Campus Travel Plan

2015-2020

Contents

Executive Summary

As a major employer, provider of learning and teaching to thousands of students and direct engagement with hundreds of businesses, Bangor University is uniquely positioned to demonstrate a high level of corporate social responsibility by ensuring that it cares for the wellbeing of staff, students and local community as well as protecting the environment.

Bangor University already demonstrates a strong commitment to sustainability and this Travel Plan aims to improve on the progress made by the University since it undertook an initial Travel Survey and options appraisal in 2009. The Travel Plan has a campus-wide focus, the primary objective is to minimise the number of single vehicle occupancy trips by staff and students to the Bangor University campus sites. The travel survey data that has been collected demonstrates that progress can be made towards reducing single occupancy car trips through introducing some relatively straight forward actions. These interventions will maximise opportunities for travel between campus sites, support recruitment and retention of staff and students by enhancing campus accessibility and they will enable more efficient on-site car parking operation.

A number of Actions have been developed to encourage the use of alternative sustainable forms of transport and decrease the dependency on single occupancy vehicle trips. Initial actions have been developed to effectively achieve these targets. Furthermore, a process for ongoing monitoring has been designed to ensure that the Travel Plan remains an effective living document that will continue to reduce single vehicle occupancy trips.

The Travel Plan specifically relates to travel to, from and between the University's seven key sites, namely:
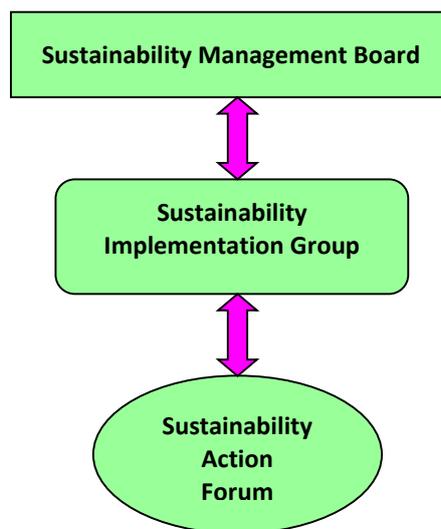
- College Road Site;
- Ffriddoedd Site;
- Dean Street;
- Deiniol Site;
- Safle'r Normal Site
- Menai Bridge
- St Marys
- Henfaes (Abergwyngregyn)
- Wrexham

1.   Introduction

## The University's sustainability led approach

1.1   Bangor University demonstrates a strong commitment with regard to sustainability, both now and looking ahead into the future. More specifically, the University currently has:

- An appointed Environmental Manager who champions various projects and initiatives to promote environmentally sustainable practices at the University;

- An established "Sustainability@Bangor" team with specific responsibilities for promoting sustainability at the University and for staff and student engagement;

- Achieved certification to both Green Dragon (Level 5) and ISO14001:2004 Environmental Standards;

- Signed up to the Gwynedd Local Service Board Carbon Footprint Project.

- Involvement in the Gwynedd Sustainable Travel Forum which helped to secure Mon a Menai Sustainable Travel Area funding;

- A physical access working group that works with the Facilities and Estates Department to ensure that accessibility to University campuses for all users.

- A Sustainability Reporting Structure which enables a wide range of consultation with staff and students to be carried out. The Sustainability Management Board is tasked with overseeing the evolution and implementation of a Sustainability Agenda for Bangor University, and reports directly to the University's Executive Committee.

Bangor University Sustainability Reporting Structure (2015)

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1.2   Travel Plan Structure

A diagrammatic representation of the interaction of the key elements of the Plan is shown below:
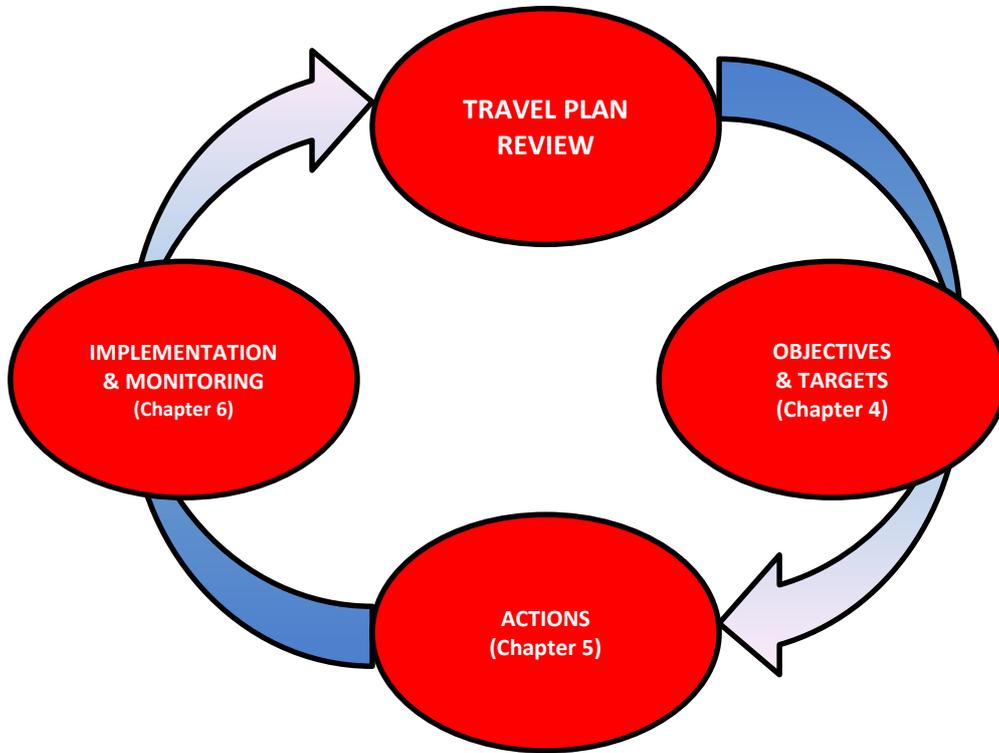
2.   Policy Context

