LIFE Project number LIFE15 GIC /ES/000056

green in motion

Catalogue of case studies

Catalogue of Mobility Best Practices in Universities

INDEX

1 U-MOB project

European Network for Sustainable Mobility at University / U-MOB is a project funded by the LIFE programme from the European Commission (LIFE15 GIC/ES/000056).

It is mainly aimed at the creation of a university network to facilitate the exchange and transfer of knowledge about sustainable mobility best practices among universities. This network will serve as a tool to help towards the reduction of CO2 emissions caused by university community travel habits, aiming at reducing climate impacts and fostering efficiency, competitiveness and social integration.

The U-MOB Project aims to contribute to:

- Raising awareness about the need to reduce CO2 emissions from European universities and the important role of universities regarding education of present and future generations.
- Creating and consolidating a "European University Network for Sustainable Mobility" capable of transferring best practices.
- Communicating attractively and disseminating the knowledge on best practice in university campuses among EU universities.
- Promoting and capacitating the professional figure of "Mobility Manager" at European universities.
- Defining and implementing best practise in European campuses in order to reduce CO2 emissions.
- Fostering the development of sustainable mobility policies among public authorities and transport companies.

2 Introduction to the Catalogue

Many European universities have implemented different types of action in the field of sustainable mobility in recent years, related to different lines of action such as internal mobility management, coordination with external actors (local authorities and transport companies), promotion of the use of the bicycle, public transport and walking, limitation of car use, increase awareness and participation of the university community, etc.

All these actions have given or are giving good results. From the analysis of the indicators associated to these actions, we can draw valuable conclusions.

In addition, the lessons learned are very useful for other universities that wish to implement similar practices; best practice policies that have been implemented by some European universities will serve as examples to follow for other European universities.

Therefore, collecting and disseminating the mobility best practices that many universities are already following is an essential step for fostering best practice implementation in other campuses.

3 The aim of the Catalogue

The aim of this Catalogue is to present examples of mobility best practice through the use of real-life university case studies from around Europe and even some from the USA. These best practices can be utilised in other universities, either as given in this Catalogue or through their customisation to suit the particular needs of each campus.

The priorities set in this Catalogue focus on the achievement of:

1. Better knowledge and understanding of sustainable mobility issues at the university scope.
2. Better accessibility to knowledge on sustainable best practice, available for implementing at universities.

4 Target audience

The main target audiences of this material are university mobility managers, departments related to mobility issues and university governing bodies. As one of the U-MOB project objectives, it is expected that the figure of the mobility manager progressively increases, becoming more present in universities.

The mobility manager is the representative of the university in sustainable mobility issues. They are responsible for planning and managing mobility related to students and university staff and for developing knowledge and capabilities covering all aspects related to transport means and sustainability (technical, social, economic and environmental aspects), which must be perfectly integrated and coordinated in order to implement a mobility strategy.

By means of the mobility manager, best practice policies are expected to reach the whole university community, students and staff alike.

Other target audience groups include agents who have an influence on the university mobility system, such as:

- Public bodies, in charge of policy making in the field of urban development and transport, thus integrating the best practice policies into public strategies and regulations.
- Public and private transport companies.
- Pro-Sustainability organizations.

5 Elaboration of the Catalogue

5.1 Invitation of universities

The project has had a wide reach. A large number of universities were contacted and invited to participate in order to identify mobility best practices that could be applied in campuses around the world.

The first European Conference on Sustainable Mobility in Universities, held at the Universitat Autònoma de Barcelona's campus, between the 8th and 10th of march 2017, was key to promoting the UMOB project and inviting universities to provide mobility best practices for the network.

5.2 Definition of factsheets

All universities invited to participate in the project were asked to fill-in a factsheet prepared as a tool to identify and collect suitable information on their best practices, with the intention of selecting the most relevant ones to be included in this Catalogue.

5.3 Report Compilation

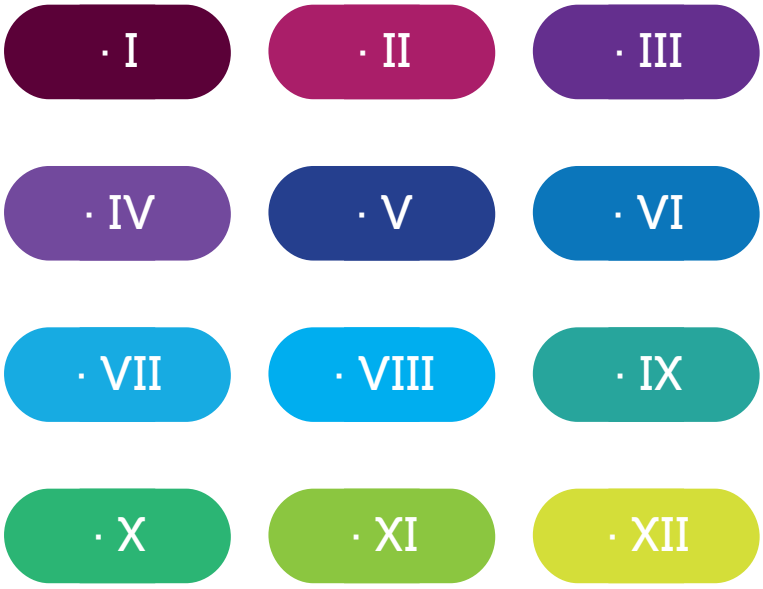
Partners prepared a report collecting a total of 98 factsheets showing case studies of mobility best practice from 32 universities in 8 different countries.

5.4 Selection of best practice policies

In order to select the fifty examples of best practice that were to appear in this Catalogue, partners took into account considerations such as the extent of the information provided on the best practice, the representation of all strategic lines, the representation of different universities from different countries, and the application of the following criteria: environmental impact, social impact, synergy with other best practice policies, innovation and feasibility in terms of investment and stakeholders involved.

6 Mobility best practices at universities

Best practice has been classified according to the following strategic lines, which are considered key to define a complete mobility strategy at any university:



Strategic Line I: University collaboration - local stakeholders
Strategic Line II: University management and governance
Strategic Line III: Pedestrian mobility
Strategic Line IV: Cycling mobility
Strategic Line V: Public transport
Strategic Line VI: More efficient car use
Strategic Line VII: Intermodal mobility
Strategic Line VIII: Curricular system
Strategic Line IX: Working time
Strategic Line X: Data collection
Strategic Line XI: Awareness and participation
Strategic Line XII: Networking among universities

Although some best practices are related to various strategic lines, as observed in the following summary table, in the Catalogue they have been described within the main, more representative strategic line, in order to facilitate their search and understanding.

STRATEGIC LINE from the index list

Title of the best practice

Year of implementation

Univeristy
Name of the University

Location
Regarding the city which the commuting comes from

Country
Country the University is located In

Size
Number of people that make up the university (students + staff)

Mobility Organizational Structure
Regarding the organizational structure for mobility issues at the university

Summary
Consists in what has been implemented as best practice

Aims
What is the desired goal

Stakeholders
Actors involved

Background
Situation before implementing best practice

Description
Explanation on how best practice implementation has been carried out

Indicators
Main indicators to measure results against aims

Results
Results against aims according to the indicators

Expense
As a total €, or € per year

Financing
Source and amount of disbursement

Findings
Conclusions and recommendations to help other universities

Pictures
Photographs, maps, graphics...

Links
To provide more information

Contact person:
Name, position and e-mail address

Title of Best Practice	University	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
UAB's Mobility Board to Debate Local Mobility Management	Autonomous University of Barcelona (Spain)	1											
Dialogue with the District	University of Bergamo (Italy)	2											
UAB Strategic Accessibility Plan	Autonomous University of Barcelona (Spain)		3										
Mobility Planning and Management Unit	Autonomous University of Barcelona (Spain)		4										
UAB Mobility Plan 2008-2014	Autonomous University of Barcelona (Spain)		5										
New Mobility Policy for Employees	Erasmus University of Rotterdam (The Netherlands)		6										
Mobility Policy for Employees	Utrecht University of Applied Sciences (The Netherlands)		7										
Lower Mileage; Lower Carbon; Lower Costs: provision of a range of business travel options	University of Cumbria (United Kingdom)		8										
Mobility Plan and Reorganisation of the UAH External Campus	University of Alcalá (Spain)		9										
Campaign to Promote Pedestrian Access to the University Campus	University of Girona (Spain)			10									
Cukrowa Bike	Szczecin University (Poland)				11								
BICIUAB Bike Rack	Autonomous University of Barcelona (Spain)				12								
Cibiuam (Bicycle Centre of the Autonomous University of Madrid)	Autonomous University of Madrid (Spain)				13								
The Solidary Bicycle: bicycles at reduced prices for the community	Rovira I Virgili University – Tarragona (Spain)				14								
To the UCO by Bike	University of Córdoba (Spain)				15								
Bicycle Hire System	University of Granada (Spain)				16								
Intercampus Bicycles	University of Lleida (Spain)				17								
Free Bicycle Sharing	University of Valladolid (Spain)				18								
Cycling at UCLA	University of Los Angeles (USA)				19								
Studocikl: Student bicycle sharing system in Zagreb	University of Zagreb (Croatia)				20								
Science Transit Shuttle	University of Oxford (United Kingdom)					21							
APP&TOWN: Route calculation application for sustainable access to campuses	Autonomous University of Barcelona (Spain)					22							
BUSES APP	Autonomous University of Barcelona (Spain)					23							
Promotional Discounts on Public Transport	Rovira I Virgili University – Tarragona (Spain)					24							
Bus Pass for Students	University of A Coruña (Spain)					25							
Student Pass for Urban Public Transport - "UdG by bus"	University of Girona (Spain)					26							

Title of Best Practice	University	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
LUISS "Guido Carli" Green Mobility	LUISS "Guido Carli" (Italy)						27						
Innovative Fleet Management of Faculty Road Vehicles	Politecnico di Torino (Italy)						28						
Carpooling System Data-base and Parking Policy	Cracow University of Technology (Poland)						29						
Electric Vehicle Charging Station	Gdynia Maritime University (Poland)						30						
Recovering Car Space for Sustainable Means of Transport	Autonomous University of Barcelona (Spain)						31						
FESEDIT Project for Promotion of Car-sharing	University of Girona (Spain)						32						
USALe PROJECT	University of Salamanca (Spain)						33						
Efficient Driving Courses	University of Valladolid (Spain)						34						
Fleet Management	University of Oxford (United Kingdom)						35						
Reducing Single Driver Rates and Use of Fully Gasoline Powered Cars	University of Los Angeles (USA)						36						
Multi-modal Transportation	University of Los Angeles (USA)							37					
Mobility Management Education at the Cracow University of Technology	Cracow University of Technology (Poland)								38				
Moving Sustainable Transportation from Ideas to Practice	University of Los Angeles (USA)								39				
Development of Curriculum in Clean Urban Mobility for University of Koprivnica	University of Koprivnica (Croatia)								40				
Business Travel – Oxonbike bike sharing and other measures	University of Oxford (United Kingdom)									41			
Alternative Working Arrangements	University of Los Angeles (USA)									42			
Data collection for the integrated mobility plan: Ex-ante survey and Ex-post survey	Cracow University of Technology (Poland)										43		
Application in volunteers' smartphones to monitor trips to corroborate survey's results	Autonomous University of Barcelona (Spain)										44		
C-Force: Co-creation cycle campaign	Ghent University (Belgium)											45	
Bike Happening	Cracow University of Technology (Poland)											46	
Awareness and Participation Activities	Cracow University of Technology (Poland)											47	
Promotion of Urban Public Transport and Use of Electric Vehicles	Szczecin University (Poland)											48	
Ciclogreen: rewards for cycling to University	University of Cantabria (Spain)											49	
Spanish Network on Sustainable Mobility at Universities	Autonomous University of Barcelona (Spain)												50

- Note: The number in the cell refers to the number of best practice in the catalogue.

UAB Mobility Board to Debate Local Mobility Management

2006

University
Universitat Autònoma de Barcelona

Country
Spain

Location
Peri-urban. 20 km from Barcelona

Size
More than 40.000

Mobility Organizational Structure
Mobility team or mobility manager

Summary

The UAB Mobility Board was created in 2007, addressing the need of promoting participation (debate and deliberation about mobility issues) linked to the development of UAB accessibility and mobility policies; the UAB Strategic Accessibility Plan and the Mobility Plan.

This board was assembled by UAB but the implication of authorities in charge of regional and local mobility planning and management was deemed essential since trips generated by University activity have an impact on a regional and metropolitan basis while UAB's competences are limited to the campus.

Aims

To implicate the university community and other agents in mobility planning and management through what is known as Deliberate Participation (providing all necessary information, scientific and technical, to facilitate the participant's deliberation and positioning. This general objective is specified in four sub-objectives:

- Knowing user's necessities, capacities and perceptions about transport and recognizing the complexity and heterogeneity of several kinds of users who commute to university.
- Diagnosing different transport services which provide access to university.
- Elaborating reports and providing necessary information to Mobility Board members.
- Involving the university community in the elaboration, application and following-up of the UAB Mobility Plan.

Stakeholders

- Government of Catalonia.
- Metropolitan Transport Authority of Barcelona.
- Municipal/local authorities.
- Transport companies.
- Non-profit organisations (NPO).
- Student and staff representatives.

Background

For concepts of transit, transport and mobility to evolve there needs to be a change of scope: from motorized vehicles, to include all other means of transport, including active ones (walking and cycling). As a mechanism for obtaining information about people, a heterogeneous and complex variable, a qualitative approach and participation is seen as an essential methodology. In this respect, the Mobility Board aims at verifying the different groups and agent's perceptions, needs, and possibilities.

UAB's Mobility Board to Debate Local Mobility Management

2006

Description

The Mobility Board is integrated by authorities involved in public transport (Government of Catalonia, Metropolitan Transport Authority of Barcelona, and the municipal/local authorities), every department of the university related to mobility (planning, communication, security, social services, economic services, environmental office, etc.) students and staff representatives, transport companies, NPOs, etc.

The Mobility Board acts in an advisory role, thus results and conclusions are not binding to the university. Its participation however, encourages results and its role therefore proves a useful methodology to achieving successful mobility management.

The yearly agenda for meetings is previously established on a 3 meetings per year basis. However, depending on the topics in hand and the need for participation related to them, meetings can be called more often. All the meetings follow a previously established work plan, which is communicated prior to each meeting. After every meeting minutes are sent to all the participants for revision and approval in the following meeting.

With an average of three meetings per year since 2006, debate is focused mainly on diagnosis and proposals for the Mobility Plan.

Indicators

Participation indicators: meetings per year, attendance.

UAB's Mobility Board to Debate Local Mobility Management

2006

Results

- Implication of staff on mobility management: providing a space for the representatives to explain their needs and obtain correct information is positively valued by them.
- Integration of these needs in the planning process increases participation.
- Provided information enables them to understand what is being done and why some issues cannot be dealt with in the way they may expect. As a result, many complaints and protests based on perceptions are eradicated.

Expense

From 0 to 10.000 €.

Financing

UAB Budget (low cost associated).

Findings

- Mobility is one of the main aspects generating urban conflict. Putting different actors with different views and often contradictory needs together around a table makes it possible to educate them on the complexity of the issues and the need to negotiate.
- If representatives do not comply with correctly distributing information and debating its content relating to the issues brought up there is a danger that they will concentrate on their own perceptions and needs. Thus making true results from their participation difficult to achieve.
- UAB students show intense divisions within their representative bodies and are difficult to effectively involve. More so they don't find this methodology an attractive way in which to participate.
- The methodology laid down by the Mobility Board (regularity, general work plan, meeting work plan, minutes etc.) is fundamental in guaranteeing its credibility and in encouraging a high level of participation.

Pictures

Fig. 1. UAB MOBILITY BOARD meeting, February 2015

Links

http://www.uab.cat/accessibilitat-transports/

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Dialogue with the District

2014

University
Università degli Studi di Bergamo

Country
Italy

Location
Cities of Bergamo and Dalmine

Size
10,000-20,000

Mobility Organizational Structure
Mobility manager

Summary

Best practice consists in building a constructive dialogue with the district's political and administrative powers, with a view to obtaining a more sustainable mobility system through gaining synergies.

Aims

- Change employees' and students' mobility behaviours and increase sustainable mobility.
- Reduce car parking needs at the university campuses.
- Reduce traffic congestion near the university sites.

Stakeholders

- University of Bergamo.
- Municipality of Bergamo.
- Municipality of Dalmine .
- Agenzia per il Trasporto Pubblico Locale del Bacino di Bergamo.
- ATB Azienda Trasporti Bergamo.

Background

Not available.

Dialogue with the District

2006

Description

Collaboration with territory stakeholders is in progress.

We have started a dialogue with local authorities to achieve synergies useful to everyone.

Particularly:
The dialogue and collaboration launched in the recent past with the Municipality of Bergamo are leading to satisfactory results. Based on requests from the Mobility Manager at a previous conference, the Municipality of Bergamo has participated in and won a European Interreg Project ("SHARE"), which aims to stimulate sustainable mobility along the transit ways that serve our university sites. The municipality and the university together set and follow Living Labs for our students. The aim is to work together and find alternative solutions to the car.

The project foresees small incentives for those who stop using private cars in favor of public transport, car-pooling, cycling or walking. Furthermore, the Municipality of Bergamo has recently received funds from the Ministero dei Lavori Pubblici to build cycle lanes: the first lane will be capable of serving our university sites.
We have also signed an agreement with the Municipality of Bergamo aimed at increasing bike sharing for our students.

With the Municipality of Dalmine we are working on a project aimed at improving cycle connections and building a new (closer) stop for local trains.

The relationship activated months ago with the Bergamo District Public Transport Agency has proved constructive: we are now working together to see if there may be room to meet demands for sustainable mobility coming from students and staff.

Indicators

- Current means breakdown.
- Number of car parking spaces within a 500 m radius around universities sites.
- Number of users public transport connections between home and university.

Dialogue with the District

2006

Results

All initiatives are up and running.

The University of Bergamo backed the issue of 2.560 passes in the 2015/16 academic year with a commitment of € 383.634. This action has been offered ever since.

Specifically, there are annual passes for students under 26 travelling on ATB urban lines for a special price of € 200; annual passes for students under 26 travelling on ATB & Bergamo Trasporti urban and extra-urban lines for a special price of € 470; monthly train passes on Trenord S.p.A. lines with discounts of 10% or more.

The Bergamo District Public Transport Agency has increased the number of connections between the university site of Dalmine and Verdello station at peak times for students.

Expense

The University of Bergamo financed the issue of 2.560 passes in 2015/16 with a commitment of € 383.634. This action has been offered ever since.

Financing

Not available.

Findings

Creating a constructive relationship with public authorities is indispensable for achieving otherwise impossible results. Without their help it would be impossible to shift significant shares of private transport towards other means: public bodies are the only figure that can take charge of designing and implementing transit ways leading to the university that can persuade users away from one mode to another.

Dialogue with the District

2006

Pictures

Fig. 1. Different locations of the University of Bergamo

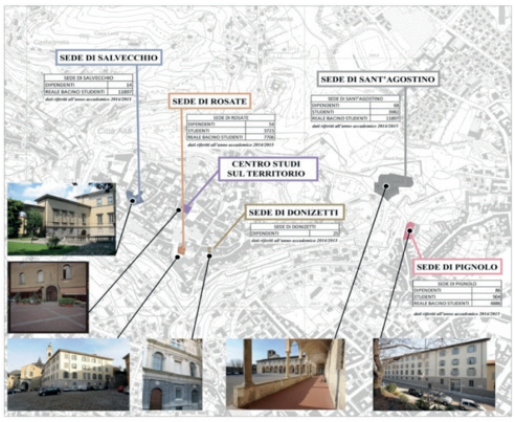

Fig. 2 Different sites of the University of Bergamo in Città Alta

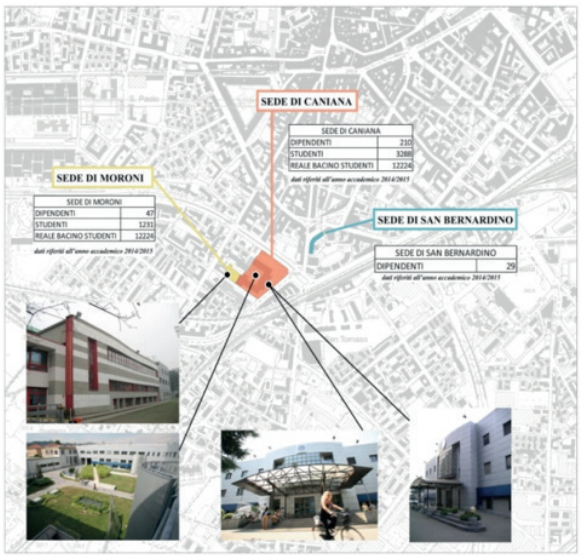

Fig. 3 Different sites of the University of Bergamo in Città Bassa

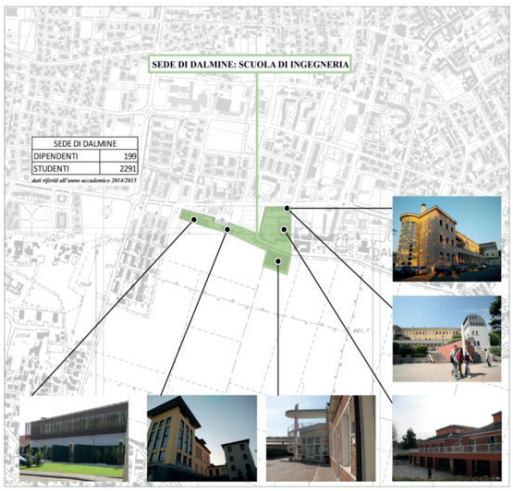

Fig. 4 Different sites of the University of Bergamo in Dalmine

Links

http://en.unibg.it/life-unibg/services/mobilities-services
www.interreg-central.eu/shareplace
www.agenziatplbergamo.it

Contact person

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UAB Strategic Accessibility Plan

2006

University
Universitat Autònoma de Barcelona (UAB)

Country
Spain

Location
Peri-urban. 20 km from Barcelona

Size
40,000-50,000

Mobility Organizational Structure
Mobility team

Summary

Provision of electric bicycles so that the UAB staff can make their on-campus trips.

Aims

The purpose of this sectorial strategic plan is to officially establish the UAB accessibility and mobility policy, the model of mobility to be achieved and the strategic lines to make it work. This means that all actions taken by the University in this regard have a reference policy and an overall vision that gives them sense, both individually and collectively.

Stakeholders

- Generalitat (Government) of Catalonia.
- Regional Council of Barcelona.
- Territorial Mobility Authority of Barcelona.
- Regional Council.
- City councils.
- Inter-urban transport operators.

Background

Not available.

UAB Strategic Accessibility Plan
2006

Description

The Strategic Accessibility Plan was approved in 2006. It is a tool which defines the University policy for mobility and accessibility. The UAB Mobility Board as the participative organ of reference for its later development was also constituted this same year.

This document, in line with the Paradigm of Sustainable Mobility, establishes accessibility, sustainability, safety and equality as the principles inspiring what is to be the model of mobility the University wants to implement, and sets a primary endpoint of maximising Campus accessibility according to these parameters. Furthermore, in order to achieve this model of mobility, the Plan sets out the strategic lines to be followed and which must be the reference for any work related to mobility management undertaken by the University.

In general, these strategic lines promote non-motorised (walking and bicycle) and public transport, together with a more rational use of private vehicles. That is, they promote means that produce less emissions, contaminate less, and cause fewer accidents per passenger and kilometre travelled.

Apart from these objectives, the Plan also proposes promoting awareness among the University community by scheduling informative events to influence the mobility habits of UAB members; promote participation of the community to consider the differing needs of groups when providing solutions to accessibility problems; and renew the UAB Special Interior Reform Plan to meet the objectives and criteria defined by the Law on Mobility when incorporating processes of urban planning on-campus.

The Strategic Accessibility Plan has become a basic reference document in a context where the University assumes leadership and responsibility for ensuring the necessary awareness and required tools are present for a sustainable future. Thus the need for universities to have sustainable programs in all areas of mobility management. Also in a context in which the university, as a mobility generator, educational and investigative institution committed to the environment, should promote sustainable mobility by integrating itself as a territorial node in the metropolitan region where it carries out its activity.

The proposals defined by each of the strategic lines of the Plan affect the activities of the UAB as well as other administrations. This is why there are multiple agents involved in the development of this plan: the Generalitat (Government) of Catalonia, the Regional Council of Barcelona, the Territorial Mobility Authority of Barcelona, the Regional Council, City councils, inter-urban transport operators and users.

Indicators

Not available.

UAB Strategic Accessibility Plan

2006

Results

With the approval of this plan, the University has defined its mobility policy before the university community and society in general, marking the lines for future activities.

Expense

The plan represents no specific cost or associated material resources.

Financing

Not available.

Findings

It is essential to have a defined mobility policy for the university as a frame of reference for any mobility related activity, either within a mobility plan or individually, as this enables an across the board interpretation by the university community. Furthermore, it serves as a reference for successive bodies governing the university.

Pictures

Not available.

Links

http://www.uab.cat/web/la-movilidad-en-la-uab/el-proyecto-biciuab-1345676563240.html

Contact person

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Mobility Planning and Management Unit

2005

University
Universitat Autònoma de Barcelona (UAB)

Country
Spain

Location
Peri-urban. 20 km from Barcelona

Size
40,000-50,000

Mobility Organizational Structure
Mobility team

Summary

The UAB Mobility Planning and Management Unit.

Aims

Fully apply the UAB accessibility and mobility policy by incorporating the economic, social and environmental aspects of mobility in the analysis and lines of actions as well as the participation of all the agents already involved whether on or off campus through the Mobility Table.

Stakeholders

Not available.

Background

Not available.

Mobility Planning and Management Unit

2005

Description

After several years analysing and diagnosing the accessibility of the main UAB campus, as an educational institution generating a large number of displacements, and in view of the strategic importance of improving accessibility in a sustainable and safe way in the future of the University, the UAB Mobility Management Unit (currently, the Mobility Planning and Management Unit -UPGM) was created in 2005. The complexity of this subject, due to its strategic, environmental, social, economic and policy implications, led the University to understand the need to create an exclusive planning and management unit as part of the Logistic Services and Administration Area.
This process created the figure of the UAB Mobility Manager whose task was to advise the governing body on mobility and accessibility policy and implement the policy reflected in the UAB Strategic Accessibility Plan.

Some of the most notable tasks, among others, are:

- Represent the UAB regarding mobility in relation to the different areas involved: administrations, operators, users and other areas of the University directly or indirectly associated with mobility.
- Guarantee the participation of all agents involved.
- Undertake the communication and advertising of UAB actions in this regard.
- Determine, in real-time, the mobility demands of the UAB, generating all the required information.
- Determine, in real-time, the transport offer of the UAB, generating all the required information.
- Regularly update and publish information about the transport offer for current or potential users.
- Regularly update the diagnosis of UAB mobility, detecting the main problems affecting campus accessibility and adjusting any lines of action accordingly.
- Obtain outside economic resources (subsidies, agreements, etc.) for the development or implementation of the proposals agreed upon.
- Establish and apply the mechanisms for implementing the mobility policy on the campus. If applicable, draft and implement the UAB Mobility Plan, as well as ensure its compliance.

