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CiViTAS
Cleaner and better transport in cities

DESTINATIONS



Measure Evaluation Results

LPA 4.1 - Public e-bike system

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Executive Summary

Before DESTINATIONS, Las Palmas de Gran Canaria had a bike sharing scheme in operation, the *LPAbbyBike*. However, the bicycles were not suitable for the Las Palmas weather (humidity, salt, etc.) which caused technical problems, and they registered high rates of vandalism. The system was also not economically sustainable due to a high dependency on public funds. In addition, the *LPAbbyBike* bike sharing scheme was not aligned with other sustainable mobility policies of the city such as the Sustainable Urban Mobility Plan (SUMP).

Under such circumstances, within DESTINATIONS the city launched and operated a new, larger, digital-based bike system named *Sítycleta*. The *Sítycleta* is station-based bike sharing (SBBS) that includes 40 new bike stations. Within these new stations, there are 5 smart totems placed at touristic areas that offer real time information, 35 solar-powered smart signs, 375 smart bikes with a solar-powered on-board computer, 20 e-bikes, and 2 adapted bikes accessible for physically impaired people. The service is available in several languages from 7 am to 11 pm, 7 days a week, and it can be used through an App. Sagulpa, the managing entity for parking in Las Palmas, developed a new app to replace the service provider's app (NextBike), which allows better management and control of the sharing system. The App offers real-time geolocation of bikes, counts the CO₂ avoided per trip, and the number of trees “planted” by users.

In April 2019, Sagulpa began a pilot that focused on promoting the use of e-bikes between the flat and hilly areas of the city. The results of the pilot were not impressive in terms of number of rentals or share of e-mobility, but thanks to the pilot, Sagulpa learned a lot about the operational stage of shared mobility services based on digital and electric solutions.

The DESTINATIONS funding was an opportunity to overcome some capital cost barriers to replace the former *LPAbbyBike* (the Municipality and Sagulpa were struggling to allocate enough budget to purchase all the necessary equipment) and launch a new bike sharing scheme (*Sítycleta*).

The positive results of the *Sítycleta* have shown the potential of shared mobility in Las Palmas de Gran Canaria. In fact, a micro-mobility sharing service (a moto-sharing system) started to operate in the city in 2019 and other private initiatives have shown their interest to provide non-polluting alternatives for last-mile urban trips.

The development of this measure led to benefits in multiple areas. The bike sharing system helped reduce the consumption of fuel, CO₂ emissions, and offered a greater number of bikes per 1,000 inhabitants (this ratio increased by 476% from the old public bike sharing system). The new bike sharing scheme continued progressing towards financial sustainability thanks to the increasing trend of new users as well as the new revenue stream such as sponsorships from private companies. The high level of satisfaction of users (8.5/10) shows that Sagulpa has succeeded in offering a high-quality mobility service to citizens and visitors of Las Palmas de Gran Canaria. The level of satisfaction from tourists was measured through surveys asked to tourists.

In addition, in the framework of this measure, Sagulpa launched and awarded a tender for the creation of a big data tool. This tool integrated all mobility data of the city (traffic counting, public transport, parking management scheme), and through data analytics techniques, the company will be able to identify the mobility behaviour and travel patterns of different target groups (commuters, tourists, citizens, etc.), and design new tailored services that can be sold to other customers (B2C) or businesses (B2B).

A Description

The aim of this measure was to replace the existing bike sharing system of Las Palmas (“**LPA by bike**”: <http://www.bybikelpa.com/>) with a more modern and efficient one. To do so, 20 e-bikes, 375 conventional smart bikes, and 2 bikes accessible for the physically impaired were purchased. Moreover, the number of stations was increased with the implementation of 40 new stations with 520 anchor points. Five of these new stations are “smart totems” placed at the main touristic hotspots of the city (for instance, at the Laboratory Area of the measure LPA 3.1).

