

Data-driven mobility

Application of the Smart Mob concept in Joinville



Prefeitura de
Joinville

**PESQUISA E
PLANEJAMENTO
URBANO**

Smart Mob - Process

1. Diagnosis and Prioritization

2. Demand evaluation

3. Scenarios

4. Modeling

5. Scenario Analysis

6. Presentation

7. Project Design and Execution

8. Results Measurement

1. Waze, Telemetry PT, Traffic accidents

2. Yolo

3. Technical professional

4. Sumo, Infravworks

5. Technical professional

6. 3D Models, Animations

7. In-house or Outsourced

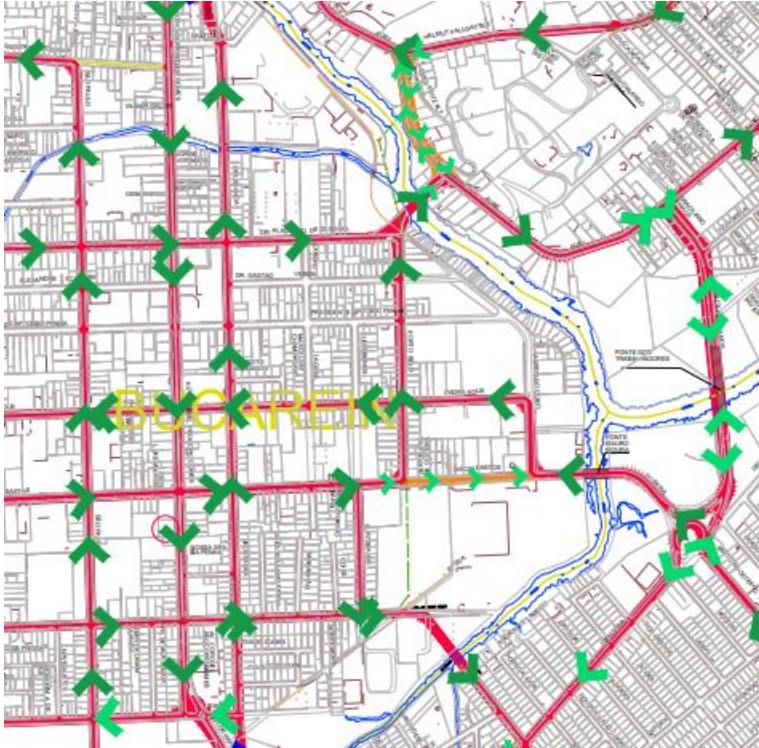
8. Waze, Telemetry PT, Traffic accidents

Smart Mob - Stats

- Since 2019 - **36 case study**
- On average **1 case study** every **two months**
- Over **1.3 million hours/year** of traffic time were saved
- A **reduction of 2,600 tons/year** of CO₂

Smart Mobility - Study Case

Integrated Road Circulation Plan for the South - Southeast - East Zones



Approximately:

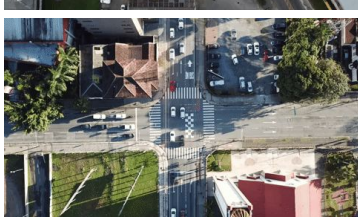
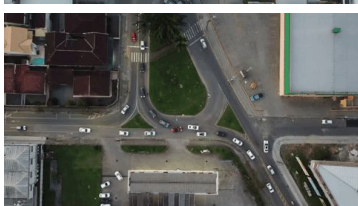
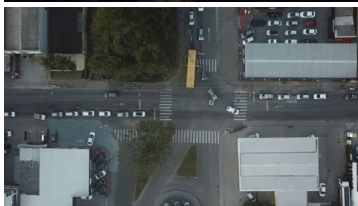
15 km of urban roads

