

Measure title: **Mobility Management For University Campus**

City: **Donostia–San Sebastián** *Project:* **ARCHIMEDES** *Measure number:* **83**

Executive Summary

The Universidad of the País Vasco (UPV/EHU) has formed a Mobility Management Team with the aim to promote changes in the organisational model of the University, wherever possible, in order to ease the use of collective transport and other energy-saving transport means. A Mobility Management Plan has been defined for the university campus of Ibaeta. In the framework of this Plan, UPV/EHU has organised awareness raising campaigns for the University community to communicate the definition of the plan in general and some other specific measures. The ultimate goal is to change mobility habits towards more sustainable transport modes and more responsible and efficient car driving.

In this regard, it should be noted that bicycle levels have significantly increased their modal share after the implementation of the Mobility Management Plan in the campus (3,3% increase), although walking levels have slightly decreased (-1,3%). Also, the number of trips made by car and motorbike has decreased (7,2% and 3,3 % respectively), while carpooling, which represented a 1,3% of all trips in 2010-2011, currently accounts for 25,3% of all passenger trips accessing the campus. This result shows that the carpooling scheme implemented is widely used by students and staff. As a consequence, average occupancy rate for cars has increased from 1,3 to 1,6 occupants per car. These changes in mobility behaviour in the university campus have resulted in an estimated saving of over 300 tonnes of CO2 emissions annually.

From a public perception perspective, the most remarkable result is the increased accessibility and security perceived by cyclists resulting from the changes in accessibility and mobility patterns in the University campus.

Another important achievement of the measure is the setting up of an Observatory for mobility management, providing a framework for common work and exchanges of experience, as well as for monitoring mobility management measures.

Also, the sustainable mobility concept has been included throughout the university educational and curricular system. After numberless efforts carried out by the research team created during the CIVITAS project, sustainable mobility analysis has been included in master degrees such as Sustainable Development Postgraduate Course and Local Agenda 21 Manager. Also a “Sustainable Mobility and Road Safety” subject has been included in several degrees, either as a trunk subject or an elective one, depending on the degree. Finally, a Master Degree in Transport Systems has been approved for the academic year 2012-2013. Complementing this academic offer, seminars or workshops dealing directly with sustainable mobility are being held on a regular basis.

Finally, the measure has favoured awareness-raising among all university agents regarding sustainable mobility, which is now considered as something to be taken into consideration in order to act with responsibility. Nowadays, most of the university community (90,2%) know about the CIVITAS programme and the mobility management strategy in the University. They agree with taken actions and perceive as an urgent need a comprehensive sustainable mobility planning for the campus.

The measure implementation has been favoured by the existence of a Labour Risk Prevention Service that integrated sustainable mobility into their fields of work. Although some contestation has emerged, mainly due to the implementation of a new parking regulation, the change in the political view of the main authority of the University with regard to sustainable mobility, which is now very aware of the need to find solutions for its correct management, has helped overcome this complicated situation and meant a renewed impulse in the implementation of the mobility management strategy. Moreover, one of the main lessons learnt is that, in order to guarantee success, political involvement and resources allocation should be gained during the planning phase, before further progress in the implementation of the measure is achieved.

A Introduction

A1 Objectives and target groups

A1.1 Objectives

The measure objectives are:

(A) High level / longer term:

- To stimulate the use of public transport
- To stimulate walking and cycling
- To stimulate car sharing and car-pooling
- To promote eco-driving

(B) Strategic level:

- To reduce the level of private car use in the university campus

(C) Measure level:

- To install a Mobility Management Team to promote changes in the organisational model of University of the Basque Country
- To define a Mobility Management Plan for the University campus of Ibaeta
- To organise yearly awareness rising campaigns for the University community aiming to communicate the measures developed in the framework of the Plan.
- To set up of an Observatory for mobility management as a framework for common work and exchange of experience, as well as for monitoring mobility management measures.

A1.2 Target groups

The measure is to be implemented at the University campus of Ibaeta located within the city (included in the CIVITAS corridor). The target groups of the measure are:

- Students: the measure provide them a new sustainable way to travel to/from the university
- University staff: similarly to students, the way in which this University employees travel to/from the campus is assessed by the measure.

A2 Description

The Universidad del País Vasco (UPV/EHU) has installed a Mobility Management Team with the aim to promote changes in the organisational model of the University, wherever possible, in order to ease the use of collective transport and other energy-saving transport means.

A Mobility Management Plan has been defined for the University campus of Ibaeta (Donostia-San Sebastian), including measures under the following strategic lines:

- Line 1: Create the adequate structural conditions to guarantee the viability of the actions.
- Line 2: Information and awareness programs for all the students and staff.
- Line 3: Active participation in decisional structures and institutional bodies to promote a deep change and effectiveness in mobility matters.
- Line 4: Actions to promote the use of public transport among the university community.
- Line 5: Bicycle scheme promotion in the campus.
- Line 6: Pedestrian scheme promotion in the campus.
- Line 7: Car sharing and car pooling promotion in the campus.
- Line 8: Inclusion of “sustainable mobility” in every university’s learning processes.

In the framework of this Plan, UPV/EHU has organised awareness raising campaigns for the University community to communicate the definition of the plan in general and some other specific measures with the goal to change the habits towards more sustainable transport modes and towards more responsible and efficient car driving.

Another important achievement of the measure is the setting up of an Observatory for mobility management. This provides a framework for common work and exchanges of experience, as well as for monitoring mobility management measures. It is an expression of the political, financial and social will to foster the development of the Plan, including the possibility of extending it further in order to get other transport plans off the ground. Invitations to participate have been given to different public institutions and private entities or NGOs with an interest in the subject.

Finally, the sustainable mobility concept has been included throughout the University educational and curricular system. This subject has been encouraged strongly after numberless efforts carried out by the research team created during the CIVITAS project. Sustainable mobility analysis has been included in master degrees such as Sustainable Development Postgraduate Course and Local Agenda 21 Manager. Also a “Sustainable Mobility and Road Safety” subject has been included in several degrees, either as a trunk subject or an elective one, depending on the degree. Finally, a Master Degree in Transport Systems has been approved by ANECA and EUSKOCampus for the academic year 2012-2013. Complementing this academic offer, seminars or workshops dealing directly with sustainable mobility are being held on a regular basis.

B Measure implementation

B1 Innovative aspects

The innovative aspects of the measure are at national level:

- Promote sustainable transport modes for the university community taking into account the needs of the user of the campus
- Definition of a Mobility Management Plan targeted at specific users and focused on organisational commitments

B2 Research and Technology Development

Not relevant.

B3 Situation before CIVITAS

Previously, the UPV/EHU had not a specific plan to promote and to raise awareness on sustainable ways of transport pointing out the necessity of organisational and behavioural changes.

Daily journeys between home and work or study sites constitute a significant share of urban mobility. In addition, these journeys are generally made during the same time periods (morning and evening peak periods) leading to excessive demand on the road network which results in traffic congestion. This situation claimed to engage with staff, students and visitors of the university to promote more sustainable travel behaviour to and from the campus (either to study or to work).

Before the CIVITAS project started the subject of sustainable mobility was not one of the priorities of the University Executive Governing Board. It was as a consequence of the project that the Executive Governing Board of Ibaeta Campus and its Executive Council included this subject in the agenda and started discussing the matter, including it in the general planning (Sustainability and Innovation Strategy for Basque Campuses-EUSKOCAMPUS), and even started to draw up reports in order to benchmark the situation in each University Campus. Furthermore, before starting with the project there was no relationship with the rest of the Spanish Universities in order to work on these issues, while now there is a working group on this subject and a permanent collaboration channel with CRUE (Group of Spanish Mobility Deans) has been opened.

On the other hand, there was a very complicated situation concerning the parking system because, besides the vehicles of the own University students and personnel, many other cars from the adjacent neighbourhoods came to park in the University area, since there was no specific regulation (parking was free of charge and allowed for an unlimited period of time), taking up the existing parking space around the University campus. This situation led to continuous car movements and traffic with no relation to the University activity. Nevertheless, it wasn't until the CIVITAS project started that the need to promote changes concerning this subject came to the light and a Parking Commission was set up resulting in the reorganization of the parking space apart from having linked it to a car-sharing program which did not exist previously.

