



IV Congreso
de Ingeniería
Municipal

IV Congreso de Ingeniería Municipal

Barcelona 25 y 26 de Octubre

MOVILIDAD COMO SERVICIO

Sra. Cristina Pou Fonollá

enginyerscivils.cat



Col·legi d'Enginyers Tècnics
d'Obres Públiques de Catalunya

IV Congrés d'Enginyeria Municipal
(CIM-2018) “El congrés dels tècnics municipals”
Col·legi Enginyers Tècnics d'Obres Públiques de Catalunya



MOBILITAT COM A SERVEI (MaaS: Mobility as a Service)

Cristina Pou

Sub-directora General de Gestió del Trànsit

Servei Català de Trànsit

Índex

- 1. Situació actual: App's i web's de mobilitat**
2. MaaS: Mobility as a Service

TRANSPORT FOR LONDON (web responsive/adaptative)

From

To

✓ Leaving

Arriving

Today

14:30

Hide preferences <

Plan my journey

My Journeys

Recents

Plan a journey and add to favourites for quick access in the future.

Public transport

Cycling

Walking

Travel by

select all | deselect all

 Bus

☒

 National Rail

☒

 London Overground

☒

 River Bus

☒

 Emirates Air Line

☒

 Tube

☒

 DLR

☒

 TfL Rail

☒

 Tram

☒

 Coach

☒

Show me

Access options

 The fastest routes

☒

 Routes with fewest changes

☐

 Routes with least walking

☐

No accessibility requirement

☒

Use escalators, not stairs

☐

Use stairs, not escalators

☐

Step-free to platform only

☐

Full step-free access

☐

Preferences

I only want to walk for a maximum of

My walking speed is

40 mins

Average

Public transport

 Cycling

 Walking

For cycling journeys, I want to



Use Cycle Hire

☐

Cycle directly to my destination

☒

Take my cycle on public
transport

☐

Leave my bike at a station

☐

Public transport

 Cycling

 Walking

My walking speed is

Slow

☐

Average

☒

Fast

☐

Preferences



Save these preferences for future visits

69% 15:27

https://tfl.gov.uk

Plan a journey +

My Journeys & recents +

Live arrivals Maps Nearby

Tube, DLR, and London Overground, TfL Rail and Tram

Good service on all lines >

This weekend >

View all statuses >

BERLIN (web i app)

Home Traffic in Berlin Airports Weather Service

Home ▶ Traffic in Berlin

[Get Directions](#) | [Search Map](#) | [Print](#)

The routing recommendations are based on modal router for PT (provided by VBB), for car (provided by Tom Tom) and bike provided by bbbike.



A Torstraße 1, 10119 Berlin, Deutschland

B Sonnenallee/Baumschulenstr. (Berlin)

[Add destination](#) | [Show options](#)

[Get Directions](#)

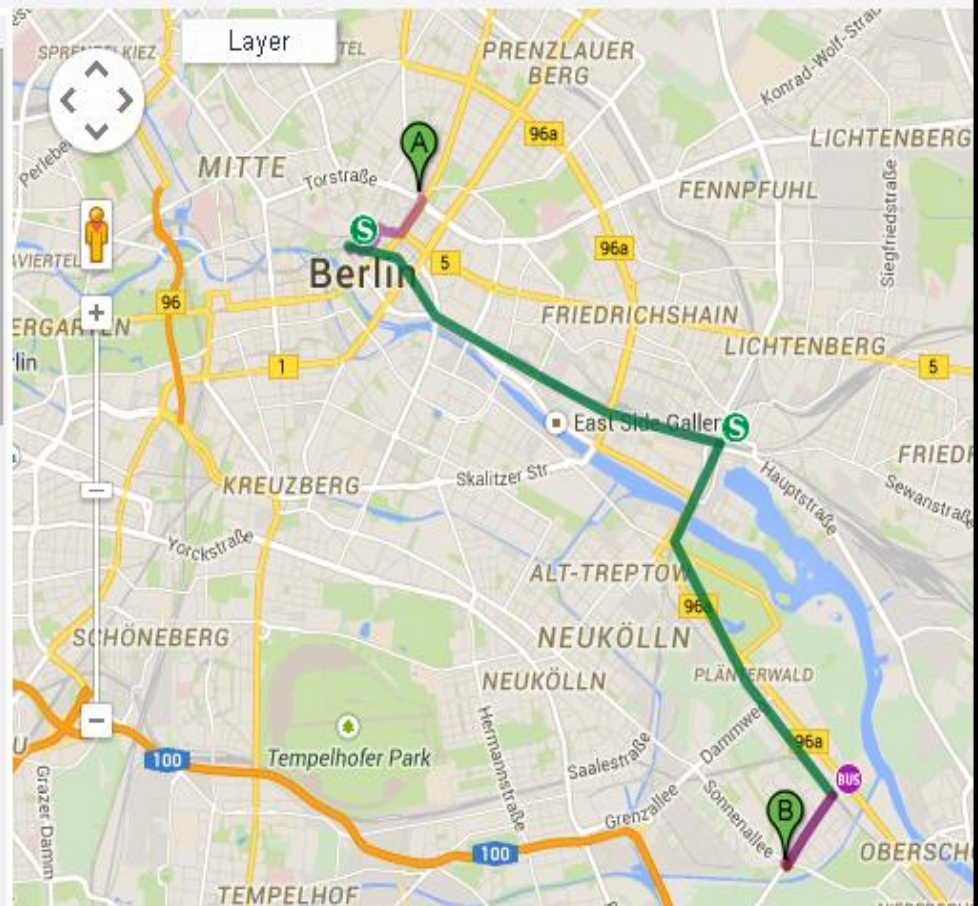
Alternative routes

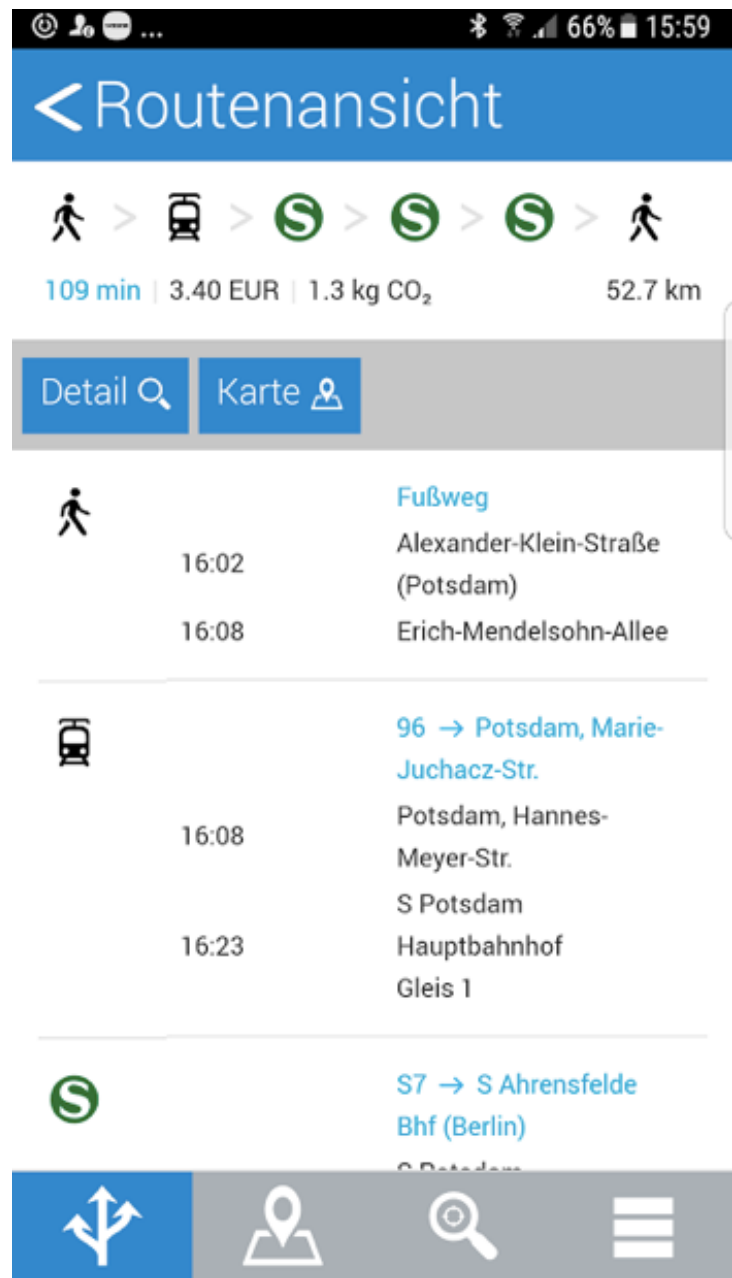
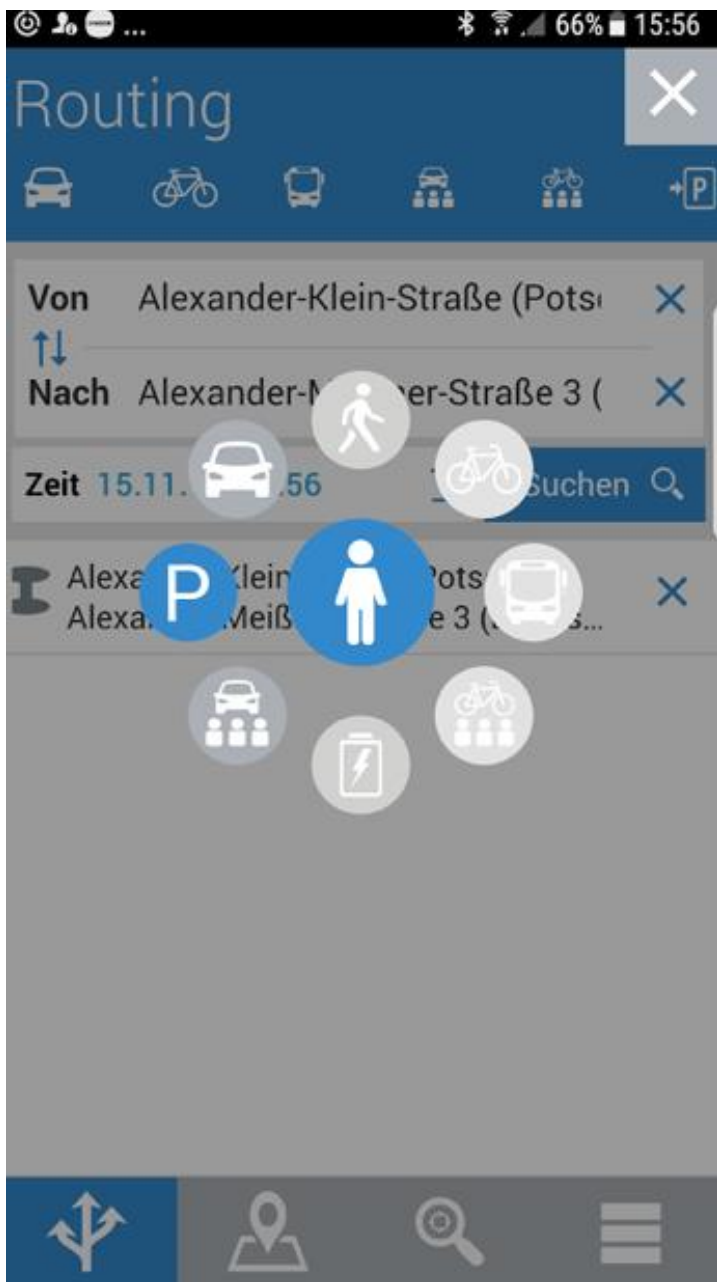
Route 1 39 minutes