Indicators

Indicators of consolidation: human and material resources assigned.

Mobility Planning and Management Unit

2005

Results

- The UPGM has become an internal and external reference in the management of UAB mobility.
- Integral and permanent analysis and diagnosis of mobility.
- The creation of a stable team of technicians to advise on defining and consolidating mobility policy making and the subsequent application of any measures required for its implementation.

Expense

The approximate annual cost of this initiative is approx. 100,000 € for staff and environment, and 0.9M € in operations (approximately 75% dedicated to the UAB bus service).

Financing

UAB budget.

Findings

Defining a mobility policy and creating a unit to manage on-campus mobility and transport is of utmost importance within new contexts characterised by the paradigm of the 'knowledge society' and the new role given to the University as an institution for higher education committed to the environment. Even more so when the model is for a campus on the fringes of the urban fabric, in that this makes management more difficult and increases the challenges to be overcome regarding mobility and transport.

In modern contexts, accessibility and connectivity become essential elements in enabling the campus and its environment to link with other, more or less distant places on a metropolitan level. This contributes to reducing its relative isolation helping incorporate it into the backbone of the campus structure while also positively influencing the dynamics of related environments both socially and geographically. It is important to stress that this management should not only be carried out on the campus but also off-campus, as functional limits of the University exceed administrative limits.

This means that the success of efficient management of mobility and transport on-campus will contribute to increasing the University's competitiveness and territorial standing.

It's worth noting that, in the case of the UAB, prior to the creation of the UPGM, mobility management was undertaken by the Environment Office and, by definition of its functions, was basically focused on the environmental aspects of mobility, with less attention given to the social and economic aspects and the competitiveness of the University.

Pictures

Not available.

Links

http://www.uab.cat/accessibilitat-transports/

Contact person

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UAB Mobility manager
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UAB Mobility Plan 2008-2014

2008

University
Universitat Autònoma de Barcelona (UAB)

Country
Spain

Location
Peri-urban. 20 km from Barcelona

Size
40,000-50,000

Mobility Organizational Structure
Mobility team

Summary

The UAB Mobility Plan 2008-2014 (PMUAB) is a mobility management and planning tool to develop strategic lines within the Strategic Accessibility Plan.

Aims

The main objective of the PMUAB is to develop the strategic lines of the Strategic Accessibility Plan with specific actions and schedules but with an approximate budget. The purpose of these lines is to maximise accessibility to the Bellaterra campus of the UAB in the most efficient, sustainable and integrating way possible in line with the Concepts of Sustainable Mobility.

In order to achieve this objective, the PMUAB proposes sub-objectives such as increasing campus accessibility by promoting public transport, trips by bicycle and on foot, as well as a more rational use of private vehicles, taking the principles of sustainability, safety and social equality as a reference.

Stakeholders

- Territorial Mobility Authority of Barcelona (ATM).
- Unidad de Planificación y Gestión de la Movilidad (UPGM).
- Cerdanyola City Council.
- Generalitat (Government) of Catalonia.
- Barcelona Institute of Regional and Metropolitan Studies (IERMB).

Background

Not available.

UAB Mobility Plan 2008-2014

2008

Description

For the UAB accessibility is a key aspect of university policy and, as a unique metropolitan node, it requires the participation of the competent administrations. For this reason, the UAB Mobility Plan was developed in collaboration with the Mobility Planning and Management Unit (Unidad de Planificación y Gestión de la Movilidad - UPGM) of the UAB, Cerdanyola City Council, the municipality where the institution is located, the Metropolitan Transport Authority (ATM) and the Generalitat (Government) of Catalonia.

The plan enables the scheduling of actions required in relation to mobility. The implication of the competent administrations ensures a commitment to the objectives of the plan. These administrations signed a framework agreement to show their intentions towards its implementation. Nevertheless, because of political changes, no formal working agreement was ever signed to give life to said framework agreement.

The new UAB Mobility Plan 2017-2022 is currently undergoing revision. The part related to analysis and diagnosis was drafted during 2016.

Indicators

UAB Mobility Observatory (indicators for offer, demand and impact).

UAB Mobility Plan 2008-2014

2008

Results

All things in consideration, since its implementation in 2008, the PMUAB has been a reference for the UPGM in its work to achieve more sustainable and safer mobility on the University campuses, marking the strategic lines to work on and the specific actions to be taken. On completion, it has carried out 75% of the planned measures, the remaining 25% corresponding to measures under the responsibility of other administrations and with a higher cost.

The following is a list of the most noteworthy actions taken during implementation of the Plan:

- Actions for service improvements: extension and improvement of the inter-urban bus and train service, improvements to the UAB internal bus service through increasing the number of routes and unifying the image, adaptation to people with reduced mobility and the incorporation of new, more environmentally sustainable vehicles.
- Urban-based initiatives to promote the use of non-motorised means of transport, as well as improving the network of bicycle routes from towns close to the campus. In addition, the expansion of the internal network of cycle paths and of the number of bicycle parking areas on-campus.
- Actions in the field of information and awareness such as: the Week for Sustainable and Safe Mobility; the distribution of the Guide to Sustainable, Safe Transport; and the improvement of the UAB mobility and transport web page. Created in 2010, the web informs the university community of the means of transport available, the legislative aspects of UAB mobility and the dissemination of interesting technical information about sustainable mobility in general.
- The PMUAB has also participated in improving transit habits. The results of the Survey of Mobility Habits carried out on the University community reveal an evolution of modal distribution in travel to and from the campus that favours the use of public and non-motorised transport.
- Public transport showed an increase of 10% from 52.6% of all journeys made by the university community in 2001 to 62.6% in 2015. The non-motorised means increased by 1.6% going from 4% in 2001 to 5.6% in 2015. In line with this increase in the use of more sustainable transport, private vehicle usage dropped from 43.4% in 2001 to 31.9% in 2015

Expense

Approximately 50.000,00 €.
No associated material resources.

Financing

Territorial Mobility Authority of Barcelona (ATM).

Findings

- Mobility plans are planning tools that do not include binding financing plans. Therefore, their execution depends on the political will at any time and the financial structure of the different administrations.
- In a context of budget cut-backs, investments on sustainable mobility are usually less well received by the general public who consider there are other concepts with a higher priority for investment

Pictures

Not available.

Links

http://www.uab.cat/accessibilitat-transports/

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New Mobility Policy for Employees

2012/13

University
Erasmus University Rotterdam

Country
The Netherlands

Location
-

Size
20,000-30,000

Mobility Organizational Structure
Mobility Team

Summary

In 2013 the Erasmus University Rotterdam (EUR) introduced a new mobility policy for employees to promote the use of alternative modes of transport.

Aims

The main aim of the policy is to reduce the weighting on car usage shown in the modal split for employees and students. Additionally, the EUR wants to improve its CO2 footprint.

Stakeholders

- Management of the University (Board, Human Resources and Facilities Management).
- Employees' Union.

Background

In 2011 the EUR decided to stimulate sustainability in all its activities, including transport. The EUR aimed to become one of the most sustainable universities in the Netherlands.

New Mobility Policy for Employees

2012/13

Description

Starting in 2012 a new mobility policy for employees was introduced aiming at reducing the use of the car to commute to and from the University and at stimulating the use of alternative transport modes. Several measures were introduced, the most important being:

- The introduction of paid parking for all employees.
- Full subsidy for travelling by public transport.
- Partial subsidy for purchasing an electrical bike and/or scooter.

Paid Parking
Prior to 2013 all employees and a large part of students could park for free at the campus of the EUR. Since January 2013 no students are entitled to get a parking card and, accordingly, if they park their car at the University campus they must pay the regular parking fee that applies to visitors (€1.70 per hour with a maximum of €10.00 per day). Since June 2013 employees must also pay to park their car at the campus. The fee has been introduced gradually between 2013 and 2015:

- In 2013 the fee was €1.00 per day.
- In 2014 the fee was €1.75 per day.
- Since January 2015 employees must pay €2.50 per day.

Public Transport
Since 2012 employees can choose to trade their normal home-work travel allowance (€0.19 per km – a national standard) for a full reimbursement of the monthly or yearly public transport travel card.

E-bikes and E-scooter
Employees can apply for a subsidy of a maximum of €500 for purchasing an electrical bike or scooter.

The process to draw-up and implement the policy took more than a year; during this period the EUR set up an ad-hoc Steering Committee for Mobility made up of representatives from the University Board; the Human Resources and Facilities Management departments and of scientific experts. The Steering Committee met regularly (at least once every two months) and had regular meetings with the students and employees' unions as well.

Indicators

Two main indicators have been used to measure the effectiveness of this policy:

- Modal split of employees and students.
- Reduction in CO2 emissions generated by employees' car commuting.

Results

The main results in the period 2012 (baseline) and 2016 were:

- The percentage of employees travelling by car decreased from 36% to approx. 31%.
- The total number of km driven by employees to work decreased by 7,7%; an estimated 42,4 tons of CO2 has been saved.
- Both use of public transport and bike increased.

Expense

It's difficult to provide an overview of the exact financial expenses because the process included different departments.

Yet we can say that the policy generated a clear economic benefit for the University. Indeed, thanks to this policy the EUR could reduce the demand for parking and, accordingly, it could reduce the need to build additional parking capacity while, at the same time, enlarging the total building surface. In other words, new buildings have been built without having to add extra parking capacity. This allowed the EUR to save several million euros. Instead of building an additional parking garage the campus now has an extra green area (see pictures below).

Financing

The whole project has been entirely financed by the EUR (see box Expense).

The income generated by paid parking has partially compensated the extra costs for the subsidy of the public transport.

The financial subsidy for purchasing e-bikes and e-scooters was provided by the Municipality of Rotterdam.

FIndings

- Having a clear objective and aim for your policy.
- Involving all decision makers and stakeholders within your organization.
- Monitoring and evaluating the policy (a priori and during the implementation).

New Mobility Policy for Employees

2012/13

Pictures

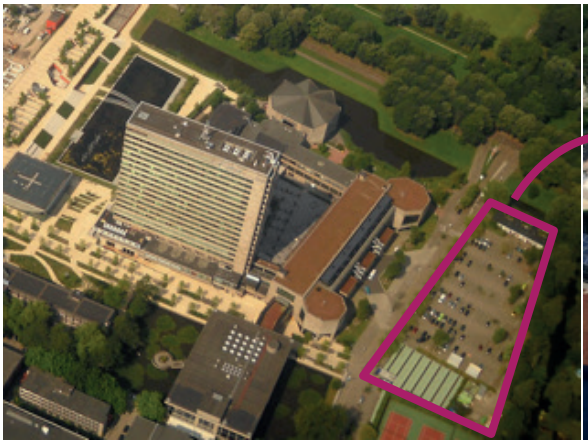

Fig 1. Before the policy

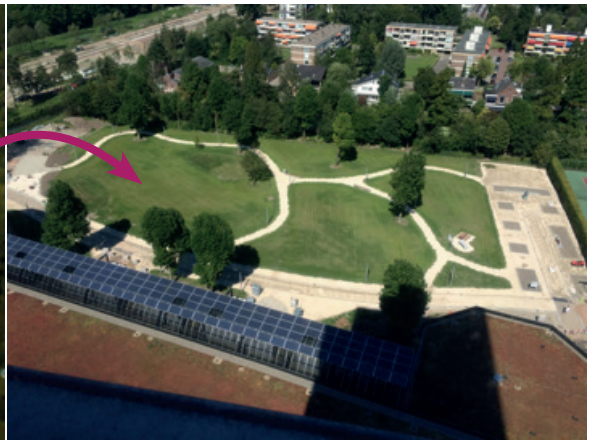

Fig 2. After the policy

Links

https://www.eur.nl/english/mobility/

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Mobility Policy for Employees

2012

University

HU University of Applied Sciences Utrecht (UUAS)

Country

The Netherlands

Location

-

Size

40,000-50,000

Mobility Organizational Structure

-

Summary

Since 2012 the Utrecht University of Applied Sciences (UUAS) has introduced several measures to reduce CO2 emissions resulting from staff commuting.

Aims

The main aim of the policy is to reduce total CO2 emissions by 100% in 2030, and 20% in 2020 compared to 2014. To achieve this, car mobility should be reduced by 20% in 2020, when compared to 2013. It aims to stimulate the use of the bicycle, e-bike, public transport, the efficient scheduling of classes, blended learning etc.

Stakeholders

- HU University managing body (Board, Human Resources and Facility Management).
- Employees' Union.

Background

Not available.

Mobility Policy for Employees

2012

Description

The following constitute major measures taken to stimulate sustainable mobility among employees since 2012:

- Bikes, electric bikes, and electric cars are available for use by staff for business related travel.
- Financial incentives for employees who buy and use their e-bike to work (discounts and 'bike-for-your-bonus' by using your e-bike-to work-incentives) together with the Dutch Ministry for Infrastructure & Mobility.
- The use of public transport in the region of Utrecht is partially subsidised. (subscription/ pass discounts on public transport)
- Financial subsidy of up to €850 for purchasing a bike.
- In 2014 and 2015 a special program (Low Car Diet) was launched to allow employees to try out ways they can travel without using the car by providing free public transport and the use of electric shared cars, e-bikes and bicycles.
- In 2015 active parking management has been introduced in which only employees living more than 10 km from the UUAS are allowed parking privileges.
- In 2016 an agreement with the local government was signed to stimulate commuting outside rush hour periods.
- Over the past few years, several measures have been introduced to facilitate working / studying from home (VPN, teleconferencing, Skype, blended learning, etc.)
- Since March 2016 a mobile bicycle repair service is available each week at the University campus; employees can get their bike fixed for a reduced fee and they can also buy a pre-used bicycle for only €95.

Indicators

- CO2 emission reduction.
- Modal split.
- Usage of e-cars.

Results

CO2 emission reduction:
available in March 2017

Modal split 2013:
Car usage 38%
Public Transportation 27%
Bike and e-bike 34%

Usage of e-cars:
All six cars are being used every day by an ever growing number of employees.

Expense

Not available.

Financing

Most of the measures have been financed by HU University. Some form of financial support has been provided also by local, regional, and national governments.

Findings

Mobility has the greatest impact on CO2-emissions. To persuade our staff to be more sustainable in their business travel and commuting, routine behaviour needs to be influenced and changed.

The solution is both technical (parking restrictions) and behavioural (demotivating un-desired behaviour e.g. by imposing parking fees and stimulating the desired behaviour, e.g. by using financial incentives for public transportation, bike, and e-bike usage).

Also important is the fact that a single institution can never solve the problem on its own. You need to address the challenge with your internal and external stakeholders, which include the municipality, province, other institutions and businesses in the area.

Mobility Policy for Employees
2012

Pictures

Fig 1. The Low Car Diet initiative at HU

Fig 2. E-cars and e-bikes for business related travel

Links

https://www.hu.nl/los/hu-en-duurzaamheid/duurzame-bedrijfsvoering/mobiliteit

Contact person

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Lower Mileage; Lower Carbon; Lower Costs: provision of a range of business travel options

2009

University
University of Cumbria

Country
United Kingdom

Location
Urban centre

Size
5,000-10,000

Mobility Organizational Structure
Mobility manager

Summary

Providing a range of business travel options so that our staff would review how they make business trips, with a view to travelling less and adapting to less intensive ways of travelling, in particular relying less on the use of private vehicles.

Aims

Reduce the impacts resulting from travel and our use of transport, specifically our:

- Environmental impact.
- Health and safety risks.
- Financial costs.

Stakeholders

- Senior management from Facilities Management, Health and Safety.
- Finance and HR in the University.
- Virgin Trains.
- Enterprise Rent-A-Car and other travel providers.

Background

The University of Cumbria operates across the north west of England. Our main campuses are in Ambleside, Carlisle and Lancaster. We also have gateway operations in Barrow, Workington and London. Most of our campuses are in edge of town / city centre locations and as a result benefit from good transport links.
For six years the University of Cumbria has been pursuing a programme of work to reduce the impacts resulting from travel and our use of transport. Central to this was the introduction of a Travel Hierarchy. This hierarchy requires staff to evaluate the reasons for their travel and whether they could do it in a way that has lower impacts, ideally not travelling at all. The least favoured travel option under the hierarchy is the use of private vehicles ('grey' fleet).

Private vehicles tend to have poorer environmental performance than hire / leased alternatives. They also pose higher corporate safety risks as their maintenance is arranged by their individual owners. From a financial point of view, the University of Cumbria was reimbursing staff for use of their own vehicles at the HMRC (Her Majesty's Revenue and Customs) upper limit of 45p per mile: this was acting as an incentive for staff to use their own vehicles for business journeys.

Accordingly, senior management, particularly from Facilities Management (as the home of sustainability and fleet management within the University), Health and Safety, Finance and Human Resources in the University identified the use of grey fleet as a key target for reduction in order to reduce the risk profile of the University in a number of ways:

"Within HR, we strongly support driving the cultural change through our organisation to reduce travel. We recognise both the environmental importance and benefits to staff in terms of work/life balance and health & safety. It gives the additional advantage of reducing cost and with the ever increasing quality of technology; video conferencing is both greener and safer." Gail Best, Deputy HR Director.

"The Finance and Planning Service worked with Human Resources and Facilities Management to consider the best approach to car travel taking into account feedback on business needs, our approach to sustainability and cost. Crucially, the senior managers responsible for these areas jointly oversaw this work." Andrew Heron, Deputy Director, Finance.

Lower Mileage; Lower Carbon; Lower Costs

2009

Description

A range of attractive alternatives to private car use had to be put in place before specific action on grey fleet could be started. The actions are summarised below. Once these had been established (over a period of four years), three changes aimed specifically at reducing the impacts of our use of grey fleet were introduced:

- Reduction in mileage rate payable from 45p per mile to 30p per mile.
- Obligation for staff who commute by car to deduct their home to work mileage from their claim (not for staff who don't drive to work; nor does this obligation apply for business journeys being made by non-car modes).
- Obligation for staff to maximize car sharing for all their business journeys by car, e.g. by registering the journeys on cumbriaunicarshare.com

In terms of our expectation of success, we based this on surveys of travel habits within our University and on third party case studies. Within a workplace where reasonable alternatives to private cars are available, case studies showed that whilst there would be some transfer of journeys to other modes (especially hire vehicles), this would be outweighed by the number of journeys no longer made and would result in a net reduction in cost and emissions when taken across the University. The scale of the likely net change could not be easily assessed in advance so a mid-range target of £75,000 for the first year was adopted. The results turned out to be more positive than this and, at the time of writing, use of grey fleet is still declining although at a lesser rate.

In relation to the implementation of the wider programme of travel actions that have been put in place to support our reduction in use of grey fleet vehicles, this table illustrates the costs and benefits (actions that relate specifically to commuting journeys are relevant because staff who reduce their reliance on cars for commuting are less likely to rely on their car for business trips):

Key Actions	Benefits and Costs
Development of video conferencing, desktop webcams and Skype for Business to reduce travel.	Significant reductions in travel have been achieved by our adoption of these technologies.
Long term partnership with Virgin Trains (VT) to allow free first class upgrades for University staff on business journeys.	Our Green Gown Award submission in 2012 identified cost savings on car use that arose from greater use of rail. No specific costs other than normal ticket prices – partnership with VT.
Developed close working relationship with Enterprise, our car hire provider and IAM to provide driver training to high mileage drivers	Provision of training to staff to enhance their confidence in using hybrid vehicles (in January 2016 the University introduced its first electric vehicle). Reduction in vehicle size (since elimination of leased car fleet) used for business journeys of approximately 75%. University of Cumbria and Enterprise featured as the case study in the EST publication "Understand how daily rental vehicles can benefit your business".
Complete rewriting of our parking policy and arrangements to focus this on the needs of staff, students but in particular to give preference to less polluting and shared vehicles	Increase in car sharing amongst staff and students. On one campus in 2015-16 academic year 15% of all permits sold were car sharers' permits
New financial support (interest free loans) for staff travelling by public transport	Modest take-up but important to offer this. Minor monetary opportunity/cost but no debt recovery action required to date
Bike purchase scheme for staff and bicycle loan schemes for staff and students (our bike fleet is continuing to grow and currently stands at 68);	Saving of approximately £2k per annum from employer's National Insurance cost. Approximately 10% of all staff have taken advantage of our Cycle to Work scheme over the last five years. At the time of writing, almost all our bicycle fleet has been loaned out this term.
Experimental public bus service between our Lancaster and Ambleside campuses, including provision of Stagecoach passes for some of our students	2015-16: 63 students provided with 'Stagecoach' passes for Cumbria and Lancaster, encouraging them not to bring a car to University. Public bus service available to staff for business trips between these campuses
Implemented a trial of Personal Travel Plans (PTPs) for all staff holders of parking permits at our biggest campus	200 Personal Travel Plans issued to staff at one campus. Evaluation survey showed 5% stated an intention to change their commuting habits. PTPs being offered to potential students with accessibility issues.

Student engagement
The focus of our project is on business travel by staff, but students have been engaged in our travel reduction and sustainable travel programme as follows:

- Parking: in 2015-16 students purchased 39 car share and zero VED parking permits (7% of all student permits issued);
- Travel fairs and roadshows: students have been involved in running these and promoting travel initiatives as part of the University of Cumbria Students' Union Green Impact programme;
- Bikes: our bike loan scheme (£50 for a bike, lock and lights for a year for a student in our accommodation) is now oversubscribed (74 bookings for 68 bikes) for 2016-17 and our cycling support for students will be an integral part of our Activities Fairs in the next few weeks.
- Bus: We have surveyed students using our bus service. This provided positive results: of those who responded, 91% said that they were aware that their pass entitled them to 24-7 access to all Stagecoach buses in our region. This demonstrated that our information campaign had worked well. 85% said that they had used the pass on buses other than getting to and from campus.

Indicators

- Financial burden of grey fleet mileage.
- Mileage.
- CO2e tonnes.
- People involved.

Results

- The University has reduced the financial burden of grey fleet mileage reimbursement from £275,000 (2012-13 academic year) to £106,000 (2014-15). Mileage claimed has reduced from 611,000 to 353,000. Grey fleet CO2e has reduced from 191 tonnes to 108 tonnes (43%).
- We are delighted that the use of grey fleet has continued to decline. Comparing the first ten months of 2015-16 with the same period for 2014-15, grey fleet mileage has declined from 282,000 to 252,000 and cost of reimbursement has dropped from £84,000 to £77,000k.
- Approximately 400 staff have been involved via changes to how they make their business journeys (this is approximately 40% of our total staff). Approximately 200 students have been directly involved in our travel roadshows, bus service and bike loan scheme.

Expense

- Cost of driver training: £3k pa.
- Annual cost of public bus service- Stagecoach passes £43k.
- Cost of Personal Travel Plans: £2k.

Financing

Costs have been met from the University's car parking budget. Our parking policy contains this commitment:

"The University does not levy car parking charges in order to generate a surplus for wider use in the University. After deducting all costs of providing car parking facilities, any net surplus will be used to facilitate and promote measures that reduce the need to travel and means of transport other than single occupant private cars. These measures are set out in the University's Travel Plan."

We calculate the full costs involved in providing and managing parking and then use the surplus in accordance with this policy.

Findings

- Since winning the Green Gown Award for Carbon Reduction in 2012 we have demonstrated that continued reductions in business travel and emissions can be achieved by renewing, refreshing and updating measures encouraging behavioural change.
- This project has been successful in part because it has not required specific funding. One of the core aims of senior management, aside from other identified risks, was to make a substantial reduction to travel-related costs.
- A number of the grey fleet measures that we have pursued are relatively simple to adopt as long as there is management commitment. We believe there remains considerable scope in all sectors to reduce grey fleet usage and its associated emissions.
- Key words: Good partnership working; replicability; innovation; low cost initiatives.

Pictures

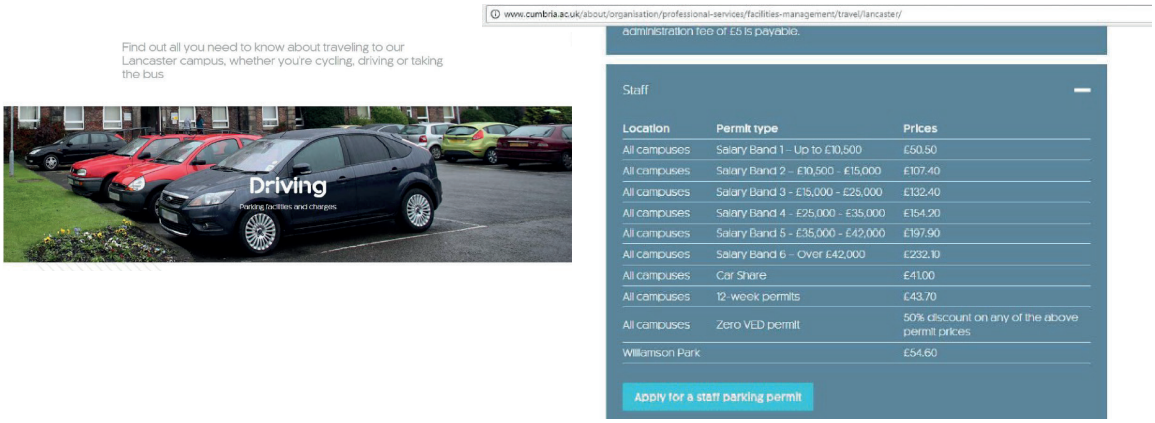

Fig. 1. Screenshots of Parking Policy on the University of Cumbria's website

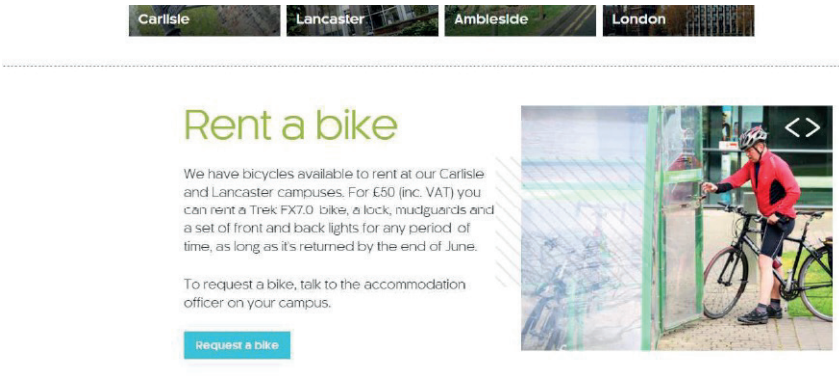

Fig. 2. Screenshot of bike rental system on the University of Cumbria's website

Links

http://www.cumbria.ac.uk/about/organisation/professional-services/facilities-management/travel/

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Mobility Plan and Reorganisation of the UAH External Campus

2009

University
University of Alcalá (UAH)

Country
Spain

Location
Urban and Peri-urban

Size
10,000-20,000

Mobility Organizational Structure
Environment Office, 'Ecocampus'

Summary

The University of Alcalá implemented an Integral Reorganisation Plan meeting mobility criteria in 2012.

Aims

The plan included several general objectives:

- Prevent the negative environmental impact that could be derived from University activity.
- Promote healthy and sustainable habits among members of the University community.
- Promote a growing level of energy efficiency.

