CiViTAS
Cleaner and better transport in cities
DESTINATIONS

DESTINATIONS

CIVITAS DESTINATIONS Webinar

Monitoring environmental quality and safety in a Mediterranean insular city context

Fuel and emissions savings from mobility measures – Las Palmas de Gran Canaria

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Content

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1.1. Sítycleta: A brand new bike sharing scheme

- Las Palmas de Gran Canaria already had a bike sharing scheme (**ByBike). I**t was not as successful as expected (technical problems, vandalism, too much dependency of public funds, etc.)
- The **Sítycleta** system was launched on April 2018:
  - **375 smart bikes** with an on-board computer
  - **20 e-bikes** to carry out a pilot test to promote cycling between the hilly and the low part of the city.
  - **42 new stations** / **520 bike racks**.

- **More than 47.000 users in 30 months (44,8%** of registered users are **active)**.
- The **average daily users is 900** on working days. 3,5 average rentals per bike on working days and 2,1 on weekends.
- Most of the rentals are with **membership** (87%)
- Average travel time: 21,5 minutes
- High acceptance amongst tourists: 29% of the users are tourists

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1.2. Sítycleta: Success factors / Lessons learnt

- **Integrated system**
  - **Integrated vision**: New stations are better connected with the cycling network and oriented to foster multi-modality
  - **Contactless card**: payment integrated with the bus network
- **Business model**
  - **Flexible system / fares**: Non-registered users can ride a bike. Fares are adapted to the needs of different target groups.
  - **New revenue streams**: Sponsorships
- **Communication strategy**
  - Several communication campaigns and activities
  - Tourists-oriented campaigns

SITYCLETA
LAS PALMAS DE GRAN CANARIA

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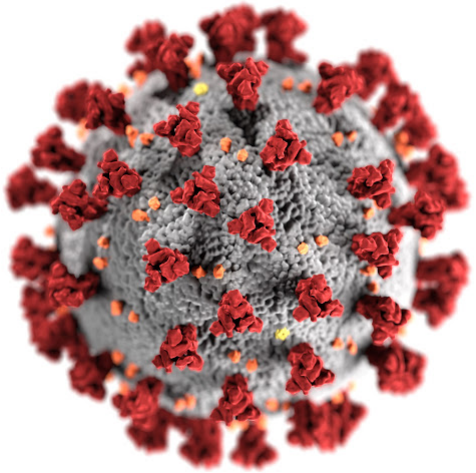
1.3. Sítycleta: Impact of COVID-19

- During the **COVID-19 outbreak**, Spanish Government declared a **lockdown** that started in mid-march.
- Sítycleta was one of the very few bike sharing systems in Spain that **remained operative** and available during the whole lockdown:
  - In the beginning of the lockdown, the number of available bikes was reduced by 50%.
  - During the 2 weeks of full lockdown, 25% of bikes were still available.
- During the lockdown, **demand was 5%** of pre-COVID-19 outbreak.
- When the lockdown was progressively being lifted, **demand grown to over 70%** of the pre-COVID-19 demand.
- It is asked to wear **gloves** if you ride the bikes and they are **disinfected regularly** by the maintenance staff.



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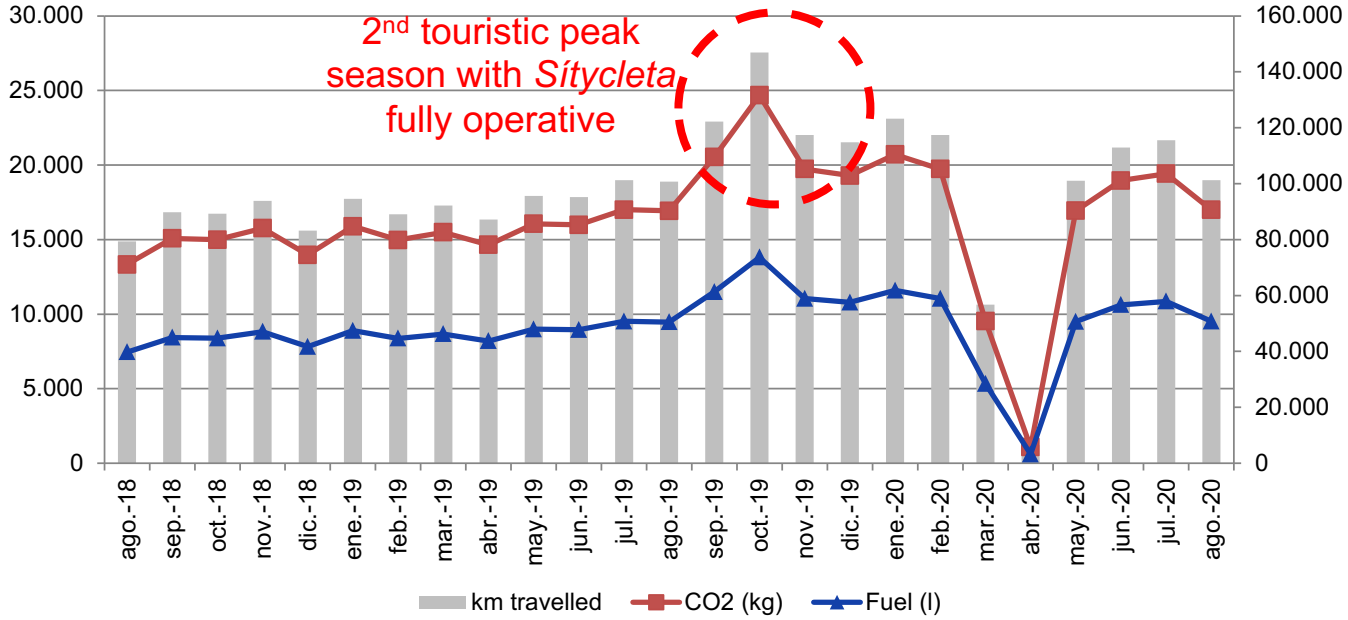
1.4. Sítycleta: CO2 emissions and fuel saved

