

Milan, october 2023

# Metropolitan sustainable urban logistics

PULS Sustainable Freight Transport Plan



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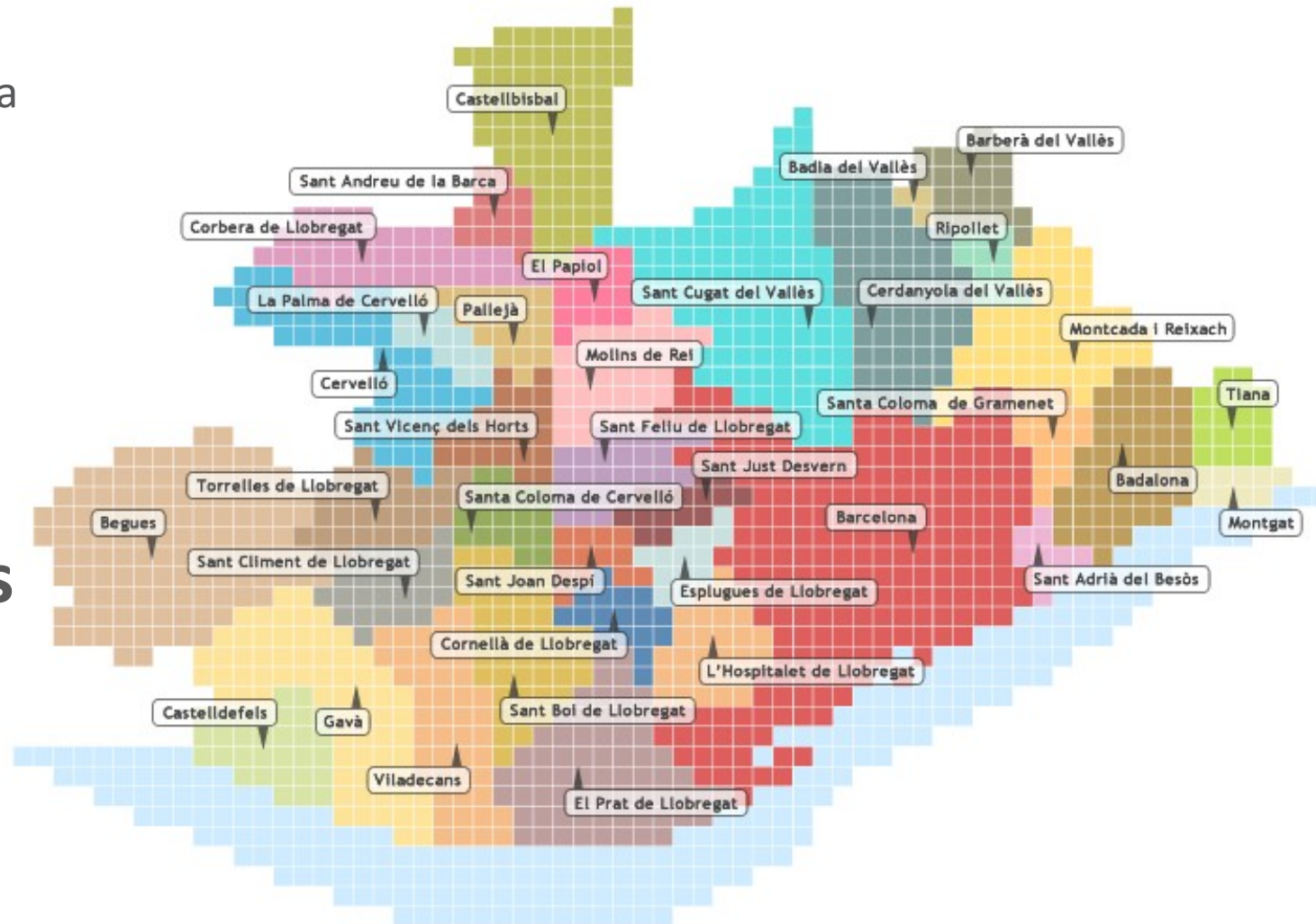
# 1. Introduction

Barcelona Metropolitan Area

| **636 km<sup>2</sup>**

| **3,239,337**  
inhabitans

| **36 municipalities**



# 1. Introduction

## Competences



Collective urban public transport of passengers on the surface

Provision of metro and underground public transport of passengers



Regulation of the taxi service

Approval of the Urban Mobility Metropolitan Plan



Planning and management of passenger transportation with tourist and cultural purposes

