



University of Edinburgh Integrated Transport Plan 2017 - 2021

This Plan sets out how The University of Edinburgh will achieve its vision that by 2021 our students, staff and visitors will be able to access our Estate by the mode of transport best suited to their needs.

The Plan supports the University's strategic objective of leadership in learning through facilitating equitable access to a variety of affordable transport options designed to enhance the student and staff experience. It supports our Equality and Diversity Strategy by committing to the delivery of actions that will improve access for all. It supports our Estates Vision and recognises that our dispersed teaching and research estate, together with the likelihood that new student residences will be more geographically spread across the city as the University grows, will present significant transportation challenges for our students and staff. The University also recognises that transport makes a significant contribution to our carbon footprint and local air quality. The University Climate Change Strategy 2016 - 2026 lays out a comprehensive whole institution approach to climate change mitigation and adaptation in order to achieve its ambitious target of net zero carbon by 2040. Reducing carbon emissions from commuting and business travel will make an important contribution to this target. Since 2000, we have successfully reduced the proportion of staff who travel by car from 40% to 27%, and students from 9% to 6%. The majority of our students and staff choose to walk, cycle or use public transport and actions within this plan will support growth in travel by these methods. Student feedback is clear that the University must do more to improve the accessibility of the estate by all modes of transport, but with a particular emphasis on public transport. It is acknowledged that for some individuals, such as disabled people, accessing our Estate by car or wheelchair is the only available option. To achieve the targets below engagement with Lothian Buses, EAUC¹, EUSA, Sustrans, SEStrans², staff and students will be essential.

Targets to be achieved by 2021

1. Increase the proportion of staff travelling on foot to University to 30% (25% in 2016) and students to 60% (57% in 2016). *(New Target)*
2. Increase the proportion of students and staff cycling to University to 15% (from 13% in 2016) *(to match Edinburgh Council Local Transport Strategy Target.)*
3. Through negotiation with Lothian Buses, seek to introduce a number of student ticketing options better suited and priced to the needs of our students.
4. Public transport provision to and between University sites regarded as good to excellent by 75% of our student and staff users as measured in our bi-annual travel survey. *(new target)*
5. Reduce car driving to 29% or less at each University campus. (excluding Easter Bush) *(to match Edinburgh Council Local Transport Strategy Target)*
6. Increase the proportion of parking permit holders using an electric vehicle from 0.4% in 2016-17 to 2%. *(new target)*
7. Increase the proportion of electric vehicles in the University fleet from 4% in 2016-17 to 30%. *(new target)*

The background and context for the Plan, including the City of Edinburgh Council Local Transport Strategy targets, is provided in Appendix 1A.

¹ Environmental Association of Universities and Colleges

² South East Scotland Transport Partnership

Access for disabled students, staff and visitors

This Plan has been developed to ensure that the Estate is welcoming and accessible for disabled people using their preferred means of transport. Where appropriate, actions set out in this Plan will be developed and implemented in consultation with the Student Disability Service and disabled students and staff to ensure that they improve access for disabled users.

Site Travel Plans

Travel Plans are an essential component of planning, developing and managing our Estate, as well as a requirement of planning consent. We have Travel Plans for bioQuarter, Central Area, Easter Bush, King's Buildings and the Western General. Each Travel Plan assesses the travel characteristics of each site and identifies a package of actions that will encourage more sustainable travel behaviour. New Travel Plans will be prepared for each site that would support the delivery of the following actions:

On foot (including jogging and mobility scooter)

Walking, jogging or using a mobility scooter is the most popular mode of transport to commute to the University. The 2016 travel survey recorded 48% of students and staff travel on foot or by mobility scooter each day. Analysis of where our students and staff live in relation to where they study or work shows there is potential to increase the proportion of students and staff who travel on foot or by mobility scooter.

Target	By 2021, increase the proportion of staff travelling on foot to University to 30% (25% in 2016) and students to 60% (57% in 2016).
---------------	---

On foot		
Actions		
F1	Provide and maintain safe accessible routes to and within University sites	We will review our existing pedestrian infrastructure identifying and taking action to create safe routes, accessible for disabled students, staff and visitors. Careful consideration will be given to: the inter-relationship of cyclists and pedestrians to ensure the appropriate use of shared and segregated paths and; the type of surfacing used to ensure it is accessible for users with a disability.
F2	Implement a pedestrian signage strategy	We will liaise with the City of Edinburgh Council to develop and implement a clear and fully accessible pedestrian signage strategy to connect our main sites.
F3	Provision of information to support and encourage walking	We will design accessible communications and initiatives that raise the profile of walking as a means of commuting and travelling between sites, which highlight the signposted routes and the personal benefits of walking. These actions will be developed in conjunction with The Healthy University Project.

Cycling

Cycling is the regular method of travel for 13% of our students and staff to commute to University. This is a community of at least 6,500 regular cyclists making an important contribution to reducing carbon emissions, air pollutants and traffic congestion.

