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Measure Evaluation Results

FUN 6.2 Bus and Bike

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Executive Summary

Funchal's landscape, which is unique in the European territory, is predominantly hilly, with the exception of a small flat area on the west and central coastal line. The hilly landscape discourages Funchal's citizens to use bicycles. The number of tourists using bike is increasing and contributes to convince local citizens to use bikes for non-leisure activities. The measure 'Bus and Bike' aimed to promote the use of bicycles in Funchal: by implementing special conditions for Public Transport (PT) users with bikes to use buses of the existing PT network which link steep areas to flatter ones; and by promoting the new service during a public campaign. The local PT operator, Horários do Funchal's (HF) was in charge of the measure implementation and, with the support of the Municipality, committed to pursuing the following specific objectives: (i) raise users' awareness and acceptance for the Bus&Bike concept and (ii) increase the amount of cyclists in the inner-city.

PT users can hang their bicycles on the back of the busses. To guide new users, instructions are provided on the bus itself. To encourage cyclists to use PT buses, the service is free of charge which means that no extra-fee was required from users who wish to carry a bicycle.

Figure Erro! Não existe nenhum texto com o estilo especificado no documento.-1: **Bus rack with the bus door information**



The measure was implemented in the following stages:

Stage 1: RTD activities (2009-2010) Research & Development activities were completed in 2010, including research based on international experiences regarding Bike&Bus integration. After preliminary on-street tests on the stability of the equipment, service characteristics were defined in May 2010.

Stage 2: Compliance with legislation (2010) HF received a registration licence on 27th March allowing further tests under real conditions.

Stage 3: Discussion with stakeholders to fine-tune the service (June-August 2010)

Stage 4: Public launch and promotion of the service (May 2010) Bike racks were installed in buses of three PT lines and 10 bicycle parking spots were installed next to specific bus stations of these lines. This new intermodal service was introduced to the public during the 2010 European Mobility Week, a flagship event held in Funchal in the frame of the MIMOSA project. Communication material (posters, brochures, one roll-up banner stand) were widely disseminated in the entire inner-city of Funchal.

Stage 5: Up-scaling of the service (April 2011) Due to the extension of the Green Line (see FUN 2.1), Bus&Bike service was implemented on two additional lines, raising the number of equipped routes to five. Additional parking facilities and bike racks were purchased and installed while communication campaigns continued.

By encouraging less vehicle-dependent lifestyle and therefore reducing energy and fuel consumption by private cars, 'Bus and Bike' measure appeared to be a typical example to promote more energy efficient vehicle use. The measure was therefore identified as a **focused measure** for the city of Funchal. However, the local team realized in the earliest phases of the implementation process that the evaluation approach had to be scaled down due to the low impact of the measure. Several indicators were dropped, especially in economic, energy and environment assessment categories. Since no valuable data base on cyclists was available before the implementation of the measure, field-work was necessary to collect data: during the implementation process, bicycles were counted on strategic selected streets and interviews were conducted among citizens to know if they owned a bicycle and if they intended to cycle in the future. To evaluate the impact of the public campaign on the public awareness, a survey was conducted by an external consultancy company.

Key results came out from the impact evaluation. Between September 2010 and September 2012, there has been evidence of effects achieved: although the number of bicycles transported by urban buses was fairly low (only 56 a year), the frequency of bike use among locals increased by 0.7 percentage points (7,6% of the surveyed group in 2011 used a bicycle at least once a week, whereas in 2010 this category comprised only 6,9% of citizens); and a small number of people expressed willingness to try 'Bus and Bike' in the future (2% of PT users). From these observations, it can be expected that the number of cyclists will increase during the next years, even at a slow pace. This provisional modal shift outcome can be considered as an intermediate success of the measure and seen as promising for the future acceptance of the service taking into account the rough landscape. Furthermore, the results of the survey on awareness showed that 'Bus and Bike' was one of the most recognizable measures in the MIMOSA package in Funchal. That confirmed the efficiency of the measure in promoting inner-city inter-modality and the PT operator HF decided therefore to carry on with 'Bus and Bike' services. In order to identify the target group for this service, a survey was carried out with a sample of drivers which showed that users are mainly young men. The interviewed users considered the measure as *reasonable* and notified necessary improvements in the itinerary.

One of the main barriers encountered during the measure was the lack of data about cycling in Funchal. This required implementing an appropriate data collecting during the project period which was time and resource consuming. **Another barrier** was the low availability of safe cycling infrastructures which discourages cycling.

Driven by tourism, local citizens are beginning to become interested in cycling, mainly for leisure goals. This growing interest was **a driver for the measure**.

From Funchal experience, several **recommendations** can be drawn up. Firstly, it is recommended to ensure the involvement of all relevant stakeholders from the earliest phase of the project: local actors, such as companies that sell bicycles, are critical partners and should be involved from the earliest stage of the planning. The 'Bus and Bike' approach can benefit from their views and perspectives. They can contribute to elaborating a strategy to reach the target groups and give advice on the most appropriate racks to install according to the different types of bicycles used in the city. Secondly, it is recommended to make the new service widely visible through the elaboration of an appropriate communication strategy. In Funchal, the visibility of the measure played a critical role for the implementation of the measure. The measure was so well accepted by citizens that regional partners committed to elaborate a 'Bus and Bike' project addressed to tourists, planned to be achieved by 2015. This new project, called SEEMORE, will be developed under the umbrella of Intelligent Energy Europe program and aims to introduce racks to interurban buses for tourists.

With low investment costs ¹(bus racks cost only roughly 600€ each including VAT) and widespread awareness among the target audience, Bus&Bike definitely contributed to raising awareness towards sustainable transport modes despite all the physical barriers of the city and landscape. It is therefore **an easily replicable measure**.

Funchal launched 'Bus and Bike' while cycling had a very low modal split share. Since changes in mobility behaviour are usually taking place in a long-term process, significant changes can hardly be achieved within two years of implementation. Therefore the slow but positive trends observed in a shift towards bicycle usage ought to be considered as a positive and promising step towards the development of a cycle-friendly city. The implementation of 'Bus and Bike' services was successful and should be considered as a breakthrough in sustainable mobility in Funchal which was made possible thanks the intensive work carried out within the framework of CIVITAS. The measure will also play a crucial role in future urban/regional policy development to the benefit of cyclists. Economic representatives in Madeira have interest in establishing bike rental services and to organise guided trips for cyclists which in turn can favour Bus&Bike in the future.

A Introduction

A1 Objectives

The measure objectives are:

(A) High level / longer term:

- Increase the modal split towards sustainable modes;
- Promotion of intermodality;
- Improvement of quality of life;
- Improve the image of PT and the services offered.

(B) Strategic level:

¹ Maintenance costs are not significant and were not actually calculated within the project.

- The new Bus and Bike service will allow citizens to combine bus and bicycle use to cope with the steep streets of the city. This initiative has the potential to present an innovative way to promote alternative, environmentally friendly transport modes, promote intermodality among citizens and improve PT image and service extent.