These general objectives are then used to define more specific aims:

- Increase bicycle use.
- Rationalisation of traffic and reduction of the private vehicle by simplifying the use of public transport.
- Promote the use of less contaminating energy for transport.
- Create common areas to promote healthy, environmentally friendly habits.

Stakeholders

BANKIA: co-financing the bicycles and storage containers.

Background

The University of Alcalá has three different campuses: one in the city of Alcalá de Henares (urban), other faculties in the City of Guadalajara (urban) and a third external campus (suburban).

Mobility Plan and Reorganisation of the UAH External Campus

2009

Description

The Plan, drafted transversally by different UAH departments, focused on the concept of "Green Infrastructure" to reduce the impact of activities on their environment.

Sustainable mobility was first implemented in the UAH in 2009 with a study of the condition of campus roadways and a system for bicycle hiring-sharing.

The Reorganisation Plan currently being developed is slowly being implemented and includes awareness campaigns with the participation of the University community and will be completed within the next few years.
The activities performed have been:

- Since 2009, installation of the containers and the bicycles.
- Dissemination campaigns are carried out at regular intervals.
- 10 new bicycles were purchased in November 2015.
- The bicycle lane is inspected for correct maintenance at regular intervals.
- An agreement has been signed with an association of disabled people and their family members, and twice a week workshops are organised for repair/maintenance of the bicycles.

Different instruments have been used to achieve each of the specific endpoints:

- Increase bicycle use: the Ecocampus office manages the system for bicycle hire-share. The external campus and the different faculties have been provided with the necessary infrastructures (bicycle storage, bicycle parking racks, bicycle lane) taking advantage of the bicycle paths already existing in the City of Alcalá and regular maintenance is carried out on the bicycles.
- Rationalisation of traffic and reduction of the private vehicle by simplifying the use of public transport: bus routes on the campus have been adjusted in cooperation with the transport company to enable partial pedestrianisation of the inner campus and the car parks will also be reorganised with this objective in mind. In the same way, use of the suburban railway network, which has a stop at one end of the campus, has been promoted by offering a free student shuttle service from the station to the different faculties. The idea behind this reorganisation plan is to adapt common spaces to encourage healthy habits and integrate external, large impact elements located off-campus, including the Principe de Asturias University Hospital and the technology park.
- Promote the use of less contaminating energy sources: we have the first solar powered charge point constructed in Spain. This charging station for electric vehicles is powered by solar panels. With an energy output of 5,600 kWh a year, the charge point is for the electric vehicles of the University as well as for those of private individuals. The charge point is therefore of mixed use, both internal as well as for the general public. It has 15 solar panels and a total of nine outlets. Of the four outlets for cars as well as motorcycles and other electric vehicles, two are intelligent and enable remote control of the top-up process (from a mobile phone, for example). The other two are conventional. The photovoltaic station is designed for charging electric vehicles, but when not in use the energy is derived directly to the grid to thus reduce its energy bill.

Indicators

- Use of bicycle loan-sharing.
- Use of public transport among UAH students.
- Use of renewable energy sources for the University's fleet of electric vehicles.
- Use of public transport among UAH students.
- Use of renewable energy sources for the University's fleet of electric vehicles.

Mobility Plan and Reorganisation of the UAH External Campus

2009

Results

- It has been possible to promote use of the bicycle among members of the University community.
- Social integration of the disabled. Bicycle repair mechanics were available from the outset, but since 2010 the service has counted on the collaboration of various people from the APHISA Association (intellectually disabled) who help with bicycle maintenance and repair every week. The result of this initiative is also considered to be very positive.
- Accessibility to public transport among UAH students.
- Use of less contaminating energy sources for the university's fleet of electric vehicles.
- Health benefits among UAH students and staff through encouraging physical exercise.

Expense

Not available

Financing

The purchase of bicycles and the bicycle storage containers were co-financed by the UAH and Bankia. All other actions were financed by the UAH.

Findings

- The results of the bicycle loan-sharing scheme are positive: the levels of use remain stable (since beginning the program use of the bicycle steadily increased up to more or less stable levels). Therefore it has been possible to determine that if an effort is made to improve these aspects, there is a response. Work is currently being done on improving the security of the connection between the outer campus and the City of Alcalá de Henares.
- In addition, this process has positively influenced the health of UAH students and staff by encouraging physical exercise, another reason to continue advancing with the promotion of a model of sustainable transport.

Mobility Plan and Reorganisation of the UAH External Campus

2009

Pictures

Fig 1. Bicycle facilities and charging stations for electric vehicle

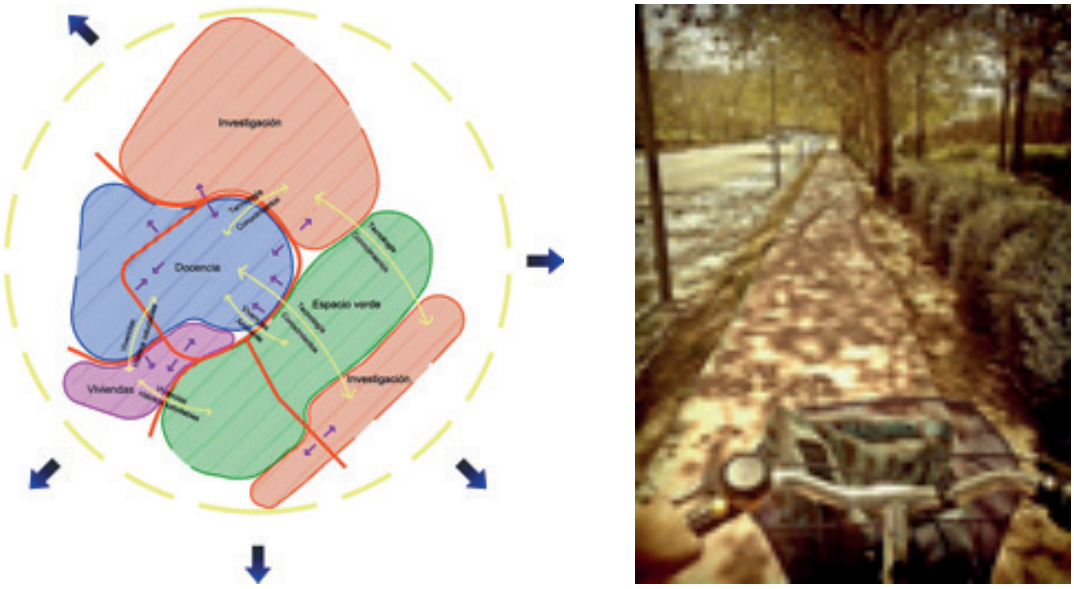

Fig 2. Plan of how the outer campus will be distributed according to the Mobility Plan

Links

http://www.uab.cat/accessibilitat-transports/

Contact person

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Campaign to Promote Pedestrian Access to the University Campus

2000

University
University of Girona (UdG)

Country
Spain

Location
Urban and suburban

Size
10,000-20,000

Mobility Organizational Structure
Green Office

Summary

The campaign "Walk to the UdG" includes micro-informative campaigns designed to promote the habit of walking based on breaking down barriers and overcoming objections by providing information about its convenience along with its environmental, economic and health benefits and time saving nature etc.

Aims

- Contribute to global and local environmental improvement and the reduction of CO2 emissions.
- Rationalise mobility and every-day commuting and reduce the use of private vehicles.
- Promote the habit of walking to nearby destinations.
- Offer flexibility and comfort to users.
- Contribute to the incorporation of healthy habits and improve the general health of members of the University community.
- Contribute to pacifying cities and discovering the environment.

Stakeholders

- SIGTE (technological support).
- Girona City Council.

Background

Not available.

Campaign to Promote Pedestrian Access to the University Campus

2000

Description

The activities carried out were:

- Design and print informative brochures with messages, recommendations and suggested itineraries for accessing the UdG campus on foot.
- Design recommended itineraries between campus and points of interest using the Google maps platform.
- Design of informative web portals and their incorporation in the structure of the University web site.
- Design of healthy itineraries around the University campuses.
- Dissemination actions.
- The tools used were:
- Informative brochures.
- Web portals.
- Technological tools used by the SIGTE (Remote Sensing and Geographic Information Service) of the UdG to design healthy itineraries and the incorporation of information of interest to discover the environment (natural, historical and architectural heritage)

Indicators

- Mobility surveys.
- Obligatory trips on foot made by the university community.

Results

Increase the habit of walking among the university community (8% since 2000).
Reduction of CO2 emissions associated with this change in habits.

Expense

1,000€.

Financing

- In-house resources of the UdG Environmental Awareness Plan.
- Municipal Sustainability Board of Girona City Council.

Findings

The resolution of environmental problems and proposals for environmental improvements should be approached from a wide, cross-sectional perspective and focused on sustainability. The actions (in this case, improvement of mobility habits) should include benefits in various environmental, social and economic areas. For this specific practice, the social aspect has an unwavering support through recommendations made by different international bodies such as the WHO, which stress the need to acquire the habit of walking 30 minutes per day. As a result, it is also included among the activities recommended by the UdG Health Project, an initiative aimed mainly at the age range of the majority of lecturers, investigative, service and administration staff.

Campaign to Promote Pedestrian Access to the University Campus
2000

Pictures

Campaign to Promote Pedestrian Access to the University Campus

2000

Pictures

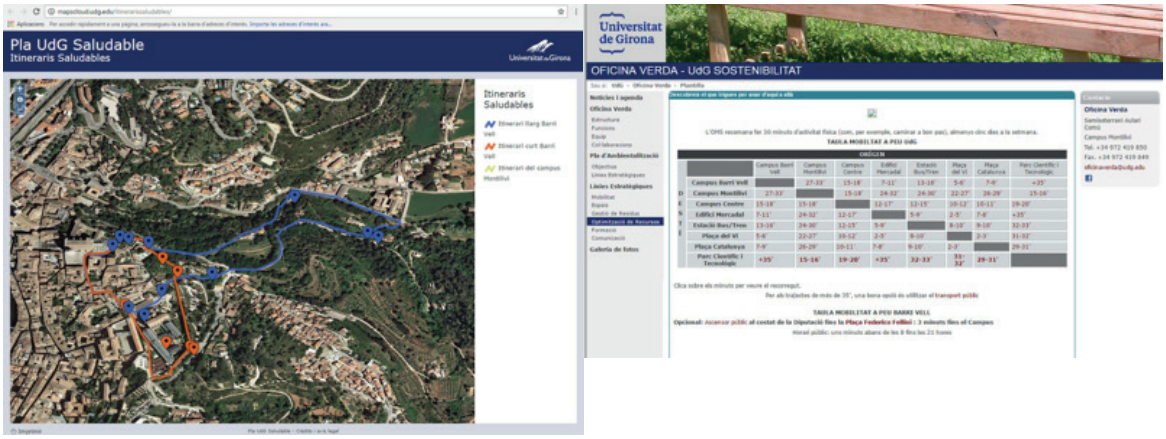

Fig 1. Promotional material for the campaign

Fig 2. Itineraries and travel times

Fig 3. Promotional material for the campaign

Fig 4. Healthy Itineraries

Fig 5. Travel times between campus and centres of interest

Links

http://www.udg.edu/ov/
http://mapscloud.udg.edu/itinerarissaludables/
http://www.udg.edu/tabid/20846/activitat=24

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Cukrowa Bike

2015

University

Szczecin University, Faculty of Management and Economics of Services

Country

Poland

Location

Suburban

Size

<5,000

Mobility Organizational Structure

None

Summary

The project is a package of activities aiming at promoting the use of bicycles for daily journeys among students and staff of the University. The proposed activities cover measures in a framework for developing bicycle usage infrastructure and accessibility to this mode of transport as well as promoting the use of bicycles among potential end-users. Measures also include studies on transport behavior.

Aims

- Increasing the use of bicycles for daily trips.
- Raising awareness among students and staff about the positive aspects of bicycle usage.
- Reducing the use of cars for daily travel.

Stakeholders

- Faculty of Management and Economics of Services.
- Szczecin University.
- City of Szczecin.
- "Nieruchomości i Opłaty Lokalne" Ltd.

Background

Not available.

Cukrowa Bike

2015

Description

Activities which have been implemented and should be mentioned:

- The development of a questionnaire template which could serve to outline the existing situation before the implementation of the project and could be used as a basis for assessing the results obtained thereafter.
- The construction of two monitored bicycle sheds on the Cukrowa-Krakowska Campus (next to the Faculty of Management and Economics of Services and the Faculty of Humanities); this activity was co-financed by the European Union from the European Regional Development Fund within the Regional Operational Program for West-Pomeranian province for the years 2007-2013: "Building of coherent system bike lanes (paths) in Szczecin (missing segments at Wyzwolenia ave., Ku Słońcu str., Żołnierza Polskiego sq. and Matejko str.) – UDA-RPZP.06.03.00-32-006/13"; the bicycle shed emplacement was possible due to the cooperation between the Faculty and the Municipality of Szczecin.
- The construction of an urban bike station - 'Bike_S' - next to the Cukrowa-Krakowska Campus (at Uniwersyteckie rnd.); this activity was possible due to cooperation of "Nieruchomości i Opłaty Lokalne" Ltd.
- Improvements to the 'Bike_S' login procedure were made possible. Login was encoded onto the 'student card', enabling 'Bike_S' rental to be activated simply by the touch of a card.
- The following activities in the process of being implemented should be mentioned:
  - The promotion of the "Cukrowa Bike" project through available means at the Faculty (posters, noticeboard, Faculty web site, etc.).
  - The following activities are at the planning stage within the framework of the project:
  - Competitions for the longest total distance travelled by bicycle (in different categories), where the winners will receive prizes.
  - Photo contest "Cukrowa Bike" for students and staff of the Faculty of Management and Economics of Services, based on participants' photos of the use of bicycles.
  - Bike ride "Tour the Cukrowa" connected with the students' festival.
  - Day of the Cyclist! Around the Cukrowa-Krakowska Campus during the students' festival. Activities promoting the use of bicycles: sharing information about how to create an account in the 'Bike_S' system; the bike ride and the final of the photo contest.

Indicators

Number of people using bicycles for daily travel.

Results

Number of people (students and staff) using bicycles for their daily commute to University has been increased.

Expense

To date, the University hasn't incurred any costs associated with the project.

Financing

- Bike-sheds were co-financed by the City of Szczecin Municipality and the European Union from the European Regional Development Fund within the Regional Operational Program for West-Pomeranian province for years 2007-2013.
- Construction of the 'Bike_S' urban bike station was co-financed by "Nieruchomości i Opłaty Lokalne" Ltd.
- Preparation and conducting of the survey was done by the University staff (among others: by Dr. Zuzanna Kłos-Adamkiewicz, Dr. Kamila Peszko, Dr. Urszula Chrąchol-Barczyk).
- Bicycle accessories (jackets, backpacks, reflective covers for cycling, etc.) deriving from other promotional activities were provided thanks to the cooperation of the Municipality of Szczecin.

Findings

For the moment it is difficult to assess the benefits of the project because the current level of implementation is only at 30%. The main results will be noticeable and measurable after completion of the main activities and after carrying out the survey which hopes confirm the positive effect of the undertaken actions.

Cukrowa Bike

2015

Pictures

Fig.1. One of the covered and monitored bicycle stations located at the University area

Fig.2. Start of the Bike_S urban bicycle station located near the University (Uniwersyteckie rnd.)

Links

www.wzieu.pl

Contact person:

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BICIUAB Bike Rack

2014

University
Universitat Autònoma de Barcelona (UAB)

Country
Spain

Location
Peri-urban. 20 km from Barcelona

Size
40,000-50,000

Mobility Organizational Structure
Mobility team

Summary

Construction of a network of secure bike racks that guarantee complete security of bicycles and any personal belongings.

Aims

Promote use of the bicycle by guaranteeing the safety of both the bicycle and any personal belongings against the risk of theft.

Stakeholders

Staff and students.

Background

Not available.

BICIUAB Bike Rack

2014

Description

The installation of the BiciUAB bicycle parking system is part of the BiciUAB Project. The UAB Campus Integral Bicycle Project, approved in October 2014, describes the actions of the fifth strategic line of the UAB Mobility Plan related to encouraging the use of the bicycle. This project considers actions in all aspects related to the use and promotion of the bicycle including infrastructures, parking racks and services.

Each bike rack has a capacity for 20 bicycles (10 supports where two bicycles can be locked) 20 outlets for electric bikes and 20 lockers. Access requires the use of a contact-less card provided by the Mobility Planning and Management Unit on signing a contract.

The UAB campus also currently offers standard bicycle parking facilities for up to 334 bikes. With currently two racks, the BiciUAB Project plans for the installation of ten more.

At the moment the bike parking service is in promotion and so is made available free of charge.

The connection of the installation to the internet by router and the software supplied enables management of users and cards, as well as constant communication for remote access control and unlocking doors.

The software also enables the monitoring of actual movements and the creation of usage reports for a better optimisation of the service.

Indicators

- Number of bicycle thefts on campus.
- Number of bicycle users.

BICIUAB Bike Rack

2014

Results

- Increased protection against theft for bicycle parking racks. The two stations installed of the planned total of 10 have all the parking spaces reserved and in use. A third rack is currently being installed at the main campus train station (FGC).
- Maximum occupation of the bike parking rack was assured by developing a web application where users are able to reserve a space by units of time.

Expense

Not available.

Financing

UAB budget: The work for construction of the security cage was carried out by UAB employees. Building materials, bike racks, and lockers were supplied by outside companies.

Lessons Learnt

Placing a charge on this service is not questioned in itself (users understand that the service could have costs related to maintenance) but on the other hand parking for cars is free. Offering this service free of charge incentivises demand for more access cards than those really used.

Pictures

BiciUAB

Fig. 1. Logo of the BiciUAB Project – homogenisation of the image

Fig.2. BiciUAB bike parking station – Albareda

Links

http://www.uab.cat/web/la-movilidad-en-la-uab/el-proyecto-biciuab-1345676563240.html

Contact person

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Cibiuam (Bicycle Centre of the Autonomous University of Madrid)

2009

University
Autonomous University of Madrid (UAM)

Country
Spain

Location
Peri-urban

Size
20,000-30,000

Mobility Organizational Structure
Environment Office (Ecocampus Office)

Summary

The CibiUAM (Bicycle Centre of the Autonomous University of Madrid) promotes the use of this vehicle as a means of every-day transport and encourages awareness of the need for more sustainable mobility.

Aims

The UAM's main objectives of promoting the bicycle as a means of transport are:

- To assume a leadership role in the promotion and implementation of a more efficient mobility model.
- To develop educational actions to change the transport habits among the University community.

Stakeholders

- Renfe-Cercanías for donating the space used by the CibiUAM.
- The Mobility Foundation of Madrid City Council and the Madrid Regional Transport Authority for their important technical support.

Background

The UAM detected a priority need to control the excessive importance of the private vehicle and the consequences on quality of life and the environment. Two main actions were undertaken to change this situation: the promotion of public transport, and the bicycle as a means of transport.

The strategy was as follows:

- Diagnosis of mobility at the University.
- Manage the mobility. This required, among other actions, extending the offer of types of mobility and promoting non-motorised means of transport.
- Promote the use of the private bicycle. This requires providing the user with a reference centre where a personalised attention can satisfy any needs regarding their own bicycle.
- Promote educational actions focused the environmental benefits of travelling by bicycle.
- Promote the concept of sustainable mobility associated with the bicycle as a preferential means of transport in the University, strengthening the internal system for the hire and use of bicycles.
- Involve the University community and society in matters related to sustainable mobility.
- Use a low number of public bicycles by encouraging the use of the private bicycle.

Cibiuam (Bicycle Centre of the Autonomous University of Madrid)

2009

Description

The centre offers a series of services and activities to the University community: bicycle sharing, bicycle racks, shop and mechanical workshop, self-repair workshop, second hand market for bicycles and accessories, and courses on bicycle mechanics.

CibiUAM is also a space for self-employment led by young people, the Centre is currently managed by three ex-students of the University who have created a cooperative.

It is a meeting point for bicycle fans that helps attract more people to using the bicycle (providing recommendations and support to cyclists), and is a reference for everything related to bicycle culture.

The CibiUAM organises free courses on bicycle mechanics and repair.

We believe the model chosen by the Centre for promoting the bicycle to be ideal: it goes beyond simple bicycle sharing to become a varied and flexible centre meeting the concerns of new or potential cyclists; and opting for a model that potentiates the private bicycle implies no relevant public expenditure.

There has been a considerably increased presence of the bicycle on the campus since the opening of the CibiUAM. It has gone from being an uncommon vehicle choice according to the 2007 mobility report to a popular choice of vehicle for internal mobility around the campus.

As with all other processes for the integration of the bicycle, this has not been an isolated action. The presence of this vehicle has been supported with the provision of bicycle parking areas at all centres, and with 'Renfe' suburban train services allowing access with a bicycle, along with an increased environmental awareness. All being factors in influencing the success of the project.

KEY DATES:

- 2001. Report on the "viability of an internal system of transport by bicycle on Cantoblanco campus", Consulting Gea 21.
- 2008, July. Program for promoting the use of the bicycle in the Autonomous University of Madrid, Ecocampus Office.
- 2009, 8 May. Opening of the CibiUAM by the Rector of the University.
- 2011, 22 September. Award for good practice granted by the Ministry of the Environment as part of European Mobility Week.
- 2013, February. The students cooperative "JELCA" replaces the GOTEO cooperative in management of the CibiUAM.

Indicators

- Number of bicycle loans made by the CibiUAM.
- Number of bicycles accessing the campus.
- Number of registered CibiUAM users.
- Number of participants in activities.

Cibiuam (Bicycle Centre of the Autonomous University of Madrid)

2009

Results

Some data: more than 4,750 people have accessed CibiUAM services since its creation in 2009; 1,135 members of the University community currently hold a CibiUAM card (students 48%, lecturers and investigators 46%, and administration, services and other staff 6%); the number of new cards per year has been: 2009 (205 new users), 2010 (164), 2011 (157), 2012 (82), 2013 (242), 2014 (160) and 2015 (125).

Expense

313,986 €. Of which 192,000 € correspond to 2009 for setting up CibiUAM, installating of bike parking stations and road signs; and the rest corresponds to annual contributions (2009-2016) the UAM makes for the economic sustainability of the CibiUAM.

Financing

The promoter of this activity was the Autonomous University of Madrid, providing the project with the financial and technical resources through the Ecocampus Office.

The UAM assumed the cost of setting up the centre and provides an annual contribution to complement the financial sustainability of the CibiUAM.

Findings

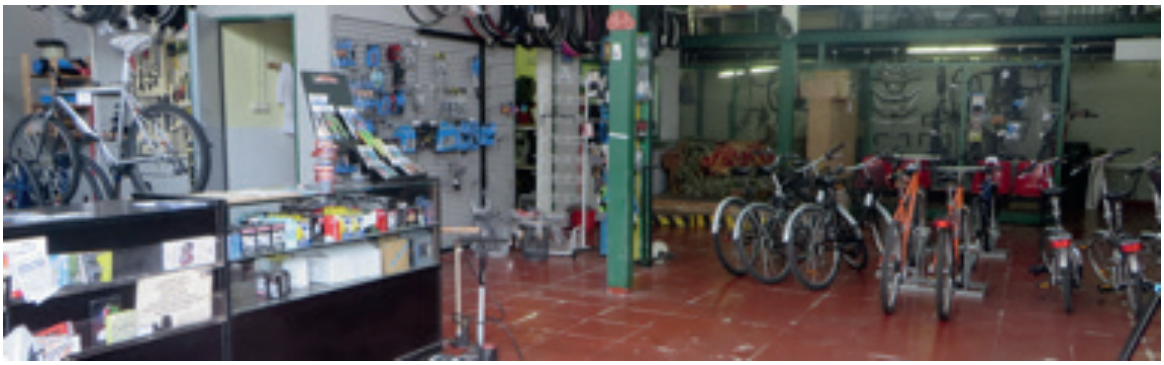
The quantitative data on the use of the CibiUAM certifies the success of the centre, but the most important achievement has been the awareness it has generated, the fact that there are many more private bicycles on the campus than there are from the loan service pays tribute to this.

Pictures

Cibiuam (Bicycle Centre of the Autonomous University of Madrid)

2009

Pictures



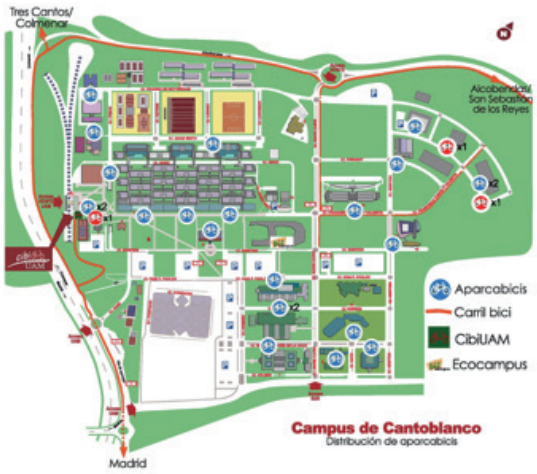


Fig 1, 2 and 3. CibiUAM (Bicycle Centre of the Autonomous University of Madrid): images and location

Links

http://www.europapress.es/madrid/noticia-uam-renfe-inauguran-cibiuam-promover-uso-cercanias-bicicleta-modelo-movilidad-sostenible-20090508163110.html
http://www.cronicanorte.es/trenes-cercanias-madrid-bicicleta/14373
https://www.youtube.com/watch?v=zEhOhSiZHIs
http://www.magrama.gob.es/es/prensa/noticias/-teresa-ribera-anima-a-los-municipios-espa%C3%B1oles-a-que-la-movilidad-sostenible-sea-el-eje-de-sus-pol%C3%ADticas-e-iniciativas-sociales-/tcm7-174117-16
http://www.noticiaspositivas.net/2011/03/02/un-goteo-de-pedaladas-por-la-movilidad-sostenible/

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The Solidary Bicycle: bicycles at reduced prices for the community

2013

University
Rovira i Virgili University (URV), Tarragona

Country
Spain

Location
Urban

Size
10,000-20,000

Mobility Organizational Structure
Environmental Management Unit

Summary

The URV promotes and adheres to a system for the reuse of unused bicycles that enables offering revised bicycles in good condition to the university community.

Aims

- Promote travel by bicycle within the University community by providing fully revised second hand bicycles at very low prices.
- Promote re-use of goods.

Stakeholders

- 'Bicicamp' (Coordinator of organisations and individuals for the promotion of the bicycle in 'Camp de Tarragona').
- The Mn. Frederic Bara i Cortiella Foundation (non-profit foundation whose objective is to assist and aid during childhood, taking in and attending to children who, for different reasons, are faced with economic, social, or special family needs by providing free-time educational activities).

Background

The UAM detected a priority need to control the excessive importance of the private vehicle and the consequences on quality of life and the environment. Two main actions were undertaken to change this situation: the promotion of public transport and the bicycle as a means of transport.

