

Lancaster University Carbon Reduction

Challenging Climate and Geography The Unlikely Success of a Travel Plan

Section 1 About the project

Summary

Lancaster University Travel Plan was adopted in 2005 and has operated for eight years. The measures implemented under the plan have resulted in major changes in student and staff travel mode and dramatic reductions in carbon emissions which have fallen by 24.5%, or 2,500t/CO₂e between 2003 and 2012.

Project partners

The University has successfully delivered effective partnerships both internally and externally and engaged with both public and private sector organizations.

A close partnership with Stagecoach has successfully delivered a 132% increase in staff bus travel since 2005 and a 25% increase in student bus use over 5 years. Working with GreenLancaster as part of the Student's Union, the University has worked with a local reuse charity and a small cycle repair business to deliver reconditioned bike sales and bicycle repair services for staff and students.

Lancashire County Council and Lancaster City Council are also key Travel Plan partners in implementing sustainable transport and road safety solutions outside of the campus boundary. The University is working closely with Lancashire Constabulary in improving bicycle security.

Section 2 The results

The problem

Lancaster University is situated on a rural campus 4.5 km south of Lancaster city centre. The area is hilly and can experience inclement weather, not ideal geographical conditions for a successful Travel Plan. Prior to the Travel Plan, commuting travel options for staff and students were limited, with car commuting dominating, leading to congestion on local roads and significant parking problems on campus. These issues, together with plans to expand the campus led to the adoption of the Travel Plan.

The approach

The University has carefully implemented travel policy changes and initiatives based upon extensive student and staff travel survey findings. Comprehensive travel surveys were undertaken in 2003, 2006, 2007, 2011



Profile

Example:

- HEI
- 12,000 students (includes full and part time students)
- 2500 staff
- Rural

Category supported by



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and 2012 in order to establish travel mode baselines, modal shifts and resultant changes in carbon emissions. The surveys have also sought to understand in detail why certain travel modes are used and how alternatives could be incentivised.

The Travel Plan initially focused on reducing Single Occupancy Car Use (SOCU), to relieve parking on site and congestion on local roads and encourage use of other travel modes. Measures included:

- Introduction of a Student Car Parking Policy, limiting student ability to park on campus.
- New 'Sharedwheels' car sharing scheme to encourage car share.
- New subsidised bus service from the city's railway station and heavily promoting bus services to students and staff, including discounted 'UniRider' season tickets.
- Close liaison with Lancaster City Council Cycle Demonstration Town (LCC CDT) team to build or improve cycle routes
- Establishment of 'Green Lancaster' in conjunction with Lancaster University Students Union, which ran projects to encourage student and staff walking and cycling.

In 2010/11 the updated Travel Plan introduced significant changes to travel policies and initiatives including:

- Subsidised route-specific staff annual bus passes funded from increased parking revenues. Crucially, the bus passes are priced at less than a staff parking permit.
- A new express bus was introduced reducing travel time from Morecambe along with a package of other bus service improvements.
- Green Lancaster projects were also expanded, including a re-conditioned bicycle sales scheme in partnership with a local recycling charity, bike maintenance and termly cycle to work days.
- Significant investment has also been put into infrastructure to support bus use at Lancaster University, including £1.5 million invested in the refurbishment of Lancaster University underpass bus station in 2011.

Our goals

Through the Travel Plan, we are continuing to strive to:

- Reduce further the dependence SOCU, by encouraging alternative modes of transport.
- Help the University reduce its carbon footprint.
- Reduce parking pressure.
- Enhance public perceptions of the University and all who work there.
- Contribute to the health of all who work or use the site.
- Ensure the site is economically and environmentally sustainable.

Obstacles and solutions

Obstacles	Solutions
Securing senior management support for bold policy changes and significant new incentives for sustainable transport.	<ul style="list-style-type: none"> • Developing proposals based upon staff and student feedback through the travel surveys. • Financing subsidised staff bus travel from increased parking revenues to prevent additional costs.
Obtaining robust and reliable data for monitoring scope 3 carbon emissions associated with commuter travel.	<ul style="list-style-type: none"> • Ensuring that travel survey questions addressed the need for the carbon data requirements. • Ensuring consistency of calculation methodologies applied through the travel survey years.