Although it is certain that as far as bicycles are concerned there was a network of bicycle lanes in the city connecting with the University campus, there was no University policy for the encouragement of bicycle use as a transport means. No systematic work was done either for the encouragement of public transport means.

After the CIVITAS project started, other non existing specific measures have been brought up such as the improvement of the parking systems, the car sharing initiative and the encouragement of eco-driving, as well as the active presence in the discussion forums organized by the local government (town council) and provincial government (Provincial Government of Gipuzkoa).

Previously there were no awareness campaigns about sustainable mobility matters and the own communication tools of the University (for example the web page, the TV information screens in each educational centre, notice boards, internal communication channels such as GAUR, etc.) were not used to spread information about it.

With regard to the data collection, there were old data bases that needed to be updated to make it possible to examine the evolution in the mobility system of the University community in the Ibaeta campus. The most recent of them corresponded to the year 2008, when modal share in the campus was assessed:

Access Mode	Nº	%
Car	250	28,12
Public Transport Bus	323	36,33
Discretionary Coach	85	9,56
Walking	104	11,70
Cycling	36	4,05
Motorbike	29	3,26
Commuter rail	55	6,19

Figure 1: Modal split in access to UPV Ibaeta campus (2008)

B4 Actual implementation of the measure

The measure has been implemented according to the following stages:

Stage 1: Install a mobility managing team in Ibaeta campus (October 2008)

A mobility manager has been contracted by the UPV/EHU, to impulse the definition of the Mobility Plan and other ARCHIMEDES activities. There is a supporting team of 7 teachers and researchers focused in sustainable mobility working in the project. A long lasting association, Batubide has been created. They encounter with different and relevant agents and institutions.

Stage 2: Definition of the Mobility Management Plan (May 2009 – October 2010)

The first definition of the UPV/EHU's Mobility Plan 2009-2012 has been presented in M22 as a result of the work done by the Mobility Manager, supported by a research group formerly established (2006). It included action under the following strategic lines:

- Line 1: Create the adequate structural conditions to guarantee the viability of the actions.
- Line 2: Information and awareness programs for all the students and staff.
- Line 3: Active participation in decisional structures and institutional bodies to promote a deep change and effectiveness in mobility matters.

- Line 4: Actions to promote the use of public transport among the university community.
- Line 5: Bicycle scheme promotion in the campus.
- Line 6: Pedestrian scheme promotion in the campus.
- Line 7: Car sharing and car pooling promotion in the campus.
- Line 8: Inclusion of “sustainable mobility” in every university’s learning processes.

These actions affect the Ibaeta campus, which is comprised by the following educational centres:

- a) Escuela Universitaria de Magisterio de San Sebastián;
- b) E.T.S. de Arquitectura;
- c) E.U. de Estudios Empresariales;
- d) Facultad de Psicología;
- e) F. de Filosofía y C. de la Educación;
- f) Facultad de Ciencias Químicas;
- g) Facultad de Informática;
- h) Facultad de Derecho;
- i) E.U. Politécnica de Donostia.

It was approved by the university authority in June 2010 and in its beginning stage efforts are focused in awareness and communication actions. Following the evaluation of this first phase of the Plan, specific action affecting the transport system will be undertaken.

UPV/EHU first proposal has been discussed in a University Mobility Management conference organised in October 2010 with the objective to exchange experiences with other Spanish Universities, with the collaboration of the Mobility Board of CRUE-CADEP (Spanish University Dean Group).



Figure 1: University Mobility Management conference organised in October 2010

As part of UPV/EHU Sustainable Mobility Plan definition, the Mobility manager represents the UPV/EHU as member of the Gipuzkoa Bicycle Council (Provincial Administration of Gipuzkoa) and takes part in the Bicycle Observatory of San Sebastian.



Figure 2: Diputación de Gipuzkoa Bicycle board

The Observatory has become an active agent in diverse Basque forums. It has been a stakeholder in the new parking system committee for the UPV/EHU campus and has promoted a car-pooling program in the three campus of the UPV/EHU. It has also been asked to collaborate within local administrative framework: Basque Government by means of

OTEUS Observatory project, Diputación de Gipuzkoa Bicycle board (in the definition of the contents of a Bicycle Paths Territory Plan) or Donostia-San Sebastian Mobility Council.

Stage 3: Implementation of the elements of mobility plan (May 2009 – September 2012)

According with the specificity of the University, the educational objectives are considered relevant, therefore a first wave of actions were taken in order to include sustainable mobility issues in UPV/EHU's regular curricula. Actions include:

- Yearly Eco-driving courses in collaboration with the Energy Dpt. of the Basque Government.
- Training of the Labour Risk Prevention Service in sustainable mobility items
- Proposal of a 'Sustainable Mobility and Education for Road Safety' common course for all students.
- Sustainable Mobility and CIVITAS ARCHIMEDES reference in the framework of the Local Agenda 21 Master developed by UPV/EHU.
- The proposal of the Master in Transport Systems has been accepted by UNIBASQUE and by the University Government Council as well and National Evaluation Committee (ANECA).

Another set of actions are related with the enhancement of soft modes, the promotion of public transport, and the reduction of personal car access to the campus:

- Meetings with different education centres to explore barriers and drivers for a change towards sustainable mobility: Nurse Faculty, Psychology, Engineers School, etc.
- Car-pooling campaign coordination and development with the other two UPV/EHU provincial campuses.



Figure 3: Car-pooling programe web banner

- Public transport to/from university information leaflets were hand out to the university community within the framework of a music concert and an art performance including a bike-bandwagon.



Figure 4: Awareness campaign

- Design of a transport and bicycle web site for the Ibaeta campus to promote this mode.



Figure 5: Sustainable campus web, including mobility questions

- Bike market in collaboration with NGO KALAPIE Urban Cyclist
- Constitution of the Observatory of Sustainable Mobility in Ibaeta (July 2010)
- Member of the UPV/EHU parking Committee, which has defined the new parking area and space distribution by researchers and professors, administration and services staff, students and visitors.



Green: Surface parking area for students 165
Yellow: 26-Vice-chancellor; 95-Underground for researchers, professors, training and administrative staff; 111-Students
Red: Underground for researchers, professors and administrative staff 684
Blue: High occupation and car-pooling parking area 139

Figure 6: New car parking distribution

Stage 4: Awareness and communication activities (May 2009 – September 2012)

- Conference: "Sustainable Mobility and Territory"
- CIVITAS-ARCHIMEDES leaflets were translated to Spanish and Basque with UPV/EHU's specific information and hand out to the university community.
- Collaboration with the yearly Science Week integrating the item of Sustainable Mobility.
- Collaboration with the Students Orientation department.
- 33 newsletters published in Spanish and Basque with all the Sustainable Mobility news in Basque Country, with a focus in the three UPV/EHU campuses.
- Regular distribution in Ibaeta campus of DBus Magazine with information on Public Transport in Donostia-San Sebastian.

- Regular distribution in Ibaeta campus of BIZIKLETAK, the magazine with information of cycling of provincial entity (Diputación Foral de Gipuzkoa)
- Collaboration in ALDIRI, summer university magazine.
- Participation on the II Conference on Cities for Road Safety in Córdoba (Spain)
- Article publication in Ecoeuskadi 2020
<http://www.ecoeuskadi2020.net/blog/archives/553>
- Participation in the International Conference “Sustainable path. Innovative experiences” at the Bilbao Campus (UPV/EHU) (500 people).
- Participatory workshops with students
- Doctoral research in “In itinere road accidents and Labour Risk Prevention. From the theory to the practice”

Stage 5: Support Action on Evaluation, (October 2008 – September 2012)

The Mobility Plan is being evaluated according to the Measure Level Evaluation Plan approved by the CIVITAS project. Evaluation activities include the measurement of the impacts of the Plan on modal share and vehicle occupancy of trips accessing the Ibaeta Campus, as well as an estimation of the related GHG and pollutant emissions, and noise perception levels. Other public perception indicators such as awareness and acceptance towards the measures, spatial accessibility and security are also assessed within the evaluation plan.

