian routes available is included within Appendix C.

4.7   Travel by Car

4.7.1   Car Parking

For staff wanting to drive their vehicles to campus a range of car parks are provided at Cardiff University. Section 4.7.3 outlines the university approach to the management of car parking on site.

In addition, Cardiff City Centre provides a range of car parking options as expected in any city centre location.

4.7.2   Electric Vehicle Charging Points

A good number of charging points for electric cars is available in the campus vicinity. A map of charging point locations for electric car drivers is provided in Appendix D.

4.7.3   Car Parking Management and Compliance arrangements

In the summer of 2021, the University Executive Board approved a two-phase car parking project which aimed to:

- Review and modernise existing university parking policy to achieve Equality, Diversity, and Inclusion (EDI) compliance through the introduction of a needs-based parking eligibility criteria for permit issuance;
- To investigate options for Parking Management and Enforcement arrangements due to a reduction and future reductions in the university parking estate.

A Parking Steering Board was created to oversee the delivery of the project.

Phase 1 – Needs Based Parking Eligibility

From August 2021 to November 2021, all staff were invited to apply for parking eligibility access through a new annual needs-based eligibility application process. Previously parking access had been awarded on the grounds of seniority and length of service and once awarded eligibility was perpetual. As part of this project a robust applications process was introduced and included a parking appeals policy, and which provided staff with right to appeal the outcome of their parking application. The new parking eligibility ommenced in January 2022.

Phase 2 – The implementation of Parking Management arrangements

Phase 2 has been split into two parts: part 1 was a review of existing car park configurations and proposals for new car park layouts to be included within the scope of a new Parking Management and Compliance arrangements. Car Park plans were created to provide for the following types of designated bay:

- Compliant Blue Badge bays
- Standard permit holder eligibility bays
- Time restricted pick/up drop off bays;
- Car share bays prioritised for car sharers prior to 09:30am
- Designated Patient bays
- Pre-bookable (paid for) staff and visitor bays
- Motorcycle parking bays

The plans were approved by the Parking Steering Group in May 2022.

The second part of Phase 2 is the procurement and implementation of a Parking Management and Compliance contract to be operated by an external Parking operator. Table 7 provides a timeline for the delivery of Phase 2 of the parking project.

Table 7: Phase 2, University Car Parking Project Timeline

Task	Description	Timeline	Completed
Review of existing car park layouts and configurations	Recommendations approved by Parking Steering Board, plans included in Parking Management and Compliance tender.	May 2022	Yes
Create a Parking Management and Compliance contract specification	A comprehensive contract specification written and approved by the Parking Steering Board, following in-depth stakeholder engagement	July 2022	Yes
Invitation to tender (ITT) - Car Parking Management and Compliance contract	Invite, evaluate and score tender submissions	August 2022	Yes
Contract Award	Approve and award contract to successful bidder	September 2022	Yes
Contract mobilisation	Successful bidder commences work on contract preparations	September to December 2022	Ongoing
Contract Implementation	New car parking management and compliance arrangements commence on site	January 2023	No

University Parking Quantum

The university has a total of 2249 parking spaces which are to be included within the scope of the Parking management and compliance contract. There are 1382 spaces at Cathays Park Campus, 405 at Heath Park Campus site, and a further 462 located across the satellite Residences sites.

Student Parking

Student parking is not permitted on Cathays Park Campus or Heath Park Campus sites (with the exception of formal Blue Badge parking). There are 250 student permits allocated on an annual basis for specified Residences sites car parks. Students living in university owned and operated Residences, can apply for a limited number of Student Residential parking permits. These paid for permits only allow parking access to the Residences site where the student lives, this permit does not provide parking access to other university car parks.

Staff Parking

Staff parking and external staff parking applications are considered annually during a parking application window, all applications are scored against the needs-based parking eligibility criteria. The total number of applications is considered against the supply of permit holder parking spaces at Cathays Park Campus and Heath Park Campus sites. A threshold applicant score is agreed by the University Car Parking Steering Board. Any applicant that meets or had an application score greater than the threshold score will be awarded staff parking eligibility for the defined parking period. Applicants that don't meet the threshold score are provided with information about alternative modes of travel and informed of the University's car parking appeals process. A parking appeals panel consider any parking appeals submitted by staff. A mechanism is in place where new members of staff or staff who have significant changes to their personal circumstances, can apply for parking outside of the annual application window.

Parking Charges

All staff and students with parking access eligibility must pay for their parking, along with external staff and contractor permit holders. The cost of parking will be reviewed on annually by the Parking Steering Group Board.

Staff who are currently ineligible or choose not to have an annual parking permit but feel they have a need to drive currently make alternative arrangements for parking off campus as the university does not currently offer a flexible pay as you go parking solution, however this is being addressed through the future Car Parking Management and Compliance arrangements.

4.8 Onsite Facilities

4.8.1 Active Travel Facilities

An updated audit of university active and sustainable travel facilities has been undertaken as part of the development of this travel plan.

The audit considered existing facilities and to the degree to which they provide adequate facilities for existing active travel users. The audit also considered opportunities to improve facilities and where possible discussed any potential ideas for improvements with local building managers or lead contacts.

The write up of the audits in full can be found in Appendix E with a summary of the findings for each cluster set out in Table 8 below with facilities given a good, fair or poor rating. Reasons for ratings provided can be understood through reading commentary set out in the site audit overviews.

Table 8: Summary of Cluster audit ratings – Active Travel facilities

Cluster	Cycle Parking	Showers / Changing	Lockers
Queens / McKenzie	Fair	-	-
Student Support Hub	Abacws – Good CSL – Fair SU – Fair Deri House - Poor	Abacws – Good CSL – Fair SU – Good Deri House - Poor	Abacws - CSL – Fair SU – Poor Deri House – Non observed
Bute / Glamorgan	Poor	Poor	Poor
Main Building	Good	Poor	Poor
Central Hub	Good	Poor	Poor
Redwood / Music	Fair	Poor	Poor
Business Hub	Good	Poor	
Maindy Road	Good	Good	Good
Talybont	Fair		
Residences	-	-	-
Heath Park	Fair	Poor	Poor

University sites at Llanrumney and Heath Park West have not been included within this Travel Plan. The Llanrumney site is current subject to a planning application for development and the University is in the process of occupying Heath Park West. Travel Plan measures are included within this Umbrella Travel Plan to ensure appropriate provision of sustainable transport provision at Heath Park West once it is occupied.

They will however be incorporated into any umbrella (university wide) Travel Plan measures introduced.

4.8.3   Motorcycle parking

Motorcycle parking is provided across the University campus. The map set out in Appendix F identifies the university car parks at Cathays Park Campus where specific motorcycle bays will be located from January 2023, as part of the University Parking Project

Staff wishing to park their motorbikes on site are required to register their vehicles with the Parking Services team.

5.   Travel Plan Data Gathering

To inform the development of the Travel Plan a staff and student travel survey was circulated to gauge the views on the various modes of travel available to reach the university. The survey was used to identify barriers to sustainable travel modes and opportunities to encourage staff and students to make sustainable travel choices.

In addition, the following opportunities were used to consult staff and student on measures that would most encourage them to have an active or sustainable commute (see Table 9).

Table 9: Travel Plan Refresh Consultation Events

Consultation/Communication	Event date	Audience	Notes
Sustainability Week Attendance at Sustainable Travel Event – Travel, Transport and Parking team stand	24/03/22	Staff and Students	Stand promoting Travel Plan initiatives, Changing Steps Cardiff, Student Travel survey and providing information on Travel Plan Refresh project.
Sustainability Week presentation – Travel Plan Refresh presentation by Travel, Transport and Parking Team	24/03/22	Staff and Students	On-line 'Teams' presentation and discussion on the topic of a refreshed University Travel Plan.
Staff SO/ECO briefing – Travel Plan Refresh Teams presentation	06/07/22	Staff	20 minute presentation with Questions submitted via Teams chat.
Positive Health, Environment and Wellbeing (PHEW) fortnight – Travel Plan Refresh online presentation by Travel, Transport and Parking Manager	13/07/22	Staff	25 min presentation, followed by Q&A. Feedback themes included: • Request to re-instate P&R services • Covid and car sharing • Car share insurance query • Management of active travel facilities • Flexible parking to support travel choices • Discounted public transport ticketing

5.1   Staff Postcode Mapping

A GIS mapping exercise was undertaken using postcodes provided by respondents to the 2021 staff travel survey. The mapping exercise illustrates where staff respondents are travelling into the university from. The information is useful to understand journeys staff are making and also to consider what sustainable transport options are available to them and to identify initiatives that may improve the environmental sustainability of commuting.

The postcode mapping reveals that whilst some respondents are travelling long distances, high numbers of staff live within close proximity of the University campus.

