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**CiViTAS**  
 Cleaner and better transport in cities

# DESTINATIONS



## D6.1 Users' needs and requirements, ex-ante evaluation, service design and ITS specifications for measures

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Site abbreviations:

ELB - Elba

LIM – Limassol

LPA – Las Palmas de Gran Canaria

MAL – Malta

MAD - Madeira

RET – Rethymno

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## Executive Summary

This report details the results of the user needs analysis, the definition of service requirements and ITS specifications for all WP6 measures in each site as outputs of Task 6.2. It also looks ahead to the implementation phases of the various measures across the six project sites and within the measure categories.

Chapters 3, 4 and 5 present the individual measures, grouped into the three clusters. This structure allows for immediate comparisons to be made about the design and preparation work in different sites and hence experience and knowledge to be exchanged.

# 1. Introduction

## 1.1. WP6 Objectives

WP6 sees the demonstration of a package of mobility services and online applications that are designed for both the needs of tourists and residents and therefore make better use of transport capacity.

Specifically, the following objectives are assumed for WP6:

- To design, implement and demonstrate actions able to achieve behavioural change across the sites amongst customers, visitors and stakeholders, based on:
  - Mobility management, travel plans, mobility agencies, combined products for tourism and residents, green labels and award schemes (Madeira, Rethymno, Elba, Limassol, Malta);
  - Stimulation of competition through gamification of mobility, green credit schemes, mobile phone applications (Madeira, Las Palmas de Gran Canaria, Elba, Limassol, Malta);
  - Management of mobility demand through low emission zones and smart parking guidance systems (Madeira, Limassol and Malta);
- To guarantee the common objectives related to horizontal activities:
  - To adopt stakeholders engagement strategies and the implementation of specific promotional measures to support the demonstration set up and operation;
  - To carry out data collection for WP9 evaluation (ex-ante, process, ex-post);
  - To derive cross-site evidence and conclusions for the set of measures addressed in this WP in terms of business and transferability potential (as input for WP10)

## 1.2. WP6 Structure and Tasks

The structure of WP6 reflects the typical stages defined by the DESTINATIONS project for the demonstration activities allowing thematic/knowledge exchange among the DESTINATION sites:

- Cross-site coordination;
- User needs analysis and stakeholder involvement;
- Site preparation and deployment of the solutions;
- Demonstration of innovative solutions;
- Data collection for evaluation;
- Local dissemination and communication.

### 1.3. WP6 Measure Clusters

The measures in WP6 are grouped into three cross-site clusters (relating to the three tasks in the DESTINATIONS work programme):

- Mobility Management and Travel Plans (Task 6.4);
- Behaviour Change through Competition (Task 6.5);
- Low Emission Zones and Parking Management (Task 6.6).

Each cluster (and task) is presented in a separate chapter in this report allowing for the cross-site analysis of like-for-like measures. Enclosed below is a summary table of the measures and their clusters which acts as a useful reference tool for the report.

WP6	Mobility Management and travel plans (Task 6.4)
ELB 6.1	Combined products for tourism and mobility: the accommodation and mobility package
LIM 6.1	Awareness on the use of sustainable mobility modes for leisure trips
LIM 6.2	Combined tourist and mobility products: Green Label Award and Tourist Mobility Card
MAD 6.3	Mobility management planning tools for tourists and local tourism operators
MAL 6.1	Green Mobility Hotel Award
RETH 6.1a	Sustainable mobility agency for tourists/visitors, Sustainable Mobility campaign & Eco-drivers capacity building
RETH 6.1b	New products combining tourism and mobility

WP6	Behaviour change through competition (Task 6.5)
LPA 6.1	Green credits scheme
LIM 6.3	Bicycle challenge: competition between employees of companies
MAD 6.1	Gamification as a way to induce behavioural change in Mobility
MAD 6.2	Green credits: A Business Model for Mobility, Sustainability and Tourism
MAL 6.3	Promoting sustainable mobility among tourists
RETH 6.3	Green Mobility Card

WP6	Low emission zones and parking management (Task 6.6)
LIM 6.4	Smart parking guidance system
MAD 6.4	Low emission zones and smart parking management
MAL6.2a	Introducing Low Emission Zone
MAL 6.2b	SMS Alert App
MAL 6.4	Smart parking management system for Valletta
RETH 6.2	Low Emission Zone Study

**Table 1 – Measure Clusters**

## 2. User needs analysis and requirements at site level

### 2.1. Madeira

#### 2.1.1. Key stakeholders

The key stakeholders identified for measures in WP6 are as follows:

- Hotels in target area;
- ACIF (Chamber of commerce);
- AITRAM (Taxi association);
- APRAM (Harbours Administration of Madeira);
- DREM (Regional Statistics Authority);
- M-ITI (Madeira Interactive Technologies Institute);
- Private rental bus companies;
- Other regional Public Transport Operators;
- Schools in the target area;
- Software Development Companies.

Of these stakeholders, hotels have been classified as having the highest power and highest interest and hence are a priority in terms of successful engagement. Chambers of Commerce are high power and low interest and must be kept satisfied so that they begin to support project outcomes.

#### 2.1.2. Recognised Needs and Goals

WP6 in Madeira delivers four measures. These aim to design, implement and demonstrate initiatives that are likely to boost the mobility demand management and awareness for sustainable mobility of tourists visiting the region.

#### **Mobility management measures in Madeira - (MAD 6.3) - Mobility planning for tourism related companies.**

SRETC supported by HF, CMF, AREAM will adopt mobility management techniques in the tourist sector focusing on hotels and main touristic attractor locations, transforming the tourist operator into ambassadors. Behavioural techniques will be tested through real life examples.

#### **Gamification of mobility and green credits in Madeira - (MAD 6.1) - Gamification as a way to induce behavioural change in Mobility and (MAD 6.2) - Green credits: A Business Model for Mobility, Sustainability and Tourism.**

ARDITI and HF (+ SRETC, CMF and AREAM) will install a prototype of interactive bus stop, driving /bus simulator for PT operators, geocaching competition events. HF supported by other local partners will introduce a regional and urban green credit scheme based involving at least 30 institutional and business partners involved.



## Introducing low emissions zones, flexible use of streets and smart parking management in Madeira - (MAD 6.4) - Low emission zones and smart parking management.

HF, CMF and AREAM will test coordinated traffic management actions tuned to the strategic traffic plan. This sees the creation of three traffic calming zones, the introduction of two reverse traffic streets, the activation of PT priorities at three relevant traffic junctions and innovative passenger counting schemes and mobility sensors.

### Activities to date

The table below indicates key target groups being contacted and progress so far.

<i>Measure / partner</i>	<b>Target Group</b>	<b>Category</b>	<b>Activity conducted</b>	<b>Date</b>	<b>Following activities</b>	<b>Date Envisaged</b>
<i>MAD 6.4/ CMF</i>	Public transport users	Touristic operators; Interurban public transport	Request of information regarding bus frequency and passenger coverage	M9	Traffic counts to support the bus corridor simulation	M12
	General population	Social media, Press	Meeting to promote actions. Planning of activities under the Mobility Week 2017	On-going	Mobility Week 2017 Media coverage of implementation of strategic actions	On-going
	Public/private parking lots	La Vie, Forum Madeira, CR7 Park, S.Martinho, S.António,	Request of information regarding prices and average use	M9	Definition of strategic plan to revise the parking pricing policy	M13
<i>MAD 6.1./ ARDITI (also integrates with MAD 6.2)</i>	Public transport users and PT Operator	Urban and inter-urban public transport	Meetings with LuxMobility, Positive Drive / IjsBerg and Bologna Municipality, regarding existing solutions, experiences and example cases.	M6 – M9	a) focus on the design of the system(s) (architecture): i) gamification; ii) interactive bus-stop; iii) driving simulator; b) Launch pilot on Gamification and Green Credits.	For a) M12-15  For b) M15-16

**Table 2 – Madeira Activities**

## 2.2. Limassol

### 2.2.1. Key Stakeholders

Limassol has identified the following key stakeholders for their site:

- Hotels;
- Local media;
- Local authorities and urban planners;
- Limassol Bus Company;

- Tourist attractions and museums;
- Cyprus Tourism Organisation, Tourist information offices;
- Chamber of Commerce;
- Limassol Cycling Club;
- Bikin' Cyprus;
- Parking owners;
- Traffic Department (police);

For LIM 6.1, hotels will be involved in the distribution of information, maps and promotional material to create awareness on the available sustainable modes of transportation. In addition, hotels will promote events and festivals organized with the purpose to increase awareness on the use of sustainable mobility for leisure trips. The local media will play a key role in the implementation of the campaigns for electro-mobility, using various media tools, as well as printed material to be disseminated to the general public. Local authorities will be involved in the coordination of the training for urban planners. The aim of the training is to create awareness on greener planning.

For the Green Label Award and Tourist Mobility Card (LIM 6.2), hotels will participate in the Green Label effort supporting sustainable mobility and to promote the Tourist Mobility Card to guests. The Limassol Bus Company, bike sharing and bike rental companies will offer incentives to Tourist Mobility Card users. Tourist attractions, museums and local businesses will offer discounts or other incentives to card users. The Cyprus tourism organization and tourist information offices will promote the Tourist Mobility Card and support this effort by introducing the card to visitors.

For the bicycle challenge measure (LIM 6.3), the Limassol Chamber of Commerce and the Limassol Cycling Club will promote the bicycle challenge and motivate employees to use the bicycles to commute to work.

For the Smart Parking Guidance measure (LIM 6.4) there will be close cooperation with the police traffic department, as well as with companies or individuals that manage parking places in Limassol city centre interested to take part in the information system. The Cyprus tourism organization information offices will also promote this measure.

### **2.2.2. Recognized needs and goals**

The goal of the promotional campaigns (LIM 6.1) is to reduce CO<sub>2</sub> emissions, traffic noise and energy consumption in the city centre, increase the total share of citizens that use sustainable mobility modes to make Limassol a more attractive tourist destination by changing the habits of local people and tourists and promote public health and safety.

There is a lack of information available to tourists and local residents regarding the available sustainable mobility modes. The Tourist Mobility Card (LIM 6.2) aims to increase awareness and provide tourists with information and guidance on how to travel around the region for leisure using sustainable mobility modes. Through competitions, tourists will be informed about the available modes of transportation for leisure trips.

Most locals use cars to commute to work daily. The bicycle challenge (LIM 6.3) aims to change the habits of locals and help them become actors in their own town. Locals will be

encouraged to improve their health, in addition to promoting cycling. Increased use of cycling will lead to provision of more infrastructure which will be an attractive element for visitors. The goal is to reduce CO<sub>2</sub> emissions and traffic noise in the city centre and increase the total share of citizens that use sustainable mobility modes. This will make Limassol a more attractive tourist destination which will have a positive economic impact.

Parking in the city of Limassol is a challenging issue. Excessive traffic congestion is a major disadvantage not only for tourists travelling by car but also for tourists visiting the city centre due to extensive noise, high CO<sub>2</sub> emissions as well as comfort and safety issues. LIM 6.4 will allow the Municipality of Limassol to significantly reduce unnecessary traffic congestion in the city centre. Smart sensors and further smart electronic devices will be made available to car drivers through mobile applications and variable message systems will provide crucial information regarding parking space availability. The measure will improve the whole mobility system, not only for tourists travelling by car but it will also improve leisure potential of tourists visiting city centre due to decreased traffic/noise/CO<sub>2</sub> emissions and improved safety levels.

### **Activities so far**

To date, Limassol has collaborated with the Troodos Tourism Board and Bikin'Cyprus for the implementation of the competitions, the Cyprus Tourism organization information desk and hotels for the promotion of the events and competitions. Limassol has also worked with parking owners and the traffic department to introduce this measure.

## **2.3. Las Palmas de Gran Canaria**

### **2.3.1. Key Stakeholders**

The below list of Stakeholders has been identified for consultation:

- Cabildo de Gran Canaria (Regional Government);
- Patronato de Turismo de Gran Canaria (Gran Canaria Tourism Board);
- F.E.H.T. – Federación de empresarios de Hostelería y Turismo de Las Palmas (Business Federation of Hotels and Tourism of Las Palmas);
- Federación de Empresarios del Transporte (Business Transport Federation);
- Other business associations;
- DESIC;
- Urban public transport customers;
- Urban public transport drivers and workers;
- Trade unions of Guaguas Municipales;
- Neighbourhood associations;
- Citizens and visitors.

Guaguas Municipales will try to get the commitment of local business to take part in its LPA 6.1 Green Credits Scheme) through the engagement of business associations and the involvement of the local and regional government. People who do not use urban public transport will be incentivised to change their mobility behaviour.

The kick-off training planned for October 2017 offers Guaguas Municipales the change to develop a strategy to involve as many stakeholders and business as possible to be able to

offer to customers interesting discounts and quality products as part of the loyalty system being implemented.

### 2.3.2. Recognized needs and goals

The main goals of WP6 measures in Las Palmas de Gran Canaria are:

- Improving the perception of public transport and sustainable modes;
- Increasing public transport alternatives;
- Introduction of an innovative green credit scheme at the local level, based on a mobile application and web platform;
- Involvement of at least ten institutional and business partners;
- Raise awareness about sustainable modes of transport;
- Reduced emissions / improved air quality;
- Reduction of noise, emissions and fuel consumption.

Las Palmas de Gran Canaria has already developed a SUMP (2009-2012) where a detailed diagnostic of mobility was set up and the result was a set of strategic measures for urban mobility. Some of these measures have already been carried out and others are still waiting to be implemented.

According to this sustainable urban mobility plan, the modal split in Las Palmas de Gran Canaria was concluded that 67% of all trips were being undertaken using private cars, either as a driver or a passenger, and only the 12% of all trips belonged to urban public transport.