In addition, a software platform was developed for this new bike sharing scheme (stations, App, website, etc.). This platform is available for visitors and residents to show, in real time, the available bikes, location of the bike stations, etc. During the CIVITAS DESTINATIONS project lifetime, the *Sitycleta* App was improved twice, and it now offers real-time geolocation of bikes, counts the CO₂ avoided per trip, and counts the number of trees “planted” by users. Moreover, in 2020 the company started working on a gamification strategy in order to reward users that use the system the most. The gamification will consist of simulating a “Tour de France” where the users will be able to obtain different cycling jerseys when completing different challenges (cycling jerseys for consistency, sustainability, mountain, etc.), and at the end there will be rewards. The initiative will be launched in 2021.



Figure 1: Sitycleta station

Finally, in the framework of LPA 4.1, Sagulpa created a big data tool with the aim of identifying the mobility behaviour and travel patterns of different target groups and designing new tailored services. This tool gathers data from the public bus service (Guaguas Municipales) as well as from parking facilities and the use of the *Sitycleta* system (Sagulpa). This is combined with external data obtained from mobile phone tracking in an anonymous way (<https://www.sagulpa.com/noticias/sagulpa-presenta-una-plataforma-digital-que-permitira-establecer-patrones-de-movilidad> 467).

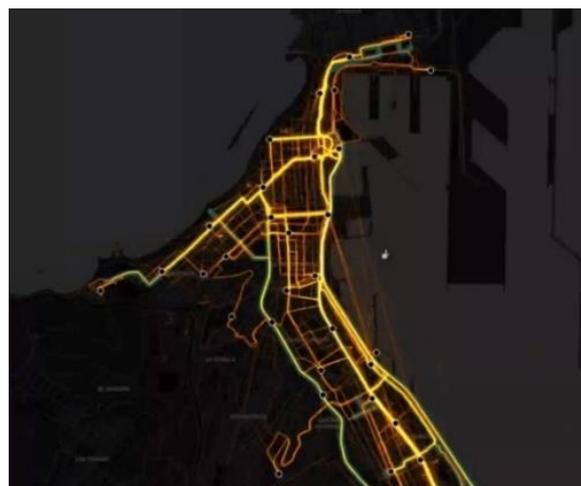


Figure 2: Image from the big data platform.

A1 Objectives and outputs

City policy level objectives

- Promotion of sustainable mobility among citizens and visitors

Measure specific objectives

- Increase the use of cycling by reducing the use of private vehicle
- Improve accessibility for the physically impaired
- Introduction of innovative biking systems and vehicles

Outputs

- 40 new stations (5 will be smart totems placed at touristic areas)
- 520 anchor points
- 20 e-bikes
- 375 conventional smart bikes
- 2 bikes for handicapped people
- A new software platform for the *Sitycleta* system
- Improvements in the *Sitycleta* App
- A big data tool

Supporting activities

Sagulpa published several videos and promoted the bike sharing scheme 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, the company took part in sustainable mobility trade fairs. In addition, there were specific dissemination campaigns addressed to tourists in order to promote the system among this target group.

A2 Inter-relationship with other measures

This measure is related to the measure LPA 3.1 as some of the new *smart totem* stations were placed in the Laboratory Area. Moreover, this measure is also linked to LPA 2.2 due to the on-street surveys carried out within that measure, in which tourists were asked about their level of satisfaction with the *Sitycleta* system.

Finally, the Municipality of Las Palmas de Gran Canaria has drafted the city's Bike Master Plan during the CIVITAS DESTINATIONS project lifetime. Despite this measure not being included in the project budget, it was strongly linked to this measure as it promoted the enlargement of the bike lanes and bike racks throughout the city.

A3 Target groups and/or affected part of the city or region

This measure had an influence on the whole city as the new bike sharing stations were placed all over the city. The main beneficiaries of this measure are both citizens and visitors.