(C) Measure level:

- (1) Increase user acceptance of cycling by allowing people to take bicycles on the bus and implement awareness raising campaigns;
- (2) Increase the number of bicycles circulating in the city by raising people's awareness of Bus&Bike;

A2 Description

The city of Funchal is easily recognizable due to its topological characteristics (the altitude in Funchal ranges from 0 m above water level to nearly 1,000m). As a result of a number of unique features that do not favour the usage of bicycles, the public transport (PT) Operator is striving, together with the municipality, to arrange solutions for cyclists. The aim is to facilitate bike use where possible (small flat and easily cycled areas) and provide car independent access solutions to outer districts.

The objective of this measure is thus for Horários do Funchal to carry out a pilot test in order to provide an opportunity for citizens to transport bicycles on buses at the same time as a new cycle lane is being built in the West part of the city.

The transport of bicycles on buses was studied indepth and a solution was found based on technical, security and accessibility standards. Accordingly, the PT operator found out during the R&D phase that it would be important not only to implement the measure on buses leading to the cycle lane and flat areas in the city, but also to install racks on buses connecting more hilly areas in order to promote bike use throughout the whole city.

The implementation process included the acquisition and installation of bike racks and other support equipment by Horários do Funchal, the PT operator. Further adjustments were made during the pilot tests. Training and dissemination activities took place in order to encourage people to use this new integrated scheme comprising two sustainable modes of transport.



Figure A2.1: Bus rack with the bus door information

B Measure Implementation

B1 Innovative Aspects

The innovative aspects of the measure are:

- **Targeting specific user groups, regionally** – This measure tests the effect of a high quality PT service for tourists as well as locals who use it for leisure purposes and trips to work. Therefore, tourists and locals will widely benefit from this demonstration. The communication campaigns will also address students through awareness raising campaigns in schools.
- **New mode of transport employed, regionally** – This measure for the first time tries to integrate in a unique scheme bicycle and bus use. This pilot should prove very useful in testing people's reactions to this innovative service. It also helps to develop knowledge about the technology that can be applied to buses in order to support bikes and about the real effect of an integrating measure on a real network.

B2 Research and Technology Development

The instalment of bus racks is an interesting subject for Research and Technology Development (RTD) analysis. In the following are synthesized the two main aspects upon which this research was performed.

a) A study on the feasibility of bike use in Funchal

The integration of bus and bike is quite an innovative scheme in Portugal, and in Madeira in particular. Horários do Funchal carefully looked for various technical solutions during the R&D phase. To explore these ideas, a state-of-the-art study was undertaken by Horários do Funchal making use of international experiences in the area of bike&bus integration. This study helped us to set a benchmark regarding different equipment, finding relevant suppliers (one of which is *sportworks*), and revealing that bicycles can be transported in four different ways:

i) At the front of the bus



ii) At the back of the bus



iii) Inside the bus (along with the passengers)



iv) In the luggage cabin of the bus (no picture)

Considering the physical limitations of our city and our internal resources, it was argued that the fourth possibility couldn't be applied in Funchal, since there aren't any buses with the required features.

For all the solutions, a pros and cons approach was defined in terms of feasibility:

Table B2.1: full review and balance (in terms of pros and cons) of the service requirements

In the front of the bus		In the back of the bus with bike racks		In the back of the bus with ski box		Inside the bus	
Pros	Cons	Pros	Cons	Pros	Cons	Pros	Cons
<ul style="list-style-type: none"> - easy to use for clients - The driver can see the bike racks 	<ul style="list-style-type: none"> - Extra danger to pedestrians 	<ul style="list-style-type: none"> - easy to use for clients - Safe equipment 	<ul style="list-style-type: none"> - HF buses have a parking sensor in the back. Installing bike racks in the back will make the sensor useless. - The driver cannot see the bike racks 	<ul style="list-style-type: none"> - This equipment offers more security for bicycles and pedestrians 	<ul style="list-style-type: none"> - Extra-costs: with this solution, it is necessary to purchase not only the ski box but also the bike racks - more time needed to load / unload bicycles 	<ul style="list-style-type: none"> - easy to use for clients on low-floor buses 	<ul style="list-style-type: none"> - There is a need to redesign the interior of the buses to make room for bicycles - Difficult or even impossible to offer enough space for one/two bicycles and wheelchairs at the same time

b) decision-making and the scheme adopted

This research provided a better understanding of possible solutions. Transporting bikes on the back of the bus proved to fulfil the purpose to deliver a quality, safe and easy to use Bus&Bike service. The next step was to start checking the equipment and to define an operational guideline, including the definition of lines on which the service will run, and communication efforts. This was accomplished two months prior to the launch of the service.



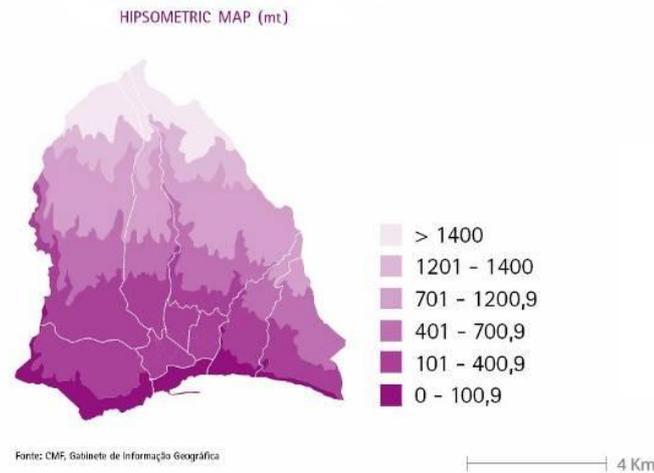
Figure B2.1: Bus rack installed on a Green Line bus

B3 Situation Before CIVITAS

The city of Funchal has a very small flat area inside municipality borders, and people have not tended to use bicycles to move around the city centre. Until 2007, according to the Urban Mobility Study developed by the municipality, the number of bicycle users in Funchal was nil. However since then a number of new pioneers have been showcasing the use of bicycles

along some of the main roads of the city network. This mean of transport is actually used mainly by tourist groups who explore the city in organized tours. Aida Cruises, an important German operator of cruise liners, provides weekly shore excursions/tours to groups of tourists that continuously prove to locals that cycling is not impossible in the city of Funchal. There is also a group of young people who use bicycles but this is a limited phenomenon due to the difficult streets and very steep paths. The hypsometric map of the municipality of Funchal, shows how little of Funchal is between 0 and 100 meters above sea level (where cycling is easy).

