Thank you for attending my research project defense and I hope my presentation was clear enough and that the following resources complement the information that interested you.

Link to the <u>Bibliography</u> of the state of the art part. Link to the <u>project</u>, <u>presentation and final report</u>.

### Slides:

- 1. Title Page
- 2. Overview
- 3. Introduction
  - a. Demography Grand Paris
  - b. <u>Intermodal Passenger Transport in Europe</u>
  - c. Europe on the Move
  - d. <u>Ile-de-France : une étude démontre l'aggravation des</u> <u>embouteillages</u>
  - e. Companies favoring multimodality:
    - i. <u>Berlkoenig | Startseite</u>
    - ii. Daimler acquires German P2P carpooling startup Flinc
    - iii. <u>The Ultimate Transport App</u> (Citymapper)
  - f. <u>Urban Mobility Urgently Needs a Unified Coalition BCG</u> Henderson Institute

# 4. A point of critique:

- a. Enhancing urban mobility: Integrating ride-sharing and public transit
- b. <u>On-demand high-capacity ride-sharing via dynamic trip-vehicle assignment</u>
- c. Minimum Fleet 2018
- d. Addressing the minimum fleet problem in on demand urban mobility

## e. Taxi cabs in NYC

#### 5. Motivation

- a. A study on feasibility of passenger intermodal transport in city of the developing world
- b. Route planning in transportation networks
- c. (PDF) A Multi-modal Routing Approach Combining Dynamic Ride-sharing and Public Transport

## 6. Methodology

- a. A survey of models and algorithms for optimizing shared mobiliy
- 7. State of the art
- 8. Shared Mobility
  - a. A survey of models and algorithms for optimizing shared mobility
  - b. A survey on dial-a-ride problems 2018
  - c. A survey on dynamic and stochastic vehicle routing problems
  - d. Branch & Cut algorithm for DARP
  - e. Online Vehicle Routing: The Edge of Optimization in Large-Scale Applications | Operations Research
  - f. An adaptive insertion algorithm for the single-vehicle dial-a-ride problem with narrow time windows

# 9. Intermodal mobility

## 10. Intermodal:

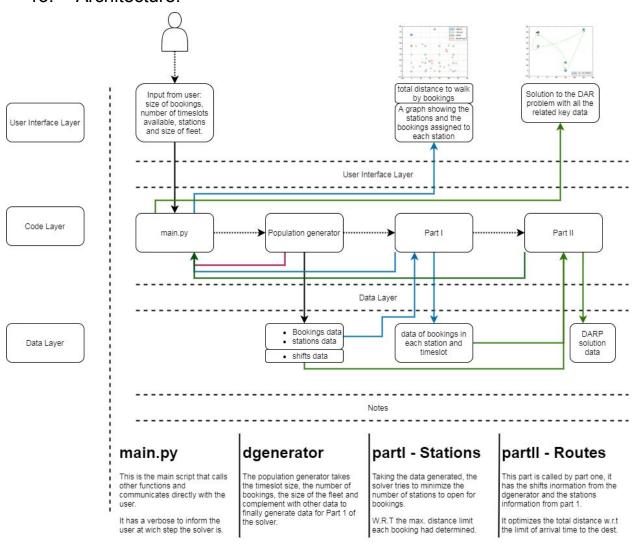
- a. Ridesharing as a Complement to Transit
- b. Enhancing urban mobility: Integrating ride-sharing and public transit
- c. On the Interaction between Autonomous Mobility-on-Demand and Public Transportation Systems
- d. <u>Taxonomy of Shared Autonomous Vehicle Fleet Management</u>

  <u>Problems to Inform Future Transportation Mobility Michael F.</u>

  <u>Hyland, Hani S. Mahmassani, 2017</u>
- 11. Conclusion on state of the art
- 12. Last Slide:

- a. OSRM
- b. Open Street Map

## 13. Architecture:



# 14. Thank you Slide:

a. Picture from: <u>3 Mobility Paradigms 2020–2030 - Boyd Cohen,</u> Ph.D. CEO IoMob