A4 Stakeholders: CIVITAS project partners and other important actors

Stakeholder name	Activities description
Bike users' associations	User needs information that would be important during the design and implementation processes of the system.
Neighbourhood associations	Offer feedback and inform of needs from users and neighbours to keep in mind during the designing and implementation of the system.
F.E.H.T. – Federación de empresarios de Hostelería y Turismo de Las Palmas.	Support to identify the best locations to install the new bike stations and information about tourists travel behaviour and mobility trends.

Table 1: Stakeholder involvement

B Measure implementation

B1 Situation before CIVITAS

Before the implementation of LPA 4.1, the bike sharing system of Las Palmas de Gran Canaria had 150 bikes (none of which were electric) and 13 stations. The former *LPAbyBike* bike sharing scheme suffered some key technical problems – the bicycles were not suitable for Las Palmas weather (humidity, salt, etc.), and had high rates of vandalism, and also financial difficulties (it was not economically sustainable due to a high dependency on public funds).

Besides all this, the *LPAbyBike* bike sharing scheme was not aligned with other sustainable mobility policies of the city such as the Sustainable Urban Mobility Plan (SUMP). For instance, it did not contribute to the objective of promoting multimodality as it was not integrated with the public transport system, nor did it help to boost cycling as it was implemented alone without an effective package of measures (more parking facilities or bike lanes).

Finally, the city of Las Palmas had interest in developing a big data analysis tool that could help improve the decision-making processes and the mobility services offered, as well as reducing traffic in the city. Within this measure, a data platform that integrates data from different sources was created.

B2 Innovative aspects

Sagulpa purchased a mix of different bicycles – e-bikes, smart bikes, and bikes for disabled people – in order to meet the needs of a wide range of target groups, such as students, tourists, seniors, etc. E-bikes are an alternative form of urban transportation that provide all the advantages of a regular bicycle: fun exercise, zero emissions, and freedom from gridlock, while eliminating one of the bicycle's more serious drawbacks, lack of power. Smart bikes are conventional bikes equipped with an on-board computer and GPS that could easily be transformed into e-bikes.

Moreover, Sagulpa has also applied innovative approaches in order to reach financial sustainability of the new bike sharing scheme by exploring new revenue streams such as sponsorship from private companies.

B3 Research and technology development

Within the project lifetime, Sagulpa developed a new app to replace the service provider's app (NextBike). This app is allowing Sagulpa to better manage and control the sharing system.

Thanks to the improvements of the App, it now offers real-time geolocation of bikes, counts the CO₂ avoided per trip, and counts the number of trees “planted” by users. Moreover, the company has also started a gamification strategy in order to reward users that use the system the most, which will be launched in 2021.

For the creation of the big data tool, Sagulpa carried out market research to identify which possibilities were available and the necessities of the city, in order to define the specifications of the tool in the tender documentation.

B4 Actual implementation of the measure

Concerning the implementation of the new bike sharing system, the process started with the 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. Moreover, Sagulpa studied which were the best locations for the installation of new stations (linked to the main touristic hotspots) and developed a business model for the new system.

In June 2016, the tender process was launched, and awarded to NextBike in January 2017. The *Sitycleta* system was launched in September 2017 and after 3 months all stations had already been deployed. Several communication and promotion activities were carried out to inform the public. By January 2021, the bike system of Las Palmas de Gran Canaria already had 40 bike stations (5 with smart totems placed at touristic areas that offer real time information), 35 solar-powered smart signs, 375 smart bikes with a solar-powered on-board computer that connects with the central servers by GSM, 20 e-bikes, and 2 adapted bikes accessible for physically impaired people. The system is available in several languages from 7 am to 11 pm, 7 days a week.

The bike sharing system can be used through an App that Sagulpa developed. The app allows Sagulpa to better manage and control the sharing system, as well as to obtain useful data, such as real-time geolocation of bikes and identification of routes. As for the users, the app facilitates the process of renting the bike, since all users have to do is introduce the bike number and scan its QR code. Moreover, the app keeps track of all the trips the user has done, which can also be reviewed by the user.