B5 Inter-relationships with other measures

Measure 83 is closely related to all measures that aim towards a shift towards more sustainable modes of transport on the CIVITAS corridors, specially the implementation of high quality bus corridor (Measure 16) and Extension of infrastructure for cycling and walking (Measure 24)

Also the measure is related to other measures as follows:

- **Measure DSS 56** - Car Sharing Scheme
 - **Measure DSS 58** - City Bike Scheme
 - **Measure DSS 23**- Changing Parking behaviour
 - **Measure DSS 33**- School travel plans and Commuter travel plans
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C Planning of Impact evaluation

C1 Measurement methodology

C1.1 Impacts and indicators

C1.1.0 Scope of the impact

It is the aim of this measure to support the shift from the use of the private car to more sustainable modes in the university community, as well as to promote a more efficient use of the car on those who remain using this mode, namely an increase in average occupancy rates.

Indicators selected are the CO₂ emissions noise perception, awareness and acceptance level, spatial accessibility, security, average modal split-passengers and trips and occupancy in Ibaeta campus.

C1.1.1 Selection of indicators

NO.	EVALUATION CATEGORY	EVALUATION SUB-CATEGORY	IMPACT	INDICATOR	DESCRIPTION	DATA /UNITS
	ENVIRONMENT					
8		Pollution/Nuisance	Emissions	CO ₂ emissions	CO ₂ per vkm by type	G/vkm, quantitative, derived
12		Pollution/Nuisance	Noise	Noise perception	Perception of noise	Index (%), qualitative, collected, survey
	SOCIETY					
13		Acceptance	Awareness	Awareness level	Awareness of the policies/measures	Index (%), qualitative, collected, survey
14			Acceptance	Acceptance level	Attitude survey of current acceptance of the measure	Index (%), qualitative, collected, survey
15		Accessibility	Spatial Accessibility	Perception of accessibility	Perception of physical accessibility of service	Index(%), qualitative, collected, survey
17		Security	Security	Perception of security	Perception of security when using service	Index, qualitative, collected, survey
	TRANSPORT					
28		Transport System	Modal split	Average modal split-trips	Percentage of trips for each mode	%, quantitative, derived
29		Transport System	Vehicle Occupancy	Average occupancy	Average no. persons per vehicle/day	Persons/vehicle, quantitative, derived, measured

C1.1.2 Methods for evaluation of indicators

No.	INDICATOR	TARGET VALUE	Source of data and methods	Frequency of Data Collection
8	CO ₂ emissions	Not defined	Emission savings have been estimated by the application of an emission-factor-based methodology to the volume and mileage shifted from conventional to clean vehicles.	One time after the implementation of the measure
12	Noise perception	Not defined	A specific survey has been conducted among students and staff, in the 9 centres of the campus with the collaboration of student's representatives. The amount of questionnaires filled out each year has been of 810 and 825, respectively.	Two times before and after the implementation of the measure
13	Awareness level	Not defined	A specific survey has been conducted among students and staff, in the 9 centres of the campus with the collaboration of student's representatives. The amount of questionnaires filled out each year has been of 810 and 825, respectively.	Two times before and after the implementation of the measure
14	Acceptance level	Not defined	A specific survey has been conducted among students and staff, in the 9 centres of the campus with the collaboration of student's representatives. The amount of questionnaires filled out each year has been of 810 and 825, respectively.	Two times before and after the implementation of the measure
15	Perception of accessibility	Not defined	A specific survey has been conducted among students and staff, in the 9 centres of the campus with the collaboration of student's representatives. The amount of questionnaires filled out each year has been of 810 and 825, respectively.	Two times before and after the implementation of the measure
17	Perception of security	Not defined	A specific survey has been conducted among students and staff, in the 9 centres of the campus with the collaboration of student's representatives. The amount of questionnaires filled out each year has been of 810 and 825, respectively.	Two times before and after the implementation of the measure
28	Modal split	Not defined	Data has been collected through a survey among students and staff, in the 9 centres of the campus with the collaboration of student's representatives. The amount of questionnaires filled out each year has been of 810 and 825, respectively.	Two times before and after the implementation of the measure
29	Average occupancy	Not defined	Data has been collected through a survey among students and staff, in the 9 centres of the campus with the collaboration of student's representatives. The amount of questionnaires filled out each year has been of 810 and 825, respectively.	Two times before and after the implementation of the measure

C1.1.3 Planning of before and after data collection

EVALUATION TASK	INDICATORS INVOLVED	COMPLETED BY (DATE)	RESPONSIBLE ORGANISATION AND PERSON
Data will be collected through survey conducted among campus community, students and staff.	8. CO ₂ emissions	Month 14, 44	UPV, Angel Elias
Data will be collected through survey conducted among campus community, students and staff.	12.- Noise perception	Month 14, 44	UPV, Angel Elias
Data will be collected through survey conducted among campus community, students and staff.	13.-Awareness level	Month 14, 44	UPV, Angel Elias
Data will be collected through survey conducted among campus community, students and staff.	14.- Acceptance level	Month 14, 44	UPV, Angel Elias
Data will be collected through survey conducted among campus community, students and staff.	15.- Perception of accessibility	Month 14, 44	UPV, Angel Elias
Data will be collected through survey conducted among campus community, students and staff.	17.- Perception of security	Month 14, 44	UPV, Angel Elias
Data will be collected through survey conducted among campus community, students and staff.	28.-Modal split	Month 14, 44	UPV, Angel Elias
Data will be collected through survey conducted among campus community, students and staff.	29.- Average occupancy	Month 14, 44	UPV, Angel Elias

C1.2 Establishing a baseline

The results of a study on UPV/EHU's mobility pattern undertaken in 2007, complemented by another study focusing on Ibaeta campus (Foro GIZLOGA, 2008) have been used as a reference for the measure. Nevertheless, the goals of these studies and the associated data collection were not exactly coincident neither with the goals of the CIVITAS project nor with the indicators identified in the evaluation plan. Therefore these references have been taken into account only partially.

Within the CIVITAS project, the before situation in every centre has been compiled in a survey developed with the support from the teachers/researchers involved in the supporting research group.

On the one hand, a certain number of questions were asked to each educational centre, such as:

- If the porter's office staff would be ready to supply the information arising from the work team and to collaborate with the communication campaigns.
- The parking space allowed for bicycles in the educational centre.
- If there was any research area or project related with mobility.
- If there will be any kind of event that will allow the creation of synergies with the project and its communication campaigns.
- Number of lockers, showers, living/dining room facilities that could make the mobility in bicycles or public transport easier.
- Etc.

On the other hand, a "before and after" mobility survey has been conducted, including information on awareness and acceptance of the mobility management strategy, mode of transport, distance travelled and car occupancy, as well as additional information regarding the motives to use each mode of transport, perception of accessibility and security, etc. (see annexed questionnaire).

Counting on the willing to cooperate of several professors, the surveys were conducted in the faculty of Law; Psychology, Business School, Philosophy, Computer Science, Architecture and Faculty of Polytechnics, during their. The surveyors distributed the CIVITAS-Archimedes leaflet with information on the project and particularly measure 83, together with the survey sheets, and then explained the procedure to fill it out. The target sample included all students in the University, although a minimum number of 800 returned questionnaires was identified as statistically significant. Finally, a representative sample of 810 was achieved 2010-2011 and 825 in 2011-2012. Although in 2012 due to the significant contestation by the students against the new car parking system (which establish a payment in the campus area), 368 out of these 825 surveyed students refused to answer to mobility related questions, returning blank questionnaires as a mean for their protest.

The survey has been used to assess both public perception indicators (awareness, acceptance, noise perception, accessibility perception and security perception) and performance indicators (modal split, CO₂ emissions and occupancy rates).

