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CIVITAS
Cleaner and better transport in cities

DESTINATIONS



Measure Evaluation Results

LPA 6.1 - Green Credits scheme

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Executive Summary

The goal of measure LPA 6.1 was to develop and implement a Green Credit Scheme, to encourage citizens to adopt more sustainable lifestyle patterns by providing tangible economic rewards. Within the points scheme, public transport passengers could accumulate rewards for using public transport, which could be exchanged to participate in giveaways and to acquire products or services at a variety of locations, such as shops, museums, and theatres.

The scheme was an innovative approach to attract citizens and tourists towards sustainable modes of transport, whilst boosting the local economy by encouraging users to purchase products and services. The development of this measure took part within the CANVAS business model workshops, where technical, commercial, and financial issues were discussed. The Green Credit Scheme, named Club GuaWay, was finally launched in October 2020 (the original launch date was March 2020, which had to be delayed due to the COVID-19 crisis), and 3 months after the launch, the initiative had almost 500 affiliated members.

The engagement of the general public and stakeholders was a key driver for the success of this measure. On the one hand, Guaguas Municipales, the public transport operator, included some questions regarding the new loyalty system in the annual customer survey to ask customers for suggestions on the kind of discounts or promotions that would be of most interest to them. On the other hand, Guaguas Municipales met with local businesses and shopkeepers in order to arrange their commitment to take part by offering promotions, gifts, and discounts (all of them related to sustainable, healthy, or cultural activities) through the loyalty system.

The contactless smart card system which was already in place was a key driver for the further development of this loyalty scheme as it allowed personalised rewards to be much easier to administer. Within the project lifetime, Guaguas Municipales developed the front office – with customer- and business-specific features – and also the back office which connected with the contactless smart card database.

The impact of this measure was evaluated through two common indicators. These were the “modal split” (obtained through telephone surveys), which registered an increase of +4% for the share of public transportation and non-motorised modes, and the “satisfaction of passengers with the public transport system” (also obtained through telephone surveys). The latter showed an increase of 5.2% after the implementation of the actions. These results are considered very relevant considering the difficulty in improving indicators related to satisfaction. In addition, specific indicators were evaluated related to the number of users registered (481) and giveaways organised (14) by January 2021, as well as the average number of participants per giveaway (45). The values obtained were very close to those defined in the ex-ante evaluation. Finally, the measure also contributed to the increase of bus passengers in the city, and therefore to the shift towards more sustainable transport modes and a better modal share.

Overall, the measure pursued a win-win strategy among the urban public transport company and local commerce and businesses that led to a better, cleaner, and friendlier city.

A Description

The aim of this measure was to introduce a loyalty system (a Green Credit Scheme called Club GuaWay) to encourage citizens to adopt more sustainable lifestyle patterns by providing tangible economic rewards. The loyalty system consisted of accumulating points as rewards for using public transport which could be exchanged to participate in giveaways and acquire products or services at a variety of places, such as shops, museums, and theatres. The scheme is envisaged to contribute towards reducing greenhouse gas emissions.

Before DESTINATIONS, Guaguas Municipales already had in place a contactless smart card system with a very detailed database. This enabled them to have a good understanding of their customers' profiles, thanks to the wide range of tickets included in the smart system (students, elderly people, unemployed, etc.). The information about clients' profiles was essential for local commerce as shopkeepers could carry out targeted campaigns.

The loyalty system was an innovative approach. It enabled a Win-Win strategy to be fostered among the urban public transport company and small and medium local commerce, with the final objective of achieving a better, cleaner, and friendlier city. In addition, it enabled citizens to be attracted towards sustainable modes of transport while boosting the local economy by encouraging users to purchase products and services at a variety of places.

The green credit scheme was supported by a website (<https://www.guaway.es/>), where users had to register and upload their transportation card. Then, every time they used the card on public transport, they accumulated points called "CoRazones" ("razones" comes from "reasons to use public transport") in their profile. During special dates (such as the Environment Day and the European Mobility Week), the number of "CoRazones" obtained per trip would be higher than usual. From time to time, giveaways were published on the web and people could access them using the points accumulated.



Figure 1: Promotional video of the ClubGuaway

The rationale for the users was clear: the more journeys carried out using sustainable options, the more credits one can earn. With this tool, each daily mobility option counts towards earning advantages.

This new system was first tested in a restricted pilot group. After some fine-tuning of the beta test, the tool was expanded to the local level, together with the official launch for the wider public.