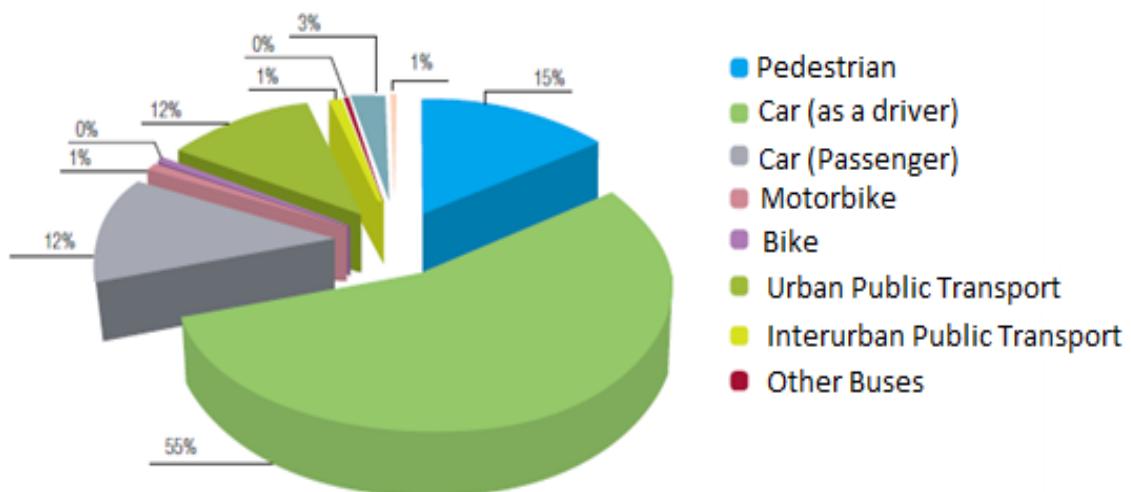


Figure 1 - Modal Split Las Palmas de Gran Canaria

CIVITAS DESTINATIONS will support Las Palmas de Gran Canaria in fostering the uptake of new customers to urban public transport and the consolidation of those ones that already travel by bus. This will be through the development of a loyalty system based on the collection of points that could be exchanged by promotions or discounts at business who are interested in taking part.

An identified gap in the market is the lack of loyalty system for urban public transport in Las Palmas de Gran Canaria. There is a potential non-captive market that can be attracted to urban public transport from other modes of transport, especially from private vehicles.

### Activities so far

Internally, Guaguas Municipales (the urban public transport company of Las Palmas de Gran Canaria) has identified the best way to develop its WP6 after a brainstorming session with a multidisciplinary team. Guaguas Municipales has already met with an ITS specialized company, so the specifications and technical requirements for Las Palmas de Gran Canaria WP6 measure have been defined.

## 2.4. Malta

### 2.4.1. Key Stakeholders

The below list of stakeholders has been identified who wield both high interest and high power with reference to the measures being delivered in Malta:

- Malta Hotels and Restaurants Association;
- Malta Tourism Authority (high interest and high power);
- Ministry for Sustainable Development, Environment and Climate Change;
- Ministry for Tourism;
- Ministry for Transport and Infrastructure;
- Transport Malta;
- Transport Malta: Integrated Transport Strategy Directorate;
- Transport Malta: Land Transport Directorate;
- Transport Malta: Licensing and Testing Directorate;
- Transport Malta: PR Unit;
- Transport Malta: Traffic Management Unit;
- Valletta Local Council;
- Transport Malta Ports & Yachting Directorate;
- Cruise Liners;
- Association for Handicapped People;
- Association for Visually Impaired People;
- School parents association;
- National Association of Electric cars.

The Ministry for Tourism is the lead partner for the **Green Mobility Hotel Award measure (MAL 6.1)** and will see to the overall design and implementation of the measure. They will be assisted and guided by the Malta Tourism Authority and Transport Malta each contributing according to their area of expertise. The Ministry for Sustainable Development, Environment and Climate Change, and Ministry for Transport and Infrastructure will also be providing their support. The target group of this pilot initiative are the operators of the hotel sector. Efforts shall be undertaken to possibly extend the initiative to other operators in the tourism industry, following project completion. The main concept behind this measure is to stimulate the design of a “Green Mobility Plan” for Hotels, similar to a SUMP for a locality.

It is important to note that measure MAL 6.2 is technically subdivided between two main outputs: testing the Low Emission Zone Concept and developing and launching an Emissions Alert App.

For the **Low Emission Zone (MAL 6.2a)** the target group will technically be the residents and visitors to Valletta since they will benefit most from cleaner air quality within the city. However, this will take place in the long term, once the Low Emission Zone is implemented physically, which will not take place during the lifetime of the DESTINATIONS project.

In terms of the **Emissions Alert App (MAL 6.2b)**, the target audience will mainly be road users since the app will be launched specifically to allow road users to report visibly high polluting vehicles. Due to the nature of the App, it is impossible to restrict its launch and use and, by consequence, its effects to the Valletta region. Therefore, the main beneficiaries of this app shall be the general public on a national level.

Regarding **promoting sustainable mobility among tourists (MAL 6.3)**, Transport Malta, the University of Malta and the Ministry for Tourism will test and launch a mobile application providing useful and interesting information to encourage a change in the travel behaviour amongst tourists towards greener mobility options.

Stakeholder consultations will be carried out in order to compile and analyse user needs and assist with baseline data collection about current tourism transport. This will help with the design of the specifications for the App. The University of Malta will develop the App and a testing and verification period will follow in order to fix any issues. Following this, it will be launched together with a marketing campaign. The design itself will greatly rely on the stakeholder consultation to be undertaken during the design process, its end objectives and the proper application of data protection laws.

Valletta Local Council, the lead partner for **Smart Parking Management System for Valletta (MAL 6.4)**, will be supported by both the University of Malta and Transport Malta. The University of Malta will be assisting in the evaluation of data while Transport Malta will be assisting in the Information and Dissemination.

#### 2.4.2. Recognized needs and goals

Considering that transport is the second largest emitter of GHG emissions in Malta, and considering also the fact that tourism is one of the largest sectors in the Maltese economy, with a direct contribution of 14.1% to the GDP in 2016, it is important that the responsibility of promoting sustainable mobility is shared by the hotel industry.

The **Green Mobility Hotel Award and Labelling scheme (MAL 6.1)** which will be developed through this pilot shall focus on the entire operational practices adopted by the hotel industry from front to back office operations which influence green mobility and which are also related to customers, employees, suppliers and other related stakeholders who service the hotel industry. This award and labelling scheme is a voluntary initiative and adds real value to business credentials and company image by boosting company efficiency and by creating positive implications on the carbon footprint, climate change and corporate social responsibility.

This scheme is complementary to other initiatives that are currently in place in the sector. One example is the national eco-certification scheme managed by the Malta Tourism Authority (MTA) which focuses on ensuring the environmental, socio-economic and cultural sustainability of hotels on the Maltese Islands and has been recognized by the Global



Sustainable Tourism Council as fully reflecting GSTC criteria. It is a legal requirement for new hotels that 'within six months from the issue of the license, the property conforms to the requirements of the Eco Certification Scheme'. Currently 22 hotels are eco-certified and these represent 16% of hotel accommodation in the Maltese Islands. However, the Eco Certification Scheme currently does not include transport as one of its requirements for certification.

The **Emissions Alert app (MAL 6.2)** shall support, and later replace, a system which is currently operated by Transport Malta. The SMS Emissions Alert system operates by receiving SMS reports from the public listing the registration plates of high polluting vehicles spotted on the road. Once one registration plate receives three reports, the vehicle owner is called in by Transport Malta and a roadworthiness test is performed by the Authority. Should the vehicle be found faulty, the owner is given a timespan in which he/she is allowed to fix the fault and then report back to Transport Malta to assess whether the vehicle is roadworthy or not. If the vehicle is found not to be roadworthy, the vehicle is scrapped.

The system shall be modified so as to test how vehicles can be charged depending on their emissions rather than for the duration of stay, thus essentially transferring a road toll system to a Low Emission Zone. This project is a pilot, and will be adopted as a data collection exercise to test to what extent the Controlled Vehicular Access System can be operated as a Low Emission system. Data collected from this pilot will be used by Transport Malta to assess the feasibility of the concept in the local context. Based on this, future policy will be designed and proposed accordingly. The new app will have an automated back-office system and hence replace the current inefficient manual system.

Scheduled hop-on hop-off buses and a network of ferry services offer options which connect the tourist resorts to the most popular tourist attractions, namely Valletta and Cottonera, yet 22% of all tourists still opt to hire vehicles during their stay on the island.

Currently there is one App (*tallinja*) which provides travellers with information about the bus services, routes and schedules. However, no App exists which integrates different intermodal transport information. The App to be created in **MAL 6.3** shall inform tourists on all the public transport modes which are available for their use to reach the main tourist attractions. A credit scheme for sustainable mobility for tourists is being considered, however this shall depend on the options available and how these fit in within the local context. Apart from encouraging the use of sustainable mobility with visitors to the island, it aims to serve as a data collection system to assess tourist mobility which will help in long term tourism transport infrastructure planning. At the moment, very little is known as to how tourists travel during their stay.

**MAL 6.4** includes the installation of sensors in specific off-street and on-street parking areas in the city of Valletta to manage the demand and supply of parking in the city. Data will be collected remotely. A parking management plan for the city will be compiled including the software and infrastructure necessary to implement the smart parking management system. This seeks to solve the lack of parking availability within Valletta which is at saturation point. With an approximate total of 5,000 residents, Valletta sees ten times the number of visitors daily: these include tourists, workers and shoppers. Rat running by visitors in search of parking within the city is highly common.

The smart parking management system, through the installed sensors, will inform drivers about parking availability. This has the potential to reduce journey times in the city and hence improving air quality. The objectives of this measure include the potential for reduced congestion in the city of Valletta, improvements in the energy efficiency in transport (through reduction of cruising) and an improvement in travel awareness amongst road users.

## Activities so far

The Ministry for Tourism has started Consultations with both Transport Malta and the Malta Tourism Authority on (MAL 6.1). Moreover, the Ministry for Tourism has drafted a tender that will procure the external expertise required to draft the criteria required to implement the hotel audits, and implement the audits themselves. During the drafting of this tender, the Ministry for Tourism held the necessary discussions with the partners within this Measure to define the weighting systems for the selection process and the tender has just been published.

In terms of the Low Emission Zone pilot (MAL 6.2a), consultations have started with the CVA Operator to assess the current status of the CVA system and how this can be modified into a low emission zone system. Consultations so far have determined the number, type and cost of the equipment required as well as the exact location where the additional equipment is to be installed. Basically, additional cameras are necessary in order to capture entrance and exit of vehicles on the entire Valletta peninsula.

In terms of the Emissions Alert App (MAL 6.2b), consultations have started with all the relevant departments within Transport Malta as listed above. A gap analysis is currently being performed to assess what is lacking in the current system and how this can be improved in the new system to be launched through the App.

One-to-one consultations have started with partners within the DESTINATIONS project who are developing similar applications in order to gather information and design the new system (MAL 6.3).

Consultations between the local partners to this measure have started in order to discuss and design the system (MAL 6.4.). Moreover, the Council has commenced the compilation of the specifications required to procure the sensors and related software. These specifications shall be discussed with Transport Malta, and within WP8 of this project, prior to publication.

## 2.5. Rethymno

### 2.5.1. Key Stakeholders

The key stakeholders with high power and high interest with reference to Rethymno's WP6 measures are:

- Municipal Tourism Board;
- Hoteliers Association;
- PT Operators - KTEL West/East Crete Bus Services;
- Regional Unit of Rethymno – Region of Crete;
- Region of Crete - Directorate of Tourism;
- Chamber of Commerce and Industry of Rethymno;
- Association of Travel and Tourist Agencies, Tour operators;
- Taxi Unions and Private Transport services;
- Union of car rental enterprises;
- Association of Active Citizens;
- ATLAS Cycling Union;
- Association of Restaurants;
- Traders Association of Rethymno;



- Parking operators.

Collaboration between tourism and the mobility sectors is essential for the set-up and successful operation of the Mobility Agency (RET 6.1a) and the promotion of the new tourist products (RET 6.1b), including transport services and public authorities. Specifically, the engagement of tour operators, hotel booking services, ferries, charter flights and “vacation package” operators and other tourism stakeholders is vital in order to promote sustainable travel choices and to support the Sustainable Mobility Agency operation and services / products developed. The engagement of civil groups is also essential for the acceptance and use of the new services amongst residents while the analysis of needs and strong promotion will reach the tourists.

The Limited Emission Zone (LEZ) study (RET 6.2) will be linked to the SUMP and the proposed regulation changes can be incorporated in future transportation policies, with the consultation of the regional and local urban planners, PT operator and other mobility actors.

For the Green Mobility Card (RET 6.3) the close cooperation with the PT operator is essential for the definition of tickets and selling points systems, while local shops/ restaurants, travel agents, leisure and tourism attractions/other sponsors and relevant associations could collaborate in the future implementation offering discounts, gifts to promote the use of the green credits scheme.