Regarding the latter, while modal split and occupancy levels were directly derived from the questionnaire, CO₂ emissions required the application of an emission-factor-based methodology to the volume and mileage shifted from car to cleaner vehicles (public transport and non-motorized modes). Following is a brief description of the methodology:

1. Modal split before and after the measure implementation: addressed by the mobility survey. This information is used to calculate modal shift.
2. Average trip length: calculated based on the individual behaviour addressed by the mobility survey.
3. Occupancy rate for cars: addressed by the mobility survey.
4. Engine type: addressed by the mobility survey.
5. Yearly school days: estimated in 175 according to holidays, average sick leave rates, etc.).
6. Shifted mileage: the mileage shifted away from car has been estimated based on the above variables
7. CO₂ emissions saved: it is assumed that modal shifters away from car are now making use of existing public transport services (thus not increasing transport related emissions) or non-motorized modes (zero emissions). Therefore the CO₂ emissions associated to the shifted mileage are calculated, considering that this is the total amount of carbon emissions saved by the measure. The following fuel consumption and emission factors are used (taken from the CORINAIR methodology):

Fuel Consumption Factors		
Gasoline Car	70	g/km
Diesel Car	60	g/km
Motorbikes (Gasoline)	35	g/km

CO ₂ Emission Factors		
Gasoline	3,180	kg/kg fuel
Diesel	3,140	kg/kg fuel

Table 1: Fuel consumption and Co2 emission factors.

Anyhow, sustainable mobility issues were not systematically attended at the University before CIVITAS started, and there wasn't a sustainable mobility policy in place or a stream of work in this regard.

C2 Measure results

C2.1 Environment

Emission savings have been estimated based on the traffic volume and mileage shifted to sustainable means of transport (public transport and non-motorized modes), according to the mobility patterns emerging from the mobility survey conducted among students and university employees.

Table C2.1.1: Pollution and Nuisance

Indicator	Before (2010-2011)	BaU (2011-2012)	After (2011-2012)	Difference: After –Before	Difference: After – BaU
8. CO ₂ emissions	3.676 Tone/year	N/A	3.369 Tone/year	-306 Tone/year	N/A

The changes in mobility behaviour in the University campus have resulted in an estimated saving of over 300 tonnes of CO₂ emissions annually.

Before the implementation of the CIVITAS project there was not a data set that would allow analysing the evolution of this indicator in previous year, therefore making it possible to estimate a BaU scenario in this regard.

Table C2.1.2: Noise perception

Indicator	Before (2010-2011)	BaU (2011-2012)	After (2011-2012)	Difference: After –Before	Difference: After – BaU
12. Noise	43,0% (low) perception	N/A	51,6 % (low) perception	8,6%	N/A

According to the survey conducted among pedestrian students and university employees, 43% of the university community perceive noise levels as high. The second data collection stream revealed a slight increase in noise perception.

Most probably the increased noise perception is due to the construction works of the new library in the middle of the campus that took place during 2011 and 21012. The new building works generated some background noise. After the finalization of the construction works, traffic flow has been reorganized and the new parking system implemented which has regulated car flows in the adjacent neighbourhoods, thus reducing pedestrian's noise perception levels in the campus again.

Before the implementation of the CIVITAS project there wasn't a regular survey program assessing noise perception levels, thus allowing estimating a BaU scenario for this indicator.

C2.3 Society

Following are the results of the survey regarding the awareness and acceptance of the mobility management strategy undertaken by the University. On the one hand, awareness regarding the existence of the CIVITAS- ARCHIMEDES project and more particularly the actions being implemented in the university campus, was assessed. Also the acceptance towards the different kind of actions being implemented was gauged. The average of the acceptance levels towards individual actions (extension of the cycling network, parking management, pedestrian improvements, etc.) was used as the overall indicator:

Table C2.3.1: Acceptance

Indicator	Before (2010-2011)	BaU (2011-2012)	After (2011-2012)	Difference: After –Before	Difference: After – BaU
13. Awareness level	8,7%	N/A	90,2%	81,5%	N/A
14. Acceptance level	4,8	N/A	5,0	0,2	N/A

As shown in the above table, in 2010-2011 only a small share of the University community were aware of the project before it started (91,3% of the students and university staff was unaware of the CIVITAS measure). After one year, almost all the University community (90,2%) are aware of the project and the measure 83.

As for the acceptance of the different actions, results were conditioned by protests against the new parking scheme. While actions regarding cycling, walking and public transport receive higher support after the implementation of them, the new parking policy receives a clear opposition from a big majority of the University community. Nevertheless, the overall acceptance level remains nearly the same as in the situation before the implementation of the mobility plan (a slight increase -0,2%- was accounted).

Table C2.3.2: Accessibility

The perception of the University community regarding the perceived accessibility levels associated to each mode of transport has been assessed. In particular, students and University staff were asked whether they believe that accessing to the Ibaeta campus in each mode of transport is perceived as easy or not.

Indicator		Before (2010-2011)	BaU (2011-2012)	After (2011-2012)	Difference: After – Before	Difference: After – BaU
15. Perception of accessibility by mode:	Car	63,9 %	N/A	58,9%	-5%	N/A
	Walking	65,9%	N/A	64,6%	-1,3%	N/A
	Bicycle	64,2%	N/A	67,6%	3,4%	N/A
	Commuter rail	64,3%	N/A	67,0%	2,7%	N/A
	Interurban bus	57,1%	N/A	47,5%	-9,6%	N/A

As it can be seen in the table above, in all cases accessibility level are satisfactory for the majority of the University community, being cycling, commuter rail and walking accessibility the ones more positively perceived by most people. The significant decrease in the perceived accessibility associated to interurban buses may have been caused by the construction works in the campus which have affected its performance. Apart from this, car accessibility is the worse perceived mode.

Table C2.3.3: Security

Similar to accessibility levels, students and employees were asked about their perception of security associated to each mode of transport:

Indicator		Before (2010-2011)	BaU (2011-2012)	After (2011- 2012)	Difference: After – Before	Difference: After – BaU
17. Perception of security by mode:	Car	77,2%	N/A	72,4%	-4,8%	N/A
	Walking	74,2%	N/A	75,1%	0,9%	N/A
	Bicycle	60,0%	N/A	62,6%	2,6%	N/A
	Commuter rail	82,9%	N/A	79,9%	-3,0%	N/A
	Interurban bus	76,8%	N/A	67,6%	-9,2%	N/A

Results from the survey reveal how bicycle is perceived as the less secure mode, while after the implementation of the measure walking is perceived safer than motorized modes such as interurban buses or car.

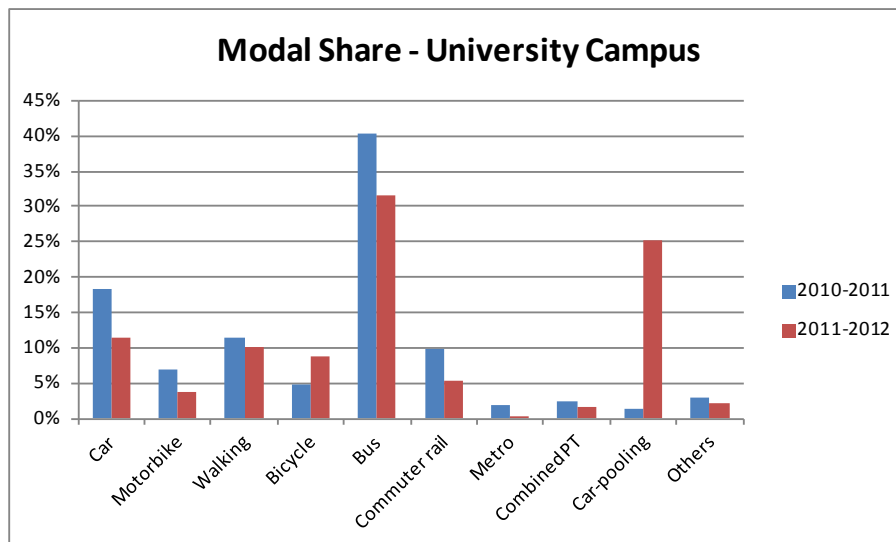
C2.4 Transport

Following is a summary of modal share results from the mobility survey:

Table C2.3.1: Transport System (modal split)

Indicator		Before (2010-2011)	BaU (2011-2012)	After (2011-2012)	Difference: After – Before	Difference: After – BaU
28. Average	Car	18,3%	N/A	11,5%	-7,2%	N/A

modal split-trips	Motorbike	6,9%	N/A	3,6%	-3,3%	N/A
	Walking	11,5%	N/A	10,2%	-1,3%	N/A
	Bicycle	4,7%	N/A	8,8%	3,3%	N/A
	Bus	40,4%	N/A	31,5%	-8,9%	N/A
	Commuter rail	9,8%	N/A	5,3%	-4,5%	N/A
	Metro	1,9%	N/A	0,3%	-1,6%	N/A
	Combined PT	2,3%	N/A	1,5%	-0,8%	N/A
	Car-pooling	1,3%	N/A	25,3%	24,0%	N/A



As it can be seen in the table above, Public Transport is the mode of transport used by the majority of the University community to travel to/from the Ibaeta campus (31,5% bus, 7,7% commuter rail, 0,3% metro and 1,5% a combination of the different public transport modes). Also, it could be highlighted the great increase in the share of car trips made in company of at least one additional occupant, which represented a 1,3% of all trips in 2010-2011. While currently this mode accounts for 25,3% of all passenger trips accessing the campus. This result shows that the carpooling scheme implemented is widely used by students and staff.

