Rio de Janeiro: New Governance and Procurement Models in COVID times

Transport and Climate Change Week

Rio de Janeiro City Hall
Municipal Transportation Department
22 June 2021

Rio de Janeiro’s Bus Transport System

Overview

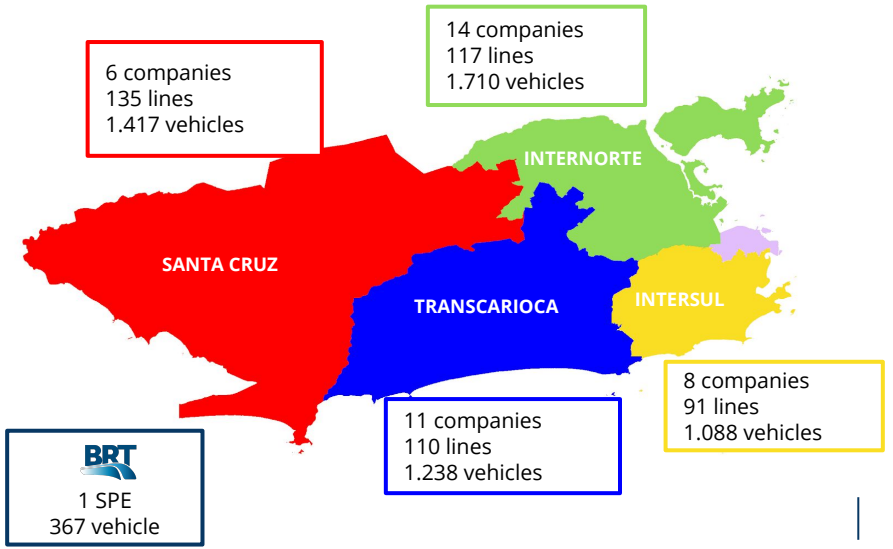
The Bus System in Rio de Janeiro (SPPO)

General Context

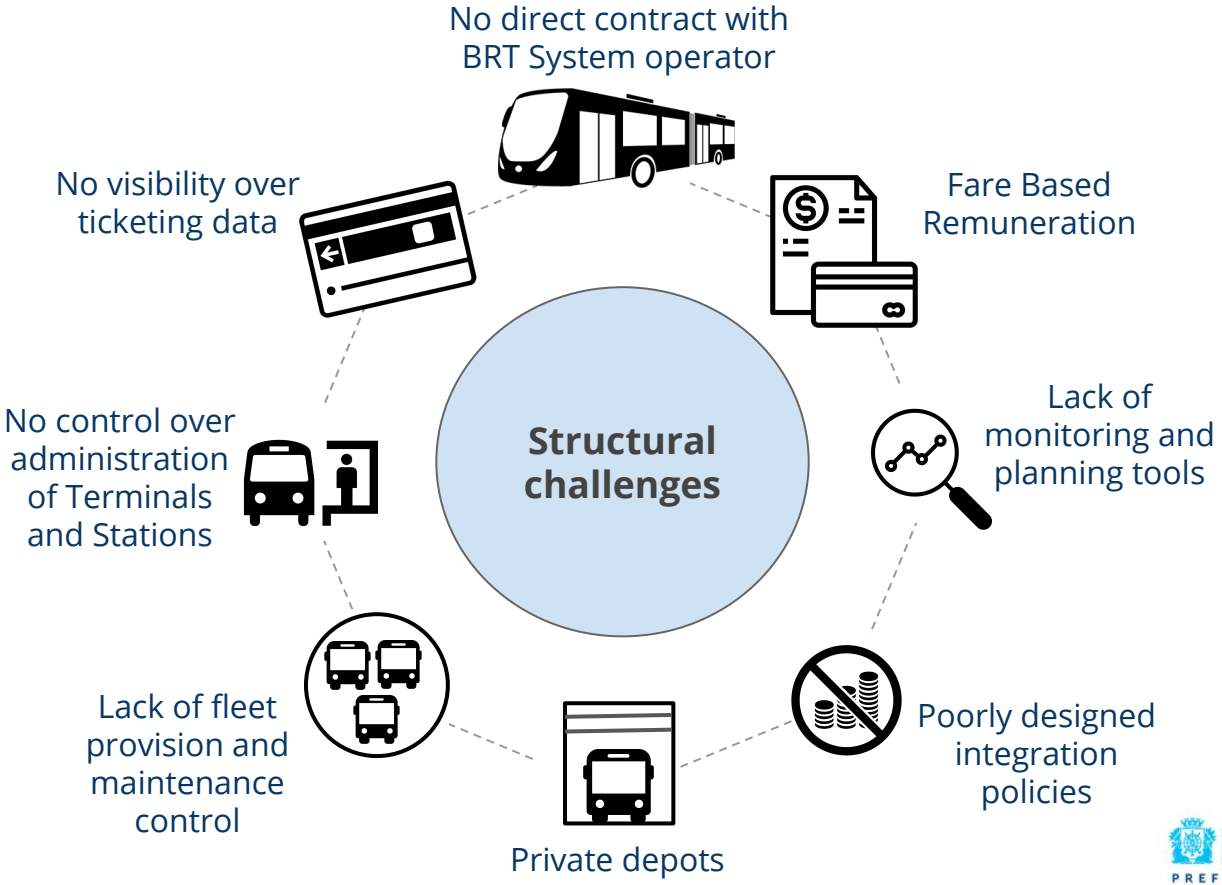
- **Concessions effective from 2010 to 2030** (renewable), including conventional bus lines and a BRT system.
- Several lawsuits in progress, **preventing fare readjustments**.
- **Remuneration based solely on fares.**

