



cutting through complexity

Financial and Contractual Structure Issues in BRT schemes

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13 November 2014

Bus Rapid Transit

Our Experience: BRT and Urban Transit Projects

Ireland

- RPA: Metro North and Metro West
- RPA: Integrated Ticketing System
- **Department of Regional Development: Belfast Rapid Transit Project**

United Kingdom

- Department for Transport: Rail Franchising Review
- Department for Transport: Franchise Policy Review
- Eurostar UK: Asset Finance Restructuring
- Freightliner UK: Subsidy Negotiations with DfT
- FTSE 250 Transport Operator: Financial Review
- Greater Manchester PTE: Transport Innovation Fund
- Greater Manchester PTE: Manchester Metrolink Phase 3A
- Greengauge 21: Economic Impacts of High Speed Rail
- Henderson Private Equity: Laing Rail
- **Leeds New Generation Transport - Bus Rapid Transit Project**
- Network Rail: UK Rail Strategic Review
- Nottingham City Council: Nottingham Tram
- Office of PPP Arbitrator: Contract Review
- Private Side Bidder: Angel Trains
- Private Side Bidder: First GB Railfreight
- Private Side Bidder: London Docklands Light Railway
- Private Side Bidder: Merseytram UK
- Private Side Bidder: Rail Franchise Bid
- Strategic Rail Authority: Franchise Review
- Transport Scotland: Edinburgh Trams Light Rail Project
- West Yorkshire PTE: Leeds New Generation Transport

Rest of Europe

- Austria: Brenner Base Tunnel
- Germany: Deutsche Bahn: Acquisition and Disposal Support
- Germany: Munich Maglev train
- Greece: Attiko Metro Expansion
- Italy: Privatisation Feasibility Study / Options
- Italy: Terms of Service Contracts
- Italy: Operational Efficiencies in transport companies
- Norway: Skyss- eticketing
- Portugal: RAVE High Speed Rail
- Portugal: Metro Mondego Light Rail
- Portugal: Renegotiating Parpublica Transport Concessions
- Russia: Nadzemny Express Light Rail PPP Project
- Sweden: Stockholm Tram
- Sweden: Storstockholms Lokaltrafik: Transformation Design and Implementation

India

- GMR Infra Metro Business Case
- Hyderabad Metro Rail Project
- Mumbai Metro Rail Project
- Mumbai Trans Harbour Link

North America

- Canada: Rapid Rail Transit Line
- Canada: Metrolinx Transportation Investment
- Canada: York Rapid Transit System
- Canada: Golden Ears Bridge Project
- Canada: City of Calgary Fleet Services Governance Review
- Canada: City of Toronto Transportation Services Efficiency Review
- Canada: Infrastructure Ontario & Ontario Ministry of Transportation
- Canada: Province of British Columbia Gateway Program
- Canada: Sheppard Subway Rapid Transit System
- Canada: Light Rail Transit Ottawa
- Canada: Intermodal Rail Service Vancouver
- **Canada: VIVA Bus Rapid Transit, Ontario**
- USA: Anaheim Regional Transit Intermodal Centre
- USA: Texas Multimodal Transportation Network
- USA: Dulles Corridor Metrorail Project
- USA: LA Metropolitan Transport Authority
- USA: Regional Transport Authority Chicago
- **USA: Virginia HOT / BRT Lanes**
- USA: RTA Chicago Transportation Projects
- USA: California High Speed Rail
- USA: Riverside County Transportation Commission

United Arab Emirates

- Dubai: Palm Jumeirah Monorail Transit System
- Abu Dhabi: Park and Ride Concession

South Africa

- **Tshwane: Economic Evaluation BRT System**
- Gauteng: Gautrain Model Integration Study
- Passenger Rail Association: Economic Impact Study Cape Town Rail Link
- Passenger Rail Association: Economic Impact Assessment Rolling Stock Replacement
- Department of Transport: Economic Impact Study - 2010 Soccer World Cup on Transport Sector