Bicycle use has significantly increased their modal share after the implementation of the mobility plan in the campus (3,3% increase in cycling levels), while walking levels have slightly decreased (-1,3%). At the same time, the number of trips made by car and motorbike has decreased (7,2% and 3,3 % respectively).

As already explained, there were construction works which affected traffic flows in the campus area, which, together with the promotion of non-motorized modes and carpooling, may have influenced the decrease in the use of motorized modes, including buses (nearly a 9% decrease was accounted for bus services).

Also, commuter rail was used in 9.8% of all trips from/to the University campus in 2011, while in 2012 this share decreased to 5,3%. The reason for this is that there were some repairing works in the rail system to connect the suburban train and the future high speed train.

Table C2.3.2: Transport System (car occupancy)

Indicator	Before (2010-2011)	BaU (2011-2012)	After (2011-2012)	Difference: After – Before	Difference: After – BaU

29. Average occupancy	1,3	N/A	1,6	0,3	N/A
------------------------------	-----	-----	-----	-----	-----

Initial data for 2011 is in line with the over figure for the whole, where the 70% of the trips are made by car with one passenger, resulting in a 1,3 car occupancy rate. After the implementation of the measure, in 2012, average car occupancy has increased to 1,6.

C.2.6 Additional qualitative results

The UPV/EHU has installed a mobility managing team for the Ibaeta campus to promote changes in the organisational model of university. In this regard many changes have been undertaken, since now the sustainable mobility is included on the University’s political agenda as a priority. The UPV’s Dean and the Ibaeta campus Vice Chancellor are more aware of the problem related to the mobility, energy consumption and environment. As result mobility matters have been included on the Sustainability and Innovation Strategy for Basque campuses (Euskocampus), which considers sustainable mobility and accessibility to the campus as one of its drivers.

Furthermore, the Mobility Manager is member of the main mobility boards, commissions and forums (Campus Governing Board, Sustainability commission; parking commission which assess officially the campus mobility needs together with the mobility manager, San Sebastian’s Bicycle Observatory, Provincial Government of Gipuzkoa’s Bicycles Board; Basque Government OTEUS project, etc.). In this framework the Vice Chancellor has facilitate a road modification next to the university to make faster the public transport Line 5 University Express, and has facilitated the implementation of the parking regulation scheme along the road space belonging to the University.

Currently there are several mobility studies being carried out in the framework of the Sustainable Mobility Management Plan, as well as a new bicycle policy, car pooling programs and eco-driving courses (in cooperation with Basque Government Energy Department).

Moreover, the Campus Governing Board is aware of the importance of communication and awareness campaigns and has made use of all information channels to promote these initiatives and all related information, communicating with the target group through web pages, internal e-mail system, schools TV screens, posters, leaflets, performances, music, artistic expressions, coordination with other campaigns (Science Week, University guidance office and it’s opening ceremony, etc.).

The University Labour Risk Prevention Service has been crucial to spread objectives, guidelines and actions related to the CIVITAS measure through annual training seminars and their direct action. Also the Conference on Mobility Management for exchanging experiences with other universities accounted for a great success; comprising an inflexion point which opened a new collaboration channel with CRUE (Group of Spanish Mobility Deans), for the transference of this experience to other campus outside Basque Country. And at the same time it was the reflection of the importance placed over sustainable mobility issues by the Ibaeta campus Governing board. In this regard the Observatory has become an expression of the political, social and civil society common work in the sustainable mobility management plan definition and given fresh impetus for the initiative and providing an impulse for alternative transport modes trying to decrease the individual use of the private car. Seminars, workshops and participation in events and conferences have increased.

Finally, it should be highlighted how UPV/EHU’s curricula have been modified in the light of the CIVITAS measure. A “Sustainable Mobility and Road Safety” subject has been included

in several degrees, either as a trunk subject or an elective one, depending on the degree. Sustainable mobility analysis has also been included in master degrees such as Sustainable Development Postgraduate Course and Local Agenda 21 Manager. There are PhD researches being developed dealing with *In Itinere* accidents and the impact of mobility in labour risk prevention, and traffic pollution through the car wheels and how this pollution leaks under the asphalt damaging the soils and plants which are next to the roads.

As a conclusion, it can be said that measure level objectives have been accomplished to a great extent. At strategic level the measure, in coordination with other city level measures, has reduce the use of private car in the university area.

C3 Achievement of quantifiable targets and objectives

No.	Target	Rating
1	There are no quantifiable targets associated to this measure	
2		
3		
4		
NA = Not Assessed O = Not Achieved * = Substantially achieved (at least 50%) ** = Achieved in full *** = Exceeded		

C4 Upscaling of results

There are two ways of up-scaling the measure:

1. Implementing Mobility Management Teams and develop Mobility Management Plans in all university and educational campuses in the UPV/EHU.
2. Applying the measure to all other massive trip generator centres like industrial and business areas, shopping centres, hospitals, etc.

Regarding the first approach, results obtained in Ibaeta campus might be up scaled to other two UPV/EHU campus in Leioa (Bilbao) and Vitoria, in the framework of the definition of the Sustainable Mobility Plan of UPV/EHU and other Archimedes activities. In this sense, a report has been developed setting out the transport situation in the campus of Leioa. In fact the Sustainability and Innovation Strategy for Basque campuses (Euskocampus), includes an approach to sustainable mobility yet to assess each campuses accessibility and sustainable mobility by using the diagnosis method study, taking into account the mobility needs decrease, sustainable displacement promotion by sustainable modes (bike, walking and public transport) and so on.

The University Government Board has included the sustainable mobility item in the university's agenda working on it through Campus Government Committees.

As for the second case, this approach is being partly covered by CIVITAS Measure DSS 33 "Travel Plans".

C5 Appraisal of evaluation approach

Overall, it is considered that the evaluation approach is in concordance with the measure objectives, and data collection procedures adequate.

Nevertheless, this is a long term sustainable mobility strategy, where some actions require long periods of time to be implemented and results observed. Therefore, during the first stages of the Plan, quantitative results might not be very relevant, while the focus should be placed on the cultural changes promoted by the definition of a Mobility Management Plan.

C6 Summary of evaluation results

The main goal of this measure was to foster a modal shift away from car towards more sustainable modes of transport in the university campus, as well as to promote a more efficient use of the car on those who remain using this mode, namely an increase in average occupancy rates.

In this regard, it should be noted that bicycle levels have significantly increased their modal share after the implementation of the mobility plan in the campus (3,3% increase), while walking levels have slightly decreased (-1,3%). Also, the number of trips made by car and motorbike has decreased (7,2% and 3,3 % respectively), while carpooling, which represented a 1,3% of all trips in 2010-2011, currently accounts for 25,3% of all passenger trips accessing the campus. This result shows that the carpooling scheme implemented is widely used by students and staff. As a consequence, average occupancy rate for cars has increased from 1,3 to 1,6 occupants per car.

The changes in mobility behaviour in the University campus has resulted in an estimated saving of over 300 tonnes of CO2 emissions annually.