Promotion of sustainable transport

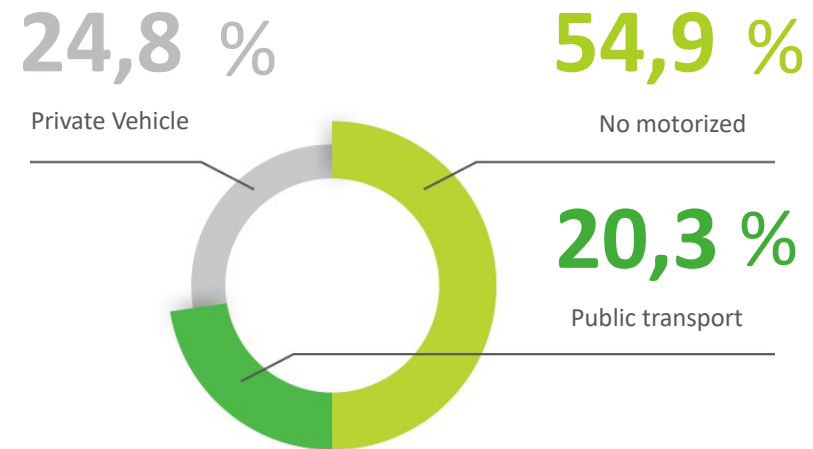


Management of the basic metropolitan road network

# 1. Introduction

Modal split for metropolitan area

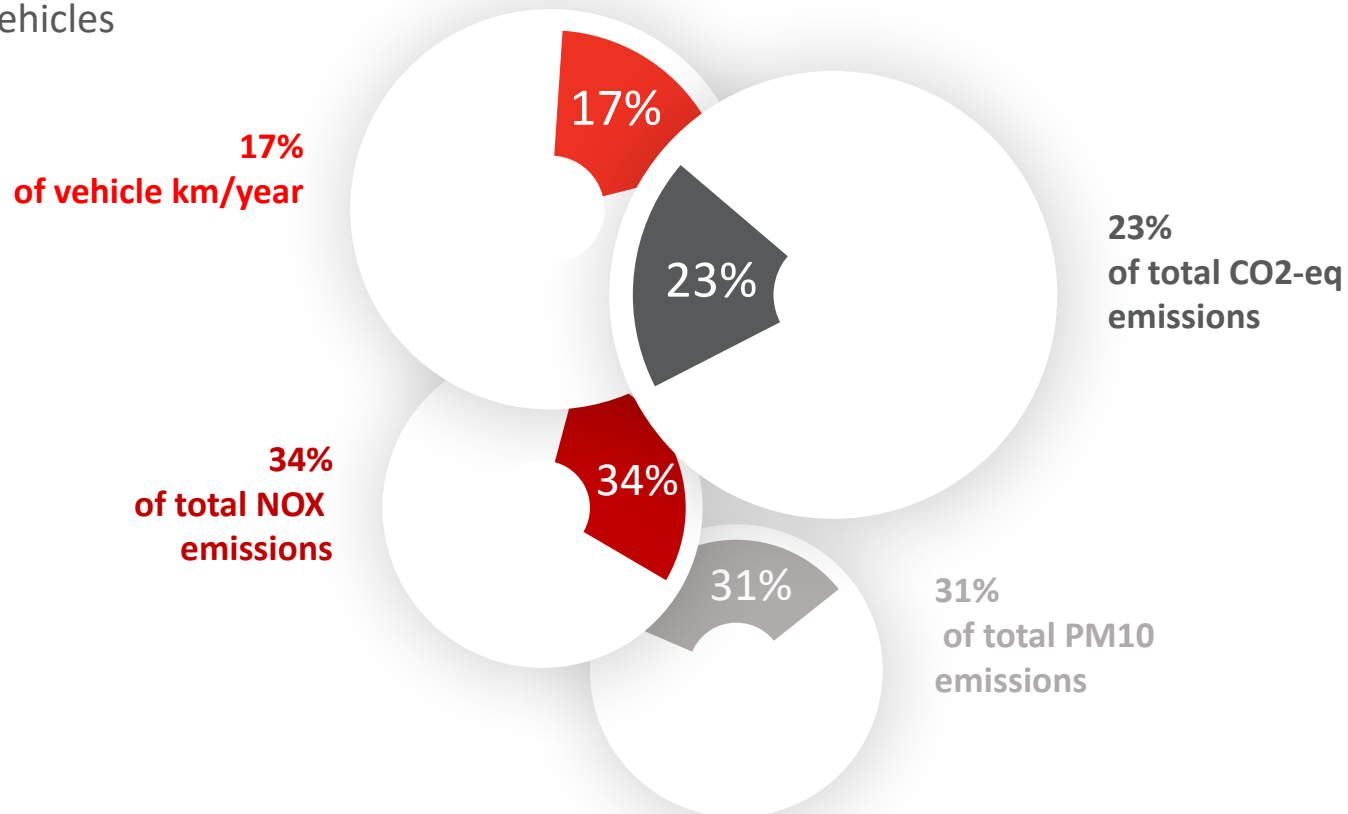
Residents of the Barcelona Metropolitan Area make three out of four journeys using the most sustainable modes of transport (on foot, by bike or public transport).



