

22-23 November 2018, Manchester



## **MAAS MADRID:**

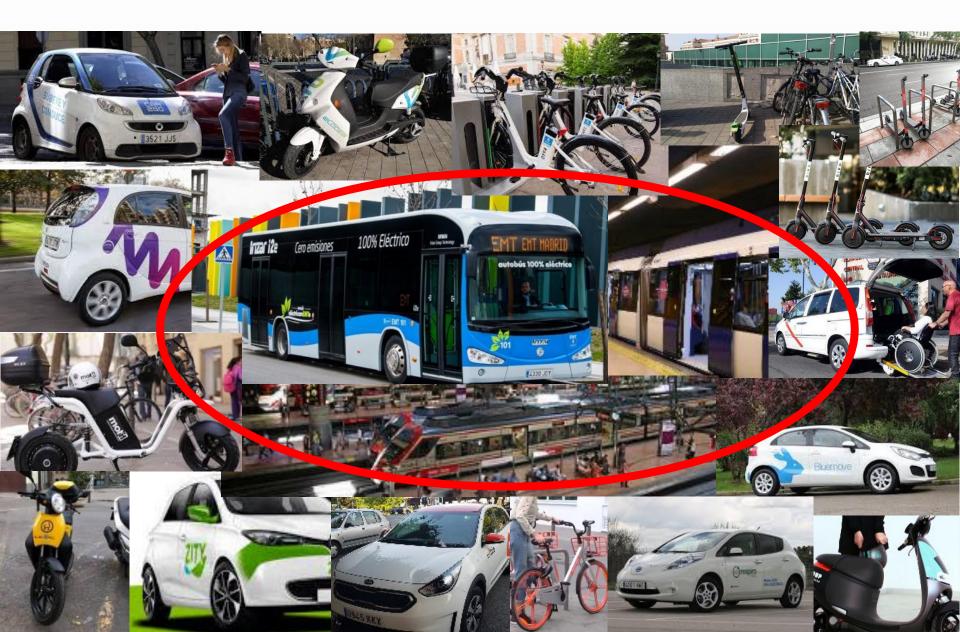
Promoting integration from the public sector