Figure 6 Staff Home Postcode Mapping
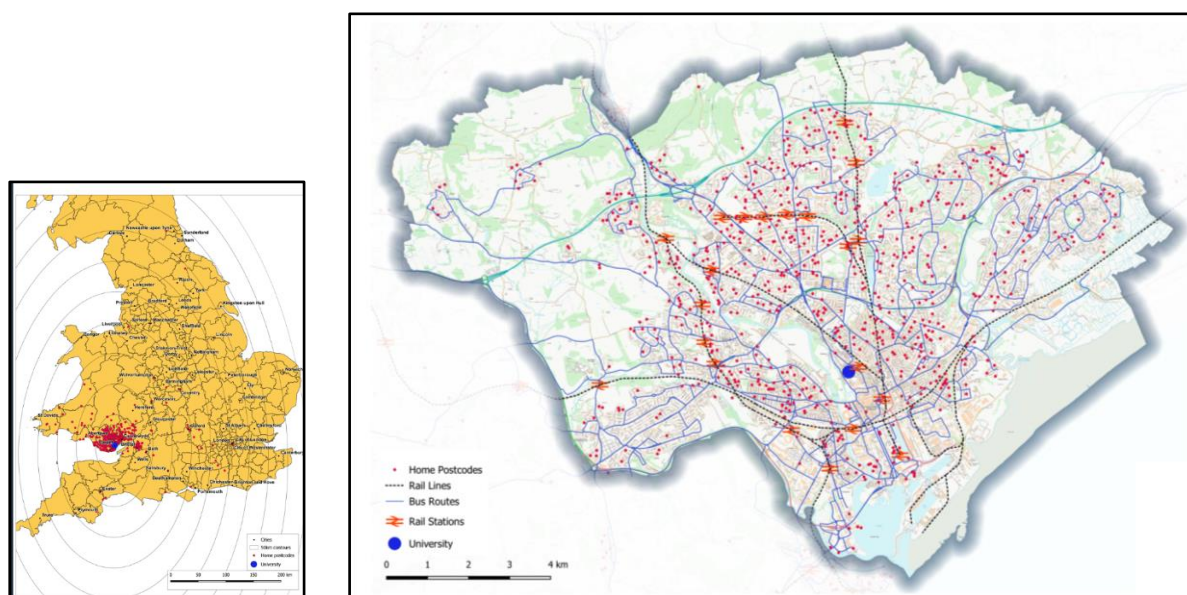
5.2   Staff Travel Survey 2021 Results and Discussion

The staff travel survey was circulated electronically during August 2021 with staff encouraged to complete the survey through various articles in 'Blas' staff communications and through the staff intranet. A prize draw of love2shop vouchers was ran to further encourage completion.

To ensure a good response rate from those members of staff who were considering driving to university on return to work (post COVID-19 arrangements) it was agreed to position the application to park at the university within the 2021 staff travel survey.

A total of 1775 surveys were completed providing the survey with a 26% response rate based on a total staffing number of 6900. Given the complexities of working arrangements around COVID-19 and that the survey was held over the holiday period the response rate is considered positive and representative sample.

Results have been analysed and are discussed in more detail in this section. A full set of the results is included in Appendix G.

5.1.1   Expected Campus Base for 2021/2022 Academic Year

Table 10 below sets out respondents expected campus base for the academic year 2021/2022. (Staff are still firming up working arrangements in terms of home and campus base. This question will be revisited in the 2022/2023 staff travel survey to understand how staff work location is changing). Respondents selecting 'other' were able to further specify in the next question which asked for their specific building location.

Table 10: Staff Respondents expected campus base for 2021/22

Please select your expected campus base for academic year 2021/2022.	Number of answers	Percentages
Cathays Park Campus	1186	66.82%
Heath Park Campus	153	8.62%
Other site (please specify in the next question)	362	20.39%
Residences sites	74	4.17%

A large majority (67% of respondents) are expecting to be based at the Cathays Park. 9% are to be based at Heath Park and a small amount based specifically within residences sites.

Cathays Park Campus Base Building

Buildings within the Cathays Park Campus where 20 or more respondents have indicated that they will be based are set out in the table below to indicate the buildings where higher numbers of respondents are based. Responses to the option of 'other' included responses indicating a number of different buildings within which the respondent worked from (see Table 11).

Table 11: Cathays Staff Respondent Base

Please select your expected Cathays Park Campus base building for academic year 2021/2022.	Number of answers	Percentages
Park Place (Houses)	130	11.01%
Other (please specify in the next question)	90	7.62%
Sir Martin Evans Building	89	7.54%
Main Building	88	7.45%
Mckenzie House	83	7.03%
Glamorgan Building	66	5.59%
John Percival Building	65	5.50%
Aberconway Building	64	5.42%
Hadyn Ellis Building	62	5.25%
Law Building	47	3.98%
Redwood Building	41	3.47%
Bute Building	40	3.39%

Queen's Buildings	33	2.79%
Optometry Building	27	2.29%
Tower Building	26	2.20%
Arts & Social Studies Library	26	2.20%
ABACWS	24	2.03%
Centre for Student Life	23	1.95%
Corbett Road (Houses)	21	1.78%

Focus Point

Responses given to this question provide the travel plan with further indication as to which buildings require appropriate levels of provision in terms of facilities to promote active and sustainable travel modes and also where any on site communications should be targeted.

5.1.2   Respondents grouped by College, Professional Services and Schools

The following question asked respondents which College, School or Professional Service they worked within. Again, responses to this question enable the Travel Plan to cross reference responses to specific questions where appropriate to gauge support for Travel Plan measures or consider specific barriers or opportunities to promoting sustainable transport which may be impacted by the work or operational need of a particular group of staff. See Tables 12 and 13.

Table12: Staff Participation in Travel Survey by College/Professional Service

Please select the College (C) / Professional Service (PS) that you work for	Number of answers	Percentages
Biomedical & Life Sciences (C)	461	25.97%
Arts, Humanities & Social Sciences (C)	359	20.23%
Physical Sciences & Engineering (C)	258	14.54%
Estates & Campus Facilities (PS)	200	11.27%
Academic & Student Support Services (PS)	188	10.59%
University IT (PS)	120	6.76%
Communications & Marketing (PS)	45	2.54%
Other (please specify in the next question)	34	1.92%
Finance (PS)	32	1.80%
Human Resources (PS)	32	1.80%

Research & Innovation Services (PS)	26	1.46%
Development & Alumni Relations (PS)	7	0.39%
Strategic Planning (PS)	7	0.39%
Vice Chancellor's Office (PS)	3	0.17%
University Secretary's Office (PS)	2	0.11%
Internal Audit (PS)	1	0.06%

Table 13: Staff Participation in Travel Survey by School

Please select the school that you work for.	Number of answers	Percentages
Medicine	142	13.18%
Biosciences	128	11.88%
Business	90	8.36%
Engineering	77	7.15%
n/a I work for the College	60	5.57%
Social Sciences	59	5.48%
Law & Politics	51	4.74%
Psychology	44	4.09%
Pharmacy & Pharmaceutical Sciences	42	3.90%
Optometry & Vision Sciences	40	3.71%
Physics & Astronomy	39	3.62%
Computer Science & Informatics	35	3.25%
Chemistry	30	2.79%
Earth & Environmental Sciences	28	2.60%
Healthcare Sciences	28	2.60%
English Communication & Philosophy	27	2.51%
History, Archaeology & Religion	27	2.51%
Architecture	23	2.14%
Mathematics	21	1.95%
Modern Languages	19	1.76%

	Number	Percentages
Geography & Planning	18	1.67%
Dentistry	14	1.30%
Music	13	1.21%
Welsh	12	1.11%
Journalism, Media & Cultural Studies	10	0.93%

5.1.3   Working Arrangements

Respondents were asked about their working arrangements where known. Please see Table 14.

Table 14: Summary of staff working arrangements

Which of the following best describes your expected working arrangement?	Number	Percentages
Work contracted hours (anytime between 0800 – 1800) both off and on campus	649	36.56%
Work contracted hours (anytime between 0800 - 1800) on campus	444	25.01%
Flexible hours between home and campus	292	16.45%
Unknown/ to be determined	134	7.55%
Other (please specify in the next question)	124	6.99%
Night or out of hours worker / work set extended shifts on campus (i.e 0700-1900)	79	4.45%
Work contracted hours (anytime between 0800 – 1800) off campus (e.g. Home address)	32	1.80%
Work contracted hours (anytime between 0800 -1800) from home address	21	1.18%

Focus Point

A majority (37%) of respondents have split arrangements between on and off campus locations but working contracted hours. Only 3% of respondents (54 individuals) responded that they would be based entirely from home/off campus. This information is useful to understand the requirement by staff to consider their travel options to campus even if it is not 100% of their working week with 16% of respondents (292 individuals) indicating that they will be working flexible hours between home and campus.

5.1.4   Travel to University

Staff were asked for their modes of travel before and during the COVID-19 pandemic to allow the Travel Plan to consider changes in travel patterns. Staff were also asked for their intention to revert back to pre-COVID-19 travel arrangements as it is understood that a number of staff have adopted new working arrangements in terms of home working or have made changes to their mode of choice. Table 15 provides a summary of the results.

Table 15: Staff travel behaviour question summary

Are you intending to revert to your previous mode(s) of travel for the new academic year (2021-2022)?	Number of answers	Percentages
Yes	1236	69.63%
Unsure	230	12.96%
No	204	11.49%
n/a I have recently joined Cardiff University	105	5.92%

As can be seen from the table above a majority of respondents are intending to revert to pre COVID-19 modes of travel (70%). 24% of respondents however are either unsure or not intending to revert to previous modes of travel.

Focus Point

The response to this question shows that staff may still be considering how best to travel to and from the University once their working arrangements stabilise. This consideration of travel options will provide good opportunity to promote and encourage use of more sustainable travel options.

Mode of Travel prior and during the Covid pandemic.

Table 16 below summarises the responses to the question to reflect the mode of travel respondents were using to travel to work for at least 3 days of the week for pre COVID-19 travel and during COVID-19 travel. Figures are displayed as percentages to allow for easy comparison. Full results of responses to the staff travel survey are included in Appendix G.