Route 2 42 minutes

Route 3 42 minutes

Enlarge Map





Carrer dels Vergós, 16, 08017 Barcelona

Plaza de Tetuan, Barcelona

Añadir destino

Salir ahora

OPCIONES

Enviar indicaciones a tu teléfono

por Carrer de Balmes **16 min**

La ruta más rápida, teniendo en cuenta el tráfico

5,4 km

DETALLES

por Carrer de Muntaner y Gran Via de les Corts Catalanes **17 min**

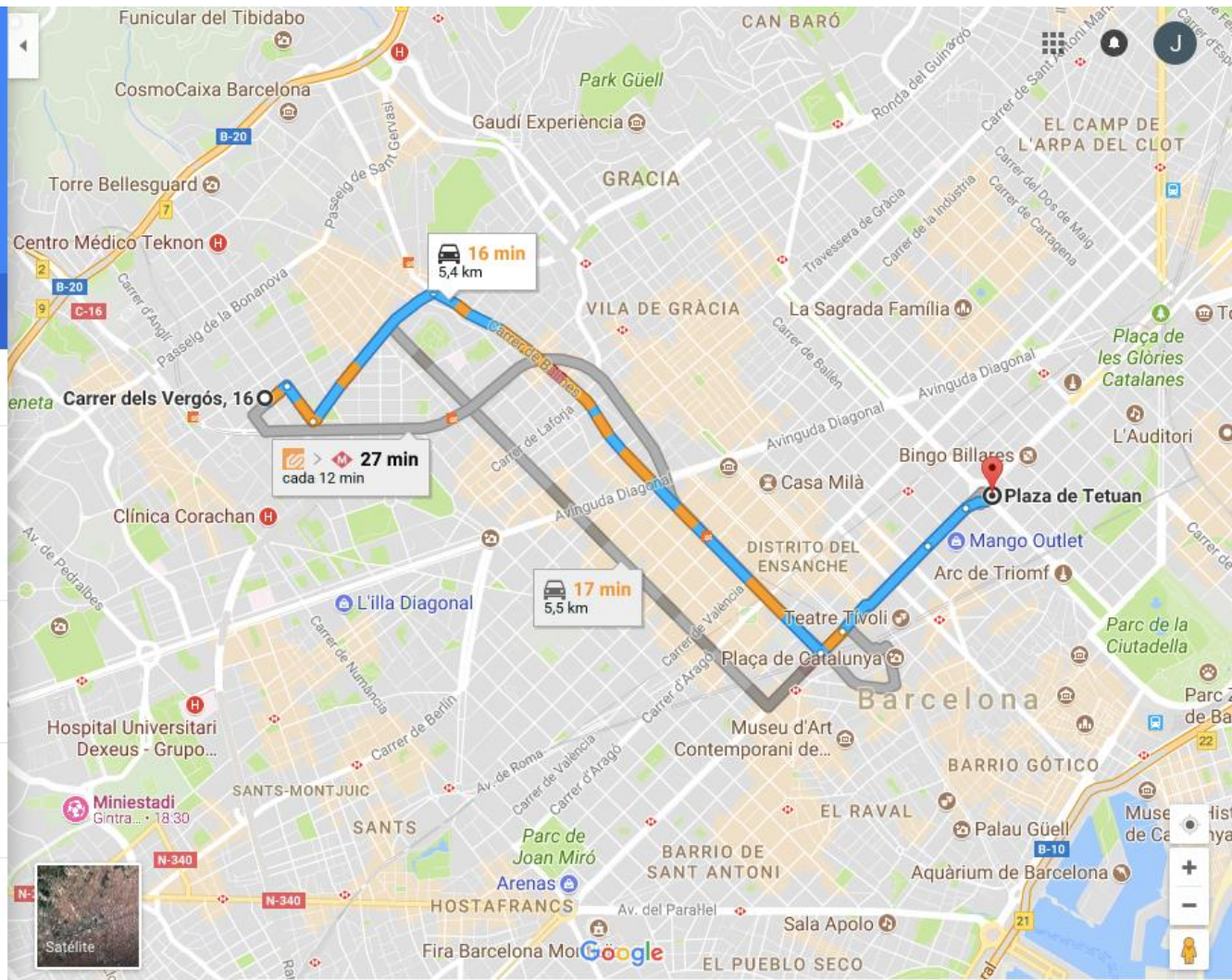
Algo de tráfico, como de costumbre

5,5 km

16:15-16:42 **27 min**

L6

L2



Plaza de Tetuan, Barcelona

Carrer dels Vergós, 16, 08017 Barcelona

Añadir destino

OPCIONES

Enviar indicaciones a tu teléfono

por Avinguda Diagonal

↑ 79 m · ↓ 0 m

21 min

5,6 km

96 m

17 m

DETALLES

por Gran Via de les Corts Catalanes y Carrer del Comte d'Urgell

25 min

6,4 km

The map displays a cycling route in Barcelona, starting at Carrer dels Vergós, 16 and ending at Plaza de Tetuan. The route is marked with a blue line and includes a distance of 5,6 km and an estimated time of 21 minutes. The route passes through the Gracia district, near the Sagrada Família and Casa Milà, and then through the Vila de Gràcia district. The map also shows the surrounding urban grid, including the B-20 and B-10 roads, and the proximity to the sea. The map is labeled with various districts and landmarks, including the Sagrada Família, Casa Milà, and the Turó del Putxet park. The map also shows the surrounding urban grid, including the B-20 and B-10 roads, and the proximity to the sea.

