

bicimad

A technological revolution in MADRID

Andrés Recio Martín

Directorate for Technology and Innovation

EMTMADRID

Roger Junqueras Vies

Bike Sharing Product Owner

SERVEO



serveo



Capital
Digital



01.

Bicimad in figures



The expansion of bicimad



2015



- **No. of bikes:** 2,028
- **No. of stations:** 174
- **No. of districts:** 8
- **No. of users:** 60,835

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2023

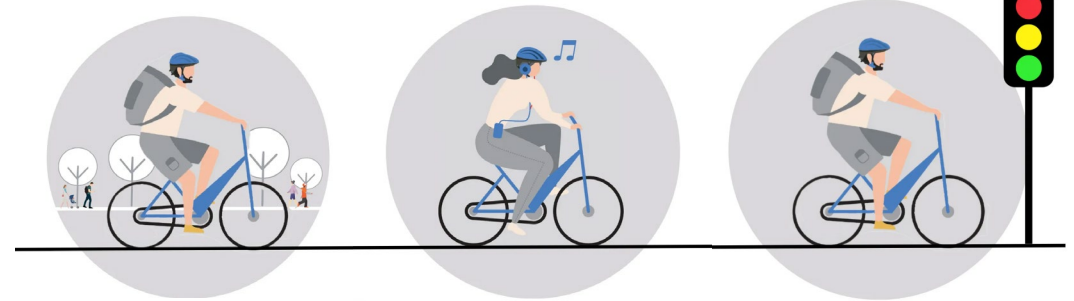
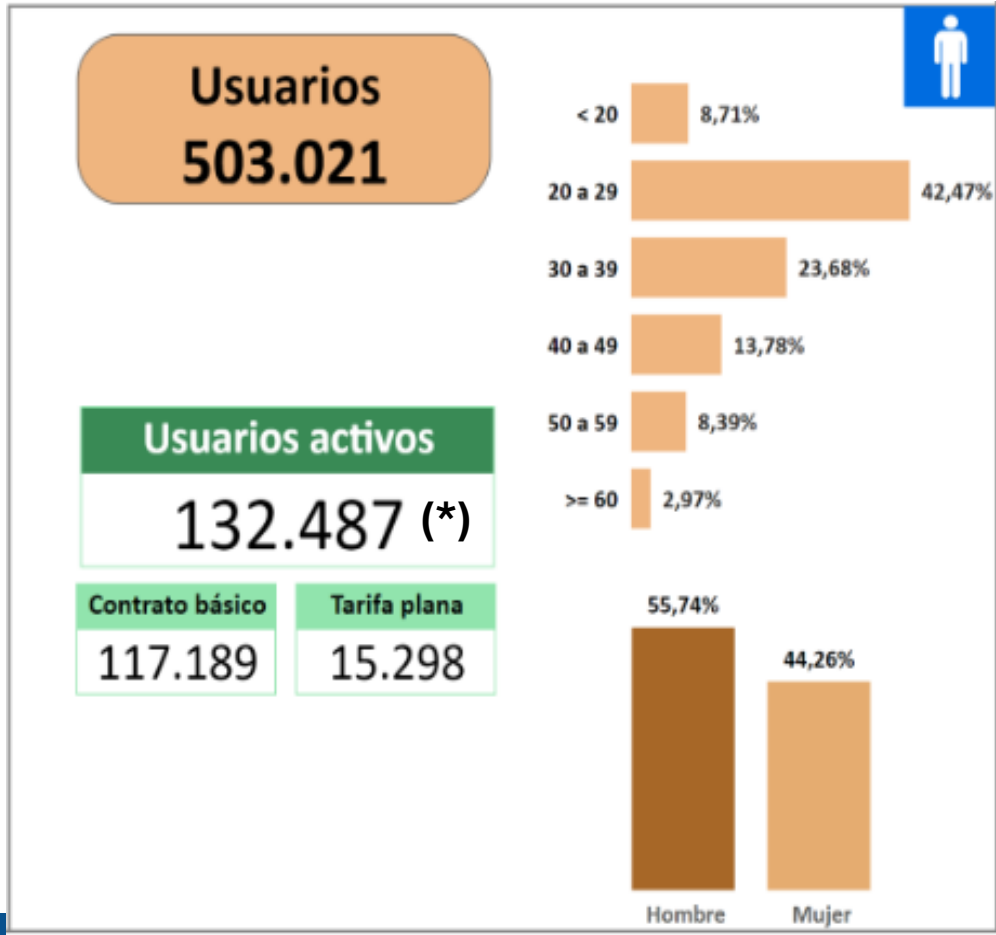


- **No. of bikes:** 7,500
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DISTRITO	ESTACIONES	ANCLAJES
Arganzuela	37	882
Barajas	15	370
Carabanchel	35	823
Centro	64	1490
Chamartín	36	829
Chamberí	26	638
Ciudad LINEAL	31	737
Fuencarral-El Pardo	42	1015
Hortaleza	31	741
Latina	31	742
Moncloa-Aravaca	36	841
Moratalaz	11	256
Puente de Vallecas	25	608
Retiro	32	772
Salamanca	42	991
San Blas-Canillejas	27	662
Tetuán	23	535
Usera	17	396
Vicálvaro	14	333
Villa de Vallecas	18	453
Villaverde	18	437
TOTAL	611	14551

Users subscribed to the system

SEPTEMBER 2024



VIAJES PROMEDIO DIARIOS					
TIPO DE DÍA	2019	2020	2021	2022	2023
LABORABLE (TOP)	11.688 (17.146)	12.033 (17.388)	10.729 (16.638)	10.083 (15.688)	23.652 (57.116)
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SUBSCRIPTIONS

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bici-mad



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The union of the two largest operators in Spain has been a success of public-private partnership



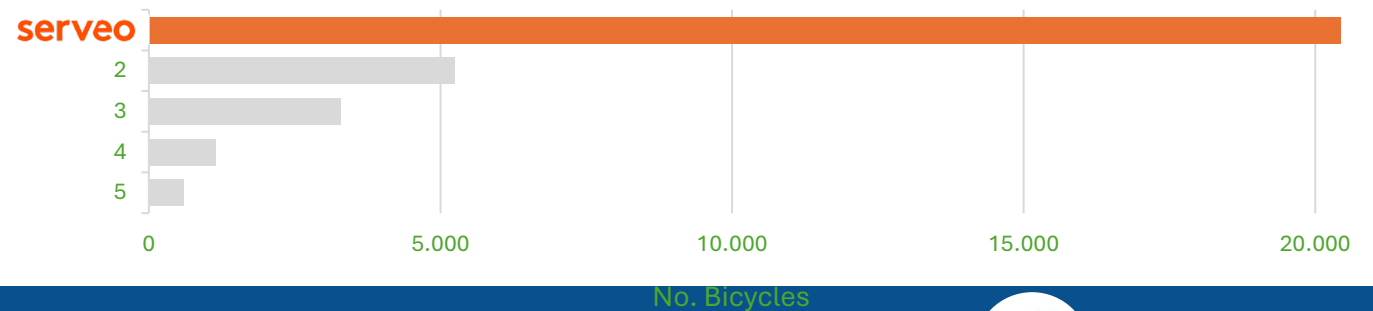
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+20,000 bicycles
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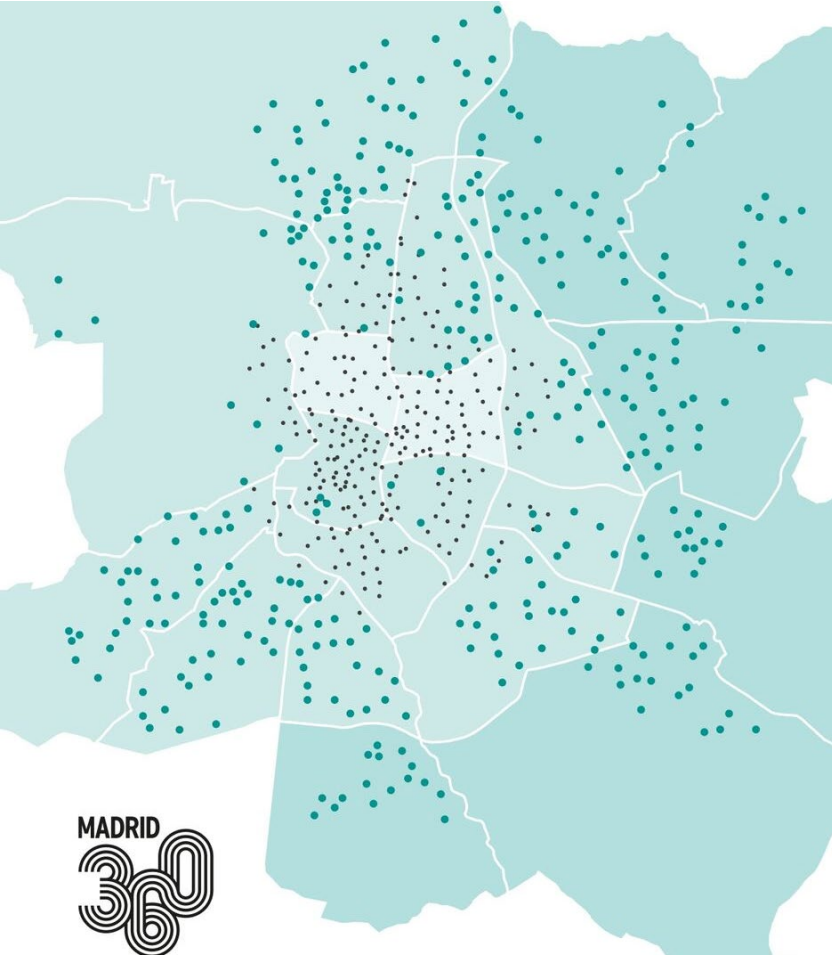