From a public perception perspective, the most remarkable result is the increased accessibility and security perceived by cyclists resulting from the changes in accessibility and mobility patterns in the University campus.

C7 Future activities relating to the measure

The most remarkable consequence of the CIVITAS measure has been the impact that it has had in the internal policy of the UPV/EHU. As mentioned before, it has started to incorporate the sustainable mobility in its political and general planning agenda by including it in one of the reference documents for the future of UPV/EHU, which is the Sustainability and Innovation Strategy for Basque Campuses-EUSKOCANPUS.

The creation of a new permanent job in the UPV/EHU structure for taking care of the mobility management is also being studied, beyond the temporary nature of a 4-year project such as CIVITAS. That is, of course, a good sign although a firm decision has not been taken yet.

Besides, it has become a subject usually discussed in the Governing Boards of the Campuses, specifically in Ibaeta Campus. On the other hand, the Vice-Chancellorship for University Quality has prepared some diagnosis studies on the situation which will probably result in further corrective measures, as it has been the case at Ibaeta Campus and the parking space commission that will be kept permanently for the systematized management of this issue, linking it directly with the car-pooling programs and their encouragement.

The parking space commission, a permanent office of the Vice-Chancellorship Governing Board of Ibaeta Campus, has also taken on the commitment to bear in mind issues such as the bicycle, improving its policies integrally and systematically (encouragement of bicycle use, parking space, surveillance, information through the campus web page, TV screens on the educational centres, and other awareness rising campaigns) and most probably they will

try to encourage and keep the eco-driving classes in cooperation with Ente Vasco de la Energia (Basque Energy Agency).

In connection with the educational and curricular issues, the preparation of doctoral thesis aimed at the research in subjects regarding sustainable mobility is being encouraged, as it is the case of the thesis about prevention of *“in itinere”* accidents

D Process Evaluation Findings

D0 Focused measure

X	0	No focussed measure
	1	Most important reason
	2	Second most important reason
	3	Third most important reason

D1 Deviations from the original plan

The deviations from the original plan were:

- **Delay due to elections for Campus Vice-Chancellor**– In 2008 elections for the vice-chancellor took place and this led to the postponement of the mobility manager’s selection and that person’s consequent employment contract, which produced a little time-lag for all the related activities
- **Mobility Management Plan Definition** - After the discussions and negotiations with the Vice-Chancellor, the initially proposed Mobility Management Plan had to be changed to one of more informative nature aimed to inform and raise awareness towards the subject because a more ambitious plan was not assumed politically. Therefore, all the work done until that moment was considered as a previous definition task with a view to prepare a different kind of plan. As the CIVITAS project has been progressing, the own Vice-Chancellor has become more aware of the subject and has realized how upper University echelons have also introduced the issue in their agenda due to the influence exercised by the members of the research team and the project manager in the different forums and commissions. In this way the own Vice-Chancellorship, being more aware of the issue now, is showing a greater commitment for the subject, taking a firm stand in that direction and considering the implementation of a Mobility Management Plan in its strict sense.
- **Delay in the organization of the Conference** –The organization of a Conference on Mobility Management, for exchanging experiences with other universities had been delayed until October 2010 instead of July 2010. It was planned in the framework of the University Summer Courses, an other two courses were planned at the same time. The internal coordination didn’t work properly so the course was delayed until October 2010.

D2 Barriers and drivers

D2.1 Barriers

The main barriers encountered for the development of measure 83 are:

Preparation phase

- **Cultural:** Students are reluctant to change mobility habits. The survey made during the school year 2010-2011 revealed the student’s reticence to change their travel habits, being the main driver for change the implementation of a compulsory regulation or economic factors.

- **Organizational:** Especially at the beginning stages of the measure, lacking know-how and technical skills among the management staff of the University have acted as a barrier for a faster implementation of several mobility management strategies.
- **Political/Strategic:** Several mobility management solutions required the co-operation with other stakeholders, like the City Council, the Public Transport Company, etc. which is time consuming and not always easy.

Implementation phase

- **Organizational:** The shortage in learning time associated to the new Bologna framework made the introduction of new issues in student's curricula very difficult. Lecturers and professors have been very busy adapting to the new circumstances regarding the curricula.
- **Problem related:** The controversial implementation of a parking regulation is counteracting on the shift towards sustainable mobility within the university community (a survey made in 2010 over 1.210 students revealed that parking issues is the most problematic topic for a majority of students). Contestation against the new parking policy has leded students to react against the mobility management strategy as a whole.

Operation phase

- **Financial:** After the finalisation of the Sustainable Mobility Plan, the deployment of the foreseen measures as well as the awareness raising and communication campaigns require additional funds from the University.

D2.2 Drivers

As for the drivers, the main ones affecting the measure are:

Preparation phase

- **Positional:** The measure is part of an overall strategy towards sustainable mobility in the city. Improvements in public transport services, road safety and non-motorized infrastructure have eased the implementation of this measure.
- **Cultural:** Concern about environmental issues is steadily growing among the University community. Student and university staff's attitude towards sustainable mobility and mobility management is improving.

Implementation phase

- **Financial:** The availability of CIVITAS funding has been a significant opportunity to develop the Sustainable Mobility Plan in the University campus.
- **Political/Strategic:** The change in the political view of both the Vice-Chancellor and the Chancellor Department of the University with regard to sustainable mobility, which are now very aware of the need to find solutions for its correct management, has meant a renewed impulse in the implementation of the mobility management strategy.
- **Positional:** The permanent collaborations established with the University in order to take part as an elected and recognized delegate in different forums connected with sustainable mobility has helped the implementation of the measure.

Operation phase

- **Cultural:** The inclusion of the sustainable mobility subject in the University curricula as a transversal, elective subject for all the degrees, as well as its inclusion in postgraduate studies such as master degrees and doctorates, is helping “spread the word” of sustainable mobility, thus easing the change on mobility habits.
- **Organizational:** The University already has a Labour Risk Prevention Service that could integrate sustainable mobility into their fields of work. Also, the Social Responsibility department of the UPV is currently developing a Sustainable Development Plan for the University campus, including mobility matters.

D2.3 Activities

In order to handle the above referred barriers and/or to make use of the drivers, the following activities were taken during the implementation of the measure:

Preparation phase

- **Political/Strategic:** On-going dialogue with all relevant stakeholders in order to explain the long term benefits of the measure.
- **Planning:** Research on travel behaviour and modal choice to develop a programme of house-visits to households in the CIVITAS Plus corridors has been developed.

Implementation phase

- **Organizational:** A Mobility Manager was contracted and a Mobility Management Team recruited.
 - **Involvement/Communication:** The UPV/EHU is organising sustainable mobility courses, yearly awareness raising campaigns and other promotional activities. Also, is using the personnel working on Prevention of Labour Risks as multipliers of the sustainable mobility message.
- **Operation phase**
 - **Political/Strategic:** Cooperation agreements have been signed with local and regional administrations, as well as local NGOs, in order to establish a Mobility Management Observatory for the UPV.

D3 Description of organisations and risks

D.3.1 Measure partners

Following there is a brief description of all project partners and its level of involvement with the measure:

- **UPV-EHU Vice Chancellor Department -** Responsible for the development of the measure. Leading role. They have become more and more involved as the project was going ahead, and the representatives of the project have been

included as active members of several working committees (sustainability, parking space, mobility, etc.).

- **Municipality of Donostia-San Sebastián** – Responsible for the implementation of infrastructure developments and associated services and regulations (parking management, cycling network, etc.). ,...). There has been a close collaboration between both entities and they have been quite involved with the purpose of improving the results in the own UPV/EHU.

