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Cleaner and better transport in cities

DESTINATIONS



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Abstract

This deliverable reports the results of the activities performed by the DESTINATIONS sites under Task 4.3 of WP 04 “*Shared mobility and e-infrastructures towards zero emissions transport*” related to the site preparation, solutions deployment, supporting actions and demo setup for shared mobility and e-infrastructures piloting measures. It also looks ahead to the demonstration phases of the various WP4 measures across the six sites and within the measure categories.

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Câmara Municipal Do Funchal	CMF	PT
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1. Executive Summary

This deliverable reports the results of the activities performed by the DESTINATIONS sites under Task 4.3 of WP4 “*Shared mobility and e-infrastructures towards zero emissions transport*” related to the site preparation, solutions deployment, supporting actions and demonstration setup for shared mobility and e-infrastructures piloting measures. It also looks ahead to the demonstration phases of the various WP4 measures across the six sites and within the measure categories.

Chapter 1 provides an introduction to WP4, specifically to the objectives of T4.3 outlining the main structure of this deliverable.

Chapters 2, 3 and 4 cover the implementation of the measures of the three defined clusters in the six DESTINATIONS sites. The description of each measure covers all aspects related to the set-up of the shared services/measures (e.g. main measures design highlights, procurement acquisition process; site preparation and first implementation activities; ICT/Infrastructure supporting solutions; organizational aspects and operation procedures) and also complementary activities for their implementation (i.e. training activities and description of the management team, data collection procedures, demonstration and promotion plans, risks and identified solutions). Each of these three chapters ends with a table summarizing the collaboration and synergies among sites/partners and the specific contributions on possible expertise and best practices to be shared.

2. Introduction

2.1. WP4 in the DESTINATIONS project

The role of WP4, in the six DESTINATIONS sites, is dedicated to the design, development and implementation of mobility services based on the concept of ride sharing and support conditions/measures needed to increase collective and clean travel and mobility service accessibility for residents and tourists.

The set of WP4 measures/services involved in the six sites include various ride sharing schemes; advanced IT platforms/portals; Electric Vehicles (EV); incentives and infrastructure; and vehicle/bike (asset) sharing services.

In particular, the WP4 main objectives are the design, implementation and demonstration of:

- An ICT-enabled platform for ride sharing services targeted at different residents' and tourists' needs and requirements allowing service management, monitoring, information, promotion and reporting. This platform and ride sharing mobility services will be implemented by Elba and Rethymno sites;
- new, upgraded and consolidation of existing bike-sharing schemes, including the use of e-bikes and bikes for physically impaired users in Las Palmas and Rethymno; expansion of public bike-sharing services with e-bikes in Limassol and Rethymno and an information and awareness campaign to promote the services of e-bike and car sharing in Malta and Rethymno
- take-up of electric mobility vehicles and schemes based on the launch or increase of charging points and various promotional measures, (Madeira, Rethymno, Las Palmas and Limassol) and the analysis and set up of specific regulations for fostering the use of clean vehicles, in particular EV and PHEV (Elba).

2.2. Task 4.3 Cluster Services and Measures framework

As already described in deliverable D4.1 "*User needs and requirements, ex-ante evaluation, service design and ITS specifications for shared mobility and e-infrastructures* (output of Task 4.2)", the WP4 measures have been divided into three main clusters:

- Cluster a) Shared mobility services: development of ICT-enabled ride sharing platforms supporting ride sharing services addressed to resident and tourist needs;
- Cluster b) New and Extended public (e-)Bike systems: implementation of new or enhancement of existing bike-sharing schemes, promoting the use of e-bikes and bikes for physically impaired users;
- Cluster c) Shared e-charging infrastructures: take-up of electric mobility vehicles and schemes based on fast charging points and analysis and set up of a specific regulation fostering the use of clean vehicles, in particular EV and PHEV.

The following table provides an updated description of the measures that are implemented in each site, divided in the three clusters:

CLUSTER a) Shared mobility services	
Measure Title	Measure description
ELBA	
ELB 4.1 ELBA Sharing Mobility Agency	“ Elba Shared Used Mobility Agency (SUMA) ” is the organisational- operational structure managing the mobility ride sharing services implemented within the other WP4 measures (as follows)
ELB 4.2 Car/scooter/bike/boat (CSBB) sharing	Elba Sharing Mobility Agency, through the platform (web portal and app), will link the different car/scooter/bike/boat (CSBB) service operators in order to reinforce the overall sharing of these services. The operators will have the possibility to expose their offers in terms of means availability and typology, etc. Moreover, the platform will provide a link to the existing Elba portal giving the operators the possibility to manage the payment and negotiation phase. The networking involves not only the CSBB operators but also the operator of other “mobility” resources (i.e. “summer” parking area).
ELB 4.3 Ride Sharing Platform	Design, development and operation of the advanced ICT platform (with Web and APP media channels) for supporting the management, monitoring and operation of the Elba Sharing Mobility Agency. The platform allows the management of: networking sharing service operators, user information and ride sharing services (e.g. <i>ride sharing board, shared ride-planning and aggregated taxi</i>) through the web portal and app channels.
ELB 4.4 Increasing feeling of security among Elba sharing users; tracking for ELBA-sharing service users: app	Development of a specific section managed by the Elba-sharing platform (through the APP) to allow users to be tracked during their “shared” trip (achieved through the specific functionalities/services allowed by the APP) thus enhancing their feeling of safety and making them more willing to largely use the Elba-sharing services).
Rethymno	
RETH 4.2 a) Building a sharing mobility culture – Sharing mobility campaign	Implementation of customised web-based sharing mobility platform to manage a multimodal sharing scheme specifically targeted to tourists and visitors and a car sharing mobile phone application (web based)
Limassol	
LIM 4.1 - Electric car rental connecting Limassol town with airport and port	Implementation of n° 7 new charging stations including shelters for car parking and EV chargers.
Cluster b) New and Extended (e)Bike systems	
Measure Title	Measure description
Las Palmas	
LPA 4.1 Public e-bike system	Introduction of a new e-bike service in the sharing system, including e-bike and models accessible for impaired users: 42 new stations

	(5 of them will be smart totems/terminal flats that are going to be placed at touristic areas + 35 Smart signs), 525 anchor points/bike docks (20 of these bike docks will be available for electric bicycles, 20 e-bikes, 375 conventional smart bikes and 2 adapted bikes accessible for the physically impaired)
Limassol	
LIM 4.2 Expansion of public bike sharing system, include e-bikes	Support to the bike sharing company to expand its network , adding 5 new bike parking facilities, 10 new bike sharing stations and 120 new bikes
Malta	
MAL 4.1 Promoting e-bike sharing and car sharing	Realisation of an information and awareness campaign to promote both the services of e-bike and car sharing as well as educate the public on cycling safety
Rethymno	
RETH 4.2 b) Building a sharing mobility culture – Sharing Mobility Campaign	The measure changed from the originally planned expansion of the public bike sharing system with 16 new public bike sharing stations for bikes and e-bikes (60 bikes, 10 e-bikes and 1 e-bike for disabled) to the implementation of a new free-floating bike sharing system , with 300 dockless e-bikes
Cluster c) Sharing e-charging infrastructures	
Measure Title	Measure description
ELBA	
ELB 4.5 EV legislation revision and charging infrastructures in Elba	Elaboration of a regulation, that will represent a guideline for Elba Municipalities, to foster the use of clean vehicles , in particular EV and PHEV including incentives such as free parking in blue line parking lots, free circulation in the LTZ, free charge of the batteries at dedicated "green" reserved parking lots, etc. The National Energy Authority (ENEL) support PF Municipality with the installation of n° 20 charging stations in the Portoferraio Municipality under a specific agreement between ENEL and the Tuscan Region Government (no operational costs nor equipment purchases to be charged to the DESTINATIONS project). Portoferraio will also propose other Elba municipalities to adopt the same approach.
Las Palmas	
LPA 4.2 Fast charging EVs	Realization of n° 6 new recharging points for electrical vehicles and purchase of three new electric vans.
Limassol	
LIM 4.3 Promote the uptake of electric vehicles, campaign on e-mobility	Promotional campaign targeted to tourists, Free parking offer for e-vehicles and involvement of bike rental companies to introduce electric bikes
Madeira	
MAD 4.1 Promote the uptake of clean vehicles by fleet operators	Expansion of the charging network including relevant points for tourist activities (i.e.: hotels and restaurants) and car parks in private and public spaces, and an information platform on electric mobility. Promotion of incentive schemes to purchase electric vehicles
Rethymno	

RETH 4.1 Uptake of electric vehicles by fleet operators	Installation of the first 4 EV public charging points in the region ; incentives for the use of EV (free Parking card for electric cars in all parking sites in the city). Promotional campaign to promote electric vehicles to citizens and rental car operators
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Table 1: Updated WP4 Measures

It must be underlined that the measures have not reached the same level of implementation: while some measures have already ended the implementation phase and are currently in the operational/demonstration phase (LIM 4.2 and 4.3, LPA 4.1 and 4.2, MAL 4.1, MAD 4.1 and RETH 4.1), others have registered a slight delay in the implementation (ELB4.1, 4.2, 4.3, 4.4 and 4.5, LIM 4.1). Others, according to the initially foreseen timeline, are currently in the design phase (RETH 4.2a).

2.3. Deliverable D4.2

Deliverable D4.2 aims to describe in detail the activities performed and results obtained in the Task 4.3 “Site Preparation, solutions deployment, supporting actions and demo setup for shared mobility and e-infrastructures piloting”, related to the set-up of shared services and the implementation of the supporting ITS Systems. In particular all relevant aspects of the measures implementation are addressed in D4.2 among the others: measures design highlights, procurement acquisition process; site preparation and first implementation activities; ICT/Infrastructure supporting solutions; organizational aspects and operation procedures. Moreover, the deliverable provides some information on training activities and data collection procedures as well as indicating relevant aspects of the future demonstration and promotion plan and of possible identified risks and solutions.

2.4. Highlights and main success stories

After two years of project development, the DESTINATIONS sites have reached several important results. Some of them are worth to be highlighted, such as:

- in Elba, the activities for the realisation of the Shared Use Mobility Agency have been pursued, in particular:
 - the SUM Agency has been designed
 - the level of complexity of the operational, organisational and institutional dimensions for the realisation of the Agency has been faced and solved
 - the procurement documentation has been defined and a monitoring plan for the demonstration phase and for supporting an assessment of the different services and the roles of the operators has also been elaborated

The relation between the **Shared Use Mobility Agency and the MaaS (Mobility as a Service) approach**, especially in small and medium towns in which the offer of public transport services does not cover the real needs and mobility requirements of residents and tourists, will be deeply analysed during the next two years. The role of the SUM Agency will in fact play an important role towards a MaaS concept focusing on Collective Public Transport services integrated with the active modes and ride sharing schemes.

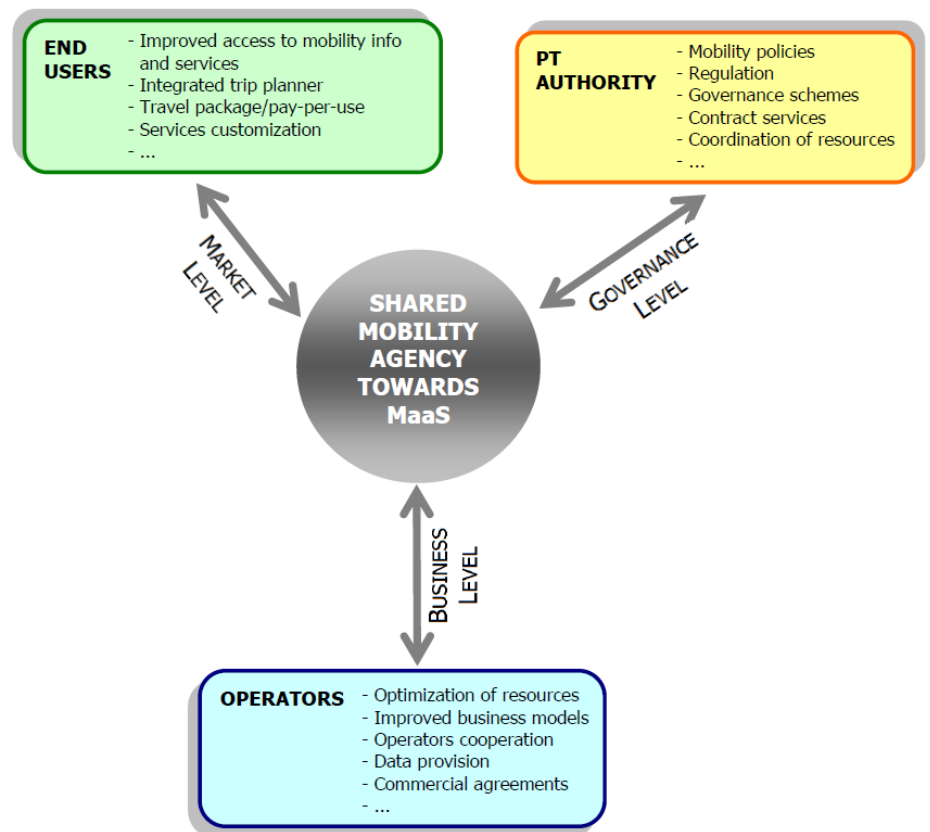


Figure 1: Shared Use Mobility Agency towards MaaS

- in Rethymno a **new free-floating bike sharing system**, with 300 dockless e-bikes has been implemented and completely substituted the previous existing bike sharing system which proved not particularly useful in meeting residents' and tourists' needs. Rethymno is the first Greek city to adopt this system. Rethymno also organized the "design days", a very successful consultation workshop to raise awareness and engage residents and tourists on sharing mobility;
- in Las Palmas a pitch event was organised on the 8th of April 2018 to present the extended and improved city bike system; **10.000 users were registered** during the event. Several promotional activities and participation to events for promoting electromobility have also been successfully organised in Madeira;
- in Limassol the Municipality provides **free parking spots for electric vehicles**, to encourage more tourists and locals to use e-cars. The main bike sharing rental company, Nextbike Cyprus, also offers **free cycling rides** on a weekly basis;
- in Elba, instead of the foreseen 3 charging stations, the Municipality of Portoferraio will install n° 20 EV charging stations with dedicated parking lots in some key locations in the municipal area at no operational cost for the project but funded by other internal sources. Portoferraio will then propose to the other Elba municipalities to install 30 additional charging stations.