Figure B3.1: Hypsometric map of Funchal (meters above sea level)



Source: Geographic information office from the Municipality of Funchal

B4 Actual Implementation of the Measure

The measure was implemented in the following stages:

Stage 1: RTD activities (2009-2010) The PT operator purchased one bike rack from a Swedish Company named 'Thule' that specialized in load-carrying systems, and Horários do Funchal received the product at the beginning of July 2009. Subsequently, a first test was performed in the PT operator's headquarters, installing the bike rack on one of the company's newest buses, a B12BLE Volvo. Horários do Funchal did not yet have approval to introduce the new equipment to Funchal and complete on-street testing. Therefore the tests were used only to trial the anti-theft system and to check how easy it is to load the bus rack when it is mounted on the bus. It took no more than five minutes. Each bus could carry a maximum of 2 bicycles at a time. **On-street testing and definition of service characteristics** took place in May, as the photos below show. At this point, it was possible to test the feasibility and the difficulty of loading the bicycles onto the bus rack and taking them off. The tests also confirmed the full stability of the equipment on the street.

Stage 2: Compliance with legislation (From February to March 2010) Final approval was issued in February 2010, and the regional agency for mobility issues paid a visit to assess if everything was in order in March 2010. Since then the PT operator has complied with all the legislation. HF received a new registration licence on 27th March allowing further tests under real conditions.

Stage 3: Discussion with stakeholders to fine-tune the service (June and August, 2010) – For the execution of the different stages the local management team, consisting of both the PT operator and the municipality, appointed several stakeholders and arranged a workshop to collect tips and advice from those who deal with cyclists every day. The stakeholders

assembled included a local cyclist association. They debated and explained their perspective upon the service and the way it was being managed and Horários do Funchal team in return showed them our records of the testing phase (all the tests performed by the PT company were filmed).

Figure B4.1: Bike racks being tested on the street



Stage 4: Launch and promotion of the service (September 2010) – In September 2010, during European Mobility Week, the service was launched on 3 bus lines. HF prepared the service communication (brochures, advertisement papers on the buses and posters).

Stage 5: Up-scaling of the service (April 2011) – Due to the extension of the Green Line, which splits into three lines, Bus & Bike was allowed on two more lines, raising the number of routes to five. Also new parking facilities and bike racks were purchased and installed while communication campaigns continued.

To facilitate a better understanding, Horários do Funchal have included a map of the measure deployment², including the five lines on which bike transport is currently available, and the bus stops (blue boxes) where it is possible to load and unload the bikes.

² The most up to date information is available at this website:

http://www.horariosdofunchal.pt/index.php?option=com_content&task=view&id=587&Itemid=356

Figure B4.2: Final Bus and Bike deployment map



Total investment costs for the preparation of this measure (until the official launch) can be broken down as follows:

Table B4.2: Investment costs for setting-up the measure

	Total cost (€) without VAT
14 Bike racks on buses	8,937
10 Bike racks for bicycle parking on the street	1,019
Communication campaign	4,120
Staff effort	2,777

B5 Inter-Relationships with Other Measures

The measure is related to other measures as follows:

- **Measure FUN 2.1.** Green Line – All the buses operating on the Green Line service were equipped with bicycle racks. So Bus&Bike benefited from the high number of users this route carries and from the communication campaigns launched within the Green Line measure.
- **Measure FUN 4.1.** Awareness Raising Campaign for Sustainable Mobility – This measure developed communication campaigns aimed to boost bicycle use by citizens rather than the use of private motorized vehicles. Bus&Bike tries to promote and reinforce the intermodal use of sustainable modes.

C Impact Evaluation Findings

C1 Measurement Methodology

C1.1 Impacts and Indicators

The following tables represent a very short overview of the data which has been chosen to form a baseline and on the approach to the selected indicators. More details concerning each of the indicators can be found in chapter C2 (Measure results).

Bus&Bike was an event introduced at the 2010 European Mobility Week event in Funchal. It was implemented in September 2010 (CIVITAS-MIMOSA month 24). Baseline data thus was collected prior to this period as is summarized below:

Table C1.1.1: Indicators. *Specific impact indicators related to the Bus&Bike focus measure*

Evaluation category	Evaluation sub-category	Impact	Indicator	Description and Source of data	Success quantification	First data collection	After data collection
Transport	Transport System	Modal share	1 – Number of citizens using bicycles (City specific indicator) (Bundle indicator with FUN 4.1.)	Data unit: Number, survey Source: municipality collected this data using a survey at a local exhibitions fair (Expo Madeira)	Raise local use of bicycle by at least 10%	July, 2010	July, 2011
		Intermodality (acceptance)	2 – Number of bicycles annually transported by PT (City specific indicator)	Data unit: Number, quantitative. Source: HF	At least 1,000 bicycles should be transported each year	September, 2010	June, 2012
Society	Awareness level	Awareness	3 – Awareness level (POINTER core indicator 13)	Data unit: %, survey Source: PT operator and municipality collected this data through a survey during Expo Madeira exhibitions fair	Register a positive number of citizens who are familiar with the deployment of Bus&Bike service (at least 50% of the total number of citizens)	July, 2010	July, 2011
	Acceptance level	Usefulness	4 – Usefulness level among bus drivers (POINTER core indicator 14)	Data unit: survey Source: PT operator collected this data through a survey conducted by drivers trainers	Gather more information about the use and acceptance of the service among bus drivers		September 2012

Detailed description of the indicator methodologies:

1 – Modal share – The methodology to measure this indicator is based on specific survey campaigns carried out by the municipality (in 2010 and in 2011) during Expo Madeira, a regional exhibition fair. **This indicator corresponds to the specific objective 2.** To understand if this modal share is likely to change, the municipality also asked people, if they intend to use a bicycle more often in the future. The sample size varies from 2010 to 2011 and includes citizens that live and work in Funchal. The sample size is however not enough for a statistically representative result because not all people had the same opportunity to be

surveyed and people who responded to the survey had an incentive to do so (they participated due to an award, normally a bicycle that could be regular or electric). Owing to the bicycle usage campaigns, this indicator shares some similarities with FUN 4.1 Awareness Raising Campaign. Therefore it was decided to make a bundled indicator.

2 - Number of bicycles annually transported by PT – This is the core indicator of the measure and it is intended to assess to what extent the measure really impacts the citizens' everyday life in Funchal. Drivers collected this data whenever a bicycle user hops on the bus, registering the transportation on a fact sheet. **This indicator corresponds to the specific objective 1 and 2.** To keep track of this indicator and possible future changes, two additional questions were included in a survey carried out by the consultancy company hired by the municipality to handle environment and energy evaluation (OCCAM), in 2012 to a sample of 101 residents and PT users:

- *Have you ever transported your bicycle on a bus?*
- *Since it is now possible to take bikes on the bus – could you imagine using Bus&Bike more frequently / on a regular basis within the next 6 months?*

3 - Awareness level – This indicator is measured through specific surveys conducted during a relevant event in which CIVITAS-MIMOSA was promoted, namely the Expo Madeira in 2011 (after measure implementation). People were asked, if they had heard about Bus&Bike. Other measures are mentioned, so it is possible to understand the awareness level of this measure compared to the other ones. **This indicator corresponds to the specific objective 1 and 2** (raising awareness for a measure does not necessarily correspond to increased acceptance or use; thereby the connection of this indicator to the measure specific goals is only partial).