CITYMAPPER



Citymapper

[JOBS](#)

[¿ALGÚN COMENTARIO?](#)



Desde Plaza de Tetuán, Gran Vi

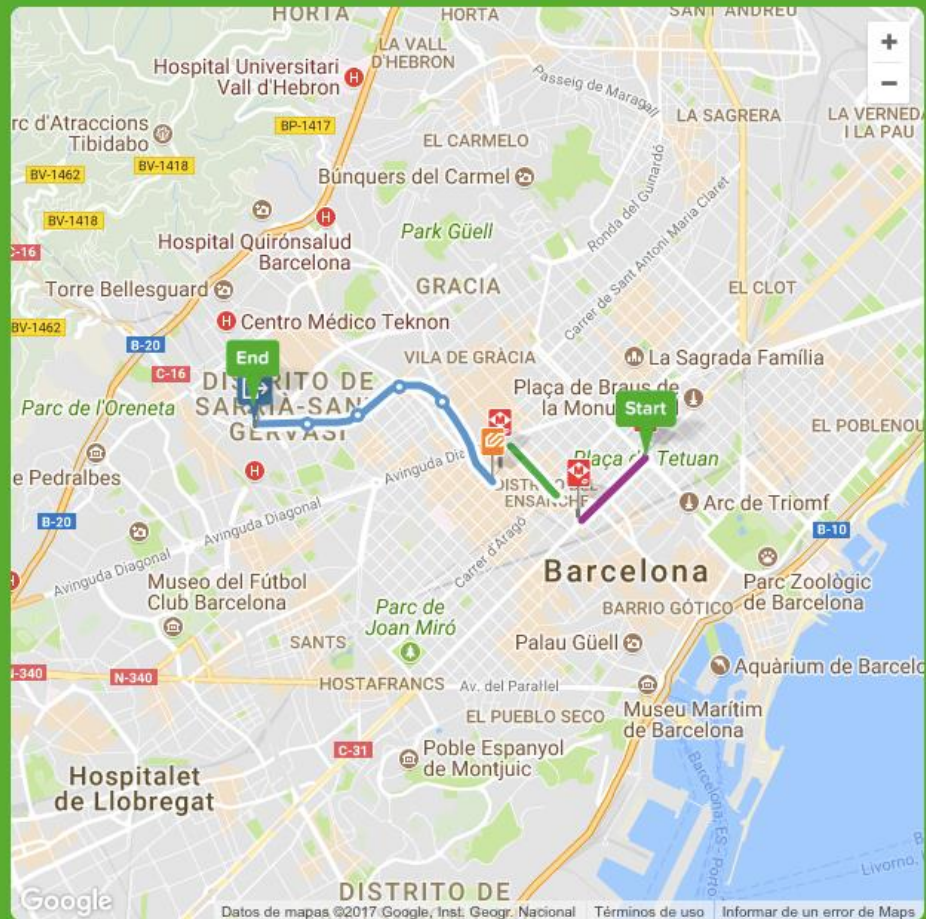
Hasta Carrer dels Vergós, 16, 0

Ahora >

	Caminando	247 cal	59 min
	En bicicleta	173 cal	33 min
	En coche	13 min	

Sugerencias

L2 • L3 • L6	36 cal	27 min
Cada 4 min desde Tetuan		
L2 • L3 • S55	36 cal	29 min
Cada 4 min desde Tetuan		
L2 • L6	55 cal	34 min
Cada 4 min desde Tetuan		



Detalles del viaje

→  Enviar al teléfono



173 cal

 6 min

33
min



En bicicleta



PL. DE TETUAN, 8-9

Viaja 4.7 km

26
min



**(PK) C/ DE JOSEP
BALARÍ, 2**



**Camina hasta Carrer dels
Vergós, 16, 08017
Barcelona, España**

6
min



65% 16:22

← Ahora ↕

Origen Plaza de Tetuan, Gran Vía de la...
Plaza de Tetuán, Gran Vía de les Corts Cata...

Destino Carrer dels Vergós, 16, 08017 B...

Caminar 247 Kcal. 60 min

Bicicleta 83 Kcal. ~24 min

Taxi ~13 min

Sugerencias

L2 • L3 • L6 28 min
Siguiendo 16:23, 16:27 Desde Tetuan

L2 • L3 • S55 29 min
Siguiendo 16:23, 16:27 Desde Tetuan

L2 • L5 • L6 32 min
Siguiendo 16:25, 16:29 Desde Tetuan

L5 • L6 36 min

65% 16:23

← ★

Origen

Con calma **Normal** **Con prisa** **IR**

Bici pública ▾ 173 cal 5,1 km 33 min

→ Pedalea 4,7 km 27 min

Deja la bici en (PK) C/ DE JOSEP **Espacios: 2**

moovit Barcelona ✕ 📍

DIRECCIONES **LÍNEAS** **ALERTAS** ➤

Comen... Tetuan ✕ ↕

Finalizar Carrer Dels Vergós 16, B... ✕

🕒 Salir ahora ▼ Opciones

Rutas sugeridas

[Compartir](#)