Target	By 2021, 15% of staff and students will be cycling to work and study (up from 13% in 2016).
---------------	--

Cycling		
Actions		
CY1	Improve cycle routes to, between and within our sites	We will work with our local authorities to identify where cycle routes need to be invested in to support access to and between our sites.
CY2	Increase cycle parking as well as shower and changing provision	We will ensure that the Capital Development Programme (CDP) incorporates high quality cycle parking, shower and changing facilities to support the target of 15% of staff and students cycling to the University by 2021. Where possible these facilities will be combined to create cycle hubs for one or multiple buildings. More cycle parking, shower, locker and changing facilities will be delivered and investment will be guided by the University's 2014 cycle infrastructure audit.
CY3	Provide vacation time cycle storage	We will develop a solution to the lack of cycle storage provision during vacation periods, for students unable to take their bikes home with them. The current lack of provision is a disincentive to cycling at the University.
CY4	Relaunch the Cycle to Work salary sacrifice scheme for staff	We will relaunch the existing scheme that has seen 1375 bikes purchased by staff since 2008. The scheme provides an important financial incentive for staff to commute to work by bike.
CY5	Continue to provide affordable access to bikes	We will, following a careful evaluation of the impact and cost of providing the eCycle (electric bikes) and UniCycle (student bike rental scheme), further develop these and actively pursue an alternative model cycle hire scheme.
CY6	Provide more opportunities for cycle training	We will provide guidance, advice and training on cycling safely and promote cyclist awareness amongst vehicle drivers. We will promote equality and diversity in cycling by encouraging and supporting participation in training from minority groups.
CY7	Work with the Healthy University Project	We will work with the Healthy University Project to broaden participation in cycling amongst students and staff as a means to increasing activity levels.

Public Transport

We have approximately 12,000 regular bus users and 2,500 regular rail users amongst our students and staff. As well as the journey to work and study, our students and staff also need to travel between our sites to meet their academic timetable or business responsibilities.

Buses

Edinburgh has an excellent public bus network, operated by Lothian Buses, and supplemented by other operators. As we continue to invest in the Estate, we will work with public bus operators to serve increasing student and staff passenger numbers and demand for services late into the evening and at weekends. To date the University's approach to addressing the access requirements of students and staff has been on a site-specific basis which has introduced inequalities in the level of support offered. At King's Buildings a dependency on the free shuttle bus service (paid for by the University) has evolved. This shuttle bus service remains the only free shuttle bus service provided between University campuses. Demand for this shuttle has grown massively from the initial intention of providing rapid inter-campus travel for a small group of students to meet their academic timetable needs. It is now used for commuting at key points of the day for a small proportion of the 50,000 students and staff who live close enough to the central area pick up point. Transferring demand from this service to other methods of travel will improve the fairness of the transport offering to all students, an issue consistently highlighted by students. At Easter Bush, Western General, and the bioQuarter we will work with our partners and local organisations to improve the range, frequency, capacity and affordability of public bus services connecting to and between the sites.

Our students tell us that they would be more inclined to use public transport on a regular basis if discounted fares were offered (Figure 1, Appendix 1A). We will work with Lothian Buses to secure more financially attractive public transport fares for students.

Rail

Rail use is comparatively low, with just 5% of students and staff travelling by rail as their usual means of commuting. This reflects the fact that Edinburgh has a very limited local rail network and that the majority of our students and staff live within Edinburgh. Students and staff travelling by rail are commuting from Fife, the Lothians and Glasgow.

Target	Through negotiation with Lothian Buses, seek to introduce a number of student ticketing options better suited and priced to the needs of our students.
	Public transport provision to and between University sites regarded as good to excellent by 75% of our student and staff users as measured in our bi-annual travel survey. Increase percentage of staff and students using public transport from 29% to 32% in line with CEC target.

Public transport		
Actions		
PT1	Aim to secure a financially attractive student public bus ticketing product	In partnership with Lothian Buses, we will seek to introduce ticketing products that provide the flexibility students require, at a cost to the student that offers value for money. To support Widening Participation we will endeavour to find appropriate means to introduce accessible ticketing for students from financially disadvantaged backgrounds and students experiencing financial difficulties. These products and initiatives will be available for all undergraduate and postgraduate students, regardless of their study location.

PT2	Review the capacity problems on the KB Shuttle Service from 2017-18	We will address the issue of the lack of capacity on the KB Shuttle Service to meet the current level. Any solution will continue the principal of providing free travel between our two main campuses for those with an academic need for urgent inter-campus travel.
PT3	Work with public bus operators to agree bus service enhancements	We will work with bus providers to enhance services to all University sites to better meet the commuting and inter-site travel needs of our staff and students.
PT4	Ensure academic timetabling considers public transport accessibility	We will work with the Timetabling Unit to ensure that the constraints of public transport connections between all University sites and the timetabling of the KB shuttle are considered and prioritised when developing the academic timetables of students.
PT5	Improve public transport information provision	We will improve public transport information provision acknowledging the diverse expectations and requirements of different user groups, including disabled users.
PT6	Engage with the development of the tram network	We will continue to engage with the City Council's ongoing plans to develop the Edinburgh Tram network.
PT7	Engage with rail operators	We will engage with rail operators to improve commuter services and ticketing options, and aim to develop schemes to attract more staff to switch from road to rail.

