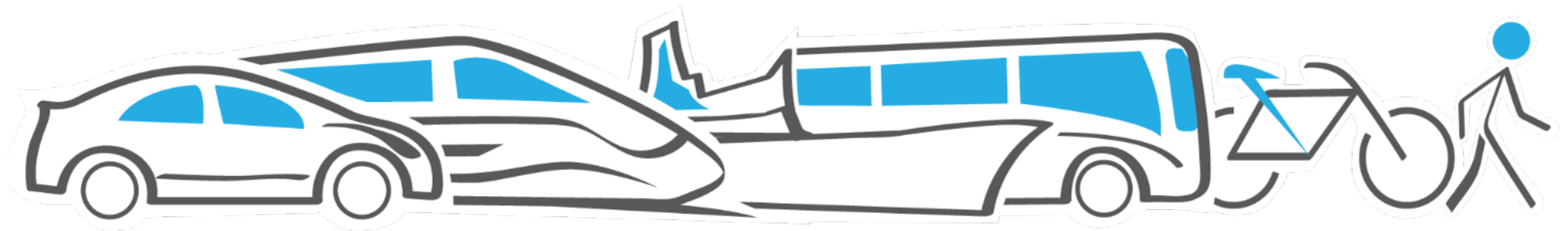


**Workshop 2. Practical Considerations in Implementing Different Institutional Regimes**

# Urban bus networks: how can unbundling bus provision from operation support bus reforms?

Leonardo Canon Rubiano  
Singapore, September 6, 2019



# OVERVIEW OF PRESENTATION

Setting the ground

Transaction Models & case study  
- Bogota

A Roadmap for transaction  
selection

Conclusions

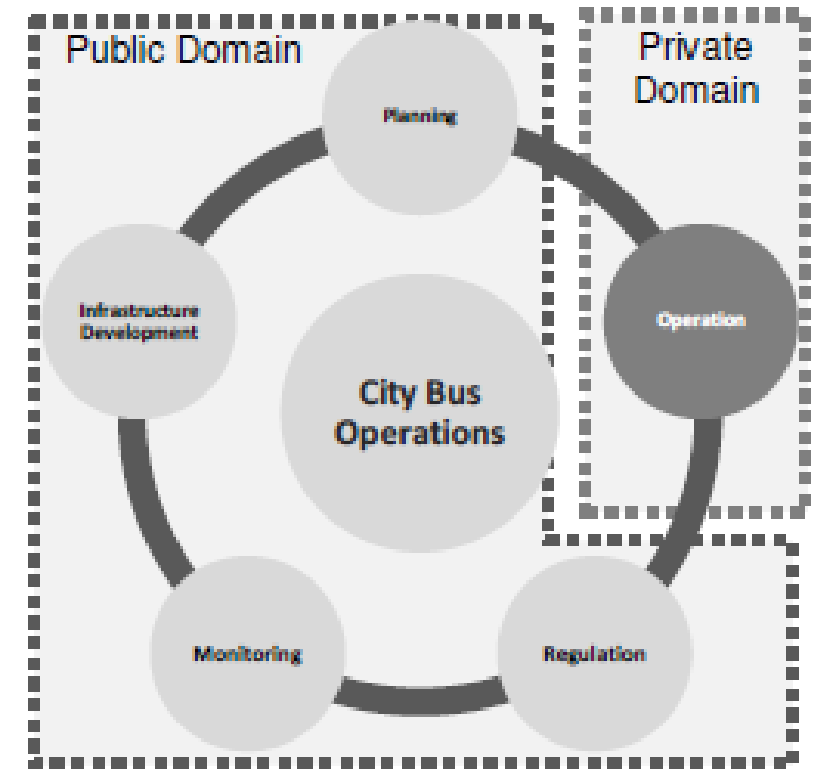


**WORLD BANK GROUP**  
Transport

# CONTEXT OF BUS OPERATIONS

Many cities around the world with performing urban bus networks manage their bus services through two-tier model:

1. **Public sector** is responsible for infrastructure development, network and service planning, regulating and monitoring (managing) of operations,
2. **Private sector** operates bus services according to specifications and standards set in performance based or quality-incentive contracts



# TYPICAL COMPONENTS OF A BUS SECTOR MODERNIZATION INITIATIVE

	Donor	World Bank	Private/IFC Role
Institutional Strengthening	Support studies and technical capacity building	Leverage global experience in those studies	
ITS	Support ITS investments / CAPEX		ITS concession contract
<b>Fleet Modernization</b>	<b>Fleet renovation fund / financial intermediary</b>	<b>Fleet renovation fund / financial intermediary / guarantee related to gross contract</b>	<b>Fleet provision contracts Export loan Guarantee scheme</b>
Infrastructure	Support infrastructure CAPEX for short term investments	Finance CAPEX for short to medium-term investments Multimodal centers	Bus stop concessions / Joint development at multimodal centers

# COLOMBIA'S STORY WITH BRT PROGRAMS

Colombia's National Urban Transport Program -NUTP is internationally renowned for its results in implementing - over less than a decade - 7 BRTs, benefiting millions on a daily basis.

The NUTP's replicable financial, technical and institutional framework has been studied from many angles.

As BRTs have matured, additional challenges have put at risk further expansion plans, calling for solutions that can help mitigate **loss of appetite of the private sector (operators and banks) to continue investing in Mass Transit**

# WHY ANALYZE THE COLOMBIAN FLEET PROVISION CASES?

## Critical Times:

By the time of bidding, a discouraging panorama loomed as a result of shortfalls in other CO cities:

1. Demand risk and demand skepticism: forecasts in several other cities have not been met, there are still pockets of competition with incumbents;
2. Operational risk: (higher operational costs, commercial speeds, technology) have led to lower productivity;
3. Financial sustainability at risk, resulting in default risk from operators to commercial banks
4. **Loss of appetite of the private sector (operators and banks) to continue investing due to 1, 2 and 3 (mainly)**

## Innovative Approaches:

Cartagena, Medellin and Bogota have departed from traditional BRT operations concessions and have innovated in project delivery schemes using different approaches

***Mobility of the fleet:*** when the operators went bankrupt showed that it was legally impossible to use those buses. Then the need of a contract that allows fleet mobility to prevent the same problems again is essential

All three cities have understood that redefining risk allocation and risk sharing is key to overcome loss of appetite of the private sector and attract new players

# MAPPING TRANSACTIONAL MODELS FOR URBAN BUS SERVICES

	Bus Services				Examples
	Fleet Provision	Fleet Operation	Major maintenance	Minor maintenance	
1	Private concessionaire				CO Colombian BRTs ('00-'10) CL, PE, MX BRTs (2005-11)
2	Public Sector Organization	Private operator	Private operator		ZA Johannesburg BRT ('08) AU Perth '16; SG Singapore, '16
3			Maintenance provider		CO Medellin '12; CO Cartagena '14, UK Lon New Routemaster, '12
4	Leasing company	Private operator	Leasing company	Private operator	UK London buses, UK TOCs
5	Fleet provider	Private operator			CO Bogota BRT '18, CL Santiago, '19
6		Private operator	Maintenance provider		?

Source: WBG 2019

# MAPPING TRANSACTIONAL MODELS FOR URBAN BUS SERVICES

	Bus Services				Examples
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6		Private operator	Maintenance provider		?