Moreover, two workshops were organised by the WP4 leader and MemEx to exchange best practices and experiences:

- the first **was** organised during the Las Palmas meeting on the 20th October 2017, **on the concept, design, technical specifications and the business model of the Shared Mobility Agency**
- the second was organised during the Malta meeting in March 2018 on **Bike sharing services** (in particular the contract, procurement, schemes, problems and organization, PT operators' point of view and business models), **Car sharing Schemes** (free floating car sharing and operation problems, role of CITY and type of contract, business model) and **EV stations network** (property or service, service requirements and existing experiences around Europe).

3. Ride Sharing Mobility Services Implementation

3.1. ELBA - ELB 4.1, 4.2, 4.3, 4.4 RIDE SHARING Mobility Services

3.1.1. Measure design highlights

The innovative concept of the Elba **Shared Use Mobility Agency (SUMA)**¹, designed and consolidated during the T4.2 activities, lies in the fact that users have a unique point of access to all information on the overall mobility offer in a consistent and efficient way (information, journey plan, locations, etc.). SUMA acts moreover as a “broker” for the management and coordination of the different flexible and ridesharing services integrated with conventional public transport services and information. Therefore, the SUM Agency aims to reduce the level of private trips during the summer period, especially during the staying period of tourists, and to increase the use of different “collective” transport services also during non-touristic seasons. As detailed in the deliverable D4.1, the Agency is composed of an ICT platform, a business model and a specific organization/operation structure and has been tailored around the mobility demand and the territorial context of Elba Island in order to address the needs and requirements of residents and tourists (resulting in an increased demand of 30%). The design of the Elba SUM Agency has been finalized in October 2017. The defined architecture in terms of the main components and functionalities is provided in the figure below.

¹ The name of the Agency has been changed from SEM (Elba Sharing Mobility Agency) as indicated in the Deliverable “D4.1 User needs and requirements, ex-ante evaluation, service design and ITS specifications for shared mobility and e-infrastructures” to SUM Agency (**Shared Used Mobility Agency**)

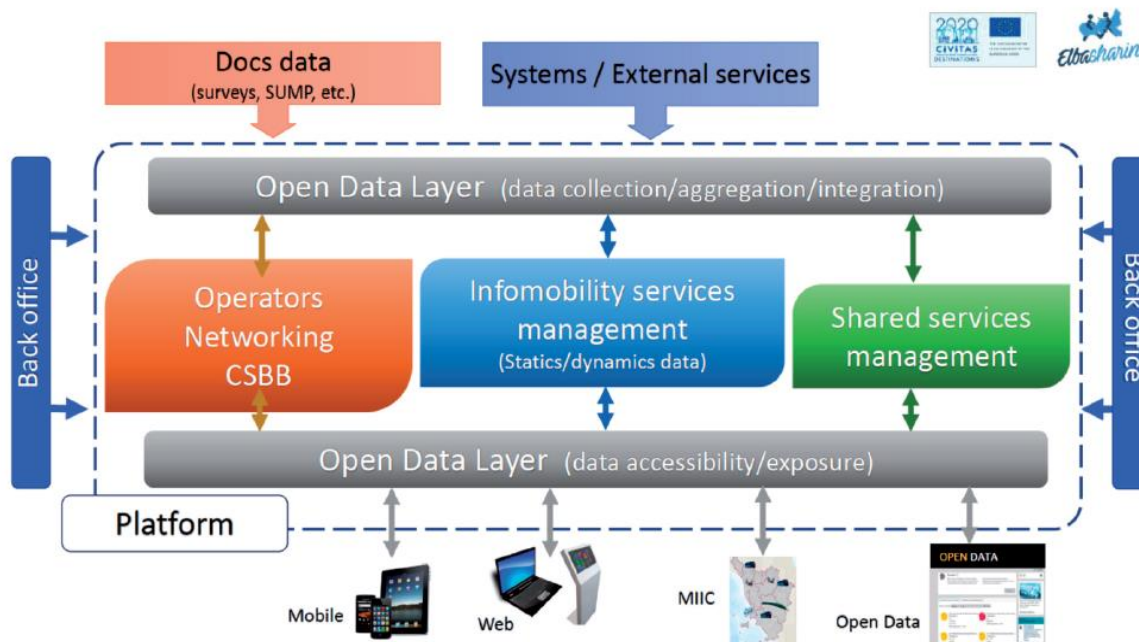


Figure 2: Structure of the Shared Use Mobility Agency

On the base of the design work developed in Elba for the Shared Mobility Agency (described in this Deliverable), a **specific guideline booklet** describing in detail the design of the **SUMA in small and medium sized urban areas has been published in June 2018**. This booklet was promoted in different European conferences and workshops and was presented also in extra-urban countries including China and the US. The cover page of the handbook is provided in figure 3.

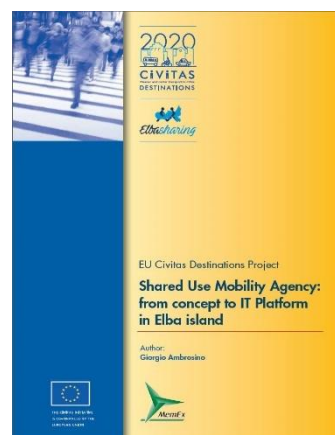


Figure 3: Cover of the Booklet on the Design of the Shared Use Mobility Agency

3.1.2. Procurement

The realization of the platform was assigned by a specific and complex procurement process summarized in the following sections outlining the main procurement steps and documents.

3.1.2.1. Scope

The main object of the procurement has been:

- 1) the assignment of **the development, supply, start-up, testing and maintenance of a technological platform** for the management of the info-mobility and shared mobility services in Elba island.

The technological platform is composed at minimum of 4 macro-components (as indicated in **Erro! A origem da referência não foi encontrada.**):

- a. **open data layer** (specific features for acquiring, aggregating and making accessible in open-data format data information related to mobility and public transport services from different sources (i.e. systems / services for static / semi-dynamic and dynamic information / data, etc.))

- b. **operators networking** (specific features for networking and displaying the services of the different mobility operators (including the rental of cars, scooters, bicycles and boats - CSBB - Car / Scooter / Bike / Boat) and services of interest for mobility (for example private parking areas))
 - c. **info-mobility services management** (specific features for providing the info-mobility services via web and mobile channel)
 - d. **shared services management** (specific features for aggregating the application to take advantage of travel sharing services (shared mobility) via web and mobile channel)
- 2) the development and supply of the **interfaces with the ITS systems and mobility services** (currently existing or of future realisation) related both to the whole Elba territory and to the connections with the mainland and of **the interfaces for the data publication** in “open data” format.

3.1.2.2. Process

The Municipality of Portoferraio is responsible for the management of the procurement and has been supported by MemEx in the whole process.

The Municipality of Portoferraio adopted a restricted procurement scheme and published an invitation for an expression of interest in October 2017. A total of n° 20 expressions of interest were received and a draw was made to further restrict the process to a lower number of providers: 8 providers (out of the 18) were shortlisted and received the whole tendering package in Mid-December. N° 3 providers sent their completed bid offers during the month of February 2018. The evaluation of the bidding offers took place until the end of April through a specific internal evaluation team appointed by Portoferraio Municipality. To perform the technical evaluation of the bid offers, the adopted methodology foresaw the comparison of two bid offers at a time. A negotiation with the first ranked bidder was held during the month of May and after that the Municipality of Portoferraio, supported by MemEx, has started drafting and releasing the contract, detailing the following: *object of the contract, realization phases (see paragraph 2.1.2.3), penalties, funding, cautions, responsibilities and obligations of the supplier, management of the supply, invoices and payment plans, general conditions on the observance of labor law, post-warranty assistance and maintenance, and resolution of the contract.*

The official assignment of the bid winner was completed in the month of July (Portoferraio Municipality act n.314 27-7-18) and the contract will be assigned during the month of September 2018. Independently the first technical meetings with the contractor (PLUSERVICE) have already been held.

3.1.2.3. Realisation phases

The assignment foresees the following consecutive phases:

- **Phase A) Executive Planning.** This phase will last 3 months starting from the date of contract signature expected in September 2018 (2 months for the supply of the executive planning + 1 month for the verification and possible final acceptance). The executive planning will contain the following documents:
 - detailed description of all the functional, technical and operational elements of each single component of the ITS platform;

- description of the specifications of the interface modalities among the platform and the different mobility systems, services and IT institutional systems;
 - description of the data model of the “open data layer”;
 - description of the HW architecture and platform installation;
 - specifications of the testing procedures of the realization phases;
 - development plan, detailed description of the evaluation procedure of the Performance Indexes;
 - detailed plan for the assistance and maintenance activity and for the training of the involved staff.
- **Phase B) Activation of the components** “Open Data Layer” and “Info-mobility services management” and of the services “Board for sharing rides” and “Board for sharing taxi” of the component “Shared Service Management”. This phase will begin after the final positive acceptance of Phase A and will last at maximum 4 months.
 - **Phase C) Extension of the "Open Data Layer" component** with development of all the planned data exchange interfaces and of the "Infomobility service management" component, activation of the additional services "Board for Planning a trip", "Board Hitchhiking" and "Tracking of the security and rating system" provided by the “Shared Service management” component and the “Operators Networking” component. This phase will start after the final positive acceptance of Phase B and will last 3 months
 - **PHASE D) Final testing.** The total duration of the final test of the platform is 2 months, and will have to be completed, however, within 12 months from the date of the contract signature.
 - **PHASE E) Assistance and maintenance under warranty for the period of 12 months,** starting from the date of final acceptance of the Final Test (Phase D)
 - **PHASE F) End of Warranty Test** runs from the end of the warranty period (PHASE E), after 12 months from the date of acceptance of the Final Test report referred to in phase D).

Phases	Month																					
	1	2	3	4	5	6	7	8	9	10	11	12	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36		
Phase A)	1	2	3																			
Phase B)				4	5	6	7															
Phase C)								8	9	#												
Phase D)											11	12										
Phase E)																						
Phase F)																						31-36

Figure 4: SUM Agency Realisation Plan

Adequate performance levels will have to be guaranteed in terms of:

- 1) reliability of the platform and individual components;
- 2) level of performance guaranteed by the components "Management of infomobility services", "Networking Operators" and "Shared Mobility Management" over a defined monitoring time period covering all the phases above listed.

3.1.3. Site preparation and implementation activities

Along with the procurement process, the Municipality of Portoferraio, together with the Municipality of Rio have been involved in the update of all the data (i.e. LTZ access, parking, regulations, etc.) needed for the Mobility Observatory and have also started collecting the data and information to be provided to the bid winner for the realization of the SUM Agency.

In particular, from March 2018, the Municipalities have had some preliminary contacts with the different mobility and transport service operators on the island that will provide the data for the various components of the platform. Some of the services already operating that will be provided by the **info-mobility services management** component are: AVM system; provision of the scheduled bus timetables/ provision of the public transport service arrival time at each bus stop; maritime and railway public transport system; multimodal journey planner; companies and institutional information systems (Elba isle municipalities, Province of Livorno); LTZ access control; Bike lanes; POI; Meteo alert; Taxi service.

For these already operating services, the bid winner will have to design the specifications for the interface on the basis of the solution that will be shared and agreed with the Municipality of Portoferraio. The interface solution will be then developed by the bid winner.

Elba Municipalities have, from their side, started collecting all documents describing the interface solution and the data format that will have to be provided to the bid winner once the contracting phase starts.

The different mobility and transport service operators, as well as schools and rental operators, have also been contacted in order to investigate who would have been willing to be visible and to expose the related service offers in terms of available resources (i.e. nearest bike rental depots, number of bikes typology, availability, tariff and service times, etc.) through the web platform and app channels (**operators networking component**).

3.1.4. Training activities and management team

Training courses and tutoring activities are foreseen for the operational start-up of the platform. The training plan, including the structure, contents and methods that will be applied for the training courses will be detailed in the Executive Design phase (Phase A).

In any case there will be at least two types of training courses:

- 1) The first is targeted to the administrator of the platform which foresees the training to the management of the functionalities of creation/modification of user profiles, of association between users' profiles and roles/privileges, configuration and management/modification of the system parameters, monitoring of the platform functioning and connectivity between Open Data Layer and data systems providers
- 2) The second is targeted to all the involved operators with different responsibilities and objectives in the iterations with the platform.

On-site training to support the technical activities needed during the platform operational start-up will be also guaranteed to the platform managers.

3.1.5. Data collection procedures

The effectiveness of the above measures will be measured through specific indicators which will be collected in terms of:

- **Level of use of the platform, in particular:**
 - N° of contacts visiting the Agency platform (portal and APP) per year (expected 8.400)
 - N° of APP downloads per year (expected 1.200)
 - N° of registrations for the functionalities “shared services” per year (expected 400)
 - N° of active mobility service operators subscribing to the platform for exposing their services through the Networking component (expected 20)
 - N° of active persons (asking for or giving a ride through the notice board) using the shared service functionalities per year (expected 1.200)
 - N° of shared trips organized through the APP per year (expected 800)
- **Level of perceived safety and quality** for which it is expected that 90% of users will perceive security while using the APP

The data on the level of use of the platform (a) will be provided directly by the SUM Agency and the APP while the data on the level of perceived safety and quality (b) will be collected through online mini questionnaires as dedicated APP functions targeted to citizens and tourists. The data collection will be performed during the demonstration phase when the SUMA and the related APP will be fully operational.

3.1.6. Demonstration and promotion plan

At the moment there is a slight delay of 2-3 months in the implementation of these measures. After the contract signature, the contractor will be supported by the PF Municipality and by MemEx in the executive planning and in the activation of the components and Agency implementation. It is expected that the Agency’s first module could be operational from November – December 2018.

Two services, namely the parking system and the charging stations, are not yet active but they are planned to start in the future. For both these types of services, the bid winner will have to define and develop a technical solution and a data format complying with the international standard for the interfacing of the information/data. The typology of information is divided into static/dynamic and semi-dynamic information. For example, for the parking system the static information is represented by the name and geolocation of the parking/area, the number and typology of lots, the opening times, the tariff schemes, etc.; the semi-dynamic information by the number of available lots (if this info is not acquired automatically), if the parking is open/closed/free etc.; the dynamic information by the number of available lots acquired automatically by the platform).

Maximum importance will be given to the dissemination of the Agency through local, regional press, local televisions and radios and the Elba Sharing site and social media in general. Specific and sound local dissemination campaigns will be defined for the ride-sharing services. Possible agreement with ferries, the port authority, maritime stations and hotels to promote the Agency could be defined. In the meantime, the booklet in figure 3 above has been presented in different EU and International contexts and events.