Reducing car travel

Over the last 15 years the University has successfully reduced the proportion of staff and students who commute by car, by supporting and encouraging a shift towards walking, cycling and public transport use. The proportion of students and staff travelling by car is now very low at 9% and well within the City of Edinburgh Council Local Transport Strategy target of 29%, though this varies between our sites (Table 2)

Table 1: Proportion of car journeys to work or study at the main University sites (2016 travel survey)

Site	Car mode share
Central Area	7%
Pollock Halls of Residence	47%
King's Buildings/Royal Observatory	15%
RIE/QMRI, BioQuarter	22%
Western General Hospital	21%
Easter Bush Campus	50%

Target	Reduce car driving to 29% or less at each University site by 2021 (excluding Easter Bush)
---------------	--

Car travel		
Actions		
C1	Evaluate and adapt the University's Parking Management System	We will continue to evaluate and adapt the Parking Management System on a site by site basis to manage a decreasing provision of car parking in a manner that best supports the business continuity of the University.
C2	Ensure the provision of accessible disabled parking bays	In line with the Estates Accessibility Policy, we will ensure all new and existing buildings include a proportionate allocation of disabled parking spaces (where planning legislation requires), accompanied by accessible and clearly signposted routes to our buildings.
C3	Review parking permit charges	We will review the levels of car parking charges at each campus on an annual basis.
C4	Review of business travel by private car	We will conduct a review of business travel by private car to understand the health and safety issues the University may need to address, and the environmental and financial impacts of the use of private vehicles to conduct University business.
C5	Promote short term vehicle hire	We will continue to work with Enterprise Car Club to consider opportunities to host more Car Club vehicles on University sites and work to increase staff membership of the scheme.
C6	Increase membership of the Tripshare scheme	We will prepare annual communication plans to promote Tripshare and increase membership of the scheme.

Low Carbon Vehicles

The University has publicly declared its intention to address the challenges of climate change and reduce its carbon footprint by signing the Universities & Colleges Climate Commitment for Scotland. In Scotland the transport sector contributes 20% of the nation's total carbon footprint, and therefore has an important role to play in contributing to carbon reduction.

The Scottish Government has committed to the phasing out all petrol and diesel fuelled vehicles in our urban environments by 2050. This ambition aligns with the emissions target set in The Climate Change (Scotland) Act 2009 of achieving at least an 80% reduction in greenhouse gas emissions by 2050. The University has acted in support of this through its ambitious Zero by 2040 target.

Targets	2% of University parking permit holders will drive an electric vehicle by 2021 (from a baseline of 0.4%, and actual numbers of 10 vehicles in 2017 to 50 vehicles in 2021)
	30% of the University fleet will be electric by 2021 (from a baseline of 4% in 2017)

Low carbon vehicles		
Actions		
LCV1	Increase the provision of electric vehicle chargers across the Estate	We will install an additional 50 charge points to supplement the current 21 within University car parks across the estate for students and staff who commute by electric vehicle. We will install a sufficient number of charge points to support the target growth in the number of electric vehicles within the University fleet. These infrastructure improvements will be funded through existing government grant schemes.
LCV2	Commitment to providing free access to charge points	We will ensure that staff and student car park permit holders using electric vehicles will be provided with free access to charge points until 2021.
LCV3	Commitment to provide free parking permits for electric vehicle drivers	We will encourage staff and students to purchase electric vehicles by maintaining the free electric vehicle parking permit until 2021, subject to meeting parking permit eligibility requirements.
LCV4	Counteract misconceptions about electric vehicles	We will prepare a communication plan targeting parking permit holders and Vehicle Coordinators that aims to provide the facts about the benefits of owning or leasing an electric vehicle. We will organise events to provide students, staff and Vehicle Coordinators the opportunity to try vehicles and speak to manufacturers.
LCV5	Undertake a fleet review	We will undertake a fleet review to identify opportunities to reduce the size of the fleet, improve the fuel efficiency of the fleet and switch to lower and zero carbon vehicles.
LCV6	Provide access to electric vehicle driver training	We will ensure all drivers of University electric vehicles undergo electric vehicle driver training, and provide opportunities for students and staff to access this training.
LCV7	Increase the use of electric and low carbon vehicles in vehicle hire	We will work with our vehicle hire suppliers and the Enterprise Car Club to provide opportunities for staff hiring vehicles for business journeys to use electric and low carbon vehicles.
LCV8	Carry out a feasibility study for a salary sacrifice scheme	We will investigate opportunities to offer a salary sacrifice scheme for staff to purchase electric and low carbon vehicles.

LCV9	Provide access to fuel efficient driver training	We will provide all authorised drivers of diesel/petrol University vehicles with Fuel Efficient Driver Training.
LCV10	Introduce fuel efficient technologies to the fleet	We will implement fuel efficiency technologies into the fleet as deemed appropriate by the Fleet Review.

Monitoring and Review

We will review progress toward our planned targets utilising the following data collection exercises and we will prepare an annual action plan to work towards achieving all the targets within this plan by 2021.

Student and Staff Travel Surveys

We will continue to monitor how our students and staff commute to study and work through bi-annual University-wide travel surveys. The survey will continue to collect data that will allow us to assess our progress towards the 2021 targets. The survey will continue to collect data to enable the calculation of an estimate of the University's Commuter Travel Carbon Footprint. This information will be used to contribute to the monitoring and evaluation of the University's Climate Change Strategy 2016-2026.

Car parking permit review

Progress towards increasing the proportion of electric vehicles used by student and staff car parking permit holders will be monitored on an annual basis through an analysis of parking permit applications to identify the number of electric vehicle parking permit holders.