The strategy was as follows:

- Diagnosis of mobility at the university.
- Manage the mobility, this required, among other actions, extending the offer of types of mobility, promoting non-motorised means of transport.
- Promote the use of the private bicycle. This requires providing the user with a reference centre with personalised attention to satisfy their needs regarding their own bicycle.
- Promote environmental educational actions focused on transport by bicycle.
- Promote the concept of sustainable mobility associated with the bicycle as a preferential means of transport in the University, strengthening the internal system for the hire and use of bicycles.
- Involve the university community and society in matters related to sustainable mobility.
- Use a low number of public bicycles by encouraging the use of the private bicycle.

The Solidary Bicycle: bicycles at reduced prices for the community

2013

Description

The URV is involved in 2 of the 3 stages of the project:

- The collection of unused bicycles that owners donate to the project.
- Sale of repaired bicycles to members of the community.

The project is led by Bicicamp (a body promoting use of the bicycle in Camp de Tarragona area) and 'The Mn. Bara de Reus Foundation' whose workshop is used to repair the bicycles as part of a youth training scheme and who acts as the seller of the bicycles (the income contributes to their financing).

The supply of bicycles to URV members is conducted with two well differentiated profiles:

- Students and workers resident in the municipal area who do not have a bicycle or who own an expensive bicycle for leisure activities that do not wish to leave it in the University bicycle racks for security reasons.
- Visiting students and investigators staying no more than 1 year. In these cases, it is recommended that on completion of their stay they donate the bicycle back to the project.

Campaigns for internal dissemination within the university were carried out by e-mail messages, posters, appearance on the web and informative screens in centres.

The instruments used were the following:

- Part-time dedication by the University Environmental Technician.
- Part-time dedication of Bicicamp members, acting as supervisors in the repair workshop located at the Foundation.
- Cost of spare parts and tools partially met by the University and partially from income from the sale of bicycles.

Indicators

- Number of bicycles collected on the campus.
- Number of bicycles sold to URV members.

The Solidary Bicycle: bicycles at reduced prices for the community

2013

Results

- About 18 bicycles collected per year.
- About 24 bicycles sold per year.

Cost

500€/year (annual contribution to the cost of spare parts and tools).

Financing

Ordinary budget endowment of the URV environment plan.

Findings

The creation of 3 collection points for unused bicycles on the Tarragona and Reus campuses aimed at receiving donations from members of the University and residents from nearby neighbourhoods.

Pictures

Fig 1. Poster for dissemination campaign

The Solidary Bicycle: bicycles at reduced prices for the community

2013

Links

http://www.urv.cat/ca/vida-campus/universitat-responsable/medi-ambient/
http://www.infobicicamp.org/p/bicicleta-solidaria-dona-la-bescanvia.html
http://www.fundaciobara.org/la-bicicleta-solidria-

Contact person

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To the UCO by Bike

2010

University
University of Córdoba (UCO)

Country
Spain

Location
Peri-urban

Size
10,000-20,000

Mobility Organizational Structure
Environmental Protection Service

Summary

Free annual bicycle loan service among the university community, including basic safety equipment (reflective vest, helmet, emergency lights and locking system).

Aims

- To promote the use of the bicycle as a means of transport to study or work and as a leisure activity.
- To form an entity in charge of promoting a change of habits regarding the use of the bicycle as a normal means of transport among the University community.

Stakeholders

- Ministry of Development.
- Board of Andalusia.
- Companies providing bicycles and maintenance services.

Background

Not available.

To the UCO by Bike
2010

Description

The bicycle loan service consists of:
Materials:

- 50 hybrid bicycles.
- 50 emergency kits: reflective vest, helmet, emergency lights, locking system.
- 50 registration plates "To the UCO by Bike".
- Advertising posters.

Maintenance:

- Annual revision of the bicycles.
- Replacement of stolen bicycles (14 between 2010 and 2016).
- Replacement of emergency kit components: emergency lights, copies of locking system keys.
- Updated posters.

A deposit of 80 Euros is required and is refunded at the end of the loan period if the bicycle is returned in the same good condition.
The activities performed to develop the bicycle loan system were:

- Selection of the most suitable bicycle and safety kit.
- Write up draft of the conditions of use.
- Web design.
- Design of the publicity and communication process.
- Design of the procedure for adjudication, delivery, follow-up, return and maintenance of the bicycles.
- Development of instruments to evaluate the efficiency of the initiative and user satisfaction.
- Organisation among users of catalogued bicycle tours around the city as a complementary activity.

In addition, as an activity especially aimed at users of "To the UCO by Bike" but open to any cyclist of the UCO, each year cultural bicycle tours have been organised around the city of Córdoba with the collaboration of the City Council

Indicators

- No. of bicycles available.
- No. of applications received.
- User profile (No. of workers, No. of students, No. of men, No. of women).
- User opinion.
- Use of the bicycle during the program, intended use after the program, real use after the program.

To the UCO by Bike
2010

Results

General assessment: Eight consecutive years in operation with good acceptance and demand. All the editions of 'To the UCO by Bike' have been given a score of more than 4.6 out of 5.

Distribution of bicycles among the University community during the last period:

- By sex: 52% women and 48% men.
- By group: 32% workers and 68% students (20% ERASMUS).
- By Campus: 64% Rabanales (peri-urban), 31% Menéndez Pidal (healthcare campus), 5% Central.
-

Use of the bicycle:

- The majority of users (78%) used the bicycle as often as expected or more than expected.
- Three quarters of the people surveyed rode the bicycle several times a week or almost every day.
- Half the users who did not use a bicycle before the program now use it several times a week or every day.

Expense

- 10,000 € initial investment.
- 1,500 € annual maintenance.

Financing

Initially TO THE UCO BY BIKE was launched through a Ministry of Development grant for pilot sustainable mobility experiences, an incentive from the Andalusian Agency of Energy for the promotion of sustainable transport and a grant from the Department of Health of the Board of Andalusia for the promotion of healthy activities. It was later necessary to resort to the SEPA budget.

Findings

- It is better to provide bicycles and safety kits with sufficient quality to ensure a prolonged service life.
- The conditions of use must be "live" and adapted and updated to meet the different circumstances or incidents that arise.
- Adequate use of the bicycle requires an effective transfer of the responsibility to users, as well as a follow-up of its correct use.
- Notwithstanding the above, a certain percentage of robberies or damage must be assumed.
- A relationship of confidence with bicycle suppliers and effective maintenance guarantees better preventative and corrective action.
- The organisation of Catalogued tours foments networking and a feeling of community.

To the UCO by Bike

2010

Pictures

Fig 1 - 2. Bicycle fleet and emergency kit

Fig 3. Guided bicycle tour

Links

www.uco.es/alaucoenbici
http://www.uco.es/servicios/dgppa/images/sepa/CondUsoAlaUCOenBICI.pdf
http://www.uco.es/servicios/dgppa/images/sepa/Seguridad%20en%20la%20bicicleta.pdf
http://www.uco.es/servicios/dgppa/images/sepa/informe_alaucoenbici_15-16.pdf

Contact person

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Bicycle Hire System

2016

University
University of Granada (UGr)

Country
Spain

Location
Urban

Size
60,000-70,000

Mobility Organizational Structure
Secretariat for a healthy campus

Summary

- Re-assign value to bicycles originating from a bike-sharing scheme (loaned by the hour with on-street parking racks).
- The system ceased to function in 2014 and the bicycles were stored on University premises.

Aims

- Promote the use of the bicycle as a means of transport among the University community.
- Put value back into bicycles used by an old loan system.
- Help graduates find a place on the job market.

Stakeholders

- University of Granada Mobility Group.
- University of Granada Environmental Quality Unit.
- University of Granada sports centre.

Background

Not available.

Bicycle Hire System

2016

Description

The project was proposed by a graduate studying Environmental Science who has consequently been contracted to manage the bicycle hire scheme.

The project includes the following stages:

- Repair, preparation and elimination of locking devices on 15 of the 50 bicycles available.
- Identification of the bicycles as property of the UGr.
- Establishment of the terms and conditions of the bicycle loan system
- The bicycles are hired out to university students for four-month periods.
- The only requirement for accessing the bicycle sharing system is being a university student when making the application and agreeing to the terms and conditions of the loan system.
- Dissemination of the project using posters, e-mail distribution lists and information screens in University centres.
- Collection of details of interested parties during UGr Student Reception and Workshops for the 2016-2017 academic year.
- Assignment of the 15 bicycles among the 128 people registered.
- Delivery of the bicycles following payment of a deposit and insurance and participating in the "UGr bicycle sharing course" which teaches the basic skills for riding a bicycle in the city, explains the safest and fastest routes for travelling from different points of the city to University centres and safety measures to prevent theft.
- Follow-up of the condition of the bicycle; every two months the condition of the bicycle is checked and serviced at the UGr bike centre.

The activities performed were:

- Repair, preparation and identification of unused bicycles property of the UGr.
- Bicycle loans to university students.
- Course: "Hiring UGr bicycles".
- On route escort service for students requesting it.
- Presence on social networks (Facebook): universitariosenbici.
- The resources used were:
- Unused bicycles owned by the UGr.
- Contracting of the services of an UGr graduate for management of the bicycle sharing system.
- Economic investment: Approximately 2,000 € for 15 bicycles.

Indicators

Nº of bicycles assigned.

Bicycle Hire System

2016

Results

Registration of more than 100 students interested in the bicycle sharing system.

Expense

About the 2000 € /year.

Financing

UGr financing.

Findings

To be assessed at the end of the first period of bike-share scheme.

Bicycle Hire System
2016

Pictures

Fig 1. UGr bicycle

Fig 2. Advertising for the UGr bicycle sharing system

Fig 3. Advertising for the UGr bicycle sharing system

Fig 4. Facebook title page. UGr students by bike

Links

http://csaludable.ugr.es/pages/unidad_calidad_ambiental/movilidad_sostenible/movilidad-sostenible

Contact person

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Secretariat for a Healthy Campus

Intercampus Bicycles

2014

University
University of Lleida (UdL

Country
Spain

Location
Urban

Size
10,000-20,000

Mobility Organizational Structure
Commission for the Environment

Summary

The University of Lleida purchased 8 folding bicycles to promote ecological and healthy mobility among lecturers, investigative, services and administration staff to encourage mobility between the 4 different campuses of the University. There are 2 bicycles on each campus.

Aims

Simplify the mobility of lecturers, investigative, services and administration staff of the University between the various campus in an ecological and healthy way.

Stakeholders

- Administrations.
- Companies.

Background

Not available.

Intercampus Bicycles

2014

Description

The activities performed were:

- Diffusion by e-mail.
- Drafting of instructions for use.

Indicators

Not available.

Intercampus Bicycles
2014

Results

Not available.

Expense

2,815.37 €.

Financing

In-house.

Findings

Not available.

Intercampus Bicycles

2014

Pictures

Fig 1. Promotional material

Fig 2. Bicycles purchased

Links

Not available.

Contact person

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Commission for the Environment
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Free Bicycle Sharing

2014

University
University of Valladolid

Country
Spain

Location
Urban

Size
20,000-30,000

Mobility Organizational Structure
Office for Environmental Quality and Sustainability

Summary

Implementation of a free bicycle sharing system for the whole University community, including services and administration staff, lecturers and investigative staff and students, providing services on the Valladolid, Palencia and Segovia campuses, and enabling the possibility of having a bicycle during the entire academic at the most, or for any other lesser period.

Aims

Achieve greater awareness on the use of alternative transport, increase the number of bicycle users in detriment to the private vehicle.

Stakeholders

University community.

Background

Not available.

Free Bicycle Sharing
2014

Description

The actions carried out to promote awareness on the use of alternative transport were the purchase of bicycles, their maintenance, an integral loan and collection service and environmental education and mobility workshops.

The service began with the loan of 50 bicycles and in view of its success another 50 were acquired in 2012. (20 in 2011; 20 in 2013/14; and 40 in 2015/16 2016 up to the current total of 200 bicycles).

The service is currently enjoying enormous success with the demand for bicycles being double or triple that offered when it was first opened.

Indicators

Number of users of the sharing system.

Free Bicycle Sharing
2014

Results

The electric vehicle is in constant use with highly satisfactory results, and the electric bicycles are being widely accepted with the offer being covered within a few minutes.

Expense

90.000 €.

Financing

University of Valladolid.

Findings

Not available.

Free Bicycle Sharing

2014

Pictures

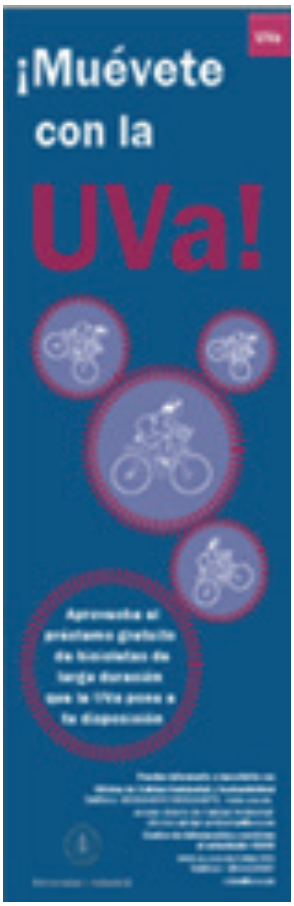

Fig.1. Flyer bicycle sharing.

Fig.2. Promotion of bicycle use in the university

Links

http://www.uva.es/export/sites/uva/7.comunidaduniversitaria/7.09.oficinacalidadambiental/index.html

Contact person

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Cycling at UCLA

2005

University
University of California, Los Angeles (UCLA)

Country
United States

Location
-

Size
> 70,000

Mobility Organizational Structure
UCLA Transportation is a self-supporting Auxiliary Enterprise of UCLA

Summary

UCLA Transportation considers investing in making UCLA a more bike-able place as a top mobility priority.

Aims

To improve cycling conditions and promote the bicycle as a transportation mode on, to and from campus, UCLA will set policies and provide infrastructure to support and accommodate bicycling.

Stakeholders

- UCLA Community.
- City of Los Angeles.
- Helen's Cycles.

Background

Given the potential for increased bicycle use to mitigate much of the issues associated with automobile travel, UCLA Transportation has invested significant resources to plan for high quality bicycle infrastructure on UCLA property, as well as the implementation of policies that would encourage bicycle use.

Cycling at UCLA
2005

Description

The University has been increasing its mileage of dedicated bikeways on campus property, and has been working with surrounding municipalities to connect UCLA's bicycle pathways with theirs. Bike boxes on campus roadways have also been installed. UCLA offers over 3,000 free bike parking spaces in racks all over campus, with plans to increase the capacity of both bike racks and bike lockers.

Bicycle repair stations can also be found around campus, as well as bike stair channels to make it easier to transport the bike when riding it is not possible. A bike shop is also available on campus.

A program is in place that allows staff and faculty to trade in their parking permit for a $400 voucher to purchase a new bicycle if they commit to a two year prohibition against obtaining a parking permit. Rental options for bikes also exist for students and staff.

Planning for a university wide bike share system is also under way, which will be launched in August 2017.

In detail: 13 improvements that make UCLA a Bicycle Friendly University. November 05, 2015

1. **New bike lanes on and into campus.** The past few years have been banner years for bike lines on campus streets. One of the newest lanes is on Charles E. Young Drive North near Parking Lot 7. Bright green paint also demarcates bike lanes by Royce Hall and up Westwood Plaza.
2. **Advocating for safer bikeways on nearby streets.** UCLA Transportation officials have testified at the Los Angeles City Council and committee hearings about the new Mobility 2035 plan to express support for more bike lanes, especially a bike lane proposed on Westwood Boulevard between Wellworth Avenue and Le Conte Avenue that would be a key connector to campus.
3. **Building bike channels into stairs.** One of the latest ways UCLA made it easier to bike to work or class are these nifty grooves in the stairways behind Ackerman Student Union. Instead of hefting or bouncing a heavy bike on the stairs, riders can wheel it smoothly alongside them.
4. **Installing free bike repair stands across campus.** Six bike repair stands scattered across campus each include an air pump, screw drivers, wrenches and other essential bike tools. And that "repair stand" part is literal – the station doubles as a place to hang the tools and a place to suspend your bike while you're working on it.
5. **Adopting the "bike box".** The campus added a bright green "bike box," an extension of the nearby bike lane, at the Westwood Blvd. and Strathmore intersection in 2012 to create a car-free zone where bicyclists can safely wait for the light to change, avoiding right-turning vehicles.
6. **Creating a UCLA Bike Library rental program.** The Bike Library offers students inexpensive bike rentals for a full academic quarter, and the Employee Commuter Bike Loaner program gives employees a free two-week rental – handy if your own bike is in the shop or you just want to see if cycling to work is the lifestyle for you.
7. **Bike (Re)Cycling day.** In the campus's annual Bike ReCycling day, Bruins all over campus eagerly sign up for a lottery to get the first crack at the hand-me-down and abandoned bicycles collected on campus over the year.
8. **Installing a bike counter.** The campus installed the first bike counter in the city in 2013 which helps track bike ridership and serves as a gateway sign, letting cyclists know they're part of a larger community.
9. **Incentive programs:** Bruin Commuter Club, shower passes, and subsidized buses. Bicyclists are eligible for the Bruin Commuter Club, which includes discounted parking on days when driving is unavoidable, and emergency rides home. Discounted gym access with the Commuter Passport gives serious bike riders access to showers and changing rooms without the cost of a full gym membership. Cyclists can also take advantage of UCLA's subsidized bus passes – especially handy for bikers with long or hilly routes.
10. **Supporting programs like the Eco-chella music festival (with bike-powered smoothies).** Talk about pedal power. The semi-annual Eco-chella music festival on campus relies on attendees to ride bikes that power the speakers for the bands.
11. **Celebrating an annual Bike Week.** UCLA's yearly Bike Week encourages commuters to give biking a try, and helps spread the word to current and potential bikers alike about the different resources on campus for cyclists – not to mention the health benefits and other advantages to bicycling.
12. **The UCLA Bike Shop, offering all kinds of services and free classes.** The UCLA Bike Shop offers free use of its tools for hands-on cyclists prepared to make repairs, and for a fee, will fix a bike for you or teach you how to do it. UCLA Recreation and UCLA Transportation support the shop together to encourage carbon-free transportation that also provides a workout.
13. **Free bike parking – 3,000+ spots.** Dozens of bike racks all over campus provide more than 3,000 free bicycle parking spaces. Bike lockers are also available for a rental fee For added security, electronic bike lockers are available on-demand for cyclists around campus.campus relies on attendees to ride bikes that power the speakers for the bands.

Cycling at UCLA
2005

Indicators

Not avaliable.

Results

UCLA Transportation's efforts in promoting bike use through sound planning and policy decisions has earned it a rating of "silver" as a Bicycle Friendly University by the League of American Bicyclists

TABLE 4. UCLA 2016 MODE SPLIT

	Employees	Students
Drive Alone	53.0%	25.0%
Carpool	12.0%	6.2%
Vanpool	4.3%	0.1%
Public Transit	16.9%	28.0%
Bike	1.9%	5.4%
Walk	6.9%	30.9%
Other	5.0%	4.4%

Sources:
2016 UCLA SCAQMD Survey, 2016 UCLA Student Transportation Survey

Cost

Not avaliable.

Financing

Not avaliable.

Lessons Learnt

Not available.

Pictures

Fig 1. New bike lanes on and into campus

Fig 2. Advocating for safer bikeways on nearby streets

Cycling at UCLA
2005

Pictures




Fig 3. Building bike channels into stairs

Fig 4. Installing free bike repair stands across campus

Fig 5. Adopting the "bike box"

Fig 6. Creating a UCLA Bike Library rental program


Fig 7. Bike (Re)Cycling day

Fig 8. Installing a bike counter

Fig 9. Incentive programs: Bruin Commuter Club, shower passes, and subsidized buses

Fig 10. Supporting programs like the Eco-chella music festival (with bike-powered smoothies)



Fig 11. Celebrating an annual Bike Week

Fig 12. The UCLA Bike Shop, offering all kinds of services and free classes

Fig 13. Free bike parking – 3,000+ spots

Links

https://main.transportation.ucla.edu/getting-to-ucla/bike
http://newsroom.ucla.edu/stories/13-improvements-that-make-ucla-a-bicycle-friendly-university

Contact person

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Studocikl: Student bicycle sharing system in Zagreb

2012

University
University of Zagreb, Faculty of Transport and Traffic Sciences

Country
Croatia

Location
Peri-urban

Size
<5,000

Mobility Organizational Structure
None

Summary

The system of public bicycles known as "bicycle sharing", is a service in which bicycles are made available for shared use to individuals with or without a certain fee. Users can take and return the bike at numerous locations in the urban parts of city. The idea behind the Studocikl is to connect two remote locations of the Faculty of Transport and Traffic Sciences, between headquarters in Vukelićeva Street and Borongaj Campus. Registration (login, logout) of users and the entire administration is done through a web portal.

Aims

- The improvement of the quality of life of the students of the Faculty of Transport and Traffic Sciences by providing them the means of easier transportation between 2 locations of the Faculty of Transport and Traffic Sciences.
- Promoting and encouraging sustainable, clean and energy-efficient modes of transport.

Stakeholders

- Students and employees of the Faculty of Transport and Traffic Sciences (FTTS).
- The City of Zagreb.
- Croatian abbreviation for Sustainable Community Development NGO (ODRAZ).

Background

Not available.

Studocikl: Student bicycle sharing system in Zagreb

2012

Description

The Student Bicycle Sharing System in Zagreb – Studocikl was developed as part of the CIVITAS ELAN project (2008-2012). The CIVITAS ELAN project was aimed at improving the quality of life of citizens by establishing high-quality solutions to deal with city traffic and to promote and encourage sustainable, clean and energy-efficient modes of transport. A pilot project of Studocikl was implemented at the University of Zagreb. One of the main objectives of the project was to provide the students with easier transport between the two locations of the Faculty of Transport and Traffic Sciences, while meeting the standards of the Civitas Elan project. In order to do so, the Studocikl project offers 20 bicycles with the logo of the faculty, all of which meet the requirements of Croatian legislation. The design of the bicycle homogenous (blue colour, unisex frame, two baskets), adapted for users (in this case, students). Each bicycle is equipped with a locking mechanism, ensuring each user can satisfy their own demands. Users can take-out and return the bicycles at any of the two locations intended for this, the first is a small station located in the central part of the Borongaj Campus. The second station is a metal container located at Vukelićeva Street, in front of the faculty building. Both locations are in the vicinity of corresponding buildings of the FTTS. The bikes and deposits are monitored, secured and protected from possible thefts, vandalism and weather conditions.

As a supporting entity in the Civitas Elan project, the City of Zagreb provided land for a bicycle parking facility equipped with bike racks in front of the FTTS building in Vukelićeva Street. The parking facility enables users to easily and safely deposit their bicycles. The web portal can provide the following activities:

- Continuous monitoring of bicycle depots is allowed in real-time to provide information about currently available bicycles and depot occupancy online.
- Users are allowed to create a profile on the portal. By logging onto the portal, the users can make bicycle reservations for a specific time period, monitor their activities and edit their profiles.
- The users can make suggestions (e.g. locations of new stations).
- Administrators can keep track on bicycle rentals.
- Advertising is supported by social networking (Facebook, Twitter, Linkedin, Google+, etc.).

Indicators

- Number of participants.
- Number of people who leave the car at home and travel by bike because of the Studocikl project.

Results

After the first year of use (from October 2012 until October 2013, there were 140 registered users who had rented the bicycle at least once. A total number of 360 rentals were registered. Three quarters of the total number of rentals were made in order to cross the distance between the two depots (the bicycle is rented at one depot and deposited at the other). The average daily rental rate is one bicycle per day.

However, if the winter months (due to the weather), summer months (due to the summer break) and weekends are excluded, the average daily rental rate then becomes 3 bicycles per day. During the course of a year, there was no significant damage to any of the 20 bicycles in the system.

Studocikl: Student bicycle sharing system in Zagreb

2012

Expense

After the first year of use (from October 2012 until October 2013, there were 140 registered users who had rented the bicycle at least once. A total number of 360 rentals were registered. Three quarters of the total number of rentals were made in order to cross the distance between the two depots (the bicycle is rented at one depot and deposited at the other). The average daily rental rate is one bicycle per day.

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Financing

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Findings

The project is viable, the students use the offered means of transportation, as is shown in aforementioned statistics.

There exists the possibility of a wider application of the programme (other faculties of the University of Zagreb), as is indicated in the willingness of students to participate in “Studocikl”.

Based on the experiences from the project, the possibilities for the implementation of the project to the entire City of Zagreb and other urban areas in the Republic of Croatia must be analysed and projected for further development.

Pictures

Studocikl: Student bicycle sharing system in Zagreb

2012

Pictures

Fig.1. Bicycle depot at Borongaj Campus

Fig.2. Bicycle depot at Vukelićeva Street

Fig.3. An example of bicycle for rental

Fig.4. Comparison of distance and travel times for each mode of transport between Vukelićeva Street and Borongaj Campus

Fig.5. Studocikl project on the web

Fig.6. Promotion of "Studocikl"

Links

Not available.

Contact person

Not available.

Science Transit Shuttle

2016

University
University of Oxford

Country
United Kingdom

Location
Peri-urban

Size
30,000-40,000

Mobility Organizational Structure
Mobility manager

Summary

The Science Transit Shuttle commenced the 18th of July 2016 to improve connectivity and is funded as a one year pilot scheme by the University of Oxford, HIFE and the Science & Technologies Facilities Council (STFC). It provides a frequent and express minibus service connecting the Science Area with Old Road Campus in Headington and Harwell Campus near Didcot.

Aims

Improving connectivity between sites and minimizing the use of cars for travel between University buildings.

Stakeholders

University Bus Ltd. (UNO).

Background

Not available.

Science Transit Shuttle

2016

Description

The Shuttle provides a quick and convenient connection for business travellers from the Science Area to Old Road Campus and Harwell Campus. To travel on the service, you must be in possession of a specific card or ticket. This enables academics, research staff and business people to move quickly and conveniently between these cutting edge scientific and clinical research facilities, helping to spur interaction, investment and commercial innovation between the academic and business communities. Initially operated as an express private shuttle, the aspiration is for a zero emission, public transport service.

Indicators

Number of tickets bought, number of cards registered in the system.

Science Transit Shuttle

2016

Results

- Increased research collaboration between academic, business and Government sectors.
- 30-40minute journey time Oxford - Harwell Campus every 30 minutes.
- 10-15 minute journey time Science Area to Old Road Campus every 30 minutes.
- Around 1,000 passengers carried per week.

Expense

Contact for more information.

Financing

Jointly funded by the University of Oxford and STFC.

Findings

In spite of the arguments being clearly in favour of sustainability and safety, cutting back on the "established rights" of drivers always meets resistance. Reducing this resistance as much as possible and guaranteeing minimum acceptance of the new situation requires previously informing the affected parties, detecting possible unexpected dysfunctions, seeking alternative solutions and negotiating their implementation.

Science Transit Shuttle
2016

Pictures

Fig.1. The shuttle minibus.

Links

http://sciencetransitshuttle.co.uk/

Contact person

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APP&TOWN: Route calculation application for sustainable access to campuses

2014

University
Universitat Autònoma de Barcelona

Country
Spain

Location
Peri-urban. 20 km from Barcelona

Size
40,000-50,000

Mobility Organizational Structure
Mobility team

Summary

The implementation of a free application which shows the best route to get to campus by any available transport mode.