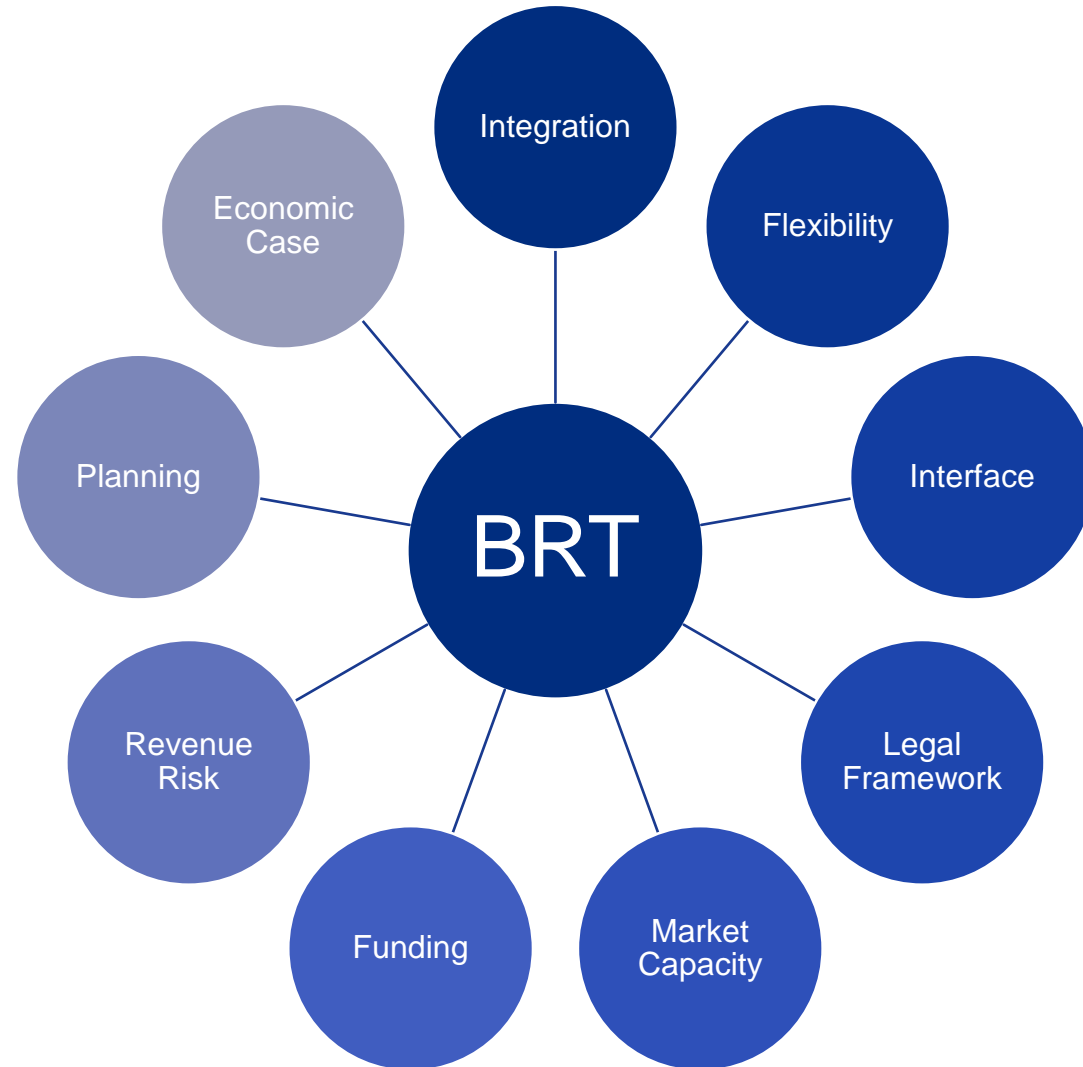
ASPAC

- Australia: Cross River Rail
- Australia: Sydney Light Rail Extension
- Australia: Melbourne Regional Rail
- Australia: East Coast High Speed Rail Project
- Australia: Victoria New Transport Ticketing System
- Australia: Victoria Rail Franchising and Refranchising
- Australia: Chatswood Station Transit Hub
- Australia: Railcar Rolling Stock Supply and Maintenance Procurement
- Australia: Queensland Inner City Transport Model Capacity Study
- Australia: Melbourne Airport Transit Link
- Australia: New Generation Rolling Stock Project
- Australia: Queensland Rail New Generation Rolling Stock Project
- Indonesia: Study on Financial Sustainability of PT MRT Jakarta
- **Jakarta: Feasibility Study on BRT**
- Japan: Tokyo Tama Intercity Monorail Ltd - Phase 1
- Japan: Kumamoto Electric Railway
- **Pakistan: Karachi Bus Rapid Transit Project**
- Singapore: Land Transport Authority Rail Franchising Framework
- Taiwan: Kaohsiung Light Rail System
- Taiwan: Taichung MRT System
- **New Zealand: Auckland EMU Procurement**