2.1   Travel Plans are not mandatory. However by introducing a package of suitable measures, the Higher Education sector can make a valuable contribution to sustainability by encouraging its staff and students to use alternatives to single-occupancy car journeys. A travel plan can offer real benefits not only to the University's population, but also to the local community and environment that surrounds it.

2.2   In Wales, the key legislative instrument to promote active travel is the Active Travel (Wales) Act 2013, which became law in November 2013. The Act describes the Welsh Government's ambition that by 2020, 10% of everyday journeys taken in Wales will be by bike. The Act requires local authorities to continuously improve facilities and routes for pedestrians and cyclists and to prepare maps identifying current and potential future routes for their use. The Act also requires new road schemes (including road improvement schemes) to consider the needs of pedestrians and cyclists at design stage.

2.3   Bangor University's Travel Plan has been developed in accordance with the aspirations set out in this legislation, and in support of our own Sustainable Travel and Policy.

Measures Currently in Place

2.4   The University already has a number of measures in place that contribute to sustainable travel. These include:

- Car parking permit system for staff and students;

- An assisted cycle purchase (salary sacrifice) scheme for staff;

- A 20pence/mile mileage allowance for business travel for cyclists;

- A bicycle loan scheme

- Barrier control at the entrance of car parks at some locations with existing swipe card technology to access these locations;

- Parking enforcement- one full time parking enforcement officer is currently employed by the University;

- Cycle parking is available at every site, although with various level and quality of provision. For example there are no covered cycle stands at the Deiniol Road and Menai Bridge sites;

2.5   There are three video conference studios available for staff and students at Bangor University, based at the following locations:

- Dean Street (Video conferencing suite in Life Long Learning building);

- Deiniol Site - Thoday (Thoday Building, room G7); and

  College Road Site - Media (Media Centre, Hen Goleg).

3.   Travel Surveys

3.1   As part of the University's commitment to tackling the impact it has on the environment, an initial staff and student travel survey was carried out in 2009. Subsequent surveys have been carried every 2 years. .

3.2   There were 1187 responses to the initial travel survey representing a response rate of about 10%. Analysis of these responses shows that the car (41%) was the most popular mode of transport among staff and students (for travel to work/ study). Walking (30%) was second and car share (12%) third. Cycling and public transport was the mode of choice for 9% and 8% of staff and students respectively.

3.3   Further analysis of the transport survey was carried out in order to understand how mode choice changed depending on the distance away from Bangor University. The results of this analysis are summarised in **Table 3.1** below.

Table 3.1 – 2009 Travel Survey Results

Mileage	Number of Mode Users					
	Walking	**Cycling**	**Public Transport**	**Motor-cycle**	**Car**	**Car Share**
Up to 1	81%	9%	1%	0%	7%	2%
1 – 2	53%	12%	4%	0%	22%	9%
2 – 5	17%	14%	11%	0%	46%	12%
5 – 10	0%	11%	11%	0%	58%	20%
10 – 15	0%	8%	11%	1%	63%	16%
15 – 20	0%	1%	13%	1%	68%	17%
Over 20	0%	2%	13%	2%	65%	18%
Total	**30%**	**9%**	**8%**	**1%**	**41%**	**12%**

3.4   The results show that most staff and students that live within 2 miles of the University chose to walk. However, the car is by far the most popular mode for people living 2 or more miles from the site. It is also noted that the cycling figures are low at all distances.

3.5   As part of the 2009 travel survey, students and staff were also given the opportunity to leave comments regarding travel to the University. The majority of the comments were in regard to cycling; with people saying that there was a lack of cycle paths, covered/secure bike shelters and locker/changing facilities.

3.6   There were also comments regarding public transport that highlighted high ticket pricing and unreliable/irregular bus services as a reason for the low bus patronage and high use of the car.

2015 Travel Plan Survey Results

3.7   In order to monitor the modal share of staff and students for the purposes of this Travel Plan, a staff/ student travel survey is undertaken every two years, the most recent being in March 2015.

3.8   The questionnaire sought to obtain both commuting and inter-site travel mode share data, by asking a series of simple multiple choice questions. In addition, space was provided for any general comments on transport provision to and from the sites.

Responses

3.9   Overall there were 368 responses to the 2015 Travel Plan survey, which is considerably lower than the response to the initial baseline survey of 2009. A summary of the results of the survey is shown in **Table 3.2** below, and in Section 4 "Objectives and Targets".

3.10   As discussed in Section 4, the Travel Plan targets relate to a modal shift from single occupancy car journeys to more sustainable means of travel by 2020.