Source: WBG 2019

# SCHEME 1 - BRT BUS CONCESSIONS, COLOMBIA 2000-2012)

## Bus service concession

- a. Defined a # of buses to initially procure and operate / cost not disclosed
- b. Debt to equity ratio – 70:30

## Revenue streams for the private operator

Kilometers operated (according to revenues from ticket sales)

## Contract terms - Concession

- a. Between City Mass Transit Authority and concessionaire
- b. Bidding variable: lowest cost per operated km
- c. Concession: 10 years, including initial bus fleet size with addition possibility up to 50%
- d. Requires bus scrapping costs to be assumed by concessionaire (including procuring of old buses, scrapping activities and certificate of scrapping)
- e. Requires concessionaire to procure, operate and maintain its fleet and ITS equipment (ITS for first and second generation contracts, only) as per contractual standards
- f. Requires incorporating minority shareholders from registry of affected existing operators
- g. Bus depo leased to winning concessionaire at no cost

# SCHEME 5 – BOGOTA 2018

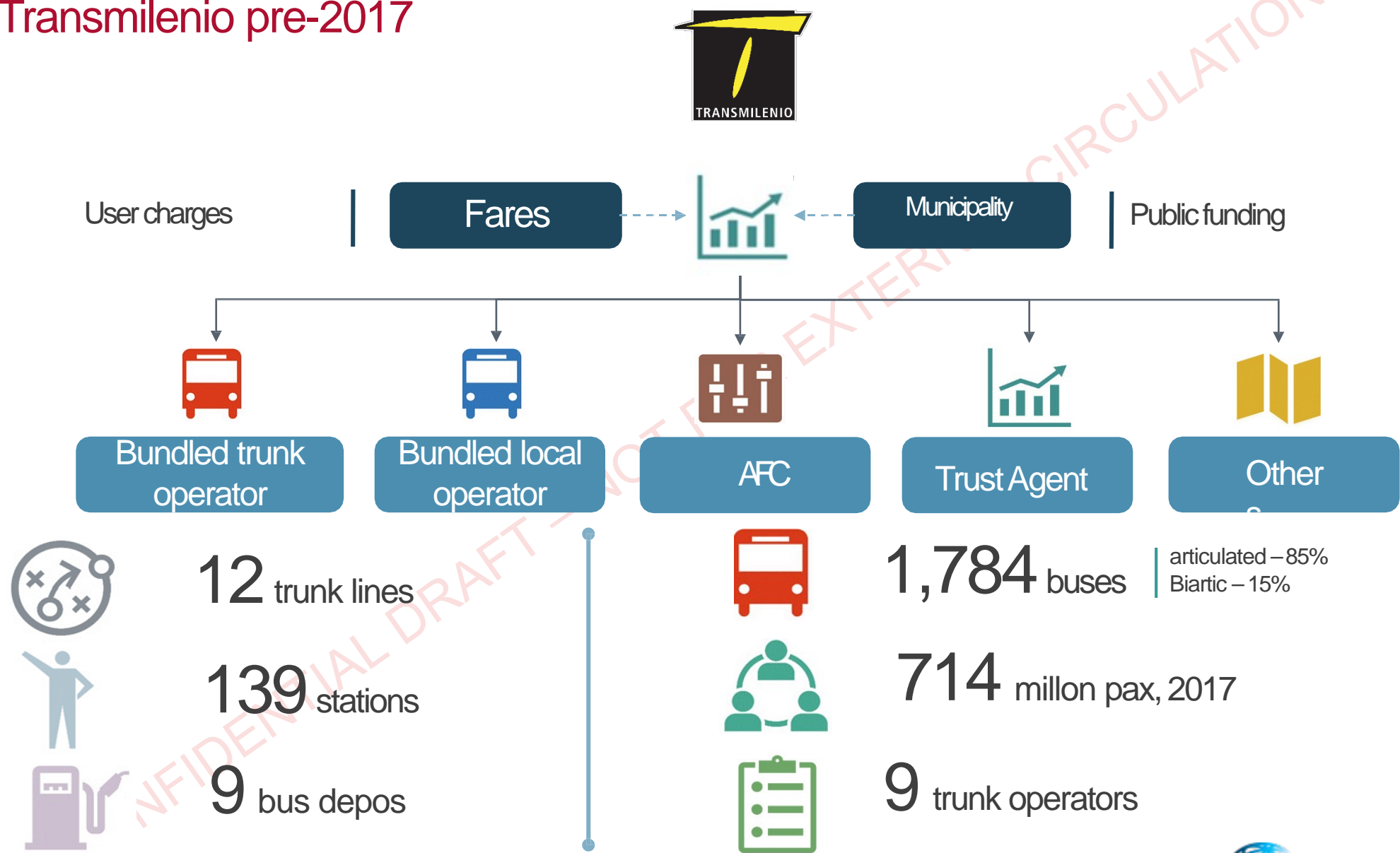
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Source: WBG 2019