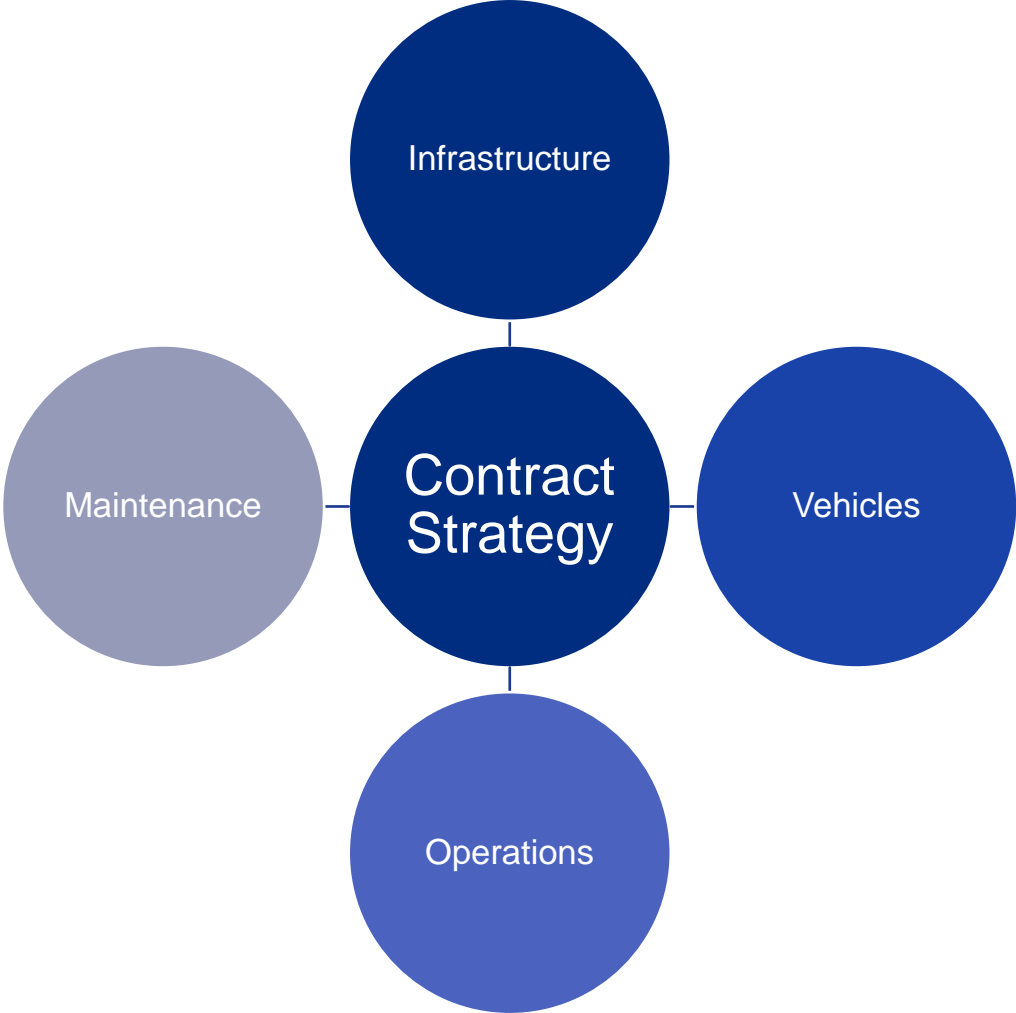
Bus Rapid Transit Introduction

- Bus Rapid Transit (“BRT”) is an effective, cost efficient and high quality public transport system
- Emulates many characteristics of a modern light rail-based transit system however at a much lower cost
- While this is the case BRT should be considered as a distinct and separate system with its own specific application and features
- Various forms of BRT worldwide and various modes of implementing a BRT system with common differences including:
 - Integrated v segregated approach
 - Trolley based buses v diesel fuelled buses
 - Contract structures – managing contractual interfaces
 - Funding - Public, Private, Mixed sources

