An alliance to provide Mobility as as Service (MaaS)

MADRID mobility 360

Pedro Fernández
Head of Dept - Mobility
Ayuntamiento de Madrid

February 2023

Welcome to Madrid

- Capital and largest city of Spain (3,2 million inhabitants)
- **Second** most populated Functional Urban area in the European Union (7 % of total Spain population, more than 6,6 million at a regional level)
- Key role in the economy of the country (12% of the total GDP of the country, up to 19,3% at metropolitan level)
- 605.77 km2
- 21 districts (128 neighbourhoods)
- 1st airport in Spain (5th in Europe, 59.7 million passengers - 2019)
- Belonging to 2 TEN-T corridors

Welcome to Madrid

MADRID

EMT MADRID

• Mobility as a Service

Mobility as a Service has emerged as an important tool to provide citizens sustainable and efficient mobility services by aggregating different means of transport and calculating optimal intermodal routes.

The MaaS App is based on 7 principles:

1) User centric.

2) Safe and sustainable mobility.

3) Fair and transparent.

4) Non discriminative ecosystem.

5) Inclusive.

6) Sharing users for users.

7) Data Sharing.

• Mobility as a Service

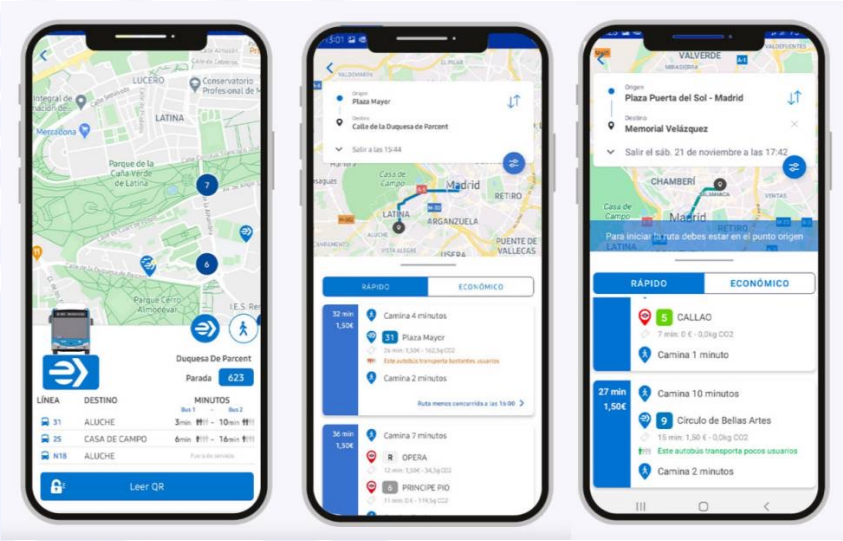
Mobility as a Service is an important feature of the new **Sustainability Strategy of Madrid City "Madrid360"**,

It provides value to the citizens, to the city and to the different mobility operators involved,

It is also open to innovative ways for public-private collaboration

• Mobility as a Service – How does it work?

Plan your trip, enhance your commuting travel.



Madrid Mobility 360 is a fully functional App, that includes:

- booking,
- unlocking and
- payments,

It is built on top a state-of-the-art multimodal trip planner which proposes the best possible mode of transport combination, with all the mobility modes, including free floating shared mobility services.

• Mobility as a Service – How does it work?

Madrid Mobility 360 is the **first** app to provide multimodal routes with occupancy awareness and suggesting alternative low occupancy routes or later departures.

• Mobility as a Service – Challenges

TRUST

- *Principle base approach. Alliance for a sustainable MaaS.*
- *Based on one to one agreements.*
- *Public as a great asset.*
- *EMT holds a dual role (public entity, MAAS provider and operator) helped us a lot.*
- *Open tickets and services was the lever.*

• Mobility as a Service – Challenges

Technical:

- *Multimodal engines are quite difficult to build and extremely difficult to excel. (Better buy than make)*
- *Integrations is hard, slow and expensive.*
- *More widely used data standards are really welcome (MDS, NeTEX, TOMP-API, …)*

• Mobility as a Service – Implementation

Digitalization

The EMT and the City Council see digitalisation as a pillar in designing the city's future mobility.