## 2. Metropolitan urban logistics

### External negative factors: pollution

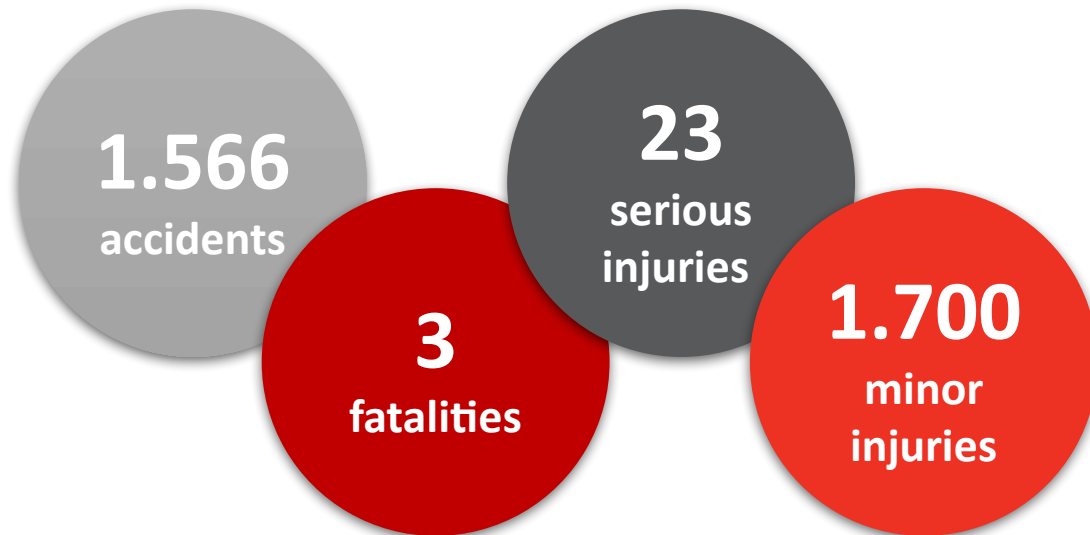
The vans and trucks contribute statistically more to pollution than other vehicles for two main reasons: the size of the vehicles and the higher percentage of diesel vehicles



## 2. Metropolitan urban logistics

External negative factors: accidents involving vans or trucks

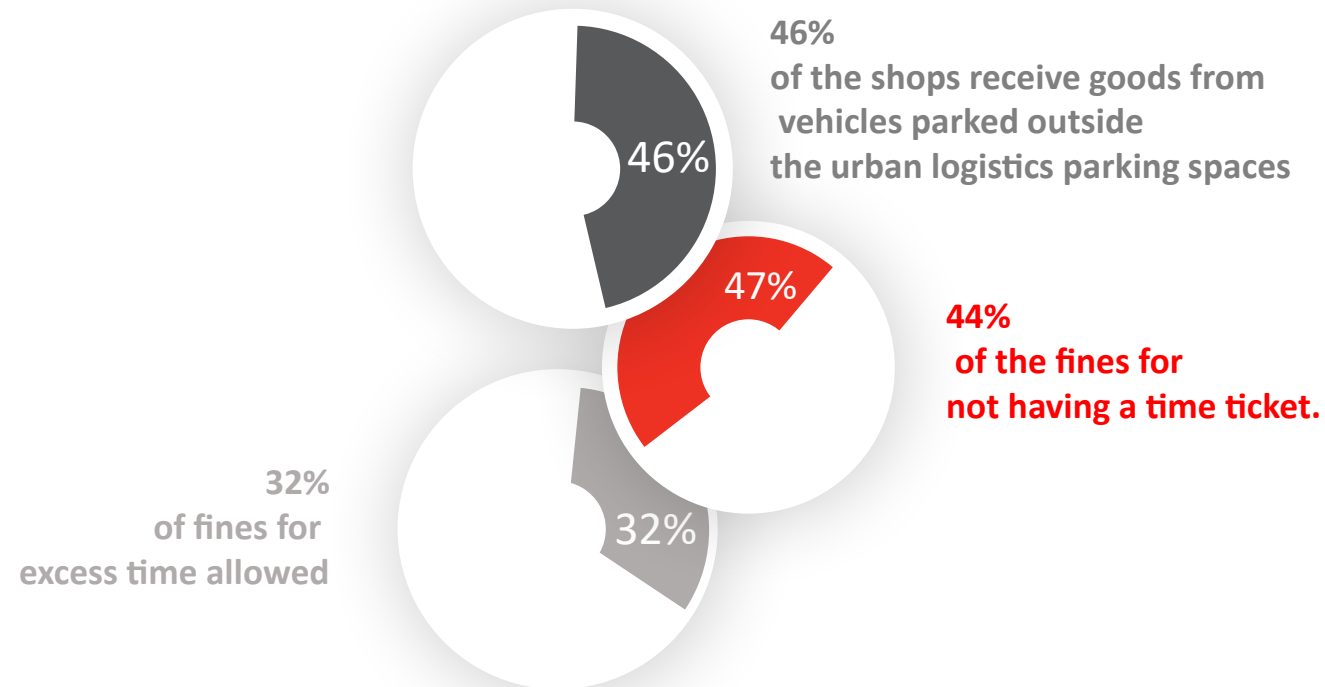
In 2019, a total of 1.566 accidents involving vans or trucks were recorded, resulting in 3 fatalities, 23 serious injuries and more than 1.700 minor injuries.