Survey Results

Table 3.2 – 2015 Travel Survey Results

Mileage	Number of Mode Users						
	Walking	**Cycling**	**Public Transport**	**Motor-cycle**	**Car**	**Car Share**	**Other**
Up to 1	92%	8%	0%	0%	0%	0%	0%
1 – 2	44%	5%	7%	2%	35%	7%	1%
2 – 5	9%	10%	12%	0%	59%	9%	1%
5 – 10	0%	5%	11%	0%	68%	12%	4%
10 – 15	0%	0%	12%	0%	79%	10%	0%
15 – 20	0%	0%	18%	0%	73%	3%	6%
Over 20	0%	1%	23%	0%	60%	12%	3%
Total	**13%**	**4%**	**13%**	**0%**	**58%**	**9%**	**2%**

4.   Travel Plan Objectives and Targets

4.1   This section builds upon both the University's environmental commitment (detailed in Chapter 1) and the existing travel information (set out in Chapter 2), in order to define the role of the Travel Plan and targets that this Travel Plan will seek to achieve.

Role of the Travel Plan

4.2   In line with the University's mission, the role of the Travel Plan is to reduce the reliance of single occupancy vehicle trips to from and between the Bangor University campus sites. This will be achieved through the implementation of a package of initiatives which improves access by public transport, walking, cycling and car share and encourages staff, students and visitors to change their travel behaviour.

4.3   By increasing the efficiency of staff and student inter-campus travel, opportunities for inter-campus travel by sustainable modes and managing access to Campuses the Travel Plan will support the University's Estates Strategy and Capital Programme. This will make a positive contribution to the University's established environmental sustainability policy and action plan, specifically the Carbon Management Strategy and BREEAM accreditation for new buildings.

Objectives

4.4   Whilst the wider aims of the Travel Plan are set out above, it is important, at this stage to define exactly what the Travel Plan should strive to achieve.

4.5   Five overarching objectives have been set in this Travel Plan. These objectives are SMART (specific, measureable, achievable, realistic and time-bound), as recommended by Travel Planning best practice guidelines and required as a supporting document by Local Authority planning application decisions. The objectives have been informed by the following tasks:

- The findings from the site audit. The objectives have been developed to reflect the variations in transport accessibility that were shown to exist between the different sites, as detailed in Chapter 2;

- The findings from the staff travel survey, including current mode shares to the sites and the responses with regard to potential transport improvements; and

- Information relating to on-site parking supply and existing parking management regime.

Of the five objectives, three relate directly to transport, whereas two relate to transport in the context of wider University policies. The five objectives are set out below:

Objective A - *To reduce the level of single occupancy car commuting trips to and from the campus sites*

4.6   Single occupancy vehicle (SOV) trips are related to a number of different University sites. This includes parking pressures such as on-site parking capacity and off-site overspill parking issues.

SOV trips (people driving themselves in their own vehicle) should be encouraged to transfer to other sustainable modes of travel. This can include demand management techniques and providing incentives for using alternative modes of travel.

The mode share targets in the Travel Plan have been based upon, and relate to staff and student travel patterns as these travel patterns have been identified through the travel survey.

Prior to considering mode share targets for individual sites, it is first important to understand the following University-wide aims with regard to mode share.

A1- Active travel modes (Walking and Cycling):

These modes are the most sustainable and support physical activity and associated health benefits, and should be encouraged wherever possible. Clearly, however, these are not appropriate for those making longer journeys, for those with mobility impairment, or where speed of arrival is a major requirement;

A2- Public Transport:

An increase of public transport mode share is clearly a major aim of this Travel Plan. Current public transport provision varies considerably between the sites, and has been taken into account when setting public transport mode share targets identified in **Table 4.1**;

A3- Car share:

This is a particularly applicable for staff and students (and indeed enforceable) where the University has control over parking. This can result in carbon savings, easing of parking demand pressures and economic savings for car sharers.

Objective B - *To increase the proportion of sustainable transport modes being used for University inter-site travel by staff and students*

4.7 Due to the multi campus nature of Bangor University it is necessary for some staff and students to travel to different sites throughout the day. The majority of sites are within walking / cycling distance of each other, however due to the topography (Bangor campus sites are largely located within and either side of a valley), travelling between some locations can be challenging.

Objective C - *To review the existing car parking management system to promote the use of alternative modes of travel*

4.8 Whilst more detail will be provided in Chapter 5 of this Travel Plan, a key component will be the development of an efficient and (as far as practicably possible) equitable University-wide car parking management policy for staff and students.

During the site audit, significant variation was noted in parking provision and parking control at the different sites. For example, some sites have barriers controlling access to the car park whilst others do not.

Objective D - *To contribute to the development and commitment to the Carbon Management Strategy*

4.9 The Bangor University 2012-2020 Carbon Management Strategy aims to reduce Carbon production by 40% by 2020. Transport is going to play a role in achieving this target reduction. Specific targets relating to commuting are also described within the Strategy.

Objective E – *To maximise the transport credits achieved in BREEAM for estate rebuilds and or refurbishments*

4.10 BRE Environmental Assessment Method (BREEAM) was established in 1990, and is a tool to measure the sustainability of new non-domestic buildings in the UK. Indeed, BREEAM provides an opportunity to prove the environmental credentials of buildings. BREEAM has

been developed to have a positive influence on the design, construction and management of buildings.