Sergio Fernández Balaguer Consultancy Division



EMPRESA MUNICIPAL
DE TRANSPORTES
DE MADRID

# MAAS is about... "sharing" mobility



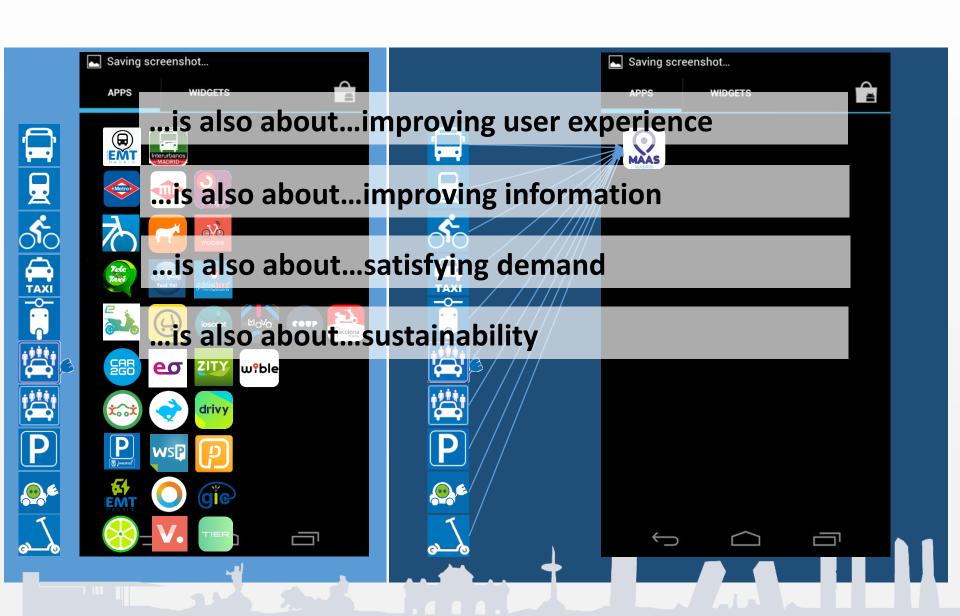


Moving people, not vehicles



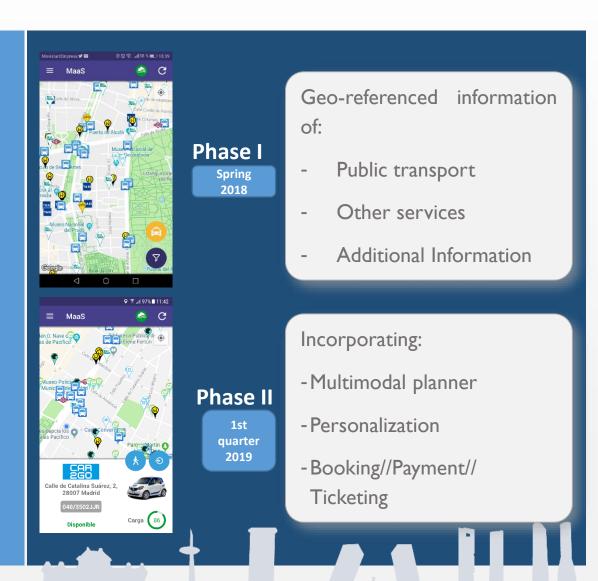


## MAAS is about...making it simpler



**Phases** 

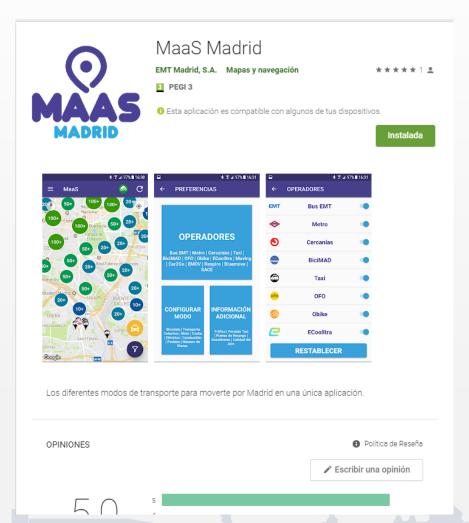


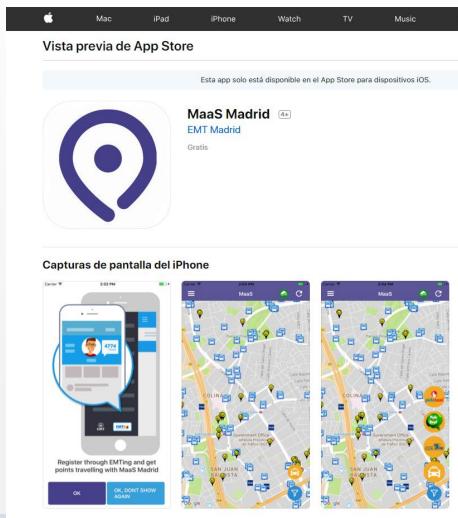






#### Phase I already available in Android and iOS







#### **PHASE I**: AGGREGATOR

#### Service API aggregator:

- Vehicle location / PT stop
- Vehicle data (availabilitymodel-capacity-autonomy) / PT information (lines / next arrival / frequency)

