

ATM: PUBLIC TRANSPORT CAPACITY PLANNING IN BARCELONA



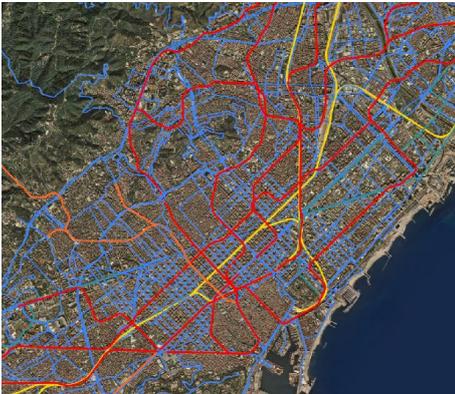
The construction and maintenance of infrastructure for public transport can run into millions of euros. Each investment is therefore thought about carefully every time and various factors such as local traffic analyses and forecasts, demographics and other key data are taken into account. Based on these figures, transport models are created that serve as the basis for planning and decision-making for future building projects.

ATM Àrea de Barcelona
Autoritat del Transport
Metropolità

The Metropolitan Transportation Authority (ATM), as the regulatory body of the transportation public services of the Metropolitan Region of Barcelona, has been working with software products from the PTV Group since 2009 and uses the detailed models based on the PTV Software for public transport related plan-

ning. In such a way for example, the demand for the whole bus and tram networks were calculated taking into account other transport means, with the goal to reduce the travel time for all road users. At the same time, the economic feasibility of the existing offer was studied and the financial burden of the planned measures were calculated.

Based on several studies of, among others, „La plaza de las Glòries“, „La Rambla“, la Diagonal “Tramvia” and „Trambesos“, the traffic authorities also checked the social-economic and environmental effects of different measures, like the implementation of an intercity exchange for the underground, bus and tram.



PROJECT OVERVIEW

- Project title: Investigation of the impact on restricting transit traffic on "La Rambla"/Barcelona
- Purchaser: Autoritat del Transport Metropolità de Barcelona (ATM)
- Project duration: 3 months
- Software: PTV Visum to get a realistic view of the current and the expected traffic situation

LA RAMBLA

ATM has analyzed the effect of the proposal for the pacification of the Rambla of Barcelona over the urban bus network of the city. This network is being remodeled in order to, simultaneously, improve its efficiency and offer a better service. The new system tries to simplify the network combining a group of horizontal lines (parallel to the coastline) and vertical lines (oriented from the sea to the mountains).

Currently, the new system is on the 3rd phase, from a total of 6 stages; and the next one, the 4th phase, tries to introduce one of the vertical lines that will run the famous street. This new line is the V13.

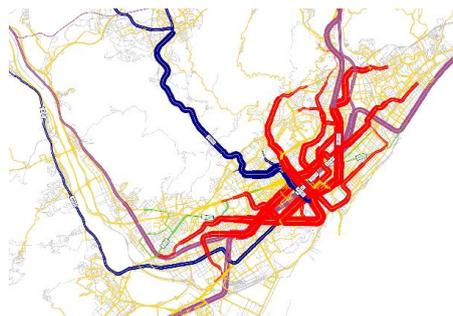
THE APPROACH

The study analyzes the several options of connecting the line between Plaça Catalunya and the promenade Passeig de Colom along the coast, through the Rambla or through parallel ways instead, such as Via Laietana or Parallel avenue.

Even the alternative of locating the terminal stop of the bus line in Plaza Catalunya is considered.

The analysis, that has been based on the transportation macrosimulation model with the software PTV Visum elaborated by the ATM, has focused on the following aspects:

- Losses and increments of the number of passengers in the urban bus lines, as well as in other public transportation lines (metro or tramway).
- Increases in the time of trip of the public transport users.
- Changes on the public transport network accessibility.



"We have great responsibility to deliver the best offer we can to our passengers and clients. "La Rambla" is one of the town's landmarks. Before intervening with the cityscape in such a noticeable way, we have to make sure that we head for the best alternative. Therefore we are

happy to have PTV Visum to check for all possible scenarios", claims Francesc Calvet, Cap del Servei de Planificació at ATM.

With the obtained results, the most appropriate solution, from the public transportation point of view, is to maintain the bus service through the Rambla, although this solution does not present much greater benefits than the other scenarios.

Therefore, the public transportation demand has been determined not to be a key factor for the urban solution decision. Other aspects, such as the operational or the pedestrian safety, could be decisive in the optimal solution choice.

Dr.-Ing. Peter Mott, Solution Director Public Transport at PTV Group, comments on the project:

"The application of PTV Visum at ATM underlines how useful the software is for all modes of Passenger Transport, but in particular for Public Transport. PTV Visum offers an unrivalled set of tools and functions to support strategic Public Transport planning."