Fleet Review

Progress towards increasing the proportion of electric and low carbon vehicles in the University fleet will be monitored on an annual basis.

Appendix 1

Context and Background Information

The University of Edinburgh has 36,500 students and 13,500 academic and support staff (9,500 FTE) working and studying across five main campuses. With our sites dispersed across the city and into Midlothian, and a teaching timetable that requires students and staff to move between sites during the course of the day, we collectively place significant demands upon the City of Edinburgh and south east Scotland's transport infrastructure. These travel demands make a contribution to traffic congestion, air and noise pollution as well as carbon emissions. The quality and provision of transport infrastructure directly impacts on the student experience and operation of the University. Student, staff and the Student Disability Service feedback is clear that the University must do more to improve the accessibility of the Estate by all methods of transport, but with a particular emphasis on public transport.

Travel policy at The University of Edinburgh

The University has had a sustainable travel policy in place since 2000, which was updated and adopted by Court in 2010 as the Transport and Travel Planning Policy³. The policy plays a vital role in supporting capital development planning applications. A key target for the University has been to “*exceed travel to work mode share targets, set out in the City of Edinburgh Council's Local Transport Strategy, that are relevant to specific University sites.*”

This Integrated Transport Plan 2017-21 has been developed to contribute to the objectives of key University strategies and policies. The University of Edinburgh Strategic Plan 2016 sets out our vision to be a truly global university, rooted in Scotland's capital city, making a significant, sustainable and socially responsible contribution to the world. The Strategic Plan commits to improving the local environment, ensuring sustainability and accessibility are built in to our estates, energy and transport policies and practices.

The University's Estate Strategy sets priorities for the estate that take seriously our social and environmental responsibilities. It specifically recognises the significant contribution that student and staff travel makes to the University Carbon Footprint, and commits to extending the range of measures already in place to encourage and facilitate sustainable travel.

The Integrated Transport Plan will contribute to the University's Zero by 2040 Climate Strategy. The actions to reduce car use, and promote active travel for the journey to work / study, inter-site travel and local business journeys will contribute to the ambitious carbon reduction target.

The Plan also supports our Equality and Diversity Strategy by committing to the delivery of actions that will improve access for all.

Understanding how we travel

The Integrated Transport Plan 2017-21 was prepared following a review of existing travel behaviour and the travel policies and measures the University has implemented.

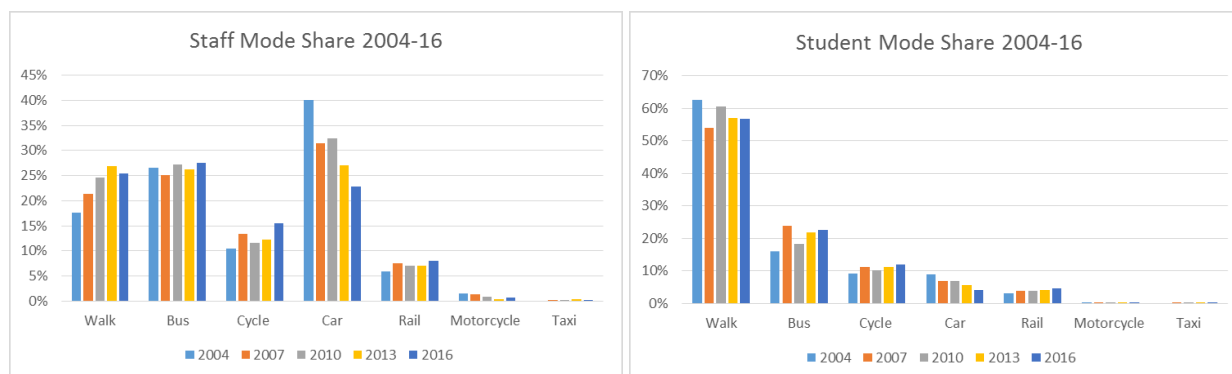
Travel Surveys

To monitor the effect of the travel policy and progress towards targets the University has undertaken travel surveys since 2004. Since 2007 the travel survey has collected data to provide an estimate of the overall carbon footprint for commuter travel at the University.

³ University of Edinburgh Transport and Travel Planning Policy (2010):
<http://www.docs.csg.ed.ac.uk/EstatesBuildings/Transport/Policies/Transport%20and%20Travel%20Policy%202010.pdf>

Travel behaviour change

Since 2004 the proportion of staff using a car to commute to work has decreased from 40% to 23%. A greater proportion of staff now walk, cycle or travel by rail. In 2004 just 9% of students travelled by car, and by 2016 this had reduced to 5%. Over this time period the proportion of students using public transport, shuttle buses and cycling that has experienced growth.



Collectively the travel behaviour of our students and staff provides an overall mode share to compare against our target to exceed the City of Edinburgh Council's Local Transport Strategy (LTS) Mode Share Targets for 2020 (Table 1). The Council's targets are to increase walking, cycling and public transport and to reduce car use. The proportion of students and staff walking to University is far in excess of that of the Council's targets for 2020, and we have a significantly lower mode share for car use than has been set for the city. The only mode falling short of the target overall is cycling.