Market organization

- Contracts were formalized between the Transportation Department (SMTR) and **4 concessionaires**.
- 4 concessionaires are actually consortiums of private operators, **totaling 45 companies.**
- **The BRT was not operational at the signature date** and its operation was divided and delegated to the conventional system´s operators.
- In 2015, operators constituted an operational consortium for BRT and, in 2019, it was **rearranged as a SPE**.



Structural challenges



The COVID-19 imposed a severe crisis...

- **Crisis of the conventional system and BRT is worsening year by year** due to adverse incentives of the **fare based remuneration scheme**, and **it was severely aggravated by the COVID-19 pandemic**.

Passenger Drop → **Revenue Drop** → **OPEX Reduction** → **Loss in quality and consistency**

- Total number of passengers dropped year after year:

  2015: **1.3 Billion**

  2019: **1.0 Billion**

  2020: **552 Million**

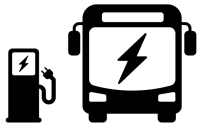
- **16 out of the 45** bus operators went bankrupt.
- Other **7 operators face judicial recovery**.

- Conventional system operating with **40% of planned fleet** (2,997 out of 7,568)
- **Extinction of 161** of conventional **bus routes** and **20% of BRT services**
- BRT operating with **50% of planned fleet** (150 out of 300).
- **45 out of 134 BRT stations** are inactive, 34%.
- Almost **20% evasion rate** in the BRT.

... but also, an opportunity

Unsustainability of the Current Model

- The pandemic only accelerated a tendency that was already present: **The current contractual scheme is not sustainable.**
- Urgent demand of financial aid by the transport operators **give the Transportation Department leverage for major restructuring.**



Legal Imperative for Electrification

- **The Municipal Sustainable Development Plan** defines the target of electrifying 20% of SPPO´s fleet until 2030.
- **C40 Green & Healthy Streets Declaration (Municipal Decree nº 46081/2019)**: As of 2025, any new fleet provision contract must predict the entrance of zero emission vehicles.

Compromised Mandate and Collaboration

- The mayor prioritized the revamp of the Bus System's governance as **one of his main mandate objectives**
- **Institutional collaboration** with multilateral institutions (CAF, C40, iCS, ITDP, WB, WRI).