4.11 The University has stated that all new buildings developed in its estate will achieve the BREEAM "excellent" rating as a minimum. This Travel Plan will contribute to this target.

Targets

4.12 The above objectives have been formulated to achieve specific targets over the next five years. These targets relate to three key areas, i.e.:

- **Staff Commuting**

- **Student Commuting, and**

- **Inter-site Travel**

The specific 2020 targets associated with each of these areas are tabulated in **Tables 4.1, 4.2 and 4.3** below together with the summary of data collected from the initial 2009 baseline, and the 2015 University Travel Surveys.

Table 4.1 – Modal Split Targets for Staff Commuting Journeys

Mode	2009 Travel Survey	2015 Travel Survey	2020 Target
Walking	8%	7%	**12%**
Cycling	5%	4%	**12%**
Bus	4%	7%	**8%**
Train	2%	4%	**4%**
Motorcycle	0%	0%	**1%**
Car Driver	67%	65%	**45%**
Car Share	11%	9%	**16%**
Other	3%	3%	**2%**

4.13 The key reduction target to note is the car driver mode split from 67% to 45%, with increased targets in walking, cycling and car sharing. Increased walking and cycling targets of 4% and 6% respectively have been set due to the fact that 34% of staff stated that they live within 5 miles of their main campus. Furthermore, there was strong support for facilitating car sharing between Bangor University staff.

Table 4.2 - Modal Split Targets for Student Commuting Journeys

Mode	2009 Travel Survey	2015 Travel Survey	2020 Target
Walking	60%	45%	**62%**
Cycling	4%	4%	**9%**
Bus	4%	19%	**6%**
Train	2%	6%	**3%**
Motorcycle	0%	2%	**1%**
Car Driver	23%	17%	**10%**
Car Share	6%	8%	**8%**
Other	1%	0%	**1%**

4.14   As with the staff modal split targets, car driver is the key mode to note in terms of targeted reduction, however, the reduction appears not to be as ambitious, this is due to the very low starting base rate.

4.15   The target increase in students walking to university is relatively small as there is already a very high rate. This target aligns with the fact that 64% of students stated that they live within 2 miles of their main campus, therefore, it is unlikely that any further increases can be achieved.

4.16   The target from 4% to 7% for students cycling to University is ambitious but has been based on the fact that 16% of students live within possible cycling distance of between 2 and 10 miles.

4.17   Due to the multi campus nature of Bangor University it is necessary for some staff and students to travel to different sites throughout the day. Targets therefore seeks to increase the proportion of these trips being made by sustainable travel modes which are currently made by single occupancy car journeys. Proposed modal split targets for inter-site journey trips are set out in Table 4.3.

Table 4.3 - Modal Split Targets for Inter-Site Travel

Mode	2009 Travel Survey	2015 Travel Survey	2020 Target
Walking	53%	61%	54%
Cycling	4%	2%	8%
Bus	2%	3%	12%
Train	1%	1%	1%
Motorcycle	1%	0%	2%
Car Driver	28%	27%	12%
Car Share	9%	4%	10%
Other	2%	2%	1%

4.18   The target for increased walking mode share between Bangor University sites is relatively small as the current rates are particularly high, therefore it will be very difficult to increase this mode share.

5.   Travel Plan Actions

Background

5.1   This Section sets out the proposed Actions that will work towards achieving the five Objectives outlined in **Chapter 4**. These Actions will be examined in the following order:

1)	**Travel Plan Management**
2)	**Awareness and Communication**
3)	**Public Transport**
4)	**Walking and Cycling**
5)	**Car parking**

1) Travel Plan Management

Action 1a	Include Travel Plan on the Agenda of the University's Sustainability Management Board

5.2   The Sustainability reporting structure shown in Figure 3.5 consists of representatives from a cross-section of departments in the University, including Finance, Estates and Facilities, Marketing and Communications, Human Resources, Faculties/ Campus representatives, Student Union and the local community. This arrangement ensures a good level of knowledge sharing and input from the wider University population. The structure is led by the Sustainability Management Board (SMB) which reports to the University Executive Committee. Inclusion of the Travel Plan on the Agenda of the SMB will raise the profile of transport related issues, and ensure that appropriate advice and assistance is provided to facilitate University Travel Plan Co-ordination (recommended as Action 1b below).

Action 1b	University Travel Plan co-ordination

5.3   A University Travel Plan Co-ordination role will be defined through the Sustainability Implementation Group (SIG) to oversee the delivery of this Travel Plan. This will ensure that the impetus for delivery is maintained, and its success be monitored. The progress will be addressed through the Sustainability Management Board.

5.4   Specific roles for University Travel Plan Co-ordination will include:

- Overseeing introduction of this Travel Plan and car parking management measures;

- Develop a branding and logo for the Travel Plan;

- Overseeing future travel surveys to check progress against the Targets;

- Liaising with different groups and stakeholders (both internal and external to the University); and

- Working with the local authority and other external organisations to develop joint initiatives.

