# Urban Logistics Innovation Day

26 September 2023, Brussels

Break Session II – B: Discussion on Urban Space









Alliance for Logistics Innovation through Collaboration in Europe



#LEADFinalConference #UrbanLogisticsInnovationDay





## Peer-to-peer exchange

**Policy & Advocacy** 

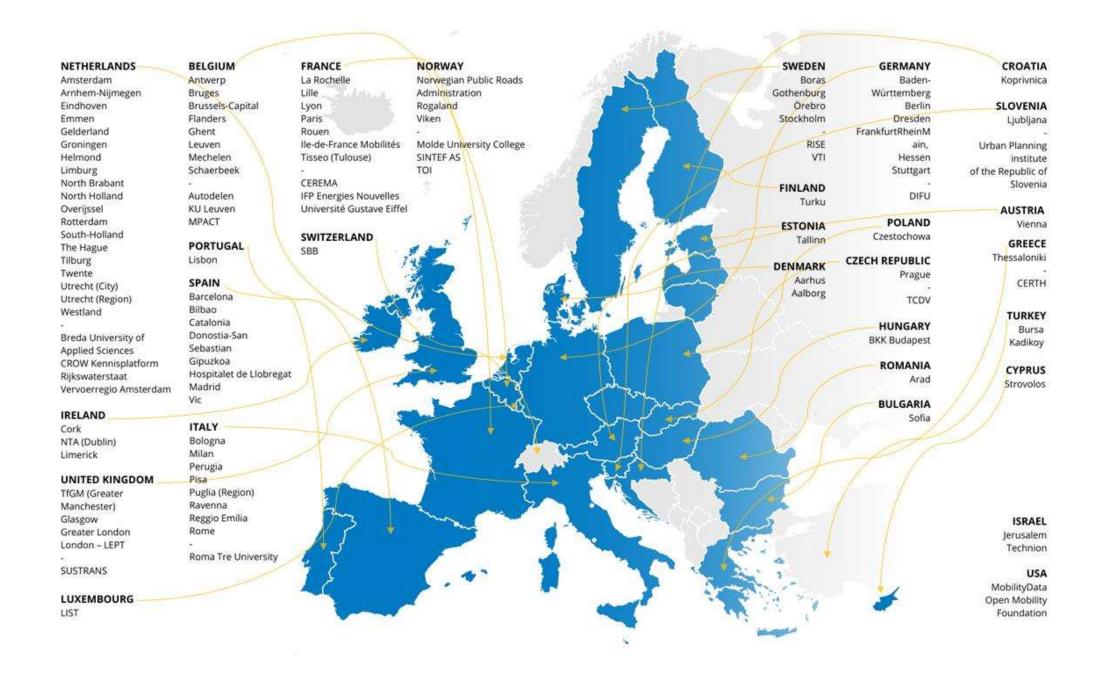
Research

**Innovation** 

+100 Cities, regions and related entities

SUSTAINABLE URBAN MOBILITY INNOVATION









# Public Private Partnership (PPP) for Microhub in Madrid (LEAD)

**Urban Logistics Innovation Day** 

Brussels, September 26th, 2023

Sergio Fernández, <u>Sergio.fernandez@emtmadrid.es</u>, EMT Madrid Partners: CityLogin, Last Mile Team, Panasonic, UPM, ZLC





# Promotion of public-private cooperation



#### 4.7 Promover el cambio tecnológico y la optimización de la DUM 212

4.7.1 Propiciar el cambio de Tecnología de los vehículos de la Distribución Urbana de Mercancias 212

Acción 68. Incentivos para el cambio de Tecnología de los vehículos privados (vehículos comerciales) 213

Acción 69. Prever infraestructuras de recarga para vehículos de DUM eléctricos utilizando aparcamientos públicos que conformen una red de electrolineras. 213

#### 4.7.2 Optimización y mejora de la DUM 214

Acción 70. Establecer acuerdos de colaboración con las empresas del sector (operadores logísticos, transportistas, distribuidores, etc.) para la optimización de la DUM. Foro DUM. 215

Acción 71. Facilitar la localización de centros logísticos en el municipio de Madrid (especialmente entre la M-30 y la M-40) 216

Acción 72. Implantar micro plataformas en aparcamientos, próximas a zonas de acceso restringido 217

Acción 73. Crear un sistema de gestión y control de plazas de aparcamiento en vía pública reservadas para carga y descarga en Madrid. 217

