D 3.2 Implementation Report on Measures for Safety and Accessible Public Spaces

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Abstract

Innovative sustainable urban mobility demonstrations can only be assured with good planning and sound foundations. In this regard, CIVITAS measures are delivered through a tried and tested approach comprising three stages: Design, Implementation and Operations. This report focuses on the second of these and hence updates on the details of measure Implementation across the six sites.

Project Partners

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Executive Summary

The main purpose of this report is to present the expected results, for all six sites, of the CIVITAS DESTINATIONS project, under Task 3.3 of WP 3 “WP3 - Safe, attractive and accessible public spaces for all generations” regarding site preparation, solution deployment, supporting actions and demo setup of pilots targeted to increase traffic safety and create accessible public spaces.

Chapter 1 introduces the objectives of WP 3 and a description of the measure per cluster category.

Chapter 2, 3 and 4 provide an analysis of the implementation of all measures under the Task 3.3, for all the Civitas DESTINATIONS sites, during the 24 months period. Measure description includes the implementation and deployment activities required, the solutions designed, site-related activities (e.g. procurement management, implementations of designed solutions and supporting actions, behavioural and increasing awareness campaigns, etc.).
1 Introduction

1.1 Overall DESTINATIONS Objectives

WP3 aims at designing, implementing and demonstrating measures to increase traffic safety and personal safety as well as implementing actions to increase the attractiveness of tourist points of interest. The concrete objectives for WP3 are:

(1) To design, implement and demonstrate: traffic safety measures specially focused on bikers and walking routes/lanes (Rethymno, Elba, Limassol), car drivers (Limassol) and pupils and students (Madeira, Rethymno, Limassol); specific technological and design solutions targeted at people with disabilities (Madeira, Rethymno, Limassol, Elba); attractive and accessible public spaces combining an integrated set of actions (Madeira, Las Palmas, Limassol, Rethymno, Elba).

(2) To adopt stakeholder engagement strategies and the implementation of specific promotional measures to support the demo set up and operation;

(3) To carry out data collection for WP9 evaluation (ex-ante, process, ex-post);

(4) To derive cross-site evidence and conclusions for the set of measures addressed in this WP in terms of business and replication/transferability potential (as input for WP10).

1.2 WP3 Structure and Tasks

WP3 work activities have been clustered in 1) Safe travelling, 2) Attractive and accessible public space, and 3) Safe routes to school. Overall, WP3 activities are broken down into a number of cross-site and vertical tasks addressing the specific phases and operations of the piloting life cycle.

- Task 3.1 Cross-site coordination of pilots targeted to increase travel safety and accessible public spaces.
- Task 3.2 User-needs analysis, stakeholders’ involvement, service requirements and supporting technologies design for pilots targeted to increase travel safety and accessible public spaces.
- Task 3.3 Site preparation, solution deployment, supporting actions and demo setup of pilots targeted to increase traffic safety and create accessible public spaces.
- Task 3.4 Demonstration of pilots targeted to increase traffic safety and improve disabled accessibility
- Task 3.5 Demonstration of pilots targeted to increase attractiveness of accessible public spaces
- Task 3.6 Demonstration of pilots targeted for safe routes to schools
- Task 3.7 Data collection for ex-post, process and impact evaluation for pilots targeted to increase travel safety and accessible public spaces
- Task 3.8 Local dissemination and communication for pilots targeted to increase travel safety and accessible public spaces.
1.3 Task 3.3

Site preparation, solution deployment, supporting actions and demo setup of pilots targeted to increase traffic safety and create accessible public spaces.

This task will cover the implementation and deployment activities required to put in place, in each site, the solutions designed in T3.2. Site-related activities will include the procurement management, the implementations of designed solutions and supporting actions (training sessions, behavioural and increasing awareness campaigns, etc.).

1.4 Del 3.2 Objectives

This report, Deliverable D3.2, will present the results of site preparation and planned activities, technology development and implementation of supporting actions for all the WP3 measures in each site.
2 Increase Traffic Safety and Improved Disabled Accessibility

2.1 RET 3.1a ‘Active healthy and inclusive mobility for all’

Measure Design Highlight, Site Preparation and Implementation activities

Measure RET 3.1a aims to improve locals’ quality of life and visitors’ experience enhancing the existing services and infrastructure for sustainable transport modes (cycling, walking, sharing modes and PT) and driving behavioural change towards active mobility and a “car-free” lifestyle. According to the measure’s timeline, the design stage is still ongoing.

To assess the existing and to plan new walking / cycling routes, a user needs analysis is ongoing including field surveys. The key stakeholders have been involved in participatory activities and targeted meetings. A research of existing best practices on behavioural change activities, aiming to promote active journeys and sustainable mobility modes, such as cycling, and walking has been conducted by TUC supported by Rethymno Municipality. Rethymno has also conducted the following preparatory activities:

- Assessment study of the current walking and cycling network.
- Assessment study of new routes and links of the PT transportation with cycling and walking.

Stakeholders Engagement

The main stakeholders engaged in measure RET 3.1a are:

- Local authorities and urban planners: Technical Chamber of Greece-local unit, Chamber of Commerce, Police Traffic department of Rethymno
- Tourism stakeholders: Municipal Tourism Office, Hotels Association, Tourism agencies and Hoteliers
- Mobility provides: Public transport operator (KTEL), Bike renting companies
- Cycling and sports groups: Atlas Cycling Union
- Citizens and local community groups: Association of Active Citizens, Initiative of Citizens for Road Accident Prevention and the Promotion of Road Safety

The above stakeholders actively participated in the SUMP consultation events (February 2018 and June 2018), where they were informed about the planned activities at measure level and committed to contributing both on the efficient design of the new routes and on the behavioural and promotional activities regarding active mobility.

Data collection procedure

The data collection aims to evaluate the main social aspects and includes field surveys for the identification of user needs, acceptance, awareness and satisfaction levels, feeling of security and accessibility, supported by desk research if required. The measure’s baseline is planned to be completed by February 2019, before the start of the implementation phase.
Demonstration of Promotion Plan

The demonstration plan foresees the following steps:

▪ Engagement of citizens’ associations, cyclist teams and volunteers. Behavioural change activities for citizens and tourists (February 2019)
▪ Launch of new bike lanes and walking routes (March 2019)
▪ Launch of Car-Free Life promotional campaign (April 2019)
▪ Evaluation of the new cycling / walking network use and satisfaction (May 2020)

The promotional plan includes the development and distribution of informative material, as well as sound behavioural change activities to motivate locals and visitors to adopt a car-free lifestyle. Within this context, a thematic campaign will be launched, demonstrating a “Car-Free Life” Ambassadors team and a competition to motivate bottom-up behaviour change amongst citizens from all generations with coordinated actions targeted to specific groups.

Risks and identified solutions

No risks were encountered during the preparatory activities.

2.2 RETH 3.1b ‘Enhancing and promoting systems and services for the physically impaired’

Measure Design Highlight

Measure RET 3.1b aims to increase urban accessibility and satisfaction for people with disabilities, to provide improved services and facilitate leisure trips of people with special needs, based on previous experience. During the design phase, Rethymno carried out a design study for expanding accessibility infrastructure, research on available solutions and a user needs analysis study, including targeted interviews.

The design study on the accessibility of the beaches and the main attraction points served as a strategic plan and included an in-depth literature review of the most common and important problems faced by people with disabilities when commuting and a detailed research on best practices on accessibility infrastructure and equipment across the world that could be replicated locally. In addition, the study identified the areas that need urgent improvements of accessibility infrastructure and provided key conclusions and optimum equipment solutions for the required interventions for pedestrian crossings and beach access.

The users need analysis study identified the needs and expectations of local disabled people and provided a better understanding of the day-to-day problems of people with disabilities commuting in the Municipality. Consultations and focused interviews with members of the Rethymno’s Association of Disabled People and the Association of Children with Disabilities “AGAPI” were held. During the eight interviews (December 2017), people with disabilities had the opportunity to share their experiences and their needs and preferences in terms of interventions, infrastructure, awareness campaigns etc. Specifically, these interviews recorded
everyday journeys, difficulties/ barriers, problems during the touristic period and suggestions in the framework of the planning process.

Analysing the findings of the abovementioned studies, the final action plan for accessibility to the beaches and the main attraction points of Rethymno Municipality was developed. The detailed analysis helped to identified suitable new equipment which is now installed at traffic lights and at the beach.

(1) **Installation of new systems at traffic lights**: Following a thorough research of available solutions and technical characteristics of potential equipment, the traffic lights countdown timer system and its technical specifications were defined. The procurement process was completed and the system was installed in February 2018 at 24 traffic lights at five crossings in the city centre (Figure 1). The installed new system (Figure 2) enhances the accessibility of deaf people and complements the pre-existing sound system for blind people, which operates using a remote control to activate the sound when the traffic light is green. The remote controls are available to visually impaired people through the Rethymno’s Association of People with Disabilities and can also be provided on request to visually impaired visitors, in cooperation with Rethymno’s Hotel Association.