## 2.5.2. Recognized needs and goals

RET 6.1		
Target group	Needs	Goals
Tourists/ visitors (eco-tourists)	Reduction of car hire Lack of information on sustainable mobility options for tourists Development of sustainable travel plans Better connection between key attraction	Improved mobility options and services for tourists Increase the share of visitors that use sustainable modes Increased tourist flow
Walking and cycling users	Extension of cycling and walking network Better links with PT services Intermodal facilities	Increase share of walking and cycling users Involvement of local stakeholders in the promotion of sustainable mobility
Users of the public transport network	Sufficient links between modes Timekeeping of bus routes Attractive, comfortable PT services	Successful coordination of all sustainable mobility initiatives and transport services Increase PT use and satisfaction of users
Residents of Rethymno – Drivers/ motorists	Reduce CO <sub>2</sub> emissions, traffic and noise Reduce car use Reduce road accidents	Promote sustainable transport modes Raise awareness and increase capacity on eco and safe driving amongst drivers
RET 6.2		
Target group	Needs	Goals
Residents of historic centre of Rethymno	Less noise and air pollution Traffic calmed spaces Increased safety	Citizens participation in decision-making process Better quality of life Attractive public spaces

Local businesses /Retailers	Lively city centre Convenient access of potential customers Timely logistics services	Limit the access of vehicles in the historic centre to improve the accessibility and experience of the visitors Increased economic activity
Tourists / visitors	Less air pollution and congestion in the centre Reduction of car hire and vehicles use	Attractive and environmental friendly tourist destination Promotion of car free lifestyle to tourists
<b>RET 6.3</b>		
<b>Target group</b>	<b>Needs</b>	<b>Goals</b>
Tourism Stakeholders	Upgraded services for tourists	Increased tourist flow Satisfied visitors Improved image of the destination
Mobility Stakeholders	Increased effectiveness of PT Increased urban transport use, robust PT business	Wide involvement of stakeholder in shaping future policies Introduction of new mobility schemes in the region Increase the PT user satisfaction
Local Business owners /retailers	Increase of customers flow Competitive services	Economic development New business tools for SMEs Satisfied customers
Potential users of the card (citizens/visitors)	Availability of alternative modes for mobility Safe and affordable transportation Combined value for money services	Increased satisfaction of users Behavioural change towards sustainable mobility Increased use of PT and purchases of other services/products

**Table 3 – Rethymno needs and goals per measure**

### Activities so far

The measures RET 6.1a and RET 6.1b have a strong connection with touristic services and within this context, initial contacts and informal meetings with tourism actors have been made. The Municipal Tourism Board has been engaged to collaborate and support the Sustainable Mobility Agency and the promotion of the new mobility products for tourists. The procurement process for the hire of staff to operate the Sustainable Mobility Agency is on-going. Surveys to record the tourists/visitors needs and opinions for existing services are ongoing; their findings will be used during the agency's services /products design. Stakeholder design days are planned for October 2017 and the Sustainable Mobility Agency is planned for April 2018.

The Low Emission Zone study within measure RET 6.2 has been subcontracted and is planned to start on August 2019. During the development of the study, consultation meetings will take place.

## 2.6. Elba

### 2.6.1. Key Stakeholders

The WP6 Elba measure users are the tourists that every year arrive on the island to spend their holiday. They come from other Italian regions, Germany, Switzerland, France, Netherlands and other European countries. Their age is variable and young people are largely represented. So the users are interested to have easy transport services towards the beaches and leisure venues.

The stakeholders involved are:

- Association of hoteliers on the island of Elba;
- Bike (Mountain bike, e-bike) renting companies;
- Cars (possible e-cars) rentals;
- CTT North public transport operator in Elba;
- Portoferraio and Rio Marina municipalities;
- Cycling and walking groups;
- Citizens and local interest groups;
- Hotels (first list of the most interested to the adoption of hospitality and mobility package: B&B Capo Pero, Hotel Galli, Hotel Hermitage, Hotel le Acacia, Hotel Montecristo, Hotel Ortano Mare, Hotel Sant Stefano, Hotels Villa Rita, Hotel Viticcio, Grand Hotel International).

The key stakeholders are the hotels, interested in creating integrated accommodation packages and sustainable mobility taking into account the proposal of the municipalities of Portoferraio and Rio Marina to make agreements to supply mobility services (eg. shuttle for beaches and tourist interest points) to their guests in order to prevent or limit the use of their private cars.

The aforementioned agreements, that will be finalized during the "site preparation" phase, should not cause excessive difficulties especially for some of the 4 and 5 star hotels (24 in total) since the integrated accommodation and mobility packages can represent for them both an additional asset to attract customers and an opportunity to extend their working seasons beyond summer months.

## **2.6.2. Recognized needs and goals**

Elba counts a total of around 33,000 residents (2015), which almost doubles during the tourist season. The Elba road network is suitable for residents' needs, but it is not sufficient and it is overcrowded during peak season, where a total of around 30,000 cars circulate along island's roads. The road network is structured along two main axes, connecting Portoferraio with Procchio and Campo nell'Elba Municipalities, on one side, and with Porto Azzurro and Capoliveri Municipalities, on the other side.

In the tourist season these road axes are crowded both by tourist cars and freight vehicles arriving at Portoferraio ferry terminal and going to the different parts of the island.

The main problems affecting island mobility and accessibility are:

- concentration of arrival/departure traffic flows in Portoferraio (where the main ferry terminal is located) resulting in congestion of the central part of the island and in a general degrading of tourist centres and reduction of island accessibility;
- very high percentage of people using private vehicles for island mobility (private car is used by 80% of tourists), resulting in significant congestion in the summer period, that causes difficulties in mobility, high level of pollution and several other related issues;
- very high traffic flows concentrated in the inner city centres of the different municipalities due to the peculiar characteristics of the island road network;
- low use of public transport services (only 14% of the PT offer). The mobility offer is fragmented in terms of ticketing, info, marketing, accessibility and cooperation and ineffective in providing integrated solutions able to comply with the emerging needs and requirements.

It is clear that the problems mentioned above produce a wide range of related issues that negatively impact on the overall quality of the environment, citizens life and tourist experience, such as:

- traffic congestion in the city centres of the eight Municipalities;
- parking difficulties and consequent unauthorized parking in the areas of the most important beaches;
- noise pollution;
- road safety issues.

Furthermore, public transport services have often to deal with significant passenger increase in the summer period (over 30% increase during the peak season) and may be inadequate to duly respond to the increased demand, thus pushing passengers to make use to different (private) means of transportation.

The general objectives of the Elba Island DESTINATIONS project include the integration of sustainable mobility solutions for the needs of both residents and tourists in order to reduce private car use, improve mobility and living on the island.

Elba territory is divided into eight municipalities. Portoferraio and Rio Marina Municipalities are partners of the CIVITAS DESTINATIONS project (since they are ports connected to the continent and are therefore most concerned with mobility problems) developing the related measures most of them concern the entire island of Elba.



**Figure 2 - Administrative organization of Elba**

### **Activities to date**

The problems highlighted in the description of the general needs of the island of Elba are also characteristic of the cities of Portoferraio and Rio Marina.

During five workshops/assemblies held in Portoferraio and Rio Marina for the DESTINATIONS project involving citizens, Elba's mobility problems, particularly during summer season, have been highlighted as follows:

- traffic congestion in the two city centers and in specific points of the extra urban road network;
- parking difficulties and consequent unauthorized parking in the areas of the most important beaches;

- noise pollution;
- road safety issues.

The resulting needs of citizens for solving or reducing these problems are :

- to reduce the number of private cars circulating during the summer by stimulating the use of sustainable means of transport (public transport, bicycles and electric bicycles, collective taxis, shuttle services managed by municipalities and / or hotels for to bring tourists to beaches or recreational places, etc);
- to improve extra urban public transport in order to stimulate its use.

In order to better understand the user needs of hoteliers (and other host operators) and their guests regarding mobility on the island of Elba and solutions to be expected for less private car use, a questionnaire was sent to all major accommodation units.

The questionnaire was related to both the mobility services already offered to guests (free or on payment) by hotels and to the indication of the most useful services for enticing guests not to use their own car.

Moreover, Portoferraio and Rio Marina Municipalities personally interviewed some of the most important hotels and camping in order to involve them more closely in the project. The interview results indicate that some hotels already provided some services as free transportation to the hotel from the port and airport and free bicycle rental.

The most attractive services (on payment) for the guests are represented by the electric bicycles rental and the shuttle connection from hotels to beaches and local restaurants/nightlife entertainment.

Moreover the hotel owners declared that their guests are very interested in a greater use of the taxi and PT if they can take advantage of a reduced fare (touristic fare). So the hotels are in favour of the Portoferraio and Rio Marina municipalities promoting specific conventions between the hotel category and public transport services (taxi driver associations and CTT, local public collective transport operator).

The hoteliers and their associations have participated in the five meetings/workshops held in Portoferraio and in Rio Marina during the 2017 spring where the DESTINATIONS project was illustrated asking their active collaboration.

After sending the above described questionnaire to all accommodation owners (hotels, camping, holiday houses, etc.), direct interviews were held to have a tighter engagement towards the stakeholders who proved to be most interested. At the end of summer season they will be involved in the project through individual meetings and invitations to specific workshops related to the WP6 measure that will be held on the island.

Moreover, a small monetary contribution (for survey and transmission data regarding the modality and use of the offered service) could be agreed by the municipalities to the hotels according to the services which are put into operation.

### **Cross Site Comparisons**

Across the sites it is clear just how important the chambers of commerce, tourist agencies, the hotel industry and public transport operators are when tackling the mobility challenges posed by influxes of visitors to these tourist towns. Local and regional authorities are equally key in all sites, whereas Malta has additionally a number of key ministries that must be engaged to deliver a successfully project.

The needs and goals of the six sites have many similarities: the main ones are to reduce car use, improve air quality and tackle congestion by providing and promoting new and existing sustainable urban mobility services. This is delivered through the better integration tourist and resident services as well as the mobility and tourism sectors themselves.

## 3. Mobility Management and Travel Plans (Task 6.4)

### 3.1. Collaboration among DESTINATIONS Sites/partners

Table 4 below shows the measures in this cluster which have been identified as requiring best practice input for the design also those which have the strongest synergies to allow for planned exchanges.

TASK 6.4	Best Practice requirements	Supplier of BP	Measures with synergies	Details of planned exchanges between measure leaders
ELB 6.1	ELBA to provide list of tips for other sites to use in hotel engagement activities, drawing from work already done	ELBA	RET 6.1a	Share knowledge on developing mobility agency
LIM 6.1	LIM desires BP ideas on how to engage people at festivals / big events to raise awareness of sustainable mobility	VECTOS	MAD 6.3	Share ways of successfully catching the attention of members of the public at events
LIM 6.2	LIM desire BP ideas on mobility cards	VECTOS	MAL 6.1	Share principles used to define Green Label award criteria
MAD 6.3	-	-	LIM 6.1	Share formula used to inform visitors how to get to events sustainably
MAL 6.1	-	-	LIM 6.2	Share principles used to define Green Mobility Hotel award criteria
RETH 6.1a & RET 6.1b	Mobility patterns analysis methods targeting visitors. Examples of surveys (for identification of needs and satisfaction of services). Best practices and business models for the sustainable operation of the mobility agency. Efficient campaigns and material to promote new mobility products/ services.	VECTOS, META GROUP	ELB 4.1 ELB 6.1	Requirements for information and best practices on developing mobility agency business model and services / tourist mobility products. Holistic approach for B2B and B2C

**Table 4 – Cross site collaboration Task 6.4**

### 3.2. Measure Design

#### **MAD 6.3 - Mobility planning for tourism related companies**

SRETC supported by HF, CMF, AREAM will adopt mobility management techniques in the tourist sector focusing on hotels and main touristic attractions transforming the tourist operator into ambassadors. Promotional campaign techniques will be tested through real life examples.

Those employed in the tourist sector represent the best ambassadors to promote sustainable mobility transport modes to tourists and tourism operators. This measure will entail specific trainings for tourism professionals and front office actors who interact daily with tourist, such as public transport drivers, taxi drivers, front office employees. It is an opportunity not only to encourage public transport usage among tourists but also to nurture greener habits of travelling among tourist staff such as hotel receptionists.



Mobility has to be addressed as an important part of tourist experience in itself. To address this there will be a specific area developed in the official Madeira Tourism website, with comprehensive information regarding public transport, specific and advanced mobility planning tools (such for example route planning, real time public transports information), interrelated to touristic information regarding main events, POI's. This information and tools must also be adapted to mobile equipment in order to deliver up to date touristic information. Site-related activities will include the implementation of marketing strategies and the involvement of all the identified stakeholders to define a common and integrated action plan to address tourism actors. In order to measure and study mobility satisfaction, surveys and focus groups with stakeholders will be implemented along the development of the project.

**The list of project partners** that can contribute for this measure are the following:

Partner short name	Activities description
HF	As the main regional public transport operator, HF will support the region regarding the public transport information and planning
Municipality of Rethymno	Main contact point as WP leader for "Mobility demand management and awareness for sustainable mobility at tourist destinations"
Sub-contractor (via ISINNOVA)	Should any business model be developed thanks to combined presence of transport operators in the regional platform visitmadeira, it would be important to interact with the business model leader

**Table 5 – Participating partners to MAD 6.3**

Regarding ITS technology, online tools (such as questionnaires, and other data collection instruments) will be used to define which data is essential to build a regional specialized website area to manage and share information related to public transport and tourism. Essential information will be collected including real time data about major POI's, events, schedules and itineraries. This information will be also adapted to feed other IT support/systems like apps, screens and kiosks. E-learning tools will also be adopted in order to provide continuous improvement from hotels and other tourist professionals. Online and offline monitoring tools (such as the focus group assembling tourists which could require social media platforms) will be used to measure tourist and resident satisfaction throughout the implementation process as well as to promote and disseminate information.

The main outputs of this measure are the following:

- Launch of a web based touristic public transport info area and app for better mobility planning for tourists;
- Creation of a permanent monitoring system to check tourist's satisfaction through enquiries and focus group activities;
- At least 200 hotel, tourism front office, animation companies or PT staff will receive training about mobility options. And at least 20 trainees will change their mobility habits towards more sustainable modes (to be managed by HF);
- At least 300 drivers and operational staff of PT companies receiving training in English and service quality towards mobility;
- At least 20 hotels and /or tourism services receiving a sustainable mobility accreditation for their role in leveraging sustainable mobility options.

### **LIM 6.1 – Awareness on the use of sustainable mobility modes for leisure trips**

In Limassol, measure LIM 6.1 aims to increase awareness on how to travel around for leisure trips using sustainable mobility modes, such as bikes, electric vehicles, public transport services, vehicle sharing and walking. Two promotional campaigns and two competitions have been designed to attract people and make them aware about the available sustainable mobility solutions for their leisure transportation, environmental and for their personal health. The campaigns include publicity, outdoor banners, advertising in local magazines and hotel magazines, radio, events/participation in existing events, creation of promotional material to be available at tourist information offices, hotels, popular events and local authority offices. In addition, Limassol will organize a seminar targeting urban planners to raise awareness on greener planning.

