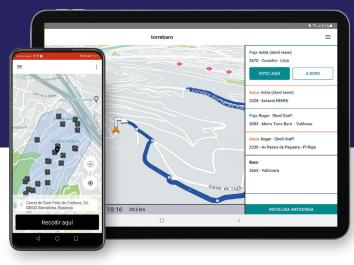


# **Isolated Areas**



## Torre Baró: an isolated neighborhood with challenging geography

Every major city has them: marginalized working class neighborhoods clinging to the edge of the suburbs. You're just 20 minutes from the city center, but it could be light years away. No modern transit conveniences here—no subway, light rail just the occasional heavily subsidized bus doing the rounds.

Torre Baró is one such Barcelona neighborhood. Lying along a steep valley, it was hastily constructed to house the city's expanding population in the '60s, with little thought for urban planning. Transport Metropolitans de Barcelona (TMB), the City Council's transit agency, has kept a handful of local minibuses running, but torturous switchback streets and a haphazard layout made it impossible to connect the lines or provide full coverage. Wait times are long and residents at the top of the hill have no direct access to shops, services and transport links in the valley below. By the time Swvl arrived on the scene, infrequent and inadequate services were the only option for residents.

Traditional transport planning has left Torre Baró residents high and dry. The challenge for Swvl was to bridge the gap without breaking the bank.





Torre Baró residents

Can now get around more quickly and conveniently without private vehicles. Young and old people can access shops and essential services without having to negotiate steep hills or rely on others.



Bus operator

Transport Metropolitans de Barcelona has improved local services, grown its business volume, gained better data and insights into user behavior and become a pioneering, innovative service provider.



### < Barcelona City Council

Has proved on-demand can rise to the challenges of a neighborhood like Torre Baró, improved quality of life for residents and made it a more attractive, inclusive place to live, at no extra cost.



### The local community

Has successfully adopted smart city mobility and technology. Younger generations are learning that it is possible to live in outlying neighborhoods without having to own a car.

### Solution

We switched services from fixed-route-and-schedule to flexible on-demand. Using the elMeuBus app, users can request a pickup and drop-off at any of the new stops that now cover the entire residential area. To handle the area's tricky streets, we developed navigation maps and GPS customized to recognize the access requirements, limitations and permissions of public buses, quite different from cars.

Through Transport Metropolitans, the City Council funded the service and provided vehicles, drivers, driver's tablets and a back-up phone line. The council also organised a campaign to explain the service to residents and how to use the passenger App, with a team of social workers knocking door by door and with special care to the elderly.

#### Passenger App

### Driver App

Dashboard

allows users to book and pay for rides, get real-time pickup and drop-off updates, and a personalized, flexible service that adapts to their needs. alerts drivers to new bookings in real-time and directs them to dynamic pick- up and drop-off points. It also controls on-board capacity.

#### Algorithms

(000L

Real

Time

PMR

constantly optimize all passenger bookings and vehicles routes to provide the best possible service for all users. allows transport operators to set service parameters, monitor operations in real time via the Control Panel and get detailed data and analytics on user behavior.

With its challenging geography and small, isolated population, Torre Baró was the perfect location to implement on-demand services and develop a customized navigation solution. Flexible on-demand transit has improved services without raising costs. Residents are travelling further more frequently and at times that suit them. The service continues to grow in popularity and there is now potential to add more on-demand vehicles.

Barcelona has made a fundamental shift away from traditional transport planning. Focusing instead on a digitalized, demandled approach allows for greater efficiency and inclusivity in public transport services.

Pre

Booking

### **Results**

- On-demand was well received, with user numbers growing rapidly to hit 30.000 after 6 months.
- Increased revenue covered a slight increase in operational costs, so we achieved an overall reduction in public spending.
- Providing first-mile, last-mile connections to transport links to the city means more commuters can now leave the car at home.
- Improved access to local shops and services means residents no longer have to take the car to go further afield, which benefits the environment and the local economy.