2) Awareness and Communication

Action 2a	Introduce further marketing and publicity for transport developments and improvements

5.5   It is essential that both staff and students at the University are aware of the latest developments associated with the delivery of the Travel Plan initiatives. The primary publicity tool is recommended to be a regular Sustainability Newsletter, distributed electronically to all University staff and students and also displayed on the University's intranet. The Newsletter will include the following:

- Recent developments to transport infrastructure;

- Developments to be introduced in the coming 6 months;

- Reminders of University schemes that already exist but may not have been publicised for a long time (these are outlined individually in the later targets);

- A section for the University Cycle Group, updating on any changes or plans; and

- Other environmental issues such as energy, waste and water.

- The TVs in Bangor University building receptions could also provide an important communication channel for specifically targeting students.

Action 2b	*Re-publicise information on transport accessibility to campuses*

5.6   Whilst basic transport information for each of the sites is available on the University's intranet, it is proposed to provide comprehensive transport information for each campus site (and on travel between sites), to include the following:

- Access by the active modes (walking and cycling), to include bicycle parking provision and access to showers and lockers;

- Access by public transport, to include maps indicating nearby transport interchanges or similar, and timetable and journey time information;

- Access for car sharers, to include the number of spaces designated for those who car share, or information on how to apply to car share; and

- Access by car, to include the number of spaces and the charging structure.

5.7   Information would be updated as and when necessary, to take into account changing timetables or the infrastructure changes that come about as a result of this Travel Plan.

Action 2c	*Introduce a University-wide car share database*

5.8   Whilst the University could potentially sign up to the *North Wales Car Share* (operated by TAITH), in order to encourage greater participation, it would be preferable for the University to create its own internal scheme, that can be tailored to suit the car parking measures proposed later in this Travel Plan.

5.9   A car share database could be set up with the following attributes and in the following way:

- **Step 1:** The SIG to send out correspondence to all staff explaining that a Travel Plan has recently been undertaken and therefore the opportunity has arisen to create a University-wide car share database, briefly explaining the potential benefits. The correspondence would invite people to express their interest (alternatively, the Newsletter could be used to invite expressions of interest).

- **Step 2:** The level of interest would in itself dictate the necessary expenditure in finding a solution. For example, if 50 responses or less were received, it would be feasible for the SIG to plot the locations on a mapping base, and suggest possible groupings to car share, based simply on location. However, if a significantly higher number of responses were received (which is likely), it may be necessary to invest in either a Consultant's time or in software to calculate the most efficient groupings for car sharing.

5.10   Over 50% of the survey responses agreed that help to find a suitable car share partner would encourage them to car share. The scheme could be promoted through the Environmental Newsletter, Bangor University reception TVs and through promotional event days.

3) Public Transport

Action 3a	*Negotiate with Public Transport Operators for discount tickets for staff and students*

5.11   In order to encourage regular public transport commuting by staff, the University will investigate the opportunity to negotiate with the local bus companies to offer University staff and students a discount or potentially free tickets for use on the bus network. The University has established good links with the Arriva bus company, who offer staff and students free travel during Climate Week each year.

5.12   Publicity of this scheme could be maintained through frequent reference in the Sustainability Newsletter.

5.13   The survey statistics 'back up' this initiative as 88% of the respondents agreed that discounted bus or train tickets would encourage a modal shift from the car to public transport.

Action 3b	*Introduce an inter-campus shuttle bus for staff and students*

5.14   The initial travel survey identified that 34% of staff and students make inter-campus journeys at least once a week. The University's Pontio Project and St Mary's Student Village developments have the potential to further increase demand for inter-campus travel by staff and students and therefore the provision of an inter-campus shuttle bus would support the University's flexible learning programme.

5.15   The provision of a shuttle bus will be considered in structured way, focussing initially on the St Mary's development in view of the large student population due to occupy the site from September 2015.

4) Walking and Cycling

Action 4a	*Promotion of Walking and Cycling / co-ordination with Gwynedd regarding the Mon a Menai Sustainable Travel Area*

5.16   Integral to any successful institutional travel plan is the promotion of cycling and walking as genuine modes of transport. But more than that, cycling and walking can also play a central part in improving, promoting and sustaining health and well-being.

5.17   Reviews of scientific studies offer a consensus that exercise of moderate intensity will significantly reduce the risks of psychological and physical health problems associated with inactivity[1] This is achievable by activities such as cycling and brisk walking.

5.18   The University recognises the value cycling and walking have for both the environment and an individual's health and well-being.

5.19   The University aspires to provide an estate that is truly walking and cycling friendly, one in which the pedestrian and the cyclist is given priority over vehicles. The University also aspires to the development and promotion of a culture where walking and cycling is encouraged, supported and, to a greater extent, becomes the norm.

5.20   To help achieve this vision the University is committed to:

    i.   The promotion and encouragement of cycling and walking amongst its staff and student populations

    ii.   Providing easy to access web based information on cycling and walking

    iii.   Achieving a suitable level of cycle storage provision across all campuses, including secure storage facilities for students within University residences

    iv.   Ensure all pathways are suitable and maintained

    v.   Work with the Local Authorities on cycling initiatives and encourage further improvement of cycling and walking routes between campuses and within the greater University community

    vi.   Ensuring adequate cycling storage and open-access shower[2] facilities are provided for/at all new and major refurbished buildings

    vii.   The continuation of the cycle purchase scheme for staff

    viii.   Encouraging staff and students, particularly those from overseas, to attend 'cycle safety awareness' training

    ix.   The provision of loan bicycles wherever practicable

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[1] Department of health (2004) *'Evidence on the impact of physical activity and its relationship to health'*
[2] Excluding new and refurbished residential buildings

5.21   Analysis of the initial survey results has shown that 32% and 4% of students and staff walk and cycle to the University respectively. When travelling between the University sites, the percentage of people who walk increases to 53% however cycling remains at 4%.