It is embodied in the latest environmental sustainability strategy Madrid 360 as one of the objectives of the city's transformation.

EMT Madrid, as the city's global surface mobility operator, has decided to take a step forward in the development of a MaaS application that is a reference for the city and useful for citizens.

• Mobility as a Service – Implementation

Stakeholders

EMT and Madrid have made an effort to identify and engage with the different stakeholders of the Madrid mobility ecosystem, including Madrid Public Transport Authority and different public transport operators (both public and private) as well as private shared mobility operators.

A trust environment for all has been both a priority and a key to the success of the initiative.

• Mobility as a Service – **FAQS**

FAQS

• Mobility as a Service – **FAQS**

1. In the app, can you also enter your origin and destination and decide which would be the best way to commute?

Yes, Madrid Mobility 360 is a fully functional solution, including booking, unlocking and payments, as well as an innovative functionality to improve the customer experience and safety, specially designed to ensure social distance during the bus trips in this pandemic era. This new App is built on top a state-of-the-art multimodal trip planner which proposes the best possible transport combination, with all the mobility modes, including free floating shared mobility services. Madrid Mobility 360 is the first app to provide multimodal routes with occupancy awareness and suggesting alternative low occupancy routes or later departures.

The initiative is part of the new Sustainability Strategy of Madrid City, so-called "Madrid360", providing value to the citizens, to the city and to the different mobility operators involved, and offers development options and opportunities for public-private collaboration

• Mobility as a Service – **FAQS**

2. What was the most challenging aspect of launching the app in Madrid?

We could point out two main group of challenges:

- ***Trust**: Lack of trust is an important MaaS inhibitor. Therefore the Madrid approach:*
  - *Principle base approach. Alliance for a sustainable MaaS.*
  - *Based on one by one agreements.*
  - *Being public was a great asset.*
  - *Having dual role (public entity, MAAS provider and operator) helped us a lot.*
  - *Opening tickets and services was our main lever.*

- ***Technical:***
  - *Multimodal engines are quite difficult to build and extremely difficult to excel. (Better buy than make)*
  - *Integrations is hard, slow and expensive.*
  - *More widely used data standards are really welcome (MDS, NeTEX, TOMP-API, …)*

• Mobility as a Service – **FAQS**

3. *What was the process you undertook to plan and launch the app? For example, in the case of Pittsburgh, they created a working group with representatives of the companies that manage the bikes, scooters, etc, so they could agree on how to move forward.*

Both EMT and the city council see digitalisation as a fundamental pillar in designing the city's future mobility. This idea is embodied in the latest environmental sustainability strategy Madrid 360 as one of the objectives of the city's transformation.

Therefore, EMT Madrid, as the city's global surface mobility operator, has decided to take a step forward in the development of a MaaS application that is a reference for the city and useful for citizens.

In this process, EMT and Madrid City Council has always been in touch with the different stakeholders of the Madrid mobility ecosystem, including Madrid Public Transport Authority and different public transport operators (both public and private) as well as private shared mobility operators. As indicated above, building the proper trust environment for all has been one of the priorities for the success of the initiative.

• Mobility as a Service – Our app

Madrid mobility 360 app

• Mobility as a Service – **MAIN FEATURES**

INFORMACIÓN DE OCUPACIÓN

Nivel de ocupación del autobús al planificar rutas y en parada.

PLANIFICADOR DE RUTAS

Calcula rutas multimodales con diferentes soluciones de movilidad.

PAGO DE BILLETE DE AUTOBÚS

Registro, pago y validación del billete mediante código QR.