4 - Acceptance level among bus drivers – This indicator is intended to give tips about the profile of the Bus&Bike user and to trace back weak and strong points of the service from the drivers' perspective. A sample of 9 drivers were surveyed. They were chosen because the PT Operator knows that they have carried bicycles (they have indicated that on a fact sheet) during the year of 2012. The survey addressed the following questions:

- *Can you describe the main characteristics of the citizen who carry bicycles on the bus?*
- *What did you think were the main things that prevented more people to use the bicycle racks?*
- *What is your general appraisal with regard to Bus&Bike?*

List of potential effects that were not measured

Funchal considers it very important to consider and discuss all possible effects a measure could have even if they are not measured either due to logistic constraints or budget limitations. On these grounds all stakeholders involved in the implementation of the measures were assembled to share ideas regarding additional impacts, which resulted in the revision of the matrix suggested in the initial Local Evaluation Plan. This was a result of the extension of the Bus and Bike measure, initially foreseen to only work on the Green Line corridor.

Impact category	Effect	How does it impact?	Why it was not assessed
Economic	Operating revenues	Assess the economical feasibility of the measure for the long-run.	Unlike what was previously forecast, the PT operator decided to provide Bus&Bike service for free.
	Operating costs	increase in the number of passengers (due to the rise in PT attractiveness) and the decrease in the km travelled.	The buses equipped with racks also deploy services in other areas (where the service is not supposed to be available). Hence it is not possible to clearly identify this indicator.
Energy	Fuel consumption / private cars	Fuel consumption could reveal savings due to new cyclists who formerly used cars.	However, since the impact of this measure is small in terms of number of bicycle users, the indicator was dropped.
Environment	Air quality	Decreasing pollutant emissions and increasing air quality parameters is a high level objective of CIVITAS-MIMOSA.	No relevant impact expected.
Transport	Number of bicycles circulating in Funchal	This indicator could have been more accurate than the modal share collected through surveys.	No actual baseline data was collected before the implementation of this measure
Society	Perception of the usefulness of the measure	It would be important to understand to what extend the transport of bicycles on public buses is important for the target group. This indicator would be important to evaluate the acceptance of the measure.	Data for this indicator was collected - people reported that the measure was important to them, despite not using it.

C1.2 Establishing a Baseline

The information regarding when and how the baseline was collected/measured is described above in table *Table C1.1.1*.

C1.3 Building the Business-As-Usual Scenario

Table C1.3.1: BAU assumptions for each indicator

Indicator	BAU assumptions
1 – Number of citizens using bicycles	BAU is not possible to assess since there is no baseline before actual implementation of the measure. This is because traffic counts were made by a subcontractor who counted during peak hours, when cyclists try to avoid dense traffic. Therefore no cyclists were counted.
2 – Number of bicycles annually transported by PT	BAU is not applicable for any of these two measure indicators, since baseline data is zero.
3 –Awareness level	

C2 Measure Results

The results are presented under sub headings corresponding to the areas of interest – economy, energy, environment, society and transport.

C2.1 Economy

Not applicable

C2.2 Energy

Not applicable

C2.3 Environment

Not applicable

C2.4 Transport

1 – Number of citizens using bicycles

Due to the absence of data regarding vehicles on the streets, one had to rely on the data from the surveys conducted before and after measure implementation to check, if the number of citizens who use bicycles in their everyday life is changing.

Table C2.4.1: Frequency of bicycle use among citizens living and working in Funchal

Mode of transport used	Before (2010; N=331)	After (2011; N=286)	Difference: After –Before
I never use a bicycle	83.1%	87.8%	4.7%
I hardly ever use a bicycle	100%	4.5%	-5.5%
I use a bicycle 1 to 3 times a week	4.5%	2.8%	-1.7%
I use a bicycle 4 times a week	0.9%	1.0%	0.1%
I use a bicycle every day	1.5%	3.8%	2.3%
percentage of people who use a bicycle at least once a week	6.9%	7.6%	0.7%

The survey has produced some slightly contradictory results: the percentage of people that state they never use a bicycle has increased from 2010 to 2011. The overall trend can be considered as positive. In fact, data collected show that the percentage of people who use a bicycle at least once a week has grown by 0.7% in one year. However there was also a 4.7% increase in people who never use it.

This result shows that the profile of the citizens of Funchal may be changing to some extent. Bicycle users seem to be gradually emerging, and mobility authorities might feel pressured to introduce measures to cope with their needs. Although results might seem promising at first glance, one should take into consideration that the differences are not statistically significant (significance when running the T-test had a *p-value* of 0.961, while significance would have been shown by approximating 0.05). Since the sample is robust enough (nearly 300 people in each survey) this could have happened due to the low number of people actually saying that they never cycle. Consequently data is not consistent enough to be extrapolated to the overall target population (those who live and work in Funchal).

It was also of paramount importance to collect hints about future trends in bicycle use. The evaluation activities have therefore sought to explore whether the insights found in the Expo Madeira surveys will evolve favourably to bicycle use.

Table C2.4.2: *Intention of using bicycles in the future among those who said that they currently use the bicycle at least once a week*

I currently use a bicycle at least once a week	Before (2010; N=20)	After (2011; N=17)
I intend to use a bicycle less often than today	25%	0%
I intend to continue using a bicycle as often as today	15%	41%
I intend to continue using a bicycle more often than today	60%	59%

The sample size is clearly very small and therefore not representative for the total population. Nonetheless, according to what the citizens who report cycling at least once a week outline, nobody in 2011 even considered using the bicycle less often in the future, whereas in 2010 this figure accounted for 25% of the answers. This can be considered a success of the promotional campaigns in the course of this measure itself and of the Awareness Raising Campaigns measure, as the difference between data from 2010 and 2011 is statistically significant (calculated through a chi-square test (p -value of 0.035, for a confidence interval of 95%)).

From the results mentioned above, it is also important to highlight that, following the implementation of the measure, the number of cyclists has increased and nobody has started to use cycle less often despite Funchal's topography.

This achievement could have long-term implications. Politicians and technicians will handle cycling promotion more carefully in the future and this is a result of all the debate in connection with the development of this measure and surely of Awareness Raising Campaigns (CIVITAS measure FUN 4.1.) dedicated to promoting the benefits of cycling activities.