To date, Limassol has successfully organised two competitions targeting both tourists and locals. The aim of these competitions was to encourage tourists and locals to become interested in sustainable mobility modes for leisure trips. The first competition was successfully organised in collaboration with the Troodos Sports and Fun Festival, Troodos Tourism Board, Biking Cyprus and Cyprus from Air, more than 200 tourists and local participated at the festival and were informed about the CIVITAS project and measures that will be implemented in Limassol. During the event, a hiking activity was organised, where more than 80 participants were directly impacted.

In addition, another event competition was successfully organised in collaboration with Etalon Etiquette Club and Next Bike Cyprus within the Cyprus Russian Festival with the main aim to promote cycling as the main mode for commuting around Limassol. The event was entitled Limassol Lady Bike parade and attracted the participation of more than 20 individuals and 400 who were present at the Cyprus Russian festival being informed about sustainable mobility.

### **LIM 6.2 - Combined tourist and mobility products: Green Label Award and Tourist Mobility Card**

For this measure, tourism and leisure transport will be enhanced through the implementation of a Tourist Mobility Card that will be supported by Green Label partners. The Tourist Mobility Card will assist in increasing the number of leisure trips with the use of sustainable mobility modes among tourists and residents. The Green Label will be awarded to hotels that promote sustainable mobility.

The Tourist Mobility Card will enable visitors and residents to buy one ticket for the duration of their stay, for all their PT transfers (urban and rural) and at the same time be allowed to have discounted entrance to museums and other places of interest as well as on bike sharing. Five self-service ticket machines will be installed in the tourist area and the Limassol city.

To date, Limassol has determined the criteria and procedure for the Green Label Award and has identified businesses that will potentially participate in the Tourist Mobility Card.

### **Project Partners working on measure, roles and responsibilities**

The Limassol Tourism Company is the main project leader for LIM 6.1 with Limassol Municipality being responsible for organizing the training for urban planners. For measure LIM 6.2, the Limassol Tourism Company is the main project leader and is responsible for implementing the measures activities.

### **ITS Technology, system or service requirements**

In Limassol, no ITS technology is required for measures LIM 6.1 or LIM 6.2.



## **Procurement of services**

In Limassol, no procurement of service is required for measures 6.1 and 6.2.

### **MAL 6.1 Green Mobility Hotel Award**

The Green Mobility Hotel Award and labelling scheme which will be established through the implementation of this pilot project is complementary to other initiatives that are currently in place for the sector.

The EU eco-label which is managed by the European Commission is a voluntary scheme which certifies the efforts undertaken by companies operating in different sectors to manufacture products or provide services of good quality and with a reduced environmental impact. The national body cooperating with the European Commission on this initiative is the Malta Competition and Consumer Affairs Authority (MCCAA).

The eco-certification is a national scheme managed by the Malta Tourism Authority (MTA) which focuses on ensuring the environmental, socio-economic and cultural sustainability of hotels on the Maltese Islands and has been recognized by the Global Sustainable Tourism Council as fully reflecting GSTC criteria. It is a legal requirement for new hotels 'within six months from the issue of the license, the property conform to the requirements of the Eco Certification Scheme'. This requirement also applies for hotels under the height limitation policy. Currently 22 hotels are eco-certified.

The Green Mobility Hotel Award and Labeling Scheme which will be devised through this pilot shall focus on the entire operational practices adopted by the hotel industry from front to back office operations which influence green mobility and which also relate with customers, employees, suppliers and other stakeholders who service the hotel industry. This award and labelling scheme is a voluntary initiative and adds real value to business credentials and company image by boosting company efficiency, reducing the carbon footprint and by showcasing corporate social responsibility.

The objectives of this measure are in line with improving guest experiences and travel behavior. It will also contribute to safeguard the environmental assets which attract tourists to the Maltese Islands and the Valletta Region. The impacts are not restricted to the tourism industry as there will also be an improvement in the quality of life of residents via the mitigation of tourism carbon footprint.

The measure seeks to raise awareness about sustainable urban mobility practices amongst tourist operators and related stakeholders. Its implementation will try and incentivize the hotel industry to adopt practices related to Green Mobility and encourage efficiency among tourist operators.

The expected outcomes of the measure include:

- The development of the Award Scheme;
- The elaboration of a Green Mobility Plan model to be used by hotels and operators;
- Organization of at least one workshop to explain and launch the competition;
- Submission by participating hotels of at least one proposal for a Green Mobility Plan;
- The carrying out of Hotel Audits;
- The implementation of the awarded measure during the lifetime of the project making use of the grant.

By creating awareness through the new award amongst tourist operators, this measure will encourage the hotel industry to implement sustainable urban mobility measures intended for guests, the business community, employees and society at large. The data gathered

during the implementation of this measure will also contribute towards the positive development of both the tourism and transport strategic policy development.

This is a pilot initiative which shall focus on the hotel sector and efforts shall be undertaken, following project completion, to possibly extend this initiative for other operators in the tourism industry.

### **Project Partners working on measure, roles and responsibilities**

The Ministry for Tourism is the lead partner for this measure while Transport Malta and the University of Malta will provide support based on their respective expertise.

### **Procurement of services**

The Ministry for Tourism has published a tender for the procurement of an expert who will define the hotel award assessment criteria, audit the participating hotels and evaluate the submissions received from hotels. A separate collective service tender will be published by Transport Malta for the preparation of the promotional material for dissemination.

### **RET 6.1.a: Sustainable mobility agency for tourists/visitors (Starts October 2017) & RET 6.1.b: New products combining tourism and mobility (Starts March 2018)**

The measure RET 6.1 consists of 2 sub-measures: RET 6.1.a Sustainable mobility agency for tourists/visitors, Sustainable Mobility campaign & Eco-drivers capacity building and RET 6.1.b New products combining tourism and mobility. The two sub-measures have different measure leader, outputs and timeline in order to better organize the tasks and the implementation of the measure.

### **City Context**

Currently, the initiatives of Rethymno to promote a more environmental friendly profile and inform about sustainable mobility options are limited. An agency that could monitor the tourists' mobility patterns and needs, develop and promote tourists tailor made mobility services including IT solutions and new infrastructure is not available in the region. There is a need for Rethymno to enrich the existing tourist experience, targeting the mobility sector to encourage further the sustainable transport of the visitors.

### **Detailed Description of Measure**

The sub-measure RET 6.1a focuses on the design and provision of quality services for tourists by offering accurate information related to alternative sustainable mobility options, new products/services combining tourism and mobility and raising awareness on environmental transport related issues through a dedicated Sustainable Mobility Agency that will coordinate all transport activities / stakeholders and will promote relevant services. The agency will serve a dual function of transport information provision as well as the engagement of hotels and other tourist sites to develop travel plans. A sustainable mobility campaign will strengthen alternative mobility options and reduce carbon emissions of the remaining transport services.

### **Expected outputs of the sub-measure RET 6.1a:**

- 1 Sustainable Mobility Agency in operation. Business plan for its sustainability after the project's end;
- 1 online platform for promoting sustainable mobility plans for selected routes accessible from web/mobile; content development;
- 2 sustainable mobility information hubs at main airports;

- 1 tourist satisfaction survey;
- 1 session to train hotels staff to promote sustainable mobility routes and services;
- 500 trained drivers; 2.000 leaflets, electronic version of guidebook;
- 50.000 people reached through the sustainable mobility campaign.

The sub-measure RET 6.1b focuses on providing alternative mobility options and new products combining tourism and mobility for tourists and residents, in order to encourage more sustainable commuting choices and achieve modal shift away from single occupancy car use.

**Expected outputs of the sub-measure:**

- Monitoring mechanism to follow tourists needs and expectations; satisfaction survey findings shared with key stakeholders for improvement of services;
- Sustainable Mobility Travel Planner (application for smart phones/tablets);
- 10,000 maps of walking and cycling routes combining attractions/recreation activities/food/ nature/offers available to hotels, also available online/mobile;
- New thematic routes (“car-free”) designed and promoted including applications for web and info materials.

It is strongly “tourist-oriented” as it aims at designing specific tourist and mobility solutions that should improve the quality of the overall service offered to tourists and to enhance the quality of environment, mobility and accessibility. A designated service for tourists will provide all necessary information to encourage a more sustainable travel choice and take up of the new mobility services the municipality will be providing. Promotional activities will facilitate the uptake of the offered services and attract more tourists and especially the segment of eco-tourists, strengthening the environmental friendly profile of Rethymno amongst tourists. Additionally, eco-driving training will increase safety, reduce emissions and fuel consumption.

**The specific objectives of the measure are:**

- Operation of a viable mobility agency;
- Improved mobility options and services for tourists and citizens;
- Raised awareness towards sustainable modes of transport in the site;
- Reduced car use in the specific designed new routes;
- Reduced CO<sub>2</sub> emissions, reduced traffic and noise;
- Increased share of visitors that use sustainable modes of transport during their vacations, instead of car hire;
- Promoted eco and safe driving amongst drivers;
- Increased satisfaction of citizens and tourists.

### Project Partners working on measure, roles and responsibilities

In the table below the involved project partners and their role and responsibilities are described.

Project Partner	Role	Responsibilities
Technical University of Crete	Site manager 6.1a Measure Leader	Technical support -Measure implementation Business case development, Eco/safe driving training
Rethymno Municipality	Beneficiary 6.1b Measure Leader	Measure implementation, Operation of the Sustainable Mobility Agency, Promotional campaigns
Vectos	Cross-site coordination, Measure Support	Technical Support on User needs analysis and behavioural change activities
META GROUP	Measure Support	Technical support on Business Model Development for the Sustainable Mobility Agency, via T8.2

**Table 6 – Participating partners to Ret 6.1**

### ITS Technology, system or service requirements

The measure includes the development and implementation of a suitable application for smart phones/tablets concerning mobility plans an online platform for promoting sustainable mobility plans and sustainable tourism services through web/mobile.

Providers will be given the requirements for the development of the platform after market research and analysis of users’ needs will identify the appropriate application to be launched locally.

### Procurement of services

A research study will be subcontracted in order to support the analysis of mobility patterns of visitors and citizens and identify new travel plans to key attraction points.

A call for tender will be published for the development of a web based platform / application for promoting sustainable mobility plans. The subcontracting includes content development, web design and back-end operations, integrating social media management and the development of the sustainable mobility travel planner/ application for smart phones.

Procurement of service is foreseen for the promotional campaign, including street events, production of promotional materials/videos, info panels to be placed at key locations, organisation of training sessions for hotels staff and drivers and for drivers/ motorists.

### **ELB 6.1 - Combined products for tourism and mobility: the accommodation and mobility package**

#### Measure description

The measure ELB 6.1 “Combined products for tourism and mobility: the accommodation and mobility package” has the goal of soliciting the island's main accommodation facilities (mainly hotels and camping) to provide packages with hospitality and mobility services in order to encourage their guests to arrive on the island without their own car or to use the environmentally friendly mobility (eg. bike, e-bike, e-scooter, public transport, car-pooling, shuttle bus, Elba mobility sharing agency, etc.) made available by the hotel so as to leave their car parked in the hotel area for the whole duration of the holiday.

Additionally, the packages accommodation and mobility services could be extended to the organization / management of mountain biking or walking tours (for example, with botanical or geologists expert) with the dual purpose of reducing the use of private cars and extending the island touristic seasons beyond the summer months, since these tours will be most probably organized during Spring or early Autumn.

### **Measure design**

The island of Elba has a great accommodation offer. Official data shows 430 hotels, 60 residences and B&Bs, 26 camping and 178 houses / rooms for rent.

The measure is based on several steps and actions to be implemented in an interrelated way in order to develop the integrated “tourism + mobility” package.

The core aspect is that hotels/camping can provide or organize packages of hospitality and sustainable mobility package such as bicycles (normal or electric) or specific transport shuttles to places of tourist interest (beaches, leisure sites, etc.). These means of transport can be provided directly from the hotels (free of charge or payable) or by agreement with the many charterers on the island. Shuttle services can also be organized in common with other hotels or by conventions with the local municipality that often arranges such types of services during the summer.

An important component of this measure, and an essential prerequisite for its success, is the “safety option”: tourists shall be sure to be able to move or leave the island at whatever time they want, in case of need even if they do not have their car. This can be achieved by a specific agreement with transport operators or, better, taxi providers offering, i.e., rides at special prices for tourists with the “accommodation + mobility” package.

### **Project Partners working on measure, roles and responsibilities**

The Rio Marina Municipality is coordinating the implementation of this measure. The Municipality of Portoferraio has collaborated in the questionnaires diffusion to the hotels and camping. Finally, also MemEx is collaborating with the two municipalities for elaborating the agreement with the hotels about the mobility services to offer to the guests.

### **ITS Technology, system or service requirements**

There are no special technologies for this measure because some mobility facilities or services are linked to measures developed in other WPs, such as WP4 where the Sharing Elba Mobility Agency managing the rides sharing services or the WP7 where an App will be implemented for the PT users to know the real time information of the bus service.

### **Procurement of services**

The user needs phase was carried out directly by the qualified staff of Portoferraio and Rio Marina by sending the questionnaire to all the hotels and direct contacts with the interested ones. In the next "site preparation" phase, it may be that bids (directly managed by the Municipalities of PF and RM) have to be made to award some sustainable mobility services that will be part of the package of accommodation plus mobility services

## **3.3. Measures ex-ante evaluation**

Full details of the evaluation framework are found in Deliverable 9.1 including impact indicators, units of measurement and targets for each measure.

### **MAD 6.1**

There is a planned 10% increase in soft mode usage (trips and KMs) as well as satisfaction levels through this measure. The baseline will be collected when the survey campaign is completed in M16.

### **LIM 6.1 & 6.2**

The baseline data is necessary to assess subsequent changes resulting from the CIVITAS measures. For measures 6.1 and 6.2, baseline data will be collected by carrying out surveys. Limassol has identified the impact indicators that will allow the evaluation of the measure's implementation. It is estimated that Limassol will have the baseline data by project month 10, July 2017.