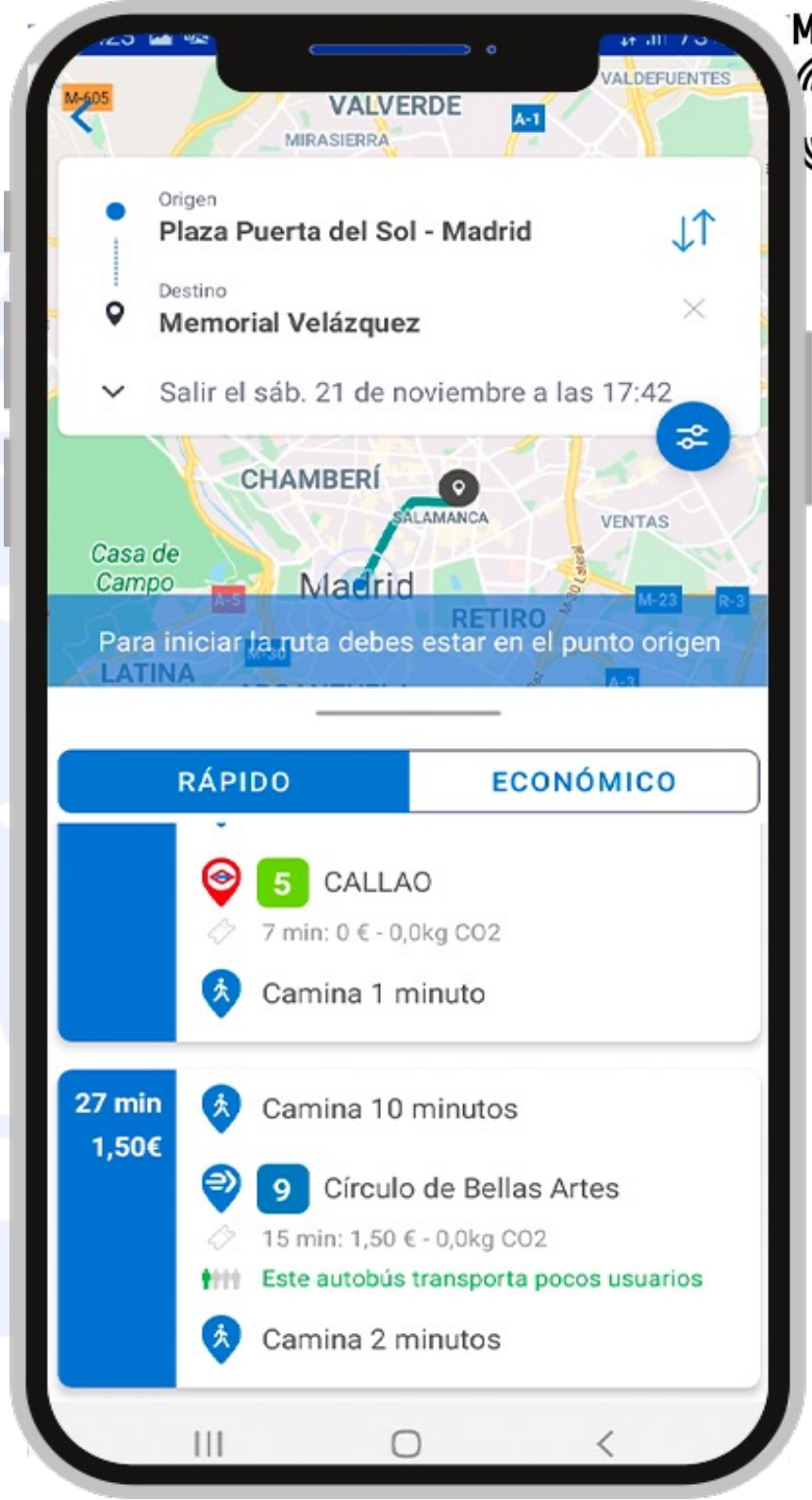
BiciMAD y BiciMAD go

Desanclaje por QR desde la App en los servicios de BiciMAD y BiciMAD go.