Acción 74. Estudiar el incremento del número de zonas de carga y descarga 218

Acción 75. Impulsar la instalación de taquillas de distribución para ecommerce en los aparcamientos de EMT y en otros centros intermodales 218

Acción 76. Revisar la regulación horaria de la DUM 219

Acción 77. Optimizar la carga y descarga en los mercados municipales 219









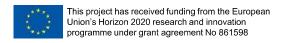
## **Living Lab**

Transforming a
Parking Lot to an
Urban Consolidation
Centre

#### **Status Quo**

- Madrid is an important logistics hub (between the Atlantic and the Mediterranean TEN-T corridors),
- Occasional air quality and congestion challenges,
- Madrid LEZ and current regulations (Madrid360),
- Rise of e-commerce and home delivery (even more due to COVID19 and post-COVID19 challenges).





#### **Ambition**

- Demonstrate the **better efficiencies** in using a UCC connected to the TEN-T to deliver to the city center;
- Assess flows and congestion. **Route optimization engine** in many-to-many and many-to-one scenarios, combining vehicles of different fleets. Improving of environmental indicators;
- Explore alternative (and sustainable) business models;
- **Public-private cooperation mechanisms**, identifying new ideas for cooperation and evaluating the costs and benefits of implementation;
- The economic **efficiency and reliability** for courier companies, and henceforth for clients, of using the LEAD strategies compared to conventional freight delivery approaches;
- Explore potential incentives. Data management.

#### Partners:









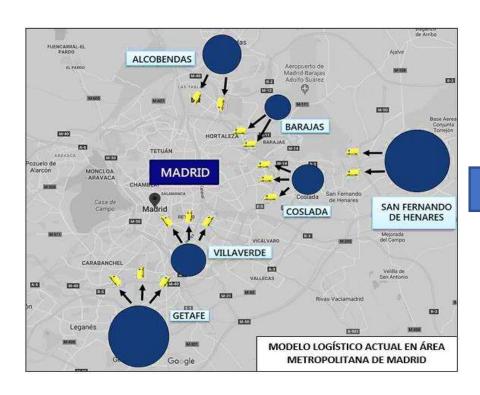




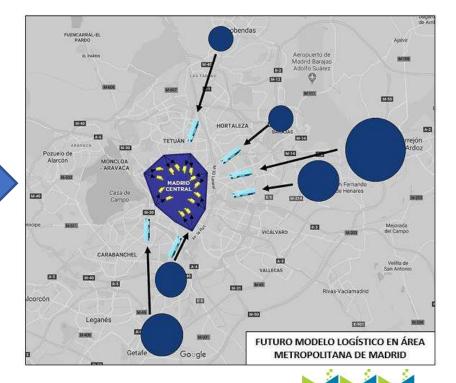


# **Living Lab Madrid**

### **BAU** situation



#### **Ideal situation**





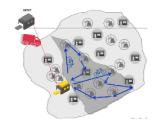
## Value case scenarios

- 4 different ones based on location, mostly:
  - #1: Microplatform at San Fernando de Henares ("Hotspot for the e-commerce in Spain"
  - #2: Microplatform at city centre (with vehicle restrictions)
  - #3: Microplatform at Ring Road "M30"
  - #4: Microplatform at city centre (without vehicle restrictions)

























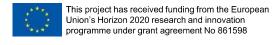


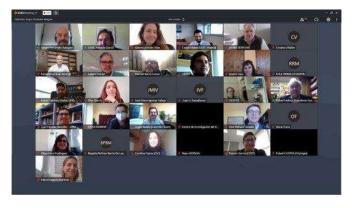














# **Pilot setting**

- Location decided (Plaza Mayor underground parking)
- Paperwork required (contract EMT-CityLogin) starting on 4/12/2020











# **Contract model EMT-CityLogin**

- It took **3 months** from the start of the procedures to obtain the **relevant permits** to start operating.
- The type of contract selected was a cession of use of the space for the cross-docking operation for the duration of the project.
- A zero cost is established during the development of the project and a future negotiation of a monthly rental price is agreed once the project is completed to ensure continuity.
- The costs of adaptation, necessary installations and preventive measures of the space ceded are borne by the operator (CityLogin)







# Adapting the space

- The chosen facility was used as a vehicle storage and inspection facility for mobility officers.
- The first action to adapt the space was the **cleaning** of the premises, the removal of a vehicle bench and the removal of old elements.
- This was followed by the **electrical installation** and the renovation of the lighting fixtures and the installation of air and fire renovation **in accordance with the law**.
- Finally, the office was painted, adapted and two new charging points for electric vehicles were installed on the outside wall of the premises and new conventional sockets were installed inside the premises.







