TMG’s Effort to Improve Traffic Condition

～For Smooth Transportation at 2020 Olympic Games～

Office for Youth Affairs and Public Safety
Supervisor for Planning and Coordination Team
Ken Chibana
<table>
<thead>
<tr>
<th></th>
<th>Tokyo</th>
<th>Wards Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>2,189km²</td>
<td>617km²</td>
</tr>
<tr>
<td>Population</td>
<td>13million</td>
<td>9million</td>
</tr>
<tr>
<td>Day Population</td>
<td>16million</td>
<td>12million</td>
</tr>
<tr>
<td>GDP</td>
<td>85trillion</td>
<td></td>
</tr>
<tr>
<td>TOP Companies</td>
<td>48 / 500</td>
<td></td>
</tr>
</tbody>
</table>

* TMG Bureau of General Affairs
* Fortune 500 Global, 2012
1. Transportation system in Tokyo
2. Traffic Problems and TMG’s Efforts
3. Measures Using the ITS technologies
4. Heading towards 2020 Olympic Games
5. Conclusion
1. Transportation system in Tokyo

- Share of Transportation Modes

[New York]
- 31% Train
- 7% Bus
- 9% Car
- 49% Walk
- 3% Other

[London]
- 23% Train
- 14% Bus
- 3% Car
- 42% Walk
- 18% Other

[Tokyo]
- 23% Train
- 15% Bus
- 11% Car
- 48% Walk
- 3% Other

* New York State "National Household Travel Survey" 2009
* Mayor of London "Travel in London" 2010
* Japanese Ministry of Land, Infrastructure, Transport and Tourism "Person Trip Survey" 2010
- **Concentration of Stations (Index)**

  - **New York**
  - **London**
  - **Tokyo**

- **Fullness and Accuracy of Public Transportation (Index)**

  - **New York**
  - **London**
  - **Tokyo**

* Metropolitan Transportation Authority
* Transport for London
* Tokyo Metro, Toei Subway, JR East, etc

* The Mori Memorial Foundation
  “Global Power City Index” 2012
### Public Transportation Network

#### 《Train・Subway》

<table>
<thead>
<tr>
<th>Length</th>
<th>1,052 km</th>
</tr>
</thead>
<tbody>
<tr>
<td>Station</td>
<td>760</td>
</tr>
<tr>
<td>Passenger</td>
<td>26 million/day</td>
</tr>
</tbody>
</table>

#### 《Bus》

<table>
<thead>
<tr>
<th>Length</th>
<th>7,023 km</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route</td>
<td>2,545</td>
</tr>
<tr>
<td>Passenger</td>
<td>2 million/day</td>
</tr>
</tbody>
</table>

* TMG Bureau of Transportation
**Congestion Rank**

- New York
- London
- Tokyo

* PricewaterhouseCoopers “Cities of Opportunity” 2012

※ ranking 27 cities in the world depending on congestion level
(1place : most severe congestion)

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**Average Speed of Auto (7:00-19:00)**

- New York
- London
- Tokyo

* Transport Policy in Perspective 2008
* TMG Outcome Report of Road Construction 2007
Low share of automobile usage

- Chronic congestion
- Low speed

But!

Various TMG's efforts

《Fast!》
2. Traffic Problems and TMG's Efforts

① Through traffic, Undeveloped ring roads

- Maintenance rate of ring roads

<table>
<thead>
<tr>
<th>City</th>
<th>Maintenance Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>100%</td>
</tr>
<tr>
<td>Paris</td>
<td>85%</td>
</tr>
<tr>
<td>Beijing</td>
<td>100%</td>
</tr>
<tr>
<td>Seoul</td>
<td>100%</td>
</tr>
<tr>
<td>Tokyo</td>
<td>59%</td>
</tr>
</tbody>
</table>

* Ministry of Land, Infrastructure, Transport and Tourism
- Maintenance of 3 ring roads

- Tokyo Metropolitan Express Central Circular Route
- Tokyo Outer Loop Road
- National Capital Region Central Loop Road

* TMG Bureau of Urban Development
② Transportation impeded by railroad crossings

- Concentration of crossing (Index)

<table>
<thead>
<tr>
<th>City</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td></td>
</tr>
<tr>
<td>London</td>
<td></td>
</tr>
<tr>
<td>Tokyo</td>
<td>100</td>
</tr>
</tbody>
</table>

※1 2011.7
※2 crossings not open 40 minutes per hour at the peak time
Overpasses & underpasses

(2013.4)

* TMG Bureau of Construction
③ Chronic congestion

- 30 routes suffering from severe congestion

* TMG Office for Youth Affairs and Public Safety
“Hyper-smooth campaign” (some parts)

《Using ITS technologies》

- Traffic-demand predicting signals
- Traffic information boards
- PTPS

“Hyper-susumu Kun”

12.3% reduction of peak travel time
① Traffic-demand predicting signals

- System: predict traffic volume coming to intersection and control signals
- Characteristic: make prediction
- Effect: cope with sudden traffic change

* TMG Office for Youth Affairs and Public Safety
② Traffic information boards

- System: provide traffic information like congestion spots and time required
- Characteristic: allow drivers to use other routes
- Effect: traffic volume spread

* TMG Office for Youth Affairs and Public Safety
③ PTPS (Public Transportation Priority System)

- **System** - When bus passes, shortening red signals and the extending green ones are directed.
- **Characteristic** - on-time running.
- **Effect** - improvement of usefulness & comfort.

* TMG Bureau of Urban Development
4. Heading towards 2020 Olympic Games

* TMG Bureau of Sports
① Management plan

Olympic Traffic Control Center

- National government
- Police department
  etc

Collect information

Provide information

Management

- Car navigation
- On-board information
  etc

Infrastructure

- Olympic lane
- Maintenance existing road
  etc

ITS technology

- PTPS
- ETC
  etc
② Transportation example

- Main Stadium
- Olympic Village
- Media Center

Optimum accessibility

* TMG Bureau of Sports
5. Conclusion

- Developed public transportation
  - Train
    - Enriched network
    - Reliability
  - Subway
  - Bus

- Traffic congestion
  - Infrastructure
  - Traffic management (ITS technology)

Safe and less stressing transportation

Smooth transportation at 2020 Olympic Games!
Thank you for your attention!

Office for Youth Affairs and Public Safety
Supervisor for Planning and Coordination Team
Ken Chibana