5.22   Although only 4% of staff and students cycle to and between University sites, the survey results have shown that 19% of people would consider cycling as an alternative to driving alone. Some comments below provide an insight into why people would consider cycling but choose not to:

- *"Urgent need of a cycle route between Bangor and Menai bridge"*

- *"Bangor needs dedicated cycle routes"*

- *"I would cycle to work but I find the Holyhead Road too busy and dangerous to cycle. I see a lot of cyclists on that road and it would frighten me to be one of them, the road is full of traffic during peak hours"*

- *"We need the Cycle to Work scheme to be up and running. A designated cycle path/lane between Bangor & Menai Bridge would be good, that road is not the best for cyclists."*

Action 4b	*Support the existing University Cycle Group*

5.23   The University has a Cycle Group, which is open to staff and students. Information is available at http://cycling.bangor.ac.uk/. This action requires ongoing support and promotion to ensure a growing participation rate.

5.24   Cycle groups have been shown to be very successful in encouraging people to use their bicycle to and from their place of work or study. On this basis, it is recommended that the University fully supports the UCG.

5.25   The University has an assisted cycle purchase ("salary sacrifice") scheme available to staff. Since its launch in 2012, 220 members of staff have taken advantage of the scheme, which equates to £154,000 of bikes and cycling equipment being purchased.

Action 4c	*Improve the quantity and quality of bicycle parking provision*

5.26   There are currently major differences between the different campus sites in both the capacity and quality of bicycle parking.

5.27   Sheffield Stands are provided at the Deiniol Site, however, fly bicycle parking occurs and the stands are not well utilised. The fly parking demonstrates that people prefer to leave their bikes where it closer to their building of work / study or areas that offered protection from the weather as the stands are not covered.

5.28   Significant provision of secure and weatherproof cycle storage has been made on the Ffriddoedd Halls site and Safle'r Normal site in recent years, and three large units are being provided as part of the Student Village development at St. Marys. The extension of such facilities at other sites will be considered.

5.29　　The survey statistics indicate that 77% of university staff and students that responded feel that cycle parking facilities need to be improved. This measure links with 1B and co-ordination with GC, this will enable a greater degree of origin and destination cycle parking provision between the city centre and University Campuses.

5.30　　Relevant survey response comments that identify the need for additional and improved cycle parking are provided below:

- *"For me, more bike racks would be useful. This year more of them seem to have been used to secure motorbikes, which has left less room for pedal cycles. Secure cycle parking would also be worth considering: a couple of years ago I had some slight vandalism to my bike while it was parked at a university site in the evening".*

- *"University should stop providing cut price car parks - it should charge market prices by the hour/day for its car parks. This would raise revenue and reduce demand, freeing up space e.g. for green space/new buildings/cycle parking……"*

- *"when are you going to do more for cyclists e.g. lockers, covered cycle parking, drying room"*

- *"Winter cycling can be dangerous if improper attire and lights are used therefore university assistance in better lighting cycle paths out of town or assistance with purchasing cycle equipment would be welcomed. Further, bicycles left outside in the winter conditions deteriorate and therefore if shelters are not to be provided assistance from the university to subsidise bicycle repair would be useful also. Maybe even a university based service to maintain bikes could be provided. Car sharing is fantastic compared with single drivers, but it would be even better to get people active by using bicycles. This would subsequently improve health, increase happiness and productivity so I believe it is imperative to have more incentives to cycle."*

- *"Better bike facilities in Menai Bridge should be a priority, there is only one rack for bikes and it is very often full up, once I had my bike locked to another as it was so full."*

- *"Covered cycling storage at the School of Ocean Sciences and Deiniol library are needed as bikes get rusty etc during the winter and rainy periods. Should be done as many people do cycle to the School of Ocean Sciences."*

- *"Provision of more secure and sheltered cycle racks is needed in various areas"*

Action 4d	*Improve the provision of shower and locker facilities*

5.31　　As with bicycle parking provision, and not unexpected given the differing nature of the sites, there is significant variation in the provision of shower, locker and changing facilities. This would work towards future BREEAM accreditation.

5.32　　71% of survey responses agreed that showers, changing facilities and lockers would encourage them to walk or cycle to University.

5.33　　Some relevant comments are listed below:

- *"If I lived further afield I would consider cycling rather than walking, but the current facilities for cyclists are poor (i.e. bike racks, showers/changing facilities)."*

- *"I think low rates on cycle hire for students over a semester, like the government incentive with cycle to work, but something similar with the university and a (local?) bike company would be a good idea. Also, changing rooms, free lockers and showers would be good, obviously funding could be a problem though? I think it's great that Bangor is looking forward about it"*

- *"not having showering facilities is the main reason I do not cycle more often"*

"Showers and cycling facilities are most important - I would cycle WAY more if I knew my bike would be covered, and I had decent shower/locker facilities."

