Madrid, December 2, 2020

Technological innovation by EMT to lead digital and sustainable mobility

Madrid Mobility 360 launches the smart mobility app that plans journeys based on bus occupancy

- For the first time ever, users will be able to obtain information on bus occupancy both while calculating a route and while waiting at the bus stop
- This smartphone application combines public transport with free-floating shared mobility services, expanding the options of its powerful route calculator
- It is possible to make payments through the App to acquire a single bus ticket and to use BiciMAD or BiciMAD Go services

The Mayor of Madrid, José Luis Martínez-Almeida, presented “Madrid Mobility 360” this morning, the innovative tool to promote sustainable mobility developed by the Municipal Transport Company of Madrid (EMT). Accompanied by the Deputy Mayor for Environment and Mobility, Borja Carabante, and by the General Manager of EMT, Alfonso Sánchez, Mr. Martínez-Almeida showed the main functionalities of this app that, thanks to the efforts in improving the customer experience, its aim is to become the leading example in its kind.

Developed by EMT, “Madrid Mobility 360” offers to the user information on the occupancy of buses for the first time ever. This feature, unprecedented in this type of application until now, is especially relevant in helping users to make more conscious and free mobility decisions, and positions Madrid at the forefront of digital mobility. In addition, in this context of Covid-19 mobility, this feature is aligned with the goal of flattening the public transport rush hour agreed in the so-called “Villa Accord” (list of measures agreed by all the political parties in the city board, to be implemented in Madrid in order to help in the recovery of the Covid pandemic), resulting in a better experience for the user and a better public transport system for the city. In addition, the application incorporates free-floating shared mobility services, such as e-scooters and e-bikes, into the route calculation, and allows payments to both purchase a single bus ticket or to use BiciMAD and BiciMAD Go.
Information on occupancy when planning routes and waiting at a bus stop

The main innovation in the powerful “Madrid Mobility 360” route planner, which is a world first in this type of tool, is that it offers to the user information on bus occupancy. By using an intuitive colour code (green, yellow, orange and red) and a message about the estimated level of crowdiness, the user obtains information about bus occupancy in the trip segment of the specific calculated route. The occupancy, shown by 25% jumps, already takes into account the capacity reductions currently established as a preventive measure against Covid-19.

But this information is not merely descriptive. In the event that the planned route includes a high occupancy section, the tool offers the user two alternative options: a second route at the same time frame with a lower occupancy, and the same route at a later time with a lower occupancy. This feature allows users who wish to do so to plan their journeys while taking into account this kind of service data, and to have the necessary information to modify their demand for the service, either temporally or spatially.

“Madrid Mobility 360” will also offer this information when the user selects a bus stop. The app will show this information through an intuitive four-level occupancy icon for both the next bus and the one after that. Thus, a user waiting at the bus stop will have the information to decide whether to take the next bus or, conversely, to wait, if this decision gives any additional advantage, such as getting a free seat.

Information on occupancy is currently available for 20% of EMT’s bus routes, and will reach all of them in early 2021. Bus occupancy is determined by means of a predictive statistical model that uses both passenger boarding validation data and information provided by sensors installed on the buses. These sensors are currently deployed on 300 vehicles, and they are expected to be installed in the entire fleet by June 2021.

MPlanner, the powerful and innovative route calculator for better mobility

“Madrid Mobility 360” brings together different options from the Madrid mobility ecosystem and allows the user to identify the wide range of mobility solutions available in the city on the same map. The application offers information on the main public transport operators, such as EMT urban buses, metro, light metro, suburban
train and intercity buses. It also includes the many existing shared mobility options such as bicycles, scooters, cars and motorcycles. The app identifies all the assets, providing their location and information on main use characteristics, such as battery level in the case of electric vehicles, offering all possible alternatives to the user, intuitively and at a glance.

For the first time ever, “Madrid Mobility 360” includes free-floating shared mobility services in the route calculator, which represents a significant innovation, and significantly broadens the options it can offer to users for travelling from one point to another, since it allows to suggest the best connections with public transport.

“Madrid Mobility 360” powerful and innovative route calculator, called MPlanner, has involved a significant effort in technological development and algorithmic optimisation to offer the user a differential experience. The application allows the calculation of intermodal routes, integrating all the available options and optimising the routes according to their economic cost or trip time. It also takes into account some user parameters, such as their preference for walking or for using any mode of transport over the others.

“Madrid Mobility 360” also reports the estimated CO2 emissions generated by the trip in order to improve public awareness and sustainability.

**QR payment of the bus ticket or the BiciMAD service**

“Madrid Mobility 360” allows the purchase of a single EMT bus ticket in its own application for the first time. After registering in the EMT digital identity and payment system, the user will be able to pay and conveniently validate a single bus ticket by a QR code.

With the application, it will also be possible to use the BiciMAD and BiciMAD Go services through the same QR unlocking system associated with the account that the user has previously registered.

**EMT Madrid, a benchmark of technology at the service of the user**

The city of Madrid is a leading model in public transport, and an attractive setting for the implementation of new mobility solutions. Large-capacity public transport continues to be the backbone of urban mobility, while other alternatives are
emerging to complement it and to provide to users multiple possibilities, building a wide, varied and multimodal offer.

“Madrid Mobility 360” is EMT Madrid’s most ambitious commitment after years of experience and innovation in this field. In 2013, EMT developed the “Muévete por Madrid” website that served to identify existing information and to assess the degree of maturity towards technological integration. Later, in 2018, EMT launched the “MaaS Madrid” application, which was a first exercise in database integration for visualisation. “Madrid Mobility 360” represents the consolidation and optimisation of previous experiences in integration to provide a comprehensive response to the user with features that have never been developed before.

Now, more than ever, the promotion of sustainable mobility means offering a smart mobility experience, that is, one that is digital and innovative, and provides the user with efficient alternatives to make their journeys easily and smoothly. Thanks to the technology, we can offer, in real time, mobility solutions with a high degree of information to help you maintaining a sustainable mobility experience that meets your expectations.