A1 Objectives and outputs

City policy level objectives

- Promotion of sustainable mobility among citizens and visitors

Measure specific objectives

- Introduction of an innovative green credit scheme at the local level, based on a mobile application and web platform
- Involvement of at least 10 institutional and business partners
- Raise awareness towards sustainable modes of transport

Outputs

- A Green Credits scheme

Supporting activities

Guaguas Municipales met with local businesses and shopkeepers in order to arrange their commitment to take part in this initiative by offering promotions, gifts, and discounts (all related to sustainable, healthy, or cultural activities) through the loyalty system. Guaguas Municipales promoted these through the webpage, social media, and events related to the loyalty system, taking into account that Guaguas Municipales is a company with more than 38 M customers per year.

Thanks to this project, Guaguas Municipales established continuous contact with several stakeholders who, due to their activity (mainly focused on leisure and tourism activities), were not used to working with public transport companies. Through this, Guaguas Municipales started to promote local activities as well as local business promoting public transport by fostering their customers to use sustainable transport modes.

In order to carry out this project, Guaguas Municipales started to meet with high level stakeholders (Gran Canaria tourism board, tourism department from Las Palmas de Gran Canaria Municipality, business associations, etc.) to present the idea of a loyalty system for the urban public transport in order to look for adequate partners. After the initial meetings, Guaguas Municipales was put in touch with local businesses and commerce with potential interest in taking part in the project.

Finally, Guaguas Municipales presented this Green Credit Scheme at a public event with the Mobility Councillor of Las Palmas de Gran Canaria and the Director General and Commercial Director of Guaguas Municipales (<https://www.youtube.com/watch?v=5tEzMG TbNkc>). A short promotional video was presented at this event about the new service (<https://www.youtube.com/watch?v=megpiajUD2s>).

A2 Inter-relationship with other measures

One of the tasks foreseen in the CIVITAS DESTINATIONS project (WP8) consisted of defining the business model for one of the measures. In Las Palmas de Gran Canaria, this has been done for LPA 6.1.

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

This measure is mainly intended for bus users and aims to attract more people into using the system. The geographical region affected by the measure is the whole city of Las Palmas de Gran Canaria.

A4 Stakeholders: CIVITAS project partners and other important actors

Stakeholder name	Activities description
Patronato de Turismo de GC (GC Tourism Board)	Dissemination and communication strategy
Cabildo de GC (Regional Government)	Synergies with on-going policies to support sustainable mobility and local commerce
AUTGC (Regional Transport Authority)	Integration of the Green Credit Scheme into the overall fare system
Sociedad de Promoción de LPGC	Dissemination and communication strategy
Cámara de Comercio (Chamber of Commerce)	Identification of shops that might be interested in getting involved in the Green Credit Scheme
FEHT - Federación de empresarios de hostelería y turismo de Las Palmas	Identification of hotels, restaurants and bars that might be interested in getting involved in the Green Credit Scheme

Table 1: Stakeholder involvement

B Measure implementation

B1 Situation before CIVITAS

Before CIVITAS DESTINATIONS, Las Palmas de Gran Canaria already had a contactless smart card system that could be used to pay for urban public transport trips. A website and App were already in place for the public transport operator (Guaguas Municipales), and all the travel data was stored in a database.

However, this information was not previously used to carry out targeted campaigns, either to promote public transportation or local commerce, and bus users could not gain any extra benefits from using their transportation cards.

B2 Innovative aspects

The green credits scheme is an innovative approach to attract both citizens and tourists towards sustainable modes of transport. On the one hand it promotes sustainable mobility for both locals and tourists. On the other hand, it boosts the local economy by encouraging users to purchase products and services at a variety of places, such as shops, museums, and theatres.

B3 Research and technology development

Guaguas Municipales developed the front office – with customer- and business-specific features – and a back office which connects with the contactless smart card database.

B4 Actual implementation of the measure

Guaguas Municipales started to meet with high level stakeholders (Gran Canaria tourism board, tourism department from Las Palmas de Gran Canaria Municipality, business associations, etc.) to present the idea of the loyalty system, with the aim of finding adequate partners.

The public transport operator established contacts with local businesses and commerce who had potential interest in taking part in the project. Guaguas Municipales met with local businesses and shopkeepers in order to arrange their commitment to take part in this initiative by offering promotions, gifts, and discounts through the loyalty system.

After, and with all the information gathered, a business model for the Green Credit Scheme was defined. The new system was prepared and tested first in a restricted pilot group. After some fine-tuning of the beta test, the tool was extended to a wider scale at a local level.



Figure 3: Announcement of the winner of one giveaway on the GuaWay website.



Figure 2: Presentation event of the Club Guaway

The official launch of the Green Credit Scheme (named GuaWay) for the wider public was supposed to be in March 2020 but due to the COVID-19, it was delayed until October 2020.