3.1.7. Risks and identified solutions

Three main risks have been identified:

- 1) The level of reliability of the contractor in complying with all the actions and milestones defined in the contract. A constant monitoring of the contract compliance will be conducted during the agency realization and operation phases.
- 2) The level of awareness and acceptance of the SUM Agency. The dissemination and promotional campaign will play a pivotal role in this sense.
- 3) The economic sustainability of the platform after the end of the CIVITAS DESTINATIONS project. This could be guaranteed by external revenues which have been analysed in a first business model hypothesis and which could be confirmed only after the first two years of SUM Agency demonstration.

3.2. RETHYMNO - RETH 4.2 “Building a sharing mobility culture”

3.2.1. Measures design highlights

In Rethymno, RET 4.2 aims to promote the sharing mobility culture through the expansion of bike sharing in the city and the introduction of a web-based platform for promoting sharing in all transport modes such as car/ taxi.

Within CIVITAS DESTINATIONS, Rethymno Municipality searched for additional funding to further enhance the bike sharing system. For this, Rethymno established cooperation with private bike sharing operators for the launch of a pilot investment plan of dockless electric bikes, with at least 150 e-bikes that covers the whole city and the hotel areas in the outskirts, seeking to maximize the measure’s impacts. Rethymno is the first Greek city to launch and test a “free-floating” or “dockless” system, aiming to become a lighthouse example for other cities to replicate.

In addition, the Municipality combines the measure’s activities with another infrastructure construction project aiming at the bioclimatic upgrade of the “Agios Georgios” square, in the east part of the city centre, exploiting ERDF funds. The Municipality will install 9 more electric bikes and 1 electric bike for disabled persons to operate as a separate system. Those e-bikes will be based on a bike station and will be charged using solar panels.

3.2.2. System specifications and procurement

A public bike sharing system has already been installed in the city of Rethymno with a limited number of stations and available bikes. Within the DESTINATIONS project, potential improvements to the existing system and alternative solutions for expansion were examined, along with research for existing bike sharing schemes that could better address local needs. The thorough market research for the suitable bike-sharing system identified the best practices of sharing systems and their potential impact on the transportation network. The assessment concluded that the optimum system for the city would be the dockless bike sharing system, instead of the upgrade of the previously existing one.

The extensive research successfully defined the technical specifications and announced a call for tenders. The key requirements were for a dockless system with minimum 150 e-bikes to operate in the municipality of Rethymno within 20 days of the signed contract. Following the assessment of applications, the agreement with the contractor was signed in July 2018. The selected dockless system constitutes a major innovation compared to the traditional bike-sharing systems because riders can pick up and drop off the bicycles anywhere on the street rather than at a fixed station. This is made possible by a small connected device fitted on each bike that allows users to locate and unlock the nearest bike with their smartphone in a matter of seconds.

Also, Rethymno is currently working on the appropriate design requirements and functionalities of a customized web-based sharing mobility platform to manage a multimodal sharing scheme (car, taxi, bike and PT links), along with a car sharing mobile phone application.

3.2.3. Site preparation and implementation activities

Initially, the Municipality studied the expansion and upgrade of the previously existing bike sharing system. Activities included the identification of potential improvements, based on observations and suggestions by the users. Improvements were made to the system to make it more attractive and user friendly to locals and visitors and meet their needs.

However, the system was still limited, thus not so convenient for users (limited stations / bikes). Therefore, the Municipality continued efforts to facilitate the introduction of a wider scale system. The dockless e-bike system “bikeazy” was launched in July 2018, to be initially tested as a pilot for one month and identify any system weaknesses before the official operation in August. The previous bike sharing system has been completely substituted by the new dockless system.



Figure 5: 150 e-bikes have been deployed all around Rethymno Municipality

The main steps for the site preparation to implement the new bike sharing system included:

- Recording stakeholders and users' opinion / needs through workshops / consultation events / design days
- Strategic location study based on the existing land use, key attraction points and the connection of the city centre with more distant and sub-urban areas,
- The exact locations were selected based on the available public space (squares, pavements, etc.) according to the existing legislation on public spaces and pedestrian movement. For the prioritisation of the final location, the convenience of users was considered based on the proximity of the selected locations to landmarks/points of interest for tourists/ daily routes of residents (Fig. 6).
- Analytical topographic surveys to extract the exact coordinates for those spaces,
- Approval from the relevant local committees for the concession of public space to be used as stations for the new bike sharing system.
- Distribution of bikes around the city in 32 spots. Cards/day passes are available through several points for sale.
- Pilot testing.
- Agreements with hotels and busy bars/restaurant.

The dockless system will cover the whole Municipality area, based on the demand. According to the contract signed among the Municipality and the firm, the system will operate for five years with a minimum of 150 e-bikes (pedelecs). Additional bikes will be deployed if required.

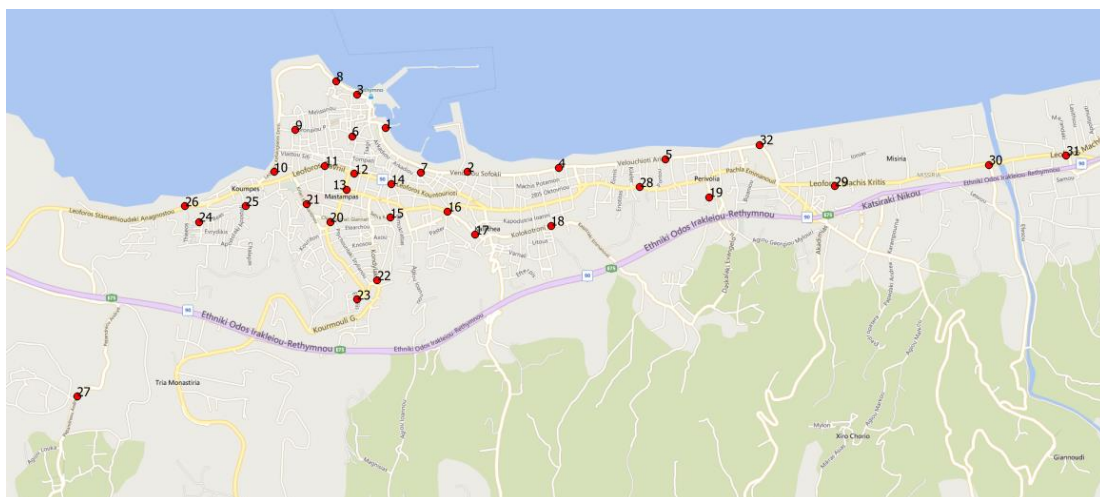


Figure 6: Starting Points / Initial locations of the new bike sharing parking station

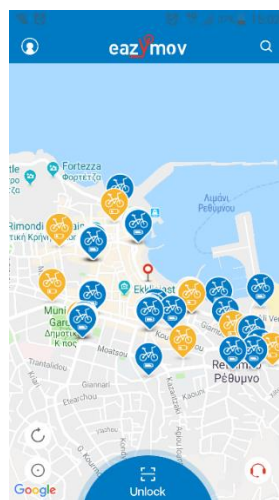
Preparatory activities were completed regarding the development of the sharing mobility platform. Research for best practices of existing car-sharing platforms which could be used at a pilot phase was conducted. Relevant case studies on car sharing systems in Greece and existing platforms in Greece have been examined to identify potential synergies and to learn from negative lessons of previous attempts. The platform and the app will target both locals and tourists. A survey to define users' profiles/needs/motivation and constraints was conducted with questionnaires and the University community was approached to assess the potential implementation of a sharing scheme.

3.2.3.1. ICT/Infrastructure supporting solutions

The mobile phone application is a platform that the user must download to use the bike sharing system. The “eazymov” mobile application presents the exact locations of the available bikes and the status of the battery for each available bike. In order to unlock a bike, it is required to scan the unique QR code. After use, each user will have to manually lock the bike. The charge is based on the minutes of use after the bike is unlocked. Cards and day passes are also available for users without smart phone technology. The system is owned and managed by the private operator.



QR Code



Bike selection



Card scanner

Figure 7: ICT/infrastructure for the Bike Sharing System

3.2.4. Training activities and management team

Additional to the implementation of the bike sharing system, the Technical University of Crete and Rethymno Municipality implemented parallel engagement and training activities, exploiting existing campaigns, to enable behavioural change and raise awareness towards sharing modes.

The Technical University of Crete organized and successfully held two Design Days, for tourists and residents, within the European Mobility Week in Rethymno, organized as interactive “drop-in” laboratories, demonstrating thematic exhibition boards. Specific information and proposals for the development of a new car-sharing service in Rethymno were included in one of the exhibition boards for tourists and, as direct feedback, the participants could «pin» on the board their preferred option of transportation to and from key destinations in the wider area of Rethymno. Residents had the opportunity to evaluate proposals for the public bike sharing system and also be informed about the carpooling scheme, as a new alternative option for transportation in order to gather first impressions and thoughts about this new practice. Detailed questionnaires were filled out by more than 300 residents and tourists.



Figure 8: Design Days for residents and tourists during European Mobility Week 2017, in Rethymno

During the SUMP public consultation workshops (February 2018, June 2018) with the key stakeholders, benefits of the sharing systems were presented to raise awareness, while targeted consultation meeting will be held with key stakeholders (Taxi and Car rental Unions) for the design and launch of the sharing platform in a participatory approach.

The local team is planning training activities for the familiarization of stakeholders, locals and visitors with the new bike sharing system during the opening campaign and European Mobility Week.

3.2.5. Demonstration and promotion plan

The bike sharing system was actively promoted during the CIVITAS DESTINATIONS public events in May 2017 and during European Mobility Week 2017 including the distribution of free user cards, a guided tour to the city’s attractions with bikes, cycling strolls with the public bikes and demonstration of mobility sharing practices and services during the Design Days organized by TUC.



Figure 9: Promotional activities in Rethymno during CIVITAS DESTINATIONS public event in May 2017 (left) and the European Mobility Week 2017 (right)

Additionally, the dockless bike sharing system, its innovative technology, the benefits and convenience in mobility have been communicated during the public consultations (June 2018) where the tourism stakeholders showed increased interest to the system and agreed to actively

support and participate in dissemination activities through their communication channels / social media.

Following up the previous promotional activities, Rethymno will implement a strong promotional campaign aiming to enable behavioural change towards a sharing mobility culture and to boost the sharing platform use. Dedicated signage will be developed and strategically placed at the most visited places and key attractions, along with leaflets to be distributed in hotspots/hotels/cafes etc.

A foreseen pilot project to increase sharing in workplaces amongst employees is expected to be a key demonstration activity for the promotion of sharing mobility amongst residents. The pilot will include a sharing miles' campaign for a competition amongst hotel employees to motivate locals to incorporate mobility sharing practices in their daily life routes.

A press conference to introduce the new system took place on the 24th of July 2018. A big opening event will take place along with an integrated marketing campaign including promotional material, CIVITAS DESTINATIONS logos on the bikes and on-street signage to promote the bike sharing culture and cycling, when the pilot phase finishes. In order to ensure the uptake of the new bike sharing system, targeted demonstration and communication activities will take place. The foreseen activities include a series of press releases, interviews and social media promotion and will commence immediately after the system is launched based on the promotional plan outlined and agreed with the private operator.

The local DESTINATIONS team will further exploit promotional opportunities, such as European Mobility Week 2018, to promote the new bike system and to raise public awareness of the sharing options and benefits.

3.2.6. Data collection procedures

The "Design Days" consisted of the 1st stage of field research towards residents and tourists for the identification of potential users' profiles and motivation, through an interactive approach, as previously described. The questionnaires collected were analysed to identify users' considerations and preferences regarding the bike sharing system and a potential car sharing app.

Also, data collection for locals' mobility preferences and their perception of cycling and bike sharing infrastructure was incorporated in the SUMP baseline survey with 457 responses.

The new bike sharing system will further facilitate data collection of system usage and adjustments will be made to cover user needs, if required, since the dockless system will identify the most high-demand areas and potentially areas outside the city centre where the system could be expanded. All the data collection will comply with the European Regulation for GDPR.

3.2.7. Risks and identified solutions

Building a shared culture in everyday life for other modes besides cycling is a new challenge for the city. The research and communication with sharing companies in Greece pointed out that local car sharing schemes tested and run during previous years were not successful, since the acceptance levels amongst users was low.

This challenge will be addressed by a tailor-made campaign in the city introducing this new mobility approach and targeting specific user groups that would help in the wider uptake of the sharing scheme, such as the millennial generation/ University students and employees of big hotels/ local industries. Moreover, good practices and successful implementation examples will be presented to key stakeholders during targeted meetings to showcase the benefits of shared mobility and alleviate any potential conflicts, ensuring their support and engagement.

3.3. LIMASSOL - LIM 4.1 Electric car rental connecting Limassol town with airport and port

3.3.1. Measure design highlights

In Limassol, measure LIM 4.1 provides additional mobility modes to visitors arriving at the airport and ports that need to travel in Limassol Tourist Area. This measure is expected to effectively attract part of the traditional car rental business, since it will provide a 24/7 self-service car rental option and will particularly attract visitors searching for greener mobility options.

This measure ensures the increase of EV-chargers by at least 7 points in Limassol region and its main getaways (Larnaca and Pafos airports, Limassol port). Signage and maps have been designed for this purpose. Maps (20,000) will serve as the promotional material for the service and will be distributed to hotels, tourist information offices and other high traffic areas. During the event in European Mobility Week, 2,000 maps (for the purpose of LIM 4.3) were distributed providing information about the location of EV-Charging stations in the whole Cyprus area.



Figure 10: LIM 4.1 EV Charging Stations

3.3.2. Procurement

No procurement. LTC collaborated with the Electricity Authority and purchased the EV chargers from the EAC because it is the exclusive electricity provider in Cyprus.

3.3.3. Site preparation and implementation activities

During this period, LTC, in collaboration with car rental companies and their associations, made great efforts to increase the number of e-vehicles available for rent connecting Limassol area-airports-port.

Several meetings were held with local Authorities and the Electricity Authority of Cyprus (EAC) to determine the locations of EV-Charging Stations. After continuous meetings with the EAC it was agreed by LTC to purchase shelters from the EAC. The purchase was completed in November 2017. The EAC, which is the exclusive organization that install EV-Charging Stations in Cyprus, must provide with its own expenses the following activities:

1. Design of the shelters
2. Request the necessary permissions for the installation.
3. Provide the connection for the supply of electricity.
4. Guarantee the perfect maintenance of the equipment.