Table 16: Staff Respondent Travel mode (3 days per week or more) – Pre-Covid vs Covid

Mode	Pre Covid	Covid (2020/2021)
Walk	10%	5.7%
Cycling	8.6%	5.7%
Electric bike	0.5%	0.4%
Bus	7%	2.3%
Train	18.7%	3.5%
Car (as driver)	38.3%	35.9%
Car (as passenger)	5.4%	2.8%
Moped/Motor bike	0.7%	0.7%
Taxi	1.5%	0.7%
Work from home	9.1%	42.2%
Other	0	

Table 16 highlights the significant reductions in all modes of travel with associated increase in numbers working from home which was to be expected due to the Welsh Government directive to work at home where possible.

Results set out in Table 17below highlight changes in mode share since the 2018 staff travel survey. Previous survey results had grouped modes under the headings of Active Travel, Public Transport and Car Travel so as such the 2021 results have been similarly grouped to allow for comparisons to be made.

Table 17: Staff travel comparison 2012 to 2021 – Active Travel vs Public Transport vs Car Travel

Mode	Staff			
	2012	2018	Pre C	Covid
Active Travel	51.8%	59.6%	19.1%	11.4%
Public Transport	25.9%	35.5%	25.7%	5.8%
Car Travel	57.1%	37.4%	43.7	38.7%

Figure 7 below shows changes to travel mode between 2012/2013, 2018/2019 to the 2020/2021 pre-covid and 2021/2022 COVID-19 survey results.

Figure 7 Changes to Travel Mode
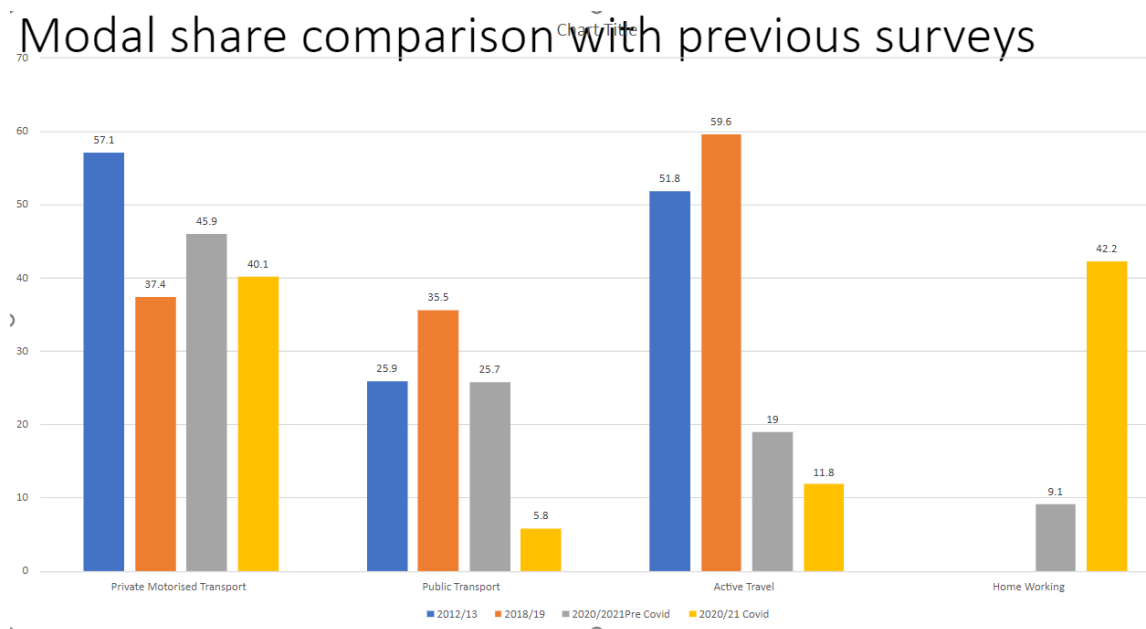
Table 17 highlights a reduction in the mode share of active travel and public transport users in comparison to the 2018 staff travel survey results with a corresponding increase in the percentage share of car travel. It must be highlighted however that the 2021 results consider users responding that they use the mode of travel at least 3 days per week. Also, to note is previous surveys do not provide results for 'other' modes of travel such as moped, taxi and working from home which were included within the 2021 staff survey.

5.1.1   Future Travel Mode

Respondents were asked which modes of travel they would consider using at least on an occasional basis in the future. This question is useful to understand which modes of travel are likely to have the most interest from staff and therefore where the travel plan should focus activity. The results are summarised in Figure 8.

Figure 8: Sustainable transport modes respondents would consider using at least occasionally

Sustainable transport modes respondents would consider using at least occasionally.

Mode	Count	%
Walking	341	11.4
Cycling	498	16.7
Electric Bike	122	6.4
Bus	439	14.9
Train	613	20.6
Moped	38	1.3
Taxi	70	2.3
Home working	784	26.3
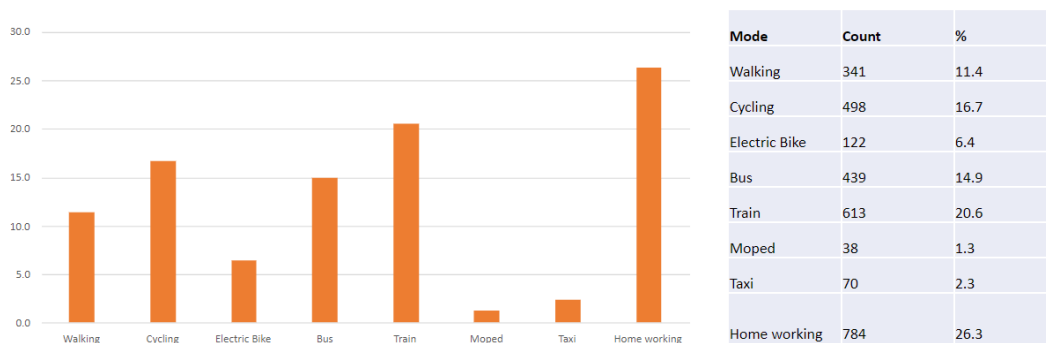
Focus Point

In terms of the intended future modes of travel it can be seen from Figure 8 that it is likely that there is good interest in both active travel and public transport for future use.

Significant increase in numbers of respondents intending to work from home in the future will impact on the mode share of all other modes of travel. With changes to working arrangements at the university with high numbers expected to work from home for some or the vast majority of their working week, consideration is needed as to how best to monitor mode share choice in the future.

5.1.6   Reason for Expected Car Use

For those respondents intending to use their car for future travel to and from university a question was posed as to the main reason for this choice. The main reasons are set out in Table 18 below.

Table 18: The reasons for respondent travel choice

If you are intending to travel to / from work by car for the new academic year (2021-2022) what are your main reasons for this mode choice?	1st choice	2nd choice	3rd choice	Total %
Business need	1.50%	1.72%	1.04%	4.3%
Carer responsibilities	6.62%	2.98%	0.97%	10.6%
Concern over COVID-19	1.74%	2.74%	2.96%	7.4%
Convenience	7.61%	2.63%	1.24%	11.5%
Distance of home address from University	3.93%	5.65%	3.93%	13.5%
Health Reasons	3.38%	2.25%	0.73%	6.4%
Lack of alternatives to the car	3.64%	3.11%	2.10%	8.9%
Lack of facilities on site to support sustainable travel options	0.09%	0.31%	0.26%	0.7%
No appropriate public transport services available	1.24%	1.63%	3.16%	6.0%
Not intending to travel by car	*7.68%*	*0.04%*	*0.04%*	*7.8%*
Other (please specify in the next question)	*1.63%*	*1.26%*	*1.63%*	*4.5%*

As can be seen from the Table 18, distance from home address from university and convenience were cited as the top reasons for intending to use the car on return to travel to campus. Lack of alternatives to the car was also included by 9% of respondents to the question. Lack of facilities on site to support sustainable travel was only cited as a top 3 reason by 1% of respondents. Business need for a car was cited by 4% of respondents. A full breakdown of the results to this question is included as Appendix G.

Focus Point

Whilst distance from the university and the consideration that the car to be the most convenient mode of transport are personal to the respondents and therefore more complex for the travel plan to address. Communications around the various travel options that exist and their associated benefits will aid us to support staff in considering other modes of travel. Perceptions around journey length in terms of time could be an area for the travel plan communications strategy to address.

Respondents were asked which of the following measures would most encourage them to use active modes of travel (e.g. cycling, walking or running) to travel to/from work. If they already travel actively, what would encourage them to continue to do so (see Table 19).

Table 19: Measures to encourage greater Active Travel

Measure	1st choice	2nd choice	3rd choice	Total
Nothing would encourage me	*24.10%*	*0.62%*	*0.06%*	*24.8%*
Other (please specify in the next question)	*10.51%*	*3.61%*	*0.46%*	*14.6%*
Improvements to shower/changing/storage facilities on campus	3.76%	2.62%	3.14%	9.5%
Improved cycle parking facilities on campus	5.08%	2.68%	1.29%	9.1%
Improvements to the local cycle network in campus vicinity	2.13%	3.39%	1.88%	7.4%
Increased value of the university's cycle work scheme	2.40%	2.00%	0.59%	5.0%
Improved awareness of the university's cycle to work scheme	2.28%	0.40%	0.12%	2.8%
Improved information on local cycling and walking routes	0.46%	1.36%	1.02%	2.8%
Improvements to the pedestrian network in campus vicinity	1.26%	0.74%	0.55%	2.6%
Discounts from local walking and cycling shops	0.46%	0.77%	1.17%	2.4%
Information and incentives for the NextBike scheme	0.28%	0.43%	0.62%	1.3%
Periodic active travel challenges and promotions to encourage uptake	0.28%	0.28%	0.37%	0.9%
Promotion of the health benefits of active travel	0.34%	0.22%	0.25%	0.8%

Improvements to shower/changing/storage facilities on campus and improved cycle parking facilities on campus were the most popular measures which would encourage respondents to use active modes of travel to reach the university.