The launch of the GuaWay took place during a public event, attended by the Mobility Councillor of Las Palmas de Gran Canaria and the Director General and Commercial Director of Guaguas Municipales (<https://www.youtube.com/watch?v=5tEzMGtbNkc>). To broadly disseminate the initiative, Guaguas prepared a short promotional video about the new service (<https://www.youtube.com/watch?v=megpiajUD2s>), which was also published on the company's social media.

By January 2021, the GuaWay initiative had counted 481 users registered and had organised 14 giveaways, with an average number of 45 participants per giveaway. In addition, it was understood that this action also contributed to the increase of bus passengers in the city and improved their satisfaction towards the public transport service.

C Impact evaluation

C1 Evaluation approach

Expected impacts and indicators

Impact category	Impact indicator	Unit of measure
Society	1 - Users registered	Nº
Society	2 - Giveaways celebrated	Nº
Society	3 - Participants per giveaway	Nº
Transport	4 - Number of bus users	Nº (millions)

Table 2: Expected impacts and indicators

Method of measurement

Impact indicator	Method *	Frequency			Target Group	Domain (demonstration area or city)
		Bef.	Dur.	Aft.		
1 - Users registered	DC	-	-	53	Citizens	City
2 - Giveaways organized	DC	-	-	53	Citizens	City
3 - Participants per giveaway	DC	-	-	53	Citizens	City
4 - Number of bus users	DC	4	16/ 28	40	Bus users	city

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

Table 3: Method of measurement

Detailed description of the indicator methodologies:

- 1. Users registered** – Guaguas Municipales was responsible for collecting data for this indicator. This indicator measured the number of users registered for the Green Credits Scheme during the first 3 months of its implementation and data was collected from the internal database for the Club GuaWay.
- 2. Giveaways organized** – Guaguas Municipales was responsible for collecting data for this indicator. This indicator measured the number of giveaways that Guaguas Municipales organised for the users of the Green Credits Scheme during the first 3 months.
- 3. Participants per giveaway** – Guaguas Municipales was responsible for collecting data for this indicator. This indicator measured the average number of participants in the giveaways. The number was obtained by dividing the total number of participants in all of the giveaways, by the total number of giveaways organised in the 3 months (indicator 2).
- 4. Number of bus users** – Guaguas Municipales was responsible for collecting data for this indicator. This indicator measured the number of bus users per year (before and after the outset of the CIVITAS DESTINATIONS project). This data was provided by the bus operator, who obtains it from ticket validations.

The Business-as-Usual scenario

If this measure was not implemented, the citizens of Las Palmas de Gran Canaria would lack this incentive to use public transportation.

C2 Measure results

Impact category	Impact indicator	Unit of measure	Baseline	Ex-Ante	Ex-Post
Society	1 - Users registered	Nº	-	500	481
Society	2 - Giveaways organised	Nº	-	12	14
Society	3 – Average number of participants per giveaway	Nº	-	50	45
Transport	4 - Number of bus users	Nº (millions)	33.4	37.0	38.5

Table 4: Measure results

C2.1 Society

1 – Users registered

Guaguas Municipales expected to have 1,000 users registered in the first six months of the Green Credit Scheme. After 3 months, the number of registered users was 481, which was very close to the forecast (500) for this date. It is understood that public transport passengers were very interested in the initiative as well as the advantages provided by the action.

2 – Giveaways organised

The initial idea of the company was to organise, approximately, one giveaway every week, which would result in 4 per month. In the first 3 months, the company has organised 14 different giveaways – a few more than planned.

3 – Average number of participants per giveaway

Before launching the Green Credit Scheme, it was expected that 10% of registered users would participate in each giveaway, on average. The reality has been very similar to the assumptions made.

C2.2 Transport

4 – Number of bus users

Typically, the number of yearly urban bus users in Las Palmas de Gran Canaria has seen a year-on-year increase of 2-5%. This is why the expected value for 2019 was set at 37 million users (in 2016 there were 33.5 million users and an average year-on-year rate of +3.5% was assumed). However, the final value exceeded expectations as there was an important increase of bus users between 2018 and 2019 (+8.8%).

Year	2013	2014	2015	2016	2017	2018	2019
Urban bus users (millions)	29.7	30.6	31.8	33.4	34.7	35.4	38.5

Table 5: Urban bus users over the years

C3 Quantifiable targets

No	Target	Rating
1	Less CO2 emissions: 2%	NA
2	Less energy consumption: 3%	NA
3	Increase the total share of citizens that use PT by 2%	***
4	Improve satisfaction of the users by 3%	***
<p>NA = Not Assessed O = Not Achieved * = Substantially achieved (at least 50%) ** = Achieved in full *** = Exceeded</p>		

Table 5: Assessment of quantifiable targets

Target 1 and 2 were not assessed specifically under this measure. This is because it was not possible to monitor the reduction of fuel consumption and CO2 emissions related to the bus users that chose the bus instead of the car due to the Green Credit Scheme.