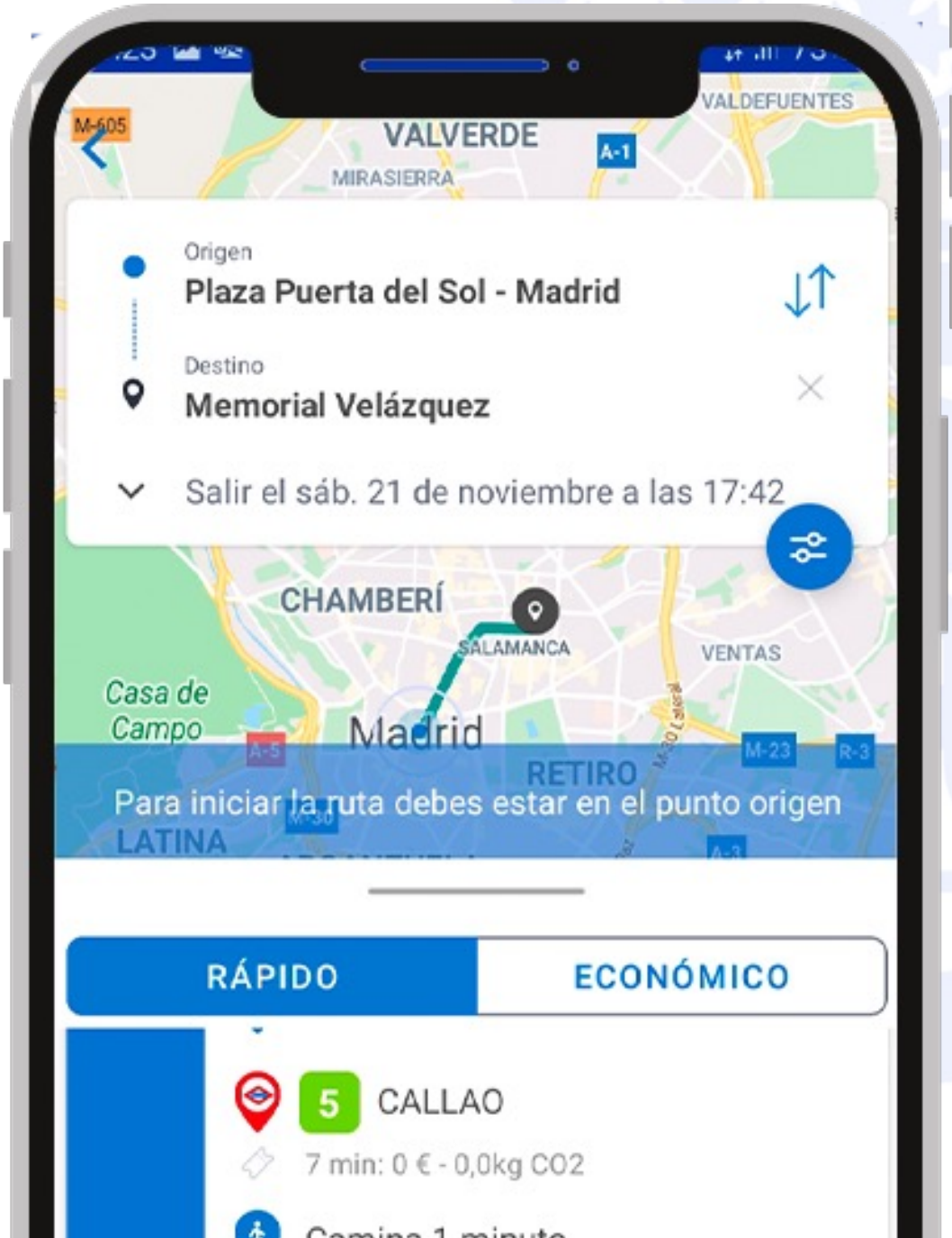
• Mobility as a Service –

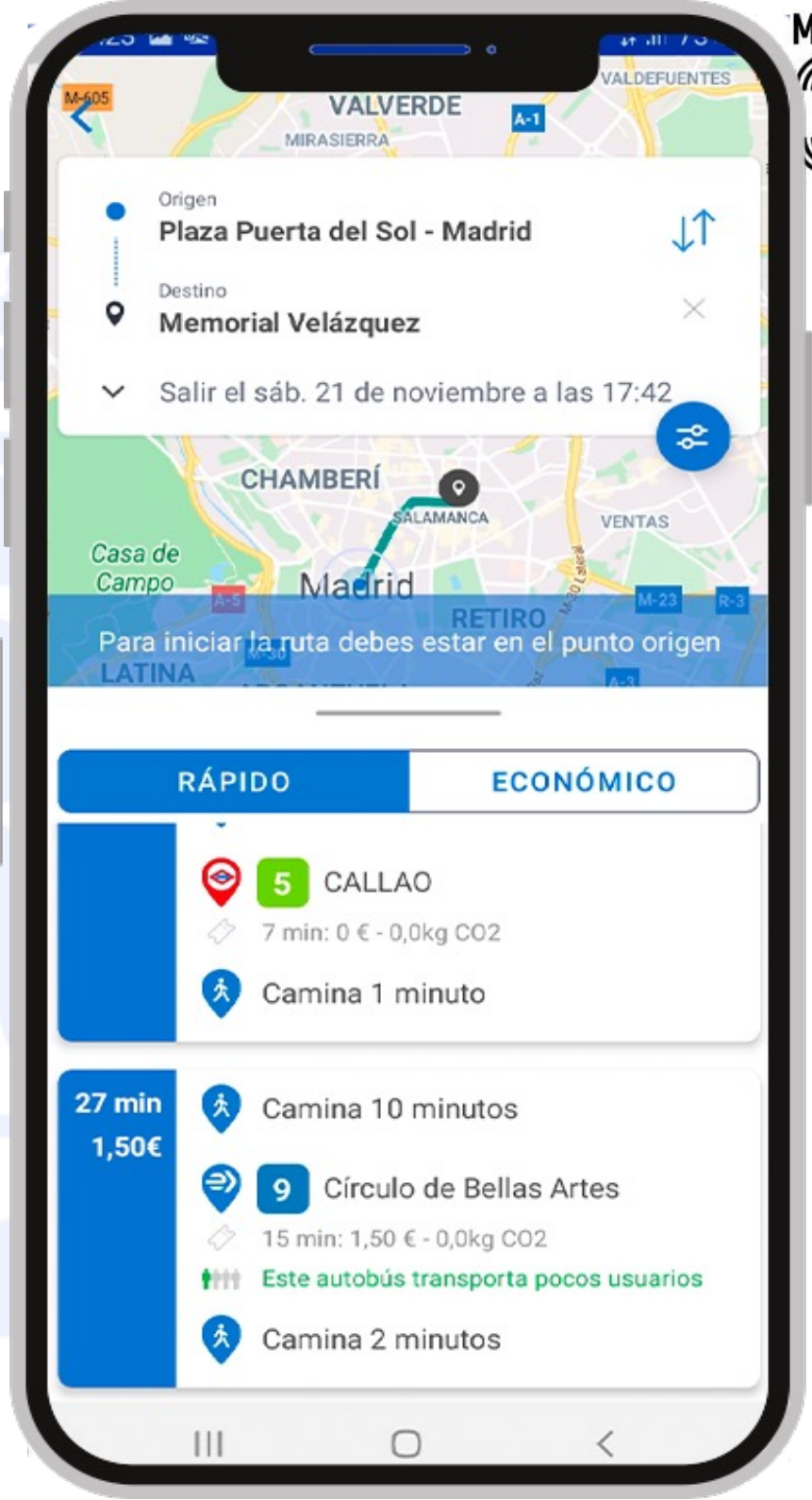
Madrid Mobility 360 offers the different options of the Madrid's mobility ecosystem:
buses, metro, train, bikes, scooters...

Of course, always move sustainably. Madrid Mobility 360 informs you of the estimated CO2 emissions generated on the journey.
and provides you with air quality information in real time.