2 – Number of bicycles annually transported in PT

The core indicator to assess the impact of Bus&Bike, or at least the most direct one, is the number of bicycles that were actually carried on the back of the buses. A quick review is displayed below:

Table C2.4.3: *Nº of bicycles annually transported on PT*

Indicator	Before (2009 from Jan. to Dec.)	After (2011 from Jan. to Dec.)	Difference: After –Before
2 – Number of bicycles annually transported on PT	0	56	56

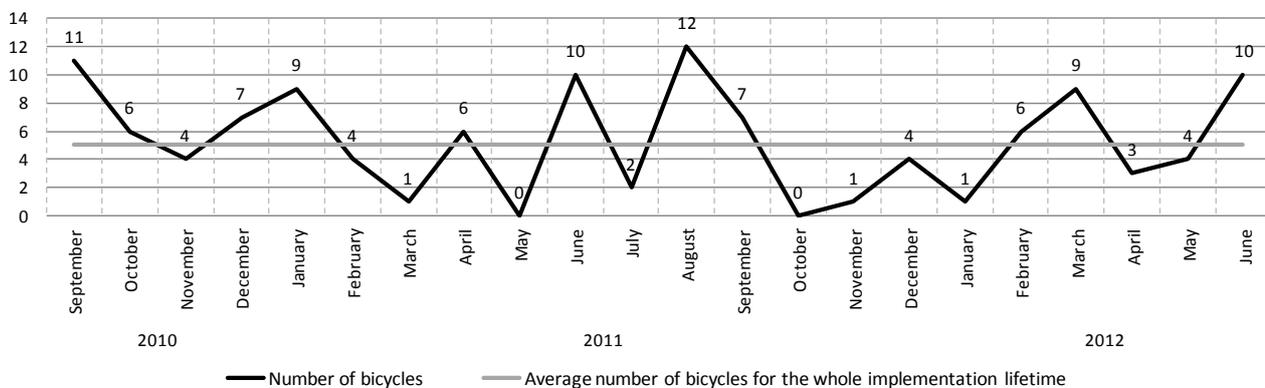
The baseline for this indicator is zero, as public transport in Funchal did not previously allow the transportation of bicycles on buses. The main goal was to have 1.000 bicycles transported in the first year after introducing this integrative service. However, the results achieved in 2011 (a full year) were well below the expected goals.

Horários do Funchal has developed firm regulations regarding which bus stops and routes offer this service. However, since HF does not have a policy of assigning a bus to a single route, buses often circulate with the racks on other routes (22% of the total number of trips

carrying bicycles). Bus drivers have been allowing some breaches, permitting people to board with their bicycles on routes and at bus stops where they were not supposed to. So the tight regulation HF has prepared for logistic reasons and which could have been a barrier to the measure was not effective and therefore probably did not prevent people from riding the bus.

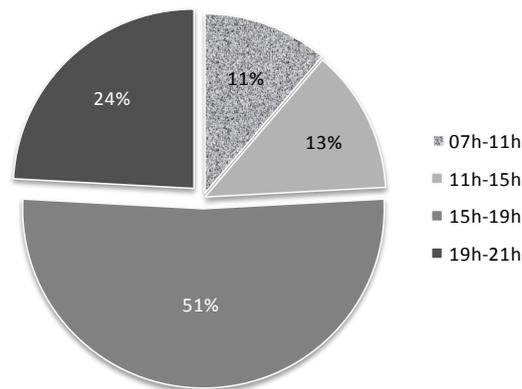
It is important to underline that as far as it is possible to assume, the managing team that steered this measure was unsuccessful in convincing the target audience of the benefit this service entails. Further research is necessary to understand the ways in which this measure can be useful in the every-day life of locals. Communication does not seem to be the reason behind the low number of uses because the evaluation work was able to produce evidence that people recognize the service and know it exists. A reorientation to new target audiences like tourists may be necessary in the future.

Figure C2.4.1: *N° of bicycles transported on PT per month*



The usage of the bike racks has been fairly irregular as can be seen from the variation from the average value (5) shown by the grey line, so any educated guess for the future is somewhat unpredictable. Plus, it is not clear how often each user used the service so multiple uses by a single passenger may be included in the numbers shown above. Nonetheless, our definition of a reasonable profile of usage leads us to some trends which are summarized below:

- According to the drivers' records, more than half the users of Bus&Bike (63%) are pass holders. This means that they are frequent PT users and that this measure is contributing to the high level objective of promoting intermodality.
- Moreover, the following chart outlines that most of the bike rack usage was during the afternoon: three quarters of all cycling was done between 3pm and 9pm. It is noteworthy that many use the service during late off-peak hours after 19h (24%) and this schedule is limited to 4 months in the Summer (June to September).

Figure C2.4.2: Bus&Bike usage per time slot

In addition to the above, it was of outmost importance to measure through specific surveys the profile of the Bus&Bike user. Of course, owing to the low number of users, one can only draft a very rough profile of this user.

According to the answers provided to a question asking PT users if they had already used the Bus&Bike service, only one out of a total sample of 103 said that they had already used it³.

Further investigation is needed in this field, in order to develop a well grounded idea of what kind of user Bus&Bike is targeting and who is not being encouraged to use it. Only then can the managing team draft effective campaigns to sustain Bus&Bike before it's too late. In the following section are described the characteristics of the only person surveyed who reported having already used Bus&bike⁴:

- Female, aged between 25 and 34 years old
- High degree education
- Uses the bus to commute
- Has own bicycle
- It is very unlikely that she will use Bus&bike in the future (she did not explain why)

The expectations about future use of Bus&Bike have not been met, it is important to analyse, if this trend is likely to change in the future. When asking people in 2012 whether they imagine using Bus&Bike more frequently / on a regular basis in the next 6 months, only 2% of public transport users are even thinking about using this service and they are only considering it for occasional journeys.

One explanation for these results may lie in the limited number of people with bicycles. Unfortunately it was not possible to check whether this explanation or another are behind the figures encountered.

C2.5 Society

3 – Awareness Level

To counteract urban traffic problems, citizens need to be aware that convenient options for their normal travel habits are there for them to use whenever it suits them. Calculation of the awareness of the measure can inform whether the target group (in this case any inhabitant of the city of Funchal) is aware that Bus&Bike, as a facilitating service, is being provided. This might lead to more people cycling either for daily trips, school or recreation.

³ A question about whether the citizen owned a bicycle was not included in the survey so it was not possible to identify the target group of this measure (residents who own a bicycle).

⁴ No information about how satisfied she was and for which purposes she did use the service was available.

Table C2.5.1: Answer to the question: Have you ever heard about these measures? (2011; N= 347)

	No	Yes
Green Line	10%	90%
Reduced fare to park in the city for green vehicles	55%	45%
Eco Driving campaigns	47%	53%
Bus&Bike	25%	75%
Orientering campaigns	61%	39%
Mobility activities in schools	56%	44%

It was observed that the level of familiarity with the various measures is high, with the Green Line the most well-known, 90% of those surveyed answered that they were aware of its existence, followed by Bus&Bike with 75%.

These results should also be considered as a side effect of the specific communication campaigns carried out through Facebook, on the PT Operator website and at local events (like Expo Madeira). As such, promotional activities developed in the scope of FUN 4.1 might have also contributed to raising awareness for this measure. But regardless of the campaigns, Bus&Bike acts as a promotional tool for cycling in the city because people saw the racks circulating in the city on a daily basis.