Presence in cities such as **Madrid, Barcelona, Zaragoza, La Coruña, Valladolid or Rivas** show the quality of the product, usability with a focus on user experience and operational excellence in balancing and logistics to obtain an efficient service.

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Supply to start service within 6 months of signing the contract.

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Up to 16 teams working simultaneously at peak workload

Implementation

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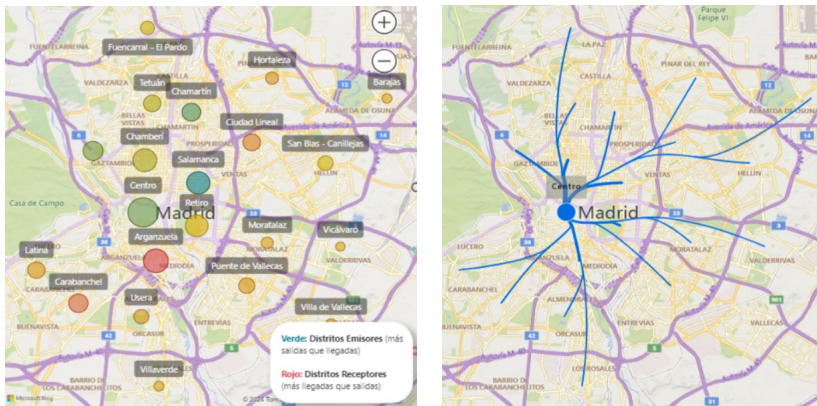
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03.

SERVICE MAINTENANCE



Automation

Management

Maintenance

Results

Notification of automatic alerts to the system by the user

- ✓ Via the push button on the station
- ✓ Through the bicimad app

Tailor-made application for the manager

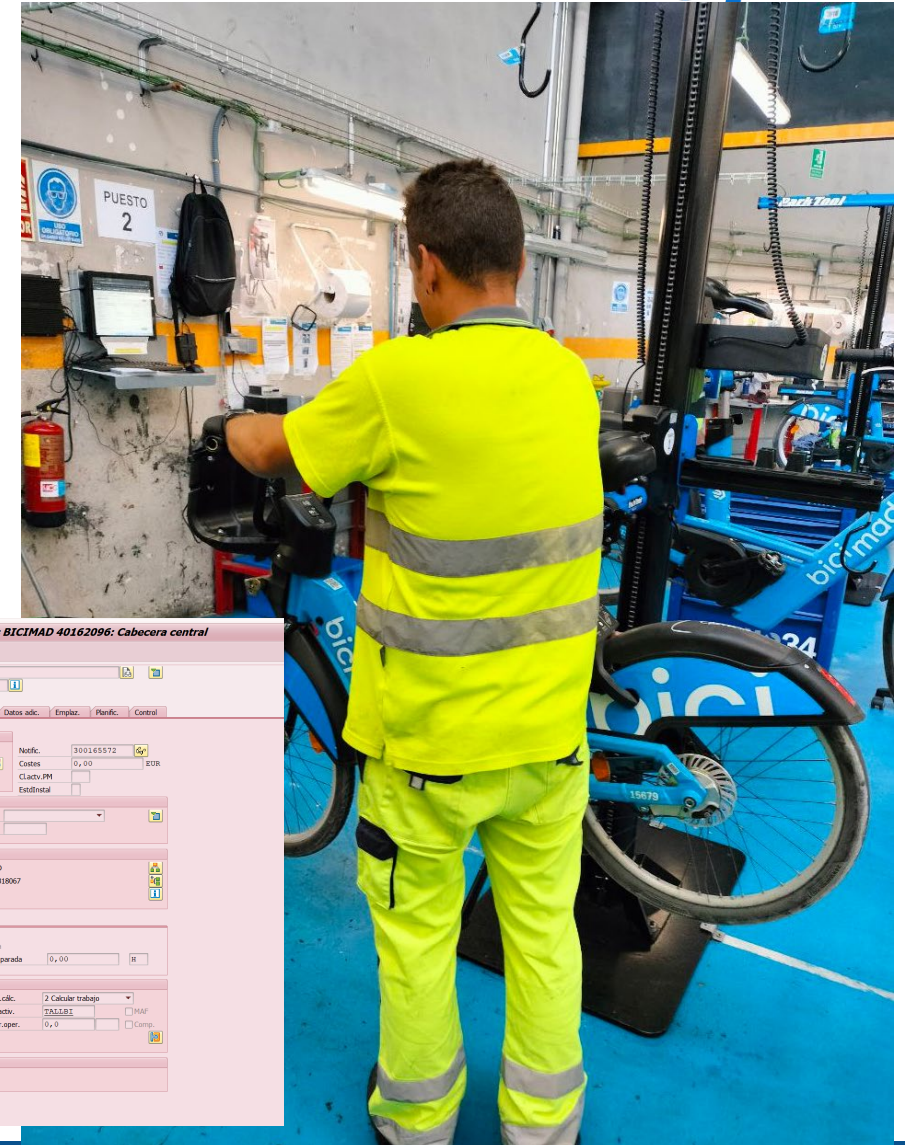
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Maintenance control

- ✓ Procurement
- ✓ Repair times
- ✓ Costs

Analysis and optimisation

- ✓ Metrics control
- ✓ Re-engineering of maintenance processes



Visualizar Mantenimiento Bicicletas BICIMAD 40162096: Cabecera central

Orden: MBCO 40162096 PINCHAZO
Est.sst: L1B, RRMP NLQ PREC

Datos cab. Oper. Componentes Costes Objetos Datos adc. Emplaz. Planific. Control

Responsable: [] / EMT1
R.ppto.tr: EMB1 / EMT1 Puesto de Trabajo de: []
Notif. 300165572
Costes 0,00 EUR
Clactv.PPI
Estadiscal

Fechas: Inc.extr. 12.09.2024 Prioridad Revisión
Fin.extr. 12.09.2024

Objeto de referencia: Ubicación: BICI-2A2L Taller de BICIMAD
Equipo: B18267 Bicicleta Eléctrica B18067
Conjunto

Datos avería: SistemaAvería Fechas aviso
In.avaría 00:00:00 Parada
Fin.avaría 00:09:00 Duración parada 0,30 IR

Primera operación: Operación: PINCHAZO Cx.clic: 2 Cabaler trabajo
Por/mab/Ce: EMB1 / EMT1 Cx.Cst: P901 Clactv: 2A22B1 CMAP
TrabInvert 0,0 Cantidad 0 Dur.oper. 0,0 Camp.
Nº pers. 0