Transitioning to a new Model

Reformulation of Rio’s Bus System

Structural Review of System Management

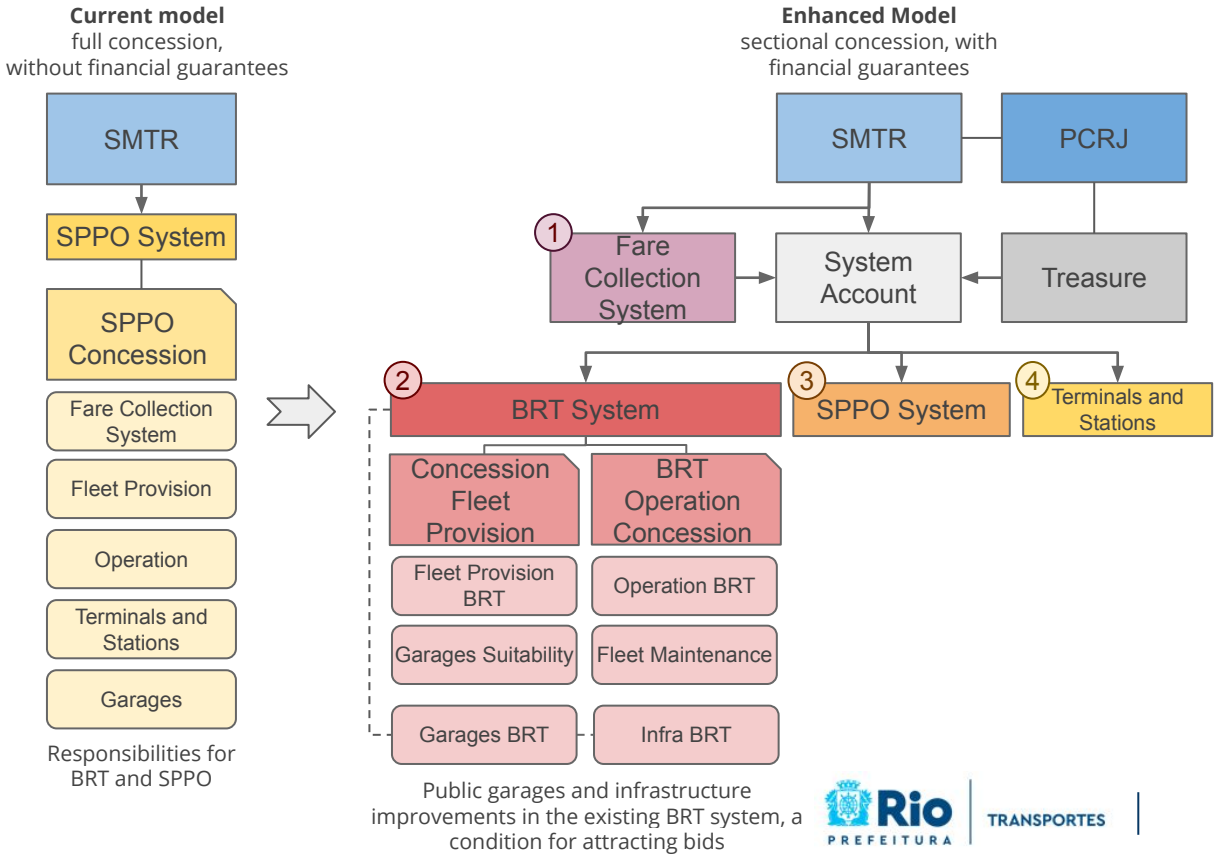
Separation of responsibilities and better allocation of risks

1. **Fare collection system** for centralized collection with independent management and eventual subsidy.

2. **BRT system bidding** with sectioning of fleet provisioning and operation activities, and payment at cost and incentives to improve the service.

3. **New remuneration scheme** for the remaining of the SPPO contract.

4. **Terminals and stations** for better exploitation of commercial and advertising spaces.