(2) **Placement of equipment for the accessibility to beaches**: The construction of two ramps in strategic locations was identified as the most suitable solution for improving accessibility to the beaches, following an integrated planning approach, from the parking facilities to the sea level, with reserved parking spots for people with disabilities next to the ramps and tactile pavement for the accessibility of blind people. The procurement procedure has been completed and the two ramps are now instated in the central, most touristic beach of Rethymno (city centre), as shown in the map below (Figure 3). The equipment was installed according to the legislation’s requirements and the national standards and guidelines for accessibility infrastructure. This implementation is strongly
supported by Rethymno’s Association of People with Disabilities, as it meets their expectations.

![Ramp Under Construction](image1)

**Figure 3:** Ramp Under Construction (Left) and Placement of Equipment for Accessibility to the Beaches (Right)

(3) **Additional equipment through ERDF funding:** Rethymno Municipality has applied for ERDF funds for additional equipment to enhance the existing infrastructure for disabled people on the beaches, amphibious wheelchairs, WC facilities, changing rooms and appropriate corridors, by launching specialized systems for guiding blind impaired people to the sea, and most importantly the SEATRAK system – mechanical rails with an attached seat that enables people with physical disabilities to have independent access to the sea.

During the design stage, new thematic routes have been designed and integrated to the wider SUMP development and distinguished in short-term implementation (0-5 years) and long-term ones which would require further infrastructure (5-15 years). The routes were finalised after the consultation meetings with relevant stakeholders and are presented in Figure 5.

![Thematic Routes](image2)

**Figure 4:** Short Term Every Day Tourist Routes for People with Disabilities (Left) and Extended Tourist Route for Long-Term Implementation (Right)

During summer 2018, the reserved parking spaces for people with disabilities were upgraded, following the European standards on street signage (blue background – white symbol) as shown in Figure 6.


**Stakeholder engagement**

Throughout the design and implementation phases of the measure, Rethymno Municipality is in close cooperation with urban planners and local associations, as well as with Rethymno’s Association of Disabled People. Several consultation meetings were held.

The new thematic routes were set under consultation with Rethymno’s Association of Disabled People and its members, during a meeting in June 2018. The representatives contributed to the final designs and demonstrated a strong interest in the promotion of these new thematic routes to attract more disabled tourists and motivate local people with disabilities to commute more often and feel safer.

Moreover, Rethymno’s Association of Disabled People and the relevant mobility and tourism stakeholders agreed to contribute to the communication activities of new routes and available infrastructure and promote the city’s image as an attractive, accessible tourism destination.

**Data collection procedure**

Besides the structured interviews, additional necessary data have been collected through desk research and data extraction from the database of Technical Services Department of Rethymno Municipality, regarding existing accessibility infrastructure at points of interest, location of reserved parking areas for people with disabilities, existing equipment for accessibility to the sea and results from other completed projects related to mobility issues. All surveys and data collection conducted are GDPR compliant.

**Demonstration and promotion plan**

Rethymno, setting as a priority the awareness-raising of locals and tourists about the accessibility difficulties of disabled (due to improper parking, obstacles met in disabled designated routes, etc.), implemented interactive, behavioural change actions for children and adults to increase **consciousness** regarding the needs and mobility challenges faced by people with physical disabilities during European Mobility Week 2017 (Figure 8).
Following the initial informative activities, the launch of two new thematic routes will include the placement of signage along the routes, leaflets through the individual tourism focal points and online promotion of the routes and the new accessible points through Rethymno’s dedicated website for disabled tourists’ information. All activities will be supported by regular posts on the social media accounts of the Municipality, politicians’ interviews and press releases.

**Risks and identified solutions**

Changes in the regulatory framework for the safety of the beaches is a key risk in the measure. Shortly after the construction of the ramps, adjacent to lifeguard towers, the regulation regarding the minimum distance between the lifeguard towers changed and the Local Port Authority (solely in charge of the lifeguard towers) was planning to remove the specific lifeguard towers, thus reducing the ramps functionality and safety. The risk was addressed through consultations with relevant stakeholders and the Local Port Authority convincing them to keep the location of the specific lifeguard towers without change.

### 2.3 LIM 3.1 ‘Increase cycling and walking in combination with special interest tourist activities as an integrated product’

**Measure Design**

In Limassol, measure LIM 3.1 will upgrade cycling, walking and hiking as a tourist product, by creating 5 new bike parking facilities, 2 new bike lanes, installing 7 map panels to inform tourists and citizens for the landmarks, cycling lanes and routes around specific areas and will increase the interest of the public. Tourists and residents will be encouraged to use cycling, walking and hiking to explore the region according to their special interests. The cycling and walking networks will be expanded, bicycle parking facilities will be added, routes will be created or adapted, map panels and signage will be installed, and promotional material will be produced and disseminated.

Limassol already has several cycling and walking paths by the sea side and will upgrade its network with the development of another two bike lanes in the region.
Site preparation and implementation

LTC has already installed five bike parking facilities and seven map panels, with WiFi services, that gives the opportunity to visitors and citizens to be connected with the internet and to download the mobility application, which was implemented in another measure. The procurement procedure for the construction of two bike lanes in collaboration with Ysponas Municipality, which is one of the municipalities in Eastern Limassol, connecting the city centre with a lot of historic attractions/landmarks of the Limassol Region, will be started in September 2018.

![Figure 8: Location of Bike Parking Facilities (Left) and Installation of Five Bike Parking Facilities in Collaboration with Nextbike CY Ltd (Right)](image)

Efforts have been made, in cooperation with the Cyprus Cycling Federation, the Limassol Cycling Club and Limassol members of Parliament to introduce, for the first time, a law regulating cycling, to ensure the safety of the increased number of cyclists. The law was accepted by Parliament in April 2018 and will be applied in October 2018. The law offers a detailed description about the rights and responsibilities of cyclists and drivers as well.

To promote the increase of cycling, walking and hiking and special interest tourist products in combination, 34,000 maps were created, guides in electronic and printed format have been designed and ready for production and substantial presence in the local press will be ensured
Additionally, a campaign was organized in May 2018. The campaign was entitled: “I clean cycling and hiking spots! Actively participate!”. 1,000 students from 18 elementary schools of Limassol took part in the hiking and cycling cleaning campaign for the period 21-25 May 2018. The aim of the campaign was to promote sustainable mobility modes (walking and cycling) in a cleaner environment and was accessible to the wider public. Students cleaned walking and cycling paths in the region of Limassol and became aware of the hiking and cycling spots that they can use.

**ICT/Infrastructure supporting solutions**

For measure LIM 3.1, in cooperation with NextBike CY Ltd, the bike sharing company in Limassol, LTC, installed three bike parking stations with terminals with solar panels that will supply electricity to the touch screen display, RFID card reader and smart box.

Terminals include: i) the Nextbike smart box FVZ2 which serves as the central processing unit for all stations’ electronic components. It fits into the Nextbike terminal and can be integrated into individually designed kiosk structures. The smart box FVZ2 is a mandatory component for all stations with display and payment modules, and ii) touch display serves as the central interface for dynamic information and customer interaction. With its encapsulated build, it is optimised for outdoor environments.

**Procurement of services**

Limassol did not require any procurement of services for the installation of five bike parking facilities due to the fact that Nextbike CY Ltd is the exclusive representative for the trademark Nextbike, and the only license holder and operator of the bike sharing terminals and bikes in the Limassol region.
Stakeholder engagement

In Limassol, for the implementation of measure LIM 3.1, according to ex-ante evaluation, the Cyprus Tourism Organisation is involved in distributing the maps created for promoting the increase of cycling as well as walking and hiking routes. Several meetings have been held with Cyprus Cycling Federation, Nextbike and Limassol Cycling Club to exchange information and examine suggestions on specific locations for signage infrastructure and bike parking facilities, based on the needs determined by users. LTC, in collaboration with Next Bike, has started to promote the use of bicycles in combination with special interest tourism products.

The Ministry of Communications and Works is informed about the implementation of the measure and will support the introduction of a new law regulating cycling and the rights and responsibilities of cyclists. Ypsonas Municipality, one of the main local authorities in the Limassol region, is a recently identified key stakeholder with a high level of power and interest in the implementation of the measure, by providing permissions and identifying locations for the construction of the two bike lanes and the installation of two bike parking facilities. Ypsonas Municipality will provide the necessary permits and support, while it also commits to expanding the bike lanes in the future aiming to create a cycling network in the area. In addition, Limassol Municipality provided permission for the installation of three bike parking facilities in its area of jurisdiction.

Data collection procedure

Data has been collected by carrying out surveys, estimations and through secondary data collection for ex-ante evaluation. The procedure to estimate the data is measured through:

▪ the level of acceptance and awareness, namely the Citizens / Tourists satisfaction index (%) and awareness of the measure;
▪ the extent of on-street-cycle network, namely the length of urban roads with segregated cycle facilities;
▪ the bike sharing bikes and stations per capita, in particular the number of bike share bikes; and
▪ a new impact on the environment is being calculated through the measurement of CO₂ emissions, traffic noise and energy consumption based on the data collected.