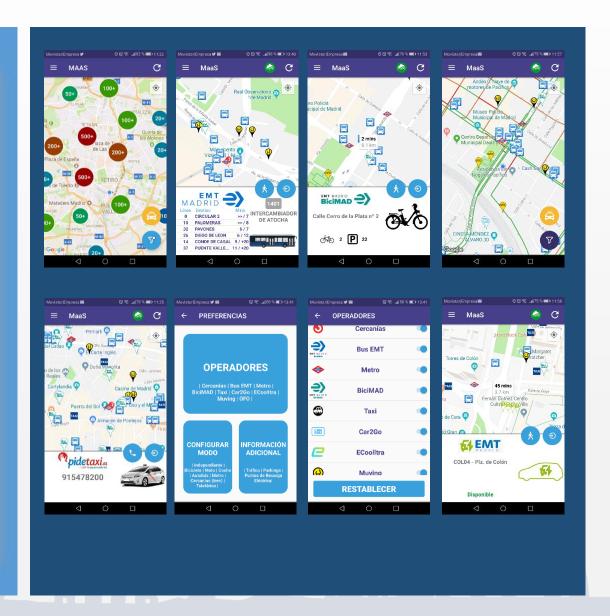
#### Redirects to provider app

The information is configurable by the user according to:

- Providers
- Mean of transport
- Additional information options (air quality, traffic, charging points, POIs...)

The user decides to transfer travel data:

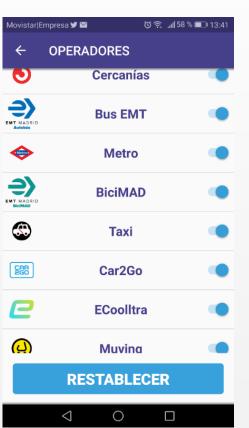
- Always anonymously
- If registered: recurrent data available