Action 4e	*Provide a fleet of University pool bicycles for staff*

5.34   Whilst there is a fleet of University vehicles, there is currently no fleet of University bicycles. The University will look to introduce a number of bicycles that would be made available to staff for inter site travel. A distinct advantage with this action is that any staff who do not own their own bicycle or cannot feasibly travel to University may choose to travel by University bicycle during their working day when making inter site trips. A system for effective management based on a membership to the pool cycle club would be required.

5.35   Some comments that support this initiative are provided below:

- *"There are tremendous opportunities to encourage greater levels of walking and cycling. Could we not do something like the cycle schemes they have in Amsterdam and Paris, where people share bikes? There should also be a financial incentive to cycle on university expenses forms to walk/cycle/use public transport (currently the only incentive is to drive and maximise the number of miles you can get at 40p/mile)"*

- *"bicycle hire and sale should be made more common"*

5.36   Assuming a fleet of 30 bicycles at £300 each, the total cost would be £9000. In addition, an annual bicycle service would be required, although this is not expected to exceed £50 per bicycle per year. The bicycles could be split between the different sites (five bicycles at each site), and a booking system set up to co-ordinate their usage (and indeed their safe storage).

5) Car Parking

Action 5a	*Review existing car parking arrangements*

5.37   Parking management measures form an integral part of this Travel Plan by potentially being the most effective tools to encourage both staff and students who currently drive to their Campus to change their travel behaviour and consider choosing a more sustainable mode.

5.38   In 2009 the University revised permit charges for staff and students for parking on University sites. The charges for staff parking permits are set on a sliding scale, based on the salary band that the staff member falls into. These charges are paid through salary deduction for the majority of staff members. Flat annual parking permit charges are also applicable to students. The following permit charges apply:

Table 5.1 – 2009/2010 Revised Parking Charge Fees

Salary band	Annual Charge	Equivalent Daily Charge[1]
Students	£25	£0.11
Under £10k	£26	£0.12
£10k - £20k	£36	£0.16
£20k - £30k	£58	£0.26
£30k - £40k	£78	£0.35
Over £40k	£99	£0.44

(1) Based on an average 225 working day year

5.39   Despite this increase, when compared with local Bangor car parks, the charge is significantly lower than City Centre market rates. Taking one privately operated car park on Dean Street as an example, the following parking charges apply;

- 52 week seasonal pass - £390 (5 days a week);
- 26 week seasonal pass - £253.50 (5 days a week);
- A daily charge - £4.90 (over six hours).

5.40   Council operated car parks have a higher cost for parking, with a daily charge of £5.30 and £7.50 in the winter and summer periods respectively. There are no season ticket discounts available for parking in city centre car parks.

5.41   The recently revised University parking charges, when converted into a daily charge, are also significantly lower than a normal average return bus fares in Bangor. Parking charges are an emotive issue but they are undoubtedly an important demand management tool that can help stimulate a behaviour change by encouraging staff to consider alternative modes.

5.42   It is anticipated that if the University charges staff and students significantly under the market rate for other parking charges, local bus fares and parking provision costs, the following risks or problems could be seen in the coming years:

- Increased congestion on Campuses as car ownership and usage increases (in line with Bangor traffic growth forecasts increase), with the associated issues for access, visual amenity and pedestrian safety and the increased stress on individual campus sites as increased parking demand outstrips parking supply in future years;

- Failure to meet the carbon reduction targets, as set out in the Carbon Management Plan;

- Continued inconsistencies and inequity in parking management practices between individual campus sites; and

- Failure to meet the mode share targets, as set out earlier in this Travel Plan.

5.43   Continuation of the current system of parking management will limit incentive for both staff and students to change their travel behaviour, and hence it is unlikely that the mode share targets set out in this Travel Plan would be met. The University will therefore undertake a thorough review of the current car parking arrangements to maximise the incentive for more sustainable means of transport, and to raise revenue for implementation of other sustainable travel actions within this Plan. Options to be considered will include:

- Effective controls on access to University car parks (e.g. barriers, swipe cards, automated number plate recognition etc.)

- Charging scheme based on daily weekly or monthly usage e.g. through proximity cards or pay and display

- Charging scheme based on engine size, and therefore greenhouse gas emissions

- Dedicated parking spaces and reduced charges for car share users

- Improvement in availability of motorcycle and cycle parking spaces

- Visitor / public usage of University car parks

- Permit discounts for reduced usage, e.g. through working from home

- Salary sacrifice for parking charges

5.44   Progress towards Targets

Table 5.2 below indicates the anticipated impact that each of the above Actions could have on the five objectives of the Travel Plan