However, considering the adherence to the Green Credit initiative, it was understood that the measure also contributed to the common indicators related to CO2 emissions and energy consumption¹. Hence, the results of these indicators were achieved through the implementation of LPA 4.1, LPA 4.2a, LPA 4.2b, LPA 6.1, and LPA 7.2.

Target 3 was Exceeded. In overall terms, there was an increase in the total share of citizens that use PT. The percentage of trips by public transport increased from 15% to 19% during the project lifetime (+4%).

Target 4 was Exceeded because the common indicator of customer satisfaction towards the public bus system has increased from 7.57 in 2016 to 7.96 in 2019, an increase of 5%. These kinds of indicators tend to have very small variations along a certain period of time (such as the CIVITAS DESTINATIONS project).

In addition, this measure had an impact on two common indicators that were considered to assess the overall performance of the project at a city level: modal split and citizens' satisfaction about the quality of the mobility system. Unfortunately, it has not been possible to assess the direct impact of this measure on these indicators as the evaluation was linked to several measures which could only be calculated at a city level.

The result achieved, in terms of modal split (+4% of trips under active modes) and in terms of the level of satisfaction about the mobility system (+5%), reflect 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.²

¹ see the "MER Introduction: Global Executive Summary and Common Indicators" document

² For more details regarding the cumulative effects under modal split and index of satisfaction about the mobility system indicators, see the "MER Introduction: Global Executive Summary and Common Indicators" document

C4 Up-scaling of results

If more citizens register on the Club GUAWAY and more giveaways are organised, it is expected that people might start using public transportation more, drawn in by the desire of obtaining “CoRazones” in order to be able to obtain rewards.

D Process Evaluation Findings

D1 Drivers/enablers

The customer experience understanding has been the main driver for the successful development of this measure. Guaguas Municipales’ know-how and long-lasting experience has been crucial for designing a green credit scheme that meets the needs and requirements of its customers.

Moreover, the Green Credit Scheme was easy to implement because the system was already prepared for it. The urban bus system already had a contactless smart card system running, and the company had a very detailed database which enabled a good understanding of its customers’ profiles thanks the wide range of tickets included in the smart system.

D2 Barriers

The main obstacle for the further development of this measure was to find the right way for customers to redeem the points accumulated in the program with transit fare credits and prizes.

D3 Main Lessons Learned

The business model canvas approach helped local partners involved in this measure – Municipality of Las Palmas de Gran Canaria and Guaguas Municipales – to better understand the positive outcomes from utilising loyalty programs and gamification. Despite PT users seeing the service attributes (on-time performance, travel speed, service frequency, personnel/driver behaviour, and vehicle tidiness) as the most important, it is also crucial to build loyalty between our customers and the public transport system. In fact, Guaguas Municipales realised that operators could sell more tickets by working with target groups to build an attractive public transport system.

Besides expanding the target market to new customers, it is also important to retain existing public transport users, potentially through the use of loyalty programs and incentive programs to keep these riders or win back those who have given it up.

Finally, this measure also highlighted the need for personalising the customer experience. Therefore, loyalty programs should be designed to meet the needs of customers, providing a rich and flexible user experience tailored to the shopping habits of each individual.

E Evaluation conclusions

Thanks to this measure, the city of Las Palmas de Gran Canaria has designed a loyalty program for public transport customers, which has been validated with key local stakeholders. During the first three months of service, the impact of the Club GuaWay has been as expected, as evaluated with the “users registered”, “giveaways organised”, and “average number of participants per giveaway” indicators. Moreover, its implementation has contributed to the improvement of the modal split of the city and the increase in bus users and their level of satisfaction towards it.

F Additional information

F1 Appraisal of evaluation approach

The indicators selected to evaluate this measure were focused on the success of the Green Credit Scheme among Las Palmas de Gran Canaria citizens. This data could be easily obtained from Guaguas Municipales, as the company keeps track of the number of users registered in the Club and all actions carried out within it.

However, other general indicators have been used too. Since this measure promotes the use of public transport in the city, it can be assumed that it contributed to the increase of bus passengers, to the increase in their level of satisfaction, and to the increase of the PT share in the overall modal split of the city.

F2 Future activities relating to the measure

Guaguas Municipales will continue operating the Club GuaWay once the CIVITAS DESTINATIONS project ends, organising new giveaways and working to attract more users towards the scheme.