The App was updated twice at the end of 2020, and now enabled users to see the CO₂ avoided per trip and the number of trees “planted” by users. This raises awareness about sustainability.

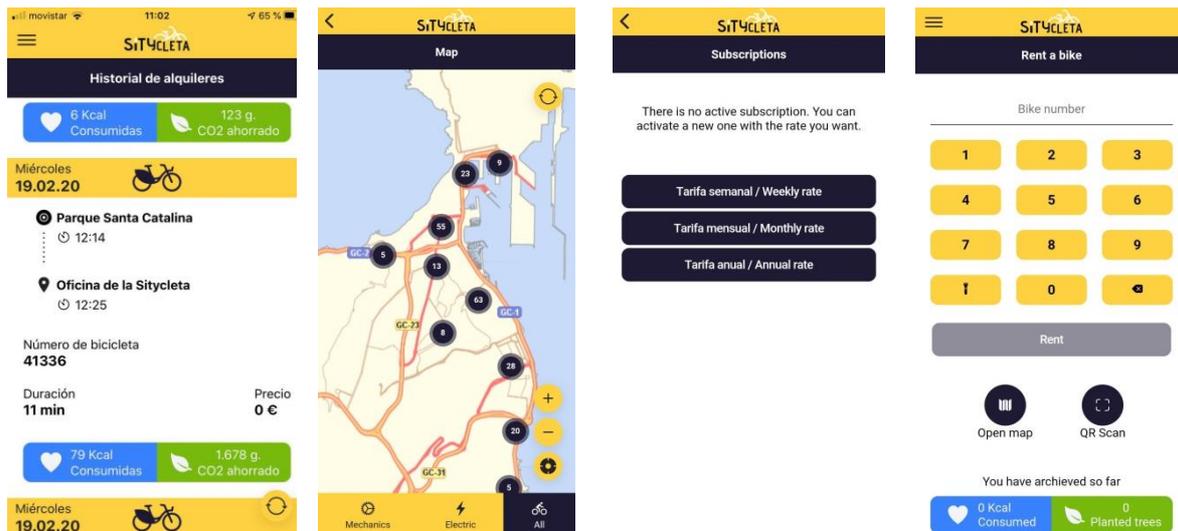


Figure 3: New App for the bike sharing system

Concerning the *Sitycleta* App and the additional services offered, the company started working on a gamification strategy in order to reward regular users, which will be launched during 2021. The gamification will consist of simulating a “Tour de France”, where users will be able to obtain different cycling jerseys when completing different challenges (cycling jerseys for consistency, sustainability, mountain, etc.), and at the end there will be rewards. The strategy will be launched after DESTINATIONS.

The data obtained from the *Sitycleta* system, together with other operational data from the use of public buses and parking facilities in the city, was aggregated within the big data tool created by Sagulpa. The tender for this tool was launched in May 2020 and awarded to Vodafone in July 2020. In February 2021, the first pilot of the tool was launched, with data from January 2021. After this pilot, data from 2019, 2020, and the first trimester of 2021 will be published.

C Impact evaluation

C1 Evaluation approach

Expected impacts and indicators

Impact category	Impact indicator	Unit of measure
Environment	1 - CO2 emissions avoided	CO2 toe
Energy	2 - Vehicle fuel efficiency (saved)	litres
Transport	3 - Bike sharing availability	Nº / 1.000 inhabitants
Economy	4 - Operating revenues	€/vkm
Society	5 - Satisfaction of tourists with the <i>Sitycleta</i> system	Nº

