

# PUBLIC E-BIKE SYSTEM

LAS PALMAS DE GRAN CANARIA

Shared Mobility Solutions



## IN BRIEF

The following article presents a project implemented in Las Palmas de Gran Canaria (Spain) consisting in the enlargement of the existing bike sharing scheme. The reader will learn how to develop a public smart bike system in order to increase the number of urban trips by bicycle made by citizens as well as tourists.

### For whom is this article intended?



The article can provide practical guidance for cities who want to deploy a bike sharing scheme.



The article explains the whole process of implementation of a new bike sharing scheme. First of all, the article introduces the sustainable mobility objectives, as well as the stakeholders identified and the main partners working on the project. After that, the measure design details for the case of Las Palmas are presented, followed by the most important stages of the implementation plan. Finally, the risk and success factors are reviewed.

### Overview: A NEW BIKE SHARING SCHEME

The article offers an overview of the whole project of a brand new bike sharing scheme in a city, from the design to the implementation and operational stages. Moreover, the article explains how a bike sharing scheme can be integrated within the existing mobility planning tools such as the SUMP and the Bicycle Master Plan. Finally, it also highlights how new digital based mobility services can help transport planners to improve sustainable mobility.

Opportunities	Challenges
<ul style="list-style-type: none"><li>• To design an accessible bike sharing scheme taking into account the specific needs of the more vulnerable target groups such as elderly people, physical impaired, etc.</li><li>• To make sustainable mobility more appealing for tourists.</li><li>• To foster a model shift towards sustainable mobility.</li></ul>	<ul style="list-style-type: none"><li>• To adapt an existing business model to the needs and requirements of a city.</li><li>• To engage the key local stakeholders in order to fine tune the design of the bike sharing scheme.</li><li>• To design a bike sharing scheme taking into account the urban structure of a city.</li></ul>

## A NEW BIKE SHARING SCHEME

### Introduction

Despite the fact that the city of Las Palmas de Gran Canaria has a SUMP since 2012 the former bike sharing scheme was not aligned with its goals and objectives. It was a well-meaning attempt to foster urban cycling but it was not as successful as expected due to some obstacles and barriers (lack of integration with other sustainable mobility policies or measures, lack of vision and alignment with the overall goals of the city in terms of sustainable mobility, technological problems, etc.).

This article shows how the city of Las Palmas de Gran Canaria overcame these problems and came up with a brand new bike sharing scheme. Therefore, this article is useful for cities sharing the same objectives as Las Palmas de Gran Canaria and willing to achieve a better urban mobility by increasing the number of urban trips by bicycles.

In order to implement a measure like this one, the main **partners** working on it have to be identified. In the case of Las Palmas de Gran Canaria, they were the following:

- Municipality of Las Palmas de Gran Canaria, in charge of the urban mobility policies.
- Sagulpa as the public body responsible of the bike sharing scheme.

Besides, the key local **stakeholders** have to be selected for consultation. Some should be able to foster the uptake of sharing systems and others should have the capacity to promote the use of the bicycle as a sustainable way of mobility. In the case of Las Palmas, the stakeholders were the following:

- Public Administrations: Regional Government, Port of Las Palmas.
- Local and regional Associations: Gran Canaria Tourism Board, Business Federation of Hotels and Tourism of Las Palmas
- Cycling stakeholders: bike suppliers, bike associations, etc.

### Measure design

First of all, the Municipality of Las Palmas de Gran Canaria and Sagulpa assessed the problems of the former bike sharing scheme and defined a strategy to come up with a brand new system. To do so, the Municipality and Sagulpa analyzed the following issues:

- Which are the main goals of the existing planning tools such as the SUMP? How can a bike sharing scheme contribute to the vision, goals and objectives of the SUMP?
- Which are the main needs and requirements of the key target groups (youngsters, tourists, elderly people, women, etc.)?
- Which effective package of measures is necessary to boost urban cycling in the city?
- Which Departments or Areas within the Municipality should be involved in the project?
- Benchmarking (collection of best practices in medium-sized European cities).

After that initial assessment it was clear that new digital-based mobility services would help to integrate the new bike sharing scheme into the overall urban mobility system. Moreover, both Sagulpa and the Municipality identified the data generated by the new bike sharing scheme as an opportunity to improve mobility management in the city.