Improvements to the local cycle network in campus vicinity and increased value of the university's cycle to work scheme were also popular measures to encourage active travel.

Focus Point

The site audit undertaken as part of the travel plan development provides further insight into where specifically these improvements are required.

Information on existing and planned improvements to the local cycle network would be useful to share with staff to increase awareness of provision as it may be that staff are not fully aware of recent improvements in the city centre.

The value of the cycle to work purchase scheme has been increased to £3000 from the 1 September 2022 which will be of interest to members of staff considering active travel.

Both these measures need to be fed into the travel plan communications strategy.

5.1.7   Travel by Public Transport

Respondents were asked to select which measures would most encourage them to travel by public transport. The top three choices of measures are displayed in Table 20 below.

Table 20: Measures to encourage greater Public Transport use

Measure	1st choice	2nd choice	3rd choice	Total
Nothing would encourage me	*19.46%*	*0.38%*	*0.13%*	*19.97%*
Discounted public transport tickets	17.02%	2.08%	0.74%	19.84%
Other (please specify in the next question)	*8.62%*	*3.59%*	*1.35%*	*13.56%*
Improved timetable and service information	4.55%	3.69%	2.63%	10.87%
University shuttle bus between key university buildings and transport interchange points (rail station, bus station etc)	3.85%	5.00%	1.89%	10.74%
Staff incentives for using public transport, such as reward schemes for frequent users	1.54%	4.14%	3.40%	9.08%
Information on the staff season ticket loan scheme	0.42%	3.11%	0.42%	3.95%
Improved bus waiting facilities in university vicinity	0.45%	1.35%	1.54%	3.34%

Focus Point

The measure that would most encourage respondents to use public transport to travel to and from work was the provision of discounted public transport tickets (20%) other popular measures included improved timetable and service information and a university shuttle bus between key buildings and transport interchanges.

Improved bus waiting facilities in the university vicinity did not feature highly in the top three choices indicating that perhaps respondents consider existing facilities to be adequate. Interest in

information of the staff season ticket loan scheme was also low perhaps reflecting the move to increased working from home and therefore less interest in spending out on a season ticket for public transport.

5.1.8   Car Sharing

Respondents were asked which measures would most encourage them to share a car (as a driver or passenger) on their journey to work. Table 21 below sets out respondents top three preferred measures.

Table 21: Measures to encourage greater car sharing

Which of the following measures would most encourage you to car share to / from work?	1st choice	2nd choice	3rd choice	Total (1,2,3 choice selection %)
Nothing would encourage me	*36.16%*	*0.29%*	*0.04%*	*36.5%*
Reserved spaces for car sharers	14.96%	3.03%	0.88%	18.9%
Information on the existing car share match scheme (to help find a car share partner)	8.81%	6.36%	1.18%	16.4%
Discounted parking charges	3.96%	7.08%	4.93%	16%
Other (please specify in the next question)	*8.34%*	*2.74%*	*0.59%*	*11.7%*

Reserved spaces for car sharers was the measure that had the highest number of respondents selecting as the first choice that would most encourage respondents to car share to and from work. The second 1st choice measure selected by respondents was information on the existing car share match scheme.

Focus Point

The numbers of responses to the option of information on the existing car share match scheme may indicate a lack of awareness of the existing scheme. Promotion of the existing scheme and its application to identify potential car share partners is likely to lead to a greater uptake in car sharing particularly when combined with the new approach to car parking at the university (identified car share bays and the needs-based assessment approach to car park management).

Focus Point Summary

Considering the key points raised from the results of the staff travel survey will support the Umbrella Travel Plan in ensuring measures included are based on feedback from staff. As such Table 22 below summarises the focus points arising from the analysis of the survey.

 Table 22 Staff Travel Survey Focus Point Summary

Focus Points Identified
Prioritise any improvements to sustainable transport facilities on clusters that provide a base for the largest numbers of staff.
Consider staff who split their time between home and campus working.
Use return to campus working by staff as key opportunity to influence travel behaviour.
Consider how best to measure mode share given Better Ways of Working.
Develop communications around perceived journey time vs actual journey time.
Ensure promotion of local improvements to local cycle network and bus timetable information.
Investigate potential to introduce University shuttle service between key locations.

5.2   Student Travel Survey

A student travel survey was held during the spring of 2022 (21 March to 20 May) a total of 764 responses were received. The survey was available for completion electronically and students were incentivised to complete the survey by entry into a prize draw for one of six £50 'Love to shop' vouchers. The response rate was lower than that of previous surveys which may be in part due to restrictions to using all students email circulation lists and instead relying of individual schools to promote the survey as well as using other student communications

The following communications channels were used to promote the Student Travel Survey:

- Student blast email
- 2x Student Intranet articles
- Digital Posters displayed around campus buildings and in the Student Union building
- Social Media (Cardiff University and Student Union channels)
- Promotion at Sustainability Week, Sustainable Travel event – 24/03/22 in Main Building courtyard
- Internal school e-mail channels
- Residences e-mails
- Yammer Communities e.g. Student Communications Network group and Bicycle User Group
- Championed by Travel Plan Refresh Group membership
- CUSU communications channels
- Changing Steps Cardiff, Sustainable travel challenge rewards promotion

764 responses provides the travel plan with a good snapshot of student travel patterns and feedback on which to base decisions on how best to promote sustainable travel options.

5.2.1   Term time address
The survey revealed that 50% of respondents live within private rented student accommodation, 22% live within university accommodation and a further 20% live at home / in their own property.

Responses to this question provide insight that considering the origin of travel may be required within any approach to promoting student travel by sustainable modes. For example, how cycle parking is provided for within private rented student accommodation may have a factor on a student's decision to consider cycling to the university.

The Travel Plan needs to consider how best to engage private accommodation providers in promoting sustainable transport options to their tenants. These agencies and individuals offer a way by which to communicate with students (potentially through a tenancy information pack) outside of the university environment and as part of the decision making process as to which accommodation a student may wish to secure.

University Accommodation

Table 23: Percentage of respondents living within specific University accommodation

	Percent
Aberconway Hall	1.8%
Aberdare Hall	6.5%
Cartwright Court	4.1%
Clodien House	0.6%
Colum Hall	2.4%
Colum Rd/ Pl Houses	5.3%
Gordon Hall	0.6%
Hodge Hall	1.8%
Roy Jenkins Hall	0.6%
Senghennydd Court/ Hall	15.9%
Talybont Court / North Road Houses	13.5%
Talybont Gate	4.1%
Talybont North / Southgate House	16.5%
Talybont South	14.7%
University Hall	8.2%
Village Houses	2.9%
Other (please specify)	0.6%
Response count	**170**

Focus Point

Table 23 above sets out the percentage of respondents living within specific university accommodation. As can be seen Talybont North / Southgate House accommodates 16.5% of the 170 respondents to the question with a total of 48.8% of respondents (who live within university accommodation) living at Talybont.

Main Place of Study

79% of respondents to the student survey were based at Cathays Park Campus with 9% at Heath Park. 11.6% responded 'other'. The other option included text specifying which building the respondent was based within.

Main Teaching Buildings

Respondents were asked which were their main teaching buildings and they were able to select all that applied. Tables 23 and 24 below set out buildings that received over 5% of responses to the question only. Full breakdowns of each question to the student travel survey can be seen in Appendix H.

Table 24: Student base by Heath Park Campus building location

Building	Percent
Cochrane Building	27.8%
Main Building Hospital	27.8%
Michael Griffith	27.8%
Education Suite	5.6%
Ty Dewi Sant	36.1%
University Dental Hospital	34.7%

Table 25: Student base by Cathays Park Campus building location

Building	Percent
49-69 Park Place	8.0%
Arts and Social Studies Library	8.8%
Bute Building	9.5%
Centre for Student Life	15.1%
Glamorgan Building	20.9%
John Percival Building	21.7%
Julian Hodge Building	7.3%
Law Building	15.1%
Main Building	9.8%
Tower Building	5.3%

Focus Point

Information provided within this question is useful to help consider which buildings and therefore clusters are accommodating the majority of students for study purposes and therefore where efforts to improve active and sustainable transport provision should be focused in the short and medium term.

Cluster 03 which contains Bute and Glamorgan buildings have been selected by 30% of responses to the question as a place of study. This provides valuable insight that provision for facilities and a focus on communication of travel plan measures at this Cluster would be important to encourage uptake of travel plan initiatives.

Travel Mode

Respondents were asked to provide insight as to which modes of travel they used during a typical week to travel to University.