The high number of people that seem to be aware that the measure is running is also important to achieve a desired outcome of increased intermodality and modal split towards sustainable modes.

It is also possible that these results have changed in the final year of implementation, as a result of the launch of new activities in the frame of MIMOSA (survey was only conducted in 2011 and addressing measures that were already in motion).

4 – Usefulness level among drivers

To complement the information gathered within the description of indicator 2, the PT Operator found useful to gather the drivers' perspective on the Bus&Bike users, downside issues that prevented more people to use the service, and their general appreciation about it. They are at the forefront of the measure, and therefore their opinion is found important to get more in-depth understandings about this measure's success.

Table C2.5.2: Testimonials of bus drivers with regard to service usefulness (N= 9)

	Can you describe the main characteristics of the citizen who carry bicycles on the bus?	What did you think were the main things that prevented more people to use the bicycle racks?	What is your general appraisal with regard to Bus&Bike?
Driver 1	Young, male, always the same guys	No special reason	It's good
Driver 2	Young, male	Slopes (rough terrain)	It's a very interesting initiative
Driver 3	Young, male	No special reason	I don't think the racks and cycling in general suits Madeira characteristics
Driver 4	Young, male	Slopes (rough terrain)	Reasonable
Driver 5	Young, male	The itinerary	Reasonable
Driver 6	I always saw different people using the service, but they were all young	N/A	The service should continue to be provided
Driver 7	Young, male	The itinerary was not convenient	The service is not so useful
Driver 8	Young, male	The itinerary was not convenient	The service is good
Driver 9	Young, male	Lack of promotion of the service	Reasonable

Unlike what was found in the exemplary survey described in indicator 2, drivers share the impression that the user is male and not female. Most of the bus drivers find the service generally reasonable. Besides it is twice assumed that the itinerary would not be appealing enough to gather more citizens or to trigger their interest.

It would also be important to know drivers' perspective about why the target user didn't ride more often and what to the driver's think could be made to attract different kind of users. Unfortunately, no ideas about this were communicated by the drivers during the interviews.

C2.6 Cost-Benefit Analysis

In contrast to initial expectations, a CBA was not conducted because the number of users was fairly low (not more than 12 per month) and they travel free of charge, so benefits would be quite difficult to assess. This is hence more an awareness raising campaign. As a result, a cost-benefit analysis proved not to be possible.

C3 Achievement of Quantifiable Targets and Objectives

No.	Target	Rating
1	Increase local use of bicycle by at least 10% due to specific promotion of cycling;	(★)
2	Increase citizen's willingness to use bicycles in Funchal;	★★
3	At least 50% of citizens made aware of Bus&Bike	★★★
4	At least 1,000 bicycles transported on PT per year	O
NA = Not Assessed O = Not Achieved ★ = Substantially achieved (at least 50%) ★★ = Achieved in full ★★★ = Exceeded		

The frequency of bike use, (calculated through a survey in which residents of Funchal stated the different modes of transport they use every day and the degree to which they make use

of those modes) has grown by 0.7 percentage points in 2011 when comparing to 2010 figures meaning the desired outcome was not completely achieved (and this is the reason why the star has been placed within brackets). Furthermore, this achievement should be interpreted with caution because the sample is not statistically representative of the total population and the result cannot be directly attributed to Bus&Bike.

Moreover, residents of Funchal are envisaging in the bicycle a concrete transport option for their needs. Nobody in 2011 seems to have an intention to use bicycles less often, whereas, back in 2010, 25% of citizens considered that option. This last result is not random, but rather consistent and representative of a positive trend which relates to the fact that citizens of Funchal are now using bicycles more often than before the introduction of Bus&Bike. Again, the results have to take into consideration that Bus&Bike have contributed in a small share to this positive result, together with campaigns developed by the Municipality to increase bicycle use.

A first glance at the outcomes of Bus&Bike suggests that the general picture has hardly evolved. The number of bicycles transported on urban buses was, in fact, rather small. It seems that citizens of Funchal have realized that Bus&Bike is running, but remain reluctant about the added-value it can bring to their routines. It would be good to know, if there is a kind of cultural bias impeding citizens from hanging their bicycles on the back of buses. But shaping a profile of the Bus&Bike user was tricky and only a very rough approximation was carried out using a sample of a single user that was surveyed when riding the PT Green Line. To complement this information, a survey was carried out to bus drivers which identified the typical user as being young and male.

Another possible influence on the measure results lies in the low percentage of bicycle owners in Funchal (this indicator was not assessed but it can be reasonably estimated considering the city characteristics).

All in all, it is expected that Bus&Bike usage may increase in the future, but at a slow pace and never for commuting purposes. Instead, residents seem to perceive this service as useful for occasional trips, probably to aid and facilitate accessibility for leisure activities.

C4 Up-Scaling of Results

The unpredictability of bicycle usage may have given rise to the low patronage or support for this kind of service. It is however a strong conviction of local authorities that providing alternative choices for mobility is the way to go for a sustainable urban environment. Despite the limited range of its impact, Bus&Bike gave evidence of the strong integrative character of the project. This is most likely the reason why the PT Operator has chosen to take action in order to up-scale Bus&Bike to a new target group (tourists) and to a new catchment area (rural areas) in the frame of the SEEMORE project, an Intelligent Energy Europe project that will be developed between 2012 and 2015 and is tailored to change the travel behaviour of visitors to the relevant regions towards more sustainable transport modes.

Should politicians be convinced and made aware of any significant increases in bike use and bike ownership, it is also expected that they will create more cycling paths and the PT Operator can follow this trend by facilitating the connections between residential areas and these paths that can sometimes be far away and not easily accessible due to the high slopes that feature in the city of Funchal.

C5 Appraisal of Evaluation Approach

The impact related evaluation was based on the city-specific Local Evaluation Plan, which presented a detailed outline of this measure and raised it to a focus measure status, not only because it is typical of the set of measures that aim to achieve more energy efficient vehicle usage through a modal share change, but also because of the long range impacts it could have on different citizen's lifestyles.

Evaluation is not a one-time exercise, but rather a progressive process and thus as the measure moved into the implementation phase, it turned out to be obvious that it alone would not yield significant effects on urban mobility. For this reason the CBA which had been forecast was not actually implemented.

At the same time, Horários do Funchal were prepared to bundle the measure with the Green Line. The impact of the Green Line is however far wider and deeper than that which can be attributed to this measure, so bundling was not appropriate.

The data related to the number of people that cycle could have also been collected through on-street counts. However, the narrow streets in Funchal dissuade people from cycling during peak hours (when the counts were carried out), so the local partners found it was more appropriate to calculate modal shift by asking people which modes of transport they use. Arguably, by counting vehicles during peak hours one could be led to misunderstand the true number of cyclists, since it would be too dangerous for them to cycle on those streets during rush-hours. This assumption is an interpretation that an evaluator or a transport practitioner who knows the city characteristics can develop but it is yet not well-grounded in data collection.

