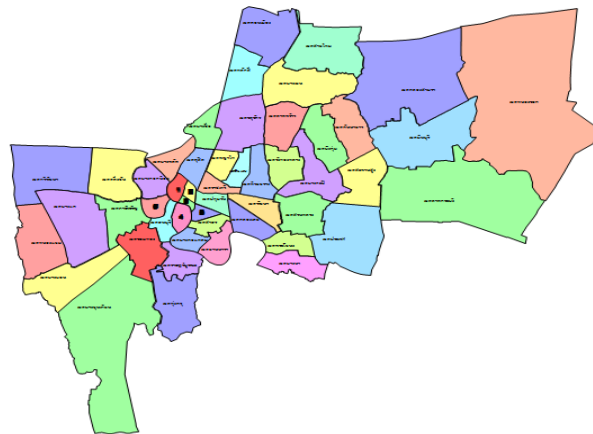


Promoting Public Transport in Bangkok

Mr. Asawin Asawutmangkul



Energy Efficiency Transport and Behaviour Workshop
10-11 May 2016

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1. Integrated Mass Transit System in Bangkok

Bangkok Profile

- **Bangkok's population in 2011 Register: 5.703 mil.**
- **Thailand's population: 65.4 mil.**
- **Total Area = 1,569 Sq.km.**
- **1,000 skyscrapers, ranks 17th the world's tallest city.**
- **Total Road Length: 4,076 km.**
- **Number of Car: 5 Mil.**
- **Currently, the city has to accommodate over 15 million people, comprising its inhabitants and those who come from every part of the country and also many other countries, who generate millions of trips each day.**

Traffic in Bangkok

- Currently, travellers generate in excess of 22 million trips per day; by 2021 the number is estimated to increase around 26.2 million trips a day



Integrated Mass Transit System in Bangkok

Trunk Routes

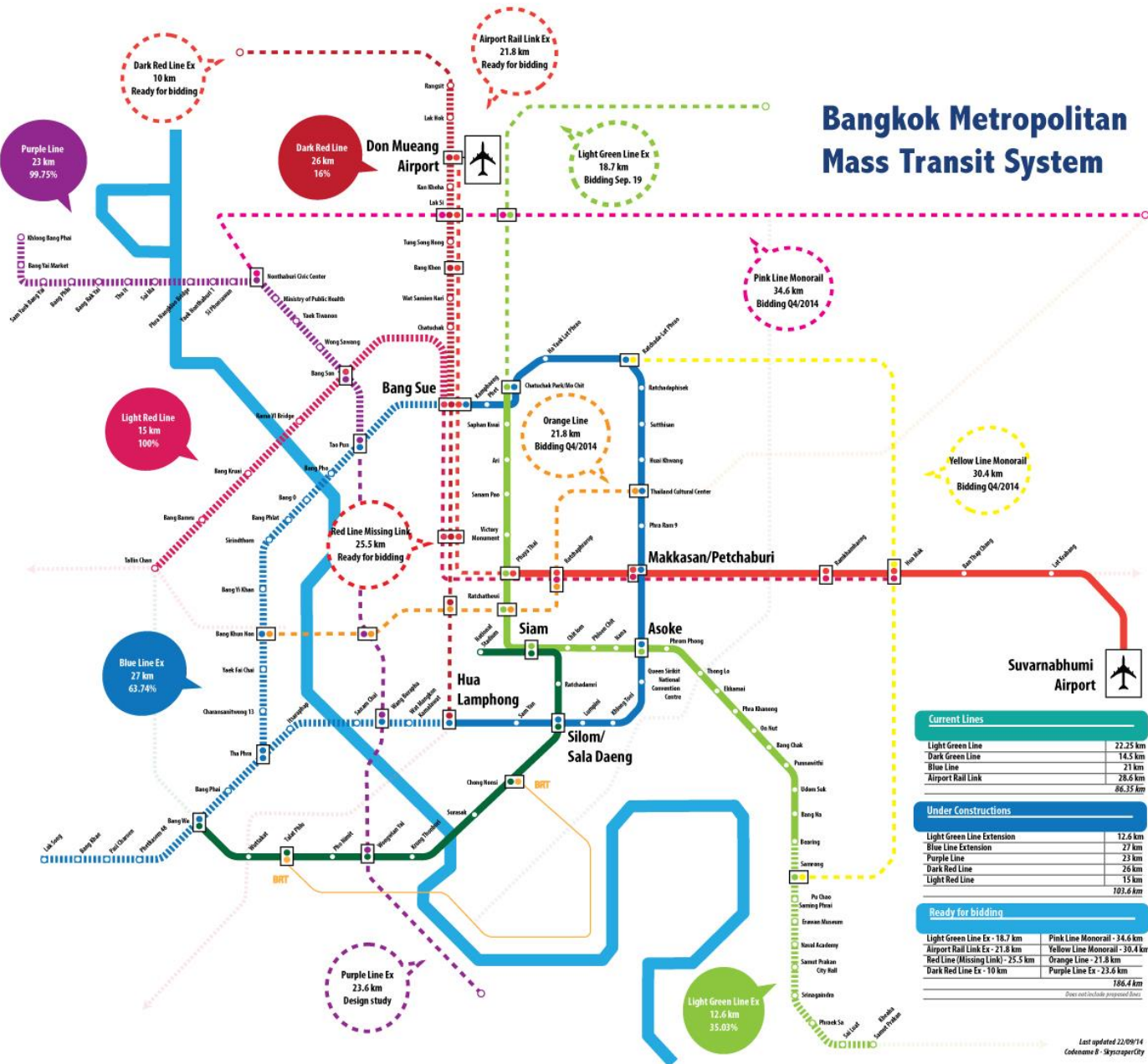
**BTS: Bangkok Mass Transit System (Sky Train),
MRT: Mass Rapid Transit (Subway), Airport Rail
Link**