2.4 LIM 3.2 ‘Accessibility for disabled and visually, hearing impaired’

Measure Design

In Limassol, measure LIM 3.2 will offer the opportunity to people with disabilities to enjoy their vacations on the island with more comfort by offering more accessible beaches and better access to the city centre of Limassol. Limassol has identified locations of access points and has conducted a meeting with the “Association of People with Disabilities in Cyprus” to determine their needs and requirements.
Site preparation and implementation

A strategic plan has been developed in which the location of the access points is indicated as well as signage for people with disabilities regarding the locations of blind and deaf people systems at traffic light crossings, PT services for people with disabilities and route accessibility. This is very important for safety and security especially for people with disabilities. Limassol will become a more attractive and safer place for tourists with disabilities. For safety and leisure, the number of access points to the beaches will be increased and connected to the PT system. Proper signage has been installed. The access points are included in the new application created in another measure of CIVITAS (Measure LIM 7.4). Limassol Municipality added one point with crossing controllers at the main traffic lights of the tourist area which includes crossing for people with disabilities, one ramp that provides access to the beach and two wheelchairs for people with disabilities to enter the water.

ICT/Infrastructure supporting solutions


The regulators are connected with the UTC / SCOOT Regional Traffic Control System, and an ultra-low voltage regulator (ELV 48V lamp drive system) are installed for the control of the traffic vehicles and pedestrians in staggered dual pelican crossing (dual streams).

The regulators are of the modular type and have the ability to operate in the following ways:

- Fixed Time Vehicle Period;
- Vehicle actuated operation;
- Function in sync with the UTC / SCOOT Traffic Light Control System;
- Cable-less Linking Facility (CLF);
- Speed Discrimination;
- Local Linking; and
- Manual Mode.
Procurement of services

The procurement process started on 8/8/2017 but due to the lack of offers Limassol Municipality had to cancel the procedure according to the Cyprus National Law and launch a revised tender process on 13/10/2017. Tenders were received on 10/11/2017 for accessibility for disabled people and was awarded to P.M AquaMech Ltd.

Stakeholders engagement

In LIM 3.2 Limassol Municipality cooperated with the Public Works Department for the preparation of procurement documents regarding the improvement of crossings for people with disabilities. The Association of People with Disabilities indicated locations of access points for the implementation of the measure. The Electro-Mechanical Service department provided guidance and permissions for the implementation of this measure. Furthermore, Limassol Municipality collaborated with LTC to disseminate and promote the measure.

Data collection procedure

Data has been collected by carrying out surveys, estimations and through secondary data collection for ex-ante evaluation. The procedure to estimate the data is measured through:

- Several measurements made through citizens’ satisfaction with the transport system and the perception of the accessibility level of service.
- Road Safety Audits have been held for cyclists and pedestrians.

Dissemination Activities


Risks and identified solutions

No risks apart from the fact that during the first procurement we had a lack of tenders. This caused a small delay, but Limassol Municipality offered a revised tender call, which has been successfully completed.

2.5 LB 3.1 ‘Increased level of safety for pedestrian crossings’

Measure design

The measure, ELB 3.1 Increase level of safety of pedestrian crossing, is related to the decrease / elimination of accidents or near-accidents between cars / trucks and pedestrians crossing the roads in Portoferraio and Rio. The arrival ports from the continent are located in these municipalities so in the summer months there are significant numbers of car arrivals.
(about 180,000 / month) and truck arrivals (about 10,000 / month) landing and flowing from these ports and across the city streets to reach other places on the island.

Site preparations and implementation activities

Portoferraio

- With the cooperation of the Port Authority, two roundabouts were realized with safer pedestrian crossings in the front-port area and in the rear-port area. Pedestrian crossings in these two areas were particularly dangerous as almost all vehicles leaving the ships pass through these areas.

- A new raised and lighted pedestrian crossing will be realized in winter 2018/19 in front of the so-called “Porta a Mare”, the historic gate that lead from the sea to the city center of Portoferraio.

- The second pedestrian crossing to be secured is located near the so-called “Porta a Terra”, (via Vittorio Emanuele) the historic gate from the land to the city center. Intervention will be completed before spring 2019.

- A further three pedestrian crossings will be secured outside the ancient walls, not so far from the main port, in Via Vittorio Emanuele II. The design is going to be done and intervention is expected at the end of summer season 2018.

The new pedestrian road crossing is particularly necessary as the area is very busy. The particular illumination of the crossing makes these works very effective for pedestrian safety. Intervention costs will be covered partly by the project and partly by the municipality.
Figure 15: The Design of Pedestrian Crossing in Portoferraio

Figure 16: Three Pedestrian Crossings in Via Vittorio Emanuele II
Rio

Several flat road crossings have been renewed with the use of particular paint to highlight the crossing. Moreover, a raised pedestrian road crossing has been installed in the city centre of Rio that is across the municipal road that connects the other places of Elba and that is traveled by most cars that land in the port. This pedestrian road crossing is made of hard recycled rubber that is very resistant to vehicular traffic and is easily visible by automakers.

Figure 17: Portoferraio New Lighted Road Pedestrian Crossing

Figure 18: Flat Pedestrian Road Crossings in Rio
Training and management team

No training activity is necessary, and the new pedestrian road crossing is much appreciated by citizens and tourists. The technical departments of Portoferraio and Rio have designed and managed the realizations and now they monitor the installations.

Data collection procedures

The data related to near accidents are recorded by the traffic police of both Portoferraio and Rio. In addition, a series of interviews will be made to record citizens and tourists’ opinions on the installations.

Demonstration and Promotion Plan

During the next summer period more people will use the new installations and we can have a demonstration of their usefulness. No promotion plan is foreseen.

Risks and identified solutions

Particularly in Rio there is the risk that, on certain occasions, cars will exceed the speed limit and therefore not be able to respect the pedestrian crossings without serious risk to pedestrians. In view of this, it may be possible to install speed bumps upstream and downstream of the crossings to slow down the speed of the cars.
2.6 ELB 3.2 ‘Sustainable and safe accessible bike and pedestrian route design’

Measure design

This measure aims at increasing the safety of pedestrians and cycle routes in the inhabited areas of Portoferraio, Rio and in their neighbourhoods. Elba Island is, indeed, a very popular destination for cyclists, pedestrians and hikers and there are many trails and paths suitable for them, but there is the need to improve their accessibility. In particular, the reinstatement and maintenance of a stretch of the historical and panoramic path called “Cammin di Rada” that runs from the area of San Giovanni along the Portoferraio roasted would be very welcome.

Even Rio, which is a city with a very steep configuration, has many problems with accessibility in the port area near the city centre especially for disabled people.

Site preparation and implementation activities

Portoferraio

The pedestrian route from the rear-port area (that has already been secured, with the cooperation of the Port Authority – ELB 3.1) to the city centre of Portoferraio is going to be secured.

- Interventions from “Molo Gallo” to the so-called “Porta a Mare”, the historic gate that leads from the sea to the city centre of Portoferraio, is going to begin in July 2018.
- Interventions from Via Cairoli (where a new roundabout is foreseen) to “Molo Gallo” are expected to start at the end of summer 2018.

Figure 20: Sustainable and Safe Accessible Route from Via Cairoli (left) to “Molo Gallo” (Left) and The Design of Sustainable and Safe Accessible Route in Portoferraio (Right)

The works, that involved the arrangement of the historical pavement, the removal of obstacles and the best signalling of the facilitated routes, were designed under the DESTINATIONS budget and the realization will be entirely covered by the Municipality.

- Another important activity is the reactivation of the accessibility of the historic "Cammino della Rada" route, that leads from the city (San Giovanni area) along the Portoferraio bay, to the ruins of an ancient Roman villa and up to the Volterraio Castle; that is an important tourist destination. This ancient route is subject to erosion in the stretches that run parallel
to the coast and, as it is fragmented in private properties and not well defined, it would need to be identified and delimited properly. There is also the need to maintain it with mowing and environmental cleaning interventions.

The works carried out directly by the Municipality have involved a considerable effort both for design and for the realization. Besides the laying of sand and stones, the works have also included the arrangement of the dead leaves of Posidonia oceanica which, when beached, have been used to combat coastal erosion. Moreover, interventions of mowing will be realized during summer 2018 in order to increase or maintain accessibility.

**Figure 21:** Portoferraio: Historic “Cammin di Rada” Accessibility

**Rio**

The activities involved works to improve accessibility on routes that, within the urban centre and starting from the port area, allow citizens to reach the main services (Town Hall, post office, public parking, pharmacy, commercial activities, etc.) in safety. These routes can also be used by disabled people.

The works involve routes distributed over a total length of 3.50 kilometres. By the summer season 2018, these works will be realized:

- Two information panels (one in the port area, the other in the city centre) with identification of the routes safely facilitated;
- Totem for tourist information, facilitated accessibility of places designed for public services and receptive commercial structures.
- Moreover, pedestrian and cycle paths have also been built in the city centre and at the panoramic seafront.

**Figure 22:** Rio Pedestrian and Cycle Paths (violet lines)
Training and management team

No training activity is necessary, and the accessibility of pedestrian and cycle paths is much appreciated by both citizens and tourists. The technical departments of Portoferraio and Rio have designed, managed the realizations and now they monitor the installations.

Data collection procedures

A series of interviews will be made to record the opinions of citizens and tourists regarding the accessibility works.

Demonstration and Promotion Plan

During the next summer period, more people will use the new installations and we can have a demonstration of their usefulness. The works done have been illustrated in numerous municipal announcements and widely reported in the local press and on news websites.