## 2. Metropolitan urban logistics

External negative factors: accidents involving vans or trucks

The use of loading and unloading spaces within the scope of regulated parking generated about 150,000 , due to an incorrect use of the space (2019).





### 3. SPRO App

SPRO is a free app for freight professionals launched in June 29th, 2020.

It is the first metropolitan only digital system for regulating urban freight parking areas from southern Europe.

At present, is an unique application for **10 different municipalities** that **could be extended up to the 36 municipalities** that compose Barcelona's metropolitan area.

- Barcelona
- Badalona
- Castelldefels
- Esplugues de Llobregat
- L'Hospitalet de Llobregat
- El Prat de Llobregat
- Sant Joan Despí
- Sant Just Desvern
- Sant Boi de Llobregat
- Santa Coloma de Gramenet



**[spro]**

**És fàcil. És còmoda.  
És metropolitana.**

És la nova aplicació  
per aparcar a la DUM

### 3. SPRO App

SPRO users can easily register within the App and once registered, they can:

1. **Find** the nearest **freight parking areas**.
2. **Check free space** availability prediction.
3. **Activate the parking ticket** and get a notification before it expires.
4. **Manage operations** and vehicle data.

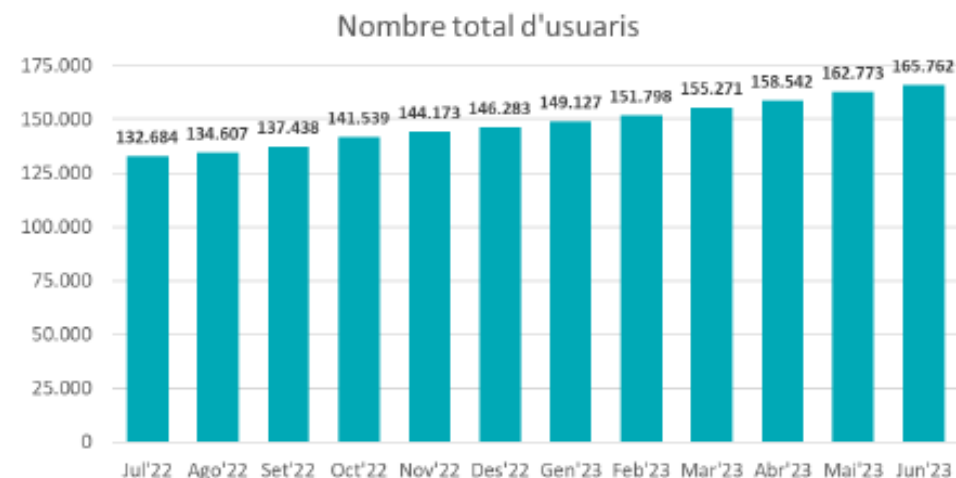
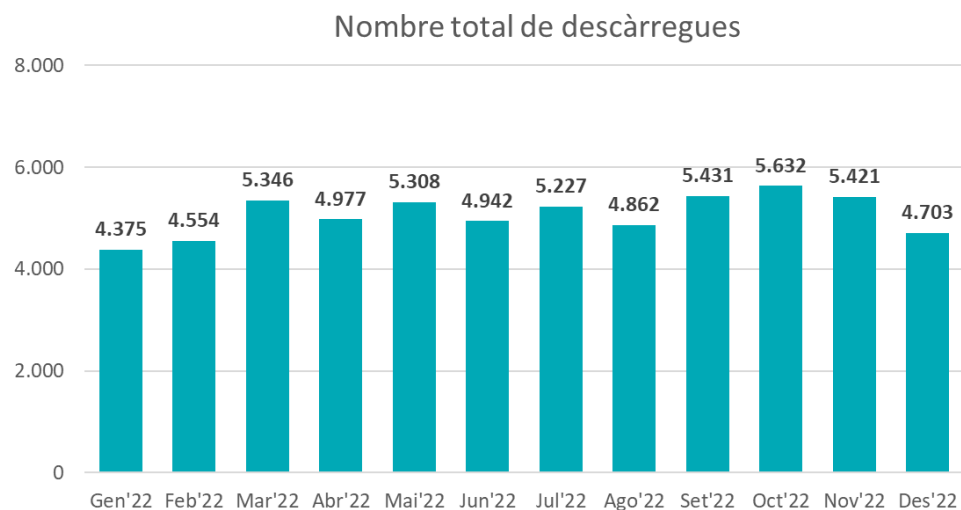