Reclamación de garantía

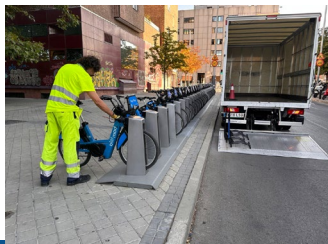
BICYCLE MAINTENANCE CYCLE

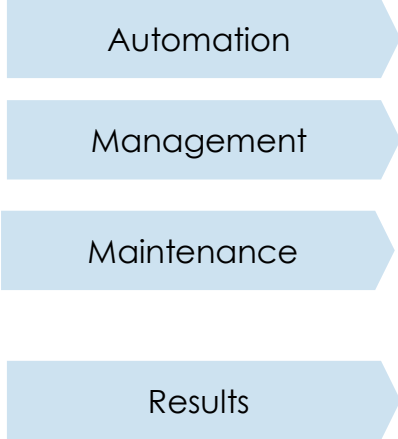
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General	Pr.	Ext.	Fechas	Dat.real.	Ampliación	Catál.
Op. SOP PstoTbo	Ce...	Cl...	Cv.mod	E...	Txt.br.operación	T... Trabajo real
0010 EMB1	EMT1	P901			PINCHAZO	
0020 EMB1	EMT1	P901	RD-0023	B	RUEDA DELANTERA SUSTITUCION	





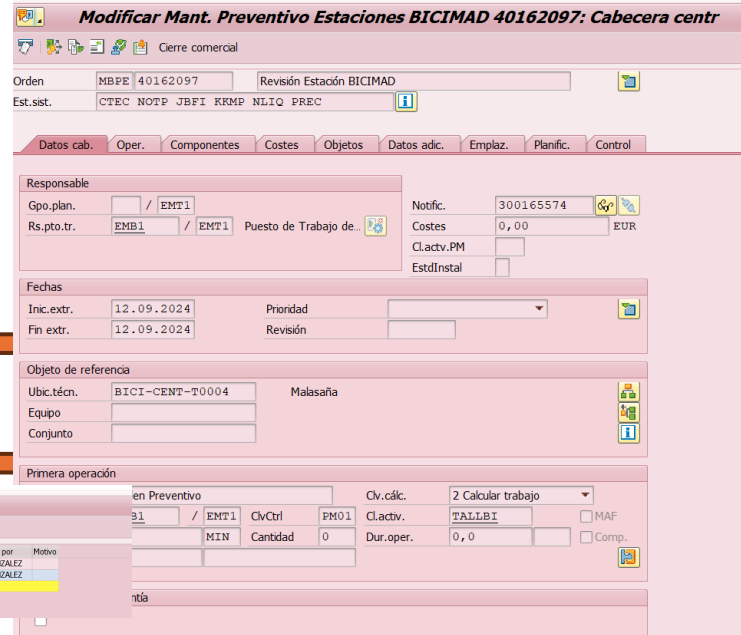
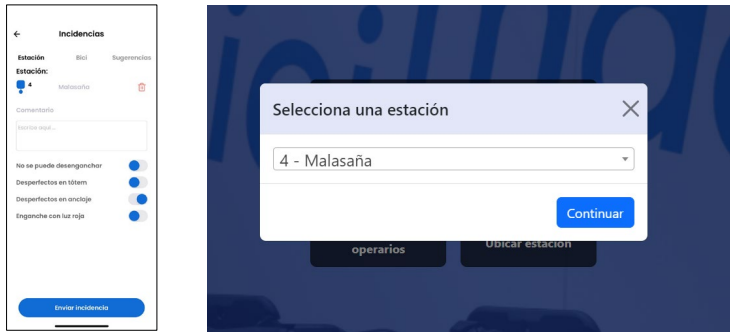
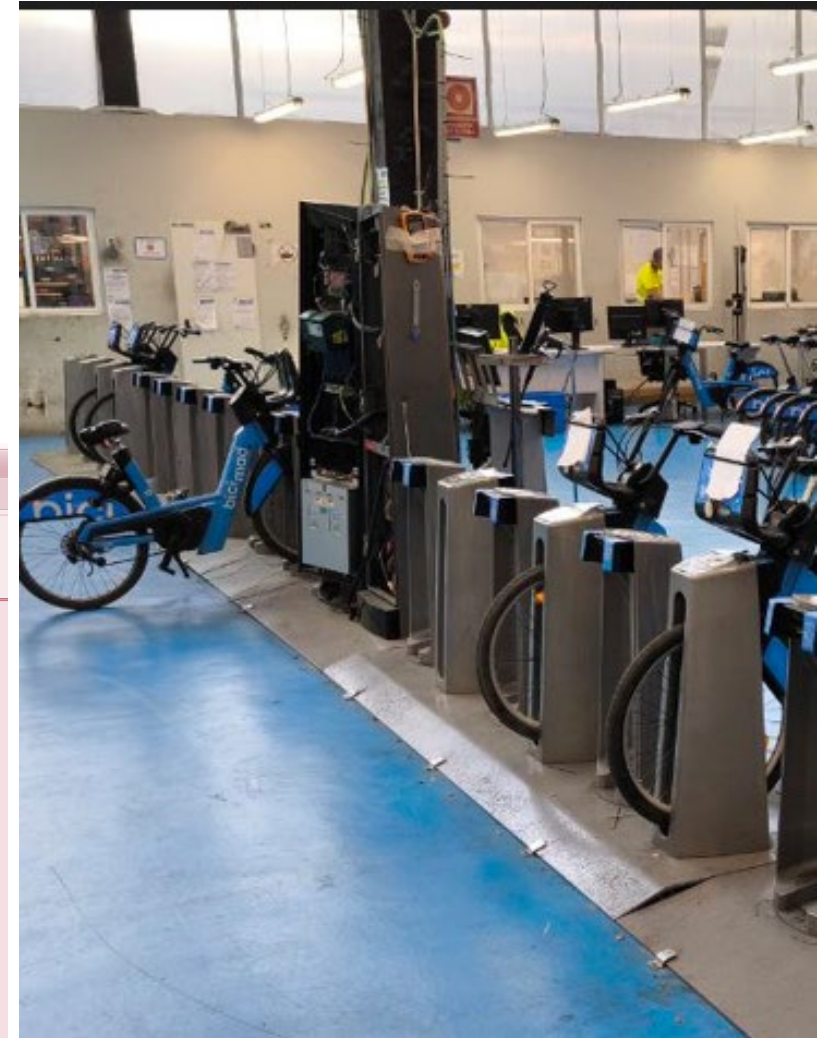
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STATION MAINTENANCE CYCLE



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04.

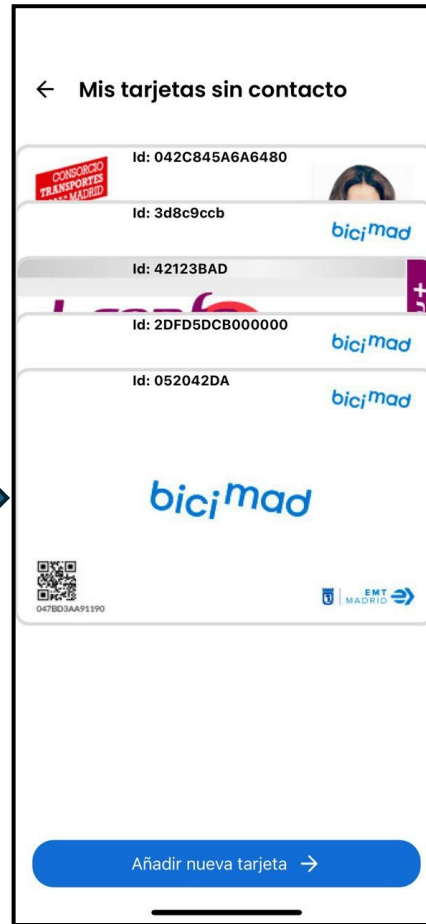
THE INTERMODAL CHALLENGE

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NFC system supports multiple contactless technologies

