Session 2

Smarter Urban Transport Infrastructure
都市交通インフラのスマート化

Toward the compact city
～コンパクトシティを目指して～

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1. Opening remarks by session moderator

2. Short presentation (60 min.)
   1. Toyama: City planning with LRT
   2. Toyota: City planning with new road transport
   3. Curitiba: City planning with BRT
   4. Bangkok: Challenge toward the upgrade
   5. Toshiba: Technologies for sustainable Transport

3. Discussion

4. Closing address
Forming a compact city

Strategies toward the Compact City

Source) WHITE PAPER ON LAND, INFRASTRUCTURE, TRANSPORT AND TOURISM IN JAPAN, 2012 p.91
How can we change the city?

Walking → Rail → Car → New Transport

Smart shrink

Urban Sprawl (Population increase)

LRT, BRT, DRT, EV, Segway etc.

New Transport change the urban structure

→ New Transport based Planning
New Transport based Planning

Urban area aggregation through implementation of TOD

Road usage
- Personal vehicle
- Bicycle
- Next-generation vehicles

Public transport use
- LRT, BRT, DRT

Expressway
Railways
Highways

Fixed service area

TOD

Residential roads

Existing Bus

LRT

Variable service area

Expressway

High-speed trains
Light Rail Transit (LRT)

Light Rail Transit

**LRT** systems provide transportation within a city. Better *integrated with other modes* of transportation, and *contributing to urban development* by functioning as a comprehensive transportation system.

The first LRT system was developed in Edmonton, Canada, in 1978. Since then, LRT systems have been introduced in 111 cities (as of 2008) throughout the world.

**Toyama** is the first city to introduce the LRT in Japan.
LRT and landscape

Houston: population: 2 million (4th in USA), No zoning system
Bus Rapid Transit (BRT)

Bus Rapid Transit

BRT systems: large-scale, rapid transport of passengers by bus.

Unlike traditional bus routes, these systems use dedicated traffic lanes to allow frequent and punctual service.

Such systems are already in place in locations such as Ottawa (Canada), Curitiba (Brazil), and Bogota (Columbia).
New transportation system

Best balance between automobile and public transport

• Next-generation transportation systems must strike a balance between automobiles and public transportation, through a hierarchical differentiation of transportation functions.

Toyota city: Community planning Towards an Eco & User- Friendly Transportation System

Bangkok: Challenge towards the upgrade transportation system

Sustainable Transport Solutions
Discussion 1

Present situation and problems for making better coordination among transportation modes

Various transport system

Automobile

Bus system

Tram system

coordination
Process and perspective to implement the private-public partnership for sustainable transport
Closing address

Keywords 1: diversity

• Coexist of various transport systems, and select it as the occasion demands.

Keywords 2: collaboration

• Enhancement of the multi collaboration among the transportation mode, public-private sectors.