New Remuneration Scheme

Current Scheme

Fare Based Remuneration

- Operators compete for passengers
- Prioritization of rentable lines
- Few incentives for quality consistency

New Scheme

Valid only after the implementation of the Fare Collection Model

Main share **based on the costs of the planned service**

×

Penalty and Incentives based on **KPIs of executed service**

×

Demand and Productivity gains/loss sharing factor

Vision

- ★ Enhancement of monitoring, planning and regulation capabilities of the transportation department: **"only the delivered services will be paid"**
- ★ **Less pressure over users' budget** as public fare is not anymore the main revenue leverage.
- ★ **Incentives for continuous quality and efficient enhancement**
- ★ **Operators focus on points they have control and know-how** over: the operation
- ★ **Reduced exposure to demand risk for the operators**

New Fare Collection System

Challenges

- Today, **the fare collection system is responsibility of the transport operators**, and is operated by "their" company, *RioCard*.
- This scheme constitutes a *"black box"* for SMTR, that has almost **no visibility over ticketing data.**
  - **No access to real time data** for planning.
  - I**mpossibility of dimensioning and providing subsidies** for the system.
- *RioCard* is the only player in the state market, making future integration a challenge.

Main Objectives

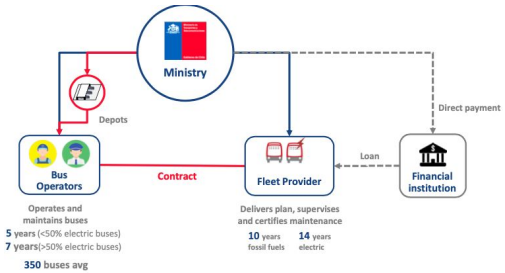
- **User-friendly** service.
- **Financial transparency.**
- Transport management and **planning based on accurate data.**
- **Better responsibilities allocation**: Enhancement of risk allocation and investments attractivity .
- **More regulation power** to the transportation department.
- **Financial and guarantees structuring** for other projects (*e.g.* BRT bidding).

BRT System Bidding

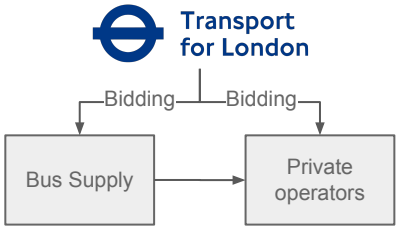
International best practices evidence indicates that the **separation between the concession of the system´s operation and the fleet provision** is the way to guarantee the quality of the services, enable electrification, reduce risks and increase the attractiveness of the bidding.

Santiago

Bid for 1200 buses

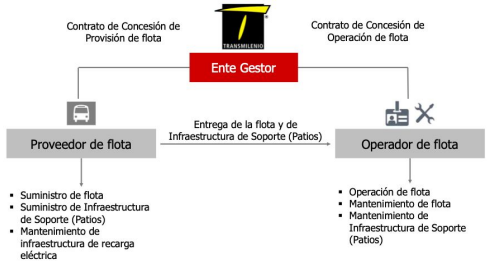


Londres

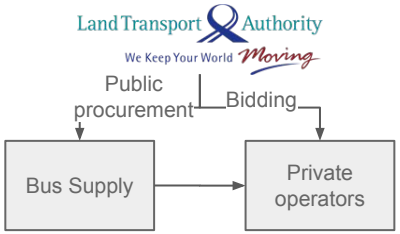


Bogotá

Bidding for up to 1314 buses



Singapura



Rio PREFEITURA | TRANSPORTES

Bidding Model

Analysed Points	Integral Model	Separate Model	Comments
Specialization in tasks	X	✔	Specialized actors for each of the demanded tasks.
Monopoly control	X	✔	Market segmentation reduces the risk of dependency on specific actors.
Project Bankability	X	✔	Development banks and financial entities tend to prefer the separate model.
Competitiveness	!	✔	Larger potential for innovative business models, partnerships and proposals submission.
Service provision continuity	!	✔	The bankruptcy of current operators put the service continuity at risk.
Flexibility	!	✔	Actor specific contract conditions, scopes and regulation rules, enabling punishment or replacement by performance
Project Cost	✔	!	The entrance of a new actor will make the project more expensive and hard to manage, but there is more opportunities to access capital with the separation.
Interface with current model	✔	!	Market Studies and communication plan to draw and execute a strategy for attracting new players.
Public sector and legal know - how	✔	!	More pressure over the control institutions.

