

Objectives of the measure

- **At measure level:**
 - Reallocate space from private car to PT by implementing a dedicated and segregated corridor for the bus.
 - Increase bus efficiency and punctuality and reduce travel times by implementing a BRT system.
 - Prioritize bus transport through traffic light priority based on social optimum.
 - Increase the bus frequency and reduce waiting times.
 - Improve public transport in Poblats Marítims and other peri-urban areas of the city.
- **Contributing to city level objectives of:**
 - Prioritize sustainable mobility.
 - Move people from private car to sustainable transport modes.
 - Increase PT use.

Description of the measure

- **Situation before:**

Blasco Ibáñez Avenue is one of the most relevant corridors in Valencia from the mobility perspective. Despite having a dedicated lane for the public transport, it is usually blocked by private vehicles making a bad use of the same. The creation of a segregated and dedicated lane for the bus (BRT) will prevent private vehicles from blocking the path of the bus. Moreover, within the strategy of prioritizing sustainable mobility, it arises as a big opportunity the implementation of the traffic light priority to reduce the travel times of the BRT, increase punctuality and reduce waiting times.

- **General description:**

This measure will assess, plan and finally test a **dedicated bus lane (BRT)** connecting the Maritime District with the core of the city through one of its main arteries (Av. Blasco Ibañez). This initiative will be complemented by **traffic light priority** for public transport fleets and dynamic traffic management to guarantee efficient performance of the BRT lane. The assessment of this first dedicated lane will be used to identify and plan BRT lanes in other districts of the city.

- **Sub-measures description:**

- **VAL_04_01 "BRT dedicated lane Av. Blasco Ibañez":** This first sub-measure will transform a car-dedicated arterial to a PT-dedicated street by creating a dedicated and segregated corridor for the bus. The segregation of the bus corridor will be achieved through physical barriers in order to prevent private cars from occupying the dedicated bus lane. Moreover, the analysis of the people mobility needs in the arterial and its adjacent areas will be used to adapt the PT offer in the BRT accordingly, including the increase of the bus frequency to reduce waiting times.
- **VAL_04_02 "Traffic light priority for public transit":** This sub-measure will be focused on the prioritization of the bus service by means of the traffic light priority. The deployment of the BRT will be complemented by the traffic light priority, which will potentially be based on social optimum. However, different strategies will be assessed and the most optimum one will be implemented. If needed, the equipment of the traffic lights will be adapted.

- **Measure outputs:**

This measure will deliver:

- Dedicated **bus lane (BRT)** in Blasco Ibáñez Avenue.
- **Traffic Signal Priority** for PT (potentially based on social optimum) in Blasco Ibáñez Avenue.

- Analysis of the **impact of the BRT system** in the arterial and its adjacent areas for studying the potential replication in other city corridors (U-SIM.plan).
- Analysis of the impact of the BRT platform in standard bus lines.
- **Survey of PT users to evaluate the impact of the BRT system** on their overall travel experience and mode choice.

▪ **Supporting activities:**

- Analysing the transport needs in the corridor and adjacent areas from the very beginning will be helpful to adapt the PT offer accordingly once the BRT is ready.
- Once implemented, communication campaigns (especially among university students of the intervention area) should be launched to encourage citizens experiencing the benefits (in terms of punctuality, speed,..) of the BRT system.
- The physical component of the implementation of a segregated bus lane can be carried out in a tactical way (with paint), in a first stage, and after testing the impact, initiate the infrastructure works.

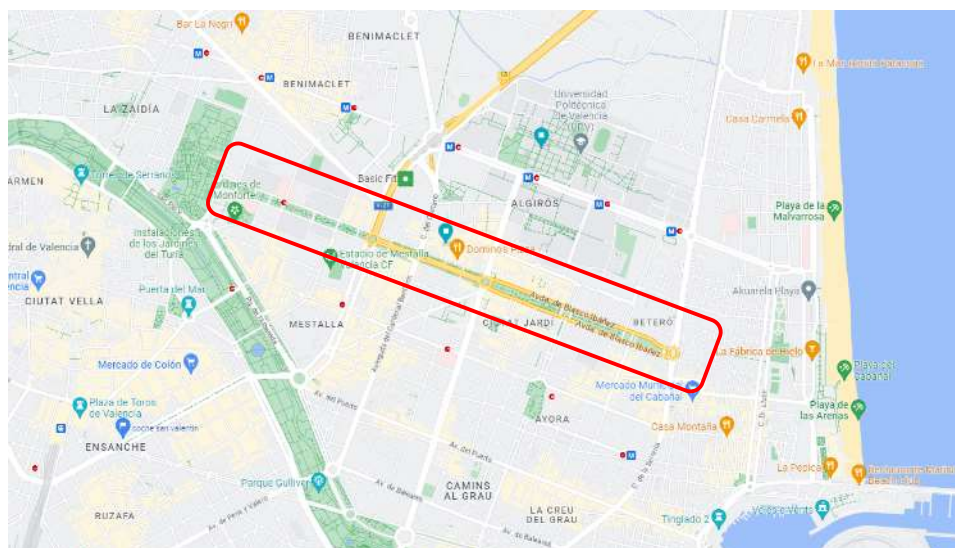
▪ **Interaction with other city measures: UPPER and non-UPPER measures**