#### Configurable

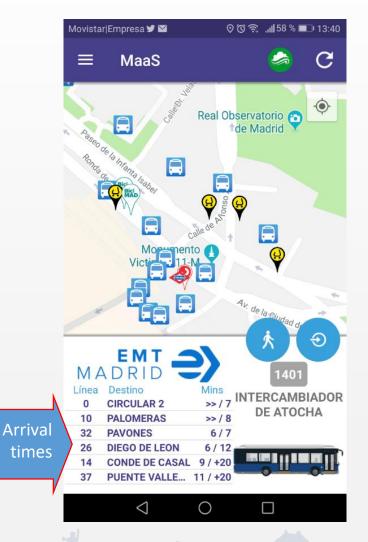








#### Information about modes

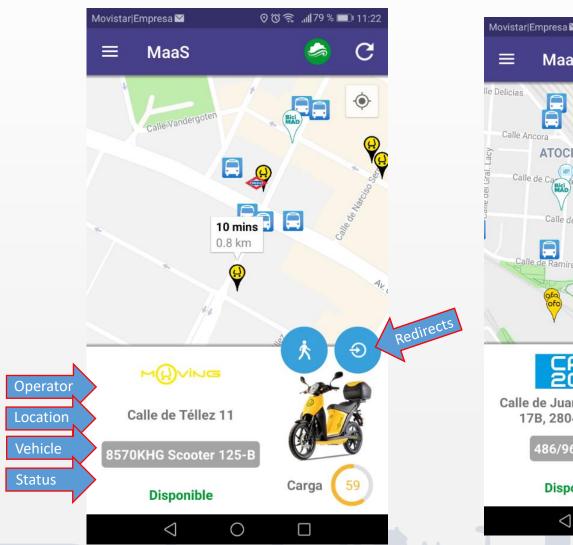






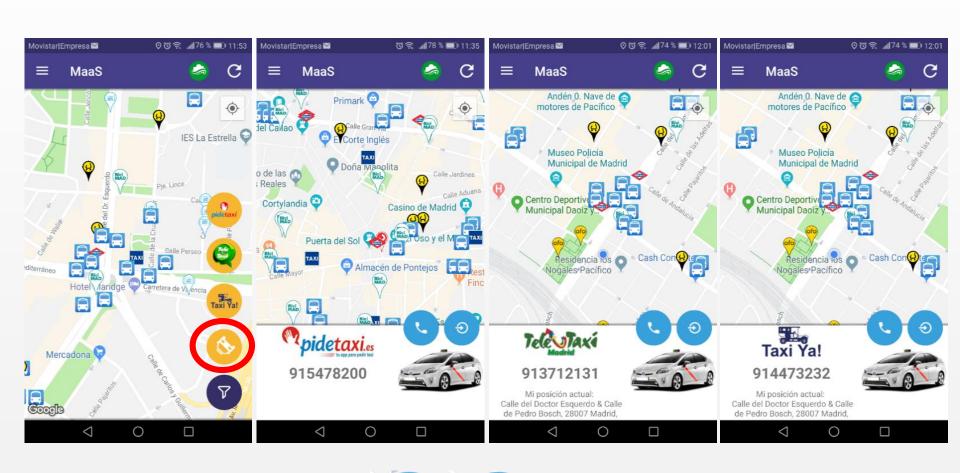


#### Shared mobility services





TAXI

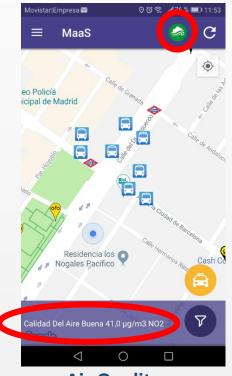




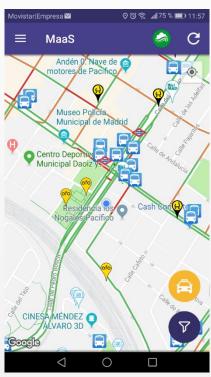




#### Additional information



**Air Quality** 



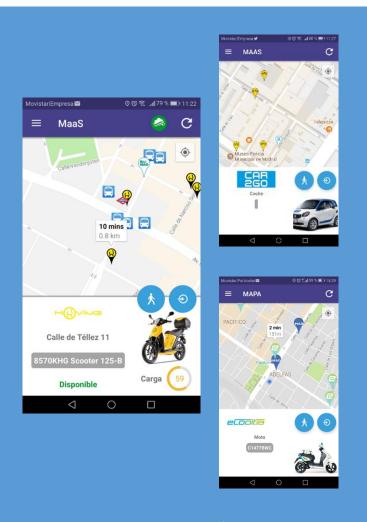
**Traffic status** 



**EMT charging infrastructure** 



#### **PHASE II: FULL FUNCTIONALITY**



Adding **journey planner** with comparison options AND **configurable by preferences** 

- Choosing origin and destination: route selection
- Vehicle availability
- Booking
- Vehicle access / ticket cancellation
- · Payment: Direct / through provider

The information shown is configurable by the user according to:

- Comparison preferences: cheaper, faster, less polluting, healthier
- Providers
- Mean of transport
  - Save "My stops" option in PT
- Additional information options

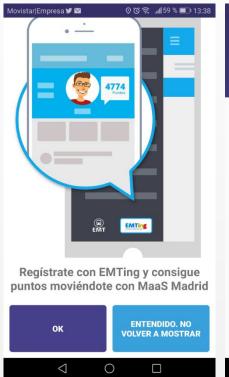
The user decides to transfer the travel data:

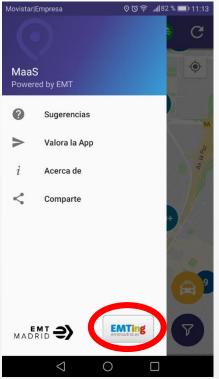
- Always anonymously
- If registered: recurrent data available