Secondary Services

**BRT (Bus Rapid Transit), Buses, Public Vans and
Boats (Canal transport)**

Mass Rapid Transit Master Plan in Bangkok

The purple line will be operated 6 August 2016



Shares of Commuters



Bus 36%

Mass Transit 5%

**Car & Bike
57%**

**Total Commuters
22
Million Trips/Day**

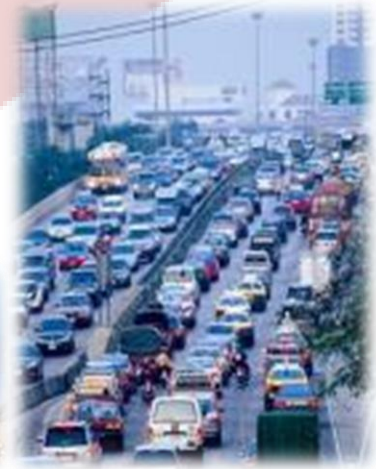
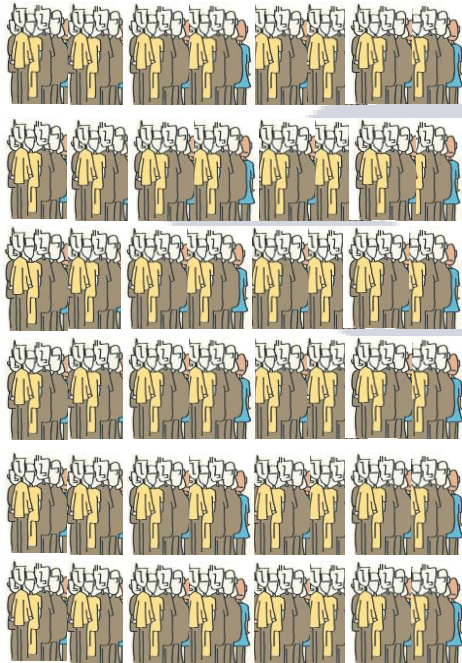
**8
M. Trips/Day**

