



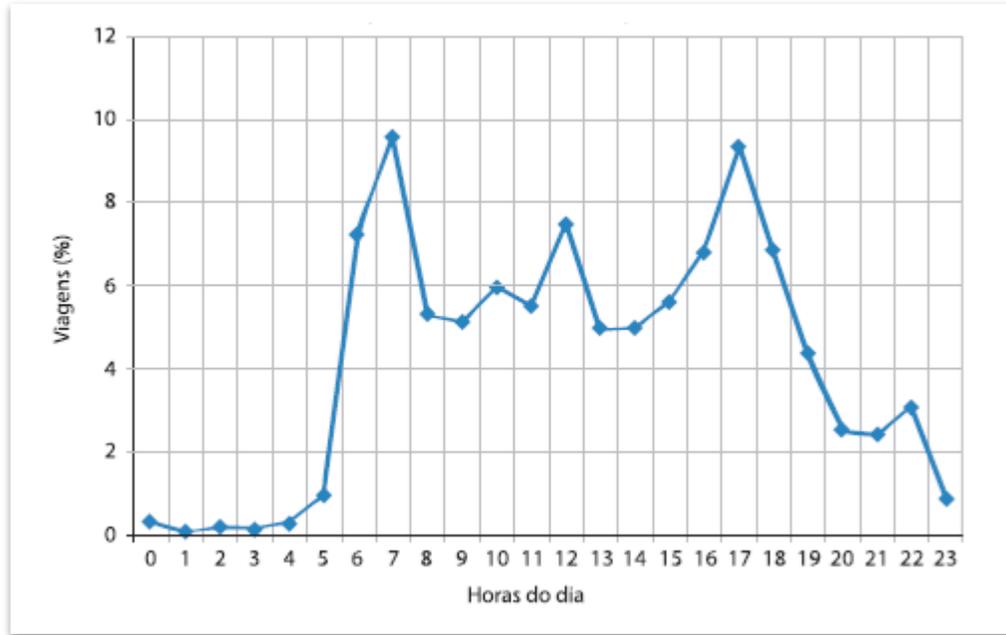
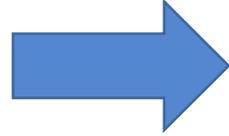
Procurement of Bus Operation and Technology in São
José dos Campos

Ciro Biderman
Fundação Getúlio Vargas
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The Innovative São José Proposal

- Platforms hired directly by the City not by the operator
- Bus on Demand on the periphery for the local system.
 - Integrates in the general bus system operational and tariff's wise.
- Rethinking the technology
- Introducing new platforms

Transport as we know it



- Transport modes



Bus on Demand

How does it work?

Many different business models but the idea is that it is Responsive to the Citizen's Demand.

Technology increasing efficiency

Transport in sites that were not achievable before
Fast response to demand changes
Easier way to perform payments

EXEMPLES

Goiânia, Fortaleza, Cairo, Singapore, New York, Washington, Chicago, Paris, Berlim.



The system of platforms

- We propose five platforms working with full integration:
 1. **Clearinghouse**: an open system for managing the flow of payments allowing any mean of payment to participate in the system.
 2. **Bus Management**: combining all data generated by the system and allowing startups to make applications that will improve the monitoring, operation and planning of the system.
 3. **City-User Relationship**: a tool to evaluate the service for the City and a tool to use the system to the citizen.
 4. **Bus on Demand**: allowing users to reserve their seat and defining the best routes and/or improving current routes/finding new routes to improve the user experience.
 5. **MaaS**: allowing any transport operator to join the platform and integrate the system conditional on data openness.

Bus on Demand in Practice

- There are almost no example of a BoD integrated to the public transit network
 - Para-transit use
 - Use in the City Center to compete with ride-hailing.
 - Taking over the entire public transit system
- City or users pay for the full cost directly to the company.
 - Small room for cross subsidies.

A typology for Bus on Demand

- Fixed routes and stops
- Fixed routes but flexible stops
- Flexible routes but (some) fixed stops
- Flexible routes and stops

Limits to innovation

- Most routes (80%) will be fixed in the beginning.
 - Difficulties with “undigitalized” people.
- The operator of the local system might be the same as the operator of the structural system
 - The platform might not be able to manage the routes in real time.

Bus on demand in the center

- It is innovative since it is easier to make it totally flexible (including tariffs).
 - It might compete with e-hailing but it will also compete with the traditional bus system.
- It does not touch the status quo very much despite its flexibility.
- It is not a system for the poor but rather for the middle class.

The ambition

- When users learn how to use BoD it might be possible to invert the composition having 80% of the local system operating with flexibility.
 - A bot in WhatsApp might make the difference.
- With the MaaS platform working well it might not make any difference which mode you are taking.
 - BoD would be just another option inside the system.
- It is not possible to forecast the timing needed to change the SQ more profoundly.

The MaaS dream

- All modes integrated using the most efficient one in each trench of the trip.
- A system of incentives and subsidies to guarantee the best arrangement for the society.
- Curb management to physically integrate modes with low investments.
- Series of experiments to understand the behavior change for real.
- A comprehensive information system.