It provides real-time information about public transport schedules, identifies incidents and offers alternatives if necessary accompanying the user from origin to destination. It is multimodal and exhaustive, including all collective transport modes of the Metropolitan Area of Barcelona: train, bus, underground and tram.

Aims

Providing the University community with the necessary information to get to Campus in a sustainable way easily and quickly, improving one of the weakest points of transport supply: real-time, quality information.

Stakeholders

- Regional Transport Authority.
- Transport operators.
- Technological company.

Background

Not available.

APP&TOWN: Route calculation application for sustainable access to campuses

2014

Description

The development of a useful and practical application which allows users to be constantly informed, during the whole trip, about their position and where they have to get on or off.

To this end, App&Town uses two information sources to inform users about any kind of incidents on the transport network in real-time, offering the possibility to calculate, in such cases, alternative routes. The first of these resources is the information offered by transport operators. The second is the information provided directly and in real-time by other users of the application. The App&Town community itself, through co-operative intelligence, generates updated information to the rest of the users.

The application also offers guidance to the sight impaired.

The tasks implemented to trigger this tool were:

- Adaptation of the resource to campus territory and transport supply.
- Interface design and implementation on UAB mobility website.
- Diffusion through social media, website and Mobility Week (every year a stand of App&Town informs students and staff about its advantages).

Indicators

- Number of downloads and consultations of the application.
- Number of users of the various transport modes.

APP&TOWN: Route calculation application for sustainable access to campuses

2014

Results

The improvement of available information regarding transport supply on a technological basis.

Cost

Ranging from 0 to 10,000 €.

Financing

UAB Budget.

Findings

- This kind of application depends on, fundamentally, quality and updated information.
- The large number of similar tools on the market makes providing a high level of reliable information imperative.

Pictures

Fig. 1. App&Town screenshots

Links

http://www.appandtown.com/

Contact person

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BUSES APP

2015

University
Universitat Autònoma de Barcelona

Country
Spain

Location
Peri-urban. 20 km from Barcelona

Size
40,000-50,000

Mobility Organizational Structure
Mobility team

Summary

UAB and Aslogic, a technology-based company (TBC) of the University, have developed the "UAB Buses" application which simplifies moving around the campus by bus, facilitating entry and exit times.

Aims

To increase the competitiveness of public transport by minimising waiting periods at stops or uncertainty about when the bus will arrive.

Stakeholders

- Local administration and companies.
- Aslogic.

Background

Not available.

BUSES APP
2015

Description

This action is part of the Smart Mobility Project, a concept that refers to the application of new technologies in the management of mobility and which will be a new cross-sectional strategic line of the new UAB Mobility Plan 2017-2022.

The UAB has its own bus service running between the 'Renfe' station and the campus and around the campus itself. The service consists of five lines and operates during term periods from 7.45 am to 10.00 pm. The vehicles are fitted with a GPS system (a requirement in the List of Conditions for public sector calls for tenders) to determine the times at which the bus passes different points of the campus.

Information provided on the position of the bus fleet has been used by the UAB and Aslogic, a technology-based company (TBC) of the University, to develop the "UAB Buses" application. This application enables a two-fold management approach: from an administrative aspect, in that the service can be provided depending on the needs at any particular time (service according to demand); and from a user aspect, where they can always know the waiting time for the bus at each stop; as well as the lines, their routes, the stop closest to their location, etc.

Other inter-urban bus services are progressively being added through access to the WebService of each operator. Furthermore, the UAB Buses application offers a news section to keep users informed about mobility and transport in a simple, agile way.

The application is adapted to web platform, Android and IOS. Furthermore, each bus stop has a QR code to simplify access to this information without any need to have the application installed or open.

Indicators

Number of web hits through the application.

BUSES APP
2015

Results

Increased information available about the bus services.

Expense

3,000.00 €.

Financing

UAB budget and contribution by bus operator (included in the service contract).

Findings

- The application was initially designed to indicate the waiting time at bus stops on the campus. Nevertheless, and once the application had been implemented, it was considered necessary to expand the information available by including all inter-urban buses providing direct service to the campus in order to inform all users of public road transport.
- More work is necessary on communication campaigns to encourage the use of these tools and so promote travel by public transport. Over the last few months, since the beginning of the new academic year, a downturn has been detected in the number of user accesses to the application. It is deemed therefore necessary to publicise it periodically through various channels of communication: web and mailing among others.

Pictures

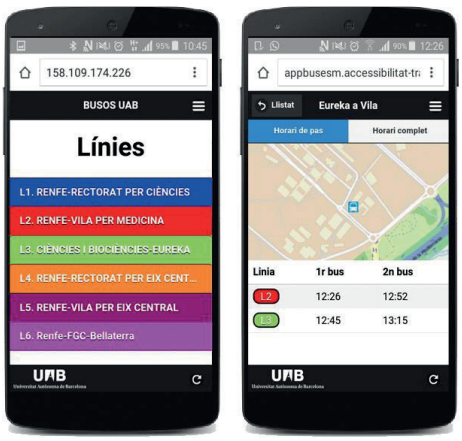

Fig. 1. Adaptation of the web to mobile devices

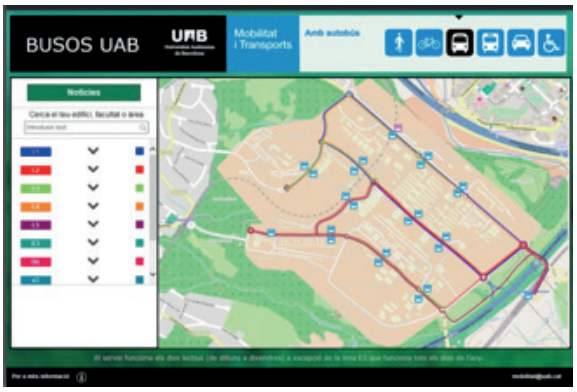

Fig.2. Web platform

Pictures

Fig.3. QR code at the Avenida del Eje Central bus stop

Fig.4. QR code at the bus stop outside Medicine and Communication Science

Links

http://appbuses.accessibilitat-transports.uab.cat/

Contact person

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Promotional Discounts on Public Transport

2011

University
Rovira i Virgili University (URV), Tarragona

Country
Spain

Location
Urban

Size
10,000-20,000

Mobility Organizational Structure
Environmental Management Unit

Summary

The URV decided to promote a change in the mobility habits of the University community by applying discounts to all members on the purchase of travel cards. The discounts applied are funded by the University.

Aims

Promote mobility by public transport in detriment of the use of private vehicles.

Stakeholders

Territorial Mobility Authority (Autoritat Territorial de la Mobilitat - ATM) of Camp de Tarragona.

Background

URV has a total of 6 campuses plus Rectorate located in 4 towns of 'Camp de Tarragona'.

Promotional Discounts on Public Transport

2011

Description

The URV decided to promote a change in the mobility habits of the University community by applying discounts (10%) to all members (students, lecturers, investigative, services and administration staff) on the purchase of travel cards for use on interurban public transport in the area of the Territorial Mobility Authority of Camp de Tarragona and providing access to suburban trains and interurban buses.

This measure was applied in two phases:

Phase 1: March 2011 – September 2013
Phase 2: May 2016 – to date

The instruments to implement the measure were:

- Part-time dedication of the University Environmental Technician.
- Collaboration of the ATM centralised travel card sales system.
- Collaboration of ATM mobility and data processing technicians.
- Campaigns for internal publicity within the University were carried out by e-mail messages, posters, appearance on the web and informative screens in centres.

Indicators

- Number of users.
- Number of trips using URV-ATM travel cards.

Promotional Discounts on Public Transport

2011

Results

- 3,357 users accredited for the use of URV-ATM travel cards.
- 401,700 trips.

Expense

Variable, use dependent. Estimate 15,000 €/year.

Financing

Ordinary budget endowment from the URV Environment Plan.

Findings

The results recorded on the basis of phase 1 indicators exceeded the prediction for the number of users and trips completed. The estimate of potential travellers was made on the basis of the 2013 mobility survey.

Pictures

Fig 1. Discount promotion

Links

http://www.urv.cat/ca/vida-campus/universitat-responsable/medi-ambient/
https://youtu.be/3IKsxfTQ7QA?list=PL8yyYJSAXdwncb-M5pXtNiFXW_iDuUmCy

Contact person

Antonio de la Torre
Environmental Management Unit
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Bus Pass for Students

2005

University
University of A Coruña (UDC)

Country
Spain

Location
Mixed

Size
20,000-30,000

Mobility Organizational Structure
Office for the Environment

Summary

Each year the University of A Coruña (UDC) issues grants to its students for urban transport in the city of A Coruña and metropolitan transport in the areas of A Coruña and Ferrol.

Aims

- Favour the use of public transport instead of the private car.
- Simplify access to University studies by students with less income.

Stakeholders

- City Council of A Coruña.
- Ferrol City Council.
- Narón City Council.
- Xunta de Galicia (Government of Galicia).

Background

Not available.

Bus Pass for Students

2005

Description

The action consists of giving grants to students to defray the cost of bus transport.

Each year the University of A Coruña (UDC) issues grants for urban transport in the city of A Coruña and for metropolitan transport in the areas of A Coruña and Ferrol to UDC students who are enrolled for at least 30 credits of an official title.

This grant is not available to national (SICUE) or international (ERASMUS and similar) exchange students. Furthermore, economical and patrimonial criteria are taken into consideration. To benefit from these grants requires being in possession of:

- Millennium Card, in the case of A Coruña urban transport.
- Galician Metropolitan Transport Travel Card for metropolitan areas.
- The grants are made effective to beneficiaries when they top-up the card at the end of the month following the date the grant was applied. The maximum amount of the grant for each student is in all cases 115.20 €.

Indicators

In the 2015-2016 academic year, a total of 2,134 students had access to these grants.

Bus Pass for Students

2005

Results

All issues have exhausted the funds assigned.

Expense

264,646 €.

Financing

Vice-rectorate of Students, Participation and University Extension. University of A Coruña.

Findings

Not available.

Pictures

Not available.

Links

https://sede.udc.gal/services/electronic_board/EXP2016/000758

Contact person

Manuel Soto Castiñeira
Office for the Environment / Department of Architecture and Urban Development
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Student Pass for Urban Public Transport - "UdG by bus"

2007

University
University of Girona (UdG)

Country
Spain

Location
Urban and Peri-urban

Size
10,000-20,000

Mobility Organizational Structure
Green Office

Summary

Agreement between Girona City Council and the UdG to offer a travel card to University of Girona students enabling them to make 380 trips a year (between the 12th of September 2012 and 12th of September 2013) using urban TMG (Gironès Municipal Transport) public transport lines. This company is currently 100% owned by Girona City Council.

Aims

- To eliminate the economic barriers for access to public transport for students in the City of Girona.
- To reduce the private car usage rate among students residing in Girona.
- To offer a transport and mobility system that is an alternative to the private car for obligatory short trips (intra-urban).
- To simplify inter-modality between different means of transport: train/bus, bus/bus, bicycle/bus.
- To provide an exemplary system of sustainable transport: economic, equitable and less pollutant per capita.
- To publicise the individual and collective advantages of urban transport.

Stakeholders

- Girona City Council.
- Gironès Municipal Transport (TMG).

Background

Not available.

Student Pass for Urban Public Transport - "UdG by bus"

2007

Description

The activities performed were:

- Negotiation of the terms and conditions of the agreement with the people responsible for local administration.
- Day-to-day management of applications. Data control and validation.
- Design of the on-line platform for applications.
- Management of applications, control over the process for producing personalised magnetic travel cards and organisation of delivery to their proprietors.
- Establishment of the automatic payment process.
- Resolution of user enquiries.
- Publicity campaign and actions.

Indicators

- Demand for the pass.
- Use of the bus among students.

Student Pass for Urban Public Transport - "UdG by bus"

2007

Results

Good acceptance of the offer among students in general. Slight increase in demand during the first phase becoming stable over the last few years. Increased use of public transport among students. 9 years of continuous operation of student passes. Reduction of CO2 emissions compared to other means of travel.
Demand for the pass:
2007/2008 academic year: 829 applications from a total of 12,002 students (6.90%)
2008/2009 academic year: 830 applications from a total of 12,004 students (6.90%)
2009/2010 academic year: 1,113 applications from a total of 12,952 students (8.59%)
2010/2011 academic year: 1,103 applications from a total of 13,870 students (7.95%)
2011/2012 academic year: 1,180 applications from a total of 14,465 students (8.15%)
2012/2013 academic year: 1,196 applications from a total of 14,807 students (8.07%)
2013/2014 academic year: 1,226 applications from a total of 14,913 students (8.22%)
2014/2015 academic year: 1,237 applications from a total of 15,309 students (8.08%)
2015/2016 academic year: 1,247 applications from a total of 15,191 students (8.20%)
Use of the bus among students – obligatory mobility surveys:
2007: 8%; 2009: 17%; 2010: 18%; 2011: 20.5%; 2012: 25%; 2013: 23.1%; 2014: 16%; 2015: 19%

Expense

0 €.

Financing

- In-house resources of the UdG Environmental Awareness Plan.
- Mobility area of the Girona City Council.
- Users.

Findings

- The resolution of environmental problems and proposals for environmental improvements should be approached from a wide, cross-sectional perspective and focused on sustainability.
- The actions (in this case, the improvement of mobility habits) should include benefits in various aspects (environmental, social and economic) and on different scales, aiding the global reduction of emissions greenhouse gases.

Student Pass for Urban Public Transport - "UdG by bus"

2007

Pictures

Fig 1. Campaign to promote the travel card

Links

http://www.udg.edu/ov/mobilitat/abonament.htm
http://www.udg.edu/tabid/5766/Default.aspx
http://www.udg.edu/tabid/13812/Default.aspx

Contact person

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LUISS "Guido Carli" Green Mobility

2016

University

LUISS "Guido Carli" Green Mobility

Country

Italy

Location

Rome, no. 3 sites

Size

5,000-10,000

Mobility Organizational Structure

Mobility manager

Summary

Through the Banking Operation Maintenance Telematics Security (B.O.M.T.S.) intelligent ICT platform, the LUISS "Guido Carli" University has improved its field of action in e-mobility (field of study related to the use of electric cars /hybrid plug-in) by implementing smart infrastructures connected via a server to an innovative ICT platform and in acquiring electric cars, electric bicycles and electric scooters.

The project also involves a bus shuttle service and an app. where the information related to the mobility options and the geolocation of the intelligent charging stations can be accessed.

All available services can be paid directly through a dedicated app by credit card without any need of a contract with energy service providers.

Aims

- Improve mobility.
- Reduce environmental impact (CO2 emissions).

Stakeholders

- Hotel chains.
- Petrol station network.
- Ministry of Environment and Territorial Ordinance.
- Intesa San Paolo bank.

Background

Not available.

LUISS "Guido Carli" Green Mobility

2016

Description

The LUISS "Guido Carli" University, aligned with the concepts of smart grid and e-mobility, will exploit the potential of the B.O.M.T.S platform by implementing intelligent charging stations, E-Car sharing, E-Bike sharing, E-Scooter sharing and an Info Mobility Bus Tracking System.

- 9 intelligent charging stations for electric cars will be installed in LUISS headquarters, along with the supply of 18 electric cars equipped with an internal black box, "real-time communication" and management platform through B.O.M.T.S.
- 6 intelligent charging stations for electric bicycles will be installed in LUISS headquarters, along with the supply of 24 electric bicycles equipped with an internal black box, "real-time communication" and management platform through B.O.M.T.S.
- 3 intelligent charging stations for electric scooters will be installed in LUISS headquarters, along with the supply of 12 electric scooters equipped with an internal black box, "real-time communication" and management platform through B.O.M.T.S.
- In order to ensure the user benefits from an optimal management of the 'LUISS' electric mobility service, a HelpDesk platform has been implemented, available through the site http://helpdesk.bomts.it.
- The Info Mobility Bus Tracking System will track in real-time the location and route of 6 shuttles connecting University locations.

Indicators

- Number of electric cars users.
- Number of electric bicycles users.
- Number of electric scooters users.
- Number of app users.
- Levels of Co2 reduction.

Results

Premises:
After the first 5 months of successful system operation user numbers have dramatically increased. A further system development is therefore under planning phase.
8,500
Ca. 1,000
n.a.

Cost

Not avaliable.

Financing

Not avaliable.

Findings

- Students were not familiar with the e-mobility sector and its related issues.
- After some months of 2-day, weekly tutorial lessons, the number of users significantly and rapidly increased.
- All users are enthusiastic about this new technology that allows movement inside Rome's old town and city centre areas and throughout the University locations in a new, environmentally friendly way.

Pictures

Fig. 1. E-Bikes

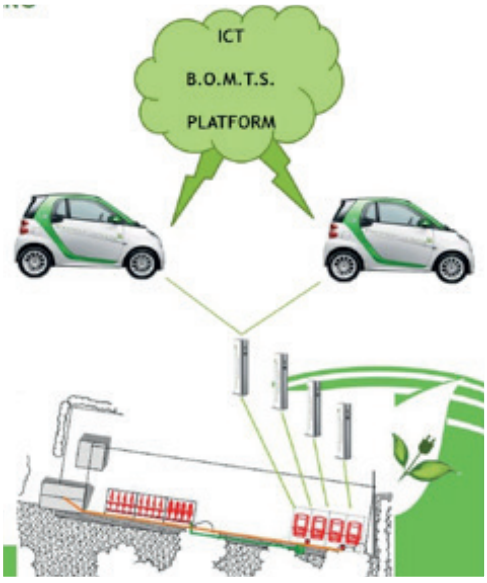

Fig. 2. E-Cars

Pictures

Fig.3. E-Scooters

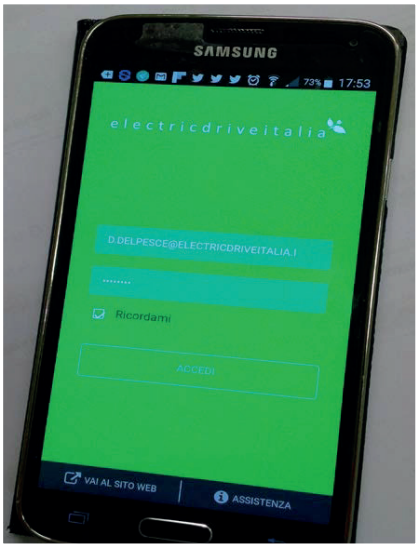

Fig.4. App

Fig.5.V.le Romania location & Smarts E-Drive

Fig.6. V.le Pola location & E-Bikes

Fig.7. V.le Pola location & E-Motor bikes

Links

Not available.

Contact person:

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Innovative Fleet Management of Faculty Road Vehicles

2016

University
Politecnico Di Torino

Country
Belgium

Location
In the nearby town

Size
30.000- 40.000

Mobility Organizational Structure
Mobility manager

Summary

This best practice is related to the adoption of Information and Communication Technology (ICT) and Intelligent Transportation System (ITS) solutions for monitoring parking and shared fleet motor vehicles and collecting mobility-related data: the recent installation (July 2016) of black boxes in one departments' motor vehicles is being used as a test to manage the fleet; vehicle bookings and emissions monitoring, via integrated remote control systems with on-line modules. This can also quantify the energy consumption according to the actual use of the vehicles.

Aims

The Politecnico di Torino has recently developed and is still enhancing a platform for the electronic monitoring of academic staff related to the booking of fleet vehicles, their tracking, for both safety (e-call) and energy related reasons: to quantify actual energy consumptions as professors and researchers assign this cost to personal research funds. Applicable to both internal combustion engines and electric or hybrid powered vehicles.

Stakeholders

- The Mobility Manager.
- The Green Team of the Politecnico di Torino.
- IC Office.
- Department DIATI.

Background

Not available.

Innovative Fleet Management of Faculty Road Vehicles

2016

Description

Specifically, Politecnico di Torino proceeded to select and adapt an integrated system suitable for the remote monitoring of the position of vehicles, and of their related operational parameters.

In addition, inspired by the operation of modern car sharing services, and with the full support of the administration and the IT Department of the Politecnico di Torino following approval by the 'Green Team', a project has been developed that allows department staff to book vehicles directly via the staff e-portal. This way, the entire process for managing the physical keys of the cars can be automated; leaving the vehicle open with the keys ready in the ignition when parked within the Politecnico di Torino grounds. By incorporating a unique generated code associated to each trip and for each authorization request, it will be possible to unlock the control unit of the vehicle and proceed to its use.

Moreover, the system will allow a very detailed control over power consumption and supply costs, allowing the generation of automated reports that streamline the bureaucratic process linked to the costing and expense assignation. In the future, the system will also be able to distinguish hybrid traction vehicles.

Another activity is under development in parallel within the transport sector of the Department. The main aim is to analyse collected data for the purposes of safety and risk analysis, but also in relation to energy consumption. This initiative will show what can gained from the installation of devices such as 'black boxes', and simultaneously lay the groundwork for increased safety in the use of vehicles. This is possible thanks to continuous contact with an assistance operations centre, along with the possibility of being able to reconstruct the dynamics of any accidents. Thus making it possible to conduct a careful monitoring and management of assigned vehicles based on the real needs of users. Also, this opportunity will be used to evaluate innovative aspects related to scenarios that will affect the use of the vehicles in the near future, such as the use of hybrid cars and 'assisted catalogued vehicles'.

Indicators

- Number of equipped vehicles.
- Number of journeys managed with the new ITS solution.
- Driving profiles.
- Automatically recognized anomalous situations.
- Electronic mission execution.

Innovative Fleet Management of Faculty Road Vehicles

2016

Results

- E-call available on equipped vehicles.
- Remote control of equipped vehicles.
- Quantification of energy consumption.
- Electronic mission execution.

Cost

From 10.000 to 25.000 €.

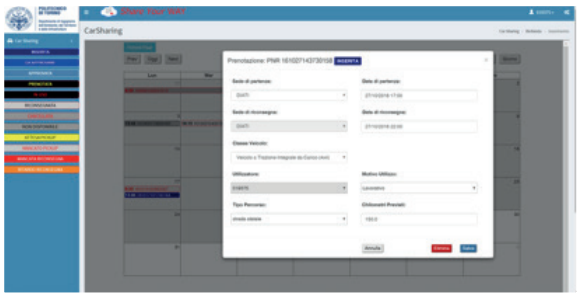
Financing

- Budget of the Green Team of the Politecnico di Torino.
- Budget of principally involved Department (DIATI).
- Budget of the IC Office, Politecnico di Torino.

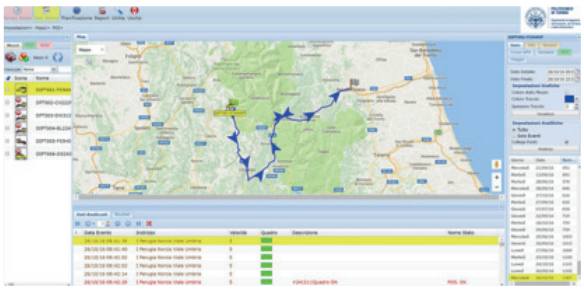
Findings

Bid data is available for research purposes as well as for journey analysis.

Pictures



Booking of vehicles: this is accessible through authentication, using personal credentials for the Politecnico di Torino, and completing an on-line the request linked to a calendar. Shortly after the system assigns the most suitable vehicle via e-mail confirmation.



Through this web page the system shows detailed analysis of all past journeys, visualizing them on a map and indicating the main points in a specific table.

Links

http://www.politocomunica.polito.it/content/download/3748/23350/file/REPORT_LOW.pdf
https://goo.gl/dzJos5

Contact person

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Carpooling System Data-base and Parking Policy

2005

University
Cracow University of Technology

Country
Poland

Location
Urban centre

Size
10,000-20,000

Mobility Organizational Structure
None

Summary

Activities related to more efficient car use were introduced at the Cracow University of Technology as a part of the University mobility plan, which was implemented in the framework of the EU CiViTAS CARAVEL project. The main aim of the mobility plan was to change the employees' and students' mobility behaviour towards sustainable mobility:

- Carpooling system data base and its promotion.
- Parking policy.

Mobility plan implementation has brought positive results: decrease in one-person vehicle trips, increase in carpooling trips as well as public transport and bike journeys.

Aims

- Change employees' and students' mobility behaviour and increase the use of the sustainable transport modes.
- Reduce car parking needs at the University campuses.
- Reduce traffic congestion near the Warszawska St Campus.

Stakeholders

- Authority of the Cracow University of Technology.
- University students and employees.

Background

The idea was to encourage employees and students to give up the car and choose sustainable options or share space in one vehicle, but at the time, conditions for those alternative ways of travelling were insufficient e.g. an official carpooling system didn't exist and there was a lack of proper carpooling related information.

An integrated mobility plan, with measures related to more efficient car use, was implemented to change this situation. It was possible to under-take a plan as the University was one of the partners in an EU CiViTAS CARAVEL project.

Carpooling System Data-base and Parking Policy

2005

Description

Carpooling system data base and its promotion

The on-line carpooling system data base for the University community has been created by students of the one of the faculties. The data base enabled users to look for travel companions taking the user's preferences into account, such as trip origin/destination, sex, age, etc.

The carpooling system has been called "Let's ride together" and it has been widely promoted among employees and students. The carpooling campaign has been organised to celebrate the data base launch and to encourage people to use it (leaflets, poster distribution on university campuses, one-day carpooling roadshows). Information on carpooling was presented even in local and national media (TV, radio).

Parking policy

Additionally, some activities related to car parking were implemented.

In general only employees and students residing a certain distance from the University are allowed to own a permit which enables them to park at the University, but they have to pay for it and the cost rises gradually.

In 2006, 1550 permits for employees and 800 permits for students were sold and 80% of them were used to park a vehicle at the Warszawska St. campus, located in the city centre (approx. 500 parking places are available on this campus). The cost of the permit was 40 zł (9 EURO) per two years.

In 2007, with the aim of decreasing journeys by car, the cost of the permit doubled. According to data from 2008 the number of permits distributed among employees decreased (from 1550 in 2006 to 1468), but the number of permits extended to students increased. The main reason for this increase was the cost of the permit, which, even after applying a higher cost, remained very low.

Indicators

- Modal split.
- Number of car park permits.
- Number of event participants (workshops, roadshows etc.).

Carpooling System Data-base and Parking Policy

2005

Results

In 2008, as a result of the mobility plan implementation (including the activities related to more efficient car use), one–person car trips to the University campuses has decreased - for staff: from 45% to 41% and for off-campus students: from 50% to 30%. This can be interpreted as a change from single person car travel to carpooling trips. The percentage share of carpooling trips has seen an increase - for employees: from 1% to 5%, for full-time students: from 0% do 7%, and for students from further afield: from 1% to 17%. This significant increase in carpooling journeys could be also explained by an increased awareness of this system. Perhaps students and employees have been car-sharing before the mobility plan was implemented, without knowing the name of the system and after a series of information and educational activities they were able to name it accordingly. This would mean that soft measures brought positive, significant results. The number of the car park permits decreased for University employees from 1550 in 2006 to 1468 in 2008.

Expense

The main costs of implementation were as follows:

- Cost of the carpooling data base design and maintenance.
- Cost of the leaflets, brochures, posters, promotional merchandise design and production.
- Cost of events organisation (room, catering, proceedings etc.).