37

MIN



Sale desde Tetuan
16:39 - 17:15

42

MIN



Sale en 5 min desde Metro Tetuan
16:39 - 17:21

36

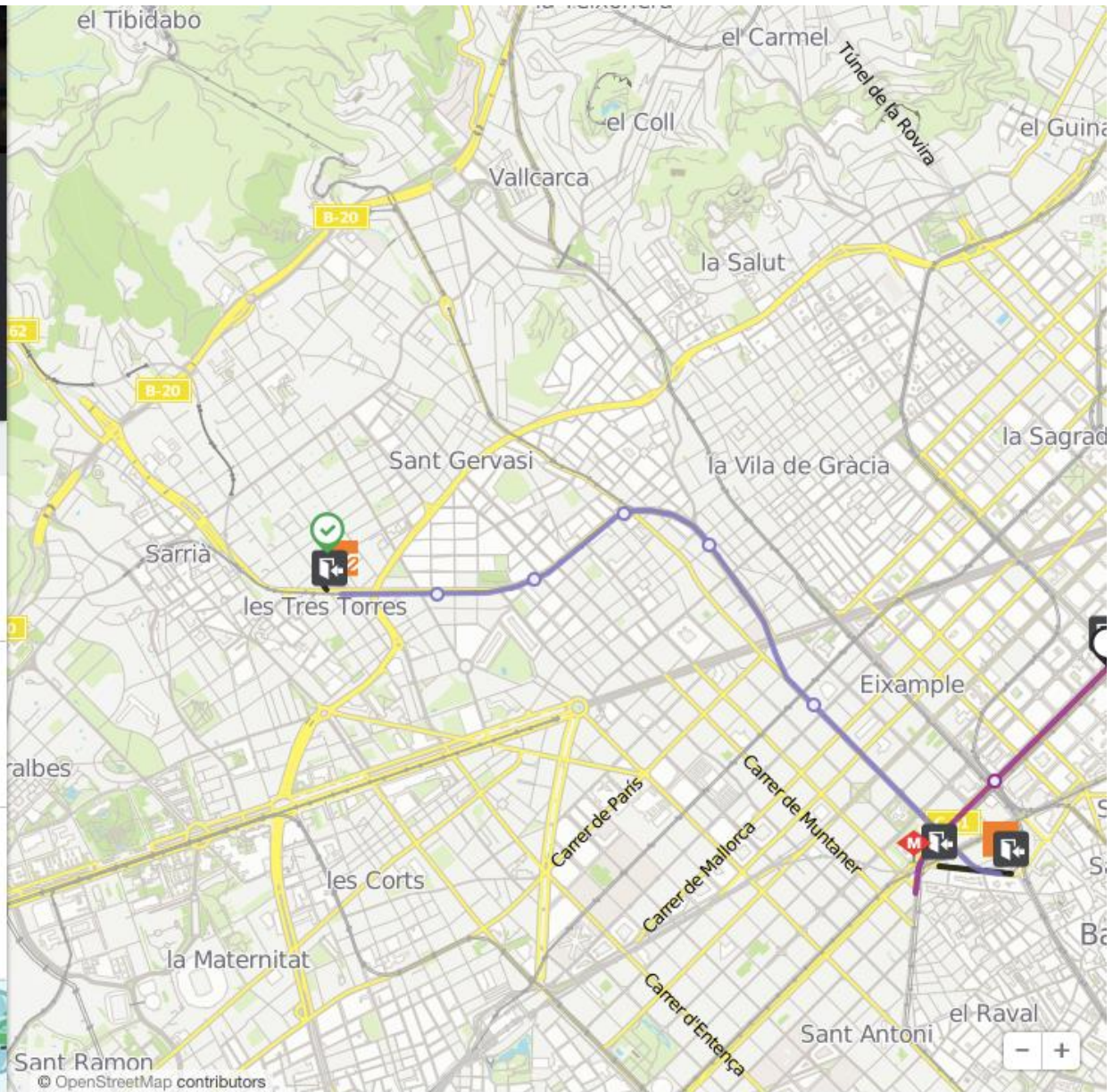
MIN

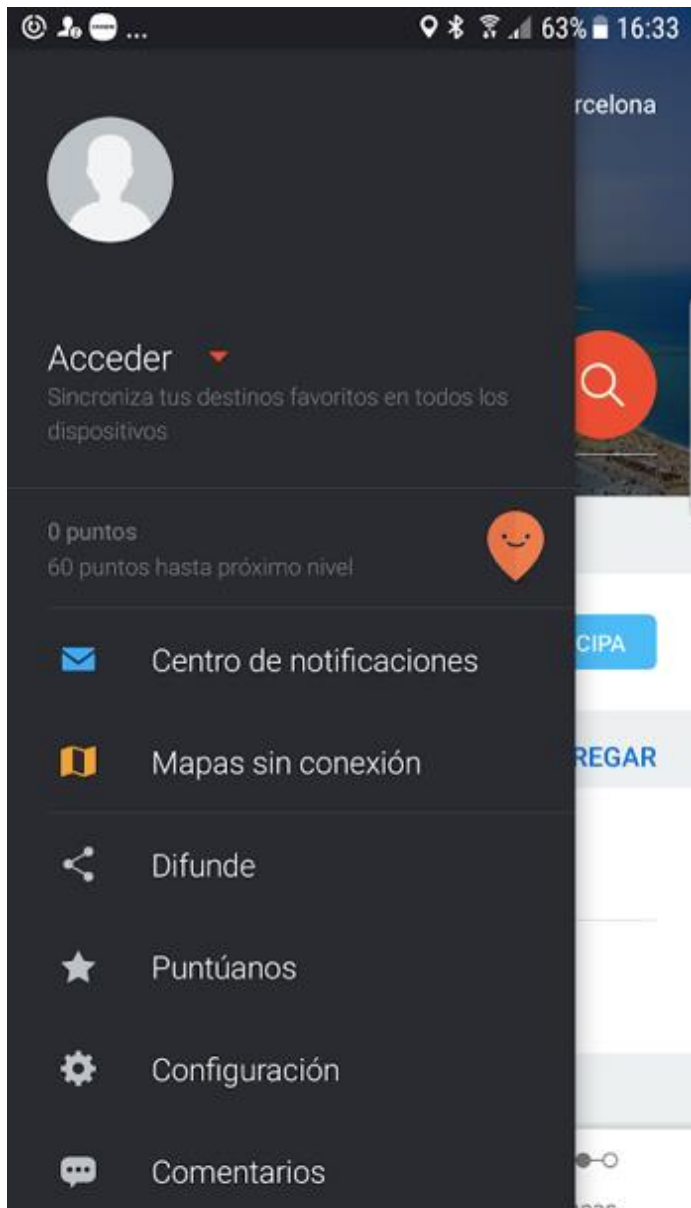


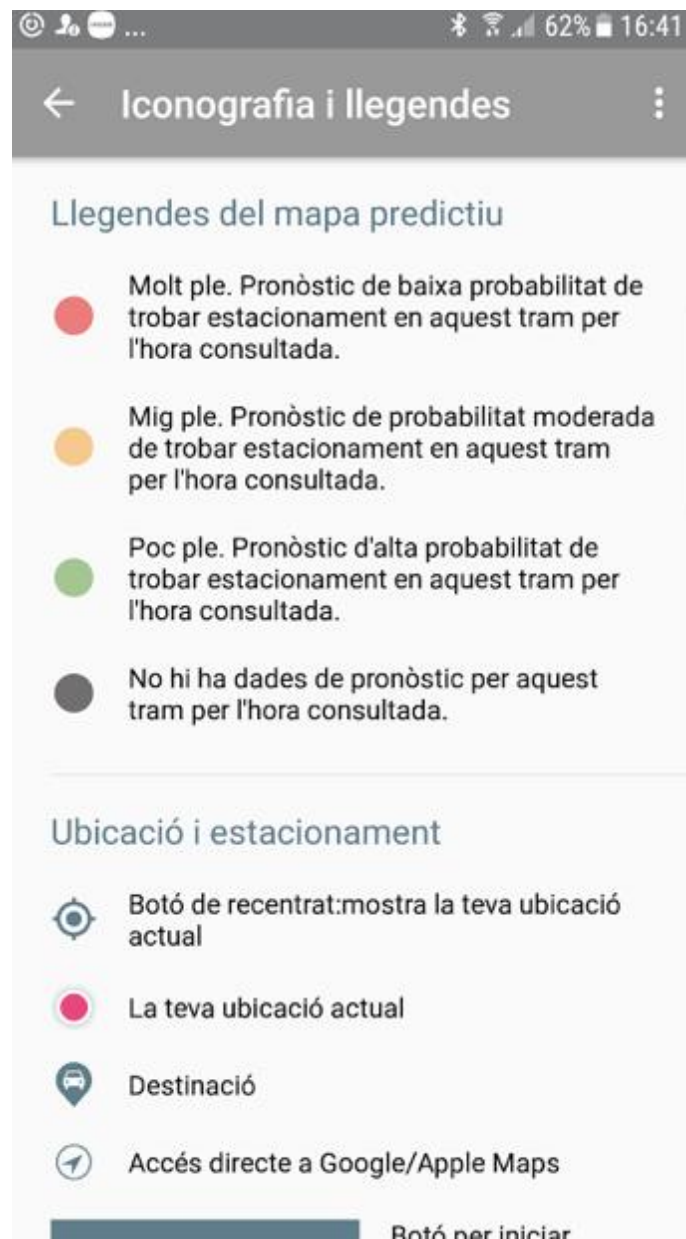
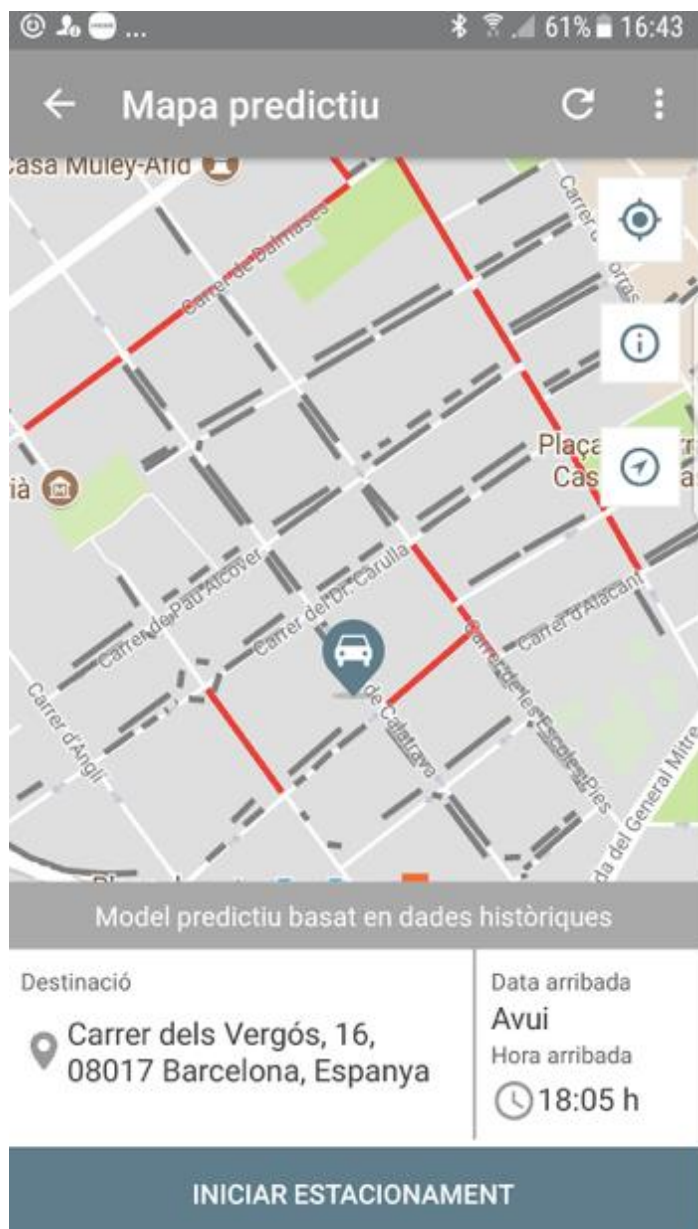
Sale en 5 min desde Metro Tetuan
16:39 - 17:15