Integration

Offers the customer the possibility to tokenise multiple personal cards





Multipurpose

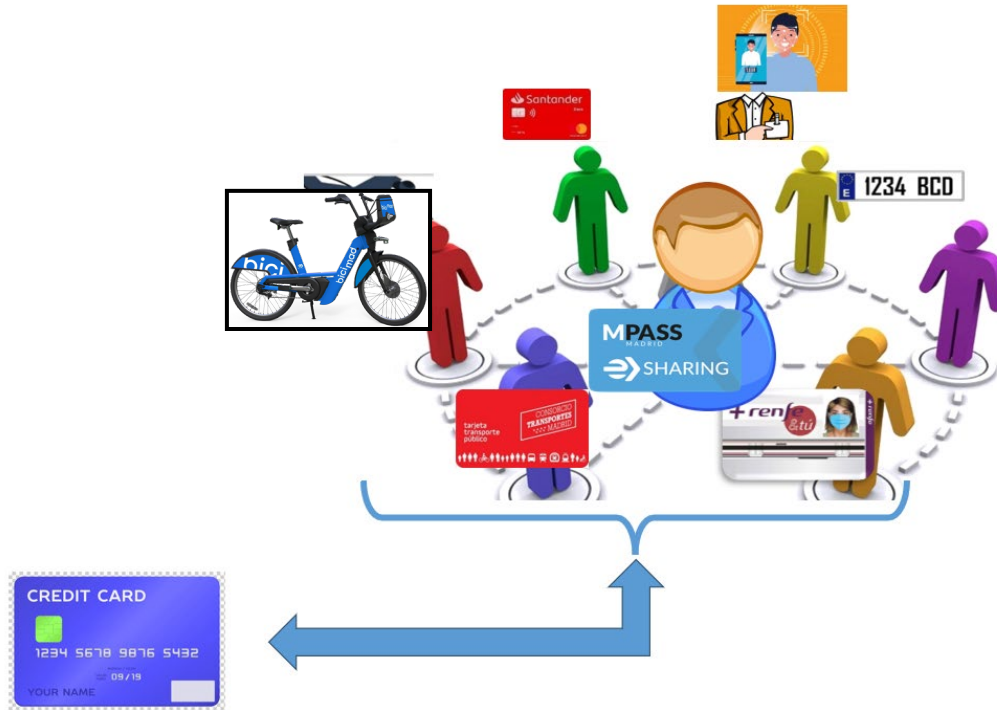
The MPass account itself is compatible with other transport systems.

Packaging

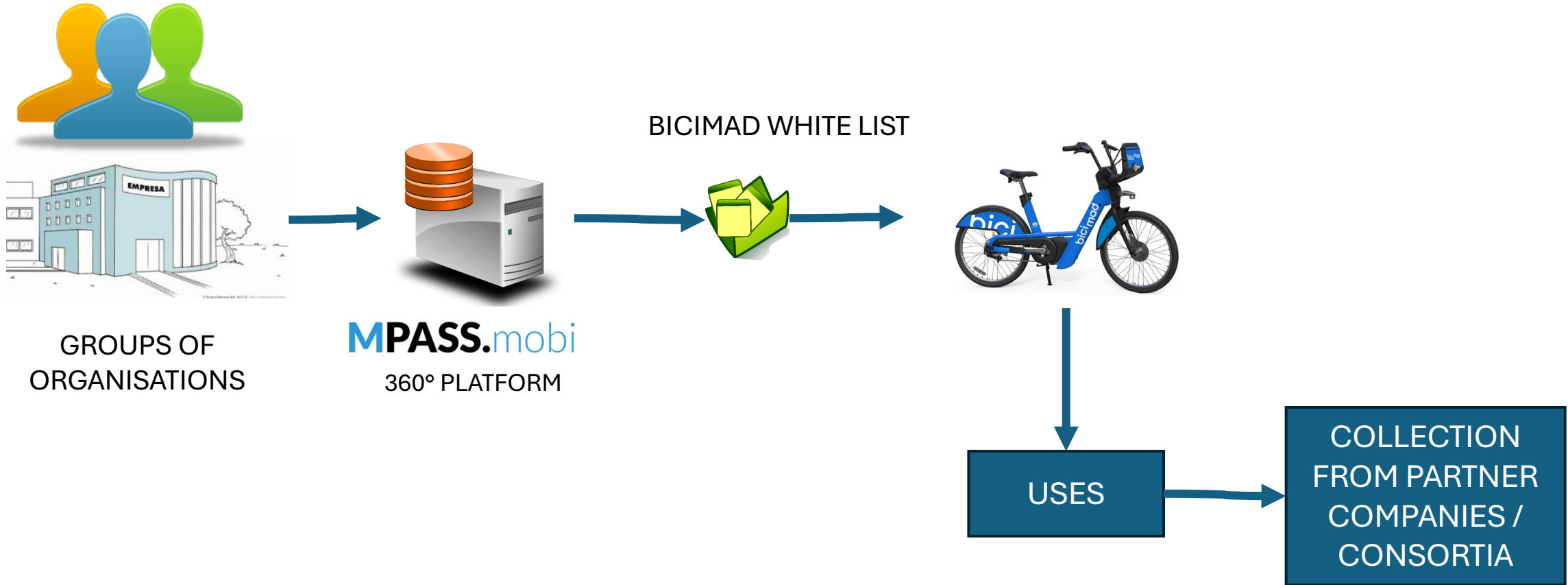
It is possible to combine mobility products

Postpaid

The MPass identity associates the user account with the means of payment to perform the ABT.



A TOKEN IS ANY ELEMENT THAT ALLOWS THE USER TO BE IDENTIFIED WITHIN THE SYSTEM.
 AN NFC CARD UID IS A UNIQUE TOKEN
 AN NFC CARD IS UNIQUELY ASSOCIATED WITH AN MPASS CUSTOMER





Public-private partnerships offer the keys to success in taking on new challenges in technological innovation.

Bike-sharing models are a sustainable and efficient public transport alternative in cities, helping to decongest roads in a healthy and complementary way to public transport.

Product quality (hardware + software), technical support management and operational excellence are the keys to quality service, with a focus on availability and user experience.

It is important to create **simple** identity and access registration **models** that facilitate global mobility. Different and incompatible access systems per operator or city are a challenge to overcome.

We are at a time of change in the **mobility paradigm**, and big cities have an opportunity with the implementation of public bicycle rental.