Bus Rapid Transit Wider Policy and Market Issues



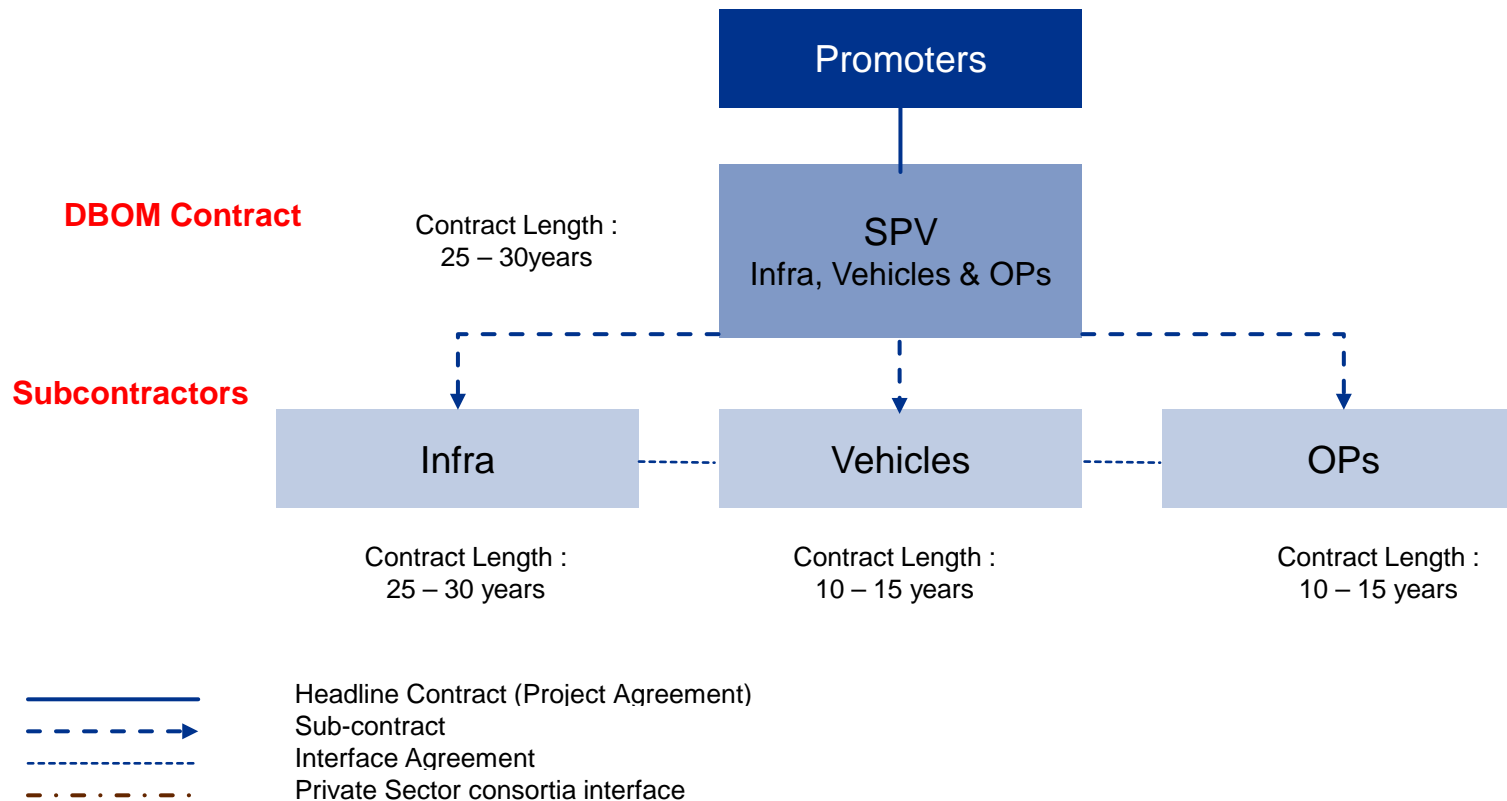
Bus Rapid Transit Contracting Strategy



Bus Rapid Transit Contract Options – One Contract

One Contract

There will be one single, overarching contract for Infrastructure detailed design & construction, maintenance, Vehicles (design, construction and maintenance) and Operations