**BTS
0.7
M. Trips/Day**

**MRT
0.25
M. Trips/Day**

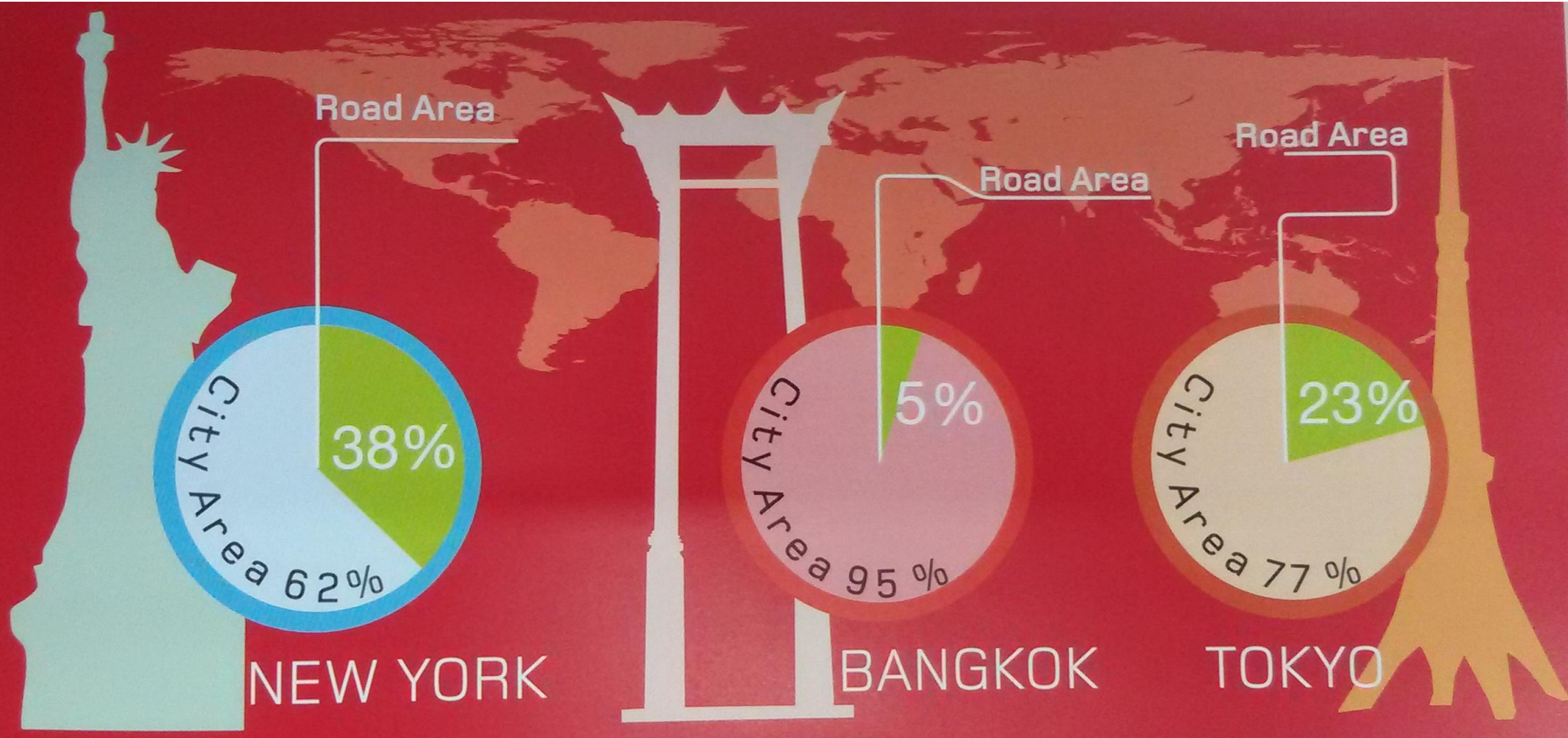
**ARL
0.05
M. Trips/Day**

**12.50
M. Trips/Day**



Mass Rapid Transit Authority of Thailand

Bangkok's Road Area in Comparison with Other Cities



The top 10 Observed roads with snail-pace traffic flow

Road	Section	Average Rush Hour Speed (km/hr)		
		2007	2008	2009
Phaya Thai	From the Victory Monument to Sam Yan Intersection	13.05	11.49	7.51
Rama I	From Phloen Chit Intersection to Kasat Suck Intersection	14.59	10.52	8.73
Surasak	From Surawong Intersection to Charoen Rat-Chan Intersection	15.01	9.98	9.83
Ratchadamri	From Sala Daeng Intersection to Pratu Nam Intersection	10.91	10.96	11.03
Ratchawithi	From Bang Phlat Intersection to the Victory Monument	11.64	10.74	11.11
Ratchadamnoen	From Pom Phadet Intersection to Yak Phra Rupe Ror 5 Intersection	11.37	12.13	11.39
Sathon	From Wireless Road Intersection to Sathon-Charoen Krung Intersection	11.01	9.11	11.41
Silom	From Sala Daeng Intersection to Bang Rak Intersection	11.67	10.66	12.28
Samsen	From Kiak Kai Intersection to Bang Lamphu Intersection	10.72	12.13	12.52
Sukhumvit	From Bangna Intersection to Intersection under Ploen Chit Expressway	14.11	15.31	12.73

☐ INBOUND
☐ OUTBOUND

Transit Vans

- Formerly public vans were illegal before being organised to increase safety and registered to provide services on routes approved by the BMTA (Bangkok Mass Transit Authority). With easy accessibility and connectivity to major communities. They offer flexible rerouting, easily adjustable of a number of fleet in each direction.





