

# Digitalization of waste collection: Container sensorization

pre  
zero



urbaser



Capital  
Digital



01.

The project in the framework of the  
Digital Transformation Strategy

**Madrid, Digital Capital**

# The Project and Madrid, Digital Capital

Framed in the Digital Transformation Strategy of the Madrid City Council.





02.

## Digitalization of paper and cardboard selective collection service

# Management of the Public Waste Containerization, Collection and Transportation Service in the city of Madrid



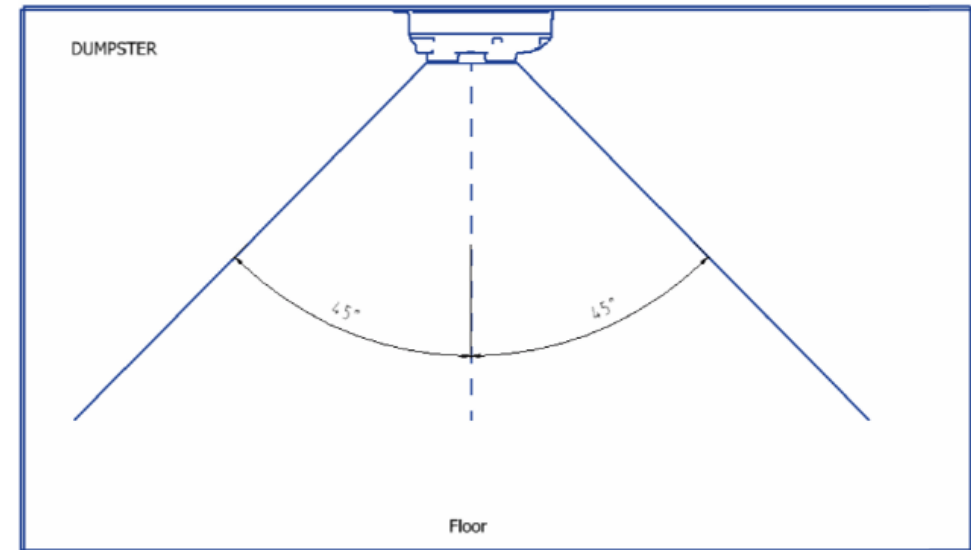
## LOT 3 SOUTH: UTE 2022 RECOGIDA MADRID SUR (JV Prezero España S.A. – Urbaser S.A.)

- Population: 1.075.521 inhabitants
- 6 Districts:
  - Arganzuela
  - Carabanchel
  - Usera
  - Pte. Vallecas
  - Villaverde
  - Villa Vallecas
- 2024 tons projection paper-cardboard containers: 16,800 t/year (+9.80 % vs. 2023)
- Sensorization of 2,255 paper-cardboard containers.