Advantages

- Optimal interface risk transfer
- Short term risk management
- Reduced administration burden
- Straightforward dispute resolution
- Consistent with general procurement objectives

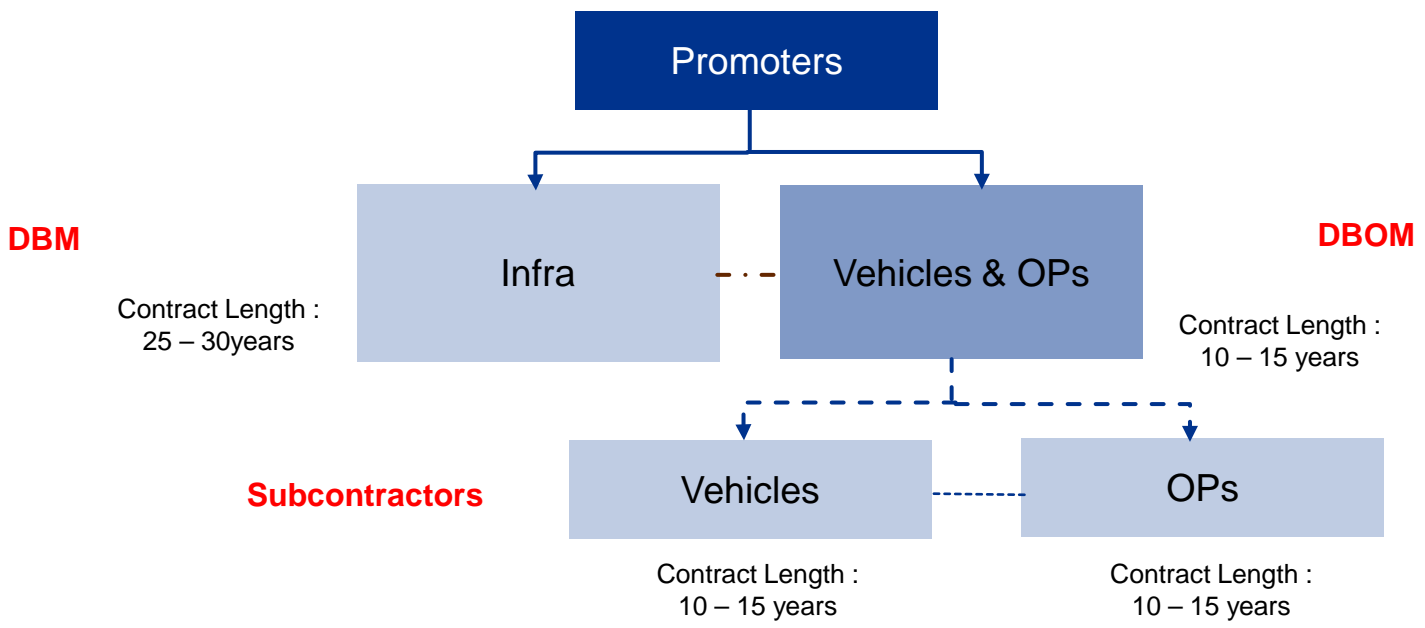
Disadvantages





- Clear Communication strategy essential
- Intense dialogue process
- Less flexible

Bus Rapid Transit Contract Options – Two Contracts

Two Contracts

Two contracts for: (i) Infrastructure detailed design, construction & maintenance; and (ii) Vehicle design, construction & maintenance and Operations



-  Headline Contract (Project Agreement)
-  Sub-contract
-  Interface Agreement
-  Private Sector consortia interface