Table 26 Travel mode during university term time

8. Please indicate how often in an average week during term time you use the following modes of transport to travel to the university from your term-time address/residency? Please select all that apply.							
Travel Mode	Never	Occasionally	1 day a week	2 days a week	3 days a week	4 days a week	5 days a week
Car alone	527	49	17	11	13	9	11
Car with others	519	65	8	11	2	1	4
Taxi	553	46	0	4	2	1	1
Bus	507	73	12	10	9	8	14
Park & Ride / Park & Cycle	572	20	4	2	3	2	2
Train	508	55	18	12	18	7	12
Motorbike	599	1	0	0	0	1	1
Wheelchair / Mobility scooter	599	1	1	0	1	0	1
Cycle	495	60	10	13	15	10	20
E Bike	581	19	3	1	1	0	1
OvoBike (NextBike)	514	72	6	4	10	2	4
Electric Scooter	600	0	0	0	0	0	2
Non electric Scooter	595	1	0	0	0	0	1
Walk	66	57	37	58	118	139	257
Other	500	4	0	0	1	2	1

As can be seen from table 26 walking was the mode of transport most frequently used to travel to University. Results have been summarised in Table 27 below to consider which modes of travel are being used by respondents at least 3 days a week.

Table 27 Travel mode used at least 3 days a week by respondents.

Travel Mode	Number of respondents	% respondents
Car alone	33	4.7
Car with others	7	1
Taxi	3	0.6
Bus	31	4.4
Park and Ride / Park and Cycle	7	1
Train	37	5.2
Motorbike	2	0.3
Wheelchair / Mobility Scooter	2	0.3
Cycle	45	6.4
E Bike	2	0.3
OVO Bike	16	2.3
Electric Scooter	2	0.3
Non electric scooter	1	0.1
Walk	514	72.7
Other	4	0.6

When considering the mode of travel that is used at least 3 days a week or more by respondents walking is again the most popular mode with 73% of respondents using this mode. The second most popular is cycle followed by train (5.2%) Bus travel accounts for 4.4% taking the total of public transport use to 9.6%.

Car use by respondents currently accounts for 4.7% with an additional 1% sharing their journey by car.

E bike usage is low with only 2 respondents (less than 1%) using this mode of travel at least 3 times a week.

Table 28 Length of journey to place of study

10. How long does your door-to-door journey from your term time address to your place of study normally take?	Number of answers	Percentages
Up to 15 minutes	283	39.75%
16 to 30 minutes	279	39.19%
31 – 45 minutes	61	8.57%
46 – 60 minutes	44	6.18%
61 – 75 minutes	11	1.54%
76 – 90 minutes	10	1.40%
More than 90 minutes	21	2.95%

I don't know	3	0.42%

80% of respondents live within a 30 minute journey time from term time address to place of study. Shorter journeys are typically easier to influence that longer journeys and with 40% of respondents living within a 15-minute journey time of their place of study it would be useful to consider the mode choice of these respondents to identify how the travel plan can best support them to make or continue to make sustainable transport choices.

Table 29 number of return journeys

11. On days that you attend University, on average how many return journeys do you make from your term time address to campus on a 'typical' day? For example, do you return home for lunch or breaks in study?	Number of answers	Percentages
0	252	35.39%
1	297	41.71%
2	123	17.28%
3	25	3.51%
4	10	1.40%
5+	5	0.70%

Focus Point

Over 60% of respondents are making at least one return journey to and from their term address to campus on a typical day with just over 20% making more than one journey. From the response to this question the importance of addressing student travel in terms of how they travel and what measures are put in place to encourage travel by active and sustainable modes is highlighted. If students can be discouraged where possible from making these journeys by car through the introduction of travel plan measures, benefits to the environment and student health and wellbeing can be addressed.

Travel to and from home address to university

Whilst most respondents (32%) travel to and from Cardiff once a term 3% of respondents are travelling every week. If this figure is factored up to the student population as a whole, it can be estimated that nearly 1000 students are making the journey to and from their home address to Cardiff.

29% of responses to why students bring their car to university responded that they do so due to the travel time to Cardiff. It would be interesting to understand whether this is a perceived travel time or actual travel time.

10% of responses to the questions indicated a need for a car at university to travel to lectures, again the real need for a vehicle to access lectures should be explored further.

The response to these questions indicates the need for the Travel Plan to consider how it can best support students in their journey from home to Cardiff and whilst they are at their term time address.

Table 30 Car use at university

13. Do you have a car at university or commute by car to university?	Number of answers	Percentages
Yes	203	28.51%
No	509	71.49%

Focus Point

29% of respondents to the question 'do you have a car at university or commute by car' responded that they did. This response is interesting when compared to the numbers reporting that they drove to university from their term time address at least 3 days a week or more (6%). This difference may indicate that although car travel does not account highly in the mode share of day to day travel to university for study a high number of students may be bringing cars to Cardiff for other purposes.

Table 31 Reason for having a car at university

14. If yes, Why do you decide to bring a car to university? (please tick all that apply)	Number of answers	Percentages
Travel time to Cardiff from home base	144	28.74%
Travel to and from university (for lectures etc)	52	10.38%
Need to transport clothing / heavy equipment at start of term	58	11.58%
Enables access for purposes outside of study	103	20.56%
Shopping	55	10.98%
To get to work commitments during term time	52	10.38%
Accessibility issues	8	1.60%
Other (please specify)	29	5.79%

Focus Point

When asked why respondents were bringing cars to university the highest response was that the reason was down to travel time from Cardiff to home base followed by enables access for purposes outside of study. It would be useful for the travel plan to consider how best to address this group of

respondents as their reason for car use outside of study purposes may influence how they travel to university.

This insight identifies a need for the Travel Plan to work with Cardiff City Council and Transport for Wales to consider the need for city centre car club provision in the University vicinity and better regional and national connections to Cardiff for students. Commentary provided within the survey results identified a number of respondents who are brining vehicles to Cardiff due to a need to travel by car on study placements. The Travel Plan needs to ensure that all student vehicle travel is addressed rather than just that of travel to and from university campus. Clear communications are needed to ensure all students are aware of the travel options available to them before bringing their own vehicles to Cardiff.

The number of car journeys in general by university students needs further consideration not just for the Travel Plan and the direct impact on the university but also in consideration of local air quality and carbon emissions which may be indirectly impacted upon.

Table 32 Car Parking overnight

16. If yes, Where do you usually park your car overnight?	Number of answers	Percentages
Charged on-street parking	20	8.85%
Charged public/ NCP car park	7	3.10%
Free on-street parking	74	32.74%
University Hall of residence car park (with permit)	6	2.65%
University Hall of residence car park (without permit)	0	0.00%
Private garage/ driveway	39	17.26%
Residents' parking scheme – own permit	67	29.65%
Other (please specify)	13	5.75%

Responses provided to where students are parking their cars overnight provides an indication of the scale of the impact of university students on the local neighbourhoods. If this response is factored up to all car owning students across the university the numbers of cars being parked is significant and any changes to on-street parking restrictions by the local authority is likely to have a significant impact.

Table 33 Car parking during the day

17. If yes, Where do you usually park your car when attending lectures/ seminars at the university?	Number of answers	Percentages

Charged on-street parking	44	18.18%
Charged public/ NCP car park	33	13.64%
Free on-street parking	64	26.45%
University car parks (with authorised permit)	5	2.07%
University car parks (without authorised permit)	9	3.72%
University Hall of residence car park (with permit)	2	0.83%
University Hall of residence car park (without permit)	0	0.00%
Private garage/ driveway	4	1.65%
Residents' parking scheme – own permit	37	15.29%
Other (please specify)	44	18.18%

Again, the high number of responses to 'free on-street parking' highlights the impact that any changes made by the local authority to residential parking may have on the student population who are travelling by car to access university facilities.

Table 34 Measures to encourage active travel

18. Which of the following measures would most encourage you to use active modes of travel (e.g. walking, running or cycling) to travel to/from university? If you already travel actively, what would encourage you to continue to travel this way.	Number of answers	Percentages
Improved cycle parking facilities on campus	252	11.51%
Improvements to the pedestrian network in campus vicinity	308	14.07%
Improvements to the local cycle network in campus vicinity	238	10.87%
Improvements to shower / changing / storage facilities on campus	174	7.95%
Improved information on local cycling and walking routes	212	9.68%
Promotion of the health benefits of active travel	111	5.07%
Information and incentives for the OvoBike (Next Bike) hire scheme	209	9.55%
Discounts from local walking and cycling shops	257	11.74%
Periodic active travel challenges and promotions to encourage uptake	129	5.89%
More information on the Changing Steps Cardiff reward scheme	187	8.54%
Nothing would encourage me	78	3.56%
Other (please specify in the next question)	34	1.55%

Focus Point

The measure that would most encourage respondents to use active modes of travel to travel to university was 'improvements to the pedestrian network in the campus vicinity. 'Discounts from local walking and cycling shops' and 'Improved cycle parking facilities on campus' both featured highly also and should be given appropriate priority within the measures section of this travel plan. The least popular measure was the promotion of the health benefits of active travel which perhaps indicates student general awareness of the health benefits of walking and cycling (and using other active travel modes).

Many of the specific concerns relating to active travel related to safety of pedestrians and cyclists in and around campus, lack of access to secure bike parking and lack of awareness of travel plan measures such as the OVO bike scheme. A range of useful feedback on specific locations was provided which will be considered as part of the cluster specific measures. Issues relating to the cleanliness of the streets was raised by a number of respondents as a deterrent to active travel which may not initially seem linked but if acting as a barrier needs to be considered within the travel plan.