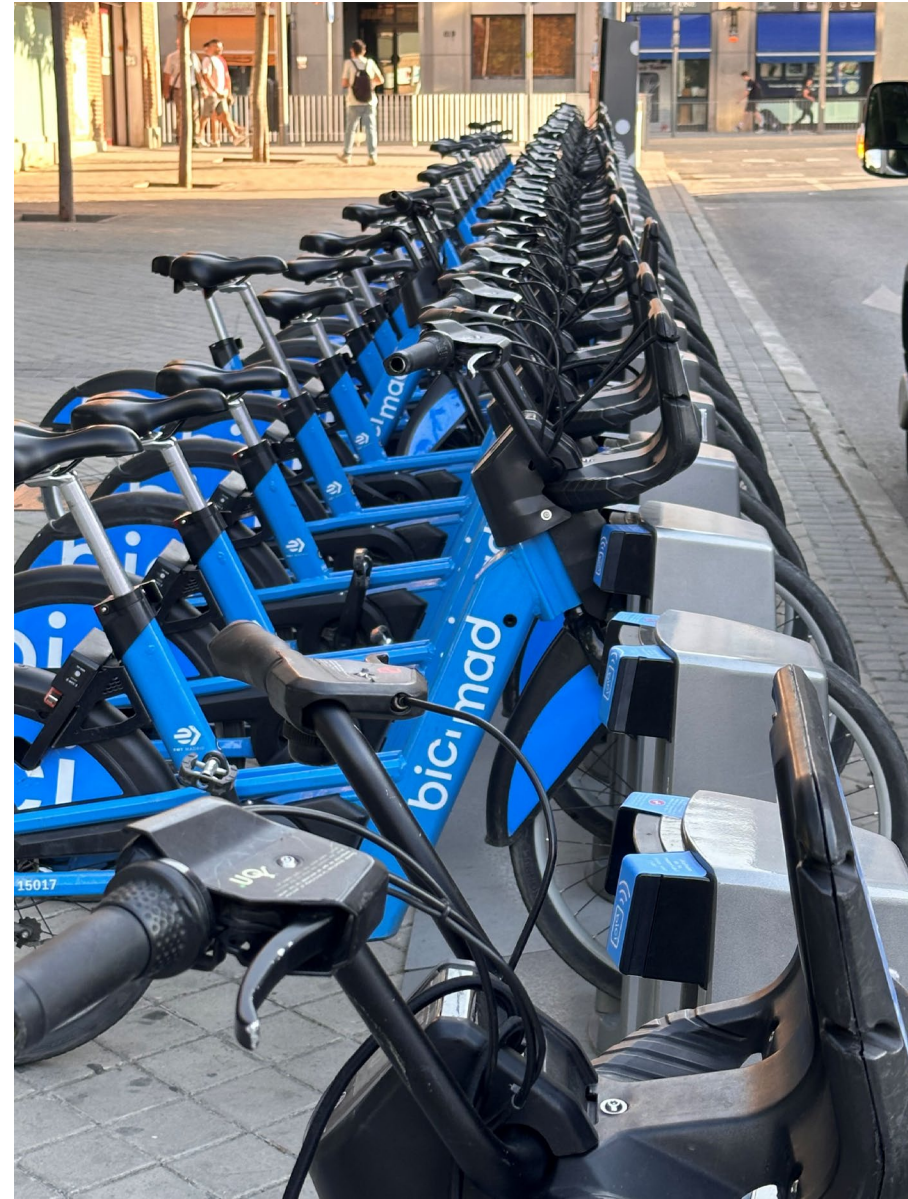


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**THANK YOU FOR
JOINING US**



serveo



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Carlos Acha Ledesma

Director of Technology and Innovation. EMTMADRID

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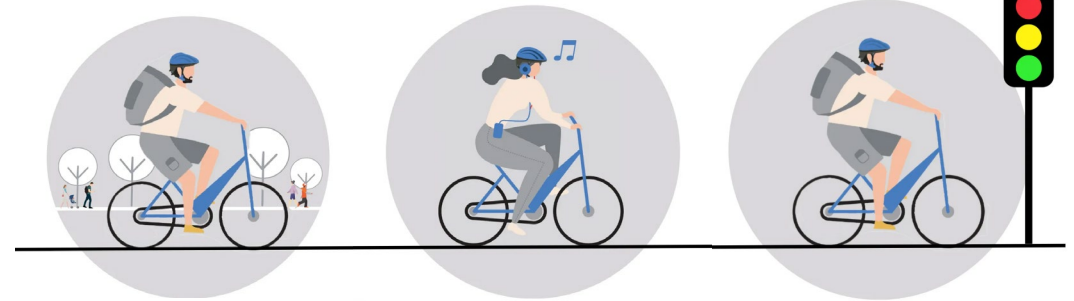
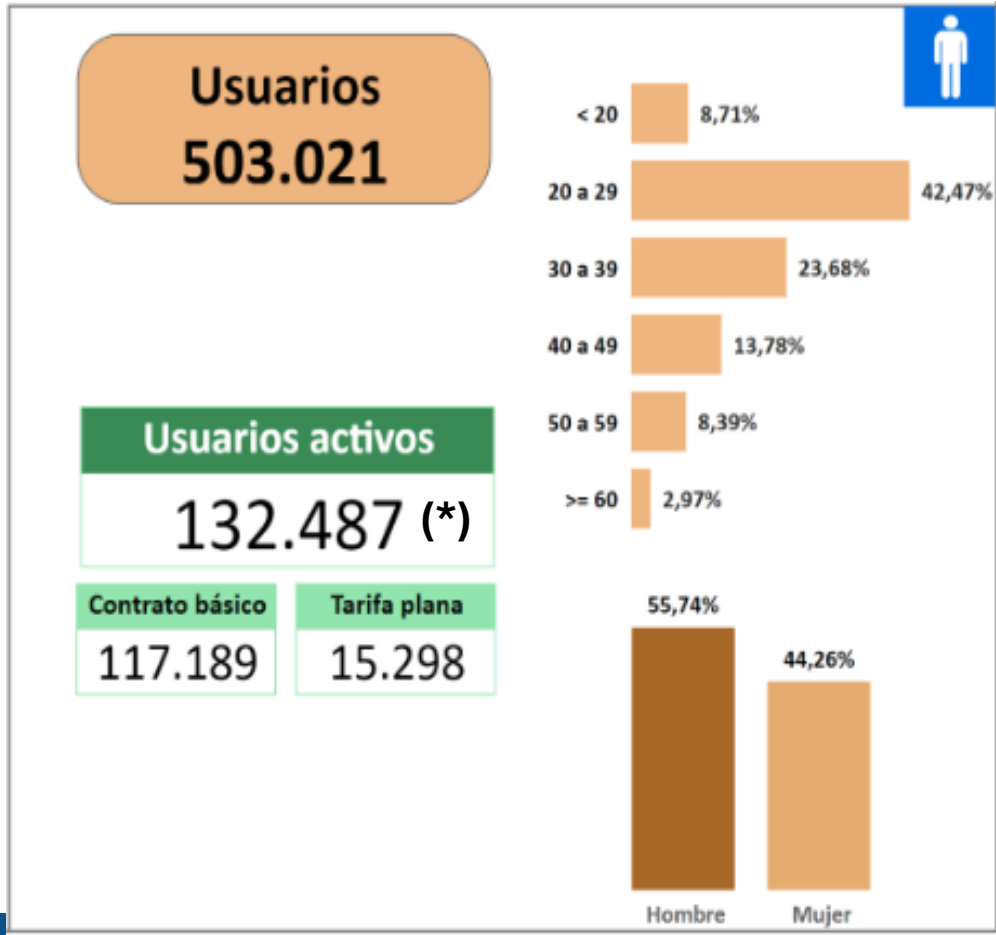
2024



- **No. of bikes:** 7,500
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SEPTEMBER 2024



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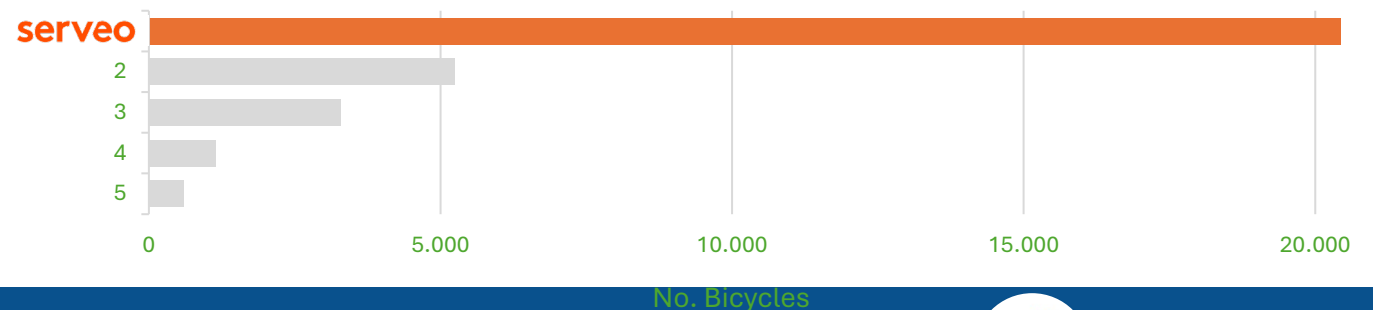
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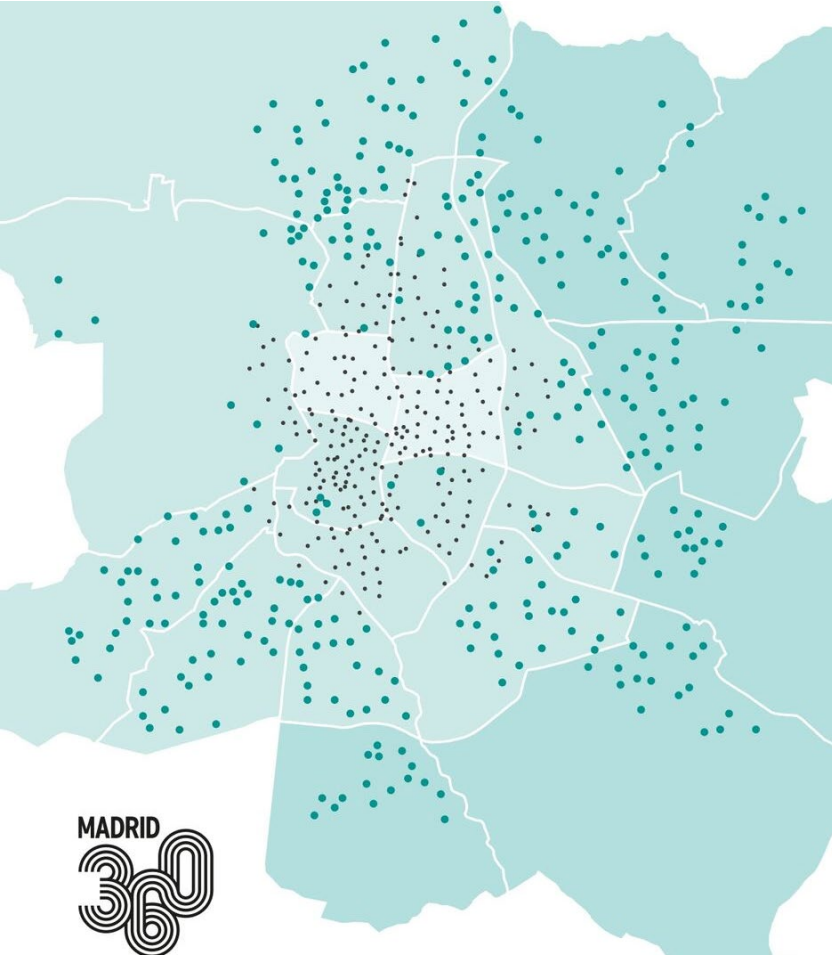