Table 2: Expected impacts and indicators

Method of measurement

Impact indicator	Method *	Frequency			Target Group	Domain (demonstration area/city)
		Bef.	Dur.	Aft.		
1 - CO2 emissions avoided	E	n.a.	n.a.	39	citizens / tourists	city
2 - Vehicle fuel efficiency (saved)	E	n.a.	n.a.	39	citizens / tourists	city
3 - Bike sharing availability	DC	4	n.a.	43	citizens	city
4 - Operating Revenues	DC	4	n.a.	39	<i>Sitycleta</i> users	city
5 – Satisfaction of tourists with the <i>Sitycleta</i> system	S	n.a.	n.a.	39	<i>Sitycleta</i> users (tourists)	city

* (Data collection (DC), Estimation (E), Survey (S))

Table 3: Method of measurement

Detailed description of the indicator methodologies:

- 1. CO2 emissions avoided** – This indicator measured the tons of CO2 avoided thanks to the bike sharing system. The reduction of CO2 emissions was estimated as the *toe* of CO2 that would have been emitted if the distance travelled by these bikes would have been travelled by a car instead. Therefore, these are the tones of CO2 that have been saved thanks to the bike sharing system. The total kilometres travelled by the bikes were obtained by Sagulpa from operational data in the mobile App.
- 2. Vehicle fuel efficiency (saved)** – This indicator was estimated as the number of litres of gasoline that would have been consumed if the distance travelled by these bikes (value obtained by Sagulpa from the App) would have been travelled by a gasoline-fuelled car instead. Therefore, these are the litres of fuel that have been saved thanks to the bike sharing system.
- 3. Bike sharing availability** – The bike sharing availability indicator shows the number of shared bikes per 1.000 inhabitants and it is obtained by dividing the number of bikes that the new public sharing system has (375) by the total population of the city (375.517 in 2018), and then this value is multiplied by 1.000.
- 4. Operating revenues** – The operating revenues are the proportion between the revenues obtained since the system was launched and the total distance travelled (km) in this time (Sagulpa keeps track of this information, obtaining it from the App). Source: Informe Indicadores Observatorio de Movilidad (2019).
- 5. Satisfaction of tourists with the *Sitycleta* system** – The level of satisfaction of tourists with the *Sitycleta* system **was** obtained through surveys asked to tourists, in which they were asked if they had used the service, and if so, how was their experience (on a Likert scale from 1 to 10).

The Business-as-Usual scenario

If this new bike sharing system had not been implemented, the old one would have continued to operate and the company would have no revenue from it. Concerning the bike sharing availability, there would still be fewer than 1 public bike per 1,000 inhabitants.

C2 Measure results

Impact category	Impact indicator	Unit of measure	Baseline	Ex-Ante	Ex-Post
Environment	1 - CO2 emissions avoided	CO2 toe	-	300	329
Energy	2 - Vehicle fuel efficiency (saved)	litres	-	167.857	184.230
Transport	3 - Bike sharing availability	Nº / 1,000 inhabitants	0.21	0.25	1.00
Economy	4 - Operating Revenues	€/vkm	0	0.10	0.15
Society	5 - Satisfaction of tourists with the <i>Sitycleta</i> system	Nº	-	7	8.5

Table 4: Measure results

C2.1 Environment

1 – CO2 emissions avoided

The CO2 toe avoided by the use of the new bike sharing system was 10% higher than expected, due to the great number of users. The total kilometres travelled by the bikes from April 2018 until November 2019 was 1,959,895 km, which allowed 329 CO2 toe to be saved.

Since the implementation of the system, the number of users showed progressive growth, as can be seen in the figures below. The first figure below shows that in 2019, the monthly rentals were higher than in 2018. The second figure presents that by November 2019, there were 36.059 monthly users, 44% of which were active.

Moreover, the first figure shows the effect of the touristic peak season in Las Palmas de Gran Canaria (around November), with a higher number of rentals by foreign customers. The fact that this effect is perceptible shows that the bike sharing system is truly used by tourists that visit the city.