The Travel Plan needs to work with Cardiff City Council to raise the issue that street cleanliness is having on students potential to use active modes of travel. Potential may exist for a student project to be developed to understand in more detail the impact on propensity to use active modes of travel.

Table 35 Measures to encourage public transport use

20. Which of the following measures would most encourage you to use public transport (e.g. bus or rail) to travel to/from university? If you already travel by public transport, what would encourage you to continue to travel this way.	Number of answers	%
Discounted bus and rail tickets	573	25.43%
Season ticket loan from the university	304	13.49%
University shuttle bus between key university buildings and transport interchange points(rail station, bus station etc)	360	15.98%
Improved bus waiting facilities in university vicinity	155	6.88%
Improved timetable and service information	291	12.92%
Student incentives for using public transport, such as reward schemes for frequent users	353	15.67%
Greater rewards from the Changing Steps Cardiff loyalty scheme	147	6.52%
Nothing would encourage me	50	2.22%
Other (please specify)	20	0.89%

Focus Point

The most popular measure to encourage travel by public transport was the introduction of discounted bus and rail tickets. Student incentives for using public transport such as a reward scheme for frequent users was also popular.

The suggestion of a university shuttle bus was the second most popular measure with 16% of respondents selecting this measure. The least popular measure was improved bus waiting facilities, which mirrors the results of the site audit which found that facilities were generally in good condition.

Table 36 Consideration of travel modes

23. How often would you consider travelling to /from campus by a more sustainable mode of travel listed below, if additional measures to support students are introduced? Please select all that apply.							
Travel Mode	Never	Occasionally	1 day a week	2 days a week	3 days a week	4 days a week	5 days a week
Car alone	443	65	14	15	16	7	15
Car with others	416	105	8	12	7	4	8
Taxi	500	38	5	2	1	0	2
Bus	253	192	31	37	37	23	32
Park & Ride / Park & Cycle	396	88	17	24	17	4	15
Train	376	101	24	26	27	13	20
Motorbike	528	9	3	3	1	1	2
Wheelchair / Mobility scooter	533	7	0	2	1	0	3
Cycle	258	145	32	47	47	24	53
E Bike	406	91	11	15	19	9	16
OvoBike (NextBike)	293	147	23	34	33	18	24
Electric Scooter	473	42	6	9	6	4	11
Non electric Scooter	513	11	0	7	3	2	6
Walk	77	62	14	47	82	88	281
Other	401	16	0	2	0	1	1

Table 37 Summary of consideration of other modes of travel

23. How often would you consider travelling to /from campus by a more sustainable mode of travel listed below, if additional measures to support students are introduced? Please select all that apply.					
Travel Mode	3 days a week	4 days a week	5 days a week	Total	%
Car alone	16	7	15	38	3.9
Car with others	7	4	8	19	1.9
Taxi	1	0	2	3	0.3
Bus	37	23	32	92	9.4
Park & Ride / Park & Cycle	17	4	15	36	3.7
Train	27	13	20	60	6.1
Motorbike	1	1	2	4	0.4
Wheelchair / Mobility scooter	1	0	3	4	0.4
Cycle	47	24	53	124	12.6
E Bike	19	9	16	44	4.5
OvoBike (NextBike)	33	18	24	75	7.6
Electric Scooter	6	4	11	21	2.1
Non electric Scooter	3	2	6	11	1.1
Walk	82	88	281	451	45.9

Focus Point

Table 36 and Table 37 set out the modes of travel that respondents would consider using occasionally and at least 3 days a week. There is good interest in cycling in general with around 25% of respondents stating they would use cycling as a mode of transport at least 3 days a week (cycle, E-bike and OVO bike) It would be useful to understand whether the interest in OVO bike hire is from students who have raised safety concerns of having to store their own bikes either in their term time address or on campus and therefore whether there is an opportunity to increase levels of cycling amongst some students from the commute to and from university to other journeys if they were to have their own bike available.

A range of feedback was provided by respondents within questions that enabled responses to be expanded upon. A full breakdown of the responses is provided in Appendix H.

Table 38 Focus Point Summary

Consider how best to engage private landlords to support promotion of sustainable travel options to student population.
Initial focus of any improvements of active travel facilities at Talybont residencies site.
Prioritise improvements to active travel provision at most frequented cluster sites on campus.
Consider how best Travel Plan can address students making multiple journeys each day to campus from term time address.
Investigate in more detail reasoning behind students bringing cars to Cardiff.
Address barriers and concerns raised to walking to campus.
Consider potential shuttle bus route options.
Consider future use of E-bikes in any planned improvements to facilities.

6. Action Plan

This section of the report sets out the measures that are to be implemented at the university to encourage staff and students to use sustainable modes of travel.

Some measures will be university wide measures which will be applicable to all staff and students and other measures will focus on specific clusters of university buildings.

Actions are set out with associated timescales for implementation based on

- short term – within twelve months,
- medium term – within 3 years, and
- longer term – within five years.

6.1   Umbrella Measures

Table 39 - Reporting , Management and Travel Plan Focus Actions

Measure	Objective Related	Timescale
Secure university approval of updated travel plan	All	Short term
Agree travel plan budget	All	Short term
Review of university Fleet	E,F,I,J	2023/2024
Review of university Business Travel	A,E,F,H,I,J	2024/2025
Identify 1 Living Labs project each year to support specific aspect of the Travel Plan		Annually

Table 40- Active Travel Measures

Number	Mode	Measure	Objective Related	Timescale/Frequency
1a	Active Travel	Produce a costed list of priority active travel facility improvements identified by the site audits to deliver as and when funding becomes available.		Short Term (annually updated)
1b		Develop an Active Traveller membership scheme to provide access to facilities across the University	A,B,C,D, E,F,G,H,I,J,K	Medium Term
1c		Create an Active Travel map for the local area around University campus sites.	A,B,C	Medium Term
2a	Walking	Establish a walk buddy scheme using existing Liftshare scheme to provide support to staff and students.	A,B,C,E,F,G	Short Term
2b		Establish a Walking User Group to focus on health and wellbeing benefits of walking and also to bring together staff	A,B,E,G	Short Term

		and students who wish to walk to campus.		
2c		Continue to work with local partners to improve and promote safer walking routes in the vicinity of the campus.	B,C,D,E,F,G	Medium term
2d		Expand Changing Steps Cardiff Rewards offer to include local outdoor retailers where staff can receive discount on walking related items.	B,C,G	Short term
2e		Walking promotion to align with staff step count challenge and student exams in May and national walking month.	B,G	Medium term
		Improve way finding signage across campus.	B,C,D,E,F,G	Medium term
3a	Cycling	Promote increase in value of cycle purchase scheme, working with the Staff Benefits team.	B,C,E,F,G,H	Short term
3b		Introduce swipe card access to all locked university cycle facilities to enable staff to use any cycle parking facilities across campus.	D,E,G	Medium term
3c		Undertake six monthly audits of all cycle parking facilities across the university to ensure capacity is available and facilities are well maintained.	C,D,G	Every six months
3d		Relaunch cycle training offer with bespoke sessions for specific groups of staff and students.	C,E,F,G	Short term
3e		Work with Bicycle User Group to establish a network of support to offer 'bike buddy' to new cyclists.	A,C,E,F,G	Short term
3f		Undertake discussions with Cardiff City Council to understand forward plan for additional cycle lanes in university vicinity.	E,G,I,J,K	Ongoing
3g		Continue to work with OVO bikes to identify any capacity issues at stations, use postcode mapping lobby for additional stations as appropriate and continue to promote student and staff 30 minute free usage.	A,C,D,E,F,G,I	Ongoing
3h		Identify local cycle retailers prepared to offer discount to staff and students for purchase of active travel equipment. Ensure all offers are promoted appropriately.	A,C,D,E,F,G,I	Short term

3i		Identify and establish vendor for selection of cycle accessories to be sold on campus. To include rechargeable bike lights, D locks etc sold at discounted prices to students and staff.	D,E,G	Short term
3j		Expand current bike maintenance (Dr Bike) availability to extend across campus.	D,E,G	Medium term
3k		Subsidised maintenance workshops	C,E,G	Medium term
3l		Work towards attaining Cycling UK Cycle Friendly Employers accreditation.	A,E,G	Medium term
3m		Abandoned bike scheme - improve communication, seek to work with a provider who can recycle bikes and sell to students on campus.	A,E,G	Long term

Table 41 Public Transport Measures

	Mode	Measure	Objective	Timescale
4a	PT	Use results of postcode mapping exercise to support external stakeholders in decisions around new or improved public transport services.	C,E,F,J	Ongoing
4a	Bus	Review all bus waiting facilities on a six monthly basis to ensure appropriate standards are maintained	C,E,F,J	Ongoing
4b		Investigate costs and operational requirements of a university Shuttle bus service.	A,B,C,D,E,F,G,H	Medium term
4c		Negotiate discounted fares for staff and student bus travel with local operators.	C,E,F,G,H	Medium term
4d		Identify opportunities to increase number of bus waiting shelters with Real Time Information.	C,E,F,G,H	Ongoing
4e	Rail	Consider opportunity for transport police to visit some of the key residences sites to promote safety on rail network.	B,G	Medium term
4f		Identify any discounts available for student and staff travel by rail.	A,C,G,H	Long term
4g		Work with Transport for Wales to continue to identify opportunities to	C,E,G,I,J	Ongoing

		promote rail travel to students and staff.		