**Mejora la información de
transporte público en tu
ciudad**

Únete a la Comunidad de Moovitors







Índex

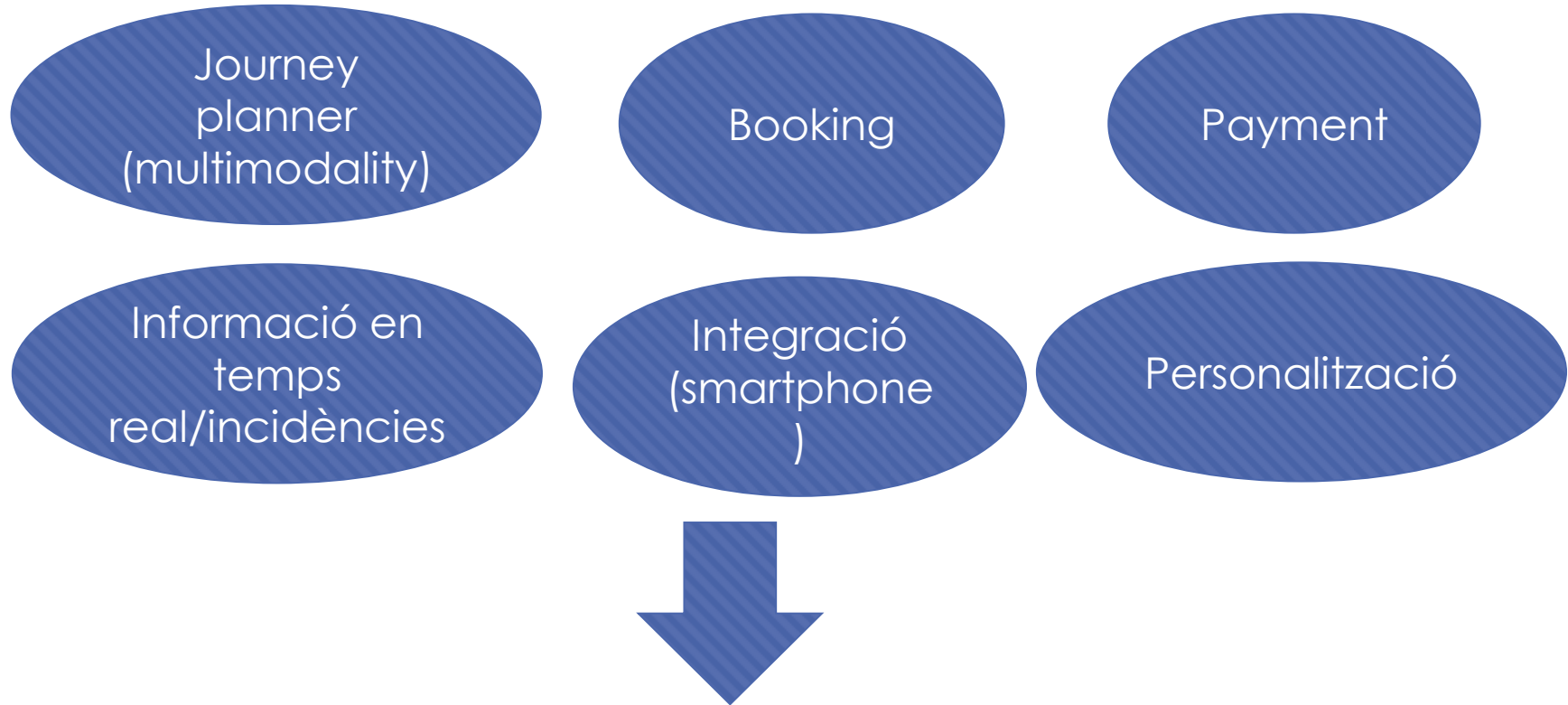
1. Situació actual: App's i web's de mobilitat
- 2. MaaS: Mobility as a Service**

Què busca l'usuari?
Què necessita el nostre client?



Què busca l'usuari?

Què necessita el nostre client?



Towards a common MaaS vision

Alguns reptes com administració...

Active travel

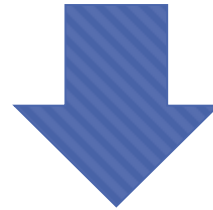
Reduce car use
and/or car
ownership

Easier
access to
mobility

Improve efficiency
of existing transport
services and public
resources

Mobility
analysis

Develop an
inclusive transport
system

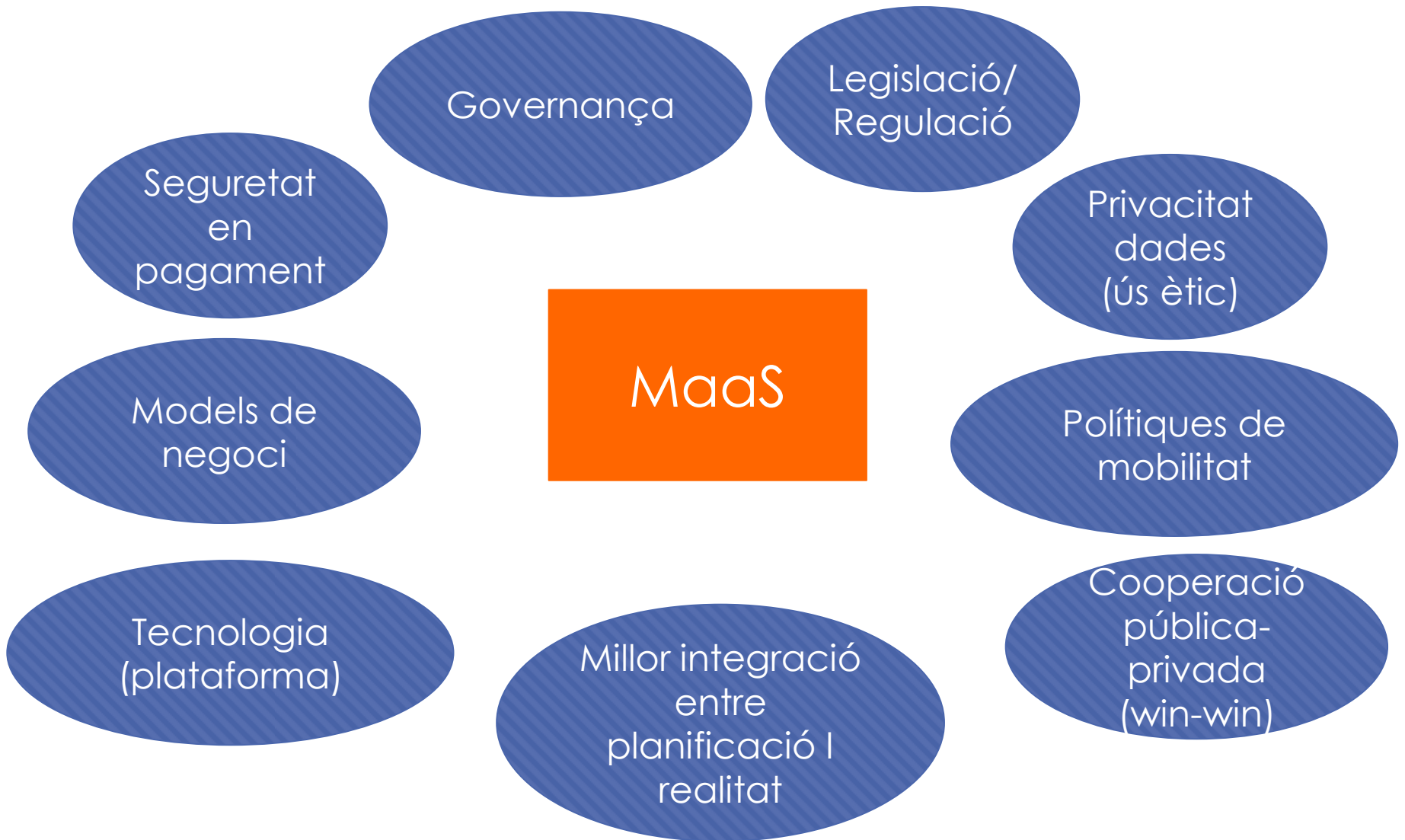


MaaS és la resposta?? (modal shift??)