Table 5.2 – Summary of Actions and impact on Objectives

ACTION Number	Impact of Action on Objectives				
	A Commuting mode share	B Inter-Campus Travel	C Parking management	D Carbon emissions	E BREEAM
1a Include Travel Plan on agenda of Sustainability Management Board	Medium	Medium	Medium	Medium	Medium
1b: University Travel Plan co-ordination	High	High	High	High	High
2a: Introduce further marketing and publicity for transport developments and improvements	High	High	Medium	High	Low
2b Re-publicise information on transport accessibility to Campuses	Medium	Medium	Medium	Medium	Low
2c: Introduce a University-wide car share database	High	High	High	High	Low
3a: Negotiate with Public Transport Operators (Arriva) for discount tickets for staff and students.	High	High	Low	High	Low
3b Introduce inter-campus shuttle bus for staff and students	High	High	Low	High	High
4a: Promotion of Walking &Cycling / Co-ordination with Gwynedd Council linking to the Mon a Menai Sustainable Travel Area	High	High	Low	High	Low
4b: Support the Existing University Cycle Group (UCG)	Medium	Medium	Low	Medium	Low
4c Improve quantity and quality of bicycle parking provision	High	High	Low	High	Low
4d Improve provision of shower and locker facilities	High	High	Low	High	Low
4e Provide a fleet of University pool bicycles	Low	High	Low	High	Low
5a Review Existing Car Parking arrangements	High	Medium	High	Medium	Medium

6. Implementation and monitoring

Background

6.1   It is important that the success of this Travel Plan is continually monitored, to ensure progress is made towards achieving the five targets earlier outlined and that value for money with capital and revenue investment is maximised. It is also important in a planning context, as Gwynedd Council, will require evidence of monitoring when granting new planning permissions. Specifically, it is important to note how mode shares are changing in response to the measures and initiatives that are introduced. Close monitoring allows for any additional initiatives to be introduced, or the balance of investment to be re-adjusted between the initiatives, and for mode share targets to be revised if necessary.

6.2   The principle methods for implementing and monitoring the Travel Plan will be set out in this Section, but in summary consist of:

- **Implementation** – Ownership of the Travel Plan should be taken by the Sustainability Implementation Group (SIG) University Travel Plan Co-ordination team (whose role was recommended earlier as Action 1b). This role will be facilitated by the University Sustainability Management Board (SMB). Decisions for which measures should be introduced should be made by liaison between both of the above, possibly in the form of quarterly meetings; and

- **Monitoring** – Given the differing nature of the Targets, there will be many mechanisms through which to check progress. For example, the principle measure to check progress against target A and B (mode share based) is to undertake further surveys of staff travel. For some of the more specific targets, such as target E (BREEAM contribution), there is clearly a need to check progress at set intervals, to ensure that progress continues to be made towards it.

Implementation

6.3   The first (University-wide) Action in this Travel Plan recommended the inclusion of Travel Plan issues on the agenda of the University SMB and the SIG University Travel Plan Co-ordination. Whilst it is recommended that the SIG ultimately takes ownership of the implementation of the Travel Plan, it would be necessary for meetings to be carried out with the SMB to make decisions on which measures to introduce, and upon which timescale.

6.4   The SIG would also play a key role in liaising with the necessary organisations charged with introducing the hard infrastructure measures, such as new bicycle parking facilities, car parking control measures, and co-ordinating funding opportunities through the Mon a Menai Sustainable Travel Area.

Monitoring

6.5   A potential strategy for monitoring progress towards each of the five objectives is set out below:

- **Objective A - To reduce the level of single occupancy car commuting trips to and from the campus sites:** In order to determine whether the mode share targets are being met, it is necessary to undertake future surveys to determine the mode of travel used for commuting trips to the University (whilst this Travel Plan has looked at both staff and students travel, the responses were heavily dominated by staff, it would be useful in the future to achieve a higher response rate from students).

  Collation of mode share data would allow for progress against target A to be checked, and for the targets to be revised as and where necessary.

- **Objective B - To increase the proportion of sustainable transport modes being used for University inter-site travel**: Repeat travel surveys will be a key indicator to determine whether the target to increase the proportion of inter site trips are being made by sustainable transport modes. If a dedicated shuttle bus is to be introduced, monitoring the usage of this a various points throughout the year will provide a clear indication of how successful this has been. Furthermore, recording the level of usage of the University pool bikes will also enable a robust monitoring strategy to be formed.

- **Objective C - To review the existing parking management system to promote the use of alternative modes of travel**: Progress against this target is not quantifiable in the same way as that for target A and B. In appreciation of this, progress towards this target can be considered to be made if any progress on Action 5a is made. This will actively contribute to creating an efficient and equitable University-wide car parking management policy whilst also managing the level of parking demand;

- **Objective D – To contribute to the development and commitment to the Carbon Management Strategy reducing Carbon emissions by 25% by 2014:** The methodology for checking progress with regard to staff commuting journeys is complex. Whilst the staff travel survey for this Travel Plan did not attribute each postcode to a mode, this could be incorporated in the next mode share survey. With data that is classified by postcode and by mode type, it would be possible to calculate a default emission for each staff commuting journey. By comparing the findings of this with similar future surveys, it would be possible to calculate the change in staff commuting emissions, and therefore check progress towards the 25% reduction;

- **Objective E – To maximise the transport credits achieved in BREEAM for estate rebuilds and or refurbishments:** Through implementing measures from this Travel Plan, and therefore demonstrating a commitment to sustainability, transport credits for BREEAM assessments should be achieved. It is important that the transport initiatives support the proposed development/refurbishment to a suitable level of assessment.

7.   Summary

Bangor University has made significant progress since embarking on its initial baseline travel survey and options appraisal in 2009. Implementation of the measures incorporated within this 5-year plan will build upon the measures implemented to date, and will contribute to Bangor's stated aim of becoming sustainability leaders within the higher education sector.