### **MAL 6.1**

Surveys will be carried out with the hotel operators, before (Month 29) and after (Month 42) the launch of the pilot project. These will measure the level of awareness, acceptance and satisfaction of the award campaign. A 20% awareness level, a 10% acceptance level and a 20% satisfaction level are expected.

### **RET 6.1a & RET 6.1b**

The evaluation of the measure includes environmental, social, transport and economy impact indicators. The data collection for the measure's evaluation is planned in March 2018, August 2019 and June 2020, before, during and after the measure's implementation correspondingly. The initial data collection will provide the baseline for most of the impact indicators.

### **ELB 6.1**

The ex-ante evaluation was listed in the category of impacts towards the society and analyzed on the basis of two impact indicators: Level of acceptance and level of use.

The acceptance level covers both accommodation owners and the guests with the satisfaction index, while for the level of use the number of packages delivered to the tourists in peak season is considered.

For the two satisfaction indexes, the value of 80% was estimated, while the number of annual mobilization packages used by the guests was estimated to 600 according to the hypothesis that about 5% of the main Elba accommodation facilities agree to supply mobility services to their guests. The surveys on the ex-ante impacts will be made during the months 45-46.

## **3.4. Implementation Plan**

### **MAD 6.3**

From January to June 2017, the PT Operator has organized short English lessons, customized according to what tourists often ask PT staff. The target was a total of 147 bus drivers. One has seized the occasion to conduct a small survey so as to understand how useful was this training for bus drivers and where and in which occasions they receive queries from tourists. Horários do Funchal has taken photographs (see Figure 3) and produced short videos of such trainings.





**Figure 3 – English classes part of MAD 6.3**

### **LIM 6.1 and LIM 6.2**

- Local festivals and events to promote sustainable mobility held in November and December 2016. Limassol has already determined local festivals and events to promote sustainable mobility. An internal report has been prepared including an action plan for the implementation of the measure.
- A competition was designed for tourists in January 2017 in collaboration with Troodos Sport and fun festival as well as Etalon Etiquette Club. An internal document has been prepared, outlining and describing Limassol participation in the scheduled competitions.
- An integrated action plan has been prepared to identify the scheduled promotional campaigns.
- A meeting was held between Limassol Municipality and local authorities to get support in organizing training for urban planners.
- An internal document has been prepared including the criteria and the procedure for the Green Label Award. (September to November 2016).
- Limassol has initiated meetings with businesses to introduce tourism mobility card and their involvement in the implementation of this task. (September 2016 – May 2017).
- In process of determining the card's benefits and distribution points. (May 2017- August 2017).

No risks and constraints have been identified for measure 6.1 and 6.2.

### **MAL 6.1**

Between Month 1 and Month 6, the design of the measure and the pilot's specifications took place. The Ministry for Tourism (MoT) compiled a list of stakeholders who will be directly/indirectly impacted by the measure as well as those entities who can assist with baseline data collection, baseline analysis and user needs analysis.

Stakeholder consultations will be carried out by MoT to finalise a set of criteria for the company/experts that will be selected to implement the hotel audits. These consultations define the weighting system and the selection process; this was completed between Month 1 and Month 6.

An assessment has also been carried out against the eco-certification scheme implemented by the Malta Tourism Authority to see if any of the processes can be adopted within the

design and implementation of this pilot. Actions as part of this baseline assessment included the design of draft criteria for hotel award and for the external expertise that will be engaged to implement the hotel audits.

Based on the stakeholder consultations and baseline data analysis and following feedback received from the contractor (expected in M12) the pilot will be designed. This will include the award criteria as well as the application, submission and award process. The tender to contract the external expert was published in M10.

In M23 a workshop will be held inviting members of the hotel sector. At the workshop, the label scheme and cash grant award process will be explained prior to the official launch of the call for submissions. This call will be launched with submission deadlines expected in M23-M24. Once evaluated the winner(s) shall be granted a cash grant in order to implement a permanent measure. The engaged contractor shall assist MoT in monitoring the implementation of the winning measure(s) (M30 – M42).

Communication and dissemination will take place between Month 18 and Month 30. During this time, promotional material will be prepared. A two day conference will be held in order to launch the award model structure. Finally, the award event will be organised and the winners announced.

Should more than one proposal be found to have met all the criteria, the cash grant shall be apportioned in order to cover the partial or full costs for the implementation of the green mobility measure. The implementation of the measure awarded will take place during the lifetime of DESTINATIONS. Awards of additional measures by runners-up will be considered if the amount allocated to the cash grant would not have been exhausted by the winning submission. Other hotels which would have passed from the audit phase successfully (but not ranked in the top positions) will be awarded the green mobility label.

#### **RET 6.1a**

The description of measure's milestones and the dates are presented below:

- M1. Business plan for the Sustainable Mobility Agency (December 2017);
- M2. Set up for operation, staffing and infrastructure (April 2018);
- M3. Integrated communication strategy (May 2018);
- M4. Sustainable mobility campaign directed at leisure trips (May 2019);
- M5. Sustainable mobility information hubs in the targeted points (May 2019);
- M6. Eco/safe-training campaign and dissemination of material to drivers (October 2019);
- M7. Evaluation of Sustainable Mobility Agency's operation (July 2020).

#### **RET 6.1b**

The description of measure's milestones and the dates are presented below:

- M1. Needs analysis for the initialisation of new travel plans (August 2018)
- M2. Design of new thematic "car-free" routes (November 2018)
- M3. Development of sustainable mobility travel plans (January 2019)
- M4. Launch of the new routes, placement of signs, info materials (April 2019)
- M5. Demonstration of the travel planner app (June 2019)
- M6. Assessment of the new routes /products (July 2020)

One key factor for the successful operation of the mobility agency is the careful design of services and the proper staffing for an efficient and sustainable operation. Its business plan should foresee how the agency will be self-sustained after the pilot operation. The role of



tourism stakeholders/engagement is critical, not only to promote its services but also to provide useful input for the tourist needs, priorities and feedback.

One of the critical risks for the successful operation after the end of the project is the lack of long-term financing. To mitigate the risk, business case scenarios will be explored that will ensure that the agency will be self-sustained.

Another challenge is the two-way cooperation with the tourism market actors to support the mobility agency scope and the development of new tourism products. Strong engagement activities and consultation meetings aim to highlight the expected benefits and strengthen the cooperation with the relevant actors.

### **ELB 6.1**

The first Milestone M6.1.1, scheduled for project M12, is the agreement between hotel facilities with Portoferraio and Rio Marina municipalities as well as with the CTT Nord, public transport operator, to adopt integrated hospitality packages and mobility services. It should be noted that surveys and personal contacts with the various hotels and camping have only begun in June 2017 because previously many hotels and camping were not yet open for the tourist season.

In M10 all surveys were completed and the most attractive mobility services for the tourists were identified. The negotiations with the hotels will be carried out from October 2017 and considering that many hotels and charterers are closed in the winter season, it is estimated that negotiations will be completed by May 2018 (M21) so that in summer 2018 (M22) at least 50% of the interested hotels providing integrated packages, will be operating.

During the 2018 contacts with other hotels will be taken in order to increase the number of the hotels and camping that provide integrated packages hospitality and environmentally friendly mobility services.

In the implementation plan of the ELB 6.1 measure the key issue to be addressed is the commitment of some hotels to provide guests with environmentally friendly means of transportation to avoid using their own car contributing to overload the streets and the scarce parking lots.

The commitment may concern for example a contribution of municipalities to some hoteliers who undertake to purchase e-bike to be made available to customers or to offer shuttle services for the collective transport of customers to points of interest (as beaches or shopping/ leisure POI in Portoferraio) or to make arrangements with taxi drivers and CTT for cheaper rates.

Another key point might be an agreement with e-bike or mountain bike renting operators in order to provide reduced fares to the customers of some hotels.

Finally, another element to be discussed with hotel owners is the possible contribution to set up naturalistic excursion services with specialized guides to divert tourists from the beaches (whose access roads are always very crowded) to other points of interest.

Potential risks are of a financial nature, because some hotels are unwilling to provide mobility services that often involve a substantial financial commitment for the purchase, management and maintenance. The risk is that some packages or services will be implemented during the life of the project, thanks to the minimal economic contributions of the project, but will be stopped after the project end.

## 4. Behaviour Change Through Competition (Task 6.5)

### 4.1. Collaboration among DESTINATIONS Sites/partners

Table 7 below shows the measures in this cluster which have been identified as requiring best practice input for their design, as well as those which have the strongest synergies to allow for planned exchanges.

TASK 6.5	Best Practice requirements	Supplier of BP	Measures with synergies	Details of planned exchanges between measure leaders
LIM 6.3	BP needs on scientific evidence of health benefits of active travel	VECTOS	TBC	TBC
LPA 6.1	GC scheme for PT: BP needed on 1) how to inform/ attract passengers to new scheme; 2) how to engage businesses to participate; 3) points ranking for modal shift	VECTOS; HF	MAD 6.2; RET 6.3	Receive details of GC system proposed by MAD 6.2 which focuses on engaging with local businesses
MAD 6.1	None required	N/A	MAL 6.3	Share details of recently completed study of existing mobility apps in the market - share with MAL 6.3
MAD 6.2	BP on integrating gamification into a new app. LUX MOBILITY conducted study on this. CMF has study on apps in the market	LUX MOBILITY; CMF	LPA 6.1; RET 6.3	Translate and share details of GC system being developed with focus on engaging local businesses
MAL 6.3	None required	N/A	MAD 6.1	Receive details on apps from MAL 6.1
RETH 6.3	Later in project. Experience and lesson learnt from the other cities will be used.	N/A	LPA 6.1; MAD 6.2	Receive details of MAD 6.2 and LPA 6.1 experiences as RET 6.3 starts M32

**Table 7 - Cross site collaboration Task 6.5**

### 4.2. Measure Design

#### **MAD 6.1 - Gamification as a way to induce behavioural change in Mobility & MAD 6.2 - Green credits: A Business Model for Mobility, Sustainability and Tourism.**

ARDITI and HF (+ SRETC, CMF and AREAM) will install a prototype of interactive bus stop, driving simulator for PT drivers; geocaching competition events and test other gamification approaches for PT users. HF supported by other local partners will introduce a regional and urban green credit scheme involving at least 30 institutional and business partners involved.

These two measures are largely influenced by each other. Together, they form a bundle which is intended to increase the perceived quality of public transport and other mobility sustainable modes by making public transport and other mobility sustainable modes more entertaining and challenging in the sense of playing games or experimenting unexpected activities at a bus stop. It will highly contribute to reduce “waiting and travel time” perception of users. The system will also improve the overall quality of life perception of residents and

tourist travelling/visiting Funchal city. The list of project partners that can contribute for these measures are the following:

Measure	Partner	Activities description
MAD 6.1.	HF	HF is a main partner in this measure and will be involved in all activities
	SRETC	SRETC will support the promotion of this measure.
	CMF	CMF is not a formal partner on this measure, but will be requested to provide feedback and inputs.
	AREAM	AREAM is not a formal partner on this measure, but will be requested to provide feedback and inputs.
	Trade & Commerce sector	Select first top 20: Commercial , shopping partners and “commuting loyalty system”
MAD 6.2.	Culture, Tourism & Travel	Select first top 10: hotels, museums, tourism experiences & commuting loyalty system
	Schools & Corporate & Associations	Select first top 5: Schools, Corporate companies and associations
	Mobility modes of transport	Select top 5: Companies and mobility modes of transport
	Health & Wellness	Select top 3 Health and Gym wellness centres and sustainable mobility

**Table 8 – Stakeholders involved in MAD 6.1 and MAD 6.2**

Regarding ITS technology, ARDITI in MAD 6.1. will create a platform able to gather, integrate and display different sources of information (e.g. to obtain and display bus timetables from bus operator; weather forecasts; tourist information; games; news headlines). It shall also be capable of getting user feedback as needed. On another hand, the driving simulation tool which is one different feature of MAD 6.1 will require some customized development so than it can fit local street characteristics.

In MAD 6.2. HF is searching an integrated and mobile solution to answer public transport ticketing problem/needs, to:

- Know how to increase the demand of public transport and sustainable mobility;
- Develop a cultural change of habits and attitudes towards urban mobility;
- Improve better communication with our citizens and tourists;
- Turn perceptible our own strategy of urban mobility.

Concrete procurement of services under measure MAD 6.1 will be conducted as soon as the architecture / design of the gamification system is concluded. Only after that phase is concluded we will be able to know exactly which concrete services and equipment will be required (equipment for interactive bus stop, both at FO and BO level; software developments; etc). Regarding the driving simulator some contacts have already been made in order to identify existing solutions and potential costs, namely with Vection VR team (<http://www.vectionvr.com>) and with SMUTC (Serviços Municipalizados de Transportes Urbanos de Coimbra).

Specific equipment will be purchased after conclusion of T6.1.5. Tendering is planned to happen between M13 and M15.

The main outputs for Madeira from this task are:

- 1 interactive bus stop prototype installation;

- 1 driving simulation tool for PT training activities;
- Geographic location games such as geocaching competition events (where using PT will be a key feature);
- 6 papers submitted/presented in related international conferences;
- One mobile app and desktop tool to calculate green credits;
- A green credit management system working in the region of Madeira and at least more 1 city partner;
- At least 30 institutional and business partners involved in the credit scheme at local level.

### **LIM 6.3 - Bicycle challenge: competition between employees of companies**

#### **Description of Measure**

Limassol aims to change the habits of locals and support them to become actors in their own town by promoting cycling in their daily life. A bicycle challenge between 100 employees of companies will be organized during the project. To date, Limassol has collaborated with existing companies inviting them to participate in this measure.

#### **Project Partners working on measure, roles and responsibilities**

Stratagem Energy Ltd is the main lead partner of LIM 6.3 and is responsible for implementing the following measure activities: prepare a strategic plan, identify companies that will participate at this measure, define monitoring system to collect baseline, implement a cooperation plan between key actors, purchase and adapt motivating gifts for employees that use bicycles, analysis of results of emissions and energy consumption, preparation and implementation of an integrated communication strategy to support the renewal policy.