Park & Ride



MRTA has prepared park & ride areas for MRT passengers who want to park their cars and take MRT subway to their destinations. MRTA has started park & ride service since August 13, 2004. Currently there are 12 park & ride areas including 2 parking buildings and 10 ground-level parking lots with total 3,000 spaces, located at 9 stations along the route of MRT Chaloem Ratchamongkhon Line

Parking Fees (since April 1, 2013)

- The parking fee for MRT passenger is 15 Baht (40 Cents) per 2 hours.
- The parking fee for non-MRT passenger is 40 Baht (1 Euro) per hour (except Petchaburi Station, Sukhumvit Station, and Queen Sirikit National Convention Centre Station 50 Baht (1.25 Euro) per hour).
- The monthly parking fee for Park & Ride Building, Lat Phrao Station is 1,250 Baht (31 Euro) per month and the monthly parking fee for other parking lots is 1,500 Baht (38 Euro) per month.

BMA (Bangkok Metropolitan Administration)'s 9 Principle Measures for the Development of Sustainable Transport

- 1) Prioritise modes of transport
- 2) Extend SkyTrain Lines – the Bangkok Mass Transit System
- 3) Expedite implementation of the Bus Rapid Transit (BRT)
- 4) Develop the light rail and monorail transit
- 5) Promote canal transport
- 6) Provide necessary conveniences for using public transport such as shuttle bus services, skywalks, interchanges, park&ride facilities, common ticketing systems, etc.
- 7) Improve footpaths
- 8) Increase bicycle routes
- 9) Encourage public participation

The top reasons people give up on BTS&MRT, according to the researchers:

1. Fare price is a little too high → Fair Policy

2. Experienced inconvenience at a transfer stop and station

- Park and Ride
- Accessibility
- Ticket System



3. Insufficient Information

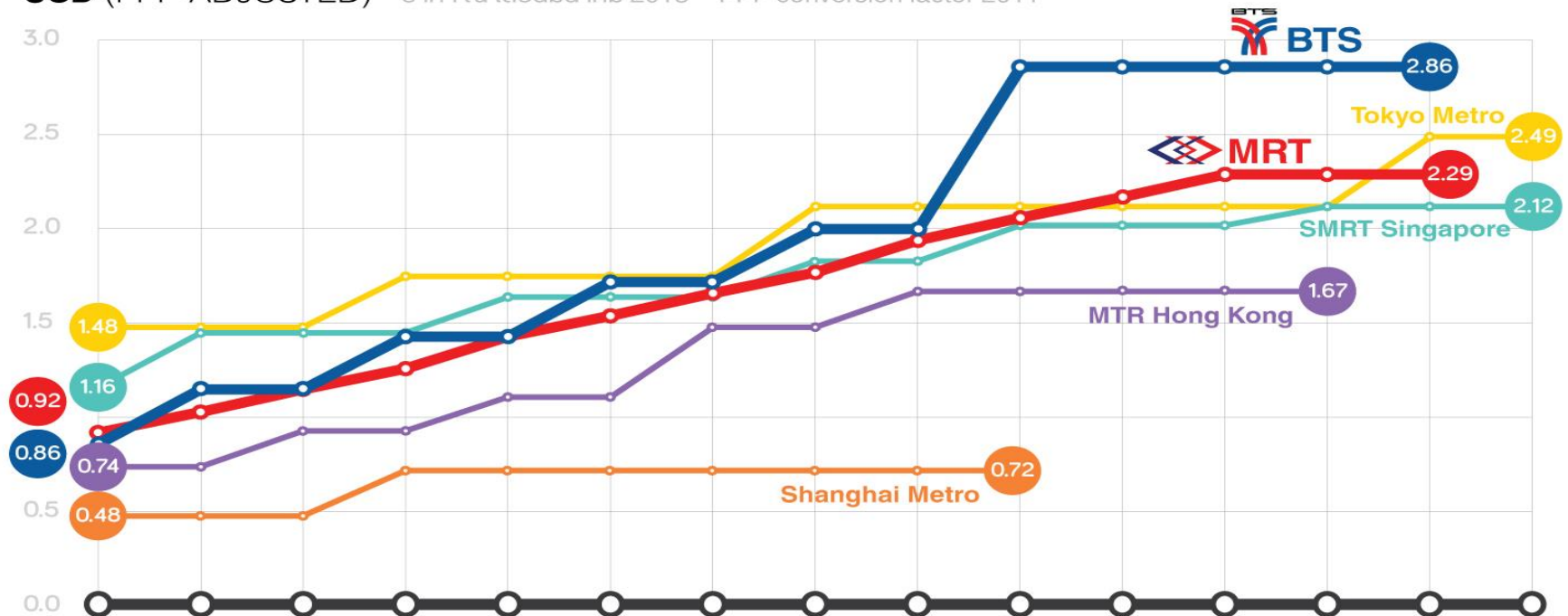
Comparing the passenger fares of BTS&MRT according to the cost of living

ค่าโดยสารรถไฟฟ้าไทย อยู่ตรงไหน?

เปรียบเทียบราคาค่าโดยสารรถไฟฟ้า **BTS** และ **MRT** ตามอัตราค่าครองชีพ
กับอีก 4 สายใน จีน ฮองกง สิงคโปร์ และญี่ปุ่น

- คิดราคาตามจำนวนสถานี
- เส้นทางมีความยาวใกล้เคียงกัน
- เฉพาะตัวโดยสารแบบเที่ยวเดียว ราคาเต็ม

USD (PPP-ADJUSTED) *ราคา ณ เดือนมีนาคม 2013 *PPP conversion factor 2011



ค่าโดยสารรถไฟฟ้า จากสถานีเริ่มต้นถึงสถานีปลายทาง
Passenger fares from starting station to the end station

Planning for Integrated Ticketing System



The integrated ticketing system that will let you zip in and out of the BTS and MRT with ease will be called the Mangmoom (Spider) Card. The planning of this integrated ticket can be used to go anywhere in Bangkok using the BTS and MRT and, soon, the Airport Link, buses, expressways, boats, vans and taxis