### 3. SPRO App



#### Downloads and active users

The consolidation of the SPRO service among professionals in urban goods distribution has stagnated the number of downloads of the app but at the same time has also led to an increase in active users.

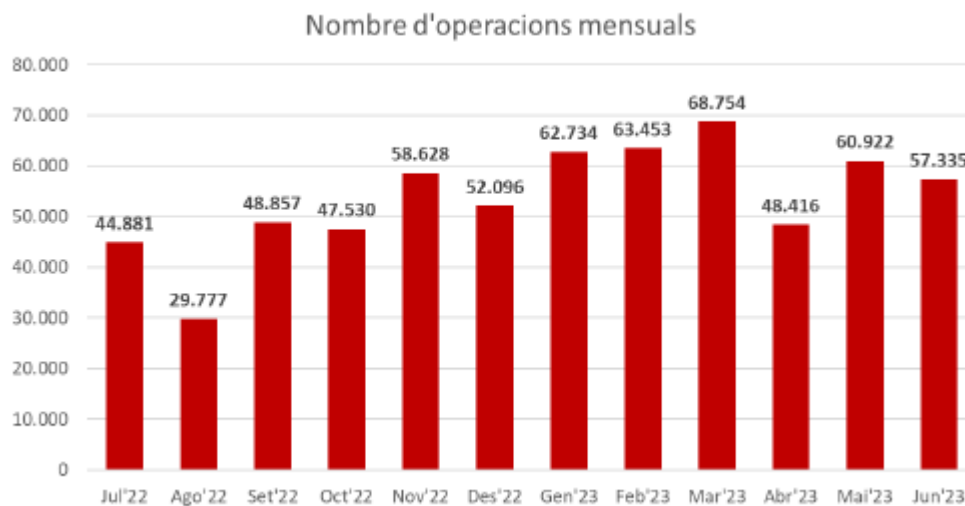


### 3. SPRO App



#### Activity

Since the start of the service, the number of monthly operations has progressively increased, except for the months of August where the activity is considerably reduced. This quarter, the service recorded the highest number of transactions per month (60.992 transactions during March) and for the entire quarter (166.673 transactions) of the entire series.