#### **ITS Technology, system or service requirements**

Limassol will not use any specific technology for LIM 6.3.

#### **Procurement of services**

Limassol does not require any procurement of services for the implementation of this measure.

### **LPA6.1 - Green Credits Scheme**

#### **Description of Measure**

Guaguas Municipales will introduce a green credit scheme to encourage citizens to adopt more sustainable lifestyle patterns by providing tangible economic rewards. Points are accumulated as rewards for using public transport. Points can then be used like cash to purchase products and services at a variety of places, such as shops, museums and theatres. The scheme is envisaged to contribute towards reducing the greenhouse gas emissions.

A business model for "Mobility, Sustainability and Tourism" will be designed (WP8) and one of its main outputs will be a "Green Loyalty System" integrating measures and services to be addressed by the project.

The green credit scheme will be supported by a website and a mobile application. The rationale for the users is clear: the more journeys carried out with sustainable options, the more credits one can earn. With this tool each daily mobility option counts for earning

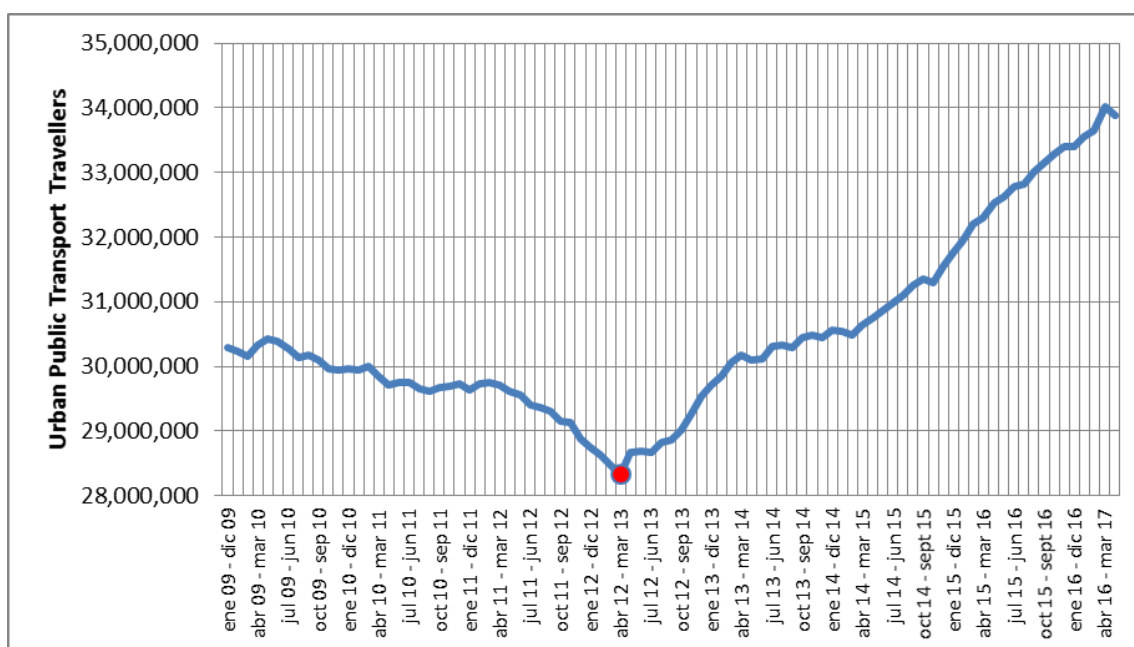
advantages. This scheme could also integrate all the useful information resources needed such as maps, directions, events and attractions.

This new/improved app will have three essential purposes:

- Real time information about the main events, shopping discounts and other highlights;
- Tool to change mobility behaviour;
- Provide a positive impact in order to promote local commerce.

Nowadays, Las Palmas de Gran Canaria has an urban public transport system operated by Guaguas Municipales. The number of passengers has been increasing since 2013, when Guaguas Municipales reorganized and optimized its urban public transport network by the introduction of free transfers between buses and avoiding/decreasing overlapping between different bus routes.

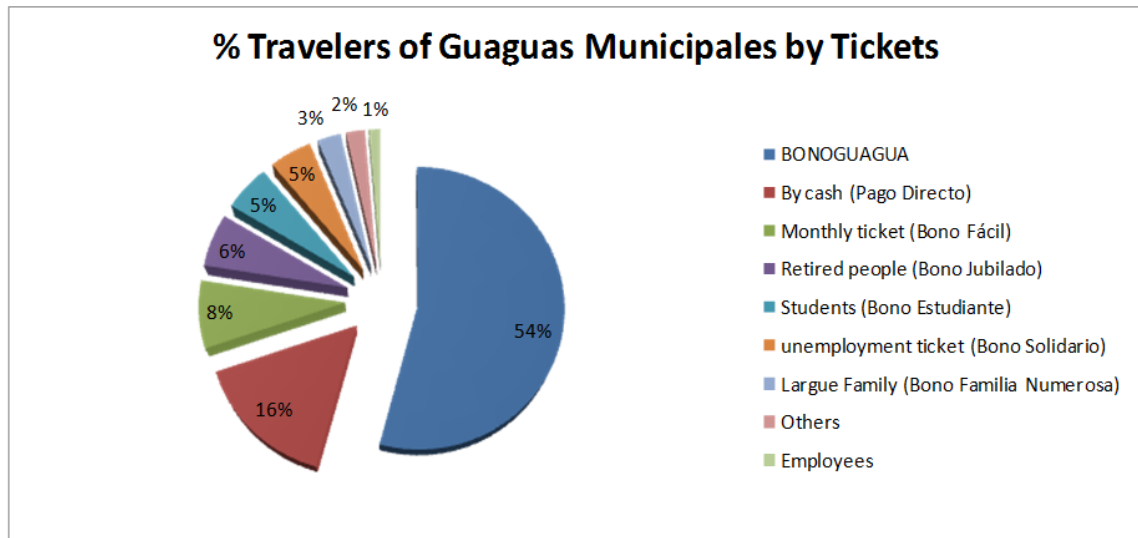
That action allowed Guaguas Municipales to enhance the quality of the service by improving the frequency and offering more trips. The result has been a change in the mobility behaviour of Las Palmas de Gran Canaria citizens, getting a fast increase of 16% of public transport passengers since 2012 (before the network reorganization). In 2016, Guaguas Municipales transported over 33m passengers a year, and it is expected to continue growing.



**Table 9 - Guaguas Municipales travellers annual period**

After an analysis of the behaviour and kind of tickets used by the customers of Guaguas Municipales, it has been decided to match the collection of Green Credits with the most used ticket called “BonoGuagua”, a rechargeable contactless smartcard that offer a 39% discount in each trip regarding to payment by cash.

This “BonoGuagua” is used by the 54% of urban public transport network trips in Las Palmas de Gran Canaria, and it has some other very interesting features as it can be also used to access to the public bike service and to pay the regulated on-street parking. To sum up, it is a card that can be used as an integrated mobility tool all around the city.



**Figure 4 - Guaguas Municipales travellers % tickets**

Furthermore, there is a potential non-captive market that can be attracted to urban public transport from other modes of transport, especially from private vehicle.

#### **Project Partners working on measure, roles and responsibilities**

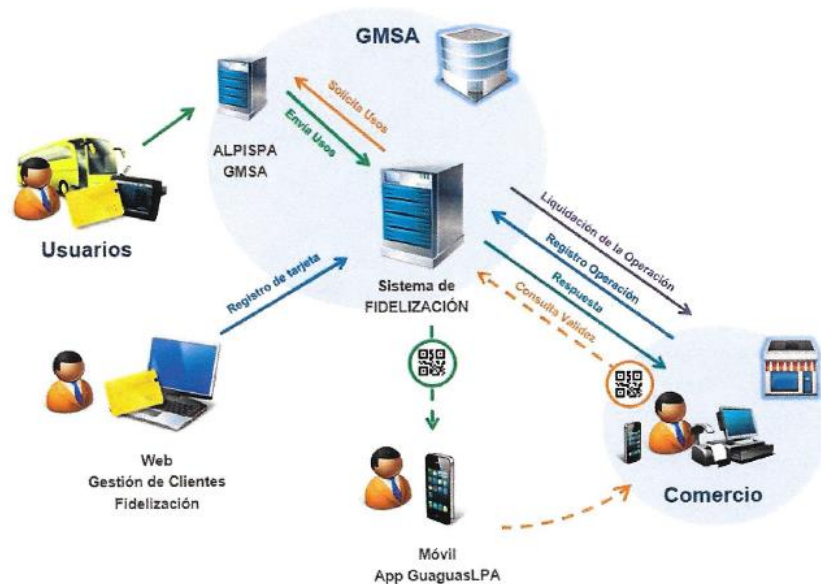
The main partner in this measure in Las Palmas de Gran Canaria as the company in charge of urban public transport is Guaguas Municipales. Furthermore, Sagulpa as the company in charge of public bike service will also take part in this measure.

#### **ITS Technology, system or service requirements**

The green credits scheme is an innovative approach to attract citizens towards sustainable modes of transport. On the one hand it will promote sustainable mobility. On the other hand it will boost local economy by pushing users to purchase products and services at a variety of places, such as shops, museums and theatres.

Nowadays, Las Palmas de Gran Canaria disposes of a contactless smart card system that allows customers to pay for the urban public transport trips. There are several kinds of bus cards and tickets that offer prepaid and social discounts (students, elder people, unemployed). However, a credit scheme does not exist yet. The data about the number of trips validated with each kind of ticket is currently stored in a database that can be easily consulted. It has been identified a process diagram to set up the loyalty system in Guaguas Municipales that are collected below.





**Figure 5 - Guaguas Municipales loyalty system diagram process**

The main steps are the following:

1. The trips of each BonoGuagua contactless smart card are collected in the database of Guaguas Municipales (ALPISPA).
2. Each urban public transport traveller who wants to take part in this initiative needs to register in Guaguas Municipales loyalty system in order to match its profile with his/her BonoGuagua card. (A similar procedure with these contactless smartcards has already been carried out to register the users of LPA bybike system).
3. Periodically, the loyalty system will check the number of trips of each registered card to estimate the number of points earned by each user.
4. In the current Guaguas Municipales App, a new section will be created for registered users, where they can check how many points have earned and a PDF417 code will be generated to be able to exchange their points at commerce and business.
5. Each commerce or business taking part in this measure, will have a PDF417 reader integrated in a PDA machine that:
  - a. Will collect information regarding the number of points that the BonoGuagua has;
  - b. Will discount the number of points of the BonoGuagua to be use in that place (If it has enough points);
  - c. Will register the transaction in the central database, decreasing the number of points in the customer balance and registering the commerce.
6. The loyalty system will have a section for the management of customers and commerce data.

For that reason, it will be necessary to develop the next packages:

- Management system for the loyalty system;
- A new section within the current Guaguas Municipales App;
- A new process to collect data from the current database (ALPISPA);
- App for the PDA to exchange points at commerce and business.

### **MAL 6.3 - Promoting sustainable mobility among tourists**

The objectives of this measure are to encourage sustainable transport behaviour among tourists and to set up data collection systems to assess tourist mobility which will help in long term tourism transport infrastructure planning.

The outputs include an app which informs tourists of the location of the main tourist attractions and how to reach them using sustainable mobility options. A credit scheme for sustainable mobility for tourists is also envisaged in the design.

At the moment, there is one app (tallinja) which provides travellers information about scheduled bus services, routes and schedules. However, no app exists which integrates different transport information. The app to be created by DESTINATIONS is innovative and will be interoperable, i.e. linking existing public transport services and any similar apps to be created in the future.

Two of the most popular tourist destinations are within the Valletta Region - Valletta and Cottonera. Moreover, two of the most popular tourist resorts are also located within the Valletta Region. Scheduled bus services, hop-on hop-off buses and a network of ferry services offer options which connect the tourist resorts to the most popular tourist attractions, and yet 22% of all tourists still opt to hire vehicles during their stay on the island. The app will make it easier for tourists to travel around the island using sustainable transport options.

A credit scheme will be considered as part of this measure.

### **Project Partners working on measure, roles and responsibilities**

This measure will be led by Transport Malta (TM) who will be supported by the University of Malta and the Ministry for Tourism. The Ministry for Tourism is one of the main stakeholders and will be assisting TM in reaching the target audience as part of the Information and Dissemination stage as well assisting in the design of the Green Credits scheme. The University of Malta will be developing the app.

### **ITS Technology, system or service requirements**

The design of the app itself will greatly rely on the stakeholder consultation to be undertaken during the design process, its end objectives and the proper application of data protection laws.

### **Procurement of services**

A call for the engagement of the app developer has been published. Additional software to host the new system might need to be purchased, in which case a tender/call for quotations will be issued.

### **RET 6.3 - Green mobility card (Starts April 2019)**

#### **City context**

In the region, there is no credit system for mobility services to facilitate public transport users' mobility. There is not yet a smart card system that allows customers to pay for the urban public transport trips and benefit from prepaid and discount tickets. The feasibility study of setting up and maintaining a green mobility awarding scheme in regional level would provide valuable insight on the potential success of the scheme.

#### **Detailed Description of Measure**

This measure aims to deliver a feasibility study for a green mobility award scheme, through a Green Mobility Card for payment and incentives to award tourists and residents for



choosing sustainable mobility options. Users can collect green credits/points when using PT, public bike stations, the sharing platform, parking facilities at the city limits or other sustainable mobility services in the area/region. Also can be a business tool for the local SMEs. The measure also includes exchanging with stakeholders, local and regional to evaluating the concept.

The measure will result in a feasibility study of setting up and maintain a green mobility awarding scheme in regional level. The implementation of the scheme is not foreseen within the frame of DESTINATIONS.