# TransMilenio, Bogota Colombia

# 1. Transmilenio pre-2017



# CHARACTERISTICS OF THE NEW BUSINESS MODEL - TRUNK COMPONENT

## PHASE I AND PHASE II

### New Concessions

Scheme with specialized agents suited to the prevailing financial conditions and efficient remuneration mechanisms

### Sustainability

Gradual transition between operators, compensation for efficiency and performance with flexibility to adjust fleet and replace operators

### Quality

Model that considers incentives to provide the service with a better quality of service for users and at affordable costs

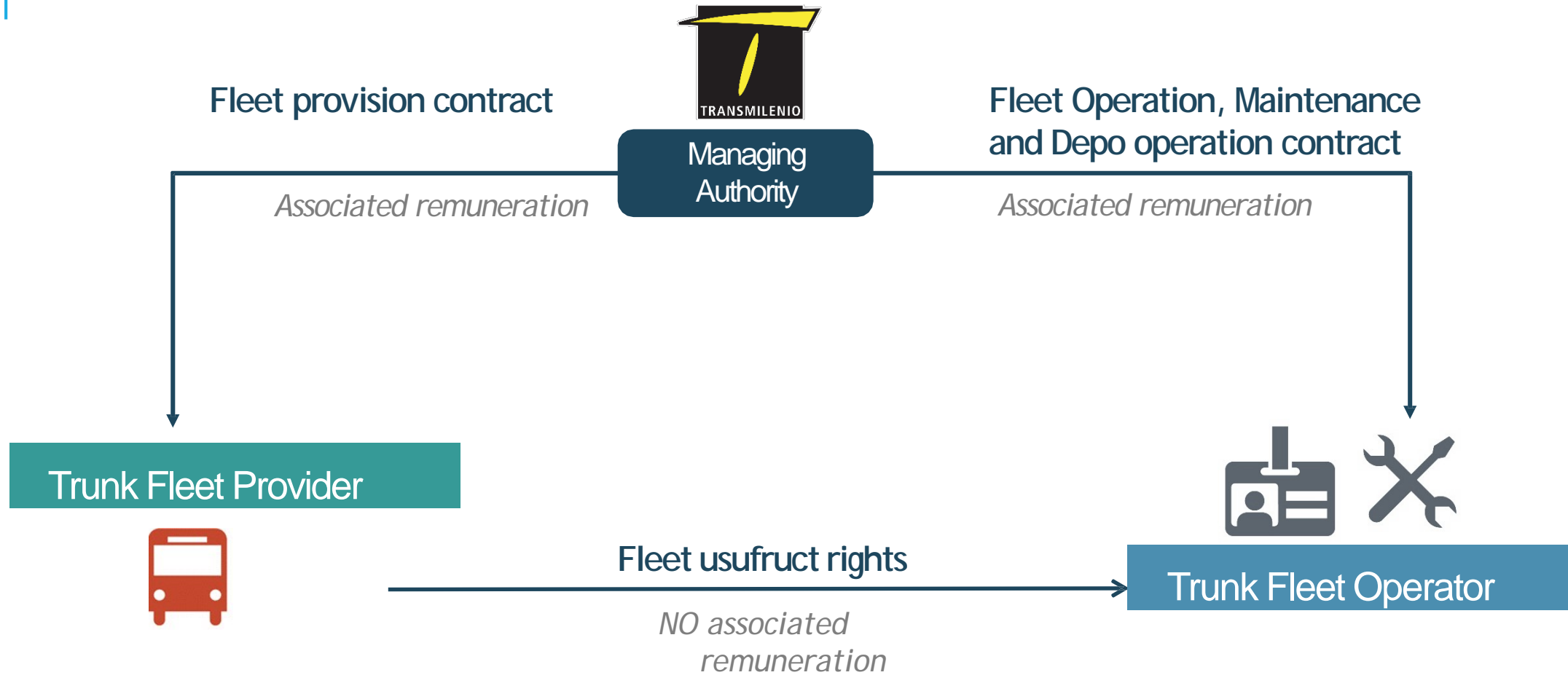
### Fleet Size

Between 1.350 – 1.450 18m bendy buses and 27m biarticulated buses, with minimum emissions technology Euro V

### Estimated CAPEX

USD400 mil - USD500 mill

# CONTRACTUAL MODEL



# SCOPE OF SERVICES

## PROVIDER

- Chassis / body negotiation
- Financing and acquisition of the fleet
- Homologation, registration and insurance
- Delivery of the fleet to the operator in Bogotá
- Supervision of fleet maintenance
- Registering, de-registering and scrapping of the provided fleet

## OPERATOR

- Reception of the assigned fleet
- Acquisition and installation of additional equipment (technological devices)
- Operation of the fleet
- Adaptation, administration and operation of bus depots
- Maintenance of the fleet in charge
- Delivery of the fleet upon completion or breach of contract