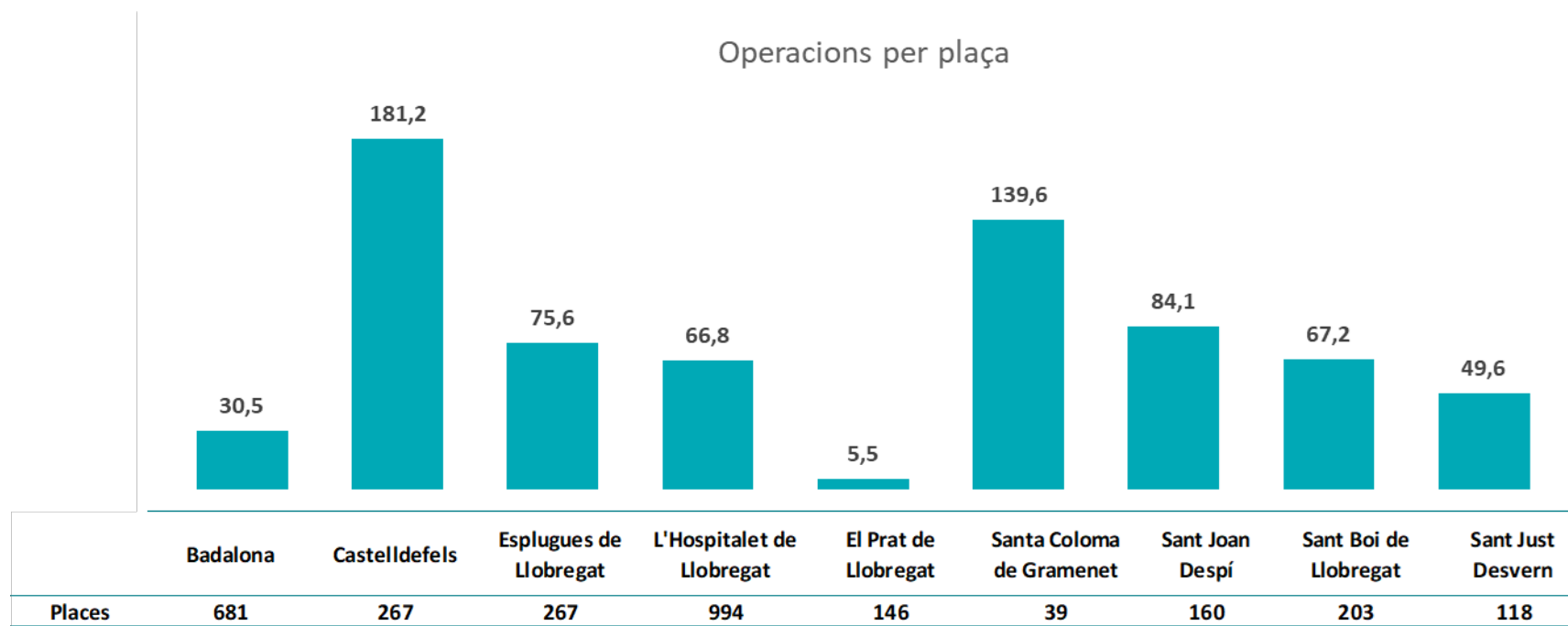


### 3. SPRO App



#### Operations by parking space

The number of operations per parking space varies depending on the municipality but within each is stable.

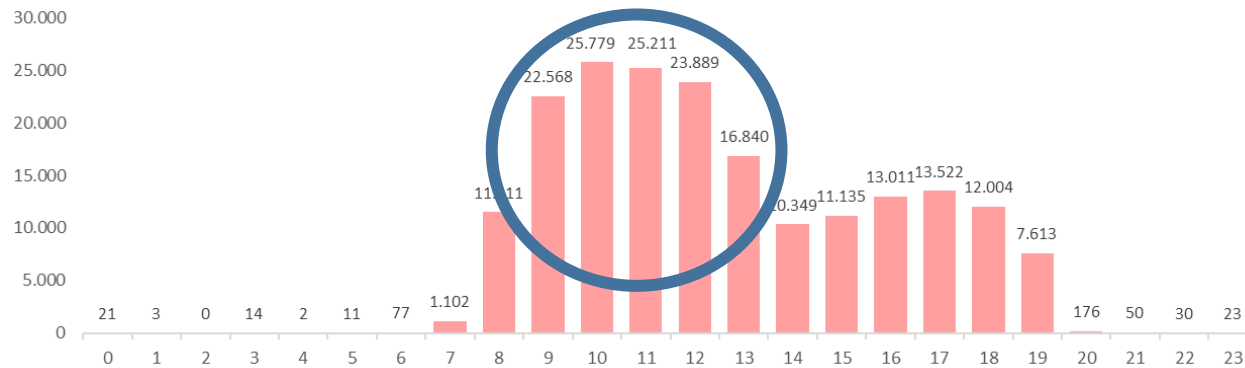


### 3. SPRO App



#### Day time

We can also see that the morning is the time of day with the most activity.