Taking all the previous issues into account, the technical specifications and service requirements for the new bike sharing scheme were defined. Finally, Sagulpa carried out a feasibility study to determine the potential of the new bike sharing scheme. Once approved by the Municipality and the key local stakeholders, Sagulpa prepared the tender documentation.

## Implementation

The new bike sharing scheme was implemented in Las Palmas de Gran Canaria following the plan detailed below:

- 1) **Elaboration of the tender documentation.** Sagulpa prepared the technical and administrative documentation for the tender of logistical support service, maintenance and installation of the new bike stations.
- 2) **Tender.** The tender process was launched in June 2016 and was awarded to Next Bike in January 2017. The equipment was finally delivered in December 2017.
- 3) **Launch of the new bike sharing scheme.** The **Sitycleta** system (<https://www.sitycleta.com/en/>) was launched on September 2017 and after 3 months all stations had been deployed. Several communication and promotion activities were carried out to inform the public.

As mentioned before, the Sitycleta system is a digital-based mobility service with the following characteristics:

- **375 conventional smart bikes** with an on-board computer that connects with the central servers by GSM. The bicycles have a small solar panel that supplies electrical power to the computer.
- **20 e-bikes** to carry out a pilot test to promote cycling between the hilly and the low part of the city.
- **2 accessible bikes** for the physically impaired.
- **42 new stations** (5 of them are smart totems placed at touristic hotspots and offer real time information).
- **520 anchor points/bike racks.**
- **35 solar-powered smart signs.**

In addition, the system uses a technology that follows the standards of wireless communication (WIFI, GSM and 3G). The service is available in several languages from 7 am to 11 pm, 7 days a week.

Sagulpa and the Municipality of Las Palmas de Gran Canaria coordinated the deployment of the new bike sharing scheme with the implementation of other actions such as new bike lanes and traffic calming measures.

## Operational stage

This is the current status of the Sitycleta system after 9 months of operation:

- The annual fee (40 Euros) is the most successful fee amongst the registered users (40% of the overall users). Besides this, 15% of the users have selected a monthly fee and 14% a weekly fee.
- Over 17,000 users per month. A record of over 740 rides per day was reached on October 2018.
- 80% of the members uses the Sitycleta app to rent a bike.
- Average travel time: 22 minutes.
- High acceptance amongst tourists (an average of 20% of the users are tourists).
- Peak hours between 12.00am and 6.00 pm.

## Risks and success factors

The following are the success factors of the new bike sharing scheme of Las Palmas de Gran Canaria:

- **High quality bikes.** The smart bikes are resistant and suitable for salt environments (coastal cities) thanks to the Aluminium frame and its anti-corrosion treatment.
- **A safer system.** The smart bikes are equipped with an on-board computer which controls an electronic locking mechanism in the front fork. The smart bikes are equipped with an on-board GPS device that allow tracking and location.
- **A flexible system.** It is possible to make as many journeys as you like and the first 30 minutes are free of charge. The system also allows occasional users with different hourly fees (peak hours vs. off-peak).
- **Continuous improvement.** The data gathered (origin and destination stations of each trip) allows Sagulpa to continuously improve the system: availability of cities at the stations, favourite routes and stations, average trip times, etc.
- **Improvement of the urban space.** The stations are integrated in the urban environment and enhance the attractiveness of the public space.
- **Integrated vision.** The Sitycleta implementation has been coordinated with some other actions to enhance its effectiveness. The new stations are better connected with the cycling network and are pretty much oriented to foster multi-modality.
- **Communication campaign.** Sagulpa publishes several videos and promotes the Sitycleta system through social media (how to register on the web, which is the most convenient rate, how to use the App, how to return the bike to the station, etc.). Furthermore, Sagulpa takes part in sustainable mobility trade fairs.
- **Touristic promotion.** Promotion and dissemination campaigns addressed to tourists.
- **Fares adapted to each target group.**

Among the risks of this measure, it is worth mentioning the proceedings of the city council to obtain the approval of the service, since a new tariff policy was established. It has to keep in mind that the old service was for free and had many shortcomings.





Smart bikes. Source: Sagulpa



Sitycleta station. Source: Sagulpa

### Learn more on this topic...

- Sitycleta official website: <https://www.sitycleta.com/en/>
- Sagulpa official website: <https://www.sagulpa.com/>

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