Risks and identified solutions

No risks are foreseen for the improved accessibility works made in Portoferraio and in Rio.
### Collaboration among DESTINATIONS Sites/partners

<table>
<thead>
<tr>
<th>Measure Title</th>
<th>Best Practice description in the implementation of the measure</th>
<th>Description of a specific expertise needed for the demonstration phase</th>
<th>Identified Synergies (please indicate measure/s)</th>
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</thead>
<tbody>
<tr>
<td>RETH 3.1a Active healthy and inclusive mobility for all</td>
<td>Interactive, awareness-raising actions for children and adults, to maximize behavioural change towards the needs of disabled people. Use of additional funding (ERDF) to further enhance the functionality of the existing equipment and the accessibility to the beaches. Improvement of accessibility conditions in infrastructures and services – Creation of dedicated guide and informational material towards accessible tourism, exploiting the experience gained from other projects implemented in the Municipality.</td>
<td>Exploitation of existing best practices/campaigns to enable behavioural change, build on existing experience to be adapted to local needs.</td>
<td>ELB 3.1, LIM 3.2</td>
</tr>
<tr>
<td>RETH 3.1b Enhancing and promoting systems and services for the physically impaired</td>
<td></td>
<td>Examples of innovative and cost-efficient accessibility solutions at city attractions for disabled people.</td>
<td></td>
</tr>
<tr>
<td>LIM 3.1 Increase cycling and walking in combination with special interest tourist activities as an integrated product</td>
<td>Installation of city map panels in the town centre providing tourists/visitors with information regarding nearby tourist attractions and travel proximity according to the mode of travel, i.e., cycling or walking. This will encourage tourists/visitors to walk or cycle.</td>
<td>Examples of innovative solutions to increase interest for cycling and walking</td>
<td>LIM 3.1 ELB 3.2 MAD 3.1</td>
</tr>
<tr>
<td>LIM 3.2 Accessibility for disabled and visually, hearing impaired</td>
<td>Integration of existing blind and deaf people systems at main traffic lights. Increasing access points to the beaches connected to the PT system. Proper signage will be installed.</td>
<td>Innovative solutions for integration for disabled</td>
<td>LIM 3.2 ELB 3.1, RETH 3.1</td>
</tr>
<tr>
<td>ELB 3.1 Increased level of safety for pedestrian crossings</td>
<td>Use of modular materials of recycled plastic and lighting system for road crossings</td>
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<td>LIM 3.1</td>
</tr>
<tr>
<td>ELB 3.2 Sustainable and safe accessible bike and pedestrian route design</td>
<td>Difficulty of creating pedestrian paths in areas extremely close to the sea.</td>
<td></td>
<td>RET 3.1</td>
</tr>
</tbody>
</table>

**Table 1:** Cross Site Collaborations, regarding increase traffic safety and improved disabled accessibility
3 Attractive and accessible public space

3.1 ELB 3.3 ‘Requalification of the main taxi station area in Portoferraio’

Measure Design

The current location of the main taxi station in Portoferraio is optimal for use by tourists arriving by ferry, but it is in a very busy area where the movement of taxis can create security problems in particular, the flow of cars that come from ferries.

Facilitating movement in an adjacent area which is slightly removed from the large flow of cars is considered by the municipal authorities to be optimal for service and safety.

Implementation activities

The main taxi station in Portoferraio is about to be moved to a more welcoming and safer place. By the end of August, a shelter will be installed, and some street furniture will be realized. Infrastructure and intervention costs will be covered entirely by the municipality of Portoferraio.

Training activities and management team

No training activity is necessary. The technical departments of Portoferraio will manage the realization of interventions.

Data collection procedures

There are no interviews planned to record the views of taxi drivers and tourists regarding the intervention.
Demonstration and Promotion Plan

The new localization of the taxi station will be promoted in municipal announcements and using Civitas DESTINATIONS – Elba Sharing media channel.

Risks and identified solutions

The risk of a non-acceptance of the intervention by taxi drivers, who fear not being very visible, will be mitigated with a strong publicity and visibility of the station.

3.2 LIM 3.4 ‘Attractive and accessible public spaces to promote intermodal leisure trips’

Measure Design

In Limassol, measure LIM 3.4 will promote intermodal leisure trips through attractive and accessible public spaces. With the implementation of this measure, tourists arriving in Limassol from all over Cyprus or by cruises, as well as tourists that are staying in the nearby hotels and resorts will be able to enjoy an ecological and people friendly route to the city centre, sharing ecological means of transport, without strict time frames.

The measure consists of an action/business plan that will introduce integrated services for tourists within the city of Limassol. Tourists in Limassol mainly use taxis or large public or tourist buses or rented cars to go around the city and take leisure trips.

The measure aims to create an overall study including an action plan for an ecological route, (through sea and land) in the city of Limassol which will allow tourists to visit the most attractive spots of the city. After completion of the study certain suggestions will be implemented in the current measure as well as in other measures submitted.

For part of the route of approximately two kilometres within the city centre, appropriate marking and signage will be applied and necessary facilities will be developed at collection points (points where one can change from one mobility mode to another) to enable tourists able to move around with bicycles and electric scooters and other electric vehicles.

At the collection points, all necessary works and infrastructure will be developed / constructed in order to serve users. Those points will be planned to have all necessary infrastructure for people waiting for transport (covered waiting area, message systems, toilets, etc.), places for parking of electric cars/bicycles/ scooters etc., as well as infrastructure for transport means (charging units etc.). Smart messaging systems (smart/electronic and conventional), sensors in the route, variable message panels and suitable software will be installed in “collection points” to inform users about the availability of all transport means – thereby increasing sharing and inter-sharing. The use of the facilities by small electric cars as well as by hop-on / hop-off electric buses will be promoted. The distance between the collection points will be approximately 600 – 700 meters.

The main objective of the current measure is the combination of use of all transport means within the city centre using integrated systems. To achieve this there is the clear need for “collection points” that will combine all means of sustainable transport and a smart message
system. New routes as well as maps and guides will be developed to promote ecological awareness.

Expected outputs:
- Purchase of leaflets and brochures for the communication campaign
- Use of the media and social networks
- Four stations fully completed with necessary information and equipment
- Charging points for e-cars in the stations

Within the framework of the present measure a study will be carried out concerning an ecological route in the city of Limassol. The present measure is considered to be a case/strategy with main innovative elements, the promotion of electro-mobility and shared mobility, shared electric cars, integrated services through smart systems and promotion of using public bicycles and electric scooters. An electric hop-on / hop-off bus will allow tourists to undertake ecological city sightseeing whereas facilities for hiring small electric cars will be developed on a certain route. Smart electronic devices will inform users of time frames and sharing availability.

The goal for this specific measure is to:
- Reduce energy consumption
- Improve urban accessibility
- Enhance urban cohesion
- Reduce energy consumption
- Enhance the attractiveness of tourist destinations

**Site preparation and implementation activities**

Several meetings were held on behalf of Limassol Musicality with key stakeholders regarding technical specifications and the provision of equipment. A strategic plan was completed with the identification of access points, distance measurements and the design of ecological routes.

**ICT/Infrastructure supporting solutions**

Accessible crossings will be linked to the PT system, while at the point of the crossing, people with disabilities will have guidance on accessibility to the nearby beach. For measure 3.4, an upgraded electronic information system is ready to be installed on the ecological path.

**Procurement of services**

Limassol Municipality launched a tender call for procurement procedures in September 2017 without any tenders received. After communication with the Treasury Department of Cyprus, Limassol Municipality will proceed to a close invitation in September 2018 in order to implement the measure.
Stakeholders engagement

For LIM 3.4, LTC cooperated with local authorities to manage, supervise and implement the ecological route. Limassol Municipality held several meetings with the Electricity Authority of Cyprus to install EV charging stations at three municipal parking spaces, and with NextBike CY which is the only bike sharing company in Limassol.

Data collection

Data has been collected by carrying out surveys, estimations and through secondary data collection for ex-ante evaluation. The procedure to estimate the data is measured through:

▪ The number of e-cars and e-stations provided.
▪ A new impact on the environment is being calculated through the measurement of CO₂ emissions, traffic noise and energy consumption based on the data collected.

Dissemination Activities

No dissemination activities at this stage

Risks and identified solutions

The only risk for this measure was the lack of tenders. Limassol Municipality followed the National Law of Cyprus for Procurement process and will proceed to a closed invitation in order to complete the measure.

3.3  LPA 3.1 ‘Attractive, safe and accessible public space at major attractions’

Measure Design – Site Preparation and Implementation Activities

In October 2017, Cinesi presented the analysis of the mobility situation at the north of Las Palmas de Gran Canaria to key local stakeholders: Municipality of Las Palmas de Gran Canaria (local council), Cabildo de Gran Canaria (regional government), Guaguas Municipales (public transport company), Sagulpa (public parking company) and the Port of Las Palmas.

This Mobility Plan is the core of the LPA 3.1 measure and its goal is to assess the impact of the new Aquarium on the current mobility system of the north of the city and to foster a balanced development of all relevant transport modes by setting the following specific objectives:

To reduce car use;
To encourage a shift towards more sustainable modes; and
To tackle traffic congestion;

Then in the period, December 2017 to March 2018, Cinesi selected an effective package of measures built on discussions with key stakeholders, considering experience from other
places with similar policies, ensuring value for money and exploiting synergies between measures as much as possible.