LTC identified the areas to install the purchased equipment and will provide maps with EV-Charging networks in Cyprus.

In the Limassol Region five EV-Charging stations, with shelters, have already been installed and another three will be ready by the end of 2018.

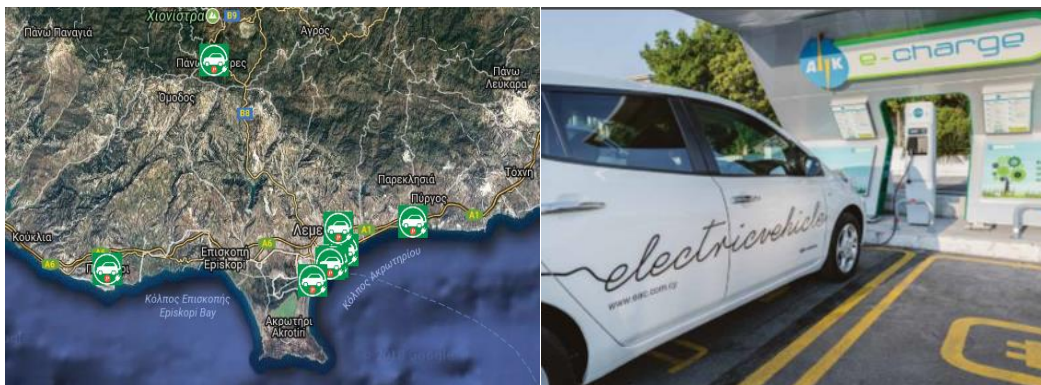


Figure 11: EAC EV-Charging station

Maps (20,000) have already been designed and will include the locations of the stations as well as a barcode to be used by tourists through a QR Code application in order to be informed about their exact locations (longitude/ latitude).

3.3.3.1. ICT/Infrastructure supporting solutions

Limassol, in collaboration with the EAC, installed new EV charging technology. Specifications outlining the functional and technical characteristics and the construction of the shelters have been identified as follows:

- **CHARGING STATION SHELTERS DESCRIPTION**
 - The purpose of the Charging Station Shelters: the shelters would provide cover & protection to users during operation from sunlight and rain and will partially provide cover for two electric cars during the charging cycle. It should provide sufficient signage indication and in combination with asphalt car park markings indicate the reserved area and special parking for the charging station. Additionally, they should provide sufficient illumination and instructions to the user for the proper use of the charging unit. Markings on asphalt should provide

clear indication for the park to indicate that parking is prohibited for non-electric car charging purposes.

- **SHELTER DIMENSIONS**
 - Width: 4,500mm
 - Depth: 3,000mm
 - Height: 2,200mm
- **CONSTRUCTION / STRUCTURAL STUDY:** Steel Structure frame with aluminum paneling in high weather resistant finish. Paint finish with acrylic silver metallic paint and high gloss finish clear coat layer
Note: The manufacturer should submit a structural study for the shelter metal structure and concrete / steel base.
- **FINISHING MATERIALS:** Paint finish with acrylic paint and high gloss finish with clear coat layer. Exterior paint work should provide protection - maintenance free for minimum 10 years.
- **NIGHT ILLUMINATION:** LED illumination with automatic switch on/off controlled with light sensor illumination should cover the whole shelter with multiple lighting units.
- **SIGNAGE:** Illuminated signs on at least two sides of the shelter. High quality of material such as acrylic and adhesives should be used to ensure no colour / material alteration for minimum of 6 years.
- **Asphalt - Car Parking Special Markings:** Square indications for 2 electric car spaces with electric charge marking and numbers [1, 2] / Special Asphalt paint should be used [colour orange yellow]. Marking Dimensions 2,000x4,000mm two units.
- **INSTRUCTION PANELS:** Two instruction Panels - with back illumination/ Dimensions: Width 40 x 60 cm height. Two units/ LED light box construction.
- **SWITCH BOARD:** The shelter unit should include certified outdoor use switch board with access door and lock.
- **CERTIFICATIONS:** The supplied unit should be accompanied by appropriate CE certifications.
- **CE Declaration of Conformity for all LED installations:** Waterproof electrical systems with certifications are required for the charging station shelter.

3.3.3.2. Dissemination and promotional campaign

Electromobility campaigns have been designed to provide awareness on the increased number of EV-chargers in the region. More details can be found in the description of the measure 5.3.



Figure 12: Promoting electric vehicles at the European Mobility Event

3.3.4. Training activities and management team

No training activities and management team.

3.3.5. Data collection procedures

Baseline data has been collected by carrying out surveys, estimations and through secondary data collection. Measure LIM 4.1 will impact specific indicators on Environment, Transport, Economy and Society according to the ex-ante evaluation. After the ex-ante evaluation new measurements will be made with a new impact on the environment.

3.3.6. Demonstration and Promotion Plan

The measure will be promoted through social networks (Facebook, Twitter, Pinterest Instagram and LTC's website), always using the tag #civitasdestinations. After the installations of the 3 EV-charging stations with shelters, a press release will be published in Local Media.

3.3.7. Risks and identified solutions

No risks and constraints have been identified for this measure

3.4. Collaboration among DESTINATIONS Sites/partners

Measure Title	Best Practice description in the implementation of the measure	Description of a specific expertise needed for the demonstration phase	Identified Synergies
ELB 4.1 – 4.2 – 4.3 -4.4	<p>The architecture definition in terms of functionalities and components is available. All the procurement documents are also available for possible future needs of the other DESTINATIONS and CIVITAS sites. Bibliography on the concept of the shared mobility services agency could be shared in relation to the main functionalities, technology and organization/operation dimensions beside the Business Model.</p> <p>The booklet “Shared Use Mobility Agency: from concept to IT platform in Elba” on the design of the SUMA platform could be shared if requested.</p>	Good examples for the promotion of the Mobility Agency and sharing mobility benefits	RETH 4.2
RETH 4.2 “Building a sharing mobility culture”	Design days: participatory events for the design of suitable services and awareness raising amongst residents and tourists on sharing mobility	Good examples for the promotion of sharing modes and sharing mobility benefits. Best practices for the multimodal sharing scheme (bike, taxi and car) and development and operation of a dedicated web-based sharing platform	ELB 4.1, 4.2, 4.3 LPA 4.1, MAL 4.1, LIM 4.2
LIM 4.1 Electric car rental connecting Limassol town with airport and port	Implementation of stations on Limassol airport and port including shelters for car parking and EV chargers.		

Table 2: Best Practices and Synergies identified in WP4 Cluster Shared Mobility Services

4. New and extended e-Bike system Implementation

4.1. LAS PALMAS - LPA 4.1 Public e-bike system

4.1.1. Measure Design Highlights

Within the CIVITAS DESTINATIONS project, the city bike system has been improved and enlarged with 40 bike stations (5 of them with smart totems placed at touristic areas), 20 e-bikes, 375 smart bikes and n° 2 adapted bikes accessible for physically impaired people. The commercial trade name of the system is Sitycleta. SAGULPA, the company in charge of the public bike system of Las Palmas de Gran Canaria launched a tender process in 2016 for the acquisition of all bicycles, bike docks and terminals. It was awarded to Nextbike. The Sitycleta service is available in several languages from 7 am to 11 pm, 7 days a week.

4.1.2. Procurement

Operation procedures used for appointing the contractors

- Elaborate the tender documentations (technical as well as administrative) in order to acquire 42 new stations, 20 electric bikes, 375 conventional smart bikes and 2 adapted bikes accessible for the physically impaired.
- The tender process was launched on 29/06/2016 in the State Official Newsletter.
- The tender process was awarded on 21/12/2016 to the company Nextbike, because this company presented the best value for money and complied with all the requirements
- This company made the installation and start-up of the new bike system in Las Palmas de Gran Canaria.

4.1.3. Site preparation and implementation activities

The bike system equipment was delivered in December 2017. After the implementation works, the Municipality of Las Palmas de Gran Canaria and Sagulpa organized a pitch event of the new bike system on 8th April.



Figure 13: Pitch event of the new bike system

4.1.3.1. Smart Bikes description



Figure 14: Smart bike

The smart bikes have a higher quality level compared to the previous system, not only because they are more prepared to be placed in a salty environment such as Las Palmas de Gran Canaria (thanks to the Aluminum frame and anti-corrosion treatment), but also because they present a more secure system, due to the incorporated GPS and an innovative on-board computer that will let SAGULPA know at any time where each bike is located.



Figure 15: Onboard computer

Besides the smart bikes, this system will also incorporate 20 e-bikes to carry out a pilot test that allows the promoting of cycling and sustainable mobility between the high and the low part of city. The e-bikes have a powerful battery and are rechargeable through stations. There is also a dynamo to feed the lights and computer through pedalling.

4.1.3.2. Bike station description

40 new bike stations have been installed, including 35 solar powered Smartsigns (that will allow the system to give information about the service and receive bicycle signals in the range of a configured distance). In addition, 5 smart totems will give access to the bike sharing service and offer information in real time about the state of the public bike system that has been installed in touristic and leisure places. (So far today, 3 totems have been installed).

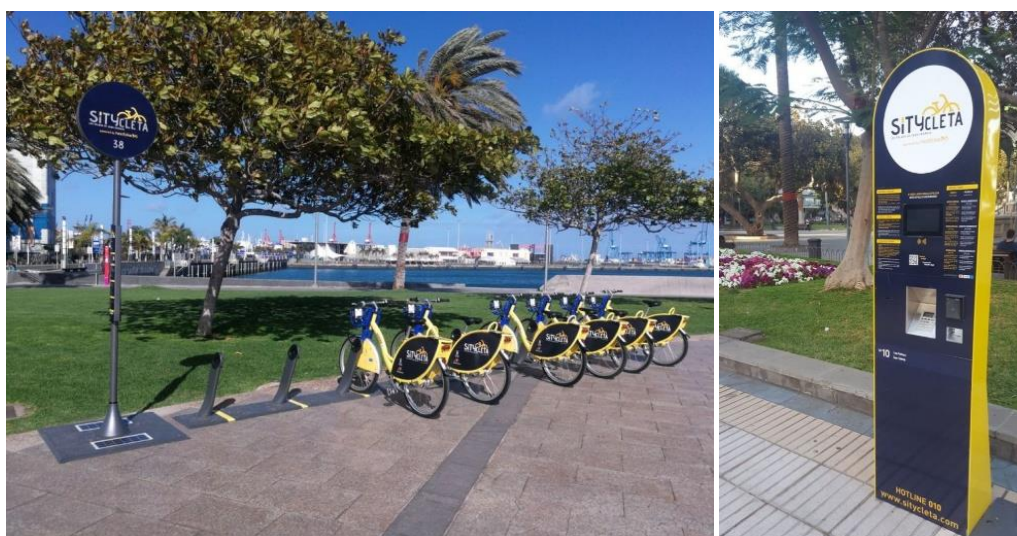


Figure 16: SmartSigns and Smart Totems



Figure 17: Sitycleta station locations

Most of the bike stations are located in the low part of the city. However, two stations for the e-bikes have been installed in the high part of the city in order to check a pilot test with e-bikes.

How Sitycleta works

1) Sign up for free

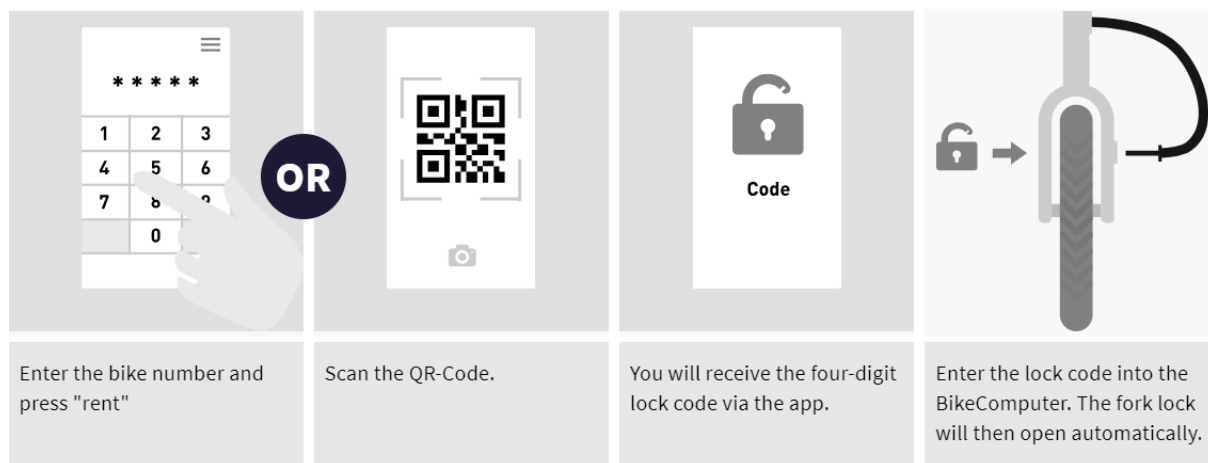
Sitycleta users can register through different ways

- website (www.sitycleta.com)
- smartphone App
- Directly at the Smart Totem
- Customer support service by Phone number

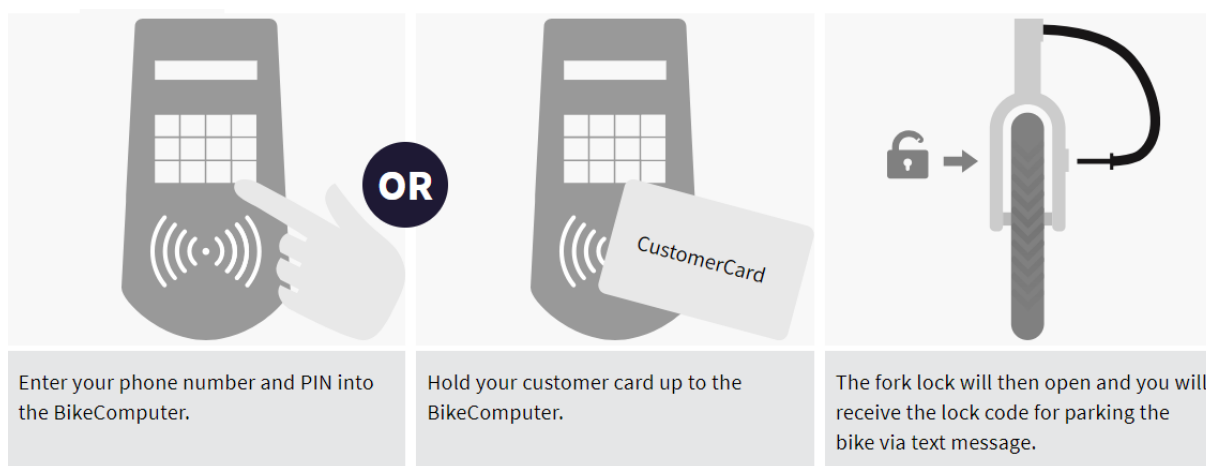
Payment data must be verified by a transfer or a charge of 1€ that will be deposited as initial balance, and can be applied to all rates. Once the customers' credit card has been loaded, the customer account is authorized immediately. The payment method can be changed at any time.