This measure is related to other measures in the city of Valencia aimed at improving PT in Poblats Marítims:

- **VAL_01: Redistribution of urban space with a focus on Mobility as a Right.** The area of intervention remains the same (Avenida Blasco Ibañez).
- **VAL_02 ‘Creation of a network of multimodal hubs’.** The area of intervention remains the same (Avenida Blasco Ibañez).

Target groups and/or geographical impact areas

- **Target groups:** PT users, potential PT users, university students (those studying in Blasco Ibañez universities), citizens in general.
- **Geographic implementation area:** The main geographical implementation area is Avenida Blasco Ibañez, where the BRT corridor will be implemented. Blasco Ibañez is one of the most relevant corridors in the city, connecting the Cabanyal Station (multimodal hub) through different bus lines with the Porta de la Mar and Xàtiva interchanges, and several bicycle lanes are located on the axis of this avenue.



Stakeholders

The following stakeholders will be required for the implementation of this measure.

- **ETRA:** Technology provider. Traffic management in Valencia.

- **EMT:** PTO for bus fleet and decision maker in terms of bus operation.
- **Municipality:** Decision maker in terms of infrastructure work and space reallocation.

U-tools support

The implementation of this measure can be actively supported by four IT tools from the UPPER toolkit:

- **U-NEED** to analyse people needs in terms of PT in the artery and its adjacent areas.
- **U-SIM.plan:** Assessment & planning of a dedicated bus lane (evaluation of the impacts)
- **U-SIM.live:** Estimate passenger flows: To weight PT traffic light priority (in case traffic light priority based on social optimum is implemented)
- **U-SUMP:** Support the communication of the impacts of the BRT system and how does it contribute to the sustainability goals. Analyse the evolution of certain KPIs (congestion, air quality,...) in the intervention area (Blasco Ibañez) and support the decision-making process in terms of new BRT deployments.

Link to other UPPER measures

This measure is similar to UPPER measures implemented in other cities, especially:

- **ROM_04:** To design the new high frequency and high-capacity PT infrastructure
- **LIS_02:** Promote, extend services and prioritise PT
- **BUD_06:** To improve the existing PT prioritizing tools in Budapest
- **LEU_07:** Increase the quality of the PT services through traffic management and dedicated lanes for PT
- **TES_03:** To improve transit services through dynamic multimodal management of PT corridor
- **TES_06:** Social optimum-based traffic management to reduce PT travel times and increase user satisfaction

Process of implementation of the measure

Stages	Description	Intermediate milestones
Design	Preliminary study + design of the BRT system.	<ul style="list-style-type: none"> - Study the mobility needs in the implementation area (U-NEED could be used). - Use of U-SIM.plan to assess and plan the BRT and evaluate the potential impacts. - Select the most suitable strategy for the traffic signal priority.
Preparation	Developments and permits.	<ul style="list-style-type: none"> - Carry out the developments needed to implement the traffic light priority. - Prepare the implementation of the dedicated bus lane (permits, tenders,...).
Implementation	Implementation of the BRT system (dedicated corridor + traffic light priority).	<ul style="list-style-type: none"> - Build the dedicated and segregated bus lane (either through infrastructure work or "soft" adaptation). - Adapt the PT offer (frequency). - Adapt the traffic lights to implement in the priority based on social optimum.

Sub-measures and preliminary indicators

Measure	Sub-measure (<i>if applicable</i>)	Impact indicators
VAL_04	VAL_04_01 BRT dedicated lane Av. Blasco Ibañez	<ul style="list-style-type: none"> - Change in travel time before and after BRT implementation. - PT ridership of the specific Bus line before and after BRT implementation - Satisfaction with public transport indicator in terms of “frequency” and “reliability”. - Change in PT frequency/reliability
VAL_04	VAL_04_02 Traffic light priority for public transit	