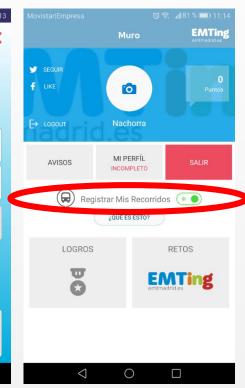


#### **USER REGISTRATION**



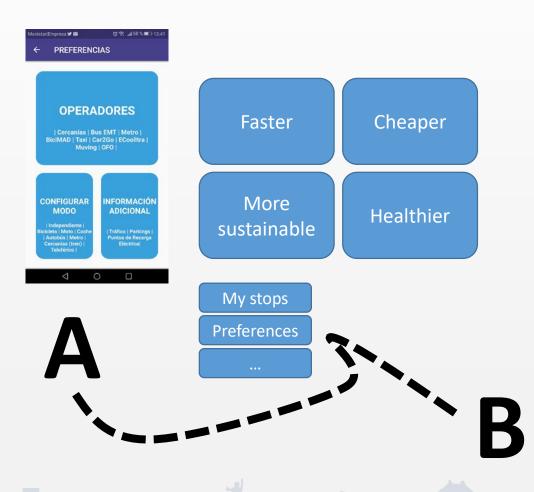






Anonymized data
Registers itinerary during 90 minutes
Ir requires opening the App
Getting points

By using the App
By providing data
By sustainability of mode/trip

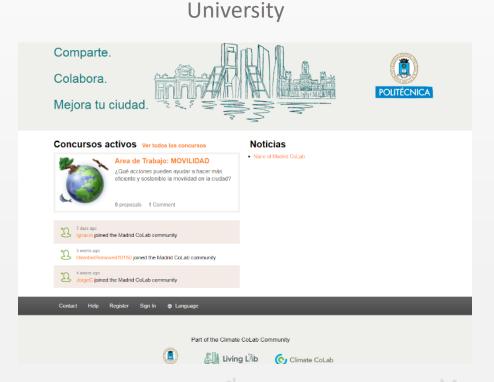


#### **Reflections:**

- Multimodality vs. user experience
- Air Quality protocol (push&pull prioritization, gamification...)
- Accessibility (limitations)
- Incidences in real time (public works, traffic, meteo...)
- Estimation of parking time
- Personalization to elderly (timing, recomendations...)
- Other specific groups (students, mobility to work)
- Indications (how to get to...)
- Existing Algorithms (taxi prices, healthy streets - IKAAS)
- etc.



• Improving the experience of (specific) users



#### Mobility to work





89 MaaS experts
Nijmegen School of
Management
Radboud University
(June 2018)

Table 6-1 Vulnerabilities of the pilot project

Rank	Most significant vulnerability	Selected by respondents (%)
		n = 35
1	b) Crucial actors are unwilling to collaborate	31 (89%)
2	c) Lack of an appropriate and attractive business model	20 (57%)
3	f) Travellers do not recognise the added value of MaaS	15 (43%)
4	a) A weakeningof financial and political support	13 (37%)
5	e) Insufficient physical infrastructure	13 (37%)*
w = 0.23 P = .000		



#### The expectations on Early Market ☐ Fully-integrated MaaS is expected to be in operation in urban areas before 2020 ☐ Younger generations (Gen-Z and the Millennials) will lead the adoption of MaaS. ☐ Regular public transport users and flexible travellers, who combine different modes of transport to make their trips, are thought to be the early adopters of the concept. ☐ Experts also see MaaS being used for commuting and business trips in its early stage. ☐ Transport operators are seen as the most important actors and the experts prefer them as the MaaS service integrator. ☐ Investors and shareholders are also seen as the most important stakeholders. **Planning of MaaS implementation** ☐ Top objectives to implement MaaS from public organisations' perspective (i.e. local authority or the central government) are to reduce car dependency and its usage and to provide public accessibility. ☐ The implementation of a pilot project to experiment and to enable learning is the most preferred policy. ☐ The pilot will require a close collaboration between key actors and stakeholders as the most important condition to ensure its success. ☐ The key constraints that may prevent the stated objectives to be reached are the perception of users that MaaS service is of limited value, the existing forms of public transport contracts, and the current inadequate ICT condition. ☐ The most important vulnerability or an event that can cause the preferred policy to fail is the lack of collaboration between the crucial actors. The experts similarly agreed that the reverse is also true; they see an active collaboration between actors crucial for the success of the preferred policy.



## **THANK YOU!**

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