2) Rent a bike

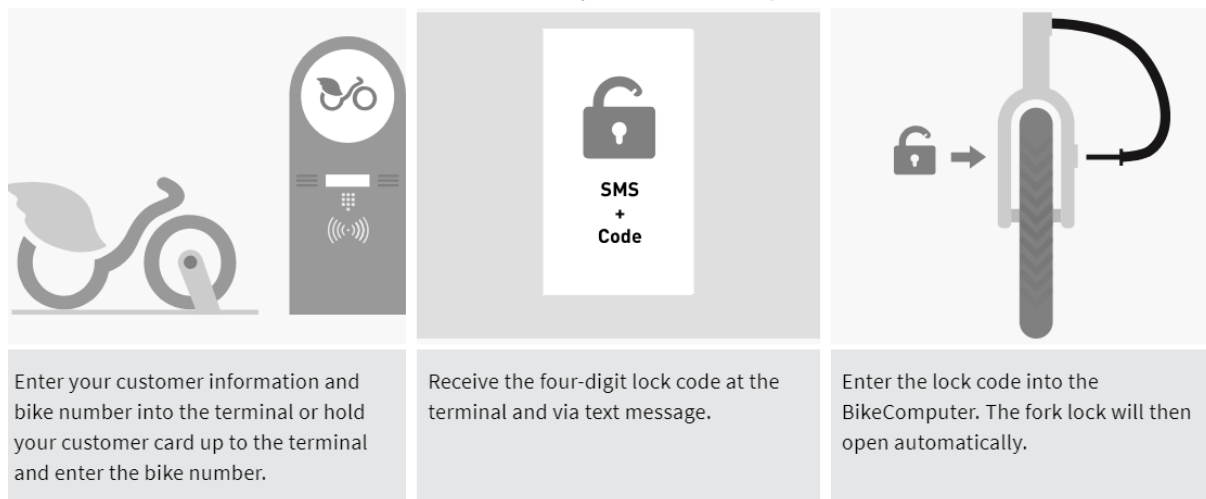
Bikes can be rented in several ways.



- Rent the bike by App -



- Rent the bike by the bike computer -



- Rent the bike at the terminal -

Figure 18: Options available for renting bikes

3) Return the bike

So far today, bikes just can be returned at official stations, but a free floating system could be implemented in the future. To return the bike, users have to press OK on the Bike Computer, close the fork lock and wait for confirmation.

Prices

There are several types of fares that allow not only citizens and residents but also tourists and visitors to enjoy the bike sharing system (annual, weekly and monthly tariffs are available, as well as for occasional use for any user who wants to have the opportunity to enjoy the bike). Bicycles can be rented daily between 7am and 11pm.

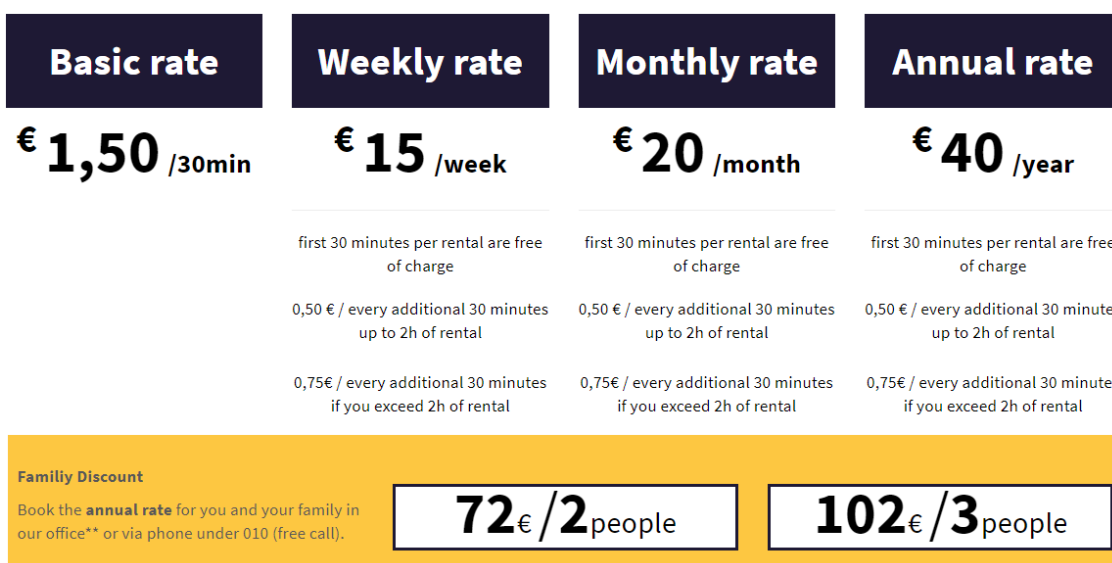


Figure 19: Sitycleta tariff

4.1.4. Training activities and management team

The human team of Sitycleta performs the maintenance and distribution of the entire fleet of vehicles to offer a service in optimal conditions.

In order to teach the right way of using the bike system among customers, several videos have been made and shared on social media such as how to register on the web, which is the most convenient rate, how to use the App, how to return the bike to the station, etc.

4.1.5. Data collection procedures

Sagulpa has access to the Nextbike servers where all data related to Sitycleta services is collected. The main service registered data are origin and destination stations of each bike trip (allowing Sagulpa to understand and manage the service in order to have enough bikes available at each station), the number of bikes in each station, favorite routes and stations, average trip time, etc. Furthermore, customers’ data are registered at Sitycleta webpage and App.

4.1.6. Demonstration and promotion plan

Sitycleta has officially registered Facebook, Twitter and Instagram profiles where several publications are posted daily. Furthermore, the company usually takes part in sustainable mobility trade fairs where the service is promoted.

4.1.7. Risks and identified solutions

This measure doesn't present any risk or problem because it has already been implemented and the system is currently working.

4.2. LIMASSOL - LIM 4.2 Expansion of public bike sharing system, including e-bikes

4.2.1. Measure design highlights

The bike sharing system will grow to offer more options to leisure cyclists, encourage them to follow more routes and visit more points of interest in the area. Tourists will be informed about the bike schemes through the promotional material placed in hotels, tourist information offices and other high traffic points, electronic info kiosks (24/7) all over the Limassol region, the app (to be developed under measure 7.4) and the campaigns that will be implemented. The opportunities to combine cycling with special interests will be highlighted, emphasizing and ensuring a stress free and enriched tourist experience. Tourists and residents that are less athletic will have the option of renting electric bikes.

In Limassol, for measure LIM 4.2, the public bike sharing system is expanded in cooperation with the main bike sharing company which will increase the number of stations (10) and bikes (120) available in the region. Five new bike parking points have been created by the project to serve the cycling paths available in the region.

Other bike rental companies will also be encouraged to increase the number of bikes and add electric bikes for rental, so as to cover the needs of less athletic people or senior citizens.

4.2.2. Procurement

No procurement. NextBike Cyprus is the exclusive provider for the Limassol region; we made an agreement with NextBike and we purchase the bike parking facilities.

4.2.3. Site preparation and implementation activities

In Limassol, the LTC held several meetings with bike sharing companies (Next Bike Cyprus, Cyprus Cyclist Federation) and local authorities to determine the locations of parking stations. Four bike parking facilities were installed in the Limassol city and one bike parking facility in the rural area for general use.

Bike rental companies informed about the project and its measures were given incentives in order to increase their fleet with conventional bikes, as well as e-bikes. Therefore, ten e-bikes and 20 conventional bikes are available for rent and the bike sharing company NextBike CY increased its fleet to 75 instead of 100 bikes.

Accordingly, 5 additional stations were installed at the following points as per the below map:

- Arch. Makariou Avenue, opposite Costa Coffee
- Arch. Makariou Avenue, in front of Bank of Cyprus / Debenhams Apollo
- Saint Nickolas Round about, in front of Hellenic Bank
- Airport Express Bus Station, Saint George Havouzas
- Opposite Ysponas Municipality

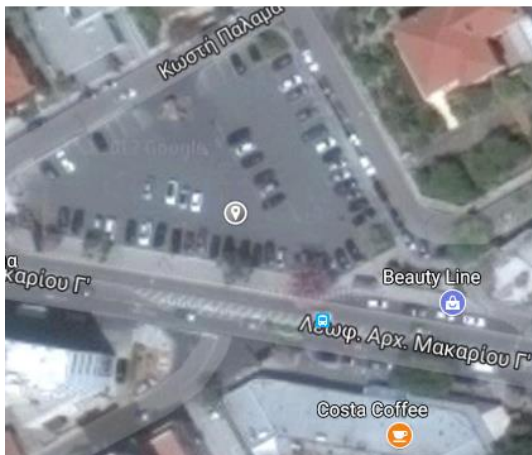


Figure 21: Bike Station at Arch. Makariou Avenue opposite Costa Coffee (left); Bike Station at Arch. Makariou Avenue, in front of Bank of Cyprus (right)



Figure 22: Bike Station at Saint Nickolas Round about, in front of Hellenic Bank

4.2.4. Training activities and management team

No training activities and management team

4.2.5. Data collection procedures

The measure LIM 4.2 will mainly impact on **Environment, Transport, Economy and Society**:

Baseline data has been collected by carrying out surveys, estimations and through secondary data collection for ex-ante evaluation.

4.2.6. Demonstration and promotion plan

There is no demonstration and Promotion Plan in LIM 4.2.

4.2.7. Risks and identified solutions

No risks or constraints have been identified for this measure.

4.3. MALTA - MAL 4.1 Promoting e-bike sharing and car sharing

4.3.1. Measure design highlights

This measure is implemented in Malta through an awareness-raising campaign with a focus on educating the general public on cycling safety and raising awareness on the potential of cycling as a mode of transport. Cycling in Malta is perceived as a leisure activity contributing to just 0.3% of the modal share. This can be mainly attributed to the general public's perception of cycling being unsafe. The aim of this measure is to contribute towards changing this perception with a resulting shift in the modal share.

This promotional campaign will be supporting the bike sharing services being launched by the private sector, and the car sharing system that will be launched towards the end of 2018 through a government tender. These are innovative systems for Malta and for the general public who might only have encountered such systems while abroad. It is therefore important to promote these services to encourage their use and make their added value known.

While encouraging the public to make use of shared transport services as an overall theme, the Campaign shall be focusing on two messages separately and targeting specific target audiences per message:

- through one branch of the Campaign, the public shall be educated on cycling safety. Drivers will be educated on how to interact with cyclists on the road, while cyclists will be educated on how to act while on the road. The lack of safety encountered by cyclists on the road is one of the main reasons why the share of cycling in the national modal split is still so low. By educating the target audience on cycling safety, and directly promoting cycling as a viable mode of commute, Transport Malta shall also be indirectly promoting and encouraging the use of bike sharing.
- The second branch of the campaign shall be directly promoting car sharing and educating the public on the service itself while highlighting its added value and advantages.

Overall, the Campaign aims to encourage a modal shift and decrease congestion, the resulting pollution and journey delays.

The Campaign will target both tourists and residents. The former will be presented with a more sustainable alternative to rented vehicles with the aim to lessen the impact on transport infrastructure during the peak tourist seasons, while the latter will be presented with viable transport options other than the private car, the use of which is so deeply embedded in Maltese culture.

4.3.2. Procurement

So far, two calls for quotations have been published. A call for quotations has been published for the procurement of an expert to carry out the study on the cost of owning a car in Malta. The expert was engaged and the study finalized.

In January 2018, a call for quotations has been published for the design of an effective marketing campaign, including the design of the campaign's brand. The call has been awarded and the marketing experts are on board. Further procurement is required to contract the printing and production of marketing material.

In order to assess the success and effectiveness of the Campaign to be launched, data collection experts have been contracted who will be designing surveys to be launched pre, mid and post campaign. From these surveys, the Awareness levels reached by the campaign will be made known. This procurement was done in February 2018 where a tender was published for the design, data collection and analysis of all measures to be deployed as part of the DESTINATIONS project and which are being led by TM. This has been awarded and the master questionnaire for the awareness raising campaign is currently being finalized.

4.3.3. Site preparation and implementation activities

The initial phase involved mainly baseline data collection and procurement.

In preparation for the launch of the Campaign, the study to assess the cost of owning a vehicle in Malta will be used to boost the promotional campaign to be launched. The study considered the capital investment of purchasing the car, its depreciation over time, the cost of renting/owning a garage, fuel, maintenance, insurance, annual taxes etc. The main purpose of the study was to design the campaign message to be disseminated based on the findings of the costs that could be potentially saved when one opts to exclusively use car sharing rather than owning a private vehicle. This will target the local residents who are likely to own a car with the associated expenses taken into consideration in the study.

As part of the initial phase of this measure, the WP4 baseline document was compiled. However, baseline data collection is not yet complete. The next phase is understanding the Target Audience's awareness of the messages to be disseminated by the campaign. This survey is currently being designed and will be conducted in the coming weeks. From the survey, TM will understand the level of current awareness and thus be able to better design the campaign message in a way which will be most effective. Secondly, TM will also be able to assess the Campaign's success by comparing the acceptance and awareness levels post campaign to that of before the campaign.

Currently Transport Malta is working on the campaign design, in particular on the messages to be disseminated, the media to be used for such dissemination as well as the campaign timelines. This will form the basis of the marketing material to be designed and produced for which a separate procurement process shall be launched.

The first phase of the promotional campaign focusing on Cycling Safety is envisaged to be launched in August 2018. This would coincide with the promotion of the National Bike Ride, an annual event which is held on the 21st September (European Mobility Week) with the aim of the event being to promote cycling and raise awareness of cyclists on the road. The event has gained a solid following over the years; linking the campaign to this event will therefore increase the following and therefore the awareness of the messages being disseminated. The

second phase, focusing on car sharing will be launched in October 2018 in parallel to the planned launch of the car sharing services. This will help raise the public's awareness of the services, and how to make use of it in time for the service to actually start being used.