Therefore, the Action Plan of the Mobility Plan puts forward an integrated set of technical, infrastructure, policy-based, and soft measures to improve performance and cost-effectiveness with regard to the declared goal and specific objectives:

**Goal 1: To reduce car use**

- Park & ride facilities at the main entrances of the city (GC-1 and GC-23 highways)

Currently there is a P&R facility in the western access of the city (GC-2 highway) managed by Sagulpa. As agreed with the key local stakeholders, the factors for success for these new P&R facilities are the following: competitive fares – especially compared to the parking management scheme tariffs in the city downtown; high frequency public transport services; demand management: balance between residents and commuters; and competitive travel time compared to travel time driving a car.

This action is under review by Guaguas Municipales (public transport operator), Sagulpa (public parking company) and the Municipality of Las Palmas de Gran Canaria.

- Traffic calming actions (zone 30, liveable streets and pedestrian streets)

A guideline for designing traffic calming actions such as zone 30, liveable streets and pedestrian streets has been drafted.

However, this action is still under discussion with the urban planning department of the Municipality of Las Palmas de Gran Canaria.

- To improve the parking management scheme and the parking facilities

On the one hand, this measure is focused on improving the residents’ parking scheme by creating priority areas for residents and exclusive areas for residents.

**Figure 25:** LPA 3.1 Charging Station

On the other hand, this measure also includes an action for improving the parking facilities for tourists visiting the north of the city.
Goal 2: To encourage a shift towards more sustainable modes

Walking:
- To improve accessibility (sidewalks, crosswalks in all street crossings, curb ramps for pedestrians in all crosswalks, etc.); and
- To set a walking paths network in the study area.

Cycling:
- To implement the Bicycle Master Plan

The Bicycle Master Plan of Las Palmas de Gran Canaria states the following priorities: to develop and maintain a safe, connected, and attractive network of bike lanes; to improve cyclists’ safety; and to secure parking racks for bicycles.
- To improve the bike sharing system in the area. This action is directly linked with the LPA 4.1 measure (Public e-bike system) which is running since April 2018.

Public transport:
- To improve supply characteristics of some transit corridors (especially lines 1, 2, 12 and 33 which are at risk of passenger congestion on working days, Saturdays and public holidays).
- Transit signal priority in some crossings.

Goal 3: To tackle traffic congestion

- To improve road network management

The main actions proposed to improve the road network management are a variable traffic signs system in the main highway of Las Palmas de Gran Canaria (GC-1).

This action is under discussion with the Cabildo de Gran Canaria (the regional government of the island of Gran Canaria) and the Municipality of Las Palmas de Gran Canaria.

- To improve accidents black spots – “Torre Las Palmas” and “Belén María” roundabouts – in the road network

Some road safety measures are going to be implemented in “Torre Las Palmas” by the end of 2018.
- Transport planning solutions for the new Aquarium. On the one hand, this action is focused on setting up a Laboratory Area reshaping the public space and fostering universal accessibility solutions. On the other hand, the Mobility Plan also proposes a set of transport solutions for the two main target groups (residents and tourists):
a) Residents:

- A new walking path to connect the new Aquarium with “La Isleta” neighbourhood and some touristic hotspots such as the “Mercado del Puerto”, “Castillo de la Luz” and Las Canteras beach:

![Figure 26: LPA 3.1 Map with E-Bike Sharing System](image)

- To connect the new Aquarium with the cycling lane network:

  The existing cycling network of the northern area of Las Palmas de Gran Canaria is coloured in blue and the proposed new cycling connection is highlighted in red.

![Figure 27: LPA 3.1 Cycling Path](image)

- To improve traffic routes in the new Aquarium’s surroundings:

  The objective of this action is to avoid crossing trajectories amongst all traffic flows in the area: visitors of the new Aquarium, visitors to the shopping mall, taxis carrying cruise passengers, etc.
This action is still under discussion with the Port of Las Palmas.

- To implement two new bus stops in this area (linked to the LPA 7.3 measure). These bus stops will be designed in an innovative basis and will be an example of the new Bus Rapid Transit (BRT) stops that will be in place by 2020.

b) Tourists:

- To develop a signs system for pedestrians.
- To implement an exclusive parking area for tourist coaches, close to the new Aquarium.

**Site Preparation and Implementation Activities**

Some measures included in the Mobility Plan of the northern area of Las Palmas de Gran Canaria have already been implemented.

Firstly, Sagulpa has installed a charging station for electric vehicles (LPA 4.2 measure) in the “Muelle Sanapú” parking facility.
Secondly, even though the Bicycle Master Plan has not been fully deployed yet (the two first projects are currently under a tender process), some of the actions related to the Laboratory Area have already been implemented such as the parking racks. Moreover, the Municipality and Sagulpa – operator of the Sitycleta bike sharing system – agreed to improve the transport planning for the new Aquarium “Poema del Mar” by installing two stations in the new development’s surroundings.

The two grey dots on the right side of the following figure show the location of the two new stations of the Sitycleta bike sharing system:

Thirdly, the actions related to the improvement of the public transport have not been implemented yet (i.e. the two new bus stops).

Finally, the exclusive parking area for tourist coaches was opened in January 2018. This is the main action for improving the parking facilities for tourists visiting the north of the city (especially the new Aquarium):
Key stakeholder's engagement

The Municipality of Las Palmas (partner number 20), Guaguas Municipales (partner number 18) and Sagulpa (partner number 22) are also local stakeholders involved in this measure.

Besides these local stakeholders, some other organizations have been engaged in the LPA 3.1 measure: “Autoridad Portuaria de Las Palmas” (Port of Las Palmas Authority), “Patronato de Turismo de Gran Canaria” (Gran Canaria Tourism Board), Acuario Poema del Mar (new Aquarium) and Cruise Companies and Tour Operators.

Cinesi organized some bilateral and multilateral meetings with all these local stakeholders. Whilst bilateral meetings were focused on the specific problems of a target group or organization, multilateral meetings had the goal of finding solutions to opposed interests.

The aim of the stakeholder engagement strategy is to raise the degree of commitment and responsibility for a plan, policy or measure by stakeholders and citizens, resulting from their involvement in the formulation of the measures and actions.

Data collection procedures

Cinesi used Scout cameras for the traffic data collection of this measure. Scout cameras are the industry leading traffic counting devices, built for reliable, unattended field operation for days at a time. They provide the optimal setup for a variety of traffic studies and are easy and safe to setup and operate at the roadside.

Besides this, the other data collection procedures have included automatic and manual car counting and a telephonic mobility survey.

Demonstration and Promotion Plan

The only action that has not been drafted yet is the design and implementation of a communication and information campaign of the Laboratory Area.
This action is strongly linked to other CIVITAS DESTINATIONS measures such as LPA 6.2 (integrated payment solutions to combine mobility and visits to tourist attractions).

**Risks and identified solutions**

There are also two potential risks for the success of the LPA3.1 measure.

On the one hand, that it will be necessary to involve public administrations in all the decision making process such as the “Cabildo de Gran Canaria” (regional government of the island of Gran Canaria) or the Port of Las Palmas.

On the other hand, an important part of the “Puerto Ciudad” area is located within the Las Palmas harbour, which depends directly on the national government and has special urban regulations.

**Success factors**

The most relevant success factor of the LPA3.1 measure is that the key political stakeholders – national, regional and local public administrations – agree on the need to improve this area of the city.

### 3.4 MAD 3.1 ‘Innovative solutions for safe and secure public spaces’

**Measure Design**

The measure is focused on improving pedestrian safety and accessibility in the western part of Funchal, an area that was selected as the demo area, due to the fact that is very sought after not only by tourists but also residents.

**Site preparation and implementation activities**

Overall, and following the initial activities carried out so far, the strategic goals are the following:\

- Improvement of pedestrian accessibility conditions, including accessibility to public transport (engaged also by MAD 7.2), and thus promoting intermodality;
- Public lighting renewal to improve energy efficiency, improve performance, reduce energy expenditure and also support the objectives set out in the Covenant of Mayors;
- Implementation of integrated solutions adjusted to the concept of a smart city;
- Reinforcement of road safety in areas dedicated to pedestrian crossings;
- Redesign of the road network, reducing the discontinuities and reinforcement of the connectivity of the pedestrian network; and

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1 The intervention area will be also the focus of, not only, MAD 3.1 actions, but also an accessibility project, funded by Turismo de Portugal, that will greatly increase the mobility conditions for soft modes.
Promotion of inclusive mobility through the introduction of tactile pavements that facilitate mobility among people with sensory and motor disabilities. Following the identification of the target area, the indicators were gathered for the ex-ante evaluation. In particular, the evaluation focused on the assessment of pedestrian needs, based on the Decree-law 163/2006, related to accessibility. In addition, an analysis regarding public lighting in the area was also conducted with the cooperation of the electric company (Empresa de Eletricidade da Madeira).

The collection of this data allowed the elaboration of a diagnosis in which several issues were identified, namely:

- The public transport buses accessibility analysis in the target area showed reasonable conditions, in which the main issues identified ranges from the existence of urban obstacles in the surrounding area and the lack of maintenance;
- Geospatial analysis showed persistence of road accidents in the target area, especially near the crosswalks;
- The urban audit revealed that the most common issues ranges from sidewalk, namely the lack of approximation ramp, poor accessibility and the existence of rainwater drainage grids;
- As the for the non-motorized transport modes, traffic counts showed a staggering volume of pedestrians walking through the target area, justifying the need to reinforce the accessibility conditions for by passers.