Financing

Costs were covered by the CiViTAS CARAVEL project.

Findings

- Information about the mobility activities carried out is very important – users have to know and feel that all of these solutions are introduced for them to improve their mobility. Use as many sources of information as possible to publicise the initiatives and the events among the target group.
- It is a good idea to hire students to work together with you on the mobility plan. They can design solutions (e.g. carpooling data base), help in the events organisation, etc. The other option is to include the initiative as part of the study framework for a bachelor or master thesis.
- It is extremely important to cooperate with the Student Body Representatives. They can help publicise the mobility plan initiatives and events as well as influence students' attitudes and behaviour.
- Good cooperation with the University administration and with particular University departments helps to make everything a bit easier and not be met with barriers resulting from a lack of the knowledge as to why and for whom some activities are being implemented.

Carpooling System Data-base and Parking Policy

2005

Pictures

Fig. 1. The carpooling data base.

Fig. 2. The logotype of the carpooling system at Cracow University of Technology.

Links

http://www.caravel.forms.pl/index_eng.php?i=act&id=16

Contact person

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Electric Vehicle Charging Station

2011

University
Gdynia Maritime University

Country
Poland

Location
Urban centre

Size
5,000-10,000

Mobility Organizational Structure
None

Summary

The electric vehicle charging station is located at inner Gdynia Maritime University parking. Students and staff, who own a parking permit, have access to the station. The main objective of this project was to carry out research on the electric vehicle charging and promote ecological commuting. The station was built in 2011 in cooperation with the Automatic Vessel Department and several external stakeholders.

Aims

- Research related to the electric vehicles and energy use.
- Construction of the electric vehicle charging station, accessible to Gdynia Maritime University staff and students.
- Promote ecological travel among staff, students and residents.
- Encourage travel by electric vehicles instead of combustion cars.
- Reduce greenhouse gas emissions and pollution emitted by other means of transport.

Stakeholders

- Dr. eng. Andrzej Łebkowski.
- Gdynia Maritime University.
- Automatic Vessel Department.
- Instytut Elektrotechniki w Warszawie.
- ELTE GPS Sp. z o.o.
- Agencja Rozwoju Regionalnego "MARR" S.A.

Background

The lack of the open-access charging stations is the main challenge for growing the electric vehicles sector. Electric cars have a shorter range than combustion cars and so need to be charged more often.

Electric Vehicle Charging Station

2011

Description

Many metropolitan areas have started to develop and build electric vehicle charging stations. One of such stations was constructed by the Gdynia Maritime University (and partners) in 2011. It is located at inner University parking, at Morska 81-87 street.

Staff and students who own a parking card can use it free of charge.

The charging station contains counters that identify users.

A new type of accumulators are able to charge (accumulate) power during non-peak hours (e.g. at night) and administer it during peak hours. The charging station is still being tested, however it is capable of handling modern powering systems like lead and lithium-ion batteries.

Indicators

- Number of cars that are charged per month.
- Energy intake per month.

Electric Vehicle Charging Station

2011

Results

- Promoting ecological travel for conferences, festivals (Baltic Science Festival), University gatherings (exhibitions during the Gdynia Maritime University Open Day) and for scientific papers.
- Infrastructure development of electric vehicle charging system.
- Charging station is used for charging the University electric vehicle fleet.

Expense

- Fee for service 1,000 € per month, 12,000 per year.
- Electric energy cost depends on usage.
- Expenses are covered by Andrzej Łebkowski.

Financing

The charging station was built thanks to the Innovative Economy Programme, Priority Axis 5: Diffusion of innovation, Calculation 5.1 Support for the development of supra-regional cooperative relations. The coordinator of the project is the Polish Agency for Enterprise Development.

Findings

- Verification of the correct working of the user identification system.
- Verification of the build quality.
- Verification of the real energy used by the electric vehicle.

Electric Vehicle Charging Station

2011

Pictures

Fig 1. Electric vehicle charging station located at the Gdynia Maritime University car park

Fig 2. Promotion of the electric vehicles during the Baltic Science Festival

Fig 3. Promotion of the electric vehicles during the Gdynia Maritime University Open Day

Fig 4. Promotion of the electric vehicles during the Baltic Science Festival

Links

http://ev.am.gdynia.pl/

Contact person

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Recovering Car Space for Sustainable Means of Transport

2015

University

Universitat Autònoma de Barcelona

Country

Spain

Location

Peri-urban. 20 km from Barcelona

Size

40,000-50,000

Mobility Organizational Structure

Mobility team

Summary

The university has a policy related to increasing space dedicated to public transport, bicycles and pedestrians while reducing space available for cars.

Aims

To give priority to non-motorised means of transport in the redistribution of campus space.

Stakeholders

Not available.

Background

Not available.

Recovering Car Space for Sustainable Means of Transport

2015

Description

The UAB Mobility Plan promotes alternative means of transport to the car along with a more rational use of the automobile. Among other promotional activities, the equitable redistribution of resources and, more specifically, space, has become a reference policy that gives priority to means of transport according to their sustainability, efficiency and impartiality. In this regard, the policy of the University is to provide space in favour of public transport, bicycles and pedestrians while seeking to reduce space available for cars whenever possible.

This is the case of the area around Calle Can Magrans and Calle de l'Albareda in the north of the campus where the free access of cars and a lack of any means of control together with undisciplined use had resulted in mass occupation of space and restricted access for pedestrians, people with reduced mobility and bicycles in safe conditions. Restricting vehicle access and reorganising the space has made this area attractive, liveable, safe and practical for the different activities taking place there.

This action is based on a series of strategies seeking to:

- Reduce traffic volume and speed by restricting private vehicle access through the installation of a control barrier (except authorised vehicles, loading and unloading and emergencies).
- Reorganise urban space.
- Restrict the number of spaces in the reserved car parks of buildings in this area.

This activity forms part of strategic line 6 of the Mobility Plan linked to promoting a more rational use of private vehicles. More specifically the plan for road priority on the campus which re-defined the role of this road in the campus network as a complementary route of inverted priority.

Indicators

Amount of the space dedicated to cyclists, pedestrians, parking spaces.

Results

In spite of the arguments clearly in favour of sustainability and safety, cutting back on the "established rights" of drivers always meets resistance. Reducing this resistance as much as possible and guaranteeing a minimum acceptance level of the new situation requires previously informing the affected parties, detecting possible unexpected dysfunctions, seeking alternative solutions and negotiating their implementation.

Expense

90.000,00 €.

Financing

UAB budget.

Findings

In spite of the arguments clearly in favour of sustainability and safety, cutting back on the "established rights" of drivers always meets resistance. Reducing this resistance as much as possible and guaranteeing a minimum acceptance level of the new situation requires previously informing the affected parties, detecting possible unexpected dysfunctions, seeking alternative solutions and negotiating their implementation.

Pictures

Fig. 1. Before and after the implementation of the project.

Pictures

Fig.2. Before and after the implementation of the project.

Links

http://appbuses.accessibilitat-transports.uab.cat/

Contact person

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FESEDIT Project for Promotion of Car-sharing

2011

University
University of Girona (UdG)

Country
Spain

Location
Urban and Peri-urban

Size
10,000-20,000

Mobility Organizational Structure
Green Office

Summary

The FESEDIT initiative is a carpooling platform based on new technologies.

Aims

- Use new technologies to contribute to improving the environment and reducing the emission of greenhouse gases.
- Simplify mobility of people and reduce the use of the private vehicle through car sharing.
- Promote the everyday use of carpooling for short trips.
- Use new technologies to resolve inconveniences associated with hitchhiking from a trust point of view.
- Offer flexibility and comfort to users.
- Favour local commerce.
- Create a social currency that enables the user to travel free of charge.
- Create a social mobility network.
- Reduce and optimise economic costs.
- Get to know new people in your environment, your community, as well as favour networking with other communities.
- Guarantee the reliability and confidence of users who are members of the same community.
- Form part of an innovative carpooling project, the first in Catalonia and Spain.
- Offer social benefits.

Stakeholders

Technological spin-off of the UdG EASY INNOVA.

Background

E-hitchhiking pilot test 2009 (grant from the Ministry of Development.), implementation in 2011.

FESEDIT Project for Promotion of Car-sharing

2011

Description

It consists in promoting contact (through a cell phone application and / or Internet) between people from the same community who make similar trips so that they can do them together. It is a dynamic system that enables real time queries, last-minute changes and even tracking of the position of the driver or passenger using GPS.

In addition, it incorporates an assessment routine based on artificial intelligence that ensures the whole system is trustworthy and secure.

The activities performed were:

- Management and follow-up activities: reservation of parking spaces, creation of statistics, indicators.
- Internal dissemination activities.
- Presentations in different forums.
- The tools used were:
- Web site.
- Application for mobile devices.
- Incentives through a system of social currency that values "dormant assets".
- Communication resources such as flyers, posters, lip dub, press releases, ads on the radio, reports on local, regional and national television, promotional video on YouTube, presentations, conferences, etc.

The FESEDIT initiative has been developed by the EASY Centre (member of the TECNIO network) of the University of Girona, together with the University Green Office.

The platform has also been used for special events that involve the mobilisation of large numbers of people with the inclusion of an edit button on web pages providing information about these events.

Indicators

The 2015-16 indicators show that the UdG community consists of 857 registered users sharing 2,520 trips which implies savings in CO2 emissions of 14.8 Tn.

FESEDIT Project for Promotion of Car-sharing

2011

Results

- Very good acceptance of the service among students, good among teaching, administration and services staff.
- Experience repeated in other user communities: territorial seat of the Generalitat (Government) of Catalonia in Girona (900 employees), and other universities around Spain (URV, UPC, UB, UZar)
- Reduction of CO2 emissions compared to other means of travel.
- Support of the Girona City Council who included the initiative in their Municipal Urban Mobility Plan and reserved parking spaces for people using the service.

Cost

- Implementation of the service: 16,000 €
- Annual cost: 2,000 € updates + maintenance.

Financing

- Grant from the Ministry of Development.
- In-house resources of the UdG Environmental Awareness Plan.

Findings

The Fesedit platform offers a sustainable response to environmental aspects caused by obligatory travel habits by reducing per capita emissions. From a social and economic aspect, by considerably increasing the mean occupancy rate to 1.3 people per vehicle the associated expenses of the journey decrease having therefore a positive economic benefit for the participants.

In any case, according to the UdG annual mobility survey (2015), 11% of the University community share vehicles, the equivalent to some 1,650 people and almost double the number of people registered in Fesedit. This indicates that the incentive of being able to park just a few minutes from the campus does not encourage users to register on the platform, (a feature is authorised parking closer to university centres). This situation means that, in general, to advance towards a new mobility model based on alternatives to an individual and unconscious use of the private vehicle, the implementation of sustainable mobility initiatives must be accompanied by users' reduced expectations of being able to park in areas close to campus centres.

FESEDIT Project for Promotion of Car-sharing
2011

Pictures

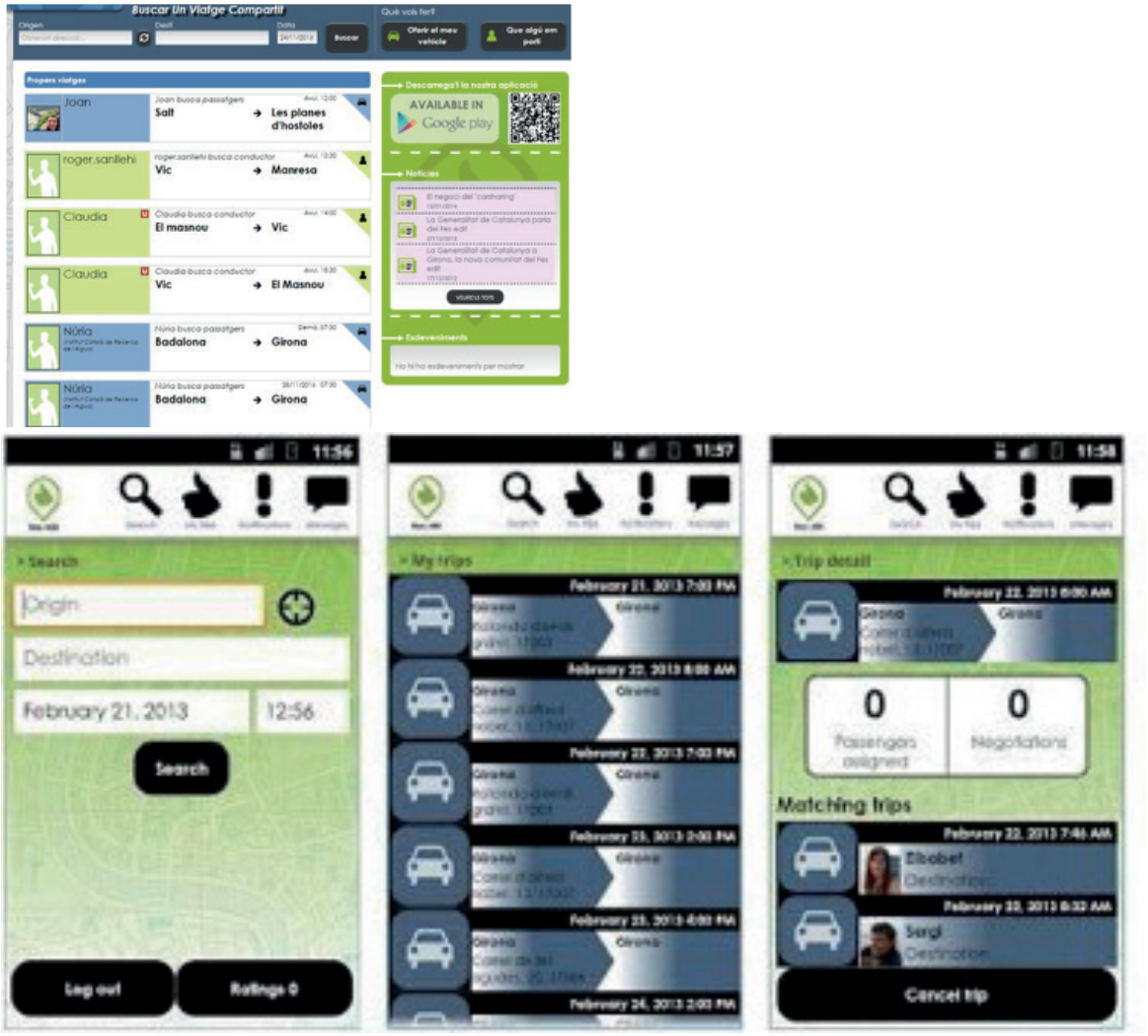

Fig 1. Screenshots of the CAR-SHARING app

Links

http://www.udg.edu/ov/
http://mapscloud.udg.edu/itinerarissaludables/
http://www.udg.edu/tabid/20846/activitat=24

Contact person

Pep Juandó
Green Office
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USALe PROJECT

2012

University
University of Salamanca (USAL)

Country
Spain

Location
Urban

Size
30,000-40,000

Mobility Organizational Structure
Green Office

Summary

Acquisition of electric vans for university services and implementation of a charging stations network.

Aims

- Implement electric mobility in USAL operations.
- Promote the use of the electric vehicle on an institutional level and use it as a model for other sectors (administration, companies, individuals...).
- Reduce the emission of greenhouse gases (GHGs) generated by the University.
- Favour the reduction of atmospheric and acoustic pollution on a local level.
- Use the project as an example and educational resource for the university community and society in general.

Stakeholders

IBERDROLA S.A
Local Energy Authority of Castile and Leon (EREN)

Background

Over the last few decades, issues such as dependency on foreign energy supplies, especially among countries of the European Region, as well as the evident effects of climate change associated with the emission of greenhouse gases and the growing concern from all areas of society, have brought about the implementation of policies designed for the rational management of resources and technological development as an alternative to the current energy models.

"USALe" (USAL electric) is the University of Salamanca's project for the design, implementation and management of electrical mobility incorporated into its day to day running. (S.P. 8.2. Universal intercampus accessibility and mobility, "Studii Salamantini" Campus of International Excellence).

USALe PROJECT
2012

Description

In this context, the University of Salamanca, has under-taken two pioneering initiatives in response to objectives marked by its environmental policy on electric mobility:

- The purchase of a fleet of 5 electric vans for internal mail services (General Secretariat), maintenance (Technical Infrastructure Unit) and for transporting goods and people between the University campuses of 'Salamanca city' and 'Villamayor de la Armuña'.
- The implementation of a network for re-charging electric vehicles belonging to the University across different campuses with a view to extending coverage to private users within the University community.

In October 2012, the commissioning of USAL electric vehicles was conducted; in June 2014, the opening of the "USALe" electric vehicle top-up network was implemented.

The activities developed to carry out this action were the following:

- Feasibility study for the implementation of electric vehicles in the University of Salamanca. (2010).
- Acquisition of 5 electric vans (Renault Kangoo Z.E.).
- Installation of charging points in the "Botanical" car park (USAL Science Campus).
- Training of the staff involved (drivers, managers, mechanics, etc.).
- Delivery of the vehicles (October 2012).
- Follow-up and control using the proposed indicators.
- Promotional and awareness activities (participation of local SEMs, talks, etc.).
- Design and installation of the electric vehicle charging network (USALe Network).
- Inauguration and opening of the USALe Network (June 2014).
- Installation and commissioning of the USALe Network (5 EVCP on 4 USAL Campuses).
- Study of private vehicle incorporation within the University community (pilot project) and development of the USALe Network management procedure.

Indicators

- Kilometres / year.
- Kg CO2 / year.
- Kilometres / €.

USALe PROJECT
2012

Results

The use of the electric vehicle was considered a more environmentally friendly system not only because of the overwhelming reduction of pollution and noise associated with combustion engine vehicles, but also taking into account the image of the University. By projecting an image of respect and concern for the environment it is hoped that other institutions and organisations follow the example given.

The electric vehicles currently available on the market are considered technically acceptable for urban and peri-urban use that does not exceed 100 km/day, autonomy being limited by the capacity of the batteries. They also require the availability of compatible charging points to ensure energy top-up.

The current cost of this type of vehicle is considerably higher than conventional models but subsidies are available for their purchase. The cost of charging devices must also be taken into consideration. The operation of electric vehicles is considered economically viable for more than 12,000 Km/year as the batteries are leased and imply a set monthly expense. Based on this annual usage (12,000 km), an electric vehicle generates economic savings as a result of the cost difference between the electric KWh and the equivalent KWh of the fuel of a conventional vehicle. In addition the maintenance costs and taxes on electrical vehicles are about 50% less compared to conventional vehicles with similar characteristics.

The results obtained indicate a reduction in the emission of greenhouse gases (adjusted to CO2) of approximately 10 tons up to 2015 in comparison to equivalent conventional vehicles (fig. 1). In addition, 100% of local emissions and noise pollution have been eliminated, as well as improving the working conditions of the drivers involved.

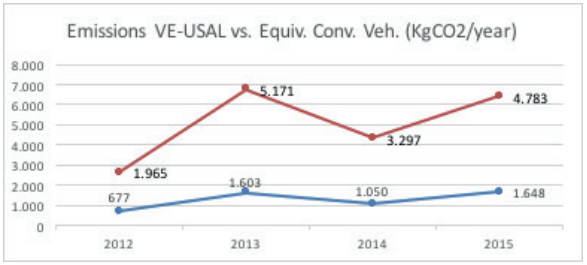

Figure 1. Real emissions of the USAL electric vans (blue) compared to equivalent conventional vehicles (red) (180 g of CO2/ Km). The period studied (2012-2015) represents savings of 10,238 Kg of CO2.

Cost

181,599.99 €.

Financing

- Campus of International Excellence Program.
- Private financing (Iberdrola S.A.).

Lessons Learnt

The electric vehicle is an excellent option as a vehicle for daily urban and peri-urban use, especially for transporting goods and people between different campuses.

A detailed study is required to correctly define the parameters and viability of the inclusion of electric mobility in universities. Questions such as the geographic characteristics, transport needs, frequency of trips, daily and accumulated distance travelled, may be key points when deciding on the different options available on the market. Consideration must be given to the need for charging points and the cost of hiring the batteries when calculating the economic viability.

Pictures

Figure 2. Electric vans and parking spaces adapted as charge points at the University of Salamanca.

Figure 3. Electric vehicle charging points of the USALe Network.

Figure 4. Logotype of the USALe Project.

Links

Not available.

Contact person

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Efficient Driving Courses

2011

University
University of Valladolid

Country
Spain

Location
Urban

Size
20,000-30,000

Mobility Organizational Structure
Office for Environmental, Quality and Sustainability

Summary

Various practical and free efficient driving courses in collaboration with the Regional Energy Authority, for the whole university community, including lecturers, investigative, services and administration staff and students.

Aims

The efficient driving courses were designed to reduce the energy consumption associated with the use of private vehicles. It was also aimed at improving comfort, increasing safety, reducing maintenance costs and CO2 emissions into the atmosphere.

Stakeholders

EREN (Local energy authority).

Background

Not available.

Efficient Driving Courses

2011

Description

The application of a few simple techniques results in up to 15% fuel savings. In general terms, a driver who covers 15,000 kilometres a year can save about 200 Euros. Efficient driving improves comfort and increases safety as it is based on anticipative and foresighted driving that reduces fuel consumption, maintenance costs and CO2 emissions into the atmosphere.

For the courses, a contract was signed with driving schools specialised in efficient driving to provide teachers and vehicles. The management of human resources was carried out by the staff of the Office for Environmental Quality.

Each course was simultaneously presented to a maximum of 3 students by a specialised instructor and was structured as follows:

1. Presentation of the course. (Approximate duration of 5-10 minutes)
2. First drive around the circuit using their own style. Each student drove around an established circuit for approximately 20 minutes and recorded the speed and fuel consumption parameters.
3. Theory class explaining the basic concepts of efficient driving. Approximate duration 90 minutes.
4. Demonstration drive around the course: The instructor follows the same route, explaining the concept, so that the students have hands-on experience. Approximate duration 20 minutes.
5. Second drive around the efficient driving circuit: Each student repeats the same initial circuit after receiving the training. The same parameters are recorded compared to the initial ones. Duration of the circuit for each student: 20 minutes.
6. Analysis of results and conclusions (15 to 40 minutes). The data (individual and overall) is entered a computer and the results briefly analysed.

Indicators

- Number of courses provided.
- Degree of satisfaction.

Efficient Driving Courses

2011

Results

Wide acceptance, with the offer being completely covered. This course was made available to 120 people on the Valladolid campus and 20 people on the Palencia campus. It has been presented over several consecutive years.

Expense

10.000 €.

Financing

EREN and University of Valladolid.

Findings

Not available.

Efficient Driving Courses

2011

Pictures

Fig.1. Poster used to promote the driving courses.

Links

http://www.uva.es/export/sites/uva/7.comunidaduniversitaria/7.09.oficinacalidadambiental/index.html

Contact person

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Fleet Management

2015

University
University of Oxford

Country
University of Oxford

Location
Urban

Size
35.000 people (22.000 students + 13.000 staff)

Mobility Organizational Structure
Mobility manager

Summary

To reduce the University's carbon footprint, the fleet is gradually being replaced with Ultra Low Emission Vehicles where suitable vehicles exist.

Aims

Increase the number of lower-carbon vehicles in the University's fleet.

Stakeholders

University Departments.

Background

Not available.

Fleet Management

2015

Description

In its Transport Strategy, the University has identified that its fleet had approximately 70 motorcycles, cars and light vans which had the potential to be replaced, in long term, by hybrid or electric vehicles. Through a review of the use of the current fleet, it was possible to identify main sites of operation, daily distance covered, load-bearing capacity and necessary effective range, identifying as well those vehicles with the greatest scope to be incrementally replaced with lower-carbon options.

Now, the University is increasing the uptake of Ultra Low Emission Vehicles (ULEV) in the fleet of 148 road-going vehicles, and sharing fleet assets.

Indicators

Number of road going Ultra low Emission Vehicles in use.

Fleet Management
2015

Results

- 10 road going ULEV (all full electric).
- 7% of the road going fleet are zero emission ULEV.

Cost

Varies by vehicle. The Goupil G5 cost around £30,000.

Financing

Funded by the Green Travel Fun (hypothecated income from staff commuter parking charges) and Departmental budgets. The Green Travel Fund has around £45k p.a. allocated to support Departments to consolidate and replace their fleet with ULEVs.

Lessons Learnt

Not available.

Pictures

Fig 1. Goupil G5 Electric Tipper

Links

http://www.admin.ox.ac.uk/estates/aboutus/managingtheestate/environmentalsustainabilitytravel/transportstrategy/

Contact person

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Reducing Single Driver Rates and Use of Fully Gasoline Powered Cars

University
University of California, Los Angeles (UCLA)

Country
United States

Location
-

Size
>70,000

Mobility Organizational Structure
UCLA Transportation is a self-supporting Auxiliary Enterprise of UCLA

Summary

UCLA Transportation recognizes that commuting via automobile is sometimes the only feasible option for our affiliates. However even in these cases, there still can be ways to make commuting in this way more sustainable.

Aims

To incentivize taking advantage of the capacity of the automobile, and encouraging the use of alternative fuel vehicles.

Stakeholders

UCLA.

Background

Driving alone to campus in a traditionally powered automobile increases congestion and the carbon footprint of the University. Los Angeles leads the US in traffic congestion and poor air quality. UCLA is working to reduce its traffic and improve local air quality.

Reducing Single Driver Rates and Use of Fully Gasoline Powered Cars

Description

To encourage carpooling, discounted parking permits are offered for those who demonstrate a willingness to ride with others to work or class.

Providing infrastructure to power alternative fuel vehicles free of charge is also a way to encourage the use of such vehicles.

Indicators

Mode Splits.

Reducing Single Driver Rates and Use of Fully Gasoline Powered Cars

Results

53% Single Occupancy Vehicle Rate & over 1% of vehicles running on alternative fuels.

Expense

- Fee for service 1,000 Euro per month, 12,000 per year.
- Electric energy cost depends on usage.
- Expenses are covered by Andrzej Łebkowski.

Financing

The charging station was built thanks to the Innovative Economy Programme, Priority Axis 5: Diffusion of innovation, Calculation 5.1 Support for the development of supra-regional cooperative relations. The coordinator of the project is the Polish Agency for Enterprise Development.

Findings

- Verification of the correct working of the user identification system.
- Verification of the build quality.
- Verification of the real energy used by the electric vehicle.

Pictures

Not available.

Links

Not available.

Contact person

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Multi-modal Transportation

2015

University
University of California, Los Angeles (UCLA)

Country
United States

Location
-

Size
45,000 students + 30,000 employees

Mobility Organizational Structure
UCLA Transportation is a self-supporting Auxiliary Enterprise of UCLA

Summary

UCLA promotes several types of transportation in order to both educate and encourage the campus community to utilize alternative modes to get to, from, and around campus.

Such modes can be used in conjunction with one another when using one is not always a viable option.

Aims

To inform and encourage the campus community about utilizing different types of transportation for a particular commute when using only one is not sustainable or inefficient, with the end goal of increasing usage of alternative transportation.

Stakeholders

UCLA.

Background

Given the abundant options that exist for alternative transportation, coupled with UCLA Transportation's promotion of taking advantage of such modes, using two or more of them on one's commute to and from campus is attainable and done by many university affiliates.