Table 42 Vehicular Travel Measures

5a	Car share	Review existing Car Share scheme and develop options for most appropriate future system.	B,E,F,G	Short term
5b		Re launch car share scheme	A,B,C,E,F,G	Medium term
5c		Ensure appropriately placed car share bays within revised car park management strategy	A,B,C,E,F,G	Short/Medium term
5d		Expand the scope of Changing Steps Cardiff to include a car share as a sustainable travel mode, so staff can earn BetterPoints/BetterTickers and redeem rewards and win prizes.	A,B,C,E,F,G	Medium term
5e	Car club	Investigate opportunity for the university and its staff and students to benefit from existing car club membership	A,B,C,E,F,G,H	Long term
6a	Motorbike / Moped	Provide additional motorbike parking bays and mounting anchors as planned through the car park management strategy.	A,B,C,E,F,G	Medium term
6b		Identify clusters where motorbike parking needs to be improved	A,B,C,E,F,G	Long term
6c		Set up a Motorcycle User Group to represent motorcycle users.	B,C,E,F,G	Medium Term
6d		Expand scope of Travel to work loan to include the option of securing an interest free loan to purchase a motorised two wheeler.	B,C,E,F,G	Medium Term
6e		Expand scope of Changing Steps Cardiff to include motorised two-wheelers as Sustainable Travel mode?	A,B,C,E,F,G	Medium Term
7a	Electric Vehicles	Work with Welsh Government Energy Service review fleet mileage and operation to inform the development of a fleet management strategy.	A,B,E,F,I,J,K	Medium Term
7b		To undertake a feasibility study to consider and develop an Electric Vehicle Charging Infrastructure strategy for the next 10 years (fleet and commuter requirements)	A,B,E,F,I,J,K	
7c		Work with the Staff Benefits team to consider the introduction of a staff EV salary sacrifice car leasing scheme, to	B,E,F,G,I,J	Medium Term

		support staff with no other option but to drive to campus, to transition to a low emission vehicle.		

Table 43 Communications and Engagement Measures

8a	Develop a travel plan communications strategy setting out monthly / quarterly initiatives for promotion. To be reviewed and updated annually prior to the start of the new academic year.	Short term/on-going
8b	Ensure travel options are included within the student recruitment and induction.	Short term
8c	Work with student residences and private accommodation providers to identify opportunities to promote travel plan options to students on site.	Medium term
8d	Develop a student travel pack to issue to all first year students prior to arriving in Cardiff.	Short term
8e	Review outcome of Changing Steps Cardiff rewards scheme and consider future opportunities for new annual challenge.	Short term
8f	Develop a staff travel information pack to issue to all new members of staff. Work with HR team to encourage sign up to Changing Steps Cardiff prior to or on day 1. Work with Public Transport providers to secure free 30 day bus pass for all new starters.	Medium term
8g	Align Travel Plan related internal communications and promotions to UN Sustainability Goals.	Short/Medium term
8h	Create a Travel Plan update webpage on: Sustainability - About - Cardiff University to communicate Travel Plan Summary document link, an annual progress update report on the delivery of the action plan and reporting on KPIs and Travel Plan targets set.	Short/Medium term
8i	Where appropriate develop cluster specific travel plan summary to include targets and KPIs to address local issues.	As required

Table 44 Living Labs Projects

9a	Work with academic Colleges and Schools to consider living lab projects which provide opportunities for student projects and research that will contribute to the objectives of the Travel Plan.	Medium Term
9b	Produce an annual report or case study on Transport related living lab projects delivered and align to THE Impact rankings related communications channels	Medium term

Table 45 Fleet vehicle Specific Action Plan

Fleet	Measure	Objective	Timescale
1	Work with the Welsh Government Energy Service to undertake a fleet review to create an Higher Education case study. Outputs of review: • a report showing what a EV transition could look like with costings and energy data (current and proposed) • recommendations on appropriate charging infrastructure for fleet vehicles • a grey fleet report for staff mileage • Support to create the business case for fleet transformation to EV • Support to present a business case to potential funders.	A,E,F,I,J	Short/Medium
2	Develop a business case for Internal/External funding to implement a phased refresh of the University fleet to EV. This needs to consider vehicle replacement and investment in EV charging infrastructure.	A,E,F	Short/Medium
3	Work with Sustrans and Estates Building Support Services team to roll out a trial of e-cargo bikes to replace fleet vehicle use.	A,E,F,G,I,J	Short/Medium
4	Work with internal fleet vehicle owners to promote 'efficient driving' behaviours in order to: • reduce fuel consumption • lower carbon emissions • lower risk of vehicle wear and tear	A,B,E,F,G,I,J	Medium

Table 46 Carbon Emissions

Measure	Timescale
Benchmark how other universities are approaching travel related carbon reduction to help inform approach	Medium
Review data collection requirements for be able to calculate and set appropriate targets for carbon reduction on an annual basis	Medium

Table 47 Cluster Specific Action Plan

Cluster	Building	Action / Measure	Timescale
1	Queens	Review cycle parking provision to ensure adequate supply	Long term
		Remove unnecessary equipment from car park to improve general pedestrian environment	Long term
		Upgrade cycle parking to covered, secure facilities	Long term
	McKenzie House	Amend signage to enable unisex facility	Short term
		Refresh locker user permissions	Short term
		Increase number of lockers available for active travel users	Long term
		Upgrade security to salto lockable units	Long term
		Upgrade facilities into shower rooms	Long term
2	Students Union	Enable SU staff to use cycle parking facilities at Abacws	Medium term
		Install locker facilities for active travel users	Long term
	Centre for Student Life	Provide active travel users with easier access to facilities	Short term
		Amend signage on disabled toilet in main building foyer	Medium term
	Abacws	Clear vegetation and obstructions from cycle parking area	Short term
		Ensure all active travel users are able to access secure cycle parking area	Long term
	Deri House	Investigate opportunity to relocate cycle parking within car park to area with better natural surveillance	Long term
		Enable Deri House based staff to use other Hub building facilities	Medium term
3	Bute Building Glamorgan Building	Increase cycle parking capacity across cluster	Medium terms
		Install cycle maintenance station for use by staff and students	Short term
		Upgrade motorcycle parking facilities	Medium term
		Cut back overgrown foliage on pedestrian links	Short term
		Identify location and install active travel hub facilities to provide for showers, changing and lockers for use by active travellers.	Long term

4	Main Building Park Place Houses	Upgrade cycle parking shelters to keypad entry at Main Building	Long term
		Install cycle maintenance station for use by all cyclists	Short term
		Increase number of motorcycle ground anchors	Long term
		Remark motorcycle parking area	Medium term
		Identify location and install active travel hub facility to provide showers, changing and lockers for use by active travellers.	Medium term
5	Central Hub	Identify location and install active travel hub facilities to provide showers, changing and lockers for use by active travellers.	Medium term
		Ensure adequate storage space for hot desk active travellers in Tower Building	Short term
		Investigate opportunity to provide improved waiting facilities for users of longer distance bus travel.	Long term
		Upgrade cycle parking outside Law building	Short term
		Upgrade cycle parking facilities outside Sir Martin Ellis building	Short term
6	Music Building Redwood Building	Install cycle parking stands outside Music Building for student / short stay use	Short term
		Upgrade existing cycle parking to covered and secure facilities.	Medium term
		Identify need for specific motorcycle parking bays within cluster	Long term
		Consider potential to provide active travel facilities within café area of Redwood building	Long term
		Ensure bus waiting facilities contains up to date timetable information	Ongoing
		Monitor and address issues of standing water at Redwood building	Ongoing
7	Business Hub	Identify location and install active travel hub facility to provide showers, changing and lockers for use by active travellers.	Medium term
		Upgrade cycle parking facilities where required across cluster location	Long term
8	Maindy Road	Ensure that all active travel facilities is made available for all staff and student use.	Medium term
		Increase the amount of visitor cycle parking available outside OPTOM building.	Short term
9	Talybont	Upgrade existing cycle parking to covered secure cycle parking	Long term
10	Residences	Review active travel infrastructure available for students and staff use.	Short term
11	Heath Park	Investigate potential to locate a sustainable travel hub on site for use by University staff and students. Develop an active travel facility guide for CU users	Long term Medium term
12	Heath Park West	Ensure that sustainable transport facilities are provided onsite for staff and students	Long term

7.   Travel Plan Targets

Historically modal share has been measured by capturing the main mode of travel for three or more days each week. However, the COVID-19 pandemic and change to working arrangements at the university has led to this approach being re-addressed with the addition of carbon emission monitoring and key performance indicators being set to enable more accurate and meaningful monitoring to be undertaken

7.1   Mode Share Targets

For the purpose of considering mode share targets the results of the staff and student travel surveys have been used.

Table 48 Staff Mode Share Targets

Mode	2021 (Pre COVID) Mode Share	2021 (During COVID) Mode Share	2026 Target Mode Share	Change
Car Travel (driver with others or passenger)	44	39	38	-6%
Active Travel (Walk, cycle, e-cycle)	19	11	23	+4%
Public Transport (bus, train)	26	6	27	+1%

(Due to addition of working from home included in 2021 mode share figures for 2021 do not equal 100%)

The focus of the targets set is to return both active travel and public transport modal share to pre COVID-19 levels and to increase on the sustainable transport mode share.