35 k veic/peak hour

30+ Traffic Count Stations

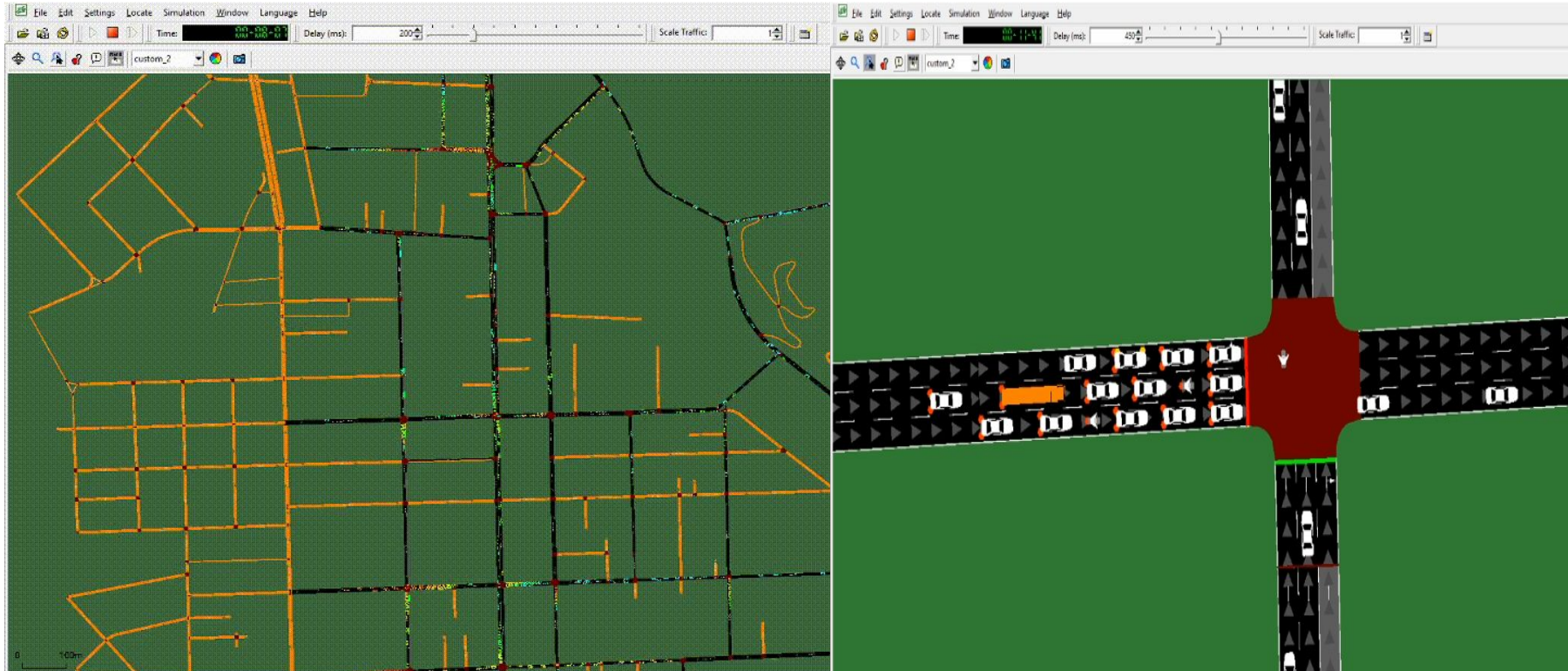
Smart Mobility - Study Case

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The selected scenario estimated:

saved traffic time per year: **+100k hours/year**

reduction of CO₂: **187 tons/year**

Plus:

A **4-kilometer expansion** of dedicated **bus lanes**

A **2-kilometer expansion** of dedicated **cycling lanes**

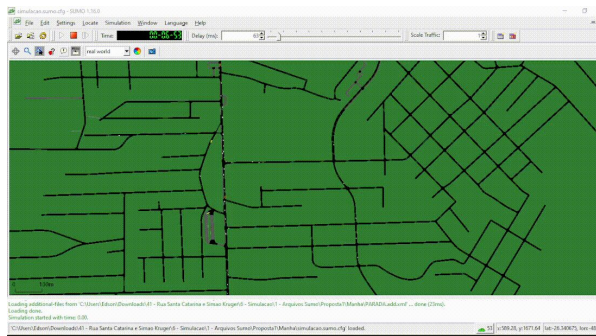
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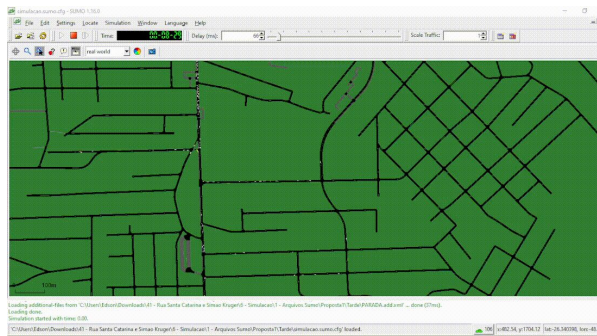
PROJECT (Morning period)

24% ↑



PROJECT (Afternoon period)

46,27% ↑



Impacts of the Proposal

Macromobility Result - Productivity Gain

Reduction in average travel time (s): 32.1

Hours saved per year per occupant: 4.54

Reduction in average travel time (%): 24%

Productivity gain per year (R\$): R\$ 1,555,733.27

Conflict Analysis (Current x Project): 60% ↓

Reduction in gas emissions (tons/year): 21.6



Comparison with Waze ranking after project implementation

81% ↓

Ranqueamento Waze dia 6 de setembro 2023		
Posição	Rua	Tempo Perdido em Segundos
83	R. Santa Catarina	9443

Ranqueamento Waze dia 4 de setembro 2024		
Posição	Rua	Tempo Perdido em Segundos
211	R. Santa Catarina	1794

Thanks

Joinville Traffic Department – DETRANS
Department of Urban Infrastructure – SEINFRA
Department of Urban Research and Planning – SEPUR