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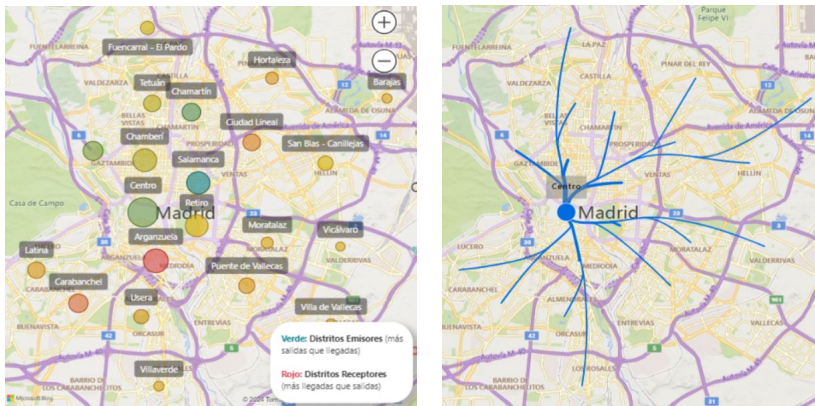
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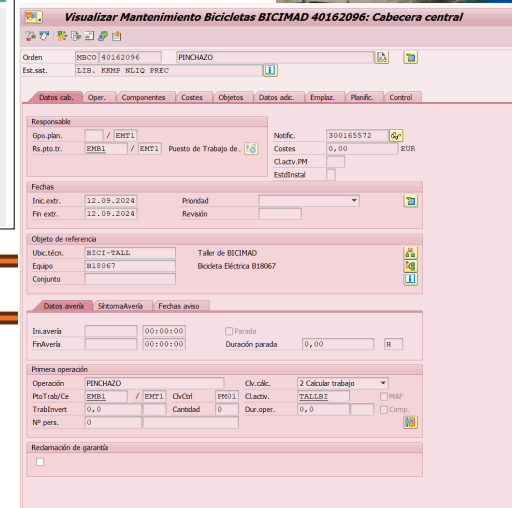
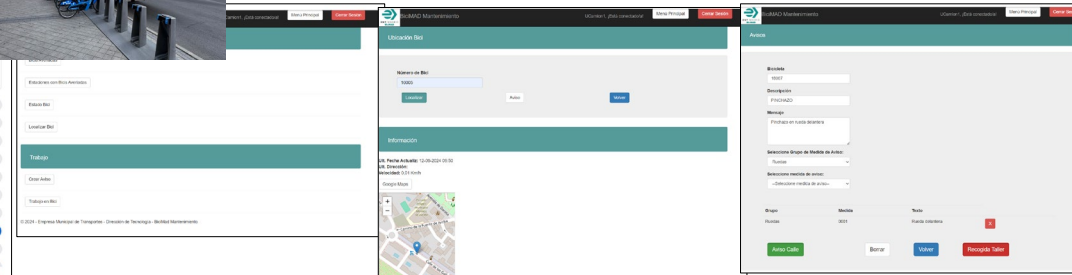
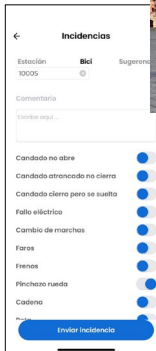
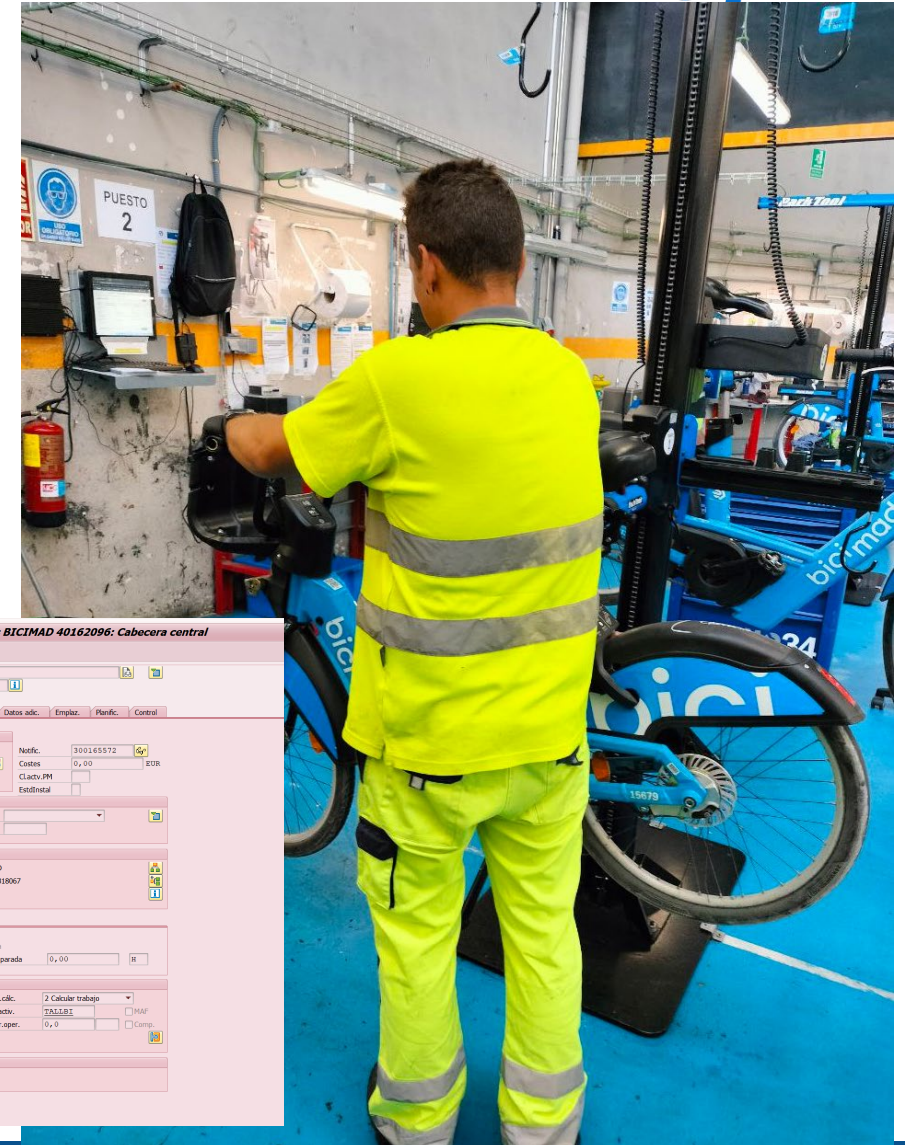
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Integration with SAP Maintenance