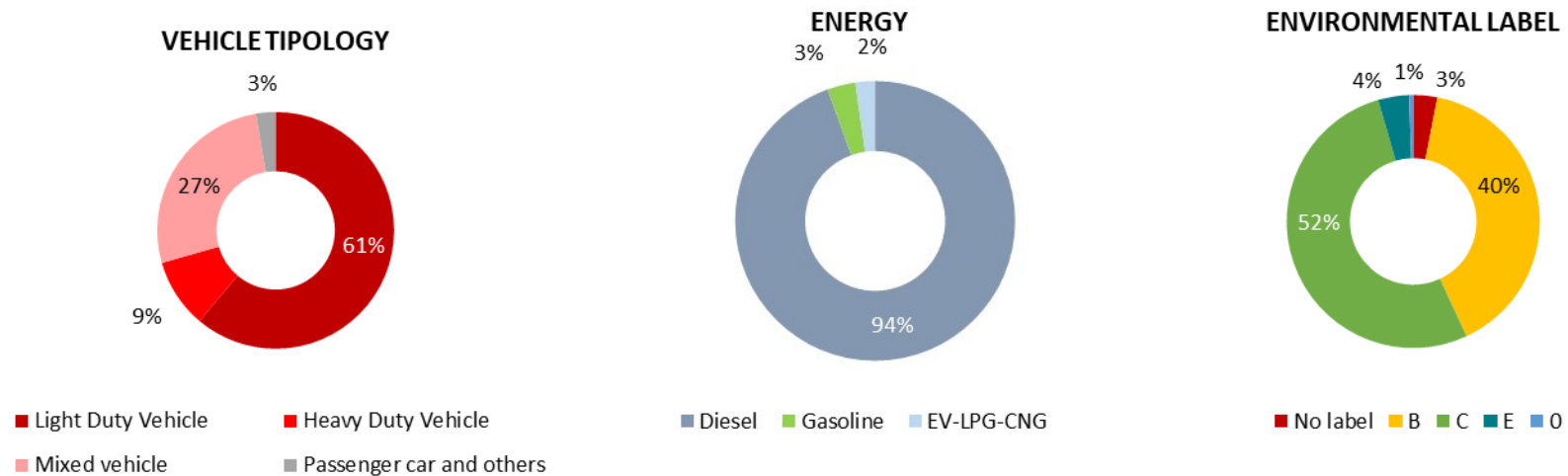
### 3. SPRO App



#### Typology of vehicles

The data of the registered vehicles allow us to have an image of the vehicle fleet.

Most vehicles are light goods vehicles. If we look at the type of fuel, more than 90% are diesel but more than 50% are C-label

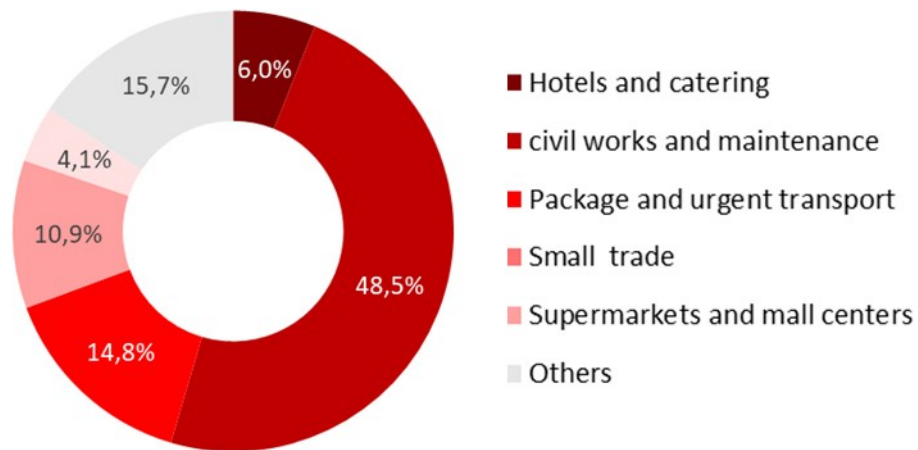


### 3. SPRO App

#### Activities

We also have information on the activities of professional users of this vehicle.

Almost 50% of them are engaged in construction and less than 20% are engaged in urgent transport.