In parallel, data collection and analysis will be on-going to measure the effectiveness of the campaign, and amended accordingly to make the campaign more effective.

On the other hand, the branch of the campaign focusing on car sharing shall be launched in October 2018.

Since in Malta this measure involves an information and awareness raising campaign and hence no installation of physical equipment is required, no functional and technical characteristics are available.

4.3.4. Training activities and management team

Locally, the project is managed by Transport Malta, overseeing the implementation of all the measures. The Ministry of Tourism and the Valletta Local Council each manage the implementation of a measure, respectively. The University of Malta is in charge of the evaluation of the measures being implemented as well as providing its expertise and assistance.

In May 2018, a researcher from the University of Malta, currently assisting Transport Malta with the development of an (e-)bike sharing and car sharing campaign and promotion of safe cycling, visited DESTINATIONS partner LTC (Limassol Tourism Company) in Cyprus, to discuss and exchange with them and other Limassol partners the methods and strategies used for the promotion and extension of a bicycle sharing system in the city and the promotion of cycling in general. During the three-day work placement, meetings were held with local stakeholders, as well as site visits of local cycling infrastructure, bicycle sharing stations, and the participation in two bicycle rides organized by local cycling groups. The results of the exchanges will be used to support the implementation of the measures and to develop new ideas for promotional campaigns and activities in the sites, as part of the DESTINATIONS project.

4.3.5. Data collection procedures

The campaign itself shall be launched over a 3-month intensive period with monitoring of its success taking part in 3 stages – before, during and after the campaign. Monitoring will be done by conducting surveys from a sample section of the target audience. The mid-campaign survey will help the project team to adjust the campaign strategy if it is found to be less effective than initially planned.

4.3.6. Demonstration and promotional plan

This measure consists solely of an awareness and promotional campaign; hence the demonstration and promotional plan would be as identified in the measure design highlighted in Paragraph 3.3.1.

4.3.7. Risks and identified solutions

A foreseen risk is that the uptake of cycling as a mode of transport may remain low. In a survey conducted with cyclists by the Bicycle Advocacy Group in 2016, entitled Cycling Behavior and Habits, 73% of respondents replied that they have never had an accident while cycling in the past 5 years. However, 91% of respondents replied that they use evasive action 2 to 4 times per hour spent cycling to avoid potential vehicle accidents. Furthermore, only 18.6% of respondents feel that motor vehicle drivers have increased their awareness of cyclists on the road. The main aim of this Campaign is therefore to remedy this fact and put maximum effort on educating the citizens on cycling safety and how to safely share the road.

In terms of car sharing, there is a risk of low or no uptake of the service by Maltese residents. The use and ownership of a personal car in Malta is a very deep cultural issue. It may therefore be very hard to convince the public to shift to shared transport modes.

The experience so far has been that while the public is conscious about the environment, personal transport choices are affected by convenience and cost rather than by the environment. To this effect, the study procured was done in order to focus the campaign on the following direction; *“How much time and money will you save if you make use of this service”*. It is believed that making people directly understand what can be gained, it would be easier to convince the public to take up the service.

4.4. Collaboration among DESTINATIONS Sites/partners

Measure Title	Best Practice description in the implementation of the measure	Description of a specific expertise needed for the demonstration phase	Identified Synergies (please indicate measure)
LIM 4.2 Expansion of public bike sharing system, including e-bikes	LTC will support the bike sharing company to expand its network, adding new stations and increasing the number of available bikes (especially electrical ones). The extension will consist of 10 new stations and 120 bikes for the whole region. New bike sharing stations will be created to serve the new cycling paths.	MemEx have provided specific support and indications on how to move and which are the more relevant technical problems related to the asset sharing services	LPA 4.1; LIM 4.2; RETH 4.2; MAL 4.1
LPA 4.1 Public e-bike system	The smart bikes are provided with GPS and an onboard computer that allows the system to be more secure. Thanks to this system, if the station is very busy, the user can leave the bike close to the station by just closing the fork lock in proximity to the station. (In the future, a free floating system could be implemented.) The App allows the user to check the availability of bikes in each station in advance.	MemEx have provided specific support and indications on how to move and which are the more relevant technical problems related to the assets sharing services	LIM 4.2, MAL 4.1
MAL 4.1 Promoting e-bike sharing and car sharing	Share information and knowledge on the implementation of campaigns and key messages	Promotion of shared transport systems. Educational campaigns on cycling safety. Best practice to promote the uptake of cycling	LIM 4.2 LPA 4.1 RETH 4.2

Table 3: Best Practices and Synergies identified in the WP4 Cluster New and Extended Public e-Bike systems

5. Shared e-charging infrastructure Implementation

5.1. ELBA - ELB 4.5 EV legislation revision and charging infrastructures

5.1.1. Measure design highlights

Portoferraio Municipality is developing a **new municipal regulation** related to mobility and parking of EVs in order to promote the use of “green” vehicles on the island. This new regulation will be proposed to the other municipalities of the Island with the objective of enlarging its adoption to the whole Elba territory.

Moreover, instead of the originally planned 3 charging stations, the Municipality of Portoferraio will finally **install 20 charging stations** with dedicated parking lots in some key locations in the municipal area at no operational cost for the project but funded by other internal sources. Portoferraio will then propose the other Elba municipalities to install additional 30 charging stations, covering the whole island territory.

5.1.2. Procurement

The Municipalities of Portoferraio has been contacted by the National Energy Authority, ENEL, for the installation of the EV charging stations. The ENEL Group has created a smart infrastructure system for charging electric vehicles managed with the most advanced IT for remote control and management ("Electric Mobility Management") and able to respond to the current and future needs of an evolved and sustainable urban mobility.

A contract scheme between ENEL and PF Municipality for the installation of the first 20 charging stations. The installation of the other 30 charging stations will be defined by direct agreements between ENEL and the other Elba Municipalities.

This process is not a specific procurement but a follow up of the general agreement/assignment between Toscana government and ENEL.

According to the agreement, ENEL agrees to provide, at its own expense, the following activities:

- designing the "dedicated areas", with the charging stations and the stalls reserved for cars during service delivery;
- requesting the authorizations necessary for the installation;
- arranging for the installation of the EC charging station, providing all restoration work and all the upgrading of the dedicated areas inside the parking lots, necessary for the installation of the infrastructures
- providing the connection with the public electricity grid;
- guaranteeing the perfect functioning for the entire duration of the assignment, in accordance with the ordinary maintenance plan;
- realizing appropriate horizontal road signs;

- realizing all testing activities;
- fulfilling all obligation, paying for all charges, taxes related to the installation of the charging infrastructure.

From its side, PF Municipality has to identify the most suitable areas for the installation of the EV charging stations. These areas will have to be functional and visible. Portoferraio Municipality will allow these areas to be used for free by EVs for the whole duration of the agreement which will last for 8 years from the date of the subscription.

5.1.3. Site preparation and implementation activities

Concerning the new Municipal regulation on EVs, a specific benchmarking among the Italian Municipalities has been done and a first draft has been elaborated. The draft highlights the main rules for the mobility of EVs.

The text of the regulation will be finalized within 2018 and afterwards it will have to be approved by the Portoferraio council.

For what concerns the charging stations, Portoferraio Municipality is selecting the locations to install N° 20 EV charging stations provided by ENEL in the Municipal territory, while the other ELBA municipalities are evaluating the possibility of installing the other 30 EV charging stations. In addition, Portoferraio is considering the possibility to revise the EV legislation in order to open it to the “free market” and give the possibility to anyone who wants to install electrical columns, to do so upon request and grant permission from the municipality.

5.1.4. Training activities and management team

ENEL will provide specific tailored training courses to the Municipalities Technicians during the installation phase while the EV regulation scheme will be presented by PF to the other ELBA Municipalities.

5.1.5. Data collection procedures

The data collection will be realized through direct surveys to citizens and tourists during the operating period. The data that will be collected will mainly concern the level of acceptance of the new EV legislation and the number of EVs owned by Elba citizens. It is expected that 90% of citizens/tourists will be satisfied by the adoption of this new regulation and that, starting from a zero baseline, the n° of EVs owned by Elba citizens will reach n°5.

Data of the energy consumption, in terms of kWh /year consumption for charges, will be also collected at intervals during the operating period from the dedicated electric meter. It is expected to reach 1,110kWh (3,7kWh x 300 cars). Attention should be paid to the fact that for the first year there will not be costs for use of the EV recharging station.

5.1.6. Demonstration and promotional plan

This measure is slightly in delay with respect to the original plan (4-6 months delay). In the meantime, the agreement with ENEL has been set up with the extension of the quantities and the locations of the EV recharge stations.

It is expected that the new municipal EV regulation will be ready by the end of August for the approval by the Portoferraio council. Afterwards the regulation will be presented to the other Elba Municipalities which will have to start its approval by their respective local councils.

Afterwards (mainly after the summer of 2019), a strong and effective communication campaign (press releases, social media, information materials spread around the main POI of the island, press conferences) will be put in place by the Municipalities (PF and Rio) to foster the use of EVs on the island.

5.1.7. Risks and identified solutions

The main risk is related to the willingness and to the time needed by the other Elba Municipalities to approve and finally adopt the new EV regulation. However, it must be taken into account that the text of the regulation is quite simple and therefore the approbation process should not be very complicated.

5.2. LAS PALMAS - LPA 4.2 Fast charging EVs

5.2.1. Measure design highlights

Before CIVITAS DESTINATIONS, SAGULPA, the public parking company of Las Palmas de Gran Canaria, had 3 e-car charging points at one of its public parking facilities. Moreover, SAGULPA had an electric van and a Twizy mini car in its fleet. The use of electric vehicles has been encouraged by the purchase of 6 charging points at public parking facilities and 3 electric mini-vans for SAGULPA's fleet.

This measure allows visitors and residents to charge their electric vehicles while they are shopping, working, sightseeing, etc.

5.2.2. Procurement

SAGULPA launched two different tender processes in 2016 for the acquisition of 3 electric mini-vans awarded to Brisa Motor and for the purchase and installation of 6 e-car charger points awarded to Microeólica Canarias, S.L

5.2.3. Site preparation and implementation activities

5.2.3.1. E-charger points

6 e-car charger points provided by Microeólica Canarias, S.L were installed at 3 different public parking facilities located in the city (two e-chargers in each of them).

The public parking areas where the charger points have been installed are:

- El Rincón (Park&Ride)
- Subida de Mata
- Fast Park
 - The e-chargers' brand is CIRCONTROL Wallbox of 32 A.
- These electric chargers allow e-cars to be recharged up to 7 kWh per each phase.
- The equipment is monitored to know the energy consumption at all times.
- The recharging devices comply with European safety regulations.

The idea is that EV users will pay the same fare as any other users for parking their cars at public parking areas. However, EV owners will be able to charge their e-cars for free.

Free charging for e-cars, and e-chargers available in several points within the city, will be an incentive for the uptake of electro-mobility not only for residents but also for visitors and for rental car companies to foster the acquisition of this kind of eco-friendly vehicle.



Figure 23: Electric car charging points

5.2.3.2. E-vans

In addition, 3 electric vans, “NISSAN ENV200”, were purchased and are being used for the regulated parking service of the city, which is a significant saving on fuel and maintenance service costs for SAGULPA.



Figure 24: Electric van

5.2.4. Training activities and management team

In order to teach the right way of using e-chargers among customers, a video has been made and shared on social media to show the procedure to plug the e-car into the charging station.

5.2.5. Data collection procedures

Sagulpa has noticed the increase of the e-chargers demand, so they are studying different options to install smart meters.

Regarding e-vans, Sagulpa is saving 600 Euros/month on fuel and around 2,500 Euros/year in maintenance services. Furthermore, Sagulpa's staff satisfaction with the E-vans is very high.

5.2.6. Demonstration and promotion plan

SAGULPA has officially registered Facebook and Twitter profiles where several publications are posted daily. Furthermore, the company usually takes part in sustainable mobility trade fairs where the service is promoted. SAGULPA is also involved in electric car associations among whose members relevant information is shared. Furthermore, communication and promotional campaigns are carried out through the general audience.

5.2.7. Risks and identified solutions

This measure doesn't present any risk or problem because it has already been implemented and the system is currently working.

5.3. LIMASSOL - LIM4.3 Promote the uptake of electric vehicles, campaign on e-mobility

5.3.1. Measures design highlights

Within this measure, Limassol implements electro-mobility campaigns to raise awareness about the electric modes and their positive impacts. Advertorials in hotels and other lifestyle magazines promote this idea as a new sustainable way of life. Billboards and electronic advertisements also support this effort. Competitions are organized to create awareness on electro-mobility. The campaigns also ensure publicity in the local and tourist media about the project and implementation actions in the region.

5.3.2. Procurement

No procurement

5.3.3. Site preparation and implementation activities

Limassol has held several meetings with bike and car rental companies and their associations to establish interest and intentions to invest in electric vehicles. Also, meetings held with the Limassol Municipalities had, as a result, the free parking policy in Municipal Parking Spaces for electric vehicles. Meetings took place with different organizations in order to organize the Electromobility event. Specifically, meetings have been held with Cyprus Green Recycle- car company, Cyprus Historic & Classic Museum, Dacor Advertising and Media company, Limassol Police - Traffic Department Cyprus Police- Police on bikes, Next Bike Cyprus, Limassol Cycling Club and the Cyprus Electricity Authority.

An integrated communication strategy was planned out with regards to the activities that will be carried out during the project life cycle:

- Mass-media: Articles were published in hotels and information tourist offices regarding electro-mobility
- Newsletters: electronic newsletters were circulated to members of the Chamber of Commerce to introduce this measure
- Social media: A dedicated social media page <https://www.facebook.com/poweruptoelectric/> was created on electro-mobility to ensure the further publicity of this measure
- Billboards to be placed in the Limassol city center and tourist area to raise awareness on electro-mobility and the EV-charging network
- Within the European Mobility Week 2017 and World Tourism Day, LTC organised a full day event to raise awareness on sustainable mobility. Several parallel activities were organised to attract the attention of locals, foreign residents and tourists. Activities included: city guided walks, bus sightseeing tours, a cycling arena, and a bicycle treasure hunt. Visitors also enjoyed an exhibition of electric vehicles and were informed by representatives of EAC about the EV charging network in Cyprus and how it operates an electric car. For the purpose of the campaign and competition, leaflets,

brochures, T-Shirts and the prize for competitions were designed, produced and distributed during the event.