The measure has a strong link with tourism and sustainable mobility. A green mobility card can offer credits to tourists and residents according to the level of sustainability of their transport option. More sustainable modes will offer a greater number of credits. Tourist can benefit from discounts in shops, restaurants, events, attractions entrance or to local products. In that way, tourists and residents can be encouraged to use alternative mobility options, reduce the use of private cars and manage their everyday trips in an environmentally friendly way.

**The specific goals of the measure are:**

- Design an attractive, self-sustained green mobility awarding scheme at regional level;
- Define a green credit scheme, promoting sustainable mode of transportation and providing benefits both to visitors/tourists and local/regional businesses.

**Project Partners working on measure, roles and responsibilities**

Project Partner	Role	Responsibilities
Technical University of Crete	Site manager - Measure Leader	Development of a feasibility study for the implementation of a Green Mobility Card
HF, GUAGAS, VECTOS	Transfer of experience	Development studies, and experience of partners will be exploited from RETH for the design of Green Card scheme
META GROUP	Measure Support	Technical support on Business Model Development for the Sustainable Mobility Agency, via T8.2

**Table 10 – Project Partners involved in RET 6.3**

**ITS Technology, system or service requirements**

The measure does not include services or technology to be implemented.

**Procurement of services**

The measure does not require procurement of services.

**4.3. Measures ex-ante evaluation**

Full details of the evaluation framework are found in Deliverable 9.1 including impact indicators, units of measurement and targets for each measure.

**MAD 6.1**

ARDITI and fellow partners will carry out survey campaigns to understand how satisfied PT users are with the new gamification schemes and to determine as well how their mobility

habits have changed after implementation. Considering that this is a brand new service that will be implemented, the survey campaign will start as from M16

**LIM 6.3**

Baseline Data Collection (July 2017) collected by carrying out surveys. Limassol has identified the impact indicators that will allow the evaluation of the measure’s implementation. It is estimated that Limassol will have the baseline data by project M10.

**LPA 6.1**

Measure Baseline and Key Targets to be completed.

**MAL 6.3**

Surveys will be carried out with tourists, before (M19) and after (M43) the launch of the app to see the percentage of tourists who are aware of the app and using alternative transport modes. The target is to achieve 600 tourists making use of sustainable transport instead of car hire or taxi.

**RET6.3**

The measure outcome will be a feasibility study and thus the measure will not have measurable impacts. The evaluation process and impact indicators are not applicable in this case.

**4.4. Implementation Plan**

**MAD 6.1**

In MAD 6.1. ARDITI has nearly fulfilled all the design and specification phases, paving the way to further implementation work. A state of the art report has been delivered on gamification and tracking apps to collect data about user mobility. This followed the testing of two existing products Positive Drive and BetterPoints. This found that Positive Drive could be tailored to the needs of HF / Funchal, integrating Gamification with Green Points.

Next steps:

- Focus on the design of the gamification system (architecture);
- Public display (material, some requirements), and;
- Driving simulator/VR/AR system (which one is more feasible and interesting to include in the project and definition of some requirements - with the idea to buy/personalize something already existing).

<b>Phase/ Milestone</b>	<b>Project months</b>	<b>Activity</b>
Design and specifications	1-12	COMPLETE - See above
Implementation	13-40	Specific/required equipment will be purchased after conclusion of T6.1.5
Evaluation	4-44	Contributions to the Draft Evaluation Plan were provided to the LEM and to the PEM.
Communication	4-48	

**Table 11 – Implementation Plan MAD 6.1**

## **MAD 6.2**

HF has produced several documents within the design and specification phase:

- Benchmarking and HF Meetings with software best practices;
- Internal HF Brainstorming;
- Internet research and Best Practices;
- Development of the Civitas “ CGLS- Civitas Commuting Green Loyaltee System;
- Pre-agreement by HF Board Members;
- “CGLS”- Model: Design: e-marketing Decision for “Tourism, Trade and Transports Partners and Growth Trips Expected;
- “SM&TS”: Model Design: Sales revenues % and Advertising system;
- “Summary CIVITAS CGLS- CIVITAS Commuting Green Loyaltee System- Concept

<b>Phase</b>	<b>Project months</b>	<b>Activity</b>
Design and specifications	4-12	COMPLETE – see above
Implementation	6-42	<ul style="list-style-type: none"> <li>- Development of the Civitas“ CGLS- Civitas Commuting Green Loyaltee System;</li> <li>- Pre agreement by HF Board Members;</li> <li>- Dissemination of “ CGLS” and European Partners</li> <li>- Feed Back Civitas Partners and “ Business Value Development Proposition”;</li> <li>- Technical Consultant / potential software costs / Developments “CGLS” requirements &amp; Clients ( Selection Phase &amp; Product Design – Market &amp; Software);</li> <li>- Preliminary key Local partners / ( Mobility&amp; Tourism)</li> <li>- Business Development “CGLS &amp; SMTS Civitas consultant)</li> <li>- Preparation of Book Charges and Tender ;</li> <li>- Pre Agreement by HF Board Members and Tender</li> <li>- Key Local partners agreements / ( Mobility&amp; Tourism)</li> <li>- Tests of “ CGLS” and HF goals</li> <li>- Key Partners and “ CGLS” developments;</li> <li>- Business model and cooperation</li> <li>- Opening Market “CGLS”</li> </ul>
Evaluation	10-42	Contributions to the Draft Evaluation Plan were provided to the LEM and to the PEM (fulfilling D9.1. requests).
Communication	14-46	Communication and awareness raising

**Table 12 – Implementation Plan MAD 6.2**

## **Risks and Constraints**

### **MAD 6.1**

There are low to medium risks associated with this measure:

- Regional / national laws and policies, namely at financial level, may delay the progress of the project in particular in the process for buying equipment, where an approval only may take well more than 3 months.
- Using new unproven approaches may take longer (time) and successive adaptations and improvements before reaching success in reaching objectives proposed in the measure. That’s an intrinsic part of research in any field.

- The measure time plan was too optimistic at first and have to be rescheduled so than it can fit in the work plan of other Destinations measures with which this measure liaison (most notably MAD 6.1. MAD 7.2. and MAD 7.3. and MAD 7.4.).
- There is no scale in Madeira island for a very competitive credit scheme so the idea of the managing team is to steer the measure onto a transnational scope, involving other fellow Destinations sites in measure design and in the product development.

### **MAD 6.2**

There is no scale in Madeira island for a very competitive credit scheme so the idea of the managing team is to steer the measure onto a transnational scope, involving other fellow Destinations sites in measure design and in the product development.

The measure time plan was too optimistic at first and have to be rescheduled so than it can fit in the work plan of other Destinations measures with which this measure liaison (most notably MAD 6.1. MAD 7.2. and MAD 7.3. and MAD 7.4.).

### **LIM 6.3**

- Strategic plan (October 2016 – November 2016). A strategic plan has been prepared for the implementation of this measure.
- Identification of companies (November 2016 – December 2016). Several companies have been identified and have been invited to participate in the bicycle challenge.
- Definition of monitoring system and collection of baseline data (January 2017). This milestone will be implemented in the following months.
- Implement a cooperation plan between key actors (February 2017 – April 2017). This milestone will be implemented in the following months.
- -Proof of acceptance of the bicycle challenge (June 2017 – August 2017). This milestone will be implemented in the following months.

### **Risks and constraints**

This measure aims to change the habits of locals and become actors in their own town and to promote cycling in their daily lives. Although, cycling has become very popular in Cyprus, locals use cycling mainly for physical exercise and leisure. This measure will focus on encouraging locals to use cycling for the daily commute to work which is not traditionally well understood. Therefore this constitutes a cultural barrier which must be addressed.

### **LPA 6.1**

In October 2016, a meeting was held with a software company specialized in public transport ITS tools to understand the kind of technology needed for this measure. In May 2017 technical requirements were defined. In October 2017, business model kick-off training will be held in Las Palmas de Gran Canaria, where it is expected to find out ways of attracting commerce and business to this initiative, to attract customer to take part in this measure.

### **Risks and constraints**

- No loyalty system has been developed for urban public transport in Las Palmas de Gran Canaria before.
- Business and public transport users might not be interested in taking part in this initiative.

- Guaguas Municipales does not know how citizens are going to react to this innovative initiative. A very positive reaction could also suppose a negative impact due to an unexpected increase of customers.

### **MAL 6.3**

Transport Malta will compile a list of stakeholders who will be directly/indirectly impacted by the measure. In M8, stakeholder consultations started being carried out in order to compile and analyse user needs and assist with baseline data collection about tourism transport. This information will help with the design of the specifications for the app (M10), taking into consideration; how the tourists will access it; how it will gather data without infringing data protection laws and the software which will need to be installed at Transport Malta to host the app.

The University of Malta will develop the app (M20) and a testing and verification period will follow in order to fix any issues. The app will be launched (M22) together with the launch of the marketing campaign. Monitoring and data collection will be done during the pilot.

### **RET 6.3**

The description of measure milestones and the dates are presented below:

- M1. Potential users' needs analysis (June 2019);
- M2. Exchanges with stakeholders and potential sponsors (August 2019);
- M3. Business plan for a self-sustained green mobility card (December 2019);
- M4. Dissemination of key elements of the business plan amongst relevant stakeholders (February 2020).

The exchange with partners that will implement green credit schemes in their sites will be essential support in order to draw from lessons learned and best practices during the development of the study.

### **Risks and constraints**

No specific risks or constraints are identified in the measure.

## 5. Low Emission Zones and Parking Management (Task 6.6)

### 5.1. Collaboration among DESTINATIONS Sites/partners

Table 13 below shows the measures in this cluster which have been identified as requiring best practice input for their design also those which have the strongest synergies to allow for planned exchanges.

TASK 6.6	Best Practice requirements	Supplier of BP	Measures with synergies	Details of planned exchanges between measure leaders
LIM 6.4	BP requested on smart parking systems and sensors	Vectos	MAD 6.4; MAL 6.4; RET 6.2	Measure leaders encouraged to share ideas on design - many areas of synergy
MAD 6.4	None required	N/A	LIM 6.4; MAL 6.4; RET 6.2	Measure leaders encouraged to share ideas on design - many areas of synergy
MAL 6.2	None required	N/A	N/A	N/A
MAL 6.4	None required	N/A	LIM 6.4; MAD 6.4; RET 6.2	Measure leaders encouraged to share ideas on design - many areas of synergy
RETH 6.2	Experience and lesson learned from the other cities on the implementation of LEZ. The study commences M36	HF, TM, Vectos	LIM 6.4; MAD 6.4; MAL 6.4	Measure leaders encouraged to share ideas on design - many areas of synergy

Table 13 - Cross site collaboration Task 6.6

### 5.2. Measure Design

#### **MAD 6.4 - Low emission zones and smart parking management**

HF, CMF and AREAM will test coordinated traffic management actions tuned on the strategic traffic plan to be developed: creation of 3 traffic calming zones, introduction of 2 reverse traffic streets, activation of PT priorities at 3 relevant traffic junctions, innovative passengers counting schemes and mobility sensors.

The scope of this measure is geared towards the establishment of a legal framework, to improve the mobility system and thus ease down traffic jams. In addition, the Municipality will carry on several strategies to restrict road accesses, such as the implementation of traffic calming measures and other actions aimed at providing public transport transit priority. To achieve these goal, it is intended to implement a state of the art technology to improve traffic control in traffic light system. Strategically, the measure intends to achieve the following:

- Approve a new regulation for touristic mobility actors, defining their routes, parking space and time of service, including the license concession for touristic operators;
- Implement traffic calming zones, in which vehicles can coexist with pedestrians;
- Evaluate the social and economic impact of closing streets or limit traffic in city centre to vehicles;



- New parking policies which will reduce the traffic in the city centre, benefit the local commerce, promote public transport and make mobility solutions for tourists more user-friendly in city centre;
- Study the feasibility of introduction of reversible lanes according to time slots;
- Use of innovative traffic lights that will provide mobility solutions for the urban environment;
- Develop strategies to restrict road access according to the Sustainable Mobility Action Plan;
- Install monitoring sensors in traffic light systems to improve traffic control;

The implementation process will be supported by other project partners, such as Horários do Funchal which will provide important data that will feed the baseline and the bus corridor feasibility. Task 8.2 task leader will be involved in order to support the feasibility study of shutting down streets to traffic. Also, SRETC will provide, when necessary, tourist-related data and survey support. AREAM will support the monitoring of environmental data. ARDITI may support the design, implementation (prototyping) or adapting custom made equipment such as the monitoring sensors that will be attached in the traffic light systems as stated in MAD 2.2. Finally, the DESTINATIONS cities that are engaging similar strategies may be also involved in the process.

Regarding ITS technology, one should mention that the lack of a touristic transport regulation at urban level is especially troubling taking in consideration the several tourism mobility agents pick up tourists and clients all at once from/to the same areas intensifying traffic congestions. Overcrowded touristic spots reduce the attractiveness of the destination and this measure will play an important role to overcome such problems through the implementation of a regulation and introduction of several actions. Funchal will be a testing bed for innovative and smart sensors which will be used to control vehicles access, organize traffic light systems and to monitor real-time traffic conditions through an intelligent platform, including also the introduction of a smart traffic light system suited for soft modes. This measure is also related to MAD 2.2 in which monitoring sensors will be purchased, following the development of a prototype that will be undertaken by ARDITI.

As far as procurement of services is concerned, due to the technical requirements and complexity of the measure, it will be necessary to carry out a tender process. For the bus priority or transit signal priority, the procurement of services needs to ensure the service and reduce delay for public transport at intersections controlled by traffic signals. As for the feasibility of introducing a new corridor dedicated for buses and study the reversible circulation, a different procurement of service may be executed.

#### **LIM 6.4 - Smart parking guidance system**

In Limassol, this measure aims to make parking guidance available to drivers by providing real time information for parking availability, which will be visually displayed on mobile phones/computer devices through a smart application as well as on variable message systems that will be located around the city centre. Smart sensors will be installed in about seven municipality-owned parking spaces, which will be able to transfer real time data regarding space availability.