D.3.2 Stakeholders

- **Students' representative** – They have not shown much interest in the project. Besides, the fact that the reorganization of the parking space and the OTA (Traffic and Parking Organization) system has been a very controversial issue has not encouraged them to get involved.
- **Teachers /researchers group/ Batubide association** – The involvement of the group members has been very different but they have been highly involved in the data collection and analysis of the results. The Batubide association has been very useful to widespread the project through their members favouring the communication and awareness-raising issues.
- **Staff Unions** - They have not taken part in the project. They have been informed but their level of participation has been limited to transmit the information.
- **CRUE-CEDAP (Univ. Deans)** – Support to the definition of the Sustainable Mobility Plan. They have been very involved since the beginning of the project providing information, exchanging experiences, attending workshops, seminars and so on.
- **Diputación Foral de Guipuzcoa (provincial entity)**- Involved in campaigns towards cycling, land planning towards bike paths. They have worked actively inviting the representatives of the project to the forums related to the mobility showing their interest to continue collaborating in the future and incorporating the knowledge coming from the UPV, providing the exchange of information as well as the exchange of materials and including the point of view of the University in the territorial planning concerning cycling lanes that has been developed through the Sectorial Territorial Plan of the Bike Lanes of Gipuzkoa
- **Public Transport Company (CTSS-DBUS)** - There has been a close collaboration with the municipal transport company in the sense that the students have been in charge of the data collection which has been very useful to spread the project among the students. There has also been an exchange of information and materials since the DBUS magazine has been handed out in the UPV/EHU. There has also been collaboration with the Municipal Transport Company regarding the need to extend the service provided by Line 5 University Express.
- **NGO Kalapie (cycling association)** - Since the beginning they have shown their interest to include the point of view of the University community with regard to the cycling issue throughout the city. They have also worked in the project through the Bicycle Observatory.
- **Compartir.org (car-pooling platform)** - They have provided the digital and communication platform that they have available for the encouragement of car-

pooling and have been very helpful in the exchange of information to improve the system and to adapt it homogeneously in the three University campuses.

- **EVE Ente Vasco de la Energía (Energy Agency)** - They have been essential for organizing the eco-driving seminars since they have made available for the use of the UPV/EHU all their resources through a close and fluid collaboration that is expected to continue in the future because these courses are intended to be offered every year.

D4 Recommendations

Daily journeys between home and the university campus constitute a significant proportion of traffic problems in the neighbourhood where the university is located (Antiguo-Ibaeta). Paradoxically, these traffic problems are frequently referred to by the university community as a justification for the use of the car to access the university. However, these journeys create even more traffic problems. This constitutes a problem from a safety and environmental point of view and also more importantly regarding the long term alleviation of these problems and the increased people's awareness. University's community do not take up walking or cycling as they should do. So the measure is focused primarily on develop sustainable travel behaviour in the long term in accordance with the necessities of the specific community group chosen, but is specially designed for students because they are an strategic target group in the long term as we point out.

D.4.1 Recommendations: measure replication

- **Internal support** - Before starting the implementation of the foreseen actions, it is important to build a strong relationship with the University political bodies through an awareness-raising task since it can help to speed up the implementation of the measure.
- **Organization** – It is important to set up a working and research team very much focused in the adoption of the measure, guaranteeing a clear and strong leadership with capacity to influence in the governing boards.
- **Combination of push and pull measures** - Although the message and the purposes of the measure are known, the change of habits when mobility is concerned is very difficult. Generally speaking, people are reluctant to change their habits unless they are obliged to do so or that the economical cost would not make worth for them to go on using the same transport means as before. Therefore, this kind of restrictive measures should also be included in the mobility management strategy.

D.4.2 Recommendations: process

- **Political involvement** – Before further progress in the implementation of the measure is achieved, make sure the political involvement is gained during the planning phase and resources allocated for that purpose.
- **Strategic positioning** – Work to assure the presence of the University in the different forums related to this subject and the welcoming attitude from the agents involved. It has become clear that the University was a key agent that was

missing and its presence in this kind of forums and committees on a permanent basis is thought necessary in the future.

- **Key personnel as a supportive factor** – It is recommended to identify those agents who may be used to widespread the measure within the different bodies of the university community, significant and reputed persons among the faculty members, the students and the services and administrative staff, as it has been the case in the UPV/EHU where the Labour Risk Prevention Personnel has become a key agent.
 - **Adequate time frame** – During the planning phase, take good care of selecting an adequate time frame for the implementation of the measure. In particular, make sure that the calendar fit the needs of the relevant stakeholder. Otherwise their collaboration could be lacked. In the UPV/EHU case the coincidence of implementing the measure at the same time that the Bologna Plan was starting has hindered the relationship with the faculty members who were dedicated full time to implementing and adapting the Plan.
-

F Annex: Survey Questionnaire

Variables análisis encuestas CIVITAS-ARCHIMEDES

1. ¿Cómo nos desplazamos? Reparto modal de transportes

⇒ ¿Desde dónde vienes a la Universidad entre semana? (municipio) _____

⇒ ¿Cuál de estos medios de transporte utilizas habitualmente y cual ocasionalmente para tus desplazamientos a/desde la Universidad y por qué? Elegir sólo una opción en cada caso.

	Modo habitual y razón (ver listado abajo)	Modo ocasional y razón (ver listado abajo)
Autobús	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Tren	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Combinación Transp. públicos	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Coche	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Combinación coche/transp.público	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Andando	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Metro	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Bicicleta	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Combinación Bici/transp.público	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Coche compartido	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Moto	1 2 3 4 5 6 7	1 2 3 4 5 6 7
Transp.adaptado	1 2 3 4 5 6 7	1 2 3 4 5 6 7

ELIGE LA RAZÓN QUE MÁS VALORES (ELIGE SÓLO UNA).

1. Por **comodidad** (Ahorro tiempo, mayor flexibilidad horaria, puedo leer o escuchar música, dormir etc.).
2. Por **obligatoriedad** (No tengo otra posibilidad).
3. Por **conciencia** (Es un modo de transporte más ecológico).
4. Por **salud** (hago ejercicio etc.).
5. Por **seguridad** (el medio de transporte o el acceso al medio de transporte es más seguro)
6. Por **ahorro**
7. **Otros** (especificar): _____

SOLAMENTE A QUIENES SE DESPLAZAN EN COCHE

⇒ Aproximadamente cuántos años tiene el vehículo con en el que habitualmente te desplazas al campus: ____ años, y cuantos Kilómetros tiene recorridos _____ Kilometros

⇒ Qué tipo de vehículo es:

1. Moto
2. Turismo
3. Furgoneta
4. Todo terreno
5. Otros (¿Cuál?) _____

2. ¿Cuánto tiempo tardamos en llegar al campus?

Tiempo empleado en el desplazamiento al campus (en minutos).

⇒ ¿Cuánto tiempo empleas para desplazarte entre semana desde tu lugar de residencia a la Universidad?

1. menos de 15 minutos
2. entre 15 y 30 minutos
3. entre 30 minutos y 1 hora
4. entre 1 hora y 1 hora y media
5. más de 1 hora y media

3. Distribución horaria

⇒ ¿Qué tipo de horario tienes en la Universidad?

1. Horario sólo de mañana
2. Horario sólo de tarde.
3. Horario de mañana y tarde

⇒ ¿A qué hora llegas habitualmente a la Universidad?

1. Antes de las 9
2. Durante la mañana de 9 a 2
3. De 2 a 4 de la tarde
4. Después de las 4 de la tarde

⇒ ¿A qué hora sales habitualmente de la Universidad?

1. Antes de las 2 de la tarde.
2. De 2 a 3 de la tarde.
3. De 3 a 7 de la tarde.
4. Después de las 7 de la tarde

4. Tipos de billetes empleados

⇒ ¿Cuál es el sistema de pago que más utilizas en tu desplazamiento a/desde la Universidad?

	SI	NO
Ningún sistema de pago	1	2
Billete sencillo, comprado al momento	1	2
Billetes combinados (RENFE, Euskotren/metro o Euskotren/tranvía, etc.)	1	2
Billetes múltiples (Creditrans, LurraldebusBono 10, etc.)	1	2
Bonos de viajes (mens., trimes., anual, estudiantes, ticket joven, tarjeta Transp. Universitaria, etc.)	1	2
Coche: Telepeaje	1	2
Coche: pago de gasolina y/o peaje en efectivo o con tarjeta	1	2
Otros (especificar)	1	2

5. ¿Por qué las personas vienen al campus en vehículo privado y no en transporte público? Razones para no utilizar el transporte público.