Description

Several options to engage in intermodal transportation exist to get to and from campus. For instance commuters can ride a bicycle to a bus stop, and take the bus to campus while placing their bicycle on the provided bike rack; or commuters can take the expo light rail or the purple line subway towards west Los Angeles, and commute the rest of the way via bus.

UCLA is working to identify which new technologies and parking pricing models give customers greater flexibility in using multiple commute modes, thereby encouraging customers to use sustainable transportation more often while allowing them to drive conveniently when needed.

Advancements in parking technology have resulted in an opportunity to design and implement a parking system that better meets the individual demand of our customers, streamlines the parking experience, and reduces greenhouse gas emissions.

The existing Bruin Commuter Park program provides half-price daily parking rates to alternative mode commuters, which helps incentivize alternative mode program use, but additional, flexible parking options will further improve this customer group's service level.

Indicators

Mode Splits.

Multi-modal Transportation

2015

Results

47% of employees in alternative mode commutes.

Cost

Not available.

Financing

Not available.

Lessons Learnt

Commuters desire flexible options .

Pictures

Fig 1. Bike rack in a bus

Links

http://beagreencommuter.com/

Contact person

Renee Fortier, Executive Director of UCLA Transportation

Mobility management education at the Cracow University of Technology

2010

University
Cracow University of Technology

Country
Poland

Location
Urban centre

Size
10,000-20,000

Mobility Organizational Structure
None

Summary

Cracow University of Technology provides students of the Transportation and Land Use Specialties at the Civil Engineering Faculty with courses on mobility management. Students have the possibility of writing bachelor and master thesis on mobility management issues and they can join the Student Transport Group which as a collective, deals with transport related problems.

The Department of Transportation Systems together with the Student Transport Group organises workshops allowing students to work on real problems, such as the transport service during World Youth Day 2016 in Krakow or the reconstruction of the main streets in the city. Representatives of transport authorities, transport operators and other entities always take a part in these workshops, providing professional support and, at the same time, benefitting from exposure to students' innovative ideas.

Aims

- Learning more about current urban transport problems and solutions to solve them.
- Gain experience and practice on solving real transport problems with the assistance of the transport professionals.

Stakeholders

- Students of the Transportation and Land Use Specialties at the Civil Engineering Faculty.
- Municipalities, Transport Authorities and other transport related entities.

Background

Not available.

Description

Mobility management education at the Cracow University of Technology is carried out in a few different ways:

1. From 2010 Cracow University of Technology offers courses on mobility management addressed to students of Transportation (Urban Transport specialty) and from 2015 to students of Land Use at the Civil Engineering Faculty. The course programme consists of the following:

- Current transport related problems.
- Genesis of mobility management.
- Characteristics and examples of 'soft' measures.
- Characteristics and examples of 'hard' measures.
- Integration of transport and land use planning.
- Mobility plans for generators of traffic, such as work places, schools, shopping malls, etc.

Mobility management education at the Cracow University of Technology

2010

Description

To practice on the subject matter students are obliged to prepare a mobility plan for chosen a traffic generator. The project design includes detailed object description, including transport problems and the inventory of the transport connections and a transport accessibility analysis as well as proposals of measures to induce travel behaviour change and the suggestion of a set of indicators to evaluate the implementation of the proposed measures.

What is more, students take part in a special simulation workshop, acting in the role of representatives of the different stakeholders (local communities, transport authorities, transport operators, ecological associations, local shopkeepers etc.) and trying to make a compromise on the future transport related solutions proposed for the chosen area. This way they can learn what is important for particular stakeholders and how to lead the public participation process.

Students have the possibility to write their bachelor or master thesis based on knowledge gained from working on real transport problems. Courses and thesis are carried out by the employees of the Department of Transportation Systems.

2. A few years ago the Student Transport Group was established to bring together students who are interested in transport issues and who want to work on transport problems in their free time, outside of classes.

Students meet every month, and at the beginning of each semester plan their activities for the months ahead. They always work on real problems. Sometimes these problems are related to observations made by the students on some element that doesn't operate well and sometimes this is work ordered by the transport authority in Krakow or by private companies (e.g. bike traffic measurements, mobility plan).

In the 2016/2017 academic year there were 64 group members divided into several sections; mobility management, land use planning, public transport, bike traffic, parking issues.

At the end of each semester there is a presentation of the projects undergone by each particular section. Students also prepare individual reports on the work done. From time to time representatives of transport operators or transport authorities as well as any other interested parties are invited to view student presentations, and see first-hand their work, results and innovative ideas. Some projects concerned measures that should be introduced in the University grounds to make it more pedestrian friendly.

Every year the group organises a national conference of Student Transport Groups, students also write articles on their work and publish them in different journals and present them at national and international conferences.

The group receives support and professional assistance from the employees of the Department of the Transportation Systems.

3. From the 2015 the Department of the Transportation Systems together with the above described Student Transport Group organise workshops for students with different stakeholders (2-4 day workshops, outside of Krakow city). Students work on real, serious problems and have to find the best solutions. Experts, not only from the transport sector, are involved in these workshops, sharing their experience and supporting students in their projects. Results of the students' work are then presented to regional or local authorities or to other decision makers.

It is worth mentioning that one of the workshops was very successful and highly visible in the local media. Students, together with experts from many fields (not only transport professionals but also police, fire department, church institutions, etc.) were working on the complex issue of the transport service for the World Youth Days, which took place in Krakow in the summer of 2016. A workshop was organised 6 months before the event in light of its magnitude; during the World Youth Days Krakow received twice as many visitors than the number of the city inhabitants! Transportation management was a real challenge and the view points and results of the students' work were presented to the Provincial Governor, forming a base for the organisation of transport services during the event. In this way students could participate in the planning process and learn from experts.

In total 4 workshops were organised from autumn 2015 through to the end of 2016. All 4 were related to real transport problems occurring in the city, some being organised at the request of the Krakow Municipality.

Mobility management education at the Cracow University of Technology

2010

Indicators

- Number of students who took a part in mobility management classes.
- Number of workshops organised.
- Number of students who took a part in workshops.
- Number of students of the Transport Students' Group.

Results

- Since 2010 around 150 students of 'Transportation' and as of 2015 around 70 students of 'Land Use' have taken part in the mobility management classes.
- Up to the end of the 2016 4 thematic workshops were organised. In total approx. 200 students participated in all the workshops.
- The number of students in the Student Transport Group increases every year. The group had 64 members in the academic year 2016/2017 (48 of them are very active in all group activities).

Expense

Expenses related to the workshop organization:

- Room rental.
- Accommodation (only if workshop is organised outside the city).
- Catering.
- Cost of materials: paper, maps, pencils etc.

Financing

- Since the mobility management course is a part of the University educational programme all expenses of the classes are covered by the Ministry of Education.
- Expenses related to the workshops are partially covered by the University funds and partially, depending on the workshop theme, by the municipalities or transport authorities interested in workshop results.

Lessons Learnt

- The best way of learning, raising awareness and increasing participation is not only through listening to teachers and watching their presentations but also working on real problems, e.g. conceptualise a mobility plan for a chosen traffic generator,
- The opportunity for students to find out how public participation works through inviting them to play the roles of different stakeholders in order to experience what is important for particular groups and how compromise can be reached,
- A successful education for transport professionals can be reached by providing a rich educational offer, consisting not only of obligatory courses, but also by offering interesting alternatives for free time activities, such as workshops or working in student groups, though these also require a great effort from the teachers,
- To see problem resolution through observing professionals is a great learning opportunity, that is why it is very important to provide students with the possibility to cooperate with experts on joint projects,
- Organising workshops over a few days outside the university, or even outside the city, has a very positive influence. After the whole day of working students can rest, play sports or talk with colleagues, which favours integration.

Mobility management education at the Cracow University of Technology

2010

Pictures

1. Participants of a workshop. Student Transport Group

Links

The Student Transport Group webpage:
http://www.knsk.org/
Information on the student workshop for the transport service on World Youth Days 2016 in Krakow:
https://www.youtube.com/watch?v=jNSKm1C-Ahg

Contact person

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Moving Sustainable Transportation from Ideas to Practice

-

University
University of California, Los Angeles (UCLA)

Country
United States

Location
-

Size
>70,000

Mobility Organizational Structure
UCLA Transportation is a self-supporting Auxiliary Enterprise of UCLA

Summary

Rather than just plan and create policies for sustainable transportation, the University works towards educating the campus community on sustainable travel, and creating a culture that is aware and supports it.

Aims

To create a culture of sustainable travel on campus, provide engagement opportunities for students on sustainable transportation projects that both benefit the University and enrich the student's learning experience, and identify opportunities for partnerships with University departments.

Stakeholders

UCLA.

Background

As an educational powerhouse and major research university, Transportation works to leverage UCLA's various resources to create an environmentally conscious campus population in regards to transportation choices.

Description

- Elevate awareness of transportation issues, stimulate discussion, and disseminate information throughout the UCLA Community.
- Engage the campus community in transportation discussions via the web, blogs, and social media .
- Imbue students with an understanding of sustainable transportation that remains with them throughout their lifetime and sets precedents for their personal behaviour.
- Sponsor appropriate graduate student Client projects.
- Work with Education for Sustainable Living Program and engage student Action Research Teams to complete sustainable transportation projects.
- Engage with various other student groups on campus in all things that are transportation-related and encourage advocacy efforts.
- Utilize the talents of UCLA faculty and staff to further the sustainable transportation initiatives and goals of the Department.
- Work with student groups and student funding sources to match their resources with sustainable transportation initiatives.

Indicators

Number of student projects per year.

Results

Not available.

Cost

Not available.

Financing

Not available.

Lessons Learnt

Not available.

Pictures

Not available.

Links

Not available.

Contact person

Not available.

Development of Curriculum in Clean Urban Mobility for the University of Koprivnica

-

University
University of Koprivnica

Country
Croatia

Location
-

Size
>70,000

Mobility Organizational Structure
UCLA Transportation is a self-supporting Auxiliary Enterprise of UCLA

Summary

The University of Koprivnica has been the first educational institute in South-Eastern Europe to offer a programme in clean urban mobility. The programme encourages cross-border cooperation in the region and provides a sound basis for the development of Sustainable Urban Mobility Plans in cities in the region as the curriculum is built around the city's SUMP as a framework.

Aims

The main objectives of this measure were to:

- Raise the profile of clean urban mobility in the city and wider region.
- Plan a university programme in clean urban mobility.
- Encourage cross-border cooperation and learning between partner cities and other cities.
- Promote development of Sustainable Urban Mobility Plans in the region.

Stakeholders

Government of Koprivnica Partner universities.

Background

Not available.

Development of Curriculum in Clean Urban Mobility for the University of Koprivnica

Description

The new University in Koprivnica aimed to be the first educational institute in South Eastern Europe to offer programmes in clean urban mobility. In this way, it could offer the opportunity of training a new generation of transport professionals in this geographical area, providing them with a new set of innovative techniques and associated knowledge that would help to change transport planning paradigms across the EU and Associated States in the region. The programme aims to encourage cross-border cooperation and learning between the city of Koprivnica and other cities in the international region and to provide the sound basis for the development of Sustainable Urban Mobility Plans in cities in the region because the curriculum is built around the SUMP as a framework. This will help to mainstream the concept as a key building block of transport planning and engineering in the region.

During the preparation phase the following tasks have been executed:

- Establishment of a cooperation with partner universities of Lund, Ljubljana, Zagreb and the regional branch of Veszprem University at Nagykanizsa, Hungary as well as universities from DYN@MO city partners: The Technical University of Aachen, University of Gdansk and Lund University.
- Brief review of existing curricula on clean urban mobility from other selected EU member states.
- Identification of best-practice elements and gap analysis.

In the implementation phase the following tasks were executed:

- Development of curriculum in English – development of the concept - detailed module descriptors, programme structures, learning outcomes and student assessment methodologies – to construct a programme fully compatible with the European Credit Transfer System and in line with the Bologna Agreement using the input by the SUMP competence centre. Actual teaching material (tutorial exercises, site visits, lecture notes and slides) were not produced as part of this measure.
- Potential student and expert feedback on the proposed programme, and modification in the light of this feedback. The programme was tested through an intense testing course for potential master course students.
- Validation of the programme through the Croatian university system to receive government approval.

Indicators

Not available.

Development of Curriculum in Clean Urban Mobility for the University of Koprivnica

-

Results

Tangible outputs:

- Established expert advisory board.
- Developed and tested curriculum.
- Implemented curriculum.

Expected outcomes in the short- to medium-term:

- Plan of the curriculum development.
- Collection of best-practice examples.
- Developed curriculum proposal.
- Tested and possibly modified curriculum proposal.
-

Expected outcomes in the mid- to long-term:

- Implemented curriculum.
- Translation of curriculum into Croatian.
- Nation and region-wide promotion of the curriculum and the university.

Cost

Not available.

Financing

Not available.

Lessons Learnt

Not available.

Pictures

Not available.

Links

http://civitas.eu/content/development-curriculum-clean-urban-mobility-university-koprivnica

Contact person

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Business travel – Oxonbike bike sharing and other measures

2015

University
University of Oxford

Country
University of Oxford

Location
Urban

Size
35.000 people (22.000 students + 13.000 staff)

Mobility Organizational Structure
Mobility manager

Summary

The University is seeking ways of reducing the carbon footprint of its staff and meeting its business travel needs of connecting its sites across the City through the use of the Oxonbike bike sharing and other measures.

Aims

To reduce CO2 emissions, meet business travel needs and enable staff to work smarter.

Stakeholders

- Oxford University Hospitals NHS Foundation Trust.
- Oxford Health NHS Trust.
- Oxford Hourbike.

Background

Not available.

Business travel – Oxonbike bike sharing and other measures

2015

Description

The University is investing in the Oxonbike bike sharing scheme and implementing electric bikes to serve University sites. It is increasing cycle parking, and supporting departmental pool bikes for business travel. Flexible working, including compressed working and homeworking (according to specific Departmental needs), tele and video-conferencing avoid the need to travel and enable staff to work smarter.

Indicators

- Number of Oxonbike hires.
- Number of bike parking spaces.
- Mode share for cycling.

Business travel – Oxonbike bike sharing and other measures

2015

Results

- As at Nov. 2016 there have been 11,344 rentals, 2095 members cycling 37,279 miles since June 2014 in the Oxonbike scheme (Jan. 2017 640 rentals of which 33% e-bikes). The University joined April 2015.
- 4000 cycle parking spaces.
- Cycle mode share 30% (for commuting).

Expense

- Oxonbike £78,000 from the University.
- Oxonbike £54,000 from the Government.
- Oxonbike £33,000 from other partners.

Financing

Funded by the Green Travel Fun (hypothecated income from staff commuter parking charges).

Findings

Not available.

Business travel – Oxonbike bike sharing and other measures

2015

Pictures

Fig.1. Oxonbike website.

Links

http://www.admin.ox.ac.uk/estates/aboutus/managingtheestate/environmentalsustainabilitytravel/transportstrategy/
https://www.oxonbikes.co.uk/

Contact person

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Alternative Working Arrangements

-

University
University of California, Los Angeles (UCLA)

Country
United States

Location
-

Size
>70,000

Mobility Organizational Structure
UCLA Transportation is a self-supporting Auxiliary Enterprise of UCLA

Summary

UCLA offers alternative work schedules and arrangements to reduce the number of automobile trips to campus.

Aims

To reduce automobile congestion, emissions, and need for parking spaces on and around campus.

Stakeholders

UCLA.

Background

The traditional 40 hour working week, naturally, tends to contribute much towards automobile use and all its negative externalities. Giving employees the option to commute less and/or work from their residence will help reduce automobile use and its related externalities.

Alternative Working Arrangements

Description

Some departments will offer their employees the 9/80 or 10/40 work schedules which allow the employee to take one week day off every other week or every week, respectively. Telecommuting, or working from home, is also given as an option by several departments for a select day of the week.

Indicators

Telecommuting + Compressed Work Week, and mode split percentage.

Alternative Working Arrangements

Results

Not available.

Cost

Not available.

Financing

Not available.

Lessons Learnt

Not available.

Pictures

Not available.

Links

Not available.

Contact person

Not available.

Data collection for the integrated mobility plan: Ex-ante survey and Ex-post survey

2005

University
Cracow University of Technology

Country
Poland

Location
Urban centre

Size
10,000-20,000

Mobility Organizational Structure
None

Summary

An integrated mobility plan for the Cracow University of Technology was implemented in the framework of the EU CiViTAS CARAVEL project. The main aim of the mobility plan was to change employees and students mobility behaviour towards sustainable mobility.
The first stage of the mobility plan was to collect data about mobility behaviour and preferences:

- Ex-ante survey (before mobility plan implementation).
- Ex-post survey (after mobility plan implementation).

Aims

- To obtain knowledge about present employees' and students' mobility behaviours and preferences.
- To obtain knowledge about travel conditions for sustainable mobility means.
- To obtain knowledge about mobility plan results.

Stakeholders

- Authority of the Cracow University of Technology.
- University students and employees.

Background

Cracow University of Technology consists of several campuses located in different area of the city, which means that employees and students generate large flows of traffic travelling between them. Serious traffic congestion was observed in the neighbourhood of the largest University campus, located at Warszawska St., in the city centre. Congestion was the main reason for lost time and difficulties in accessing when commuting, as well as having a considerable negative impact on the environment.

This situation is the result of the strong increasing tendency towards car ownership, especially among young people. There was also a problem related to parking at this University campus – the campus is situated in a restricted parking zone and access to the University car park was difficult due to a decrease in the number of available parking places. The number of the parking places was planned to be further reduced as a result of the construction of a new library building so there was a real need to reduce car parking needs among University employees and students.

The idea was to encourage employees and students choose sustainable travel options over the use of a personal car or in any event car-share. The idea of the mobility plan was implemented as per the following description.

Data collection for the integrated mobility plan: Ex-ante survey and Ex-post survey

2005

Description

Ex-ante survey
The first stage of the mobility plan was to collect data about mobility behaviour and preferences. In 2006 the survey identifying the ex-ante situation was carried out. In total 530 employees, 750 students with daily attendance and 750 students with non-daily attendance took a part in this research. Data about the modal split and reasons for the chosen mode of transport were collected along with data on factors encouraging the use of the bike, public transport and carpooling schemes. The results showed that University community members used public transport as a main mode of transport but at the same time the percentage of individual car trips was quite high, especially for employees, and students travelling from farther afield or having non-daily attendance studies. A very low number of people travelled by bike or used car-sharing systems.

Simultaneously an inventory and analysis of existing public transport connections and their parameters, the number of the bike and car parking spaces available and associated travel costs was carried out.

The results of the research questionnaire and inventory have been used in the next step of the mobility plan implementation to formulate a list of activities that could stimulate sustainable university mobility (e.g. car-sharing system database, cycling related activities, promotional activities, etc.).

Ex-post survey
Additionally, in 2008, to assess the results of the mobility plan implementation the ex-post survey research was carried out. In total 330 employees, 330 students with daily attendance and 330 students with non-daily attendance took a part in this research. The research results are presented in the section: RESULTS.

Indicators

Modal split.

Results

Comparison of data from 2006 and 2008 shows that single-person car occupancy to the University campuses has decreased - for staff, from 45% to 41% and for extra-mural students, from 50% to 30%. This can be explained as a change from single-occupancy car trips to car-sharing. The percentage share of car-share trips has increased: for employees, from 1% to 5%, for full-time students from 0% do 7%, and for extramural students, from 1% to 17%.

The number of the staff travelling to the University by bike has doubled. The survey results have not shown an increase in student bike travel although it has been observed that number of students travelling to the University by bike is significantly higher than before the mobility plan was carried out. Because of the CiViTAS CARAVEL project requirements the ex-post survey was carried out in November (bad weather conditions) which can explain, in the opinion of the project team, the lack of positive results shown regarding student bike travel.

Data collection for the integrated mobility plan: Ex-ante survey and Ex-post survey

2005

Cost

- The main costs of data collection included: Personnel costs.
- Survey questionnaire printing.
- Purchase of maps.

Financing

Costs were covered by the CiViTAS CARAVEL project.

Lessons Learnt

- It is very important to choose the right period for carrying out the surveys (especially in terms of bike travel). If it is not possible to carry out the surveys in the spring or autumn, or the weather conditions are bad, questions related to user habits in 'good weather' seasons should be included.
- Promotional items can increase the effectiveness of the survey (sometimes, if you wish to obtain information from participants, you have to provide an incentive). It is also recommended that the Rector or Dean provides their support by instructing all employees to complete the questionnaire as well as allowing the survey to be conducted among students during classes (encourage teachers to give 5-10 minutes of class time).
- It is a good idea incorporate students into the data collection team, e.g. data processing as a paid activity. Another option is to give them a problem to solve (data collection and analysis) in the framework of the bachelor or master thesis.

Pictures

Not available.

Links

http://www.caravel.forms.pl/index_eng.php?i=act&id=16

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Application in volunteers' smartphones to monitor trips to corroborate survey's results

2015

University
Universitat Autònoma de Barcelona

Country
Spain

Location
Peri-urban. 20 km from Barcelon

Size
40,000-50,000

Mobility Organizational Structure
Mobility team

Summary

In last edition of 2015, the traditional methodology of an online questionnaire was strengthened through a pilot-test based on the use of new technologies for mobility monitoring (known as Campus Mobility), which was linked to the questionnaire on a voluntary basis. The volunteers installed an application in their smartphones and their movements were monitored.

Aims

Complementing traditional surveys by obtaining information which traditional surveys alone were unable to offer. For example:

- The use of public space and resources during time periods different from those which were asked about.
- The relation of work/study mobility with respect to other kinds of mobility.
- The gap between answers (perception) and real use.
- Understanding mobility in relation to how people previously used other forms of transport to access to stations etc.

Stakeholders

Campus transport provider.

Background

From 2011, UAB carries out, every two years, the Survey of Mobility Habits (EHMUAB), it is a basic tool for mobility monitoring at UAB.

The survey is structured in several sections: features of the University community, mobility habits of this community (modal split and travelling time, type of public transport ticket, etc.).

The survey also delves into the users' evaluations about transport and into their opinions on several measures which could encourage improving sustainable access to the UAB Campus.

Application in volunteers' smartphones to monitor trips to corroborate survey's results

2015

Description

Survey results help to diagnose deficiencies and to design measures in UAB policy, in the field of mobility and accessibility. The survey offers the necessary information to update mobility observatory information associated with the Mobility Plan.

In relation to material resources it is important to highlight, since 2009, the change in methodology, from the in-person to on-line method. A change which has allowed savings in both time and resources, while simplifying the operation and improving the process.

In the edition of 2015, thanks to the application installed in volunteers' smartphones to monitor their movements, the results allowed comparisons between the perceived mobility habits, derived from survey responses, with the actual ones, derived from displacement tracks registered in the application; thus giving a greater accuracy in the study about mobility habits of the UAB Community.

The tasks developed were:

- Questionnaire design.
- Online survey tool programming.
- Data collection.
- Data treatment and data interpretation.
- Publication of results.

Indicators

- Participation data in each edition.
- Number of volunteers participating in the experience about new technologies for mobility monitoring in 2015.

Application in volunteers' smartphones to monitor trips to corroborate survey's results

2015

Results

The average of participation has been 5.000 people, which is enough to offer a representative view about mobility at the University.
240 volunteers participating in the experience about new technologies for mobility monitoring in 2015.

Cost

From 0 to 10.000 €.

Financing

UAB Budget and private Budget associated to a prize to promote participation.

Findings

- It is said that survey answers slightly deviate from real uses of several transport modes because these are conditioned by what is considered the most correct answer in some cases or by the influence of their own time cost perception.
- The introduction of tracking is an incipient issue and generates rejection related to privacy aspects. For this reason, it is necessary to clearly link the experiment with the regulations on personal data protection and specify clearly what will constitute the processing of personal data and of its exclusive use for this objective.
- Available technologies are in a process of continuous improvement to minimize negative impacts in terms of battery and data consumption.

Pictures

Fig.1. Tracking individual map obtained thanks to the App "Campus Mobility"

Links

http://www.uab.cat/web/inicio-1273127135815.html

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C-Force: Co-creation cycle campaign

2016

University
Ghent University

Country
Belgium

Location
Urban centre

Size
40,000-50,000

Mobility Organizational Structure
Mobility team or Mobility manager

Summary

The C-Force campaign is an initiative for and by students to encourage students to cycle more and to promote sustainable mobility to and from the University campus. First we want to obtain this goal by stimulating the extrinsic motivation of students by creating competition, linking the campaign to charity, by rewarding them etc. Second we'll trigger the intrinsic motivation by focusing on the socio-economic and health benefits.

The campaign will be launched in April 2017, at the same moment the local Government introduces its new mobility and circulation plan whereby parking will become more expensive - just one of the measures that will be taken. By launching this positive campaign at the same time, we try to combine the 'carrot and stick' method. This campaign is the result of an intensive participation project that started in 2016 and will continue until the evaluation at the end of 2017.

Aims

- Modal shift.
- Reduce the number of cars to the campuses.
- Inform students and raise awareness.
- Optimize university mobility management.
- Improve the accessibility by bicycle and public transport.
- Create an efficient multimodal system.
- Improve security.

Stakeholders

- Ghent University.
- Local government of Ghent.
- TreinTramBus (non-governmental organisation).
- Local bicycle dealers.
- Students.
- Student organisations.
- Charities.
- Open Knowledge Belgium.

Background

It is the intention to create a modal shift, to change the behaviour of the students and to reduce the number of cars travelling to the campuses. This has a number of obvious ecological advantages. In doing so this reduces traffic problems for residents, there is less need for parking space... We want to achieve this by informing students about the various alternative travel options and by launching an attractive campaign made by students for their peers.

In addition, we also want to support the Ghent University in optimising their mobility management and in taking accompanying measures to make the accessibility of the campus by bicycle and public transport safer and more attractive. With this campaign we want to contribute to improving the accessibility of Ghent in general.

This project also has a social goal: A better and more efficient multimodal system also ensures that students who do not have a car (eg. Because they do not have the financial resources) get to their destination without too much loss of time.

C-Force: Co-creation cycle campaign

2016

Description

- We will start a 'cycling competition': Three students created an app that tracks students when they cycle. The app. measures the number of kilometres cycled and so students of Ghent could compete together. Different companies are approached for sponsorship. The more kilometres students cycle, the more money they attain. This money goes to charities.
- Student organisations will be asked to participate. The winning teams receive attractive rewards (train tickets, cinema tickets, new bicycle etc...)
- We also want to improve security: firstly through new technologies and the sharing of information, we want students to use the safest routes to their campus, i.e. by showing the safest and most comfortable cycle routes in the app and on the Ghent University website. Secondly, using a student workshop, by identifying the most dangerous cycling points in Ghent. These 'black spots' will be documented and handed over to the local government along with different stakeholders for them to try and improve them. Thirdly, students will be encouraged to be 'visible' when they cycle and make sure they cycle with their lights on etc...

The specific actions carried out in 2016 were:

- Two interactive workshops with students took place in 2016. One that focused on the most dangerous cycling points in Ghent and another to develop an attractive campaign and promotional activities by and for students.
- Search for sponsors.
- Meeting with all the stakeholders.
- Three students created an app that tracks cyclists.
- 25 Communication students developed a Communication Strategy and conducted interviews with students.