Separation Model Option

Fleet operation and provision separation allow 3 options for proposals:

Bogotá		Santiago
Joint	**Parallel**	**Sequential**
Joint proposal between provider and operator (formalised with a deal between both parts). Most of the proposals were received in this modality.	**Two separate and parallel proposal for provider and operator**. In case one of the biddings don't receive proposals, it would be only necessary to bid the other one again.	**First,a bidding for providers and then, a following bidding for operators,** that present their proposals based on a providers short list.
• Mitigate interface risks and facilitate the relationship. • Faster process	• More independency between actors • Risk of receiving no proposals can make the project more complex.	• Reduced costs of bidding but longer deadlines
Suggested model	Not prioritized	Not prioritized

Separation of Bids

Bidding	Actor Type	Scope of Responsibilities	Remuneration Cost Basis
BRT Fleet Operation 	• Bus Operators • Transport Operators	• BRT Operation • Fleet Maintenance	**OPEX** • Operation: Fuel, running-in, lubricants, parts and accessories. • Manpower: Crew wages and social charges, not including wage charges. • Management: Maintenance and inspection personnel, administration, operation of terminals, stations and CCO.
BRT Fleet Provision 	• Manufacturers • Bus Bodyworkers • Energy Companies • Asset Managers	• BRT Fleet Provision • Depots infrastructure (terrains provided by City Hall)	**CAPEX** • Fleet Investment: Remuneration on investment in vehicles and on-board equipment. • Management: Administration and personnel expenses. • Depots Infrastructure: Remuneration on infrastructure investments