# TERM SHEET — FLEET PROVIDER

Fleet Provider	
Contract Type	Concession
Term of the Contract	Fixed Term (10 to 12 years)
Number of contracts	<b>Up to 8</b>
Remuneration	Fixed component <sup>2</sup>
Qualifying requirements	Accreditation of financial closure in firm via: Disbursement commitments Firm financing
Profile of possible participants	Financing, investors and Private Equity Funds
Project Dates	Vehicle incorporation schedule: <ul style="list-style-type: none"> <li>• First stage – 12/2018</li> <li>• Second stage - 12/2019</li> </ul>



# TERM SHEET — TRUNK OPERATOR

Fleet Provider	
Contract Type	Concession
Term of the Contract	Fixed Term (10 to 12 years) <sup>1</sup>
Number of contracts	<b>Up to 8</b>
Remuneration	Variable Remuneration based on kms and / or buses
Qualifying requirements	<b>Experience in operation (number of buses and years)</b>
Profile of possible participants	National and international operators
Project Dates	Vehicle registration by stages: <ul style="list-style-type: none"><li>• First stage – 12/2018</li><li>• Second stage - 12/2019</li></ul>

# MAIN BENEFITS OF THE NEW UNBUNDLED BOGOTA MODEL

## Flexibility

Ensures fleet availability in the system regardless of the continuity of a specific operator

## Bankability

Responds to the current financial context in the sector of public transport

## Better user service

Generates better incentives in contracts to provide a quality service to the user