#### **Project Partners working on measure, roles and responsibilities**

The main lead partner of this measure is the Limassol Municipality and will be responsible for implementing the following activities: strategic planning, preparation of tender documentation, tender evaluation and contract with the subcontractor, supply of equipment, monitoring and evaluation of the measure, statistical figures, preparation and implementation of an integrated communication strategy.

### **ITS Technology, system or service requirements**

For the purpose of this measure, Limassol will use upgraded electronic information signs on each main entrance of the city centre, so that the drivers receive guidelines on the direction to follow to locate the nearest available parking spot. This measure will apply to the preparation of the SUMP for Limassol.

### **Procurement of services**

Limassol will require a procurement of services for the construction and installation of 7 municipality parking spaces.

### **MAL 6.2 Testing a Low Emission Zone and Introducing Emissions Alert App**

Among the more specific objectives of the measure, it will allow to study the feasibility of LEZs within the context of the Valletta region. A second part of the measure will involve the public in curbing high-emission vehicles by launching an automated app which reports high-polluting vehicles.

The LEZ shall be studied by extending and modifying the existing Controlled Vehicular Access system which is operated within the city of Valletta. Infrastructure present on the approach roads towards the city shall be used to monitor the vehicles going in and out of the city. However, additional equipment will be required to enable the system to also operate as a LEZ. This will include ANPR cameras and CCTV.

The design of the Emissions Alert App will greatly rely on the stakeholder consultation to be undertaken and the gap analysis which will assess the current system's failures and find solutions how the app can overcome these failures. This measure is related to MAL2.1 and will contribute significantly to the inclusion or otherwise of this measure within the Valletta Region SUMP.

### **Project Partners, roles and responsibilities**

Transport Malta is the measure leader and will co-ordinate consultations and see the overall implementation of the Emissions Alert app and the testing of the low emissions zone. The University of Malta will develop the app.

### **ITS Technology, system or service requirements**

The LEZ shall be studied by extending and modifying the existing Controlled Vehicular Access system which is operated within the city of Valletta. The infrastructure present on the approach roads towards the city shall be used to monitor the vehicles going in and out of the city. However, additional equipment will be required to enable the system to also operate as a LEZ. This is being conducted together with the operator.

### **Procurement of services**

A call for applications has been issued for the engagement of a developer who will develop the Emissions Alert App.

### **MAL 6.4 Smart parking management system for Valletta**

A parking management plan for the city will be compiled including the software and infrastructure necessary to implement the smart parking management system.

The preparation of the pilot will involve:

- Procurement of sensors and software to be used;

- Installation of equipment;
- System testing and verification.

The measure aims to deliver a smart parking management system, which informs drivers and authorities about parking availability. This has the potential to reduce journey times in the city and improve the air quality.

Valletta is a walled city with limited parking infrastructure. Access to the city by car is therefore limited physically, and limited further through road pricing, extensive pedestrianisation and relatively few parking spaces. Car drivers today access the city and cruise for a long time to try and find an available space. This causes congestion, pollution and excessive waste of resources and time. This innovative parking management solution has the potential to inform the driving public as well as to reduce the impacts of transport through parking management.

### **Project Partners, roles and responsibilities**

Valletta Local Council is the lead partner for the implementation of this measure. Transport Malta will be consulted as part of the key stakeholder group and the University of Malta is the local evaluation manager.

### **ITS Technology, system or service requirements**

This measure aims to inform travellers through smart cities applications by testing and piloting sensor and mobile technologies and telematics to provide further information to drivers as they cruise around the city, trying to find a parking space.

### **Procurement of services**

A tender will be published for the procurement of the sensors together with any required related software and infrastructure. Currently, the specifications for the tender are being drafted.

## **RET 6.2 - Low emission zones study (Starts on August 2019)**

### **City context**

Currently, a significant proportion of tourists use hired cars during their stay on the island and this can have a significant impact on the number of vehicles on the road, the level of congestion and also the air quality. The greatest impact is surrounding the most popular attractions such as the historic town centre which itself has limited entry and exit points.

### **Detailed Description of Measure**

This measure is intended to study how a Low Emission Zone (LEZ) works and gather important data to shape future policies on the introduction of LEZ in areas which are negatively affected by heavy traffic congestion, particularly in areas where there is a considerable influx of tourism.

### **Expected outputs**

- Strategic study for the implementation of car-free zone in the historic city centre, includes study of smart parking management around the centre
- Public consultation process involving residents and businesses in the examined area.

The study of a LEZ will provide broader opportunities to create traffic calming zones, shared space, where slow speed, low emitting vehicles can coexist with pedestrians and leisure events. The study, having gained the consensus of the community, is expected to enter the implementation phase.

The specific goals of the measure are:

- Introduction of a LEZ to limit the access of vehicles
- Assessment of the social and economic impacts of LEZ
- Parking regulations assessment and revision
- Involve citizens and stakeholders to the decision-making process.

### Project Partners working on measure, roles and responsibilities

Project Partner	Role	Responsibilities
Rethymno Municipality	Measure Leader – Beneficiary	Feasibility study, organisation/logistics of consultation events and stakeholder sessions
Technical University of Crete	Site manager Measure Support	Coordinate stakeholders' engagement and public consultation. Support the study of the LEZ

**Table 14 – Project partners in RET 6.2**

### ITS Technology, system or service requirements

The measure does not include the application of IT systems/tools.

### Procurement of services

The measure includes subcontracting of services for the development of the strategic study for car free zone in the historic city centre, accessing the social and economic impact, including also a development plan. The strategic study will be developed by the Sustainable Mobility Unit of NTUA, the subcontractor of SUMP for Rethymno and this study will be developed in conjunction with SUMP. The procurement of service is also foreseen for the organisation of event and consultation sessions.

## 5.3. Measures ex-ante evaluation

Full details of the evaluation framework are found in Deliverable 9.1 including impact indicators, units of measurement and targets for each measure.

### **MAD 6.4**

This measure sets out to reduce CO<sub>2</sub>, NO<sub>x</sub>, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, noise traffic incidents, and vehicles circulating all by 5%. There is a target of 10% reduction in irregular parking and 2% increase in bus patronage. Baseline is under preparation.

### **LIM 6.4**

For measure 6.4, baseline data will be collected by carrying out surveys, estimations and data collection. Limassol has identified the impact indicators that will allow the evaluation of the measure's implementation. It is estimated that Limassol will have the baseline data by M10.

## **MAL 6.2**

For the Low Emission Zone study the Investment and Operational costs will be measured. For the Emissions Alert App a survey targeting the citizens will be carried out before (M16) and after (M32) the launch of the app to measure the awareness and acceptance levels. Data on the number of polluting vehicles reported will also be collected in Months 21, 26 and 36.

## **MAL 6.4**

Towards the end of the project (M37) a survey will be carried out with the local citizens to measure the level of satisfaction of the smart parking system. The target is to have 20% of respondents who are completely satisfied.

## **RET 6.2**

The measure outcome will be study and thus the measure will not have measurable impacts. However, the measure will be ex-ante evaluated as an approach to assess future implementation. Five environmental indicators have been selected to evaluate the impact on air pollution of a potential Low Emission Zone in the area: CO<sub>2</sub> emissions, CO emissions, NOx emissions, VOC emissions, Small particulate emissions.

The evaluation will be completed in later stage.

## **5.4. Implementation Plan**

### **MAD 6.4**

**Stage 1 - Design and specification phase** – During the first 12 months of the project, CMF has been identifying the target area, which is located in the city centre, in one of the three main water streams that are located in Funchal. The area is mainly dominated by commerce activities and services. As for the roads, they have a significant traffic volume, triggering congestion and severely affecting public transport. Therefore, this area, due to its specificities will serve as an interesting pilot zone to implement and assess the strategic actions that are planned.



**Figure 6 - Funchal target area**



A traffic light priority system will be introduced to all public transport vehicles to circulate more fluidly.

To achieve this, research is being conducted and several companies specialized are being contacted. Also, the municipality is assessing the feasibility of adapting these sensors to the traffic system that is currently used. Also, the required sensors should be able to quantify traffic volume, modal split and estimate pollutant emissions.

The evaluation baseline was reviewed in order to integrate specific indicators that will directly measure the impact of the sought actions. Therefore, five environmental indicators will be assessed (CO, NOx, SO<sub>2</sub>, PM10, PM2.5 and noise). The indicators that are included in the category “Transport System” will be also considered, namely road safety, speed, number of passengers, traffic flow and parking infractions. This last indicator will be collected through on site identification of parking violations according to the National Traffic Road Regulation. An extensive study is already completed in which the strategic actions are depicted as well as their applicability in Funchal.

**Stage two – Implementation of traffic calming measures to reduce pollutant emissions** (June 2017 – October 2017) – During this stage, several traffic calming measures will be identified and implemented in several areas. The strategic actions will be geared at reducing speed and thus, pollutant emissions. During this process the feasibility of bus lanes will be assessed through traffic modelling. For this process, several data will be collected, such as user demand, route time and other pertinent data.

**Stage three - Traffic light integrated system and regulation** (June 2017 – February 2020) – Technical specificities will be identified, such as real time smart sensors tailored to the different traffic scenarios. Also, the possibility to gather environmental data, traffic counting, emissions pollutant, noise, and other). Following the market research, a tendering process will be carried on. Also, the legal framework tailored at touristic agents will be also published.

**Stage four – Evaluation process** (June 2017 – June 2020) – As for what ongoing evaluation activities are concerned, the implementation of a bus corridor and reversible lane is currently being planned in articulation with the main public transport operator. After gathering the data, different scenarios will be tested to assess the viability of introducing bus corridors. During this stage, data will be collected to assess the impact of the measure.

**Stage five – Communication process** (April 2017 – June 2020) - In order to promote the measure and its strategic actions, several awareness campaigns will be tailored to specific target groups. These awareness campaigns will be undertaken at several events, such as Mobility Week, schools, driving schools, and local events. The campaigns will be focused on the importance of public transport, eco-driving and traffic calming measures.

### Risks and Constraints

	Potential Drivers	Potential Barriers	Activities to be taken to mitigate the barriers	Risk
<b>MAD 6.4.</b>	Political/ strategy	Cultural	Awareness campaigns geared towards several target groups to tackle resistance to change.	Moderate
	Involvement/ communication	Technological	Match the technical requirements to traffic light system. Establishment of contacts with other cities that uses similar systems	High

**Table 15 – Risks and Constraints MAD 6.4**



## **LIM 6.4**

### **Strategic Plan**

A strategic plan has been initiated but not completed

### **Preparation of tender documentation**

Tender documents are ready for approval to start the procurement procedure.

### **Tender Evaluation and contract with the subcontractor**

Final Study - Supply of equipment. Those milestones have not completed yet, due to the delay of procurement procedure.

**Risks and constraints** No risks or constraints have been identified for this measure

## **MAL 6.2a & MAL 6.2b**

As early as Month 3, Transport Malta was involved in an exercise to identify the key stakeholders who would be directly involved with the design of the measure to test the LEZ. This measure will be building on a system which is already in operation – the CVA System. In Month 8, consultations with these stakeholders were initiated in order to disseminate information about the measure, gather feedback as to the current needs and assist in baseline data collection. The output from these meetings will give a valuable input to the design of the specifications for the system including the modifications necessary in order to extend the CVA operating system to include the LEZ as well as the identification of boundaries. Transport Malta will coordinate the installation of the equipment and software which should be completed by Month 15.

The Emissions Alert App will also be building on an existing system which has the same principle but requires a more manual input and is therefore slow and inefficient. In Month 7, meetings with the involved stakeholders were initiated. The main aim of these was the compilation of a Gap Analysis which will be used to compile the specifications for the new app. The Gap Analysis will look into aspects of the current system which need to remain manual and which can become automated.

A call for applications for a developer to develop the app has been issued by the University of Malta, in Month 7. Once the developer is engaged, the app will be designed between Month 9 and Month 15. In parallel with this, the University of Malta will procure the equipment specified in the design stage and coordinate its installation.

A testing and verification period will follow between Month 16 and Month 18. Once the verification period is complete, the app will be launched in Month 21. The system, together with the transition from the old system, will be monitored for 16 months in order to collect data which will be used to assess its success, public perception and to improve it in any way for a continued implementation post-DESTINATIONS (Month 35).

## **MAL 6.4**

Baseline data will be collected remotely through systems already operational within the city, including CCTVs (Month 12). Based on this data, user needs analysis and market research, the system will be designed.

A parking management plan for the city will be compiled including the software and infrastructure necessary to implement the smart parking management system (Month 14 - Month16).

The sensors and software to be used in the pilot will be procured (Month 24). The equipment will be installed (Month 27) and the system tested and verified (Month 29). The smart parking management system will be launched, managed and monitored (Month 30).

A marketing campaign will be designed and a plan for dissemination drawn up (Month 16). The campaign will be launched in parallel with the implementation of the pilot (Month 30). At the end of the pilot period the data and results gathered will be disseminated.

## **RET 6.2**

### **Measure Milestones**

The description of measure's milestones and the dates are presented below.

M1. Focus groups – residents / visitors need analysis (September 2019);

M2. Consultation events (November 2019);

M3. Evaluation of focus groups and stakeholder consultation findings (February 2020);

M4. LEZ study development (April 2020);

M5. Communication of the study highlights amongst relevant stakeholders and the public (June 2020).

### **Key issues**

The exchange with partners that will implement Low Emission Zones in their sites will facilitate the development of the study by exploiting lessons-learnt and best practices.

Political will is a key factor for the potential implementation after the study. The political consensus and the regulatory changes will be critical for the creation of a Low Emission Zone in Rethymno.

### **Risks and constraints**

The main risks for the success of the measure concern the future implementation after the completion of the study. Citizens' opposition to new parking regulations and a negative reaction of the professionals as concerns parking may prevent the implementation of a LEZ in the historic centre. Communication and engagement actions are foreseen within the measure in order to overcome such barriers, including the public consultation event that will provide sufficient information and will highlight the benefits of the implementation.