As for the public transport operator, Horários do Funchal, along with CMF, assessed the accessibility conditions at the bus stops and inside the bus. Some of the bus stops were flagged in which interventions will be carried out in order to improve their accessibility (within MAD 3.1, subcontracting in the western part of the city, and MAD 7.2, subcontracting, geared at the whole municipality). It should be noted that the majority of the bus stops cannot be improved, due to the specificities of the road network (very narrow streets, bidirectional movements that greatly limit the range of action).

The target area (Estrada Monumental) appears as a regional road that connects the road network between the municipalities of Funchal and Câmara de Lobos. With the subsequent development of road infrastructure, the emergence of other uses around this route, such as tourism, has progressively taken place along the axis of Estrada Monumental.

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2 A more detailed overview of the diagnostic stage and its findings is described on the DESTINATIONS server [https://docs.google.com/spreadsheets/d/1W1EXpjlaus3Kn2tYU1C5r8pFgESXTXpowb2FQcpykut8/edit#gid=813460689]
Tourism has triggered a distinct flow of traffic, not of crossing, but of local distribution and supply, based on a concept of mobility that has relegated the active modes of circulation to a lower plane.

The area surrounding *Estrada Monumental* concentrates a large number of hotel units. From the combination of the large number of populations, residents and tourists, a wide range of uses have been developed along this axis, such as street commerce, restaurants, a shopping centre and nightlife bars.

The hotel industry in particular has been expanding to the west along with catering and beverage activities. In this way, it should be stressed that these services, besides inducing an increase in pedestrian volume, also motivate the urgent need to carry out the requalification of the pedestrian network, so that it is adjusted to its flows.

As for the road network, the area is marked by narrow streets with poor connectivity (narrow or discontinuous roads represent almost ¼ of the mobility incidents (26%)), obstructed walks, footways not complying with the legislation. In all, more than 120 mobility incidents were identified, which naturally leads to constraints for pedestrian mobility and accessibility.

The problems arising from the discontinuity of the pedestrian network are important given the pedestrian flows observed in the western area of the intervention segment.

In order to determine the pedestrian volume in the designated area, non-motorized modes were counted in which, as expected, a greater flow of people were registered in the segment.

It should be noted that the segment with the largest pedestrian volume is directly connected to the central vital axis, which motivates a greater pedestrian flow.

The accident data showed that along the axis of intervention, for the period 2010-2017, several incidents occurred, typified by road accidents, collisions and disappointments.

Given that most of these incidents result from excessive speed and the absence of traffic calming measures, it is necessary to provide this area with actions to strengthen road safety. The highest observed incidence rate corresponds to collisions.

Curiously enough, it was observed that most of the road incidents were registered near crosswalks (identified below in the map). The run overs correspond to the areas where the pedestrian crossings take place, a relevant key figure that supported the strategic definition phase and its scope of intervention of the plan.
The following issues were identified regarding public lighting:

- Variability in power between 250 and 150 watts, for cylindrical columns and walkway columns respectively;
- Pedestrian crossing areas are not always illuminated by columns of walkways, inducing a reduction of intensity and therefore a decrease in visibility;
- Luminaires are not energy efficient, whose material is mainly composed of metallic iodides;
- Inadequate distribution of luminaires, with secondary luminaires that do not contribute to the intensification of luminescence, leading, even to increased consumption.

The analysis of the public transport accidents on board revealed that sudden stops are the major cause, showcasing the importance of having an eco-driving system (measure MAD 7.1). Having CCTV on board will mostly help identify the cause of an eventual accident on board, while enhancing the sense of safety among passengers.

**Implementation plan**

Improving road safety for pedestrians – LED sensors in crosswalks

The backlight solution, already used with remarkable success in some pedestrian crossings on the mainland, consists of the introduction of sensor mechanisms that, in the proximity of pedestrians, trigger light sources which indicate to drivers, the pedestrian crossing. The installation of this system consists of:

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3 The implementation plan was adjusted accordingly to the attractiveness and safety plan that was undertaken, already made available on the DESTINATIONS drive (PT version, although an English version will be available soon: [https://drive.google.com/drive/folders/16dPiKeErkj638zfXZQi1JNjOogUJQBsh](https://drive.google.com/drive/folders/16dPiKeErkj638zfXZQi1JNjOogUJQBsh))
- Vertical signalling H7, indicating pedestrian crossings, with electronic control; and
- Light plates 50x50 to be inserted in the pavement.

With this solution, and following its assessment upon road safety (to be gathered following the implementation) it may in future trigger a possible transferability to other pedestrian crossings in *Funchal*.

- Fully autonomous lighting smart system platform, LoT, Lighting

With regard to interventions to improve public lighting in the intervention axis and in relation to what was observed in the diagnostic phase of the current situation, it is intended to implement an integrated system that allows the following:

- Maximization of the area of illumination, being able to cover a diameter exceeding 15 meters;
- Increase the durability of the equipment, through better energy performance, managed by LED;
- Possibility of coupling with other modules, namely with additional electronic equipment such as video cameras, telecommunication antennas, USB chargers near public transport stops and traffic counters, moving onwards to a smart city concept; and
- Generation of renewable energy through wind and/or solar.

Thus, these systems will be installed with some modules in pedestrian crossings, reinforcing not only the safety of passers-by, but also allowing the collection of traffic data, in which it will be possible to measure road traffic patterns and the energy consumption through a management platform. The diagram below shows what is expected to be launched.

- Providing a safe journey to Public Transport users – CCTV system test

Horários do Funchal, along with SECURITAS, a surveillance company, have been testing a CCTV system inside a bus, since September 2017. So far, the system has proved to be highly beneficial, since it allows for real time surveillance inside the bus, and counts the entry and exit of passengers, a statistic that is important for the company.

It was decided to install the cameras inside a bus that operates on a long urban bus route (48-Nazaré/Monte). This bus route connects the hotel area with a touristic point, Monte, passing residential areas. Each bus stop’s geographic coordinates have to be included in the system. Even though the urban service is geo-referenced, it was necessary to test each bus stop to see if the system recognizes it, or if it is necessary to adjust the coordinates.

The results of this test are being analyzed, but the first impression is that the system is very accurate.

Directly related to the MAD 3.1 allocated budget, the upcoming actions will be the following:

- Purchase of equipment according to the Safety and Urban Plan, centred on innovative solutions that encompasses road safety, public lighting and data collection (public procurement in process of being launched – Equip. 70.000,00 €); and
- Subcontracting to improve accessibility near public transport stops (public procurement that will aligned with the *Monumental Acessível* project, funded by Turismo de Portugal – Subcontracting 30.000,00 €).
Considering the broad range of MAD 3.1, other actions will be geared to raise awareness among the public in general:

- Promotion of soft modes (orienteering campaigns, cycling contest, public transport) within the European Mobility ’18 reinforcing partnerships with several stakeholders (Association for People with Disabilities, cycling, gymnasium, community centres, public transport operators, etc - OGS, 4,766,84 €);
- Improvement of accessibility near public transport, including also improvements in shelters (municipal budget); and
- Implementation of traffic calming measures as well as road restriction policies to reduce car use (municipal budget).

It is expected that the smart system, along with the accessibility project, funded by Tourism Portugal will contribute decisively to achieve the following:

- Improvement of safety near crosswalks;
- Promotion of soft modes, namely pedestrian mobility, public transport and cycling;
- Contribution to showcase the benefits of an innovative measure linked to CIVITAS DESTINATIONS;
- Convergence to the main goals of WP3, namely the introduction of pioneer solutions, related to the concept of a smart city;
- Improvement of public lighting using renewable sources of energy with a smart energetic measurement; and
- Facilitation of urban requalification process with the improvement of the pedestrian network and accessibility.

**Stakeholders engagement**

So far, and within this measure, the development process involved the support of local authorities, Empresa de Electricidade da Madeira, (Local Electric Company) and the public transport operator. For the dissemination process, usually undertaken during Mobility Week, the following stakeholders are expected to be involved: the Association for People with Disabilities, basketball association, cycling association, gymnasium, local authorities (Police), community centres, judo and taekwondo associations, electric vehicle association, public transport operator and driving schools.

**Data collection procedures**

The data collection for the ex-ante evaluation was comprised of several sources, ranging from police records, public transport data, traffic counts, survey and insurance records, provided by the public transport operator.

**Demonstration and Promotion Plan**

The intervention actions will be massively promoted during Mobility Week, press articles and other European projects, namely the MATCH-UP project, that aims to gather good practices among cities.
Risks and identified solutions
The main risks are already being overcome, considering that the tendering process to acquire the integrated system is in the process of being completed. Subcontracting related to improving accessibility near the public transport stops will be completed soon.