2. Land Use Planning in Bangkok

Planning measurements for the implementation of the Plan

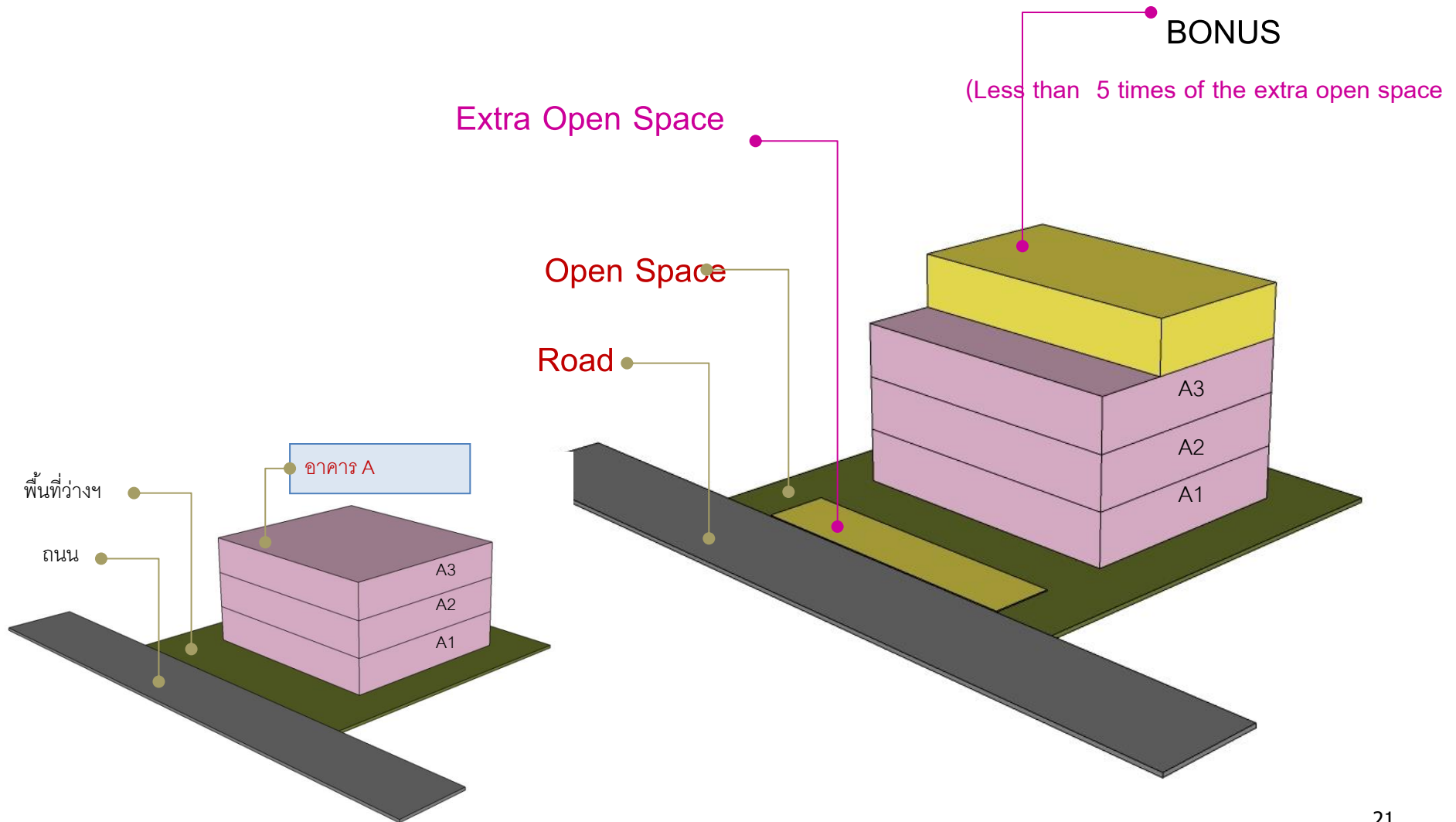
- Land Use Regulations have an important role on building control and development
- Density control by definite of the maximum floor area ratio (FAR) and the minimum open-space ratio (OSR).
- Set back open space along the main roads : 2 meters with planting.
- Set back open space along the main canals : 3 – 6 meters with planting.
- Control of building height and size.
- Incentive to investment by the bonus system for some buildings.