Citizens had to give up their free time to answer CIVITAS questions. Therefore it was decided to provide incentives for them. This may have compromised the accuracy of the information collected from the surveys at the Expo Madeira exhibition as one can assume that the people who answered the survey were mainly interested in the publicised prize (raffle in which they could win a bicycle).

Another indicator that was supposed to be assessed and was not is the perception of usefulness of the service among the citizens. Many citizens reported that this measure was important to them, even if they have not actually used the service. A more efficient way to assess acceptance therefore lies in the factual number of bicycles transported which was far lower than what was initially forecasted.

Furthermore, due to the low number of users the PT Operator hardly had any chance to survey the Bus&Bike users. Therefore it was not possible to track down the profile of the user with accuracy and understand what prevents people from using that service more often. Only one person was involved, and therefore the evaluators shifted the approach and asked bus drivers to give their impression about the use of the service. Theoretically speaking a small scale of a measure can be easier to evaluate and understand in depth. But in the real service exploitation it was almost impossible to collect user-related information about the service and on the other side to motivate drivers to collect this data.

On the positive side, thanks to CIVITAS-MIMOSA, technical implementation was tested and baselines were fixed which now represents a reference for further projects.

C6 Summary of Evaluation Results

The key results are as follows:

- **0,7 percentage points increase of bike usage** – The frequency of bike use has slightly risen and citizens intend to maintain levels of usage or even increase them in the future. The campaigns developed by the Municipality of Funchal within the framework of the Awareness Raising Measure (FUN 4.1.) to boost cleaner vehicles and alternative fuels could have played a role in achieving such a successful result. It should be noted that the results accomplished for bike usage are not representative of the city population and therefore require further study to look for statistical evidence and meaningful variations.
- **Only 56 bicycles transported via public transport in one year** – This result is much less than predicted, but there is some evidence to indicate that some PT users are considering giving Bus&Bike a try in the future, though for occasional trips and not for regular trips or to commute;
- **High awareness levels** – The Bus&Bike measure scored second highest in terms of awareness level (measured in 2011), almost one year after implementation (75% of locals are familiar with this measure). Of course it should mention that this effect is not a result of the measure itself alone. The communication campaigns which led to the awareness of the measure have arguably contributed to this result, giving a boost to softer modes of transport in a hilly city.

C7 Future Activities Relating to the Measure

Following the implementation of this measure, integrated bicycle promotion on buses moved to the forefront of Madeira policy. The regional government, together with Horários do Funchal, applied for an Intelligent Energy Europe project to extend Bus&Bike onto interurban routes. This application was successful and one should expect to see interurban buses transporting bicycles in the coming months/years. This project is named SEEMORE (*Sustainable and Energy Efficient Mobility Options in tourist Regions in Europe*) and is mainly focused on tourism, so as bicycle renting enterprises open their business and flourish, it is very likely that with proper promotion, tourists will start riding not only on urban buses with their bicycles but on interurban buses as well.

D Process Evaluation Findings

D0 Focused Measure

Reason		
The measure fits into the city policy towards sustainable urban transport and / or towards sustainability in general	1	Most important reason
The measure fits into the EU policy towards clean urban transport (five pillars of the EU Green Paper)	2	Second most important reason
The expected impact on the transport system, environment, economy and/ or society / people was very high	3	Third most important reason

D1 Deviations From the Original Plan

The deviations from the original plan comprised:

- **Municipality endorsement** – A new interest in bicycles arose during the implementation period, and the Municipality raised bicycle promotion as one of their top priorities for the election period. During this period (2010-2013), they have launched an extension of the actual cycle lane, linking this stretch located on the west boarder of the city to the city centre, thus enriching this measure.
- **Swapping/enlarging the catchment area** – It was planned to implement this measure solely in the Green Line impact area , that is, on the West side of the city, along the sea, where the terrain is more flat. However, the local team teamed up with stakeholders and decided that it would be better to extend the measure to more hilly areas, so that people could take the bus when going uphill and then eventually descend by bicycle.

D2 Barriers and Drivers

D2.1 Barriers

Overall barriers

- **Lack of data about cycling (7 –Planning)** – As stressed in the R&D section, no data about cycling usage was available in Funchal. The collection of this data only began during the development of MIMOSA and further research still needs to be conducted in order to capture the profile of cyclists in Funchal, their habits, what they enjoy most about cycling and what their recommendations for decision-makers to develop cycling-friendly policies would be.

Preparation phase

- **Lack of cooperation among other CIVITAS cities (6 – Positional)**– Following the Krakow forum, Horários do Funchal noticed that similar and more advanced projects were being developed in other CIVITAS family cities. The communication between cities that did not belong to the same consortium was however hampered by some unexpected difficulties. CIVITAS is all about sharing knowledge between cities with extensive use of innovative mobility systems and follower cities, so it was surprising to

note that cities did not give feedback in response to questions sent to the e-mail address of the responsible project team.

- **Lack of local stakeholders' consultation** (5 – *Involvement, communication*) – The local team has also experienced difficulties in bringing shop owners together to attend the technical workshop held in HF headquarters. Among those who did not attend a workshop meeting to organise the pre-conditions for this measure implementation were small and medium sport enterprises, especially those who sell bicycle items. Their views and perspectives could have been especially helpful in understanding the role they might play in the service, as well as to see which kind of bicycles would suit the slots that HF had purchased. Admittedly, the stakeholder consultation could have run better if the companies had been invited sooner (more days in advance).

Operation phase

- **Difficulties in promptly managing the communication with the target public** (5 – *Involvement, communication*) – Despite the enthusiasm in response to the opening of the new cycle lane, reference was never made to the integration with the Bus and Bike measure project. Bus and Bike is considered to be one of the measures that raises more excitement among citizens and tourists, so a focus could have been given to it. The main communication channel of MIMOSA which is the Facebook page has also failed to accomplish significant commitment and interest among the locals. Participants in the Learning History Workshop (held in 2011) have mentioned that the Facebook page received complaints that the service was not being deployed on one route and the administrator of the Facebook account had deleted them. Only then did HF publish on its website that for maintenance reasons, the service was suspended on that route. This event clearly shows that the process of updating information with regards Bus&Bike was slow and not very effective. This occurred because transporting bicycles and promoting cycling activities is not the core business of the PT Operator. Moreover, no Bus&Bike news-items were published after the service implementation. The fact that the national mobility by bicycle award was given to a company for publishing a principles letter, rather than to Horários do Funchal for conducting a real test in a rough terrain such as Funchal provides additional evidence and suggests that the communication and dissemination of this measure could have worked better.
- **Citizens did not realize the service was free of charge** (5 – *Involvement, communication*) – Another process that didn't run as expected was that some citizens seemed to be unaware that the service is running free of charge (no additional fee is claimed from PT users).
- **Bicycle as a niche usage and structural deficit of cycle-friendly policies** (3 – *Cultural*)– The low number of commuters that cycle is related to the structural circumstances (mainly the high slopes), even though some surveys point out that cycling is becoming increasingly popular. The slopes enhance the cultural trend to not use bicycles as a main mode of transport. Those who use it, often stress that it is unsafe as they have to share the narrow streets with motorised vehicles. The fact that the only cycle lane is less than 1 Km in length clearly shows how difficult it is to stimulate more people to purchase and use a bicycle.