⇒ ¿Cuál es el medio o medios que te gustaría utilizar para desplazarte al Campus y cuál es el principal obstáculo que le ves:

MODO QUE TE GUSTARÍA	Obstáculo (Ver listado abajo)
Autobús	1 2 3 4 5 6 7 8 9 10 11 12 13
Tren o Tranvía	1 2 3 4 5 6 7 8 9 10 11 12 13
Combinación Transportes públicos	1 2 3 4 5 6 7 8 9 10 11 12 13
Coche	1 2 3 4 5 6 7 8 9 10 11 12 13
Combinación coche/transp.público	1 2 3 4 5 6 7 8 9 10 11 12 13
Andando	1 2 3 4 5 6 7 8 9 10 11 12 13
Metro	1 2 3 4 5 6 7 8 9 10 11 12 13
Bicicleta	1 2 3 4 5 6 7 8 9 10 11 12 13
Combinación bici/Transp. público	1 2 3 4 5 6 7 8 9 10 11 12 13
Coche compartido	1 2 3 4 5 6 7 8 9 10 11 12 13
Moto	1 2 3 4 5 6 7 8 9 10 11 12 13
Transporte adaptado	1 2 3 4 5 6 7 8 9 10 11 12 13

ELIGE EL OBSTÁCULO O DIFICULTAD QUE MÁS VALORES

(ELIGE SÓLO UNO EN LA COLUMNA 2)

1. ninguno
2. Frecuencia insuficiente
3. La parada está lejos
4. Es muy lento
5. Está muy lleno en horas punta
6. Hace muchos transbordos
7. No se puede utilizar con mal tiempo
8. Exige mucho esfuerzo físico
9. Es inseguro
10. No encuentro dónde aparcar
11. Es caro
12. No adaptado a personas con minusvalías
13. Otros (especificar): _____

6. ¿Qué medidas favorecerían cambios en las formas de desplazamiento?

⇒ Cambiarías tus formas de desplazamiento en caso de:

	SI	NO
Disponer de un alojamiento a un precio asequible	1	2
Reducción del espacio para aparcar en la universidad	1	2
Mejora del transporte público (horarios, paradas, precios, etcétera)	1	2
Mejora de las condiciones para ir andando o en bicicleta	1	2
Otras (¿Cuáles?) _____	1	2

7. Medidas que motivarían utilizar el transporte público

⇒ ¿Qué medidas te motivarían a utilizar el transporte público?
(ELEGIR LA PRINCIPAL Y SOLAMENTE UNA)

1. No tengo coche.
2. Ninguna razón me haría cambiar de opinión
3. Existencia de más rutas y/o rutas más directas a la Universidad
4. Mayor frecuencia de servicios
5. Establecimiento de algún bono de transporte público más económico
6. Mejora de los equipamientos del transporte público (Terminales de Información de paradas o TIPS, marquesinas, asientos, etc.)
7. Mejora la información sobre los medios de transporte públicos existentes
8. Establecimiento de algún tipo de tarifa por aparcamiento de coche (OTA o similar)
9. Otras (especificar): _____

8. Disposición a sustituir el coche por el transporte público

⇒ ¿Estarías dispuesta/o a sustituir el coche por el transporte público para desplazarte a la Universidad? (ELEGIR LA PRINCIPAL, SOLAMENTE UNA)

1. NO utilizo el coche
2. NO, porque ahorro tiempo
3. NO, porque tengo mayor flexibilidad horaria
4. NO, porque tengo mayor independencia
5. NO, porque estoy acostumbrado a utilizarlo
6. Sí, porque es más económico y seguro
7. Sí, porque me permite otra/s actividad/es durante el viaje (leer, escuchar música, conversar...)
8. Sí, porque evito tener que utilizar diariamente mi vehículo
9. Otros (especificar): _____

⇒ ¿Qué condiciones te llevarían a sustituir el coche por el transporte público?
(ELEGIR LA PRINCIPAL, SOLAMENTE UNA)

1. No tengo coche.
2. Ninguna razón me haría cambiar de opinión
3. Existencia de más rutas y/o rutas más directas a la Universidad
4. Mayor frecuencia de servicios
5. Establecimiento de algún bono de transporte público más económico
6. Mejora de los equipamientos del transporte público (Terminales de Información de paradas o TIPS, marquesinas, asientos, etc.)
7. Mejora la información sobre los medios de transporte públicos existentes
8. Establecimiento de algún tipo de tarifa por aparcamiento de coche (OTA o similar)
9. Otras (especificar): _____

9. Disposición a compartir coche

⇒ ¿Estarías dispuesto/a a utilizar el sistema del coche compartido? y ¿por qué?
(ELEGIR LA PRINCIPAL, SOLAMENTE UNA)

1. Sí, porque es más económico (comparto gastos)
2. Sí, porque viajo acompañado
3. Sí, porque no tengo coche propio
4. Sí, porque así no tengo que conducir
5. Sí, ya lo comparto
6. NO lo necesito
7. NO, porque no me gusta la idea de compartir coche
8. NO, porque no me ofrece la flexibilidad que necesito
9. NO, porque me parece demasiado difícil coordinarme con la gente
10. NO, porque me puedo quedar sin transporte en caso de imprevisto
11. NO, porque no me siento segura/o con gente que no conozco
12. Otros (especificar): _____

10. Uso de la bicicleta

⇒ ¿Estarías dispuesta/o a utilizar la bicicleta si las condiciones para su utilización fueran adecuadas?

1. Sí 2. NO 3. Ya la uso 4. No puedo utilizarla 5. No necesito utilizarla (tengo otras opciones)

⇒ Si la respuesta a la anterior pregunta es SI: ¿Qué mejoras te podrían animar a utilizar la bicicleta para ir a la Universidad? (elegir la principal, solamente una)

1. Establecimiento de una red de bidegorris que facilitase el desplazamiento a/desde la Universidad
2. Mejor accesibilidad al centro o lugar de residencia (menor distancia, trayecto más cómodo, etcétera)
3. Aumento de la seguridad vial (alumbrado, marcas etcétera)
4. Establecimiento de aparcamientos adecuados y seguros
5. Establecimiento de un sistema de ayudas para el alquiler/compra de bicicletas
6. Otras (especificar): _____

11. Percepción sobre cuestiones ambientales y de las medidas adoptadas en materia de movilidad

⇒ Consideras que el nivel de contaminación acústica en el campus es:

1. Nulo 2. Escaso 3. Alto 4. Insoportable

- ⇒ Consideras que acceder al campus en cada uno de las siguientes formas de desplazamiento es fácil o difícil y seguro o inseguro:

	FACIL	DIFICIL	⇒	SEGURO	INSEGURO
Autobús	1	2			
Coche	1	2		1	2
Andando	1	2		1	2
Tren	1	2		1	2
Bicicleta	1	2		1	2
Transporte adaptado	1	2		1	2

- ⇒ Podrías valorar de 0 (muy mal, deficientes) a 5 (muy bien, excelentes) las siguientes medidas adoptadas en materia de movilidad en el campus:

Red de vías ciclistas	1	2	3	4	5
Sistema de bicis de alquiler	1	2	3	4	5
Sistema de aparcamientos (si son suficiente, seguros y cómodos)	1	2	3	4	5
Sustitución de plazas de aparcamiento por zonas verdes	1	2	3	4	5
Acceso peatonal	1	2	3	4	5
Transporte público (nueva línea urbana Servicio Expres, etc.)	1	2	3	4	5

- ⇒ Sabías que todas estas medidas de han adoptado dentro de un proyecto de movilidad denominado CIVITAS-ARCHIMEDES: 1. SI 2. NO
- ⇒ Conoces alguna actividad que se esté desarrollando para mejorar la accesibilidad, el transporte y la seguridad en materia de circulación en el campus:
1. NO 2. SI (¿Cuál/es?) _____

Para finalizar, ¿podrías decirme cómo ves el campus en cuanto a cualquiera de las siguientes cuestiones: aparcamiento, zonas verdes, ruido, contaminación, vida universitaria y que propuesta harías para mejorar su entorno, la accesibilidad y/o el transporte?