Table 1: City of Edinburgh Local Transport Strategy (LTS) transport method targets compared to University actual transport method share

Mode	City of Edinburgh Council - Travel to work mode share target 2020	University of Edinburgh Mode share 2016 (student & staff)
Walk	21%	48%
Cycle	15%	13%
Public Transport	32%	29%
Car	29%	9%
Other	2%	1%

On foot (including jogging and mobility scooter)

Walking, jogging or using a mobility scooter is the most popular mode of transport to commute to the University. The 2016 travel survey recorded 57% of students and 25% of staff travel on foot to University each day.

We encourage students and staff to travel on foot for the following benefits:

- Improved health and wellbeing
- Zero carbon emissions and other air and noise pollutants

Every student, member of staff, and visitor to the University accesses our estate on foot, whether that be for the whole journey, or from the bike parking space, the bus stop, rail station or car parking space. It is therefore critical that our buildings are easily and safely accessible on foot and by disabled people. The University will continue to develop an estate with clearly defined and signposted pedestrian access routes within a high quality public realm.

We will meet our 2021 target to increase the proportion of students and staff travelling on foot by implementing actions under the following themes:

Accessible routes

We will review pedestrian infrastructure within our Estate to identify and take action to ensure we have safe, accessible and legible routes. This will include the implementation of a signage strategy. We will work with the local authorities to ensure our pedestrian infrastructure connects with the local network, and identify where improvement is needed.

Support and encouragement

We will support and encourage students, staff and visitors to walk to the University through the development of communications and initiatives that raise the profile of walking as a healthy, enjoyable, zero carbon, zero cost way to travel to and between our sites.

Cycling

The popularity of cycling as a means of commuting to the University and across the city in general is experiencing growth, and this is attributable to a range of factors. The 2016 Travel Survey recorded that 13% of students and staff cycle to University. We have an excellent track record of providing infrastructure to support cycling, together with initiatives to encourage cycling including bike hire schemes, free bike maintenance and a cycle to work scheme for staff.

We will meet our 2021 target to increase the proportion of students and staff cycling by implementing a series of actions under the following themes:

Quality Infrastructure

Quality cycling infrastructure is fundamental to supporting and encouraging more people to cycle. This means convenient and accessible routes that feel safe and enjoyable to use, combined with the right facilities at the end of the journey to securely store a bike and the opportunity to shower and change. We will work with the local authorities to improve cycle routes to our sites, and incorporate the provision of quality cycle routes through our estate as part of the delivery of public realm master planning. The University's Capital Development Programme (CDP) will incorporate the provision of cycle hubs (high quality cycle parking, shower and changing facilities). In addition there will be a 4 year investment of c. £350k (funding already agreed) to increase provision for the wider estate. We will also ensure that the provision of infrastructure is effectively communicated through the development and provision of signage and route maps.

Affordable access to a bike

To encourage more students and staff to cycle they need easy and affordable access to a bicycle. Opportunities to try cycling before making the financial commitment of ownership can help individuals experience cycling and make an informed choice. Over the last 2-3 years the University has introduced a student bike hire scheme called UniCycles, and an electric bike pool scheme for staff called eCycle. We will evaluate both schemes and determine the longer term viability of further developing and operating bike hire schemes for the University. We are aware that the local authorities and transport operators are actively considering options to provide a bike hire scheme for the city. It is likely that there will be opportunities for the University to be closely involved both in terms of hosting hire facilities and utilising the scheme.

Training

Our students and staff tell us that one of the barriers to taking up cycling is a lack of skills and confidence cycling in traffic. We will continue to provide opportunities for students and staff to receive cycle training, working with the Healthy University project to increase participation. In encouraging our students and staff to cycle we also have a moral obligation to ensure they are

informed and educated about how to do so safely and with regard to the safety of other road users. The University has a duty to ensure that staff driving on University business are doing so with consideration to cyclists and that they directly contribute to making on-road cycling feel safer.

Community

The importance of peer to peer support and encouragement should not be underestimated in widening participation, particularly given the size and structure of the University. Our four existing Bicycle User Groups (BUGs) offer an opportunity to work with a community of cyclists to nurture a culture of participation. The Healthy University Project is aiming to encourage physical activity amongst our students and staff.

Through the project we have an opportunity to widen the support we provide to encourage our students and staff to cycle both as a means of commuting and increasing their physical activity levels.

Public Transport

Our 2016 Travel Survey shows that public transport use (including free shuttle bus services) is 4 percentage points below the City of Edinburgh Council LTS target of 32% for 2020. This is because the majority of students and staff walk or cycle, and we have a very low proportion of car users at just 12%.

The 2016 Travel Survey asked students and staff who do not currently use public transport (excluding walkers and cyclists), what would encourage them to use it on a regular basis (Figure 1&2). The most popular measure selected by 21% of students was “discounted travel”, whereas for staff the most popular measure was “reduced journey time” (21%).