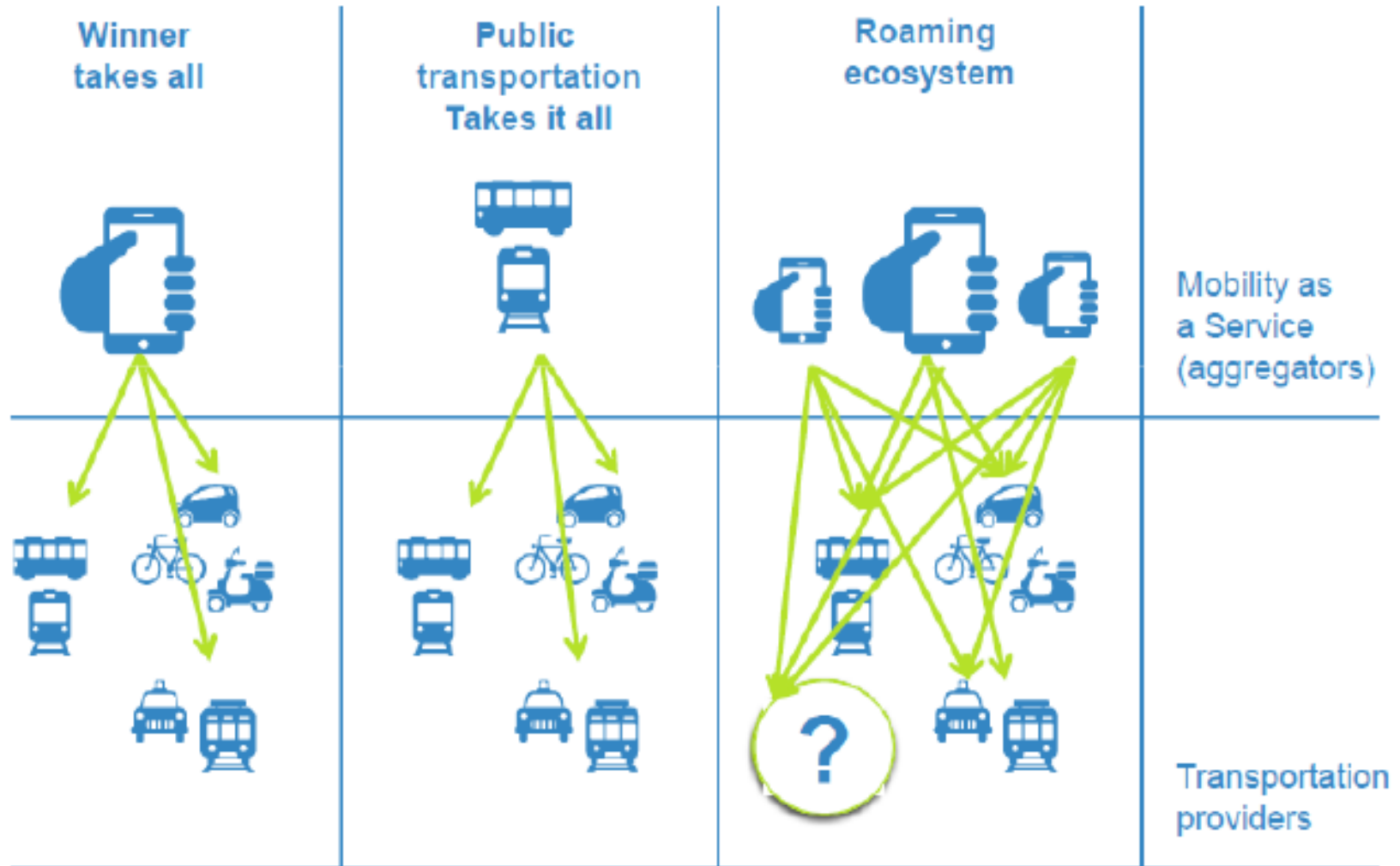
Towards a common MaaS vision

1. Mobility is in transition.
2. MaaS: new concept that may change or disrupt the current models.
3. Initial MaaS: Digital and ITS industries/Personal transport sectors (car-sharing, taxis, etc)
4. Few MaaS apps in operation today: an online platform for accessing a package of public and private transport services (planning, booking and paying for).
5. **Offer a personal mobility package based on lifestyle needs and delivered through an IT model.**

Towards a common MaaS vision



Towards a common MaaS vision



Some risks of a purely commercial approach to

MaaS

1. Dis-incentivise sustainable trips: user model choice depends on how MaaS system is designed and how services are priced and promoted.
2. Inequal services (offer premium levels of service to those who pay more).
3. Create a disconnect between the user, the transport provider and transport authority (public transport brand and image could be weakened): the figure of the third party/intermediary.
4. Public authorities and administrations could lose control of the system.

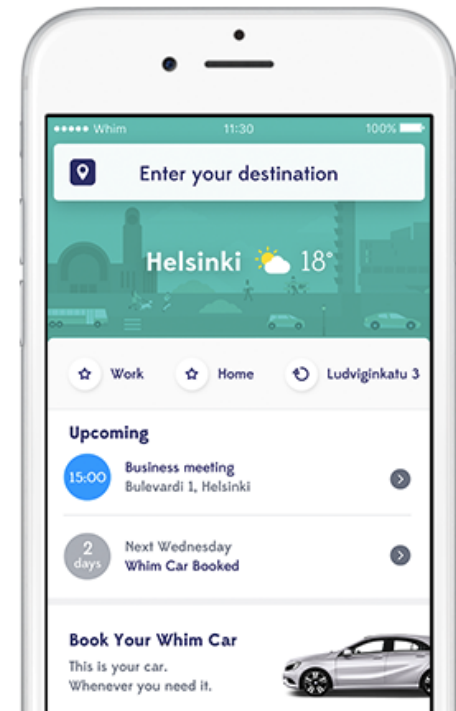
Whim (MaaS Global)

Helsinki, + Tampere, Tallinn..., Transport for West Midlands (Birmingham, UK)



Travel application for all transportation.

Whim frees you to travel wherever and whenever. More than 2 500 taxis, brand-new rental cars from Sixt and HSL public transport are all available from the same mobile app. You can find all the routes, fees, tickets, timetables, booking and travel options in one place so that you can focus on the essentials. [Choose a monthly package](#) to cover all your daily journeys, or just pay-as-you-go.



Pay per Ride

No monthly fee



Use Whim with no commitment and pay for trips as you go.

Download for free!

Whim Urban

Travel worth 70€ including:



Unlimited HSL mobile tickets in Helsinki, value 55€



Taxis, car rentals up to 15€

Special offer!

55€ per month

Whim Go

Travel worth 179€ including:



Unlimited HSL mobile tickets in Helsinki, value 55€



Taxis, car rentals up to 124€

149€ per month

Whim Business

Unlimited travel plan



Unlimited HSL mobile tickets



Unlimited taxis



Select a car for any number of days, each month

Ask us for an offer

Customize your package with these extras



Unlimited regional mobile tickets

Region +55€/month

Region 3-zone +100€/month



Whim Car Subscription

Add car days as you like

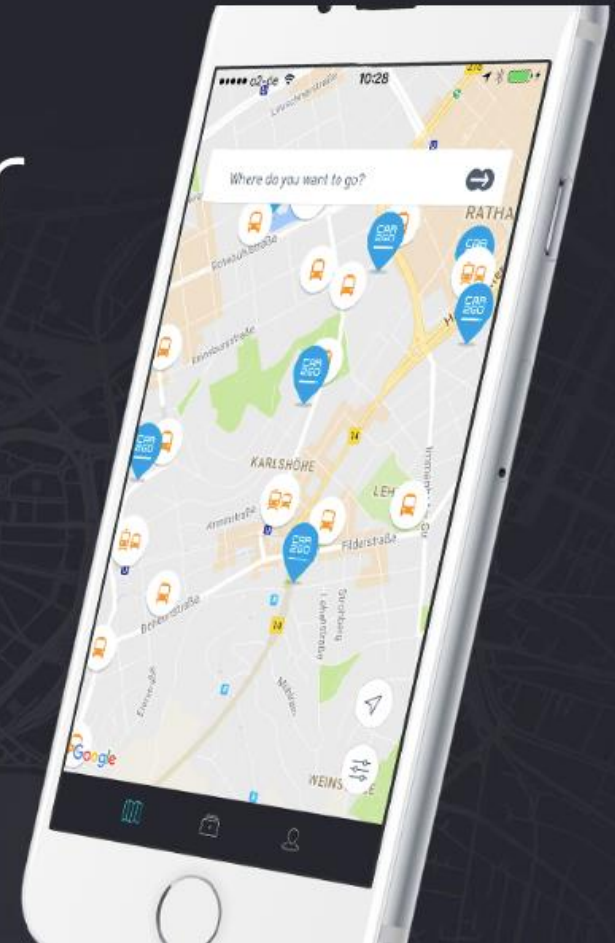
Available now!

Alemania... Helsinki, Kiev, Lviv, Oslo, Amsterdam, Madrid... Boston, Portland, Sydney



The mobility app for your city

Book and pay public transport, car2go, mytaxi & train.





Los Angeles,
Denver

Qixxit
Einfach. Unterwegs.



