Innovating Policies & Regulations for an Evolving Public Transport Ecosystem

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OUR ENVIRONMENT

Resource & Fiscal Constraints VS Rising Expectations & Evolving Environment

Tighter Land Constraints
Growing Population & Economy

Aging Population
Changing Expectations & Norms

Manpower Crunch
Rapidly Evolving Operating Environment

Ensuring Environmental Sustainability
**PUBLIC TRANSPORT RIDERSHIP**

**Bus**
- 4 mil ridership
- >5,600 buses
- >310 bus routes

**Rail**
- 3.5 mil ridership
- 229 km
- 180 stations

**Taxis/PHCs**
- 1.1 mil ridership
- >65,000 vehicles

Stats as of Dec 2018
### Competitive Regulatory Framework and Flexible & Facilitative Regulatory Environment

#### Competitive Regulatory Framework
- NRFF & TEL
- BCM
- **RAIL & BUS**
  - Backbone of public transport
  - Heavier Gov’t involvement
  - Tighter control on service levels and fares
  - Gov’t owns assets to lower barriers of entry
  - Overall benefit to the community

#### Flexible & Facilitative Environment
- BIKE-SHARE
- P2P & AV TRIAL
- PMDs
- **NEW MOBILITY**
  - Light regulatory touch
  - Sandbox licences to embrace disruptive innovation
  - Allow flexibility and responsiveness to fast-changing transport scene
  - Regulations focus on safety
COMPETITIVE REGULATORY FRAMEWORK

Move to Bus Contracting Model (BCM)
Contracts operators to run public bus services through competitive tendering

**Before**
- Operators buy buses (including fleet management system)
- Operating costs covered by fare revenue and other sources, e.g. advertisements
- Operators maintain bus interchanges and terminals allocated to them at nominal cost

**After**
- Gov’t provides bus infrastructure (depots and interchanges), buses, fleet management system, and ticketing equipment
- Gov’t retains fare revenue while bus operators are paid a fee to operate services

**Increased contestability in bus industry**
- Lower entry barriers with Government owning operating assets
- Competitive tendering of bus service contracts
- Shorter licence periods

SATISFACTION WITH BUS SERVICE

<table>
<thead>
<tr>
<th>Year</th>
<th>Satisfaction (%)</th>
</tr>
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<tbody>
<tr>
<td>2015</td>
<td>90.70%</td>
</tr>
<tr>
<td>2016</td>
<td>96.70%</td>
</tr>
<tr>
<td>2017</td>
<td>96.70%</td>
</tr>
<tr>
<td>2018</td>
<td>98.00%</td>
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KEY SUCCESS FACTORS

1. Maintaining “Value-for-Money”
2. Good Regulatory & Monitoring Framework
3. Building up expertise within LTA
4. Managing union/worker relations
COMPETITIVE REGULATORY FRAMEWORK

Overview of BCM Packages
COMPETITIVE REGULATORY FRAMEWORK

New Rail Financing Framework (NRFF)

**LTA** owns rail operating assets and lead investment in capacity expansion, replacement and upgrading of operating assets

**OPERATOR** focuses on providing reliable rail services for commuters

### Before

- Licence period: 30 – 40 years
- Operators decide on building, replacement & upgrading
- Regulated on operational performance
- Revenue & regulatory risks borne by operator

### After

- Licence period of 15 years + possible 5 year extension
- LTA owns and decides on building, replacement and upgrading
- Maintenance processes also regulated
- LTA shares in fare revenue risk. May provide grants/ require operator to reimburse if new regulatory changes result in costs/revenues

**WHY?**

- Free rail operators of heavy capital expenditure
- Rail operators able to focus on providing reliable rail services for commuters

**IMPROVEMENT TO RAIL SERVICE RELIABILITY**

<table>
<thead>
<tr>
<th>Year</th>
<th>Mean Distance Travelled between Delays &gt; 5 min (train-km) for Overall MRT Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>93,000</td>
</tr>
<tr>
<td>2015</td>
<td>123,000</td>
</tr>
<tr>
<td>2016</td>
<td>174,000</td>
</tr>
<tr>
<td>2017</td>
<td>181,000</td>
</tr>
<tr>
<td>2018</td>
<td>690,000</td>
</tr>
</tbody>
</table>
COMPETITIVE REGULATORY FRAMEWORK

Singapore Rail Network - Existing & Upcoming Lines

[Map showing existing and upcoming rail lines with annotations for feasibility study and station locations not finalised]
COMPETITIVE REGULATORY FRAMEWORK

Thomson-East Coast Line (TEL) Contracting Model

**Higher Revenue Risk**

- “Complex” “Greenfield” line
- Multi-stage opening over five years
- Ridership and fare revenue uncertainty in initial years

**Gross-cost Model**

- 9 years, with option to extend for 2 years
- limited tender awarded to SMRT

**Scope**

- Undertake pre-ops services (e.g. systems testing and commissioning, trial run)
- Operate and maintain TEL (including depots) in accordance with:
  - Operating Performance Standards (OPS)
  - Maintenance Performance Standards (MPS)
  - Asset Management Requirements (AMR)
  - Codes of Practice

43km

31 Stations

7 Interchanges

5 Stages
COMPETITIVE REGULATORY FRAMEWORK

TEL Contracting Model - Key Elements

**Contract designed to provide greater control on service delivery**

- Payment tied to service delivery
- Potential financial deductions for non-fulfilment of contractual obligations
- Cost risk borne by operator, subject to indexation for macro-economic risks
- Pilot Incentives-Disincentives Framework