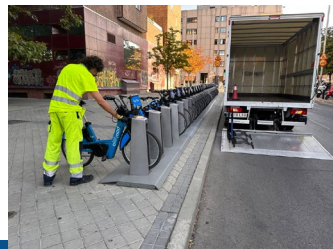
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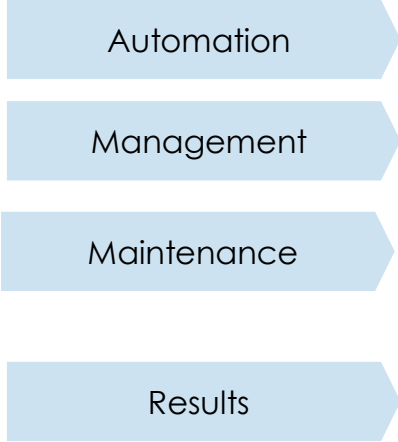
BICYCLE MAINTENANCE CYCLE



Visual Mantenimiento Bicicletas BICIMAD 40162096: Resumen operaciones

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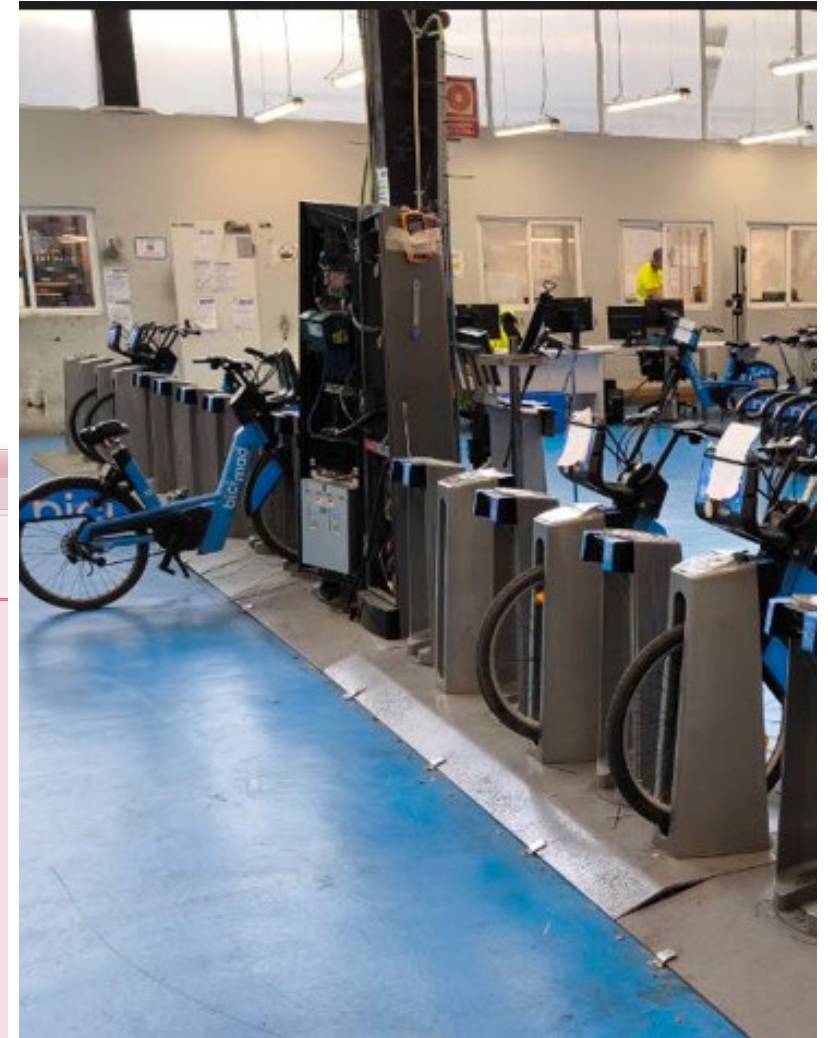
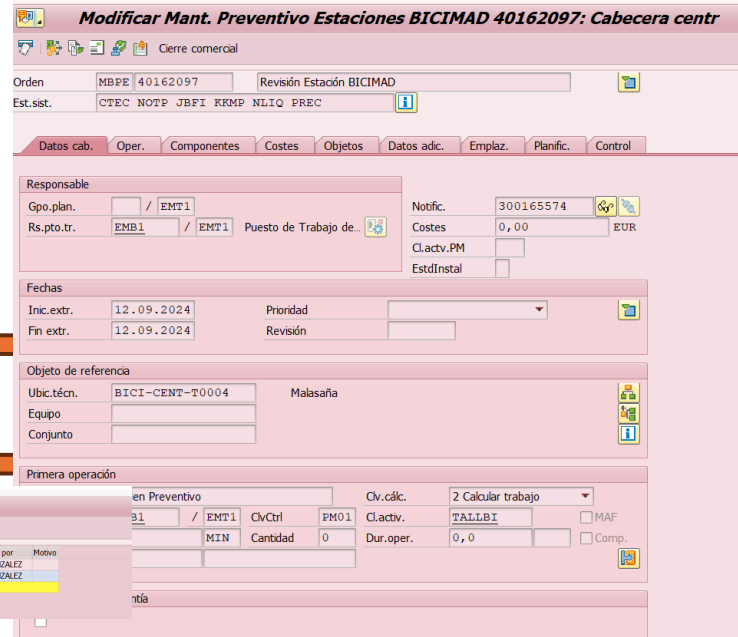
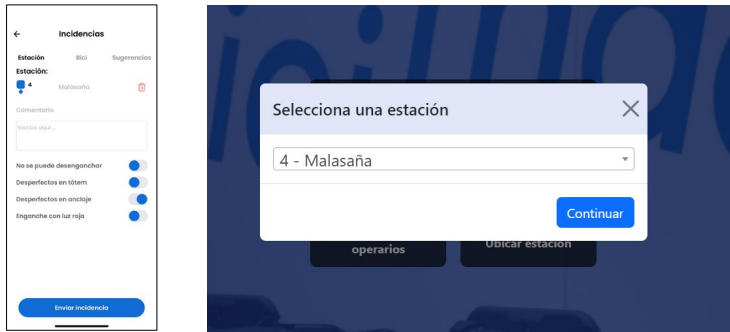
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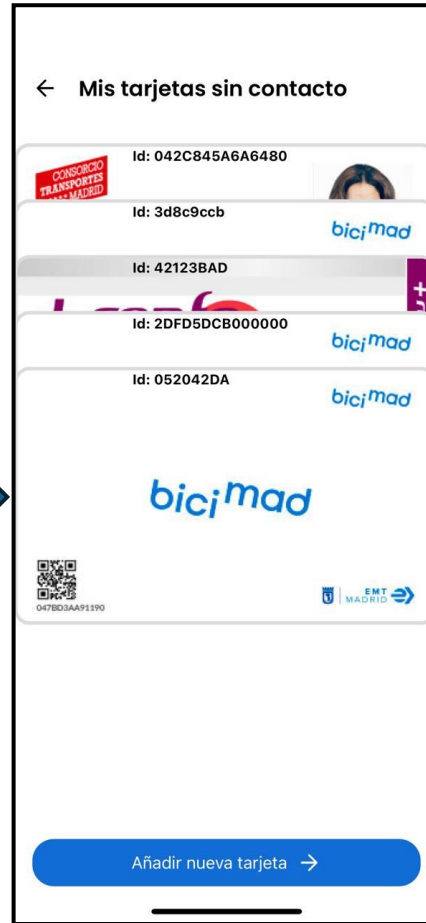