### 3. SPRO App

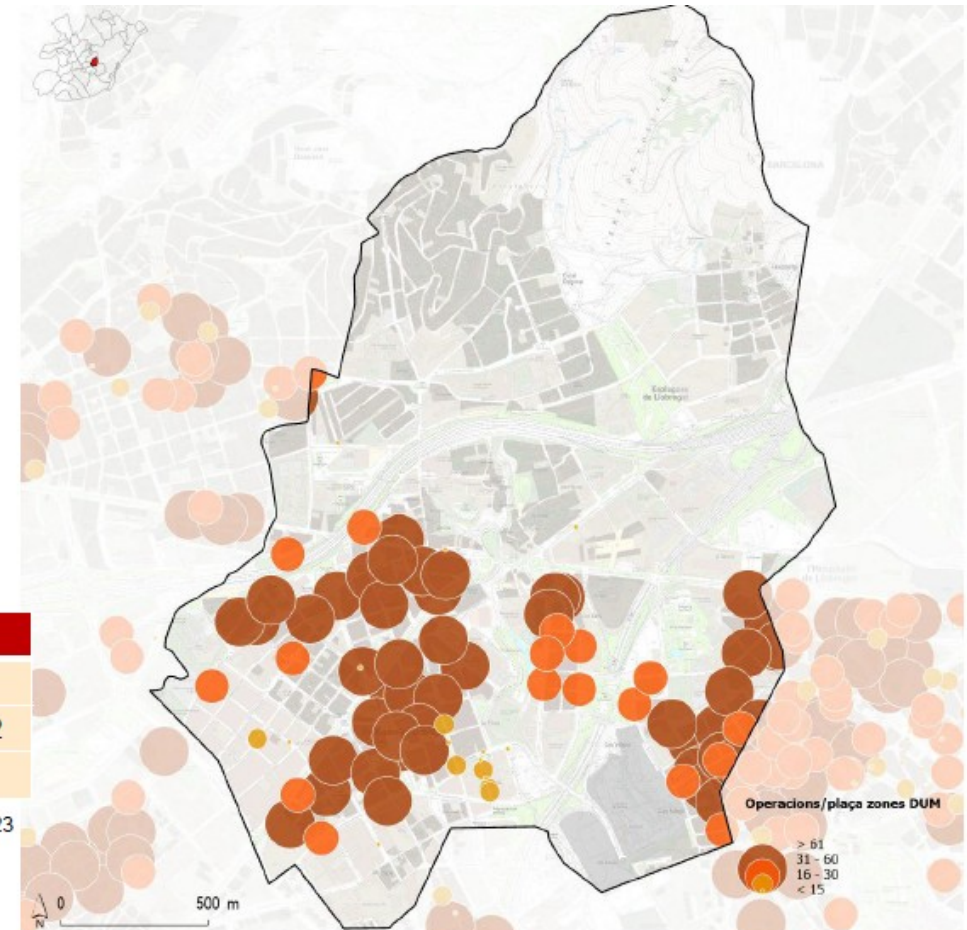
Efficient demand management



Operacions per plaça segons municipi

Esplugues de Llobregat	
Places	241
Operacions	16.642
Operacions per plaça	62,3

\* Places segons tiquets- 2n trimestre 2023



## 3. SPRO App



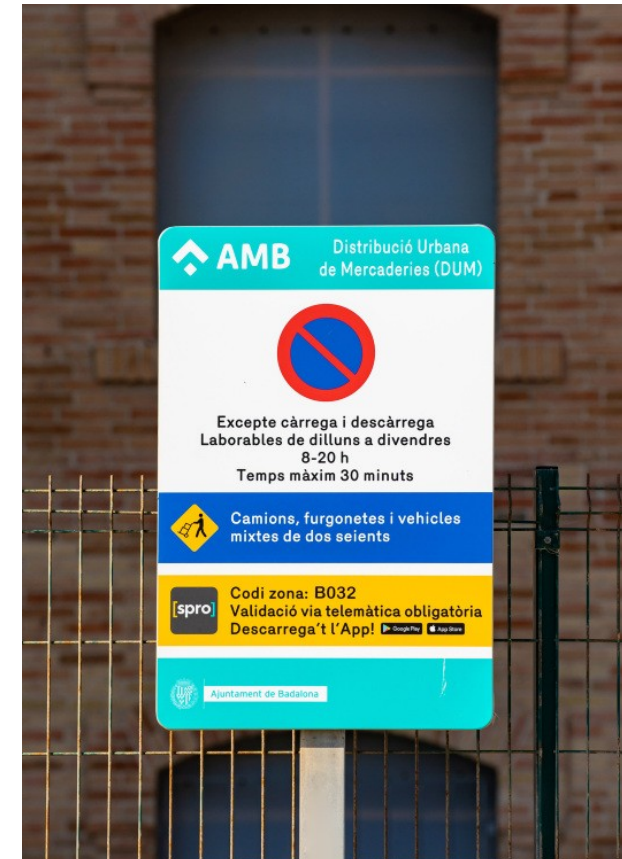
### Lessons learned

The integration of new technologies in the management of urban mobility is an increasingly essential measure to improve efficiency of transport systems and user experience.

During the process of implantation of the platform, we learned the importance of:

- To have a **common communication plan**. Elaborate a unique brand, use the same ads and calls, install the same traffic signals.
- To **monitorize and fine**. Those areas monitored have a higher ratio usage than others not.
- **Big city pulling power**. Those areas next to big city limits have a better ratio usage than others.

One of the most interesting elements has been the technologic potential of the measure.





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Sustainable Mobility Managing Services  
Mobility, Transport and Sustainability Area