# VOLUMETRIC FILLING SENSOR FOR SELECTIVE PAPER-CARDBOARD CONTAINERS

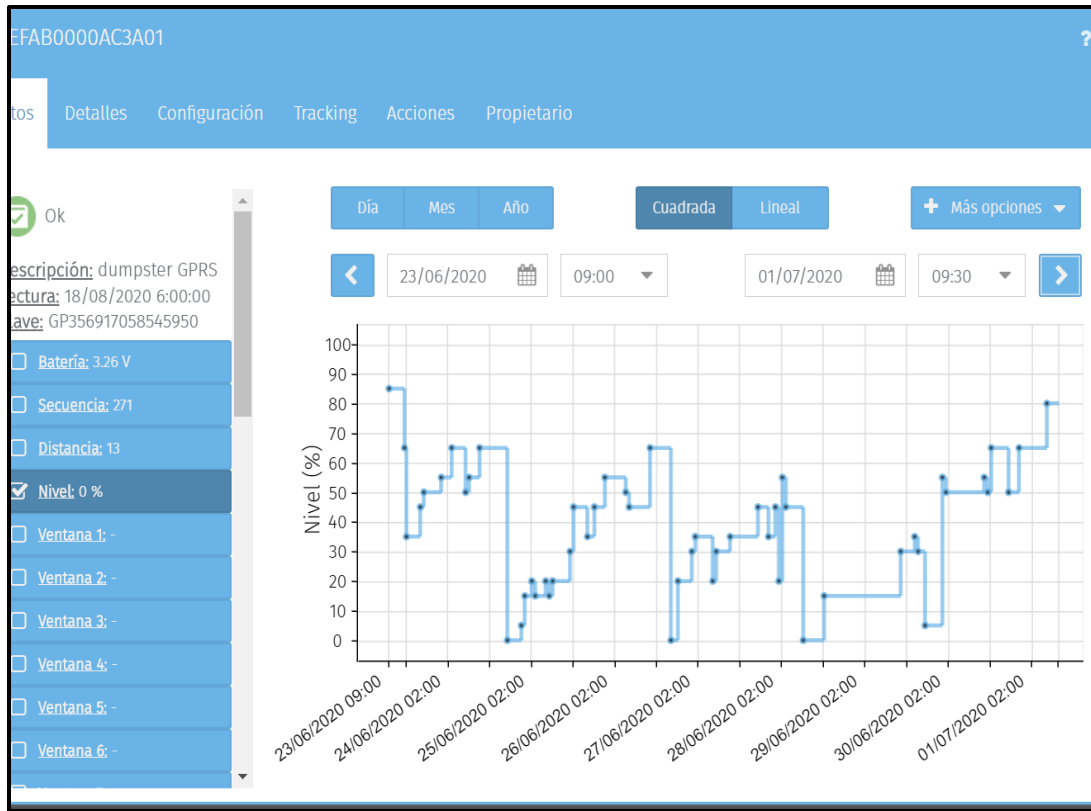


- Filling level monitoring
- Temperature control inside the container
- Emptying detection
- Overturning and fire detection alarms
- GPS location
- Waste collection route planning

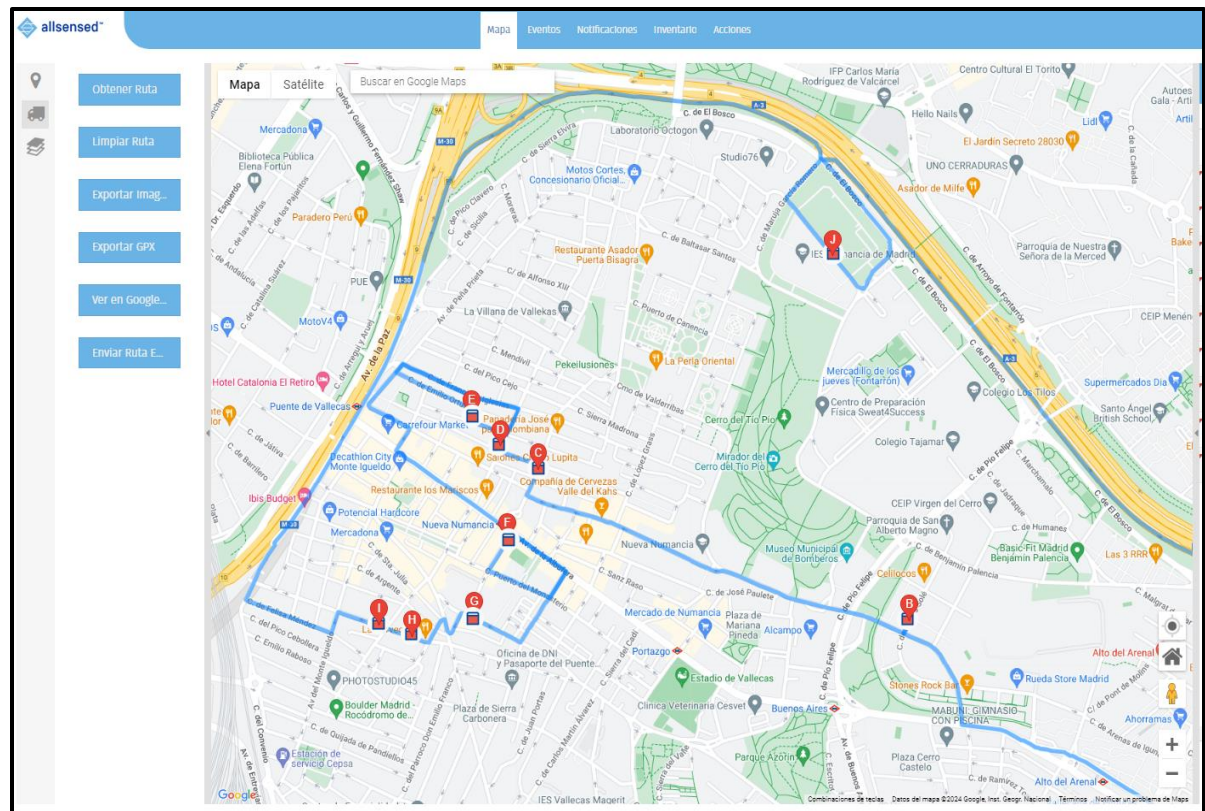




### Monitoring of the filling level in paper-cardboard containers.



### Routes planning according to the filling level in paper-cardboard containers.







## IMPROVEMENTS ACHIEVED

- Ability to empty containers in the shortest possible time.
- Real-time incident resolution.
- Reduction in the number of citizen notifications through the MINT platform (-33%).
- Decrease in the volume of paper and cardboard in the surroundings of the containers.
- Collection routes optimization with the consequent benefit for the environment and mobility.

**MADRID CLEANER**