**Regulatory levers and active contract management**

- Regular performance meetings, reviews and audits
- Compliance with regulations and licensing conditions such as OPS, MPS, AMR, etc.
- Licence Penalty Framework

TEL Key Elements
FLEXIBLE & FACILITATIVE ENVIRONMENT

Working together with bike-share operators

1. INCREASE PARKING CAPACITY
   - Worked with other Gov’t agencies and bike share operators to provide more bicycle parking spaces
   - > 220,000 parking lots island wide
   - Almost all homes and public amenities within 5-min walk from public cycling parking facility

2. EDUCATE & IMPROVE PARKING BEHAVIOUR
   - Indiscriminate parking declined steadily since implementation of QR code geofencing and user ban in Jan 2019

3. LICENSING REGIME FOR DOCKLESS DEVICE-SHARING SERVICES
   - Parking Places Act amended in Mar 2018 to introduce licensing regime for dockless device-sharing services
     - Fleet size of licensees capped
     - Regulatory requirements to address indiscriminate parking
     - Data requirement for planning and enforcement
   - Failure to comply will result in financial penalties, reduction in fleets size, suspension and cancellation of licence

Supply of Parking Capacity
User Demand
Readiness, Robustness and Resources of “Support System” e.g. redistribution/maintenance regime, geo-fencing technologies

Constantly monitoring the landscape to assess if further measures are needed
FLEXIBLE & FACILITATIVE ENVIRONMENT

Bike-Sharing - Striking a balance between regulation & industry sustainability

Industry sustainability

- Investor money for Bicycle-sharing industry drying up
- Foreign-owned bicycle-sharing firms exiting due to financial woes/ changing priorities of parent companies

Regulation

- Still interest from many players and local players are here to stay
- Operators exploring with different companies to expand business models and revenue streams
- In midst of calibrating our requirements to manage regulatory burden
E-scooter Sharing – the new frontier?

Electric-scooter sharing

- Application for Sandbox Licence opened in January 2019
- Currently only allowed to operate on private land or within exempted areas

**Sandbox Licence for E-scooter**
- Smaller fleet size: 200 to 500
- Subject to subset of the full licence requirements
- Licence period of 1 year
- Higher safety requirements for motorised Personal Mobility Devices (PMDs)
- Lower licence fees: $12 per PMD per year

Applicants

- SG Scoot
- moov
- lime
- telepod
- neuron
- beam
- OMN1
- Smart World Telecommunications PTE LTD
- GrabWheels
- HELBIZ
- Gogreen
- MOVER
- JustScoot
# FLEXIBLE & FACILITATIVE ENVIRONMENT

Enhancing PMD Safety Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
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<tbody>
<tr>
<td>Max unladen weight of 20kg</td>
<td>Reduces risk of serious injuries in cases of collision</td>
</tr>
<tr>
<td>Max device width of 700mm</td>
<td>Allows devices to cross each other safely on most footpaths</td>
</tr>
<tr>
<td>Max device speed of 25km/h</td>
<td>Ensures motorised devices do not travel at excessive speeds</td>
</tr>
<tr>
<td>Fire safety requirement</td>
<td>UL2272 certified &amp; charging must be carried out by trained personnel in a suitable environment</td>
</tr>
<tr>
<td>Third-party liability insurance</td>
<td>Third-party liability for death or injuries arising from use of shared motorised PMDs</td>
</tr>
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FLEXIBLE & FACILITATIVE ENVIRONMENT

Evolving Point-to-Point (P2P) Services

✦ Advent of (app-based) ride-hailing technology improve the matching of supply and demand of vehicles, and benefit commuters and drivers

✦ Light touch regulatory approach, focuses on safety

✦ Collection of data allows us to monitor developments in sector and recalibrate regulatory positions

Growth in P2P Sector

High satisfaction with P2P Services

Customer Satisfaction Survey

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
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<tbody>
<tr>
<td>P2P</td>
<td>7.7</td>
<td>8.1</td>
<td>7.9</td>
<td>7.5</td>
</tr>
<tr>
<td>TAXI</td>
<td>7.5</td>
<td>7.9</td>
<td>7.9</td>
<td>7.9</td>
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<tr>
<td>PHC</td>
<td>7.9</td>
<td>8.2</td>
<td>7.9</td>
<td>7.9</td>
</tr>
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</table>
## FLEXIBLE & FACILITATIVE ENVIRONMENT

**Common Licensing Regime for P2P Operators**

### Objectives of New Regime

1. **Facilitate an open market that supports development of innovative P2P services**

2. **Provide sufficient regulatory oversight to protect safety and interests of drivers and commuters**

3. **Streamline regulations where appropriate**

### Key Regulations

- 🚧 Prohibit driver exclusivity arrangements
- 🚧 Regulatory sandbox for innovative products which can benefit the sector
- 🚧 Ensure fare transparency for ride-hail sector
- 🚧 Increased frequency of vehicle inspections for PHCs
- 🚧 Relaxation of service standards for taxi sector to allow market-driven service
SUMMARY

Policies and regulatory frameworks have to continually adapt to meet evolving transport objectives.

Competitive Regulatory Framework
- Heavier Gov’t involvement
- Tighter controls on service levels and fares through NRFF, BCM and TEL Service Contract

Flexible & Facilitative
- Light regulatory approach
- Sandbox licences allow flexibility & responsiveness to fast changing environment

GOAL OF MEETING OBJECTIVES OF LTMP 2040

1. 20-MINUTE TOWNS AND A 45-MINUTE CITY
2. TRANSPORT FOR ALL
3. HEALTHY LIVES, SAFER JOURNEYS
THANK YOU