The mode share targets set do not include consideration of members of staff working from home. The current mode share calculation methodology does not identify the degree to which the Travel Plan has been successful in reducing the number of days that people drive to campus. For example, a reduction of just one driving day per week is still worth noting and is also relevant to many staff who have been continuing to work off campus for a significant proportion of their working week post Covid. The refreshed Travel Plan needs to capture any behaviour change associated to flexible travellers making incremental changes to their travel mode choice. Amendments to the Travel Survey will need to be made to address this.

For the purposes of the refreshed Travel Plan, students and staff travelling by Park and Ride bus services will be counted as Public Transport journeys in terms of mode share. The staff and student travel survey methodologies do need to consider how carbon emissions produced by students and staff interchanging onto Park and Ride services is estimated.

Table 49 Student Mode Share Targets

Mode	2021 Mode Share	2026 Target Mode Share
Car Travel (driver with others or passenger)	6%	4%
Active Travel (Walk, cycle, e-cycle, scooter)	82%	84%
Public Transport (bus, train)	11%	12%

The focus on student modal share targets will be on maintaining a low percentage of car travel to site by those students who need to use their cars as other modes of travel are not possible or appropriate. The Umbrella Travel Plan is not 'anti-car', it has been developed to where possible promote the sustainable travel hierarchy which places active and sustainable modes of travel as a priority.

Measures will be designed to ensure students are supported in their travel and that good accessibility is provided where possible to link students from their term time residences to their university base.

Carbon calculations

The university has a commitment to net zero carbon emissions by 2030 for Scope 1 and 2 emissions, and currently aligns to Welsh Government net zero targets for Scope 3 emissions by 2050.

Currently staff travel (9%) and student travel (26.7%) accounts for circa 36% of total travel related carbon emissions generated at Cardiff University. The Travel Plan has a vital role to play by providing appropriate measures and initiatives to reduce Carbon related Travel Emissions, and to achieve the net-zero targets set by the University.

Table 50 – Cardiff University Travel related carbon emissions estimate 2018/19

(source Cardiff University Carbon Emission and Scenario Modelling report, 2020 Appendix I)

Travel category	Tonnes CO_2e	Within scope of the Travel Plan Refresh
Student commute	6,993	Yes – from October 2022
Student field trips/exchange	5,044	Yes – from October 2024
International student home travel	23,699	Yes – from October 2024
Staff commute	5,257	Yes – from October 2022
Staff business travel	6,594	Yes – from October 2023
Total	47,587	

Note that the table above does not include Scope 1 carbon emissions from university fleet vehicle operations.

The staff and student travel surveys will continue to be used as a conduit for collecting data to estimate carbon emissions from student commute, international student home travel and staff commute.

In order to ensure that Carbon Emission from travel is being robustly and accurately captured, it is felt that the following areas of development will be required:

- To undertake a review of data collection processes for each Travel category in order to be able set appropriate targets for carbon reduction;

- To undertake a benchmarking exercise to review how other Universities are approaching travel related carbon reduction to help inform the Cardiff University approach to this area;

- To ensure appropriate data capture from staff and student travel survey to enable carbon estimation to take place annually;

- To adapt an appropriate Methodology travel carbon calculations

- To consider an appropriate and realistic approach to monitoring and reporting Carbon Emissions data e.g. Approach to targets v trends

8.   Monitoring and Evaluation

In order to check how we are progressing against our targets and to highlight areas where we can still improve, we will undertake annual staff and student travel surveys, with a full review at the end of the 5 year Travel Plan period. This is good practice for a Travel Plan.

It is important that the monitoring process is both flexible and holistic, to enable the Travel Plan to respond to any internal changes e.g. university policy change, and/or wider external influences linked to changes in the local and global social/economic/political conditions e.g. the re-introduction of COVID-19 restrictions. This approach will allow the university to respond quickly to significant change.

The data collection process will be enhanced to allow the Travel Plan to capture data on the number of days that people travel each week by mode to reflect the Travel Plan aim to influence people's travel choices on a day to day basis and to account for the increased number of staff working off campus more frequently, whilst historic mode share data collection is for the mode share by which people travel on three or more days. The monitoring process needs to take into account incremental benefits of a person changing their travel behaviour e.g. a person who reduces their car usage from five days per week to four days per week.

Daily travel log approach

All staff and students completing an annual travel survey will be required to complete a question relating to their weekly travel to campus for the previous week in order to log their daily travel patterns. The question will record their modal travel behaviour (including non- travel days) for a typical five-day period. This will be introduced in the 2022/23 student and staff travel surveys. This approach will enable a five-day travel survey baseline to be established for staff and students. This daily travel log approach allows for mode share to be calculated by main mode for 3 days a week or more, to provide historical benchmarking comparisons. It also allows a blended "per day" mode share to be calculated, which would capture incremental benefits of reducing the number of days of driving. For example, if five people drive on five days in one year, and four days the next, the blended mode share would show a 20% mode shift. This will be important in measuring progress against the Travel Plan targets. The Travel diary approach also allows for the Travel Plan to estimate Scope 3 Carbon emissions for different modes of travel.

Staff and student travel surveys will also collate data to report on the following:

- Travel behaviours (i.e. 'usual' mode of travel, frequency, basic journey details);

- Propensity for individuals to change their travel behaviour to more sustainable forms of travel as promoted through the Sustainable Travel hierarchy;

- The 'barriers' to changing to specific sustainable modes of travel (e.g. reasons for preventing a switch to walking or cycling.

- Awareness and engagement with Travel Plan initiatives;

- Opinions regarding the operation and effectiveness of Travel Plan measures/initiatives to meet the aims and objectives of the Travel Plan.

Both staff and student travel surveys will be facilitated via online platforms, will be available in Welsh as well as English and will be accessible for a minimum of 3 weeks. In order to maximise

awareness, engagement and participation a strategic coms plan will be developed with the Corporate Coms team, covering all the communications channels available. Appropriate incentives and prizes for student and staff participation will be funded from the Travel Plan budget.

Key Performance Indicators (KPIs)

In addition to the Mode share % and Carbon emissions targets, a range of Key Performance Indicators (KPI's) will be used to help monitor the success of the Travel Plan and to evaluate the impact/value of individual measures implemented through the action plan.

The monitoring and reporting schedule outlined in Table 51 provides detail on the KPI's that will be used to help monitor and evaluate the Travel Plan. The KPI's will be reviewed each year as part of the approach to monitoring and evaluation of the Travel Plan.

The Changing Steps Cardiff sustainable travel challenge will run during 2022/23 academic year will captures and provide data, which can be used to monitor the impact of the Travel Plan details of associated KPIs are included within Table 51 below.

Table 51: Travel Plan Monitoring and Reporting Schedule

Travel Plan area/mode	Key Performance Indicator subject	Description	Monitoring mechanism	Frequency of monitoring /reporting
Travel Plan Update	Staff and student response rate	To ensure a high enough response rate to be able to make appropriate comparisons.	Report to the Travel Plan group	Annual
Travel Plan Targets	Staff and student mode share statistics	Mode share % for travel to campus 3 days per week or more:	Annual survey, analysis and report to the Travel Plan Group	Annual
Travel Plan Targets	Staff and student incremental change in mode share	Travel log – Typical week mode share % for daily travel to campus:	Annual Travel survey, data analysis and report to the Travel Plan Group	Annual
Active Travel	Active travel scheme members KPI	To capture and report the total number of active travel scheme members each academic year (both staff and students).	Report to Travel Plan Group	Quarterly

	Secure cycle parking occupancy KPI	To undertake a quarterly survey of cycle parking occupancy (total number of parked bikes vs total number of cycle parking spaces). This will help identify areas of the campus which are approaching capacity or maybe underutilised.	Report to Travel Plan Group	Quarterly
	Uptake of cycle training KPI	To monitor uptake and assess value for money.	Report to Travel Plan Group	Annual summary
	Participation in Dr. Bike sessions/Bike tagging sessions KPI	To monitor uptake and assess value for money.	Report to Travel Plan Group	Annual summary
Public Transport	Discounted bus tickets purchased	To assess success of discounted bus travel in encouraging bus travel.	Report to Travel Plan Group	Annual summary
	Bus waiting facilities audited.	To maintain quality of bus waiting facilities in university vicinity and to ensure that any specific issues are reported to the City Council.	Report to Travel Plan Group	Annual summary
Car Travel	Number of annual staff parking permit applications KPI	To assess the demand for university parking	Report to Car Parking Steering Board and Travel Plan Group	Monthly
	Number of flexible staff parking sessions KPI	To assess the demand for flexible parking use and to consider potential changes in how staff parking is allocated (annual permit spaces vs flexible parking spaces)	Report to Car Parking Steering Board and Travel Plan Group	Monthly
	Car share KPI's	- Number of car share members - Number of members actively in a car share team - Number of dedicated car share bays occupied at 9am (to establish capacity levels) - Total estimated carbon savings form car sharing.	Report to Travel Plan Group	Quarterly

Car Usage	Number of students bringing cars to Cardiff	To understand the impact of student car ownership on local neighbourhood issues	Report to Travel Plan Group	Annually
Scope 1 Emissions	Fleet vehicle operation KPIs	- Annual milage - Annual Carbone Emissions (CO2e/tons)	KPI to Travel Plan Group and EMS Group	Quarterly
General	Changing Steps Cardiff	- Total active users signed up - Total calories burned from active travel participation - Mode share data on journey undertaken and distance by mode - Estimated carbon emissions saved through sustainable travel journeys recorded - Heat Map data for walking and cycling routes	KPI to Travel Plan Group	Quarterly