Rea Vaya BRT System
Johannesburg
Rea Vaya Bus Rapid Transit (BRT) objectives

- Fast, safe, reliable and affordable public transport
- Public transport transformation - including of mini bus taxi industry to prosperous transport businesses
- Spatial restructuring
- Broad based black economic transformation
- Mitigate against climate change and reduce air pollution with ‘clean buses’
- Promote livable and competitive city

Rea Vaya means “We are going”
Phase 1A
• 25km of trunk route
• 42 000 daily passengers
• 143 Euro 1V buses
• 585 taxis taken off competing routes

Phase 1B
• 18km of dedicated trunk route
• 65 000 daily passengers
• 134 Euro IV buses

Phase 1C
• To be introduced in 2015/16
• 16 km of dedicated trunk route
• 260 buses – fuel source to be determined
• Almost 200 000 more passengers
Key Organisational aspects of Rea Vaya BRT system
City contracts the private sector for the following:

- Operation of the bus services
  - Phase 1A operated by Piotrans through a contract between the City and a Bus Operating Company (BOC)
  - Phase 1B has a temporary company operating the service until takeover by shareholders from minibus-taxi industry once BOC agreement is concluded
- Operation of the fare collection system:
  - In terms of a tender process, a private operator has a contract for acquiring, installing and operating the ticketing and fare system
    - Initially used paper ticket management system
    - Automatic Fare Collection system operation (from 2013) – access control and smartcards
- Station cleaning and security
- Inspector services
Bus Operating Company (BOC) is a private operator with a 12-year negotiated contract and is responsible for:

- Operating the bus services required by the City in terms of the City’s weekly service plan and according to the contract.
- Employing the staff to manage the bus company in line with the BOC contract with the City and operate the services.
- Purchasing and owning the buses required to operate the services described in the contract (City procures on behalf of BOC).
- Maintaining the buses.
City provides all system infrastructure and hardware

- City designs, builds and owns all infrastructure, including depots, stations and roadways, control centre and fibre optic networks.
- City provides and owns all fare collection equipment and all the intelligent transport systems. Two tenders were specified and awarded to provide each system.
- City procures buses on behalf of future operator and organised the loan financing.
- City’s Johannesburg Roads Agency (MOE) designs and maintains road network.

Infrastructure fully funded by government (national and City)
City receives and controls all fare revenue (gross contract system) – no fares are collected by the bus operating company or its drivers whatsoever.

City designs and specifies routes and timetables and allocates buses to routes in line with passenger demand.

City has management control of its stations and employs station staff managers (ambassadors), cashiers and passenger marshalls.

It sub-contracts cleaning and security services at stations to private companies.

Manages BOC buses and drivers after book-on from Control Centre.

Communicates with and instructs drivers, both verbally and through messaging.

Monitors service quality of BOC so it can impose penalties for contract violations, such as dirty or late buses.

Monitors in-bus activities and incidents through CCTV.
Through the Control Centre, the City also:

- Provides traveller information services through “next bus” arrival information
- Provides route planning information interface for travellers
- Monitors demand at stations and communicates with station management
- Communicates with passengers on stations through messaging signage and verbally
Operating Model: City role (6)

CUSTOMER CARE

- Marketing the system
- Staffing and managing control room
- Managing all communications with Rea Vaya stakeholders and passengers
- Running the Rea Vaya website and similar (e.g. Facebook, Twitter)

ROUTES

- The City may put buses of more than one company on the same route if passenger demand on the route requires this.
- BOC is assured of a certain number of minimum kilometres over the course of the contract, so that it can carry out its financial planning and manage the company accordingly.
- The BOC does not carry any risk of low passenger numbers because it is paid for the kilometres it operates, not according to the passengers carried.
Bus operating company (BOC) formation and empowerment
A key City objective in introducing BRT was that it should empower the previously disadvantaged mini bus taxi industry and contribute to broad based black economic empowerment.

Furthermore, there was a recognition, that BRT would not be able to introduced if the affected operators were not offered ‘a deal where they would not be worse off’ in the BR system.

Thus based on the above, the BRT model developed in Joburg and supported by new national policy and legislation provided for:

- A once off negotiated contract of not more than 12 years – for affected operators.
- Buses would be owned and financed by the operator but the procurement and financing would be arranged by the City.
- Disadvantaged operators could be paid a ‘transformation premium’ if they participated – essentially an operational subsidy from national or city and that the City could have ‘transformation and transitional costs’ to enable the transformation of such operators.
Negotiated vs tendered contract

- City elected to negotiate the contract to operate the first BRT services with the public transport operators affected by BRT.
- In Phase 1A and 1B this was taxi operators in ten taxi associations for each phase.
- **Existing operators withdraw their vehicles from BRT routes.** The Operational Plan listed routes that would need to be “cancelled”.
- **In exchange, they were offered 100% shares** in the first Bus Operating Company of the new system.
- **Political emphasis on implementing BRT in partnership with affected operators.**
Negotiations started officially on 5 August 2009, but more than two years of engagement with operators about BRT had already taken place.

- Taxi Steering Committee (Top Six and Regional Taxi Council)
- Technical support and offices (MoU with Executive Mayor)

From February 2009 discussions between the City and the TSC focused on agreeing a negotiation process which would lead to the signing of a contract between the City and a taxi-owned bus operating company to operate the BRT corridor services.