Figure 1: Results from the 2016 University of Edinburgh Student Travel Survey (3500 responses)

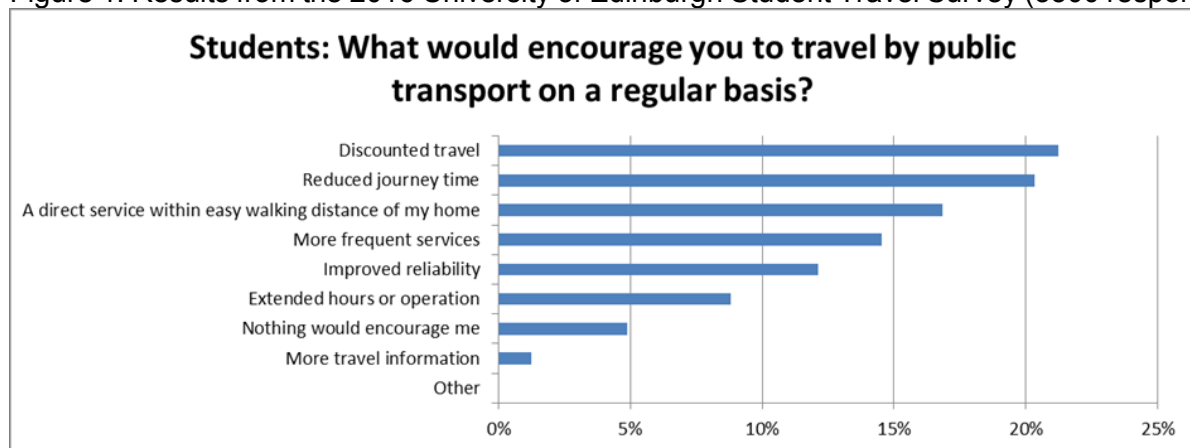
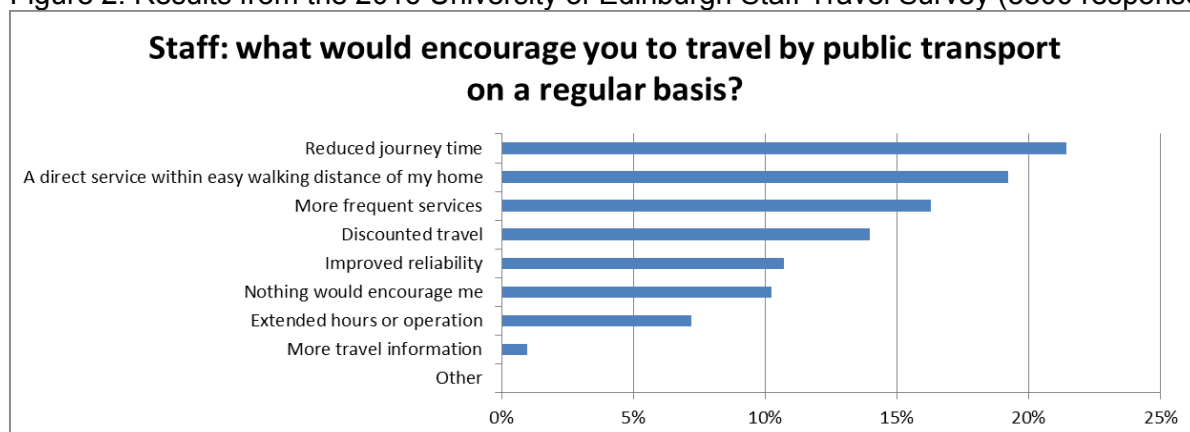


Figure 2: Results from the 2016 University of Edinburgh Staff Travel Survey (3800 responses)



The growing opinion amongst students is that public bus fares are too expensive, and that there should be both a cheaper student single bus fare, and cheaper season tickets.

To date the University has taken a non-strategic, site specific approach to the provision of public transport that has produced large inconsistencies across the University. The existing approach is inequitable because some students and staff benefit from access to free bus transport, but others have to pay. The free shuttle service connecting Central Area and King's Buildings has grown well beyond its original remit to provide inter-site travel to support the academic timetable of a small group of students and staff. The capacity and operation of the service has grown to such an extent that it is now relied upon for commuting journeys from home to place of work or study. This is primarily because users are attracted by the free fare - alternative public transport is available.

Elsewhere in the estate the University has worked with Lothian Buses to provide adequate public bus transport to enable the vast majority of students and staff to commute to their place of work / study, by paying the normal public bus fares. The only exception being that Undergraduate students of the Vet School receive a subsidy for their bus transport costs reflecting the greater distance they must travel to Easter Bush compared to other University sites. The University also provides a subsidy to Lothian Buses to support the continued operation of the Service 67 which serves Easter Bush, without which Lothian Buses would withdraw the service due to it being financially unsustainable.

As the University Estate continues to develop and expand we will place an increasing demand upon the public transport network. It is also increasingly likely that new student residences will be more geographically spread across the city, which will mean that more students will require access to quality, affordable public transport.

It is imperative that the University adopts a strategic approach to the provision of public transport that addresses the inequality of the provision of free or subsidised travel, secures cheaper public bus fares for students, improves access to bus services, and considers the longer term development of the Estate. Extensive consultation regarding bus service access was undertaken across the University during 2015 to support the development of the public bus actions contained in this plan, which will be implemented under the following themes:

Providing attractive student public bus ticket products

Supporting and encouraging our students and staff to use public transport for commuting and inter-site travel offers a sustainable strategy to support our growing University. To support Widening Participation we will endeavour to find appropriate means to introduce accessible ticketing for students from financially disadvantaged backgrounds and students experiencing financial difficulties. These products and initiatives will be available for all undergraduate and postgraduate students, regardless of their study location. The University will work with the higher and further education sector in Edinburgh and the Lothians to convince Transport for Edinburgh and Lothian Buses to offer lower-priced, affordable student ticket products. Following student feedback that pay as you go options are favoured over pre-paid season tickets, there will be a particular emphasis on securing a cheaper single fare for students.