Alemania



Hannover

smi)e einfach mobil

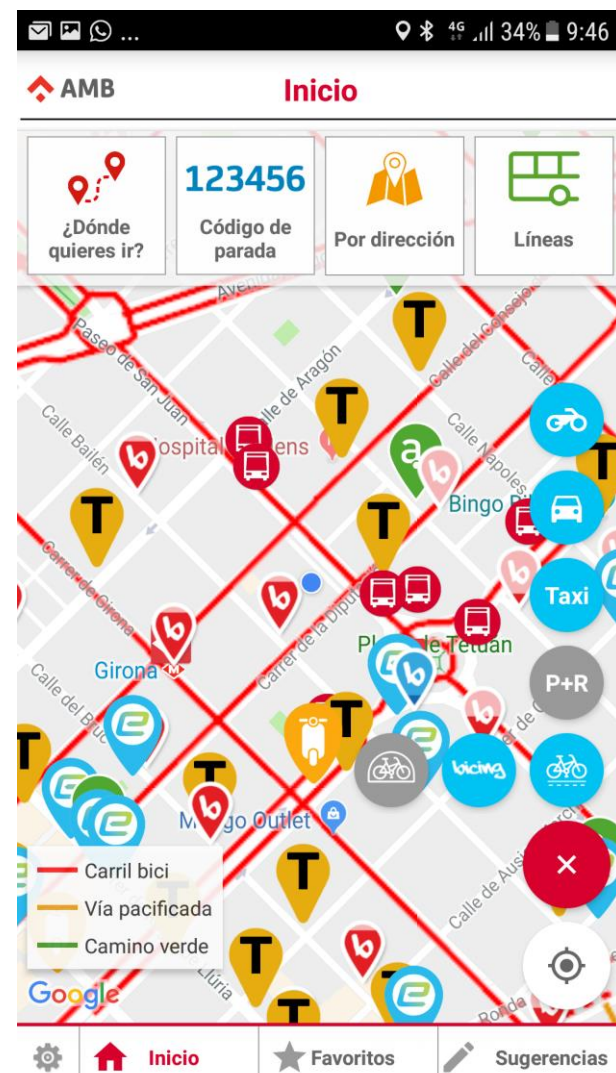
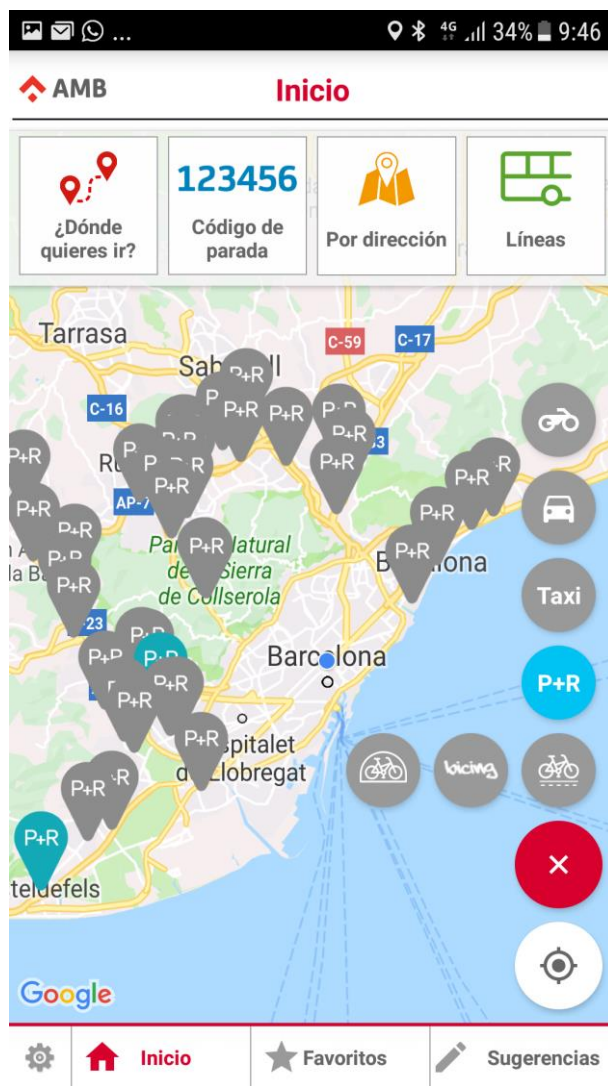
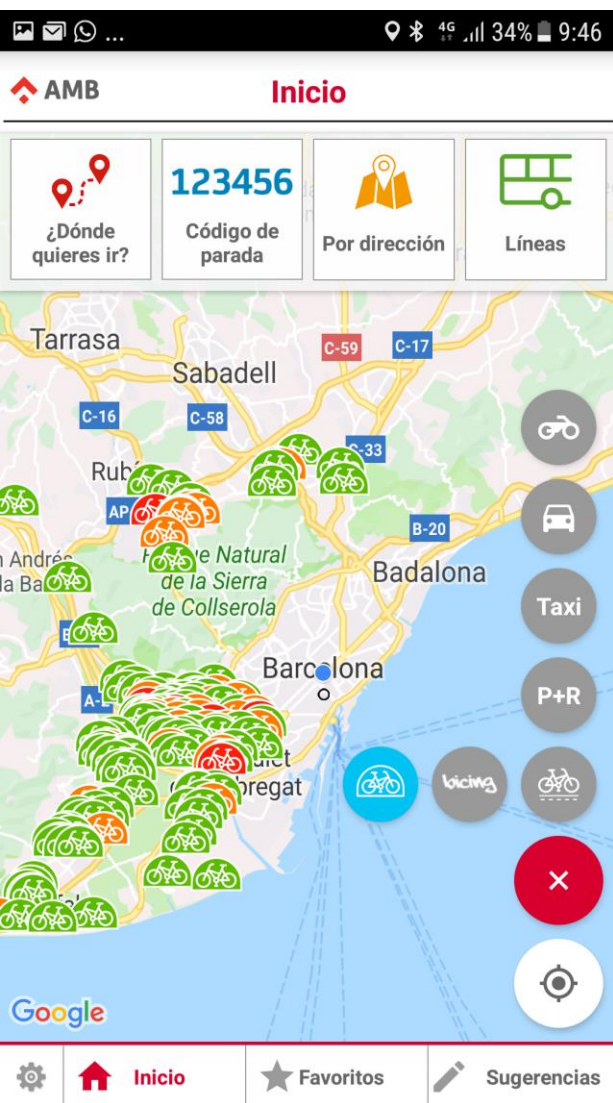
Vienna

UbiGo



Gothenburg

AMB MOBILITAT



AMB MOBILITAT



AMB Itinerarios

De Passeig de Sant Joan, 41, 08009



A Plaça de Sarrià, 08017 Barcelona

Salida: 09:47

Transporte

Peatón + D50 + Peatón + S2 + Peatón

9:50 - 10:23 34 min



Recorrido



Mapa

Peatón + 62 + Peatón + S2 + Peatón

9:48 - 10:23 35 min



Recorrido



Mapa

Peatón + 55 + Peatón + L6 + Peatón

9:51 - 10:27 36 min



Recorrido



Mapa

Peatón + D50 + Peatón + S1 + Peatón

Inicio Favoritos Sugerencias



AMB Itinerarios

De Passeig de Sant Joan, 41, 08009



A Plaça de Sarrià, 08017 Barcelona

Salida: 09:47



22 min



Recorrido



Mapa



25 min



Recorrido



Mapa



28 min



Recorrido



Mapa

Inicio Favoritos Sugerencias

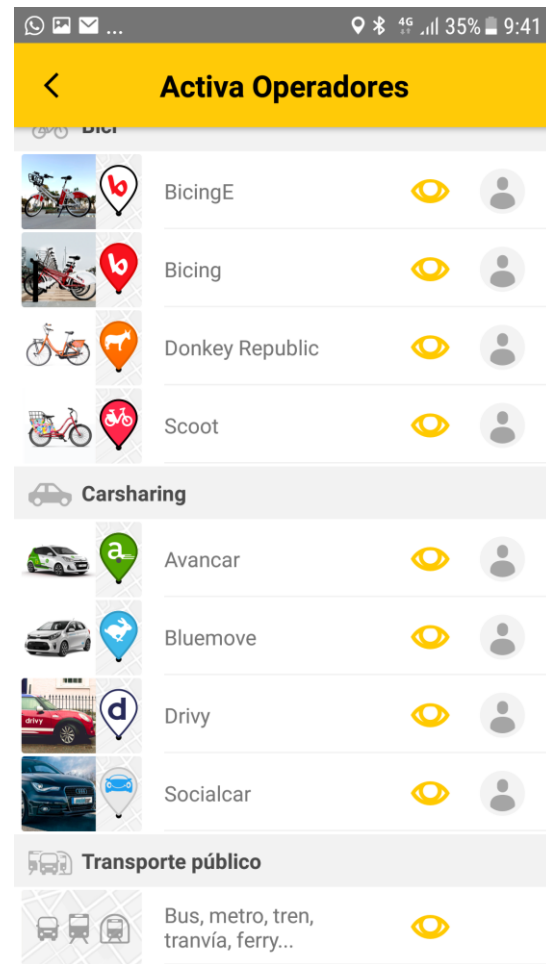
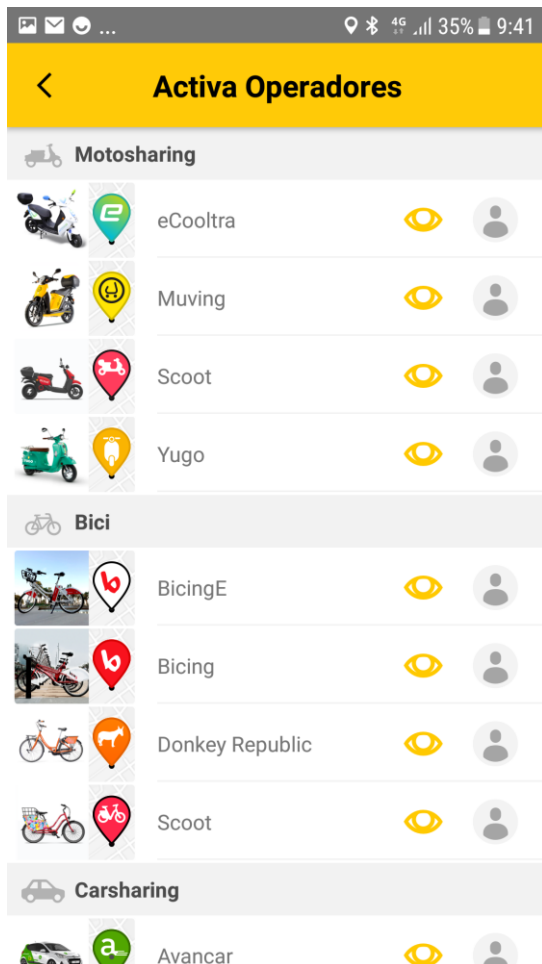