D2.2 Drivers

Overall Drivers

- **Growing sustainable transport habits policies (3 – Cultural)** – Driven by tourism, local citizens are beginning to become interested in cycling, mainly for leisure goals. As the number of cyclists increases, economic representatives in Madeira are establishing services to rent bicycles or to organise guided trips for bicycle fans which in turn can favour Bus&Bike in the future.
- **Bike racks and decorated buses are making streets more alive (5 – Involvement, communication)** – The new equipment catches the attention of people along the central street and helps to spread the culture of mobility by bike in a place where many people don't think about the bicycle as an appropriate mode to travel around the city.

Operation phase

- **Measure well-known amongst locals (5 – Involvement, communication)** – Bus&Bike has benefited from being one of the most iconic measures developed so far in MIMOSA. This new service pretty much sells itself. Communication campaigns are useful to target some clusters of citizens, but the main interested citizens can easily access information on how to use the service on the PT Operator website, as well as on flyers and brochures that provide quite extensive information and tips about the service. According to a survey conducted in 2012, this is one of the measures that locals are more aware of. Even though citizens are not using the service as much as one would wish, it is important that they know that this service is being provided and that they can use it whenever they feel confident in doing it so. The buses equipped with bike racks are also a visible sign of the city's desire to promote sustainable transportation. This continuous visibility serves to increase awareness of sustainable transportation among the residents of Funchal. Hence it plays a role for the Municipality and the Regional Government in their strategy of shifting the share towards greener and softer modes of transport.

D2.3 Activities

Overall activities

- **Entailing Bus&Bike in wider and forthcoming projects (6 – Positional)** – within SEEMORE, the PT Operator liaison with the Regional Government made a commitment to study in depth the best way to engage more Bus&Bike users and both projects will be engaged in looking for other spots in the network where this measure can be upgraded. This activity also mirrors the joint commitment in maintaining and even expanding this integrative package.

Preparation phase

- **Taking synergies out of the main events (1 – Political/strategic)** – HF and the Municipality launched the Bus&Bike service as a flagship event at the European Mobility Week. Also the bicycles raffled during the Expo Madeira exhibition (in cooperation with the Municipality measure for awareness raising campaigns) had strong ties with the measure, intended to boost the local market of bicycles and bicycle users.

- **Decision to make the service free of-charge (2 – Institutional)** – HF decided, during the technical workshop which was made reference to in the section on barriers above, to make the service free of charge, so as to achieve breakthroughs in a context where cultural inhibitions are strong and severely undermine the rise of a new mobility culture.

Operation phase

- **Promotion of Bus&Bike as a success story (5 – Involvement, communication)** – The local partners have included Bus&Bike in the 2011 CIVITAS FORUM agenda as a study tour. Moreover, after being aware that the mobility prize for cycling among public transport companies was given, in 2011, to a company which solely developed a principles charter, Horários do Funchal has communicated its strong disappointment with this selection to the National Association for cycling. The National Association was receptive and promised to consider this application in the forthcoming year. They also took the chance to give further exposure to the Horários do Funchal case study (the newsletter they have published in their website about Bus&Bike is available at the below link:

http://www.fpcub.pt/pt/index.php?option=com_content&view=category&layout=blog&id=15&Itemid=100007&limitstart=8).

D3 Participation

D3.1 Measure Partners

- **Horários do Funchal** was responsible for this measure and the management of the Green Line.
- **The Municipality of Funchal**, as a MIMOSA partner, supported Bus&Bike by promoting cycling and the measure itself at a range of events and helping to collect data for evaluation.

D3.2 Stakeholders

- **The Regional Government for transport affairs** were responsible for the approval of the equipment installed on the buses and supported HF in its application for approval for the SEEMORE project which aims to up-scale the service.
- **The local cyclist association** supported the definition of the service and the communication strategy.
- There were no other stakeholders as those who could have had something at stake with the measure chose not to be involved by not attending the workshop in which the service characteristics were defined.

D4 Recommendations

D4.1 Recommendations: Measure Replication

- **Use social media for communication purposes**– The participants of the Learning History Workshop have outlined that new communication approaches were needed so as to make the service “alive”. One way to do that is to create videos, explaining how

people can lock the bicycles in the bike racks installed near the bus stops, and put them on *You Tube* and on the *Horários do Funchal* website, . Another communication tip includes the creation of a stream on the Facebook website, (this could be called “I cycle to work in Funchal”) to connect the service users with each other and share experiences. All of these tips were not implemented in Funchal but cities taking up from this experience should develop these online and social media activities to give a boost to the service.

- **New solutions for bicycle carrying must be found** – It goes without saying that the secured bicycle racks capacity (each bus carries a maximum of 2 bicycles at the same time) might have been a barrier for families or groups of friends who might have used the service. A solution that enables the transportation of more bicycles is needed.
- **Bus&Bike is a solution for expanding the cycling possibilities of urban residents living on hills** – Even though Bus&Bike has not yielded outstanding effects in the short-term, this pilot project was developed with a small budget. So it can easily be upscaled for hilly cities which have long had a policy focus on cycling or that still lack a widespread cycling culture.

D4.2 Recommendations: Process (Related to Barrier-, Driver- and Action Fields)

- **Bundling between the PT Operator, the Municipality and the Regional Government-** It is advisable to work together not only with the Municipality but also with the Regional Government in order to improve the integration of all sustainable transport modes in a Region as a real alternative to the use of private car.
- **Develop complementary measures** – In order to enhance the success of measures which support cycling in a city, it is advisable to implement other complementary measures at the same time. The approach of Bus&Bike could have been developed in a more integrated way with other CIVITAS measures, i.e. the electric and hybrid vehicles measure and the Green Line, making an integrated package with tourist kit for example.
- **Foster promotional approaches that really address people’s or institutions’ needs**– The technical workshop was useful to highlight the fact that small and medium companies did not respond and give feedback when asked for their opinion. The question now is how to bring them together and lead them to actively promote the new service. One way to pursue this goal is to create incentives, for example, to design a marketing campaign where whoever purchases bicycles can win free PT trips. Further communication approaches ought to focus on a concrete cluster of citizens, such as the high level students. The University can be similarly approached. Whoever purchases a bicycle in Madeira can win a monthly pass or a ticket to trial the Bus&Bike service.