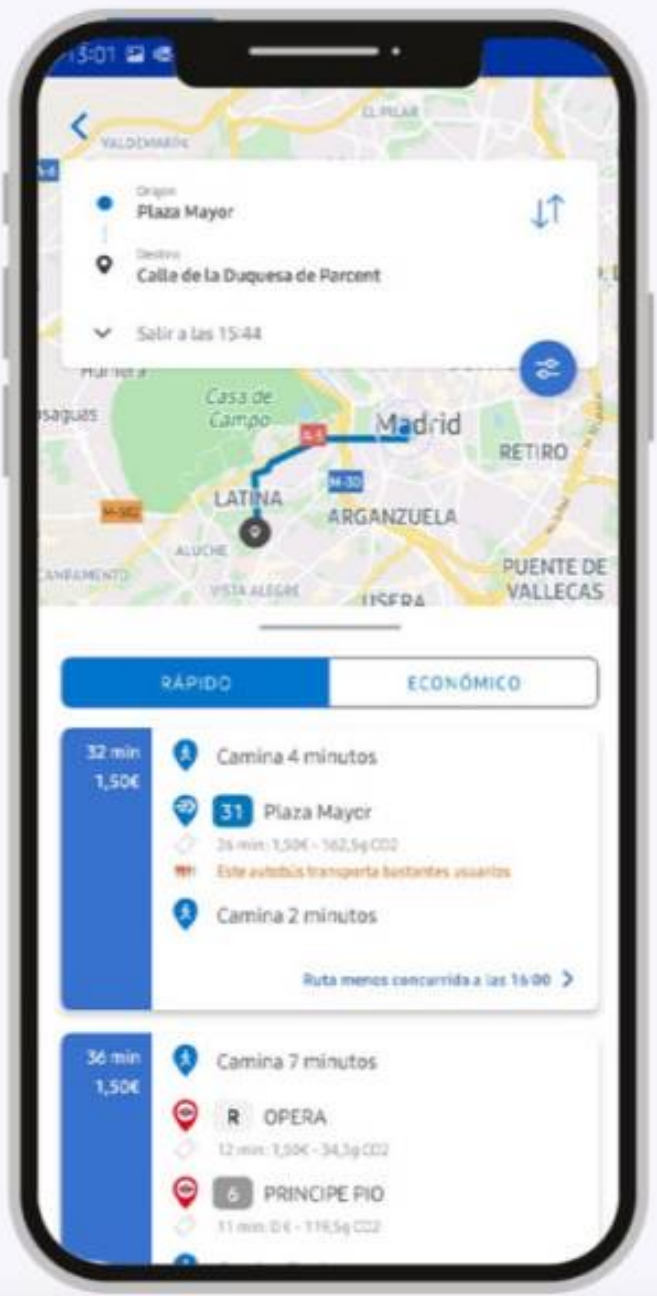


• Mobility as a Service –

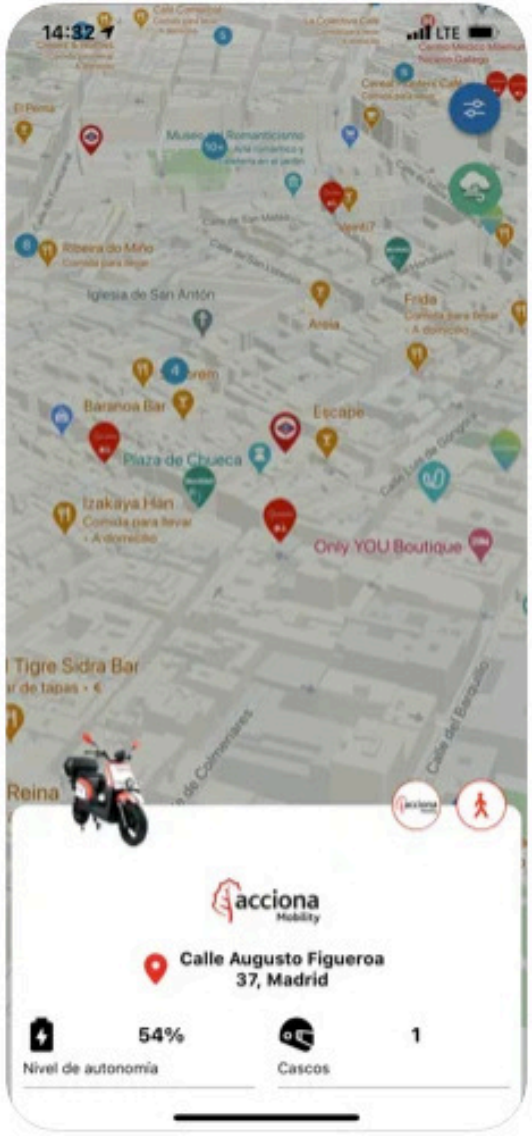


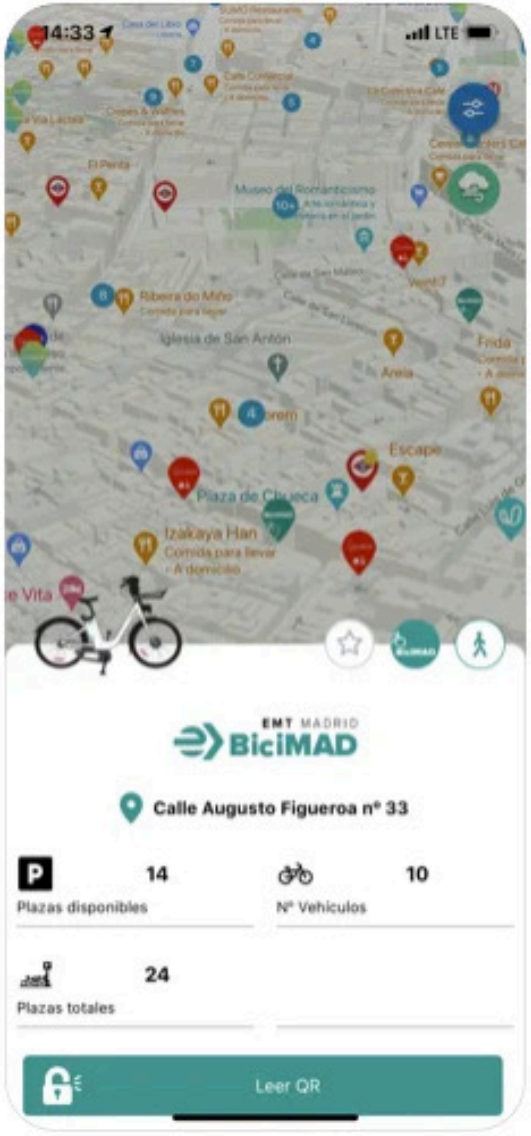


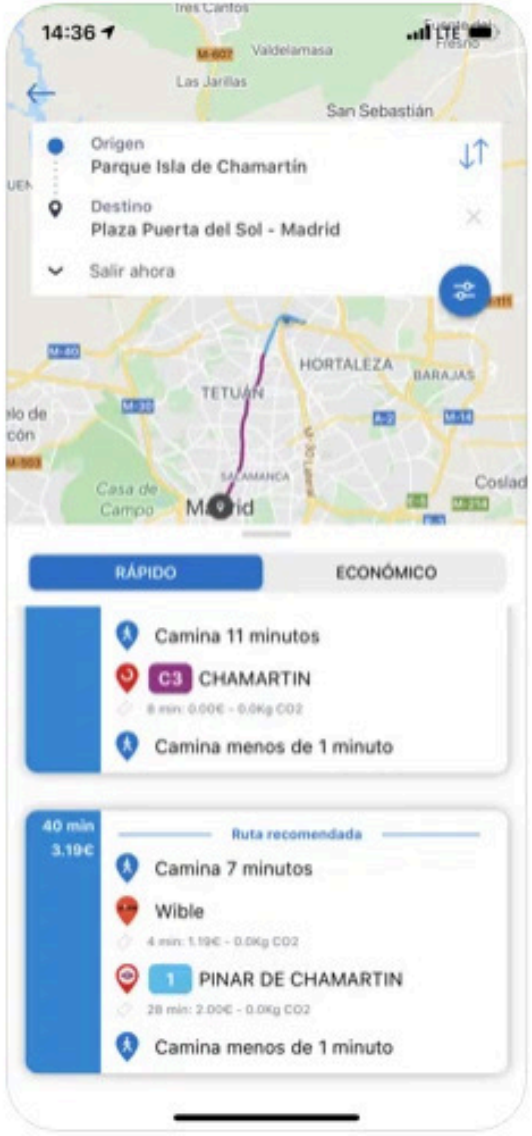
• Mobility as a Service – Implementation



• Mobility as a Service – Implementation







• Mobility as a Service – Implementation

Mobility as a Service

You can also use the electric bicycle systems, BiciMAD and BiciMAD go, with the unanchoring by QR associated with your account. And all without leaving Madrid Mobility 360

THANK YOU VERY MUCH FOR YOUR ATTENTION

Pedro Fernández
Head of Dept - Mobility
Madrid City Council