- **2.427.395 km ridden** between August 2018 and August 2020.
- **407.747 kg of CO2** saved.
- **228.175 litres of gasoline** saved.

Fuel consumption (Renault Megane 1.6): 9,4 l/100km
CO2 emissions: 0,168 kg/km

CO2 (kg) and fuel (l of gasoline) saved with the Sítycleta bike sharing system



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2.1. Hybrid buses

- Thanks to the CIVITAS DESTINATIONS funding, Guaguas Municipales purchased **three hybrid buses** and **a fully electric bus**.
- The three hybrid buses have been in operation since August 2018 and the one electric articulated bus – the first one in the Canary Islands – has been in operation since September 2019.

Impact of COVID-19

- Capacity of the buses has been reduced to 50% for social distancing reasons.
- All vehicles are cleaned and disinfected daily.
- Payment in cash is not allowed anymore.
- All buses have hand sanitizing gel dispensers.

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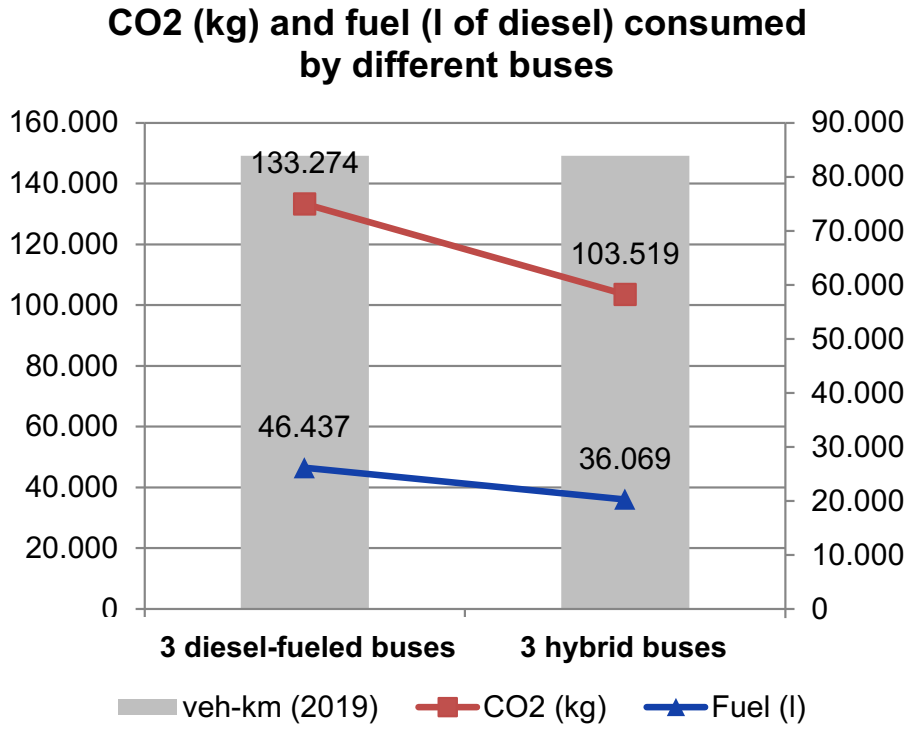
2.2. Hybrid buses: CO2 emissions and fuel saved

- The 3 buses that were substituted **reduced** their **fuel consumption** and **CO2 emissions** by **22%** per km.