Reduce dependency on the free King's Buildings Shuttle Bus Service

The free King's Buildings Shuttle Service has outgrown the original remit to provide inter-site travel for a small, defined group of students and staff with an urgent requirement to travel between sites to meet their academic timetable. It is now also being used as a free commuter service and for non-urgent inter-site travel, and is unable to provide for the demand being placed on it.

The King's Buildings Masterplan aims to consolidate College of Science and Engineering teaching to the King's Buildings site by 2030. This would dramatically reduce the number of students and staff requiring to travel between Central Area and King's Buildings, and therefore the dependency on the Shuttle Bus Service for inter-site travel. Analysis undertaken by Timetabling Services indicates that based on the 2016-17 academic timetable this would remove 1,200 instances per day of students requiring to travel between Central Area and King's Buildings. The timeline for the implementation of the specific elements of Masterplan is to be determined, and it is therefore not possible at this time to determine exactly when consolidation of teaching will be delivered. The operation of the Shuttle Bus Service will be reviewed alongside the delivery of the masterplan, with the expectation that it will be gradually scaled back as inter-site demand reduces. Equally, the operation of the service during peak commuting times (pre-10am, post 4pm) will also be reviewed alongside the introduction of cheaper student bus fares, with the ultimate aim of students utilising more accessible public bus services to commute to King's Buildings.

In the short term, there is a requirement to resolve the capacity issues on the Shuttle Bus Service, to ensure that students and staff can travel between their academic and business commitments across King's Buildings and Central Area. Additional capacity was provided through allowing staff and students free use of the pre-existing public bus Service 41 for a trial period during Semester 2, 2016-17. Evaluation of this trial has shown that the costs associated were 350% higher than those of simply increasing shuttle bus capacity for the same period. Data from the trial also showed that the use of the 41 caused a further increase in demand rather than just providing additional capacity to the shuttle service, and resulted in capacity problems on the service 41.

Improving public bus services

The growing number of students and staff will place an increased requirement for additional capacity and potentially new routes on the public transport network.. We will maintain and develop our positive working relationship with Lothian Buses to plan public transport routes and enhancements alongside the implementation of the Estate Strategy.

Considering public transport access when developing the academic timetable

The University supports students who wish to pursue cross-curricular studies, but this does increase the likelihood that students have to travel between University sites to attend courses being delivered by different schools. Unfortunately, the dispersed nature of the Estate means that it can be physically impossible to attend consecutive lectures or tutorials without having to leave early or arrive late. The Personalised Timetable Service launched in 2016-17 will eventually offer students the ability to select optional modules and we will seek to ensure that travel implications and recommendations are included as part of this service.

Improving public transport information

The needs and expectations of our students and staff are diverse, and the provision of information on bus travel should reflect this. We will work with bus operators and transport authorities to improve access to public transport information, and consider how our own communication channels can be utilised.

Tram

Alongside actions to improve public bus provision we will continue to engage with the City Council's ongoing plans to develop the Edinburgh Tram network.

Rail

The highest rail transport share amongst students and staff is within the Central Area, which is within walking distance of Waverley Train Station. In the Central Area 28% of staff and 12% of students live outwith the city boundary, yet just 10% of staff and 5% of students commute by rail. There is an opportunity in the Central Area to grow the proportion of students and staff

commuting by rail, however commuter rail travel is considered to be expensive, often overcrowded and unreliable.

As a major employer in the region we will convey the concerns of our students and staff to rail operators and seek to secure better services, more attractive season ticket deals and better information provision. We have already initiated discussions with Scotrail to introduce an incentive scheme to attract more staff onto rail for business travel purposes, and we intend to work with the other major rail operators to develop similar schemes both for business and commuting.

Reducing car travel

As the University Estate continues to grow, new buildings will be delivered across all of the main sites, accompanied by limited or zero provision of car parking (reflecting local and national government planning policy). The ratio of car parking spaces per student/staff will reduce to reflect this.

The strategies to encourage walking, cycling and public transport use are essential to support our students and staff to switch from car use.

Providing quality alternatives to the car does not necessarily address all of the reasons why people come to rely on the car as their main mode of transport. Other factors such as the overall cost of car travel versus public transport, the need to travel by car during the working day for business reasons, or to care for dependents must also be considered.

We will implement actions to reduce dependency on car use, with a particular focus on sites that are not yet within the City of Edinburgh Council Local Transport Strategy target of 29%. This target will not apply to Easter Bush Campus, which is outside the City of Edinburgh Council area and does not benefit from the same levels of walking, cycling and public transport access.

The University will continue to reduce and manage car dependency under the following themes:

Parking management

Parking management plays a critical role in encouraging a switch to sustainable methods of travel. The University's Parking Management System assigns parking permits based on the individual applicant's need to drive to work or study. It has been used successfully to manage the reduction in parking spaces in the Central Area, ensuring only those who can demonstrate a need to drive may park in University car parks. The parking management system will continue to support the development of the estate. In line with the Estates Accessibility Strategy, we will ensure all new and existing buildings include a proportionate allocation of disabled parking spaces (where planning legislation requires), accompanied by accessible routes to our buildings.

