## **Master Thesis**

## Assessing the Investment Required to Achieve a German Level of Service in Public Transport with an Indicator Model: the case of Mexico

This thesis provides a preliminary public transportation (PuT) proposal to improve the current service performance in the state of Xalapa in Mexico.

The aim is to provide an upgraded scenario based on the development of the following features; level of service, mobility, accesibility and connectivity.







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Vehicle capacity



Three different indicators were generated: PuT average commuting time (M1), PuT network density (AC1) and Coverage of access to the PuT system (AC2).

These parameters were the basis for estimating the general costs of the required infrastructure according to the PuT level of service standard definition developed through the assessment framework of this study.





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capacity Service frequency Staff training Education Citizen Education Vehicle Danger Security and Safety User safety Punctuality Reliability Cancellations

Operation

It was found that both the PuT service proposal and the cost estimate are feasible in terms of robustness of the system and financial investment. Infrastructure improvement is reflected in social and economic gains such as job creation, investment in real estate and land value appreciation.





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