Collaboration among DESTINATIONS Sites/Partners

<table>
<thead>
<tr>
<th>Measure Title</th>
<th>Best Practice description in the implementation of the measure</th>
<th>Description of a specific expertise needed for the demonstration phase</th>
<th>Identified Synergies (please indicate measure)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELB 3.3 Requalification of the main taxi station area in Portoferraio</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LIM 3.4 Attractive and accessible public spaces to promote intermodal leisure trips</td>
<td>Innovative solutions for accessible public spaces.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LPA 3.1 Attractive, safe and accessible public space at major attractions</td>
<td>BP on transport planning: Drafting of a Mobility Plan for a new urban development (the new Aquarium). BP on data collection: (a) Traffic modelling software for assessing the impact analysis of future scenarios. (b) Scout cameras for leading traffic counting devices.</td>
<td></td>
<td>LIM 3.4 Despite the measure LPA 3.1 is quite specific for Las Palmas de Gran Canaria, the site can share information on the mobility plan and the effectiveness of the innovative data collection tools (i.e scout cameras and traffic modelling software.</td>
</tr>
<tr>
<td>MAD 3.1 Innovative solutions for safe and secure public spaces</td>
<td>As of M22, most intervention actions within MAD 3.1 carried on so far aimed to raise awareness to foster the use of soft modes. These events took place during the EMW ’17. Nevertheless, the event “Funchal in good health” (closing of main street through a whole day to raise awareness to promote soft modes) can be highlighted due to the fact that it encompassed the establishment of successful partnerships with several stakeholders.</td>
<td>For “Funchal in good health” the synergies established were the following: • Association for People with Disabilities; • Badminton association; • Cycling association; • Gymnasium. Due to its success, it is expected that the action will have a follow up in the EMW ‘18. For improving the PT accessibility, MAD 3.1 is also linked to MAD 7.2</td>
<td></td>
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</tbody>
</table>

Table 2: Cross Site Collaborations, regarding attractive and accessible public space
4 Safe Routes to School

4.1 LIM 3.3 ‘Safe routes to school’

Measure Design

This measure focuses on delivering workshops at schools to educate students and parents for road safety and the use of sustainable mobility modes to commute to schools. The delivery of the workshops began in the academic year 2017-18.

The aim is to achieve successful parental and pupil mode shift through delivering separate workshops at each participating school. The target is to also increase safety during peak hours in order to reduce accidents and increase pupils’ sustainability awareness. A natural impact on public health can also be achieved regarding obesity among young children, which can be used for motivation about cycling and walking.

Expected outputs: To involve 10 schools and inform approximately 50 students (families) from each school.

The objective is to increase the mode share of pupils walking, cycling or using the bus to school instead of car by 2%.

Site preparation and Implementation

In Limassol, Stratagem Energy with collaboration with LTC gained permission from the Ministry of Education and Culture (February 2018) in order to communicate with schools as stated in the feasibility study and to implement workshops at primary schools.

A feasibility study was implemented in order to organize and find which schools were able to be visited according to a prepared timetable. The feasibility study includes:

- Number of primary schools
- Number of students participating from each school
- Schedule timeline for the workshops

Based on the feasibility study we implemented the measure as follows:

- Several meetings held with school principals and teachers in order to prepare the workshops based on the needs of students and a letter was sent from school to parents to invite them to the workshops and give their permission to participate in workshops.
- Prepare video material about safety to use sustainable modes of mobility (walking, cycling use of public transport and carpooling). The video was promoted to schools during workshops.
- The number of schools participating in workshops was increased in 13 Primary schools instead of 10 schools as stated in the GA. Workshops include presentations about road safety, cycling, walking, carpooling and use of public transport. Experiential games about benefits gained from walking to schools, road signs games, stimulation of traffic park, cycling park with games and activities by bike, pedestrian crossing zebra with guidance outside schools and a questionnaire to students. Discussion with parents and students about traffic caused during peak hours and explanations and solutions proposed.
A questionnaire was prepared for parents regarding students’ accessibility to school. The aim of the questionnaire was to promote sustainable mobility modes and to give real information about the way students are going to school such as the duration of their journeys, the reason for their chosen modes, their concerns regarding using cycling and walking to school and evaluation of solutions. The questionnaires were distributed to parents through schools as a hard copy or by email with a specific link. In the following link parents answered the questionnaire: https://docs.google.com/forms/d/e/1FAIpQLS6xhtFa8MWY0Qf-XKxugWOXg86XEMZTYbD5CAYQG_wVse65IA/viewform?c=0&w=1.

Furthermore, Limassol Parents Association supported this action by distributing the questionnaire to each member (school) by email. In addition, 17 primary schools participated in the questionnaire.

![Figure 36: Questionnaire after Workshops](image1)

![Figure 37: Cycling Activities, Presentations and Workshops in Schools](image2)

**ICT/Infrastructure supporting solutions**

No ICT/infrastructure supporting solutions were needed.
Procurement of services

No procurement services were needed.

Stakeholder engagement

For the implementation of LIM 3.3, the Police-Traffic Department contributed material and support as well as participation in the campaign. The presentations/workshops will be organised with the support and participation of the Parents’ and Teachers’ Associations of the schools involved.

Data collection procedure

Data has been collected by carrying out surveys, estimations and through data collection for ex-ante evaluation. The procedure to estimate the data is measured through:

▪ the level of awareness, namely the public and satisfaction index (%) of the population with knowledge of the measure.
▪ Collection of questionnaires regarding the students’ accessibility to school.
▪ A new impact on the environment is being calculated through the measurement of CO₂ emissions, traffic noise and energy consumption based on the data collected.

4.2 RET 3.2 ‘Mobility Plan for schools and university communities

Implementation

Within measure RET 3.2, Rethymno and TUC aim to reduce traffic and accidents close to schools and the University, to challenge behavioural change towards sustainable mobility modes and actively promote safe driving.

Under this scope, Mobility Action Plans have been designed, while behaviour change campaigns, including parents, and a school awarding scheme are ongoing. Public spaces around schools will be redesigned by the Municipality to increase safety, slowing down car speeds and making more space for walking and cycling based on student ideas and suggestions. A contest will be launched on how the bus stop serving the University will turn to an attractive spot to inspire the use of PT instead of private vehicles.

At first, 11 school districts were identified, involving 18 primary and secondary education schools. These were the schools facing the most challenges in terms of safety and served the majority of the students in the Municipality. In addition, the selected schools represented different cases with specific needs. They were spread throughout the whole Municipality so that the Mobility Plans could serve as different case studies that can be easily adjusted and replicated to other school districts with similar characteristics in the future.

Figure 38: Selected Schools for the Development of the Mobility Plans
The baseline analysis included the following steps:

- all geometric characteristics around the school districts were recorded;
- the location of the school districts relative to the wider road network and the access with different mobility options was identified;
- the accident data were analysed for the whole Municipality and specifically for the schools and university locations;
- the analysis of mobility patterns, user perceptions, needs and risks were conducted on all schools using questionnaires distributed to the parents;
- online survey with questionnaires was also conducted with University students and staff to identify their needs and their willingness to change transport habits.

The Mobility Plans have been integrated with the wider Sustainable Urban Mobility Plan which includes short-term measures which can be relatively quickly implemented (0-5 years) and long-term measures which take account of wider societal costs and benefits (5-15 years). Figure 35 shows an example of interventions and upgrades proposed within the Mobility Plan of a school’s district in the centre of Rethymno.

Within the measure, the Technical University of Crete and the Municipality of Rethymno are developing a targeted campaign for school communities (pupils, students, teachers and parents) to build awareness, to educate and challenge behaviour change aiming to increase road safety and to motivate use of sustainable mobility modes (PT, walking, biking and shared routes). At the beginning of the measure, educational sessions for children for safe transportation to school and the launch of a tested EU sustainable mobility campaign for primary schools were held during European Mobility Week 2017.

Following research on best practices and materials to enhance students’ road safety conducted by TUC, and several on-site meetings with school directors and teachers, a two-year holistic action plan was launched, including experiential road safety activities, behavioural change activities/games, schools’ competition, schools’ networking, drawing competitions, thematic events, interactive workshops, etc. The action plan was embraced by the Primary and Secondary Education Directorates, the Department of Education and the Union of Parents Associations.

In January 2018, 600 students from 11 primary schools, participated in experiential road safety programs and learned about proper behaviour during travels, through an interactive and participatory approach with the use of a mobile «road» simulation carpet and elements, such as traffic lights,
pedestrian crossings and traffic signs. In parallel, parents and teachers attended informational workshops and received informational/educational materials.

In May 2018, the “Road Safety Week” campaign took place with targeted activities for school communities. During the same week, public events, sustainable mobility workshops and first-aid seminars on road accidents were organised for adults.

More than 1,200 students and 16 schools participated in:
- Tailored road safety educational activities for primary school students, by the General Regional Police Directorate of Crete.
- Experiential workshops on the sustainable mobility modes and the environmental impact of transportation by TUC.
- Behavioural change workshop on decision-making during driving for high school students, by the Laboratory of Health and Road Safety.

To support the experiential aspects of the workshop, TUC developed a thematic application for smartphones / tablets, as an easy tool with a user-friendly interface, especially designed for children to calculate and compare the environmental impact of different transport modes, highlighting the advantages of choosing walking, cycling, PT and shared vehicles.