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3.1. Fast e-charging points and electric vans

- **6 e-charging stations** (2 slow and 4 fast) inside different parking facilities of Sagulpa. They are available for free for Sagulpa's clients.
  - Each e-charger provides a power of 7kWh → fully charge an EV in 3-4 hours.
  - One of the stations is partially powered by solar panels. Sagulpa is studying how solar charged EV stations could lead to a cost-effective solution for EV charging.
  - Sagulpa is collaborating with Nissan in the enlargement of the EV charging network.
- **3 e-vans** to replace the diesel-fueled vans of Sagulpa's fleet
  - Fuel savings: 600 Euros / month
  - Maintenance costs savings: around 2.500 € / year
  - Sagulpa's staff level of satisfaction with the e-vans is very high.

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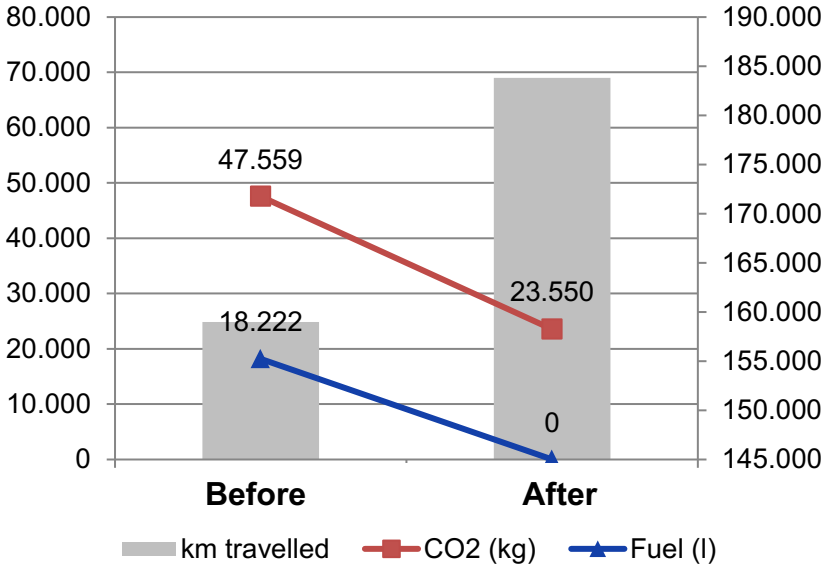
3.2. Fast e-charging points and electric vans: CO2 emissions and fuel saved

Electric vans in Sagulpa's fleet

Before: 2014 - 2016 (3 diesel-fueled vans).

After: 2017 - June 2019 (3 electric vans).
CO2 emissions take into account those due to the recharging process.

CO2 (kg) and fuel (l of diesel) consumed by Sagulpa's fleet



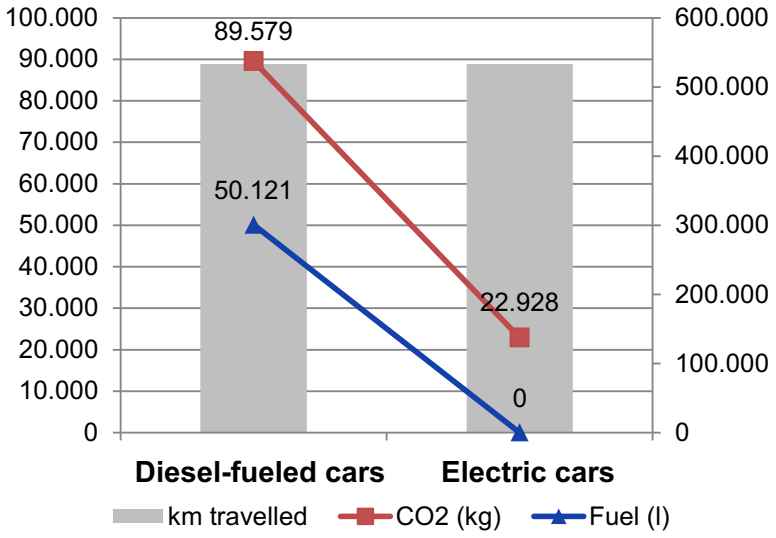
E-charging points

79.981 kWh charged at Sagulpa's e-charging points (2019)

1 kWh → 6,67 km

533.207 km travelled

CO2 (kg) and fuel (l of diesel) consumed. e-charging points



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4. Conclusions and next steps

- The aim of the measures carried out within CIVITAS Destinations was to **improve mobility in touristic destinations**, and in the case of Las Palmas, some of them have a **clear impact on the reduction of emissions** in the city.
- The global effect was difficult to quantify because Las Palmas does not **monitor** air parameters very often → hypothesis: **comparing** the fuel consumption and CO2 emissions saved thanks to the kilometers travelled by the bikes, the hybrid buses or the electric cars instead of by **diesel-fueled vehicles**.
- Next steps:
  - Sítycleta: enlarging the system (more stations and more bikes and e-bikes).
  - Hybrid buses: in evaluation.
  - E-charging points: they will probably install e-charging points in 2 other public parking facilities.

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Thank you!