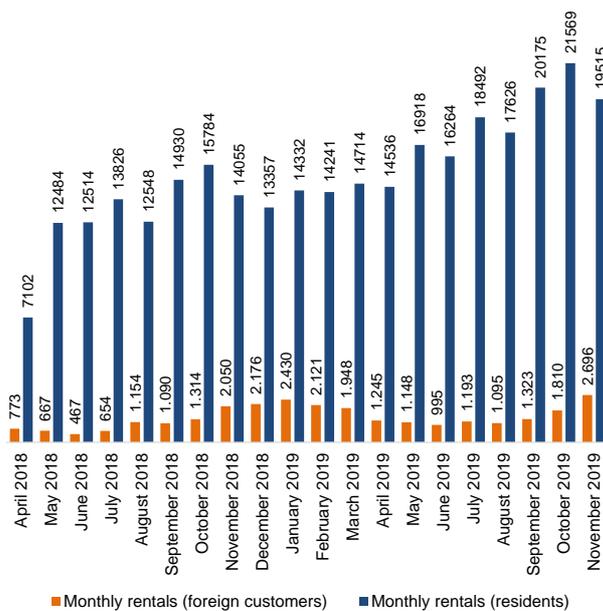


Figure 4: Number of monthly rentals by residents and foreign customers

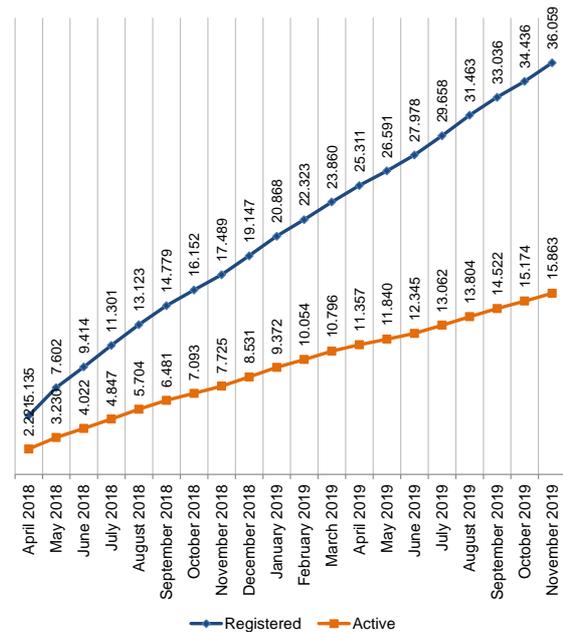


Figure 5: Number of registered and active customers

C2.2 Energy

2 – Vehicle fuel efficiency (saved)

Following the case of the CO2 toe avoided, the litres of gasoline saved have also been 10% higher than what was expected during the “ex-ante” evaluation, since the CO2 emissions and the vehicle fuel efficiency indicators are linked.

C2.3 Transport

3 – Bike sharing availability

The CIVITAS DESTINATIONS project was the opportunity for the city of Las Palmas de Gran Canaria to substantially increase the number of public bikes. Currently, there is 1 bike per 1.000 inhabitants, while with the old system, this number was 0.21. Therefore, the bike sharing availability was quintupled.

C2.4 Economy

4 – Operating revenues

The business model developed for this bike sharing system allowed the company to obtain profits from it, as opposed to the old system which was registering a financial loss. Up to November 2019, the revenues obtained were 0.15 €/vkm, a value higher than expected. The sponsorship from private companies helped increase these revenues. This collaboration consisted of private companies that were interested funding some stations located in proximity to their business, or in designated high visibility market locations, in order to advertise their company.

C2.5 Society

5 – Satisfaction

The results of the surveys showed that tourists were very satisfied with the new *Sitycleta* system. The level of satisfaction about the bike sharing system (among tourists) was higher than expected. It was considered that 7 out of 10 would be a good value but it was finally 1.5 points higher than that.