Use of personal vehicles for business travel

Just under 60% of University staff permit holders state they require to bring their car to work for business travel purposes for more than 5 days per month. If the business need for a car can be reduced or eliminated then so can the need to commute by car. The use of personal vehicles for business use is commonly referred to as the "Grey Fleet".

Actions set out in the public transport, walking and cycling plans will serve to support and encourage staff to utilise these alternative modes for business travel. Such alternative modes are not always appropriate, and in some instances the car offers the most practical method of transport. For staff with a daily requirement to use a car for business, their own vehicle offers the most practical solution. It is also the duty of the University to ensure that work related

journeys are safe, staff are fit and are competent to drive safely and the vehicles used are fit for purpose and in a safe condition.

Staff with a less frequent need could instead use Enterprise Car Club or short term car rentals, which may work out cheaper per mile than grey fleet mileage, and produce lower CO₂e emissions as the average age of hire vehicles is lower than that of privately owned vehicles.

Low Carbon Vehicles

The decarbonisation of road transport in Scotland is to be achieved in part through the mass adoption of plug-in electric vehicles, powered by renewable energy. The Scottish Government is also supporting the adoption of emerging low or zero carbon technologies including hydrogen fuel cell vehicles.

The Scottish Government is working with public and private sector organisations to provide the financial incentives and support to switch to low or zero carbon vehicles. From 2015-20 the Government will be focusing on: creating a public network of charge points; supporting the uptake of home recharging facilities; and providing charge points in the workplace.

To date the University has accessed Scottish Government funding to install twelve public electric vehicle charging points. These are located in the Central Area, King's Buildings and Pollock Halls. The charging points form part of a Scotland-wide network of public charging points.

The targets will be delivered by actions under the following themes:

Commuting

There are approximately 2,600 University parking permit holders using combustion engine cars (with the exception of 10 electric car drivers). The 2016 Travel Survey report estimates that just over 7,000 tonnes of CO₂e are emitted annually by the vehicles used by students and staff who travel to work and study by car.

As an incentive to use an electric vehicle, students and staff who are eligible for a parking permit and have an electric vehicle do not pay to park at the University, nor are they charged a fee to charge their vehicle using one of the University charge points. There are currently 10 electric vehicle permit holders. The existing provision of charging points is adequately serving these permit holders who require the certainty of being able to charge their car at their workplace.

In order to support the target to grow the number of electric vehicle permit holders to 50 by 2021, the University will need to provide a similar number of charging points across the estate. The University will continue to apply for government funding to provide more electric vehicle charging points and continue to work in partnership with the City of Edinburgh Council and large employers to contribute to the development of a strategic network of charging points in the city.

The 2016 Travel Survey asked car drivers why they have not yet switched to an electric vehicle. Almost half of the respondents said that it is because the upfront costs of purchasing an electric vehicle are too high. Promoting an awareness of the cost savings from switching to an electric vehicle will help to increase their uptake. We will commit to the provision of free parking permits for electric vehicles, and access to free charging points until 2021 for our staff and students. This will provide a degree of financial certainty when considering an electric vehicle. There will be an annual review of electricity consumption and cost and the two initiatives will be reviewed in 2020. We will also investigate the feasibility of offering a salary sacrifice scheme for staff to purchase electric and low carbon vehicles, which could offer a further 30-40% saving on the cost of purchase.

University Fleet

The University has a fleet of 143 vehicles, of varying type and fuel used, which emitted 436 tonnes of CO₂e in 2015/16 (latest data available).

Large and small diesel vans make up the largest component of the fleet at 43%. Over the last 5 years low or zero carbon vehicles have successfully entered the fleet to replace traditional diesel or petrol vehicles. These vehicles are based in the Estates Department and include 6 small electric vans, 4 petrol hybrid cars and a diesel hybrid transit van.

The Transport Office will work with University Fleet Vehicle Coordinators to undertake a review of the fleet to identify where electric or low carbon vehicles can replace petrol/diesel engine vehicles. Events will be arranged for Vehicle Coordinators to be updated on low carbon and electric vehicles, including opportunities to meet with manufacturers and test-drive vehicles.

In addition to pure electric vehicles there are a variety of low carbon vehicle technologies which may be more appropriate for some parts of the University fleet, and for staff and students. These include petrol and diesel hybrid technology, hydrogen fuel cells and Biofuels.

A substantial increase in the provision of charging points will be necessary to support the fleet. This will be addressed by continuing to secure Government funding for charge point infrastructure (in tandem with providing for University car parking permit holders).

Business travel

During 2015-16, University staff travelled 700,000km in hired vehicles for University business, emitting 130 tonnes CO₂e. We have an opportunity to work with our vehicle hire suppliers and the Enterprise Car Club to provide opportunities for staff hiring vehicles for business journeys to use electric and low carbon vehicles.

References

University of Edinburgh Strategies and Policies:

- Strategic Plan 2016
- Equality and Diversity Strategy
- Zero by 2040, Climate Strategy 2016-2026
- Estates Department Accessibility Policy 2017-19

Other:

- Local Transport Strategy 2014 – 2019, City of Edinburgh Council
- Switched On Scotland: A Roadmap to Widespread Adoption of Plug-in Vehicles, Transport Scotland