Set back & planting along the main roads



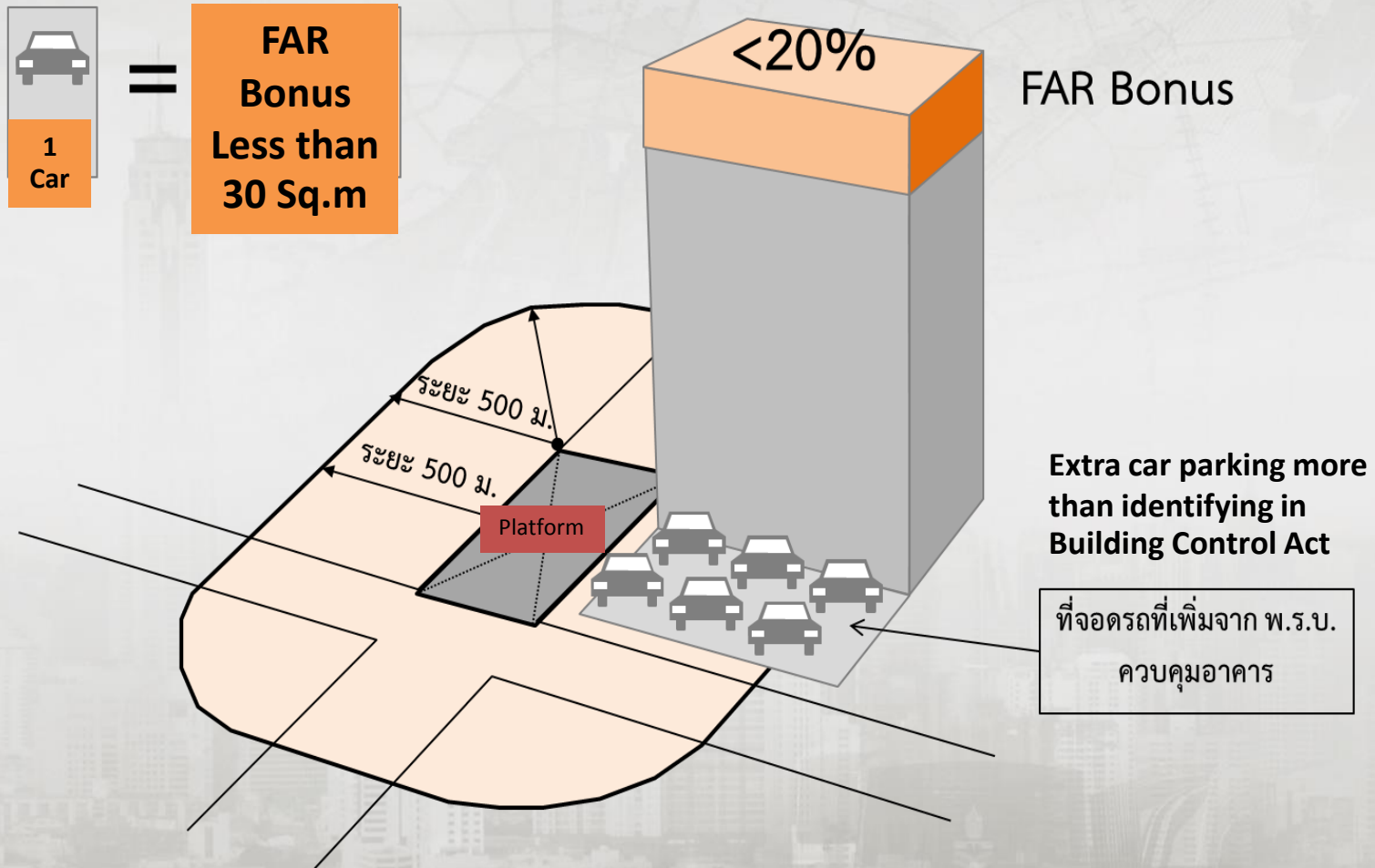
Development with the FAR Bonus (BONUS)

Various Values of Floor Area Ratio (FAR)



FAR Bonus for the Park&Ride

FAR BONUS System



Providing the extra public parking in the building which located within 500 m. of the BTS or MRT platform.



*Thank
you...*

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