In addition, this measure somehow impacted on a common indicator that has been used to assess the overall performance of the project at a city level: **modal split**. Unfortunately, it has not been possible to assess the direct impact of this measure to this indicator because its evolution is linked to several measures and it can only be calculated at a city level.

The result achieved in terms of modal split (+4% of trips by active modes) reflects a cumulative effect of the implementation of a combination of measures and actions. It is the result of the overall performance of the project at a city level.¹

C3 Quantifiable targets

No	Target	Rating
1	Expected number of users: 100.000 each year with an average rental time of 35 minutes and daily kilometres route of 8.5 km	O
2	Less emissions/ increased air quality	***
3	Less energy consumption	***
4	Improved urban accessibility	**
5	Enhancement of social cohesion	**
6	Increased cost-effectiveness of transport services	***
NA = Not Assessed O = Not Achieved * = Substantially achieved (at least 50%) ** = Achieved in full *** = Exceeded		

Table 5: Assessment of quantifiable targets

Target 1 was Not Achieved as the expected number of users was 100,000 but, by the end of 2019, there were only 36,059 registered users. However, their average rental time and daily kilometres are similar to those foreseen.

Target 2 and 3 were Exceeded. The CO2 emissions and fuel savings were 10% higher than expected during the ex-ante evaluation, and therefore the *Sitycleta* system has contributed to great savings in these fields. It is understood that the measure contributed to improving the quality of life in the urban centre of Las Palmas.

¹ For more details regarding the cumulative effects under modal split indicator, see the “MER Introduction: Global Executive Summary and Common Indicators” document

Target 4 and 5 are considered Achieved in full. On the one hand, measure LPA 4.1 has improved urban accessibility as the bike stations cover a large part of the city and this mode of transport allows users to go further in less time. On the other hand, the sharing system has contributed to an enhancement of social cohesion, since everybody can use a bike in the city without having to own one. The *Sítycleta* is a public system, and allows everybody to rent a bike economically.

Target 6 was Exceeded as there has been an important increase in cost-effectiveness since the *Sítycleta* system was implemented, which has positive operating revenues (0.15 €/vkm), unlike the older bike sharing system of the city.

C4 Up-scaling of results

Sagulpa plans to expand the bike sharing scheme twice once the CIVITAS DESTINATIONS project ends (May 2021):

- By opening 5 new stations in the flat area of the city alongside the Hoya La Plata – San José corridor (southern part of the city)
- By expanding the number of e-stations and e-bikes (5 new e-stations in the hilly neighbourhoods)

In order to calculate the changes in the indicators presented above due to the expected expansion of the bike sharing scheme, Sagulpa will take into account only the km that will be travelled with the new bikes from the regular stations. The reason behind not including the new e-bikes in the calculations is because their use is very low compared to the regular bikes.

Therefore, the up-scaling of results for a future scheme with 425 bikes (10 bikes in each of 5 new stations) instead of 375 would be the following:

Impact category	Impact indicator	Unit of measure	Assumptions	Likely results
Environment	CO2 emissions	CO2 toe avoided	If more bikes are available, more users will be encouraged to shift to cycling and thus more CO2 emissions will be avoided	373
Energy	Vehicle fuel efficiency	litres of gasoline saved	If more bikes are available, more users will be encouraged to shift to cycling and thus more litres of gasoline will be saved	208,794
Transport	Bike sharing availability	Nº of bike share bikes / 1,000 inhabitants	A higher number of bike share bikes will increase this ratio since the population has few variations	1.13

Table 6: Up-scaling of results

Revenues per vkm are expected to stay the same since fares will be the same (there will be more revenue but also more vkm so the ratio will not change). Concerning the satisfaction indicator, it is not clear how it will change with this expansion of the system, and therefore the up-scaling of results is not applicable here.