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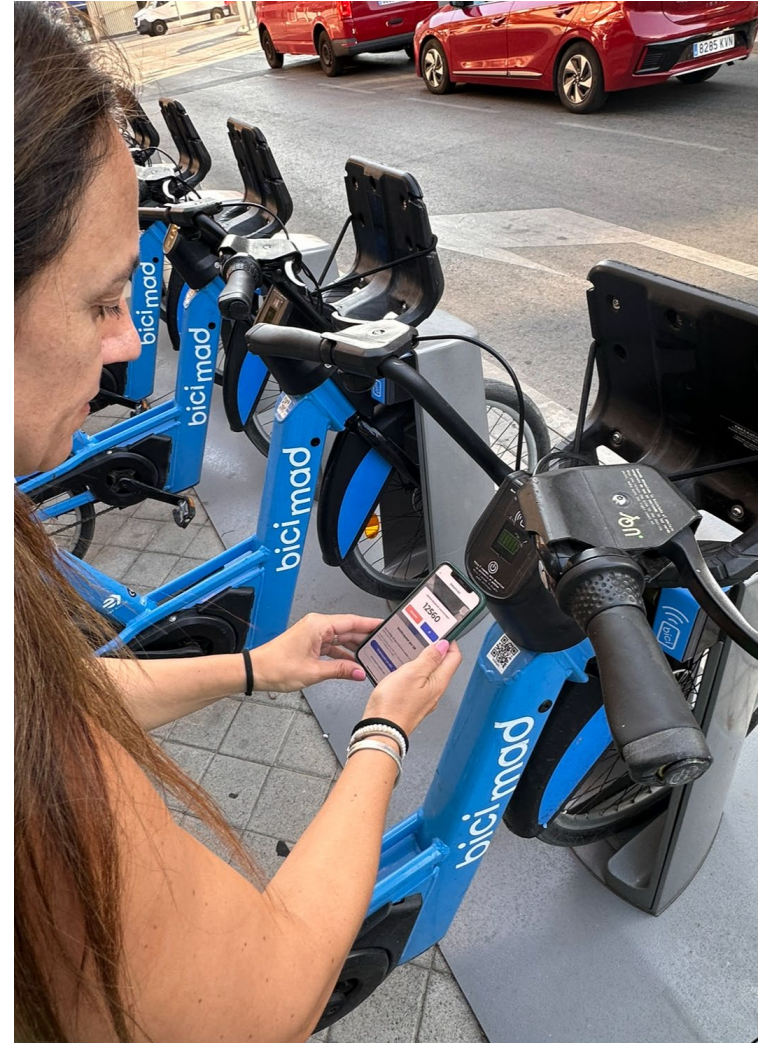
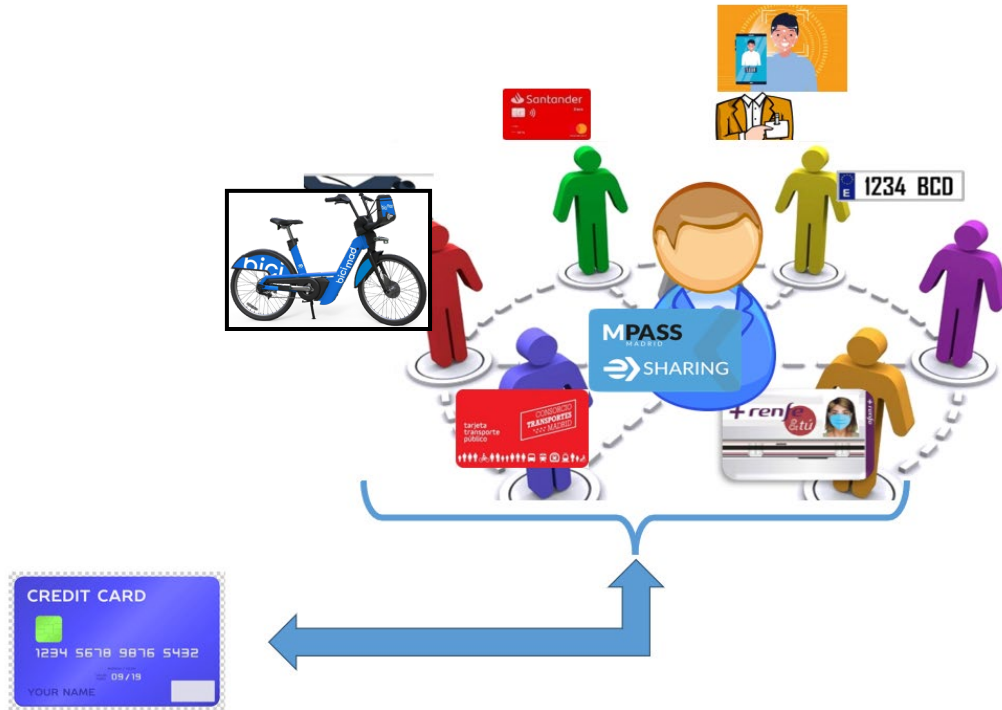
The MPass account itself is compatible with other transport systems.

Packaging

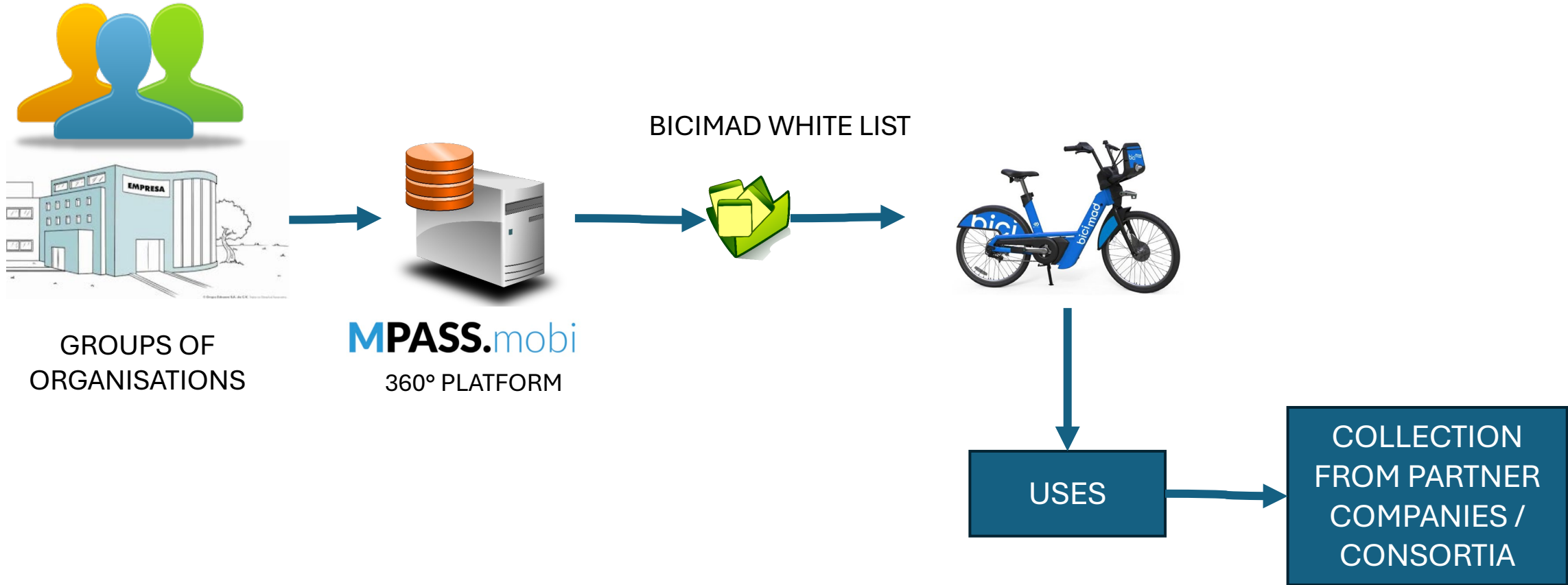
It is possible to combine mobility products

Postpaid

The MPass identity associates the user account with the means of payment to perform the ABT.



A TOKEN IS ANY ELEMENT THAT ALLOWS THE USER TO BE IDENTIFIED WITHIN THE SYSTEM.
 AN NFC CARD UID IS A UNIQUE TOKEN
 AN NFC CARD IS UNIQUELY ASSOCIATED WITH AN MPASS CUSTOMER





Public-private partnerships offer the keys to success in taking on new challenges in technological innovation.

Bike-sharing models are a sustainable and efficient public transport alternative in cities, helping to decongest roads in a healthy and complementary way to public transport.

Product quality (hardware + software), technical support management and operational excellence are the keys to quality service, with a focus on availability and user experience.

It is important to create **simple** identity and access registration **models** that facilitate global mobility. Different and incompatible access systems per operator or city are a challenge to overcome.

We are at a time of change in the **mobility paradigm**, and big cities have an opportunity with the implementation of public bicycle rental.



Capital
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**THANK YOU FOR
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