AMB Recorrido

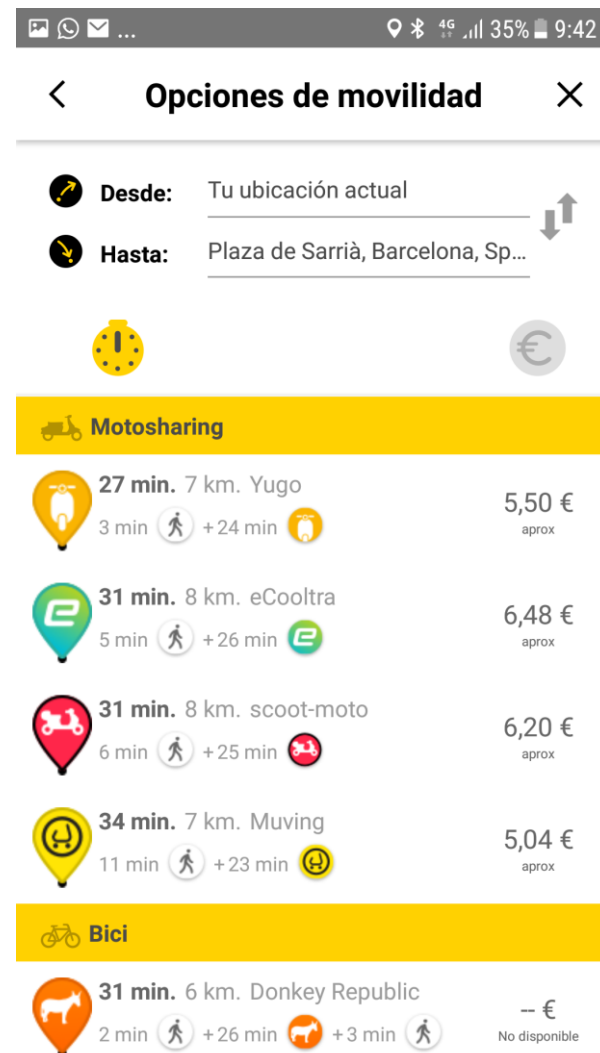
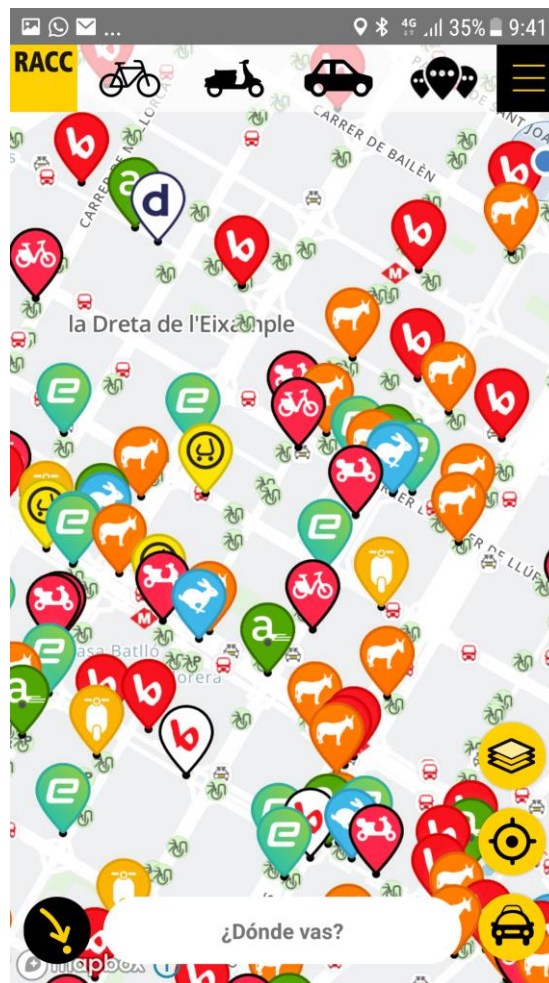
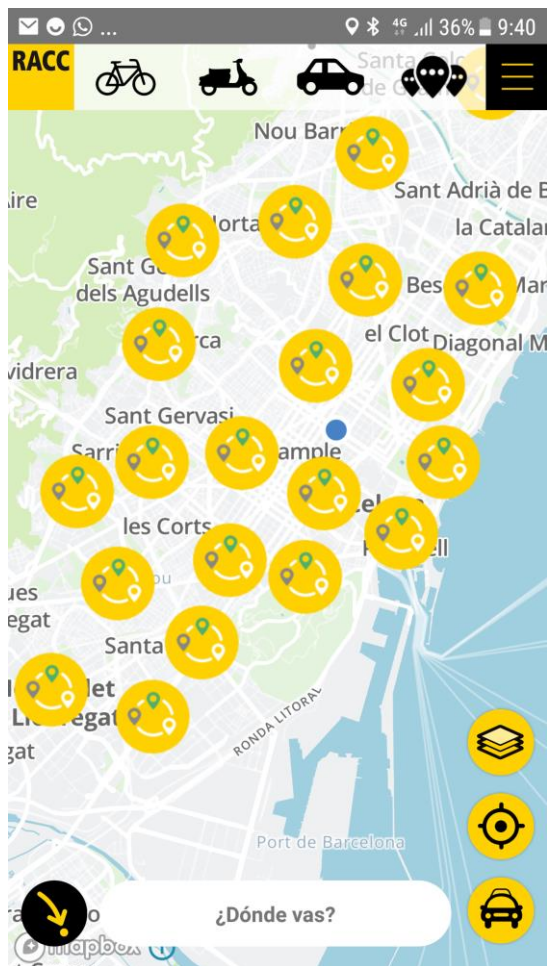


Inicio Favoritos Sugerencias

RACC TRIPS



RACC TRIPS



RACC TRIPS

📷 📞 📧 ... 📍 4G 35% 9:42

Opciones de movilidad



Bici



31 min. 6 km. Donkey Republic

2 min 🚶 + 26 min 🐴 + 3 min 🚶

— €
No disponible

⚠️ Desliza para ver advertencias →



32 min. 6 km. Bicing

2 min 🚶 + 27 min 🚲 + 3 min 🚶

— €
No disponible

⚠️ Desliza para ver advertencias →



35 min. 6 km. BicingE

3 min 🚶 + 24 min 🚲 + 8 min 🚶

— €
No disponible

⚠️ Desliza para ver advertencias →



37 min. 6 km. scoot-bike

4 min 🚶 + 28 min 🚲 + 4 min 🚶

3,90 €
aprox

⚠️ Desliza para ver advertencias →



25 min. 5 km. Bici propia

25 min 🚲

— €
No disponible



29 min. 5 km. Bici propia

26 min 🚲 + 🚶 + 3 min 🚶

— €
No disponible

📷 📞 📧 ... 📍 4G 35% 9:42

Opciones de movilidad



Transporte público



33 min. 9:44 - 10:16

1 min 🚶 + 10 min 🚶 + 2 min 🚶 ...



33 min. 9:44 - 10:16

3 min 🚶 + 2 min 🚶 + 6 min 🚶 ...



36 min. 9:44 - 10:20

1 min 🚶 + 10 min 🚶 + 2 min 🚶 ...



44 min. 9:53 - 10:37

3 min 🚶 + 24 min 🚶 + 17 min 🚶

Transporte público + Motosharing



33 min. 7 km. Yugo

3 min 🚶 + 13 min 🚶 + 10 min 🚶 + 2 min 🚶 ... (motosharing)



35 min. 8 km. Yugo

3 min 🚶 + 2 min 🚶 + 3 min 🚶 ... (motosharing)

🕒 **39 min.** 8 km. scoot-moto

📷 📞 📧 ... 📍 4G 35% 9:42

Opciones de movilidad



39 min. 8 km. scoot-moto

1 min 🚶 + 10 min 🚶 + 2 min 🚶 ... (motosharing)



40 min. 8 km. eCooltra

1 min 🚶 + 10 min 🚶 + 2 min 🚶 ... (motosharing)

Taxi



21 mins.
Taxi Ecòlògic



21 mins.
MyTaxi



21 mins.
Cabify



21 mins.
Uber

En este caso, no hemos encontrado mejores opciones con **carsharing**.