**Stakeholder engagement**

Key stakeholders were identified and contacted at a very early stage. A local working group was initiated involving the Directorates of Primary and Secondary Education, the Municipal Department of Education and Lifelong Learning, the Road Safety Institute “Panos Mylonas”, the Traffic Police, the Union of the Associations of Students’ Parents. The engagement process included exchanges with the local working group, bilateral and group workshops and consultation events to fine-tune the proposed action plan.
An invitation was distributed by the Directorate of Education to school directors urging them to join the CIVITAS DESTINATIONS schools’ campaign. To achieve their active participation, one-to-one meetings were organised by TUC, with school directors and teachers involved in traffic and environmental education to present the proposed long-term plan, to exchange views and incorporate their ideas, to record what kind of support they need and to register them to the CIVITAS DESTINATIONS network.

Close cooperation with the the Union of the Associations of Students’ Parents, representing the parents’ association of all 86 schools in Rethymno Municipality was established.

Targeted informational and capacity building workshops for the teachers and the parents of students at elementary schools were held in January 2018. These were implemented by the Technical University of Crete and the Road Safety Institute, with the support of Rethymno Municipality. **As a result, a network of 15 primary schools has been initiated**, to facilitate the cooperation, exchange of good practices and materials for sustainable and safe mobility.

For the development of the Mobility Plans, the school teachers, directors and parents’ association were engaged with the whole process and supported the distribution of the questionnaires. The Mobility Plans were presented and set under public consultation (June 2018); they were approved by the school directors of the 11 school districts, representatives of the parents’ association and the University’s representative.

**Data collection procedures**

The data collection process was conducted by the Municipality of Rethymno with questionnaires, aiming to identify existing student mobility patterns to and from school; this was completed in February 2018. The questionnaires were answered by 481 parents, which consisted of a big sample given the schools’ sizes.

The University survey included both students and staff and was conducted via an online survey to identify existing mobility patterns, the perception of alternative modes of transport and the willingness to change patterns. In total, 301 responses were received.
All surveys conducted were compliant with GDPR and the results are stored on the Municipality of Rethymno database.

**Demonstration and Promotion Plan**

All implemented actions, as described above, were accompanied by information materials, invitations, press releases, articles in newspapers, social media posts and politicians’ interviews in local press and radio to promote safe driving, traffic education and sustainable commuting. Both implementation phases enjoyed wide visibility at local level; the media exposure resulted in 6 articles/news items in newspapers, 2 appearances in TV and radio channels, 31 appearances in online media and 13 appearances in social media.

The next steps regarding the behavioural change activities include:

- Development and distribution of a teachers’ toolkit including guidelines, links to successful schools’ initiatives, training materials and best practices from EU/national activities towards sustainable mobility.
- **Thematic events** at local level: European Mobility Week 2018, drawing competition, Biking Days, Carnival 2019 etc.
- Further experiential educational activities in primary and secondary schools
- **School competitions** through the implementation of activities.
- Exchange of experiences, best practices, reflections via the **Schools’ Network**.
- Continuous support and communication with schools registered to the network.

Moreover, printing of promotional material for schools, info panels and sign placement for school bus stops as well as an attractive promotional panel for the bus stop serving the University are planned to support this measure.
Risks and identified solutions

Minor risks were identified regarding the implementation of educational / training activities in schools due to a regulation of the Ministry of Education that requires pre-authorisation (applications accepted only by the end of previous year) of any activities involving schools, even a simple workshop. This risk was addressed by the cooperation with organisations already authorised to conduct such activities in schools and the early planning of activities.

4.3 MAD 3.2 ‘School and foreign students awareness campaign package’

Measure design and Implementation activities

A. School mobility surveys

- Launch of the mobility survey in four high level schools (students between 10 and 18 years old) to school community (pupils, parents and teachers and staff). The first phase of the survey was launch in November and December 2017 and addressed to four secondary schools. A second phase survey in two primary schools (pre-school to 10 years old) launched in February 2018. It was collected about 8800 surveys in total.

![Survey Template for Pupils, Educators and School Staff](image)

- Work related to data collection analysis is being carried out, with help in Excel and Tableau software. A Tableau licence was acquired for the development of this measure.

B. Audit to the surrounding public space

- Development of a fact sheet to support the audit of public spaces around schools, concerning surrounding areas, access streets and bus stops, to evaluate the quality and safety of these spaces for children and young students.
Figure 47: Detail of the Factsheet to Support Audit to the Public Space around Schools

- Data collection started in four pilot schools, in January and February 2018. The data collection for the two primary schools will be carried out in the following months.
- Work related with data collection analysis is being carried out. The result of this analysis will be a map with the identification of areas with three levels of hazards and of intervention needs.

Figure 48: Detail of the Map Resultant from Public Space Audit Analysis

C. Analysis of public transport services in schools

- The regional partners are analysing the PT services supply in what concerns the spatial coverage and time frequency of the routes and evaluation of the suitability of supplied service with the functioning of schools.

D. School mobility study for baseline situation

- The mobility study for the baseline situation in the pilot schools is being carried out. These documents will serve as a reference for the discussion with stakeholders and for the elaboration of the schools’ mobility action plans.

E. Participation in dissemination and promotion actions

- Participation in regional events in the scope of Eco-Escolas (XI Encontro Regional de Eco-Escolas na RAM) – 3 November 2017.
- Participation in Eco-Escola Programme Ceremony in Escola da Levada, with a presentation of MAD 3.2 survey results in Escola da Levada – 21 February 2018.
- Participation in Energy Day in Escola Professional Dr. Francisco Fernandes, with a presentation of MAD 3.2 – 29 May 2018.
- Participation in TV series “Alerta Verde” about environmental sustainability with the DESTINATIONS project action on sustainable mobility in schools.

Development of the campaign “By bus to school”, in Portuguese “De carreira à escola”; “carreira” means bus route and race (race to school). It was launched in September 2017. It provides simple information to students, to inform which bus routes are near their schools; each school had a dedicated information poster.

![Figure 49: Images from Dissemination Actions](https://www.rtp.pt/play/p3069/e353881/alertaverde)

**Stakeholders engagement**

- For the engagement of the six schools, meetings were held in November 2017 with school directorate boards and with the Regional Education Directorate Authority to present MAD 3.2 objectives and the scope of action.
- Stakeholders (directorate board from six schools, PT operator and school communities) were invited to identify the main problems and needs in the scope of school mobility, through the fulfilment of a pre-diagnosis form and mobility surveys.
- The municipality was involved in the measure, through the validation of the public space audit fact sheet and in data collection.
- The stakeholders will be strongly involved in the elaboration of the action plan, after finishing the mobility study for the baseline situation.

![Figure 50: MAD 3.2 Stakeholder Engagement](https://www.rtp.pt/play/p3069/e353881/alertaverde)
Data collection procedures

- Pre-diagnosis for schools and PT operators;
- Surveys for school community (8,800 inquires); and
- Audit to the surrounding public space of schools.

Demonstration and Promotion Plan

The following steps will be carried out after the first phase of audit and diagnosis of mobility baseline situation:

- Awareness raising actions aiming at the involvement of the school community: talks and debates on sustainable mobility; participative actions that include discussion groups and idea contest; educational activities aimed at different age groups.
- Development of an action plan with defined actions to improve mobility and awareness raising of the school community, to be implemented within the school year.
- Intervention in public areas surrounding the school premises.
- Implementation and follow-up of the plan.

Risks and identified solutions

<table>
<thead>
<tr>
<th>Risks</th>
<th>Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistance from school communities in changing habits for the use of more sustainable modes</td>
<td>Awareness raising actions</td>
</tr>
<tr>
<td>Lack of financing sources for interventions in public areas surrounding school premises</td>
<td>Analysis of suitable funding sources</td>
</tr>
</tbody>
</table>
### Collaboration among DESTINATIONS Sites/partner

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<tr>
<td>LIM 3.3 Safe routes to school</td>
<td>STRATA and LTC will coordinate the implementation of training sessions and supporting tools aiming to educate parents and elementary students from 10 schools on road safety and sustainable mobility.</td>
<td>Design of interactive educational tools, board games and competitions with reward schemes to address mobility habits and incentivize students to use sustainable transportation.</td>
<td>LIM, RETH, Municipality of Rethymno</td>
</tr>
<tr>
<td>MAD 3.2 School and foreign students’ awareness campaign package</td>
<td>AREAM, CMF, VP and HF are working on the development of Sustainable Mobility Action Plans of six pilot schools. There is being developed a participative methodology in which the stakeholders and school communities will be involved in the development of the Action Plans.</td>
<td>Tools to help the dynamization of participative sessions, and school community involvement.</td>
<td>RET 3.2, LIM 3.3, MAD 3.2</td>
</tr>
<tr>
<td>RET 3.2 Mobility Plan for schools and university communities</td>
<td>Holistic approach incorporating studies for technical interventions and behavioural change campaigns. Early engagement and endorsement of the Education Directorates and school managers/teachers to develop a robust action plan. One-to-one communication with teachers and parents’ association to overcome the risk of limited response. Formulation of a long-term plan of actions involving levels of education with tailored campaigns.</td>
<td>Examples of elaboration of smart/attractive bus stops - &quot;talk of the town&quot; promotional level educational materials for teachers and successful examples of motivation campaigns for students’ parents.</td>
<td>LIM 3.3, MAD 3.2</td>
</tr>
</tbody>
</table>

**Table 3:** Cross Site Collaborations, regarding safe routes to school