Indicators

To carry out the evaluation of this project we use measurable performance indicators. These are specifically:

- Project is created in co-creation with different stakeholders with students taking the lead role.
- A survey that maps the mobility behaviour of the students in Ghent is conducted by students of Marketing. At least 150 students are interviewed.
- Modal split of the campus is calculated.
- At least 50 students participate actively in the elaboration of the campaign and at least 50 take part in the co-creation process.
- A communications campaign is set up to inform students about possible alternatives to the car and to promote the cycling app and the cycling competition.
- Min. 1000 students participate in the actions of point 4.
- All the information about the safest cycling routes is gathered and integrated into the university website and the cycle app.
- Minimum 2,000 students consulted this website or used the app.
- During the annual bicycle control carried out by the police, (that check lights), a decrease of 10% (in comparison with 2016) is measured of people that are caught without lights.
- A decrease of at least 7% of car use is measured. Before and after the campaign the number of cars were counted on the different University car parks.

Upon completion, the project is evaluated together with the various partners. Some questions that will be asked in the evaluation are:

- What has been the impact of these measures on the modal split among students and the accessibility of the campus?
- What were the strengths and weaknesses of the campaign? Are there opportunities / threats that we should take into account in future projects?
- Are partners satisfied with the cooperation and do they see the value of a co-creation campaign?

Based on this evaluation shall examine how the campaign can be optimised, and where there are opportunities for the future.

C-Force: Co-creation cycle campaign

2016

Results

At this moment it is too early to map the results: we are still in the preparation phase of the campaign. In April 2017 it will be launched and evaluation will take place in the second part of this year.

Cost

From 10.000 to 25.000 €.

Financing

- The City of Ghent gave 10.000 € for this project.
- 14.000 € is gained by sponsorship and by investments by Open Knowledge Belgium (guiding students to build the cycling app) and TreinTramBus VZW (a non-profit organisation that leaded the co-creation process with the students).

Lessons Learnt

Too soon to tell (see answer 'RESULTS').

Pictures

Fig 1. Interactive workshop with students of Ghent University

Links

https://goegefietst.gent/
https://stad.gent/mobiliteitsplan

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Bike Happening

2011

University
Cracow University of Technology

Country
Poland

Location
Urban centre

Size
10,000-20,000

Mobility Organizational Structure
None

Summary

'The Bike Happening' was organised as a means of promoting cycling among employees and students of the University. The second important issue tackled by the event was concerned with raising awareness on CO2 emissions and ways of reducing them. Research, via a questionnaire, was carried out during the event in order to gauge people's readiness to change from their present mode of transport to cycling. The Bike Happening was organised within the framework of the POWER Programme and the TraCit project.

Aims

- Change the perception of employees and students of the University on bicycle travel and propagate it as a modern and environmentally friendly mobility option.
- Raise awareness among employees and students of the University concerning CO2 emissions deriving from transport, their negative impact and the possibility of their reduction.
- Learning more about those factors that could influence changing one's present transport mode to cycling.

Stakeholders

Students and employees of the University
Kraków Miastem Rowerów (bike related organization) – informational and promotional activities, participation in debate
Bike One, the city bike rental operator – promotional activities, free tickets for participants and winners in competitions
TWR - free of charge maintenance point to repair bikes Krakow Police – marking bikes to protect them from theft

Background

The University campuses are located in different city districts and the largest one, Warszawska St. Campus, is situated in the city centre. Travel to and from home and work by the academic community generates a considerable amount of car traffic. Thus the University Authorities have for several years focused on activities aimed at decreasing car journeys and increasing the use of public transport, cycling and walking. As a form of promoting cycling, the University has already organised two 'Bike Happenings' (in 2007 and 2008) within the framework of the integrated mobility plan implemented by the Institution within the CIVITAS CARAVEL project (2005-2009). 'The Happening', carried out under the TraCit project, continued this type of event which had been very popular among students and employees. Additionally, it had a greater importance than previously in that it focused not only on the promotion of cycling but also on the distribution of information about transport related CO2 emissions and the need to reduce them.

Bike Happening

2011

Description

Preparatory activities:

- Activities concerning the preparation of promotional items – public tender, choice of item supplier, item appearance details etc.
- Organisation of the location of the event – proceedings related to rental of the stage and sound system, etc.
- Contact with entities connected with the Bike Happening (Bike related organisations in Krakow, the city bike rental operator, University units), agreeing cooperation details.
- Contact with the press officer, editor of the University Newspaper and the University Photographer, to discuss the promotion of the Bike Happening.
- Preparation of the Bike Happening plan; preparation of competitions and related attractions.
- Printing up posters with information about the Bike Happening and sticking them up in locations in Krakow as well as at all University campuses.
- Printing leaflets and questionnaire forms for participants in the Happening, preparation of deposit box for questionnaires, etc.

Information channels:

- Posters in the area of the University.
- Local newspapers.
- Information on city bike related websites
- E-mail information and invitations sent .to employees and students who have contact and/or classes with the event organisers.

Happening location:

The location was the main courtyard of the University – well known to all employees and students as the main place for meetings. The whole event was highly visible (the TraCit tent was placed in the courtyard) and because of energetic bike related music, everybody could hear what was going on. A special stage was erected for the master of ceremonies, for competition participants and others involved. The ceremonial opening of the Happening was performed by the University Rector. Participants in the Happening could make use of a free of charge maintenance point to repair their bikes and the police were marking bikes to protect them from theft.

Attractions:

- Promotion of city bike rental by BikeOne – the operator provided free one-week tickets for participants in the Happening,
- Short competitions: question & answer - in order to check basic knowledge about bike travel and infrastructure in the city. All prizes were related to bike travel, e.g.: bells, water bottles,
- Competition: "Two wheels are better than four" - everybody who showed a meter or indicated their trip origin and transport mode gained information on how much CO2 they had saved (calculation of distance). The prize was a 3-week ticket for city bike rental in Krakow.
- Competition: "Pimp my bike" – the most original bike. Prize: a one-week ticket for city bike rental in Krakow,
- Competition: "The most elegant cyclist" (male and female) – original, unusual, interestingly dressed cyclists. Prize: photo session in the University newspaper.
- Debate: "Is Krakow a bike friendly city – how much CO2 can be saved by cycling?" During the discussion every participant could say something about cycling in the city and share their experience.

Participants received items such as stickers with the notice: "Cracow University of Technology – a University of cyclists", fluorescent visibility bands and balloons.

Questionnaire on change towards the bike:

The research questionnaire on readiness to change current transport modes to cycling was carried out among participants. The questionnaire also contained an evaluation of the event in itself. Everybody who filled in the questionnaire and put it in a special box got a T-shirt with the slogan: "Two wheels are better than four". At first, only 300 questionnaire forms were printed, but interest was so great that it was necessary to print more forms...In total 419 questionnaire forms were filled in by participants.

Willingness to change current transport modes to cycling and the factors influencing this change were very important issues for The Happening's organisers, and thus participants were asked how often they travelled by bike (almost every day, often or occasionally), what factors encouraged them to cycle every day or often, what were the reasons for occasional bike travel? They also provided information on which factors could encourage them to change their usual transport mode and travel by bike.

Support by University Authorities:

The University Authorities present a very friendly attitude towards the organisation of this kind of event for employees and students, and declare a readiness to promote pro-ecological transport modes. With regard to event implementation there is no need to comply with special legal regulations apart from those resulting from

Bike Happening

2011

public tender (in the case when a public entity is an event organiser).

Transfer and replicability:
The transfer of best practice, concerning the implementation of the Bike Happening concept, took place between Polish and Estonian partners. Information about the Polish Bike Happening, including advice about event organization as well as a description of results from Polish happenings was prepared and given to Estonian partners – the Municipality of Viimsi. A questionnaire form for evaluation of the event and for obtaining data concerning people's readiness to change their current mode of transport to cycling was translated from Polish to English and Estonian partners used it in their bike event. The transfer of best practice was very successful – the Estonian bike event was organised on 4th of June 2011.

Indicators

- Number of participants.
- Number of people with increased awareness of transport CO2 emissions.
- Number of questionnaires completed.
- Number (percentage) of people who left the car at home and travelled by bike because of the Happening.
- Kg CO2 saved.

Results

Over 500 participants took part in The Bike Happening (unfortunately the day was not free of classes) and 419 questionnaires about people's readiness to change their transport habits were carried out. 24% of respondents admitted that they didn't use their car and travelled by bike that day because of the event. Happening cyclists (only respondents who completed the questionnaire forms) emitted 47kg of CO2 "yesterday" as a result of travelling by different transport modes, so it could be evaluated that, because of the Bike Happening, they saved approx. the same value of CO2 on the day of the event.

If all respondents who used bikes during the Happening changed their current mobility modes and cycled to the University in the future during the cycling season (April-June, October-November), the overall amount of CO2 saved per season by all these people could be as much as 5 tonnes.

Expense

The whole event including earlier informational activities and expenses related to:

- Stage rental.
- Sound system rental.
- Advertising e.g. in local newspapers, TV or radio
- Preparation and printing the posters, leaflets, questionnaire forms.
- Purchase of prizes for the winners of competitions.
- The cost of The Bike Happening at Cracow University of Technology was 5,500 €

Financing

All expenses were covered by the TraCit project.

Bike Happening

2011

Findings

- Information prior to the organisation of a bike happening is very important – use as many sources of information as possible to publicise the event among the target group.
- It is essential to invite people from cycling related organisations who have considerable knowledge about bike travel in the city. These people can give practical advice and moderate in discussions throughout the whole event.
- Giving practical information about the possible results of climate change (e.g.: glaciers melting, increasing downpours, floods and hurricanes as well as no snowfall, extremely high temperatures, bad conditions to go on holiday, no available skiing and bad living conditions in general, as a result of climate changes in the future) is very helpful because it shows effects which could influence the life of every citizen.
- Promotional items can attract many participants as well as increase the effectiveness of the survey (sometimes, if you want to obtain information from participants you have to offer something in return).
- The questionnaire form used for research carried out during such events has to be short, 2 pages at the most, because of the risk of unanswered questions or obtaining ill-considered answers made randomly by respondents.
- Organising a lot of activities such as competitions or debates where everybody can say something based on their experience can attract people to the event.
- Simple competitions with a few questions concerning basic knowledge about bikes in the city, (e.g. approx. number of km of bike paths) raise the knowledge of all participants. Prizes in competitions should be related to bikes and cycling, e.g. water bottles, bells etc.
- A very good idea is to organise a free bike maintenance point and protective anti-theft bike marking by the police – usually people have little opportunity or time to do this and during the event these attractions draw many people. For companies that make bike maintenance accessories it is also a promotion opportunity.
- Music makes the event more attractive, while the informational and promotional elements like posters, banners and tents make it more visible. Both elements attract people passing by, making the event noticed in the neighbourhood.
- Distribution of questionnaires during events provides essential data related to bike travel as well as a great opportunity to raise awareness of important questions.

Pictures

Fig.1. The winners of the one of happening competitions

Fig.2. Police anti-theft bike marking.

Bike Happening

2011

Pictures

Fig.3. One of the cyclists telling a story about his bike.

Fig.4. Participants received bike related items.

Fig.5. Participants filling in questionnaire forms.

Links

Not available.

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Awareness and Participation Activities

2005

University
Cracow University of Technology

Country
Poland

Location
Urban centre

Size
10,000-20,000

Mobility Organizational Structure
-

Summary

An integrated mobility plan for the Cracow University of Technology was implemented within the framework of the EU CiViTAS CARAVEL project. The main aim of the mobility plan was to change employees' and students' travel habits towards sustainable mobility.

In order to reach this aim several activities increasing employees' and students' awareness and participation have been introduced:

- The creation of the position of Mobility Consultant at the University to enable employees and students to obtain information in a more direct manner.
- A transport information website to provide employees and students with information on sustainable mobility.
- Promotional and educational activities to inform, raise awareness and collect ideas to improve mobility.

Aims

- To change employees' and students' mobility behaviour and increase the use of sustainable modes of transport.
- To reduce car parking needs at the University campuses.
- To reduce traffic congestion near the Warszawska St Campus.

Stakeholders

- Authority of the Cracow University of Technology
- University students and employees
- MPK S.A. (public transport operator in Cracow)
- Krakow Transport Authority
- Bike related organisations

Background

Not available.

Description

Several "hard" measures (car-share schemes, bike infrastructure, parking policy) were put into place and their effectiveness was increased through activities aimed at increasing the target group's awareness and participation.

Website with mobility information

In order to increase employees' and students' awareness on the possible ways of travelling to the University a special website called "InfoKomunikacja" was created. Any useful data in making public transport, bike travel and car-sharing trips easier is made available on the website.

A special on-line travel planning tool has been incorporated to facilitate planning a journey by public transport or by car between indicated origin and destination points.

Mobility Consultant position to inform on mobility

The Mobility Consultant position has been created at the university to enable employees and students to be directly informed – by visiting and talking with the consultant.

The consultant provides information on public transport, cycling and car-share options which include possible routes, travel time and cost as well as the environmental impact. They have also been able to provide information on any future transport investments in the city or even help to book a plane or train ticket.

Promotional and educational activities

Additionally, in order to increase the target group's awareness and participation, many promotional and educational activities have been organised, such as car-share and cycling events, the distribution of brochures, leaflets and posters about sustainable mobility, the installation of the information kiosks during University events as well as the organisation of workshops and training, especially for students.

The aim was to inform people about the mobility plan solutions and promote sustainable transportation, but also to increase student and employee participation and listen to their ideas on ways to improve University mobility.

Indicators

- Modal split.
- Number of new website users.
- Number of event participants (workshops, happenings etc.)

Results

In 2008, as a result of the mobility plan implementation (including the awareness and participation related activities), the share of single-person car trips to the University campuses has decreased - for staff, from 45% to 41% and for extramural students, from 50% to 30%. This can be explained as a change from single-occupancy car trips to car-sharing. The percentage share of car-share trips has increased: for employees, from 1% to 5%, for full-time students from 0% do 7%, and for extramural students, from 1% to 17%.
The number of InfoKomunikacja website users was 3050 (for the period between January and December 2008).

Cost

The main costs of implementation were the following:

- Cost of the transport information website design and maintenance,
- Mobility consultant salary and material e.g. Design and production of the leaflets, brochures, posters and promotional gifts,
- Cost of events organisation (room, catering, proceedings etc.).

Financing

Costs were covered by the CiViTAS CARAVEL project.

Findings

- Transparent and accessible information about the development of the mobility plan is very important – users have to know and feel that all of the solutions are introduced for them to improve their mobility. Use as many sources of information as possible to publicise the solutions and the events among the target group.
- It is a good idea to incorporate students into the mobility plan project team. They can carry out remunerated work designing solutions (e.g. mobility related website), helping in the events organisation, etc. Another option is to incorporate parts of the project into the framework of the bachelor or master thesis.
- It is extremely important to liaise with the Student Body Representatives. They can help to publicise the mobility plan solutions and events as well as have an influence over students' attitudes and behaviour.
- Good cooperation with the University administration and in particular with University faculties helps to make everything a bit easier and not meet with barriers resulting from a lack of the knowledge on why and for whom some activities are being implemented.

Pictures

Fig. 1. InfoKomunikacja website.

Fig. 2.Cover of the brochure on sustainable mobility addressed to students of the first year.

Links

http://www.caravel.forms.pl/index_eng.php?i=act&id=16

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Promotion of Urban Public Transport and Use of Electric Vehicles

2015

University

Szczecin University, Faculty of Management and Economics of Services

Country

Poland

Location

Suburban

Size

<5,000

Mobility Organizational Structure

None

Summary

The project is a set of activities concerning sustainable mobility and aimed at promoting the use of urban public transport and electric vehicles, as well as studies in this field (transportation behavior and its changes).

Aims

- Reducing the use of private cars in daily travel.
- Mobility management activities for large generators of traffic, via a mobility audit.

Stakeholders

- Faculty of Management and Economics of Services.
- Szczecin University.
- City of Szczecin.
- Road and Transport Authorities of Szczecin.

Background

Not available.

Description

The activities, which have been implemented, are the following:

- Implementation of student cards enabling the use of a joint ticket (providing a functionality which allows the encoding of a network ticket onto the student card).
- Creation of a mobility audit template for urban traffic generators (which can be used for our University).

Among the activities which are planned to be implemented, the following should be mentioned:

- Emplacement of charging stations for electric vehicles at the Cukrowa-Krakowska Campus of the Szczecin University.

Indicators

Number of people using bicycles for daily travel. An entire set of indicators for the project implementation are not yet defined as the project is in the initial phase. The basic indicator at the moment is the number of people who don't use private cars.

Promotion of Urban Public Transport and Use of Electric Vehicles

2015

Results

- The number of people who use means of transport other than the private car has increased.
- Studies of transport behavior for students and staff have been carried out.

Expense

At the moment, the university hasn't incurred any costs associated with the project.

Financing

Not available.

Findings

At the moment it is difficult to assess the benefits of the project, because we don't have data on the number of student cards with the functionality of a network ticket incorporated. The mobility audit is still in the initial phases: an informational platform is being prepared.

Pictures

Not available.

Links

www.wzieu.pl

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Ciclogreen: rewards for cycling to University

2017

University
University of Cantabria

Country
Spain

Location
Urban centre

Size
10,000-20,000

Mobility Organizational Structure
Environmental office

Summary

Incentives programme based on an online platform that allows universities to reward their students and employees with free gifts for cycling and walking to, from and around University.

Aims

The objective of the project is to promote cycling and walking to, from and around the University. Ciclogreen support universities and city councils to achieve the objectives of their Sustainable Mobility Plan. Furthermore, Ciclogreen analyses accumulated mobility data to give mobility pattern insights to universities and city councils so they can monitor cycling and pedestrian infrastructure usage and design new ones.

Stakeholders

- Government of Cantabria.
- Ciclogreen Move and Win S.L. (www.ciclogreen.com).

Background

Not available.

Ciclogreen: rewards for cycling to University

2017

Description

We have launched an annual incentives programme at the University that rewards students and staff with free gifts (e.g. 50 € gift-card for a supermarket, spa voucher, sport camera, free breakfast at the campus) for cycling and walking to the University (www.enbicialauc.com).

The students and staff only have to register on Ciclogreen, install the Ciclogreen activity tracking app on their mobile phones or connect the current freely available physical activity monitoring apps (Runtastic, Strave, Runkeeper, Moves) to monitor their daily trips to the university or to join the proposed challenges, and start winning incentives.

Ciclogreen transforms their cycling and walking kilometres into points that users can redeem for rewards. Ciclogreen provides a customised platform including a control panel where the University can follow the evolution of the programme through access to data, such as, the number of active students, the total distance covered, and CO2 emissions saved.

Indicators

- Number of students and staff involved.
- Number of kilometres covered.
- Number of rewards redeemed.

Ciclogreen: rewards for cycling to University

2017

Results

367 students and staff involved since 10th of January (1 month and 20 days), that covered more than 15000 km (8400 cycling and 6600 walking), more than 100 rewards redeemed. You can see current metrics here: www.enbicialauc.com

Expense

From 0 to 10.000 €.

Financing

Government of Cantabria.

Findings

Students love incentives! We can use rewards to promote sustainable mobility.

Pictures

Pictures

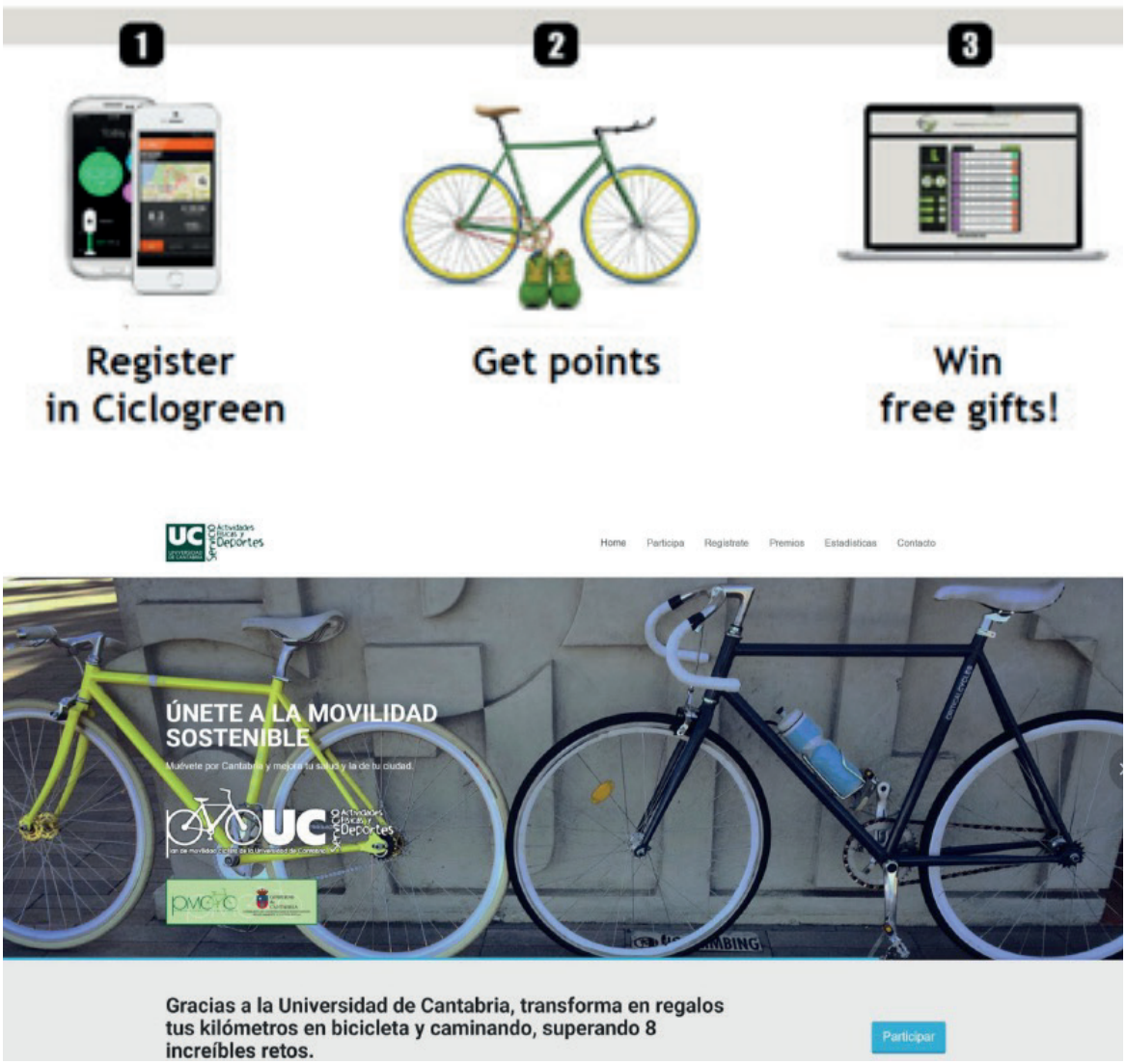

Fig 1, 2 and 3: Images of the app

Ciclogreen: rewards for cycling to University

2017

Pictures

Fig 4: Results at University of Cantabria

Links

www.enbicialauc.com
www.ciclogreen.com

Contact person

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CEO of Ciclogreen

Spanish Network on Sustainable Mobility at Universities

2010

University

University of Cantabria CRUE (Spanish Universities Rectors Conference)

Country

Spain

Location

Not available.

Size

Not available.

Mobility Organizational Structure

Not available.

Summary

Spanish Universities, as engines for the economic and social change, work together to improve sustainability, social and economic aspects related to campus accessibility. Mobility has been diagnosed as one of the main aspects challenging university sustainability, efficiency and social integration. In that sense, The University and Mobility Group works to facilitate the production and exchange of useful information related to sustainable mobility policies implementation at Universities.

Aims

The aims of such work is to provide research on the fields of information and tools available for universities to design and develop their policies on mobility management. The main purpose is to facilitate information transfer with the final goal of reducing environmental, economic and social impacts related to mobility.

Stakeholders

As an association representing interests of universities, CRUE is in constant touch with the Government, the private sector and society.

Background

In the year 2000, universities integrating CRUE (76) decided to set up a specific commission to work on sustainability issues related to university activities. This commission was called CRUE Sustainability. Several working groups were created to work on different aspects of sustainability (sustainable buildings, sustainability and curricula, environmental indicators, sustainable university urbanism and university and mobility, among others).

Spanish Network on Sustainable Mobility at Universities

2010

Description

The University and Mobility Group is integrated by 15 Spanish universities (coordinated by the Autonomous University of Barcelona). The main aims of the Group are to:

- Foster networking to improve mobility patterns associated with University activity as regards sustainability, equality and efficiency.
- Share criteria, methodologies, strategies and policies for the improvement of mobility in the university and its surroundings.
- Consider social and territorial characteristics of different types of universities within the definition of criteria and selection of information, methodologies and policies.
- Share and exchange of best practice.
- Produce documents and resources usable at all the Spanish universities.

To achieve these objectives, from the very beginning, the Group established an overall working plan which is then specified into actions every year. From this working plan, a work methodology comprising of two meetings per year included within the overall CRUE agenda, which take place at a different Spanish university in a rotary basis, along with permanent virtual working. The results of the previous tasks are shared with the other universities in the plenary session and via e mail after the meeting.

The first task tackled by the Group was the draft of the "Declaration on Mobility and Accessibility in Spanish Universities" which establishes a sustainable, efficient and integrative mobility framework as the goal to which of all Spanish Universities should aspire. The main strategic lines foster collective means of transport and promote reducing unsustainable use of the car. Awareness, information and participation were established as transversal strategic lines. This Declaration was approved by CRUE in 2011.

Once the policy was established, work focused on the production of materials to help universities in the implementation of their mobility policy. The main outcome of this work is the CRUE Mobility Website, which offers a glossary, a selection of bibliographic references, technical manuals, and other useful information. A more notable achievement is the catalogue of best practice, which collects examples of the different initiatives carried out by Spanish Universities, organised by their different strategic lines. This catalogue is useful for universities who seek guidance and practical examples, they can consult the remarkable information it contains and contact the mobility manager directly, to initiate dialogue or to implement new measures on sustainable mobility.

Indicators

No clear indicators are set. Outcomes can be intangible, e.g. contact and information sharing.

Spanish Network on Sustainable Mobility at Universities

2010

Results

Information produced by The University and Mobility Group has become the main reference source for Spanish universities when considering any actions related to Sustainable Mobility.

Expense

- Expenses related to CRUE functions.
- Expenses related to meetings (travel, accommodation).
- Personnel expenses.

Financing

- Financed by all the members via annual funding.
- Financed by universities through own operating budget.
- Financed by universities through personnel budget.

Findings

Networking is one of the most remarkable tools in policy implementation, mainly for two reasons:

- Managers can get useful information to implement their own policies (not only about technical aspects but, especially, about unexpected results, political barriers, effectiveness of some companies, etc.
- Policy makers are able to share with colleagues at other universities and encourage each other to implement policies.

Pictures

Links

http://www.crue.org/SitePages/Universidad-y-Movilidad.aspx

Contact person

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