## Service Continuity

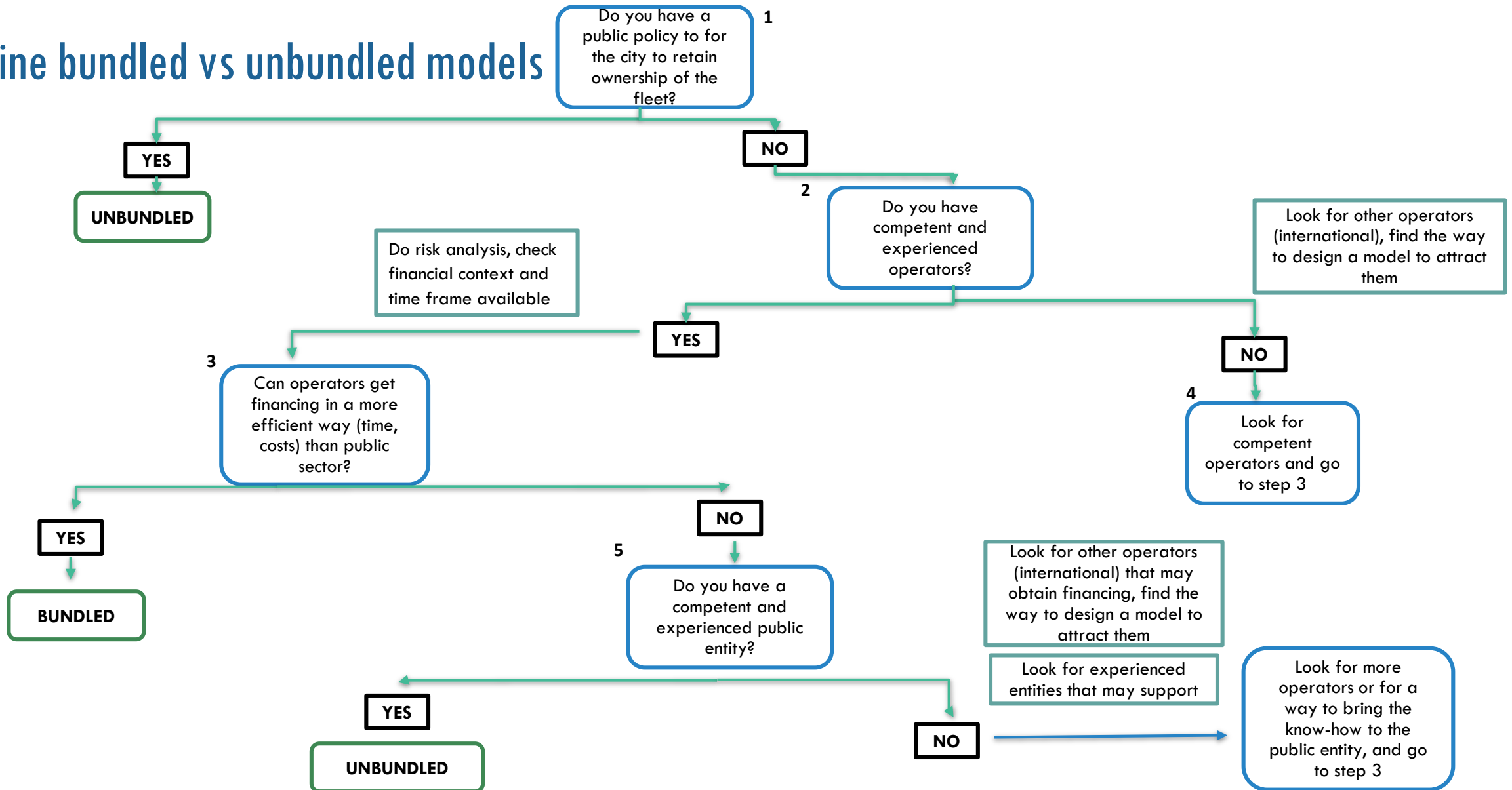
Ensures an adequate transition between current operators and incoming operators at the end of contractual periods