Advantages

- Stronger bids than single competition
- Increased flexibility

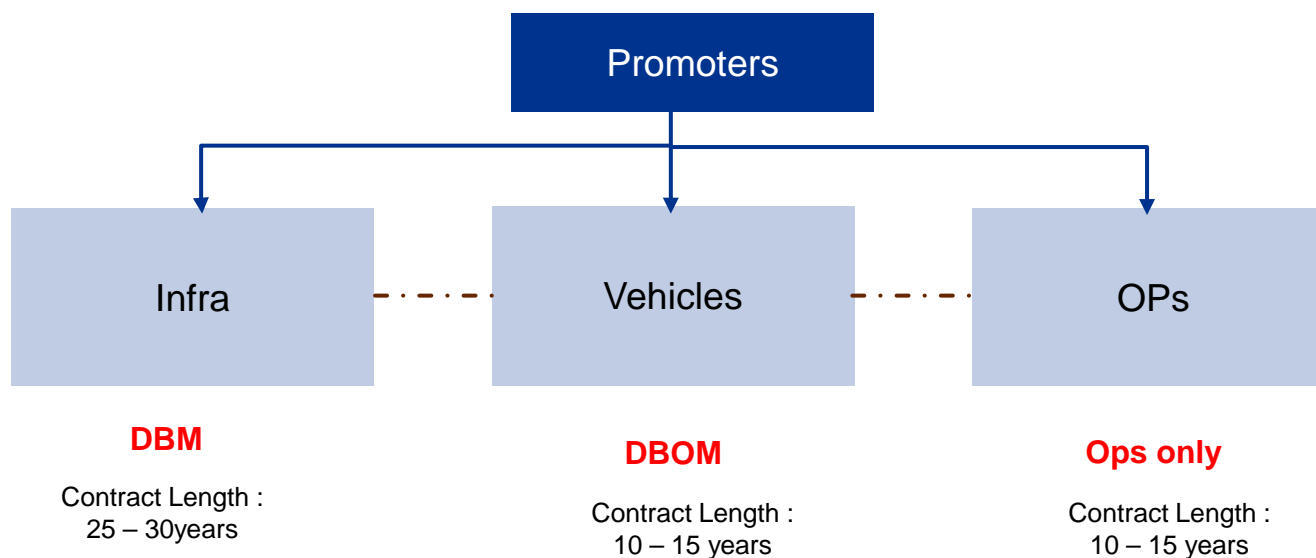
Disadvantages

- Increased interface risks
- Complex Performance Regime
- Complex Payment Mechanism
- Requires collaboration

Bus Rapid Transit Contract Options – Three Contracts

Three Contracts

Three contracts for: (i) Infrastructure detailed design, construction & maintenance; (ii) Vehicle design, construction & maintenance; (iii) Operations.



Advantages

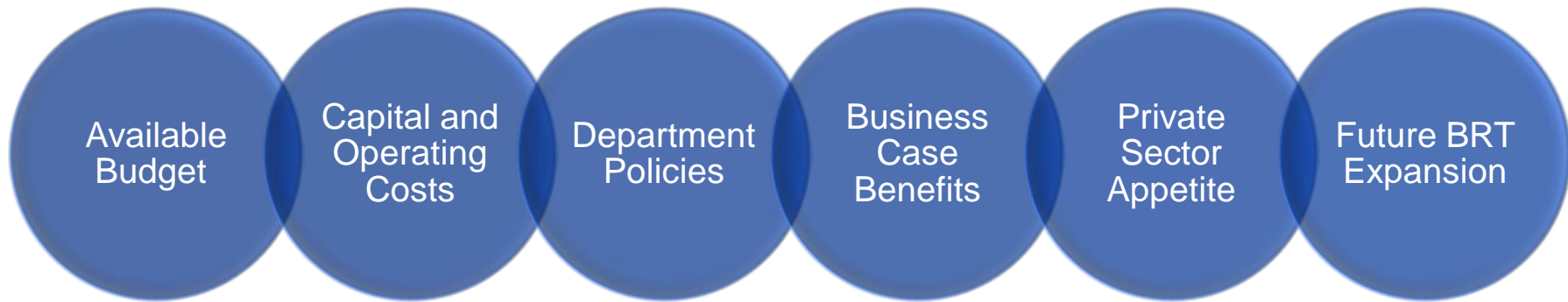
- Increased flexibility for bespoke contracts

Disadvantages

- Increased interface risks
- Future upgrades complex
- Complex performance regime
- Increased administrative burden