Depots

Subestações Light

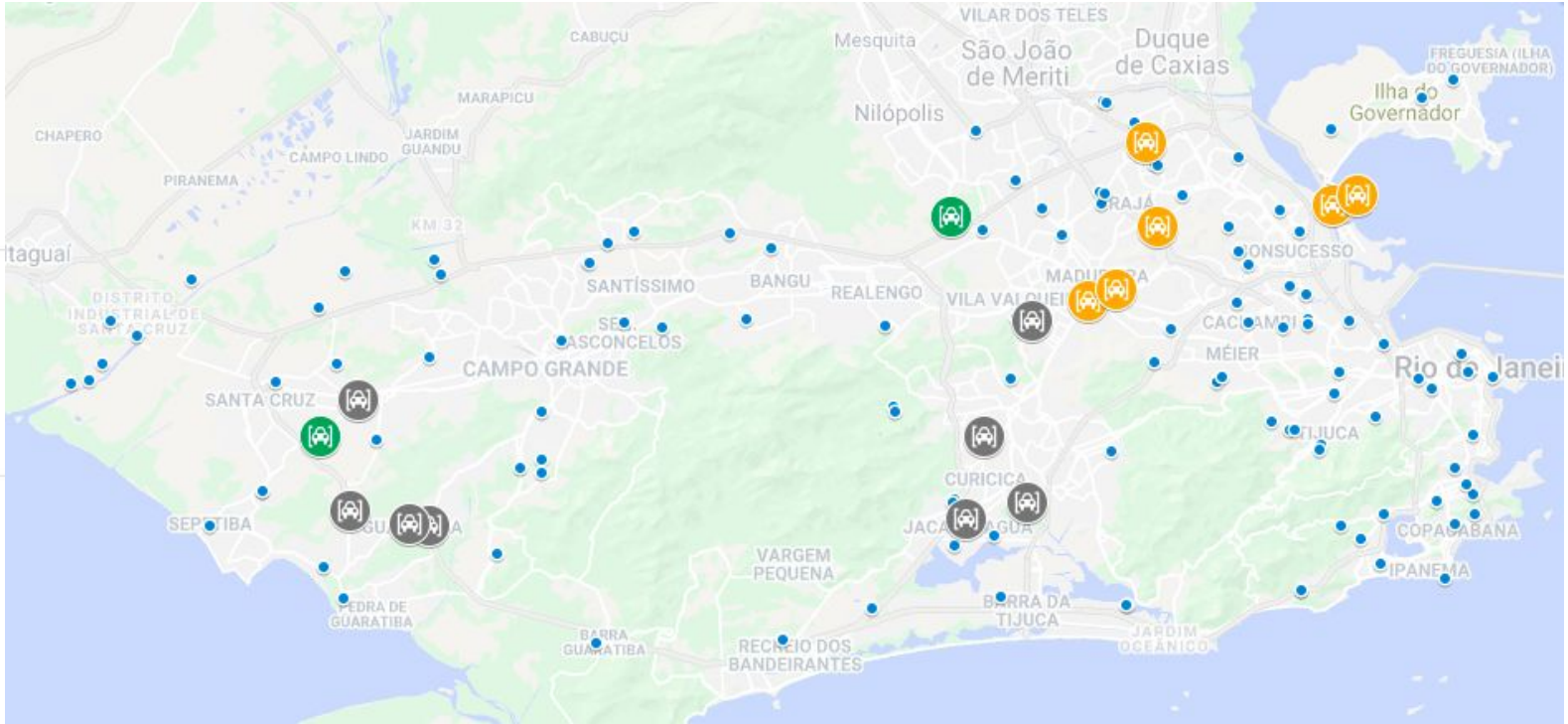
Todos os itens

Icone Garagem

Não

Avaliar

Escolhida



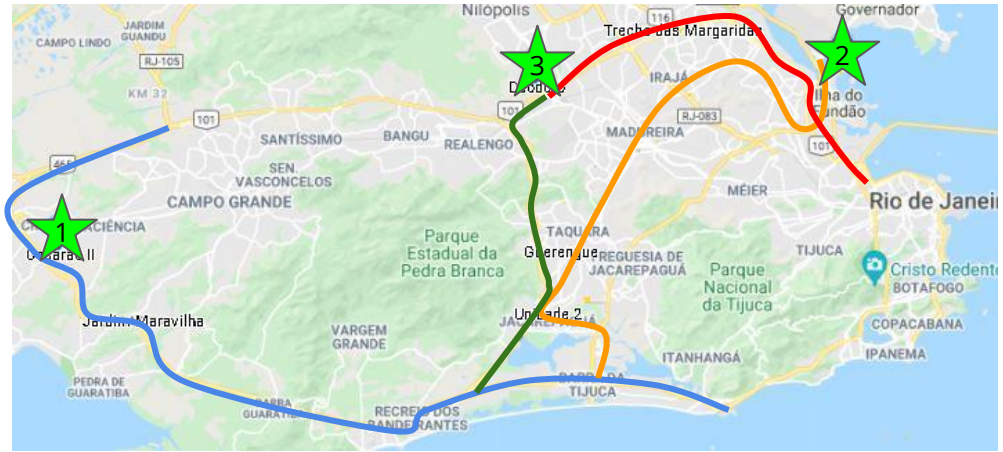
Fleet Pipeline

Packages

#	New Fleet	Delivery Semester
1	~200	2022-S1
2	~170	2022-S1
3	~140	2023-S1
-	**~ 490**	-

Figures to be confirmed

Depots



Main challenges

Designing a model for the entrance of zero emissions fleet

Three sets of problems

Legacy Issues

- The lack of **monitoring and control tools** and overall a **fragile regulation environment.**
- **Defining a cost-based remuneration scheme,** not having historical data on prices and consumption factors.
- Leveling the playing field for **attracting new agents**, in a context of well established **operators.**

Technical Viability

- **Finding and making terrains** available for future depots, considering the demand for **energy infrastructure**.
- **Unavailability of articulated electric vehicles** in the national market.
- **Lack of expertise in electrical infrastructure** vis-à-vis well known diesel requirements.

Concession Modeling

- **Lack of experience with model** from providers and operators.
- Overall **Risks and Responsibilities allocation** (e.g. over infrastructure construction and maintenance).
- **Defining indicators** for penalties and incentives.
- Evaluating **proposals on different technologies**.

Rio de Janeiro: New Governance and Procurement Models in COVID times

Transport and Climate Change Week

Rio de Janeiro City Hall
Municipal Transportation Department
22 June 2021