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<p>Bus passes were too expensive relative to the costs of parking permits on campus.</p>	<ul style="list-style-type: none"> • UniRider bus passes have been subsidised for staff to a level below the price of the staff parking permit.
<p>Bus service provision in certain areas needed attention to realistically prove an option for staff.</p>	<ul style="list-style-type: none"> • By request of the University, Stagecoach introduced a commuter express service from Heysham to reduce journey times and diverted the Lancaster – Blackpool services onto campus to appeal to staff and students living south of the campus to travel by bus.
<p>Demand for cheap reused bicycles significantly exceeded the local supply available.</p>	<ul style="list-style-type: none"> • Partnership working with potential local suppliers to branch out their business activities to help meet the demand from students at Lancaster University.
<p>Car sharing opportunities were constrained by the lack of flexibility in the University's parking policies and the absence of any meaningful incentives.</p>	<ul style="list-style-type: none"> • Staff Car Share Permit price was significantly reduced. • A supply of free one-day parking scratchcards for car sharers to provide additional flexibility. • Removal of dedicated car share spaces in favour of allowing Car Share Permit holders to park in any available space on campus to enhance flexibility.

Performance and results

The benefits and outcomes that have so far been achieved include:

- A 24.5% reduction in total staff and student commuting carbon emissions, equivalent to a reduction of 2,507t/CO₂e.
- Staff commuting SOCU has decreased from 58% in 2003 to 43% in 2012, whilst staff bus use has increased from 9.5% to 22% over the same period
- Students commuting by bus has increased from 57% in 2006 to 69% in 2012, whilst SOCU has halved from 22% to 11%
- Staff commuting vehicle movements at morning and evening rush hours have decreased from approximately 1,450 to 1,075 between 2003 and 2012, contributing to reduced congestion on the local road network (A6).
- The highest cycle to work rate of any Lancashire employer (14.1%).
- Parking spaces allocated for staff parking have been reduced by 20.3% from 1,694 spaces in 2009 to 1,350 spaces in 2013 as these spaces have been used for development of new buildings, new bin stores, electric vehicle charging points and landscaping.
- The introduction of new bus services and increased patronage on existing bus services has resulted in Lancaster University having the highest frequency bus services for a campus University in the UK (at least 18 per hour during term time weekdays).
- Students benefit from reduced cost 'UniRider' season ticket for bus travel priced at 40% below equivalent non-student season ticket.
- Some staff have dispensed with their car entirely, due to the introduction of the subsidised bus pass!

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Section 3 The future

Lessons learned

- The benefits of a close working partnership with the local bus operator in increasing bus travel.
- The implementation of a hugely successful subsidised staff bus travel scheme despite the restrictive tax rules of HMRC.
- The importance of a 'carrot' and 'stick' approach to travel planning success.
- The usefulness of acting on information provided through staff and student travel surveys.
- Increasing the cost of staff parking permits whilst providing financial incentives for car sharing and bus use has been critical to reducing commuting carbon emissions.
- The price of the Car Share Permit and the rising cost of fuel amidst rising general staff permit costs have been the most important factors in increasing staff car sharing.
- There is a large suppressed demand for cheap used bicycles amongst students.

Sharing your project

The project has been communicated widely both internally to staff and students and externally to the local media, Lancaster City and Lancashire County Councils, the Lancaster District Sustainability Partnership, the wider HE/FE sector and various organizations involved in facilitating sustainable transport. Both the Department for Transport and Department for Health have included case studies of the Lancaster University Travel Plan in national best practice guidance documents between 2008 and 2010. At an international level, the University has shared its best practice to large public and private sector organizations in Ireland in 2012, through invitation from the Irish Smarter Travel Workplaces Network.

The University's Commuting to Campus web pages are very comprehensive and help to share the Travel Plan initiatives and achievements with others.

What has it meant to your institution to win a Green Gown Award?

Establishing sustained and significant modal shift to sustainable modes of transport and significantly reducing scope 3 carbon emissions associated with commuter travel is often regarded as difficult to achieve. Winning the Green Gown Award for Carbon Reduction is a high accolade for Lancaster University. It demonstrates that the bold steps that the University has taken to implement its Travel Plan in the way it has successfully done and reduce scope 3 carbon emissions by a substantial amount have been worth all the effort and investment. In addition, being awarded the ACT Travelwise Commuter Friendly Workplace of the Year 2011 and being shortlisted for a Public Sector Sustainability Award for the Travel Plan in 2011, the Green Gown Award now further strengthens the University's position as a sector leader in this area with the willingness to share its best practice to others.

Further information

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