- Agreement on need for facilitation by independent chair and facilitators
- TSC initiated a process for affected individual operators to register their interest in participation, and to mandate representatives. City sent letters to the associations and placed adverts inviting participation.
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<tr>
<th>Phase 1A experience</th>
<th>Phase 1B experience</th>
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<tr>
<td>10 mini bus taxi associations organised in two regional structures which used to be very antagonistic towards each other</td>
<td>10 mini bus taxi associations (2/3 still hostile and not in process), PUTCO – govt subsidised contractor Metrobus and also claims of affectedness from small bus operators</td>
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<td>Three years of engagement – significant investment in workshops and capacity building</td>
<td>Two years of engagement or talks about talks More codified technical support and capacity building.</td>
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<td>18 months of negotiation</td>
<td>Negotiations have been ongoing since December 2012</td>
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<tr>
<td>Independent facilitation with credible and well respected facilitators – very expensive – especially because they played secretarial role</td>
<td>More streamlined facilitation with same facilitators</td>
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<td>Independent technical support of operator’s choice. Allowances to taxi industry facilitators and allowances paid retrospectively to negotiators</td>
<td>Independent technical support of operator’s choice only to disadvantaged operators. This phase also involves PUTCO which is a provincial subsidised contractor. Allowances for negotiators still to be agreed by political leadership</td>
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<tr>
<td>“Making up process as go along”</td>
<td>Process codified in policy document, Mayoral Committee mandates to negotiators and Negotiation Framework Agreement</td>
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<tr>
<td>Agreements signed at key milestones in process - see list on next page</td>
<td>Similar</td>
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<tr>
<td>Political deadlock breaking mechanism</td>
<td>Codified deadlock breaking mechanism</td>
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The following are the key agreements that were signed in Phase 1A and likely to be signed in Phase 1B:

- **Bus Operating Contract Agreement (BOCA):** This is key agreement which will last 12 years and includes the fee per km
- **Participation Framework Agreement:** How operators will participate in the Bus Operating Company (BOCA) and dispose of previous vehicles and licenses
- **Employment Framework Agreement:** How displaced workers will be accommodated in BOC and other Rea Vaya BRT opportunities e.g. at stations
- **Value Chain Framework Agreement:** How operators can benefit from opportunities in the BRT value chain
- **‘Negotiation Closure’:** How the transition from negotiations to hand over will be managed
- **Interim services Agreement:** How the interim will be managed – because in both Phase 1A and 1B, service started with interim arrangements
Negotiating the fee per km

ASPECTS OF FEE PER KM

- **Input costs**: Tried to reach consensus – very time consuming but also empowering/educative
- **Profit margin**
  - Phase 1A: 28% because included an empowerment premium
  - Phase 1B: Look at commercial profit % (9%) and separate empowerment premium only for disadvantaged operators
- **Escalation formula**: Difficult to negotiate
- **Financial model**: Tried to build a consensus financial model

NEGOTIATING FEE PER KM

- Operators primarily interested in working out how much a fee per km would give them each month as ‘profit’ or ‘free cash flow’
- In Phase 1A operators who signed up could not go back to their businesses if did not like the offer – pushed the offer up and created basis for political pressure
- Also difficulty as to how operators get their ‘profit’. Looked at:
  - Dividends: But this comes annually and is not tax friendly to the operators
  - Restraint of Trade: Used ‘temporarily’ in Phase 1A (with City) and exploring its further use
## Bus procurement and financing

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<tr>
<th>Issue</th>
<th>Phase 1A</th>
<th>Phase 1B</th>
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<tr>
<td>Bus ownership</td>
<td>Buses owned by operator</td>
<td>Buses owned by City for at least first five/six years and then transferred to operator in accordance with municipal asset transfer regulations and if operator can show is capable of managing assets (to be finally agreed)</td>
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<tr>
<td>Bus procurement</td>
<td>City procured buses</td>
<td>City procured buses</td>
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<tr>
<td>Bus funding</td>
<td>BNDES through HSBC transaction. 3.2% interest rate but hedging, complexity and high legal fees</td>
<td>National conditional grant funding. City will pay for buses upfront. No lending.</td>
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<td>Accounting treatment</td>
<td>Due to exclusive use from an accounting perspective seen as a finance lease and buses have to be brought into books of City</td>
<td>Not a problem for first 5/6 years of the contract</td>
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<td><strong>National government</strong> covers:</td>
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<td></td>
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<tr>
<td>• All infrastructure costs</td>
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<tr>
<td>• Full costs of infrastructure maintenance</td>
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<tr>
<td>• Cost of vehicles to extent not covered by fare revenue</td>
<td></td>
<td></td>
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<tr>
<td>• Half the ancillary costs (stations, control centre, fare system, oversight agency, marketing, etc..)</td>
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<tr>
<th><strong>Fare revenue</strong> is expected to cover</th>
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<td>• Vehicle operating costs and most of vehicle capital costs</td>
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<tr>
<th><strong>City of Johannesburg</strong> is expected to cover</th>
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<tr>
<td>• Other half of the ancillary costs (stations, control centre, fare system, oversight agency, marketing, etc..)</td>
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For every R1 of capex in Phase 1A, incurred:

- R1,81 for bus operations, fleet and BOC formation and related
- R0,54 for station management
- R0,17 maintenance
- R0,19 ITS & AFC
- R0,16 Rea Vaya business unit

= R2,87 total costs

Capital expenditure:
- Cost per km (2010/11) of bi-direction busways excl. stations – R35,6 million
- Cost per km (2010/11) of single-lane busways excl. stations – R44,4 million
- Cost per km (2010/11) of transit-only busways excl. stations – R42,8 million

Capital expenditure per passenger km (cumulative):
- R7,85 in 2010/11 down to R2,87 in 2014/15 (with Phase 1C)

Operational expenditure per passenger km (full operational costs):
- Currently 92 cents, decreasing to 71 cents with Phase 1C in operation
END