## **Pilot Results**

Demonstrate the **better efficiencies** in using a UCC connected to the TEN-T, to deliver to the city centre

Madrid

LAUNCH: OCTOBER 6<sup>TH</sup>, 2021

**ENDING OPERATION: 1st June 2023** 

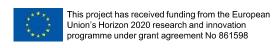














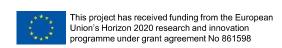
## How has it worked?

Steps	Timetable	Where	Vehicles
Reception and classification	02:00 am 10:00 am	San Fernando Hub	6m3 van (due to heigh limitation at the parking)
Distribution (Delivery)	11:00 am 21:00 pm	Plaza Mayor Microhub	Electric three wheeler
Reverse logistics	21:00 pm 22:00 pm	Plaza Mayor + San Fernando	6m3 van











# Acknowledge

Madrid's Living Lab was selected as a European Best Practice in Sustainable Urban Logistics by EIT Urban Mobility in 2022









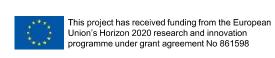






# Learnings & findings/ Steps forwards

- Real Pilot: advisable to start as soon as possible
- Matching the needs of the local administration with the requirements of the logistics operator: sustainability (at all levels)
- **Taking advantage** of the policies established in the city (regulatory framework, strategies, etc.) to promote this type of activities
- Establishment of objectives and KPIs must be useful for the operator
- Collaborative scenarios do not impact the transport efficiency and emissions while the service quality is improved
- Synchronous planning: manufacturers may benefit from real-time digital twins to enable collaborative distribution schemes with local businesses
- Effective collaboration between public and private entities has been identified as a key strength of Madrid LL



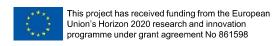


## **OTHER APPROACH: CANALEJAS 360**





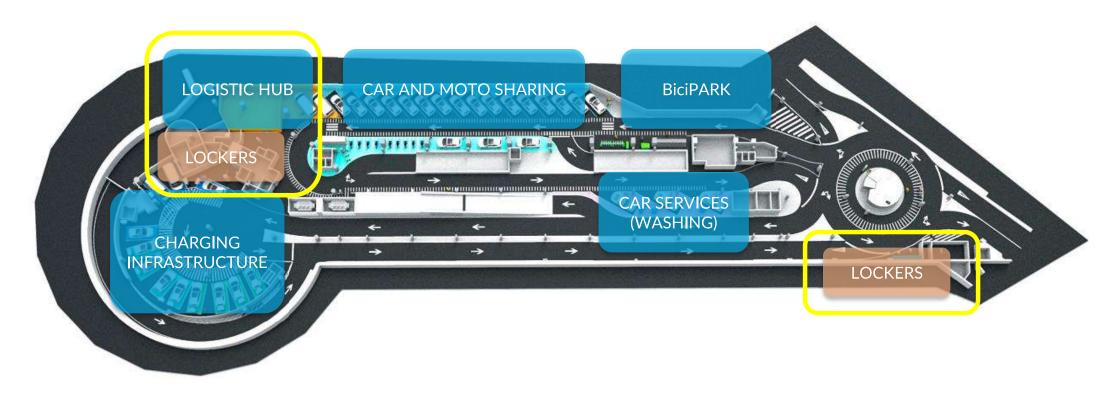


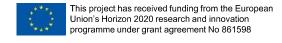




## **LOGISTIC MICROHUB**











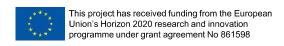


# Canalejas 360



- In this case the public-private partnership is based on a contract (public tender).
- It was called by negotiated procedure with advertising in January 2021 and awarded to the company SEUR in February 2022.
- SEUR will operate this microhub until April 2027, at a price of €25,691.40 plus VAT per year.
- The activity of the microhub is **both for last mile deliveries** and to serve as a **collection point for private individuals**, operating with **electric vehicles**, which recharge in the microhub itself.
- Canalejas 360 also has parcel collection/deposit lockers managed by SEUR and Amazon.





# Thank you!

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