## Efficiency

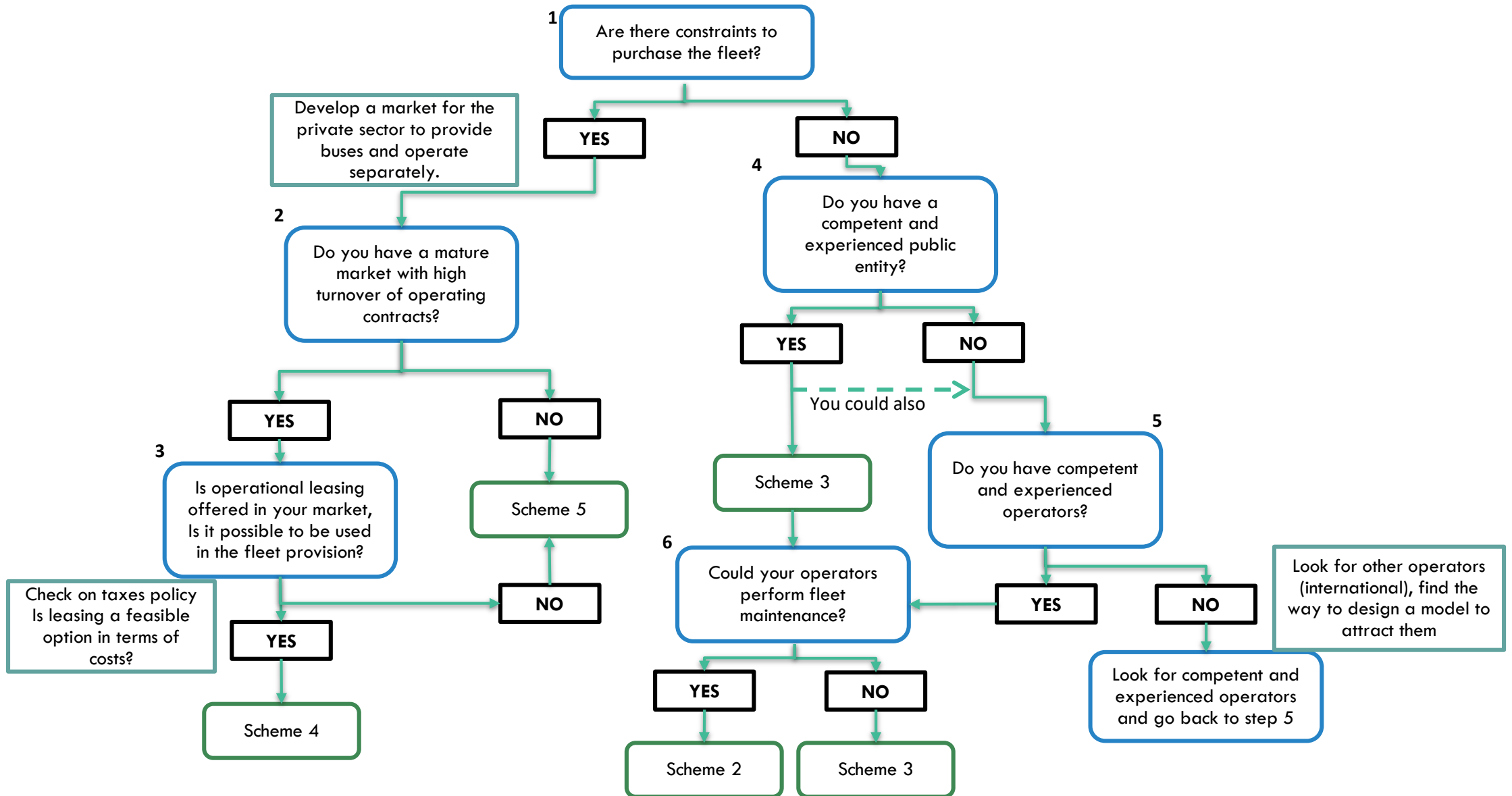
No additional costs for the user

# | 4. TRANSACTION MODEL SELECTION ROADMAP

## Define bundled vs unbundled models



# Define between unbundled models



# CONCLUSIONS



- A transaction model must consider market circumstances. Map and understand the market before tendering for private sector participation.
- Incentives and disincentives to tackle the risk of having a poor performer with little skin in the game may be addressed with (a) performance-based extensions; and (b) fleet reallocation provisions linked to poor performance and/or maintenance.
- Shorter operating contracts and/or smaller size contracts (capex) allow incentivizing competition and rewarding operators and providers who perform under collaboration principles.
- The IRR for bus concessions depends on opportunity cost (risk-free rate, market fluctuation), market analysis, and risks (country, sources of payment, demand, salvage value, regulatory, political, exchange rate, risk premium for the maturity of the market).