Bus Rapid Transit Procurement Options – Key Issues

- For BRT to be successfully delivered, it is essential that the procurement strategy considers BRT as an integrated system rather than a series of individual components. Consequently, when evaluating a procurement approach, this should be at the forefront of the evaluation criteria. Some of the key issues to be considered are outlined below:

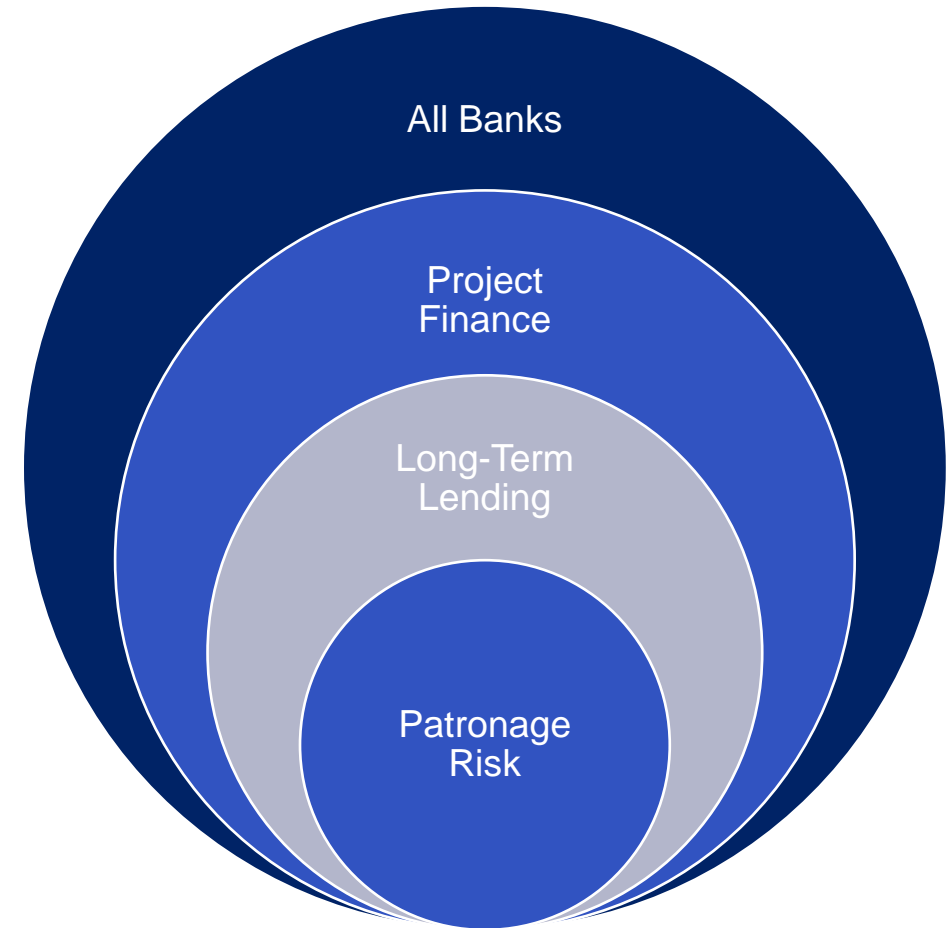


Bus Rapid Transit Financing BRT Projects

- Most BRT systems tend to be publicly funded through Government Departments and Local Authorities
- Public funding gaps however could be bridged by private finance to cover shortfalls
- Private finance could also help to align the incentives of all parties; for example, operators with an equity investment in the project will be more likely to focus on ensuring performance targets and objectives are met
- While private finance may be a valuable source of financing for future BRT projects there are a number of issues to be considered in attracting private investment
- These include, for example:
 - Wider policy, strategic and legal framework;
 - Technical and operational aspects of the project;
 - Contractual structure – does it allow private finance;
 - Risk allocation under the structure / contract;
 - Payment mechanism / performance regime