Figure 25: Electromobility event-Cycling arena for children (left); Electromobility event-Treasure Hunt activity (right)



Figure 26: European Mobility Week Event (left); Guided sightseeing bus tours across Limassol (right)

Also, LTC participated in the following exhibitions, events and conference, aiming to promote the CIVITAS DESTINATIONS project by distributing CIVITAS, electromobility and sustainable mobility guides to visitors:

1. Cyprus Exhibition organized by the World Trade Centre (September 2017).
2. 5th Sustainable Mobility Conference in Nicosia, organized by the Ministry of Communication and Works (May 2018).
3. OPAP Marathon (March 2018).



Figure 27: 5th Sustainable Mobility Conference (left); OPAP Marathon (right)

Two national seminars were organized in July 2017 and July 2018 to replicate certain measures in their region, i.e. installation of EV charges, etc., and to present relevant national development on tourism and sustainable mobility. In both national seminars, representatives of the main tourism boards participated, along with local partners and representatives of the Ministry of Communication and Works.



Figure 28: National Seminars – July 2017 & July 2018

For the organization of the second event for the European Mobility Week 2018, on 23rd of September, Limassol has held meetings with the Ministry of Communication and Works, Police – Traffic Department, Electricity Authority of Cyprus, Limassol Cycling Club, Cyprus University of Technology, Cyprus Cycling Federation, Next Bike and the Commissioner of Environment to collaborate for the implementation of the event.

5.3.3.1. Dissemination and promotional campaign

Regarding the communication campaign, LTC designed, produced and distributed leaflets and brochures during European Mobility Week 2017 and included the following:

- Radio spots were created to attract the attention of participants (Radio Broadcast-CHOICE FM).
- MUST magazine, April 2017 issue on Electro mobility referring to measure 4.3 and introducing all measures that will be implemented in Limassol through the CIVITAS DESTINATIONS project.
- Amathus Hotel Magazine, June 2017, published an article on Electromobility referring to measure 4.3 and introducing all measures that will be implemented in Limassol through the CIVITAS DESTINATIONS project.
- Several facebook & blog posts were published on Limassol Tourism Board's page to announce events and progress of the project. A facebook page was created dedicated to raising awareness about electromobility.

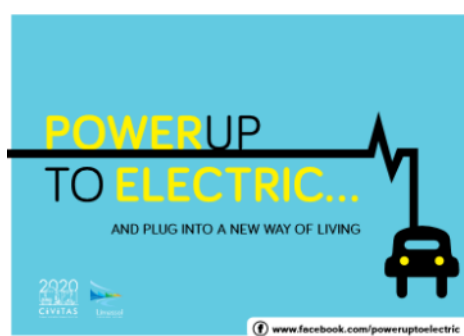


Figure 29: Brochure to promote electromobility

An event for the European Mobility Week 2018 is planned to be promoted through the following tools:

- A press conference has been organized to open the event.
- Press Release to National Media.
- Facebook Banner
- A Facebook event Page will be created
- Radio Spots to attract the attention of participants
- Leaflets will be distributed to schools, Tourism Information Desks and Cyprus Tourism organization.

5.3.4. Training activities and management team

No training activities were foreseen for this measure

5.3.5. Demonstration and promotion plan

The forthcoming promotional activities are described under 4.3.2.1 (participation to the 2018 European Mobility Week). LTC has planning the following activities:

- Treasure Hunting in collaboration with Next Bike CY and Limassol University of Technology.
- A Bike Ride in the city Centre, in collaboration with the Limassol Cycling Club, the Ministry of Communication and Works and Police traffic department
- Info kiosks to provide information for European Mobility week and on environmentally friendly modes of transport.
- Bike show in collaboration with the BMX CY company.
- Schools participation in the planning activities.

5.3.6. Data collection procedures

The measure LIM 4.3 will mainly impact on **Environment, Transport, Economy and Society**.

Baseline data has been collected by carrying out surveys, estimations and through secondary data collection for ex-ante evaluation.

5.3.7. Risks and identified solutions

No risks and constraints have been identified for this measure.

5.4. MADEIRA - MAD 4.1 Promote the uptake of clean vehicles by fleet operators

Madeira measure MAD4.1 includes several e-mobility projects, aiming at the promotion of electric vehicles. The following paragraphs describe the progress of all these projects included in the measure.

5.4.1. Measure design highlights

The e-mobility projects included in the MAD4.1 measure are:

Promotion of electric mobility:

- 1) Expansion of the electric vehicle charging network in Madeira, by promoting, among local actors and citizens, the installation of fast and slow e-charging points in public and private spaces, and in residential buildings. Currently ten new e-charging stations have been installed (seven slow and accelerated e-charging points in municipal parking lots and public space, and private car parking, and three fast e-charging stations installed in the public network).
- 2) Development and dissemination of two brochures, one for private users and one for businesses
- 3) Impacts of the electric mobility experience with members of Regional Government with electric vehicles:
 - In the experience week 5 electric vehicles performed 1 540 km;
 - Saving of 983 kWh (78% compared to the internal combustion engine vehicles);
 - Reduction of 213 kg of carbon dioxide (63%, compared to the internal combustion engine vehicles);
 - Reduction of 90€ in energy costs (72%, compared to the internal combustion engine vehicles).

5.4.2. Procurement

For the Regional Government's electric vehicle experience, AREAM acquired technical services for the installation of electric vehicle charging infrastructures, according to the Public Contract Legislation. The EV charging stations were provisionally installed in the parking lots, which were lent for one week and then returned to the contracted company.

In order to create a platform dedicated to the promotion and acquisition of electric vehicles for citizens and companies, AREAM will consult experts in the elaboration of a web platform and the services acquirement will be carried out according to the Public Contract Legislation.

5.4.3. Site preparation and implementation activities

The site preparation and the implementation activities carried out in the scope of the e-mobility projects are presented below:

A. Expansion of the electric vehicle charging network in Madeira, by promoting, among local actors and citizens, the installation of fast and slow e-charging points in public and private spaces, and in residential buildings.

- Support Regional Government in the preparation of the Action Plan for Electric Mobility promotion in Madeira (Resolução do Concelho de Governo nº 180/2017, de dia 28 de março 2017), which includes the installation of 7 public e-charging stations.
- Support EMACOM (regional e-charging operator) with the definition of technical specifications for the e-chargers, definition of the geographical location for the e-chargers, and communication with local and regional authorities and with EV marketers. It is foreseen the installation of six e-charging points. Currently, there are three fast e-charging stations installed in the public network.



Figure 30: Fast e-charging stations installed in Madeira Public Network

- Support Regional Government for the installation of three fast e-charging stations, in São Vicente, Funchal and Cristiano Ronaldo Airport for light electric vehicles, as well as slow e-charging stations in other municipalities, to complement the public electric vehicle charging network and ensure coverage of all municipalities of the RAM.
- 7 e-charging stations are already installed in municipal parking lots and public space, and private car parking.

B. Information platform, available through a mobile and desktop application, regarding the location of available e-charging points to support users of electric vehicles.

Since the conception of the project, several platforms dedicated to electric mobility became available, therefore there is no need to create a new platform. Nowadays, the main platforms available are: Rede MOBI.E; Electromaps, PlugShare, Chargemap, GreenRace. With these platforms, the user may find the e-charging points, specifications, availability and can simulate a trip plan, to each model of electric vehicle, from origin to destination. Related with Rede MOBI.E, that is the national standard for electric mobility charging network, AREAM is collaborating with operators to raise awareness to the importance to connect to MOBI.E. AREAM is also collaborating with the Regional Government (DRET) to create the legal framework offering one year of free energy supply for private operators, with the condition to connect MOBI.E network.

In the scope of CIVITAS DESTINATIONS, AREAM will create a profile on the main open e-charging platforms and will insert information and keep the information updated.

On the other hand, considering the actual needs to promote sustainable electric mobility, AREAM will create a platform dedicated to the promotion and acquisition of electric vehicles for citizens and companies. This platform will also integrate the information related to the main e-charging platforms.

C. Study of electric transport impact on electricity production and use of renewable energy.

Evaluation of the impact of the acquisition of new electric vehicles in grid electricity consumption and electric charge diagram.

Baseline situation: Contacts with EV trade for monitoring the EV sales in 2016, in Madeira.

D. Promotion for the acquisition of electric vehicles for fleets of public and private organizations.

- Organization of an event with electric vehicles for members of the Regional Government (9 to 13 October 2017). Contact with EV marketers; Installation of e-charging points; training of the RG drivers.



Figure 31: Regional Government involvement in the use of EV

- Acquisition of EV for the public fleet: analysis of current situation of the public fleet and evaluation of the integration of EV in the fleet.
- Campaign for the acquisition of EV for companies and citizens: Start of the development of the work plan for the campaign: chronogram; campaign regulation; and communication plan. For the engagement of stakeholders, meetings with EV private trade organizations; Survey on the EV existing models.
- Support of Regional Authority in the acquisition of three light EVs through a national Fund (Fundo Ambiental) and e-charging stations. There was a public session for the launch of the electric vehicles to be included in the public fleet of the Regional Government.



Figure 32: Photo of the public event (June 18)

- Horários do Funchal was awarded by a national fund (Fundo Ambiental) with three electric vehicles and e-charging stations. These vehicles were delivered to HF in June. Using baseline information about the vehicles which will be substituted for the new electrical ones, HF evaluated the energy, environmental and costs/ benefit impacts of this action.
- Promotion of the second phase of a national funding program (Fundo Ambiental) for acquisition of EVs for public administration.

E. Study of an incentive scheme to promote the increase in electric vehicle purchases, making more affordable for final users the energy charging during night time.

- Aiming to promote the EV acquisition and to benefit the EV user, Regional Government and the regional e-charging operator negotiated the supply of energy in the public grid, free of charge for the consumer, during the years 2017 and 2018.

5.4.4. Training activities and management team

Here are the training activities carried out in the scope of the e-mobility projects:

Promotion for the acquisition of electric vehicles for fleets of public and private organizations: for the event with members of Regional Government with electric vehicles, a small training session was carried out for the correct use of the electric vehicles and the e-charging stations.

5.4.5. Data collection procedures

Here are the data collection procedures carried out in the scope of the e-mobility projects:

1) Study of electric transport impacts in electricity production and use of renewable energy.

- Annual monitoring of EV sales to identify the baseline situation and the evaluation.
- Inquiry for electric vehicle users and evaluation of the baseline concerning EV energy consumption and charging habits.

2) Promotion for the acquisition of electric vehicles for fleets of public and private organizations.

An evaluation of the energy, economic and environmental impacts of the electric mobility experience was carried out with members of Regional Government with electric vehicles:

- In the experience week 5 electric vehicles performed 1 540 km;
- Saving of 983 kWh (78% compared to the internal combustion engine vehicles);
- Reduction of 213 kg of carbon dioxide (63%, compared to the internal combustion engine vehicles);
- Reduction of 90€ in energy costs (72%%, compared to the internal combustion engine vehicles)

Also, an inquiry for RG members’ drivers was carried out to understand their satisfaction and liability about the EV they drove.

5.4.6. Demonstration and promotional plan

The promotion and dissemination activities carried out in the scope of the e-mobility projects are:

A. Expansion of the electric vehicle charging network in Madeira, by promoting, among local actors and citizens, the installation of fast and slow e-charging points in public and private spaces, and in residential buildings.

- Promotion of EV e-chargers’ installation among municipalities and private entities (shopping, restaurants and hotels) and communication with e-charging stations marketers: 7 e-charging stations are already installed in municipal parking lots and public space, and private car parking.



Figure 33: 7 new e-charging stations installed

- Promotion of guidelines for the installation of e-charging stations in private and public existing buildings, including households, and best practices. (https://www.madeira.gov.pt/Portals/21/Documentos/Economia/Energia/DRET_EV_V5.pdf)

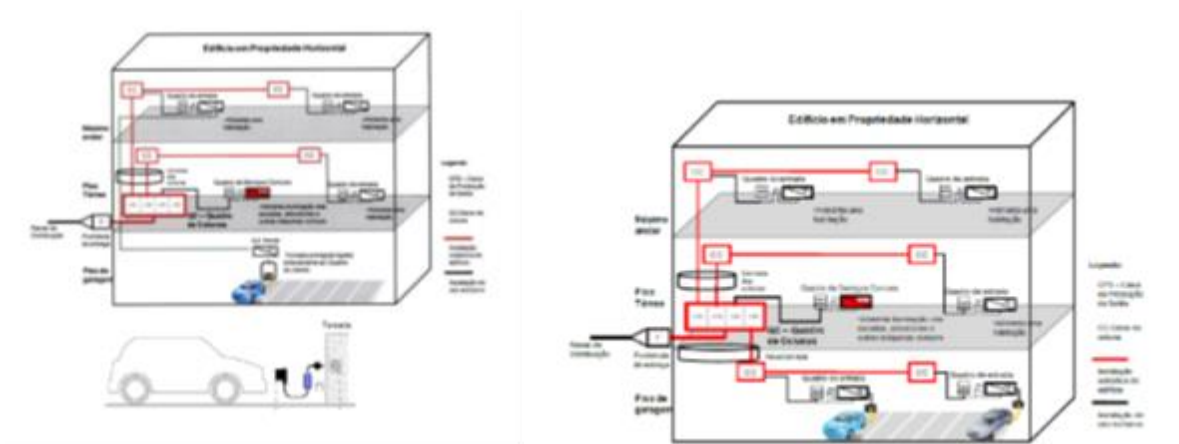


Figure 34: Guidelines for the installation of an EV charging station

B. Promotion for the acquisition of electric vehicles for fleets of public and private organizations.

- Organization of an experience with electric vehicles for members of the Regional Government (9 to 13 October 2017).
- Dissemination of the results of the experience in media
- **Madeira Move Campaign** was carried out, an initiative promoted by SRETC and AREAM, to promote Electric Mobility among residents and companies.
- Elaboration and launch of **two brochures on electric mobility for the domestic and business sectors.**



Figure 35: Madeira Move campaign public presentation event



Figure 36: Domestic and business brochures

- Participation in a national event **Ciência do Mercado** (Market Science) to promote EVs and the DESTINATIONS Project.



Figure 37: Ciência do Mercado event

- Cooperation with the **regional television channel** for the elaboration of three shows about electric mobility (light e-vehicles, electric buses and EV users) with the participation of AREAM and HF.



Figure 38: TV Shows on electric mobility

- Support the Regional Environment Secretariat aiming to promote, inside the RG organizations, the benefits of electric vehicles, compared with conventional diesel and gasoline engine vehicles.

5.4.7. Risks and identified solutions

The main risks that have been identified are related to the reduction of oil prices, to the high EV costs and to a possible low interest of the beneficiaries. Incentive and awareness raising campaigns will be conducted to avoid them.