D Process Evaluation Findings

D1 Drivers

Since the city already had a bike sharing scheme, Sagulpa had already identified its deficiencies and weak points, which could be solved in the new system from the start. For example, concerning the material for the bikes, the company knew from experience that the bikes should be resistant to salty air, and should have an anti-theft device.

Concerning the business model, one of the success factors of the new bike sharing system were the new revenue streams coming from private companies' sponsorship, as a result of the meetings that Sagulpa had with potential sponsors.

Another driver for this measure was the fact that the city already had a smart contactless card for the public bus service, so the *Sitycleta* system could easily be integrated in the multimodal transport network of the city. This made it easier for citizens to use the bike sharing system.

Finally, Sagulpa carried out several communication campaigns and activities (through social media, in sustainable mobility trade fairs, etc.), some of which were tourists-oriented. Since Sagulpa was a public company which already offered other services in the city, the company had experience in communication campaigns.

D2 Barriers

Among the barriers of this measure, it is worth mentioning the proceedings of the Municipality in order to obtain approval for the service were difficult, since a new tariff policy was established. It has to be kept in mind that the old service was for free and had many shortcomings.

D3 Main Lessons Learned

The main lessons learned are described below:

- It is better to consider the specific needs of more vulnerable target groups – such as elderly people, physically impaired, etc. – from the beginning of the design stage of the project
- It is very important to build up a trust relationship with the system provider
- It is crucial to engage key local stakeholders in order to fine tune the bike sharing scheme
- The bike sharing scheme should take into account the shape / urban structure of the city
- EU-funding is an opportunity to overcome some capital costs

It is of great importance to set realistic milestones and goals when implementing the sharing system: (1) focus on flat areas as they are easy to control; (2) pilot in hilly areas with e-bikes; and (3) expansion to the whole city by increasing the number of e-bikes.

E Evaluation conclusions

The measure was implemented on time and has been fully operational for two years (from April 2018). Sagulpa collected enough data in order to carry out the monitoring and evaluation of this measure correctly. The results of the measure showed that sharing mobility services has potential for great success in touristic destinations.

F Additional information

F1 Appraisal of evaluation approach

One of the main benefits revolves around the environmental aspect, as cycling reduces the pollutant emissions and increases vehicle fuel efficiency in comparison to traditional cars. This impact was relatively easy to evaluate through the data from the number of kilometres travelled by the whole bike sharing system each year. From this, it was therefore possible to compare this with the emissions and litres of gasoline that would have been consumed if these kilometres were travelled by cars. However, these might not be the accurate values for “CO2 toe avoided” and “litres of gasoline avoided” as it was not possible to assess how many of the users of the bike sharing system were already traveling by bike or shifted from private cars.

Secondly, some other indicators were focused on operational data that could be easily provided by the company responsible for the bike sharing system (e.g. on bike sharing availability, operating revenues).

Finally, concerning the satisfaction aspect of this measure, this was easy to determine as there was a question included in the on-street surveys to tourists (LPA2.2) asking specifically for their opinion on the *Sitycleta* system.

F2 Future activities relating to the measure

Sagulpa plans to expand the bike sharing system twice in 2021:

- By opening 5 new stations in the flat area of the city alongside the Hoya La Plata – San José corridor (southern part of the city)
- By expanding the number of e-stations and e-bikes (5 new e-stations in the hilly neighbourhoods)

Concerning the *Sitycleta* App and the additional services offered, the company will soon start a gamification strategy for *Sitycleta* users. The gamification will consist of simulating a “Tour de France” where users will be able to obtain different cycling jerseys when completing different challenges (cycling jerseys for consistency, sustainability, mountain, etc.), and at the end there will be rewards.

For the big data tool, the first pilot of the tool will be launched in February 2021, with data from January 2021. After this pilot, data from 2019, 2020, and the first trimester of 2021 will be published. In the future, the city wants to use this data for reducing traffic, fostering active and public mobility, and designing new services that could be sold to other customers (B2C) or businesses (B2B).