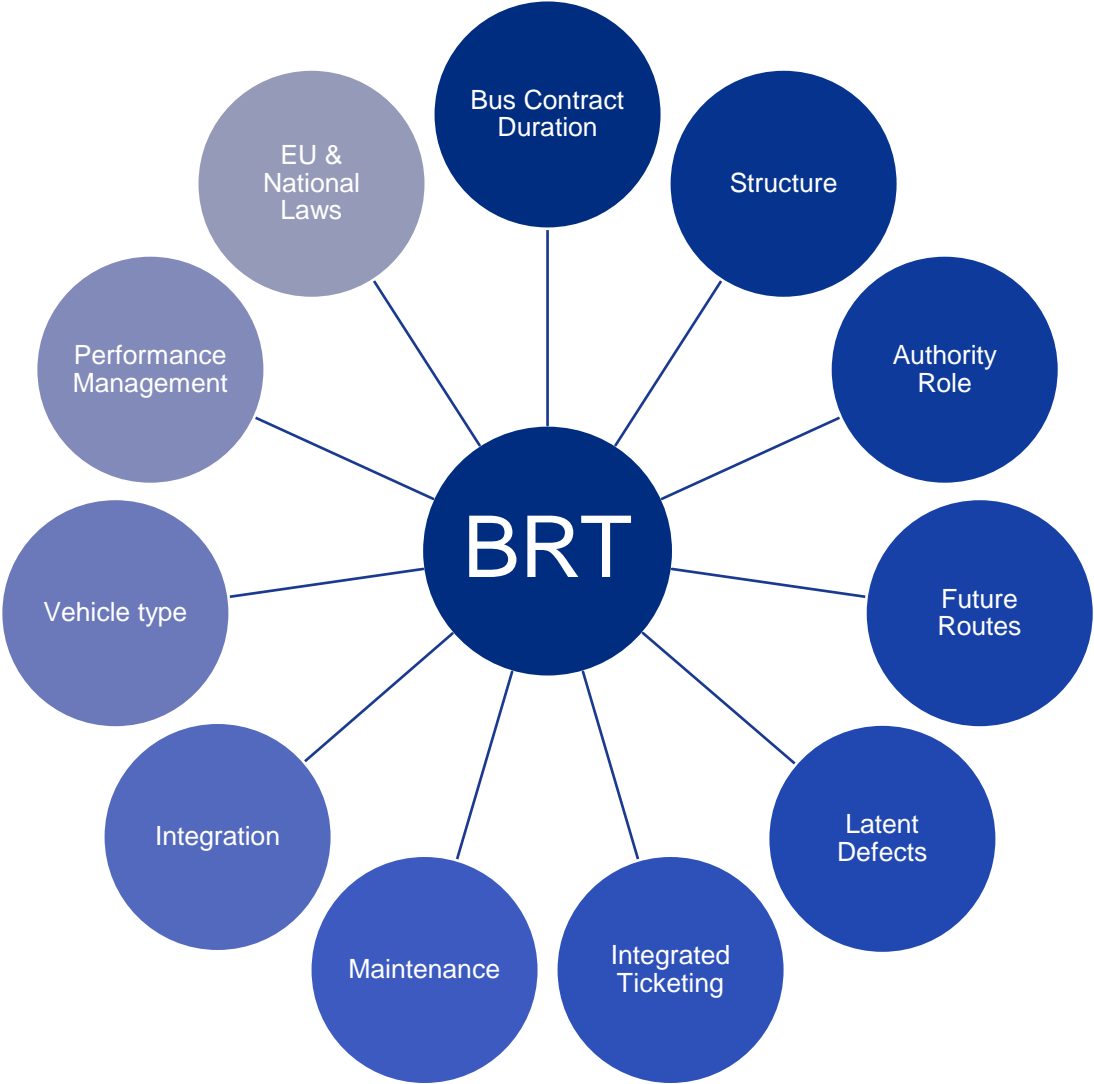
Bus Rapid Transit Private Funding Issues

- Few banks were prepared to provide long term infrastructure finance, particularly at the riskier end, in recent years
- However, there has been an uplift in the market of late and increased funding appetite from banks and institutional debt providers (both domestic and foreign)
- Nonetheless, cost of capital and access to long-term liquidity coupled with Basel III regulation make long-term lending more difficult
- EIB will lend long-term (but only to the maximum tenor of the commercial banks (if any))
- Patronage risk is a simple “no” for many banks. Those who will take the risk will be robust in their analysis and pessimistic in their assumptions
- General market trend is fewer and fewer banks able to look at patronage projects on a long-term basis



Bus Rapid Transit

Other Issues for Consideration





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Thank You



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