5.5. RETHYMNO - RETH 4.1 Uptake of electric vehicles by fleet operators

5.5.1. Measure design highlights

Measure RETH 4.1 promotes the uptake of electric vehicles and introduces charging infrastructure (4 EV charging stations) in the region, along with incentives to fleet operators to incorporate EVs in their fleet, as a clean mode of transport, empowering the sustainable and eco-friendly profile of the area amongst tourists.

Rethymno has already installed the first three EV charging stations that are available to the public for free charging and is currently working on preparing a promotional campaign that could create a trend to visitors and tourists and will motivate rental car enterprises to incorporate e-vehicles into their fleet. Funding opportunities are sought on a regional level in open discussion with regional government to install additional charging stations beyond the municipality limits, such as the main airports and ports of the region. **Rethymno is the first municipality in the whole region to provide public owned EV charging stations**, while only few private owned EV chargers are currently available in the whole island.

5.5.2. System specifications and procurement

A market survey for the system has been conducted to identify best practices for Electric Vehicle Supply Equipment (EVSE). According to identified needs and available market solutions, the public charging stations selected are highly configurable and tailored to the users' needs. The specific model (Etrell G6) allows the simultaneous charging of two vehicles, with power of up to 2x22 kW and is equipped with Type 2 - IEC 62196-2 sockets. Certified utility-grade meters as well as all optional utility feeder equipment are embedded in the station. The station is also equipped with an RFID identification module, which can prevent unauthorized use and can enable different billing and reservation processes and other

advanced functionalities. The station can also support remote identification with SMS or other external identification means.



Figure 39: The selected charging station Etrell G6

The technical specifications for the procurement procedure were completed according to the above mentioned analysis, all the required actions to publish the call for tenders have been performed and the procurement procedure has been successfully completed.

5.5.3. Site preparation and implementation activities

During the site's preparation, an initial analysis of current EV ownership and the future electric vehicle equipment supply patterns was conducted, based on a range of geographic, demographic and policy-based EV trends across the region, which could affect the EVs uptake and identify needs before the selection of charging locations. Greek legislation requirements and limitations were taken into account regarding the public spaces that can be selected as appropriate installation points.

Additionally, for cost-effective and successful installation, the level of usage and the corresponding benefits for the users were assessed, in case of charging while parked. A number of factors (distance from the nearest power source, necessary cables and accessories, available infrastructure on the spot etc.) influence charging station installation costs, which can often exceed the cost of acquisition. These factors were considered when determining site viability and the ideal location to install the charging station on the property. The most significant factor was the availability of electrical power nearby.

Analytical topographic surveys have been conducted at 4 locations. The locations selected to accommodate the first 3 charging stations are shown in the map below:

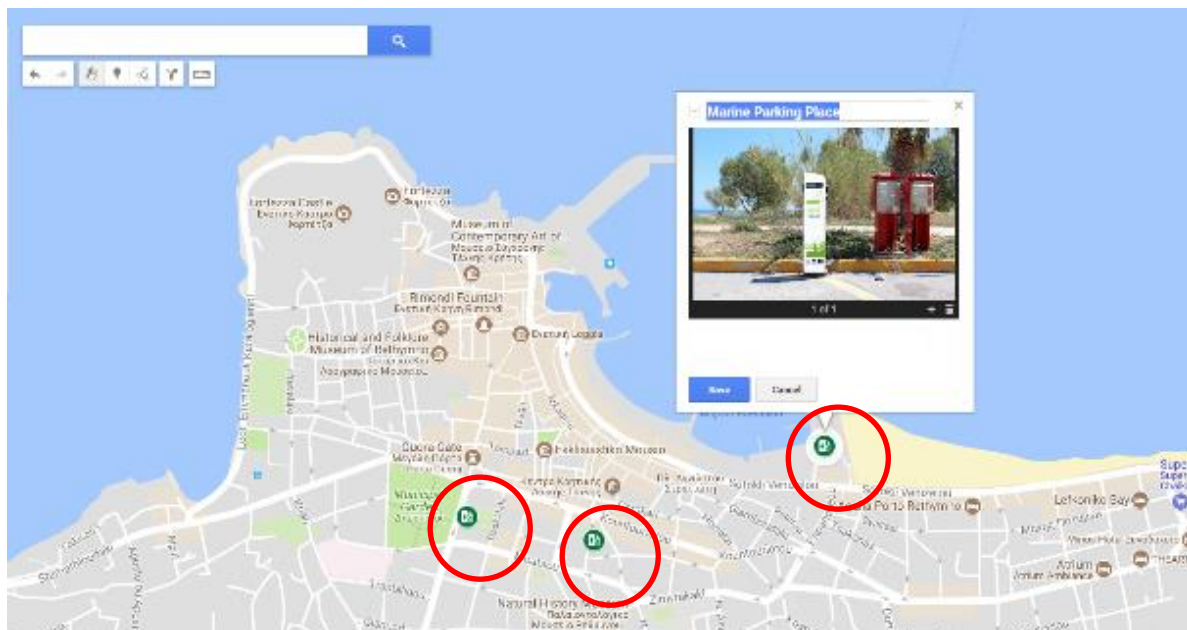


Figure 40: Locations of the installed charging points in Rethymno

Another charging point was selected for the installation of the 4th charging station, as part of a public space upgrade project at “Agios Georgios” (Saint George) Square (as presented in the map below). This charging station, a **DC fast charger** (level 3 charging station), is funded by the ERDF and will be installed during the infrastructure project of St George Square, to be completed in May 2019.

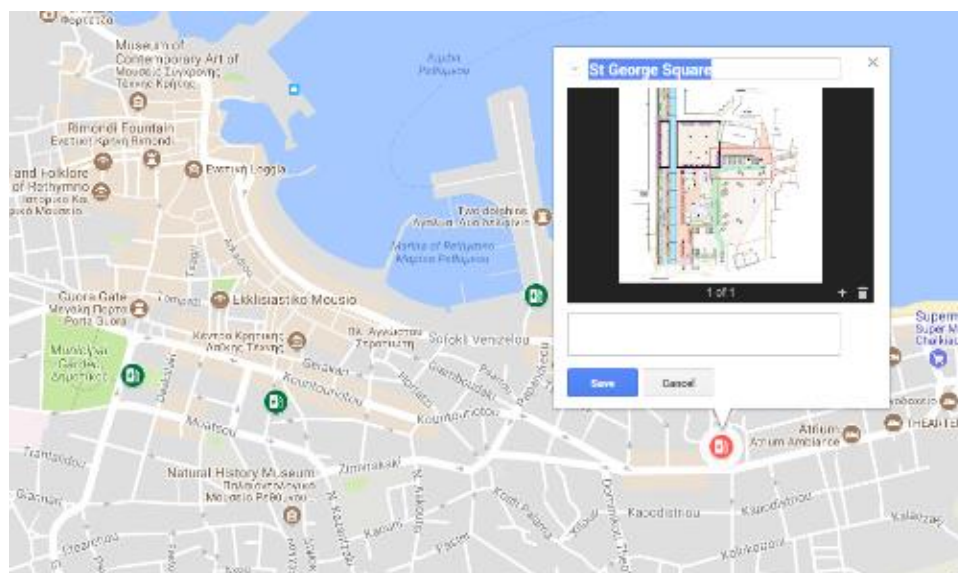


Figure 41: Location of the 4th charging station in Saint George Square, Rethymno

Following the procurement of the stations, the preparatory work for their installation commenced to ensure the connection of the stations to the electrical grid in the selected locations. The additional work for power supply was completed successfully, along with the installation of the charging stations and the launch of the dedicated signage.

Acknowledging that signage can be an essential component of the marketing strategy and can help reinforce the EVs usage, dedicated signage was designed by TUC for the EVs charging stations and the EVs parking lots, aiming to create a distinctive trademark for all electromobility activities in Rethymno and be the key element of the campaign for the promotion of EVs. The signage for the parking spaces, the informational signs and the charging station signage was completed successfully (Figure 45).



Figure 42: New signage for the charging points (informational sign, parking space, charging station)



Figure 43: Launch of the charging points (informational sign, parking space, charging station)

The charging points have been installed and their pilot operation started during June 2018.

5.5.4. Training activities and management team

A consultation workshop was arranged to provide a wealth of information to the fleet operators, car rental companies and the taxi industry to understand what it would take to bring about successful broader adoption of electric vehicles in their fleet. The local team has also

established cooperation with the regional authorities, aiming to further expand charging infrastructure to the main entrances of the island and other sites.

Within the measure, further training and consultation activities will take place during summer 2018 and during the EMW 2018. Knowledge transfer workshops are foreseen with regional stakeholders to increase EV charging stations and develop a joint procurement framework for e-vehicles for PT fleets and charging points equipment. One to one meetings with fleet operators (car rental-taxi fleets) will be organised by the Municipality with the support of TUC, to encourage them to start procuring electric vehicles, by identifying suitable incentives, such as tax reduction and ensuring support to access competitive prices through joint procurement, that could mitigate costs.

5.5.5. Data collection procedures

Data collection procedures within the measure include mainly the evaluation of economic aspects after the pilot operation of the stations and the assessment of awareness and acceptance levels through surveys amongst citizens and fleet operators, before and after the promotional activities. The platform for the EV-chargers provides useful information for the usage which can be managed to cover user needs and further promote the system. The information includes: number of sessions daily, consumption, duration and max power.

5.5.6. Demonstration and promotional plan

On-spot exhibitions (Figure 47) of EVs and charging stations were held, along with test drives of electric cars and e-bikes aiming to create awareness and interest to residents and tourists. Citizens had the opportunity to test an EV and to learn about technical specifications and benefits of EVs.



Figure 44: On-spot exhibitions of charging stations and demonstration of EVs charging during the National DESTINATIONS public event in May 2017 (left) and the European Mobility Week 2017 (right)

The installation of the charging stations was announced by the local press and social media. The charging stations' promotional signage gives a powerful message that enhances the city's profile as a sustainable destination that promotes clean transport modes. The Municipality is planning,

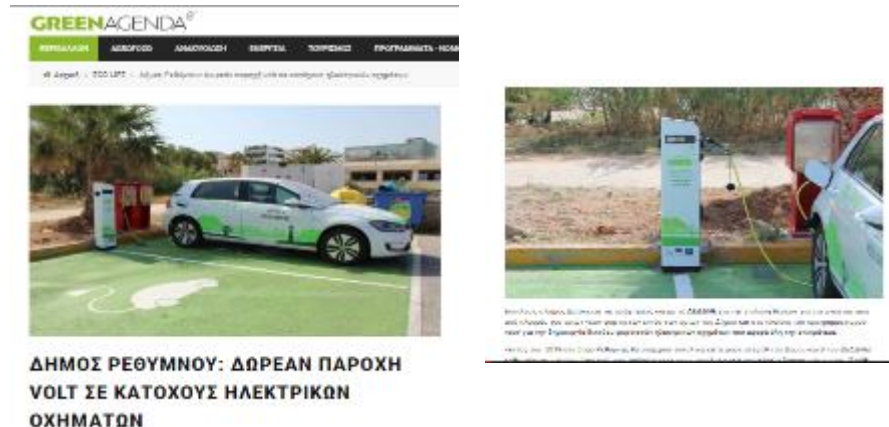


Figure 45: Indicative online press items during the installation of the charging stations

during the next months, an integrated marketing campaign targeting citizens, tourists and stakeholders that will highlight the benefits of electromobility and raise awareness towards clean transport solutions. The campaign will include a series of press releases and dissemination through channels and social media, the distribution of tailor-made promotional material and maps of the charging spots to main airports. To further support the demonstration actions, incentives are provided to users, including free parking and free charging for EVs owners, launched during July 2018, while during the European Mobility Week 2018, EVs will be further promoted to raise public awareness through dedicated on-spot exhibitions and material distribution.

5.5.7. Risks and identified solutions

Introducing electric vehicles as an alternative mode of transport in the region of Crete is a new challenge, since residents are not very familiar with EVs and their benefits. Charging infrastructure is also rare in public spaces and only a few e-cars are circulating in the whole region. The limited awareness and interest for EVs will be addressed by the tailor-made campaign highlighting the benefits of clean vehicles e.g. economic, operational and environmental positive effects. Dedicated meetings with fleet operators will also contribute to the mitigation of the risk.

5.6. Collaboration among DESTINATIONS Sites/partner

Measure Title	Best Practice description in the implementation of the measure	Description of a specific expertise needed for the demonstration phase	Identified Synergies
ELB 4.5 EV legislation revision and charging infrastructures		Share information and knowledge on the implementation of campaigns, key messages	MAL4.1, MAD4.1
LIM 4.3 Promote the uptake of electric vehicles, campaign on e-mobility	Limassol, supported by LTC, will increase the number of electric bikes (10), electric cars (5) and 4 EV stations with charging points (supported by renewable energy sources) in the region and its main gateways. It also implements a promotional campaign to tourists of the Limassol region.	Incentives for EV use will be introduced via campaigns to raise awareness on electromobility. Promote the use of mobile applications free of charge, for example: iEV2: an application for comparing electric to conventional vehicles and Plug share, a social network for interacting with electric car owners to share information on e-vehicles. Promoting electromobility through test drives of e-cars or e-bikes at various events, i.e. at the Limassol Boat Show, attendees were able to test the GoCycle e-bikes.	MAD 4.1, RETH 4.1, LPA 4.2, MAL 4.1
LPA 4.2 Fast charging EVs	Sagulpa Staff move daily in these e-vans. This is another way of promoting electromobility		
MAD 4.1 Promote the uptake of clean vehicles by fleet operators	<ul style="list-style-type: none"> • Electric vehicles promotion; • Electric and hybrid plug-in buses for public transport (PT); • E-charging networks; • PT Drivers' eco-driving performance. • PT tire press monitoring systems. 	-Share information and knowledge on the implementation of campaigns, key messages.	LIM4.1, ELBA4.5, RETH4.1, LPA4.2, MAL4.1
RETH 4.1 Uptake of electric vehicles by fleet operators	Expansion of the charging network, attracting further funds from public or private opportunities. Testing of solar powered charging station and evaluation of environmental and economic benefits.	-Strong engagement strategies for the uptake of e-vehicles amongst fleet operators. Best practices to promote electro-mobility: successful examples of promotional campaigns and relevant material	ELB 4.5, MAD 4.1, LIM 4.3

Table 4: Best practices and synergies related to WP4 Cluster Shared e-charging infrastructures